

# The many dimensions of burial customs in the Dutch Bell Beaker Culture

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## 1. Introduction

Chapter 1 of the well-noted and influential anthropological study on mortuary rituals by Metcalf & Huntington (2010: 24) opens as follows: ‘What could be more universal than death? Yet what an incredible variety of responses it evokes. Corpses are burned or buried, with or without animal or human sacrifice; they are preserved by smoking, embalming, or pickling; they are eaten – raw, cooked, or rotten; they are ritually exposed as carrion or simply abandoned; or they are dismembered and treated in a variety of these ways.’

The current study aims to demonstrate that the mortuary practices of the Bell Beaker Culture in the Netherlands (c. 2400-1900 BC) are representative of this general statement through a review of evidence for different types of human corpse treatment and highlighting a degree of regionalism in grave forms<sup>1</sup>. Hitherto, such evidence has not been sufficiently explored, as Dutch academic literature has tended to focus almost exclusively on barrows and flat graves, several aspects of which are themselves still underresearched. To address some of these gaps the present paper dwells on: (1) violence, (2) demography, (3) the possible occurrence of graves containing skulls/heads under inverted ceramic vessels, and (4) Bell Beaker interments within megalithic tombs.

As touched upon above, in Dutch archaeology Bell Beaker Culture mortuary studies have hitherto focused on barrows and flat graves, which have been investigated from various perspectives, including typology, chronology, geographical distribution, landscape setting, regional differentiation, and social meaning (e. g. Lanting & van der Waals, 1976; Casparie & Groenman-van Waateringe, 1980; Drenth & Lohof, 2005; Lanting, 2007/2008; Bourgeois, 2013; Doorenbosch, 2013; Drenth, 2014a). Following recent academic interest in prehistoric violence and (tribal) warfare (e. g. Otto *et al.*, 2006; Meller & Schefzik, 2015; Horn & Kristiansen, 2018), this theme was recently discussed by the current author from the perspective of Dutch Bell Beaker barrows and flat graves (Drenth, 2018). The topic is revisited here, mainly because one of the burials previously thought to hint at a violent death has been presented wrongly in a preliminary excavation report.

The current paper will also discuss another subject that has been neglected in Dutch academic literature: Bell Beaker Culture demography. The topic has not received much attention due to the rarity of extant human remains in Bell Beaker graves which are primarily distributed in areas with acidic sandy soils which are not conducive with the preservation of (unburnt) skeletal remains. Nonetheless, over the years several complete and incomplete inhumations have been recorded on present-day Dutch territory. As

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<sup>1</sup> The dating of archaeological cultures and periods presented here is based upon Lanting & van der Plicht (1999/2000; 2001/2002).



will be outlined in the second section of the paper, together with the significantly more 'resilient' cremations from barrows and flat graves, this gradually accumulated dataset offers some insight into Bell Beaker demography.

Louwe Kooijmans first raised the possibility of skull (or head) burials being a distinct element of Dutch Bell Beaker funerary practice in his PhD thesis back in 1974. The present paper revisits this topic and a range of potential indicators of this practice, including disembodied skulls, skull-less skeletons and inverted vessels, which will be considered in the third section of the paper.

As noted by various authors (e. g. Bakker, 1992: 58-59; Lanting, 2007/2008: Sections 5.8, 7.7 and 10, Appendix II; Drenth, 2012a; cf. Drenth & Hogestijn, 1999: 122, Appendix 1) there is strong evidence that a section of the Dutch Bell Beaker population was interred in pre-existing megalithic tombs (*hunebedden*) erected by the West Group of the Funnel Beaker Culture (TRB) between c. 3400/3350-3050/3000 BC; see Tempel (1979), for similar discoveries in Lower Saxony, Germany). These tombs (with one possible exception), and by extension their re-use, are geographically restricted. Their distribution which corresponds roughly with the northern and eastern districts of the Netherlands, is confined by geology as constructions only occurred where suitable stone was available. The Bell Beaker Culture finds from megalithic tombs may be ideally suited to assess regional differentiation, and a working hypothesis incorporating a long-term perspective will be outlined in the fourth section of the paper.

In addition to the above, the final section is a cautionary tale with respect to the currently vogueish ancient DNA (aDNA) and isotope analyses, which gain more and more influence in archaeological research.

## 2. Violence

The current author recently discussed two Bell Beaker burials which could represent evidence of violence and perhaps even (tribal) warfare (Drenth, 2018, with further references). The first of these graves was located at Ede-Ginkelse Heide (province of Gelderland), where a barrow was erected over a cremation representing the remains of two individuals, an unsexed c. 35-year-old individual (based upon the grave goods, a man) and a c. 3-year-old child. The assemblage of grave goods included a bell beaker, copper dagger/knife, stone wrist-guard, various flint artefacts including (retouched) flakes, knives, two strike-a-lights and seven arrowheads, and possibly a piece of marcasite. Presumably most, if not all, of these items were associated with the adult. None of the objects show macroscopic signs of thermal alteration, except one of the arrowheads. Of all the artefacts the latter was lying nearest to the cremation remains. Together this evidence indicates that this arrowhead, a barbed-and-tanged specimen, does not represent a grave gift, but the tip of a lethal arrow that probably had caused the death of the adult (man). The reason for the inclusion of the cremated remains of a small child, remains obscure, but perhaps one could speculate that this individual also fell victim to violence.

The second burial was recently excavated at Haps-Laarakker (province of Noord-Brabant) and represents the remains of either a flat pit grave or a levelled barrow. Within the grave, the silhouette of (probably) an adult inhumation lying in crouched position. The body was accompanied by a bell beaker, a flint blade, and eight flint arrowheads. According to Hos & Hos (2018) seven of the projectiles were found next to the corpse silhouette, while the eighth, a barbed-and-tanged specimen, was lying in the abdominal region. The grave plan published by the former scholars (Fig. 1) has been taken by the present author as an indication that the interred had been, presumably fatally, shot from behind. A re-assessment



of the original excavation records tells, however, a completely different story. No flint arrowhead was discovered in the abdominal region of the corpse silhouette!

There are no clear-cut, archaeologically discernable indications that the Ede-Ginkelse Heide cremation deviates from the norm within the wider Dutch Bell Beaker funerary record. The interments do not display unusual features of execution and the assemblages of grave goods are not peculiar (see Lanting & van der Waals, 1976; Drenth & Lohof, 2005; Drenth, 2014a;). Its location does furthermore not suggest that the grave was considered in any way extraordinary. The Ede-Ginkelse Heide mound was part of an alignment of Bell Beaker Culture barrows stretching across the western flank of a river valley (Bourgeois, 2013: Section 5.3; cf. Doorenbos, 2013: Chapter 9). Drawing these various lines of enquiry together it may be concluded that the apparently violent death(s) documented at Ede-Ginkelse Heide did not result in differential treatment of the deceased. Historical and ethnographic evidence indicates that exceptional circumstances of death may be motivations for ‘deviant’ (‘differential’, ‘atypical’ or ‘non-normative’) burials (e. g. Ucko, 1969: 271; Weiss-Krejci, 2008, 2013), and such circumstances may even be reason to deny formal interment.

### 3. Demography

Dutch Bell Beaker Culture demography has not received much attention as inhumed remains are rare in the region as a whole. Accordingly no inhumation graves with extant skeletal remains are known from the NE Dutch/NW German Bell Beaker Group in the Netherlands due to poor preservation in acidic soils (Lanting, 2007/2008). However,

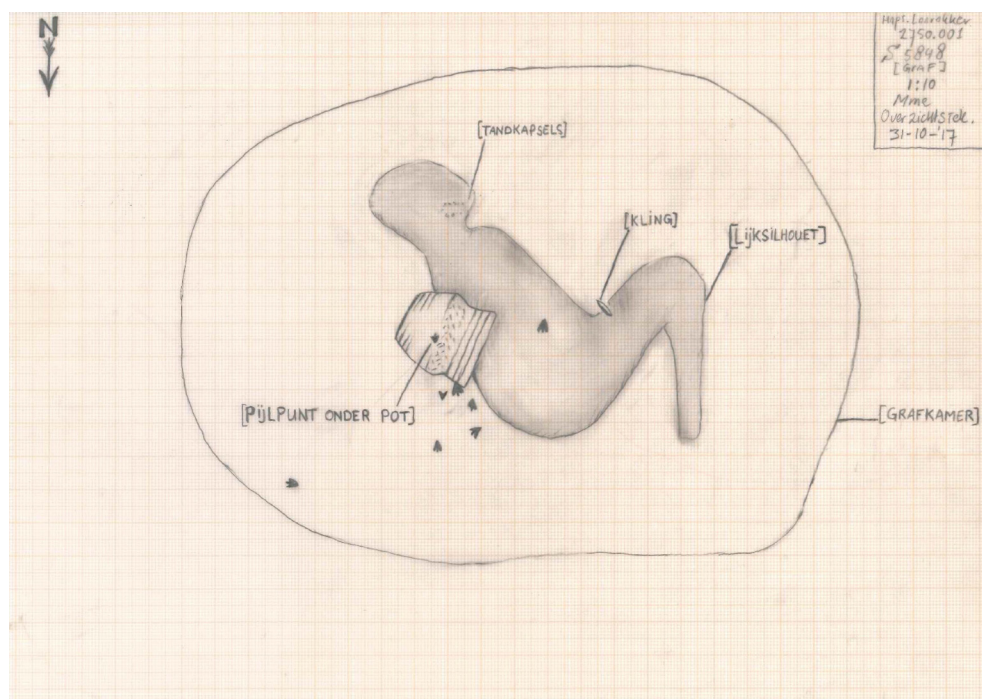


Fig. 1 – Plan of the Bell Beaker burial discovered at Haps-Laarakker as originally published by Hos & Hos (2018).

It shows a grave pit (‘grafkamer’; actual length c. 1.8 m) containing a corpse silhouette (‘lijksilhouet’) with teeth enamel (‘tandkapsels’). The artefacts from this grave include eight arrowheads (‘pijlpunt[en]’), a Bell Beaker (‘pot’) and a flint blade (‘kling’). One of the arrowheads was found underneath the beaker (‘pijlpunt onder pot’). Another specimen has been erroneously located in the abdominal region of the corpse silhouette.

This arrowhead was, however, discovered outside the silhouette.



a small number of contexts, mainly or exclusively graves, containing preserved inhumed remains have been recorded in the western and central part of the Netherlands and together with the more ‘resilient’ cremations, these offer some insight into demography.

The currently available dataset has an interesting male: female sex ratio, with this subset of the population including more (biological) men than women (see for references the caption to Fig. 2). This pattern is particularly strong in the case of the inhumations, with osteological analyses indicating all of the 7-8 sexed skeletons are male. Statistical examination indicates a significant difference in the frequencies of men and women in inhumation graves<sup>2</sup>. The dataset also suggests that usually men were placed on their left sides in crouched position and as a rule inhumations were articulated when interred in barrows and flat graves<sup>3</sup>. However, a clear exception is the double burial from Ottoland-Kromme Elleboog (province of Zuid-Holland), which will be discussed below. The presently available osteological data cannot however confirm the assertion of Lanting & van der Plicht (1999/2000: 41) that women were buried in a similar way as men, but placed on their right sides. As such, new finds are required to confirm on which side

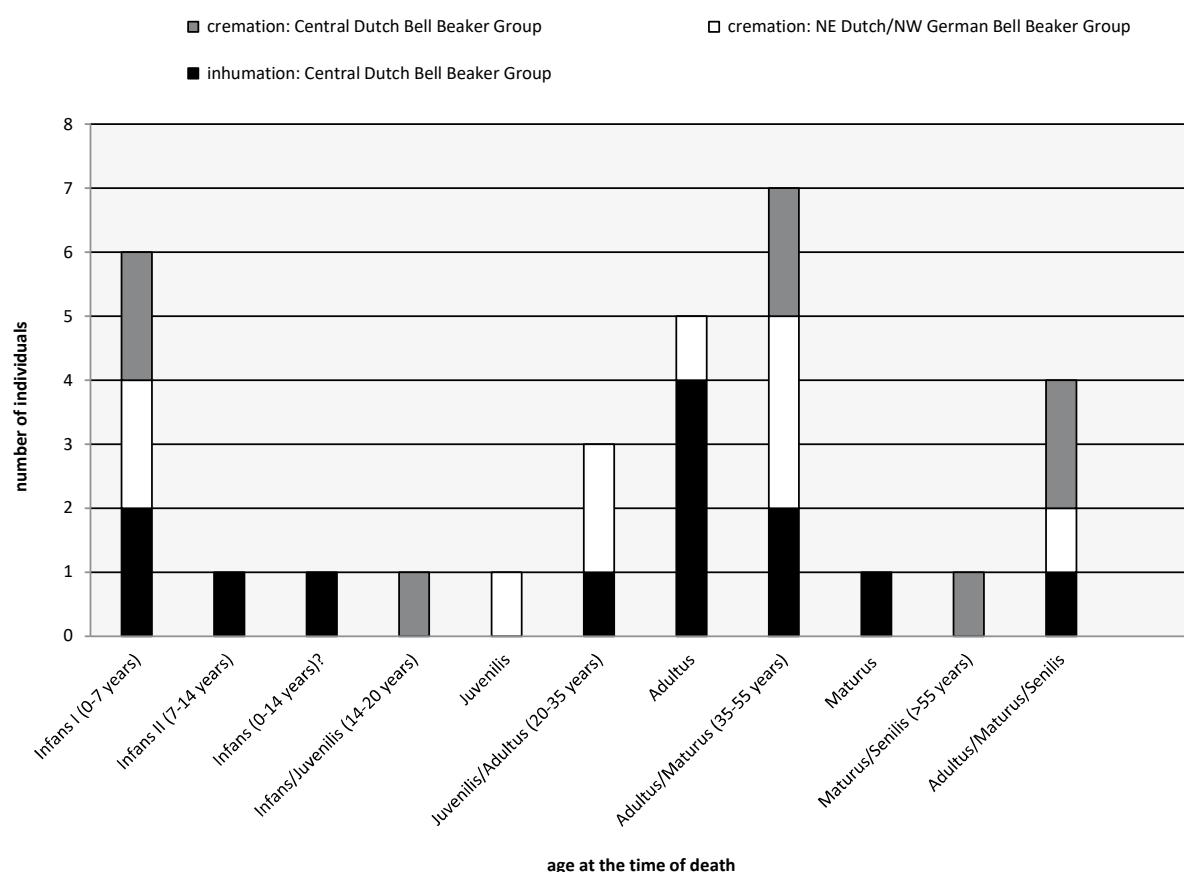


Fig. 2 – Age structure on the basis of osteological data for the Dutch Bell Beaker Culture. Sources: Knip, 1974; Otte, 1991; Robb, 2002: 684, tab. 9.8; Drenth, 2014a (with further references), 2014b: 230; Kleijne, 2015: 108; Fokkens *et al.*, 2017; Smits, s.d. For clarity's sake, inhumation graves with human remains have yet to be discovered for the NE Dutch/NW German Bell Beaker Group in the Netherlands.

2 A two-tailed Binomial Test results in  $p = 0.0156$  or, if an uncertain case is included, in  $p = 0.0078$ , whereas  $\alpha = 0.05$ . This and the other statistical tests conducted in the current contribution were performed with VassarStats, a website for statistical computation.

<sup>3</sup> The corpse silhouettes discovered in Dutch Bell Beaker Culture barrows and flat graves also hint at the disposal of completely articulated corpses (see in this connection Drenth & Meurkens, 2011).



women were buried, and the current author suggests that at present, our position should be that Bell Beaker female inhumation posture and orientation in the Netherlands are yet to be determined (cf. Beuker & Drenth, 2005).

This caveat notwithstanding, the statistically uneven distribution of crouched inhumations on their left- and right-sides, when both human skeletons and corpse silhouettes are considered, may further corroborate the suggestion that males are more frequently represented than females in inhumation graves. At present 'left-sided' individuals (N = 26) are much more numerous than 'right-sided' examples<sup>4</sup> (N = 4; Drenth & Meurkens, 2011, 269-270: tab. 5.3, 5.4 & 5.12; Fokkens *et al.*, 2017; Hos & Hos, 2018). However, interpretation of this patterning as an indication of disparate male: female representation only holds true if the 'left-sided' corpse silhouettes were mainly or exclusively male, an inference which appears to be supported by the evidence from extant skeletons.

In contrast to the apparent domination of males in inhumation graves, several of the cremations (N = 1-4) appear to be those of females<sup>5</sup> (Drenth, 2014a: fig. 4), and they may be better represented than men (N = 1). This possibly indicates that proportionally women were cremated more often than men, a pattern which may be statistically significant<sup>6</sup>. In view of the low numbers, it goes without saying that additional finds are needed to substantiate this claim. Besides, it should also be borne in mind that the osteological determinations and the grave goods are not always easy to reconcile with one another. This holds in particular for burials at Dalen-Eldijk, Eelde-Grooteveen and Emmen-Angelslo (all province of Drenthe) where the osteological data indicates the presence of females (see for more information Drenth, 2014a). However in view of the overall picture for the Bell Beaker Culture, the grave goods, these being a stone wristguard, a pair of golden hair or ear ornaments and flint arrowheads respectively, which could be interpreted as 'male gendered' grave goods. This discrepancy may be explained in various ways, and an error in the osteological determination is one of them. Alternatively, it might be that the burials under consideration attest to a certain 'mismatch' between biological sex and gender identity at Bell Beaker times. Here is another issue for the Dutch research agenda.

Based upon the age structure of the burial population under consideration (Fig. 2), it may be cautiously deduced that during the Bell Beaker period in the Netherlands there was high infant mortality, a considerably low risk of death during adolescence and a steadily rising mortality risk during the course of adulthood (see Chamberlain, 2006, Chapter 3), with individuals rarely reaching the age group of Senilis (> 55 years).

#### 4. Pots placed over heads or skulls?

The current paper also revisits a postulation advanced by Louwe Kooijmans some 45 years ago (1974: 291-292, 312). He argued that within the Netherlands beaker pots discovered in an inverted position may have been placed over dismembered body parts or skeletal elements, in particular the skull (or head). He was inspired by a find from Metzendorf-Woxdorf (Lower Saxony) in northern Germany (Wegewitz, 1960) where

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4 A two-tailed Binomial Test results in  $p = 0.000$ , whereas  $\alpha = 0.05$ .

5 In addition to the outline about Bell Beaker Culture cremation graves given by the author (Drenth, 2014a), the cremated bone from the burial at Eelde-Grooteveen is not only composed of remains of 30-40 years old individual, probably a woman, but also of three bones, including a rib and possibly a toe bone, from a indeterminate small or middle-sized animal (Drenth & Schrijer, 2015: 69).

6 A two-tailed Fisher Exact Probability Test comparing sexed inhumations and cremations results in  $p = 0.007$ , whereas  $\alpha = 0.05$ . This test includes the probable cases. If they are excluded,  $p = 0.2222$ .



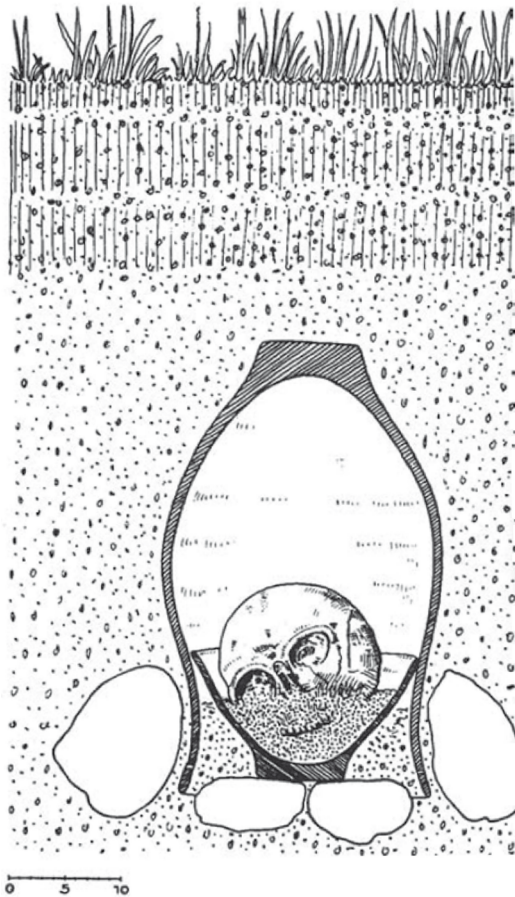


Fig. 3 – Human skull (or head) burial at Metzendorf-Woxdorf, northern Germany. Notice the absence of the cutting of the pit. Scale in cm. From Wegewitz, 1960.

an adult male skull was placed on a bowl with Barbed Wire decoration and covered by an inverted *Riesenbecher* vessel with strong morphological Barbed Wire Bell Beaker affinities (Fig. 3).

Louwe Kooijmans (1974: 292, with further references) presented several other examples to support his theory. For instance he mentioned a similar find from Llancaichisaf (Glamorgan) in Wales, although in this instance the style of vessel was undocumented and it is unclear if it was in fact covering or placed next to the skull. Further examples highlighted by Louwe Kooijmans include a large pot with cordoned rim and zoned Barbed Wire decoration from a flint mine shaft at Findon (Sussex) in England which was inverted over a cremation and an undecorated *Riesenbecher* placed upside down over a cremation at Sande (Lower Saxony) in Germany.

Of particular relevance to the current discussion is a Dutch flat grave at Ottoland-Kromme Elleboog (province of Zuid-Holland) which Louwe Kooijmans (1974: 312) described as follows: ‘The grave pit was orientated NW-SE and contained a recently partly disturbed skeleton in a crouched position, lying exactly on its left side, its head to the east and facing south. In the western part of the pit lay the bones of a second person, particularly the long bones, in a heap. The skull was missing although this spot had not been disturbed. The lower jaw was present.’

Since Louwe Kooijmans discussed this topic in 1974 the number of cases which may represent inverted Bell Beaker Culture beaker pots in the Netherlands has risen<sup>7</sup>, (Tab. 1) but none demonstrably covered human remains. This may

be due to poor preservation conditions, since all were discovered in areas with acidic sandy soils. Moreover, to the best of the current author’s knowledge none of the recent finds underwent phosphate analysis to identify what the vessels once covered. It is advisable in future research to investigate what new clues are provided by this method of analysis, for which fine-mesh sampling is recommended.

Despite the foregoing inconclusive evidence, Louwe Kooijmans’ suggestion is supported by a Bell Beaker Culture barrow excavated at Velsen-Westlaan (province of Noord-Holland; Therkorn & van Londen, 1990; Otte, 1991; Lanting, 2007/2008: 54 & fig. 13; Kleijne, 2015: 108), where the skull of a 5-7 year-old child was discovered in a secondary pit grave inserted into the mound. The skull lay on top of a wooden coffin containing

<sup>7</sup> This list, and accordingly Fig. 5, presents only the unequivocal and highly probable cases of inverted pottery. Judging from the missing bases (or lower sections) there are several possible additional examples. The (published) archaeological documentation, or lack thereof, however, leaves room for other interpretations than vessels placed upside down. These possible cases include, among others, several Pot Beakers discussed by Lehmann (1965: passim), these originating from: 1) the chamber of megalithic tomb D21 at Bronneger (province of Drenthe), 2) Doorn(?) (province of Utrecht), 3) a tumulus at Ede (province of Gelderland), 4) Huizen (province of Noord-Holland), 5) Kerkdellen (province of Gelderland), 6) Lunteren (province of Gelderland), 7) the surroundings of Maarn (province of Utrecht), 8) Uddel (province of Gelderland), and 9) Voorthuizen (province of Gelderland). Please note that the majority of these finds were made in the central Netherlands.



a 30-40 year old male in crouched position on his left side<sup>8</sup> (Otte, 1991: 13). The youngest tree rings of one of the coffin planks have been <sup>14</sup>C-dated to 3635 ± 30 BP (GrN-16893<sup>9</sup>).

A headless 26-35 year old male inhumation (skeleton 235), from a Late Neolithic-Early Bronze Age cemetery at Oostwoud-Tuithoorn (province of Noord-Holland; Fokkens *et al.*, 2017: 140-141, fig. 44)<sup>10</sup> is also worth mentioning. It is possible that this individual's lower jaw was recovered c. 1.5-2 m east of the grave. The body position and exact dating of the burial are unknown, partially due to the unsatisfactory nature of the fieldwork, but Fokkens *et al.* (2017: 141, 146) have convincingly argued that the skull was not severed from the postcranial skeleton during the excavation, and suggest that it was removed for reburial in ancient times.

Further circumstantial evidence which could link inverted beaker vessels and funerary practices comes from Drie-de Driese Berg (province of Gelderland), where an inverted Bell Beaker (Fig. 4a) was discovered in the upper fill of a pit (c. 1.55 m length x 0.7 m width x > 0.65 m depth) and an ('unprotected') inverted Neck Pot Beaker (Fig. 4b-c) was discovered 2 m to the SE<sup>11</sup> (Lehmann, 1967: 162-163, fig. 1-4). Nearby, c. 40 m from the pit, Bell Beaker sherds were recovered from the foundation trench of a barrow (no. XXVII) at Ermelose Heide (Modderman 1954, 32, fig. 11, pl. IX-2). Considered together these three discoveries could be suggestive of a Bell Beaker Culture cemetery,

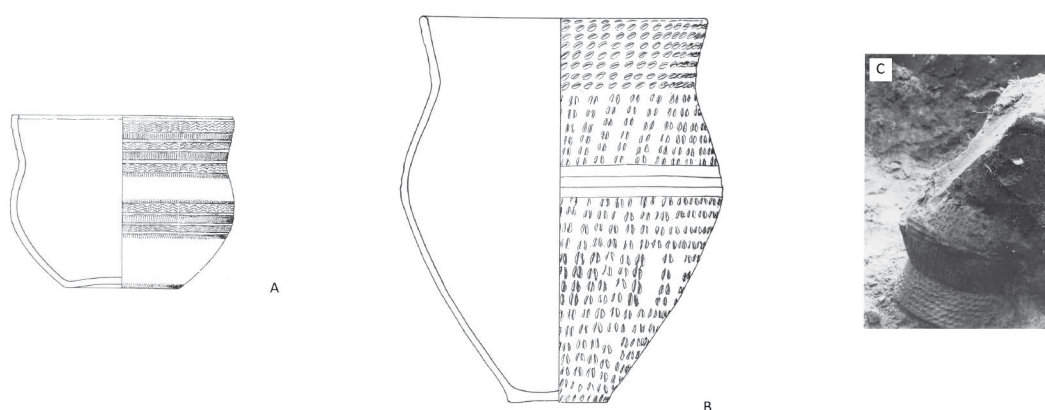


Fig. 4 – Two vessels that were found upside down some metres from one another at Drie-de Driese Berg; a = Bell Beaker, b = Neck Pot Beaker and c = the Pot Beaker *in situ*. See Table 1 for vessel dimensions. From Lehmann, 1967 (Fig. 4a-b,) and van Sprang, 1993 (Fig. 4c).

8 Bloemers & Therkorn, n. d. [2003]: 12-13; Otte, 1991: 13 & 27. According to the former (*ibidem*, 12) the feet of the man buried in this central grave were amputated prior to burial. Otte (1991: 25) states, however, in his osteological report: 'Very little was left of the feet and in the field there was for a short moment even doubt if they were part of the burial. Due to heavy weathering the metatarsalia and phalanges of both feet are just an amorphous lump of bone. The calcanei are both discernable in contrast to the tali' [loosely translated, originally: 'Van de voeten is bijzonder weinig over, er werd in het veld zelfs even aan getwijfeld of de voeten wel mee waren begraven. De meta-tarsalia en de phalanges van beide voeten zijn zo sterk verweerd dat er zelfs een klompje botmassa zonder vorm over is. De beide calcanei zijn wel en de tali niet waarneembaar'].

9 Calibration (2 sigma) results in 2132-2087 and 2049-1900 BC. The calibration of the <sup>14</sup>C-dates mentioned in the current paper were done with OxCal 4.4.2.

10 In compliance with the periodisation of the Dutch Bronze Age by Lanting and van der Plicht (2001/2002) the Early Bronze Age is considered to date to 1900-1575 BC.

11 See for the typology of pot beakers Ten Anscher, 2012: Section 9.2; Lanting, 2007/2008: Chapter 10; Lehmann, 1965.



Site	Vessel type; height and smallest inner neck diameter	Circumstances of find and context (as far as published and retrievable from the publication(s))	Remarks	Reference(s)
Drie-de Driese Berg, province of Gelderland	Bell Beaker; c. 16.5 cm and c. 18.5 cm.	Accidental find by the amateur archaeologist A. van Sprang in a recently dug drainage ditch alongside a track for military tanks; the inverted position of the vessel was observed in the field; the subsequent excavation by the <i>Rijksdienst voor het Oudheidkundig Bodemonderzoek</i> revealed that the Bell Beaker had been deposited in the upper part of a pit of c. 1.55 x 0.7 x > 0.65 m. At c. 2 m to the SE an inverted pot beaker was found (see below), whereas at c. 40 m barrow XXVII was located at the Ermelose Heide. The foundation trench belonging to the first period of this barrow held sherds of a Bell Beaker (Modderman, 1954: 32, fig. 11, pl. IX-2); a relatively high and dry location, since the Driese Berg is a gently-sloping promontory of an ice pushed ridge.	Fig. 4a in the present paper.	Lehmann, 1967; van Sprang, 1993: 67, fig. 77.
Drie-de Driese Berg, province of Gelderland	Neck Pot Beaker; c. 36.5 cm and c. 23.5 cm.	Accidental find by the amateur archaeologist A. van Sprang in a recently dug drainage ditch alongside a track for military tanks; the inverted position was observed in the field; during the subsequent excavation by the <i>Rijksdienst voor het Oudheidkundig Bodemonderzoek</i> the original position of the Pot Beaker could be located, but due to the activities of the military and the digging by Mr van Sprang no pit was observed; for more information of the landscape setting and archaeological context see the previous record.	Fig. 4:b-c in the present paper.	Lehmann, 1967; van Sprang, 1993, 83, fig. 112-113.
Erm, province of Drenthe	Bell Beaker; > 18.5 cm (originally c. 20.5 cm?) and c. 12 cm.	The digging off of a higher part of a plot of grass during levelling activities led to the accidental discovery of a beaker. The subsequent excavation by the <i>Biologisch-Archaeologisch Instituut</i> revealed the lower part of a pit. Its remaining depth was 0.15-0.2 m (originally presumably c. 0.85 m), whereas 0.9 m and 0.7 m were recorded as length and width, respectively.	According to Lanting (2007/ 2008: 203) it must concern a children's grave in view of the pit's dimensions.	Lanting, 2007/2008: Catalogue Section a 30.
Huinen, province of Gelderland	Neck Pot Beaker; > 15 cm; c. 15 cm.	Found in the neighbourhood of Huinen during treasure hunting by the amateur archaeologist J. Bezaan, who observed the inverted position of the vessel; presumably from a pit; according to Modderman (1955: 40) associated with two flint blades (Bursch, 1933: fig. 39:9,11), which are, however, in all probability older, belonging to the Single Grave Culture.	Lower section of the vessel missing.	Bursch, 1933: fig. 39:1; Lehmann, 1965: 16, 17 (no. 12) & 28; Modderman, 1955: 40.
Leunen-Horsterweg 11, province of Limburg	Neck Pot Beaker: ...? and c. 23 cm.	Found during an excavation in an ancient arable and/or the underlying cover sand; presumably originally deposited upside down in a pit, since the vessel's lower part is missing; at c. 12 m to the SE a fragment of a second Pot Beaker or Bell Beaker was discovered; a relatively high and dry location.	Lower section of the vessel missing.	Drenth, 2012b: 15-17, fig. 12 -13; de Nes & Tulp, 2012: 3, 9, 24, fig. 2.
Leusderheide, province of Utrecht	Pot Beaker; c. 54 cm (height reconstructed) and c. 38 cm.	Accidental surface find on a sandy path, followed by an excavation which demonstrated the inverted position of the vessel.	Atypical Pot Beaker, which may date to the Early Bronze Age instead of the Bell Beaker period.	Modderman, 1955: 40, fig. 7.
Loon, megalithic tomb D15, province of Drenthe	Bell Beaker or Bowl; c. 8.5 cm and c. 11.5 cm	Discovered in August 1974 during clandestine digging. Two vessels were found inside the stone chamber against or close to one of the side stones. The larger one (height c. 15.5 cm; smallest diameter neck c. 10 cm), a Bell Beaker, was standing upright, its mouth being covered by an inverted smaller Bell Beaker or Bowl.	-	Lanting, 2007/2008: 68, Catalogue Section b 6.



Site	Vessel type; height and smallest inner neck diameter	Circumstances of find and context (as far as published and retrievable from the publication(s))	Remarks	Reference(s)
Nijverdal-De Groene Mal, province of Overijssel	Trumpet Pot Beaker/Belted Pot Beaker; > 12 cm; c. 19.5 cm.	Found during an excavation in a pit or natural depression (diameter c. 0.65 m and (remaining?) depth c. 0.15 m); from the fact that only a portion of the upper part was discovered an inverted vessel may be inferred; findspot located at the foot of a river dune, at the edge of river valley of the Regge; from this riparian zone come several flint artefacts – erroneously attributed by Drenth (2012d: 180) to the pit or natural depression containing the Pot Beaker sherds. A wooden stake encountered on the edge of the feature was <sup>14</sup> C-dated to 3655 ± 30 BP (KIA-37874). It may provide a <i>terminus ad quem</i> for the Pot Beaker.	Lower section/base of the vessel missing. The outer and inner surface are covered by a charred crust. Residue analysis by Oudemans (2012) shows that this crust is probably a mixture of botanical remains rich in starch (cereals or roots/tubers) and some animal fat or vegetable oil. This suggests that the Pot Beaker was used for cooking soup or porridge from cereals and/or roots and oil-bearing seasonings such as mustard seeds, or the admixture of a small amount of fish or meat.	Drenth, 2012c: 137-138, fig. 6:9; Huisman & Opbroek, 2012: 105, fig. 5:16.
Putten, province of Gelderland	Neck Pot Beaker; > 18 cm; c. 19.5 cm.	Found by the amateur archaeologist J. Bezaan who observed the inverted position of the vessel; presumably coming from a pit; according to Modderman (1955: 40) discovered amongst Bell Beaker sherds, arrowheads, scrapers and two broken stone axes.	Lower section of the vessel missing. Upon discovery, the vessel was covering decayed fibrous material.	Bursch, 1933, fig. 39:3; Lehmann, 1965, 18 (no. 13) & 19; Modderman, 1955, 40.
Stroe-Stroeërzand or Stroese Zand, province of Gelderland	Trumpet Pot Beaker; c. 44 cm and c. 21.5 cm.	Apparently found during treasure hunting by the amateur archaeologist J. Bezaan, who observed the inverted position of the vessel; no information about the landscape setting and archaeological context (presumably from a pit).	Base missing.	Bursch, 1933: pl. V:1; Lehmann, 196: 10 (no. 2), 11 & 28; Modderman, 1955: 40.
Uddel-Hunne(n)schans, province of Gelderland	Neck Pot Beaker; > 31 cm (originally c. 36 cm?) and c. 22 cm.	Found during an excavation immediately outside a levelled Bell Beaker Culture barrow.	Lower section of the vessel missing.	Holverda Jr., 1909: 39, 42, 48, fig. XIV: 1; Lehmann, 1965: 16, 17 (no. 11) & 28.
Velp, province of Gelderland	Neck Pot Beaker; c. 35 cm and c. 27.5 cm.	Accidental find made during the extension of the storage-cellar in a wine-shop, during which the inverted position of the Pot Beaker was observed in the field; vessel presumably coming from a pit, though this was not observed upon discovery nor during the subsequent excavation by the <i>Rijksdienst voor het Oudheidkundig Bodemonderzoek</i> .	–	Hulst, 1965-1966.
Zuidlaren-Noorderesch, province of Drenthe	(Belted or Trumpet?) Pot Beaker; > 14 cm and c. 24 cm	Discovered during the archaeological investigations in the route for a gas pipeline, during which the inverted position of the vessel was observed; presumably coming a pit, although no such feature was actually observed.	Apparently only the upper section of the vessel was found. The vessel's dimensions were determined by the present author upon inspection of the find.	Bakker, 2013: 60, 62, fig. 35.

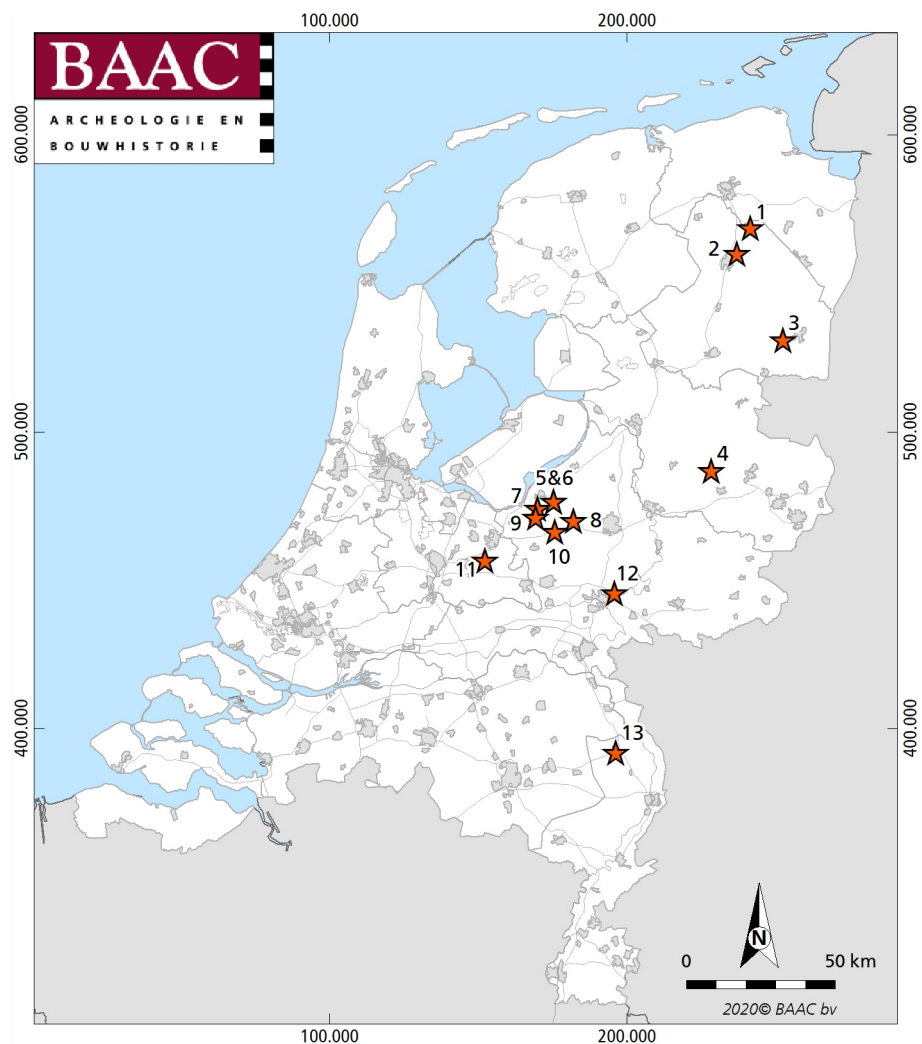
Tab. 1 – Overview of the BBC sites with pottery placed upside down. Only if the reference(s) give(s) details, the column ‘Circumstances of find and context’ is filled in with regard to archaeological associations and landscape setting. The dimensions of the vessels are rounded off approximations.



perhaps including two head or skull burials, the Pot Beaker perhaps representing a specific interment and the Bell Beaker a possible addition to an inhumation grave. Another example where a direct funerary connection may be proposed is an inverted Neck Pot Beaker found immediately outside a levelled barrow at Uddel-Hunne(n)schans (province of Gelderland; Lehmann, 1965: 16, 17 [no. 11] and 28; Holwerda Jr., 1909: 39, 42, 48 & fig. XIV: 1), which again could arguably represent a flat grave.

Only in exceptional cases are the dimensions of the pits which contained the inverted vessels known. The dimensions for the pit at Drie-de Driese Berg (province of Gelderland) have been noted above. Dimensions have also been recorded in the instance of Nijverdal-De Groene Mal (in the province of Overijssel) (c. 0.65 m diameter x c. 0.15 m - remaining - depth), and for a partially preserved example at Erm in the province of Drenthe (0.9 m length x 0.7 m width x 0.15-0.2 m - remaining - depth). Lanting (2007/2008: 203) proposed that the latter represents the inhumation of a child based upon the dimensions of the pit and the absence of cremated remains. The pit would certainly be unusually small for an adult inhumation (see Lanting & van der Waals, 1976; Lanting, 2007/2008), but an alternative interpretation would be that the pit contained a head/skull covered by a Bell Beaker. However, judging from the vessel's dimensions and assuming complete coverage, it could not have been that of a (practically) fully-grown man or woman in view of human cranial dimensions (see in this connection the metrical data presented by e. g. Knip, 1974: 383, tab. 1; Brodie, 1994; Lopez-Capp *et al.*, 2018). On the other hand, the dimensions of several other Bell Beaker Culture vessels are such that they may have fully covered the head or skull of an adult person (Tab. 1). In general terms, for complete

Fig. 5 – Distribution of inverted BBC pottery, including one uncertain case (no. 11; perhaps Early Bronze Age) from the Netherlands (see also Tab. 1). Approximate location of the sites. Legend:  
 1 = Zuidlaren-Noorderesch,  
 2 = Loon-megalithic tomb D15,  
 3 = Erm,  
 4 = Nijverdal-De Groene Mal,  
 5 and 6 = Drie-de Driese Berg,  
 7 = Putten,  
 8 = Uddel-Hunne(n)schans,  
 9 = Huinen,  
 10 = Stroe-Stoeërzand,  
 11 = Leusderheide, 12 = Velp,  
 13 = Leunen-Horsterweg 11.





coverage of a fully-grown human cranium a vessel of at least 15 cm in height is needed, whereas the related internal diameter should be minimally 20 cm. In the instance of a complete skull (cranium and jaw) the size of the pottery should be several cm larger, both in height and width.

To summarise, there are several indications for Bell Beaker Culture head and/or skull burials with covering inverted vessels, particularly Pot Beakers and to a lesser extent Bell Beakers. This somewhat speculative kind of interment may, to a large extent, have been a regional practice as all of the possible examples come from within the distribution area of the Central Dutch or Veluwe Bell Beaker Group (cf. Lanting, 2007/2008: 97), with the inverted vessels mainly occurring in the central Netherlands (Fig. 5). The dimensions of the vessels in question suggest that the interred heads/skulls were primarily those of adults and the practice may be indicative of secondary reburial, a possibility which is supported by the skeletal evidence from Oostwoud-Tuithoorn and Velsen-Westlaan. If this interpretation is correct, the meanings behind this form of secondary burial nevertheless remain uncertain, although ethnographic evidence raises the possibility that such burials could be connected with ‘trophy head-taking’ or an aspect of ancestral cult (Talalay, 2004: 139-140; Wiczorek & Rosendahl, 2011). However, it should also be emphasised that a Bell Beaker Culture funerary practice involving head and/or skull burial under inverted pots is yet to be confirmed and the possibility remains that inverted vessels do not represent head/skull burials. As such, if these vessels did not have a funerary function, Lanting’s (2007/2008: 68) interpretation of the pair of Bell Beaker Culture vessels from *hunebed* D15 at Loon (province of Drenthe), one of which was upright, the other inverted, should also be borne in mind. He suggested that they may represent offerings to the spirits of the dead (ancestors) already interred in the megalithic tomb.

If these inverted Bell Beaker vessels did in fact have a funerary function, it is also feasible that they covered other skeletal elements. In this context ‘grave 4’ from site 45 (a barrow?) at Meteren-De Bogen (Gelder-land) may be highlighted. It concerns a pit (0.9 m x 0.24 m remaining[?] depth) containing 19 Bell Beaker sherds, large animal bones from species which included of amongst others, cattle, pig and red deer, and five adult foot bones (Hielkema et al., 2002: 210; Meijlink, 2002: tab. 1.1; Robb, 2002: 684, tab. 9.8). Charcoal from the feature has been <sup>14</sup>C-dated to 3665 ± 60 BP (AA-37499) (GU-8893)<sup>12</sup>.

## 5. Burials in megalithic tombs

There are several indications that a section of the Dutch Bell Beaker population was buried in pre-existing megalithic tombs (*hunebedden*), which were erected by the West Group of the Funnel Beaker (TRB) Culture between c. 3400/3350-3050/3000 BC<sup>13</sup>. The majority of this evidence comes in the form of artefacts, and in fact almost all of the Dutch megalithic tombs have produced Bell Beaker Culture material, particularly pottery and lithic items (see Drenth & Hogestijn, 1999; Drenth, 2012a; Lanting, 2007/2008). This suggests that burial within *hunebedden* may have been a relatively common practice during

<sup>12</sup> Calibration (2 sigma) results in 2667-2264 and 2204-1887 BC.

<sup>13</sup> Each megalithic tomb was given a unique number by the late Dr A. E. van Giffen, each number consisting of a capital followed by a figure. The capitals refer to the provinces. So, D stands for Drenthe, F for Friesland, G for Groningen and O for Overijssel. The figures, originally Roman but later changed by Dr J. A. Bakker into Arabic ones, indicate a particular *hunebed* in the province under consideration. If the figure is followed by a letter the megalithic tomb has been destroyed. To give two examples, D9 is the extant *hunebed* no. 9 at Annen in the province of Drenthe – and not *hunebed* no. 1, as erroneously stated by Drenth (2012a: 159, note 1) – whereas D43a represents the first destroyed megalithic tomb near D43 at Emmen.



the Bell Beaker period. However, the concurrence between *hunebedden* and acidic sandy soils means that little inhumed bone has been recovered, although cremated bone has been discovered in many of the megaliths. Only one of the  $^{14}\text{C}$ -dated cremations that has been published to date can be attributed to the Bell Beaker period. It concerns calcinated bone from *hunebed* D30 at Exloo (province of Drenthe), of which a sample has been dated to  $3695 \pm 35$  BP (GrA-28350 or GrA-28359; Lanting 2007/2008, 68, 274-275)<sup>14</sup>. Recent dating (de Vries, 2015; forthcoming) of cremated (human) bone from *hunebedden* in the provinces of Drenthe and Groningen indicate that D30 is not an exception, as could be expected in view of the numerous Bell Beaker artefacts from megalithic tombs.

*Hunebedden* have an uneven geographical distribution, in all likelihood limited by the availability of suitable stone and as such the megaliths are restricted to the northern and eastern Netherlands (Fig. 6). There is one possible exception, an unconfirmed and

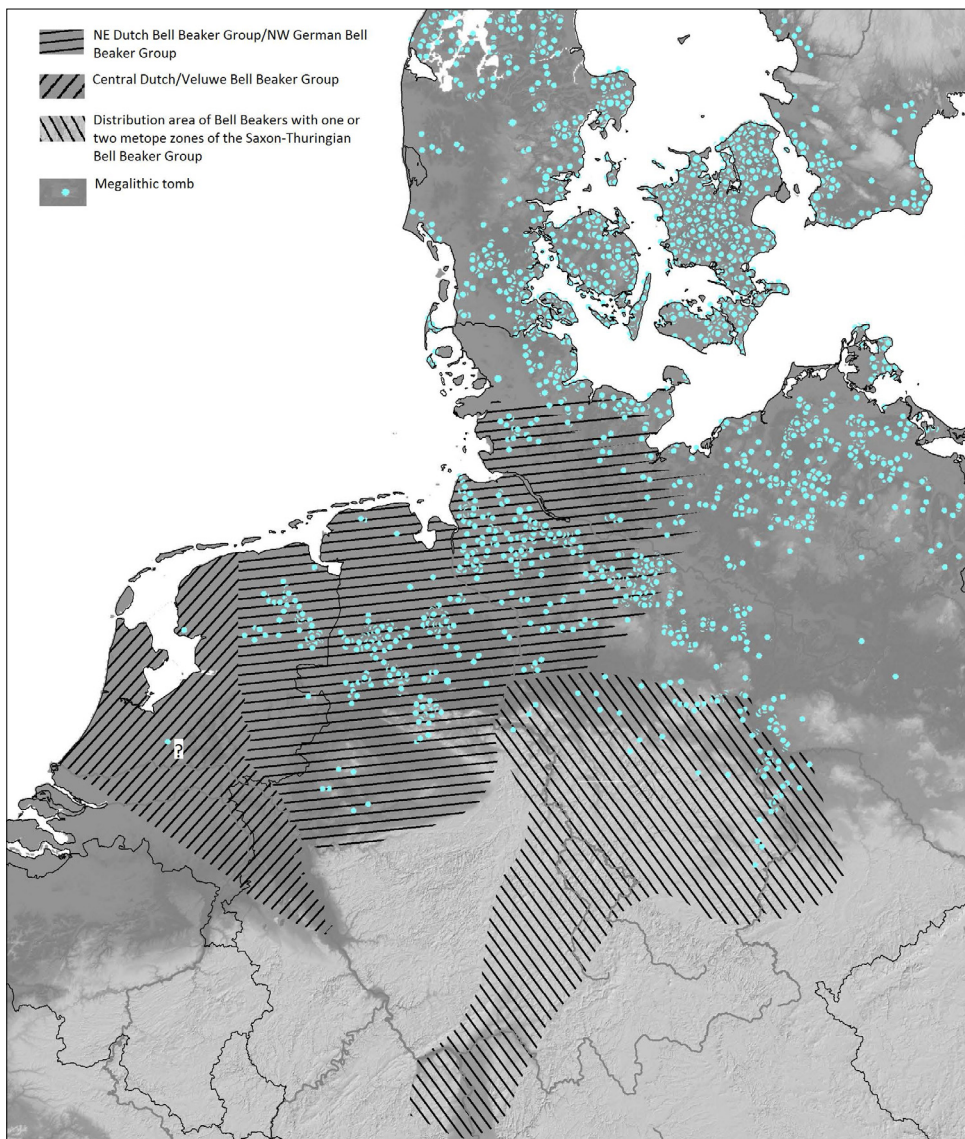


Fig. 6 – The distribution areas of different Bell Beaker Groups and the approximate spread of megalithic tombs in the Netherlands and adjacent regions. Please note, the megalithic tomb marked in the centre of the Netherlands is uncertain. Sources: Furholt & Müller, 2011 (slightly altered here with respect to the Netherlands); Lanting, 2007/2008.

<sup>14</sup> The Calibration (2 sigma) results in 2200-2161 and 2154-1972 BC.



unexcavated megalithic tomb (a primeval Dolmen or *Urdolmen*?) at Lage Vuursche (province of Utrecht; Bakker, 1988: 68). Looking beyond the geological restrictions, the spread of *hunebedden* coincides rather neatly with the (Dutch part of the) distribution area of the NE Dutch/NW German Bell Beaker Group, as defined by Lanting (2007/2008: Section 4.3, fig. 23), and encompasses large portions of the northern and eastern Netherlands, with the remainder of the country being occupied by the Central Dutch or Veluwe Bell Beaker Group (Fig. 6). This regional subdivision is based upon distinctive traits in the material culture (e. g. pottery) and the variety in burial customs, and *contra* to a recent challenge to this model of regional differentiation and in particular the existence of a specific regional Beaker style in the north-eastern area (Fokkens *et al.*, 2016: 285-286) there is ample supporting evidence. Lanting lists several dozen beakers in northeastern style from the northeastern Netherlands, including examples from possible settlement contexts, these being a ‘settlement pit’ at Zeijen-Noordse Veld (Drenthe) and potentially some bog finds which could represent a pre-bog domestic context at Klijndijk in the province of Drenthe (van der Sanden, 1997: 22, 24-25, 27 [136, 138-139, 141] & fig. 6; Lanting, 2007/2008: Sections 8.1, 8.2, Appendix II, Sections c 8 and c 16). It should also be highlighted that Bell Beaker settlements are exceedingly rare in the northeastern Netherlands, with only two ‘confirmed’ sites, one at Oldeboorn (Friesland), which featured pottery typical of the neighbouring Veluwe Bell Beaker Group, the other being the aforementioned pit at Zeijen-Noordse Veld (Lanting, 2007/2008: 90-91; Fokkens *et al.*, 2016: section 7.8). The scarcity of Bell Beaker settlements in the wider region is further emphasised by Lanting’s overview (2007/2008: 91 and Section 6.3.2) which in fact mentions only one site in northwestern Germany: Dötlingen-Neerstedt. These supposed settlement finds come from a secondary archaeological context, as they were redeposited in a Middle Bronze Age barrow. Returning to Bell Beakers and *hunebedden*, although Lanting himself is not (very) explicit about how the interments in megalithic tombs fit into this milieu of regionally specific burial customs, it may be advanced that the practice should be regarded as one of the defining criteria of the NE Dutch/NW German Bell Beaker Group, given its geographical dissemination (*contra* Fokkens *et al.*, 2016: 285-286).

Several maps for the periods pre- and post-dating the Bell Beaker Culture show cultural spatial patterns similar to those of the Bell Beaker period depicted in Fig. 6. The first concerns the second half of the Dutch/Northwest German Single Grave Culture, datable to c. 2650-2400 BC, and the distribution of barrows and flat graves equipped with All-Over-Ornamented (AOO) Beakers<sup>15</sup> and supposedly typical male grave goods (see Drenth, 1990, 2014c, 2016; Lanting, 1969) including stone battle-axes, daggers of French flint (Grand-Pressigny and Romigny-Lhéry), and flint or non-flint stone axes (Fig. 7). Graves containing AOO Beakers and these associated grave goods are common in the central and southern Netherlands and the neighbouring German region, but none of the lithic artefacts occur in AOO Beaker graves in the northern Netherlands or adjacent German districts. Although usually no surviving human remains have been recovered from Dutch SGC graves, this disparate distribution of grave goods raises the possibility that the bestowal of AOO Beakers was not specific related to sex/gender in the southern region, but could have had exclusively female associations in the more northerly area. Furthermore, it is tempting to interpret this distribution as evidence of exogamous marriage patterns and the northerly movement of females of southern origin (cf. Drenth & Lohof, 2009: 124). This suggestion may find further support in the spatial pattern apparent in the wider funerary ceramic associations of the French flint daggers (Drenth, 1990; with further references). While, as previously noted, AOO Beakers are associated with these daggers in the central and southern Netherlands, in the northern Netherlands the pottery associations consist of either late SGC type 1d or zigzag (ZZ) type Beakers (the ZZ type Beaker association at

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<sup>15</sup> The beaker typology used in this paper is after van der Waals and Glasbergen, 1955.



Putten (province of Gelderland) in the centre of the Netherlands being an outlier), with ceramic associations in the adjoining German areas reinforce this general pattern.

To a large extent, both the regional differences highlighted within the late Single Grave Culture (Fig. 7) and the regional subdivision of the Bell Beaker Culture (Fig. 6) are reproduced in both the distribution of cultural groups (Fig. 8) during the Middle Bronze Age (Fokkens, 2005, 360-361, fig. 16.3) and the cultural borders (Fig. 9) of the following Late Bronze-Early Iron Age (Verlinde, 1987: 292-302 & fig. 139). It may be proposed that these distributions indicate some form of cultural persistence, lasting over at least 2.000 years. It can also be argued that the secondary (funerary) use of megalithic tombs during the Bell Beaker period fits comfortably into this long-term sequence of development. Moreover, it may be suggested that this practice was intended to maintain and reinforce the cohesion of the social group, and/or a means of collective differentiation from other contemporary communities during the Bell Beaker period. These propositions must be regarded as a working hypothesis and further analysis is required to substantiate the claims. Aspects which need to be elaborated upon and scrutinised further include, for example, the concepts of the Hilversum and Ems Cultures, which have both been decribed as meaningless constructions (Lanting & van der Plicht, 2001/2002: 151) or exclusively as 'factual pottery traditions' (Fokkens, 2005: caption to fig. 16.3) rather than as indicators of specific cultural groupings.

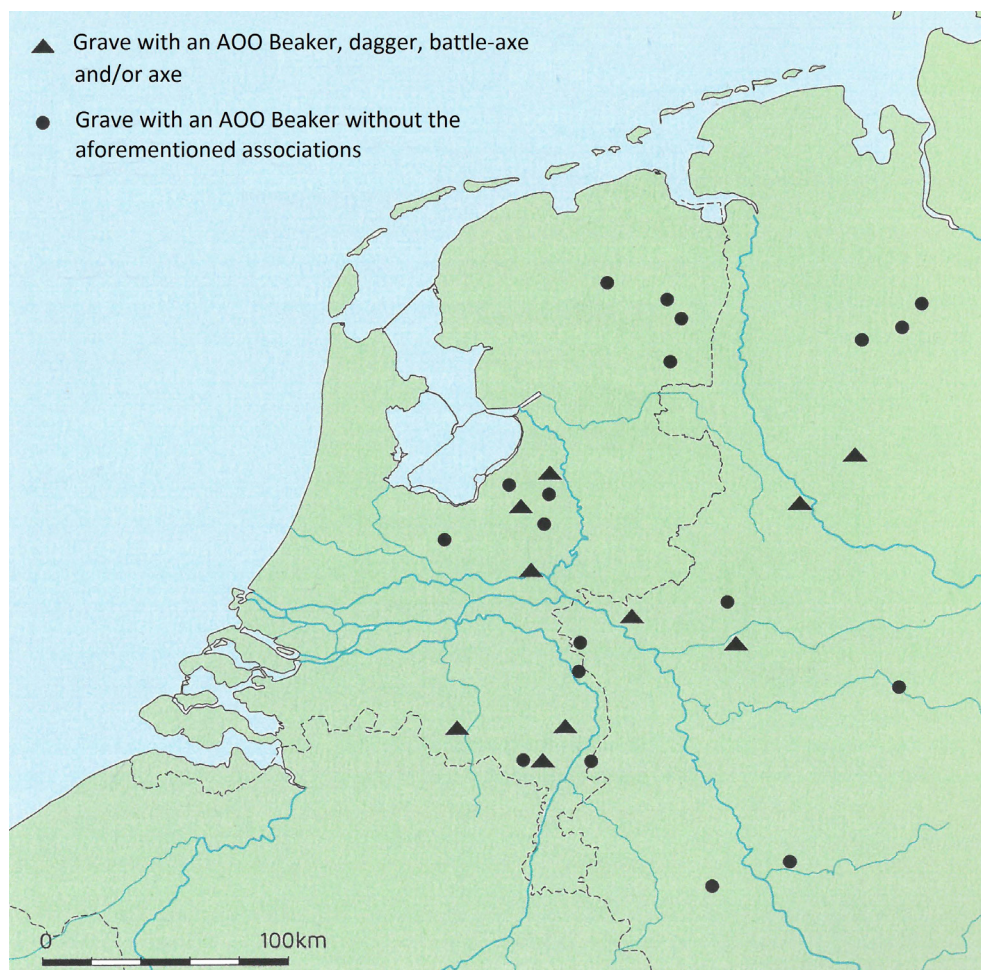


Fig. 7 – Distribution of barrow graves and flat graves with AOO pottery in the Netherlands and the adjacent German region. Two varieties have been distinguished, namely (a) graves with a flint dagger, a stone battle-axe and/or a flint/non-flint stone axe and (b) interments without one or more of these items. After van der Sanden, 2018 (who reproduced the map in a revised version from Drenth & Lohof, 2009).



## 6. Some remarks about aDNA and isotope analyses

A small flat cemetery consisting of six graves (Nos 10-15) containing extant inhumation burials was excavated at Schokland-P14 (province of Flevoland<sup>16</sup>). Using Ten Anscher's (2012) dissertation as the primary source, Fokkens *et al.* (2016: 105-109) assigned four of these interments to the Bell Beaker Culture, with three being based on the associated <sup>14</sup>C-dates. However, they neglected to address Ten Anscher's (2012: 352-356, 364; cf. Lanting & van der Plicht, 1999/2000: 77) carefully constructed argument and conclusion that the burial ground should be attributed to the Single Grave Culture (c. 2800-2400 BC), despite the dates of Bell Beaker age<sup>17</sup>. Bark from grave 11 has been dated to 3640 ± 100 BP (UtC-1950), human bone from grave 13 and grave 14 to 3870 ± 60 BP (UtC-1946) and 3740 ± 50 BP (UtC-1948) respectively<sup>18</sup>. Lanting & van der Plicht (1999/2000: 77) suggested that contamination is extremely likely in the case of grave 11, as the sample consisted of "a large amount of wet earth with occasionally small pieces of rotten wood, the latter hardly recognisable as such"<sup>19</sup>. Similarly, the dates for graves 13 and 14 are judged, as they have such negative  $\delta^{13}\text{C}$  values (twice -23.1 ‰). Building upon these arguments, Ten Anscher considered these dates to be too young due to a low amount of collagen (graves 13 and 14) and the infiltration of younger humates (grave 11)<sup>20</sup>. Furthermore, the body positioning and orientations can be seen as an additional objection to a Bell Beaker Culture assignment for these graves (see Beuker & Drenth, 2005; Lanting, 2007/2008: Section 5.1; Drenth, 2016).

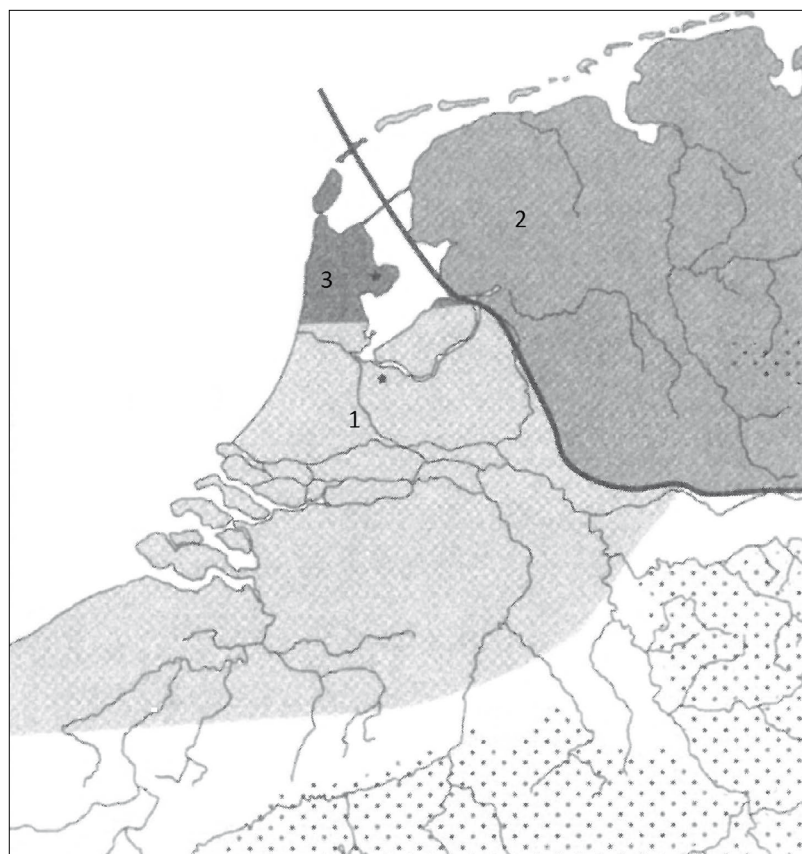


Fig. 8 – Distribution of Middle Bronze Age cultural groups in the Netherlands according to Fokkens (2005; the lay-out of the map has been slightly changed). Legend: 1 = Hilversum Culture, 2 = Elp Culture, 3 = Hoogkarspel Culture.

The solid line is said to indicate roughly the boundary between the northern and Atlantic exchange networks.

<sup>16</sup> The fact that these skeletons have not been subjected to aDNA and isotope analyses does not affect the essence of the argumentation.

<sup>17</sup> At P14 at least fifteen graves were discovered, six of them (graves 10-15) are considered to be of Late Neolithic age.

<sup>18</sup> Calibration (2 sigma) of UtC-1950 results in 2297-1741 and 1710-1699 BC. In the case of UtC-1946 the outcomes are 2555-2545, 2488-2483, 2476-2193 and 2178-2143 BC, and in the instance of UtC-1948 the results are 2296-2015 and 1999-1977 BC.

<sup>19</sup> The original Dutch text reads as follows: "een grote hoeveelheid natte aarde, met enkele stukjes verrot hout, dat nauwelijks nog als hout herkenbaar was".

<sup>20</sup> Ten Anscher's grave numbers 11, 13 and 14 correspond with Lanting and van der Plicht's numbers 12, 4 and 3, respectively.



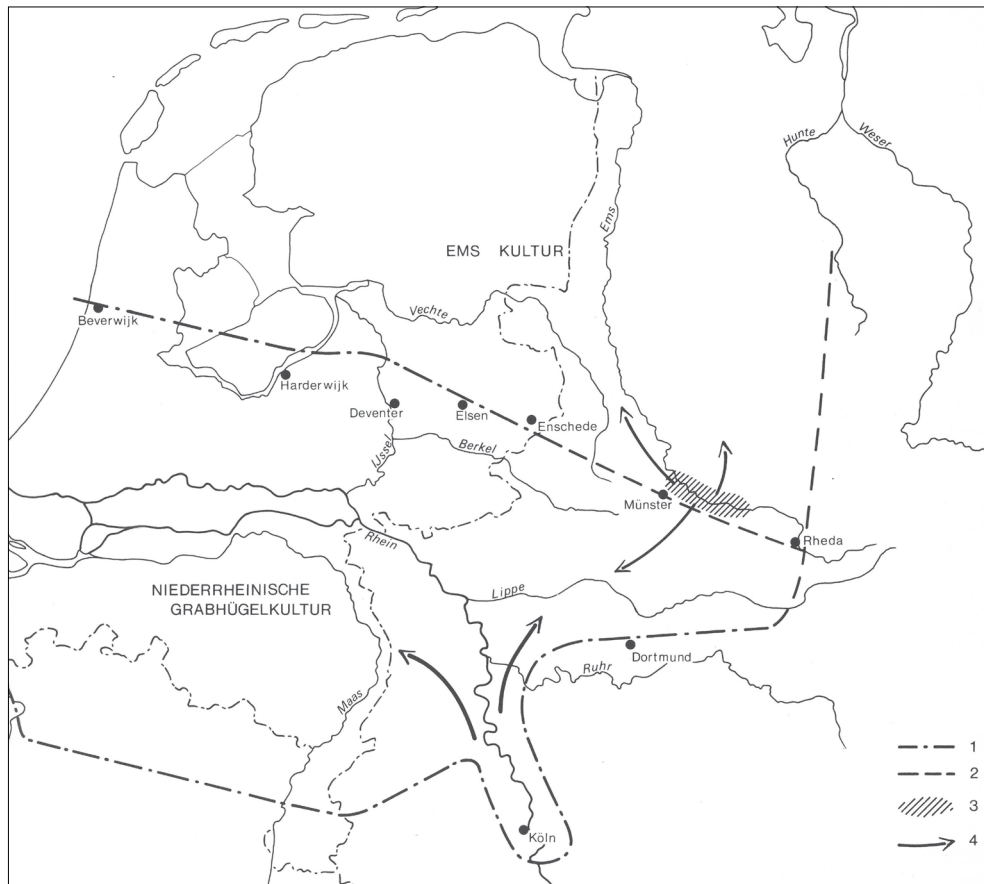


Fig. 9 – Cultural subdivision of the Netherlands in the Late Bronze Age and the Early Iron Age according to Verlinde (1987). Legend: 1 = demonstrable cultural border, 2 = presumed cultural border, 3 = the Oberems Group, 4 = main directions of cultural streams.

The P14 site illustrates the fact that opinions about the chronology and cultural attribution of Dutch Late Neolithic graves are not always undivided. In contrast, consensus is a *conditio sine qua non* for meaningful scientific research like aDNA and isotope analyses. There is growing awareness that the future of Bell Beaker studies, and archaeological studies in general, lies in these kinds of explorations, as exemplified by such treatises as Olalde *et al.* (2018) and Parker Pearson *et al.* (2019). Both aDNA and isotope analyses are powerful novel tools which in tandem will be able to help unravel issues such as ancestry, kinship, mobility, migration and dietary patterns. Nonetheless, as in (practically) every other aspect of archaeological study, both (high-precision) chronology and cultural attribution/affiliation will remain at the very heart of future multi-disciplinary investigations.

## 7. Summary

Hopefully the current paper has shown that the current archaeological dataset, in particular the data from a funerary context, may provide new insights into Dutch Bell Beaker Culture society if approached from a different angle than previously has been done. A novelty is for example the evidence of violence as provided by a barrow grave at Ede-Ginkelse Heide. An interesting, hitherto unnoticed demographic pattern emerges furthermore when the current osteological determinations are assessed together. The data suggests a high infant mortality, a considerably low risk of death during adolescence, and a steadily rising mortality risk during the course of adulthood, with individuals seldom reaching > 55 years of age. A final example are the Bell Beaker burials in megalithic



tombs, monumental graves in stone that were built by the West Group of the Funnel Beaker Culture c. 3400/3350-3050/3000 BC. Very recent <sup>14</sup>C-dating on calcinated human bones from this context has reinforced this burial practice. Spatially, this type of Bell Beaker Culture interment is confined to the northern and eastern Netherlands; it is typical of the NE Dutch/NW German Bell Beaker Group. A diachronic assessment yields an intriguing, so far unrecognised or at least unpublished pattern. Several studies of the periods preceding and following Bell Beaker times have set broadly the same area apart in cultural terms. As a working hypothesis it is proposed here that some form of cultural persistence, enduring over at least 2.000 years, may have existed in this region of the Netherlands. The present treatise also revisits a topic that was already discussed more than 45 years ago, namely that of interments containing skulls/heads under inverted ceramic vessels. A re-examination of old finds and recent discoveries of disembodied human skulls, skull-less skeletons in the present context strengthens this idea, although definitive evidence is still lacking at present. A notable concentration of inverted vessels in particular is evident in the central area of the Netherlands, the homeland of the Central Dutch or Veluwe Bell Beaker Group. The paper concludes with an obvious but necessary reminder. Ancient DNA and isotope analyses will be only be beneficial when there is certainty about the chronology and, where applicable, cultural attribution of the examined material.

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#### Postscript

It should be emphasised that the investigation of the Haps-Laarakker burial is still ongoing. Recently it was established that the grave may have contained a ninth flint arrowhead; the object is said to be broken (oral information by T. Hos late November 2020). This opens up the possibility that the interred person was killed by an arrow after all. However, the author has not yet been able to personally study either the flint object itself or a photograph, nor did he have any information at the time of writing about the arrowhead's position upon discovery. A conclusive answer therefore awaits the publication of the final excavation report.

#### References

- BAKKER A. M., 2013. *Archeologische begeleiding (protocol opgraven) zes vuursteenvindplaatsen en drie essen in het aardgastransportleidingstracé tussen winningslocatie NorgUGS (Langelo) en OverslagSappemeer*. ArcheologischeRapporten Oranjewoud, 2013/9, Heerenveen.
- BAKKER J. A., 1988. A list of the extant and formerly present *hunebedden* in the Netherlands. *Palaeohistoria. Acta et Communicationes Instituti Bio-Archaeologici Universitatis Groninganae*, 30: 63-72.
- BAKKER J. A. 1992. *The Dutch Hunebedden. Megalithic Tombs of the Funnel Beaker Culture*. International Monographs in Prehistory, Archaeological Series, 2, Ann Arbor.
- BEUKER J. R. & DRENTHE E., 2005. Een herbeschouwing van de dodenhouding in graven van de klokbekercultuur in Nederland. *Nieuwe Drentse Volksalmanak*, 122: 110-112.
- BLOEMERS J. H. F. & THERKORN L. L., s. d. [2003]. *Wisselende seizoenen en verborgen landschappen. Wetland archeologie in de Velserbroek*. Haarlem.
- BOURGEOIS Q. P. J., 2013. *Monuments on the horizon. The formation of the barrow landscape throughout the 3<sup>rd</sup> and 2<sup>nd</sup> millennium BC*. PhD thesis, University of Leiden, Leiden.



- BRODIE N., 1994. *The Neolithic-Bronze Age Transition in Britain. A critical review of some archaeological and craniological concepts*. BAR British Series, 238, *Tempus Reparatum*, Oxford.
- BURSCHE, F. C. 1933. *Die Becherkultur in den Niederlanden*. Oudheidkundige Mededeelingen uit 's Rijksmuseum van Oudheden te Leiden, XIV: 39-123 (= PhD thesis, Philipps-University of Marburg, Druck der Buchhandlung und Druckerei vormals E. J. Brill A. G., Leiden).
- CASPARIE W. A. & GROENMAN-VAN WAATERINGE W., 1980. Palynological analysis of Dutch barrows. *Palaeohistoria. Acta et Communicationes Instituti Bio-Archaeologici Universitatis Groninganae*, XXII: 7-65.
- CHAMBERLAIN A., 2006. *Demography in Archaeology*. Cambridge.
- DE NES E. & TULP, C., 2012. *Leunen, Horsterweg 11. Gemeente Venray (Limburg). Archeologische Begeleiding volgens protocol Opgraven*. Steekproef-rapport, 2012-01/04U, Utrecht.
- DE VRIES N., 2015. *Excavating the Elite? Social stratification based on cremated remains in the Dutch hunebedden*. Unpublished MA thesis University of Groningen, Groningen.
- DOORENBOSCH M., 2013. *Ancestral heaths. Reconstructing the barrow landscapes in the central and southern Netherlands*. PhD thesis, University of Leiden, Leiden.
- DRENTHE E., 1990. Een onderzoek naar aspecten van de symbolische betekenis van Grand-Pressigny- en pseudo-Grand-Pressigny-dolken in graven van de Enkelgrafcultuur in Nederland. In: Niklewicz-Hokse A. T. L. & Lagerwerf C. A. G. (ed.), *Bundel van de Steentijd dag 1 april 1989*, Groningen: 100-121.
- DRENTHE E., 2012a. A Note on the Re-use of hunebedden in the Netherlands during the Late Neolithic. In: Furholt M., Hinz M. & Mischka D. (ed.), *"As time goes by"? Monumentality, Landscapes and the Temporal Perspectives*, Universitätsforschungen zur prähistorischen Archäologie, 22, Bonn: 159-168.
- DRENTHE E., 2012b. Handgevormd Aardewerk. In: Nes de E. & Tulp C., *Leunen, Horsterweg 11. Gemeente Venray (Limburg). Archeologische Begeleiding volgens protocol Opgraven*, Steekproefrapport, 2012-01/04U, Utrecht: 14-23.
- DRENTHE E., 2012c. Handgevormd aardewerk. In: Gerrets D. A., Opbroek M. & Williams G. L. (ed.), *Onvoltooid verleden. Sporen van meer dan 10.000 jaar menselijke activiteiten langs de Regge bij Nijverdal*, ADC Monografie, 13, Amersfoort: 117-151.
- DRENTHE E., 2012d. Vuursteen. In: Gerrets D. A., Opbroek M. & Williams G. L. (ed.), *Onvoltooid verleden. Sporen van meer dan 10.000 jaar menselijke activiteiten langs de Regge bij Nijverdal*, ADC Monografie, 13, Amersfoort: 161-194.
- DRENTHE E., 2014a. Cremation graves of the Bell Beaker Culture from the Netherlands: social, spatial and temporal aspects. In: Besse M. (ed.), *Around the Petit-Chasseur Site in Sion (Valais, Switzerland) and New Approaches to the Bell Beaker Culture*, Oxford: 307-318.
- DRENTHE E., 2014b. Stone Age amber from the Netherlands – an outline. *Die Kunde, Neue Folge*, 65: 205-242.
- DRENTHE E., 2014c. Late Neolithic daggers in French flint from the Netherlands: gender- and age-related grave goods? *Notae Praehistoricae*, 34: 137-145.
- DRENTHE E., 2016. Men on their right sides and women on their left sides? Corpse position in barrows and flat graves of the Single Grave Culture from the Netherlands. *Notae Praehistoricae*, 36: 191-201.
- DRENTHE E., 2018. The burial of victims of violence? The Bell Beaker grave from Ede-Ginkelse Heide, the Netherlands. *Mitteilungen der Anthropologischen Gesellschaft in Wien*, 148: 75-80.
- DRENTHE E. & HOGESTIJN J. W. H., with an contribution by SCHNITGER F. W., 1999. De Klokbeekercultuur in Nederland: de stand van onderzoek anno 1999. *Archeologie*, 9: 99-149.
- DRENTHE E. & LOHOF E., 2005. Mounds for the dead. Funerary and burial ritual in Beaker period, Early and Middle Bronze Age. In: Louwe Kooijmans L. P., van den Broeke P. W., Fokkens H. & van Gijn A. L. (ed.), *The Prehistory of the Netherlands*, Amsterdam: vol. 1, 433-454.
- DRENTHE E. & LOHOF E., 2009. Mobilität während des Endneolithikums und der Bronzezeit. Eine allgemeine Übersicht für die



- Niederlande. In: Krenn-Leeb A., Beier H.-J., Claßen E., Falkenstein F. & Schwenzer S. (ed.), *Mobilität, Migration und Kommunikation während des Neolithikums und der Bronzezeit. Beiträge der Sitzungen der Arbeitsgemeinschaften Neolithikum und Bronzezeit während der Jahrestagung des West-Süddeutschen Verbandes für Altertumsforschung e.V. in Xanten, 6-8. Juni 2006*, Beiträge zur Ur- und Frühgeschichte Mitteleuropas, 53, Langenweissbach: 121-132.
- DRENTHE E. & MEURKENS L. 2011. Laat-neolithische graven. In: Hamburg T., Lohof E. & Quadflieg B. (ed.), *Bronstijd opgespoord. Archeologisch onderzoek van prehistorische vindplaatsen op Bedrijvenpark H2O – plandeel Oldebroek (Provincie Gelderland)*, Archol rapport, 142/ADC rapport, 2627, Leiden: 197-276.
- DRENTHE E. & SCHRIJER E., 2015. Klokbeckergraf. In: Tulp C. (ed.), *Eelde Groote Veen. De archeologie van steentijd tot Romeinse tijd*, Groningen: 67-84.
- FOKKENS H., 2005. Late Neolithic, Early and Middle Bronze Age: introduction. In: Louwe Kooijmans L. P., van den Broeke P. W., Fokkens H. & van Gijn A. L. (ed.), *The Prehistory of the Netherlands*, Amsterdam: vol. 1, 357-369.
- FOKKENS H., STEFFENS B. J. W. & VAN AS S. F. M., 2016. *Farmers, fishers, fowlers, hunters. Knowledge generated by development-led archaeology about the Late Neolithic, Early Bronze and the start of the Middle Bronze Age (2850-1500 cal BC) in the Netherlands*. Nederlandse Archeologische Rapporten, 53, Amersfoort.
- FOKKENS H., VESELKA B., BOURGEOIS Q., OLALDE I. & REICH D., 2017. Excavations of Late Neolithic arable, burial mounds and a number of well-preserved skeletons at Oostwoud-Tuithoorn: a re-analysis of old data. *Analecta Praehistorica Leidensia*, 47: 95-150.
- FURHOLT M. & MÜLLER J., 2011. The earliest monuments in Europe – architecture and structures (5000-3000 cal BC). In: Furholt M., Lüth F. & Müller J. (ed.), *Megaliths and Identities. Early Monuments and Neolithic Societies from the Atlantic to the Baltic*, Frühe Monumentalität und soziale Differenzierung, 1, Bonn: 15-32.
- HIELKEMA J. B., BROKKE A. J. & MEIJLINK B. H. F. M., 2002. Sporen en structuren. In: Meijlink B. H. F. M. & Kranendonk P. (ed.), *Archeologie in de Betuweroute. Boeren, erven, graven. De boerengemeenschap van De Bogen bij Meteren (2450-1250 v. Chr.)*, Rapportage Archeologische Monumentenzorg, 87, Amersfoort: 137-315.
- HOLWERDA J. H. Jr., 1909. Hunneschans bij het Uddelermeer. *Oudheidkundige Mededelingen van het Rijksmuseum van Oudheden te Leiden*, III: 1-52.
- HORN C. & KRISTIANSEN K. (ed.), 2018. *Warfare in Bronze Age Society*. Cambridge.
- HOS T. & HOS S. 2018. Heilige grond. Opgravingen bij het Brabantse Haps. *Jaarboek van de Nederlandse Archeologie 2017*: 79-88.
- HUISMAN & N. & OPBROEK M., 2012. Sporen en structuren. In: Gerrets D. A., Opbroek M. & Williams G. L. (ed.), *Onvoltooid verleden. Sporen van meer dan 10.000 jaar menselijke activiteiten langs de Regge bij Nijverdal*, ADC Monografie, 13, Amersfoort: 81-116.
- HULST R. S., 1965-1966. A Pot Beaker from Velp, Prov. of Gelderland. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, 15-16: 231-232.
- KLEIJNE J. P., 2015. Barrows and burials of the Late Neolithic and Bronze Age from Velsen (Noord-Holland, the Netherlands). In: Ball E. A. G. & Arnoldussen S. (ed.), *Metaaltijden 2. Bijdragen in de studie van de Metaaltijden*, Leiden: 101-111.
- KNIP A. S., 1974. Late Neolithic Skeleton Finds from Molenaarsgraaf (Z. H.). In: Louwe Kooijmans L. P. (ed.), *The Rhine/Meuse Delta. Four studies on its prehistoric occupation and Holocene geology*, Analecta Praehistorica Leidensia, VII/Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden, LIII-LIV, Leiden: 379-395. PhD thesis of the University of Leiden.
- LANTING A. E. 1969. Iets over de gebruiken van de standvoetbekerkultuur. *Nieuwe Drentse Volksalmanak*, 87: 5-18 (165-178).
- LANTING J. N., 2007/2008. De NO-Nederlandse/NW-Duitse klokbeckergroep: culturele achtergrond, culturele achtergrond, datering, verspreiding en grafritueel. *Palaeohistoria. Acta et Communicationes Instituti Archaeologici Universitatis Groninganae*, 49/50: 11-326.
- LANTING J. N. & VAN DER PLICHT J., 1999/ 2000. De <sup>14</sup>C-chronologie van



- de Nederlandse pre- en protohistorie, III: Neolithicum. *Palaeo-historia. Acta et Communicationes Instituti Archaeo-logici Universitatis Groninganae*, 41/42: 1-110.
- LANTING J. N. & VAN DER PLICHT J., 2001/ 2002. De <sup>14</sup>C-chronologie van de Nederlandse pre- en protohistorie, IV: bronstijd en vroege ijzertijd. *Palaeohistoria. Acta et Communicationes Instituti Archaeologici Universitatis Groninganae*, 43/44: 117-262.
- LANTING J. N. & VAN DER WAALS J. D., 1976. Beaker Culture relations in the Lower Rhine Basin. In: Lanting J. N. & van der Waals J. D. (ed.), *Glockenbechersymposium Oberried 1974*, Bussum/Haarlem: 1-80.
- LEHMANN L. T., 1965. Placing the Pot Beaker. *Helinium*, V(1): 3-31.
- LEHMANN L. T. 1967. New pot beakers from the Veluwe. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, 17: 162-166.
- LOPEZ-CAPP T. T., RYNN C., WILKINSON C., SAAVEDRA DE PAIVA L. A., MICHEL-CROSATO E. & HAYE BIAZEVIC M. G., 2018. Craniometric variation among Brazilian and Scottish populations: a physical anthropology approach. *Journal of Oral Studies*, 17: 1-18.
- LOUWE KOOIJMANS L. P., 1974. *The Rhine/ Meuse Delta. Four studies on its prehistoric occupation and Holocene geology*. *Analecta Praehistorica Leidensia*, VII / Oudheidkundige Mededelingen uit het Rijksmuseum van Oudheden te Leiden, LIII-LIV, Leiden. PhD thesis of the University of Leiden.
- MEIJLINK B. H. F. M., 2002. Inleiding. In: Meijlink B. H. F. M. & Kranendonk P. (ed.), *Archeologie in de Betuweroute. Boeren, erven, graven. De boerengemeenschap van De Bogen bij Meteren (2450-1250 v. Chr.)*, Rapportage Archeologische Monumentenzorg, 87, Amersfoort: 11-53.
- MELLER H. & SCHEFZIK M. (ed.), 2015. *Krieg. Eine archäologische Spurensuche*. Halle (Saale).
- METCALF P. & HUNTINGTON R., 2010. *Celebrations of Death. The Anthropology of Mortuary Ritual*. 2nd edition, 15th printing, Cambridge.
- MODDERMAN P. J. R., 1954. Grafheuvel-onderzoek in Midden-Nederland. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, V: 7-44.
- MODDERMAN P. J. R., 1955. Laat Beker-aardewerk versierd met indrukken van een wikkeldraadstempel. *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, VI: 32-43.
- OLALDE I., BRACE S., ALLENTOF M. E. et al., 2018. The Beaker phenomenon and the genomic transformation of northwest Europe. *Nature*, 555: 190-196. <https://doi.org/10.1038/nature25738>
- OTTE M., 1991. *Velserbroek Westlaan 1989. Een fysisch-anthropologisch en botanisch onderzoek*. Unpublished MA thesis, University of Amsterdam, s.l.
- OTTO T., THRANE H. & VANDKILDE H. (ed.), 2006. *Warfare and Society. Archaeological and Social Anthropological Perspectives*. Aarhus.
- OUDEMANS T. F. M., 2012. Residu analyse van een laatneolithische potbeker uit Nijverdal. In: Gerrets D. A., Opbroek M. & Williams G. L. (ed.), *Onvoltooid verleden. Sporen van meer dan 10.000 jaar menselijke activiteiten langs de Regge bij Nijverdal*, ADC Monografie, 13, Amersfoort: 153-159.
- PARKER PEARSON M., SHERIDAN A., JAY M., CHAMBERLAIN A., RICHARDS M. P. & EVANS J. (ed.), 2019. *The Beaker People. Isotopes, mobility and diet in prehistoric Britain*. Prehistoric Society Research Paper, 7, Oxford & Philadelphia.
- ROBB, J. E., 2002. Fysische antropologie. In: Meijlink B. H. F. M. & Kranendonk P. (ed.), *Archeologie in de Betuweroute. Boeren, erven, graven. De boerengemeenschap van De Bogen bij Meteren (2450-1250 v. Chr.)*, Rapportage Archeologische Monumentenzorg, 87, Amersfoort: 667-688.
- SMITS E., s. d. *Fysisch-anthropologisch onderzoek van inhumatie- en crematie resten voor E. Drenth uitgevoerd in 2009 door E. Smits*. Unpublished physical anthropological report, s.l. [Amsterdam].
- TALALAY L. E., 2004. Heady Business: Skulls, Heads, and Decapitation in Neolithic Anatolia and Greece. *Journal of Mediterranean Archaeology*, 17(2): 139-163.
- TEMPEL W.-D., 1979. Nachbestattungen in Großsteingräber. Die Einzelgrabkultur und die Glockenbecherkultur. In: Schirrig H. (ed.), *Großsteingräber in Niedersachsen*, Veröffentlichungen der urgeschichtlichen



- Sammlungen des Landesmuseums zu Hannover, 24, Hildesheim: 121-126.
- TEN ANSCHER T. J., 2012. *Leven met de Vecht. Schokland-P14 en de Noordoostpolder in het Neolithicum en de Bronstijd*. PhD thesis University of Amsterdam, Zupthen.
- THERKORN L. & VAN LONDEN H., 1990. Velsen: Velsbroekpolder. *Holland*, 22: 303-305 (= In: Jager S. W. & Woltering P. J. [ed.], *Archeologische Kroniek van Holland over 1989. I Noord-Holland*).
- UCKO P. J. 1969. Ethnography and archaeological interpretation of funerary remains. *World Archaeology*, 1 (2): 262-280.
- VAN DER SANDEN W. A. B., 1997. Aardewerk uit natte context in Drenthe: het vroeg- en laat-neolithicum en de vroege bronstijd. *Nieuwe Drentse Volksalmanak*, 114: 13-27 (127-141).
- VAN DER SANDEN W. A. B., 2018. *Geschiedenis van Drenthe. Een archeologisch perspectief*. Assen.
- VERLINDE A. D., 1987. *Die Gräber und Grabfunde der späten Bronzezeit und frühen Eisenzeit in Overijssel*. PhD thesis at University of Leiden, [published in parts in: *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek*, 28, 29, 30 and 35], Heerhugowaard.
- VAN DER WAALS J. D. & GLASBERGEN W., 1955. Beaker types and their distribution in the Netherlands. Intrusive types, mutual influences and local evolution. *Palaeohistoria. Acta et Communicationes Instituti Bio-Archaeologici Universitatis Groninganae*, IV: 5-46.
- VAN SPRANG A., 1993. *Wat aarde bewaarde. Uit de voorgeschiedenis van Ermelo en omgeving*. Ermelo.
- WEGEWITZW., 1960. Eine Schädelbestattung der Einzelgrabkultur. *Nachrichten aus Niedersachsens Urgeschichte*, 29: 6-17.
- WEISS-KREJCI E., 2008. Unusual Life, Unusual Death and the Fate of the Corpse: A Case Study from Dynastic Europe. In: Murphy E. M. (ed.), *Deviant Burial in the Archaeological Record*, Studies in Funerary Archaeology, 2, Oxford: 169-190.
- WEISS-KREJCI E., 2013. The Unburied Dead. In: Tarlow S. & Nilsson Stutz L. (ed.), *The Oxford Handbook of the Archaeology of Death & Burial*, Oxford: 281-301.
- WIECZOREKA. & ROSENDAHL W. (ed.), 2011. *Schädelkult. Kopf und Schädel in der Kulturgeschichte des Menschen*. Publikationen der Reiss-Engelhorn-Museen, 41, Regensburg.

## Abstract

This paper considers various aspects of the Bell Beaker burial practices in the Netherlands (c. 2400-1900 BC). The first is violence, which is discussed with reference to a burial where evidence suggests a flint arrowhead represents a likely cause of death. This grave does not stand out within the Dutch Bell Beaker funerary record in terms of grave architecture, grave goods or location, and as such, does not appear to be a 'deviant burial'. The second issue addressed is demography. Current osteological data suggests high infant mortality, a considerably low risk of death during adolescence, and a steadily rising mortality risk during the course of adulthood, with individuals seldom reaching >55 years of age. The third topic discussed, is the possible occurrence of graves containing skulls/heads under inverted ceramic vessels. It is argued, that although definitive evidence is lacking at present, disembodied human skulls, skull-less skeletons and inverted vessels may hint at the existence of this practice. A notable concentration of inverted vessels in particular is evident in the central area of the Netherlands, the homeland of the Central Dutch or Veluwe Bell Beaker Group. Another subject considered, are (secondary) Bell Beaker interments within pre-existing Neolithic megalithic tombs. The deposition of Bell Beaker material within the megalithic *hunebedden*, erected by the western Funnel Beaker Culture c. 3400/3350-3050/3000 BC in the northern and eastern Netherlands, is typical of the NE Dutch/NW German Bell Beaker Group. Several studies of the preceding and subsequent periods have set broadly the same area apart in cultural terms. Developing this idea further, as a working hypothesis, it is proposed that some form of cultural persistence, enduring over at least 2000 years, may have existed in this region of the Netherlands. The paper concludes with an obvious but necessary reminder that ancient DNA and isotope analyses will only be extremely beneficial when (high-precision) chronology and information about cultural attribution/affiliation are available.



**Keywords:** Bell Beaker Culture, the Netherlands, burial customs, violence, demography, skull/head burials, interments in megalithic tombs, aDNA and isotope analyses.

#### *Samenvatting*

Dit artikel bespreekt vanuit verschillende invalshoeken de grafgebruiken van de klokbekercultuur in Nederland (ca. 2400-1900 v.Chr.). Zo wordt ingegaan op de aanwijzingen voor geweld. Daarbij wordt gewezen op een grafheuvelbijzetting met crematieresten van twee personen. Een van hen is waarschijnlijk gedood door een pijl voorzien van een vuurstenen pijlpunt. Dit graf wijkt binnen het huidige databestand van klokbekergraven niet af qua grafarchitectuur, grafgiften en landschappelijke ligging. Daarnaast gaat het artikel in op de demografie. De fysisch-anthropologische gegevens die momenteel ter beschikking staan, doen de volgende prehistorische situatie vermoeden: een hoge kindersterfte, een grote kans om de adolescentie te overleven en een geleidelijk stijgende kans op overlijden tijdens de volwassenheid, waarbij personen zelden ouder werden dan 55 jaar. Een derde onderwerp dat ter sprake wordt gebracht, zijn bijzettingen van mensenhoofden of -schedels. Hoewel definitief bewijs daarvoor momenteel ontbreekt, kwam deze praktijk vermoedelijk voor. Aanwijzingen in die richting zijn de ontdekkingen van 'losse' schedels, skeletten zonder schedel en op hun kop staand aardewerken vaatwerk. Kopstaande potten, die een menselijke schedel of hoofd afgedekt zouden kunnen hebben, zijn vooral aangetroffen in Midden-Nederland, het 'thuisland' van de Midden-Nederlandse ofwel Veluwe klokbekergroep. Een ander onderwerp dat ter berde wordt gebracht, zijn de klokbekerbegravingen in hunebedden. Ze zijn voorbeelden van secundaire bijzettingen, want de hunebedden zijn megalithische graven die door de westgroep van de trechterbekercultuur tussen ca. 3400/3350-3050/3000 v.Chr. in Noord- en Oost-Nederland zijn gebouwd; de onderhavige nabij zettingen zijn typisch voor de NO-Nederlandse/NW-Duitse klokbekergroep. Uit verscheidene studies naar oudere en jongere perioden komt naar voren dat globaal dit deel van Nederland een regio is met eigen culturele trekken. Als werkhypothese is hier dan ook geposuleerd dat dit gebied wel eens een zekere culturele eigenheid gedurende minstens 2.000 jaar zou kunnen hebben gehad. Dit artikel sluit af met een voor de hand liggende maar noodzakelijke herinnering. In studies naar aDNA en isotopen zijn een hoogst precieze chronologie en culturele toewijzing/affiliatie van het uiterste belang.

**Trefwoorden:** Nederland, klokbekercultuur, grafgebruiken, geweld, demografie, schedel-/hoofdbijzettingen, begravingen in megalithische graven, aDNA- en isotopenanalyses.

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