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Bronze fibula with three pinned-on rings from Crustumerium, Monte Del Bufalo burial ground, Tomb 153 (photo G.J.M. van Oortmerssen, RUG/GIA).

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THE NEOLITHIC STONE CIST AT HEVESKESKLOOSTER (PROV. OF GRONINGEN, THE NETHERLANDS)

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ABSTRACT: The stone cist was a chance find resulting from the excavation of the dwelling mound (*wierde*) of Heveskesklooster. Owing to its location beneath this younger site and a layer of natural sediment, also the Neolithic surface surrounding the stone cist was excavated. This provided a rare opportunity to study the use of space surrounding the monument. The stone cist was probably built between 3200 and 2950 cal. BC. The flint assemblage testifies to the activities that took place in the area surrounding the stone cist. Although the particular date of these activities is difficult to correlate to the stone cist, it seems that these took place during both TRB and later Neolithic periods. The flint assemblage cannot easily be fit into a bipartite division between ritual and everyday activities. Compared to other TRB stone cists, the Heveskesklooster stone cist yielded few chamber finds. This is the first indication that later inhabitants of the site may have disturbed the content of the burial. Another can be found in the absence of some of the orthostats. Both arguments suggest that in their behaviour the Late Neolithic habitants at Heveskesklooster did not revere the stone cist burial as an ancestral place, but instead seem to have desecrated it. It is concluded that local Corded Ware communities may have had widely differing notions about the relevance of TRB monuments to their sense of ancestry and identity.

KEYWORDS: Heveskesklooster, stone cist, Neolithic, Funnel Beaker Culture (TRB), Corded Ware Culture.

1. INTRODUCTION

1.1 Relevance

Life and death define mankind, today and in the past. Whilst death is an unavoidable part of life, social practices concerning human death are found in seemingly endless variation through space and time. To understand the role that death played in prehistoric societies, archaeological research is the prime source of information.

This article presents one case study of a Neolithic tomb. It was selected for research because it is rare that excavations of tombs include the area adjacent to the monument. This case study involved an analysis of the use of space around the monument before, during and after its use. Two potential interpretations are scrutinized. First, one might expect the use of the area adjacent to the monument to be restricted to activities relating to death (burial or other rituals). In this case one might speak of a ritualized zone, spatially separated from domestic life. Alternatively, the use of this area was not restricted to ritual activities, but also included domestic ones.

1.2 Research history

The excavation of Heveskesklooster was carried out in the 1980s as part of the large-scale industrial development plans of the port of Delfzijl. It involved the excavation of a dwelling mound (Dutch: *wierde* or *terp*) whose occupation history started in the last century cal. BC. It was a big surprise that below several metres of *terp* soil

and the underlying peat layer two Neolithic tombs were found (fig. 1). They were a dolmen (excavated in 1983 and 1987) and a stone cist (excavated in 1986). So far (Boersma 1988), neither monument has been published extensively. Bakker (1994: 74-75) provides the most complete overview on the dolmen; the present article will focus on the stone cist.

An area of 18 x 17 m was excavated in squares of 1 x 1 m, with the stone cist located in the central part of the excavation. Outside the cist, one spit of unknown depth was excavated. The inside of the cist was excavated in four spits of unknown depth. Judging by field photos relating to the excavation of the nearby dolmen, the spoil from the stone cist excavation was probably wet-sieved as well. The mesh size used is unknown.

During the excavation, no features such as post-holes, hearths or a covering mound were recorded (fig. 2). Presumably any burial mound would have been recognised during the excavation. The easiest option is that during excavation it would have been easily noted that the cist was constructed on a higher part of the sandy surface. If a covering mound had been removed before the site was covered with sediment, soil processes would have left signs: soil layers that would originally have extended continuously across the mound and original surface would have been cut off when any the mound was removed.¹ It is therefore proposed that the stone cist had not been covered with a mound.

The field documentation consists of seven plans of the stone cist. No section drawings were made, because the stone cist was located in the middle of a large excavation

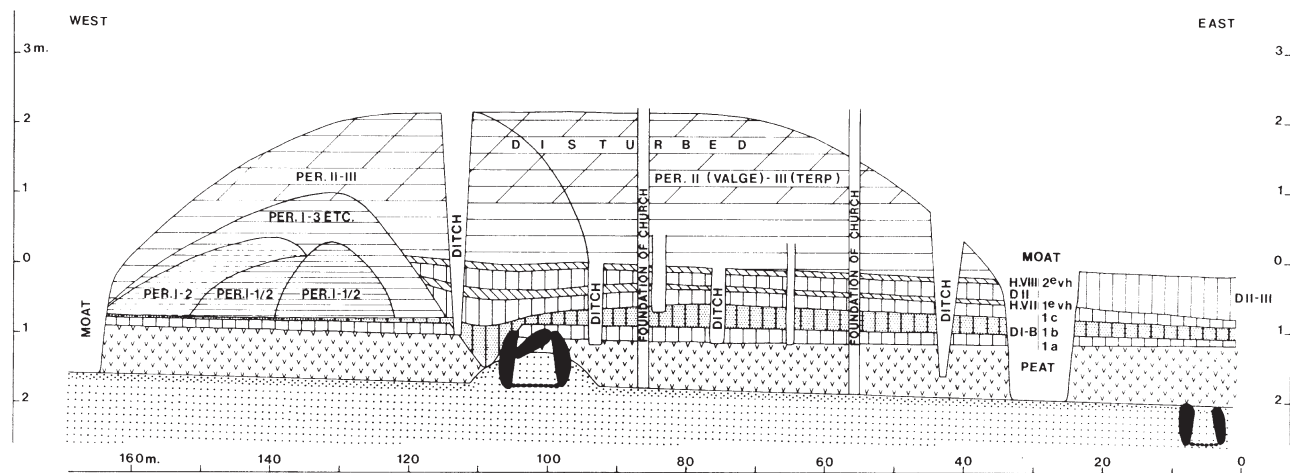


Fig.1. The dolmen (left) and stone cist (right) located below the *terp* mound (after Boersma 1988: fig. 1).



Fig. 2. The stone cist under excavation, 1986 (photos O. Harsema, RUG/GIA).



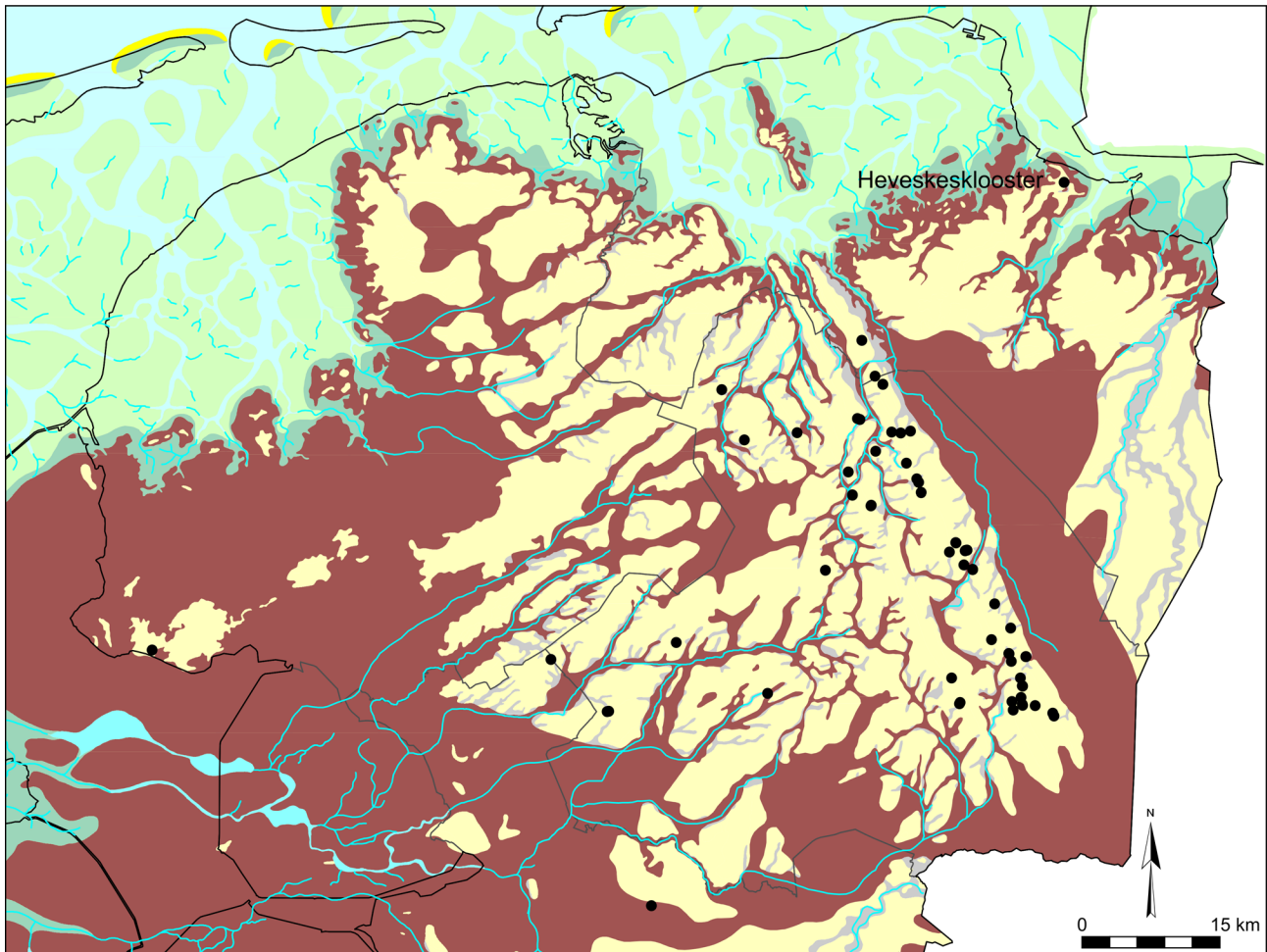


Fig. 3. The distribution of megalithic tombs in the Netherlands (dots), in sandy areas (light) and areas covered with blanket peat by c. 2750 cal. BC (shaded) (after Vos & De Vries 2013; figure E. Bolhuis, RUG/GIA).

trench of the overlying terp-mound and any sections would have been at several meters distance.

1.3 Landscape development

Since the archaeological excavation did not include research into the landscape development, only a general outline can be provided here. During the Saalian glaciation the northern part of the Netherlands was covered with an ice cap. Heveskesklooster is located on the north-east end of a till ridge containing the boulder material from which the stone cist was constructed. During the Weichsel ice age the area was not covered with ice, but wind-blown sand was deposited. From the start of the Holocene, the regional landscape development would have followed the standard biostratigraphic development, until the post-glacial relative sea level rise became the dominant landscape-forming agent. The sea level rise resulted in a higher water table, which in its turn initiated a slow ‘drowning’ of the Pleistocene surface beneath an extensive peat blanket.

Heveskesklooster is a rare example of Neolithic sites covered with younger sediments in the coastal area of the northern Netherlands. Sites such as Oldeboorn,

Steenendam (Fokkens 1998) and Wetsingermaar (Raemaekers *et al.* 2012) are other chance finds which indicate that the remains of a Neolithic settlement phase lie hidden beneath an extensive covering. As such, these sites add to a Neolithic distribution pattern dominated by megalithic tombs in the higher-lying regions (fig. 3).

The Heveskesklooster research contributes little to our knowledge of the region’s drowning history. There is one published ^{14}C date from the dolmen located c. 100m from the stone cist (fig. 4). It concerns a sample from the base of the peat layer covering the ridge on which both monuments were located. The sample came from a depth

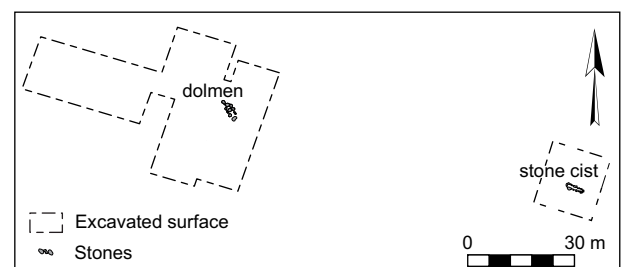


Fig. 4. The dolmen and stone cist of Heveskesklooster within the excavated area (S. Jansen/E. Bolhuis, RUG/GIA).

of c. 2m below sea level (NAP=Amsterdam Ordnance Datum) and was dated to 3805±35 BP.² Calibration suggests that peat started to grow in the period 2435-2135 cal. BC (2σ: 2435-2420, 2405-2380, 2350-2135 cal. BC), during the Late Neolithic (Cord Ware Culture or Bell Beaker Culture). The reliability of this date can be substantiated thanks to the work on a relative sea level curve for the northern Netherlands (Meijles *et al.* in prep.). The Heveskesklooster date was used as a data point in this curve and fits well with adjoining data points. The top of the ridge at the stone cist location also lay at 2.0 m -NAP, which suggests that it was overgrown with peat around the same time as the dolmen site.

2. THE TOMB

Little information could be inferred from the construction of the burial monument. The cist was oriented WNW-ESE and measured 3.0 x 0.8 m, given the dimensions of the cobble floor. Only four standing orthostats were documented. Their dimensions vary from 40 x 30 cm to 85 x 40 cm.³ Apart from the orthostats that were still present, three features were discovered that seemed to indicate that at least three more orthostats must have been present originally. While one may suppose that the gaps between the orthostats were filled with smaller stones (dry-stone walling), none of these were found; neither *in situ* between the orthostats, nor as collapsed piles on the cist floor. The floor consists of a single layer of cobblestones. These increase in size at both the WNW and the ESE ends of the cist, with the latter end containing considerably fewer of the larger cobbles (fig. 5). It is unclear whether the floor of the stone cist lay below the surrounding ground surface or on top of the existing surface, since no section drawings are available for this excavation. Evidence of the way in which the cist might have been covered, is lacking. The absence or presence of any covering and its material are unknown factors. However, considering that the cist presumably was a burial monument, one may assume the original presence of a covering to protect the contents of the cist.

The stone cist was disturbed before the site became covered with sediment. Evidence of this disturbance are the three missing orthostats. If the stone cist was covered with capstones, it would appear that the capstones were carried off as well. The depth of the location in relation to the relative sea level rise indicates that such disturbance must have taken place during the Late Neolithic.

3. STONE CISTS OF THE FUNNEL BEAKER CULTURE WEST GROUP

Tombs of the Funnel Beaker culture (TRB culture) are known in a wide variety. This variation can be found in their size, the use of cobblestones and large boulders, as

well as the presence or absence of a mound. As a result, various monument typologies have been proposed. The main types distinguished are passage graves, dolmens, stone cists and flat graves. On account of this fourfold subdivision, the Heveskesklooster monument may be called a stone cist. But what is a stone cist? Kossian presents an extensive overview of TRB non-megalithic burials and defines a stone cist (2005: 61) as the most megalithic of the non-megalithic tombs (translated by first author): “[...]the most solid stone constructions that ultimately constitute a combination and expansion of the structural elements typical of *Steinpflaster*- [cobble floor] and *Steinrahmengräber* [stone-walled graves].” His definition in itself contains a significant impediment regarding tomb typologies; grave types appear to be defined in terms of features shared with other types and clear boundaries between type characteristics are lacking.

These typological issues are of interest for two reasons. First of all, the absence of discrete classes of tombs suggests a fluidity in the creation of these monuments and the conceptions concerning normative behaviour. Secondly, a closer look at the typological definition of a stone cist allows us to identify the most similar monuments and to compare the use history of the Heveskesklooster cist and its surroundings with its closest parallels (table 1). To this end, we compare five structural elements: the size of the monument, the use of orthostats and cobble floors, the presence of a covering mound, the stone size of the orthostats and the presence of capstones.

While passage graves and dolmens occur with substantial dimensions, the smallest examples are similar in size to the stone cists and flat graves. Examples of small passage graves in the Netherlands are Glimmen-G3 (chamber length c. 3 m; Lanting 1974) and Hooghalen-D54c (chamber length 3.7 m; Brindley & Lanting 1991/1992); while the chamber of the neighbouring Heveskesklooster dolmen is only 2.75 m long. This means that by the mere size of the tomb it cannot be determined to which type the monument belongs. In other words, the size of the burial chamber is not a determinant of the burial type.

While the presence of orthostats may characterise the megalithic burial tradition, their use is found across a wide spectrum of monuments: passage graves, dolmens, stone cists and the stone-walled flat graves. Similarly, a cobblestone floor may be found across the spectrum, including cobble-floor flat graves. The absence of orthostats and/or a cobble floor can therefore serve only to distinguish (some) flat graves from the remainder of the burial types.

The presence of a mound allows a somewhat different subdivision. While as a rule both passage graves and dolmens were covered by earthen mounds, this element is found on some but not all monuments labelled stone cists. At Heveskesklooster, a covering mound probably was absent. However, the presence of a mound can be attested for several other stone cists (see below).

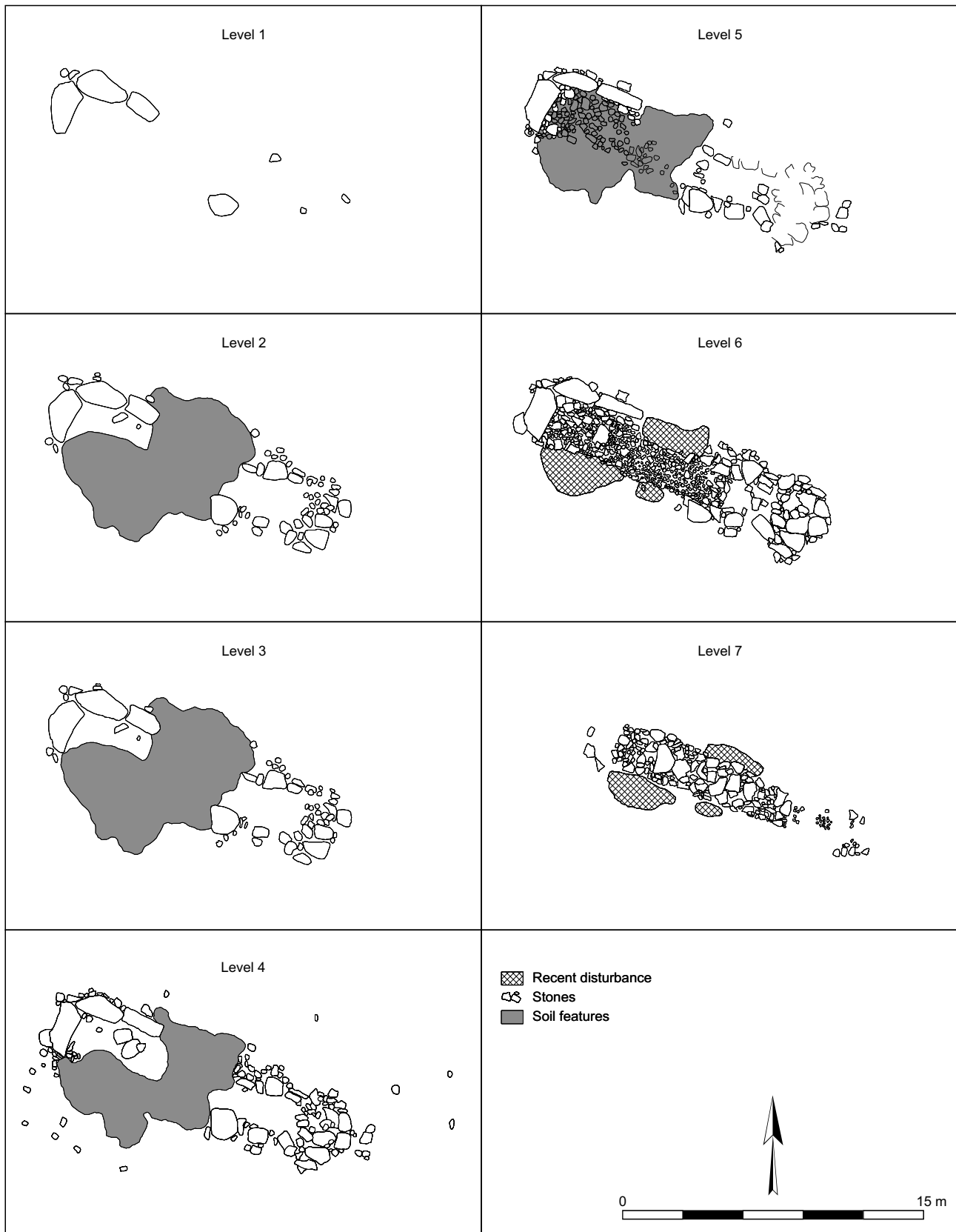


Fig. 5. The ground plan of the stone cist as documented in a series of excavation plans (S. Jansen/E. Bolhuis, RUG/GIA).

Table 1. A comparison of the Heveskesklooster stone cist with TRB West Group counterparts.

Name	Size (m)		Maximum stone size (cm)	Orientation	Surface/Dug in	Stone packing	Cobble floor
	Length	Width					
Diever	3,5	0,8-0,9	60	ENE-WSW		Present	Present
Fehrenbruch-16	1,9	0,6-0,8	80	W-E	Dug in		Probably present
Granstedt-31A	2,1	1,1	75	NNE-SSW			Partially present
Granstedt-31B	1,3	0,6	55	NNE-SSW			Present
Gudendorf-9a	2,4	0,5	Unknown	NNW-SSE			Present
Hooghalen-5	3,5	1,5	Unknown	W-E			
Lindern	3,8	1,6	180	ENE-WSW		Present	Absent
Soderstorf-28	2,5	1,4	115	W-E	Dug in		Present
Warstade-Wedelsforth-23	2,8	0,9	60	NNE-SSW			Absent
Rijs-F1	4,5	1,2	60	W-E	Dug in	Present	Present
Heveskesklooster	3	0,8	85	WNW-ESE	Dug in		Present

Table 1 continued.

Name	Burial mound	Finds		Primary literature
		Chamber	Wall	
Diever	Possible	Five funnel beakers, several sherds, 3 axes, three points, two flakes, one axe fragment, two strike-a-lights, two hammer stones, one amber bead		Van Giffen 1930
Fehrenbruch-16	Present	Funnel beaker sherds, possibly cremation remains		Sprockhoff 1930
Granstedt-31A	Present	One undecorated vessel, two flint axes, three points		Tempel 1984
Granstedt-31B	Present	One flint axe, one amber bead		Tempel 1984
Gudendorf-9a	Possible	Two beakers, two flint axes, four points		Tempel 1979
Hooghalen-5	Absent	Several bowls, beakers and sherds, one flint flake		Bakker 1970; Kossian 2005
Lindern	Present	Five funnel beakers, dozens of sherds, nine points, three flint axes, two flint axe fragments, one amber bead, cremation remains		Pätzold 1958
Soderstorf-28	Possible	One flint axe		Häbler 1972
Warstade-Wedelsforth-23	Present	Two undecorated vessels, four flint axes, four points, two blades, two flakes		Aust 1972
Rijs-F1	Present	Dozens of sherds, four flint axes, eleven other flint tools		Lanting 1997
Heveskesklooster	Absent	Small sherds, flint debris	1 TRB beaker	This study

The size of the stones sets apart stone cists from their more megalithic cousins: most of the cists collected here are built of stones with a maximum dimension of less than 75 cm. The presence of capstones has not been attested for stone cists (suggesting a different roofing material), while they are typical elements of both passage graves and dolmens. The absence of stone cists with surviving capstones suggests that all stone cists were covered with wooden roofs, which may add a new criterion to the definition of a cist.

The analysis of the structural elements underlines the difficulty of identifying exclusive traits of the various tomb types. At the same time such analysis does indicate the existence of a stone cist tomb type, only to be recognised when various structural elements can be identified at the same time. As regards their dimensions, the

identified stone cists range from 1.3 to 4.5 m in length and are between 0.5 and 1.6 m wide. While orthostats are part of all stone cists, a cobbled floor is found in some but not all examples. The same holds true for the presence of a burial mound. No capstones have been attested for any of the monuments labelled as stone cists, which indicates that a roof of timber or other perishable material covered the chamber. The Heveskesklooster stone cist neatly fits the abovementioned characteristics. Though no burial mound could be attested, the tomb shares its dimensions as well as the presence of standing stones and a cobbled floor with most other stone cists. On the basis of the established features, the Heveskesklooster monument may therefore be labelled a fairly typical example of a stone cist.

4. FINDS

4.1 Pottery

A total of 128 sherds weighting over 5 g were selected for quantitative technological analysis. To gain insight into the different types of decoration, decorated sherds <5 g were analysed as well (N=36). Before describing the assemblage it is of importance to establish whether it can be attributed to a single cultural phase. If so, it is useful to ascertain whether any subgroups can be identified. This would allow an analysis focusing on, for example, individual potters or microtraditions. By contrast, if the assemblage consists of pottery from various cultural periods *and* not all sherds can be attributed to the cultural phases distinguished, such an analysis is of limited relevance.

The ceramic analysis is based on the descriptive system from Beckerman (2015). Table 2 gives an overview of the pottery assemblage. Three subgroups are identified. Subgroup 1 dates to the Funnel Beaker period and is defined by *Tiefstich* decoration. On the basis of its morphological characteristics one vessel was added to the Funnel Beaker subgroup. This archaeologically complete pot is reminiscent of Type VIII TRB funnel beakers as defined by Koch for Denmark (1998: 105-108). Like the other Type VIII vessels, the Heveskesklooster vessel has a straight neck, a similar rim and wall diameter and an accentuated shoulder. In Denmark, the Type VIII vessels are dated to c. 3200-2950 cal. BC. Subgroup 2 dates to the Corded Ware period (c. 2800-2400 cal. BC; Lanting & Van der Plicht 1999/2000: 79) and is defined by short-wave moulded decoration. The subgroups are not distinguishable by their technological characteristics. As a result, the remaining, undecorated sherds cannot be attributed to either of these two subgroups. These sherds will therefore be presented as a third subgroup in the analysis.

Wall thickness

The sherds from subgroup 1 vary in thickness from 4 to 8 mm. The thickness of the sherds that are attributed to subgroup 2 varies between 6 and 11 mm. The subgroup 3 sherds vary in thickness from 4 to 12 mm.

Tempering

In all three subgroups granite was used as tempering material. It is both red and white granite, with the two kinds never used in combination.

Surface treatment (exterior)

Pots in all three subgroups were finished with similar techniques. Almost all sherds show a smoothened or uneven surface.

Coiling

Several sherds have broken at the point where originally two coils were joined. In all three subgroups the coils were

mostly joined with the N-technique; some sherds were joined with the U-technique (Stilborg & Bergenstr hle 2000: fig. 5).

Colour

The process and atmosphere of pottery firing is reflected by the colour of the material, most clearly visible in sections of sherds. Within all three subgroups we can observe a predominance of sherds with a completely dark section, while many colour combinations are found in smaller numbers. This variability suggests that the potters did not aim for a specific colour.

Decoration

For this variable, 36 sherds <5 g were included in the analysis. A total of 53 sherds were decorated. The small size of the decorated sherds precludes analysis of any relation between decoration type and pottery forms (see fig. 6). It is evident that both typical Funnel Beaker and Corded Ware ceramics are present. Other decoration types are not specifically associated with either of these cultural groups.

Morphology

Morphological evidence is limited to a vessel which is sufficiently complete to allow a reconstruction of its form. It is interpreted as a beaker from the Funnel Beaker culture. There are also three fragments of flat bases.

Use

The use of the Heveskesklooster assemblage is difficult to reconstruct. The only evidence of use is the presence of food crusts on eight sherds, which indicates that (some) pots were used as cooking vessels before their remnants were left behind. The archaeologically complete TRB pot was found in sherds amongst the southern orthostats.⁴ This suggests that the pot had a function during a burial or subsequent memorial ritual. This type of deposition is undocumented from the TRB West Group, but has been noted for Danish TRB burials in passage graves and dolmens (Kjaerum 1969).

4.2 Flint⁵

This section describes the flint from Heveskesklooster. We should bear in mind that there is much uncertainty regarding the representativity of the assemblage, as it is unknown whether the spoil was sieved systematically. Hence, there is the possibility of bias with an overrepresentation of larger artefacts. The assemblage consists of a total of 591 pieces of flint, of which 459 are larger than 1 sq cm and have been described individually. The majority of these (N=433; 94%) constitute production waste; tools make up almost 6% of the assemblage (N=26).

Table 2. The pottery assemblage. Section colours (outside-core-inside): 1= light colour; 2= dark colour. Decoration types: 1= wave moulding; 2= fingertip impressions; 3= large spatula impressions; 4= small spatula impressions; 5= groove lines; 6= *Tiefstisch*; 7= *Tiefstich* or cord decoration; 8= *Tiefstich* or small spatula impressions.

Group	Number	Wall thickness (mm)										Tempering			Surface			Coiling		
											Red granite	White granite	None visible	Smooth	Uneven	Rough	U-technique	U/N-technique	N-technique	
		4	5	6	7	8	9	10	11	12										
TRB	5	1	2		1	1					1	3	1	2	1			1		
CCW	23			2	7	6	3	1	4		2	20	1	6	14	1	1		2	
Unknown	100	2	13	23	18	16	11	5	3	1	8	87	5	44	43	2	1		18	

Table 2 continued.

Group	Number	Colour								Decoration type								Food crust
		111	112	121	122	212	221	222	1	2	3	4	5	6	7	8		
TRB	5				1			4						4				1
CCW	23	2	1		1		1	17	23									1
Unknown	100	14	3	5	7	1		66		6	1	3	10		1	5		6

Raw material

Most of the material consists of average quality flint, ranging in colour from light to darker grey. This flint seems to be of local origin, more specifically from glacial till deposits. However, two pieces of high quality flint have been found that are bluish-grey in colour with grey spots throughout. This type of flint is best classified as Scandinavian Senonian flint (Högberg & Olausson 2007). Although Scandinavian Senonian flint frequently occurs in boulder clay deposits in the northern Netherlands (Beuker 2010), these particular pieces are most probably not of local origin, given certain technological traits (see below). Remains of cortex are present on 118 pieces (the coverage of cortex for individual pieces has not been further specified). This high proportion of flint artefacts with cortex seem to indicate that the nodules used were of modest size, which is in line with the presumably local origin of the flint.

Burnt material

A small proportion of the material (N = 66; 14%) shows signs of burning. The degree to which the pieces are burnt has not been further specified for the current analysis.

Blanks and technology

Judging by the size and quality of the artefacts, the core-reduction strategies seem to have been influenced by the material that was locally available. Local flint resources are of mediocre quality (Beuker 2010) and the raw materials were not suited for the production of blades. In fact, blade production seems to be lacking altogether in the Dutch TRB, whilst flakes appear to have been produced in a rather *ad hoc* fashion (table 3). Hard-hammer percussion was the dominant method of core reduction (table 4).

Table 3. The primary flint classification.

	Number	Percentage
Flake	308	93,9
Blade	10	3,05
Core	10	3,05
Total	328	100

Table 4. Technological flint characteristics.

	Number	Percentage
Hard-hammer percussion	144	77,4
Indirect percussion	41	22
Pressure flaking	1	0,6
Total	186	100

Two flakes deserve special attention (fig. 7). Both are large and fan-shaped, the percussion bulbs are well pronounced and the dorsal sides show scars of carefully removed flakes. A small lip at the ventral edge of the striking platform, combined with the pronounced bulb points to the application of indirect percussion. This type of flake is attributed to the production of flint flat axes (*Flachbeile*; Vemming Hansen & Madsen 1983; Beuker 2010). Local production of such axes has not yet been attested in the Netherlands (Beuker 2010). Hence, if this type of axe was exclusively imported during the Funnel Beaker period, the question arises as to why two large flakes connected with axe production should be present in Heveskesklooster. It is possible that they were imported as flakes, but the case may also be that they represent the reworking of imported tools.

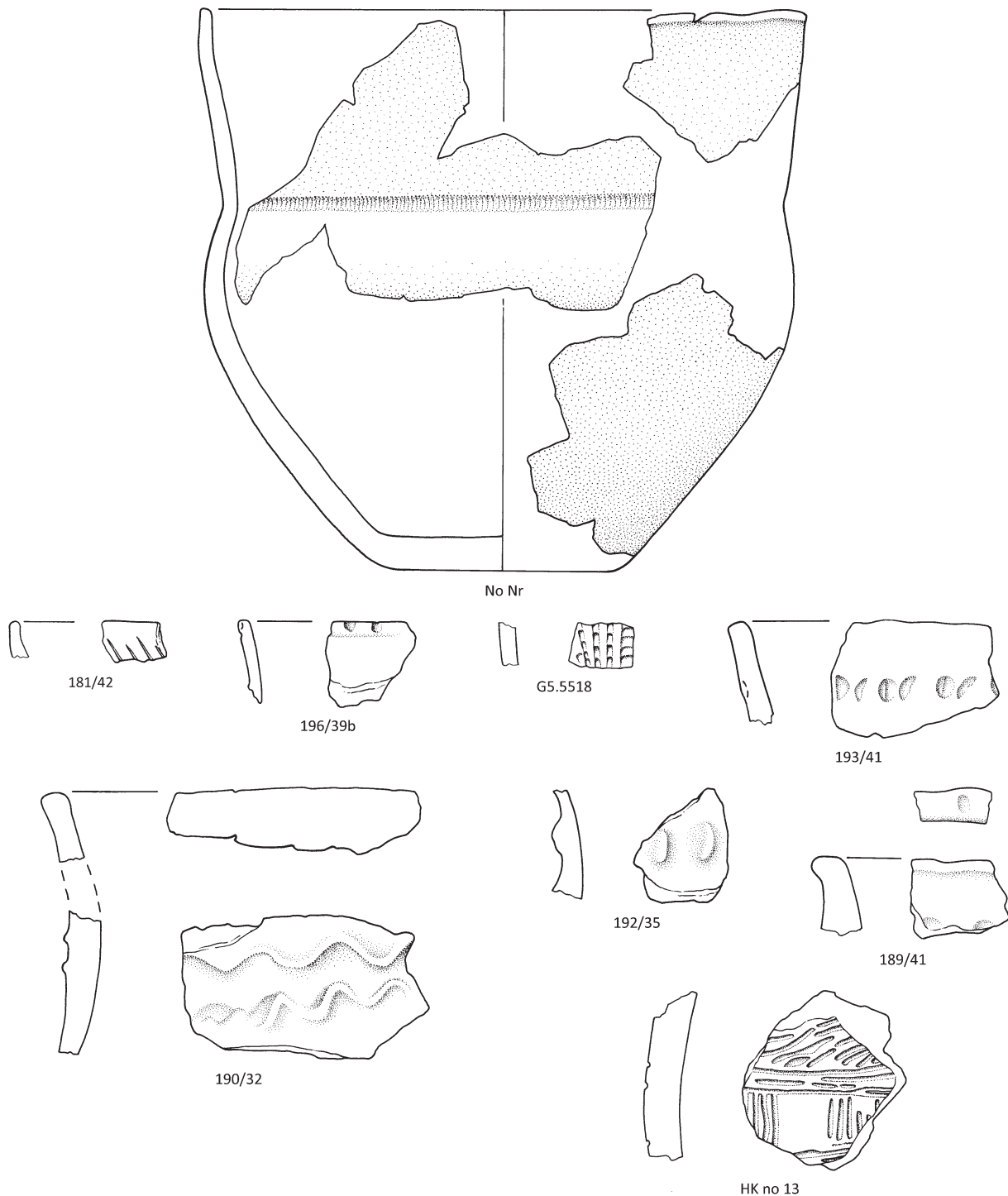


Fig. 6. The pottery. Funnel beaker (no find nr.), spatula impressions (181/42 and 196/39b), *Tiefstich* (G5.5518), fingertip impressions (193/41 and 189/41), short-wave moulding (190/32 and 192/35) and groove lines (HK no 13) (drawings H.K. Kamstra/D.C.M. Raemaekers/M.A. Los-Weijns, RUG/GIA).

Tools

The tool spectrum provides little evidence of the chronological composition of the Heveskesklooster assemblage (table 5 and fig. 8). Of the nine scrapers, two are burnt and fragmented due to heating. The scrapers' diameter varies from 21 to 28 mm. All nine are made of flakes whose bulb of percussion is still present and which were retouched in an irregular fashion. This fits an *ad hoc* production

strategy. The scrapers are difficult to date: on the basis of their morphology and technology they might derive from the period Mesolithic to Bronze Age. Two blades are retouched along their lengths and measure 51 x 13 and 31 x 10 mm. Blades of this size are unusual for the Funnel Beaker period in the Netherlands, which suggests that the two blades possibly date to another period. The ten transverse arrowheads vary significantly in size and shape.

Table 5. The flint tool spectrum.

	Number	Percentage
Scrapers	9	34
Retouched blades	2	8
Transverse arrowheads	10	38
Other arrowheads	2	8
Polished axe fragment	1	4
Tool indet.	2	8
Total	26	100

Table 6. Length-width indices for the transverse arrowheads.

	Length-width index
183/44	1,31
VNR176	1,62
199/46	1,17
191/42	1,54
190/32	1,08
VNR173	2,2
196/39B	1,07
VNR181	1,17
193/41	1,11
196/37B	1,67

The variation is best summarised using the length-width index (table 6). The mean length-width index is 1,39 ($\sigma = 0,36$). Both symmetrical and asymmetrical arrowheads are present, but most ($N=7$) are symmetrical in shape. The transverse arrowheads are dated to the TRB period. Two arrowheads are very different in size and shape. VNR146 shows a concave base, all-over regular retouch and a slightly curved triangular shape, of which the top is missing. It can be dated to the Bronze Age. VNR150 is more difficult to determine; its elongated shape and all-over retouch suggest that it might be a blade arrowhead of some sort. However, the retouch is coarse and almost absent on the ventral side. This suggest its use as a small blade. A single small fragment of a polished axe was also present; this fragment is attributed to the TRB-Late Neolithic period. Lastly, a couple of unusual-sized 'arrowheads' were found at the site. The label 'arrowhead' is maybe misleading, as the objects are merely reminiscent of transverse arrowheads. Maybe these are 'imitations'? Whether we are dealing with objects for instance ritual purposes, or with items made by inexperienced flint knappers, remains uncertain. Future study of

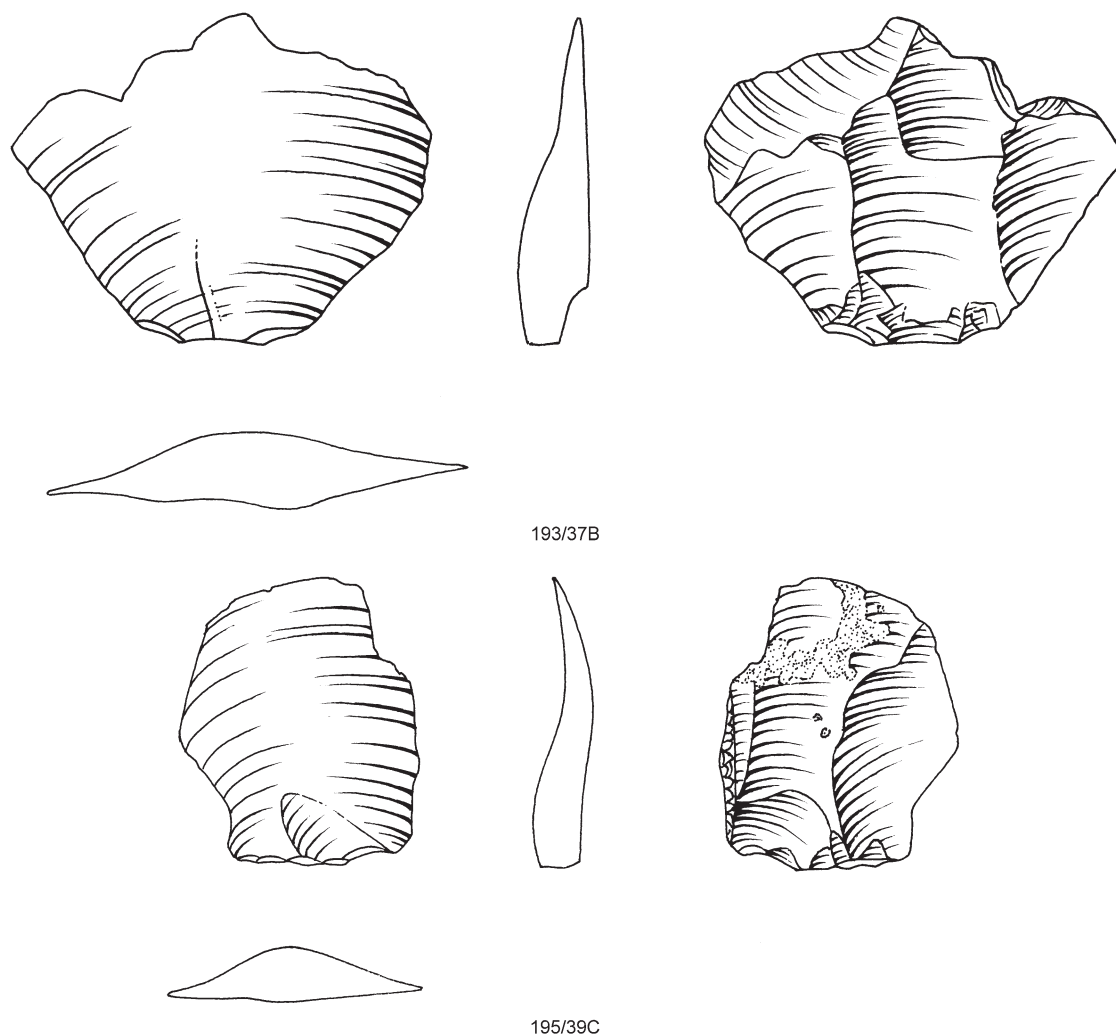


Fig. 7. Two flakes resulting from axe production (drawing H.K. Kamstra/M.A. Los-Weijns, RUG/GIA).

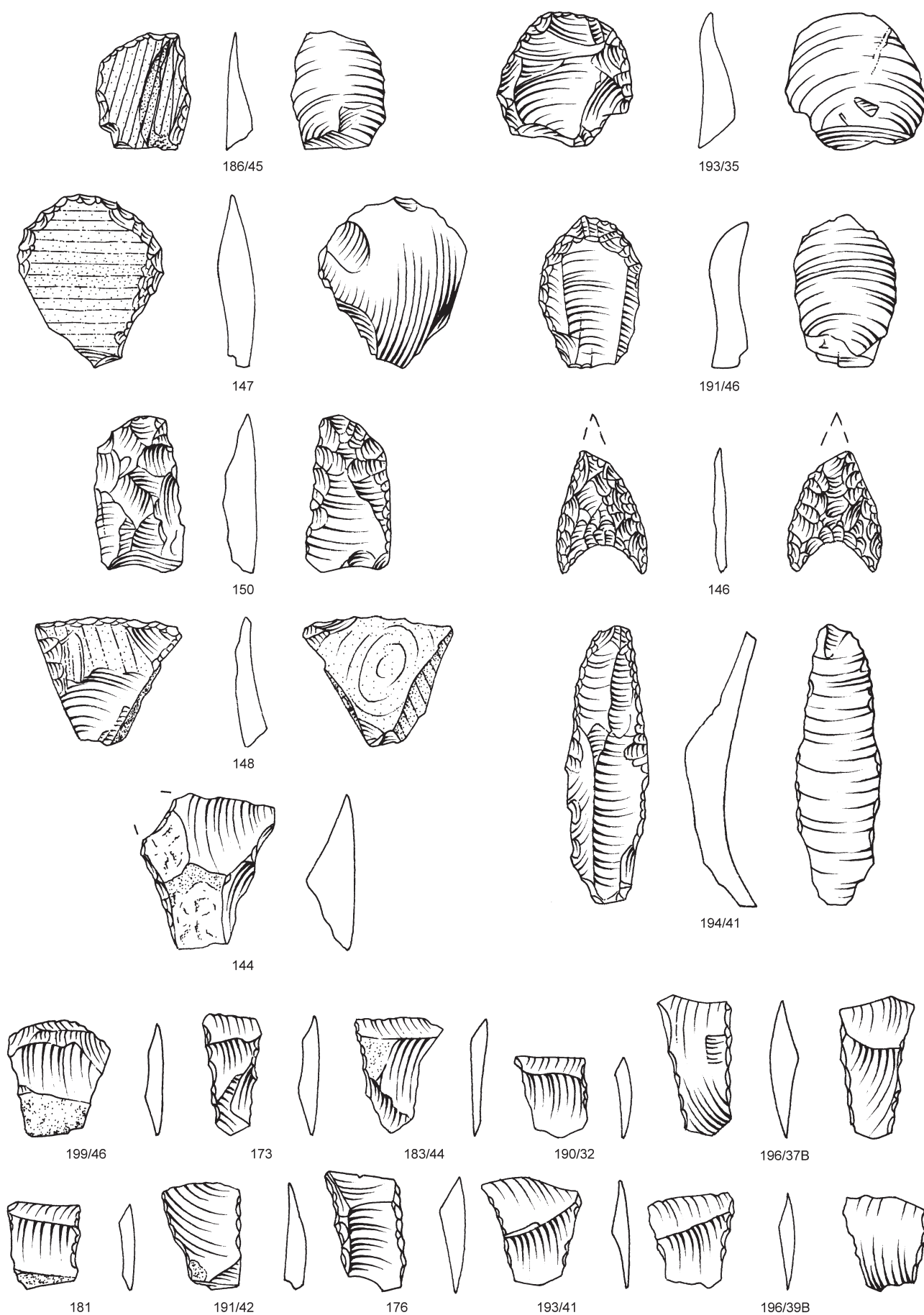


Fig. 8. The flint tools. Scrapers (186/45, 193/35, 147 and 191/46), arrowheads (150 and 146), large transverse arrowheads (148 and 144), blade with use retouch (194/41) and transverse arrowheads (remaining numbers) (drawings H.K. Kamstra/M.A. Los-Weijns, RUG/GIA).

Table 7. A comparison of the Heveskesklooster flint assemblage with various Dutch TRB flint assemblages.

Location		Artefacts			Tool spectrum (n)			
		Tools	Rest	Tool%	Arrowheads	Scrapers	Axes	Other
D6a-Tynaarlo	Megalithic tomb	37	81	31	15	2	6	14
D9-Annen	Megalithic tomb	53	2	96	11	0	4	38
D28-Buinen-Noord	Megalithic tomb	54	81	40	37	3	2	12
D32a-Odoorn-Westeres	Megalithic tomb	117	333	26	83	6	1	27
D43a-Emmeres	Megalithic tomb	189	448	30	67	5	1	23
G2-Glimmeres	Megalithic tomb	160	1114	13	119	11	4	26
Anloo	TRB settlement	272			2	265	1	4
Helpermaar	TRB settlement	687	15245	5	9	505	33	140
Angelslo-Emmerhout	TRB settlement	53			1	51	0	1
Valthe	TRB settlement?	56	687	8	3	13	21	19
Heveskesklooster-stone cist		26	328	7	12	10	3	1

Table 7 continued.

Location		Tool spectrum (%)			Primary literature
		Arrowheads	Scrapers	Axes	
D6a-Tynaarlo	Megalithic tomb	41	5	16	Brindley et al. 2001-2002
D9-Annen	Megalithic tomb	21	0	8	De Groot 1988
D28-Buinen-Noord	Megalithic tomb	69	6	4	Van Giffen 1943
D32a-Odoorn-Westeres	Megalithic tomb	71	5	1	Taayke 1985
D43a-Emmeres	Megalithic tomb	70	5	1	Molema 1987
G2-Glimmeres	Megalithic tomb	74	7	3	Brindley 1986
Anloo	TRB settlement	1	97	1	De Vries 2013
Helpermaar	TRB settlement	1	74	20	Fens <i>et al.</i> 2012
Angelslo-Emmerhout	TRB settlement	2	96	2	De Vries 2013
Valthe	TRB settlement?	5	23	34	Fens & Arnoldussen 2015
Heveskesklooster-stone cist		46	38	12	This study

any use-wear traces may provide more insight into the purpose of these objects.

Comparison

The flint assemblage is the most promising aspect of the excavation for assessing the use of the area surrounding the stone cist. The proportion of tools in relation to the rest of the assemblage will reflect the balance between tool production (debris) and tool use and abandonment (tools), while the tool spectrum reflects the relative importance of specific functions. Both approaches were studied by comparing the Heveskesklooster assemblage with various other TRB assemblages (table 7).

The primary classification into tools versus the rest presents a wide variety, perhaps partly as a result of differences in excavation techniques. Nevertheless some meaningful patterns seem to emerge. As a group, the megalithic tomb assemblages are characterised by a low proportion of debris; by contrast, the settlements have a high proportion of debris. When the focus lies on the recovered tools, the megalithic tombs are marked by a high proportion of arrowheads while the settlements are dominated by scrapers. In both analyses the Heveskesklooster flint assemblage is more similar to those from settlements than from megalithic tombs, which suggests that the Heveskesklooster assemblage should not be interpreted as a cleared-out burial assemblage. Intriguingly, Heveskesklooster is most like Valthe in terms of the tool proportion and the proportion of scrapers in the tool

spectrum. The Valthe assemblage derives from a one-hectare area directly south of two megalithic tombs, a setting very similar to Heveskesklooster (Fens & Arnoldussen 2015). For now it is concluded that both Heveskesklooster and Valthe indicate that a bipartite classification of TRB flint assemblages into burial and settlement contexts may be too simple.

4.3 Stone

The number of stone finds is limited to a single broken *Fels-Rechteckbeil* of type A (fig. 9; Brandt 1967: 140-150), of which two fitting fragments were found c. 5 m apart. Both the original tool surface and the break surfaces are heavily abraded. Use-wear traces are therefore not visible, and it is unknown whether they were present originally. The fact that the break surfaces are just as weathered as the tool indicates that the broken axe must have been lying on the surface for a significant time before being covered by a final clay deposit. The axe has a length of 181 mm, a width of 73 mm and a thickness of 42 mm, and is made of a fine-grained gneiss-granite.⁶ The use of gneiss-granite is curious: its hardness and lack of shock-absorption make the material prone to breakage.⁷ Hence the question is whether this axe was a functional tool.

Brandt (1967: 144-145) presents similar axes from northwest Germany. The few that derive from excavations make clear that a date in both TRB and Corded

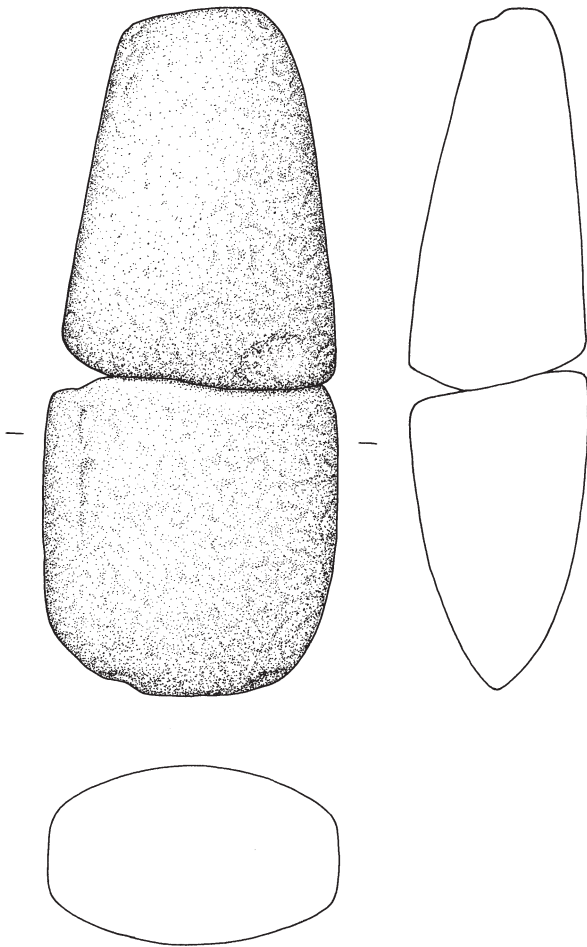


Fig. 9. The stone axe (drawing H.K. Kamstra/M.A. Los-Weijns, RUG/GIA).

Ware times is possible. Find contexts include TRB megalithic graves (with younger ceramics among the assemblage), Corded Ware burial mounds and a TRB stone cist. As a result, it is impossible to date the Heveskesklooster axe more precisely than to the TRB-Corded Ware period.

4.4 Amber

Two complete beads are made out of amber (fig. 10). One is elongated and measures 21 x 8 x 6 mm, and is perforated at its broadest end. The other bead is disc-shaped and has a maximum diameter of 15 mm, and thickness of 6 mm. Its perforation is slightly off-centre. Amber beads (as well as pendants) are known from many Neolithic cultural contexts (Swifterbant; TRB; Corded Ware), and from graves in particular. The recently excavated TRB cemetery at Dalfsen contained several flat graves yielding such amber objects.⁸ Late Neolithic examples come from flat graves discovered near Hattemerbroek (Drenth & Meurkens 2011). In the case of Heveskesklooster the amber beads cannot be dated more closely than to the TRB-Corded Ware period.



Fig. 10. The amber beads; see the text for dimensions (photo J. Schokker, Noordelijk Archeologisch Depot, Nuis).

5. THE USE OF SPACE

The use of space was analysed on the basis of the pottery and flint finds from the squares. The ceramics reveal a random spread of material with a quasi-concentration within the zone that was excavated in detail (fig. 11). The close searching in this area resulted in a relatively high proportion of squares with low sherd weight as compared to the more extensively excavated zone. It was concluded that there is no correlation between the stone cist and ceramic density. The three *Tiefstich*-decorated sherds were found scattered across the excavated area, while the sherds with short-wave moulded decoration were mostly concentrated in the squares with the highest weight of ceramics. This spatial correlation between sherds with short-wave moulded decoration and sherd weight per square suggests that the ceramic concentration was formed predominantly during the Late Neolithic.

The flint artefacts too were found scattered across the excavated area (fig. 12). Again, the central zone contained a smaller proportion of empty squares as a result of the more detailed excavation strategy there. The flint tools show a similar random pattern, being also scattered across the excavated surface.

The burnt flint artefacts follow the general random pattern (fig. 13). There are no apparent concentrations that might betray the location of a fire. The conclusion is that there is no correlation between the stone cist and flint density.

When all spatial evidence is combined, it is clear that the find material does not reveal any spatial correlation to the stone cist, with the exception of the TRB pot which was found amongst the southern orthostats. This suggests that the observed spatial patterning provides no evidence of avoidance of the stone cist area, or, indeed any restriction of activities to specific zones near the stone cist. Nevertheless, the flint assemblage suggests that the

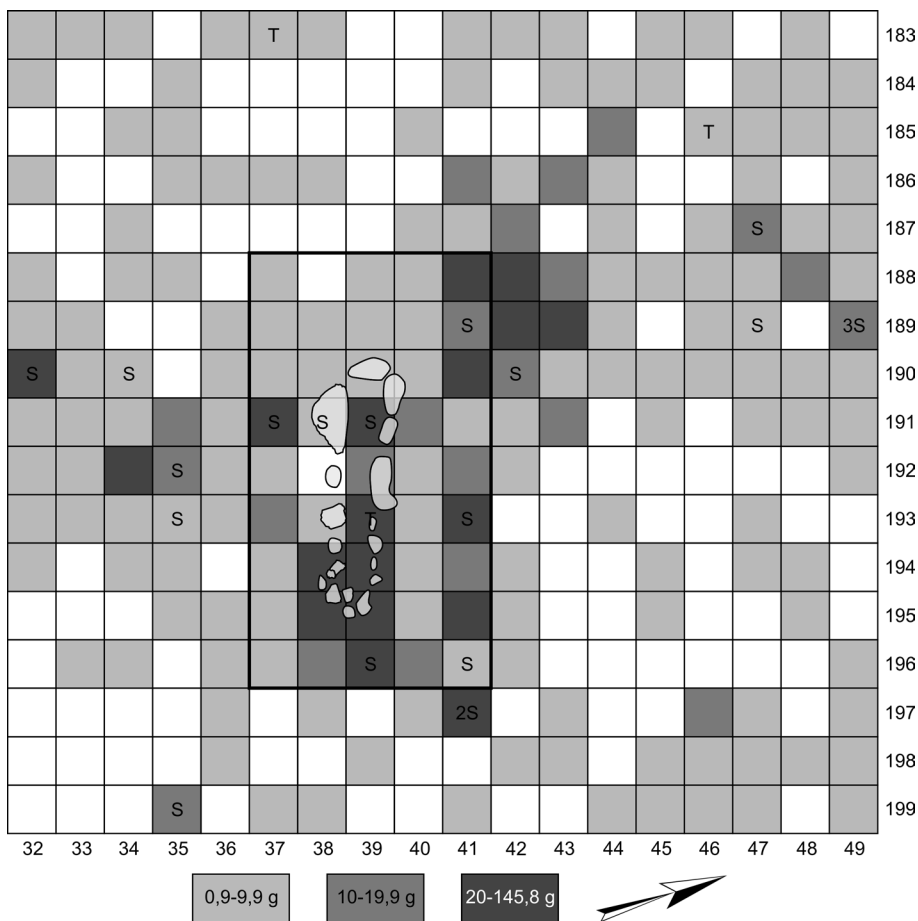


Fig. 11. The spatial distribution of the ceramics; weight in g per square. T indicates sherds with *Tiefstich* decoration; S indicates sherds with short-wave moulded decoration (figure H.K. Kamstra/D.C.M. Raemaekers, RUG/GIA).

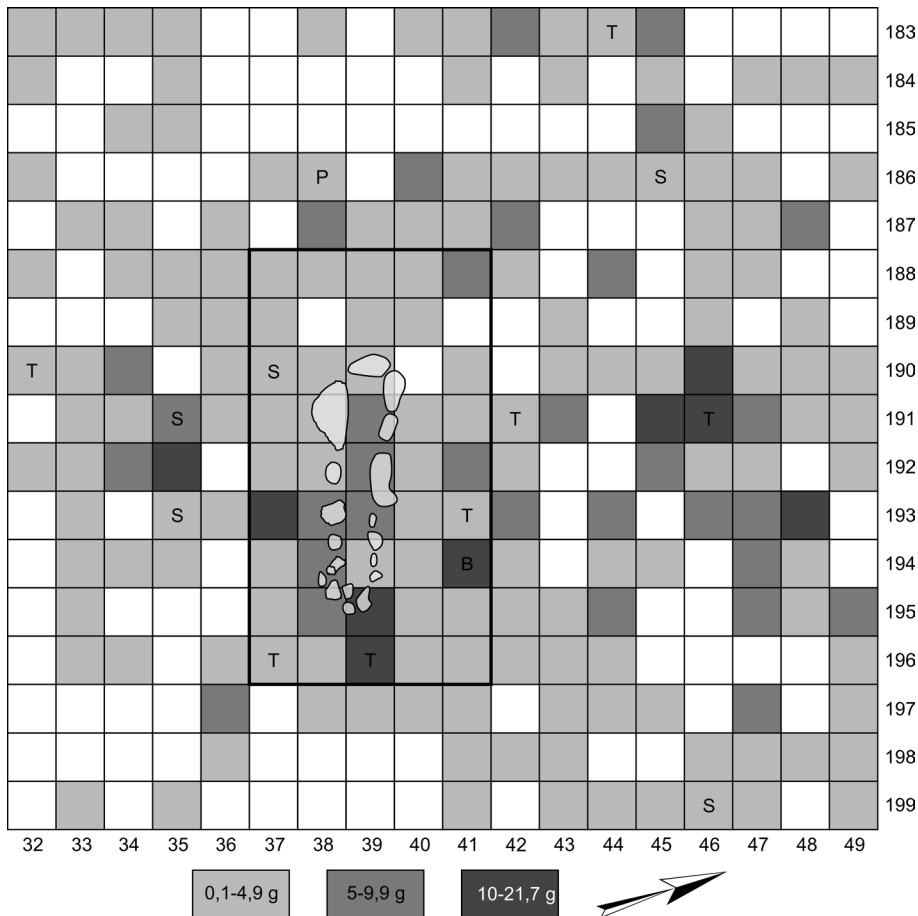


Fig. 12. The spatial distribution of the flint artefacts; weight in g per square. B = blade with use retouch; P = fragment of polished axe; S = scraper; T = transverse arrowheads (figure H.K. Kamstra/D.C.M. Raemaekers, RUG/GIA).

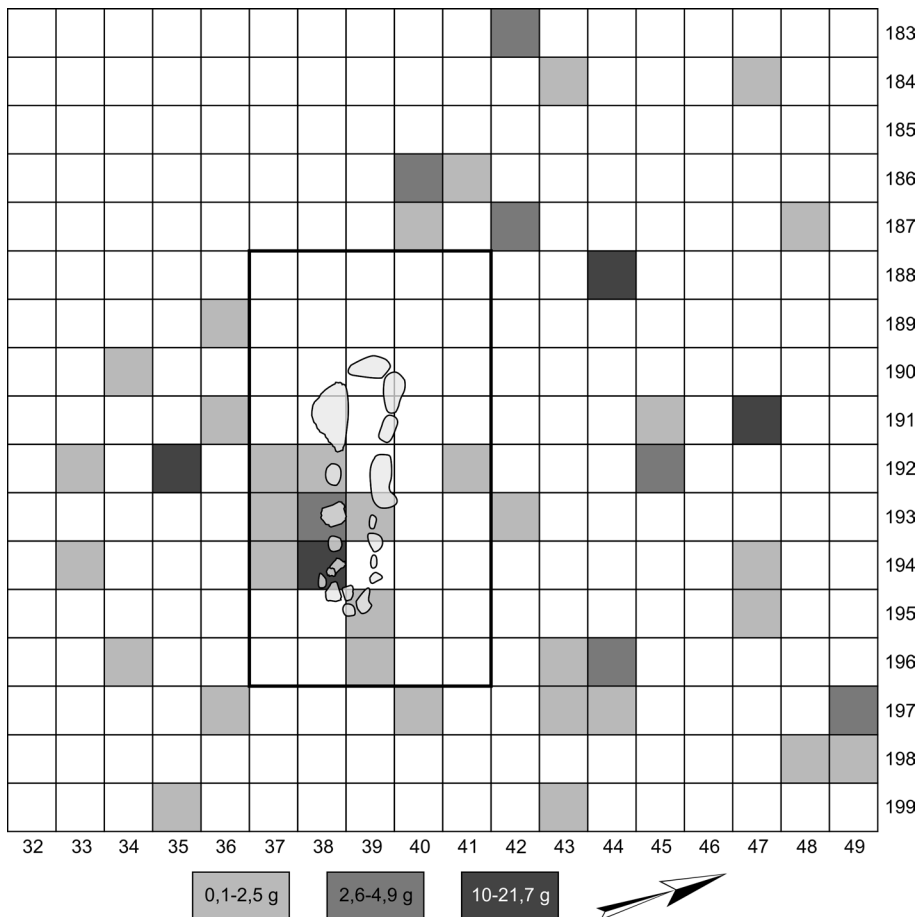


Fig. 13. The spatial distribution of the burnt flint artefacts; weight in g per square (figure H.M. Kamstra/D.C.M. Raemaekers, RUG/GIA).

activities that were carried out in the area surrounding the stone cist where neither typical settlement activities nor activities typically associated with megalithic tombs.

6. CONCLUSIONS

The stone cist is a TRB tomb type that has received little attention compared to the more impressive megalithic monuments. A rare exception to this rule is Kossian's 2005 monograph. It is concluded here that the TRB stone cist is a tomb that shares features with passage graves, dolmens and flat graves. At the same time, the combination of characteristics does define it as a type of funerary monument and sets it apart from the other types.

The Heveskesklooster stone cist is a remarkable find because it presents a rare opportunity for studying the use of space surrounding the monument, in theory from before the cist's construction until the site was covered with blanket peat during the Late Neolithic. While no finds clearly date to the period before the cist construction, it cannot be excluded that some of the ceramic and flint artefacts predate this event. The stone cist was probably built between 3200 and 2950 cal. BC, a date based on the morphology of the TRB beaker. The flint assemblage testifies to the activities that took place in the area surrounding the stone cist. Although the date of these

activities is difficult to correlate with the stone cist, it seems that these took place during both TRB and later Neolithic periods. The flint assemblage cannot easily be fitted into a bipartite division between ritual and mundane activities and use-wear research may yet help to compare the use of the recovered tools (especially arrowheads and scrapers) with tools from other TRB sites. Van Gijn (2010: 129-136, 175-177) remarks that flint tools found in megalithic tombs often display wear that resulted from scratching with other flint artefacts. This phenomenon is not observed on flint tools from TRB settlements. She also studied six flint tools from the stone cist of Diever and found similar scratch marks there. One can only guess at what the outcome of a use-wear analysis of the Heveskesklooster flint tools might be.

Compared to other TRB stone cists, the Heveskesklooster stone cist yielded few chamber finds (table 2). This is the first indication that later inhabitants of the site may have disturbed the content of the burial. Another hint can be found in the absence of some of the orthostats. Apparently these were moved as an act of demolition or to be reused elsewhere. Both observations suggest that by their behaviour the Late Neolithic inhabitants of Heveskesklooster did not value the stone cist burial as an ancestral place, but instead went so far as to desecrate it.

Interestingly, Corded Ware communities display varied responses to TRB monuments. Apart from acts of

desecration, as evident at Heveskesklooster, we also see signs of appropriation, as when vessels were added to the inventory of various Dutch megalithic tombs (e.g. D30-Exloo Noord; D40-Emmerveld Zuidooost (both in Brindley & Lanting 1991/1992); and D53-Havelte West (Van Giffen 1951)). An indifferent attitude towards ancient monuments may be a third option: surface finds from megalithic tombs D20-Drouwen Zuid and D26-Drouwenerveld did not yield any Corded Ware finds, albeit that only a small number of sherds are known from these two sites. It appears that local Corded Ware communities had quite varying notions about the relevance of TRB monuments to their sense of ancestry and identity.

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NOTES

- 1 This was noted at the excavation of megalithic tomb O2-Mander
(Lanting & Brindley 2003/2004: fig. 12).
- 2 Lab. Nr = GrN 11969. The precise depth of the sample is uncertain.
As the sample location was not recorded in the field drawings, only
secondary evidence is at hand. The field drawings indicate that the
top of the Pleistocene sand was located above 2.0 m –NAP; the ¹⁴C
form does not mention the depth of the sample, and the internal lab
form mentions 2.14 m –NAP (pers. comm. E. Meijles 2015).
- 3 The types of stone used were not analysed. The Heveskesklooster
stone cist is part of the permanent exhibition at the Hunebedcen-
trum (Borger). This type of analysis is therefore possible at any
future date.
- 4 Pers. comm. J.N. Lanting (Groningen) 2015.
- 5 A total of thirteen flint scrapers of various shapes and sizes labelled
'Heveskesklooster Groningen' were omitted from the current an-
alysis, because it could not be established whether they belonged to
the stone cist or the dolmen.
- 6 Pers. comm. H. Huisman (Groningen) 2016.
- 7 J. Beuker (Drents Museum) has no knowledge of any stone axes
made from this source material.
- 8 Excavation by the Archeologisch Dienstencentrum (ADC), Amers-
foort. The excavation results have not yet been published.

