THE HEIBLOEM, A CEMETERY FROM THE LATE BRONZE AGE AND EARLY IRON AGE BETWEEN VELDHOVEN AND STEENSEL, PROV. NOORD-BRABANT

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This cemetery has drawn the attention of archaeologists since 1844. Except for one Early Bronze Age postcircle all traces can be dated between 1000 and approximately 500 B.C. Long, rectangular, and circular ditches were found, which together with the pottery proves that the cemetery was in continual use for several centuries.

Introduction

Since 1844 archaeological finds have been made on an area situated to the south-east of the main road from Veldhoven to Steensel on both sides of the border between the municipalities of Veldhoven and Eersel (fig. 1). The material from this field shows the presence of an extensive cemetery of the Late Bronze Age and the beginning of the Iron Age. The site is called the Heibloem after a brick factory on the oppo-

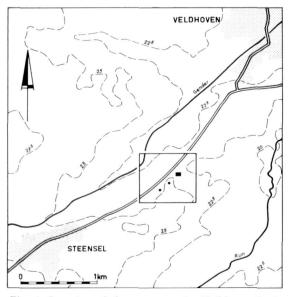


Fig. 1. Location of the cemetery the Heibloem. Scale $1:50\ 000.$

site side of the road. The Steenselsche Hut, an old farmhouse in the vicinity, also served to indicate the location of the site (fig. 2).

The most recent research was made in 1957 by the first author as a member of the staff of the R.O.B. (State Service for Archaeological Investigations in the Netherlands) in close collaboration with Mr. G. Beex, a member of the Archaeological Commission of the Provincial Society for Art and Sciences. Before publishing the results, it seemed worthwhile to collect older data. This the second author undertook. This publication then makes available for the study of prehistory all the data from this cemetery.

The landscape

At the time of the first excavations, by P. N. Panken in 1844, the terrain was mainly under heather and was part of the Heersche Heide (Heers' Heath). Panken, who was already acquainted with archaeology in the field, could easily recognize a number of barrows in this open landscape. He gave an exact description of these investigations in his article (Panken, 1844).

Since modern times, the region has been almost completely under forest. The cemetery is situated on a circa 1 km wide ridge consisting of loamy, fine sand deposited by wind. The relief is slightly undulating as is typical for these

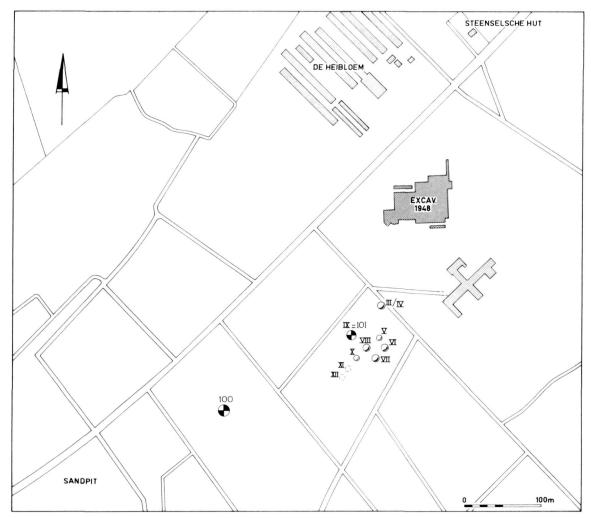


Fig. 2. Situation of barrows and excavations of the cemetery the Heibloem. Scale 1 : 5000.

so-called coversands. The ridge is orientated N.E.-S.W. between the rivulets Gender and Run (fig. 1). The cemetery is found on the northern half of the sandridge, which slopes down to the Gender comparatively steeply. To the south there are minor dunes, which were described by P.N. Panken as 'hills formed by nature'.

Investigations of the cemetery

We are acquainted with the following activities undertaken in the cemetery. As in so many of these cases there will have been more activities but being of a private nature, they have been lost.

1844: P. N. Panken recognizes the barrows

and investigates quite a number. See below. 1909: J. H. Holwerda and M. A. Evelein from the Rijksmuseum van Oudheden (National Museum of Antiquities) at Leiden pay a visit to the cemetery. They decide not to excavate as most of the barrows have been greatly damaged.

Circa 1910: C. Rijken, headmaster from Veldhoven, re-examines the barrows as well as the 'plateau' area to the south. For further information, see below.

1910-191¹: During the digging of sand, finds are made which are approximately located. See below.

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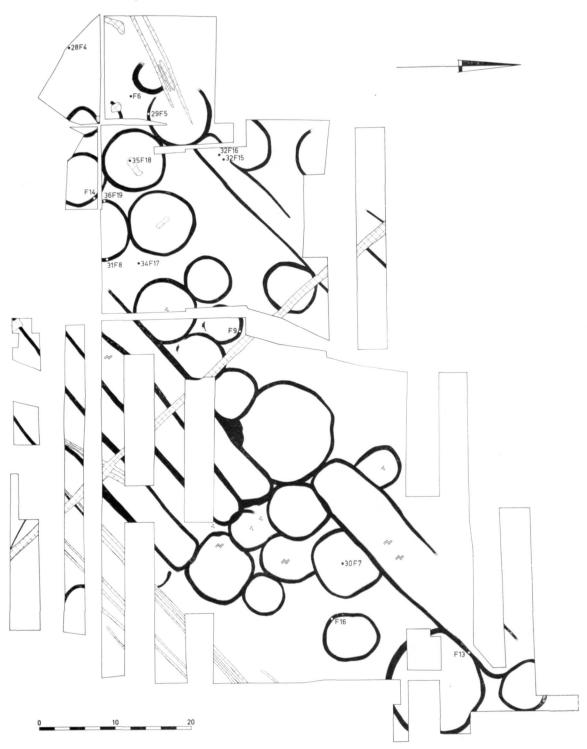


Fig. 3. Plan of the in 1948 excavated part of the cemetery the Heibloem. Scale 1 : 500.

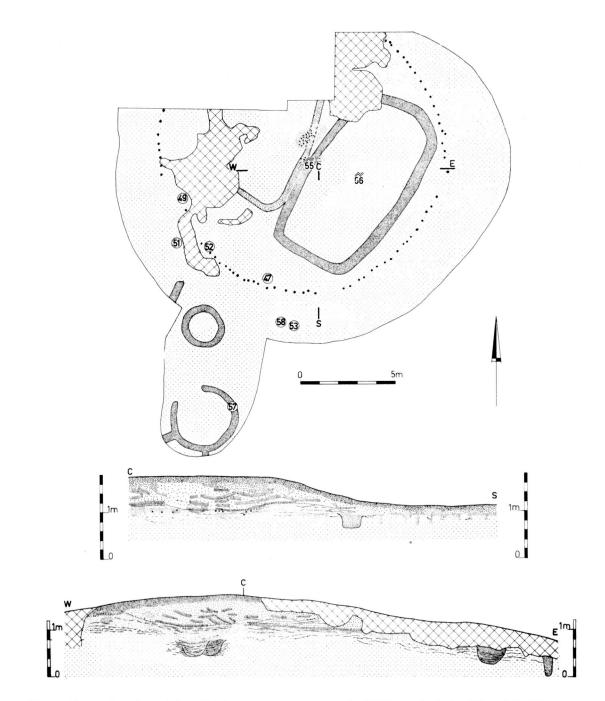


Fig. 4. Plan and sections of the 100th barrow at the cemetery the Heibloem. Scale 1:200 and 1:80.

1907-1913: The Rijksmuseum van Oudheden at Leiden receives from C. Rijken and J. N. A. Panken many urns, including some from Veldhoven and Steensel. Some of them are from our cemetery, but which ones could not be detected with sufficient certainty for publication.

1948: Prof. Dr. A. E. van Giffen, Director of the R.O.B., decides to make a trial-excavation to rescue the cemetery. (figs. 2 and 3). This will be dealt with in more detail.

1953: Mr. J. P. Veerman from Eindhoven makes some finds in a barrow, which later was baptised the Hundredth because it is number 100 in the list of excavated barrows in the province of Noord-Brabant.

1957: The above mentioned excavation by Mr. G. Beex and the first author takes place. Two barrows (nos. 100 and 101) are investigated (figs. 2, 4 and 5).

We have omitted discussing all finds about which we could not obtain sufficient certainty as to their findspot; such as the cup with *Kerbschnitt* decoration mentioned by G. Beex (Brabants Heem 16, 1964, p. 88), and the acquisitions to the Leiden Museum between 1907 and 1913.

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The excavations

Panken 1844:

In 1844 Mr. P. N. Panken, walking from Steensel to Veldhoven, was struck by a group of very regular hillocks a thousand normal paces to the right of the dike (i.e. road) and 5 minutes westerly of the so-called Steenselsche Hut (fig. 2). One can find this hut on the Topografische en Militaire Kaart van het Koningrijk der Nederlanden, 1:50.000, sheet 51 III issued in 1853, which makes the location pretty well certain.

According to Panken (1844), the group of barrows consisted of 10 big and 3 small ones within a surface area of 150 by 70 strides running east-west. Some open space is described between the four most easterly barrows and the eleven (it must be nine) westerly barrows. In this open spot was a small waterwell. To the north and west more barrows could be distinguished but Panken did not investigate these.

Panken gives detailed data as to the situation of the barrows in relation to each other and about the hillocks themselves. At the present time a number of barrows is still in existence. After they had been mapped, we were able to compare their situation with Panken's description. Although some of the measurements are not exactly the same, we were able to correlate many of Panken's numbers with our own. The whole distribution pattern is so similar that any doubt can be excluded. On the map (fig. 2) the barrows are shown in their recent situation. In our opinion there is no doubt whatsoever that Panken's no. 9 is our no. 101. The barrows to the north, mentioned by Panken, are close to the field excavated in 1948. In a westerly direction, Panken also saw more barrows; one of which must be our number 100. Panken's nos. 1, 2, 3 or 4, 11, 12 and 13 and the well are lost.

As to the finds from 1844, several sources are at our disposal. The Provincial Museum at den Bosch contains a number of urns on which are three labels all of the same type, in the same handwriting and with the same discolouration. One gives: 'Steensel 1844 no. '; a second: 'Pl. V (or IV) no. ', refers to the publication by Hermans (1865), who summarizes the history of Panken's work on our site and who gives drawings of most of the objects. The third label savs: '1865 no. ' which refers to an inventory of that year or therabouts. All these data exclude any doubt as to the barrow where a certain urn was found.

In our findlist, added to this publication, under the numbers 1 through 10, the urns unearthed by Panken are described. In his publication he mentions that in the barrows 9 (our no. 101) and 12 nothing was found, whereas the urn from barrow 10 was lost when Hermans gave his summary in 1865.

Rijcken 1910:

Most of the barrows excavated by Panken were re-examined by C. Rijken in 1910. Furthermore he made some finds on 'a vast elevation of the ground to the south; where an old track separates both areas'. The finds from these Analecta Praehistorica Leidensia II

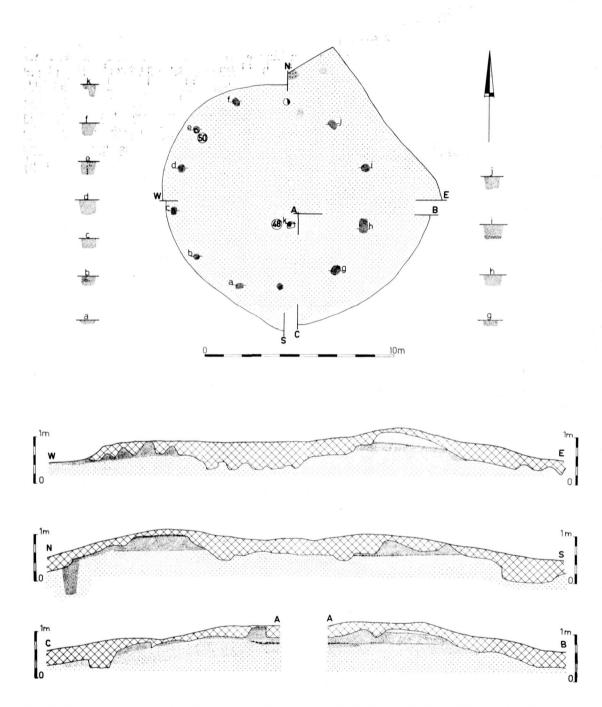


Fig. 5. Plan and sections of the 101st barrow at the cemetery the Heibloem. Scale 1 : 200 and 1 : 80.

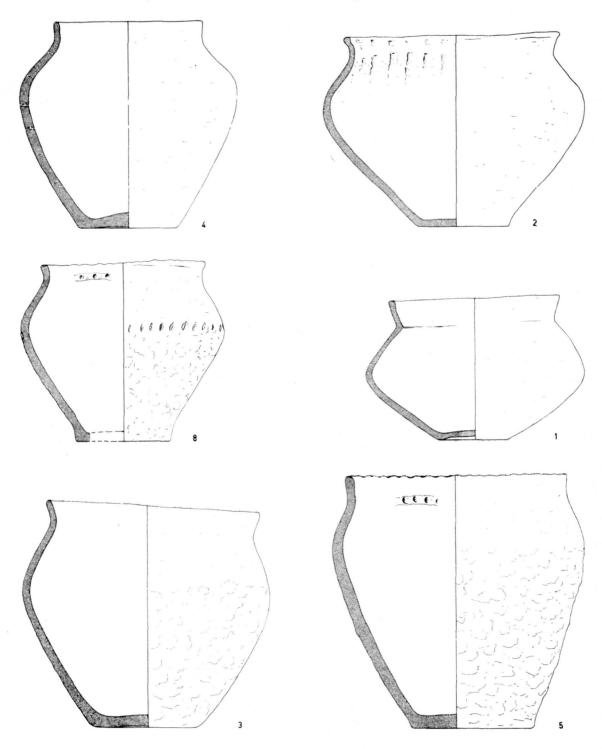


Fig. 6. Pottery from the cemetery the Heibloem. Scale 1 : 4.

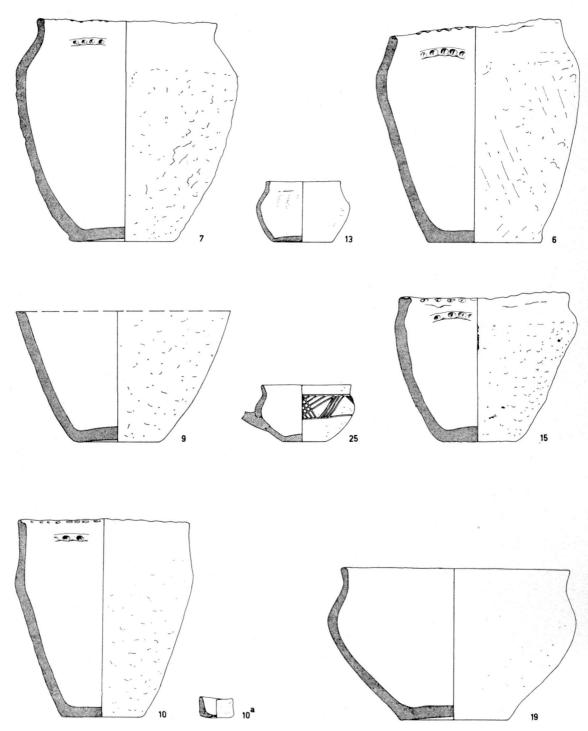


Fig. 7. Pottery from the cemetery the Heibloem. Scale 1:4.

investigations are for the most part in the Provincial Museum at den Bosch. In the catalogue of 1917 by J. H. Holwerda and J. P. W. A. Smit, the find circumstances are given but they are not very exact, as in shown in our findlist.

Tramway sandpit 1910-1911:

To the south of the road from Steensel to Veldhoven, sand was dug on an elevated parcel with some low hillocks for the construction of a tramway (fig. 2). Three finds came to the Provincial Museum in den Bosch (Holwerda, 1917). Only one could be traced by us *i.c.* no. 27 in the findlist. The findspot lies west of tumulus no. 100.

Excavation 1948:

In 1947 Prof. Dr. A. E. van Giffen, Director of the R.O.B., decided to make a cultural diagram in the region of the Eight Beatitudes, S.W. of Eindhoven. In 1947 a start was made with the excavation of the barrows between Toterfout and Halve Mijl. Prof. Dr. W. Glasbergen in those days assistant to the Biological-Archaeological Institute of Groningen University was charged with daily management. During this investigation, Prof. van Giffen was informed by Dr. J. Renders from Eindhoven that an urn with cremated bones was found during building activities on a field opposite the brick factory de Heibloem near Veldhoven. Trial-trenches were dug in March-April 1948, and in October-November of that year the job was finished (fig. 2). W. Glasbergen visited the excavation a few times. H. Praamstra and C. van Duijn respectivily from the B.A.I. and the R.O.B. gave technical assistance. The result of the dig was not as anticipated so no further investigations were made.

The data from this excavation were placed at our disposition by the kindness of Prof. Dr. H. T. Waterbolk, Director of the B.A.I. and Prof. Dr. W. Glasbergen.

The field-maps show a number of elongated and circular ditches which seem to intersect. In some instances these sections are very doubtfull because a relatively old ditch in one instance is cutting a relatively recent one at another point. This is quite well understandable if one knows how difficult it is to see in these sandy soils intersections of this type. We have therefore made no distinction between the different ditches.

Unfortunately the finds from this excavation came into disorder, which is the reason why only half of them can be located exactly on the map. However all are described in our findlist under nos. 28-44.

The plan of the excavation (fig. 3) shows two types of prehistoric configurations; both are ditches. In one instance, the ditch circumscribes an oblong piece of ground. The ditches vary in width from 2.7-6.0 m. The length is known in one case to be 35 m. A small one might be under 30 m, whereas the longest is over 39 m. Four are in pairs whereas three more are single. In the long axis of three long ditches some cremated bones were found. There is no proof that they were intentionally buried in the long enclosures. For further details about this type of ditch we wish to refer to a publication by G. J. Verwers (1966), who proposes the name of 'Long Ditches of the Goirle type' for these phenomena.

The second type of ditch is the well known circular one. A number of them are later than the long ditches, as part of the more or less circular ditch is formed by a linear ditch of a long ditch. It is quite remarkable that in only one instance the centre of a circular ditch contained traces of a cremation. In five other instances, traces of charcoal or some potsherds were found while one centre was recently disturbed, which might point to some sort of burial.

Two soil samples were taken by H. T. Waterbolk, who published the result of his pollenanalysis in his thesis, 1954, pp. 109-110. One sample is from the old surface in the centre of one of the so-called 'long beds', the other is from a ditch of a 'long bed'. Relatively low amounts for *Calluna* go with high amounts for *Gramineae*, *Rumex* and *Pteridium*. In the ditch an exceptionally great number of *Papilionaceae* were found. The rather high percentage for *Fagus* (3.6% in the old surface) and the low amount for *Corylus* show that in comparison with the near-by group of tumuli of Halve Mijl, a dating later than the Middle Bronze Age is pretty well

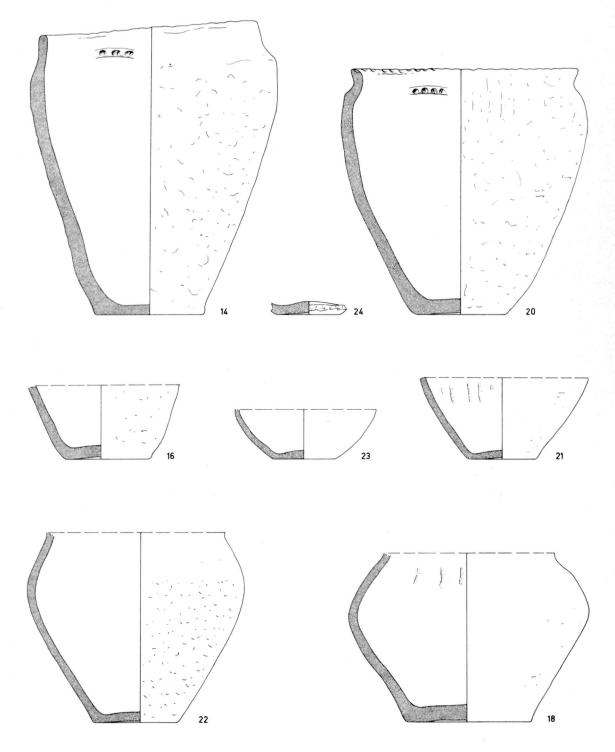


Fig. 8. Pottery from the cemetery the Heibloem. Scale 1 : 4.

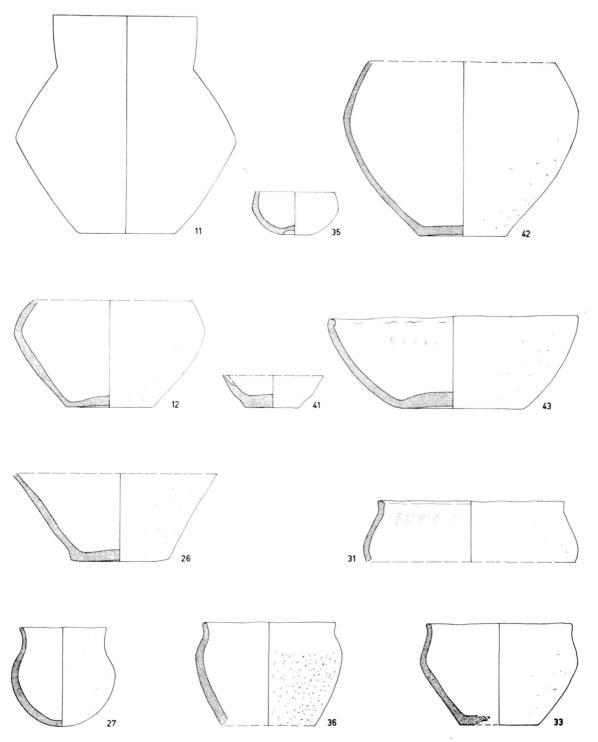


Fig. 9. Pottery from the cemetery the Heibloem. Scale 1:4.

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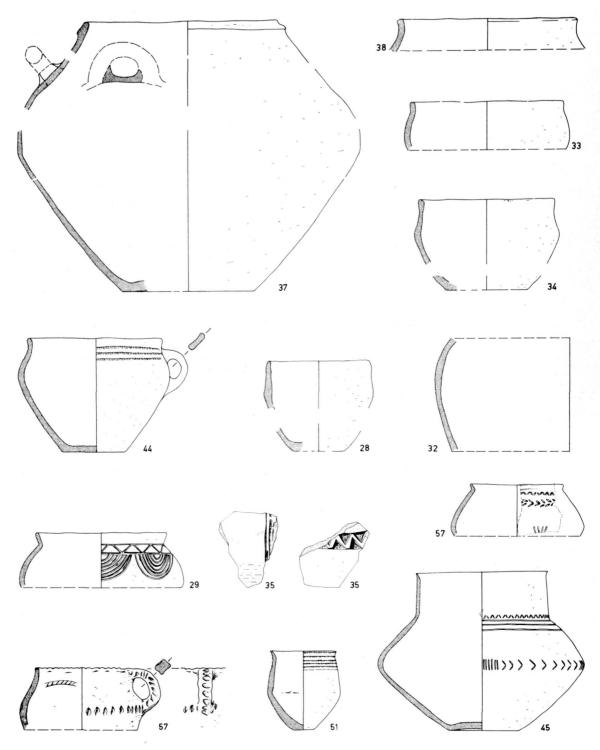


Fig. 10. Pottery from the cemetery the Heibloem. Scale 1:4. No. 35: scale 1:2.

certain. On the other hand, a dating earlier than the beginning of the formation of the young moss-peat in the Peel is most likely.

Excavation 1957: the 100th barrow:

The barrow had been badly damaged by animal and human activities: the western half appeared to be full of passages dug by rabbits or badgers; all traces of prehistoric occupation had completely vanished, to the north and northeast a sandpit had attacked the barrow (fig. 4). During this work two urns and one cremation were found. Drs. J. P. Veerman from Eindhoven reported in 1953 that some children had unearthed an urn. Prof. Dr. W. Glasbergen who saw this specimen gave a description of the now lost pot as being of the deliberately roughened type generally known as Harpstedter ware. The second urn is still owned by Drs. Veerman and is described in our findlist (fig. 10, no. 45).

The first burial on the site of the 100th barrow seems to be a cremation (fig. 4, no. 56) surrounded by a more or less rectangular ditch. Length and width are respectively 9.75 and 5.60 m. In cross section the ditch has a flat bottom; the width varies from 40-60 cm and the depths averages 50 cm.

A second rectangular ditch was made when the first was for the most part silted up, although it must still have been visible, as the second ditch is situated and orientated according to the first one. Unfortunately no trace of a cremation or anything else was found but the area where it might be expected was thoroughly disturbed. With the soil from the ditches a very low barrow will have been constructed. Some time elapsed before the next activities occurred. There was sufficient time for the vegetation in the filling of the ditch to form an observable podzol.

To the next development we assign patches of charcoal in the centre of the barrow just over the point where both ditches intersect. A cremation (fig. 4, no. 55) in the W-C baulk is in all probability the central burial of a big barrow, built up of well discernable sods and surrounded by a circle of closely set small posts. The diameter of the wood construction is 15 m. In the S.W. quadrant, on the edge of and just outside of the post-circle, five cremations were found (fig. 4, nos. 49, 51, 52, 53 and 58). To date them relative to the barrow is impossible. From the filling of some kind of nearby circular ditch came a few sherds (figs. 4 and 10, no. 57).

The find circumstances of no. 51 should be specially mentioned. The calcined bones formed a compact mass, with the bronze pin (fig. 12) on top of them. The drinking cup (fig. 10, no. 51) was also in contact with the cremation. It is highly probable that the calcined bones were collected in a cloth, which was fastened with the bronze pin. After this had been laid down in a small pit, the cup was placed there as well.

Excavation 1957: the 101st barrow:

We have already stated that this barrow must be Panken's no. 9. He writes that the barrow was built of mixed earth but as a rule yellow. No pottery, bones or charcoal was found.

At our excavation the centre appeared to be completely disturbed, whereas the whole barrow had been destroyed (for afforestation) by ploughing down to 30 cm (fig. 5).

At one time the barrow was surrounded by a circle of twelve posts whose diameter was 10 m. Not a single trace of any burial was found. At the point of intersection of the lines drawn between opposite posts, the barrow was deeply destroyed.

Somewhat eccentrically, in the S.E. of the post-circle, an urn was found (fig. 11, no. 48). This pot had been placed in a small hole whose bottom was 1 m below the present surface of the barrow. However one would expect this hole to have been dug from a level lower than the top of the barrow. At 50 cm below this surface, another surface was claerly distinguishable by a thin layer of charcoal. The hole for the urn became visible below the charcoal. Calcined bones were thrown into the urn when it had already been sunk into the hole, which is proven by the particles of bone and an iron pin (fig. 12) found outside the urn in the hole. Moreover bones were spilled outside the hole as some pieces were found 35 cm to the east of the urn in the layer of charcoal. At the same spot a

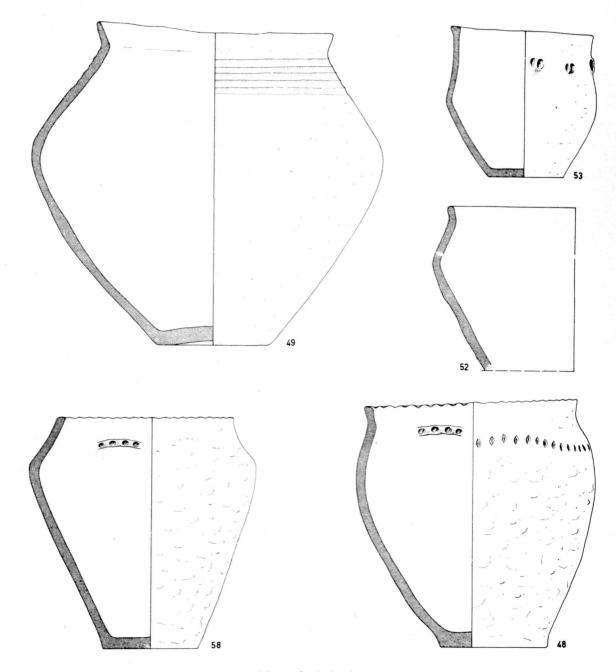


Fig. 11. Pottery from the cemetery the Heibloem. Scale 1 : 4.

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Fig. 12. Bronze pin (no. 51) and iron point (no. 48) from the cemetery the Heibloem. Scale 1 : 2.

posthole was traced which was also covered with charcoal. The barrow was therefore thrown up over the charcoal.

The archaeological evidence derived from the excavation is that the urn and the barrow with its postcircle form one entity. In absolute disagreement with this is the result of two radiocarbon measurements (J. C. Vogel and H. T. Waterbolk, 1963, p. 190): GrN-1532, from a charred post out of the post-circle, gives 3440 \pm 50 or 1490 \pm 50 B.C. which is only slightly earlier than the dating of this type of postcircle in general. Charcoal collected around the urn gives 2515 ± 50 radiocarbon years (GrN-1531), which might be transferred into 565 ± 50 B.C., which means a HaC-D dating. This Harpstedt urn does not contradict the result. To bring the archaeological evidence in agreement with the radiocarbon dating would mean to accept that the urn was buried and the barow was built up nine centuries after the erection of the postcircle.

Conclusions

The collected data about the cemetery the Heibloem give rise to some general remarks including the dating of the phenomena.

The oldest trace of a cemetery is a postcircle of Glasbergen type 3, dated by radiocarbon GrN-1532 : 1490 \pm 50 B.C. which means an Early Bronze Age date (fig. 5). This is slightly earlier than the hitherto accepted date for this type of burial enclosure (H. T. Waterbolk, 1964, p. 114). However mention must be made of the fact that the barow with a directly comparable post-circle, tumulus 3 of the Halve Mijl (W. Glasbergen, 1954 I, p. 42) has one C₁₄ dating which is slightly later: GrN-1030 : 1450 \pm 50 B.C. (Hl. de Vries and G. W. Barendsen, 1958,

p. 1554). Another radio-carbon dating for the same charcoal gave 1335 ± 50 B.C. It also may not be excluded that the widely spaced postcircles were already in use in the last part of the Early Bronze Age.

From the Heibloem no traces of Middle Bronze Age interments are known to the writers. To the Late Bronze Age several finds can be dated. The in 1948 excavated complex of long ditches belongs to this period. Typical for this part of the cemetery are the *Kerbschnitt* decorated sherd (fig. 10, no. 35), the rimsherd with semicircular decoration (fig. 10, no. 29), the onehandled bowl (fig. 10, no. 44) and the fact that no deliberately roughened ware was found. These phenomena can be dated to HaB. For more detailed discussion about the long ditches and their dating we refer to the special study made by G. J. Verwers (1966).

Of Late Bronze Age date are some data from the 100th barrow. The urn (fig. 10, no. 45), the drinking cup (fig. 10, no. 51) with the bronze pin (fig. 12) and both the sherds (fig. 10, no. 57) can be dated to HaB. It is not clear whether these finds have any connection with the barrow itself. This is of importance in the discussion of the dating of the interments from the barrow.

The rectangular ditches from the 100th barrow can be placed in a series of comparable monuments. G. J. Verwers (1966) describes the noncircular ditches from which we learn that a precise dating for our ditches is hardly possible. They may be late HaB, HaC, or even HaD.

Some of the finds on the site of the 100th barrow are to be dated in HaC or perhaps even later. Urn no. 49 (fig. 11) reminds us very much of the Laufelder ware.

Most of the urns found by P. N. Panken (nos. 1-10) and C. Rijken (nos. 11-26) are of the deliberately roughened Harpstedt type, which points to a dating in HaC-D or even later. The bi-conical pot (or 'Schrägrand Urne') with a clearly defined rim (fig. 6, no. 1) is supposed to be contemporary with the advent of the Harpstedt urns, i.e. HaC.

The spread of the finds from Panken, Rijken and the 101st barrow compared to the long ditches excavated in 1948 points to a horizontal stratigraphy. Unfortunately the 100th barrow does not fit into this system.

Waterbolk (1954, p. 109-110) discusses the results of his pollen analysis of the long ditch of Goirle type. Although it is difficult to obtain exact datings for them, he thinks it unlikely that they are older than a few centuries B.C. Dr. W. van Zeist from the Biological-Archaeological Institute of Groningen University kindly reconsidered these results. He also investigated three samples from the 100th barrow. According to modern standards, a dating between 1000 and 500 B.C. may be accepted for both monuments. They do not differ very much in age, that is to say by not more than two centuries.

Acknowledgements are to be made to those who were of help to us in collecting the data about the Heibloem cemetery. We want to express our gratitude to all of them and to the institutions they represent. Especially mentioned should be G. Beex, C. van Duijn, Prof. Dr. W. Glasbergen, H. Praamstra, Drs. J. P. Veerman and Th. van de Ven. Draughtsmen in the field were H. Praamstra and C. van Duijn. The latter prepared fig. 4 and 5 for this publication, whereas the other drawings are by B. C. Dekker. We are indebted to Mr. R. R. Newell for correcting the English text.

The finds from the 1948 and 1957 excavations are now in the Centraal Noord-Brabant's Museum at Den Bosch.

Findlist

Only the finds still available to the authors are incorporated in this list while older finds have been lost.

The shapes of the pots and sherds are not described as all are shown in the illustrations. All the pottery is hand-modeled. Colourdescriptions are made with the help of Munsell's Color Chart.

Finds from P. N. Panken 1844:

1. CNM 1 77. Old marks: Steensel 1844 no. 1; Pl. V no. 13; 1865-17. Found in centre of barrow 1 con-

1. CNM = Centraal Noordbrabants Museum at 's-Hertogenbosch.

taining cremation. Fig. 6, no. 1. Pottery grit, polished, patches of dark gray to yellowish red.

2. CNM 78. Old marks: Steensel 1844 no. 9; Pl. VI no. 3;-16. Found in barrow 8 to the west, containing cremation and an iron pin (now lost). (L. 6 cm). Fig. 6, no. 2. Polished, dark gray with pale brown stains.

3. CNM 79. Old marks: Steensel 1844 no. 4; Pl. VI no. 1; 1865-95 (?). Found in barrow 4 to the west, containing cremation. Fig. 6, no. 3. Pottery-grit, rim and shoulder polished, body thinly deliberately roughened, reddish brown and pale brown.

4. CNM 80. Old marks: Steensel 1844 no. 7; 1865-80 (or 86). Found: deep down in barrow 7, containing cremation. Fig. 6, no. 4. Not tempered, coiled, polished, very dark brown with yellowish brown patches.

5. CNM 81. Old marks: Steensel 1844 no. 10; Pl. VI no. 5; 1865-30. Found in barrow 11 with charcoal and blackish earth. Fig. 6, no. 5. Coarse pottery-grit, finger imprints on smooth rim, body thickly deliberately roughened, light brownish gray.

6. CNM 82. Old marks: Steensel no. 3; Pl. V no. 12; 1865-34. Found in centre of barrow 3 with some charcoal, containing cremation. Fig. 7, no. 6. Pottery-grit, finger imprints on smooth rim, body thinly deliberately roughened, light yellowish brown.

7. CNM 83. Old marks: unreadable; Pl. V no. 14; 1865-35(?). Found in barrow 2 to the west with much charcoal, containing cremation. Fig. 7, no. 7. Pottery-grit, finger imprints on smooth rim, body thickly de-liberately roughened, light yellowish brown.

8. CNM 84. Old marks: Steensel 1844 no. 11; Pl. VI no. 4; 1865-75. Found in barrow 13, containing cremation. Fig. 6, no. 8. Pottery-grit, finger imprints on smooth rim and shoulder, body deliberately roughened, reddish gray to reddish brown.

9. CNM 85. Found in barrow 8, Fig. 7, no. 9. Potterygrit, deliberately roughened, reddish brown.

10. CNM 86. Old marks: Steensel 1844 no. 15; Pl. VI no. 6; 1865-77. Found in barrow 5 just below the top with charcoal, containing cremation and cup (see below). Fig. 7, no. 10. Pottery-grit, finger imprints on smooth rim, body deliberately roughened, reddish brown.

10a. CNM 87. Old marks: Steensel 1844 no. 6; Pl. VI no. 2; 1865-65. Found in urn no. 10. Fig. 7, no. 10a. Not tempered, rather smooth, old surface missing.

Finds from C. Rijken:

11. CNM 613. Found in between two barrows. Fig. 9, no. 11 (reconstructed from Catalogue 1917; now lost). Polished.

12. CNM 614. Found at foot of barrow. Fig. 9, no. 12.
Pottery-grit, smooth, black with reddish yellow stains.
13. CNM 615. Found at centre of barrow. Fig. 7, no.

13. Pottery-grit, smooth, light olive brown.

14. CNM 617. Found at foot of barrow with charcoal. Fig. 8, no. 14. Pottery-grit, finger imprints on smoothrim, body deliberately roughened, light yellowish brown.

15. CNM 618. Found at foot of small barrow. Fig. 7, no. 15. Pottery-grit, rim with finger imprints, body heavily deliberately roughened, dirty pale brown.

16. CNM 626. No find circumstances. With three fragments of iron object(s). Fig. 8, no. 16. Pottery-grit, deliberately roughened, grayish brown.

17. CNM 623. Found in barrow. Now lost. According to Catalogue 1917, in shape comparable to CNM 613 (our fig. 9, no. 11) but with at least one lug, decorated, on the shoulder with two bands of horizontal grooves, which are connected by vertical grooves below the lugs.

18. CNM 619. Found at 'plateau' area, fig. 8, no. 18. Pottery-grit and organic material, polished, dark gray with yellowish red patches.

19. CNM 620. Found at 'plateau'. Fig. 7, no. 19. Pottery-grit, coarse sand and some organic material, polished, black to dark reddish brown with reddish vellow stains.

20. CNM 621. Found at 'plateau'. Fig. 8, no. 20. Pottery-grit and organic material, finger imprints on rim, body deliberately roughened, brown to reddish yellow.

21. CNM 622. Found at 'plateau'. Fig. 8, no. 21. Pottery-grit, smooth, grayish-black.

22. CNM 624. Found at 'plateau'. Fig. 8, no. 22. Pottery-grit, smooth rim and deliberately roughened body, light yellowish brown.

23. CNM 627. Found at 'plateau'. Fig 8, no. 23. Pottery-grit and organic material, smooth, pale brown. 24. CNM 628. Found at 'plateau'. Fig. 8, no. 24. Coarse quartz-grit, polished, dark gray.

25. CNM 675. Found at 'plateau'. Fig. 7, no. 25. Coarse sand, smooth with incised lines, yellowish red and gray; transformed by secondary firing.

26. CNM 688. Found at 'plateau' near CNM 619 (our fig. 8, no. 18). Fig. 9, no. 26. Pottery-grit and organic material, polished, reddish brown.

Find from sand-pit:

27. CNM 612. Found at centre of small barrow with some 'ashes'. Fig. 9, no. 27. Pottery-grit and organic material, smooth, light reddish brown.

Finds from excavation 1948:

Unfortunately not every find from the 1948 excavation still had its find number. It has been impossible to reconstruct the numbering with the help of the short description made at the excavation. So we will give this description and also at the end, give a description of the finds without number.

Find numbers 1, 2, and 3 were found during sand digging before the excavation. They are respectively a potsherd, a big urn, and a small pot (found with the urn?).

28. Findno. 4. Fig. 10, no. 28. Rimsherd and bottomsherd, pottery-grit, not very smooth, reddish brown. 29. Findno. 5. Fig. 10, no. 29. Rimsherd, probably not tempered, polished with grooved decoration, dark reddish brown.

Findno. 6. Big part urn.

30. Findno. 7. Very small rimsherd, not tempered, rather smooth, reddish brown.

31. Findno. 8. Fig. 9, no. 31. Rimsherd, pottery-grit, polished, black with light brown patches.

Findnos. 9 and 10. Potsherds.

Findnos. 11 and 12. Cremation.

Findno. 13. Part of urn.

Findno. 14. Two potsherds.

32. Findno. 15. Fig. 10, no. 32. Sherd, pottery-grit, polished, very dark gray to dark reddish brown.

33. Findno. 16. Fig. 9, no. 33. Sherds of pot, pottery-grit, some quartz grit, polished stained black to reddish brown. Rimsherd, pottery-grit, polished, light brown.
34. Findno. 17. Fig. 10, no. 34. Sherds of pot, pottery-grit, polished, black.

35. Findno. 18. Fig. 9 and 10, no. 35. Sherds of three pots: a) Sherd with true *Kerbschnitt*, coarse sand, polished, black. b) Sherd with grooved lines, coarse sand, polished, dark gray. c) Cup with omphalos base, coarse sand, smooth, brown.

36. Findno. 19. Fig. 9, no. 36. Sherd, quartz grit, rim polished, body rather rough, brown.

37. Fig. 10, no. 37. Sherds of pot, quartz grit, smooth, reddish brown to brown.

38.² Fig. 10, no. 38. Sherds of pot, fine quartz grit, smooth, reddish brown.

39.2 Polished sherd, sand, dark gray.

40.2 Rather rough sherd, sand, reddish brown.

41. Fig. 9, no. 41. Bottom, pottery-grit and sand, coiled, rather smooth, reddish gray to reddish brown. 42. Fig. 9, no. 42. Half of pot, sand, polished, mainly dark gray, but stained to yellowish red.

43.³ Fig. 9, no. 43. Incomplete bowl, pottery-grit, polished, stained dark reddish brown and reddish brown.

44.³ Fig. 10, no. 44. Incomplete pot, pottery-grit, smoothed, stained, reddish brown to reddish yellow.

Find from 1953:

45. Found in northern part of 100th barrow. Fig. 10, no. 45. Pottery-grit, polished, grooved decoration, stained.

Finds from excavation 1957:

46. Findno. 1. Found in 100th barrow in disturbed soil. Flint blade (L. 6.8 cm).
47. Findno. 2. Found in S.W. quadrant of 100th

47. Findno. 2. Found in S.W. quadrant of 100th barrow just inside postcircle. Bottomsherd, pottery-grit, smooth, dark brown.

48. Findno. 3. Found in 101st barrow containing cremation. Fig. 11, no. 48. Pottery-grit and quartz grit, finger imprints on smooth rim and shoulder, body deliberately roughened, reddish yellow. Together with an iron pin: fig. 12.

49. Findno. 4. Found in 100th barrow to the west containing cremation. Fig. 11, no. 49. Pottery-grit, polished, very dark gray with yellowish brown patches. **50.** Findno. 5. Found in 101st barrow. Charcoal from post in N.W. quadrant.

51. Findno. 6. Found in 100th barrow in S.W. quadrant with bronze pin (fig. 12) and with cremation. Fig. 10, no. 51. Tempering undetermined, polished, patches of brown.

52. Findno. 7.. Found in 100th barrow in S.W. quadrant with cremation. Fig. 11, no. 52. Sherds of pot, coarse pottery-grit, smooth, light brown.

53. Findno. 8. Found in 100th barrow in S.W. quadrant containing cremation. Fig. 11, no. 53. Pottery-grit, smooth, paired finger impressions, light yellowish brown.

2. Nos. 37-40 were together in one find-bag.

3. Some sherds of nos. 43 and 44 have the no. 1 others have the no. 13 and again others have no number.

54. Findno. 9. Found in 100th barrow in S.E. corner of N.W. guadrant. Charcoal.

55. Findno. 10. Found in 100th barrow. Cremation. 56. Findno. 11. Found in C-E baulk of 100th barrow. Cremation.

57. Findno, 12. Found in ring ditch south of 100th barrow. Fig. 10, no. 57. Two rimsherds: a) with lug, pottery-grit, rather smooth, imprints and finger im-

LITERATURE

Beex, G. (1957), Twee grafheuvels, Brabants Heem VIII, p. 70-71.

Beex, G. (1964), Vondstmeldingen, Brabants Heem XVI, p. 88-90.

Glasbergen, W. (1949), Opgravingen in Noord-Brabant (Alphen, Toterfout, Halve Mijl, Veldhoven), Brabants Heem I, p. 55-62.

Glasbergen, W. (1954), Barrow Excavations in the Eight Beatitudes. The Bronze Age Cemetery between Toterfout and Halve Mijl, North Brabant, I, II, Palaeohistoria 2, p. 1-134; Palaeohistoria 3, p. 1,-204. Hermans, C. R. (1865), Noordbrabants Oudheden,

- Hermans, C. K. (1865), Noorabrabants Oudheden,
 p. 82-85 (Steensel); Pl. V, 12-14 en Pl. VI, 1-6.
 Holwerda, J. H., en M. A. Evelein (1910), Opgravingen te Veldhoven (N.Br.), Oudheidk. Meded.
 R.M.v.O., O.R. IV, p. 43-48.
 Holwerda, J. H., en J. P. W. A. Smit (1917), Catalo-
- gus der archeologische verzameling van het Provinciaal Genootschap voor Kunsten en Wetenschappen in Noord-Brabant.

prints on rim, lug and shoulder, brown and light brown. b) pottery-grit, polished, imprints for decoration, black and brown.

58. Findno. 13. Found in 100th barrow in S.W. quadrant containing cremation. Fig. 11, no. 58. Pottery-grit, finger imprints on smooth rim, body deliberately roughened, reddish brown.

Panken, P. N. (1844), Voorchristelijke begraafplaatsen in de heiden te Bergeik, Riethoven, Veldhoven, Steensel, Knegsel, Oerle, Wintelre, Eersel, Hapert en Luiks-Gestel, pp. 556-565: Berigt wegens een voorchristelijk kerkhof in de heide tusschen Veldhoven en Steensel. In: C. R. Hermans Bijdragen tot de Geschiedenis, Oudheden, Letteren, Statistiek en Beeldende Kunsten der Provincie Noord-Braband, dl. 1.

- Verwers, G. J. (1966), Non-circular monuments in the southern Dutch urnfields, Anal. Praeh. Leid., II, p. 49.
- Vogel, J. C., and H. T. Waterbolk (1963), Groningen Radiocarbon Dates IV, Radiocarbon 5, p. 163-202.

Vries, Hl. de, and G.W. Barendsen (1958), Groningen Radiocarbon Dates III, Science 126, p. 1550-1556.

Waterbolk, H. T. (1954), De praehistorische mens en zijn milieu, Assen. Waterbolk, H. T. (1964), The Bronze Age settlement

of Elp, Helinium IV, p. 97-131.