H. T. WATERBOLK

PRELIMINARY REPORT ON THE EXCAVATIONS AT ANLO
IN 1957 AND 1958

(Pl.III–XI, figs.18–41)

Introduction

In 1950 the late Professor Hessel de Vries found some pottery sherds on a recently
reclaimed heath parcel SE of Anlo, Province of Drenthe (fig. 18). They showed
Tiefstich ornamentation and apparently belonged to the Funnel Beaker Culture.
There were no signs of the former presence of a megalithic monument at the site.
If there were a settlement, the adjoining unploughed heath might contain undisturbed parts of it. An excavation was planned, but more urgent projects delayed its execution.

W. Glasbergen regularly kept an eye on the site. On one of his visits, the heath appeared to have been ploughed. A beginning had been made with afforestation. Numerous flints and pottery sherds could be collected, confirming the presence of a settlement.

Some trial trenches were dug in the autumn of 1957. The ploughing appeared to be only shallow. Foundation trenches for a wooden fence were found. Since the enclosed area seemed to coincide more or less with the area of the surface finds, perspectives for further investigation were good.

We gratefully acknowledge the great interest and cooperation of the owners, the N.V. Bosanplanting Terborgh.

In 1958 a rectangle of 96 × 104 meters was marked out in such a way that the enclosure was situated well within it. To the north possibilities were limited by the presence of the cultivated field that had yielded the 1950 finds.

The ploughed topsoil was removed by means of dump-carts after it had been examined for finds. These were collected by squares of 4 × 4 meters. Three major baulks were left as well as some minor ones over three very low barrows that could be recognized on the field. Only part of the sections are reproduced here(figs. 21–22).

The excavated areas were cleaned and drawn at a scale of 1:40. (Pl. XI, figs. 23–26). Everywhere it appeared necessary to remove some more soil and to make new drawings. Details were drawn at the scale of 1:20. The eastern part of
Fig. 18. Situation of the excavation.
the rectangle was examined superficially but not excavated for practical reasons.

It appeared necessary to extend the excavation to the west. To spare as much as possible of the recently planted forest these trenches were given a different direction.

The sub-soil of the area is formed by a more or less flat boulder-clay of Riss age. It reaches the surface in the north-eastern part of the excavation. Here the soil was loamy, very hard and rich in stones. Unweathered boulder-clay occurred at a depth of some 60 cm.

In the middle and southern parts of the area this boulder-clay is covered by a so-called coversand deposited in Würm times. Towards the south-west it increases in thickness. The relief of the terrain is thus determined by the coversand.

The soil profile, as far as present, was a heather podsol profile, but influences of a forest vegetation prior to the heath were clearly visible. Ground-water effects were only absent in the highest parts of the area.

As a result of these varying geological and pedological circumstances, the quality and aspects of the archeological soil traces differ a great deal over the area. As an example the foundation trenches may be mentioned. In the orange-coloured boulder-clay they showed as distinct black tracks; on the higher coversand parts, however, they were extremely faint and hardly distinguishable from the yellowish sand.

There are no brooks or rivulets in the neighbourhood. Peat filled depressions occur at a distance of 600 m to the east. They must have supplied the necessary water for the settlement.

The excavation brought many surprises. The fence did not belong to the Funnel Beaker Culture, but most probably to the Protruding-Foot-Beaker Culture. But apart from that, there appeared to be remains at the site of many other prehistoric periods. The barrows, for example, formed part of a Late Bronze Age cemetery.

For practical reasons the soil traces and finds will be treated from young to old in the following order:

(1) Urnfield from the Late Bronze Age;
(2) Plough-soil from the Middle Bronze Age;
(3) Settlement traces and finds from the Early Bronze Age;
(4) Settlement finds from late Beaker times;
(5) Flat-grave Beaker cemetery;
(6) Cattle-kraal from early Beaker times;
(7) Settlement of the Funnel Beaker Culture;
(8) Mesolithic finds and soil traces;
(9) Upper-Paleolithic finds.
Fig. 19. Map of excavated area, showing (a) contour lines, (b) main distribution of Funnel Beaker pottery (dense shading) and (c) distribution of other neolithic pottery (light shading).

Fig. 20. Map of excavated area, showing main soil traces and location of sections (see figs. 21 and 22).
Fig. 21. Sections 1-4. For location see fig. 20.

Fig. 22. Sections 5-8. For location see fig. 20.
Fig. 23a. Detailed plan of the excavation. Scale 1 : 200.

Fig. 23b. Legend to figs. 23a, 24–26.
Fig. 24. Detailed plan of the excavation. For legend see fig. 23b. Scale 1:200.
Fig. 25. Detailed plan of the excavation. For legend see fig. 23b. Scale 1: 200.
Fig. 26. Detailed plan of the excavation. For legend see fig. 23b. Scale 1:200.
The finds appear to cover so great a part of the prehistory of our area, that it is impossible to deal exhaustively with the excavation and its implications. The present preliminary report primarily serves the purpose of making the finds known to a wider scientific public. Detailed studies will be devoted by other workers to the different parts of the material, e.g. to the Funnel Beaker pottery and the Beakers with Protruding Foot by W. Glasbergen, to the Bell Beaker pottery by J. D. van der Waals, to the lithic material by A. Bohmers, to the Bronze Age burial monuments by A. Clason and the author, to the raised bogs in the area by W. van Zeist.

Field drawings have been made by H. Praamstra, net drawings by H. Roelink, both at the staff of the Biological-Archeological Institute, Groningen. The photographs are by J. Lanting and the author.

The Late Bronze Age Urnfield (Pl. III: 1, 2; IV: 1; figs. 23-28)

In contrast to many other Urnfields in Drenthe, this cemetery existed only for a relatively short time. The 22 interments belong to different types:

1. rounded-rectangular ditches with post constructions (b, h, i);
2. earthen barrows without ring-ditch (a, g);
3. circular or oval ditches (c, e, f, j, k, n, s, u, v);
4. interments without ditch or barrow of any importance (d, l, m, o, p, q, r, t).

In other cemeteries of this type burials of type (1) are invariably the oldest. The cremated bones were not placed in urns. To one of them (i) an amber bead (no 156, fig. 38) was added. In another instance (b) the cremation was covered by a stone (no 176, fig. 19 section 1). With the grave monuments h and i the ditch was open at the south-eastern part.

In the ditches or in their neighbourhood a few pottery fragments were found, belonging to so-called Kümmerkeramik, which is typical of the Middle and Late Bronze Age in the area (fig. 26, lower half). One fragment was found of a pot of better quality (no 178), pointing to relations with the Urnenfelderkultur. Parallels can be mentioned from Gasteren² and Holsloot.³ In both cases this type is associated with burial monuments of the same kind. At Holsloot two radiocarbon dates could be obtained from a burial monument of this type (Gro 1562: 690 B.C.; Gro 1561: 680 B.C.).

Two burials can be considered as intermediate between groups (1) and (3), i.e. c and u. In both cases the burial is placed eccentrically. With r the ditch is open at the northwestern corner. The opening seems to have been closed with a post. This phenomenon is paralleled at the above-mentioned monument of Holsloot.

The urns found in the centre of circular or oval ditches belong to common
Fig. 27. Pottery from the Late Bronze Age Urnfield. Scale 2:5.
Fig. 28. Pottery from the Late Bronze Age Urnfield. Scale 2: 5.
early types (nrs. 137, 112, 9, 83). They are met with especially in cemeteries with key-hole shaped ditches.\textsuperscript{4}

Four urns of nearly identical shape were found in interments without barrow or ditch (nrs. 10, 11, 21, 111). Two of them were purposely placed in existing ditches and must thus be secondary to the latter. Urns of this type (\textit{zweihenklige Terrinen}, according to Tackenberg\textsuperscript{5}) seem preferably to have been interred in existing barrows. As examples may be mentioned the urns of Harendermolen and Wessinghuizen.\textsuperscript{6} In ring-ditch cemeteries proper they are rare. Urn 55 of Wapse\textsuperscript{7} belongs to the type; it was indeed found in an existing ditch.

Finally we must mention a peculiarity which so far has not been met with in Dutch urn cemeteries, \textit{i.e.} the presence of stones in the barrows or ditches of the burials \textit{a, b, f, j}. They seem to have served as an extra marking of the foot of the barrows.

Small as it might seem at first glance, the Anlo Urnfield shows such a variety of interesting phenomena, that it alone would have been worth our efforts at the site.

\textit{Plough-soil from the Middle Bronze Age} (Pl. IV: 1; figs. 21: 1–2; 22: 7)

Below the larger tumuli the soil profile of the time the barrows were built had escaped ploughing. It was only weakly developed: a humus layer could be identified, but there was no trace of podzolization. On the contrary, the sub-soil appeared to have been mixed to a depth of some 40 cm (fig. 21: 1, 2; fig. 22: 7). It contained some humus and fragments of flint and pottery belonging to the Funnel Beaker Culture. The same type of soil could be recognized at those places outside the barrows, where the layer was so thick as to show below the level of ploughing. The actual extension of the plough-soil could not be determined since even where there had not been any ploughing, the heather podzol had often made the plough-soil invisible.

At first the plough-soil was thought to be associated with the Funnel Beaker settlement, but it must be of later age. Locally it did not contain any Neolithic finds at all. Furthermore, the plough-soil appeared to be later than a number of pits from the Early Bronze Age, to be described presently.

\textit{Early Bronze Age pits and finds} (pl. IV: 2, V: 1; figs. 23–26, 29)

At three or four places groups of small pits were found of marked circular outline and often rather cylindrical shape. They ranged in depth from 0.40–1.00 m; in one pit of the southerly group, with find nr 1, the depth was 1.48 m. One of the ring ditches of the Urnfield was found to be younger than a pit in the easterly group, and since they showed clearly only after the plough-soil had been removed, they must be earlier than this soil as well.
Fig. 29. Barbed-wire decorated pottery. Scale 2: 5. The large sherd has find number 1.
Some pits contained sherds of barbed-wire decorated pottery (fig. 29), and in two instances (nos. 1, 69) sufficiently charcoal to permit a radiocarbon determination. The results (Gro 852: 1460 ± 65 B.C.; Gro 1977: 1395 ± 80 B.C.) definitely prove the correctness of Moddermans assumption that this pottery belongs in the Early Bronze Age. Although sherds are commonly found, complete vessels are rare and the ware occurs only sporadically in graves.

Many investigators considered the present pottery to be of much earlier age, mainly because the ornamentation resembles that of certain types of Funnel Beaker ware. The common occurrence of internal rim decoration could be interpreted as influence from the Bell Beaker Culture, whilst the narrow undecorated foot suggests affinities to the other main Beaker Culture. Contemporaneity with late Beakers thus would seem reasonable.

Influence from both Beaker Cultures cannot be denied, but the resemblance with the pseudo-barbed-wire decorated Funnel Beaker pottery seems to have no direct genetic background. There are more arguments in favour of an Early Bronze Age dating:

(1) Recently at Vorstenbosch a Hilversum urn was found, decorated in exactly the same way;
(2) The fabric of the pottery is much more related to Bronze Age ware than to any Beaker ware;
(3) Middle Bronze Age post-circle barrow cemeteries generally start with a few barrows with neither post circles nor grave finds. Such barrows also occur as primaries below post-circle barrows. In one case there was found in such a barrow an undecorated pot, which in shape and fabric was closely related to the barbed-wire pottery. At Hijken an early barrow in a Bronze Age cemetery gave a radiocarbon date of 1350 ± 150 B.C. At Gasteren a barrow was excavated which showed plough traces in the sub-soil – the oldest known from this region. The central grave contained a barbed-wire decorated pot. Many findless barrows most probably can be attributed to the same people that made the barbed-wire pottery.
(4) A barrow recently excavated by J. D. van der Waals at Sleen contained a number of flint arrow heads of the type common in graves of the Sögel type. It was built upon arable soil, containing barbed-wire pottery.

Apart from the chronological implications, the above facts seem to suggest that in Drenthe settled agriculture with permanent fields starts in the Early Bronze Age.

In the Anlo case, we may assume that the site and its near environment was permanently inhabited throughout the Bronze Age.

The function of the pits is unclear. Perhaps they are just storage pits, grouped together close to the actual houses of which no traces have survived.
Finds from the advanced Beaker period (figs. 19, 30–31)

Scattered over the higher parts of the site, a few stray sherds occur of a variety of Beaker pottery. The distribution (fig. 19) is quite different from that of the Funnel Beaker pottery, but coincides more or less with that of the barbed-wire pottery. They do not, however, occur in the above-described pits.

The following main groups may be distinguished:

1. Coarse undecorated pottery of different kinds, partly belonging to the preceding group (fig. 30, upper half);
2. 'Potbeker' ware (fig. 30, lower half);
3. 'zig-zag' ornamented beakers of a type found as grave finds in some barrows in the neighbourhood (fig. 31, left);
4. Bell Beaker ware, ornamented with a dentated spatula (types 2¹⁶ or 2¹⁷)¹³ (fig. 31, lower);
5. All-over-corded beakers (Bell Beakers type 2¹¹⁶,¹³ fig. 31, nr. 63).

In age the group is certainly heterogenous. The last-mentioned group is probably the oldest (see below).

The flat-grave cemetery from the Beaker period (pl. V: 2–VII: 1; figs. 23–26, 32–35)

It was a great surprise that the site also produced five flat graves.¹⁴

Grave A did not contain any finds. A charred coffin wall showed very clearly (radiocarbon date Gro 1965: 1995 ± 70 B.C.).

Grave B was surrounded by a broad foundation trench, in which posts could be distinguished, albeit vaguely. It seems that the posts had been placed in pairs, just as in some Bronze Age barrows. This suggests the presence of horizontally placed beams connecting the posts. An entrance may perhaps be seen at the north-western side (two isolated posts). The grave itself contained two badly damaged Beakers. Furthermore, a few stones were found that may have supported a coffin, and sufficient charcoal to permit a radiocarbon date (Gro 851: 1980 ± 70 B.C.). Grave C was of the same type, but it was smaller and the post circle consisted of single posts. The grave contained one all-over-corded Beaker. A pit, containing much charcoal (C-14 date Gro 1976: 1765 ± 50 B.C.), had been dug into the grave at a later date, barely missing the Beaker.

Grave D contained a Beaker-with-Protruding-Foot, a flint blade, a very fine adze, made from a large blade, and a whetstone.

Grave E contained a fine example of a Beaker-with-Protruding-Foot. A radiocarbon date of 2260 ± 55 B.C. (Gro 1855) was obtained from charcoal present in the grave.

Palaeohistoria Vol. VIII: Waterbolk.
Fig. 30. Undecorated coarse pottery sherds of different kinds, and „potbeker” sherds. Scale 2:5.
In none of the graves were remains of the skeleton found. With the graves B and C the soil conditions inside the foundation trench were identical to those outside the trench. This would suggest the absence of tumuli. Still, the distribution pattern of the Beaker pottery finds indicates that the area near the graves was significantly poor in surface finds. It is interesting to note that the sherds of all-over-corded Beaker ware form an exception. Perhaps there were originally low barrows which were flattened out during the Bronze Age cultivation of the area.

The whole constellation indicates that there cannot be a great difference in age between the different burials, although they belong to two distinct types. The radiocarbon dates strongly support this conclusion.

At first glance the occurrence of these two types of corded Beakers in one cemetery could be seen as contradictory to the fundamental distinction made by Van der Waals and Glasbergen\textsuperscript{13} between all-over-corded Bell Beakers and corded Beakers-with-Protruding-Foot. However, the opposite is the case, since they differ not only in the type of cord impression, the shape of the Beakers, the presence of internal rim decoration, etc., but also in the form of the graves and the presence of post circles. In our area, the latter feature is quite characteristic for Bell Beaker burials in general.

\textit{The cattle-\textit{braal} (pl. VII: 2–IX: 1; fig. 36)}

The most spectacular result of the excavation is doubtless the three-fold fence. It consisted of a foundation trench, in which posts had been placed at short distances. The middle trench differed in that the posts had been hammered into the virgin soil (pl. IX: 1). The depth of the trenches (up to 0.80 m) and the thickness of the posts (up to 0.20 m) indicate a heavy fence.

At first glance the three-fold fence might be compared with the elaborate system
Fig. 33. Beaker from flat grave C. Scale 2:3.
Fig. 34. Finds from flat grave D (whetstone not included). Scale 2:3.
Fig. 35. Beaker from flat grave E. Scale 2:3.
of fences of the Iron Age settlements of the type Zeijen-Witteveen, but in the present case the fences are not contemporaneous. Firstly because of the different construction of the middle one, secondly because the middle one coincides with the central one on the north-east side, and thirdly because the middle and outer show an entrance in the northwestern part of the fences, which is lacking in the inner one.

The inner seems to be the oldest, since it is more probable that expansion took place towards the higher soil, which was more easily workable, than that an eventual contraction took place in the opposite direction.

Three distinct entrances (fig. 36) can be distinguished, which have been strengthened by means of extra posts. The openings have a width of 1.0–1.5 m. It is possible that there was a fourth entrance at the Northern side, but owing to locally difficult soil conditions no certainty could be obtained.

Close to the eastern and northeastern main entrance there are narrow gates which would give easy passage to man when the main entrances were blocked. The presence of these constructions is the main argument in favour of an interpretation as a cattle kraal. A secondary argument is the fact that no traces of habi-

Fig. 36. The entrances of the cattle kraal.
tation were found inside, although the posts of the fences were clearly visible, at least at places.

As to the age of this cattle kraal the following considerations are relevant.

(1) It is absolutely certain that the kraal precedes not only the ring-ditch cemetery, but also the Bronze Age plough-soil.

(2) The distribution of the barbed-wire pottery and the corresponding pits points against contemporaneity with the kraal.

(3) The same applies for the other categories of Beaker pottery (fig. 19), with the exception of the all-over-corded Beaker ware, which was found only outside the kraal, near the graves.

(4) The Beaker cemetery is situated more or less parallel to the fences at the only side, where no gates have been found. This could point to contemporaneity.

(5) The only finds in the foundation trenches (also in the inner one) belong to the Funnel Beaker Culture, which shows that they were present at the site when the trenches were dug.

(6) The distribution pattern of the Funnel Beaker pottery agrees in broad lines but by no means exactly with the area of the kraal (see fig. 19). On the one hand some parts inside the kraal are poor in finds, on the other hand the finds extend beyond both in eastern and western direction (the 1950 finds have been made in the adjoining field!)

(7) Comparison of the pollen content of the sub-soil of barrows from the Funnel Beaker culture and from the PF-Beaker Culture has shown that the latter is responsible for the expansion of grasses and plantain as a result of intensive cattle grazing.

From the above the conclusion may be drawn, that the cattle kraal fence probably was built by the PF-Beaker people. It may have been maintained when the people arrived who are responsible for the all-over-corded Bell Beakers at the site.

For building the kraal an area was used which had formed a part of a Funnel Beaker settlement, and which apparently had not yet been reforested.

_The settlement of the Funnel Beaker Culture_ (pl. IX: 2–X: 1; figs. 37–40)

It must be admitted that we did not find our main object, dwellings of the Funnel Beaker people. Just as for the Early Bronze Age settlement, we must assume that any buildings present must have had shallow foundations. In large parts of the excavated area the soil could be ‘read’ very well, so that post holes of any importance should have been found.

The only traces to be attributed to this settlement are a number of isolated pits (Pl.IX: 2), some of which were rather deep. One of the easternmost pits contained much pottery, flints and quern fragments, and also charcoal (radiocarbon date Gro 1824: 2210 ± 60 B.C.).
Fig. 37. Ornamented Funnel Beaker ware. Scale 2 : 3.
However, stray finds of different kinds were numerous.

(1) Ornamented pottery, belonging to the 'Havelte' style, because of the fine *Tiefstich* technique, the weak shaping of the pots and the lack of typical Funnel Beakers (figs. 37 and 38);
(2) Undecorated pottery (fig. 39);
(3) fragments of 'baking plates', one of which shows a preformation (fig. 39).
(4) one complete quernstone with rubber (Pl. X) and many quern fragments;
Fig. 39. Undecorated Funnel Beaker ware, including "baking plates" (one of which showing a perforation). Scale 2 : 3.
Fig. 40. Some flint artefacts from the Funnel Beaker Culture. Scale 1 : 1.
Fig. 41. Various finds from the site. Scale 2:3.
(5) hammer-stones and grinding stones;
(6) very few fragments of axes (fig. 41, K-11 and M-7);
(7) the head of a stone chisel (?) (fig. 41, Q-9);
(8) flint artefacts, including a few sickles, borers, triangular tools, arrow-heads and a great number of scrapers (fig. 40);
(9) numerous waste pieces of flint (some of quartzite);
(10) broken pieces of granite and other rocks.

The settlement lasted probably only a short time. The decorated pottery is very homogeneous and can only be compared with a small part of the pottery to be found in the megalithic monuments of the area. The importance of this find complex will increase when complexes of the same kind from other occupation sites of the Funnel Beaker Culture become available.

In this way it may well become possible to distinguish many more phases in the Funnel Beaker Culture than was possible up to now.

The only available C 14 date does not differ from that of the oldest Beaker grave. This proves the close time relation of both cultures at this site, which we concluded already in the preceding paragraph. Van der Waals and Glasbergen concluded from their distribution maps that the main area of megalithic monuments was at first avoided by the PF-Beaker people. Would it be rash to suppose that the latter caused the departure from our site of the Funnel Beaker people?

Mesolithic finds (pl. X: 2)

A few flint artefacts found at the site have to be attributed to the Mesolithic. Their number was so small that no special attention was paid to them. Nearly every sandy ridge in the area generally produces some Mesolithic flints.

Difficulties were encountered with the interpretation of a number of irregular depressions on the site. At first they were considered as natural phenomena, caused by the uprooting of trees or the activity of animals. After a while however, it appeared that their size and plan was fairly constant. They resemble a horseshoe, one side being broader than the other. Their outlines were everywhere extremely vague. Finds were lacking, with the exception of a few small sherds and flints, the occurrence of which could easily be attributed to animal activity.

Some C 14 dates contributed to the solution of the problem of these structures:

68α : pit with all-over-corded Beaker sherd: 7005 ± 70 B.C. (Gro 1980).

From the above list it appears that much charcoal of Mesolithic age was present at the surface. Could the structures possibly also be of Mesolithic age? Their vague outlines would certainly indicate a high age.
In 1959 at the Iron Age settlement of Wijster a horseshoe-shaped depression of the same type was found, which was observed to have been cut through by a Mesolithic hearth of a type which so far unvariably has produced dates between 6000 and 5000 B.C. The structures may be pit-dwellings of some kind. They resemble those found by Rust on the Pinnberg, dating from the Preboreal period.

The C14 dates are clearly older than those from the hearths mentioned above, but they are in the same order of magnitude as that of the Mesolithic canoe which was found some years ago at Pesse (C14 date $6315 \pm 275$ B.C.).

Younger Paleolithic finds

A scraper and a graver, stray finds, can probably be attributed to the Hamburgian culture.

NOTES


2 A. E. van Giffen, *NDV* 63, 1945 (fig. 15: 45).


6 A. E. van Giffen, *Verlag Museum van Oudheden Groningen*, 1922 (Harendermolen); 1927 (Wessinghuizen).


10 H. T. Waterbolk & W. Glasbergen, *NDV* 75, 1957, pp. 23–41 (fig. 8–9, pl. XI: 1).

11 See reference 11 (figs 13 and 15).


17 A. Rust, *Offa-Bücher* 14 (pl. 40).1


19 In an earlier note on the Anlo excavation ( *NDV* 77, 1959, p. 194) the author has expressed as his opinion that the horseshoe shaped constructions should belong to the Early Bronze Age, since their distribution coincided with that of the barbed-wire pottery. The Wijster observation and the C14 dates made him change his views. Recently, however, serious doubt has again come up. J. D. van der Waals excavated in 1960 at Schipborg, only a few miles from Anlo, a series of structures of exactly the same kind. They contained Early Bronze Age finds in sufficient number to leave no doubt as to their age. But neither in this case a clue to their function was found.
1. General view of the excavation at Anlo.

2. Urn 137 with ring ditch.
1. Section through barrow b, showing central cremation and arable soil below the barrow.

2. Group of circular pits (Early Bronze Age) near urn interments j and k.
1. Early Bronze Age circular pit.

2. Grave A (without finds).
1. Grave B with surrounding foundation trench.

2. Grave C with Beaker, foundation trench and secondary pit.
1. Grave E with Beaker with Protruding Foot.

2. Foundation trenches of cattle kraal (east of barrow b).
1. Main (eastern) entrance of cattle kraal.

2. Detail of middle foundation trench.
1. Section through posts of middle fence of cattle kraal.

2. Funnel Beaker pit with quernstone.
1. Quernstone with rubber (Funnel Beaker Culture).

2. Horseshoe shaped pit.