A veluvian bell beaker with remains of a cremation in a tumules near Meerlo

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A VELUVIAN BELL BEAKER WITH REMAINS OF A CREMATION IN A TUMULUS NEAR MEERLO[1]

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A tumulus at Meerlo (Prov. Limburg) has been investigated by the Institute for Prehistory of the University of Leiden. Indications of four or five historical periods were found. Fragments of a Veluvian bell beaker with remains of a cremation date the third period, and a ring ditch with several sherds of an urn found in the top of the barrow represent the last phase.

Introduction

In a gentle rolling landscape, a marked elevation with its decorative birch trees attracted the attention of Mr. J. Hoeymakers and Mr. B. Kryssen in 1960. The State Service for Archaeological Investigations at Amersfoort was informed that it seemed likely that a tumulus had been found, and a visit by Dr. P. J. R. Modderman and Mr. C. van Duijn confirmed this assumption.

After consultation with the municipal authorities of Meerlo, is was decided to investigate a portion of the tumulus between September 2nd and 13th 1963, during a field-work period for students of the Institute for Prehistory of the University of Leiden. This first study included the SE and SW quadrants. A second field period, devoted to the NE quadrant, was held on April 13th-24th 1964, during which time part of the surrounding terrain was also investigated. The success of both excavations was for a large part due to the cooperation received from the municipal authorities of Meerlo headed by *Burgemeester* Drs. M. J. A. R. Dittrich. Both field trips were led by Prof. Dr. P. J. R. Modderman. The drawings made in the field and the illustrations to this article were prepared by Mr. J. P. Boogerd.

To insure the preservation of the tumulus in its original state, the ground has been acquired by the municipality.

[1]) Province of Limburg.

The situation in the landscape

The tumulus, the coordinates of which are 52 E 392.90/202.75, lies N. of the village close to the Meerlose Postbaan, on the rolling Middle Terrace of the Maas River on which a layer of rather loamy cover-sand was deposited. A beautiful spot was chosen for the construction of the barrow: the highest part of a ridge formed by aeolian deposits close to a depression in the terrain. This situation makes the tumulus appear larger than its actual maximum elevation of 150 cm above the original ground surface.

A little more than 200 metres to the E of the barrow there is a low escarpment with a drop of about 3 metres; this is the western margin of the valley through which the Molenbeek flows at present, the valley having originally been formed by the Maas (Fig. 1).

As a result of the quarrying of sand, part of the eastern flank of the tumulus has been removed, so that the E section of the EW profile is no longer intact. The investigation of the three quadrants encountered many difficulties caused by recent disturbances that had affected the centre of the hill in particular. Tree roots and tunnels made by animals were also numerous.

The tumulus

Pieces of flint, including a few tools and flakes, were found under the level on which the first tumulus had been built. Although they have

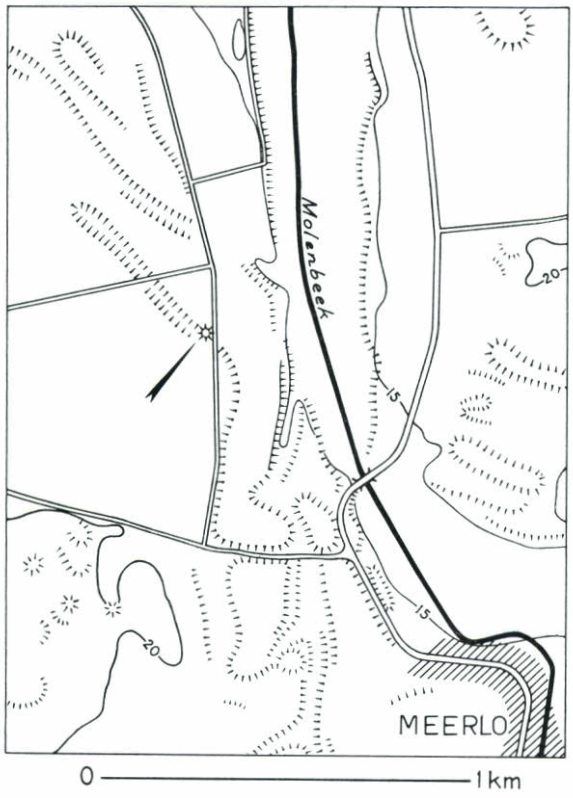


Fig. 1. Geographic location of the tumulus near Meerlo.

not yet been systematically studied, the majority of the artifacts appears to be Mesolithic; a few may belong to the Upper Palaeolithic.

0. The original ground surface

The ground surface contemporary with the construction of the oldest barrow is difficult to locate exactly in the sections. It is possible to distinguish, particularly in the NS profile, a zone showing a somewhat pale yellow colour overlying an orange to reddish brown subsoil. In the centre, in the original surface, a spot containing charcoal was found (Fig. 2).

1. Small tumulus with ringditch

The oldest barrow, which was about 50 cm. high, was circumscribed by a ringditch. This ditch can be distinguished in both the horizontal plane and the sections by reason of its pale brownish-grey colour; its width is 1.00 to 1.50 m, the diameter of the circle about 9 m on the average. The mound itself consists at present of yellowish-grey sand containing brown fibres; its upper side is set off by a layer of pale yellowish-grey sand interpreted as (a remnant of) the old surface of the mound. In some of the sections this layer extends into the material, filling the ringditch: after the ditch was dug, a portion of it filled rather rapidly; the surface then became covered with vegetation and a soil profile developed. In the excavated quadrants the search for the burial belonging to the first barrow was unsuccessful. The spot with charcoal mentioned above is possibly related to the burial.

The postcircle

The horizontal planes cut through the oldest mound in the southern quadrants exposed a ring of greyish-white post-holes. As can be seen from Fig. 2, this circle coincides with the oldest ditch. Since the bottom of the post-holes lies higher than the bottom of the ditch, the posts must have been placed in the material filling the ditch. It was impossible to determine whether the soil profile in the partially-filled ditch had already been present. The coincidence of the circle and the ditch may imply that they were constructed within a short time of each other, the more so because of the fact that the mid-point of the ditch belonging to the next period shows a distinct shift with respect to that of the oldest tumulus. In the NE quadrant the posts were barely recognizable.

2. The barrow within the discontinuous ditch

A ditch measuring 12 m. in diameter and showing several interruptions is the most distinct phenomenon of the second period in the construction of the Meerlo tumulus. This ditch, with its greenish-grey filling, is clearly visible in the SE and SW quadrants; in the NE quadrant it coincides with the ditch around the oldest

mound; its location there explains the almost complete absence of post-holes in this part of the oldest ditch. In the SW and NE quadrants the material filling this ditch was found to contain concentrations of charcoal.

The discontinuous ditch surrounds a burial mound built by increasing the height and extension of the first tumulus. The old surface of the barrow could be determined from the presence in several places of a bleached yellowish-grey layer continuing in the NS section of the SW quadrant into the filling of the ditch belonging to this mound. The same light-coloured layer in the NS section of the NE quadrant has also been ascribed to the second period on the basis of its height above the original ground surface. The material of this barrow is composed centrally of greyish-white sand, containing a large amount of fibres and showing a transition towards the edges to yellow and brownish-yellow.

After this enlargement the total height of the barrow reached about 80 cm. above the original ground surface under the centre of the mound; it must be kept in mind that locally this original ground surface exhibited a natural elevation. The excavation of the central part of the NS baulk between the SW and SE quadrants exposed a greyish-white discoloration rectangular in shape, measuring 110 × 220 cm., just below the surface of the first mound. The angular stain was separated from the surrounding yellowish-grey sand by some heavy, brown fibres. The orientation of the longest axis is NW-SE. The absence of objects and of charcoal makes it impossible to identify this discoloration as the grave belonging to the second period.

The only relevant fact with respect to the time relationship between the first and second mound is that a soil profile had developed on the surface of the older monument before the second barrow was constructed.

3. *The third tumulus*

Although no conclusive evidence is available, it seems clear that the old surfaces with dark-grey over light-grey remnants of a soil profile are the upper part of the third barrow. This addition, also composed of yellow to yellowish-grey sand, brought the total height of the burial mound to 110—120 cm.

During the investigation of the baulk between the SE and the SW quadrants, in the centre of the tumulus about 40 to 50 cm. under the surface of the third period, the fragments of a Veluvian bell beaker with the cremated bones, a pair of arrowshaft-smoothers, three arrowheads, and splinters of flint were found. This find complex, to be discussed in detail below, lay on or just in the mound of the second tumulus. It therefore seems acceptable to date the third barrow as belonging to the period of the Veluvian bell beakers.

The final tumulus

The mound finally reached its present dimensions, about 150 cm. high and over 22 m. in diameter. The presence of remnants of sods found on the surface of the third barrow in the NS section suggests that this last addition was also man-made. Directly under the ground surface on the edge of the present burial mound, the dark-brown discoloration of a ringditch was found in all three quadrants. The V-shaped cross-section of this ditch is visible in the sections. Its width at present is about 60 cm., the diameter 21 m. It seems likely that this ditch belongs to the just described final mound.

The barrow was also used in the urnfield period: the dark discoloration of a ringditch about 9 m. in diameter and 90 cm. wide was found in the NE and SW quadrants at the top of the mound just under the present surface. This ditch can also be discerned in the sections; it was dug to a depth of about 80 cm. from the present surface.[1]) In the sand shovelled back into a recent hole dug into the top of the mound were found a few sherds of black earthenware and a small amount of cremated bone, both of which may have derived from the interment within the ringditch. In this

[1] Comp. the ringditch on the Bronze Age tumulus, the Zwartenberg, near Hoogeloon (Glasbergen, 1954, pp. 10—11).

connection, reference may be made to the remains of a ringditch urnfield found to the North of the tumulus during the investigations described here.

Supplementary notes

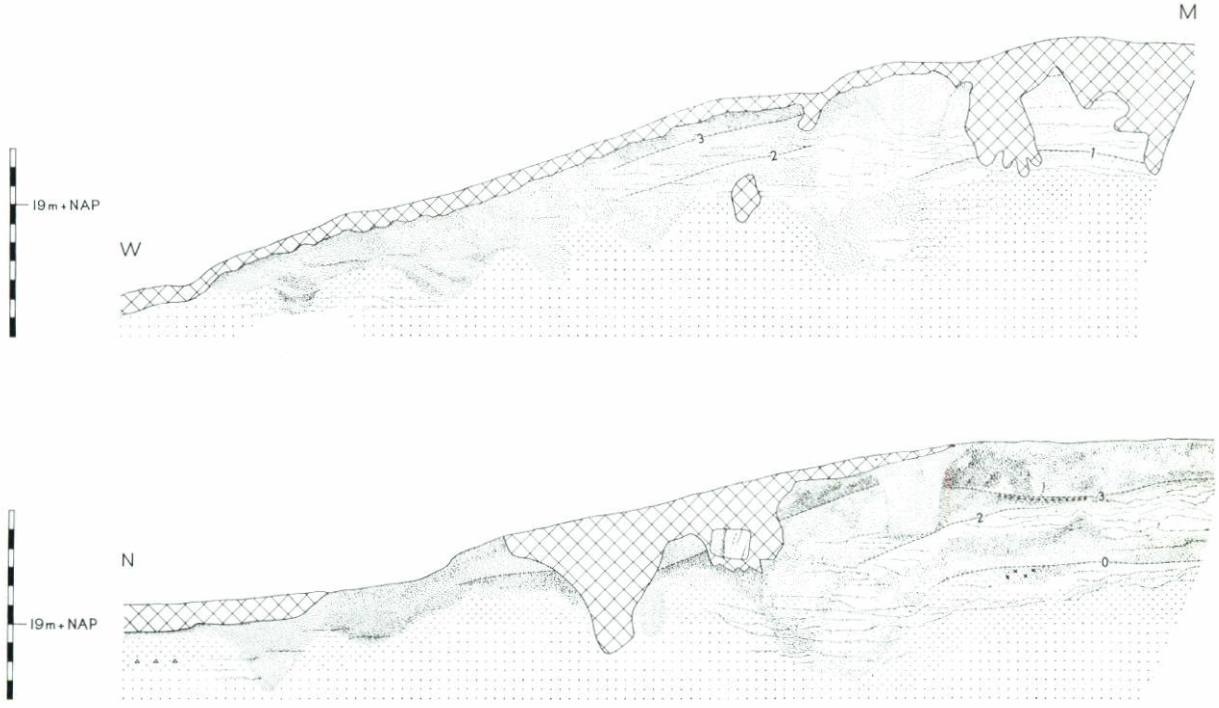
The excavations yielded a number of observations that are not included in the above report.

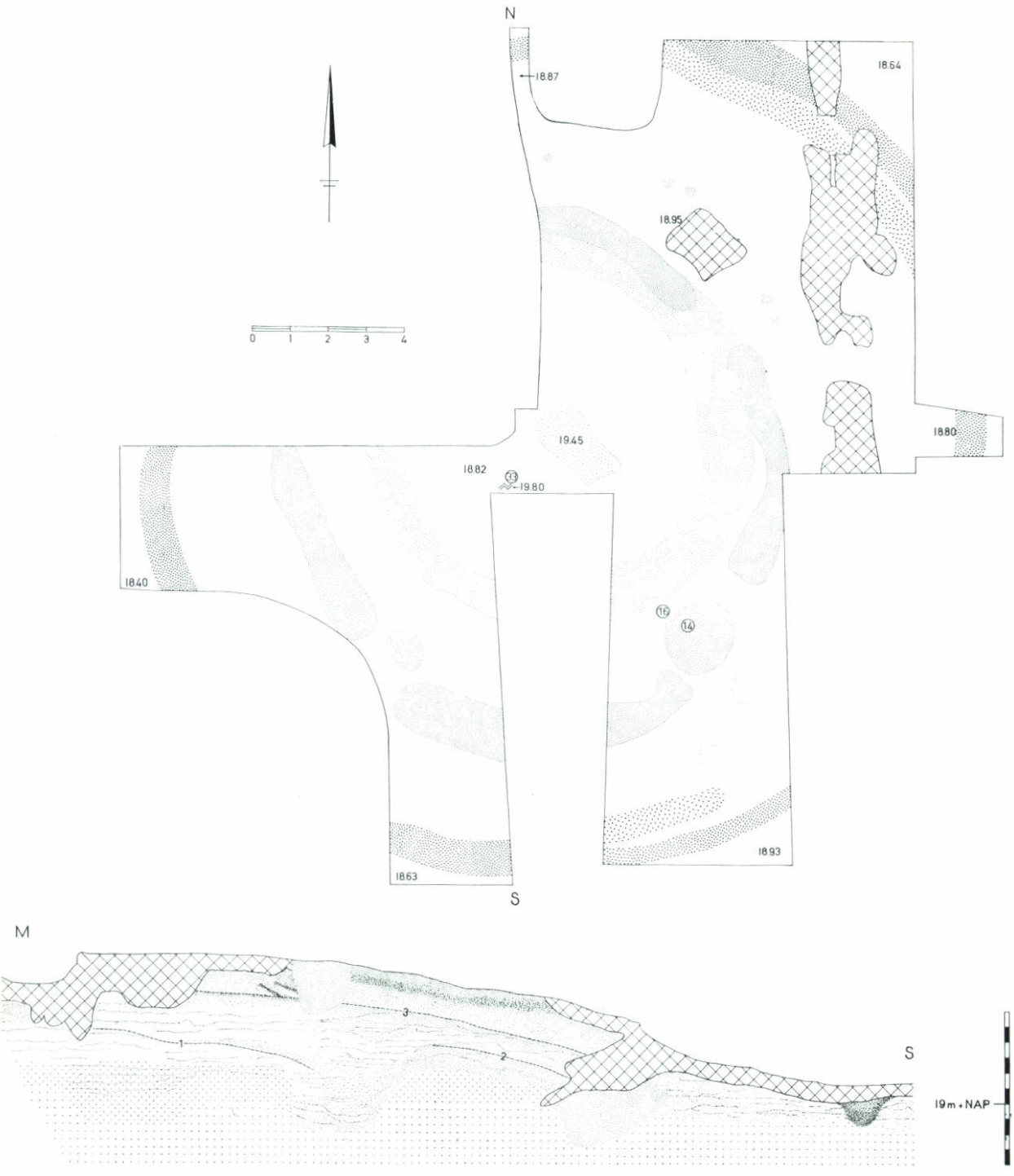
In a pit in the SE quadrant under the mound which was filled with light-grey soil, sherds of at least two Maritime bell beakers were found (nrs 14 and 16, Fig. 3). Their relation to the tumulus cannot be determined.

The interpretation of an oblong discoloration in the EW section of the SW quadrant as a post-hole is very uncertain. This light-coloured stain runs through the elevation of the second mound into the first barrow. If it was indeed formed by a post, which would then belong to the ring above the oldest ditch, this would mean either that this postcircle was still present when the second tumulus was constructed (this mound would then have been built shortly after the completion of the oldest structure) or that the posts belong to an intermediate circle that was set up after the completion of the second barrow; in the latter case the postcircle would only by chance have the same mid-point as the oldest mound, lie eccentrically with respect to the second tumulus, and could be related to the burial of the Veluvian bell beaker. It must be kept in mind, however, that both theories are based exclusively on a single, and moreover vague, discoloration.

Two groups of paired posts have left rather indistinct, grey stains in the NE quadrant. One of a third pair of these post-holes occurs in the section of the NS profile, the second being visible in the horizontal plane. No exact place in the period arrangement in the mound can be assigned to these phenomena either, although it seems evident that they must date from a time

Fig. 1. Plan and sections of the tumulus at Meerlo. Scale of plan 1 : 160, scale of sections 1 : 80.




N
18.87
18.64
18.95
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33
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16
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S
M
1
3
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19 m + NAP

subsequent to the construction of the second barrow.

The drawing of the NS section indicates that in the third tumulus just to the N of the centre, in the contemporary surface, a shallow hole was dug in which a large amount of charcoal collected. This would seem to suggest a burial from a period after the third mound, but no supportive evidence has been found.

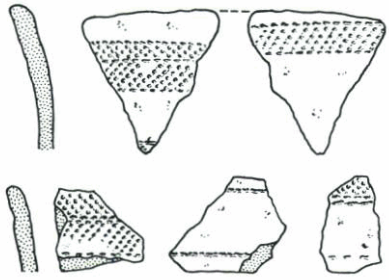

Fig. 3. Sherds of Bell Beakers of the Maritime type (nrs 14 and 16). Scale 1 : 2.

Although recent digging complicates interpretation, in the upper surface of the NS section in the NE quadrant there may be an indication of the existence of a stage in the construction of the barrow between the third period and the last mound. This stage (3—4) would then include the large, brown ringditch observed only indistinctly in the SE quadrant but very clearly in the NE quadrant, this ditch lying just within the one belonging to the final period. Because this surface was not observed in the other sections however, we can do no more than mention this possibility.

The finds

Flint: The collection of flints deriving primarily from the sand under the tumulus is being studied at present. The results will be published in due course.

Maritime bell beaker: The sherds of at least two Maritime bell beakers, shown in Fig. 3, were found in the SE quadrant (nrs. 14 and 16). One of the sherds belonging to a rim is decorated on the inside as well as the outside. On all the sherds the diagonal lines were made with a toothed spatula; the horizontal lines are probably cord impressions. The earthenware is made of sandy clay containing a very low percentage of coarse grains and was thoroughly fired. The inner and outer surfaces are red to orange, the core is black; the undecorated zones were polished.

Veluvian bell beaker, etc.: A few notations should be made here concerning the position of the Veluvian bell beaker and the remnants of a cremation as well as the related finds. The cremation remains, arrowheads, arrowshaft smoothers, and splinters of flint were found together. Evidently, after the cremation the calcinated bones and stone objects were collected from the funeral pyre (at some distance from the mound) in a cloth or basket and buried in the mound. Against it, to the north, the beaker was placed. The beaker therefore did not contain the cremation. A tunnel-shaped disturbance suggests that animal activity is responsible for the fact that only part of the beaker has been found: its bottom was even displaced so far that it was found in the contents of the recent disturbed area in the centre of the mound.

The Veluvian bell beaker was formed by hand from sandy clay with a small amount of fine gravel. The decoration was applied by the pressure of a dentated spatula. The decorated zones are seperated by slightly elevated bands between shallow grooves. The earthenware is reddish-brown on the surface, the core is black. In the reconstruction shown in Fig. 4 the position of the bottom with respect to the rest of the beaker is doubtful by a couple of centimeters.

The three arrowheads were made from grey flint. They are triangular in shape, the base being perfectly straight, and are 3 to 4 mm. thick. Their crackled surface suggests that they were heated in fire, during which process small bits split off at various places.

The two arrowshaft smoothers are made of sandstone; the flat sides and the grooves are ground, the other sides rough.

The splinters of grey flint in this collection give the impression of all having belonged to one piece of stone which split as a result of

heating. Whether the original piece was an utensil cannot be determined; the splinters show no traces of polishing or retouching.

Other finds: A flat piece of grey-coloured flint was, by grinding and chipping, remodeled into a small axe of very irregular shape. This object was found in recently disturbed soil, during the excavation of the SE-quadrant. It has already been mentioned that the sherds of black, polished earthenware found in disturbed sand in the centre of the mound may possibly belong to the ringditch on top of the barrow. They agree well with the earthenware originating from urnfields in The Netherlands.

Remarks

The absence of objects prevents the exact dating of three of the four periods distinguished in the structure of the Meerlo burial mound, nor can such information be found from parallels with most of the various parts of the monument. The construction of burial mounds with ringditches and postcircles was common in northwestern Europe over a period of many centuries.

However, the discontinuous trench surrounding the second barrow is less usual. Besides the English causewayed camps, which according to recent investigations were probably still in use up to about 2000 B.C. (Smith 1964), discontinuous ditches have been found in Haarendermolen, Uddel, and Vaassen, among other places. In Haarendermolen this ditch belonged to the second period of a burial mound containing a wrist-guard as grave-goods in the primary grave. A rectangular grave pit containing a cremation belonging to the second period of the mound was ascribed by Van Giffen to the Middle Bronze Age, which would thus date the discontinuous ditch (comp. Van Giffen 1930, Tafel 32 and 36). A vague resemblance to the Meerlo ditch is found in the description by Holwerda of the find called *Rundbau* from Uddel, which probably does not belong to a tumulus. Within this ditch (diameter 24 m.) sherds of Bell Beaker pottery were found (Holwerda 1909, pp. 39—41). In the Hertenkamp near Vaassen, Holwerda's barrow III also has a ditch with interruptions, but unfortunately no objects were found in this tumulus (Holwerda 1910, pp. 4—6). These cases supply practically

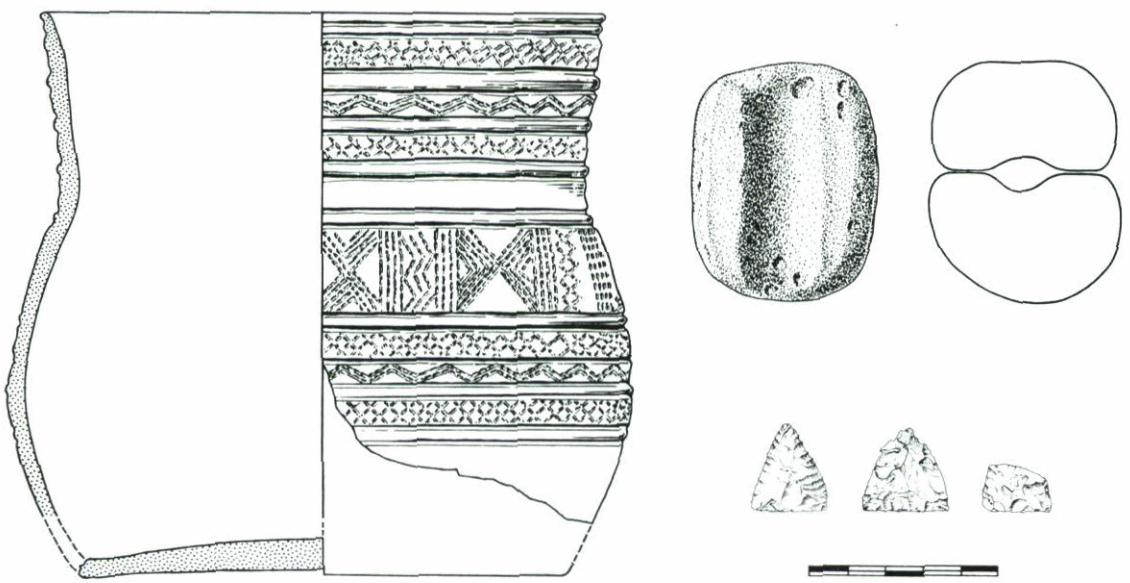

Fig. 4. Bell Beaker of Veluvian type together with a pair of arrowshaft smoothers and three arrowheads. Scale 1 : 2.

no information for dating. More useful for this purpose is the round barrow on Stockbridge Down (Hamps.) (Stone 1940). This mound, constructed of flint nodules, covers a grave in which a so-called B 1 beaker was deposited. The tumulus is surrounded by a ditch with five interruptions. In the material filling the grave, two separate cremations were later placed. Among the contents of one were a few Egyptian segmented beads of faience dating from the 14th century B.C. Recently our attention was drawn to the results of a barrow excavation at Bennekom (Province of Gelderland). Here the tumulus belonging the second period of this monument was surrounded by a discontinuous ditch, 16 m. in diameter. This second barrow was by pollenanalyses dated to the end of the Neolithic Period. It covered a tumulus with two Veluvian bell beakers. Lastly, there remains the dating information supplied by the third mound at Meerlo with the Veluvian bell beaker as *terminus ante quem.*

Until recently, lack of evidence raised opposition to the supposition put forward by Bursch in 1937 that the makers of the Veluvian bell beakers practiced cremation as well as inhumation. Bursch based his supposition on the investigation of barrow 1 at Oss, in which he found fragments of a Veluvian bell beaker and charred bone (Bursch 1937, pp. 1—3). The signs of recent disturbance found deep in the barrow have caused justifiable doubt that the cremation and the beaker belong together, the more so since a cremation was found in the upper part of the tumulus as a later burial. In the Table published in his thesis on the Beaker Culture in The Netherlands, Bursch included a number of other cases in which cremations were thought to occur in burial mounds from the Beaker Period (Bursch 1933, pp. 114—124). A study of the publications mentioned in this Table suggests that a number of these cases are improbable, but that others (e.g. that of the Doorwerthse Heide) lack only complete certainty.

It is known that outside The Netherlands, cremation was practiced as well as simple *inhumation* burial by a number of Neolithic peoples. It therefore seems strange to us that the cases cited above, which however uncertain actually exist, have been rejected as indications that cremation was practiced during the Bell Beaker Period in The Netherlands (e.g. de Laet and Glasbergen 1959, p. 105).

In addition to the Meerlo find, two other recent investigations have confirmed Bursch' theory. A similar combination of objects was found by J. D. van der Waals near Apeldoorn, and another by Dr. H. Hinz, who also found a Veluvian bell beaker and cremated bone in the same grave near Xanten (Veen, Kreis Moers).[3]

Thus, it may now be stated without reservation that the custom of cremation before burial was known in The Netherlands during the period of the Veluvian bell beakers.

[3] We are indebted to Dr. H. Hinz and Mr. J. D. van der Waals for permission to mention their finds, both of which are being prepared for publication, the former in Bonner Jahrbücher and the latter in Jaarboek Gelre.

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