# A BRONZE AGE BARROW ON THE MOORMANLAAN NEAR KNEGSEL, PROV. NOORD-BRABANT

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A greatly disturbed barrow in the Eight Beatitudes was investigated. Characteristic structures were lacking. Secondarily at the foot of the mound a double post circle had been erected.

### Introduction

At the instignation of Mr. G. Beex, the provincial archaeologist of Noord-Brabant, the Institute of Prehistory in Leiden, in the framework of a field trip for students, investigated a barrow on the Moormanlaan, a sandy road in the neighbourhood of Knegsel (Gem. Vessem; topogr. map 51 W - coord. 153.20/377.80; fig. 1). It was decided to investigate from fear that the mound would disappear unnoticed because of the growing number of bungalows in the immediate vicinity. The municipality of Veldhoven, as owner of the piece of land, gave its full co-operation for the excavation, which took place between 3rd and 14th of April, 1967. P. J. R. Modderman, G. J. Verwers and J. P. Boogerd took part in the investigation for the Institute of Prehistory, Leiden. The lastmentioned took care of the draughting both in the field and for this publication. In the compilation of the report use has been made of an essay on this barrow by A. Peddemors, one of the students who participated. The translation into English was done by Mrs. S. O. Robson.

The mound investigated is very probably not an isolated one. Diagonally opposite, on the other side of the Moormanlaan, there is, on private land, an elevation that can be interpreted as a tumulus. We have no data to indicate further burials in the immediate vicinity.

# The Barrow

Before the commencement of the excavation it was already clear that the mound had been severely damaged. On the road-side, the foot of the mound had been fairly heavily interfered with; this is visible in the N.-S. profile (fig. 3). A metal fire-tower on a concrete socle had stood in the middle until about fifteen years ago. The centre of the mound was much disturbed by the erection and demolition of this tower. The disturbance occupied an area of  $2 \times 2$  m and extended into the solid sub-soil. Despite all these activities the mound still had a fairly round shape with a diameter of about 15 m and a maximum height of 1 m.

During the investigation of the S.W. quadrant, with which the excavation was begun, it soon became apparent that the body of the mound had also been badly damaged by rabbit burrows and deep-ploughing in connection with afforestation. The disturbance was so bad that there were grave doubts as to whether we were actually dealing with a barrow.

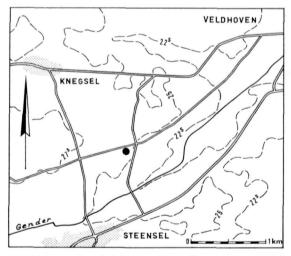


Fig. 1. Location of the barrow near Knegsel. 1:50.000.

The history of the tumulus can, with the help of data obtained during the excavation, be reconstructed as follows. Before the beginning of the burial ritual a podsol had been able to develop in the sub-soil. A 20–50 cm thick grey A-layer covers a 10–15 cm thick B-layer, in which a number of thin infiltration layers were observed. The soil is characterised as a rather loamy coversand.

There was absolutely no trace of a primary burial. This was most probably situated in the disturbed centre of the mound. It can however be established that a great deal of charcoal was deposited on the original surface at the time of the burial. A few times thin strips of charcoal were even observed. In the churned-up body of the mound there was also a relatively large amount of charcoal present. Where the mound had not been disturbed as in the M.N.-baulk, imbricately placed sods could still be identified. It can be assumed then that the mound was entirely built up from this material.

Samples for the analysis of pollen were taken from a sod and from the original surface in the N.W. quadrant (profile a–b, fig. 4); the results of this will be discussed later.

The traces of two incomplete double postcircles on the northern side of the mound must be considered as secondary to the tumulus. The earlier of the two describes an arc of about 240°. The central point lies in the M.N.-baulk, hence not in the centre of the barrow. The expectation that there would be remains of a burial at the central point were shown on investigation to be unfounded. At least, we were unable to observe any single indication of this. It is not entirely out of the question that within the post circle the barrow was heightened. On the distinct sod structure mentioned above lay earth with a variegated soil structure ('rijksdaalderstructuur'), which either pertains to the primary tumulus, or is connected with the post circle.

The later of the two post circles can be considered as extension of the earlier. One gets the impression that the western section of the earlier post circle was demolished and, as it were, moved in a westerly direction, while the eastern

section was left intact. This reconstruction of events was also prompted by the discovery of calcined remains of bones in two of the 'discarded' postholes. These could be one or two burials which were surrounded by the enlarged post circle.

The question has arisen as to whether or not the post circles were originally complete. Naturally the posts that were not found could have been in the material used for heightening the barrow. In this material, however, we were not able to discern any possible remaining traces.

# Palynological Research

For the completion of the archaeological data relating to the barrow on the Moormanlaan near Knegsel, there were two pollen samples available: one from the 'old surface' and one from a sod, both pertaining to the primary mound. The results of this analysis are given in the accompanying table. The state of preservation of the pollen was reasonable. As is customary the percentages are based on the sum of the tree pollen in which Betula is not included (van Zeist, 1967).

| Provenance Preservation Alnus Corylus Quercus Tilia Ulmus | old surface<br>reasonable<br>41.3<br>43.2<br>7.1<br>6.1 | sod<br>reasonable<br>42.5<br>41.3<br>7.2<br>5.5<br>0.9 |
|---|---|--|
| Fraxinus  |   | 0.3  |
| Fagus   | 0.9   | 1.5  |
| Pinus   | 1.4   | 0.9  |
| $\Sigma$ AP-Betula  | 424   | 332  |
| Betula  | 5.2   | 7.2  |
| Calluna   | 86.1  | 90.4   |
| Gramineae   | 4.2   | 5.1  |
| Chenopodiaceae  |   | 0.3  |
| Rumex acetosa type  | 0.5   | 0.9  |
| Plantago lanceolata                                       | 1.2   |  |
| Ranunculus  | 0.2   | 1.5  |
| Succisa pratensis   | 0.9   | 0.9  |
| Pteridium   | 0.7   | 0.9  |
| Polypodium  | 0.9   | 0.6  |
| Lycopodium cf clavatum                                    | 0.5   |  |
| Indeterminatae  | 1.4   | 1.5  |

The data from the 'old surface' and the sod display little difference, which may indicate that the sod was cut in the immediate vicinity of the

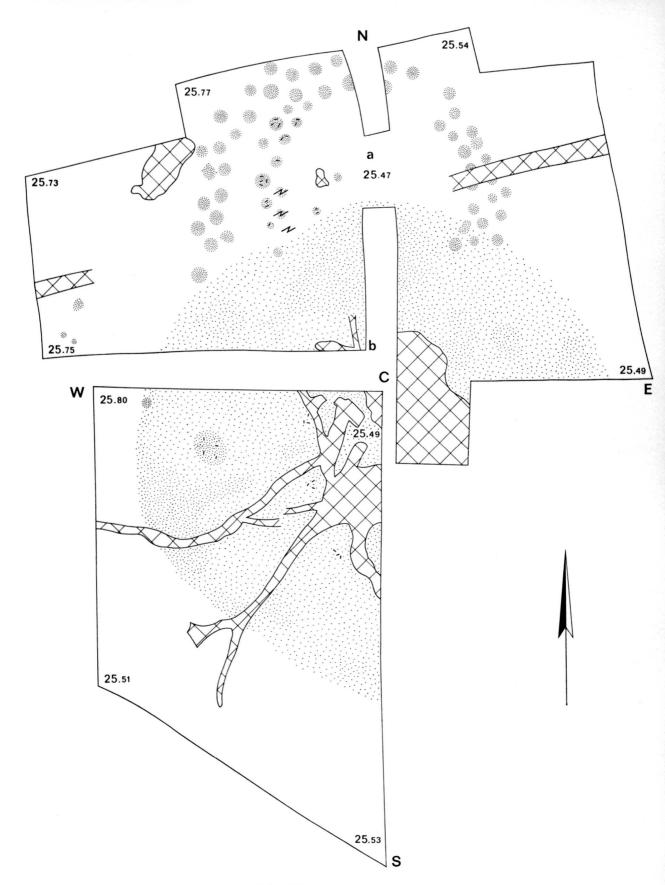


Fig. 2. Plan of the barrow near Knegsel. 1:200.

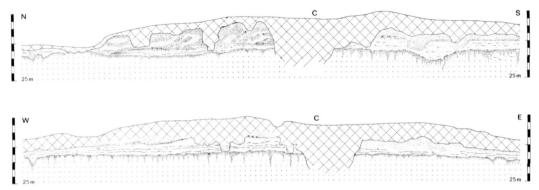


Fig. 3. Radial sections of the barrow near Knegsel. 1:100.

mound. The spectra are comparable with the spectra from Early and Middle Bronze Age barrows in Noord-Brabant (Waterblok 1954, van Zeist 1967). Within this group they correspond most with the mounds Knegsel E and F (Waterbolk 1954). It should be mentioned that the mound described here, despite the almost identical designation, does not form part of the group of mounds to which E and F belong. From the fairly high percentages of Calluna and the exceptionally low values for herbs, one may conclude that the barrow was raised on a heathland poor in herbs. In view of the tree pollen this open area was surrounded by a wood consisting principally of Quercus and Tilia. The area where the wood merged into heathland was probably densely covered with Corylus. The Alnus pollen probably originated in the valley of the Gender.

To sum up one can say that the primary mound on the Moormanlaan near Knegsel was raised in the Early or Middle Bronze Age on a smalle area of heathland that was poor in herbs from (among others?) sods which were cut on the spot.

# Interpretation and Conclusion

The excavation has brought to light several features of the barrow which make it possible to determine the period in which the interment was enacted. These are:

- A mound of sods without a perimeter structure
- 2. The double post circles.

### 3. The remains of cremations.

Barrows without any structure are considered characteristic of the Early Bronze Age in the Netherlands (Berichten R.O.B. 1965/'66, p. 9). Corresponding to this, broadly speaking, is the relatively large amount of charcoal on the original surface under the barrow, a phenomenon that is encountered repeatedly under Bell Beaker tumuli. A later dating cannot, however, be excluded.

Double circles of posts which were set up close together around barrows (Glasbergen 1954, type 6) are considered characteristic of the Middle Bronze Age in the South Netherlands. Butler (1969, p. 53) even suggests a date between about 1250 and 1100 B.C.

The archaeological and palynological indications are also in agreement with each other in broad outline. We should prefer to date the primary tumulus to the Early Bronze Age, not, however, excluding the possibility of the beginning of the Middle Bronze Age. The post circles were erected at some time after this, but certainly before the end of the Middle Bronze Age.

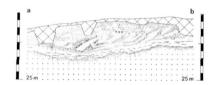


Fig. 4. Section of the barrow near Knegsel. 1:100.

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