

An Early/Middle Bronze Age multiple burial at Wassenaar, the Netherlands

- 1 The location, geology
- 2 The excavation
 - The excavation methods
 - Recording
 - The lifting of the grave and its conservation
- 3 The grave, description and analysis
 - The grave pit
 - Preservation
 - Composition of the group
 - Order of deposition
 - Disarticulations and missing parts
 - Burial postures
 - "Grave goods"
 - Cause of death
 - Dating
- 4 The context
 - Bronze Age occupation of the coastal region
 - The grave in relation to Dutch Bronze Age burial traditions
 - Ethnoarchaeology
- 5 Conclusion
 - What happened at Wassenaar?
 - A more violent Dutch Middle Bronze Age

In April 1987 amateur archaeologists of the Wassenaar Historical Society found a Late Neolithic/Early Bronze Age settlement site when they were prospecting trenches recently dug in a development plan in their village

The excavation of this settlement site by the Institute of Prehistory of Leiden University led to the discovery of a unique multiple burial of a slightly later date, i.e. from the transition from the Early to the Middle Bronze Age. This grave provided indications of a violent conflict of a scale hitherto totally unexpected in Dutch Bronze Age society. On further consideration, however, such conflicts most probably represented a structural aspect of the life of that society

1. The location, geology

Wassenaar is situated in the coastal district of the Netherlands, just north of The Hague (fig. 1). Its subsoil consists of beach or barrier deposits in which long barrier ridges have been formed parallel to the coast. The

sediments are covered with dune sands, in which, especially on the formerly dry barrier ridges, series of low dunes have been formed, which are known as the Older Dunes. These dune rows are separated from one another by wide, lower zones, representing former beach flats. This landscape was formed in the Early Subboreal, when considerable coastal aggradation took place and the coastline prograded seaward by several hundreds of metres each century (Jelgersma *et al* 1970). The coastal district stood out as a wide, dry region between the North Sea in the west and the extensive intracoastal marshes and swamps of the Rhine/Meuse delta plain to the east. As such it will have been an attractive region for prehistoric settlement (fig. 2).

Traces of prehistoric occupation — settlement sites and isolated artefacts — are usually found on the dune rows, but the Wassenaar site surprisingly proved to be situated on a low, very small dune of only some 25 m across, lying in the middle of a beach flat along with some other similar small

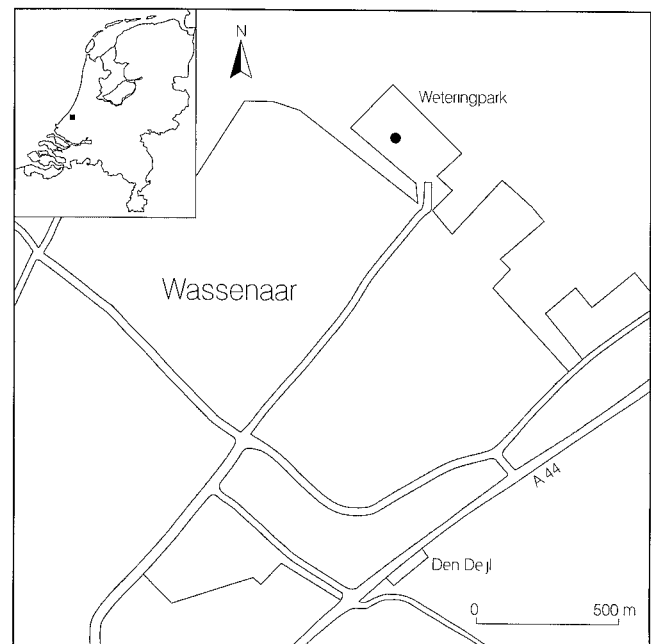


Figure 1 Location of the site in the Weteringpark extension of Wassenaar

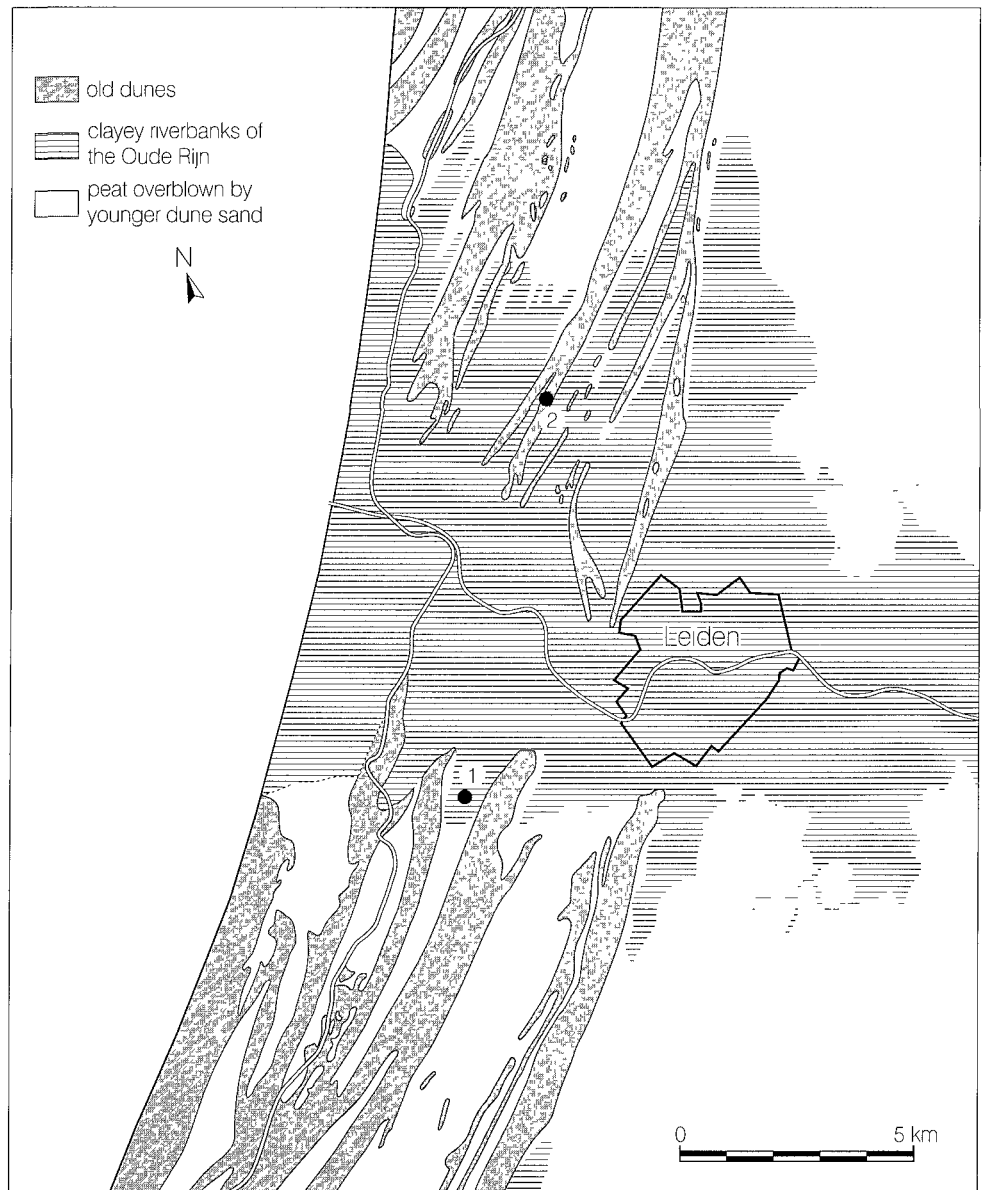


Figure 2. Geology of the coastal zone near Leiden, with the Subboreal coastal barrier system, covered by Older Dunes, and the location of the Wassenaar burial (1) and the Voorhout palstave hoard (2). Geology after Jelgersma *et al.* 1970.

dunes. The site lay in the northern part of the dune section between the estuaries of the Meuse and Rhine and close to the estuary of the Rhine and its tidal creek systems (figs 3, 4).

2. The excavation¹

The excavation of the site by the Institute of Prehistory of Leiden University showed that all that remained of the settlement was a handful of flint fragments and pottery sherds, some of which had belonged to Early Barbed Wire Beakers, which are diagnostic for the very beginning of the Bronze Age, c. 3600 BP (figs 5, 6).

The only reason why these data merit mention in this journal, in spite of their great interest for the history of local and regional prehistoric occupation, is that they represent the context of the totally unexpected discovery, during the final cleaning of one of the sections, of the multiple burial of twelve individuals. Although the grave lay in the area of the development plan and its excavation implied delays in the building schedule, the excavators were able to successfully clean, record and lift the skeletal parts thanks to the cooperation of the contractor and the local authorities.

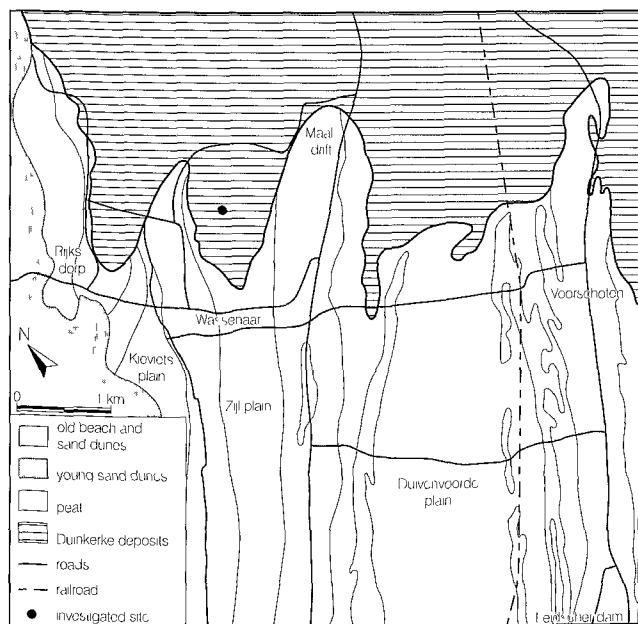


Figure 3. Location of the small dune in the beach flat between the northern ends of two main coastal barriers, close to the Rhine estuary. Detail of fig. 3. After Van de Plassche 1982.

2.1 THE EXCAVATION METHODS

The excavation procedure had to be adapted to the bad state of preservation of the bone remains. It was decided to do as much of the cleaning and recording as possible in the field and to have a professional anthropologist make all the basic anthropological observations in the field so as to restrict the laboratory work to corrections and additional observations.

The grave was covered with a plastic tent as a safeguard against the rainy and stormy weather. The cleaning was done with wooden spatulas and soft brushes and the bone was kept wet with the aid of a plant spray and plastic sheets. The diggers worked from scaffolding, mostly lying on their bellies (fig. 7).

2.2 RECORDING

Drawings of each individual skeleton were made on a glass pane, scale 1:1 (fig. 8). These were redrawn on transparent sheets and subsequently mounted. The complete skeletons and details of each of the skeletons were photographed, as well as of some additional details. The field drawing was later adjusted on the basis of the field photographs and drawings made of scale photographs of the cleaned and preserved blocks. Anatomy-book drawings were used as reference material to overcome the difficulties of deformation and bad conservation. The drawings and anthropological descriptions finally obtained provided a good basis for observations on the complex process of deposition.

2.3 THE LIFTING OF THE GRAVE AND ITS CONSERVATION

The skeletons were lifted in blocks of approx. 40 × 50 cm, which was an appropriate size for individual legs, trunks and pelvises. Use was made of thin sheets of gutter tin, supported by pieces of stiff chipboard. These were first used as gliders in pressing the sheets of tin beneath the skeletal parts, which had to be done in a perfect plane to avoid the risk of the blocks cracking later. The sheets of tin, now with the sand blocks on them, were then pulled back onto the stiff chipboard and lifted (fig. 9). All the blocks (about 40 in total) and the separately lifted long bones could be preserved thanks to the financial support of the municipality of Wassenaar and the province of South Holland. The reconstructed grave formed the centre of a small exhibition in Wassenaar from December 1989 until February 1990 and has been on view in the National Museum of Antiquities in Leiden since the autumn of 1990.

3. The grave, description and analysis

3.1 THE GRAVE PIT

The twelve individuals had been buried in a quadrangular pit of a rather irregular shape with sides of approx. 210 and 230 cm. The sides were oriented roughly NNW-SSE and WSW-ENE. The bodies were all positioned parallel to the latter direction, five with their heads in the east, seven with

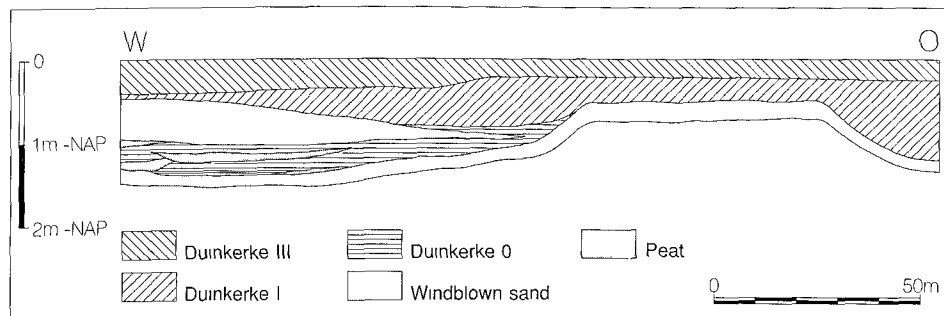


Figure 4. N-S cross-section of the small dune, after L. van der Valk

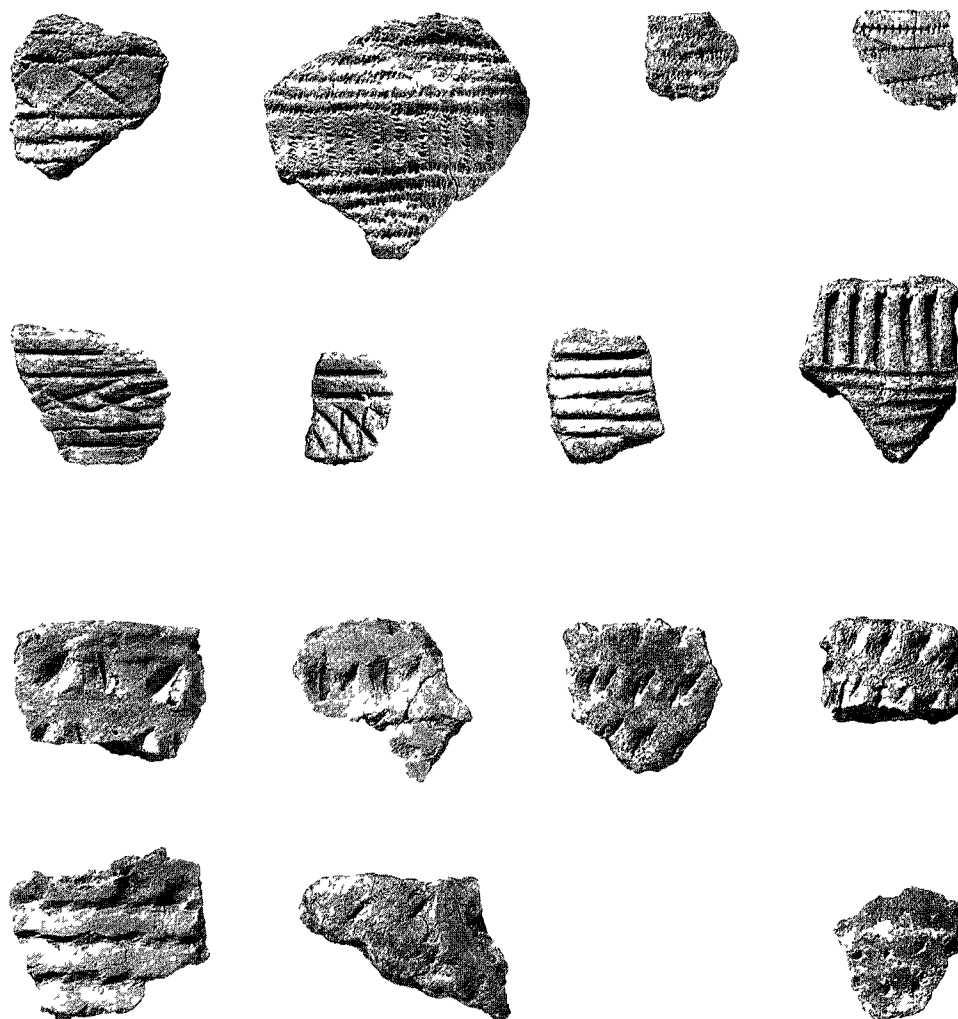


Figure 5 Wassenaar-Weteringpark Domestic Barbed Wire Beaker pottery, Early Bronze Age. Scale 1:2

their heads in the west (figs 10, 11, 12, 13). The fill of the pit hardly differed from the surrounding dune sand, which is understandable when we consider the situation at the time of burial: the area was then covered with a young soil only, which means that the fill of the pit differed from the surrounding sand in terms of structure only and not in terms of texture or humic content.

What did make the burial pit stand out from the surrounding soil were the effects of percolation that had led to the formation of several bands of humic precipitation around the pit. They indicated the shape and maximum extent of the pit. The bottom of the pit (*i.e.* the level of the lower parts of the skeletons) will have been almost flat; it was situated at approx. -1.00 m NAP (NAP = Dutch OD).

It was difficult to make out the walls of the pit, but the pit appeared to be rather steep in the section. The depth could no longer be established as the original surface had been eroded. The remaining depth was approx. 40 cm, but it must be assumed that the pit was much deeper originally.

The grave lay to the NW of the small dune, more or less next to the concentration of beaker finds. The surface that contained the sherds had been eroded by the wind, which is why no direct spatial or stratigraphical relation could be established between the settlement and the grave. There proved to be a chronological difference of several centuries between the two finds; their co-occurrence must be attributable to the relatively prominent character of the small isolated dune in the surrounding landscape.

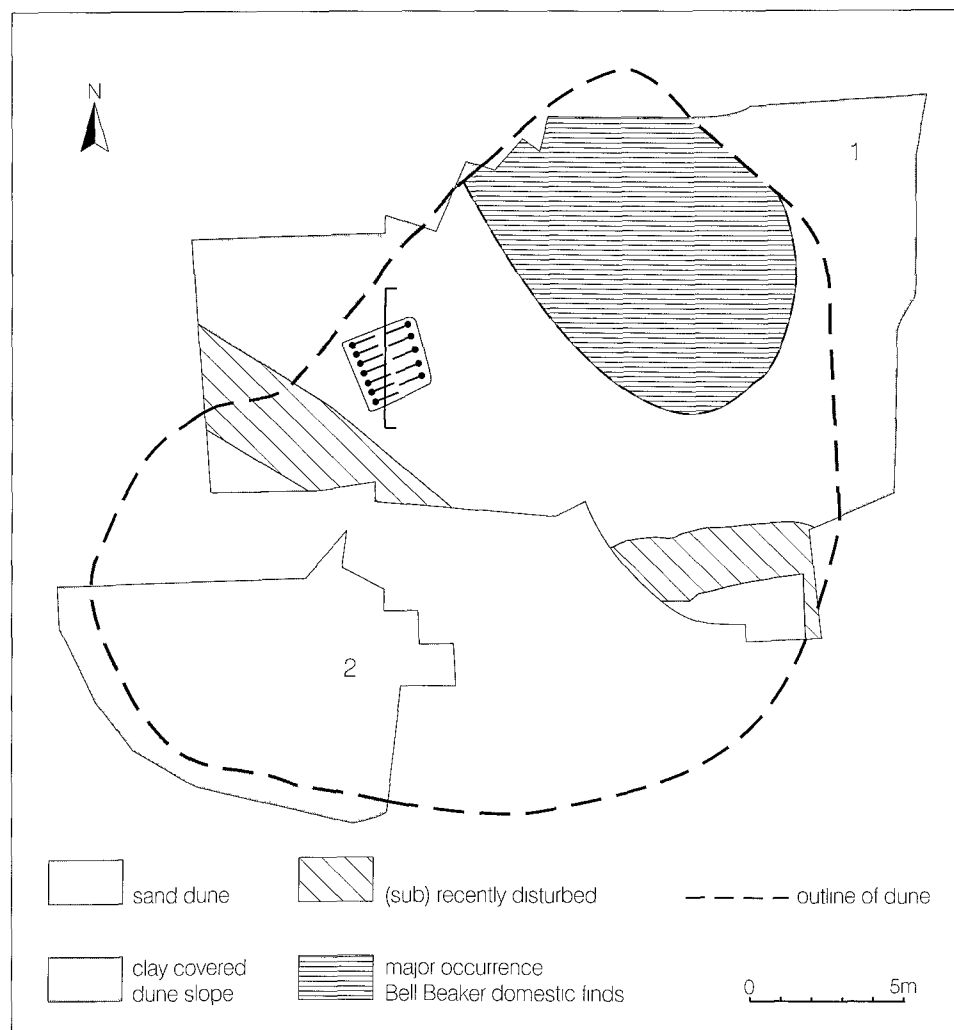


Figure 6. Wasseenaar-Weteringpark. The extent of the small dune, excavation trenches and features.

3.2 PRESERVATION

It is quite surprising that bone remains had been preserved in this matrix, at this location and at this depth. The dune sand is decalcified and the sand admits oxygen-rich water currents. The level of the floor of the burial pit (-1.00 m) is well above the former MSL of approx. -2.20 m (Van de Plassche 1982, 86). Since we cannot assume a local rise of groundwater in a small dune, situated on a beach flat close to an estuary, the bodies must have been buried well above the groundwater table (fig. 14). The rise in sea level will not have caused the local groundwater to reach the level of the bones until the (Late) Iron Age. Since then until the age of modern drainage the bones were submerged, the water stopping the process of decay. However, the skeletons were in a bad to very bad state of preservation and of some (No. 6) no more than a silhouette or soil discolouration remained. As the skeletons that had

suffered most lay next to a subrecent ditch dug at a distance of only one metre from the southwestern corner of the grave, this must be the consequence of drainage in historical times.

3.3 COMPOSITION OF THE GROUP

Thanks to the observations made in the field and the careful preparation of the lifted skeletal parts we have at least some basic anthropological information on the group.

The group was composed of twelve individuals, numbered 1 to 12. The age and sex of almost all the skeletons could be determined, in spite of the poor state of preservation (fig 15).

For details on these data and all additional observations, such as pathology and signs of violence, the reader is referred to the article by Maat and Smits (this volume).



Figure 7 Wassenaar Weteringpark
Working conditions



Figure 8 Wassenaar Weteringpark
Making the full scale field drawing
on glass

3 4 ORDER OF DEPOSITION

The order in which the bodies had been deposited could be inferred from overlapping limbs, they proved to have been deposited from the north to the south, in an almost regular alternation of bodies on the two (west and east) sides of the burial pit. The assumption that Nos 3 and 9 were deposited first, after which the others were deposited from the centre to the north and the south leads to unsolvable problems in the northern part

Some inconsistencies were observed: the left arm of No 1 was found resting on the right arm of No 2, the right arm of No 10 on the left leg of No 2. These inconsistencies can be explained by assuming that the two corpses were buried at exactly the same time or, even better, by assuming that some limbs – especially arms, were rearranged during the burial procedure. We must conclude, moreover, that no *rigor mortis* had as yet occurred. The relation between Nos 3 and 4 was remarkable: the left arm



Figure 9 Wasseenaar Weteringpark
The lifting of the skeletal parts in
blocks

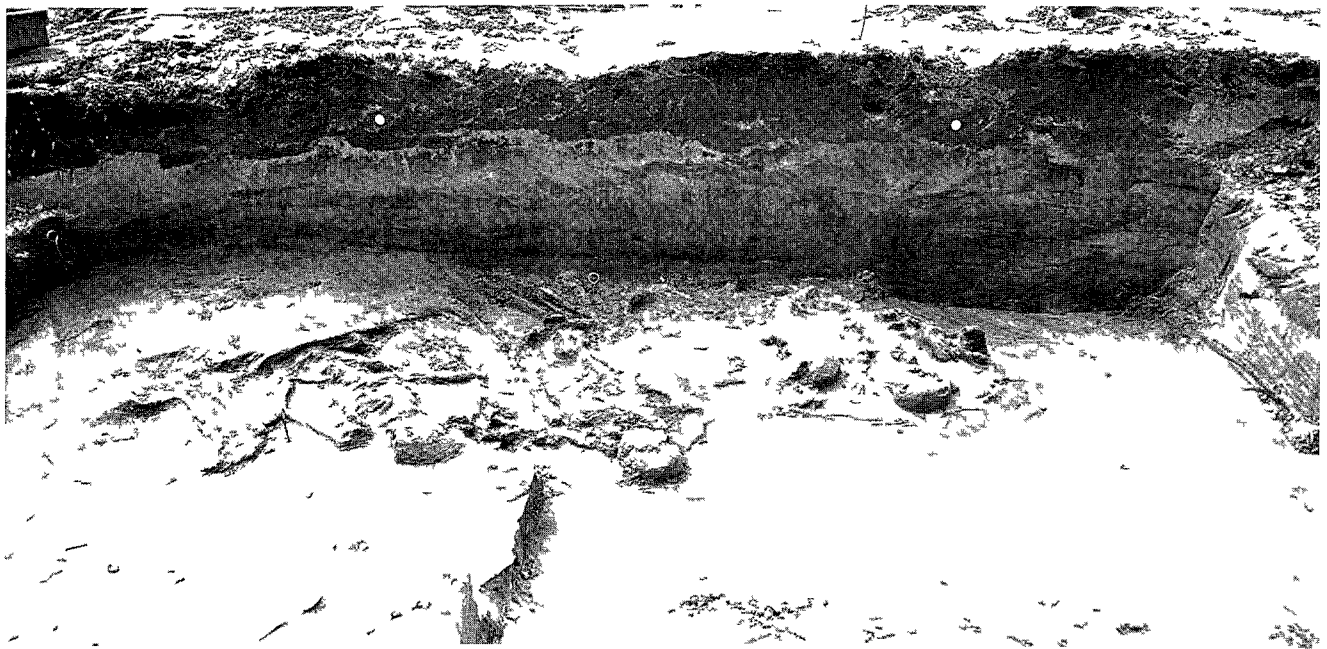


Figure 10 Wasseenaar Weteringpark The burial shortly after discovery showing the N S section

of No 3 was resting on the body of No 4 but the general arrangement, that is the fit of the bodies makes it most plausible that No 3 was deposited first. In other words the arm must have been rearranged. However the skull of No 4 lay **on top of** the bent left arm of No 3 out of articulation with the body and it is most unlikely that this is due to post depositional disturbance. Apparently

No 3 and No 4 – whose head had been separated from the trunk – were deposited together as a couple as follows

- body of No 3
- body of No 4
- rearrangement of left arm of No 3
- head of No 4

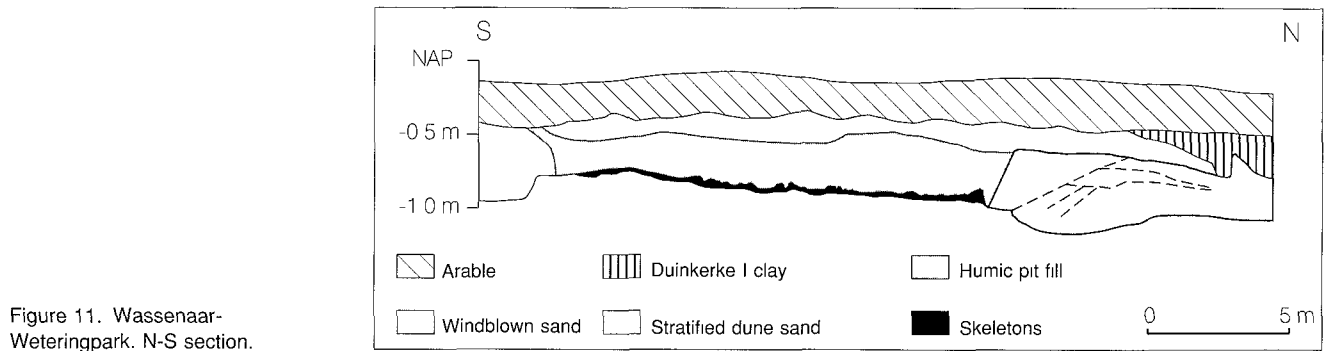


Figure 11. Wassenaar-Weteringpark. N-S section.

The three instances of coupled burials of two bodies on the same side of the burial pit have some characteristics in common. In all cases one of the deceased was (very) young, whereas the other was **not** one of the young adult males.

3.5 DISARTICULATIONS AND MISSING PARTS

Most skeletons were well-articulated; disarticulations could be easily explained by post-depositional displacements, either as a natural consequence of the decay process of the bodies or due to bioturbation. The displacement of lower jaws and *patellae* and the disarrangement of hand and foot bones were to be expected in the loose sandy fill. The disturbance of the trunks of Nos 6, 7 and 8 may be attributable to burrowing animals or uprooted trees and the same may hold for the displacement of the right limbs of No. 1 and the right knee of No. 8. Some observations, however, cannot be explained in this way, in particular the position of the skull of No. 4, commented on above. The only possible explanation in this case is disarticulated deposition, implying either pre- or post-mortal decapitation. However, only the *cranium* was out of place. The *mandibula* was in a normal position relative to the cervical vertebrae. Something similar may hold for No. 8, but this could not be verified due to the poor state of preservation and the overall disturbance of this part of the grave.

In all cases the absence of particular skeletal parts was attributable to poor preservation conditions, post-depositional disturbance or the speed with which the remains had to be recovered.

3.6 BURIAL POSTURES

At first sight, the burial postures appeared to reflect a rather careless and hasty form of deposition, but closer inspection revealed a certain regularity, possibly the result of distinct sex- and age-bound burial rules (fig. 16).

The only body in the grave which could be anthropobiologically identified as that of a woman (No. 11) was one of the only two (11 and 6) which had been buried face downwards. The two juveniles and the younger adolescent

Table 1. Wassenaar-Weteringpark, sex and age of the 12 individuals according to Smits and Maat, this volume, left in order of number, right in order of age estimation.

number	sex	age (year)	number	sex	age (year)
1	male	20-30	12	infans I	1½-2
2	male	30-40	4	infans I	3-3½
3	male	30-40	8	adolescent	± 10
4	infans I	3-3½	7	adolescent	15-16
5	male	30-40	11	female	± 18
6	(female)	>19	10	male	19-21
7	adolescent	15-16	6	(female)	>19
8	adolescent	± 10	9	male	>22
9	male	>22	1	male	20-30
10	male	19-21	2	male	30-40
11	female	± 18	3	male	30-40
12	infans I	1½-2	5	male	30-40

Table 2. Wassenaar-Weteringpark, sequence of deposition of the 12 bodies

sequence	west	east
1	12	.
1	11	.
2	.	1
3	10	.
4	.	2
5	9	.
6	8	.
7	.	3
7	.	4
8	7	.
9	.	5
10	6	.

(Nos 4, 8 and 12) lay on their sides (two on their left sides, one on the right side) in a gently flexed posture. All the others had been buried on their backs, with varying arm and leg postures, and in these cases, too, some regularities can be observed. The tall, 15-year-old adolescent (No. 7)



Figure 12 Wassenaar Weteringpark Oblique view from the North

was the only one with crossed lower legs. Four bodies (Nos 1, 2, 5 and 10) had one leg stretched and one bent, the foot placed against the tibia of the stretched leg. They were all young adult or adult males (c. 20–40 years of age). The legs of two bodies were both stretched (Nos 3 and 9). Both were male adults; one was the oldest individual (30–40 years old) in the grave; the other had been so poorly preserved that his age could no longer be accurately determined, but he had been at least 22 years old. No age or sex-related rules could be inferred from the varying arm postures.

The overall arrangement of the bodies also reflected a certain regularity: central are the two stretched adult males, accompanied by juveniles; with (young) adults on either side and the women with the very young children at the edges. In view of the applied burial rules and the symmetrical arrangement of the bodies in the grave, we may assume that No. 6 was a female like No. 11 and that No. 9 was a relatively old adult.

The regularities described above could be interpreted as purely accidental; indeed, the evidence is too meagre to have any statistical significance. We may, however, safely assume that the bodies were **not thrown** into the grave

but were **arranged** in a regular way in a burial procedure which provided sufficient opportunity for the observance of distinct sex- and age-related burial rules.

3.7 GRAVE GOODS

Very few **artefacts** were found in the burial pit and none of these may be considered grave **goods**.

A flint arrowhead found between the ribs of No. 10 represented important dating evidence and was also an indication of violence (fig. 17).

During post-excavational preservation two scraper-like flints were found under the lumbar vertebrae of No. 3. Microwear analysis by A.L. van Gijn showed that one of these (No. 514) had certainly been used as a scraper, possibly on skin, as suggested by the gloss pattern. They may have ended up under the body accidentally, but it is more likely that they were the personal possessions of the deceased; if so, they may indicate that the bodies were buried in their normal clothes.

Patches of charcoal, the remains of burnt pieces of wood, were observed in several places, especially next to Nos 1, 9 and 12. Very few sherds were found in the pit fill; they were all very small (less than 1 cm²).

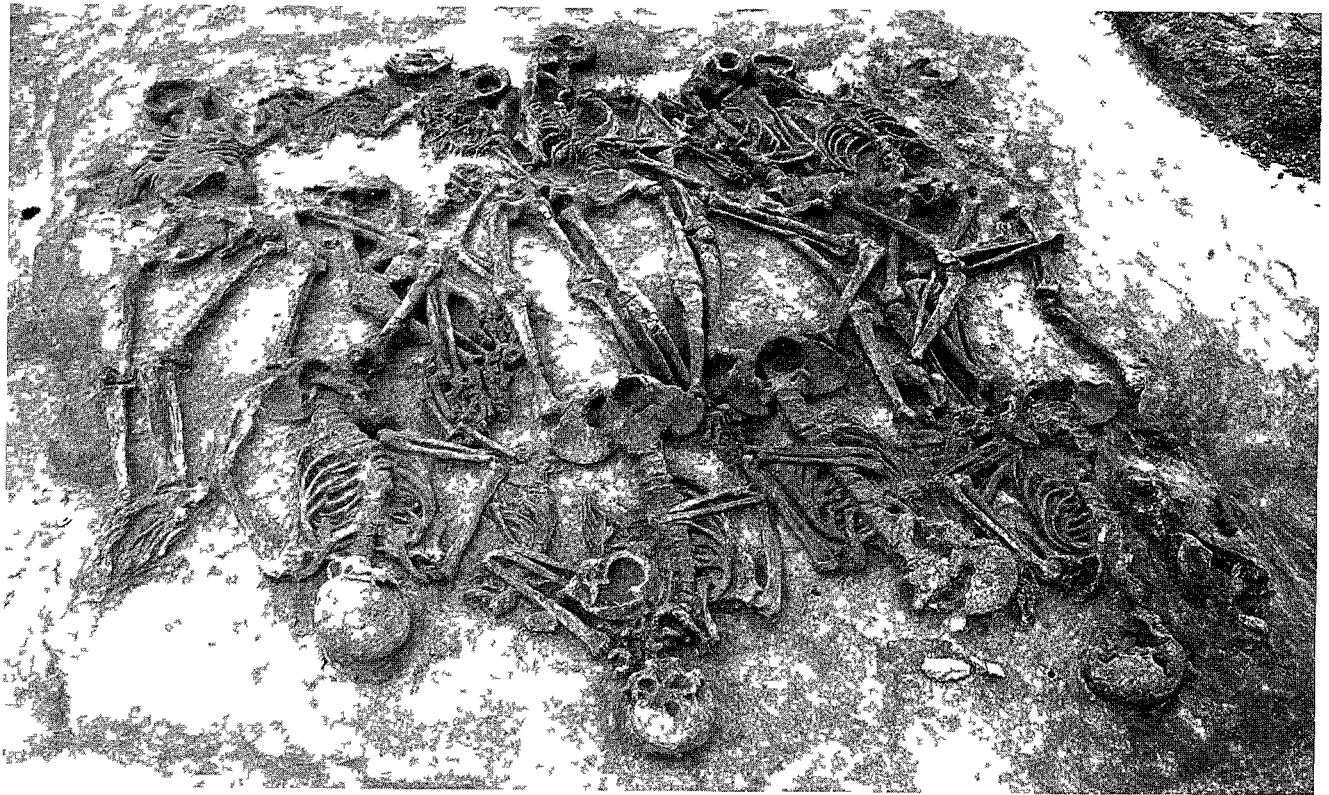


Figure 13 Wassenaar Weteringpark Oblique view from the East Note the extremely bad conservation of individual 6 (left) close to the subrecent ditch fill Note also the disarticulated skull off ind. 4 (foreground)

3.8 CAUSE OF DEATH

Very important and most interesting is the aforementioned small flint arrowhead that was found between the ribs of No. 10. Its position suggested that it had been shot into the body. Van Gijn observed impact fractures at the tip of the arrowhead but otherwise it had a fresh appearance and showed no traces of shafting (fig. 18). It is of course impossible to say when the impact fractures were formed, they may have been the result of earlier use. Nevertheless, we have interpreted this arrowhead as sound proof of a violent cause of death in the case of No. 10.

Since information on the cause of death is important for a social interpretation of this grave, careful attention was paid to possible marks of violence on the skeletal parts, which was not easy considering their poor state of preservation. A critical inspection revealed three blow marks, all without traces of healing, on the lower jaw of No. 2, on the right humerus of No. 3 and on the skull of No. 5. These marks were certainly not caused in modern cleaning, post-depositional causes were moreover very unlikely according to the physical anthropologists. An important question in

this respect is how many traces of mortal violence are to be expected on skeletal remains, especially if they have been poorly preserved and are severely deformed, as in this case. A fourth indication of violence was the fact that the skull of the infant No. 4 had apparently been separated from the body at the moment of deposition. This disarticulation can hardly be attributed to post-depositional factors.

In view of all these observations, a violent conflict is the most likely cause of death. Other casualties, such as an epidemic disease, famine, flooding or shipwrecking, are less plausible causes.

3.9 DATING

The lack of grave goods meant that the remains had to be dated via typological comparison of the specific shape of the arrowhead found with individual No. 10 and via C14 analysis. The arrowhead did not resemble any of the fairly large number of arrowheads found in Bell Beaker graves in the Netherlands (Lanting/Van der Waals 1976). Barbed Wire Beaker graves have yielded hardly any grave goods and no arrowheads whatsoever (Lanting 1973). However, a

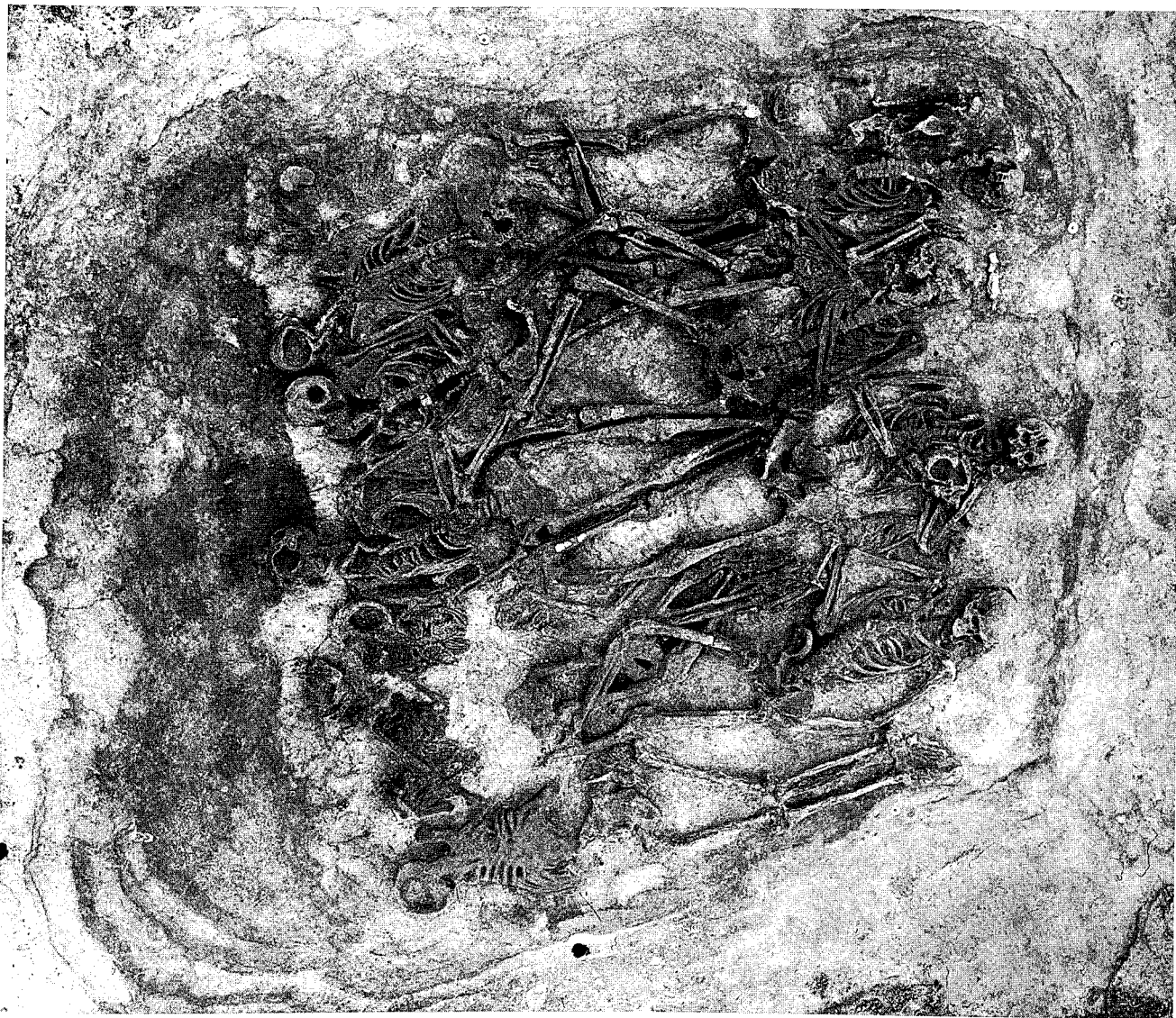


Figure 14. Wassenaar-Weteringpark. Vertical view. Note the humic infiltration bands around the grave.

fairly characteristic, rather sophisticated type of arrowhead with recurved barbs has been found in domestic assemblages. Close parallels have been found in an early Hilversum Culture pit fill at Vogelenzang near Haarlem (fig. 19), which are to be dated around 3400 BP (Groenman-van Waateringe 1961a). This date corresponds perfectly to two radiocarbon dates obtained from charcoal directly associated with the present burial:

Charcoal near pelvis of No. 9	GrN-14.949	3420 ± 80 BP
Charcoal from post (?) near No. 11		
	GrN-14.950	3380 ± 80 BP

These results yield a calibrated date of around 1700 cal. BC.

One of these samples was obtained from a number of concentrations of charcoal which were interpreted as the burnt edges of posts or beams that had disappeared altogether. The other sample was taken from the burnt remains of the end of a heavy upright post close to the head of individual No. 11, which may have marked the end of the grave. The relatively large standard deviation is attributable to the low carbon content of the samples.

This evidence soundly dates the grave to *c.* 3400 BP, 1700 cal. BC, around the transition from the Early to the Middle Bronze Age, which means that there is no direct connection between the grave and the settlement remains which first attracted attention to the site.

4. Context

4.1 BRONZE AGE OCCUPATION OF THE COASTAL REGION

How does the grave fit into the context of regional Bronze Age archaeology?

The Older Dune landscape developed and extended seawards during the Late Neolithic and the Bronze Age. As the coastline prograded, older dune rows gradually shifted further inland. At the same time the effect of the salt sea spray decreased and, as a result, the vegetation of the dunes changed from a halophytic vegetation, via typical dune brushwoods, into a deciduous forest, while the beach flats became rich natural meadowlands. This landscape will have been attractive for prehistoric settlement from its formation onwards. However, as a result of the subsequent rise in sea level, the beach flats were gradually submerged and changed into swamps and alder carrs. The region will have lost much of its former appeal when peat started to grow there, but where the dunes bordered zones of estuarine sedimentation, *i.e.* next to inlets and estuaries, high-water deposits compensated for the rise in the groundwater level, these deposits will have been covered with meadowland for a long time. The estuaries themselves moreover added to the diversity — and hence the attractiveness — of these zones.

We have, however, nothing more than the odd site and a few rare finds to confirm the presumed continuous prehistoric use of the coastal dune landscape. This landscape — and the archaeological evidence buried in it — has to a large extent been destroyed by intensive land use in historical and modern times: the effects of the cultivation of bulbs, sand quarrying, road construction and building have been disastrous for prehistoric remains in this region. Many remains were destroyed before the days of active archaeological research. Since the end of the last century, however, some finds have been recovered in this area and over the past decades detailed observations have been made in archaeological surveys and excavations. Most instructive in this respect were the large-scale geological and archaeological observations made during the execution of the development project in the Velserbroekpolder in Haarlem, in which extensive sites of many hectares containing plough marks and house plans came to light (Bosman/Soonius 1990). These remains indicated the intensive use of at least those parts of the dune margins that were bordered by natural pastures on former salt marshes and suggested intensive land use on a larger scale in this period, especially in zones of ecological diversity.

Other Bronze Age settlement sites have since then been found at Velsen-Noordzeekanaal, Vogelenzang (Groenman-van Waateringe 1961a), Lisse, The Hague and Monster (Van Heeringen 1983, Louwe Kooijmans 1974, App. I), all

of which were discovered during sand-digging operations, but no remains of Bronze Age sites have so far come to light in the direct surroundings of the Wassenaar grave. A Bell Beaker site has been found at less than 1 km to the east, but the closest domestic Middle Bronze Age remains were found 7 km to the southwest (Van Heeringen 1983, site 3). The well-known Middle Bronze Age hoard of Voorhout was discovered 8 km to the northeast of the grave, on the other side of the Rhine estuary. It is likely that the occupation sites were on the rows of dunes bordering the beach flat close by (Van Heeringen 1983).

Due to the extensive destruction of the archaeological remains, the poor state of preservation of the scarce finds and the fragmentary nature of our evidence it is very difficult to make specific statements on Bronze Age settlement densities and the intensity of land use, but we have the impression — and it cannot be more than that! — that the land was intensively used from the times of the Late Neolithic Vlaardingengroep onwards.

The evidence of Haarlem-Velserbroekpolder suggests that the very similar microregion in which the Wassenaar grave was situated was equally attractive and was hence populated by a similar number of people in Bronze Age times. The sea had retreated from this area several centuries before then and the beach flat must have been covered with wet natural meadowlands, the dunes on both sides having been wooded. The grave, however, had not been dug in or near a settlement site, but in what was apparently a field far away from the settlement itself, which must have been situated somewhere on the main dune ridges.

4.2 THE GRAVE IN RELATION TO DUTCH BRONZE AGE BURIAL TRADITIONS

Although the Wassenaar grave is clearly a special case, we must ask ourselves what Bronze Age burial traditions it reflects and to what extent. We must also consider its uniqueness and its position in our interpretation of the Dutch Bronze Age.

Early Bronze Age burial practice may be considered an archaeologically poorer continuation of the Beaker tradition: the deceased were still buried under barrows, but without the ring ditches containing closely set posts (Lanting 1973, Louwe Kooijmans 1974, 308, 318), the orientation of the grave was usually north-south instead of predominantly east-west, as it had been in the previous period. The burial posture changed from crouched to more gently flexed, the earliest instance of a stretched burial on the back, which was to become customary in the Middle Bronze Age, has been dated to 3660 ± 35 BP (St. Walrick, Groenman-van Waateringe 1961b, Louwe Kooijmans 1974, 308). Grave goods are almost completely absent in Early Bronze Age graves.

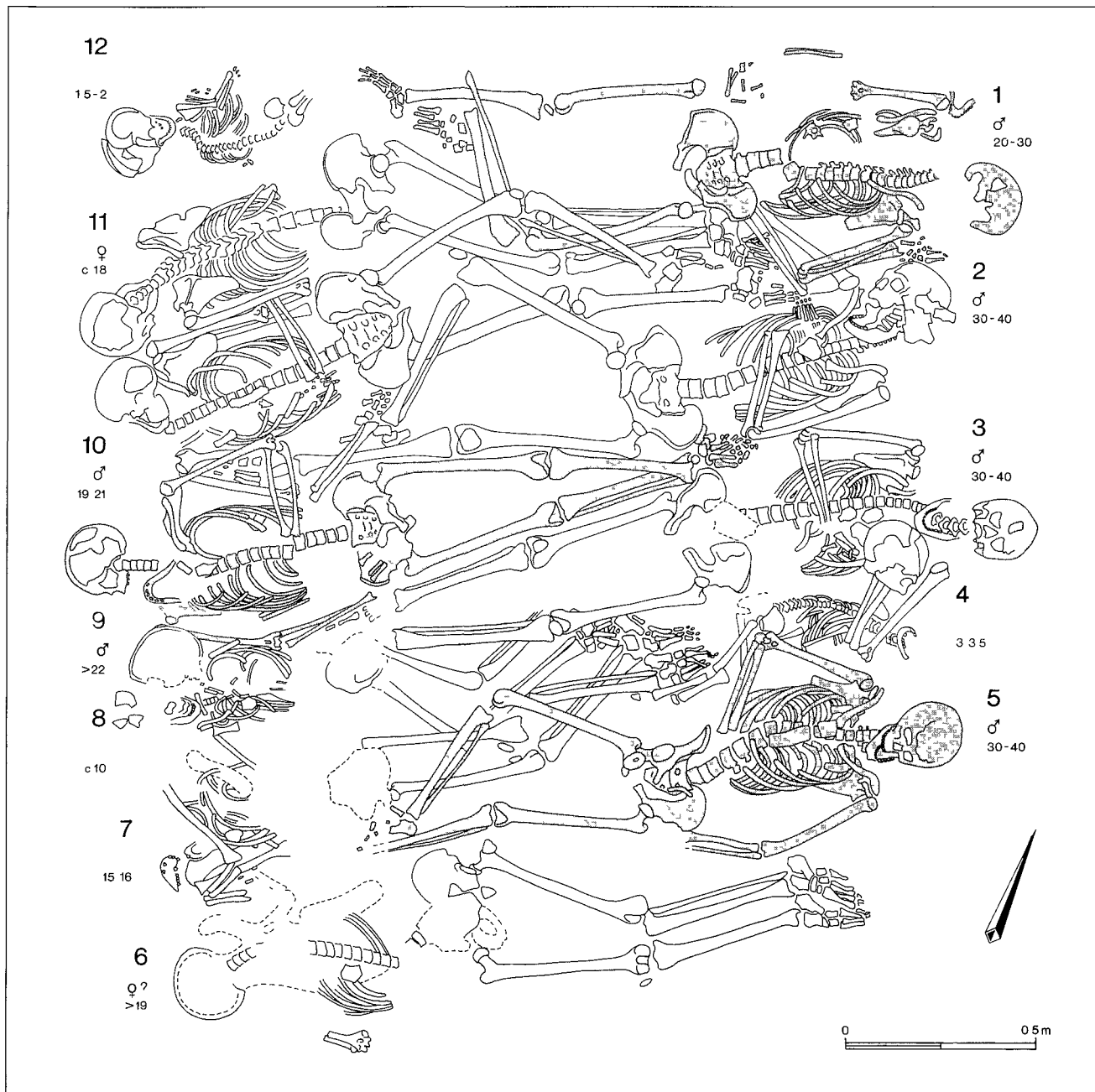


Figure 15. Wassenaar-Weteringpark Plan of the multiple burial, with age and sexe of the individuals

Halfway through the Early Bronze Age the practice of cremation and the burial of the remains in Hilversum urns under barrows surrounded by ditches and banks was introduced in the southern part of the Netherlands (especially North Brabant). This clearly indicates close connections with the urn burial traditions of south England (esp. the Wessex biconical urns). The development is now

generally interpreted as an evolution, based on regular and intensive contacts, continuing those of Beaker times, and no longer as an indication of the arrival of British immigrants.

The practice of cremation was introduced in the northern part of the Netherlands (Drenthe) at the beginning of the Middle Bronze Age. It remained the common form of burial

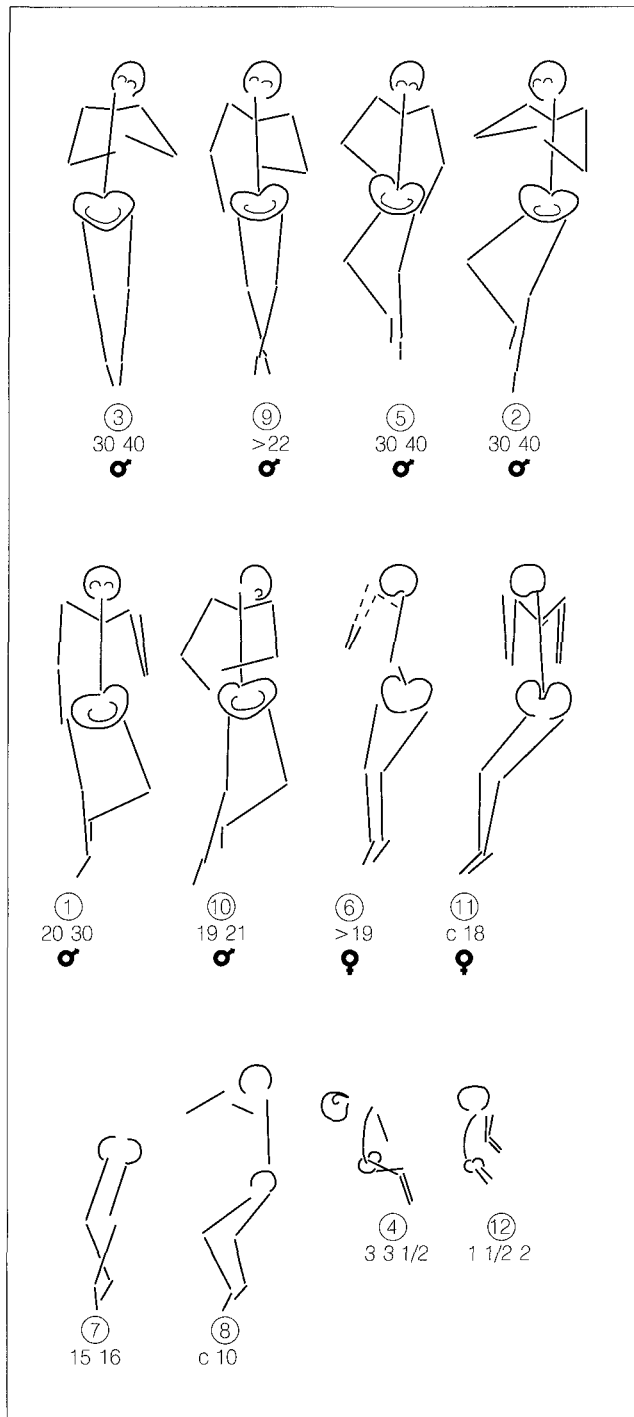


Figure 16 Wassenaar Weteringpark Burial postures

throughout the first half of that period (MBA-A) and was replaced by inhumation of fully stretched corpses (preserved as silhouettes) in proper coffins in the second half of the Middle Bronze Age (MBA-B). The silhouettes

provide very little information on body postures. No child postures or face down postures have been identified. There where the silhouettes of legs could be made out both legs were stretched, no silhouettes with one bent leg have so far been identified (Lohof 1991). No multiple burials have been found, but we do know of some cases of closely grouped individual graves in a communal mortuary house, as at Zeijen, barrow 75 (Glasbergen 1954, part 2, 144). These were, however, individual graves and although they had been dug within a time range of a couple of years, most were probably **NOT** contemporary. This northern Dutch group represents the westernmost manifestation of a tradition that was common all over the North German Plain and the southern part of Scandinavia.

In the late part of the Early Bronze Age and the Middle Bronze Age there was therefore a marked difference in burial practices between the northern and southern parts of the Netherlands. There were, however, also similarities between the two areas: in both areas barrows were erected on heavily podzolized soils using sods cut from those soils, in both areas these barrows were surrounded by circles of postholes during the Middle Bronze Age and were used for later secondary burials, although different local burial practices were used: what have been called "tangential inhumations" have been found in the north and cremation-and-urn burials in the south. Moreover, stretched inhumation was occasionally practised in the south while cremation started to be introduced in the north. As the number of barrows found is rather small it is possible that only a part of the local population was buried under such structures.

Due to the lack of evidence the relation between the burial customs of the coastal district of the western Netherlands and the aforementioned two traditions is not clear. Sherds of Hilversum pots indicate connections with domestic sites in the southern part of the Netherlands. The lack of evidence on burial practices, in particular barrows, is first of all attributable to historical and (sub)recent landscape transformations and, secondly, to the formation of the Younger Dunes over parts of the Bronze Age occupation areas near the sea. The chance discovery of a group of at least three (probably more) Early/Middle Bronze Age barrows at Velsen Hofgeesterweg, a few kilometres to the north of Haarlem, has provided at least some indications of coastal burial traditions. The barrows, which had been completely covered by drift sand, came to light during the digging of a trench for a pipeline in 1978 (Woltering 1979). One barrow (A) contained what was thought to have been a primary east-west burial of a crouched skeleton and six secondary inhumations, five of which at least were stretched. The bodies were oriented NW-SE and NE-SW. The barrow was surrounded by a ring ditch and a circle of postholes. Another barrow (C), which



Figure 17. Wassenaar-Weteringpark. Flint arrow head *in situ* between the ribs of ind. 10.

was surrounded by three ring ditches and five circles of postholes, contained four stratigraphically separated concentrations of cremation remains at the centre. Barrow B was surrounded by a double circle of postholes and a square ditch and contained cremation remains at the centre. Two kilometres to the south of this group, at Velsbroek, an exceptional grave was found on a small dune (Bosman/Soonius 1990). It was oriented east-west and contained inhumation remains accompanied by two golden *Noppenringe* and a Scandinavian palstave. The stretched skeleton, which lay at a depth of -0.85 m NAP, had decayed almost completely. The deceased had been placed on a small platform inside a larger (90 × 280 cm) burial pit. No other graves of this type are known. This evidence suggests a rather wide diversity of burial customs, combining both northern and southern elements.

A similar picture, but based on a much larger collection of data from some 200 interments, has been obtained for the Middle Bronze Age occupation of Westfrisia (West Friesland), a region with close connections with the coastal dunes in Bronze Age times. The dunes will have been the first to have been occupied and long-distance contacts will have been maintained via these areas. In the groups of barrows, the cemetery of flat graves, the settlement burial and the human remains mixed with domestic refuse stretched inhumations dominated, but crouched burial in various postures and cremation were also practised. Interesting with respect to the adult-juvenile association in the Wassenaar grave is the case of the partial cremation of an adult female in a burial pit and the subsequent burial of

a 7-year-old juvenile, on its side in a crouched posture, in the same pit at Hoogkarspel (barrow 2; Bakker/Brandt 1966, 190; Brandt 1980, 59). The barrows were surrounded by varying structures, mainly ring ditches, but also square ditches, circles of pits and circles of post holes, although the latter were rarer, good timber being scarce in that area. A synthesis of this rich material is still lacking and is badly needed (Bakker 1974; Brandt 1980; Brandt/IJzereef 1980).

Grave goods were rare all over the Netherlands in the Middle Bronze Age; the few that have been found consist mainly of small rings and an odd pin. Heavy implements like axes and swords are very rare, even though hundreds of barrows have been excavated. Remarkable exceptions are the rich Sögel grave of Drouwen and the Middle Bronze Age grave of Sleen (Butler 1969, 107 f.). Two graves in the western Netherlands are conspicuous for similar reasons: the Velsbroek grave mentioned above and one of the flat graves at Zwaagdijk, Westfrisia, in which an adult male was accompanied by an originally approximately 55-cm-long sword with a six-riveted hilt which is probably of Atlantic (Breton?) origin (Butler 1964; Modderman 1964). These graves reflect a martial aspect of Middle Bronze Age society that is of interest in the context of the Wassenaar grave.

In comparison with those of the northern and southern traditions, the burial customs of the coastal district — if we may indeed regard it as a separate unit — vary considerably in terms of the handling of the deceased, the posture of the bodies, their orientation, the type of burial monument and the surrounding structures. We may interpret this

differentiation, at least partly, as a reflection of the varying social qualities of the deceased and hence as an indication of a socially differentiated society. But that is about all that can be said about this differentiation. The lack of grave goods and our ignorance of the correlation between archaeological and social variables precludes further conclusions.

The evidence of the Wassenaar grave fits in with Bronze Age burial traditions as far as the extended postures and the custom of inhumation are concerned, although the two were not to become common until a few centuries later. We know of only one other case of a child buried in the same posture as that of Wassenaar whereas skeletons with one bent leg have been found in no other graves whatsoever. The absence of cremation remains in a grave dating from phase MBA-A is very conspicuous. All in all this makes the Wassenaar grave a special case. Another unique feature of this burial is the peculiar way in which the individual bodies had been placed in the grave: the twelve deceased had not been simply buried together according to a general burial practice, but had been carefully deposited according to a special set of rules (specially designed for this occasion?). Ethno-archaeological observations may throw some light on this matter.

4.3 ETHNOARCHAEOLOGY

No exhaustive research has been done into ethnographic evidence on burial in relation to violence. Not being an anthropologist myself, I will restrict myself to interesting and possibly relevant quotations of Binford (1971, 221). He notes that "... many [ethnographic] investigators [list] as the basic components of the social personality, symbolized through differential burial treatment: age, sex, relative social status within a given social unit, and social affiliation in terms of multiple membership units within the society and/or membership in the society itself. Additionally it was frequently noted that peculiar circumstances surrounding the death of an individual may be perceived by the remaining members of a society as altering, in a substantial manner, the obligations of the survivors to acknowledge the social personality of the deceased. Such persons are instead treated as "members" of a post-mortem social unit and afforded mortuary ritual appropriate to such a membership group. ... Deaths occurring simultaneously as a result of epidemics or massacres might be treated corporately, with mass graves, by virtue of their "unusual" coincidence."

Binford (1971, 220) cites several specific ethnographic cases but if we restrict ourselves to his ethnographic sample (p. 228-233), the "cause of death" appears to be expressed in only 8 out of 40 cases. This is done especially by settled agriculturists and pastoralists (7 out of 17 cases). It is reflected not so much in the furnishings of the grave, but in its location (three cases) and in the handling of the body

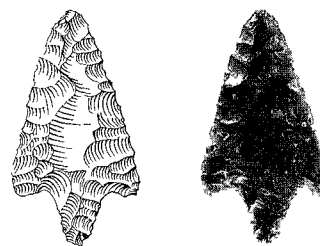


Figure 18 Wassenaar-Weteringpark Flint arrow head from ind 10. Scale 1:1.

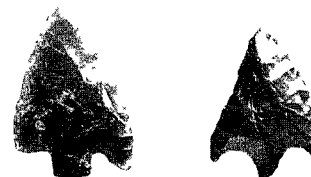


Figure 19 Vogelenzang. Two arrow heads from an early Hilversum Culture domestic complex. After Groenman-van Waateringe 1961a. Scale 1:1.

and its disposition (two cases each). Sex is never and age infrequently expressed in body posture in this sample. However, the representativeness of Binford's sample — and hence his quantitative interpretations — may be disputed.

From an ethnographic point of view, the way in which the Wassenaar group was handled after its collective violent death is not uncommon. The separate location and the specific burial rules match the data of Binford's sample very well. The attitudes of Dutch Bronze Age groups towards such casualties may have been quite similar to those of recent agriculturalist groups.

5. Conclusion

5.1 WHAT HAPPENED AT WASSENAAR?

The evidence and discussion above lead to the following conclusions.

The coastal Older Dune landscape was most probably intensively used in the Bronze Age. The microregion to the south of the Rhine estuary will have been attractive because of its ecological diversity. We furthermore have sound evidence from the Wassenaar grave for a violent armed conflict around 3400 BP, 1700 cal. BC. The majority of the victims of this conflict were males of warrior age, but children and women were also killed.

Shortly after the onslaught the victims were buried on a small dune, in the middle of the natural pastures of a wide beach flat. This location is not likely to have been a

settlement site, the settlements were most probably situated on one of the main dune rows, close to the arable. We assume that this conspicuous location was purposely selected for this extraordinary grave. The use of particular burial rules and the personal attention paid to the dead suggest that they were buried by captive or escaped kinsmen.

5.2 A MORE VIOLENT DUTCH MIDDLE BRONZE AGE

This conclusion gives rise to a number of questions.

In the first place, the Wassenaar grave stands out as unique in three respects: the collective aspect, the signs of violence and the combination of the two. In these respects it is singular for the Dutch Bronze Age, and indeed for Dutch prehistory as a whole and — as far as I know — for the Bronze Age of the whole of northwest Europe. Is this grave to be regarded as an entirely unique feature or does it represent a class of burial that is rare or has a low chance of discovery, or perhaps both?

The second question is: to what extent does this new evidence alter the traditional view of the Dutch Bronze Age?

Thirdly, how are we to specify this type of armed conflict or “war”? Information on the different types of war (and their varying archaeological visibility) in (sub)recent societies with roughly similar organisations is instructive in this respect. I intend to discuss this topic in a separate paper and to extend on tribal warfare in European prehistory in that context.

Features like the Wassenaar grave, situated in an open field without any durable markers, have a very low chance of discovery and hence a poor archaeological visibility. Once bone remains have decayed — as is usually the case in the Netherlands — such burial pits are not noticed by workmen or dragline drivers. On the other hand, in spite of the systematic prospection of digging operations and the intensive archaeological research that has been carried out over the past decades, no comparable burials have been found, not even in Westfrisia, where extensive reallocation operations have been prospected, large-scale settlement excavations have been carried out and many well-preserved bone remains have been found. It may be argued that the use of special burial rules at Wassenaar implies a certain “tradition”, in the sense of a regular custom. Our impression is that the Wassenaar grave does not reflect a singular event, but represents a first indication of an aspect of Bronze Age society that is poorly reflected in the archaeological record. We should at any rate examine the consequences of this hypothesis.

Violence of the kind reflected in the Wassenaar grave is totally at variance with the picture of a peaceful agrarian society that has so far emerged for the Dutch Bronze Age

from evidence from settlements, graves and hoards: a quite Utopian, if not naive, view of the past.

Most of the evidence from settlements has recently been collected (Fokkens/Roymans 1991). People lived in small, undefended agrarian settlements, in three-aisled farms comprising a living area and a byre. The farms varied in length, most measuring between 20 and 30 m, a few having lengths of up to 60 m (Angelsloo/Van der Waals/Butler 1974). The settlement structure appears to have varied, too: there were isolated farms (Elp/Waterbolk 1964), small open clusters (Texel/Woltering 1975), settlements consisting of one large farm surrounded by outhouses (Zijdeveld/Hulst 1991) and concentrations of at least ten, perhaps even more, farms arranged in a long row between arable and pastureland (Westfrisia, Bovenkarspel/IJzeerief 1981). The abundant evidence for cattle stalling, the specific site locations and zoological and botanical evidence present a picture of self-sufficient farmers with a balanced true mixed-farming subsistence strategy, with the emphasis on cattle, wheat and barley. The settlements were situated between arable and natural pastureland and mobility seems to have been restricted to small-scale transhumance, as for instance in the case of the initial colonization of Westfrisia. There is no reason to assume the exchange of staple crops between neighbouring communities on any scale. In view of the evidence for a violent conflict we may now speculate about the role of horses, represented for the first time in very low frequencies in the bone spectra found at the sites of these communities.

No evidence for site hierarchy has so far been obtained and it is unlikely that any will emerge in the future. The *intersite* differentiation appears to reflect regional variation rather than hierarchy. *Intrasite* differentiation is mainly expressed in the lengths of the farms, in particular in the large number of farm plans in Westfrisia, whose lengths ranged from 15 to 30 m. Such differences in lengths imply great differences — of up to a factor of three — in the number of cattle kept, that is, if we assume a living area of standard dimensions, and hence a differentiation in wealth, possibly implying a hierarchical society. There is no settlement evidence for a household of a person with some central function or power. The settlement evidence therefore indicates a tribal society rather than a chiefdom.

Social differentiation is apparent in grave goods on a very modest scale, as already mentioned above. The warrior graves of the Early and Middle Bronze Age can be counted on the fingers of one hand, whereas hundreds of barrows, most containing several burials, have been excavated. The greatest differences are in the burial monuments themselves: the labour invested in the construction or extension of the barrow and in the circles of postholes surrounding them.

The number of hoards that have been found in the Netherlands is also very small. Hoards of weapons containing swords and/or spearheads, such as that of Overloon (Butler 1959), are remarkably rare. The archaeological reflection of Early and Middle Bronze Age society hence lacks distinct social hierarchy and shows hardly any signs of martiality. Nobody has ever seriously questioned whether this is a true, representative reflection of that society. The apparent poverty of the Dutch Bronze Age was initially attributed to the scarcity of bronze, which had to be imported over long distances. However, the evidence for a flourishing agrarian society that has since then been obtained in large scale settlement research has made this argument untenable. All that can be said now is that the Bronze Age inhabitants of the Netherlands were already quite economically minded and did not “waste” their bronze in burial customs. At the same time they obscured their social differentiation and organisation for later archaeologists. On the face of it, however, we do not have the impression that the social organisation of the Bronze Age was any more sophisticated than that of, for instance, the evolved Limburg Bandkeramik. It is best to see it as a ranked organisation of a tribal community than as a stratified chiefdom.

The peaceful, rather idyllic picture of the Dutch Bronze Age has now been severely disrupted by the Wassenaar evidence. Apparently violent conflicts took place, in which not only males, but also females and children were killed, although the Wassenaar sex ratio does suggest that women were spared to a certain extent, they may have been abducted rather than killed.

I wondered whether the shock that this new evidence has caused among archaeologists is possibly attributable to naivety and whether, in spite of the lack of evidence, armed conflicts in fact formed a normal part of the social life of

societies like the Bronze Age one described above. With this hypothesis in mind I started a general survey of multiple burials with indications of violence from the Central and Western European pre-urnfield period. I found a small, but widely spread, amount of evidence from Bandkeramik times onwards. A survey of ethnographic and anthropological sources showed that, first of all, violent conflict is the rule rather than the exception in all societies. Secondly, in many tribal societies warfare is endemic, either as raids or in a more ritualised form, and, thirdly, these tribal types of warfare do generally not leave conspicuous archaeological traces: they do not involve defensive structures, specialised weapons and armour, large-scale destruction, specialised warrior groups, etc. In view of these observations it seems permissible to use the little Neolithic evidence available and the even smaller amount of Early and Middle Bronze Age evidence to assume that armed conflicts or tribal warfare were endemic throughout the Neolithic and the Bronze Age. This form of warfare was the logical basis for the more visible forms of warfare of the more complex societies of later prehistory. I plan to discuss the results of this study in a separate paper in the near future.

Acknowledgements

I would like to thank Erik Jungerius for his assistance in the field, Liesbeth Smits for her physical-anthropological study and Pieter van de Velde for his critical reading of my article and the discussions we had.

notes

1 Preliminary reports: Jungerius 1988, Jungerius/Smits 1988, Louwe Kooijmans 1990.

references

- Bakker, J A 1974 *Prehistorische menschen en uit Westfriesland, volgens de archeologische berichtgeving* (een literatuuroverzicht vermenigvuldigd ten behoeve van de direct belanghebbenden), typescript Albert Egges van Giffen Instituut voor Prae- en Protohistorie van de Universiteit van Amsterdam
- Bakker, J A 1966 Opgiavingen te Hoogkarspel III, Grafheuvels en een terp uit de Late Bronstijd ten ZW van het Medemblicker Tolhuis (voorlopige mededeling), *West-Frieslands Oud en Nieuw* 33, 167- 228
- Binford, Lewis R 1971 Mortuary Practices Their Study and their Potential, *American Antiquity* 36, 6-29 (= In Lewis R Binford, 1972 *An Archaeological Perspective*, New York/ London, 206-243)
- Bosman, W 1990 Bronstijdboeren met hun schaaapjes op het droge in Velsen, *Westerheem* 39, 1-6
- Brandt, R W 1980 De kolonisatie van West-Friesland in de Bronstijd, *Westerheem* 29, 53-67
- Brandt, R W 1980 West-Friesland in de Bronstijd Leven en sterven 'binnen de grenzen van een model' In M Chamalaun/ H T Waterbolk (eds), *Voltooid Verleden Tijd?*, Amsterdam, 47-62
- Butler, J J 1959 Vergeten schatvondsten uit de bronstijd In J E Bogaeis *et al* (eds), *Honderd eeuwen Nederland*, 's-Gravenhage, 125-142
- 1964 The Bronze Rapier from Zwaagdijk, Gemeente Wervershoof, Prov North Holland, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 14, 37-43
- 1969 *Nederland in de Bronstijd*, Bussum
- H Fokkens 1991 Nederzettingen uit de bronstijd en de vroege ijzertijd in de lage landen, *Nederlandse Archeologische Rapporten* 13
- N Roymans (eds)
- Glasbergen, W 1954 Barrow Excavations in the Eight Beatitudes, *Palaeohistoria* 2-3
- Groenman-van Waateringe, W 1961a Nederzettingen van de Hilversumcultuur te Vogelenzang (N H) en Den Haag (Z H) In W Glasbergen/ W Groenman-van Waateringe (eds), *In het voetspoor van A E van Giffen*, Groningen, 81-92
- 1961b Palynologisch onderzoek van drie laat-neolithische tumuli te St Walrick bij Overasselt (ld) In W Glasbergen/ W Groenman-van Waateringe (eds), *In het voetspoor van A E van Giffen*, Groningen, 72-80
- Heeringen, R M van 1983 's-Gravenhage in archeologisch perspectief, *Mededelingen Rijks Geologische Dienst* 37-1, 96-126
- Hulst, R S 1991 Nederzettingen uit de midden-bronstijd in het rivierengebied Zijderveld en Dodewaard In H Fokkens/ N Roymans (eds), *Nederzettingen uit de bronstijd en de vroege ijzertijd in de lage landen*, Nederlandse Archeologische Rapporten 13
- IJzereef, G F 1981 Bronze Age Animal Bones from Bovenkarspel, the excavation at Het Valkje, *Nederlandse Oudheden* 10

- Jelgersma, S
J de Jong
W H Zagwijn
J F van Regteren Altena 1970 The coastal dunes of the western Netherlands, geology, vegetational history and archaeology, *Med Rijks Geologische Dienst* 21, 93-167
- Jungerius, E 1988 *Wassenaar-Weteringpark, een nederzettingsterrein en een groepsbegraaving uit de vroege bronstijd*, essay Institute of Prehistory, Leiden
- Jungerius, E
L Smits 1968 Een groepsbegraaving te Wassenaar, *Westerheem* 37, 71-74
- Lanting, J N 1973 Laat-Neolithicum en vroege bronstijd in Nederland en N W -Duitsland continue ontwikkelingen, *Palaeohistoria* 15, 216-317
- Lanting, J N
J D van der Waals 1976 Beaker Culture Relations in the Lower Rhine Basin In J N Lanting/ J D van der Waals (eds), *Glockenbecher Symposium Oberried* 1974, Bussum/Haarlem, 1-80
- Lohof, E 1991 *Grafitueel en sociale verandering in de bronstijd van Noord-oost-Nederland*, thesis Amsterdam
- Louwe Kooijmans, L P 1974 *The Rhine/Meuse Delta, four studies on its prehistoric occupation and holocene geology*, thesis Leiden (= *Analecta Praehistorica Leidensia* 7 (1974) and *Oudheidkundige Mededelingen Leiden* 53-54 (1973-'74)
- 1990 Bronstijdstudij, slachtoffers van een oeroorlog, *Natuur en Techniek* 58, 748-759
- Modderman, P J R 1964 Middle Bronze Age Graves and Settlement Traces at Zwaagdijk, Gemeente Weerwisch, Prov North Holland, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 14, 27-36
- Plassche, O van de 1982 Sea-level change and water-level movements in the Netherlands during the Holocene, *Meded Rijks Geologische Dienst* 36-1 (= thesis VU Amsterdam)
- Waals, J D
J J Butler 1974 *Bayerisches Feld, in Hops Reallexikon der Germanischen Altertumskunde*, Berlin/ New York, Band 2, 54-58
- Waterbolk, H T 1964 The Bronze Age Settlement of Elp, *Helinium* 4, 97-131
- Woltering, P J 1975 Occupation History of Texel, I The Excavations at Den Burg Preliminary Report, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 25, 7-36
- 1979 Velsen Hofgeesterweg, *Archeologische Kroniek van Noord-Holland over 1978*, Holland 11, 252-256

L P Louwe Kooijmans
Instituut voor Prehistorie
P O Box 9515
NL 2300 RA Leiden