



ARJAN LOUWEN & DAVID FONTIJN

DEATH REVISITED

The excavation of three Bronze Age barrows and surrounding landscape at Apeldoorn-Wieselseweg



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The excavation of three Bronze Age barrows and surrounding landscape at Apeldoorn-Wieselseweg

ARJAN LOUWEN & DAVID FONTIJN (EDS)

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Chapter 7

Mound 1

Arjan Louwen, Quentin Bourgeois
& David Fontijn

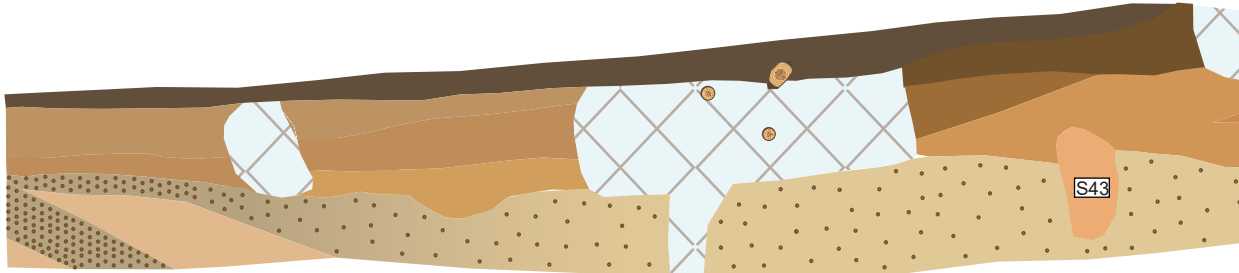
7.1 Introduction

Mound 1 is by far the clearest and best preserved of three barrows (Fig. 7.1). It is round in shape, 13 metres in diameter and 70 centimetres high. Mound 1 is located in a relatively flat forest plot which transitions ever more steeply into the dry valley located to the south. As a result, the silhouette of the barrow shows up well when viewed from the first path located to the north. Mound 1, furthermore, is located in the middle of the imaginary line that can be drawn between the four barrows of AMK-monument 145 in the east-northeast and the Koningseik mounds to the west-southwest (see Fig. 4.3).

The excavation of Mound 1 was restricted to the southwest quadrant (Trench 101). The high number of features and how they related to each other, in combination with the difficult to read subsoil made the fieldwork a complex undertaking. A total of eleven excavation levels were dug. The original plan to also excavate the northeast quadrant had to be quickly discarded. The results of the fieldwork so far leave multiple interpretations, which are presented with their respective argumentations below.



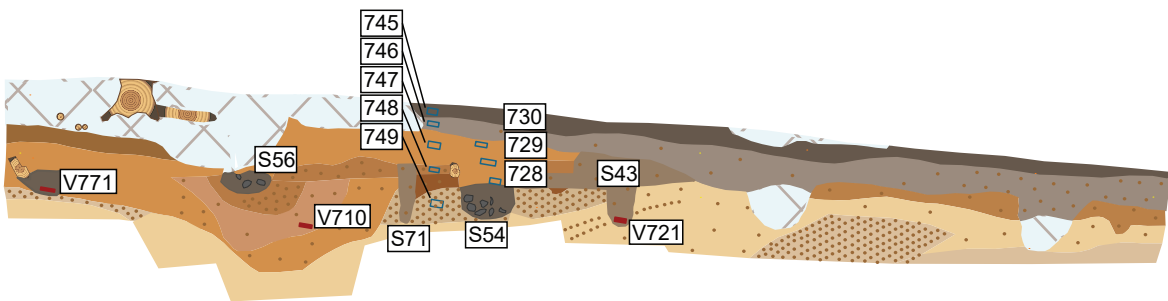
Fig. 7.1: Mound 1 prior to excavation. Photograph taken facing north.



Legend

- Charcoal
- Gravelly
- Find
- ▨ Disturbed
- Wood or root
- ▭ Sample

Fig. 7.2: Profile 1 of Mound 1 (west profile). Photograph taken facing north. Ranging pole is 1 m.



Legend

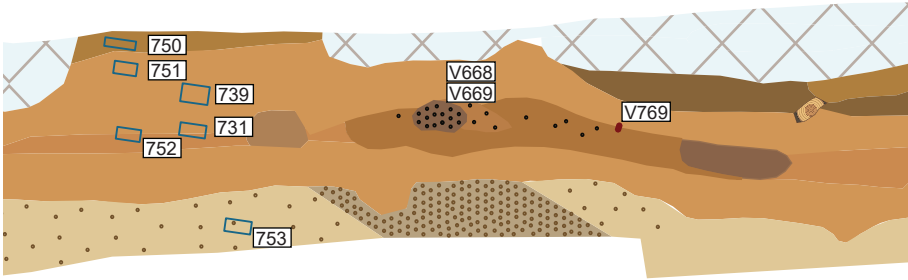
- Gravelly
- Stone
- ▭ Sample
- Wood or root
- ▨ Disturbed

Fig. 7.3: Profile 2 of Mound 1 (south profile). Photograph taken facing east. Ranging pole is 1 m.

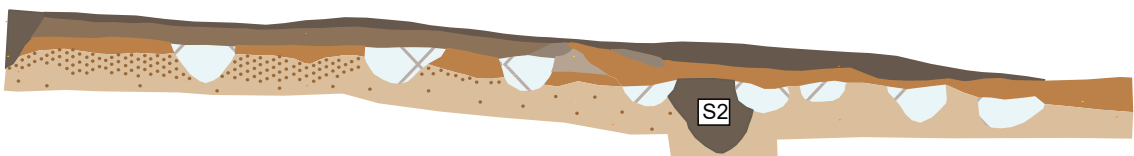
E



65.107
+NAP



65.134
+NAP



7.2 Structure of the barrow

Mound 1 is covered by a humus-rich layer, the result of the present-day vegetation (A0-horizon). This vegetation primarily consists of deciduous forest. The thickness of this dark grey, black layer varied between 10 and 20 centimetres in the southwest quadrant and was present over the entire mound body. As such, Level 1 was dug in this topsoil. While digging this level, the flanks of this mound were cleared of this debris (leaves and branches). The influence of the current vegetation did not stop with the formation of this humus-rich top layer of the barrow. During the forest planting activities in the second half of the 20th century, the barrow was not spared. As a result, a number of root systems managed to penetrate deep into the mound, with some even reaching under the old surface beneath it (see the centre of the mound in Figs. 7.2 and 7.3). Dark grey humus-rich zones formed around these root systems that are comparable to the humus-rich top layer of the mound in terms of genesis (see for example Fig. 7.5). A final element belonging to the most recent history of the barrow was a depression in the centre of the mound, which locally was more than 40 centimetres deep. This was filled with the same humus-rich forest soil and possibly originated around the root system of the tree trunk located here. This would explain why the depression was slightly deeper by the trunk in the southern profile section (see Fig. 7.3). In the western profile section (Fig. 7.2) a partially inverted soil profile was however visible, which would suggest a plough furrow or tree fall. It is possible that the depression is the result of a

number of factors, which can each be related to the recent forestry activities. The discovery of a pipe bowl (V10) found in the fill of the depression at the depth of Level 4 confirmed that the depression in the centre of the mound was formed in recent history. Finally, the western profile section (profile 1, Fig. 7.2) showed that a young soil has formed on top of the inverted soil profile.

The southern profile (Fig. 7.3) in particular showed the remnants of an older soil underneath the humus-rich top layer. This grey-brown band, which became thicker towards the foot of the barrow, is the remnant of an old Moder Podzol which had formed in the top of the original mound body. As barrows have a sloping surface, the displacement of minerals not only takes place vertically, but also diagonally. As a result, an intensified podsolization took place around the foot of the mound body, which explains why the Moder remnant (Bh-horizon) became increasingly thicker towards the foot of Mound 1. Level 2 was dug at the transition between the present-day topsoil and this older Moder Podzol, which is why elements from both layers were visible at this excavation level (Fig. 7.4).

Some grey-brown zones could also be discerned in Level 3 which were part of the old Moder Podzol in the top of the mound. From Level 3, some 30 centimetres under the present-day surface and the following Levels 4 and 5, the mound had a homogenous ruddy orange-brown colour and consisted of medium coarse, slightly gravelly sand with a number of pebbles in various sized. Levels 2 through 5 were all four dug in the original mound body.



Fig. 7.4: Level 2 in Mound 1. Photograph taken facing south.

Unfortunately the depression in the centre of the mound described above means that the original height of the mound body could not be determined with any certainty. Directly to the south of the depression, the mound body (including the present-day topsoil) is 50–60 centimetres high. Sod features were observed neither in the various excavation levels nor in either profile sections (Fig. 7.5). This could mean that the mound was constructed using loose sand. A second, and in our view more plausible explanation for the apparent absence of sods, is that this barrow was constructed using sods, but that these have since completely homogenized (see Section 5.4). The mound body in any case contained much fewer pebbles than the natural sub-soil. The means that the ground from which the barrow was constructed was most likely obtained elsewhere.

Levels 6 through 8 were dug around the depth of the old surface (60–80 cm below the present-day top of the mound). Level 6 is a small sondage, while Levels 7 and 8 are completely documented excavation levels. The old surface also appears to be completely homogenized. Yet still there was a light grey haze visible over the homogenous, ruddy and orange-brown layers at this depth. Moreover, the number of finds (flint and pottery) increased considerable while digging the excavation levels in question, which also indicates a prehistoric surface. The light grey colour was caused by the presence of small charcoal particles and lumps. This latter

observation likewise forms an argument in favour of the presence of an old surface at this depth.

Underneath the old surface the sub-soil again coloured ruddy orange and the number of pebbles increased. Levels 9 and 10 were dug at this depth and yielded by far the most archaeological features. Between 15 and 20 centimetres under the old surface lay a rather abrupt border. The ruddy orange colour of the natural sub-soil underneath the mound transitioned quite quickly into a pale, light grey colour. The sediment here consisted of coarse gravelly, loose sand. In addition, laterally sequential gravel layers were discernable at a slightly deeper level (see Fig. 7.2). Level 11 was dug in the top of this coarse sandy pale sediment, consisting of pushed-up river deposits, and thereby forms the last horizontally documented excavation level of the southwest quadrant of Mound 1.

7.3 Features and structures

In total 72 features were recorded in the southwest quadrant of Mound 1. A number of these features were eventually discarded as they proved to be natural phenomena or disturbances upon sectioning (see Tab. 7.1). Almost all proper features were encountered in the zone around the old surface or became visible immediately beneath it (Levels 9–11; see Figs. 7.6–7.8). The most important features are presented and discussed per context in the following.



Fig. 7.5: Level 5 in Mound 1. Photograph taken facing east.

Trench	Feature	Level	Interpretation field	Interpretation definite	Depth (cm)	Complex
101	1	3	Pit	Natural disturbance		<i>Discarded</i>
101	2	3	Spot	Spot		<i>Discarded</i>
101	3	5	Spot	Spot		<i>Discarded</i>
101	4	6	XXX	Natural disturbance		<i>Discarded</i>
101	5	7	XXX	Layer		<i>Discarded</i>
101	6	7	XXX	Layer		<i>Discarded</i>
101	7	7	XXX	Layer		<i>Discarded</i>
101	8	7-9	Pit	Natural disturbance	18	<i>Discarded</i>
101	9	7	XXX	Natural disturbance		<i>Discarded</i>
101	10	7	XXX	Natural disturbance		<i>Discarded</i>
101	11	8	Ditch	Natural disturbance		<i>Discarded</i>
101	12	8	Spot	Spot		<i>Discarded</i>
101	13	8	Spot	Spot		<i>Discarded</i>
101	14	8	Cremation	Cremation		Grave 1
101	15	9	Pit	Pit	>10	Large pit (S15) with stakes/small posts
101	16	9	Posthole	Spot		<i>Discarded</i>
101	17	9	Posthole	Spot		<i>Discarded</i>
101	18	9	Pit	Pit(?)	8	Features border zone barrow; <i>possibly natural</i>
101	19	9	Pit	Pit	22	Ruddy pit without stones
101	20	9	Pit	Pit	13	Pit with heated/broken stones
101	21	9	Pit	Pit(?)	16	Features border zone barrow; <i>possibly natural</i>
101	22	9	Post pit	Post pit	12	Features border zone barrow
101	23	9	Post pit	Post pit	11	Features border zone barrow
101	24	9	Pit	Pit(?)	11	Features border zone barrow; <i>possibly natural</i>
101	25	9	Natural disturbance	Natural disturbance		<i>Discarded</i>
101	26	10	XXX	Pit	21	Pit with heated/broken stone
101	27	10	Natural disturbance	Natural disturbance		<i>Discarded</i>
101	28	10	Natural disturbance	Natural disturbance		<i>Discarded</i>
101	29	10	XXX	(Post) pit	36	Features under the barrow
101	30	10	XXX	Posthole	33	Palisaded ditch
101	31	10	XXX	Posthole	28	Palisaded ditch
101	32	10	XXX	Posthole	33	Palisaded ditch
101	33	10	XXX	Posthole	30	Palisaded ditch
101	34	10	XXX	Posthole	34	Palisaded ditch
101	35	10	XXX	Posthole	32	Palisaded ditch
101	36	10	XXX	Posthole	20	Palisaded ditch
101	37	10	XXX	Posthole	20	Palisaded ditch
101	38	10	XXX	Discolouration		<i>Discarded</i>
101	39	10	XXX	Post pit?	15	Palisaded ditch
101	40	10	XXX	Posthole	18	Palisaded ditch
101	41	10	XXX	Posthole	21	Palisaded ditch
101	42	10	XXX	Posthole	22	Palisaded ditch
101	43	10	XXX	Posthole	26	Palisaded ditch
101	44	10	XXX	(Post) pit	30	Features under the barrow
101	45	10	XXX	Discolouration		<i>Discarded</i>

Tab. 7.1:
Overview
features
Mound 1.

Trench	Feature	Level	Interpretation field	Interpretation definite	Depth (cm)	Complex
101	46	92	XXX	Discolouration		<i>Discarded</i>
101	47	10	Pit	Pit	33	Ruddy pits without stones
101	48	10	XXX	Posthole	35	Palisaded ditch
101	49	10	Pit	Pit	38	Ruddy pits without stones
101	50	10	XXX	Posthole	32	Palisaded ditch
101	51	10	XXX	Posthole	40	Palisaded ditch
101	52	10	XXX	Posthole	30	Palisaded ditch
101	53	10	XXX	Posthole	29	Palisaded ditch
101	54	95	Pit	Pit	>30	Pit with heated/broken stone
101	55	11	Posthole	Posthole	10	Large pit (S15) with stakes/small posts
101	56	11	Pit	Pit	22	Pit with heated/broken stones
101	57	Pro	Pit	Natural disturbance	35	<i>Discarded</i>
101	58	Pro	Posthole	Posthole?	16	Features under the barrow
101	59	11	Posthole	(Post?) pit	10	Features under the barrow
101	60	11	Posthole	Post pit	10	Features under the barrow
101	61	11	Posthole pit	(Posthole?) pit	27	Large pit (S15) with stakes/small posts
101	62	11	Posthole	Posthole	20	Large pit (S15) with stakes/small posts
101	63	11	Spot	Discolouration		<i>Discarded</i>
101	64	11	Posthole	Posthole	8	Large pit (S15) with stakes/small posts
101	65	11	Posthole	Posthole	11	Large pit (S15) with stakes/small posts
101	66	11	Spot	Discolouration		<i>Discarded</i>
101	67	11	Spot	Discolouration		<i>Discarded</i>
101	68	Pro	Spot	Charcoal concentration	Indet.	Grave 1?
101	69	11	Posthole pit	(Post) pit	25	Features under the barrow
101	70	11	Pit	Tree fall	78	<i>Discarded</i>
101	71	11	Posthole	Posthole	52	Large pit (S15) with stakes/small posts
101	72	Pro	XXX	Cremation	Indet.	Grave 1

Tab. 7.1:
(continued).

7.3.1 Grave 1

Some loose cremation remains were found in the corner of the southwest quadrant, at the depth of the old surface, while digging the eighth excavation level. As no pit or anything of that nature showed at this level, the precaution was taken to spare a 75 by 75 centimetres zone around the loose cremation remains (S14), which was divided into segments of 10 by 10 centimetres. The various segments were then troweled individually and sieved (mesh width 2 mm). Several very small concentrations of cremation remains came to light as result, in total some 86 grams. It is therefore clear that this complex is only a small amount of cremation remains and not a complete burial. This suspicion was confirmed when during the last day of fieldwork in 2009, while moving back the southern profile section by S14, the edge of a pit with cremation remains was encountered (S72). The pit was bowl-shaped (35 cm wide, 30 cm deep) and was clearly located underneath the old surface (Fig. 7.3). Roughly 75% of the cremation remains collected under find number S14 were

located in the zone directly in front of the southern profile section, making it a very realistic option that the loose cremation remains were connected with S72. Both the zone of cremation remains (S14) and the pit with cremation remains (S72) were located at an angle underneath a tree trunk, the roots of which roots penetrated deep into the mound body. The zone S14 in particular was strongly rooted through. It is therefore well possible that a large portion of the cremation remains collected as S14 were pushed away and displaced from S72 by root action. Small digging animals such as beetles and mice can also be held accountable for the displacement of cremation remains. These diverse forms of bioturbation could explain both the small amount of cremation remains in S14 as well as the absence of a clear feature. The remaining 25% of the collected cremation remains, however, were located farther from S72, and as such it cannot be completely excluded that they originated from a burial in the unexcavated northwest quadrant. S72 was not excavated but for now preserved *in situ*. ¹⁴C-analysis of the cremation



Legend

- Features Level 9
- Discarded / natural features Level 9
- Level 9



Fig. 7.6: Excavation drawing Level 9.

remains from S14 indicates a date in the Middle Bronze Age A for the grave (see Tab. 7.2). Physical anthropological analysis by dr. Liesbeth Smits (University of Amsterdam) of the cremation remains yielded no information other than that they are likely those of an adult individual (see also App. 1).

In 2008 a few charcoal lumps were encountered in the west profile section at the depth of the old surface, about 110 centimetres to the west of the corner of the quadrant.

From this point a distribution of charcoal about 1 metre wide and 20 centimetres thick became visible, of which the highest concentration was located some 2 metres from the corner of the quadrant. This whole distribution was labelled S68 (Fig. 7.9). Here it was also the case that no pit or pit cut was visible in the mound body above the feature. While putting back the profile section in 2009, this concentration proved to be intact and even appeared to become more compact. It is possible that the concentration

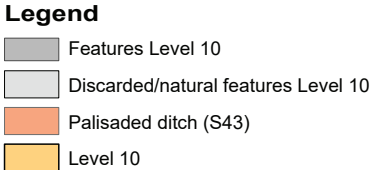
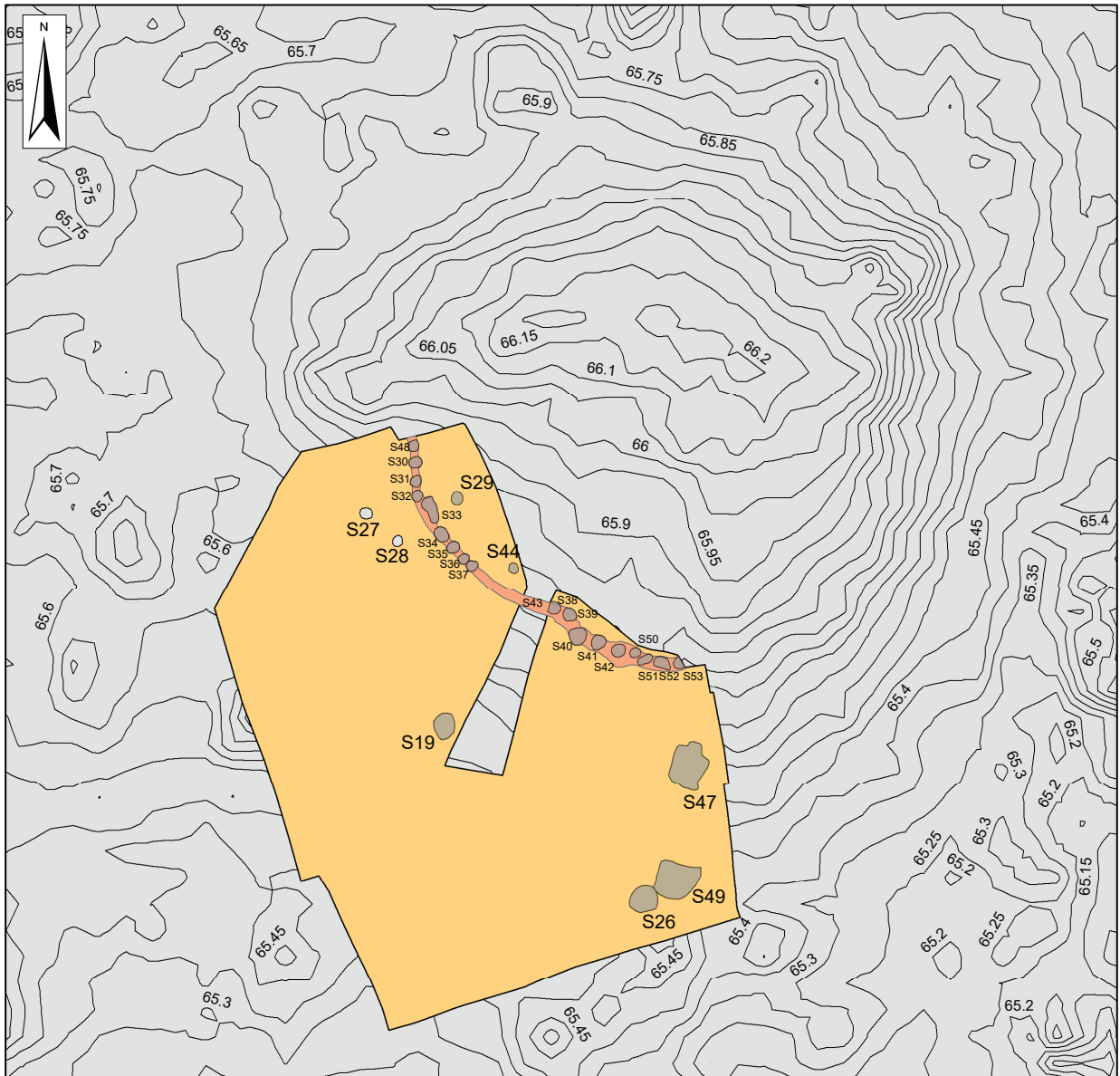
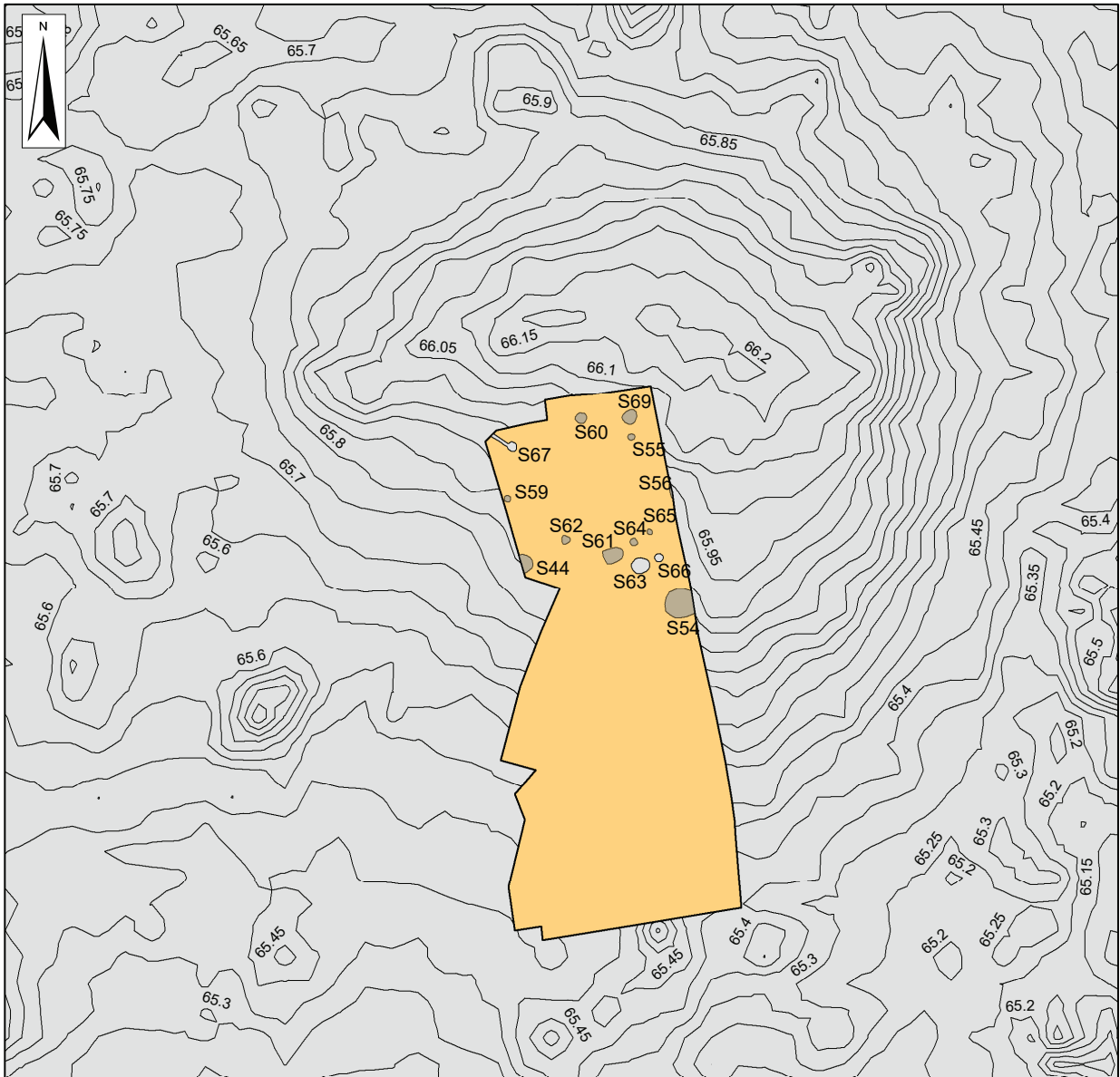


Fig. 7.7: Excavation drawing Level 10.

of charcoal observed formed the edge zone of the charred wood remains located more towards the north. The most westerly cremation remains in S14 were located some 35 centimetres to the east of S68 (Fig. 7.9). A number of small charcoal fragments were furthermore collected while troweling S14 (13 gr.). ¹⁴C-analysis of the charcoal samples from both contexts yielded practically the same dates (Tab. 7.2). The ¹⁴C-date of the cremation remains from S14 mentioned above also falls into the same period.

It is therefore possible that some of the cremation remains from S14 are part of a second grave, the majority of which is still in the unexcavated northwest quadrant.

The discussion is further complicated by the flint arrowhead found while troweling the cremation remains in S14 (V190, see Section 7.4.2; Figs. 7.23 and 7.24). This was located horizontally with the tip facing south, about 15 centimetres from the west profile section. It however



Legend

- Features Level 11
- Discarded/natural features Level 11
- Level 11



Fig. 7.8: Excavation drawing Level 11.

remains the question whether this object belongs to the original inventory of Grave 1. As was already established above, the cremation remains from S14 were most likely not in their original position, but may originate from a grave located further to the east (S72) and/or from an unknown grave (S68) to the north. Furthermore, the arrowhead typologically appears more Late Neolithic than Middle Bronze Age A (see Section 7.4.2). It therefore has to be taken into account that the arrowhead might not belong to the inventory of Grave 1. If this is the case, then the

presence of the find at this specific location would have to be explained in a different manner, with bioturbation once again being a possibility. However, it is striking that the arrowhead was positioned horizontally, as if it had been deliberately placed and left there. Should the latter be the case, then two possible explanations remain: either (1) the arrowhead was lost/left/placed on the old surface in the period preceding the construction of Mound 1; or (2) the arrowhead lay in an unrecognized (burial) pit of which the majority remains in the unexcavated quadrants.

Legend

- Level 9
- Flint
- Cremation remains

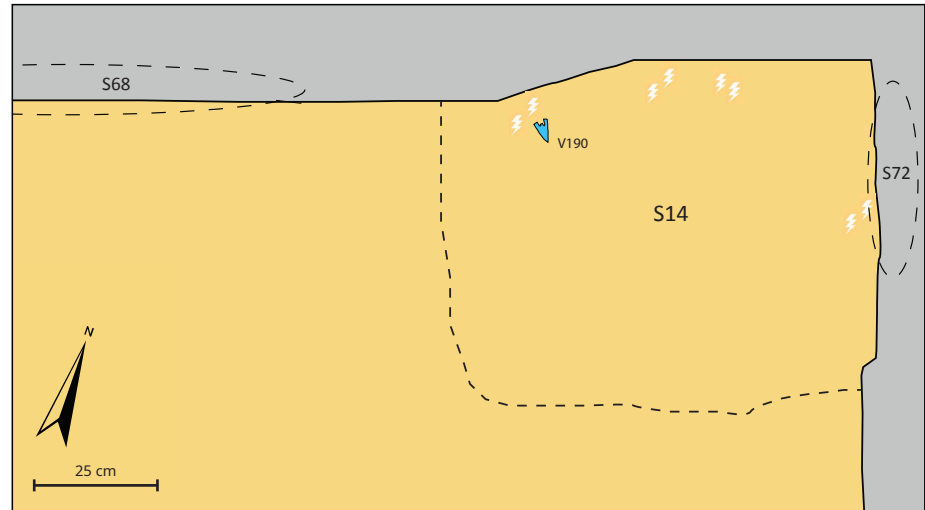


Fig. 7.9: Reconstruction Grave 1. S68 and S72 were only uncovered in the profile section. The ellipses on this reconstruction merely serve to illustrate the (exact) location of both features in relation to the cremation remains and arrowhead recorded under feature number S14 (zone within the dashed line).

Context	Feature no.	Find no.	Lab code	BP	Cal BC 1σ (68.2%)	Cal BC 2σ (95.4%)
Grave 1	101.14	686	GrN-32582	3320 ± 25	1635–1535	1682–1527
Grave 1	101.14	680	GrA-51705	3280 ± 35	1611–1518	1636–1460
Grave 1?	101.68	668	GrN-32580	3330 ± 20	1658–1561	1683–1532

Tab. 7.2: ¹⁴C-dates S14 and S68.

It should be apparent from the above that Grave 1 was encountered and uncovered in a particularly unlucky manner, leaving many questions unanswered for now. There is even the possibility that the various elements counted as part of Grave 1 originate from multiple burials. In any case, it can be stated with certainty that both the charcoal and the cremation remains from Grave 1 date to the Middle Bronze Age A. Even though the position of Grave 1 at the depth of the old surface, close to the centre of the mound, forms an important criterion to designate this the primary central burial, this cannot be proven at this stage of the analysis. The flint arrowhead even suggests the possibility of an older use of the barrow. Moreover, the pit with cremation remains in the south profile section (S72) was encountered in the flank and was located at an angle underneath a tree trunk and directly underneath the young depression in the centre of the mound. Because of this it cannot be stated with certainty whether the pit was dug from above through the door the old surface or if the mound body covered it. It, however, remains striking that all three features (S14, S68 and S72) manifested around the depth of the old surface. The most likely scenario, therefore, is that we are dealing with the remains of one cremation grave that was partly disturbed. The arrowhead, then, would represent a displaced element of an older feature situated outside the excavated quadrant.

7.3.2 Large pit with stakes/small posts (complex S15)

At the depth of Level 9 an elongated, oval brown-grey pit (S15) was encountered to the southwest of the centre of the mound (Figs. 7.10a and 7.11a). The pit was roughly 220 × 160 centimetres on the excavation level. Its longitudinal axis had a north-south orientation. An important observation is that the pit was not present on higher levels, and did not start to show until deepening from Level 8 to Level 9. The pit therefore must predate the erection of the mound body.

Given the size of the pit, a local measuring system was created in case it was an inhumation grave. The pit was then divided into four equal segments and carefully deepened horizontally 10–15 centimetres (see Fig. 7.10a–f). This quickly revealed that the pit was not, in fact, an inhumation burial: there was no trace of a body silhouette, nor was any tooth enamel found. Underneath the brown-grey, vaguely delineated contour that was visible in Level 9, a dark grey-black core with charcoal flecks started to show (see Fig. 7.10b). The pit was surrounded by a red glow in the subsoil, in particular in the north, which may be result of heating. Various small, round features with similar dark grey-black fills started to show around the edges of the pit. These round features had an average diameter of 10 centimetres and more or less followed a



Fig. 7.10: Series of field photographs S15.

straight line along the eastern and southern sides of the pit (Figs. 7.10c–f and 7.11bc).

While further deepening the four segments the dark central core fell apart into multiple smaller, darker cores (Level 91; Fig. 7.11c). The largest of the series of small cores was located at the northern side where a red glow

bordered the dark, and at this point round core. This dark core must have extended some 15 to 20 centimetres from Level 9. The smaller cores in the southern half of the pit also turned out to have small round features at a deeper level. Some 15 centimetres underneath Level 9 these features appear to form a rectangular structure of

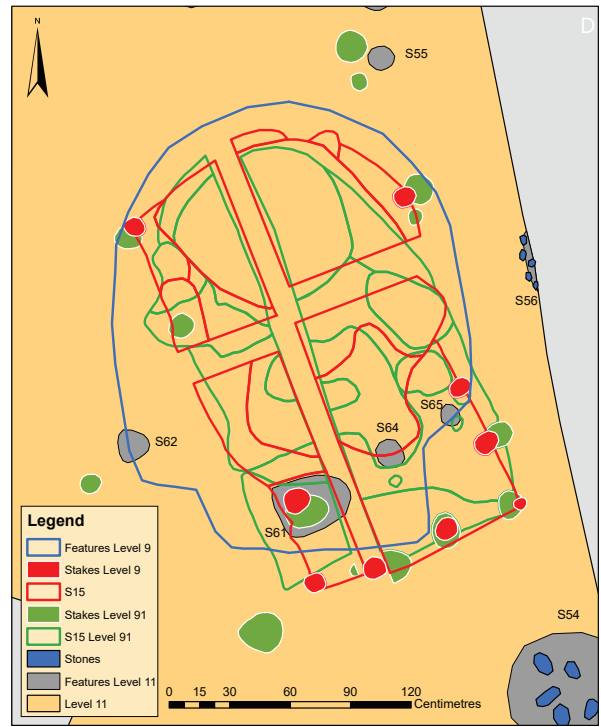
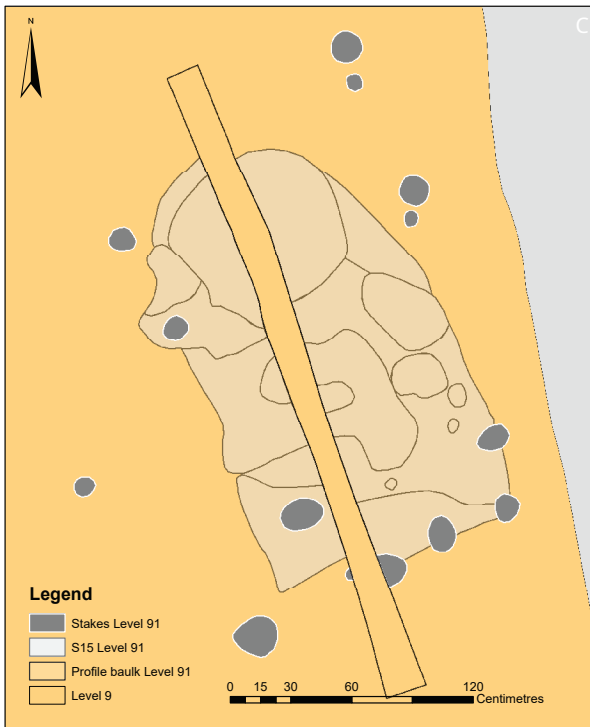
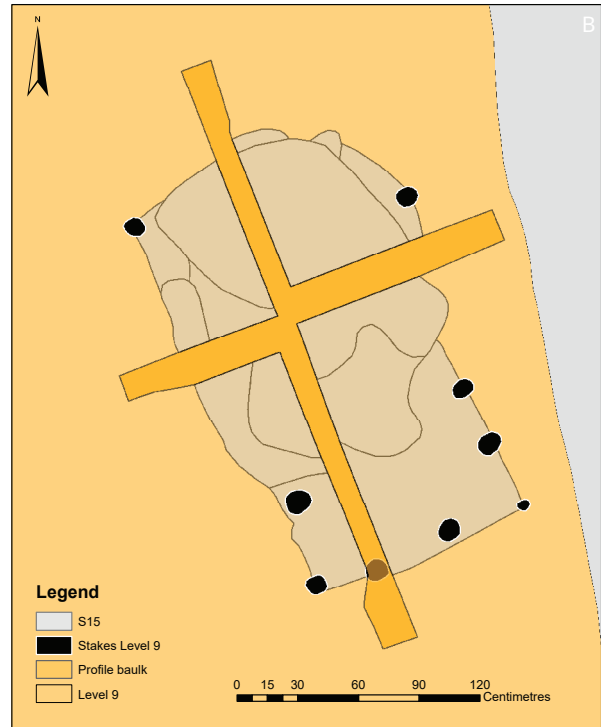
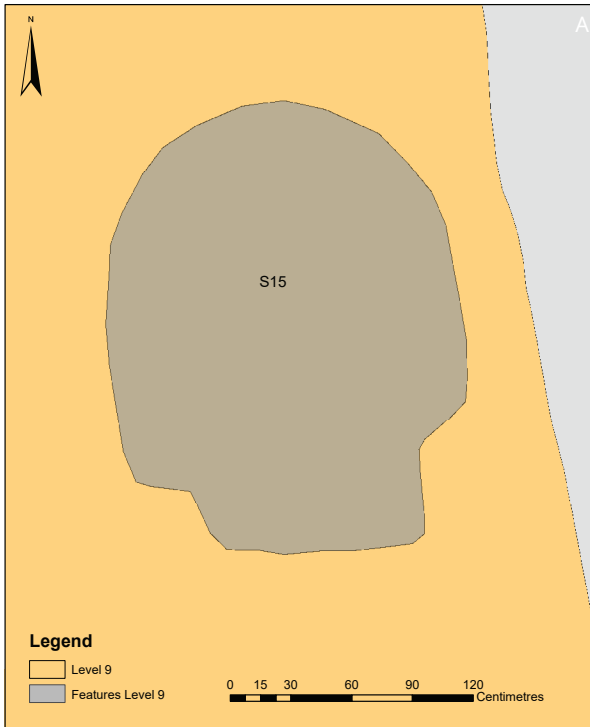


Fig. 7.11: Series of detailed drawings S15.

220 by 100 centimetres (see Figs. 7.10c-f and 7.11c). As the colour and nature of the fills of these round features were the same as the dark fill of the pit itself, they only became visible underneath the cut. The small features

retained their round shapes when this complex was deepened in spits (see Figs. 7.10c-f and 7.11bc). Around rectangular configuration there were also a number of loose features (S55, S62 and S71), which based on their

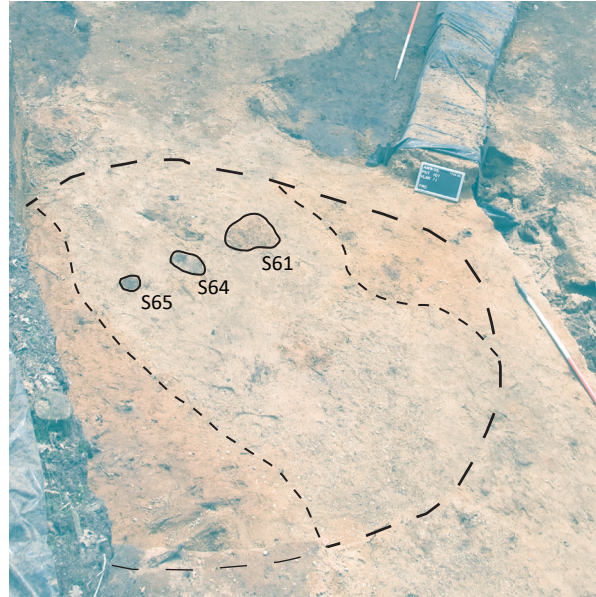


Fig. 7.12: Level 11.

dimensions and appearance also appear to have been part of the complex. As the complex was located directly alongside the southern profile section, the possibility exists that an unknown part of the complex is still located in the southeast quadrant. The features S61, S64 and S65, which were all recorded in 2009 (Level 11, see Fig. 7.12), also belong to the complex. S64 and S65 are two remnants of the small, round features observed in 2008. S61 is also a remnant of S15, but is clearly different in shape and colour (ruddier) than S64 and S65.

But how should we interpret the small round features? As a result of the strategy taken (excavating in horizontal layers), we mainly have detailed information regarding the excavation level (Fig. 7.11a–c), with none of the various small, round features within the bordered of S15 having been sectioned. In the various partial levels it was clear that the form and location of these small, round features remained the same as the level was deepened. Four features eventually were sectioned (see Fig. 7.13): S55 (northeast corner S15), S64 and S65 (bottom round features in S15) and S71 (southern profile section). All four were narrow features with a dark fill, and two of the features (S55 and S71) had a pointed bottom. It is therefore probable that there were pointed stakes located here. The excavation level information of the other small round features is consistent with the diameters of the four sectioned examples. This gives rise to an image of a large pit with small posts or stakes in and around it. It is possible these posts/stakes formed a light structure with an unknown function.

Finally it should be noted that almost the whole complex was located in an old tree fall underneath the

mound. As a result, part of the original soil profile is locally tilted in the level. The tree fall shows up clearly both in the southern profile section (Fig. 7.3) and in Level 11 (Fig. 7.12). The light grey, coarse gravelly sand into which the pit and the structure were dug, are therefore not part of the complex, but rather part of the tilted soil profile.

The original function of the complex can only be guessed at in this stage of the analysis as it continued into the southeast quadrant. Nonetheless, a number of statements can be made based on the documented excavation levels and the find material. To start with the find material, the total amount can be called small: a few small charcoal lumps (10.4 gr. in total), a few small pottery sherds, four flint flakes/splinters, three broken stones and some crushed quartz were found. The pottery and flint in particular are so small in size that they more likely reflect material that was present around the old surface and ended up in the pit fill by accident, rather than deliberately placed there. Find material similar in nature and size was also found around the old surface. This could indicate that the pit lay open for a certain amount of time. Even though care should be taken when interpreting loose sherds, the general impression generated by the pottery that was distributed around the depth of the old surface is that of typologically Middle Bronze Age in date (see Section 7.4.1).

In any case, the scarcity of find material, the elongated shape and the shallow depth of the feature, all argue against it being a simple refuse pit. Other arguments against it being used as a rubbish pit are formed by the location underneath a barrow and inside an intermediary palisaded ditch (Section 7.3.4). The latter two observations

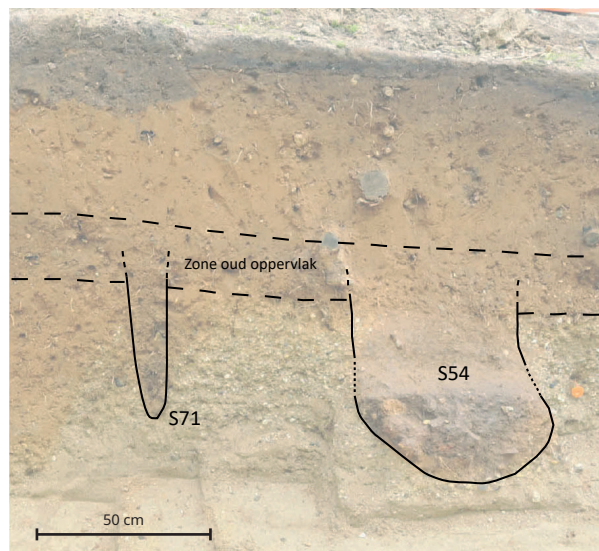
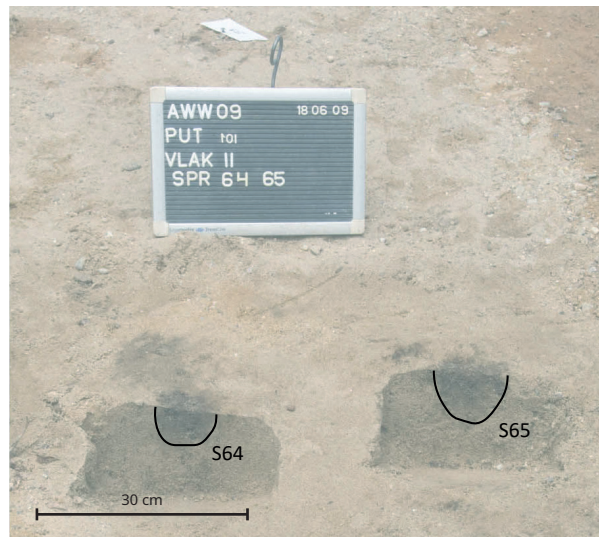
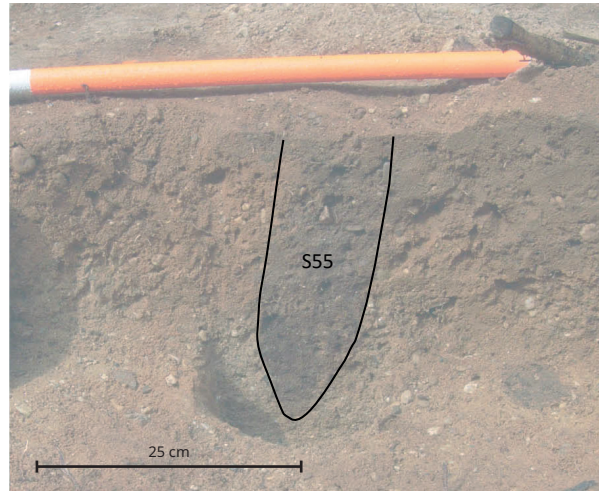


Fig. 7.13: Sections of S55, S64, S65 and S71.

in particular raise the strong suspicion of a connection with the barrow.

In addition, the various posts or stakes suggest that a light structure once stood in the pit. The nature of this structure, however, cannot be determined as it continues into the southeast quadrant. The presence of charcoal in both the pit and the accompanying stakes, however, give the impression that burning or heating played an important role in the original function of the complex. However, this conclusion leaves open numerous possibilities, such as a pyre site, a burned hut or small building, or a hearth for ritual purposes or otherwise. Finally, it is also certainly a possibility that it somehow related to the pits filled with heated and broken stones, given the fact that a few fragmented stones were also found in this large pit (see Section 7.3.3).

Similar elongated pits surrounded by stakes in relation to burial mounds dating to the Bronze Age were previously found at Leusden-Den Treek (Modderman 1955) and Gasteren (Van Giffen 1945). At Leusden-Den Treek, no trace of a burial was found within the pit surrounded by ten small posts or stakes, just like at Wieselseweg. The Drakenstein-urn dug into the same pit and covered with a charred tree trunk, proved to be a later secondary burial that originally did not belong with the pit (Modderman 1955, 59). Yet still the elongated pit with stakes was interpreted at the barrow's primary and central burial at the time (Modderman 1955, 59). Cremation remains were found in the elongated pit surrounded by 28 small charred stakes underneath a barrow at Gasteren (Van Giffen 1945, 73–4; fig. 12). Even though the similarities between the Wieselseweg pit and in particular the example from Leusden-Den Treek are striking, it remains problematic to interpret it as a burial pit given the absence of a corpse shadow or cremation remains.

7.3.3 Middle Bronze Age pits

In Levels 9 through 11 various pits were encountered spread out over the quadrant (Fig. 7.28). These pits were located both under the mound and in its border zone. The various pits can be divided roughly into two groups. A number of them have a dark colour and are filled with broken stones (S20, S26, S54 and S56). Pits with a ruddy colour form a second group, and do not contain broken stones (S19, S47 and S49). The pits from the first group more or less appear to form a line from the centre of the mound towards the south-southwest. The pits from the second group are all located in the edge zone of the mound. Based on the pottery recovered from the various pits, both the dark ones filled with stones and the ruddy examples

can be dated to the Middle Bronze Age (see Section 7.4.1). Moreover, ¹⁴C-analysis of charcoal from S54 supports a date in the Middle Bronze Age (A) op (Tab. 7.3).

Dark pits with broken stones

To start with the description of the pits filled with broken stones, the four pits varied in diameter between 50 and 75 centimetres and between 12 and 30 centimetres in depth. It should be noted that S54 and S56 were both encountered in the southern profile section, which is why they could be measured from a higher level (at least from the old surface). The pits appeared relatively round in the excavation level, with S54 having a slightly more elongated shape. In vertical sections all four of these the pits were (irregularly) bowl-shaped. The broken stones characteristic of these pits were always spread throughout the pit fills and as such appear to have been randomly dumped into the pits (Figs. 7.14 and 7.15). The total weight of the broken stones per pit lay between 3020 and 4439 grams (see also Tab. 7.4). The 2307 grams of broken stones recovered from S56 are not representative as the majority of the feature is still located in the unexcavated southeast quadrant of Mound 1. The dark grey colour of the pits appears to be caused by small charcoal particles. Larger charcoal lumps were also observed in S54 and S56.

It has not been possible to determine with complete certainty whether the pits were dug through the mound or whether they are covered by the mound. As with the features related to Grave 1 (see above), it is worth noting that all four pits were observed only at and below the old surface. Also, no cuts are visible in the southern profile section above the level of the old surface by S54 and S56 (Fig. 7.16). Though it warrants mentioning that S56 is located right below the depression in the heart of the mound body, which could have disturbed any cuts from above if these were ever present. A pit cut above S54 could have become too pale to see in the homogenized mound body. While the homogenized soils at the Wieselseweg complicate interpretation, in summary the visible elements appear to indicate that the pits predate the mound body.

Two things that are immediately noticeable about these four pits are the linear pattern in which the features are positioned, as well as the fact that both stone and pottery found in them were burned. To start with the linear pattern, the distances between the pits increase with half a metre ranging outwards from the centre of the mound: S56 – S54: 1.5 metres; S54–S20: over 2 metres; S20 – S26: over 2.5 metres (see Fig. 7.28). Whether this pattern continues in both directions cannot be ascertained: towards the north lies the unexcavated

Context	Feature no.	Find no.	Lab code	BP	Cal BC 1σ (68.2%)	Cal BC 2σ (95.4%)
Pit with stone	101.54	825	GRA-48880	3285 ± 40	1613–1521	1661–1456

Tab. 7.3: ¹⁴C-date S54.



Fig. 7.14: Detail S20. Photograph taken facing south.



Fig. 7.15: Detail S54. Photograph taken facing east.



Fig. 7.16: S56 and S54 in the southern profile section of Mound 1. Any possible cut through the mound body is not visible. Photograph taken facing east.

quadrant of Mound 1 and Trench 18 to the south of Mound 1 showed several serious disturbances. A pit with comparable contents (S24.1) was found 30 metres to the south-southwest of Mound 1 (Section 10.2.3). When the imaginary northeast–southwest oriented line between the pits is extended under Mound 1, the pit in Trench 24 appears to be part of the same row of pits. It therefore can be argued that the pits were deliberately dug in a linear

pattern and that there is a close connection between the barrow and direct surroundings.

With regards to the function of the pits, the broken stones appear to fulfil an important role. Based on the fracture patterns of the various stones it can be stated that they were heated to high temperatures only to be rapidly cooled (thermal shock). Such rapid cooling likely means water was involved (see Section 7.4.2 for a

Context	Features	Stone		Flint		Pottery		Loam		Other
		N	Gr	N	Gr	N	Gr	N	Gr	
Pit row with heated/ broken stones	101.20	146	4439.0	2	0.7	6	29.1			
	101.26	127	3019.6	1	1.9	11	69.0			
	101.54	179	3590.8	4	6.7	4	141.0	1	0.6	
	101.56	17	2307.3							
	24.1.0	297	7953.0	4	1.7	6	10.9	2	26.2	Amber spacer-plate
Other pits	101.15	20	453.5	4	2.2	12	16.2			
	101.19	1	262.6	4	13.5	35	163.1			Hammer stone (see stone)
	101.47					16	221.9			
	101.49									
	101.69	5	1928							

Tab. 7.4: Overview of the contents of pits. N = number of; Gr = total weight in grams.

more elaborate discussion). Some of the pottery sherds also show signs of secondary burning (Section 7.4.1). In any case, it can be stated with certainty that heat and fire played an important role in creating the material found in the various pits. The pit fills and find material, however, strongly suggest that this burning did not take place in the pits themselves. As was already noted above, pits S54 and S56 only yielded few lumps of charcoal. Even with these two features the amount of charcoal, however, is too little to reflect a hearth. It is far more likely material that came along with the stones. The stones, furthermore, must have been heated to such high temperatures that from a pragmatic point of view (fuel and oxygen), the fire could never have burned in such a pit. It is possible the S15 complex described above fulfilled this role (Section 7.3.2). In any case the stones appear to have been deposited in the pits after having been heated, most likely at a location nearby. Whether the stones were cooled with water while they were in the pits, or prior to being placed in them is difficult to determine. While it is possible that the stones were cooled in the pits, this gives rise to the question of how the hot stones were deposited in the pit. The stone must have been hotter than 540 °C (Section 7.4.2). In any case, huge clouds of steam would have accompanied cooling the stones. It is possible that this steam formation was the desired effect of the whole process, clouding the direct surroundings of the pits with artificial mist.

Middle Bronze Age pits filled with burned stones are also known from elsewhere in the Netherlands. A similar phenomenon, for example, was discovered during the first excavation of the *Ancestral Mounds* project at Rhenen-Elst in the summer of 2006. Under a barrow known as Delfin-190, a number of (likewise) the Middle Bronze Age A features were encountered. A number of these features yielded considerable amounts of heat-fractured stone, in addition to secondarily burnt pottery (Bourgeois *et al.* 2010b, 96–100; Fontijn *et al.* 2010,

66–71). A closer examination of two Middle Bronze Age settlement terrains in the direct surroundings, Rhenen-Remmerden (Van Hoof/Meurkens 2005) and Elst-’t Bosje (Meurkens 2009), gave rise to the suspicion that the cluster of features discovered at Rhenen-Elst were typical for Middle Bronze Age A settlements. The find material from the pits under the Delfin-190 mound in question was, as such interpreted as settlement waste, at the time. In light of the new date from the Wieselseweg burial mounds this interpretation of the Rhenen-Elst feature cluster may need to be revisited.

Ruddy pits without broken stones

The three ruddy pits in the edge zone of Mound 1 are slightly larger in size and more irregular in form when compared to the dark pits filled with broken stones. Two examples (S47 and S49) are located some 1.5 metres from each other, while the third pit (S19) is positioned more on its own (Fig. 7.8). S49 moreover is located directly next to one of the pits filled with broken stones (S26, Fig. 7.17). A possible relationship between these features cannot be excluded based on their dates. Yet it still appears that S26 was dug through the edge of S49 and therefore must be slightly younger (Fig. 7.17). S47 and S49 showed as irregular polygons with rounded corners on the excavation level (Level 10), and both features were between 70 and 80 centimetres in diameter. S47 was 30 centimetres deep and had a slightly convex bottom (Fig. 7.18), while S49 proved to be almost 40 centimetres deep with a more bowl-shaped bottom. S19 was recognized at a higher level (Level 9) and appeared to be relatively round. A part of the feature, however, was located in the profile baulk, meaning that S19 was never completely in the excavation level. The profile baulk was needed to help recognize any peripheral structure around the mound and was therefore retained until a later stage at the expense of S19. Initially S19 was recorded as an 80 centimetres wide pit with a flat base 20 centimetres



Fig. 7.17: S26 and S49. Photograph taken facing north

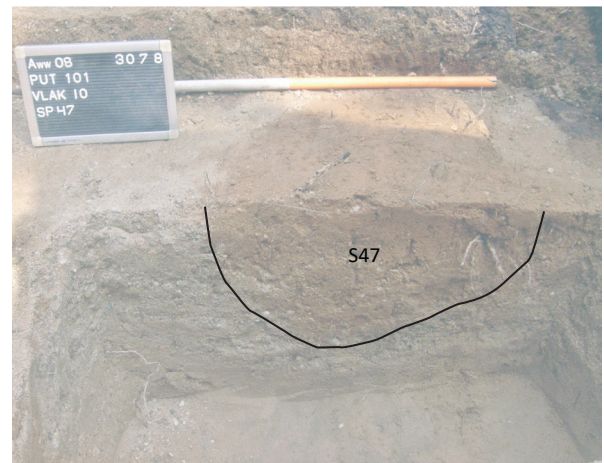


Fig. 7.18: Pit S47. Photograph taken facing east.

under the excavation level (Level 9). While excavating the level it turned out to be quite a bit deeper (50 cm). The flat base was maintained. All three pits had ruddy orange-brown and relatively ‘clean’ fills, in contrast to the four darker pits with broken stones.

Two pits (S19 and S47) additionally contained multiple fragments of burned Middle Bronze Age pottery (Section 7.4.1). The pottery from S47 in particular is especially coarse and thick. The amount of pottery does not stand in relation to the size of the pits. S49 did not even yield pottery. This observation combined with the clean, apparently natural fills of the pits argue against them being simple refuse pits. Here it also does not concern complete pots or other ceramic objects. Additionally the amount is relatively comparable in weight to the pottery recovered from the pits with broken stones. Once again the burnt condition indicates exposure to fire or extreme heat. It is possible that both kinds of pits share a common origin. Unfortunately we also do not know the original function of the ruddy pits.

7.3.4 A palisaded ditch

At the depth of Level 10 a light, ruddy ring ditch started to show, 4 metres (west profile section) to 6 metres (southern profile section) from the corner of the quadrant (S43; Figs. 7.7 and 7.19). As Level 10 was dug at least 20 centimetres below the old surface, the ditch must have been present at a higher level, but was not visible due to the ruddy fill. Level 10 was dug in the pale, light grey/white coarse gravelly sand of the natural sub-soil causing the features filled with the orange-brown/ruddy sand from above to contrast well. At a higher level this contrast naturally is absent causing the features with a clean fill to be difficult to trace.

Even though the ring ditch has a somewhat irregular form, it runs a more or less round course. Extrapolating from this, the diameter of the ring ditch must have been roughly 11 metres. For the placement of the southwest quadrant this means that the southern profile section overlaps for about 1 metre with the northern half of the encircled area. The west profile section, however, must



Fig. 7.19: Level 10.

have been located more than 1 metre in front of the eastern half. This means that the centre of the encircled area is not present in the excavated quadrant.

The various sections dug over the length of the ditch revealed that multiple posts originally stood in the ring ditch. This means we are no longer dealing with a normal ring ditch, but rather a so-called palisaded ditch (*standgreppel* in Dutch). In total at least 17 individual postholes could be discerned (S30–S37, S39–S42, S48 and S50–S53; Fig. 7.20). It is highly likely that there originally were more, but as the fills of the various postholes had the same colour and texture as the ditch, shallow

examples will not always have been recognized. The posts varied between the 20 and 40 centimetres in depth, and between 15 and 30 centimetres in width. The depth of the ditch itself lay between 20 and 30 centimetres underneath Level 10.

Until now such palisaded ditches are unknown for the Middle Bronze Age. In the Late Neolithic, however, they are more common (Bourgeois 2013, 32; Lanting 2007/2008, 62–3). Both the diameter and the location of the ditch on the inside of the present mound foot are consistent with the general image of these so-called palisaded ditches. The presence of a typically Late



Fig. 7.20: Section through the western half of the intermediary palisaded ditch. Photograph taken facing east.

Neolithic palisaded ditch and ¹⁴C-dated Middle Bronze Age pits described above could mean that Mound 1 knew multiple mound phases. In the profile section, however, no different mound phases can be discerned. Pits S56 and S54 form the only indirect indication for a second mound phase in the profile section. As Figure 7.16 shows, S56 is visible at a slightly higher level than S54. This height difference could be explained by the presence of a low Neolithic mound. As already noted, the homogenized mound body means that it cannot be determined with any certainty from what height the pits were dug. Then there is the typically Late Neolithic arrowhead from Grave 1 (see Sections 7.3.1 and 7.4.2) and a possibly Late Neolithic pottery sherd from the fill of the intermediary palisaded ditch (Section 7.4.1) which both also indirectly indicate a Late Neolithic use phase of the burial mound location. It therefore certainly warrants considering that Mound 1 originates from the Late Neolithic. This is discussed in more detail in Section 7.5.

7.3.5 Other features under the mound

A total of six 'loose' features were also found underneath the mound body. Four features (S29, S44, S58 and S60) are possible (post) pits with a ruddy colour similar to the features belonging to the intermediary palisaded ditch. These features varied in shape and size but in addition to their colour also had in common that they were vaguely delineated. This makes it difficult to determine whether these indeed are postholes, or whether they reflect natural texture differences in the sub-soil.

S59 is the bottom of a bowl-shaped (small) pit and is clearly delineated due to the grey fill. The diameter in excavation Level 11 was 17 centimetres and it was 10 centimetres in depth. The feature has no equal within the excavated quadrant making it unclear whether the pit in question was originally part of a structure.



Fig. 7.21: Pit S69. Photograph taken facing east.

The final feature is a pit with a clear shape (see Fig. 7.21) and a ruddy fill (S69). It was 30 centimetres in diameter and 25 centimetres in depth. A broken stone weighing 1865 grams and some chunks of quartz were found in the pit (Tab. 7.4). It is possible that this is a posthole but that the post was removed after which the broken stone ended up in the pit fill. A small amount of charcoal was also collected from the feature. The presence of a split rock in the pit does suggest a connection with the pits filled with broken stones described above. Yet still the colour of the feature strongly deviated and the single stone is not comparable with those from the other pits in size. Furthermore, this pit was located more or less in line with the row of stakes in/around the heated pit described above (S15). Here it is also true that the feature deviates in colour and size from the S15 complex and a connection cannot be proven.

7.3.6 Other features in the edge zone of the mound

Another six features of various natures were found outside and within the edge of the mound. The increased pedological processes around the foot of the mound makes it difficult to say from what level the features were dug in and whether they are even anthropogenic features.

S8 was a very irregular pit which became visible at the level of the old surface. The position just outside the foot of the mound, however, makes it unclear whether it is related to the barrow. The irregular shape and messy fill also make the anthropogenic origin of the feature questionable.

The next feature (S18) was located more towards the centre of the barrow and must have lain directly above the intermediary palisaded ditch. The feature was bowl-shaped, 27 centimetres in cross-section and 8 centimetres deep. The fill was quite humus-rich and strongly rooted through. It therefore is also possible that S18 is natural in origin.

The next two features (S22 and S23) were both visible from Level 9 and are strongly reminiscent of postholes. The features were respectively 20 and 30 centimetres in diameter and extended another 12 and 11 centimetres in depth. As these are the only two postholes encountered at this level outside of the mound and they do not follow the contours of the mound body, they will not have been part of a post circle and more likely lay on their own.

The final two features (S24 and S21) are shallow pits, respectively 11 and 15 centimetres, with a homogenous, dark grey fill. Here it also cannot be definitively determined whether these are anthropogenic features. The homogenous, dark fill and their position outside of the mound foot, when combined with their relatively undep location underneath the present-day surface, make it impossible to exclude a natural origin.

In summary, only two features included in the category 'other' can be considered as anthropogenic features (S22

and S23). The other four (S8, S18, S21 and S24) should be considered questionable.

7.4 Find material

7.4.1 Pottery

In total 38 find numbers were assigned to pottery discovered in the southwest quadrant of Mound 1. Together these find numbers account for 812 grams of prehistoric pottery. With these amounts it should be noted that for 16 of these find numbers the total weight per find number does not exceed 5 grams. These are frequently only crumbs of pottery with no diagnostic and/or exterior features. These fragments are not included in the following descriptions.¹⁶ The remaining pottery finds are discussed per context below (see Fig. 7.22 and Tab. 7.5).

Pottery from complex S15

The large pit by the centre of the mound yielded a number of small pottery fragments. These were primarily collected from the northeast section of the pit. The majority consists of small crumbs. Two small sherds can be identified as relatively thin-walled pottery (V349: 6 mm; V311: 7 mm), which are both are tempered with fine, slightly angular minerals (1 mm). The exterior surfaces of the sherds are orange-brown in colour, and the interior surfaces are slightly greyer. Both sherds, however, are strongly weathered and show gnaw marks from small rodents. It is therefore uncertain whether the sherds really belong to the S15 complex or whether they are the results of bioturbation. A third sherd (V400, Fig. 7.22a) is more likely to belong with the S15 complex as it has sharp fractures and is clearly less weathered. It is a light brown, flat rim sherd (with rounded edges), tempered with quartz pieces (1–2 mm). The fragment is at least 11 millimetres thick right below the rim. Unfortunately the exterior side of the rim has broken off. Both the paste as the broad flat rim are strongly reminiscent of Middle Bronze Age pottery (compare: Glasbergen 1954ab; fig. 56: type D and E). Though caution is still advised.

Pottery from the palisaded ditch (S43)

Only a single pottery fragment (V666) was found in the fill of the palisaded ditch underneath the mound. It is a fragment that consists of the first 3 centimetres under the original rim of the pot and is decorated with parallel horizontal rows of nail impressions (see Fig. 7.22b). The sherd is 7–9 millimetres thick and has a very finely crushed stone temper (<1 mm). The fragment is beige/light brown in colour. The fracture planes and surfaces are slightly weathered. The decoration in the shape of parallel

rows of nail impressions typologically can be found in several time periods. An early occurrence of this type of decoration can be found on Late Neolithic protruded foot beakers (*standvoetbekers* in Dutch) of type 1E (Lanting/Van der Waals 1976, 4). Encircling rows of nail impressions however also occur during a large part of the Middle Bronze Age (see for example Knippenberg 2008, 121–2; Theunissen 1999, 150–1) and are even typical for the Late Bronze Age (Arnoldussen/Ball 2007, 198; Hermesen 2007, 110). Typologically speaking that means that there are three periods to which the decoration might date. In terms of the finish and the paste, the sherd strongly deviates from other Middle Bronze Age pastes found in Mound 1 (see below). Moreover, the finger tip/nail impressions on Middle Bronze Age pottery tend to be more roughly executed than those on V666. Based on ¹⁴C-dates we furthermore know that Mound 1 was already erected in the Middle Bronze Age, meaning that a Late Bronze Age date can be rejected. The Late Neolithic therefore forms a plausible option for a date.

Pottery from the pits under the mound (S19, S20, S26, S47 and S54)

Most of Mound 1's pottery was found in the series of pits under the mound. Based on a clearly thick-walled and coarsely tempered pottery, the pits can without a doubt all be dated to the Middle Bronze Age. In the following the characteristics of the collected pottery is discussed further per pit.

More than 35 sherds were collected from Feature 19 (S19: V168 and V320, together 161 gr.). For the most part the pottery is quite brittle and appears burnt. Wall thicknesses vary between 7 and 13 millimetres. The temper consists of angular quartz chunks varying between 1 and 8 millimetres in size. The colour of the pottery is predominantly beige/light brown, while some sherds are orange-brown. The pottery originally was likely a little darker in colour, with the current colour being the result of burning. There is only one good diagnostic sherd among the pottery from S19. It is a relatively flat rim fragment decorated with fingertip (incl. nail) impressions (see Fig. 7.22c). The rim is 1 centimetre thick on top of the sherd, and 7 millimetres thick just below the rim. Fingertip impressions on rims occur both during the Middle and the Late Bronze Age (Van Beek 2005, 79). This type of decoration is also regularly found in the Iron Age. The association with the other, thick-walled pottery from S19 argues in favour of the Middle Bronze Age.

S20 yielded three fragments of Middle Bronze Age pottery (V270) and some undeterminable crumbs (V307). Together the sherds weigh 30 grams. Based on the paste it can be stated that the three small fragments originate from at least two different pots. One fragment is entirely beige/light brown in colour, tempered with coarse quartz

16 The following find numbers were not included in the description: V34, V43, V74, V160, V184, V351, V575, V669, V675, V710 and V771.



Fig. 7.22: Selection of pottery from Mound 1.

Tab. 7.5: Overview characteristics of the pottery from Mound 1. Explanation abbreviations:
 F.no. = find number;
 S = Feature number (*spoor* in Dutch);
 N = number of sherds;
 Wght. = weight in grams;
 Surf. fin. = surface finish exterior; Firing cond. = firing conditions.

Explanation other abbreviations and codes:
 Indet. = indeterminable;
 CBDF = cannot be determined further; 999 = not applicable; Ox = oxidizing;
 Red = reduction fire.

Other notes:
 1.) when a number is listed with a pot section (for example 1 Rim), this means that the other fragments with the same find number cannot be identified.
 2.) The firing circumstances are listed from the exterior surface to the interior surface: exterior – centre – interior. If only two variables are listed, the centre is included with the surfaces. If the firing conditions are listed between brackets (for example Ox (Red)) this means that the firing circumstances were primarily oxidising but that there are also reduction zones present and vice versa.

F. no.	Trench	Level	S	N	Wght.	Pot section	Temper	Surf. fin.	Thickness	Firing cond.
34	101	6	4	2	0.9	Indet.	Indet.	Indet.	Indet.	Indet.
43	101	7	999	1	0.6	Indet.	Indet.	Indet.	Indet.	Ox-Red
47	101	7	999	2	6.9	Rim	Crushed quartz	Smooth	5–8 mm	Ox-Red
71	101	8	999	1	6.3	Wall	Crushed quartz/ granite	Smooth	10 mm	Ox-Red-Ox
72	101	8	999	1	4.6	Wall	Crushed quartz	Smooth	7–8 mm	Ox-Red-Ox
74	101	8	999	1	0.4	Indet.	Indet.	Indet.	Indet.	Red
160	101	9	999	1	<0.1	Indet.	Indet.	Indet.	Indet.	Indet.
168	101	9	19	1	5.6	Rim	Crushed quartz	Smooth	7 mm	Ox-Red
168	101	9	19	4	12.2	Wall	Crushed quartz	Smooth	9 mm	Ox-Red-Ox
184	101	9	22	1	1.4	Wall	Crushed stone	Smooth	Indet.	Ox-?
228	101	9	999	1	19.1	Wall	Crushed quartz	Smooth	10 mm	Ox-Red
270	101	9	20	2	18.1	Wall	Crushed stone CBDF/grog	Smooth	12 mm	Ox-Red-Ox
270	101	9	20	1	9.8	Wall	Crushed stone CBDF	Smooth	14–15 mm	Ox
307	101	9	20	3	1.2	Indet.	Indet.	Indet.	Indet.	Indet.
311	101	9	15	1	3.7	Wall	Crushed stone CBDF	Indet.	7 mm	Ox-Red
320	101	9	19	>30	140.4	Wall	Crushed quartz	Smooth	13 mm	Ox
349	101	10	15	1	1.7	Wall	Crushed stone CBDF	Indet.	6 mm	Ox-Red
351	101	999	999	1	0.9	Indet.	Crushed quartz	Indet.	Indet.	Ox
353	101	10	15	3	1.2	Indet.	Indet.	Indet.	Indet.	Indet.
370	101	10	26	1	3.6	Wall	Crushed quartz	Smooth	9 mm	Ox-Red
381	101	10	47	1	61.7	Wall	Crushed quartz	Smooth	23 mm	Ox
391	101	10	47	1	61.7	Wall	Crushed quartz	Smooth	25 mm	Ox
399	101	10	47	2	36.1	Wall	Crushed quartz	Smooth	12 mm	Ox
400	101	93	15	7	9.6	1 Rim	Crushed stone CBDF	Smooth	>11 mm	Ox
415	101	10	47	10	23.7	1 Wall	Crushed quartz	Smooth	25–28 mm	Ox
415	101	10	47	1	63.2	Wall	Crushed quartz	Smooth	12 mm	Ox
416	101	10	47	1	37.2	Wall	Crushed quartz	Smooth	14 mm	Ox
458	101	95	54	3	11.3	Wall	Crushed quartz	Smooth-rough	9–10 mm	Ox-Red-Ox
459	101	10	26	5	15.9	Wall	Gravel/crushed quartz	Smooth	13 mm	Ox
459	101	10	26	4	31.1	Wall	Crushed quartz	Indet.	12–13 mm	Red
459	101	10	26	1	19.4	Wall	Crushed quartz	Smooth	12–13 mm	Ox
575	101	9	14	1	0.6	Indet.	Indet.	Indet.	Indet.	Indet.
625	101	11	54	1	1	Indet.	Crushed quartz	Indet.	Indet.	Ox
653	101	11	999	1	16	Wall	Crushed quartz	Smooth	13 mm	Ox
655	101	9	999	1	8.9	Base	Grog	Smooth	6–9 mm	Ox-Red
655	101	9	999	1	2.6	Wall	Grog	Smooth	Indet.	Ox-Red-Ox
666	101	999	43	1	7.2	Rim	Crushed quartz(?)	Indet.	7–9 mm	Ox-Red
667	101	999	999	>20	44.4	Indet.	Crushed quartz/ grog	Smooth	8 mm	Diverse
675	101	11	999	1	3.8	Wall	Crushed stone CBDF	Smooth	7 mm	Red (Ox)
710	101	11	999	1	2.2	Wall	Crushed stone CBDF	Indet.	7 mm	Red (Ox)
771	101	11	72	1	4.1	Wall	Crushed quartz	Indet.	>11 mm	Ox
825	101	10	54	>100	128.7	Indet.	Crushed quartz	Indet.	13–14 mm	Ox

chunks (2–7 mm) and clearly burned (shrinkage cracks on both the surfaces and the breaks). The other two fragments have a red-brown exterior surface and a grey core. The temper consists primarily of grog with sporadic coarse quartz chunks (8 mm). Exterior and interior surfaces have shrinkage cracks. The first fragment is 15 millimetres thick, the other two fragments are 12 millimetres thick. The pottery cannot be dated any more narrowly than Middle Bronze Age.

Eleven fragments of burned pottery were collected from S26 (V370 and V459). Together the sherds weigh 77 grams. Five small fragments are completely oxidized by burning. The colour is once again beige/light brown. The temper consists of coarse quartz chunks (1–7 mm) combined with fine gravel (5 mm) and the wall thickness is 13 millimetres. The next five sherds were fired in reduction and appear blackened in spots. Coarse quartz chunks were used as temper. The wall thickness could not be determined as the exterior surface of these fragments is absent. The eleventh sherd is 14 millimetres thick, light grey-brown in colour and once again tempered with fine quartz chunks (2–4 mm). The interior surface of the sherd and some of the fracture planes are blackened. Unfortunately these sherds also cannot be dated any more narrowly than Middle Bronze Age.

The sherds from S47 (V381, V391, V399, V415 and V416) together weigh 228 grams and can be traced back to at least two individual vessels. The first is entirely beige/light brown in colour and tempered with crushed quartz (1–6 mm). These sherds are 10–12 millimetres thick and have a smoothly finished interior and exterior surface. The second vessel (see Figs. 7.22d, 7.22e and 7.23) is orange-brown in colour, tempered with coarse quartz chunks and is full of shrinkage cracks resulting from burning. Some recent fracture planes still show a light grey core. The interior and exterior surfaces of this vessel were less well finished than the first one – the quartz chunks penetrate surface in some spots. One fragment is

14 millimetres thick, the other fragments are between 23 and 28 millimetres(!). Several of these thicker fragments were clearly broken on the role. Once again these sherds do not have the necessary characteristics to date them any narrower than Middle Bronze Age.

The last pit (S54) yielded a total of 145 grams of pottery (V458, V625 and V825). The pottery is in very poor condition as a result of having been burned. Both surfaces only survive on four fragments. Wall thicknesses vary between 9 and 14 millimetres. The colour once is again predominantly beige/light brown. In most cases the pottery is completely oxidized. On one fragment a light to dark grey core is still visible. All sherds are tempered with quartz. In addition to the sherds discussed here, the pit also yielded a comparable amount of burned clay and concretised sand.

Loose sherds from the levels around the old surface

In addition to the pottery from features discussed above, another 120 grams of loose sherds were collected from (under) Mound 1. Most sherds were encountered digging Levels 7 through 11. These levels roughly cover the zone around the old surface. No loose sherds were found while digging the first six levels higher up in the mound. It is therefore plausible that the loose sherds recovered are related to the old surface upon which the mound was erected. While these sherds show a wider variation in wall thicknesses, temper and surface finishing than the pottery from the features discussed above, they can generally be likewise dated to the (Middle) Bronze Age. In the following the most relevant features are briefly described.

The first two sherds are two small rim fragments (V47) found while digging Level 7. The first fragment (see Fig. 7.22f) has a flat, slightly outwardly angled rim. The wall thickness just underneath the rim is 7 millimetres. Both fine grog and finely crushed stone

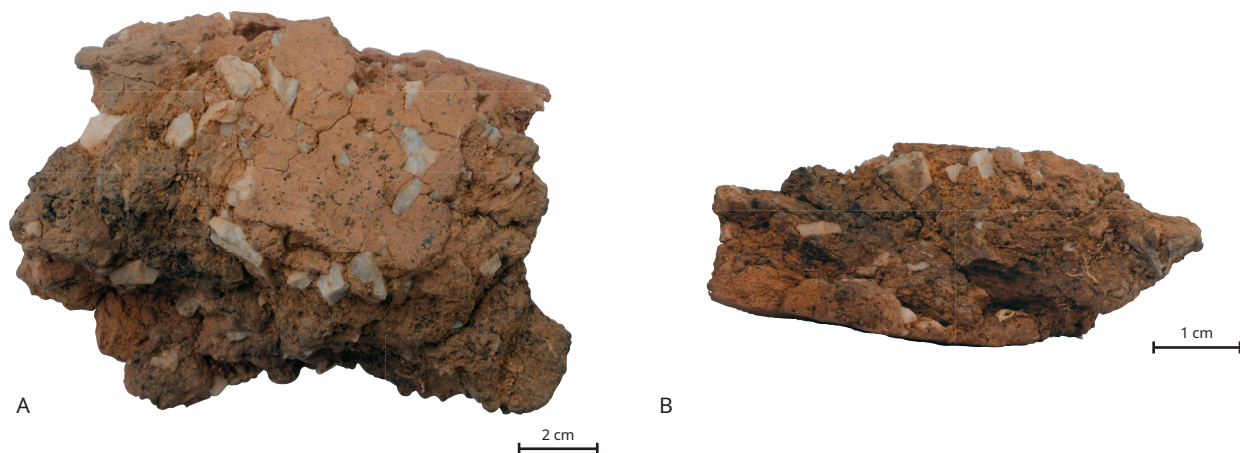


Fig. 7.23: Pottery from S47.

(1 mm) were used as temper. The interior and exterior surfaces are oxidized and beige/light brown in colour, the whole core is dark grey. One of the breaks is likewise oxidized, which indicates exposure to fire after the original pot was already broken. The second rim fragment (Fig. 7.22g) shows the same firing conditions: reduction core, oxidized surfaces. The temper consists of coarse quartz (8 mm) and other crushed stone (probably crushed granite). The rim itself is quite round and thin and is decorated with very fine nail impressions towards the interior of the rim. At the height of the rim itself the wall thickness is barely 5 millimetres, but 2 centimetres below the rim this is already 8 millimetres. It is striking that the coarse quartz temper does not penetrate through the interior and exterior surfaces while the cross-section of the temper particles are almost as big as the wall itself: it appears that the maker intentionally kept the surfaces as smooth as possible.

The next two small (wall) fragments (V71 and V72) were found while digging Level 8. One (V72) is tempered with medium coarse quartz chunks (2–4 mm) and very fine grog and has a wall thickness of 7 millimetres. The other is tempered with finely crushed stone and is 10 millimetres thick. Both fragments are smoothly finished but the temper particles can still be felt through the surface. Both surfaces of sherd V71 are oxidized, while this is only the case for the exterior surface of V72.

A very brittle and strongly fragmented sherd (V667) was found while planing away the profile baulk just outside the intermediary palisaded ditch. It is a relatively thin-walled (7–8 mm), soft paste tempered with coarse to medium coarse quartz chunks (2–6 mm) and very fine grog. The exterior surface is red-brown in colour (possibly as a result of burning), the core is grey to dark grey. The interior surface is slightly oxidized.

While digging Level 9 another three loose sherds were collected (V228 and V655). One of these sherds is a base fragment of relatively fine pottery (V655, see Fig. 7.22h). The base itself is 9 millimetres thick and transitions with a carination into the wall which is 6 millimetres thick just above the base. The paste is tempered with fine grog. Both the interior and exterior surfaces are finished smoothly. The exterior surface is light brown in colour, the interior light grey to grey. The other sherd of V655 is a fragment of the exterior surface of a paste that strongly resembles V667, except that the temper primarily consists of grog. The third fragment is smoothly finished on both the interior and the exterior surface. The sherd is tempered with coarsely crushed stone (6 mm), including quartz, and is 10 millimetres thick. The colour of the exterior surface is light/red-brown, while the interior surface is grey.

The last sherd was found while digging Level 11 and its paste strongly resembles the pottery from the series

of pits described above: completely beige/light brown in colour, 12 millimetres thick and tempered with coarse quartz with an admixture of grog. The exterior surface is smoothly finished, while the interior surface shows a lot of shrinkage cracks between the various temper particles. The resemblance to the pottery from the pits could perhaps be explained by bioturbation causing this loose sherd to move from one of the pits and eventually end up under the mound.

Conclusion on the pottery from Mound 1

In summary, most of the pottery from Mound 1 can be dated to the Middle Bronze Age; in particular the pottery from the pits under the mound which primarily consists of the well-known coarse pastes, meaning that we can be certain of a date in the Middle Bronze Age. The loose sherds from the old surface and around it can also be dated to the Middle Bronze Age without any problems. A number of these sherds appear slightly finer than the coarse pastes from the pits. It is of course possible that there is some admixture of pottery from earlier periods. The barbed wire decorations so typical of the Early Bronze Age, however, were not found, nor were any typical Late Neolithic decorations present. Moreover, finer pastes do also occur in the Middle Bronze Age alongside the predominantly coarse pottery (Hermsen/Louwen 2007). Perhaps the difference between the sherds from the pits and from outside of them may relate to a difference in function of the pottery.

7.4.2 Flint & stone

In total 64 find numbers were assigned to finds belonging to the category 'stone' done in the southwest quadrant of Mound 1. Together these find numbers account for 628 individual pieces of stone, in total 17,824 grams. As the natural sub-soil consisted of pushed-up river deposits, any stones resembling artefacts were collected during the fieldwork so that they could be examined at a later stage. Afterwards 13 find numbers were discarded.¹⁷ A number of pseudo-artefacts were also eliminated from the remaining find numbers. After this thorough examination, only 537 stones remained (52 find numbers, 16,595 gr.). With this number it should be remarked that 483 stones (90%) are broken examples from the pits described above. The remaining 10% primarily consist of flint flakes encountered at the depth of the old surface and probably significantly predate the erection of the mound. A special stone find is the arrowhead from Grave 1. In the following the various stone finds are considered per context.

¹⁷ Discarded find numbers Mound 1 in the category 'stone': V45, V105, V172, V175, V350, V351, V353, V425, V562, V563, V584, V588 and V589.

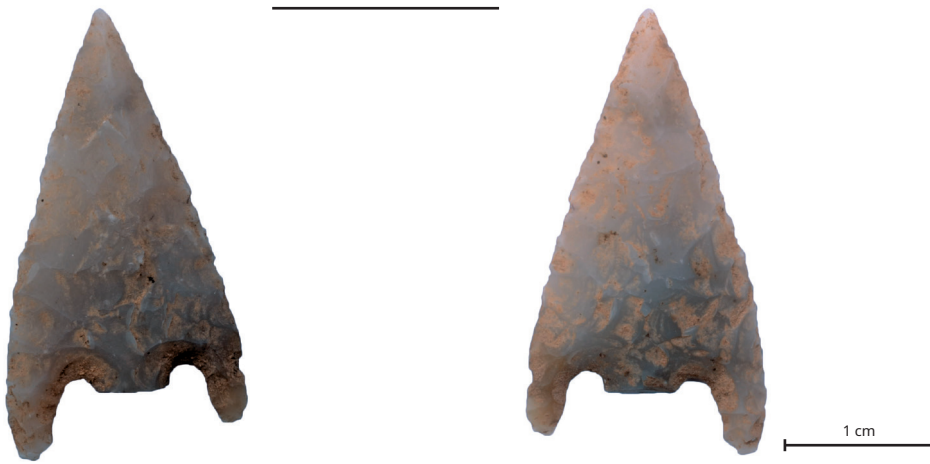


Fig. 7.24: Photograph arrowhead from S14 (photograph: Joëlla van Donkersgoed).

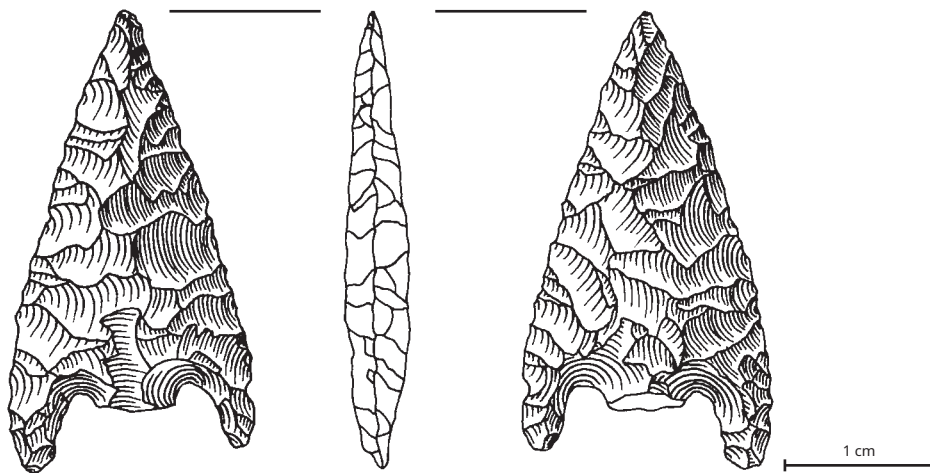


Fig. 7.25: Drawing arrowhead S14 (drawing: Raf Timmermans; scale 2:1).

Flint arrowhead

The arrowhead (V190) found while troweling Grave 1 (S14) is made of a white-grey type of flint (Fig. 7.24). The maximum length is 30 millimetres, the maximum width 15 millimetres and the maximum thickness 4 millimetres. The arrowhead has the shape of a somewhat elongated triangle and also has barbs. From the barbs the edges of the arrowhead bow slightly inwards. The arrowhead originally had a hafting stem, but this has broken off (Figs. 7.24 and 7.25; see also App. 2 by Van Gijn/Verbaas).

Single Grave arrowheads frequently have hafting stems, but not barbs. Bell Beaker culture arrowheads generally have both a hafting stem and barbs. (Middle) Bronze Age arrowheads are generally slim, with barbs but no hafting stems (Butler/Fokkens 2005, 392–3). Purely typologically, the arrowhead from Mound 1 therefore has the most affinity with the Late Neolithic Bell Beaker culture.

Burned/broken stones¹⁸

Four pits yielded a considerable amount of strongly fragmented stones (Section 7.3.3). A similar phenomenon was observed in a larger pit (Trench 24, S1), roughly 30 metres to the south of Mound 1 (Section 10.2.3). Based on pottery that was likewise found in these pits and ¹⁴C-date of charcoal from S54, these find complexes are dated to the Middle Bronze Age (Sections 7.3.3 and 7.4.1). No clear use features were encountered on the stones during an extensive scan of the material from the five pits, beyond the fact that they all have sharp fracture planes. At first glance it here also does not appear to concern used up stone tools. The stone types present include white quartz, quartzite, quartzitic sandstone, sandstone, granite, basalt and tuff. These types of stone are present in the natural

¹⁸ We are grateful to Mr. Hans van Essen for his determination of the types of stones.

sub-soil of the direct surroundings of the Wieselseweg mounds and likely were collected locally. The fact that roughly all types of stone naturally occur in the immediate surroundings of the pits forms an argument against any kind of selection based on the characteristics of the stone. Apparently such characteristics were not required for the eventual use of the stones.

This brings us to the question: what purpose did the stones in the pits serve? The sharp fracture planes present on the various stone remains striking (Fig. 7.26). This clearly sets them apart from the stones naturally occurring in the sub-soil: these only sporadically show fracture planes, primarily the results of freeze-thawing. For reconstructing the function of these stones we must therefore look to these specific fracture patterns. While freeze-thawing could be offered up as the cause of the fracture planes, this would mean that people had scoured the area for stones broken by freeze-thawing. In this kind of scenario multiple fragments of single stones would only rarely have been recovered, something which is not consistent with the stone assemblages found in the various pits. All five pits yielded multiple fragments of the same stones. Moreover, some of the breaks are so fresh that the stones in questions have not even completely fallen apart. In summary, freeze-thawing is therefore not the most plausible explanation for the fragmentary nature of the stones.

Another possibility is that the stones were smashed intentionally. However, the fracture pattern observed is not consistent with a sudden and concentrated impact. A lot of the stones show multiple small fractures that did not continue through. Such small fractures do not result from a powerful impact by which the force enters the stone and then finds its way out. The intentional smashing of the stone therefore also does not form a plausible explanation for the origin of the fragmentation.

What remains as an explanation is that the fragmentation of the stones was caused by heat or burning. The stones, however, could have come into contact with a heat source in various ways and the manner of cooling also plays an important role in whether stones fall apart. If the stones indeed broke as a result of heating, then the fracture pattern could provide insights into the actions which preceded the deposition of the stones in the pits in question. An archaeological experiment by Otis Crandell (2007) offers more insights into this matter. By heating various types of stone (quartz, quartzite, granite, sandstone and slate) in three different ways, Crandell was able to make a number of interesting observations regarding the fracture patterns of stones exposed to heat. The first method applied involved heating the stones by boiling them. The boiling process, however, proved to

generate temperature changes too gradual to generate the internal tension needed to actually break the stones. As the stones from the Wieselseweg are clearly broken, this option can be rejected.

The other two methods of heating both involved heating in a fire. A distinction was made between a fire with relatively low temperature (315 °C) and a fire with relatively high temperature (540 °C). The fire with a low temperature hardly caused any fracturing in the stone, while the hotter fire resulted in numerous small fractures. This has to do with the tensions which occur within a stone when there are internal temperature differences. The higher the temperature, the higher these internal tensions become until the stones breaks to release the accumulated force. The resulting fracture planes are crumbly and irregular, which is the case with a high number of the Wieselseweg stones. The stones remain fragile after heating in a hot fire. The latter is also evident with many of the stones from the pits under and outside of Mound 1 and the example found in Trench 24. A number of stones have so many small cracks that they can easily be broken by hand (Fig. 7.27). A final important conclusion drawn by Crandell related to the heating of stones, is that a normal campfire does not reach the high temperatures needed to break a stone (Crandell 2007, 2). The stones from the Wieselseweg were therefore clearly exposed to hotter than average temperatures.

In addition to heating, the cooling process plays an important role in the creation of fractures. While heating primarily causes small cracks and the sporadic break, most fracturing is the results of the cooling process. Here once again the fast changes in temperatures and the resulting tensions are key. The faster a stone is cooled, the higher the odds that it will fall apart. When a heated stone is cooled in water, the outside of the stone shrinks quicker than the inside as it is closer to the water, which generates so much internal tension that it breaks. Stone heated to a temperature of 540 °C was very strongly affected, while the stones heated to a temperature of 315 °C hardly fractured. Heated stones cooled gradually, so not doused in water, did not fracture as no internal tensions are generated during gradual cooling. Crandell concludes that most of the fractures in his experiment occurred with the stones that were heated to 540°C and then rapidly cooled in water. Stones heated to lower temperatures and stones that are gradually cooled generally will not fracture (Crandell 2007, 3).

In light of the experiments described we can conclude that the stones found in the pits under and outside of Mound 1 were fragmented by being heated to a relatively high temperature and then rapidly cooled with water. The function of the stones must therefore somehow be related



Fig. 7.26: All stones collected from S20 (photograph: Joëlla van Donkersgoed).

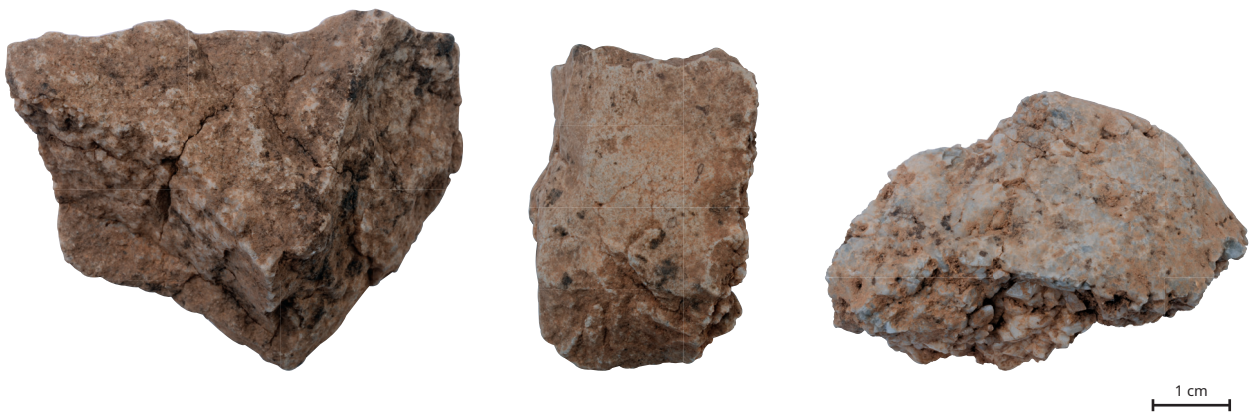


Fig. 7.27: Detail of a selection of stones from the various pits. The three stones clearly show the hairline fractures resulting from the internal tension resulting from the temperature differences within the stones (photograph: Joëlla van Donkersgoed).

to the process just described. Use of the stones as cooking stones forms a pragmatic option. Crandell writes in this paper that a stone heated to 540 °C can immediately bring ice water to a boil (Crandell 2007, 3). An argument against

such a use is the fact that such rapid cooling cause a high degree of fragmentation. It can be questioned whether this is desirable when preparing food. In particular white quartz and granite, both found in the pits, tend to break

into very small fragments and are therefore unsuitable for use as cooking stones. Moreover, temperatures of 540 °C are not easily reached in a simple open fire. By heating stones to lower temperatures the cooking process may take longer, but they do not break and can be reused.

By excluding a function as cooking stones and the absence of clear use-wear indicting an original use it remains difficult to assign a correct use to the broken stones. What we have been able to establish is that we are dealing with stones heated to high temperatures and probably rapidly cooled with water, which resulted in the fracture patterns in question. Moreover, a connection with Mound 1 or the ritual landscape in which this is located would seem apparent. It is therefore likely that the original use of the stones was related to some kind of ritual. As was already established in Section 7.3.3, the formation of steam that accompanies the cooling of the stones may have been the desired effect.

Flint and stone from S15

Three fragmented stones were collected from S15. Initially these stones (V136, V233 and V347) were taken to be ceramic objects, or possibly even a casting mould. Further analysis established that the objects are actually fragments of basalt of which the exterior surfaces have become somewhat oxidized/weathered. The fracture patterns of the stones are strongly reminiscent of the heated stones from the five pits under Mound 1 and Trench 24 (see previous section). Small narrow fragments of white quartz were also found in S15 (V174). The disintegration and crumbling could be the result of heat, which is consistent with the other heat-associated phenomena in the pit (Section 7.3.2). Finally, four small flint flakes/splinters (V137, V173, V176 and V269) were collected from S15. As was argued above, these are likely production waste that was present in and around the old surface and ended up in the pit fill by accident.

A hammer stone from S19

A sandstone ventifact (*windkanter* in Dutch; V344) was found in the fill of one of the ruddy pits in the edge zone of Mound 1 (S19). This triangular ventifact (84 × 57 × 47) has a smooth surface, though the shortest side has been completely roughened by use as a hammer/pounding stone. The point of the ventifact also shows a number of concentrated pounding traces. Microscopic analysis yielded no further information.

Flint from the mound body

In the sondage along the southern profile section (Level 6), a fragment of a quern was found (V69). It is a sandstone muller with four level sides and a rectangular cross-section (25 × 54 mm). Both short sides are missing. Three surfaces are smooth, while the fourth surface (one of the

sides) appears to have been roughened. Use-wear analysis suggests that the muller was used to grind up a mineral substance. A miniscule residue suggests that this might have been ochre, but as the natural sub-soil is also rich in iron this cannot be stated definitively.

While digging Level 7, a trapezoid-shaped flint flake was found (V46). Probably the flake came along with the dirt used to build the barrow. The flake has a maximum length of 30 millimetres and a maximum width of 17 millimetres. The flake is 4 millimetres thick by the percussion bulb. Two flake negatives can be discerned on the dorsal side, which also shows a hinge over almost the whole width. The surface has been slightly modified by post-depositional processes. The distal side (directly under the hinge) has been touched up and rounded. Microscopic analysis also established the presence of polish, which is likely the result of contact with a mineral material. In any case the flake was used in a scraping motion at a slight angle.

Flint from the old surface

At the depth of the old surface a total of ten flint flakes/chunks were collected (V62, V73, V75, V77, V79, V100, V103, V104, V138, and V667). One example (V104) has (use) retouche, while the other fragments are production waste. When the various flakes are compared, it is striking how many different types of flint are present. It is clearly flint that was locally collected from the pushed-up river deposits on the moraine. The flint assemblage is too small to make any statement regarding typical knapping techniques that could help date them. Moreover, the flint was not found in features meaning that the find material could just as well represent a palimpsest as a brief human presence. In any case, it is clear that this find material found at the depth of the old surface must predate the erection of the mound body.

Only a single flint flake was discovered higher in the mound body (V27). It is a slightly burned piece of a smooth, homogenous grey type of flint. Originally the fragment was assigned to S3, but this feature was later discarded. The flake therefore will have ended up in the mound body when it was erected and therefore likely predates the building of Mound 1.

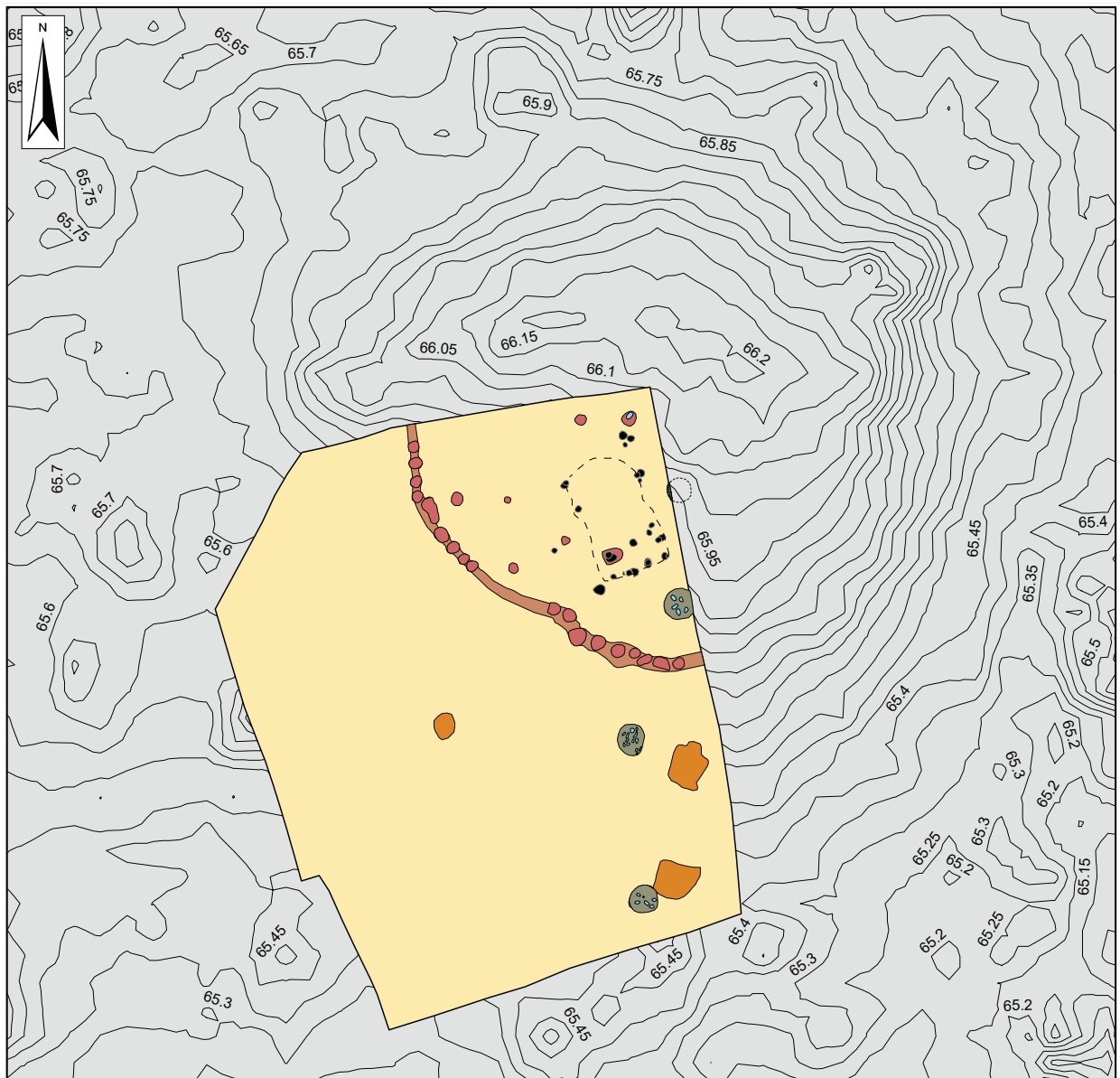
7.5 Phasing and dating

As was established above, the features and finds found in the southwest quadrant of Mound 1 and those just outside of the barrow form a complex whole (Fig. 7.28). It is clear that there are elements from multiple periods, but these are difficult to relate to each. In particular the poor 'readability' of both the mound body and the natural sub-soil complicates the interpretation of the various elements.

Summarizing, the problems revolving the interpretation of the excavation data comes down to the following. There

are three typological arguments which could indicate human activities at the location of Mound 1 during the Late Neolithic. The first is the palisaded ditch, which typologically are only known from the Late Neolithic (see

Section 7.3.4). There are also the flint arrowhead from Grave 1 (Section 7.4.2) and possibly the sherd from the palisaded ditch (Section 7.4.1) which can be linked to the Late Neolithic. In addition to these suspected Late Neolithic



Legend

- Stones
- Dark pits with broken stones
- Stakes
- (post)pits
- pits
- Palisaded ditch
- Contour S15
- Trench 101



Fig. 7.28: Compilation drawing of the features from Levels 9, 10 and 11 under Mound 1.

elements, there are also numerous ones that without a doubt can be dated to the Middle Bronze Age. There are the ¹⁴C-dates related to Grave 1 which all three place it in the Middle Bronze Age A (Section 7.3.1), the series of pits with Middle Bronze Age pottery (Sections 7.3.3 and 7.4.1) and the Bronze Age sherds from the old surface (Section 7.4.1). On their own these various elements from both the Late Neolithic and the Middle Bronze Age do not have to cause any phasing problems, except for the fact that all these different elements appear to manifest at the same depth. This brings us to the heart of the problem: *the homogenized mound body and the soil under Mound 1 simply do not allow one to differentiate between the features from the different periods.* Neither profile sections shows any signs of a later raising of the mound body which could separate the Late Neolithic features from the Middle Bronze Age ones. The only clue for the possible presence of a low mound body is the slightly higher position of S56 in relation to S54 (Fig. 7.16). There are also no pit cuts visible in the mound body which could explain how the Middle Bronze Age features could manifest at the same level as the Late Neolithic ones. In short, the current dataset does not allow for the reconstruction of a definitive narrative for Mound 1.

Even after many extensive discussions among the excavators during the fieldwork and the post-excavation analysis of these issues, we have yet to reach a consensus. In the following we therefore present three possible scenarios, including the arguments in favour and against each.

7.5.1 Scenario I: a low Late Neolithic barrow with a second use and mound phase in the Middle Bronze Age

In the first scenario Mound 1 starts as a low Late Neolithic barrow with a palisaded ditch. A first use as a barrow in the Late Neolithic would explain all three Late Neolithic elements uncovered during the excavation of the southwest quadrant. Moreover, it is known from elsewhere on the Veluwe that Late Neolithic burial mounds can be only a few decimetres high (Modderman 1954, pl. XXXIII). This barrow marked the beginning of the Wieselseweg as a funerary location and place of other (spi-)ritual meaning and was therefore maintained as such. During the Middle Bronze Age several elements were added to this low barrow. Firstly there are the pits filled with heated and broken stones which may fulfilled a ritual purpose with Mound 1 as an important focus. These pits were dug straight through the low Late Neolithic mound body. After some time, or possibly at the same time, a secondary burial was dug into the mound (Grave 1), which was raised to its current proportions. As a result of the homogenisation which later occurs, both mound phases and the soil under the old surface bleach out, making it impossible to differentiate between multiple mound phases. A Middle Bronze Age mound body also explains

why the various Middle Bronze Age elements were all only found at a low depth (Levels 9–11).

An important argument in favour of this scenario are the two pits filled with broken stones: S56 and S54. Both pits were encountered in the profile section, but neither pit had a visible pit cut above the level of the stones. What was well visible (see Fig. 7.16), was the more centrally located pit (S56) higher up in the profile and the pit (S54) located more towards the edge of the mound. This small difference in height could be explained by the presence of an originally low mound body whereby the more centrally located pit must naturally have been dug in at a higher level than the more peripherally located pit.

7.5.2 Scenario II: a Late Neolithic monument as focus for ritual activities and the erection of a barrow during the Middle Bronze Age

The second scenario also assumes that the location of Mound 1 was already a place of greater importance during the Late Neolithic, only this time without a mound body. Even though different Late Neolithic elements are present at the Mound 1 location, no grave has been found to confirm its use as burial location in the Late Neolithic. It possible that the intermediary palisaded ditch did not mark a grave but rather a place of a different ritual meaning. This place must then have been maintained until the Middle Bronze Age without the marker of an earthen mound body. One could think of the wooden posts in the palisaded ditch, which were replaced from time to time, or a different kind of marker that did not stand the test of time. During the Middle Bronze Age new ritual elements were added to the place in question in the shape of the pits filled with heated and broken stones pits (just like in scenario I) to finally give new meaning to this place by constructing a barrow.

Just like the first scenario, this second one accounts for how the various elements from the different periods could manifest at the same level. An important element worth noting with this scenario is that the location of Mound 1 would have had to been recognizable from the Late Neolithic until the Middle Bronze Age without presence of an earthen mound body to mark the location. This is a period of at least 300 years during which people in some manner kept the (future) Mound 1 location visible in some manner.

7.5.3 Scenario III: a Middle Bronze Age barrow with accidental Late Neolithic intrusion

The third scenario assumes that the Mound 1 location was first used during the Middle Bronze Age. In this scenario the palisaded ditch, where in the case of the Mound 1 no absolute dates are available, is considered part of the Middle Bronze Age mound. The flint arrowhead and the possible Late Neolithic pottery

sherd are considered accidental intrusions from earlier human activities at this specific place.

In this last scenario a simple explanation is offered to explain the presence of Middle Bronze Age elements at the depth of the old surface. The largest objection to this option, however, is that the palisaded ditch in this scenario would be the first Middle Bronze Age example ever found in the Netherlands.

7.6 Conclusion

Based on the data available, none of the three scenarios can be entirely excluded. The first one (Late Neolithic barrow with second phase in the Middle Bronze Age) best fits both the available data and general insights on barrow characteristics from both the Late Neolithic and Middle Bronze Age. We therefore see this as the most plausible hypothesis, which could be further tested in the future if information from the other quadrants becomes available. Even so, the excavation of the southwest quadrant and the direct surroundings of Mound 1 generated a lot of new insights into the developments of the Wieselseweg barrow landscape (see also Chapter 10). Not only does Mound 1 appear to have been used as a funerary location for a long period of time, possibly extending as far back as the Late Neolithic, it also appears to be part of a wider Middle

Bronze Age ritual landscape. Future analysis may reveal how the various Late Neolithic elements exactly relate to the Middle Bronze Age features.

This brings us to an important methodological conclusion. The excavation of a single quadrant can yield a lot of new and useful information regarding the condition, structure and history of a barrow. However, when a primary central burial is not uncovered, as was the case with Mound 1, it is impossible to definitively state the age of the barrow in question. As such multiple scenarios remain possible for the internal relationships of the features. The excavation, or at least partial uncovering of a primary central burial is of crucial importance to truly understand a barrow. This is actually also true for any other elements present in a barrow. In this manner it cannot be stated for Mound 1 whether the large pit with a rectangular stake-/post configuration (S15) is an independent phenomenon or is part of a larger complex that in part still lies hidden in the southeast quadrant. The same is true for the charcoal concentration in the west profile section.

From the above we can conclude that the excavation of a single quadrant suffices to evaluate the condition of a barrow and the elements present within it. To achieve a conclusive and complete narrative of a barrow, then it must of necessity be completely excavated.

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