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Hallstatt burials of Oss in context

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This article summarizes 15 years of research in and finds from the Oss-Vorstengraf and Oss-Zevenbergen areas. The results of fieldwork carried out in the area between 1997 and 2007 are presented briefly, including discussion of three monumental Hallstatt C mounds. Recently the finds from the Vorstengraf and the cremated remains of the Vorst were reanalysed, and the results of this work are summarized. Taken together, the research reveals that the three monumental Hallstatt burials are the result of a funerary ritual in which the dead and the accompanying imported objects were deliberately transformed in a highly local manner – with grave goods being dismantled, folded and broken – and consciously interred in an ancestral barrow landscape. The current article is not a final publication, but is intended rather as a prelude to the upcoming publication of a major synthesis on this barrow landscape and other similar burials.

1 Introduction

On 13 February 1933, a cold winter day, workmen were reclaiming heath south of the town of Oss in order to accommodate a group of gypsies who were allocated this place because 'they caused trouble in town'. Since some urns had already been found at this location, the town secretary (Mr Cunen) had arranged with a local antiquarian (Mr Bloemen) for someone with archaeological experience to oversee the reclamation. Mr van Dreumel was sent. He discovered a pit, started digging, found a bronze vessel, and – or so he claimed – saw gold. Since he was from another town, he was afraid that the workmen would kill him for it. So he stopped digging, covered the find with soil, and notified Mr Bloemen, who rang the National Museum of Antiquities in Leiden. The next day dr Bursch of the museum arrived from Leiden with a lorry. He excavated the bronze urn (fig. 1), covered it with plaster and took it to Leiden. There it was 'excavated' in a laboratory, and indeed it proved to contain an iron sword with a hilt inlaid with gold. Cremation remains and numerous other (barely recognizable) metal objects were also found in the bronze *situla*. In the same year Bursch returned to the spot and excavated what was left of the mound. Several years later he also excavated some mounds in the direct vicinity (Holwerda 1934; Bursch 1937).

This is how the richest Early Iron Age grave of the Low Countries was discovered. The find was connected immediately with the Hallstatt culture, and has been known ever since as the *Vorstengraf* (*Fürstengrab*, sometimes also indicated as chieftain's grave) *of Oss*[1]. The situla and the sword were the main focus of Holwerda's (1934) publication of this find. Later some of the other finds were discussed by Modderman (1964) and by Pare (1992) (see section 5.1 below).

Figure 1 The situla as it was excavated on 14 February 1933 under direction of dr Bursch of the National Museum of Antiquities in Leiden. Photo courtesy of Museum of Antiquities.

According to Pare (1992) this was an early (Hallstatt C), and even for Hallstatt norms rich find. Until very recently it was the only one of seven comparable finds from the Netherlands that was more or less decently excavated and documented.

The Vorstengraf barrow group (known as Oss-Vorstengraf), however, was not isolated. Some 450 m to the east there is another barrow group called Oss-Zevenbergen (seven 'hills') (figs 2 and 3). Research into that particular group of burial mounds was initiated in the early 1960s, only a couple years after the establishment of the Faculty of Archaeology, which was still called the Instituut voor Prehistorie Leiden (IPL) at the time. Professor Modderman, who had founded the IPL in 1961, needed projects to train his students. He therefore started to assess areas that were 'threatened', and Oss-Zevenbergen was such a place. In 1964 and 1965 he and his colleague Jan Verwers excavated two mounds with the aid of some students. One of these was Leendert Louwe Kooijmans, who 20 years later would become Modderman's successor. Their research revealed that at least two of the seven mounds present in this area were indeed barrows, and subsequently the whole terrain was protected as a monument (Verwers 1966).

Following this no archaeological activities were carried out in the region until the late 1990s. Since 1933 the Vorstengraf area had been taken over by the gypsies and converted into a huge scrap yard. From 1994 onwards, however, the area was gradually evacuated because it was destined for development. In 1997 it was finally available for research. Since the first author had been working in the region for a decade by then, we were asked to survey the 100 ha of the building site, and search for the original location of the Vorstengraf of Oss which had been 'lost' in the sixty years since it was first excavated by Bursch. In 2004 the barrow group of Oss-Zevenbergen also was re-investigated because it was threatened by road building.

In the past fifteen years the Oss-Vorstengraf and Oss-Zevenbergen areas, and the finds from these areas, have been the subject of much and varied research. This article presents a short summary of the results of fieldwork carried out in the area between 1997 and 2007 (Fokkens, Fontijn, van Wijk, Jansen, Valentijn). This is not a final publication, but a preliminary publication of the results in English. The full report on the Vorstengraf and the first excavation

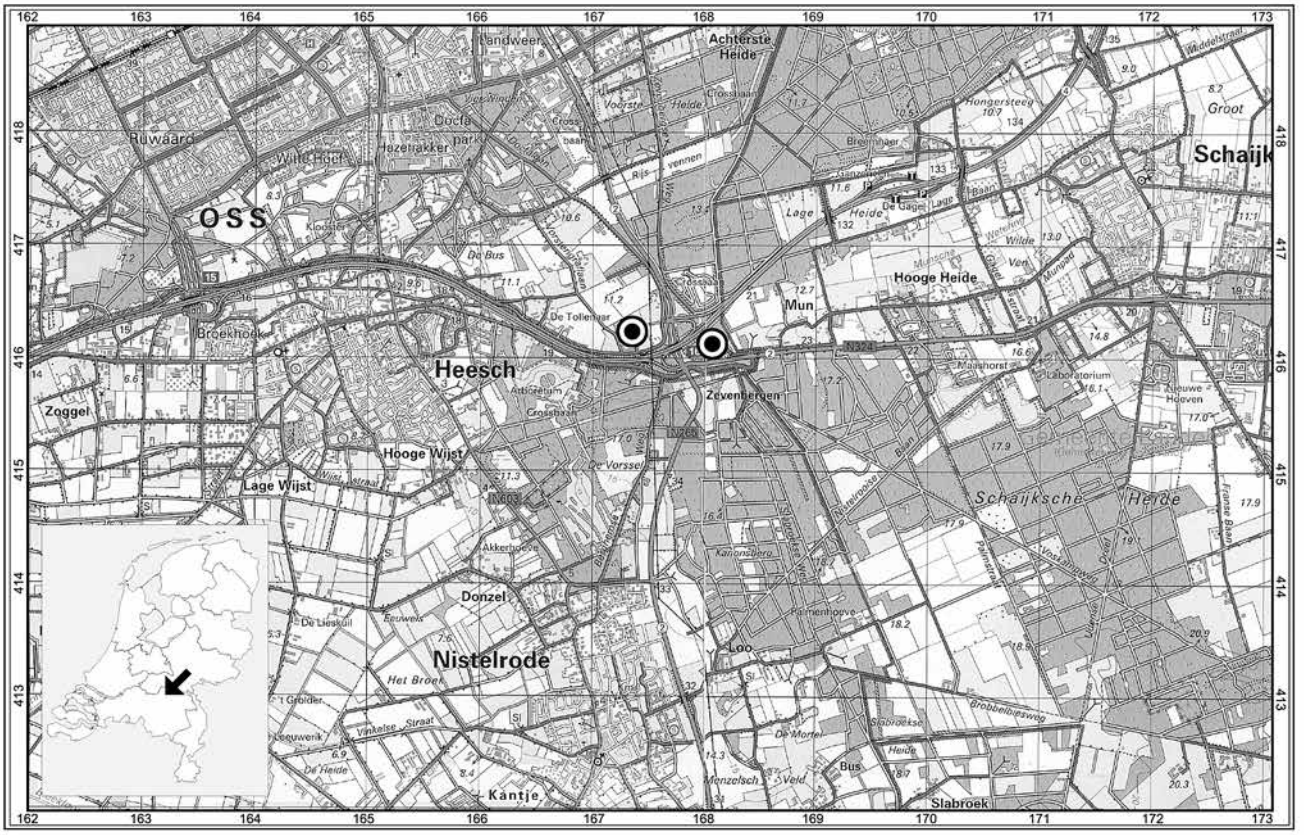

Figure 2 The location of Oss-Vorstengraf (left) and Oss-Zevenbergen (right). Figure by S. van der Vaart.

campaign of the Zevenbergen excavations are available in Dutch (Fokkens and Jansen 2004; Fokkens *et al*. 2009); the excavation of mound 7 will be published in English (Fontijn *et al*. forthcoming). In addition to giving an overview of a decade of fieldwork in the area, this article also includes a short summary of the recent re-analyses of the finds from the Vorstengraf (Van der Vaart) and cremated remains of the Vorst himself (Lemmers), which have started to provide new insights into this burial. The present article is intended as a prelude to the upcoming publication of a major synthesis on this barrow landscape and other similar burials.

2 GEOLOGY AND LOCATION

The Oss-Vorstengraf and Oss-Zevenbergen barrow groups are situated on the northwest edge of a geological formation known as the Peel Blok (fig. 3). This area is one of the few areas in the Netherlands that is actually rising, due to tectonic processes. It is surrounded by fault lines and terrace sides (fig. 3), with various wet areas (see Jansen and Van der Linde forthcoming). The barrow groups overlook the low-lying regions to the north that extend in the direction of the river Meuse. Though the differences in height between the high and low areas are not spectacular, by Dutch standards they are substantial. We might say that the mounds are located in an area that had 'strange' physical characteristics, including wet areas.

The subsoil in this area varies between gravel and wind-blown sand. East and north of the Peel Blok faults, only cover sands are present. Gravels of older Rhine and Meuse deposits surface on the Peel Blok proper, as well as on the sites of both barrow groups. Originally these constituted lower geological strata, but due to the tectonic movements they are now at or near the surface, sometimes covered by a thin layer of cover sand. The mounds of the Zevenbergen group are all located on a small ridge of wind-blown sand and surrounded by gravel beds of former Meuse terraces.

3 RESEARCH QUESTIONS AND METHODS FOR THE FIELDWORK RESEARCH PROJECTS

As mentioned above, since the 1930s the exact location of the Vorstengraf barrow had been 'lost'. In addition to finding again the barrow's original location, the research also hoped to answer several questions regarding the barrow itself and thereby solve a long-running dispute.

Following the discovery of the bronze vessel in February 1933, dr Bursch returned in the summer in order to document the remains of the mound. Not much was left, but luckily a few excellent photographs were taken which demonstrate that the mound was laid out on a podzolic soil with a thin A horizon and was built with sods cut from a similar soil (fig. 4). Unfortunately the excavation features, including

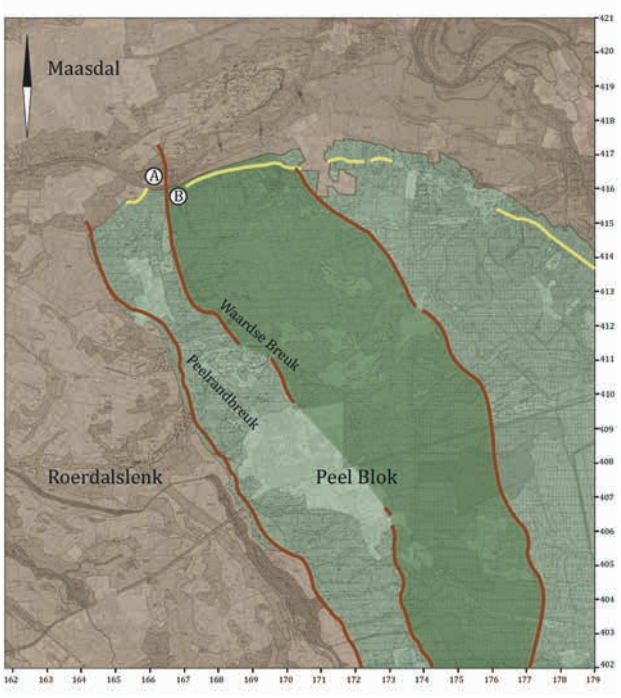

Figure 3 The geomorphological map of the Maashorst showing the high-lying plateau (green). To the west lies the Roerdalslenk, to the north the landscape gradually runs down to the river valley of the Maas. Brown line: fault line; Yellow line: terrace side. A) Oss-Vorstengraf; B) Oss-Zevenbergen. Figure after Jansen and van der Linde forthcoming, Fig. 2.2, adapted by J. van Donkersgoed and S. van der Vaart.

Figure 4 Photograph taken by dr Bursch during his research in the summer of 1933. It was taken from the north. It shows that the remainder of the barrow had been built of sods laid down inverted. Below it the original soil is intact and shows a relatively thin A horizon/ plough soil, a clear E horizon (leached) and a well-developed B horizon with iron pan formation. Photo courtesy of Museum of Antiquities.

the profile, were documented in scale 1:200, so the original field drawing shows little more detail than the published drawing (fig. 5). Interestingly, the drawing shows that the burial had a decentral position within a circular ditch with a diameter of about 16 m. A much larger circular ditch with a diameter of 53 m surrounds this inner ditch. The profile shows that the burial pit was dug about a metre into the subsoil.

These observations have always been debated by the founding father of Dutch professional archaeology Professor van Giffen and his students, who thought that Bursch and Holwerda – both trained as classical archaeologists – were bad excavators and knew very little of Prehistory (cf. van Giffen 1937). One of the questions for the research project that started in 1997 therefore was to find out whether Bursch's observations had been correct, and also how the Vorstengraf could be placed in the context of the barrow groups and possible urnfield(s) found in the area, such as several barrows at Oss-Vorstengraf excavated by Bursch in 1935, the Oss-Zevenbergen group and some urnfield finds done during road work in the 1970s (see section 4).

To answer these questions we first started to survey the Vorstengraf area with test trenches 1.5 m wide, leaving 10 m

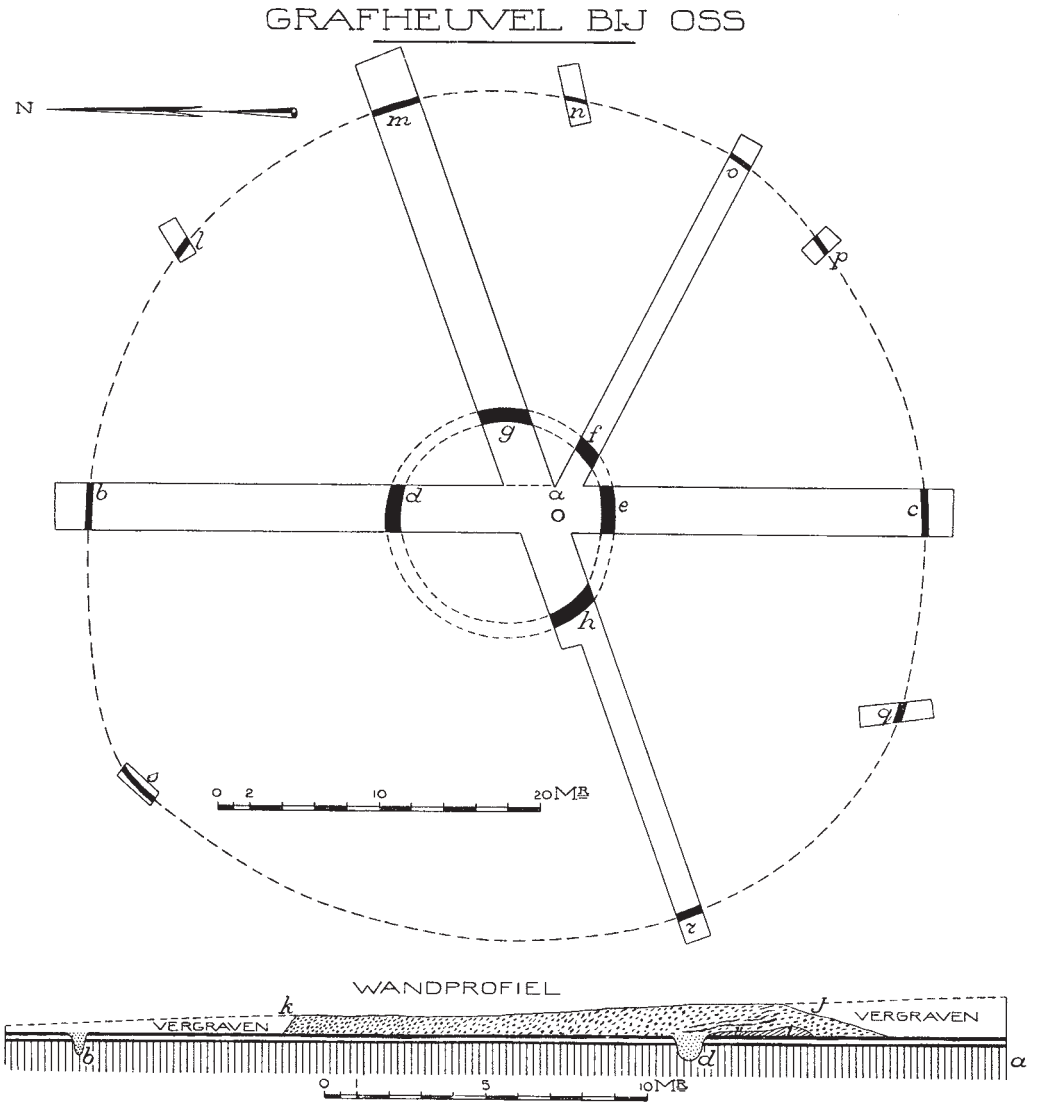

Figure 5 The original drawing as published by Holwerda (1934). Though Holwerda had not excavated the site, as director of the Museum he was entitled to publish this important find himself. The north arrow was actually found to point to the west. The photograph of fig. 4 is taken from trench m-g. Figure after Holwerda 1934, afb. 26.

Figure 6 Location of the Vorstengraf (A) and Zevenbergen (B) excavations. The straight lines represent survey trenches of 1.5 m wide. Figure by Archol BV and J. van Donkersgoed.

between them unexcavated (fig. 6). This way we hoped to locate the remains of the barrow and of other mounds around it, since the exact location had been lost since 1933.

Outside the barrow group, proper survey trenches were spaced wider, leaving 50 m unexcavated. We planned to tighten the network of trenches if we found signs of (pre) historic habitation, but this proved unnecessary. No settlement or other remains were observed in the 80 ha north and northwest of the barrow group (Oss-Vorstengraf) (Jansen and Fokkens 2007).

A severe handicap in researching this area was the fact that it had been used as a scrap yard for several decennia. The area was heavily polluted and had to be excavated in protective suits, while certain areas could not even be surveyed at all. On top of that the area was heavily disturbed. When we rediscovered the remains of the actual Vorstengraf we excavated all surviving traces, though this area was also extremely disturbed.

Several years later, in 2004 and 2007, the Zevenbergen group, located some 400 m to the east of the Vorstengraf, was researched with a comparable strategy (fig. 6). The Vorstengraf excavations had taught us that we might expect other features than burials between the mounds. We therefore planned to excavate as large as feasible an area after having surveyed it with the aid of test trenches. This work was carried out by Archol BV, the excavation company associated with the Leiden Faculty of Archaeology (Fokkens *et al.* 2009).

At the start of our research, the whole Zevenbergen area was covered in light forest with trees of about 60 years old. These were sawn off about 100 cm above the ground and the timber was then removed with horses. It appeared that the remaining stumps could be removed easily with a hydraulic digger, which 'tore' them out of the soil with the help of a chain. The result was acceptable in terms of disturbance, though the uprooted trees and the gravel in the soil made it difficult to read features.

4 New excavations at Oss-Vorstengraf and Oss-Zevenbergen

4.1 Pre-Iron Age burial mounds in the area

In addition to a probable Bronze Age mound underneath the Vorstengraf barrow (see next section), we know of several other pre-Iron Age monuments in the area (fig. 7). At Oss-Vorstengraf three other mounds were excavated by Bursch in 1935, and the Zevenbergen group is only situated some 450 m from there. It is possible that both groups originally formed one coherent landscape of dispersed mounds. We can unfortunately never be sure since the area in between has been largely destroyed by road building. However, observations during roadworks have suggested the presence of further monuments, at least of urnfield burials (fig. 7).

If we take the barrow landscape (Oss-Vorstengraf and Oss-Zevenbergen) in its totality, we now know of six pre-Iron Age mounds. Just south of Oss-Vorstengraf, we find

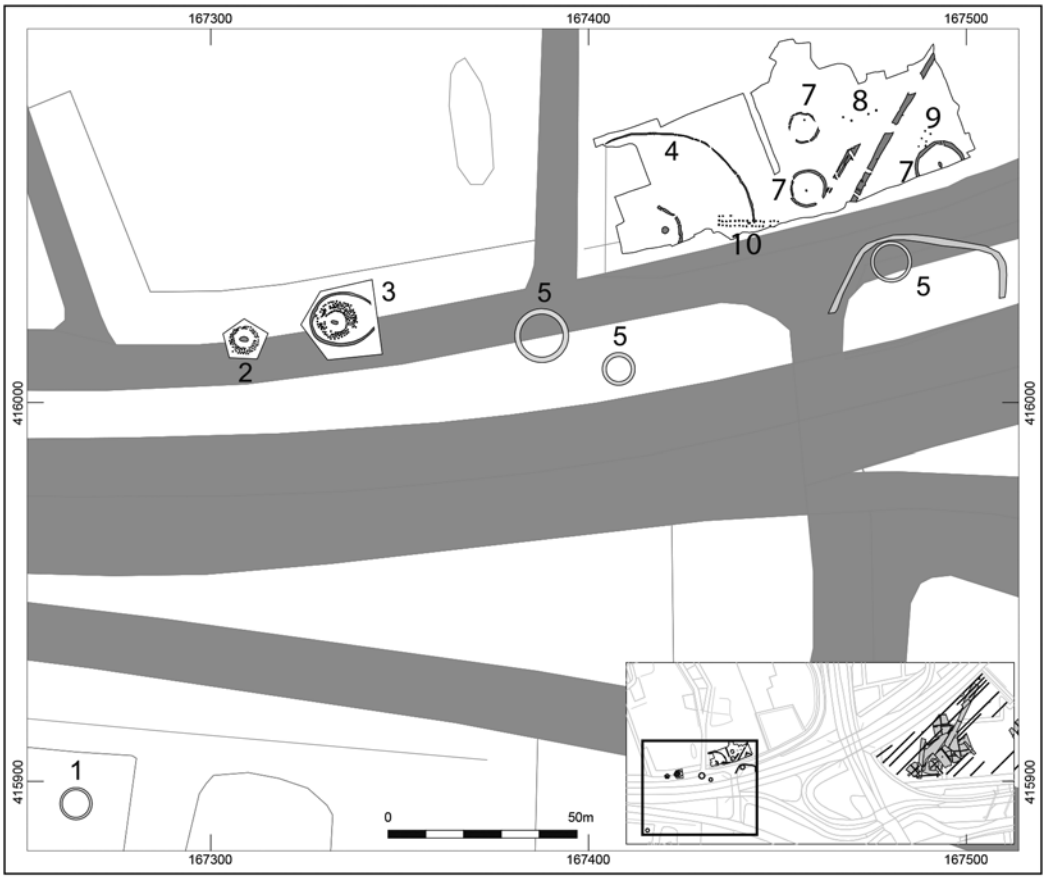

Figure 7 The Vorstengraf barrow group in its entirety. 1) Bell Beaker barrow excavated by Bursch in 1935; 2 and 3) Bronze Age barrows excavated by Bursch in 1935; 4) Vorstengraf barrow; 5) urnfield burials reported from road preparations; 6) Hallstatt burial pit; 7) urnfield barrows; 8) cremation burials (in urns); 9) 6 post structure; 10) post alignment. Figure by Archol BV and H.Fokkens.

the oldest one, dating to the Late Neolithic. It contained a Veluvian Bell Beaker, cremation remains and a flint arrowhead (fig 7: no. 1; fig. 8; Bursch 1937, 1). When it was found, it was the first Bell Beaker find south of the Rhine and of considerable importance. Two other mounds were surrounded by multiple post circles, as was the custom in this region in the Middle Bronze Age. An undecorated Middle Bronze Age urn was found in one of these mounds. In the Zevenbergen cluster Modderman and Verwers excavated a Bronze Age mound with a ring ditch, very much like the one under the Vorstengraf barrow (Verwers 1966). This too yielded an undecorated Bronze Age urn. In 2004 we excavated an additional two Middle Bronze Age mounds, one of which was completely destroyed (fig. 15: mound 4). Another (mound 2) was built in two separate mound phases surrounded by post circles (fig. 9). The central pit underneath this mound turned out to be filled with carefully laid out sods but contained no burial. Yet the excavation of this mound was important because we were able to record the construction with sods in quite some detail, to take pollen samples and to observe the sequences of construction. It became clear that the first row of posts around the mound had already decayed or been removed before the double post circle around the second mound phase was constructed (fig. 9). This implies that probably one or more generations had elapsed before the second phase was built. This mound was reused in the Early Iron Age for the burial of an urn with the cremated remains of an adult female (fig. 9: no. 121).

Of younger date probably are two elongated monuments (fig. 15: mounds 1 and 6) with a surrounding ditch each. Both were severely eroded and in neither was a primary burial found (some cremation remains found in mound 6 in 1964/1964 could not be positively identified as the central burial). Verwers (1966) had already excavated mound 6

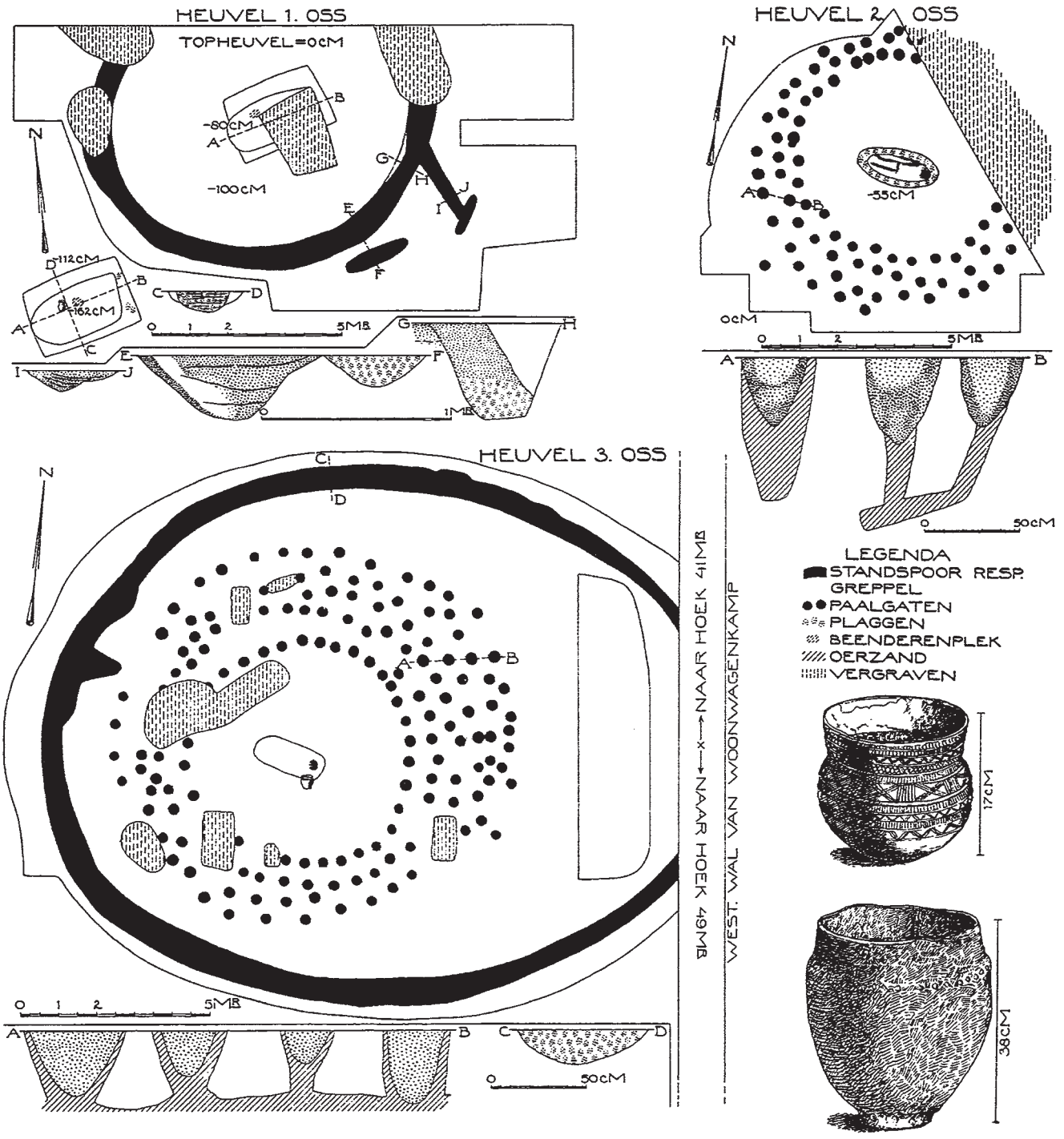

Figure 8 Excavation drawings of the excavations by Bursch in 1935. Figure after Bursch 1937, afb. 1.

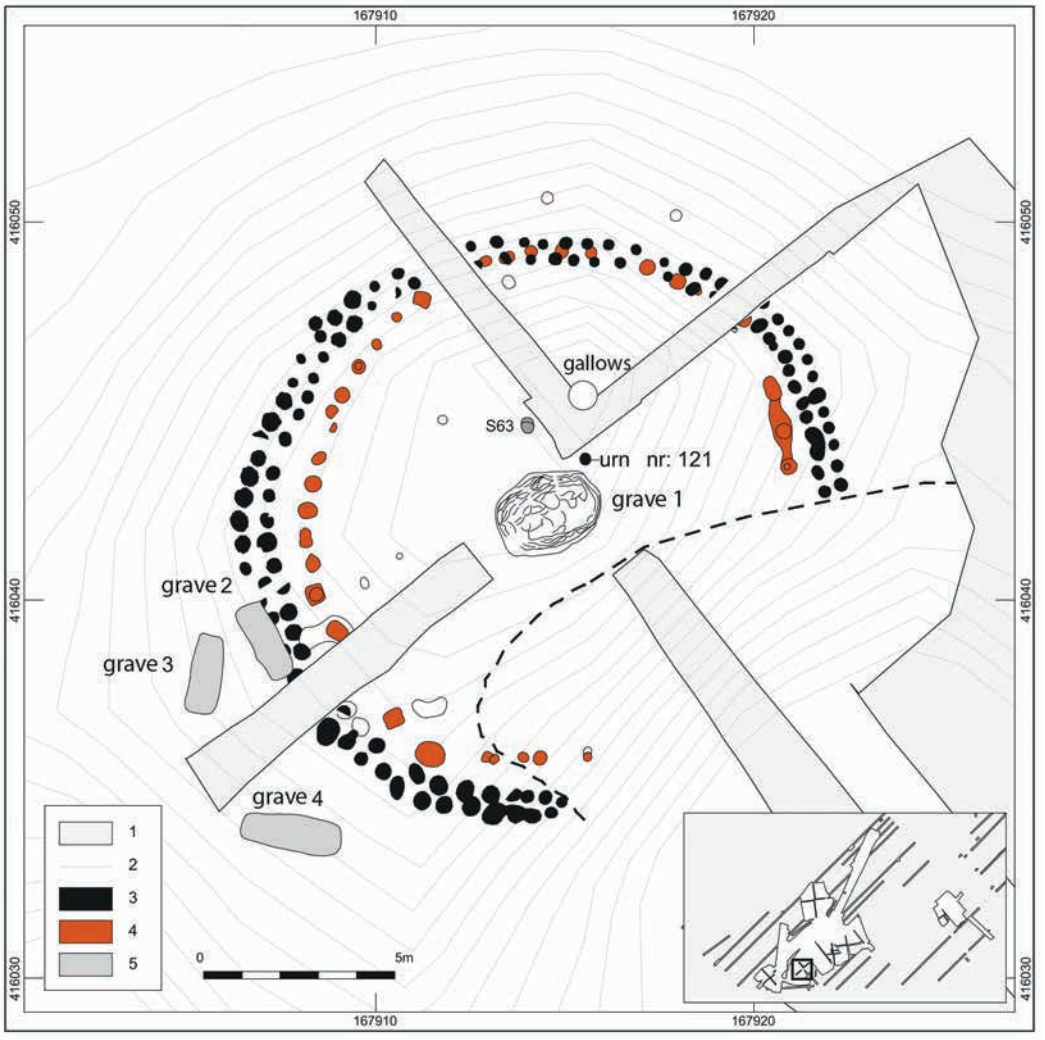

Figure 9 Zevenbergen mound 2. Legend: 1) not excavated; 2) 5 cm contour lines; 3) post circle of phase 2; 4) post circle of phase 1; 5) medieval burials: grave 2-4 associated with the gallows that had been erected in the centre. Urn no. 121 is a secondary Iron Age burial, S63 a post feature, grave 1 is a pit filled with sods, but without a burial. Figure by Archol BV and H. Fokkens.

(28.5 by 8.5 m). In 2004 we first re-excavated the western part, and in 2007 also the eastern part. The latter excavation revealed that the first phase of this monument consisted of a post setting with posts that may have been up to 3 m high. In the second phase an oval ditch (26.5 by 6.5 m) of about 50 cm deep and 70 cm wide was dug at about the same location as the prior post setting. The long mound inside both encircling structures could have been contemporaneous with either phase or even constitute a third phase. This could no longer be established. Monuments of this type are difficult to date, but parallels dating to the Middle or Late Bronze Age have been found for instance at Haps (Verwers 1972). On the basis of indirect evidence we have dated these monuments to the Late Bronze Age, though a Middle Bronze Age B date is also possible (van Wijk *et al*. 2009; Valentijn forthcoming).

4.2 The Vorstengraf proper

At the end of our survey with test trenches in 1997, we rediscovered the location of the Vorstengraf (fig. 10). But later digging activities and road building had heavily disturbed the area. It turned out that only a quarter of the outer ditch around the mound remained, and nothing of the mound proper. Of the outer ditch in fact only a 'ghost' of iron infiltration underneath the original shallow ditch remained,

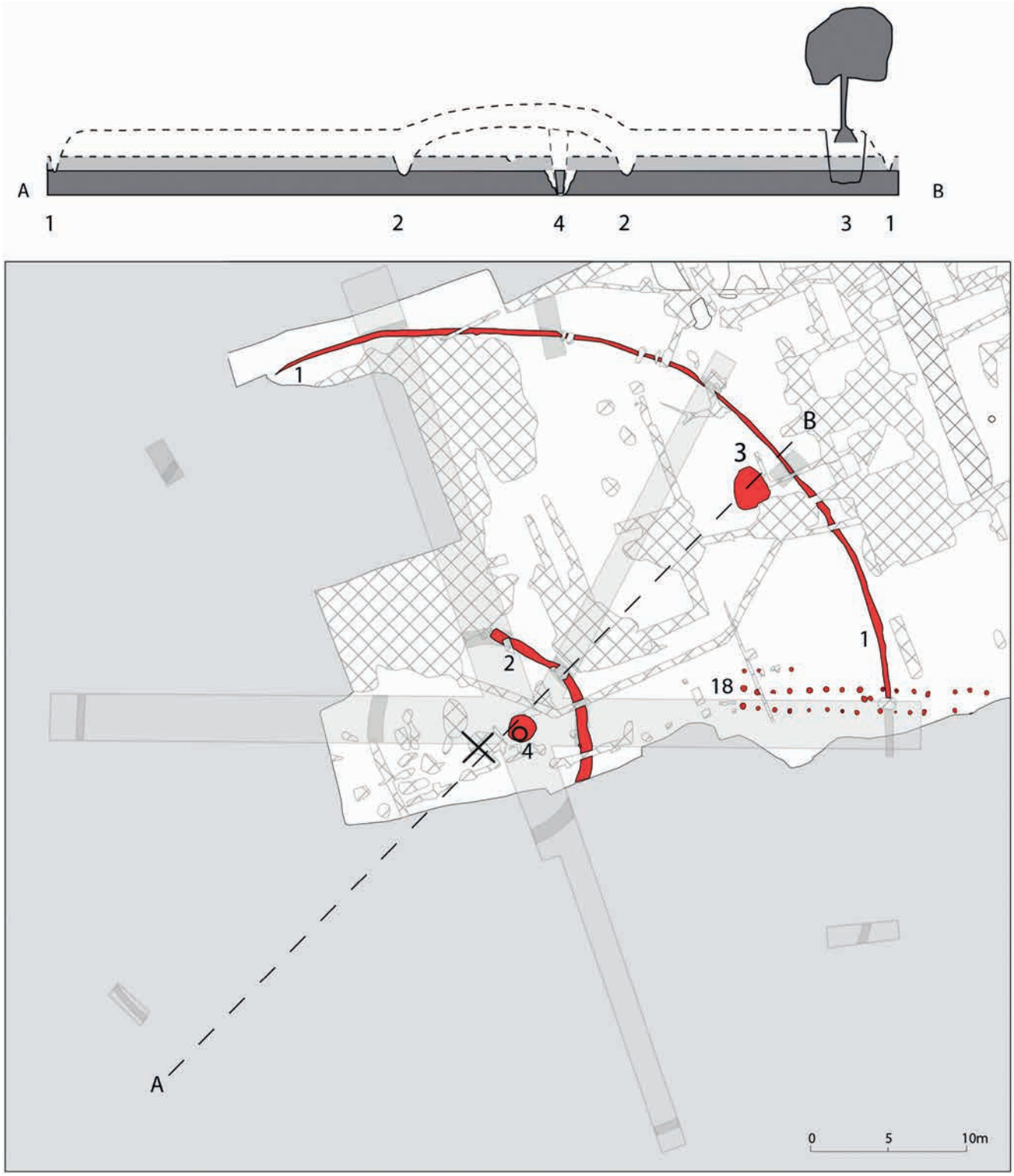

Figure 10 The remnants of the original Vorstengraf barrow as excavated in 1997. Legend: 1) the ditch around the Vorstengraf barrow of 53 m in diameter; 2) the ditch around the older Bronze Age barrow; 3) the pit of a tree fall dating to the Iron Age, which had preserved part of the original barrow and allowed pollen samples of the original sods; 4) the original pit of the Vorstengraf. The X indicates the centre of the Bronze Age mound, which is identical to the centre of the Vorstengraf barrow. At 18 the multiple post alignment that was associated with the Bronze Age barrow is indicated. Figure by H. Fokkens.

Figure 11 Bottom of a Middle Bronze Age urn, found during the excavation of the Vorstengraf barrow in the summer of 1933. Photo by P.J. Bomhof (© Museum of Antiquities)

but it was there, and 53 m in diameter. It was therefore indeed the largest burial mound in the Netherlands. The inner ditch had been more substantial and could still be excavated. It was found to be 16 m in diameter. Though we have no direct dating evidence, a study of the photographs taken in 1933 gave us the impression that we might be dealing with the ring ditch of an older mound. Confirmation of this idea came from a find that was already recorded in 1933: the bottom of a Bronze Age urn (fig. 11). Though its exact find location is unknown, we suggest that this was either a primary or a secondary burial underneath or in a Middle Bronze Age mound surrounded by a circular ditch, as was customary in the Early Bronze Age and the beginning of the Middle Bronze Age.

This implies that the Hallstatt C Vorstengraf was actually dug into this older mound, which was probably already some 900 to 1000 years old when the later burial took place. It clearly was positioned off-centre, possibly to respect the older grave. Subsequently a large mound was built over the Vorstengraf, and centred on its highest point (fig. 10). We do not know the precise shape of the Vorstengraf barrow, but from its remains we have reconstructed a rather flat body that rose to about 3 m above the older mound.

In our view this incorporation of the older mound was not intended to just make the barrow look bigger. Rather, we believe that it was a conscious choice to use this old ancestral barrow group for the burial of an important individual. That way the connection of the decedent with the ancestors was enhanced and may have served to legitimize his own importance or claims of his successors (Fokkens 2012).

4.3 Two monumental Hallstatt burial mounds at Oss-Zevenbergen

When the Oss-Zevenbergen area was surveyed in 1964 and 1965, seven mounds were recognized. But they were under forest cover then and therefore it was very difficult to survey properly. Only when the forest had been removed, did the massive size of two of the mounds really become visible: one was 30 m in diameter (mound 3), the other 36 m (mound 7).

Both large mounds yielded astonishing and unexpected results. Mound 3 proved to be a large sod-built barrow with a post circle. This type of barrow is typical for the Bronze Age, so we expected a Middle Bronze Age burial underneath it. However, it was four times as large as normal mounds from that period. Our high expectations about a Bronze Age burial did not come true. The centre of the mound only yielded a burnt plank that had to have been cut from a very large tree, a small fragment of a bronze sword (or knife), fragments of one bronze and two iron objects (fig. 12), and one fragment of cremated human bone. That we found only small fragments cannot be due to find circumstances because the whole centre was carefully excavated and all the soil was sieved with a 4 mm mesh. The conclusion must be that these objects were intentionally deposited in this fragmented state. We therefore speak of a *pars pro toto* deposition, meaning that parts of an object can represent a whole object or person. This type of practice is known from many other Bronze and Iron Age burial sites, though so far it has received little attention (cf. Fontijn and Cuijpers 2002).

Interestingly, according to Vermeeren the burnt plank came from a tree that must been at least 180 years old and with a trunk of probably over 2 m wide (van Wijk *et al*. 2009, 93). It must have been an impressive oak tree, and Vermeeren suggested that it might have been struck by lightning. Two dates were obtained of respectively the centre and of the outer rings of the tree (with *c*. 130 tree ring years between them). They suggest a felling date between 680 and 400 cal BC. Given the nature of the finds we suspect a date early in this range to be more likely, which suggests that this mound dates to the Hallstatt C period, just like the original Vorstengraf (see below). Moreover, the presence of a possible bronze sword fragment and the size of the mound place it in a category of Early Iron Age sword graves that in the Netherlands are indicated as *Vorstengraven* too (Roymans 1991; Fontijn and Fokkens 2007).

Mound 7 is the largest mound of the entire Zevenbergen barrow group (diameter 36 m and at present a height of 1.5 m). It had to be left untouched in the first campaign of 2004 because it housed a badger family. Badgers are protected in the Netherlands, so we had to wait until this family had been relocated. In 2007 that last mound could finally be (partly) excavated (Fontijn *et al*. forthcoming). Building on previous experiences, the last barrow, mound 7, was excavated using an additional diagonal profile baulk in each of the two quadrants we investigated (fig. 13). Excavation was done in horizontal levels and mainly by hand. A sample (2.2% of the entire mound) of the mound

Figure 12 Zevenbergen mound 3. Legend: 1) not excavated; 2) post circle around the mound; 3) modern disturbances; 4) test trench; 5) contour lines (interval of 5 cm); 6) remains of oak plank in the centre of the mound. In the centre of the barrow sods are drawn as seen in the excavation. At this level the post circle was not yet visible, neither were the planks in the centre. These were projected into this drawing later. The numbers relate to the finds: 7 fragment of a bronze sword or knife, 8 fragment of an iron pin, 122 fragment of an iron object (?). Figure by H. Fokkens.

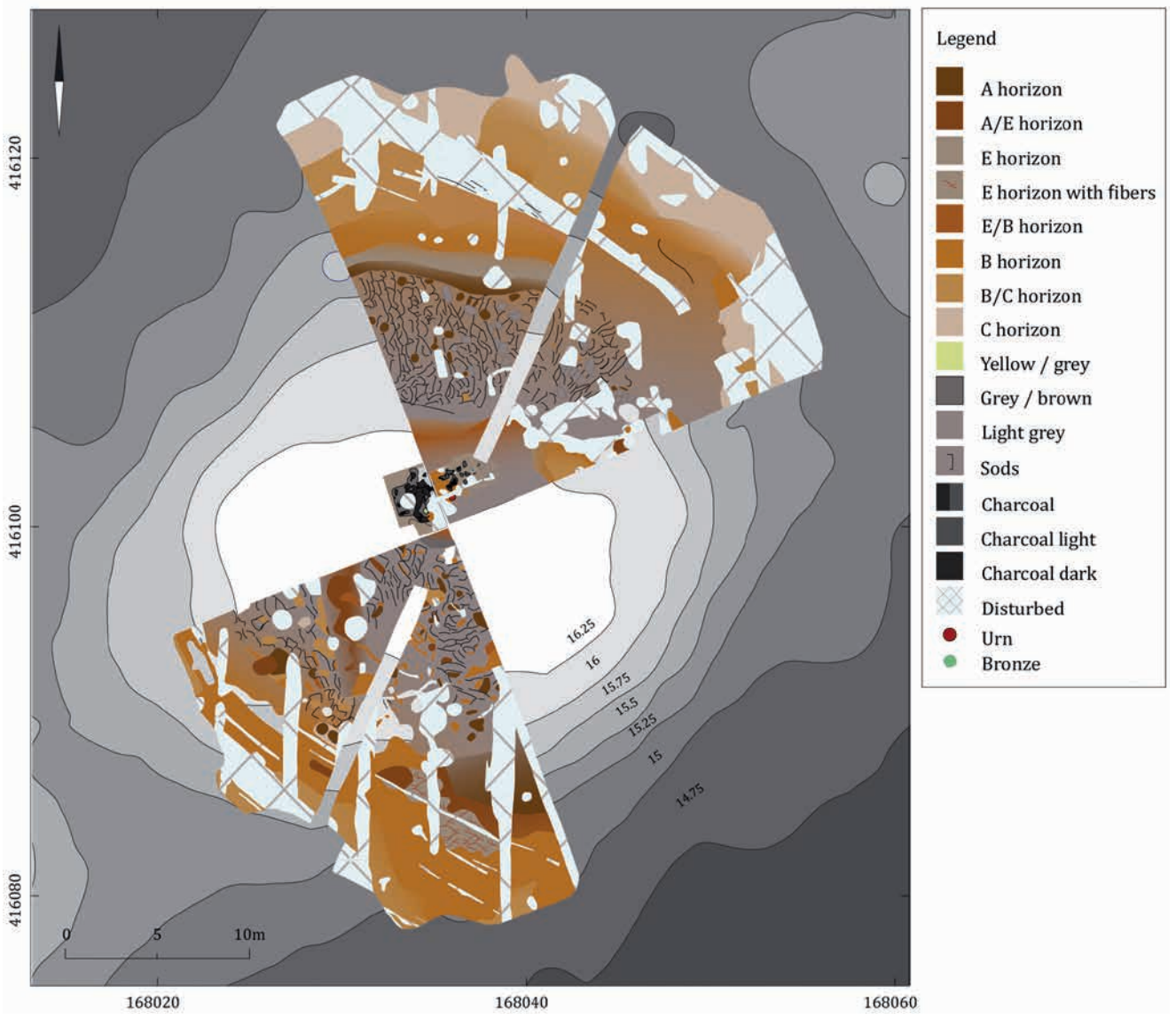

Figure 13 Mound 7, one of the excavated levels. Figure after Fontijn et al. forthcoming, Fig. 4.10.

was sieved over a 4 mm mesh for the recovery of small finds. A 5 by 2 m large zone of charcoal, bronze, ash and cremated bone in the centre was lifted as blocks, which were further excavated in a laboratory. Yielding over a thousand small bronze items in a very complex setting, an entire book is dedicated to this mound alone (Fontijn *et al*. forthcoming). What follows is a preliminary summary of the findings.

The burial mound is situated on a natural elevation. A pit filled with large amounts of charcoal indicates that this dune was the scene for activities during the Middle Bronze Age A, the nature of which remains hidden from us. But it is clear that we are not dealing with the traces of a settlement.

At some point in the Early Iron Age, the top of the elevation was stripped of vegetation and a large pyre was built there. At this exposed location, an individual was cremated: a man between 23 and 40 years old. Organic objects richly decorated with hundreds of tinned bronze studs accompanied him (fig. 14). The burning and subsequent decay of materials make it hard to discern what kinds of objects were burned, but it can be argued that we could be dealing with decorations of a yoke and related horse gear. These objects were carefully dismantled, sometimes broken apart, placed on the pyre and finally deposited (Fontijn and Van der Vaart forthcoming). All material can be dated to the Hallstatt C period and is broadly

Figure 14 Some of the bronze studs from the central find assemblage underneath mound 7. Figure after Fontijn et al. forthcoming, Fig. 7.16.

contemporaneous with the Vorstengraf and mound 3, the two monumental mounds located nearby.

The entire assemblage from mound 7 is extraordinary in the Low Countries and finds its best parallels in Hallstatt graves in southern Germany. As the entire centre was lifted in blocks and investigated in a laboratory, the sequence of events from pyre building, the actual cremation, the searching of the pyre remains and the deposition could be reconstructed in surprising detail. The cremated bones of what we assume to be the individual who was burned here were placed in an urn and dug in immediately south of the pyre debris. Certain items were carefully picked out of the pyre remains, whereas others were deliberately left among the debris, a large charcoal spread of 5 by 2 m. The deposited stud-decorated yoke or horse gear must have been seen as inextricably linked to the social role and status of the individual whose remains were burned and buried here. The entire find assemblage was carefully covered with well-ordered heather sods that were cut in the immediate vicinity. Neatly ordered, horizontally stacked sods were placed in at least four layers on top of the pyre debris. These sods vary in size, but range from 50 to 70 cm, width 20 to 35 cm and thickness from 5 to *c*. 20 cm. Most were placed with the vegetation side downwards. The contours of the original elevation were pragmatically used and smoothed in order to create an impressive, large, round mound. In contrast to the horizontally placed sods on top of the centre, those on the slopes tend to be placed slantwise. In one part, most sods were placed parallel to the radius of the mound, in the other they were usually placed perpendicular to it. There are indications that the construction of this mound was done either by different work parties or at different stages (Fontijn *et al*. forthcoming). Once the mound was finished, the urn was situated exactly in the centre. There is no evidence that the mound was later used for burials or raised later on.

4.4 The urnfield around the Hallstatt mounds

One of the research goals of the fieldwork project(s) was to determine the context of the original Vorstengraf. We have seen that it was built in an already existing 'ancestral' barrow landscape, and we now know that there were at least two other 'rich', monumental Hallstatt burials in this barrow landscape, but the excavations also showed that a small urnfield had developed around these burial mounds. Urns

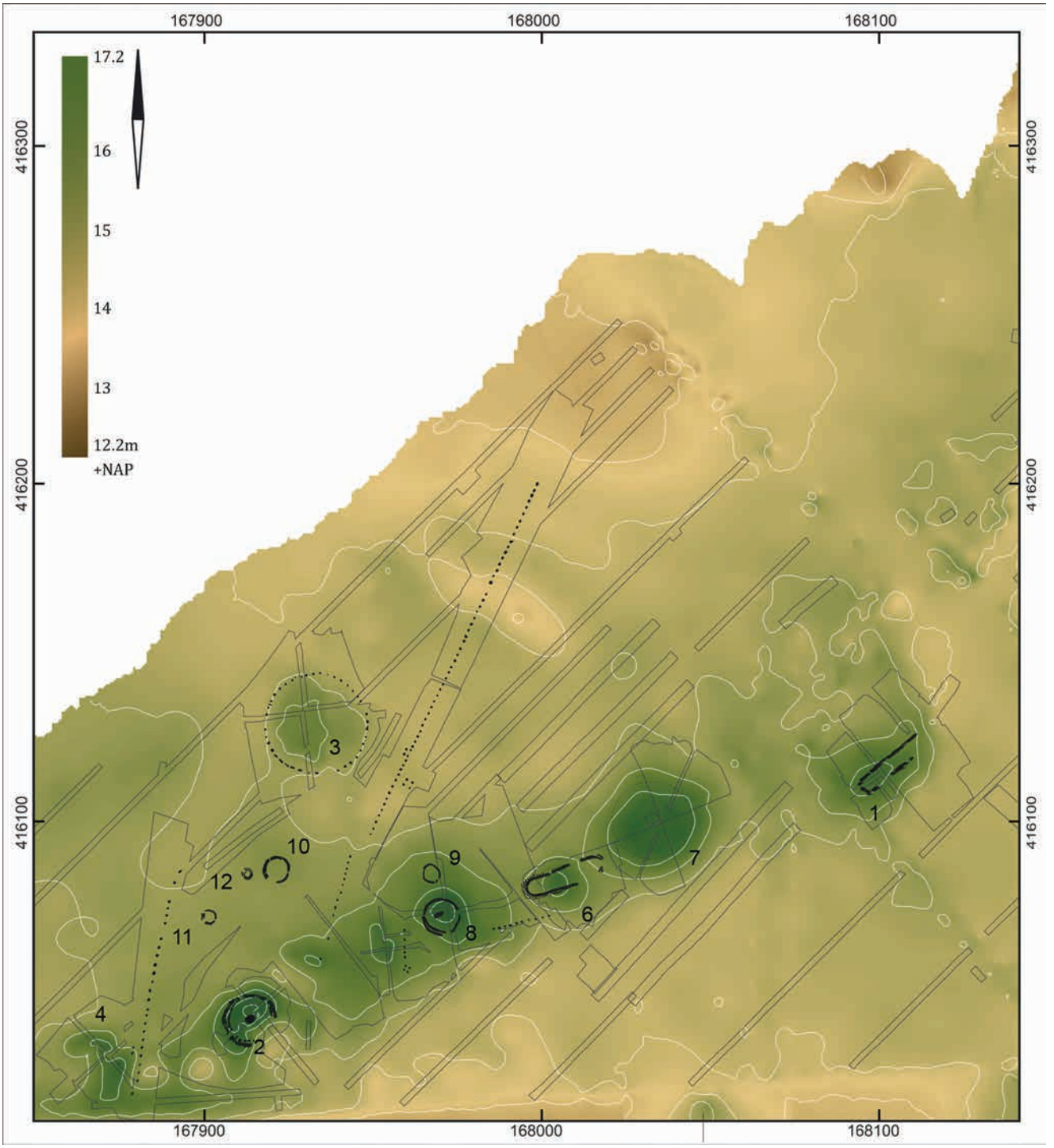

Figure 15 The Zevenbergen group of Middle Bronze Age burial mounds (2, 4, 8), Middle Bronze Age B to Early Iron Age monuments (1, 6), Early Iron Age graves (9, 10, 11, 12 and secondary internments in 8 and 2), monumental Early Iron Age monuments (3, 7). Figure after Fontijn *et al.* forthcoming fig. 2.5 and adapted by H. Fokkens.

found in the 1970s during roadworks already indicated the presence of an urnfield, but no other urnfield monuments had been detected yet. The 2004 and 2007 excavations indeed revealed such monuments, but not as many as might have been expected. At Oss-Vorstengraf we found the remains of three small circular ditches and four urns without monumental structures (fig. 7: 7 and 8). At Zevenbergen the remains of five additional monuments were detected as well as four secondary burials in older mounds (fig. 15: 8-12). The urns that were found do not allow for a detailed dating of the finds, but in general they date to the Early Iron Age, certainly not to the Late Bronze Age. The conclusion therefore must be: yes, there was also an urnfield around the Hallstatt mounds, but this urnfield was very small and probably restricted to the direct vicinity of the large contemporaneous monuments. Moreover, the urnfield monuments are spread out widely, not as tightly packed as we generally find in urnfields. Apparently its use was either selective or very short lived. Of course we do not know whether monuments were destroyed south of the excavated areas, but so far there have been no indications that a large urnfield was destroyed here. North of both groups there certainly were no other monuments present. Our extensive prospective programme would have detected them.

This does not imply that the urnfield was unimportant or only used by a small community. The barrow group as a whole shows long periods of intermittent use during the almost 2000 years of its existence before the Hallstatt mounds were built. It certainly was not the 'cemetery' of a local community that had been used continuously (cf. Fokkens 2012). Apparently it had been 'reactivated' occasionally for special occasions, which does not mean that it had been completely out of use in the interim. Pollen analysis shows that the area was maintained as heath both by grazing and (possibly) burning since the Late Neolithic (De Kort 2009). Several structures were also found that were not directly associated with burial practices, at least not with burials proper.

4.5 Post alignments and post built structures

One of the new discoveries associated with the Vorstengraf and Zevenbergen barrow groups is the result of our strategy to excavate not only the mounds proper, but also the areas in between. This had never been done in the context of barrow landscapes in the Netherlands. This strategy led to the discovery of several structures that were not directly associated with graves, notably post alignments and post-built structures.

Partly underneath the Vorstengraf we discovered a double and partly triple post alignment (fig. 16). It was at least 15 m long and oriented more or less east-west. The space between the rows was limited, only 1 m. We know these post traces must have been visible in the excavation of Bursch in 1933, but he did not record them and probably did not recognize them as such. Yet they were substantial: *c*. 30 cm wide and dug in about 80 cm below the original surface. The posts may have been up to 2.5 or 3 m high. There are a few other examples of such double post alignments in the Netherlands, the Zeijen burial being one of the closest parallels (van Giffen 1949; Drenth and Lohof 2005, fig. 19.4). We distinguish them from single post rows that also occur (cf. below) and that generally are of later date. Double rows probably date to the Middle Bronze Age, though there is very little hard evidence. Similar configurations are also known from the United Kingdom (Dartmoor), but as stone settings associated with cairns (Newman 2011). The Vorstengraf barrow itself provides a *terminus ante quem* dating because the alignment had long disappeared when the Hallstatt mound was built. This is clearly indicated by the soil formation in the post pit features, which was identical underneath and outside the mound. Moreover, the alignment was associated with the older mound underneath the Vorstengraf barrow. The fact that the alignment is not oriented precisely on the centre of that Bronze Age mound is actually a common feature of these 'corridors'. Even in Dartmoor this is often the case.

Interestingly, the features of an identical post corridor, but only consisting of $2 \times 4 + 1$ posts, were present underneath mound 7 in the Zevenbergen group (fig. 16). The orientation was identical and the dimensions fit one section of the alignment underneath the Vorstengraf mound exactly. This may indicate that rather than being one long alignment, the rows underneath the Vorstengraf mound also may have consisted of sections of 16 posts that were laid out in separate occasions (fig. 16).

Another structure in the Vorstengraf group that was not directly associated with burial was a small six-post structure (fig. 16). It had the same heavy iron pan formation in its post pit features as the post alignment itself, but that does not tell anything about its absolute date. Therefore it is not clear how we should date this six-post structure. Interestingly, the features of two similar structures of four posts were found in the Zevenbergen cluster. They are very similar to four-post 'granaries' that we find in settlements, but also resemble traces of four-post structures that are sometimes associated with multiple burials underneath Middle Bronze Age barrows (Van Vilsteren 1989) as was the case at Zeijen.

At Oss-Zevenbergen these structures were associated with long single post alignments, the longest being over 100 m (fig. 15). Though we have no direct dating evidence, we think that they date to the Early Iron Age, after mound 3 was built, because they avoid all monuments in the barrow group in an equal manner. The alignments seem to compartmentalize the existing barrow landscape. They must have consisted of substantial posts (2.5-3 m high), like at the Vorstengraf group. How we should explain them is not clear. They do

Figure 16 The Vorstengraf excavation with the multiple post alignment. In red the features that are a parallel to the features discovered underneath mound 7. It is possible that the Vorstengraf alignment also consists of several 'compartments' of eight or nine posts. Figure after Fontijn *et al.* forthcoming, Fig. 4.32.

not actually close off areas because the distance between the posts (1.20 m) makes them traversable. Yet they seem to divide the landscape into compartments. Whatever their function may have been, and that of the structures associated with them, we think that they are one more indication of the importance of this region as an ancestral landscape.

5 Finds from the Hallstatt C Vorstengraf of Oss

Even 80 years after their discovery, the contents of the situla from Oss still have more to tell us. In this section some of the findings of new research into the old finds are presented. This research studied the old finds in more detail than ever before and included everything that has been found, not only the 'spectacular' components (Van der Vaart 2011). Any research into the Vorstengraf of Oss, of course, also involves studying the Vorst himself (Lemmers *et al.* in press).

5.1 The grave goods of the Vorstengraf of Oss

Since they were first discovered, both the physical appearance, and our understanding of the Vorstengraf burial goods have changed drastically. When the objects in the bronze bucket were first uncovered and restored in 1933, this resulted in 21 inventory numbers that encompassed the recognizable grave goods. However, in the 1960s, restoration work of a 'rusty lump' from the Vorstengraf uncovered even more objects. In the 1990s a last restoration took place. This work completely transformed the grave goods from Oss. They were thoroughly cleaned and fragments were restored into single or different objects, and

Figure 17 The 'presentable' grave goods from the Vorstengraf of Oss. Note that these commonly depicted artefacts are not the entire grave goods assemblage. Photo by P.J. Bomhof (© Museum of Antiquities).

finally made really presentable to the public (fig. 17). At least, for the most part. Recent examination of artefacts stored in the depot of the Dutch National Museum of Antiquities (RMO) revealed that there are even more objects that have never been published or presented, likely due to their corroded and fragmented state (Van der Vaart 2011). In short, since their discovery 80 years ago (a selection of) the grave goods have been restored three times. During each restoration new objects were uncovered, recognized and published. These developments as well as some new findings will be properly published in future, but are shortly summarized here.

Shortly after museum restorer D. Versloot uncovered the cremated remains of the *Vorst* of Oss and his grave goods in the bronze bucket and treated them, they were published for the first time. Almost in passing, Holwerda (1934, 39-40) mentions burned bone material, two oval bronzes, a bronze cross-shaped piece, three small solid bronze rings, two large fragments of daggers or small swords, a whetstone and fragments of cloth, probably deriving from a piece of clothing. He focuses mainly on the bronze situla and iron Mindelheim sword with its spectacular gold-inlayed hilt (fig. 17).

In the 1960s the Vorstengraf finds drew Modderman's attention because of a study he was conducting into a similar find from Wijchen. Modderman soon realized that Holwerda's description had become outdated (Modderman 1964, 57). During his examination of the finds his curiosity was spiked by a 'rusty lump' which consisted of all kinds of iron bits and rings. He had this rusty lump reconstructed and partially cleaned by J. Ypey, the chief of the laboratory of the State Service for Archaeological Investigations (ROB) in Amersfoort. Ypey uncovered several 'new' artefacts in this rusty lump that had previously not been recognizable. This work revealed two iron 'knives' which are usually interpreted as razors, as well as an iron socketed axe and two objects made of two separate bronze cones joined by an iron pin, interpreted as dress-pins. There were also several objects the function of which Modderman could not explain. These include an iron rod with a knob and an eye and an iron rod with a rounded cross-section. During the later 1992/1993 restoration these would be revealed to be two matching toggles. The iron tang-end of a knife interpreted by Modderman as an entirely new knife would turn out to belong to the knife-tip already discovered in the 1930s. Eight iron rings were also uncovered. It was, however,

the uncovering of two iron horse-bits with cheek-pieces that was the most important discovery. At this time they were corroded into many fragments, but they were still recognizable as horse-bits. They added an entirely new find category to the Vorst's grave goods: horse gear.

In 1992 the Vorst's grave goods were once again given into the care of restorers. The artefacts were in very poor condition and were to be restored for the opening of the renewed exhibit at the RMO (Fokkens and Jansen 2004, 54). J. Kempkens and T. Lupak spent a year and a half restoring the grave goods of the Vorst of Oss to their former (and current) glory (fig. 17). They discovered that several artefacts were in multiple fragments, with some pieces rusted onto other objects. They also determined that some artefacts formerly interpreted as different objects were in fact part of the same artefact.

Modderman's 'rusty lump' yielded even more finds during this restoration, such as an intact bronze and iron dress-pin. Several more iron rings were reconstructed from fragments, and an iron rod with a flattened end and two bronze hemispherical sheet-knobs were revealed amongst corroded ring fragments. During this restoration, however, certain finds also 'disappeared' as fragments of artefacts were restored into single objects. An object that had been interpreted as either another knife or a second sword for sixty years turned out to be part of the Mindelheim sword. The fragment that Modderman had interpreted as the point of the sword turned out to be a 'middle' piece. The object thought to be a second sword was in fact the point of the Mindelheim sword. By recognizing this, Kempkens and Lupak added 26 centimeters to the sword, thereby also putting an end to the idea that the Vorst of Oss might have had two swords.[2]

In 2011 examination of all artefacts from the Vorstengraf revealed that there were several small and 'unattractive' finds in the depot of the RMO that had never been published (cf. fig. 18). These 'new' finds include an iron ring fragment with part of a bronze hemispherical sheet-knob corroded onto it, some lead or tin fragments, and several thin pieces of leather. The most surprising find was in a little cardboard box filled with textile fragments (in and of itself also an interesting 'find'). Amongst the fragments were six gold-sheet fragments from the sword hilt. Several of the fragments were clearly recognizable as the golden triangles that decorate the lower edge of the sword hilt, perpendicular to the blade. The golden triangles are in such perfect condition that the tiny folded edges that would have been used to inlay the pieces into the wooden hilt are still clearly visible (Van der Vaart 2011).

Figure 18 One of the 'new' artefacts from the Vorstengraf of Oss. Depicted are several iron ring fragments that have corroded together and onto a partial bronze hemispherical sheet-knob. The objects have all been left untreated and the iron in particular is covered in corrosion. Photo by P.J. Bomhof (© Museum of Antiquities) and adapted by S. van der Vaart.

The detailed examination of all the finds also revealed new information about objects that already have been published. The bronze bucket in which the Vorst was buried is a striking example. For the last twenty years this bucket has been described as being in a decrepit state and having many repairs, thereby giving rise to the idea that it must be an heirloom that had been in use for generations (Verhart and Spies 1993, 80-83; Fokkens and Jansen 2004, 56). Several pieces of bronze plate, one with punched-in decoration, were supposedly attached to the bucket as repairs. It has even been described as having had a leather handle attached to it as some kind of amateurish repair. Close examination of the bucket, however, revealed only a single repair. A small bronze plate, attached with a single rivet, is covering a tear in the bottom. The base tore when the base ring was being hammered, and was subsequently repaired by riveting on the bronze plate (Kempkens 2011, *pers. comm.*). This means that the only repair present on the bucket occurred during the manufacture of the bucket. The bronze plates described as repairs in most publications are in fact reinforcements underneath rivets. The 'repair plate with punched-in decoration' is part of the original strap-handle.

Through the detailed examination of the artefacts, as well as the restoration report and old X-rays, it was possible to reconstruct certain aspects of the burial ritual that resulted in the Vorstengraf of Oss. First of all, none of the grave goods show clear signs of being burned. Though cremation artefacts can be hard to recognize, in this case it is most likely that the grave goods were never placed on the pyre with the body. By examining how artefacts were originally corroded together in the bucket, it was possible to reconstruct the order and manner in which objects were placed in the bucket. The first thing placed in the bucket was a number of iron rings (at least eight) tightly wrapped in textile. A leather bridle, incorporating an iron horse-bit, a bronze ring and a bronze tubular cross-shaped object, were then placed on the bottom of the bucket, partially resting on the wrapped iron rings. A knife and axe were placed on top of the bridle, possibly both wrapped in textile. The other bridle, incorporating an iron horse-bit and two bronze rings, was

placed on top. Leather panels and attachments from a yoke were next, and the two razors were placed on top of the yoke components. The last object to go into the bucket was the curled-up sword. It was placed on top, with the hilt angled downwards (Van der Vaart 2011). The last thing to be placed in the bronze urn appears to have been the Vorst himself.

5.2 The cremated remains of the Vorst

As a result of the fact that the content of the situla was 'excavated' in the laboratory of the National Museum of Antiquities, the entire deposited cremation has been preserved. Due to the remarkable amount of material and the relatively good conservation of the cremated fragments, the human remains are very suitable for analysis. This has created a prolonged research history of physical anthropological assessment. The first time the remains were subjected to analysis was in the 1960s, performed by physical anthropologist Huizinga. He noticed the remarkable amount and high quality of the material and was able to make the first statements concerning demographical characteristics. He stated that the remains in the situla had come from a single, middle-aged individual. Apart from that, he noticed the presence of strong ossification of spinal elements. With this observation, he stated that that the person must have been more or less disabled.

In the 1990s, the remains were re-analysed by Smits. Using the cremated remains of the Vorst of Oss for a blind test at an international conference of physical anthropologists, new results were obtained. Due to the robustness and presence of certain diagnostic skeletal elements, Smits was confident to state that the remains had probably belonged to a male individual. Furthermore, Smits was able to give more detail to the pathological condition noticed by Huizinga. She suggested that it was caused by a condition known as Diffuse Idiopathic Skeletal Hyperostosis (DISH). From this it was concluded that the man had been restricted in his movement, and had difficulties with walking and with performing heavy labour (Fokkens and Jansen 2004, 64). With the diagnosis of DISH, in combination with the results from the blind test, the age estimation of the individual was set to an older adult (at least 40 to 60 years of age) (cf. Smits *et al*. 1997). The condition of DISH was being connected to high calorie intake and diabetes (although the etiology is actually highly debated). This raised ideas about a distinctive appearance of the Vorst of Oss. A disabled man of high age, whose high social status resulted in access to rich foods and a less physically demanding lifestyle, fitted the picture of 'a true Vorst' (Fokkens and Jansen 2004, 67; 170).

In 2012 the possibility to do a reexamination was taken up. This research confirms the diagnosis of DISH, and was able to add a number of comments (Lemmers *et al*. in press). This study points to new morphological data which suggest that the individual may have been younger than previously suggested. The morphological assessment was combined with histological research of thin sections of a femur fragment, as a follow up to the 1997's under-highlighted side of the age-at-death estimation. Furthermore, it points out that there has been a tendency to overemphasize the physical limitations of individuals with DISH. The implications of DISH on mobility and physical capabilities are re-evaluated using modern clinical data, indicating that most individuals with DISH do not have any severe physical limitations. The newly acquired results from this study call for reconsideration of our understanding of the individual's physical appearance and capabilities and with that, our perception of an Iron Age Vorst.

6 Transformed and deposited in an ancestral landscape

This article very briefly condenses 15 years of research into the Oss area and the remarkable finds done here. The Vorstengraf of Oss was not an isolated find. It is one of three monumental Hallstatt C burials that appear to have been deliberately positioned in relation to 'ancestral' burials several thousand years older. The area had been used intermittently, but was kept open through grazing (and possibly burning). Its location on the northern edge of a geological formation that showed relatively steep terraces and wet areas may have been considered special and associated with supernatural or ancestral powers. An additional indication that this was a special place is the discovery of a Middle Bronze Age axe deposited in a wet area just a few hundred metres west of the Vorstengraf (Fokkens and Jansen 2004, 141).

We suggest that in the Early Iron Age this ancestral place was consciously chosen to bury these important people. The imported sword and situla evidence contact with the central Hallstatt region. The objects interred both in the Vorstengraf and mound 7 fit in a tradition of rich graves in that area that contain (to varying degrees) the same set of objects, with the burial of Frankfurt-Stadtwald (Willms 2002) being one of the closest parallels. In their region of origin these objects probably had highly symbolic and ritual connotations (cp. Huth 2003) and possibly served to enhance or confirm relations between a giver and receiver (*e.g*. Godelier 1999). The highly ritualized and almost standardized deposition of such objects in richly furnished graves like the Hochdorf burial indicates that these graves represent more than just the display of the wealth of the owner. Huth (2003) suggests that these burials served to legitimize – through their enactment of mythology – the existing powers and possibly the claim to inheritance of power, of dynasty. Even if that may be considered an interpretive step too far by some, the choice of an ancestral

burial place, even the incorporation of an ancestral burial while at the same time avoiding disturbing it, may show similar acts of legitimizing.

However, the manner in which these highly similar objects were deposited in Oss is completely different from how they were treated in the Hallstatt core area. The finds recovered from our three monumental Hallstatt mounds suggest that we have uncovered the results of a highly local interpretation and enactment of a (partially) exotic burial tradition. Imported objects, which in all likelihood carried some kind of meaning or significance, were taken apart, broken, folded and basically *transformed*, just like the dead were through the cremation ritual. They were recontextualized in a highly local manner. Through the construction of the very large burial mounds, impressive monuments were created that not only were remembrances to the individual dead, but also ancestral monuments that were there to last.

This article has given a 'sneak preview' of work recently and currently being carried out in the Oss-Vorstengraf and Oss-Zevenbergen area. It is of necessity rather short and does not do justice to what must have been, and still is, a very special place. We hope that several major publications in the near future will rectify this. At this point we would like to emphasize that the added value of the recent and on-going research lies in our detailed approach. Through meticulous excavation and analysis we are starting to achieve a remarkably detailed resolution of the things that took place here several millennia ago.

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Notes

1 In this publication we have chosen to refer to this burial by its Dutch name as the *Vorstengraf* or in combination as Vorstengraf group or barrow. The man interred in this grave we call the *Vorst*. This is done because the *Vorstengraf of Oss* is an established concept in the Netherlands and abroad. We want to emphasize that we use these terms in a descriptive sense, not in their literal, value-ascribing meaning (roughly translated *Vorstengraf* means royal/ruler grave).

2 Warmenbol (1993, 104) suggested that this dagger could be the point of a second (antenna) sword. Lanting and van der Plicht (2001/2002, 173) used this suggestion to date the Vorstengraf burial in the Hallstatt D period, which is much later than Pare (1992) had concluded on the basis of the other grave finds (Hallstatt C). With the new reconstruction by Kempkens and Lupak a possible Hallstatt D date has become very unlikely.

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