

The Merovingian cemetery of Bergeijk-Fazantlaan

F. Theuws

M. van Haperen



The Merovingian cemetery of Bergeijk-Fazantlaan

The Merovingian cemetery of Bergeijk-Fazantlaan

F. Theuws
M. van Haperen

with contributions by
Chr. Brandenburgh
R. Panhuysen
S. van Lith
L. Smits



Habelt-Verlag | Bonn
Bonn 2012

Contents

Preface	p. 6
---------	------

PART 1 DATA

1	The environmental and societal context of the Merovingian cemetery of Bergeijk <i>Frans Theuws</i>	p. 10
2	The excavation and post excavation activities <i>Martine van Haperen / Frans Theuws</i>	p. 30
3	Inhumations: burial pits and grave constructions <i>Martine van Haperen</i>	p. 38
4	Inhumation graves: post-depositional interventions <i>Martine van Haperen</i>	p. 46
5	Other possible Merovingian contexts in the cemetery <i>Martine van Haperen</i>	p. 56
6	Grave finds <i>Frans Theuws (with a contribution by Sophia van Lith)</i>	p. 58
7	The textiles from the cemetery of Bergeijk <i>Chrystel Brandenburgh</i>	p. 126
8	Human remains, body silhouettes and container lengths from the cemetery in Bergeijk <i>Raphael Panhuysen</i>	p. 138
9	The chronology of individual graves and the chronological structure of the cemetery <i>Frans Theuws / Martine van Haperen</i>	p. 142
10	Prehistoric remains and post-Merovingian features <i>Frans Theuws / Martine van Haperen</i>	p. 146

PART 2 INTERPRETATIONS

11	The topography of the cemetery and the ‘history’ of the burial community <i>Frans Theuws / Martine van Haperen</i>	p. 150
12	Aspects of the burial rituals <i>Frans Theuws / Martine van Haperen</i>	p. 166
13	Consecutive mortuary practices <i>Martine van Haperen</i>	p. 176
14	A world of connections and peasant agency <i>Frans Theuws</i>	p. 180

PART 3 CATALOGUE

15	A catalogue of excavated contexts and finds <i>Martine van Haperen / Frans Theuws</i>	p. 188
----	--	--------

	Appendices (with a contribution by Liesbeth Smits)	p. 286
	Abbreviations	p. 297
	Bibliography	p. 298
	Plan of the excavation	p. 304

Merovingian Archaeology in the Low Countries I
A publication of the ANASTASIS project in the context of the Odyssee-programme
<i>The project is financed by</i> The National Science Foundation The University of Amsterdam The University of Leiden The Town of Maastricht
<i>Additional sponsoring of this volume by</i> Stichting Nederlands Museum voor Anthropologie en Praehistorie
<i>Graphic design</i> Bregt Balk
<i>Lay out</i> Bregt Balk, Mandy Cobussen
<i>Find drawings</i> Bob Donker
<i>Find photography</i> Anneke Dekker
<i>English revisions</i> Mindy Friedlander-Schaper
<i>Printing</i> freiburger graphische betriebe GmbH & Co. KG www.fgb.de
Die Deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie. Detailliertere bibliografische Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.
© 2012 by Dr. Rudolf Habelt GmbH, Bonn Das Werk einschließlich aller seiner Teile ist urheberrechtlich geschützt. Jede Verwertung außerhalb der engen Grenzen des Urheberrechtsgesetzes ist ohne Zustimmung des Verlages unzulässig und strafbar. Dies gilt insbesondere für Vervielfältigung, Übersetzung, Mikroverfilmung und die Speicherung und Verarbeitung in elektronischen Systemen.
ISBN 978-3-7749-3776-5

Preface

The Anastasis project

This book is the first in a series of publications on Merovingian cemeteries in the southern and central Netherlands, in the context of the ANASTASIS project. The project’s goals are to revive the study of Merovingian cemeteries and mortuary rituals in the Netherlands and to publish a series of cemeteries previously excavated but never published in detail.

The project is financed by the National Science Foundation (Nederlandse Organisatie voor het Wetenschappelijk Onderzoek, NWO), the University of Amsterdam, the Town of Maastricht and from the first of January 2012 by the University of Leiden. It is part of a larger programme called the ODYSSEE programme.¹ This programme is a backlog programme whose goal is to deal with the large number of unpublished excavations in the Netherlands. The impetus for the programme came about because most institutions with excavation permits before c. 2000 AD carried out rescue excavations with what finances they possessed and obtained. Most of their money was spent excavating that which would be lost, for at that time those destroying archaeological remains were not held responsible for the excavation and publication of the results. Less or no money could be spent on post-excavation work. Funding was also provided by other parties, mainly provincial and municipal councils, who paid only for excavation and not for post-excavation research, which they considered scientific research. Few extensive reports were written. Now some money, still diminutive in relation to the sea of unpublished excavations, has been made available to publish a selection of these. The major goal of the Odyssee programme is thus to publish data of less recent

excavations. This is, partly, the context in which to evaluate the present book on the Merovingian cemetery of Bergeijk.

It is first and foremost a presentation of evidence from this cemetery. We analysed the cemetery to a level appropriate to further research. This connotes, for instance, that we limited our analyses of objects to macroscopic inspection. There was insufficient money or time to carry out microscopic or chemical analyses. Our presentation of the material, however, makes it possible to evaluate to what extent more detailed analyses can be carried out. It is our conviction that for many categories of objects, a further macroscopic and traditional analysis is needed on a *regional* level, before meaningful microscopic and other scientific research is begun. For a series of aspects of the mortuary ritual, such as grave re-openings, grave constructions, vessel ensembles and site location, deeper analyses have been presented as foundations for further research by the project group.

Another observation concerns the typo-chronological research. There is no modern proper typo-chronology of the Merovingian material culture in the Meuse valley and adjacent regions in Belgium and the Netherlands comparable, for instance, to those of the Rhine valley, northern France, and southern Germany. Such a typo-chronology should be developed, but that is only possible after many individual categories of objects have been studied in detail. For the moment, we import the information of other typo-chronological studies into our analyses.²

We are certainly not satisfied with presenting data only. Parallel research projects on some themes are set up, such as PhD research

on grave structures by Dieuwertje Smal, and grave re-openings by Martine van Haperen. Dr. Mirjam Kars studies all Merovingian cemeteries in Maastricht. Parallel research on specific find categories and topics is carried out by (former) research master and master students, such as site location by Maaïke de Haas MA, or distribution of amethyst beads in the Netherlands by Nina van der Voet MA. All research fits in a general programme aimed at understanding early medieval societal processes, focussing on town development and economic, social, and cultural aspects of rural society in northernmost Gaul. One specific topic, for instance, is the re-evaluation of the peasant’s position in the economic system and his/her economic agency.

The Odyssee paradox

Re-evaluating older excavations furnishes about a strange development. We publish old excavations with modern research questions in mind. The result is that excavations that were *not* carried out to modern standards are published in such detail that they often provide better data for modern research than good excavations published 25 years ago. Many of the sub-recently published cemeteries have no detailed plans of all graves, insufficient data on objects, no colour plates of beads, insufficient drawings of grave constructions, only a schematic plan of the cemetery, leave out older traces of habitation, provide hardly any evidence on grave re-openings, etc. These shortcomings are not necessarily improving after the change of the Monuments act in 2007 allowing private companies to excavate. Detail, a necessity for developing the subject of archaeology, is unjustly considered too expensive in commercialized archaeology.

The new Odyssee programme thus generates a paradox. Old excavations will be better published than sub-recent and many recent ones, creating a need to re-evaluate some recent excavations to obtain necessary detail. We quickly became aware of this paradox when developing plans for the PhD projects. Many existing cemetery publications simply lacked required detail, though we suspect that in many cases, the original excavation documentation provides the answers to our questions. We will test this by elaborating on specific aspects of published cemeteries on the basis of the original documentation. An example is the grave constructions of the Meerveldhoven cemetery, on which information much more detailed than published seems available.

Acknowledgements

The publication of the Bergeijk cemetery was made possible by the cooperation of many. We thank the persons and institutions mentioned below.

First, those who provided the financial means for the project: the Nederlandse Organisatie voor het Wetenschappelijk Onderzoek, (NWO, the National Science Foundation), the University of Amsterdam, the Town of Maastricht and from the first of January 2012 the University of Leiden.

Next, those bestowing permission to study the documentation

and finds and who provided copies of or lent out the documents and objects to be studied in Amsterdam: the Rijksdienst voor het Cultureel Erfgoed (the State Service for Cultural Heritage) in the persons of Professor Dr. Jos Bazelmans and archivist Theo Geurtsen. Also, the Van Daalen family, on whose property the cemetery was discovered, and who own the finds and unhesitatingly lent them out. We remember the warm-hearted receptions at the home of Mrs. Van Daalen-Van Oven in Amsterdam. Thanks also to Dr. Diederik van Daalen who acted as a contact person for the family. Aside for lending out the objects, they also allowed us to reproduce the 8 mm film made by Mrs. Van Daalen at the time of the excavation in 1957. They also permitted us to inspect the family archive on the cemetery, which contained informing letters that Jaap Ypey wrote the family on the post-excavation object conservation. The family still keep the beautiful Seasons Greetings cards Ypey handmade to send out to friends. The Eicha Museum in Bergeijk exhibits the majority of the cemetery’s objects. The curator, Johan Biemans lent them out for study in Amsterdam. The Provincial depot for Archaeological finds in Noord-Brabant harbours the part of the collection that was still in the care of Jaap Ypey. Ronald Louer fully cooperated by lending the objects to us. The depot also handed over a series of X-ray photographs they had commissioned at Archeoplan. We also commissioned an extra series of X-ray photographs made by Restaura in Haalen, directed by Jo Kempkes and Ton Lupak. Dr. Raphael Panhuysen and Dr. Liesbeth Smits were responsible for the physical anthropological research. Drs. Arent Pol (Geldmuseum Utrecht) advised us on the two coins found. Drs. Jitte Waagen (Digital Landscapes) advised us on the ICT aspects and was in the process of creating the database in which we hope to store all evidence of the cemeteries we study.

The team at the Amsterdam Archeologisch Centrum of the University of Amsterdam directly involved in the analyses of the finds and documentation are: Drs. Anneke Dekker (photography), Bob Donker (drawings of objects), and Dr. Sophia van Lith (glass vessels). Indirectly involved with advice and suggestions on how to deal with the evidence of this and other cemeteries were: Drs. Menno Dijkstra, Maaïke de Haas MA, Dr. Mirjam Kars, Drs. Diewertje Smal and Dr. Arno Verhoeven.

Last but not least is Jaap Ypey, who led the excavations in 1957 and 1959. At the end of the 1940’s and in the 1950’s, he had just a short time to deal with a boom in Merovingian cemetery discoveries and excavations (Rhenen, Maastricht Saint-Servatius, Alphen and Bergeijk). He was the sole person responsible for the conservation of the finds and the publication. The conservation of the finds was a slow and painstaking process in view of the technological knowledge at the time and the facilities available. The process was too slow, of course, for those who wanted to see the antique objects shining again. He voiced the opinion that those in charge spent too little attention and money on this aspect of the post excavation work. He could not cope with all that was found, and many iron objects must for that reason have gone missing or not received the attention needed. He sometimes felt undervalued

(1) <http://www.erfgoednederland.nl/odyssee/item10569> (2) Maurice Jansen MA carried out a study of cemetery pottery from the eastern Haspengouw/Hesbaye in the context of a master thesis at the University of Leuven. He continues this research, which will result in a comprehensive overview of the pottery, its forms, material and decoration in that region.

and spent a large amount of his own time taking good care of the recently excavated cemeteries’ objects and performing the tasks that went with it. He was a truly engaged and dedicated laboratory archaeologist. His untimely death in 1986 prevented him from completing the tasks he set for himself.

Site heritage management

At this preface’s conclusion, we would like to draw the attention to the condition of the site of the Merovingian cemetery in Bergeijk. During our investigations we discovered that at the time of the excavation, there were hardly any deep soil disturbances. The presence of two complete vessels in shallow pits proves that much of the original top layer of the Merovingian cemetery was still in place. This is an almost unique situation, and it is at this cemetery that activities other than on site grave digging, such as ritual activities related to burials and remains of grave interventions of the Early Middle Ages, can be studied. The shallowness and scattered location of, for instance, pottery sherds, are extremely susceptible to modern interventions in the context of normal terrain use.

It is therefore advised to meticulously excavate the top 40 to 50 cm of the remaining area of the cemetery to gather highly vulnerable evidence which is almost impossible to discover on Merovingian cemeteries in the Netherlands.

It is also advised to re-excavate some graves using metal detectors to see whether any finds have been overlooked and to excavate two or three new graves in order to compare the present state of conservation of metal objects with that of 54 years ago. This comparison allows us to judge the finds’ changing condition. It instigates an evaluation of the almost sacred truth in Dutch archaeology that preservation in situ or on site is the best heritage policy for archaeological sites. It is to be expected that this is the worst possible strategy for sites such as Merovingian cemeteries, especially when they dry out, with all the consequential negative effects for organic and metal remains. It would be far more advantageous to excavate them and preserve the finds in more optimal conditions than the soil can provide.

PART 1
DATA

1	The environmental and societal context of the Merovingian cemetery of Bergeijk <i>Frans Theuws</i>	p. 10
2	The excavation and post excavation activities <i>Martine van Haperen/Frans Theuws</i>	p. 30
3	Inhumations: burial pits and grave constructions <i>Martine van Haperen</i>	p. 38
4	Inhumation graves: post-depositional interventions <i>Martine van Haperen</i>	p. 46
5	Other possible Merovingian contexts in the cemetery <i>Martine van Haperen</i>	p. 56
6	Grave finds <i>Frans Theuws (with a contribution by Sophia van Lith)</i>	p. 58
7	The textiles from the cemetery of Bergeijk <i>Chrystel Brandenburgh</i>	p. 126
8	Graves of men, women and children and demography <i>Raphael Panhuysen</i>	p. 138
9	The chronology of individual graves and the chronological structure of the cemetery <i>Frans Theuws/Martine van Haperen</i>	p. 142
10	Prehistoric remains and post-Merovingian features <i>Frans Theuws/Martine van Haperen</i>	p. 146

1 The environmental and societal context of the Merovingian cemetery of Bergeijk

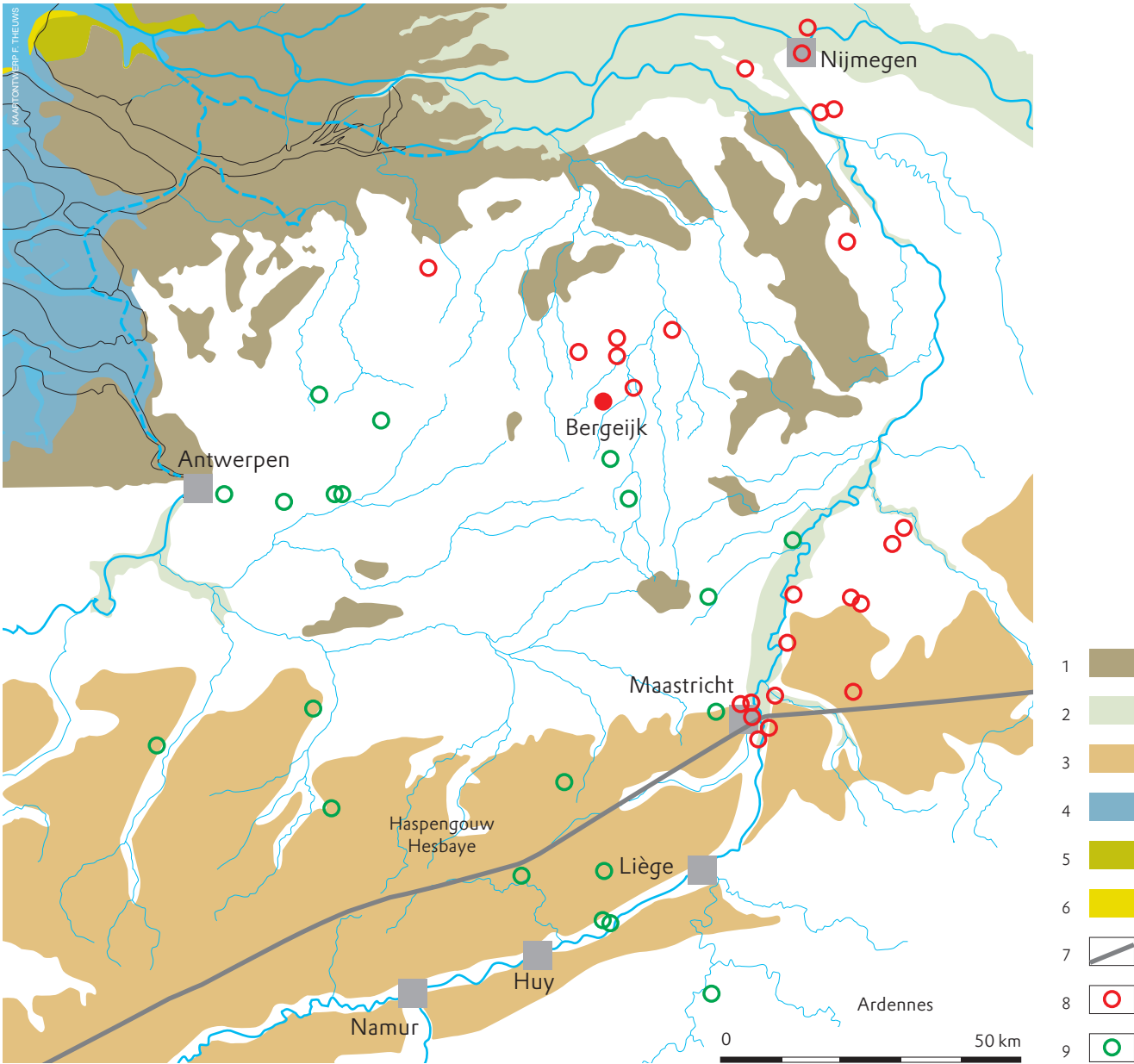
they originated from the more populated areas in the Meuse valley and the Haspengouw is conjecture. After colonization the Kempen region developed as the core of the *pagus Texandrië*.⁶ Within this core area, Lommel and Bergeijk seem to take a central position.⁷ They might have been two or even one royal estate. However, this cannot be proven.⁸ In both parishes, important Merovingian cemeteries with unique exotic artefacts were found.⁹

To some extent, the Kempen region can be considered part of the hinterland of Maastricht. This, however, need not mean that all extra-regional contacts were centred on Maastricht. Contacts to the west in the direction of Antwerp and the Scheldt valley may have existed, although archaeological indications for this are absent. Material culture that might have originated from the Scheldt valley and spread eastwards does not seem to have reached the Kempen region in such volume that regular contact can be assumed. Similar

Fig. 1.1
The location of Bergeijk in the Netherlands.



Fig. 1.2
The location of Bergeijk in the sandy regions of the southern Netherlands and northern Belgium. 1. peat, 2. river clay, 3. löss, 4. tidal flat, 5. marsh, 6. beach barriers, 7. Roman road, 8. the most important excavated Merovingian cemeteries in the Netherlands, 9. the most important excavated Merovingian cemeteries in Belgium.



Introduction

The Merovingian cemetery of Bergeijk-Fazantlaan is at present the largest in Noord-Brabant, a province of the Netherlands (fig. 1.1). This position may be due to limited research, which has found a small number of Merovingian cemeteries in this province. However, with its c. 117 excavated inhumation graves, eight possible inhumation graves and six pits with burned bones, it is one of the largest in the entire south Netherlands and north Belgium.¹ The observation is not as trivial as it seems, since the cemetery may have been related to the centre of a considerably sized estate. This is hypothetical; no contemporary written evidence exists of such an estate. An analysis of the area's oldest landed property, the church's rights, and rents to be paid in the Late Middle Ages allows us to reconstruct the area over which this property and these rights were distributed, and to suggest who the early medieval owners of the hypothetical estate were. The reconstruction takes into account the history of neighbouring estates, for which we have written evidence contemporary with the last phase of the Merovingian cemeteries in the region (c. 675-725).

In this section we present information on the societal context as well as the landscape of the cemetery's location.² We begin with a short description of the regional context of the cemetery, after which the late medieval territorial parish will be discussed briefly. We focus on the parish for two reasons. First, it is a convenient unit of archaeological analysis, larger than an individual settlement and smaller than the larger region. Secondly, it is an important late medieval societal unit that may provide a starting point for the study of older forms of socio-economic organisation, such as the estate.

Bergeijk in the hinterland of Maastricht

The cemetery of Bergeijk belongs to a small group of Merovingian cemeteries in the Kempen region that currently seems to form a group of its own (figs. 1.2 and 1.3).³ Further to the immediate north, east, and west, no cemeteries have yet been found. This state of being is paralleled by the distribution of settlements mentioned in the eight-century charters (fig. 1.3 legend nr. 5). Settlements from the same period (seventh and eighth centuries) are, however, found further north, east, and west. The size of the individual habitable areas, however, decreases in those directions.⁴ For this reason, settlements and cemeteries there are expected to be smaller and, thus, more difficult to detect.

Other groups of early medieval cemeteries are found in the Meuse valley and on the fertile Haspengouw plateau. The Kempen group of cemeteries is separated from these groups by the forested Kempens Plateau and a number of moors, such as the Vivetersbroek and the Peel. Place name evidence implies that an important communication route ran north between the Meuse valley and the Kempen region along the northern edges of the Kempens Plateau.⁵ Another communication route would have run around the western limits of this plateau, where property of the Pippinids was located in Oostham. These routes facilitated communication between estates and their foreign owners, such as aristocrats from the Meuse and Moselle valleys, and in later times, monasteries such as Saint Trond, Echternach, Lorsch, and the Saint Servatius abbey in Maastricht.

It is also along these routes that the colonists must have entered the Kempen region in the sixth and seventh centuries. Whether

(1) Moreover, the cemetery has not been excavated completely. (2) The sketch of the societal context is based on research already carried out and published in the past (Theuws 1989); hence we will here limit ourselves to basics. (3) Theuws 2010. (4) Theuws 2010, fig. 5. (5) Theuws in prep c. (6) For the *pagus Texandrië* see Theuws 1988, 107-120 and 2010, 48-50. (7) The parish of Lommel is situated immediately to the south of that of Bergeijk. Some sources indicated that both parishes have a similar history of landowners, both have the same patron saint (Saint Peter in Chains). (8) See Vangheluwe 2009.

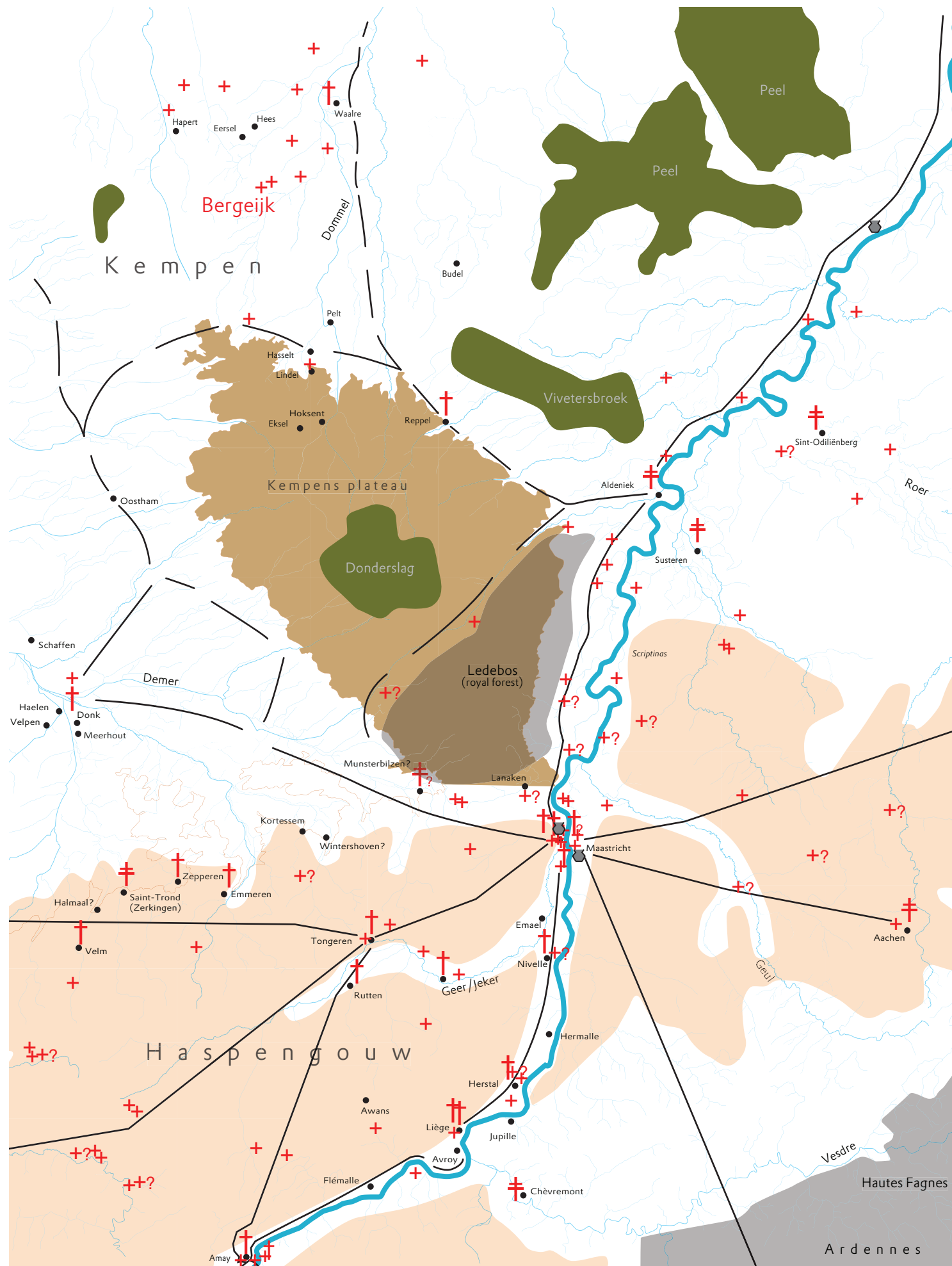


Fig. 1.4
Churches, chapels, settlements and their first date of recording and habitation/cultivation areas (brown) associated with the parish of Bergeijk.

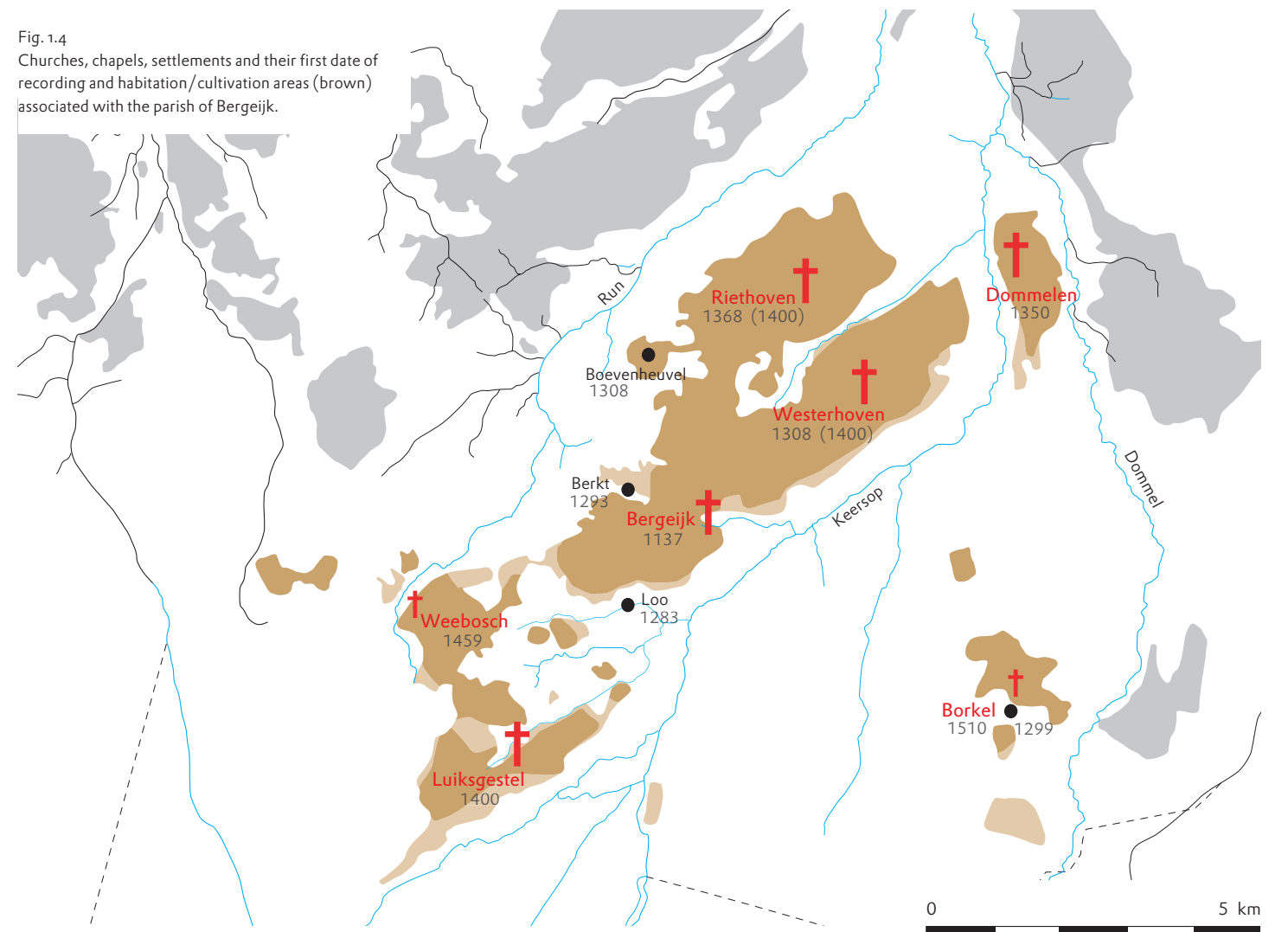


Fig. 1.3 (left)
The hinterland of Maastricht consisting of the sandy regions to the northwest, the fertile löss regions to the east and west, the Ardennes forest to the southeast and the Meuse valley itself. Part of the infrastructure was inherited from the Roman period and centred on Maastricht because of the presence of a bridge there. 1. löss, 2. the Kempens Plateau (contour line is 50 m. above sea level), 3. moors, 4. large forests, 5. places mentioned in the eighth century, 6. early medieval churches (provisional), 7. Merovingian cemeteries (provisional), 8 Merovingian pottery production, 9. roads and routes.

The parish of Bergeijk

Bergeijk is the name of a present day municipality more or less the same size of the late medieval parish.¹⁰ The villages of Dommelen and Borkel, which once belonged to the original parish, are now incorporated in the neighbouring municipality of Valkenswaard. This parish was large compared to others in the region, and comprised several present-day villages. In the course of the Late Middle Ages and the Modern Period, the original parish fell apart, and several smaller parishes came into being (fig. 1.4).

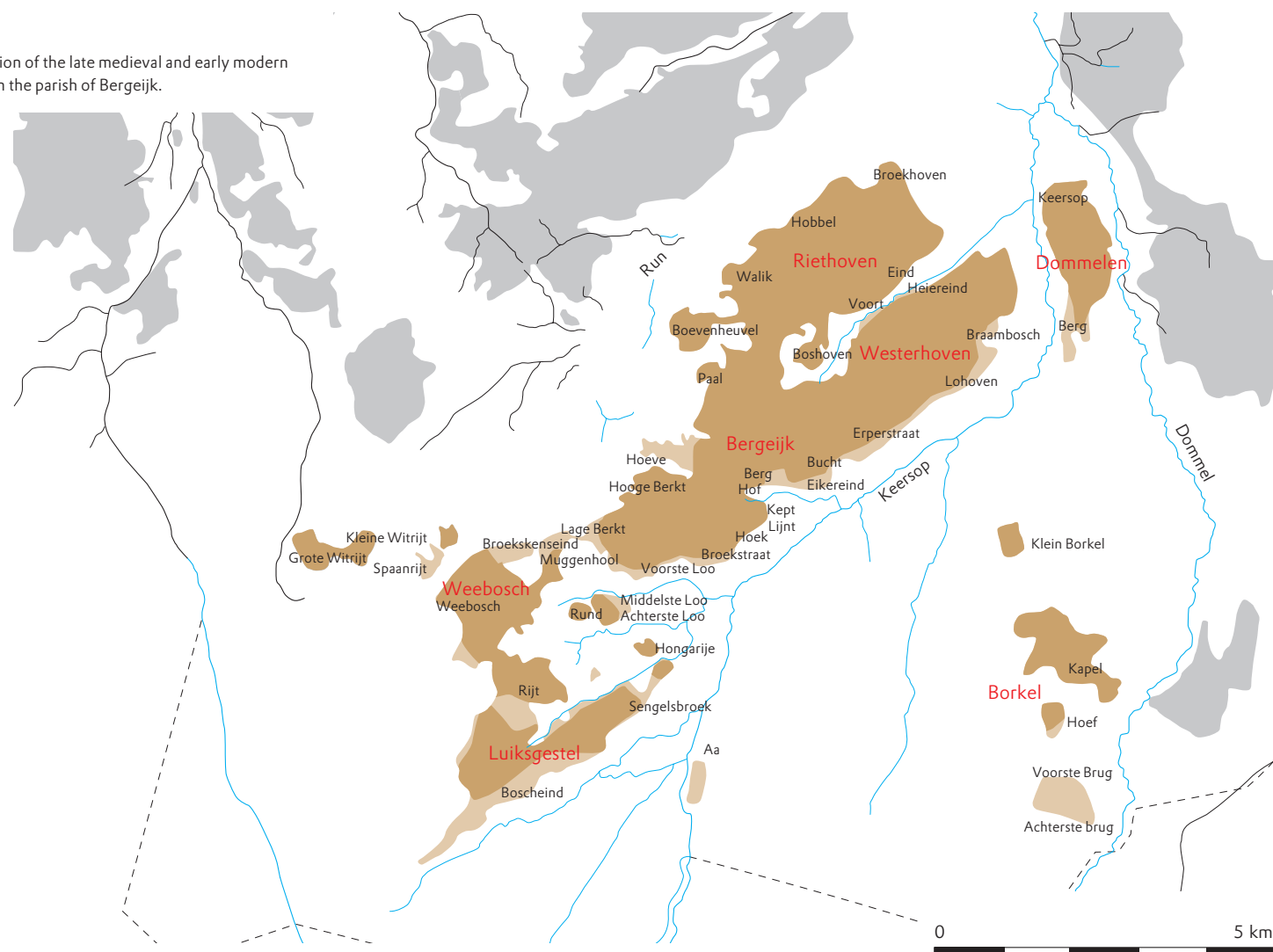
‘Parish’ is a complicated concept.¹¹ In modern research a differentiation is made between the territorial parish, defined by more or less fixed boundaries, and a parish, or pre-parish, defined as a group of people attached in one way or another to a church.¹² A basic question, however, arises, namely, what determined specific church attendance? Did congregants have a free choice in the matter? There is no easy answer. It can be hypothesised that the social

observations can be made for contacts with the north, although trinites of the Madelinus Dorestat type, found in several locations in the Kempen might be an indication to the contrary.

In the next section, we will take a closer look at the parish of Bergeijk and the local landowners in the Middle Ages. The history of the church, parish, and the medieval landowners form the basis of the hypothesis that Bergeijk may have been an early medieval royal estate.

(9) The excavation of the cemetery of Lommel-Lutlommel does not meet with modern methodological standards. Several swords were found as well as a wooden box with a balance and eastern Mediterranean weights (Van Bostraeten 1965). (10) For a previous analysis of the early history of the parish see Theuvs 1981 and 1989. (11) See the various contributions in Delaplace 2005. I will expound on this concept and the analysis of the parish in Theuvs in prep. b. (12) Bijsterveld 1993, 46-57; Delaplace 2005; Zadorra-Rio 2005.

Fig. 1.5
The location of the late medieval and early modern hamlets in the parish of Bergeijk.



networks surrounding the founder and early proprietors of the church formed the basis of its constituents' attendance. For this reason it is important to know who created the new parish church.

In the case of Bergeijk we may thus hypothesise that the social network of the proprietor(s) who founded the church extended over the area of the later parish. Such a social network can be termed the estate community. However, more people will have lived in this area than those who were dependent on or related or attached to the proprietor of the church. These independents, (for instance, free dwellers or tenants related to other land owners) may have been allowed to attend the new church as well. Thus, the cult community may have been larger than the estate community of the founder of the church.

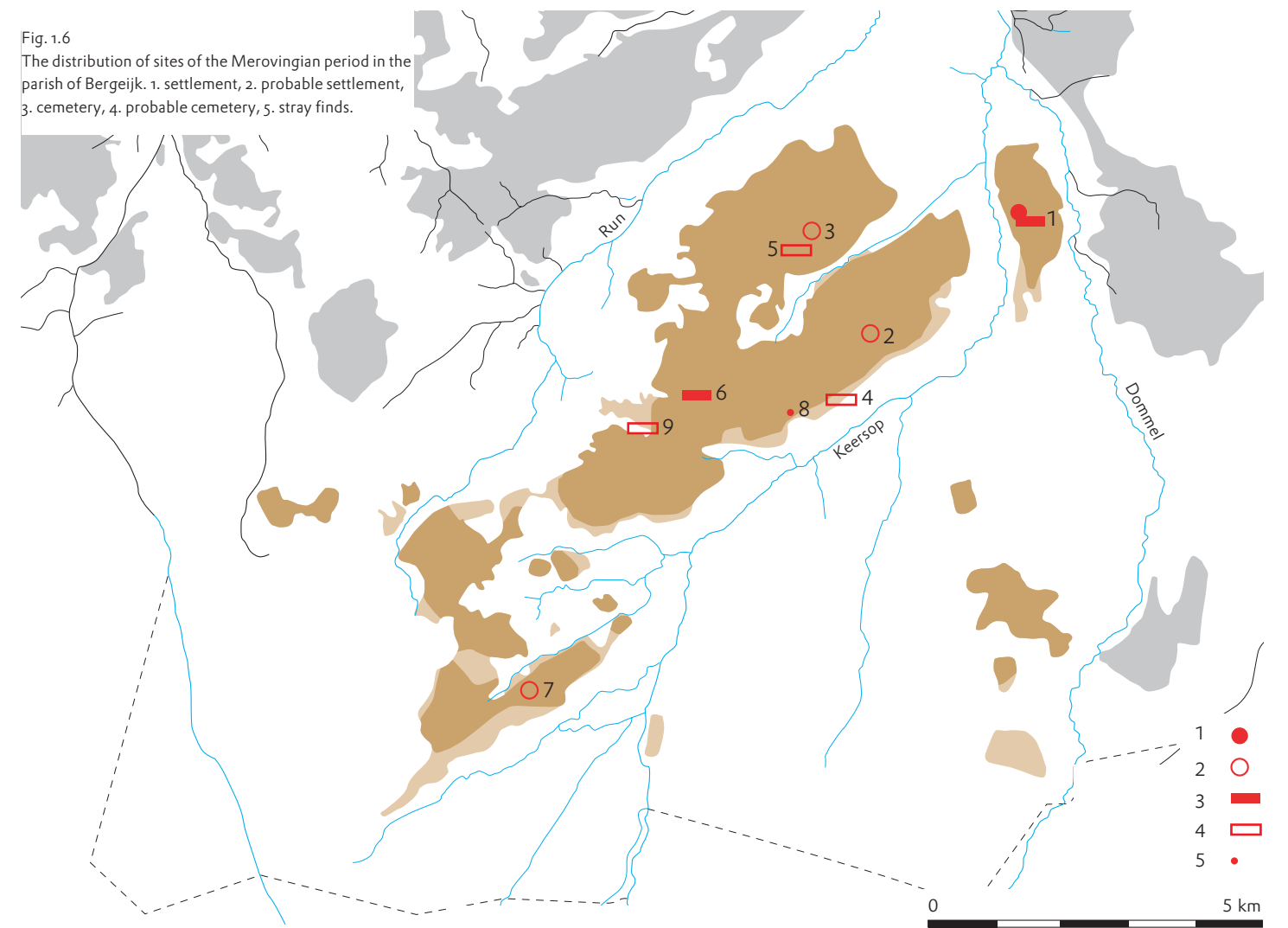
Who it was that created the new parish church cannot be definitively established, yet reason dictates it could only have been the bishop of Cologne (my candidate) or the bishop of Liège (others'

candidate), due to their capacity as large landowners.¹³ One can even stretch the argument further. It is unlikely that either bishop was the original major landowner in the parish. It has been suggested that the king himself might have been the original dominant landowner.¹⁴ More often than not early episcopal property had royal origins.¹⁵

In the tenth and early eleventh century the midpoint of this parish was located in Bergeijk. A new centre was built there, including a church and a moated area.¹⁶ At the site of this centre, no significant finds or features older than the middle or second half of the tenth century were discovered. If an estate already existed, as in many neighbouring areas, its core must have been located elsewhere. We expect it to have been located in Bergeijk, and advise that it be looked for further north of the present day village centre, not far from the Merovingian cemetery. In our opinion, the cemetery is related to a settlement taking a central position in an

(13) Recently the debate on the history of landed property and the original owner of the estate and church flared up again after publication of a large volume on the fieldnames and history of Bergeijk (Vangheluwe/De Nooijer/Knaepen/Biemans 2009). (14) Theuws/Bijsterveld 1991. (15) Bijsterveld in press. (16) Theuws 1989. New, as yet unpublished excavations by Diachron UvA Bv. in 2010 and 2011 revealed more traces of the moats. (17) The darker brown indicates the highest fertile dry grounds to which Merovingian habitation seems to have been confined. Light brown represents more humid similar soil. The last type of soil has been in use since Carolingian times.

Fig. 1.6
The distribution of sites of the Merovingian period in the parish of Bergeijk. 1. settlement, 2. probable settlement, 3. cemetery, 4. probable cemetery, 5. stray finds.



area as large as the later parish. This settlement might have developed into an estate centre in the course of the eighth and ninth century. This in turn could have been replaced by the new centre created in the late tenth and eleventh century, out of which the present village developed.

Early medieval landscape and habitation in the parish of Bergeijk

In the Early Middle Ages, the landscape of the Kempen region was determined by brook valleys, vast stretches of unfertile lands (the later heather fields), and 'islands' of relatively fertile soils, which were covered by beech-oak or birch-oak forest (the later arable fields). On the maps in figures 1.4 to 1.6, the islands of fertile soils are indicated in shades of brown for the parish of Bergeijk and

grey for the other parishes.¹⁷ It is on these islands of fertile soils that we find the remains of Merovingian settlement. Through the present, no traces of habitation from the Merovingian period have been found outside these areas. The arable fields of the settlements must have been created on these fertile islands as well. We term these islands 'habitation/cultivation areas (h/c areas)',¹⁸ There is considerable variation in the size of the h/c areas in the region. It is likely that a correlation existed between the size of the h/c area and the size of the group(s) occupying the h/c area.¹⁹ A large h/c area probably harboured a larger population than a smaller one.

We wonder to what extent the size of h/c areas influenced the process of colonization and the nature of local group organisation. Did early colonists in the sixth century prefer large h/c areas or were they non-discriminatory? Were larger groups organised differently than smaller ones? Did groups of several small h/c areas

The surface area of the latter type soil is relatively small in Bergeijk compared to other parishes. (18) Theuws 2010. (19) A co-resident group is a group whose members live in close proximity to each other, a face to face community, like in a settlement. A local group can be identical to a co-resident group but may comprise several co-resident groups. For the definitions of various groups and communities in the archaeological research of the Early Middle Ages in the Kempen region see Theuws 2010.

unite to equal a group in a large h/c area? To what extent did the size of the h/c area and groups influence the creation of large property complexes? Or, differently phrased: did size and degree of dispersal of habitation impact manorialisation to the effect of estates developing on large h/c areas rather than on small ones?²⁰ We have no answers yet.²¹

The h/c areas in the parish of Bergeijk are relatively large. The parish is thus comparatively rich in terms of agricultural potential, which may explain bishops', counts' and dukes' interest in this parish in the Central and Late Middle Ages. An important research question asks exactly where the settlements and arable fields were in the Early Middle Ages. By now it is clear that settlement patterns changed considerably throughout the Middle Ages. The old notion of early medieval settlements being located at the site of the later medieval and modern settlements has had to be discarded.²²

The settlement pattern as presented by the oldest cadastral and topographical maps of the nineteenth century, possibly indicative of the late medieval habitation pattern, is characterised by small hamlets located at the edges of the h/c areas. They are located in the ecological transition zone between high and low-lying soils. The map in fig. 1.5 shows all hamlets known by name since the Late Middle Ages on the basis of the location indicated on the earliest cadastral maps from the 1830's. This pattern seems to result from a settlement movement during the later twelfth and thirteenth centuries from the high-lying grounds to their present locations. Subsequently, a thick layer of arable soil was deposited by the dwellers of the h/c areas to increase the fertility of the arable fields. This layer covers all older remains of habitation. It is therefore difficult to predict exactly where the older medieval settlements were. The locations of medieval churches, however, provide clues to the locations of at least one type of settlement.

Excavations around the medieval chapel of Dommelen have shown remains of settlements from the period before AD 1250. There are many of these isolated churches in the region.²³ After the thirteenth century settlement shift, the chapels remained behind, isolated, revealing the site of a former settlement. However, the pre-twelfth century settlement pattern included various other settlements, which can only be found by digging trial trenches to investigate what lies beneath the layers of arable soil, up to one metre in thickness.

In addition to Dommelen, the churches of Westerhoven, Riethoven and Luiksgestel stood isolated as well.²⁴ Their location, thus, indicates the sites of early to high medieval settlements, which we can designate as old-Westerhoven, old-Riethoven and old-Luiksgestel.

The church of Bergeijk is positioned differently. It is not locat-

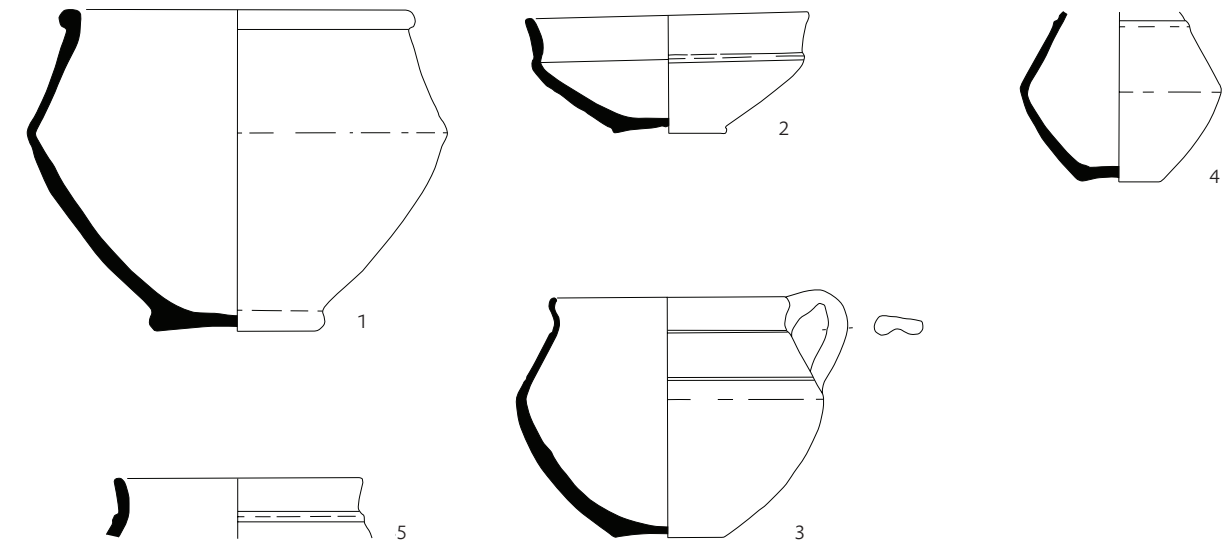
ed on the higher lying part of the h/c area of Bergeijk, but at the source of a small side stream of the river Keersop (figs. 1.4 and 1.18). It shares this type of location with churches in places like Hoogeloon, Oerle and Eersel. Often, this is an indication of their being built by local aristocrats or estate owners who created new aristocratic residences or villa centres from the second half of the tenth century onwards. Excavations have shown no traces of early medieval habitation around the church at Bergeijk.²⁵ If we accept the suggestion that the estate centre was located in Bergeijk, and use the positions of later chapels as indications for the location of other settlements, it is possible to reconstruct the basic early medieval habitation pattern in the territory of the later parish of Bergeijk. One of the settlements (Dommelen) has been excavated completely.²⁶ Other indications for habitation are provided by cemetery finds and stray finds of pottery. I will discuss these in some detail so as to provide a comprehensive overview of indications of settlement in the Merovingian period.

Sites from the Merovingian period in the parish of Bergeijk

Within the parish territory, finds were made in several locations, demonstrating the presence of early medieval burials and habitation. One of these is the recent rediscovery of an almost certain Merovingian cemetery in Bergeijk (figs. 1.6 and 1.9). This discovery will be examined in the next section. Another is the Merovingian settlement at Dommelen, excavated from 1980 to 1983 (fig. 1.6, 1).²⁷ Burials from the late seventh and early eighth century have been found on several farmyards in this settlement. These will be published in the ANASTASIS project. As said, similar settlements can likely be found near the chapels of Westerhoven, Riethoven and Luiksgestel (figs. 1.6, 2, 3 and 7). Their development was probably similar to that of the settlement in Dommelen. Their transformation into nucleated settlements in the middle and second half of the seventh century is an important element of said development. From that time, those settlements occupied a central position in the local socio-economic system.²⁸ The development of the nucleated settlements was probably an element of the process of manorialisation and estate formation.²⁹

Settlements like Dommelen may have functioned on two levels. As said, they were central settlements on the local level from the middle of the seventh century onwards. Conversely, they were likely secondary centres or satellite settlements within a larger estate.³⁰ An important research question is whether settlements like Dommelen and their inhabitants were originally relatively inde-

Fig. 1.7
Merovingian pottery found at Westerhoven-
Heijerstraat. Scale 1:4, except nr 7.



(20) On the process of manorialisation, see below and Theuvs 2008. (21) For a first introduction to this research problem, see Theuvs 1988, 189-210, 288-295. See also Theuvs 2008. (22) See Theuvs 2011. (23) Theuvs 2010, fig. 13. (24) Some houses had reappeared around the church of Riethoven by 1830. (25) For the excavations around the church of Bergeijk, see Theuvs 1989 and Verhoeven 1989. (26) Theuvs 1988, 225-250. (27) Theuvs 1988, 222-259. (28) The hypothesis that they occupy a central position at the local level is deduced from their central geographical position in the h/c area and their uninterrupted existence from the seventh to the thirteenth century, which is exceptional for settlements in the region. (29) See Theuvs 1991 and Theuvs 2008.

pendent entities that integrated into a larger estate by nucleation throughout the seventh century or even later, or whether they already were part of a pre-existing larger socio-political unit that gradually turned into an estate. Such proto supra-local socio-political units could have been formed in the early years of the colonisation of the region in the second half of the sixth and early seventh century. We hope that evidence from the cemeteries will provide some insights into the structure and development of local and supra-local groups and communities.³¹

At location nr 4 (Westerhoven, 155.175 x 371.150), as seen in figure 1.6, a number of Merovingian pots were found in 1928 and 1929 (fig. 1.7).³² The said publication indicates that all are in the National Museum of antiquities (*Rijksmuseum van Oudheden*) in Leiden except a spouted pot, which is in the collection of the Noordbrabants Museum in 's-Hertogenbosch. While checking for the spouted pot at the aforementioned museum, another pot found on the site turned up.³³ It was donated to the Noordbrabants Genootschap by the squire H. Van Rijckevorsel van Kessel, mayor of Sint-Oedenrode.³⁴ It was noted that it was found 'at the place where later Dr. Holwerda found such pots'. The indication of 'Westerhoven' and this note are proof that the pot comes from the same place and must have been found before 1928, but donated to the Genootschap after Holwerda had been in Westerhoven.³⁵

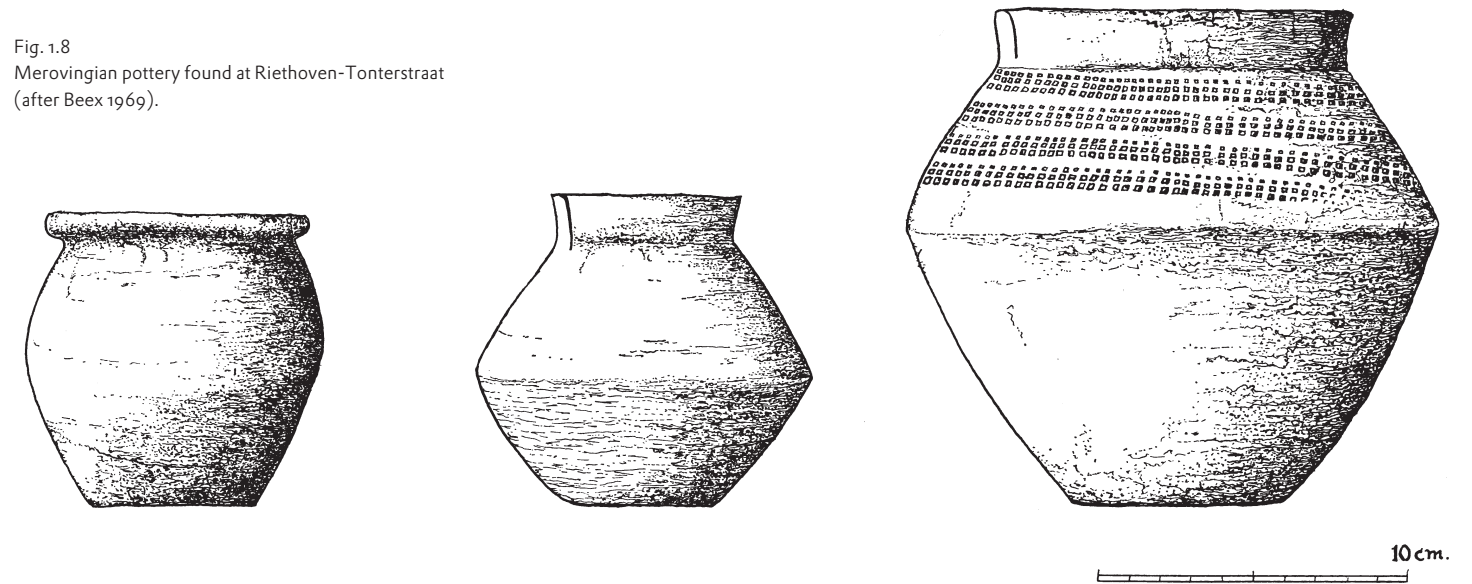
Because complete pots are rarely found in settlement excavations, let alone six in one place, these pots indicate the presence of a cemetery. Although occasionally more than one pot may be found in a Merovingian grave, this collection of pottery probably indicates the presence of several graves. It is remarkable that no other finds have been reported. This is probably due to crude digging and total decomposition of organic remains.

The type of bowl nr 1 is relatively rare, although some specimens were found in nearby cemeteries, such as in grave 114 in Bergeijk, and grave 32 (grave of a woman) in Meerveldhoven, and a stray find in the same cemetery. Grave 32 in Meerveldhoven was

reopened after the burial but the remaining finds allow us to date it in the second half of the seventh century.³⁶ Pots of this type are characterised as type S-KWT4.3 by the Franken AG and assigned to their phases 7 and 8 (610/20-670/80), although they predominantly date in phase 7 (610/20-640/50).³⁷ In south Germany such pots are found in phase SD 11 (670-700).³⁸ Bowl nr 2 is difficult to date. Tilkin-Peters presented a scheme in which the chronological development of this type of bowl is shown.³⁹ Our bowl resembles her number 7 dated to the late sixth and seventh centuries. Her example comes from Rosmeer grave 83, in which an iron plate buckle with a triangular plate was found.⁴⁰ The excavators suggested a seventh century date or even a date in the middle and second half of the same, for said grave.⁴¹ The small biconical pot 4 can be identified as KWT2.42 in Siegmund's typology.⁴² He assigns these to his Lower Rhine phase 7 (585-610).

The belly of the biconical pot with a spout and handle in the Noordbrabants Museum is rounded, indicating a seventh century date. Biconical pots with a rounded belly are usually dated to the younger part of the Merovingian period. In south Germany, pots with a spout and handle of the type found in Westerhoven are dated to SD phases 7 to 9 (580-650).⁴³ The decoration of the pot is similar to pots in graves 218, 280, 311 and 375 of the cemetery of Junkersdorf (Germany, Nordrhein-Westfalen).⁴⁴ A similar decoration is also present on the pot from grave 77.b1 of the cemetery of Bergeijk-Fazantlaan.⁴⁵ This decoration is characteristic of type Kwt 5F of the Franken AG, which they date to their phases 5 to 7 (c. 565-640/50).⁴⁶ It is interesting to note that in grave 375 of Junkersdorf, a large bowl and biconical pot are present. In view of the context it is suggested that this pot with spout and handle of Westerhoven dates to the late sixth and first half of the seventh century. Unfortunately, it is not possible with our present information to give a typological identification of the small biconical pot in the Noordbrabants Museum on the basis of metrical characteristics. However, its decoration looks quite similar to that on a

Fig. 1.8
Merovingian pottery found at Riethoven-Tonterstraat
(after Beex 1969).



pot in grave 220 of the Junkersdorf cemetery.⁴⁷ It belongs to type Kwt6G of the Franken AG, which dates to phases 5 and 6 (c. 565-610/20).⁴⁸ In conclusion, it can be said that the pottery from this site dates from the late sixth and entire seventh century. It is noteworthy that good parallels for the decoration of two pots can be found in the Rhineland.

At location nr 5 (Riethoven, Tonterstraat, 154.675 x 373.512), workmen discovered three Merovingian pots while digging a trench along the street in 1969 (fig. 1.8).⁴⁹ They were found at a depth of c. 80 cm. Pot nr 1 can be classified according to Siegmund's system as KWT 3.22.⁵⁰ He assigned this type to his Lower Rhine phase late 7 and early 8B (600-625). Pot nr 2 can be classified according to Siegmund's system as KWT 3.23.⁵¹ He assigned this type to his Lower Rhine phase 8 (610-640). The egg-shaped pot (Wölbwandtopf) can be classified as Siegmund's Wwt 2.1.⁵² He assigned this type to his Lower Rhine phases 8B and 9 (625-670). The pots from Riethoven can thus be dated to a large part of the seventh century.⁵³

At location nr 8 (Bergeijk, Enderakkers, 154.175 x 370.950), a small amount of pottery fragments was found in some light grey soil discolorations.⁵⁴ It is difficult to date these pottery fragments exactly. They seem to be older than the pottery found on the settlement sites of Dommelen and Geldrop that date before c. 600/650. The cork-like pottery is reminiscent of Late Roman pottery in the southern Netherlands. It could thus well be that this small collection of pottery is related to Late Roman habitation. As we will see below, Late Roman habitation has been found c. 500 m to the west of this location.

The early medieval cemetery which is the subject of this study was found at location nr 6 (Bergeijk, Fazantlaan, 153.050 x 371.100). All these locations are clearly situated in the h/c areas. We must, however, examine the location of the cemetery of Bergeijk-Fazantlaan in greater detail in order to nuance this observation to some extent. This is necessary because the method used to reconstruct the h/c areas with modern soil maps (scale 1:50.000), is too crude to establish in exactly which part of the

(30) Place names like Riethoven and Westerhoven, containing the element hoven, referring to a large farm or curtis, may have come into being by the process of nucleation and estate formation. The hoven element may be related to the creation of dependent farms. It is comparable to the element court in French place names. If the element wester in Westerhoven refers to a point of compass it is not understood to the west of what it was located. (31) For the difference we made between groups and communities in the archaeological research of the Early Middle Ages of the Kempen region, see Theuws 2010. (32) Holwerda 1928, 11; Holwerda 1929, 9; Bannenberg 1957; Theuws 1988, 260. We did not study the pots in the Noordbrabants museum in 's-Hertogenbosch ourselves. The information given is based on photographs provided by the Museum. The following pots are kept in the National Museum of Antiquities, catalogue nrs K 1928/10 1 to 1d. The description of the finds was given in my typescript dissertation in Dutch, not widely available. I will provide a comprehensive description here. It concerns: 1. An almost complete biconical red/orange pot with foot ring (fig. 1.7, 1, height: 16.8 cm, rim diameter: 18.8 cm, belly diameter: 22.4 cm). 2. An almost complete red/orange bowl with foot ring (fig. 1.7, 2, height: 6 cm, rim diameter: 15.2 cm, belly diameter: 14.4 cm). 3. An almost complete black biconical pot with spout and handle (the rim has disappeared) (fig. 1.7, 3, height: > 12.8 cm, rim diameter: unknown, belly diameter: 16 cm). 4. An almost complete black biconical pot (the rim has disappeared) (fig. 1.7, 4, height: > 8.8 cm, rim diameter: unknown, belly diameter: 10.8 cm). 5. Rim fragment of a black biconical pot (fig. 1.7, 5) (rim diameter: 13.2 cm). The following pots are kept in the Noordbrabants Museum in 's-Hertogenbosch: 6. (inv. nr 08952) A complete orange spouted pot (fig. 1.7, 6). The upper wall is decorated with two groups of two grooves each. In between and below the grooves, a freeze of stamps is present. They could be roulette stamps or single stamps. Two different alternating stamps were used. One consists of small rectangles ordered in five rows of three. The other stamp consists of triangles in three rows of two. Measurements are not available. 7. (inv. nr 06393) A small black biconical pot (fig. 1.7, 7). The upper wall is decorated with a roulette stamp consisting of V's, possibly short zigzag lines and/or \'. The nature of damage to the objects indicates that they were found through being dug. In two cases the rims were probably struck by a shovel; in one case only a rim fragment was recovered. (33) We thank Dr. Fiona Zachariasse (head collections) and Alies Baan, documentalist of the Noordbrabants Museum, for their help in tracing the objects and providing information. (34) The collection of the Noordbrabants Genootschap is now in the Noordbrabants Museum. (35) On Van Rijckevorsel van Kessel and his archaeological collection see: Heesters 1973, esp. p. 4. (36) Meerveldhoven grave 32: Verwers 1978, 265, 286-287. The belt fittings are not those of a set of elaborate belt fittings (German: *vielteilige Gürtelgarnitur*) (Verwers 1978, 265) but rather of a belt (or a strap hanging down from the belt) of a type as found in graves 39 and 89 at Braives (Brulet/Moureaux 1979). This type of belt, which by

now is regularly encountered in the Meuse valley (and indicated by us as belts of the Ophoven type), is a feature of the second half or even later part of the seventh century and will be dealt with in this publication and the forthcoming publication of the finds of the Merovingian burials at Geldrop. (37) Franken AG is Franken Arbeitsgruppe: Müssemeier/Nieveler/Plum/Pöppelmann 2003, 60. (38) Koch 2007, 189; Stauch 2004, 20. SD means Süddeutsche. (39) Tilkin-Peters 1986, 238. (40) Roosens/De Boe/De Meulemeester 1976, 27-28, Pl. XVIII, 83-2. (41) Roosens/De Boe/De Meulemeester 1976, Pl 1; Roosens 1978, 40. (42) Siegmund 1998, 128 and 130. (43) Koch 2007, 184-187. (44) La Baume 1967, Tafel 14, 19, 20, 24. (45) It is slightly different because there are only three rows of rectangles. (46) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 62. (47) La Baume 1967, Tafel 16. (48) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 62. (49) Beex 1969. It concerns: 1. Black biconical pot (figs. 8.1, height: 16.3 cm, rim diameter: 11.8 cm, belly diameter: 17.5 cm); 2. Black biconical pot (figs. 8.2, height: 10.3 cm, rim diameter: 6.3 cm, belly diameter: 11 cm); 3. 'Egg-shaped' pot (fig. 8.3, height: 9.8 cm, rim diameter: 8.8 cm, belly diameter: 9.8 cm, base diameter: 5.3 cm). The finds are now kept in the Eicha-museum in Bergeijk. (50) Siegmund 1998, 128 and 131. (51) Siegmund 1998, 128 and 131. (52) Siegmund 1998, 142. (53) When many years later, a house was built next to the site where the pots had been found, I checked the building trench, which just reached the undisturbed natural soil, by cleaning it together with J. Deebe. No traces of a cemetery were found, just a base fragment of Merovingian pottery. (54) The finds have been described in my dissertation (Theuws 1988, 264-265), which has limited distribution. For sake of comprehensiveness, the finds are described here as well. They are kept in the Eicha Museum in Bergeijk. See also Beex 1979, 84. RB802-1: base/wall fragment of Mayen pottery, flat base, wheel turned, red-brown. RB802-2: rim/wall fragment, wheel turned, red-brown, soft, tempered with quartz and pottery remains. RB802-3 and 6: base/wall fragment, wheel turned, black, soft, tempered with quartz and pottery remains. RB802-4 and 8: wall fragments, wheel turned, black, soft, tempered with quartz and pottery remains. RB802-5: wall fragment, wheel turned, brown, soft, tempered with organic material or chalk, cork-like surface. RB802-7: wall fragment, wheel turned, dark brown, soft, tempered with organic material or chalk, cork-like surface. RB802-9, 10 and 15: four fitting wall fragments, black with red brown surface, tempered with quartz and pottery remains. RB802-11: wall fragment, wheel turned, black, tempered with quartz and pottery remains. RB802-12: wall fragment, hand made, red brown black, tempered with quartz. RB802-13: wall fragment, hand made, red brown, tempered with quartz, the fragment is reminiscent of prehistoric pottery. RB802-14: wall fragment, wheel turned, brown black, hard, tempered with quartz and pottery remains. RB802-16: wall fragment, wheel turned, grey black, tempered with organic material or chalk, cork-like surface.

landscape the cemetery was situated.⁵⁵ We will deal in greater detail with the physical conditions of the site and the cemetery's local context after we discuss the recent rediscovery of another Merovingian cemetery.

Is there a second Merovingian cemetery in Bergeijk?

During a May 28th, 2010 visit of the 'Vrienden van het Eichamuseum' society in Bergeijk to the Taxandria museum in Turnhout, Belgium, Johan Biemans, curator of the museum in Bergeijk, asked Maria Wouters, curator of the museum in Turnhout, to exhibit some of the material that P. N. Panken had given the museum in the early twentieth century. Panken, a well known local historian and archaeologist, had given the museum a number of Iron Age urns from Luiksgestel.⁵⁶ Surprisingly, a number of early medieval biconical pots, said to be found in Bergeijk, were displayed near prehistoric finds.

Johan Biemans showed a photograph he had taken of the pots. Where had these pots come from? The field drawings of the cemetery's excavation along the Fazantlaan did not show any disturbances indicating that the pots had been dug out recently. The cemetery, however, has not been completely excavated, so it is possible that the pots are from an unexcavated portion. Alternatively, if the pots did not originate from this cemetery, there may be another Merovingian cemetery in Bergeijk. It seems worthwhile to try and find more out about the discovery of these pots, all the more so because of the Van Daalen family's archive. They own a synopsis of a the cemetery excavation presentation by R.M. van Daalen in which he records that the persons who sold him the building plot told him that pots were found there or in the immediate environs in the beginning of the century.

In our attempts to establish the origin of the Texandria Museum pots, we followed two leads.

The first one, inspired by the information provided by the Van Daalen family, was to study the history of the ownership of the terrain in which the cemetery was located. We thought it most likely that the pots had come from the cemetery. This, however, did not lead to a satisfactory answer. We then followed a second lead, and visited the Turnhout Museum to study the pots in more detail and to find out whether there was any information available on the origin of the pots.

We began by asking the office of the cadastral records who the previous owners of the plot had been. We already knew that in

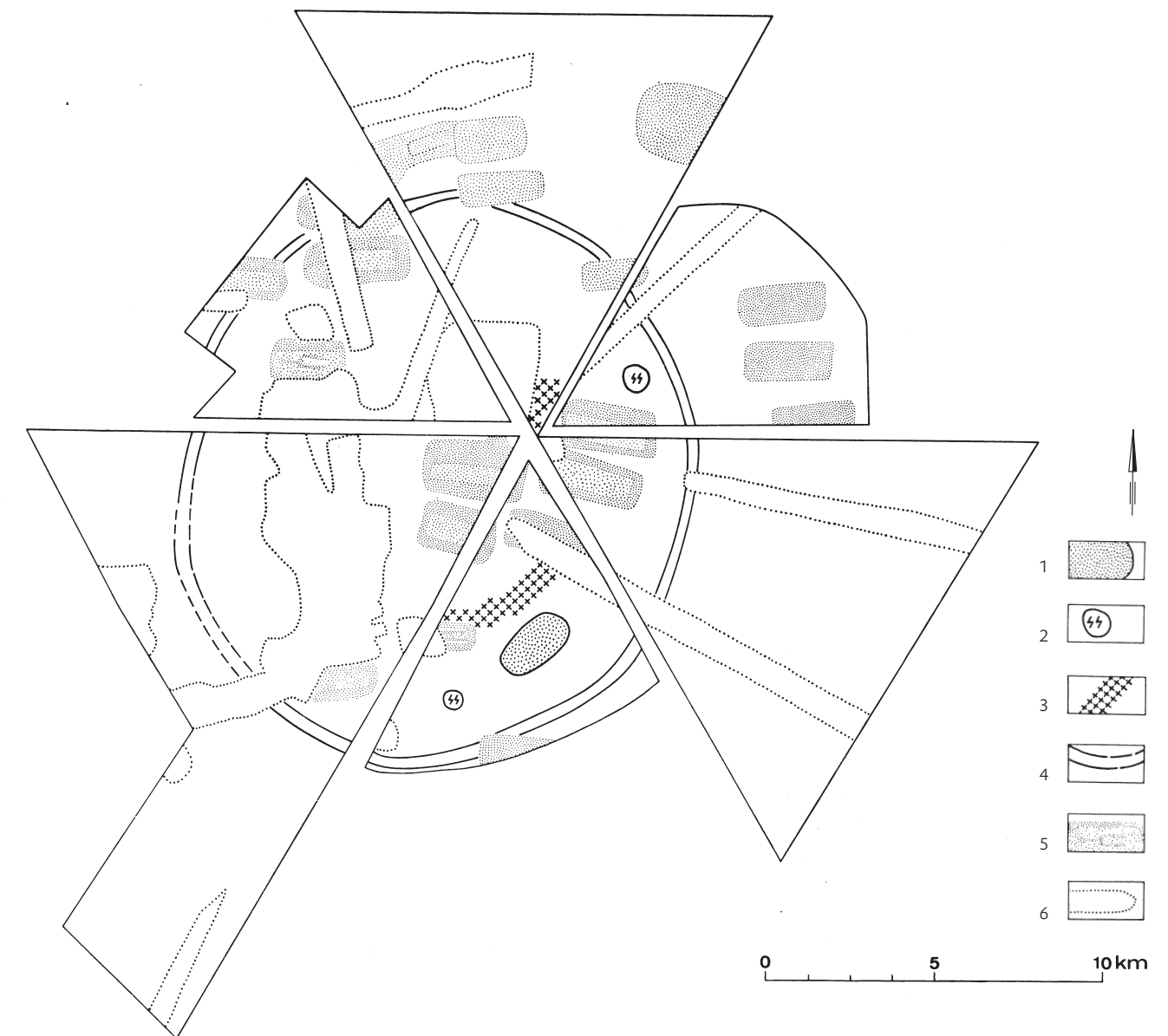
1832, plots 521, 521a and 522, on which the excavated part of the cemetery was situated, were the property of Pieter Willems. His daughter, Antonia Willems, is the mother of P. N. Panken, referenced above. He received plots 521, 521a and 522 in 1861.⁵⁷ Thus, our famous local archaeologist and historian owned the site of the cemetery. The plots came into the hands of Jac Hoeks who, in turn, sold the property to the Van Daalen family. He had been the one to tell them that the pots had been found there or in the vicinity.

Did P. N. Panken himself ever dig on the site? He left an impressive amount of written documents (including an autobiography) with countless accounts of his diggings in prehistoric burial mounds, as well as histories of many villages. Some were published. There is, however, no indication in any of these documents that he ever dug on this specific site. He would certainly have recounted it in one of his many writings. Moreover, he usually dug after discovering burial mounds, which are not present on the site. Finally, the excavation in the fifties showed that the pots were at an average depth of 75 to 100 cm. The likelihood of their discovery by someone walking the heather fields in search for burial mounds is minimal. Accordingly, this lead did not provide adequate answers as to where the pots in the Texandria Museum had been found.

We then turned to the Turnhout Museum and visited it on the 21st of March, 2011.⁵⁸ Most of the finds from Bergeijk/Luiksgestel were of prehistoric date, except for some Merovingian biconical pots. Only one of these was from Bergeijk; the others belonged to the Merovingian cemetery of Lutlommel (Belgium, Province of Limburg). The pot from Bergeijk, however, contained an invaluable treasure: a small piece of paper (7.5 by 4.1 cm) coloured yellow by years, on which in old-fashioned handwriting in ink, the following note was written: 'Frankische lijkurn' Bergeijk dorp no 1 Aug. tot Okt. 1903.⁵⁹ The age of the paper, old-fashioned handwriting, and use of the word 'lijkurn' are strong indications that this note dates from around 1903.⁶⁰

Thus, the pot had been found in Bergeijk in 1903. This information leads us further. We already knew that P. N. Panken had been digging in Luiksgestel during those years, and had donated urns to the Taxandria Museum.⁶¹ But Panken was not the only one digging for antiquities. M. L. Stroobant wrote an article in the *Bulletin de la Société d'Anthropologie de Bruxelles* in 1921.⁶² It is worthwhile to reproduce literally one of his reports: 'A proximité, à environ cinq minutes au N.-O., se trouve un tertre plus important, mesurant environ 1m20 de haut et appelé Kattenberg. Il s'y rapporte quantité de légendes sorcières que nous notons plus loin. Se sont des

Fig. 1.9
Plan of the Kattenberg excavation as published by Modderman in 1967. The original legend is: 1. gravepit, 2. cremation, 3. charcoal, 4. foundation trench, 5. medieval grave, 6. recent disturbance.



tombelles que nous avons fouillés de nouveau en 1903, accompagné de Panken, alors âgé de 80 ans.⁶³ Stroobant, acting on behalf of the Taxandria Museum, was excavating in the Kattenberg and adjacent mounds in 1903. The pot could have come from these surroundings.

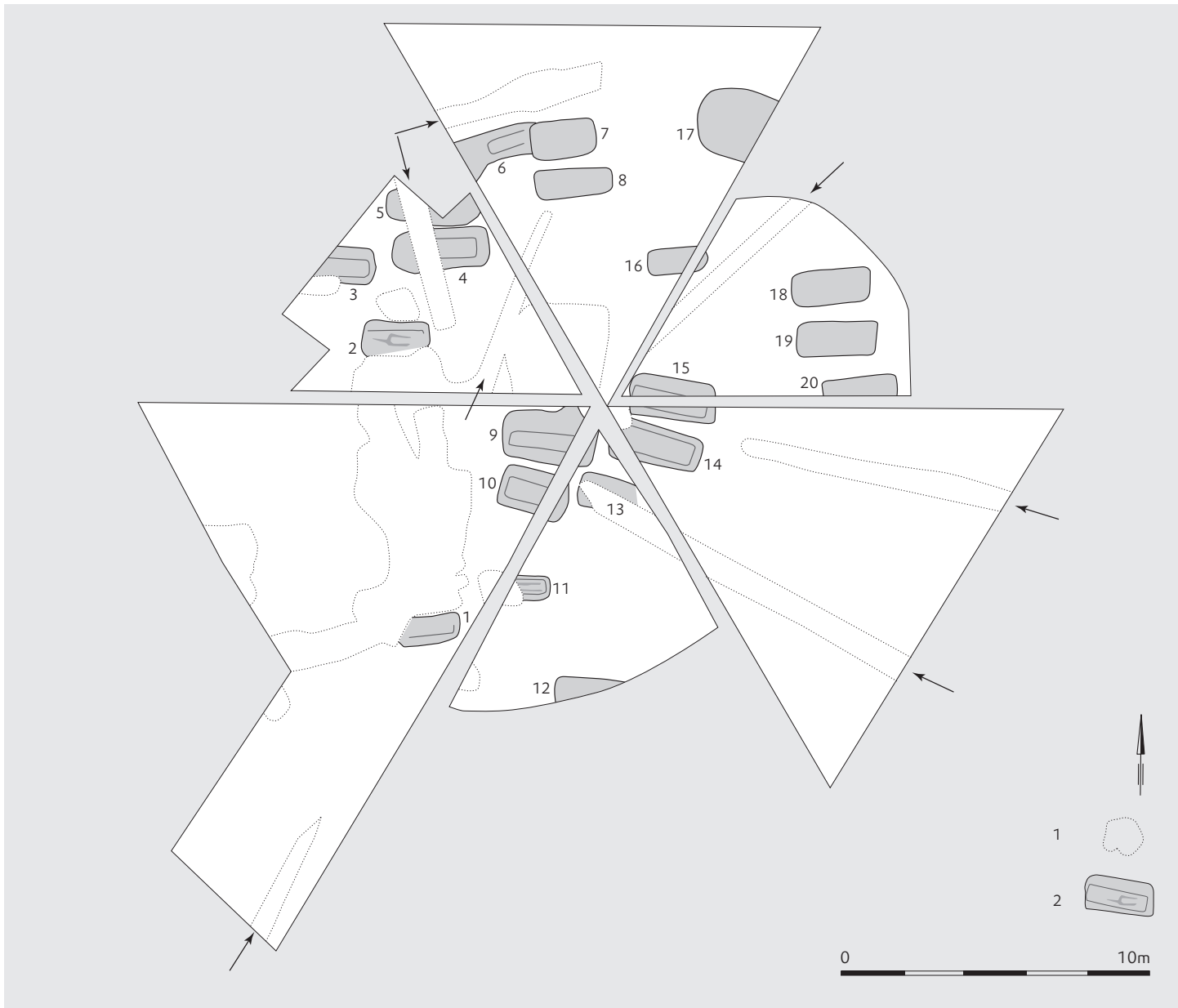
The Kattenberg was excavated again by P.J.R. Modderman in 1955.⁶⁴ The mound turned out to be a Middle Bronze Age burial monument in an elevated position. He found several other interesting features to which he did not pay much attention; these features were represented in his plan of the excavation (fig. 1.9). He mentions a number of then recent disturbances. Some were sand extraction pits, which do not interest us here. He also found a number of narrow ditches dug in the mound in a more or less radiating pattern (see arrows in fig. 1.10). He interpreted these, probably correctly, as trial trenches dug in the early twentieth century,

adding that Stroobant and Panken 'would certainly have an illuminating story to tell about them'.⁶⁵ Moreover, a large square pit in the centre of the mound is probably also a result of urn digging activities. It can thus be considered an established fact that Stroobant dug in this specific mound. The most surprising find of the 1950's excavations is, however, a group of 19 or 20 inhumation graves. In ten, traces of coffins were observed, and in at least two, traces of human remains were found.

Modderman made the following and only remark on these graves: 'In the excavated portion of the Kattenberg 20 flat graves were found, all W-E oriented. In several instances, clear traces of wooden coffins were observed. Sometimes so much of the skeleton was preserved that the position of the skull could be determined. This was always to the west, thus justifying our conclusion that this was in all probability a small Christian burial-ground.

(55) One of the objectives of the ANASTASIS project is to create better models of the (expected) locations of Merovingian cemeteries. This is necessary in the context of a better archaeological heritage policy. There must have been many Merovingian cemeteries, of which only a few are known. At present the locations of such cemeteries are hardly predictable. The unknown cemeteries are thereby unprotected. (56) Stroobant 1903; Stroobant 1921; Slofstra 1977, 62; Biemans 2010. Over Panken zie: Mandos 1971; Biemans 1977; Meurkens 2004, especially in relation to the inheritance of his parents: 50-53. (57) Public record office: Openbare Registers, Kadaster Eindhoven, volume 179, nr. 14. (58) Again we were kindly received by Maria Wouters, who showed us the pots and other material from 'Bergeijk'. (59) In translation: Frankish corpse-urn Bergeijk village no 1 Aug. to Okt. 1903. There is no further information available in the museum archive. The pot had no museum inventory number. (60) I will describe the biconical pot in more detail at the end of this section. (61) Biemans 2010. (62) Stroobant 1921. (63) Stroobant 1921, 49-50. (64) Modderman 1967. (65) Modderman 1967, 63.

Fig. 1.10
Plan of the Kattenberg cemetery. 1. recent disturbance,
2. medieval grave.



Our informants knew nothing about a cemetery tradition. It is possible that the people buried there came from the neighbouring hamlet of Hoge Berkt.⁶⁵ Modderman had found a more recent cemetery dug into the mound of a Bronze Age burial monument! I had previously noticed this but as the cemetery could not be dated, several interpretations were possible. It had to be Post-Roman; so much was certain, for such inhumation cemeteries do not occur in Prehistoric and Roman times in the region. It could have been a ‘bubonic plague-cemetery’ or a burial ground of criminals hung on a gallows on the hill. However, no recordings of a gallows on this specific hill are known.

Until now three pieces of evidence had not been combined:
1. The presence of an inhumation cemetery in the Kattenberg;
2. The fact that Stroobant and Panken had been digging there in

1903; 3. The presence of a biconical urn in the Texandria Museum found in Bergeijk in 1903. In my view this combination makes it more than likely that the pot in the Taxandria Museum was found in the Kattenberg and that the cemetery is of Merovingian date! Thus, a second Merovingian cemetery in Bergeijk has now been discovered.

The pot in the Taxandria Museum is a complete grey/black biconical pot (fig. 1.11) made of a fine fabric with a height of 13.4 cm. Its belly is rounded off, and the surface of the pot is heavily weathered and slightly cracked. A shovel damaged the rim, probably when it was found. The upper wall is decorated with roulette stamp impressions, but due to weathering, this decoration is difficult to decipher. It probably consists of five zigzag lines. In the typology of Siegmund it fits best his type Kwt4.11 dating late in

Fig. 1.11
The biconical pot found in 1903 present in the Texandria
Museum in Turnhout (Belgium). Scale 1:4.
Photo: F. Theuws.



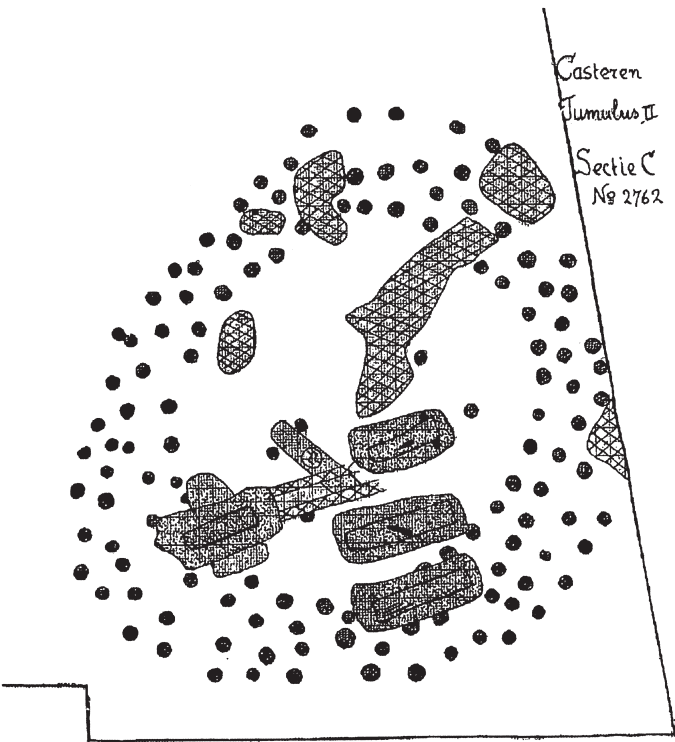
Rhineland phases 7 and phase 8A (c. 600-625).⁶⁶ However, it is difficult to date such a pot exactly, as it could well be from a date later in the seventh century.

During the excavation of the barrow, 20 inhumation graves were found (fig. 1.10). The total number of graves in the cemetery will have been larger. Further to the north-west, south and east, more graves are probably present.⁶⁷ Some graves may have been destroyed during the sand extraction activities. It is not certain whether context 17 is a grave; if so, it is of relatively large size. The width of the pit is 2.26 metres. The western extension of context 6 may belong to another grave. Outlines of what must have been wooden containers were observed in ten graves. They are more or less in the ‘central’ part of the excavated cemetery. Those graves in which no containers were observed lie mainly in the north, north-east and south of the excavation. Skeletal remains were observed in several graves, but the publication shows only remains in contexts 2 and 11.⁶⁸

There seems to be a central group of graves (contexts 9, 10, 13, 14 and 15). Their orientation differs slightly from the others. These graves must have been dug into the top of the Bronze Age burial mound. The others were dug in at the hill’s foot or adjacent to it. To the east is another group (contexts 18, 19 and 20) and to the north-west is yet another (contexts 2 to 8). It is impossible to make any statement on the meaning of this grouping of graves. There also seems to be some kind of pairing of graves. Graves 4 and 5, 7 and 8, 9 and 10, 14 and 15, 18 and 19 lie more or less parallel and close to each other. No grave pit was cut into another except context 7, which seems to be younger than context 6.

The location of the Kattenberg cemetery needs some further comments. First of all it is a good example of how ancient monu-

Fig. 1.12
Plan of the excavation of tumulus II in Casteren as
published by Beex in 1954. Four grave pits with coffins can
be observed as well as the location of the ‘daggers’ in the
middle of the containers of the two north-eastern graves.



ments, such as prehistoric burial mounds, were chosen as a location for an early medieval cemetery. Other examples of these practices are known in the region, such as the recently excavated burials at Beerse-Krommenhof (Belgium, province of Antwerp).⁶⁹ Another example is the placement of four burials in a Bronze Age barrow (tumulus II) in Casteren (fig. 1.12).⁷⁰ The location of the cemetery in the local landscape will be discussed together with that of the Bergeijk-Fazantlaan cemetery. In a separate study we will elaborate on the theme of site locations of Merovingian cemeteries.⁷¹

The early medieval cemetery of Bergeijk-Fazantlaan: site conditions and local context

The Merovingian cemetery at Bergeijk-Fazantlaan is now located on the western edge of the arable field complex Enderakkers/Bergerakkers, in an area covered with fir trees.⁷² The fir trees are a fairly recent phenomenon and a product of the forestation of parts

(66) Siegmund 1998, 131-132. It is difficult to assign the pot to one of the types of the Franken Arbeitsgruppe (Franken AG) (Müssemeier/Nieveler/Plum/Pöppelmann 2003). (67) In the original publication the graves are not numbered. The numbering of graves is ours. (68) Modderman mentions traces of skulls. They are not indicated on the published plan. (69) Delaruelle/De Smaele/Thijs/Verdegem/Scheltjens/Van Doninck 2011. This site is 35 km from Bergeijk as the crow flies. (70) Beex 1954, 62-64. Beex found two iron ‘daggers’, one of which had a length of c. 15 cm. They are probably knives. At the bottom of one grave, a cross beam, such as regularly occur in Merovingian graves, was observed. (71) M. de Haas MA wrote a Masters thesis on the location of cemeteries in the landscape of the Southern Netherlands and northern Belgium (De Haas 2010). She will further elaborate on this theme in the Anastasis project. (72) On this arable field complex see Vangheluwe/Spek 2008; Vangheluwe 2009. Many opinions and suggestions in both studies should be subject to debate. However, it is not possible to go into details here.

Fig. 1.13
The immediate environs of the Merovingian cemetery at Bergeijk in 1832. Dark brown: pine trees, light brown: non-coniferous wood ('hakhout'), purple: heather fields, yellow: arable fields, red line: outline of the Merovingian cemetery. The Van Daalen house has been indicated on the site of the cemetery in black.

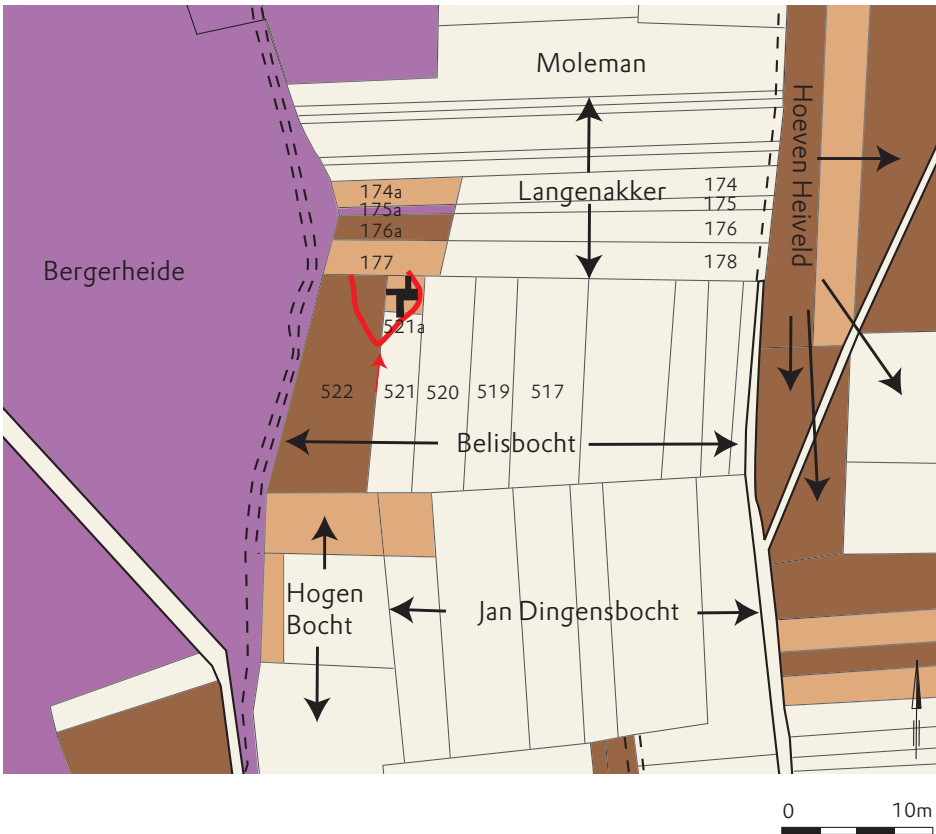
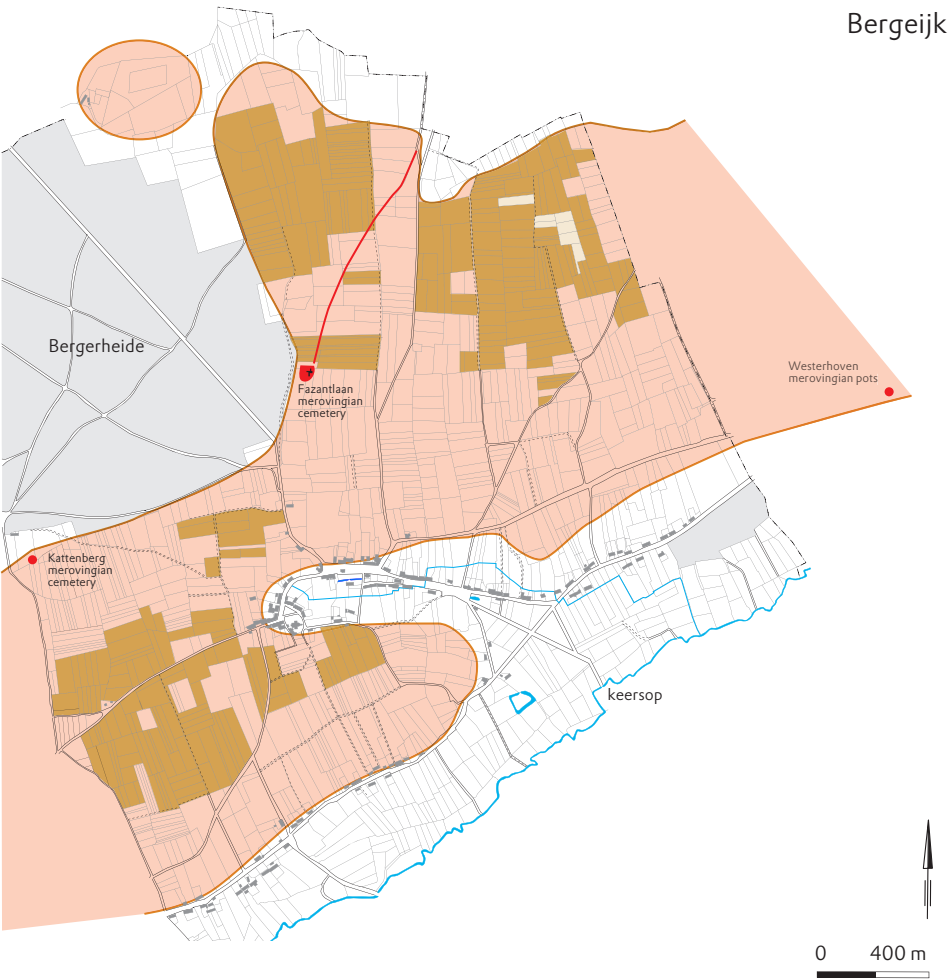


Fig. 1.14
Bergeijk: the extent of the h/c area north and west of the present village. Brown: plots with a name containing the element akker; red: the extent of the h/c area, red line: track running from the cemetery in a north-easterly direction.



of the old heather fields, an attempt to avoid the development of drift sand and to provide wood for coalmines.⁷³

The state of affairs around 1832 is different (fig. 1.13).⁷⁴ At that time the cemetery is located on a plot (nr. 521a) covered by wood ('hakhout'). Immediately to the west is a plot with fir trees. These represent early instances of the forestation process in this area. Immediately to the east are the arable fields of the Enderakkers and Bergerakkers. To the west are the vast stretches of open heather fields of the Bergerheide.

Vangheluwe, De Nooijer, Knaepen and Biemans published a map of the same area based on the evidence collected by land surveyor A. Borenbergen in 1791.⁷⁵ A comparison of the maps shows that a change in land use took place between 1791 and 1832. The plot on which the cemetery is located in 1791 is an arable field; the fields to the west and south are covered with heather. This signifies that the forestation of these plots took place sometime between 1791 and 1832. The cemetery is obviously located in an area that had been brought under some form of cultivation, as indicated by the division of the land in plots. The contrast with the undivided heather fields across a field path to the west can clearly be seen (see also fig. 1.18). It is important to define the extent to which the fields had been cultivated in order to arrive at a better judgement of the cemetery's location and state of preservation. We can then also establish to what extent agricultural activities affected the remains of the cemetery.

Basically, two types of arable land exist, corresponding with two groups of names for arable fields, one of which can be seen in figure 1.18.⁷⁶ One group consists of names with the element *-akker* (like Langenakker); the other group consists of names with the element *-bocht* (like Belisbocht). The latter denotes arable fields of lesser quality.⁷⁷ A bank flanked by two parallel ditches often enclosed such fields.⁷⁸

This difference between *akker* fields and *bocht* fields is reflected in modern soil conditions as well. Fields with *-bocht* names usually have only a thin layer of arable soil, whereas fields with *-akker* names are often characterised by the presence of thick layers of arable soils, so-called '*plaggendekken*'. The cemetery lies in a series of fields called Belisbocht and is thus in an area of lesser quality arable

fields. This is confirmed by the actual soil conditions, to which I will return in a moment.

A mapping of all fields with the element *-akker* provides an interesting image (fig. 1.18). They are not scattered over the entire complex of the Enderakkers/Bergerakkers, but are confined to its northern part.⁷⁹ Two large blocks with these names occur, an eastern and western one. The western block is divided into one large and two smaller blocks, one of which is the Langenakker just north of the cemetery. A number of plots between two field tracks separate the eastern and the western block. These plots have names containing the element *-hoeve* (farm or farm land). Groups of plots with the element *hoeve* in their name occur in other parts of the parish as well. They usually belonged to important farmsteads. In this case, one of the plots was once the property of the monastery at Postel. It is most likely that the whole group of plots with the element *-hoeve* in the Enderakkers originally belonged to a farmstead of this monastery.⁸⁰

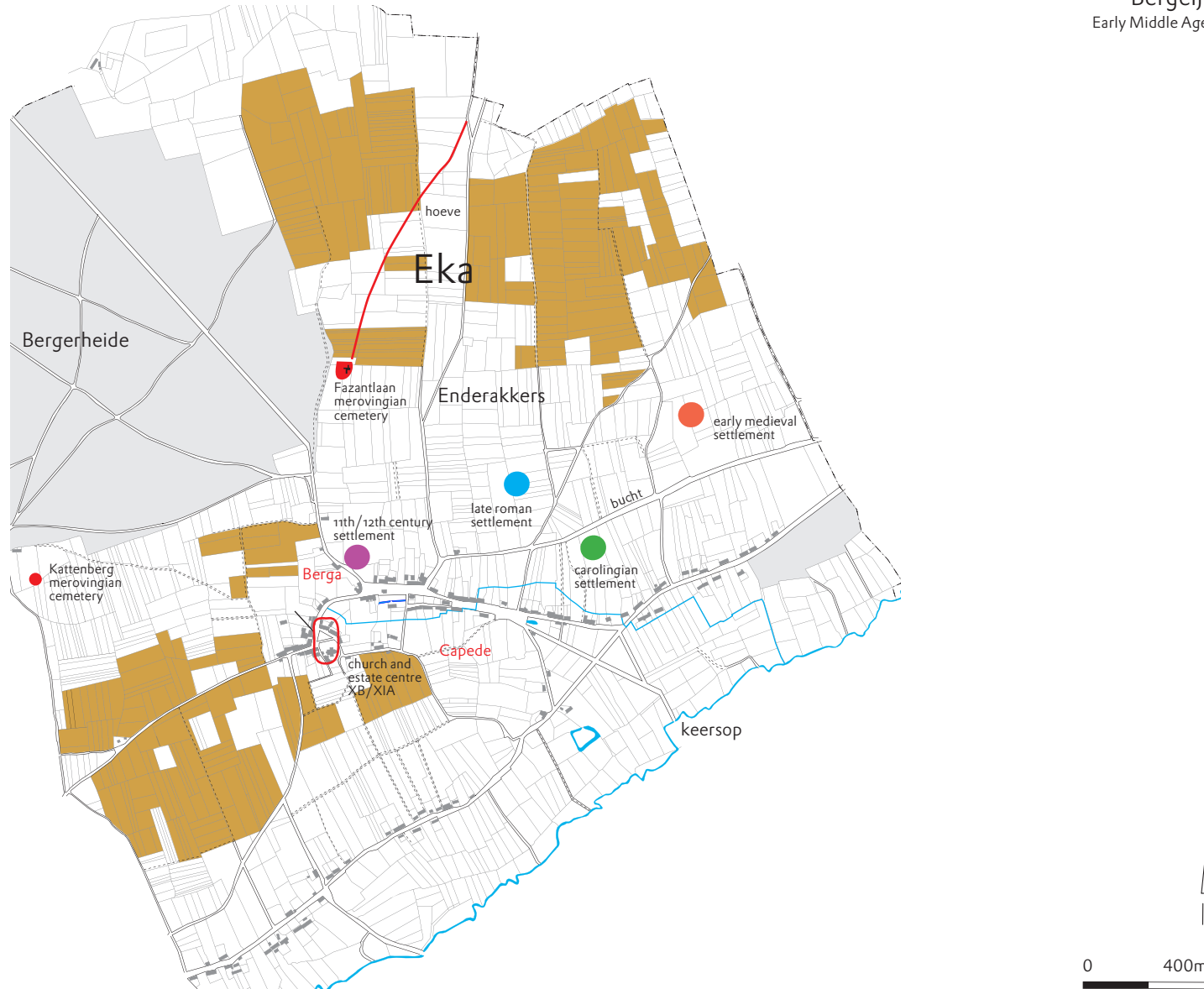
The distribution of fields with the element *-akker* may indicate where the oldest and most fertile arable fields were, and where early medieval habitation may have been. If this reconstruction is correct, the Merovingian cemetery lies immediately to the southwest and west of the possible related settlement(s). The early medieval h/c area may have been more or less identical to the arable complex of the Enderakkers/Bergerakkers (fig. 1.14). As yet, no early medieval finds have been found in its northern part. The thick layer of arable soil (*plaggendek*) deposited there since the Late Middle Ages prevents the discovery of surface finds older than c. 1350. To the west are the heather fields of the Bergerheide, which do not belong to the early medieval h/c area. They were, however, intensively used in Prehistoric and Roman times.⁸¹

The cemetery is thereby located at the very limits of the h/c area, not in its middle. It is located at the juxtaposition of the cultivated and uncultivated lands or the inhabited and uninhabited parts of the landscape. It can be concluded that the dead occupied a liminal position in the landscape. In this context, a discovery by Vangheluwe and Spek is noteworthy.⁸² They identified the trajectory of an old track on a recent map of the modern surface relief (*Actueel Hoogtebestand Nederland*).⁸³ It ran from the Merovingian

(73) *Chromotopografische Kaart des Rijks*, blad 723, surveyed in 1998. A series of topographical maps of the area is now published by Vangheluwe/De Nooijer/Knaepen/Biemans 2009. (74) The map of fig. 1.13 is based on the oldest cadastral map and the evidence in the related records (*Oorspronkelijk Aanwijzende Tafel*). Vangheluwe/De Nooijer/Knaepen/Biemans (2009, 216-217) published a map of the same area. However, their map is interpretive. It is a combination of the oldest cadastral map and the evidence on land use in a landed property register of 1791 (*Maatboek*). (75) Vangheluwe/De Nooijer/Knaepen/Biemans 2009, 216-217. (76) See also Vangheluwe/De Nooijer/Knaepen/Biemans 2009, 232. My map differs at some points from theirs due to varying choices of which name to choose when more than one name of a plot is given. The differences are insignificant. (77) Vangheluwe/Spek 2008; Vangheluwe 2009. (78) See, for instance, the excavation of such banks in Theuws 1976 and 1982. (79) To its south lies a block with *-bocht* names. (80) See also Vangheluwe/De Nooijer/Knaepen/Biemans 2009, 202. The *hoeve* plots may have been brought under cultivation later, for instance, because the humidity of this area was somewhat higher, or the fields could have been identical to the ones to the east and west of it but renamed after coming into the possession of the monastery at Postel. (81) This image contrasts to some extent with the image provided by the maps in figs. 1.4 to 1.6 in which the extent of the h/c area is larger in the west. This is due to the use of modern soil maps, which are insufficiently detailed to reconstruct the h/c areas on the scale needed to analyse the location of individual sites. New micro mapping and coring is needed to create a detailed image of the h/c areas whereby the lower lying areas in the arable complexes that are regularly found in large scale excavations are mapped as well. Only then will we have a detailed overview of the cemetery's immediate environs. For the moment we must be content with the data provided by the soil and historical maps. (82) Vangheluwe/Spek 2008; Vangheluwe 2009, 232. (83) This specific element, visible on the map of heights, is interpreted as a track. To my knowledge this has not been checked with a trial trench in the field. Until then I will follow the interpretation of Vangheluwe and Spek.

Fig. 1.18
The indications for settlement in the wider environs of the Merovingian cemetery of Bergeijk-Fazantlaan plotted on the cadastral map of 1832. Brown: fields with the element -akker, light grey: heather fields, dark grey: houses in 1830, blue: streams and open water.

Bergeijk Early Middle Ages



cemetery in a north-westerly direction, towards the village of Riethoven (indicated in figs 1.14 and 1.18 with a red line). It travels around the low-lying source area of the Rijt stream to the north. The track does not fit in the pattern of the plots and field boundaries indicated on the oldest cadastral maps; it runs oblique to the north-south oriented tracks of the Enderakkers/Bergerakkers.

The cemetery as a track's point of origin will have lost its significance in the High and Late Middle Ages, when the north-south oriented tracks and field boundaries came into being. Large scale archaeological excavations in other villages show that the tracks visible on the oldest cadastral maps came into being in the later twelfth and thirteenth century. It can be concluded that the newly discovered track must be older, and probably dates from

Merovingian times.⁸⁴ If this is correct, we can observe that the cemetery was not only located at the limits of the h/c area, but that it was located at a point of entry too. The dead were thus located in a place where visitors would encounter first the dead and then the living. This is, of course, an ancient ordering of the living and the dead. Only later in the Middle Ages do the dead enter the inhabited areas, at first hesitatingly (already in the second half of the seventh century), later wholeheartedly when new parish cemeteries were created in the tenth century.⁸⁵

The newly rediscovered Merovingian cemetery in the Kattenberg supports such a view on the location of the Merovingian dead. It is also located at the limits of the h/c area. In 1832, a farmstead is present immediately to the north, which seems to have

been reclaimed from the large stretches of heather fields of the Bergerheide. The cemetery may have been located at an entrance point to the h/c area as well. To the south are the arable fields of the Molenakkers, named after a late medieval windmill standing in the middle of the fields. If we expand the map of the h/c area in fig. 1.14 a bit further to the east into the territory of the village of Westerhoven, we find the location of the Westerhoven pots at the very southern limit of the h/c area. The Riethoven pots, in contrast, were found in the middle of the h/c area. The possibility of them originating from a farmyard burial group like those found in Geldrop and Dommelen cannot be excluded.⁸⁶ Those pots, too, were found in middle of h/c areas.

After reviewing all the evidence relating to the locations of Merovingian cemeteries in the Bergeijk parish, we can conclude that they seem to be situated on the limits of the h/c area, possibly at entrance points. A series of cemeteries, large and small, might thus encircle the inhabited world, and even be judged ancestral markers or claims on the forest, the h/c area. Nearby are the farmyard burials in the middle of the h/c areas, which mark a next step in claiming land.⁸⁷ As we will see in the study of farmyard burials in the southern Netherlands, they too take on a liminal position on the farmyard and, thus, imitate on a smaller scale what the cemeteries do on a larger one.

Before I describe the local settlement pattern in the Early and High Middle Ages, I would like to focus on one last aspect of the cemetery: the physical condition at the site itself.

The physical conditions at the site of the cemetery

If we look in greater detail at the physical conditions of the site and its immediate environs, we see that no arable layer (*plaggendek*), characteristic of the open arable fields, developed on the site. This can be concluded due to the evidence extracted from the sections documented by the excavators. The excavators drew a few sections, in relation to graves and a separate section in the north-western corner of the site on a scale of 1:20. The section of context 75, a small pit containing burned bone (fig. 1.15), shows that below the surface there is a layer c. 40 cm thick. This layer is quite dark on top and light brown on bottom. The excavators did not indicate infiltration layers below 40 cm; they may not have drawn them even if they were present. Below 40 cm there is yellow sand and the cremation grave, neither of which are visible in the top 40 cm.

This section shows the characteristics of a *Moderpozolgrond*, a usual soil type in such areas.⁸⁸ This is surprising because we would expect signs of the soil having been worked, during reclamation of the field. Moreover, if the soil is natural, it must have developed

after the grave was dug. The intensity of soil work may have been low, however, because these types of fields (with *-bocht* names) were used extensively, possibly with long alternating periods of fallowness and use. This soil working may also have been confined to the upper 10 to 20 cm of the soil.

The section through grave 35 (fig. 1.16) reveals a slightly different reality. Just below the surface is a dark layer no more than c. 5 cm thick, probably the very humous topsoil. Beneath is a layer of yellow sand, c. 10 cm thick, under which lies a grey layer of c. 10 cm. The entire topsoil is thus no thicker than c. 30 cm. Beneath these layers the fill of the grave with a 'robbing pit' is already visible. This succession of layers in the topsoil is reminiscent of soil formation processes, whereby humus and iron are transported downward from the layer of yellow sand and deposited in the grey layer below. It is similar to a *Haarpodzolgrond*, characteristic of dry heather fields, rather than a *Moderpodzolgrond*.

This section, too, gives the impression that a natural soil was on the site at the time of the excavation (1957 and 1959). In that case, the soil's profile must have developed after the grave was dug. Moreover, the available evidence suggests that soil formation was not very strong. The other two sections over graves (33/34 and 58) do not provide additional information. They, too, convey the impression that there is hardly any significant soil development, and certainly no *plaggen* soil formation.

The separate section the excavators have drawn is quite interesting but difficult to interpret (fig. 1.17). The section is oriented west-east and located just west of grave 71. What can be seen is that there is some relief at the location of the section. To the right is a thick dark brown layer (nr. 1), which is covered by a thin black layer and a layer of yellow sand to the left (both nr. 6). Layer nr 6, which is similar to the top two layers of the section in figure 1.16, must have been deposited on top of nrs. 1 and 7. The deposition might be anthropogenic or result from natural processes, such as eolian sand deposits blown in from the open heather fields to the west.

There is obviously an anthropogenic intrusion below layer 1. Layers 2 and 9 seem to be dug-in features. They are probably not part of a grave, since the excavators would certainly have indicated this on the drawing. Layer 9 may be related to a ditch recorded on the field plan of this trench (see fig. 2.9). However, the exact relation between the section and the plan is unclear. Layer 2 does not seem to have been dug through layers 3, 4 and 5. Rather, they slope downwards to the left. Layer 8 was probably not a natural deposit either. It gives the impression of consisting of reworked soil.

This configuration of layers recalls sections through banks around arable complexes that are found regularly in the wider

(84) A track with similar characteristics and more or less parallel to the newly discovered track is present further south (fig. 1.18). I suspect that this track (indicated as *Akkerstraat* in 1832 (De Nooijer 2009, 148)) is younger and replaces the older track further north. This new track will have been created after the habitation moved further south to the present location, and the northern track lost its importance. (85) Zadorra-Rio 2003, 2005. (86) One reason to think so is that no traces of a cemetery were found in a building trench near where the pots were found. (87) Theuws 1999. (88) Bakker/Schelling 1989; *Bodemkaart van Nederland schaal 1: 50.000 Blad 56/57 west*, Wageningen 1968, 40-50. (89) Vangheluwe/De Nooijer/Knaepen/Biemans 2009, 278. I composed the map presented there on the basis of a field survey aimed at identifying all these field banks.

Fig. 1.15
Bergeijk, Merovingian cemetery. Section through a pit with cremation remains (grave 75). Scale 1:20.

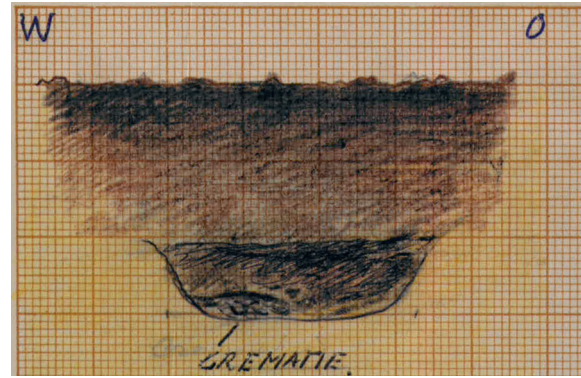


Fig. 1.16
Bergeijk, Merovingian cemetery. Section through inhumation grave 35. Scale 1:40 (original scale 1:20).

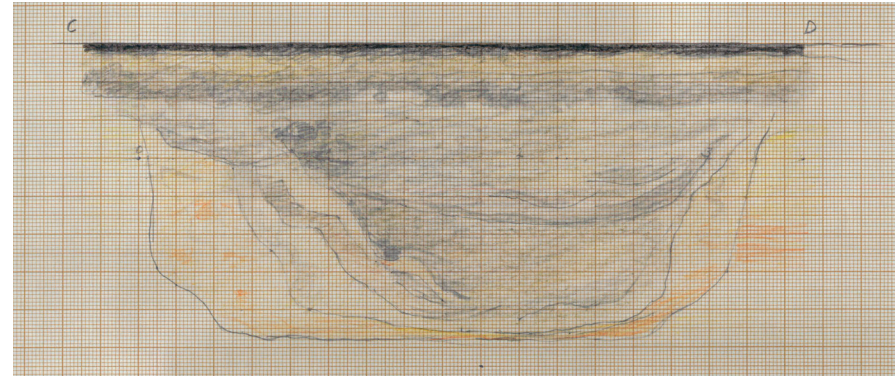
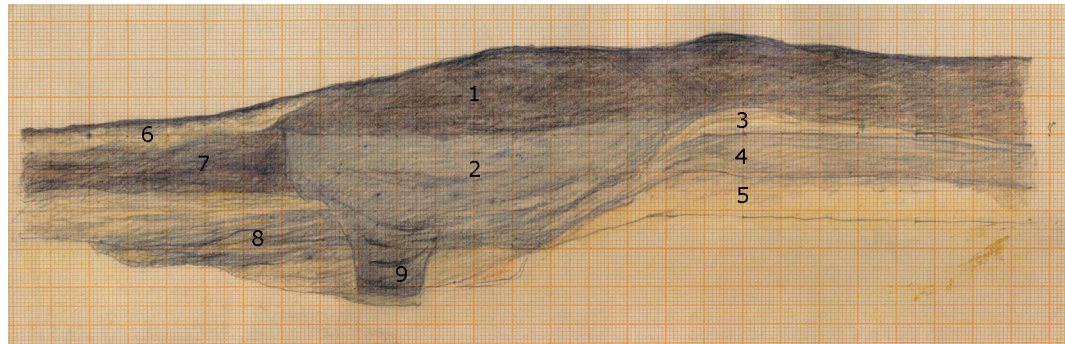


Fig. 1.17
Bergeijk, Merovingian cemetery. Section of a bank. Numbers added recently. Scale 1:40 (original scale 1:20).



environs.⁸⁹ In my impression, layer 2 is the fill of a ditch along such a bank, while layer 9 is the fill of a hole in the bottom of the ditch. Such holes have been observed in comparable features in Riethoven and in Bladel.⁹⁰ This ditch may not be the first one dug on this location. The various layers of yellow and dark sand taken together as nr 8 could be the fill of an older shallow ditch related to layers 3 and 4, and possibly 5, which may form layers of the bank itself. It is possible that this bank was the boundary of the two fields, which ran across the site (see the small red arrow in fig. 1.13). In conclusion, it is difficult to ascertain whether features 2 and 9 are a ditch or a pit. The combination of features and relief are reminiscent of comparable banks observed at Riethoven and Bladel, yet the relief on the site may not be as pronounced as this section seems to imply. One possible explanation for the excavators drawing this specific section could be their discovery of an ancient bank running across the site. Somewhat further to the west, on the Bergerheide, forested in the nineteenth century, the terrain is much more undulating. Differences in height of several metres are found over short distances.

In conclusion, one can say that until excavation hardly any deep soil disturbances had taken place at the site of the cemetery, and

that no plaggen soil had developed there. The field would have occasionally been used as arable land; consequently, some leveling may have taken place. The fact that the soil has not been deeply worked is also indicated by the find of the egg-shaped pot of context 32. The top of the pot was at a depth of only 10 cm below the surface. It was broken and small roots grew through its cracks, but it was more or less complete. Its remains were thus not scattered by ploughing.

At one time, a bank was probably created to mark out a field boundary. The construction of this bank may have disturbed the original physical conditions at the site to some degree. Some graves may have been damaged. If the soils above the graves are natural soils, they developed after the graves were dug. All in all, it seems that the surface level at the time of the excavation was more or less identical to that in the Early Middle Ages. This means that the grave pits have remained largely intact and that the depth of the pits observed during the excavation represent their original situation. Unfortunately, the excavators made no further notes on the soil conditions at the site. When documented properly, this situation of a cemetery site could provide a rare opportunity to study its use and development after its abandonment. It would

also allow a more detailed study of post-depositional intervention in the graves.⁹¹ Since part of the site has not yet been excavated, it is still possible to carry out such research. The opportunities offered by a detailed investigation of the soil development are compelling reasons for the site to be reinvestigated.

The local settlement pattern

Taken together, the archaeological finds and features around Bergeijk allow a tentative reconstruction of the local settlement pattern. It has been suggested that Merovingian habitation is most likely to be found near the arable fields with the element *-akker* in their names, the area indicated in brown on the map in figure 1.18. This is quite far north of the present day village of Bergeijk. The cemetery lies immediately south of the former. In the zone between that area and the present day village, where the fields have the element *-bocht* in their names, a Late Roman settlement was uncovered in a number of trial trenches.⁹² The fragments of pottery found further to the east probably date back to the early Merovingian period; some could be slightly older. South of an east-west running field track (Bucht), remains of a Carolingian settlement were found.⁹³ The area north of the present day village (Enderakkers) consists of several east-west oriented zones.

Each of these zones has specific ecological conditions, in terms of fertility and humidity, as well as types of field names (either having the element *-akker* or *-bocht*).⁹⁴ The Late Roman habitation may have been confined to the east-west oriented zone immediately north of the aforementioned field track. This area is also the highest lying part of the Enderakkers. Further north is a relatively flat zone where habitation from the Merovingian period onwards may have concentrated. It would have remained in use as a habitation area until settlements moved to their present locations further south. The Carolingian settlement indicates that the intermediate zone between the high and low-lying grounds was occupied during this period, though habitation need not have been continuous.⁹⁵

The present day village centre grew out of a new estate centre created in the second half of the tenth and early eleventh century, near the source area of a small brook.⁹⁶ It was surrounded by a shallow moat. To the north, habitation developed beginning at least from the eleventh century onwards, probably including the hamlet Berga.⁹⁷ The settlements of Berga and Capede are mentioned along Echa in a census register of 1250 of the chapter of Saint John in Liège.⁹⁸ They must be identified with the hamlets Berg and Kept in Bergeijk.⁹⁹

No settlement traces dating from before the middle of the tenth century have been found in excavations in the village centre. This centre can thus be considered a new creation from the later tenth and eleventh centuries. Before this time, 'Old-Bergeijk', which

may have been the centre of an estate, must have been located elsewhere, probably in the Enderakkers, perhaps its northern part.¹⁰⁰ Until now, the location of this centre has not been identified. Its remains are probably well hidden beneath the thick layers of arable soil of the Enderakkers/Bergerakkers. The name of this settlement would have been Echa or Eka, probably consisting of the word 'oak tree' and a 'ja' suffix, meaning: 'many oaks'.¹⁰¹ It is the only settlement name in the wider region referring to oaks; a curious observation regarding the importance of oaks in the daily life of its inhabitants. Oaks had important symbolic meanings in the Early Middle Ages.¹⁰² This means there may have been more to the name than a simple reference to the oaks present in the area.

Habitation at the location of 'Old-Bergeijk' may have lasted until the late twelfth or early thirteenth century, as was often the case at other arable complexes in the Kempen region.¹⁰³ If this is true, the habitation at the Enderakkers/Bergerakkers and the new estate centre in the present day village may have coexisted in the tenth to twelfth centuries. Gradually, 'Old-Bergeijk' disappeared. What this meant for local power relations is not yet clear. Finding 'Old-Bergeijk' at the Enderakkers/Bergerakkers is of great importance, for it is likely to be one of the most interesting early medieval sites of the region. The Enderakkers today form a well-preserved ancient arable complex whose value is greatly enhanced now that we suspect a very interesting and well-preserved early medieval site of being located there.

It is essential to find the remains of this habitation. The presence of a high status site such as an estate centre, a well-studied historical context, and a high rate of preservation combined are almost unique in southern Netherlands. We can adjoin that the Merovingian cemetery is the largest found in the Noord-Brabant province so far, and would have been one of the richest in terms of grave goods had not most of the objects been removed from the graves in early medieval times.

We can thus hardly underestimate the importance of the archaeological value of the Enderakkers. It is absolutely necessary that a programme be set up to evaluate the archaeological value of this arable complex. The idea that the early medieval settlement at the Enderakkers is an important one is based not only on the presence of the cemetery, but also on an analysis of historical sources. These allow us to gain insight into the development of the parish, and a presumed estate. Moreover, the written sources reveal the identity of the owners of landed property in the Central and Late Middle Ages. The identity of these owners: bishops, counts, dukes and important religious institutions allows us to speculate on the identity of the owners of the early medieval estate. It is important to have this type of information in order to evaluate the context in which the cemetery was laid out.

(90) Theuws 1976; 1982. (91) Van Haperen 2010. (92) Theuws/Hiddink 1996, 77. (93) Theuws 1991, 375-380. (94) These conditions may have been different in the Early Middle Ages. New research would be necessary to define these early medieval conditions. For the moment, we must use the evidence from the Late Middle Ages and Modern Period. See also Vangheluwe/Spek 2008. (95) In addition to this east-west zoning, the Enderakkers possesses a north-south zoning, the meaning of which is difficult to establish at present. In my opinion, Vangheluwe and Spek have insufficiently incorporated this north-south zoning in their model on the development of the Enderakkers

(Vangheluwe/Spek 2008). (96) Theuws 1989, 149-160; Verhoeven 1989, 221-230. (97) Theuws 1989, 160-166; Verhoeven 1989, 231-237. (98) Lahaye 1942; Bijsterveld 2000. (99) See also Vangheluwe/de Nooijer/Knaepen/Biemans 2009, 268-269. (100) It may not have been a single settlement but a dispersed group of farmsteads. (101) The first time Bergeijk is mentioned in the written sources is in 1137: *Echa* (Camps 1979, nr 38). (102) Demandt 2002, passim. (103) Many examples can be presented today. Among others: Dommelen: Theuws/Verhoeven/Van Regteren Altena 1988 (1990); Someren: Schabbink 1999; Lieshout: Hiddink 2005; Beek: Huijbers 1994.

2 The excavation and post excavation activities

The discovery and excavation

The Merovingian cemetery of Bergeijk was discovered in 1957 when the Van Daalen family began construction work on a house designed by the Dutch architect Rietveld. The building trenches for the house were dug manually. The construction workers did not immediately recognise the graves they found in the trenches, so a number of graves in the centre of the site were partially destroyed before archaeologists could examine them. Eventually two pots and a shield boss were found, and the area was recognised as an official archaeological site.¹ The state archaeological service (ROB, currently RCE²) took charge of the cemetery, and J. Ypey and his assistant and draughtsman G. J. de Vries commenced excavation with the aid of workmen from the state social service (fig. 2.1). The work lasted from the end of June to the beginning of August, altogether excavating 75 graves.³

At the time of construction, a young pine tree forest covered a large part of the site. The size and layout of the excavation trenches were therefore partly determined by the presence of irremovable trees. The already naturally poor preservative conditions of the cemetery's sandy soil probably worsened as a result of tree root activity from the forest. As a result, almost all organic materials in the graves had decomposed, including skeletal remains and container wood. However, small fragments of bone and especially wood, leather, and textile were found mineralised on or in the vicinity of copper alloy and iron artefacts.

In the middle of March 1959, Ypey and De Vries returned to the site with a team of workers and excavated the western and south-western section of the cemetery. In this campaign, they expanded

on the area of the previous excavation and examined those areas where the landowners had cut away pine trees, such as the paths leading up to the house. The work probably lasted until mid April; around 55 graves were excavated (fig. 2.2).

The history and current status of the finds

At the time of the excavation there was no legislation dealing specifically with ownership of finds from official excavations. There was yet no Monuments Act in the Netherlands; the law on treasure trove was considered applicable to such archaeological finds. Consequently, objects found were usually divided between the landowner and discoverer. Although it is likely that one of the builders actually found the first pot, an amateur archaeologist named J. Dielis claimed to be the official finder. He received a large number of the artefacts as a loan.⁴ As landowners, the Van Daalen family also received a considerable number of objects. However, not all the finds were handed over to either of these parties. A great number was kept in the care of the State Archaeological Service for preservation treatment and study. Ypey probably retained many of them in his laboratory at the Service, where he restored a selection and took measures to prevent their further decay. All were later transferred to the Provincial archaeological depot of Noord-Brabant, where they are currently stored. In 1976, the finds Dielis had kept were transferred to the Eicha museum in Bergeijk with the consent of Mr. R. Van Daalen. They reside there still. Part of this collection was exhibited in the 1961 'Merovingische Ambachtskunst' at 's-Hertogenbosch's provincial museum. Some

objects were also on display at the 'De Ploeg' weaving mill in Bergeijk during a cultural festival early in the 1960's.

The finds are currently stored in three locations. Most reside with the provincial archaeological depot of the Noord-Brabant province. A considerable number are on display in the Eicha Museum in Bergeijk, and a few especially beautiful pieces are kept in the home of Mrs. Van Daalen-Van Oven in Amsterdam.

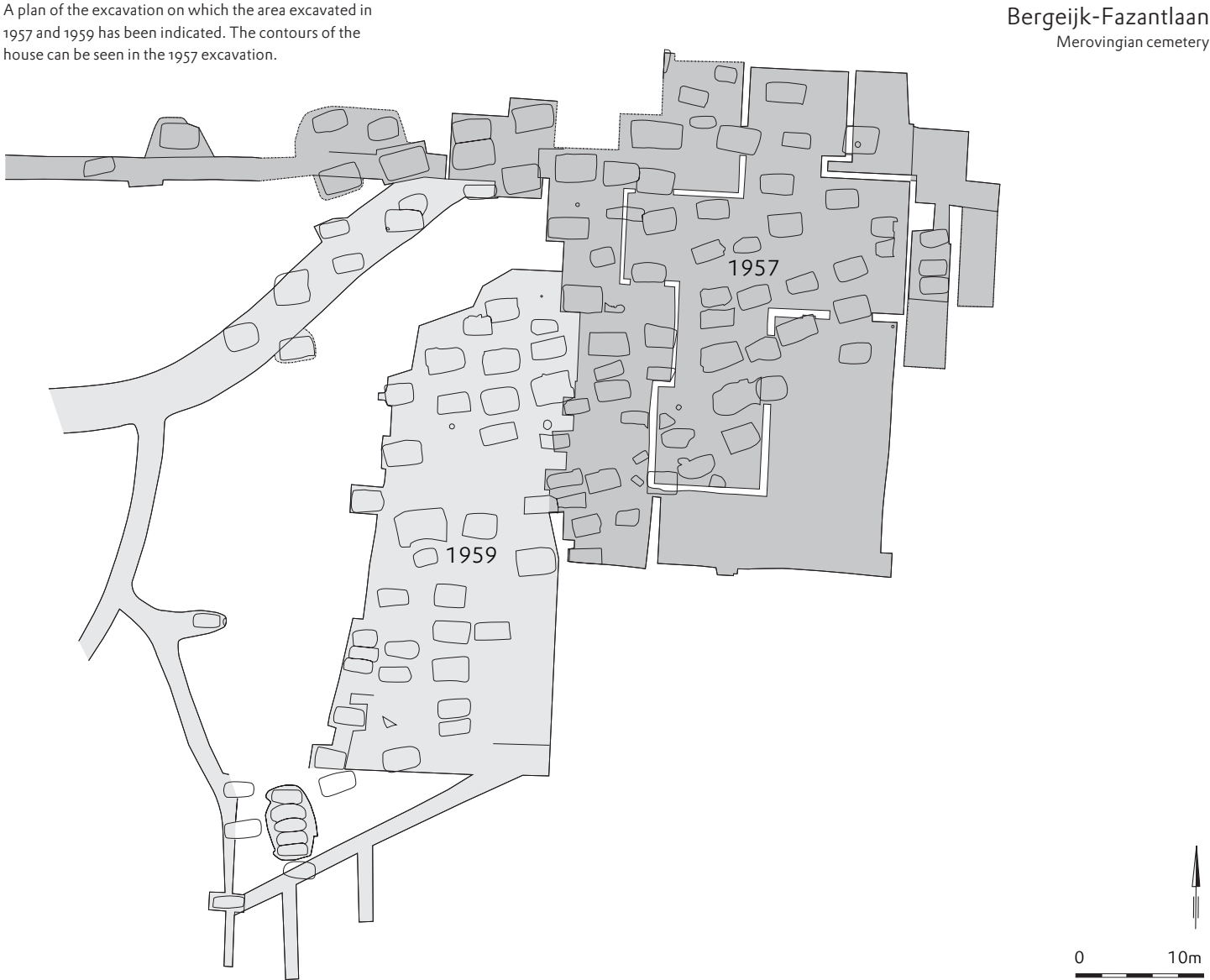
The post excavation history of the finds still shows lacunae. A considerable number of finds mentioned in the find records created during and shortly after the excavation have vanished. Some were probably indeterminate iron fragments that may simply have been thrown away; others are complete (often valuable) artefacts. Our efforts to locate them have been unsuccessful. Fortunately, the excavators often made detailed descriptions of their finds in the field administration, occasionally even including small sketches. Many find descriptions in the cemetery catalogue are therefore based exclusively on information derived from the find records.

About ten years ago the provincial depot of North-Brabant had a number of objects treated to stop further corrosion. They also commissioned Archeoplan to take a number of x-ray photographs which revealed hidden features of some of the iron objects. The artefacts are now kept in a chamber with proper environmental control. Nevertheless, the condition of the untreated artefacts is quite

Fig. 2.1
The 1957 excavation in full swing. G.J. de Vries and Mr. J. Adriaans of the 'Nederlandse Heidemaatschappij' clean the upper levels of graves 25 and 26.



Fig. 2.2
A plan of the excavation on which the area excavated in 1957 and 1959 has been indicated. The contours of the house can be seen in the 1957 excavation.



(1) The card documenting these finds is displayed in fig. 2.5 (2) ROB: Rijksdienst voor het Oudheidkundig Bodemonderzoek, RCE: Rijksdienst voor het Cultureel Erfgoed. (3) Ypey 1957/1958, 82-83. (4) Several letters in the Van Daalen family archive testify that the claim was never acknowledged by either the family or the State Archaeological Service.

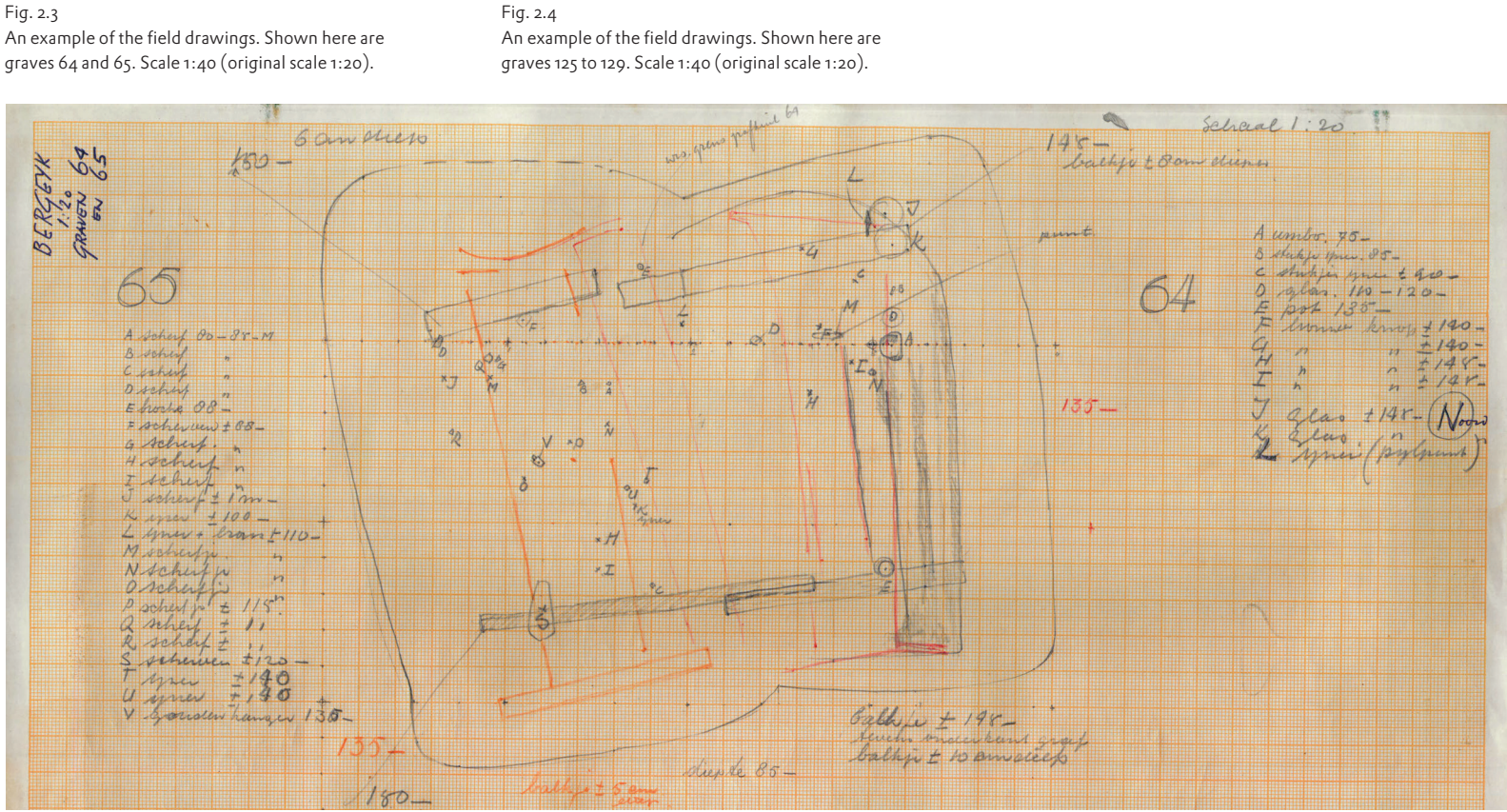


Fig. 2.5

One of the detailed drawings of finds in a grave. These are beads from grave 19.

poor; they will need treatment to stop their decay. The objects in the Eicha museum and the private collection of the Van Daalen family are kept in normal glass display cases. Although Ypey restored most of them after the excavation, many have begun to corrode once more. They, too, require treatment and proper storage facilities to be preserved for posterity. Ideally, the preservation status of all finds should be re-evaluated and improved if necessary.⁵

The publication record

It has been over fifty years since the site’s second excavation. The results have never been published in detail, and only a small selection of special finds received attention in the archaeological literature. A small number of the finds were published, and a few also received scholarly attention by Ypey. Individual photographs of finds from the cemetery have appeared in exhibition catalogues, general works and museum leaflets. Immediately after the 1957 excavation, Ypey published the exceptional glass beaker from grave 30.⁶ In 1959, ‘Honderd eeuwen Nederland’ was published, providing an overview of archaeological research in the Netherlands at that time. A contribution by De Boone and Ypey on the Merovingian period presented photographs of two gold pendants, a beaker, and an earthenware bottle. A drawing of the glass beaker from grave 30 was presented as well.⁷ In 1961, finds

from Bergeijk are mentioned in the small catalogue of the provincial museum’s exhibition in ’s Hertogenbosch, but no photographs are presented.⁸ Twenty years after the publication of the glass beaker from grave 30, Ypey published some of the iron belt fittings of graves 82, 47 and 69, which are inlaid with silver and/or a copper alloy.⁹

A new phase in Merovingian cemetery research in the southern Netherlands began when Verwers commenced the work on his doctoral dissertation. He included the cemetery of Bergeijk in his final analyses of Merovingian cemeteries in the province of North-Brabant.¹⁰ Verwers presented a plan of the cemetery, but did not publish the excavation data in detail. Before the present publication, there was no detailed catalogue of the finds and structures from this cemetery. This book therefore aims to present the excavation data in detail to make them fully accessible for research.

The available documentation

Considering the early date of and the circumstances surrounding the excavations, the quality of information in the field documentation is good. Nevertheless, reconstructing the excavators’ methods and observations was not a straightforward affair. To enable the reader to independently judge the available documentation, it is necessary to present it in some detail here.

(5) Full restoration of most corroded objects will not, however, enhance our present knowledge of their function. We commissioned additional X-ray photographs of some 30 objects by Restaura. These provide sufficient information to identify the objects. In some cases it seems wiser not to further restore the objects, since full restoration could result in the loss of attached mineralized textile, plant and maggot remains. Most objects need only stabilisation to stop further decay. (6) Ypey 1957/1958. (7) De Boone/Ypey 1959, figs 17, 18, 20, 26 and 34. (8) *Merovingische Ambachtstunst. Sieraden, wapens en gebruiksvoorwerpen uit de vijfde, zesde en zevende eeuw*, with an introduction by G. Beex. (9) Ypey 1977. (10) Verwers 1987. The characterisation of the deceased’s wealth, (represented by the grave goods assemblage) and their position in the social hierarchy of the region is an important topic in this research. Verwers used and adapted to some extent Christlein’s model of the ‘*Besitzabstufungen*’ to classify individual graves (Christlein 1973).

Fig. 2.6
An example of the overview drawings made in the field.
Scale 1:200 (original scale 1:100).

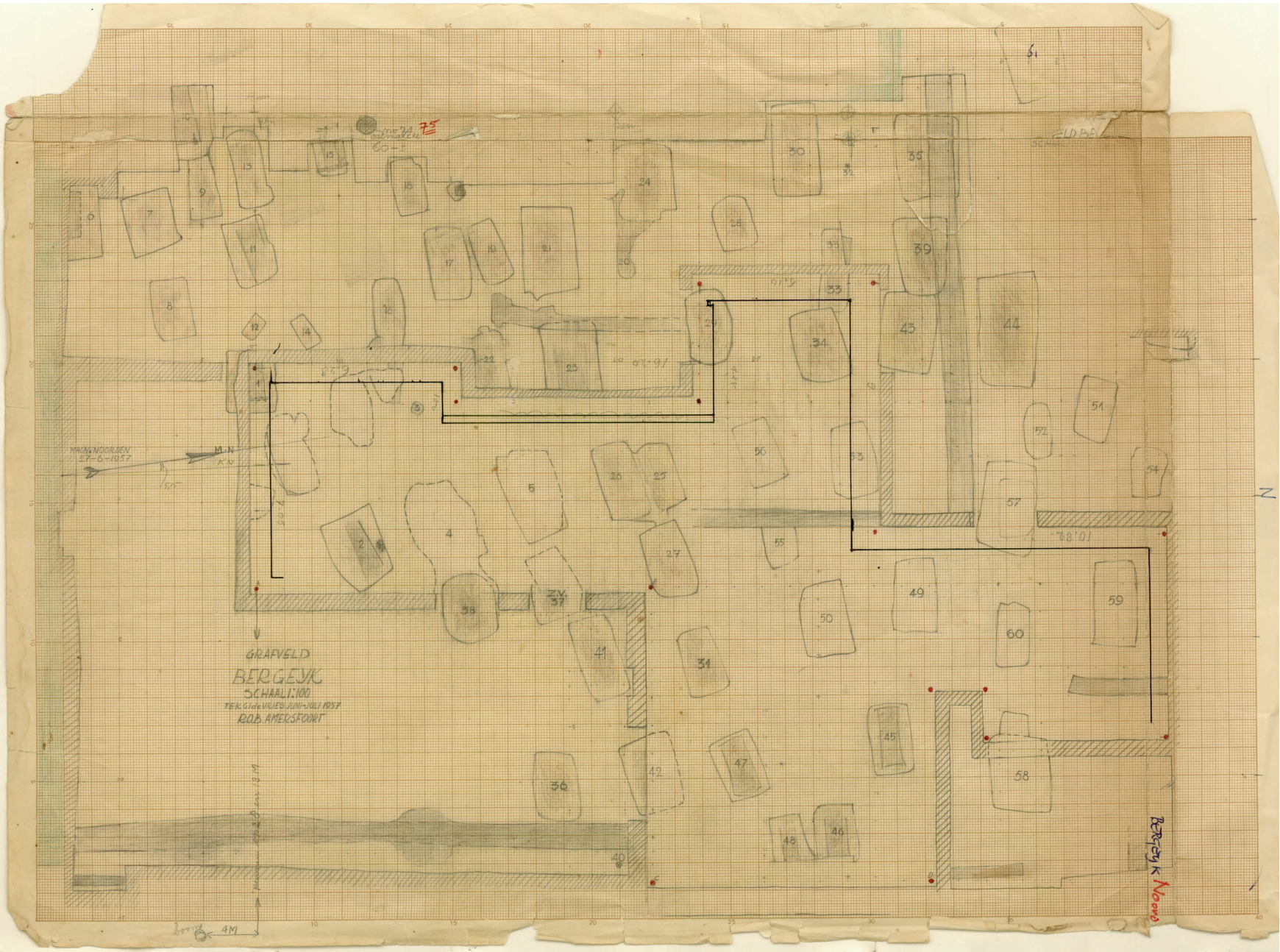


Fig. 2.7
Record card of grave 42 detailing how the grave's
discovery led to recognition of the site.

R.O.B. <i>BERGEYK</i>		GRAFVELD RHENEN 1957		Nr. 42
	A <i>hardewerd (knikpost + radstempel)</i>	VONDSTOMSTANDIGHEDEN		Coörd.
	B <i>hardewerd schaalte</i>	Diepte: <i>100-M, balies 85 cm dieper</i>		
	C <i>umbo (ouphoud leggers)</i>	Toestand van het graf: <i>Ongestoord, door Bompunt half doorgeorneden. Grafkuil 2,25 x 1,75 m. Kistgootte niet meer apart te stellen.</i>		
	D <i>Scherfjes ± 0,90</i>	Anthr. geg.: —		
	E <i>laaspunt 0,97</i>			
F	G	Bijzonderheden: <i>Door de in dit graf bij het maken van de bompunt ontdekte potten en umbo werd ontdekt, dat men te doen had met een merovingisch grafveld.</i>		
H	I			
J	K			
L	M			
Z.O.Z.				

is indicated on these drawings, which help to plot each grave on a map of the cemetery. Amongst other things, these drawings record traces of grave structures and the locations of finds and human remains. There are also drawings of sections for a small number of graves.¹² Sometimes, detailed drawings were made of the exact position of objects in the grave (fig. 2.5). In addition, the excavators drew plans of different sections of the cemetery in scales 1:50 and 1:100 while they were in the field (fig. 2.6). After the excavation, they produced site plans in scale 1:100, presenting the layout of the entire cemetery.

Record cards

The excavators also completed a pre-printed record card for each grave containing height measurements for different grave features and finds, a numbered list of find descriptions sometimes supplemented by sketches of individual finds, a sketch of the finds' locations in the graves, and an account of their observations on human remains and traces of the container and burial pit (fig. 2.7). Additional remarks (usually in red ink) were later added to the find list; for instance after an object was cleaned or photographed. Unfortunately, the height measurements taken in the field were related to the surface level, and not to a fixed point of reference.

At the start of the excavation, the excavators used cards print-

ed for the excavation of the large cemetery in Rhenen. Later they utilised cards without a pre-printed place name. This system of recording early medieval graves probably imitated practices abroad.¹³ Bernard and Hublard had already used a similar recording system during the excavation and evaluation of the huge cemetery in Cipy, Belgium at the end of the nineteenth century.¹⁴

Photographs and film

Forty-two black and white photographs were taken in the field. The prints have been glued in an album and provided with numbers corresponding to a numbered list of photograph descriptions. These photographs are helpful for understanding the excavator's methods. The trenches used to excavate the individual graves hardly seem larger than the graves themselves (fig. 2.8, left). Since the pots in these photographs are usually empty, it is likely that they were cleared and possibly also lifted and cleaned before the photographs were taken (fig. 2.8, right). They were certainly emptied before being taken from the grave to be stored. The 8 mm film made by the Van Daalen family shows the pots being emptied before they were lifted.

The film, for the most part, is devoted to the discovery of the finds in graves 30 and 53, respectively containing the rare glass beaker and an exceptional collection of pottery. What most strikes

(11) Most articles appeared in the free distribution advertising weekly 'De Eyckelbergh'. (12) See chapter 1. (13) However, this practice was not used for all subsequent cemetery excavations. (14) Faider-Feytmans 1970, 147 and fig. 12.

The aforementioned documentation consists of field drawings, drawings prepared following the excavation's conclusion, and pre-printed record cards completed in the field and later improved. There is a series of photographs taken in the field as well as a series of photographs of a selection of the finds. The Van Daalen family also filmed an exceptional 8 mm of the excavation.

In addition, local papers published articles,¹¹ and the Van Daalen family kept a dossier, now preserved in the Eicha Museum. The dossier contains the correspondence between various parties after the excavation, and is concerned with the ownership of the finds and the interpretation of the excavation data.

Ypey made several drawings of objects soon after the excavation and took a number of x-ray photographs. As mentioned above, the

Provincial Depot of Archaeological Finds in Noord-Brabant contracted Archeoplan to take x-ray photographs of a selection of the remaining artefacts. The ANASTASIS-project has commissioned Restaura to make additional photographs of some of these artefacts as well as others.

Drawings

The excavators usually made one detailed 1:20 drawing per grave on pre-printed A4 scale paper. These drawings comprised observations from different excavation levels. Some drawings are in colour, but many are black and white pencil drawings, with one additional colour used to indicate observations from a deeper excavation level (figs. 2.3 and 2.4). A portion of a measuring grid

Fig. 2.8

The photographs taken in the field show that the excavation pits were not much larger than the original grave pits (left) and that the pots were emptied (right). At the left is the excavation of grave 59; at the right are the pots in grave 53.



To lay the foundations of the house, the workers had dug a trench in the shape of the building. They were planning to fill it with concrete to create foundations for the house. After the cemetery was discovered, the excavators began their work by examining and documenting what remained of the graves lying in the foundation trench. They also examined a large number of graves located outside the trench. An earthen bank was left standing around the trench to allow the builders to pour in concrete after that part of the site had been excavated. Most of this bank could be removed when the concrete had set. The excavators consequently proceeded to examine the remains of a number of graves that had lain partially underneath the bank. As can be seen on the site plan and in the catalogue, the drawings from different stages of the excavation of the graves could not always be correctly fitted together.

The house's foundations were the measuring system's main points of reference. We fear that the degree to which our reconstructed site plan corresponds with the original topography of the cemetery decreases in proportion to the distance of the graves from the house. In the southern and western ends of the cemetery, the difference could be a metre or more.

Especially in the later stages of the excavation, the excavators did not always document the location and layout of their trenches on the field drawings. Some parts of the reconstructed site plan therefore lack trench outlines. The northern limits at the location of graves 44, 54 and 61 as indicated on the cemetery plan are taken from the post excavation drawings. We do not know how far the excavation trenches extended beyond graves 99, 116 and 125 to 129, although the excavators did draw a rough possible trench outline around graves 125-129. We refrained from indicating any trench boundaries of which the location was uncertain. It is therefore not always clear which areas within and around the cemetery were excavated and which were not. Boundaries of the excavation which do not appear on the original field drawings but on plans

the viewer is the rapidity of Ypey and the workmen's excavation. The upper layers of the grave especially were lowered speedily, but even the levels containing the finds were often excavated in big scoops, using either a shovel or trowel. As is also clear from the photographs taken in the field, the excavation levels often had a rather untidy appearance, especially while the diggers were at work. It is therefore reasonable to assume that small finds and details of the graves' construction occasionally slipped the excavators' notice. This inference is largely contradicted, however, by the quality and detail of the observations recorded in the field administration. Nevertheless, added care in the excavation method would undoubtedly have produced a more detailed and complete dataset.

Reconstructing the site plan

We have attempted to check the post excavation plan of the cemetery by reconstructing our own site plan from the field drawings (fig. 2.9). We plotted all drawings of individual graves on the site plan using the small sections of the measuring grid included on these drawings. This was not always an easy or unambiguous procedure; it was often unclear how the various measuring systems on individual grave drawings and partial site plans made in the field were related to the overall grid. Our reconstruction of the cemetery's topography, therefore, still relies heavily on the 1:100 site plans made after the excavation. We suspect some problems with the accuracy of these plans and the measuring system as a whole.

made after the excavation are indicated with a broken line. Since we do not know whether the excavators examined the area beyond the graves in the most northern and south-western corners of the documented area, it is difficult to ascertain whether they reached the cemetery's boundaries, or whether more graves remain in situ outside the examined terrain.

Wherever possible, the orientation of the graves on our reconstructed site plan is based on the detail drawings of the graves made in the field in conjunction with the reference points by which these drawings could be placed in the general measuring system. Frequently, the orientations reconstructed in this manner differed slightly from the orientations of the grave outlines rendered on the site plan. If the detail drawings were not provided with reference points, the orientation of the grave was copied from the site plan. The discrepancies between the site plan and the detail drawings may indicate inaccurate documentation of the graves' orientation. The field site plan from 1957 was provided with an arrow indicating the magnetic north on 27-6-1957. This arrow was copied onto another site plan made after the excavation and it is probably the most reliable indicator of the graves' orientation. We used this arrow to orient our reconstructed site plan and the individual grave drawings to the true north.¹⁵

A problem arose when we attempted to reconstruct the orientation of the graves excavated in 1959. The excavators had not indicated the precise orientation of these graves, compelling us to use the 1957 magnetic north as indicated on site plans featuring graves from both the '57 and '59 excavations. As a result, there is probably a slight deviation in the orientation of graves excavated in the second campaign.

The precise coordinates of the site in the Dutch national grid are another matter of attention. The state archaeological service provided us with coordinates of the site, but these only roughly approximate its actual location. Fortunately, the house built on the site fifty years ago still exists. The coordinates of the south west corner of the house are 153.063,59 x 371.105,67. It was thus possible to exactly locate the cemetery (fig. 2.10).

Terminology

All relevant archaeological features documented by the excavators will be designated as contexts. These can be deposits of human remains (graves) or other features, such as post holes, ditches and artefact deposits. A context is usually made up of a number of units. In the case of an inhumation grave, these may, for instance, include the fills of the grave pit and container, the trace of a wooden board, a skeleton, or a find.¹⁶ Several contexts make a structure such as

(15) In 1957, the declination of the magnetic north was $-4^{\circ}57'3''$ (Schreutelkamp 2001). (16) Interfaces, such as the outline of the grave pit, different from its fill, are usually defined but not described explicitly by us in the context of burial archaeology. In the analyses, the outline of the grave pit does, however, play an important role. (17) This terminology is not entirely correct since the burned bone from a cremation was also inhumed. Technically speaking, it would therefore be better to refer to these different types of deposits as inhumation graves containing burned and unburned remains.

Fig. 2.10

The location of the cemetery (red dot) indicated on the modern topographical map. Scale 1:25000.



a house plan, composed of postholes with their various fills, or a cemetery, composed of graves.

All certain deposits of human remains in the cemetery are inhumation graves, which contained unburned corpses. Several small pits in the cemetery contained burned bone, but since the bone either was not collected or disappeared, we could not determine whether they are cremation graves.¹⁷ Some of the excavated contexts are referred to as possible graves, since their remains closely resemble those of graves but it is uncertain whether they actually resulted from funerary proceedings.

We have combined the various field drawings of each grave and possible grave into so-called composite plans depicting all relevant features of a single grave. Cases where the information from two or more excavation levels significantly differs will be indicated on the composite plan and noted in the accompanying grave description. All finds are indicated irrespective of the height at which they were found. These heights are indicated in the finds sections of the catalogue.

3 Inhumations: burial pits and grave constructions

This object has gone missing, so it could not be examined. A number of graves also yielded cramps and mounts, some of which may have been part of a container. They could, however, also have belonged to a shield, wooden box or other wooden artefact. It is clear that in Bergeijk, nails and other types of metal coffin fittings were used sporadically, if at all.

Most grave pits seem to have held one wooden container. In context 23, however, the excavators documented two possible container outlines differing considerably in size. The larger of the two may represent a built-in container with the smaller being a coffin.

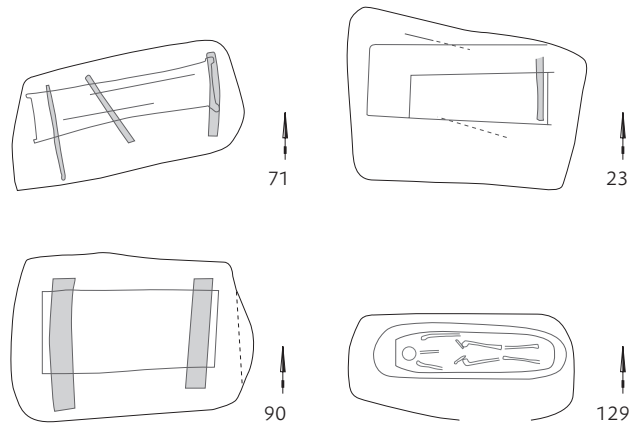
In a number of graves no traces of a container were found. In some cases, the container's outline may have been erased when the grave was reopened (35, 54, 62, 115, 131 and 132); damaged by ditch-digging later in the Middle Ages, construction work or the planting of trees on the site (123 and 124); or dug away by the construction workers in 1957 (4, 5, 20 and 55). Some contexts without containers may not have been graves at all (12 and 14). Only in grave 13 were there no indications that the traces of a container could have been destroyed. It seems, therefore, that most, if not all, of the dead were buried in a wooden container. In rare cases, the dead may have been laid in the bare soil or deposited in a container that would not leave traces, such as a shroud.

Construction

The authors of many cemetery publications differentiate between coffins and grave chambers, the latter being substantially larger than the former. It is often assumed that coffins were prefabricated chests used to transport the deceased's corpse to the cemetery that were then deposited in the grave with the body, while chambers were constructed on site by building a timber structure in the grave pit, in which the corpse was afterwards deposited.² The cemetery of Bergeijk yielded a number of containers that were much larger than average (see below), but since container sizes vary on a continuous gradual scale and do not show a subdivision into a 'small' and a 'large' category, we use the neutral term 'container' to describe them all. In addition, as we shall see below, it is unclear whether the variation in size reflects distinct construction methods.

Most containers in the cemetery of Bergeijk were constructed of wooden timbers. In some graves, the excavators documented traces of floorboards, planks from the caved in lid, and protruding timbers. In some cases ((21), (23), (24), (30), 34, 45, (58) 59, 63, 70, 71, 73, 79, 95, 116, (103), 112), the boards of the containers' sides extended beyond the head and foot end, and/or vice versa. The absence of coffin nails in the graves indicates that the containers were built using wood joints only. At times, only the sides protrude beyond the tops and bottoms (graves 21, 23, 34, 45, 59, 63, 70, 71,

Fig. 3.1
Grave constructions observed in Bergeijk. From left to right: small container with protruding boards (grave 71), large 'chamber' container, double container (grave 23), container supported by beams (grave 90), tree trunk coffin (grave 129).



95, 103). This may indicate that the two long planks were notched to form holes, into which pegs cut from the two short planks were inserted. In such cases, these pegs did not extend beyond the long wall.³ The container in grave 112 contains both protruding short and long walls. This probably indicates that pegs on the top and bottom extended beyond the sides with broad ends to keep the long boards in place.⁴

The graves' construction suggests that the large containers in Bergeijk may have been built in the grave by alternately laying down a layer of boards and then backfilling part of the grave pit. The timber construction thus received its solidity from the pressure of the surrounding soil. Protruding planks, however, were observed on both small and large coffins (compare for instance graves 79 and 95). If such features are indeed an indication of the way the container was constructed, it seems that containers of all sizes, not only large ones, could have been built in this manner.

If no traces of protruding boards were observed, this could be attributed to either the container's construction or formation processes erasing such traces. It is also possible that these features were not always recorded by the excavators; constant observation and recording of changing soil traces is required to notice these details. In any case, some of the larger containers in the cemetery may have been difficult to transport whole to the grave, and were therefore probably built in the grave pit, even though they yielded no traces of protruding boards.

The containers of graves 101, 125 and 129 in the southern, early eighth-century section of the cemetery were probably made from hollowed tree trunks. The excavators found traces of charcoal lining the interior of grave 129, suggesting it was hollowed out by burning or perhaps set on fire as part of the funeral proceedings.⁵

constructions, see Paulsen 1992; Stork 1997. (4) If that was the case, the lower boards of the short walls would not have been supported by wood joints. (5) See Effros (2002a, 88-89) for the use of fire during the funeral proceedings.

Most excavated contexts from the cemetery of Bergeijk were inhumation graves. Found on the site of the cemetery were 117 inhumation graves, eight possible inhumation graves, six pits with burned bone, two possible pot depositions, one horse shoe, and one pit.¹ We assume each grave held at least one buried corpse. This is not certain, however; most graves no longer contained recognizable human remains. The constructions of these graves varied considerably in form and size, and will therefore be discussed in detail.

Grave pits: construction

Most of the grave pits retaining sufficient traces to allow us to reconstruct their original shape possessed a rectangular outline with slightly rounded corners. The pits of graves 9 and 39 were broader on the east and west end respectively, making them somewhat trapezoidal with slightly rounded corners. Although the grave pits of 38, 52, 121 and 126 were basically rectangular, their corners were so rounded that their outlines approximated an oval shape. The pits of 127 and 128 were truly oval-shaped. The majority of these ovular graves (121, 126, 127 and 128) lay in the southern section of the cemetery, probably dating to the early eighth century and marking the cemetery's final phase.

The vertical aspect of the graves' construction is more difficult to reconstruct. The excavators made only two section drawings, featuring graves 35 and 58. Both drawings show pits with nearly vertical walls that slope sharply to the flat bottom of the grave. Grave 35 seems to have been cut by an exceptionally large reopening pit that dug through the area of the coffin and may also have

damaged the walls of the grave pit. It is therefore unclear whether the outline in the drawing represents the original profile of the grave pit. The grave pit of grave 58 was intact and therefore supplies reliable evidence concerning its original profile.

It is likely that most other graves in the cemetery had similarly straight walls. This hypothesis is confirmed by the additional grave pit outlines that the excavators occasionally added to their detail drawings of the graves. They did this to document cases in which the shape of the outline observed at a higher level did not correspond with those on a lower level. In cases where multiple outlines were drawn, these usually differed very slightly. When no additional outlines were drawn, we may assume that the grave pit shape did not differ significantly at lower levels, confirming that most, if not all graves, possessed relatively straight walls.

Apart from the slightly higher proportion of oval grave pits in the southern section of the cemetery dating from the early eighth century, the shapes of the grave pits showed no chronological differentiation. However, the section on grave dimension below demonstrates that the size of the grave pits did evolve over time.

Wooden containers: container presence

The presence of a wooden container in a grave is indicated by either a different fill colour for the container and pit, or by lines of dark soil indicating the former presence of wooden boards. No actual wood had been preserved in the sandy soil. There were no coffin nails among the finds that we were able to examine. In the field documentation, Ypey suggested that a nail-like artefact found at the bottom of grave 35 may have belonged to a coffin.

(1) Other features indicated on the field drawings are probably the fill of ditches from the Late Middle Ages and the Modern Period. (2) See for instance Koch 1996b, 730-1. According to Verwers (1987, 178) chamber graves have a grave pit of at least 1.6 m width, and a wooden container at least 0.8 m wide. (3) For examples of container

The other tree trunk containers did not reveal such traces; they were probably hollowed or at least finished using a chisel or similar tool. Interestingly, the graves in this part of the cemetery show relatively little evidence of wooden containers with protruding planks (graves 95 and 116 excluded). This may indicate that during that time, containers were more frequently brought to the grave site whole, possibly with the body of the deceased already in them. The same is probably true for the tree trunk coffins.

Container shape

Most wooden containers were rectangular (fig. 3.1). The container from grave 111 was wider on the eastern side, making it slightly trapezoidal. In such containers, the deceased was usually laid out with his or her head in the wide end. If this grave was oriented west-east (which seems likely, given the position of the grave goods and the orientation of other graves in the cemetery), the container in this grave was broader at the foot end, which is rather unusual.

The tree trunk containers also varied in shape. Those from graves 101 and 125 were trapezoidal and rectangular respectively, while the specimen from grave 129 was ovular. Apart from the tree trunk coffins, there is no observable chronological variation in the shape of the wooden containers in the cemetery.

Beams

In many graves, the excavators observed traces of beams placed beneath the wooden container. These timbers were usually about 10 cm in diameter and had been laid at right angles to the length of the container. They usually protruded several decimetres from beneath the container's sides. In some cases, such as graves 47, 66 and 73, it is difficult to differentiate between traces of beams and protruding boards on the container's head and foot end.

Most graves held two beams, one beneath each end of the container. In several graves only one beam was recorded. That may be due to taphonomic processes destroying traces of other beams. Grave 71 clearly held a third beam supporting the middle of the container. Graves 44 and 65 may have had four beams, two on each end of the container. The second set of beams may also represent traces of the containers' pronounced head- and footboards. In that case, the head- and footboards must have been dug in deeper than the side boards, since those were no longer visible at the level on which the beams were observed.⁶

The purpose of these beams is unclear. A popular explanation opines that they allowed easy recovery of the ropes with which a coffin was lowered into the grave. However, in most cases the beams were dug into the bottom of the grave pit to some extent; the coffin may still have reached the bottom of the pit. It is thus unclear whether this explanation is valid. The beams could also have been used as handles to hold the container during its trans-

port and lowering into the grave. In this case, the beams may have been attached to the container or formed part of a separate bier. Alternatively, they may have been laid on the bottom of the grave pit to serve as supports for the container that was later built on to them.

This latter scenario seems the most likely option for graves 18, 36, 86, 92, 93, 96, 99, 104, 105, 123 and 124, where the beams had apparently been dug into the grave pit or were at least so long that they touched its walls. This would have rendered them difficult to lower together with the container. This reconstruction corresponds well with other indications that containers were often built into the grave. It is nevertheless possible that prefabricated containers could also have been let down on beams previously placed at the bottom of the grave.

The beams occur with approximately equal density in all chronological phases and topographical areas of the cemetery. The eighth-century southern section seems to have relatively few, although they are by no means absent. As can be seen in fig 3.2, beams were found most often in graves with relatively large containers, suggesting that they may have been associated with their transport and/or construction. However, some of the smaller containers also stood on beams, meaning either the containers were constructed similarly or the use of beams was not necessarily related to the way the container was built. The latter hypothesis seems to be confirmed by the fact that some large containers were not supported by beams.

Grave size/depth

The size of the grave pits and containers in the cemetery of Bergeijk varied considerably. Figures 3.4 and 3.5 plot the maximum length and width of the grave pit and wooden container of every grave for which all these data were available. Container height was excluded from the analysis, since this was not usually recorded in the field. The excavators did record depth measurements for every grave. Figure 3.3 plots the measured depths against the calculated surface area (length x width) of the grave pits. Minor variations excepted, the chart shows a pattern similar to the one taking only the pits' lengths and widths into account. This phenomenon and a desire to facilitate comparison between the dimensions of the wooden containers and grave pits prompted us to exclude grave pit depth from any of the graphs below.

As can be seen in figures 3.4 and 3.5, the sizes of grave pits and containers corresponded fairly directly, so that graves with large pits generally also held large containers. In the following analyses, the dimensions of grave pits and containers shall therefore be shown in the same graph. Nevertheless, many grave pits were very large in comparison to the containers that they held (for instance

Fig. 3.2
Presence of beams plotted against container dimensions.

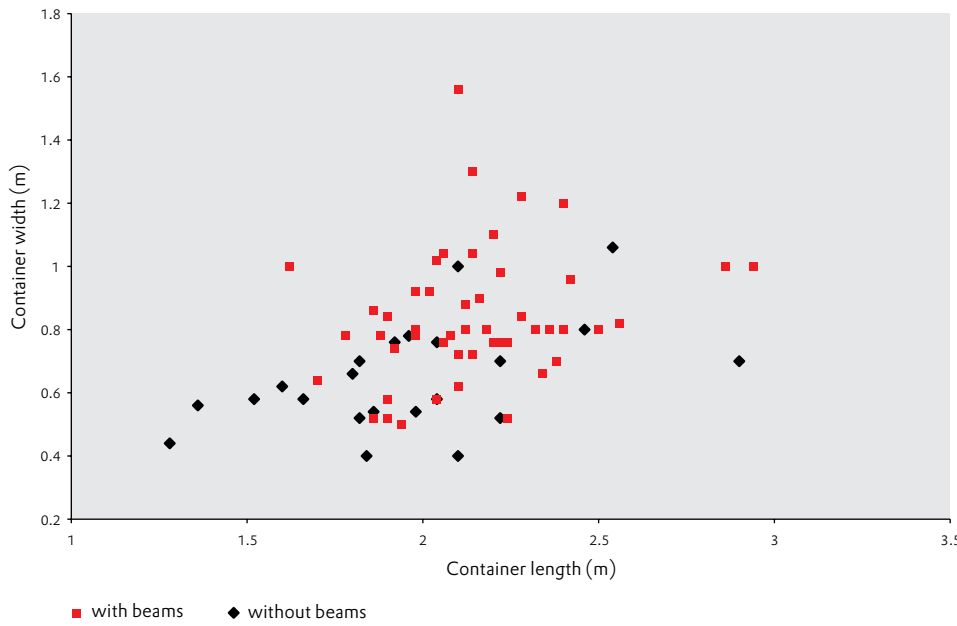


Fig. 3.3
The relation between grave pit surface and depth.

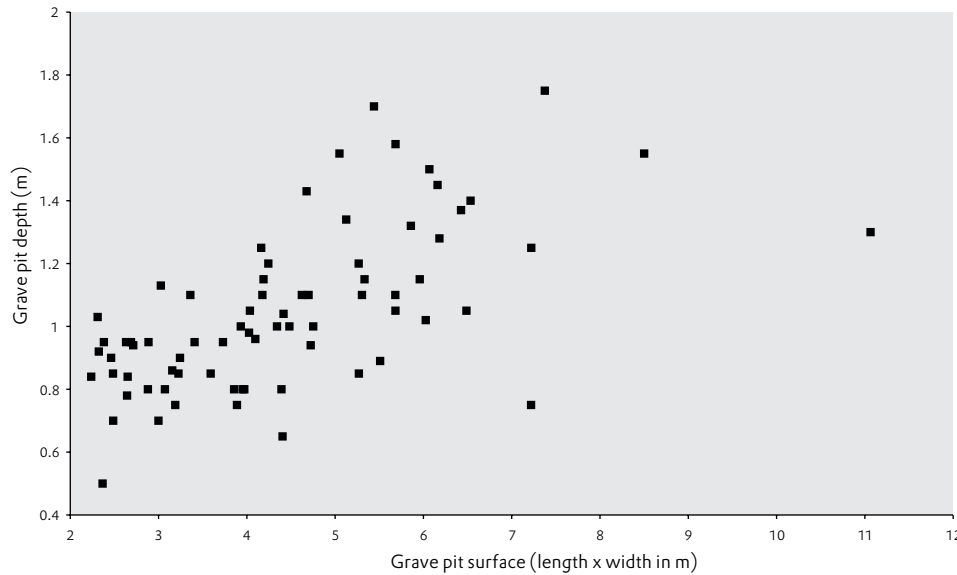
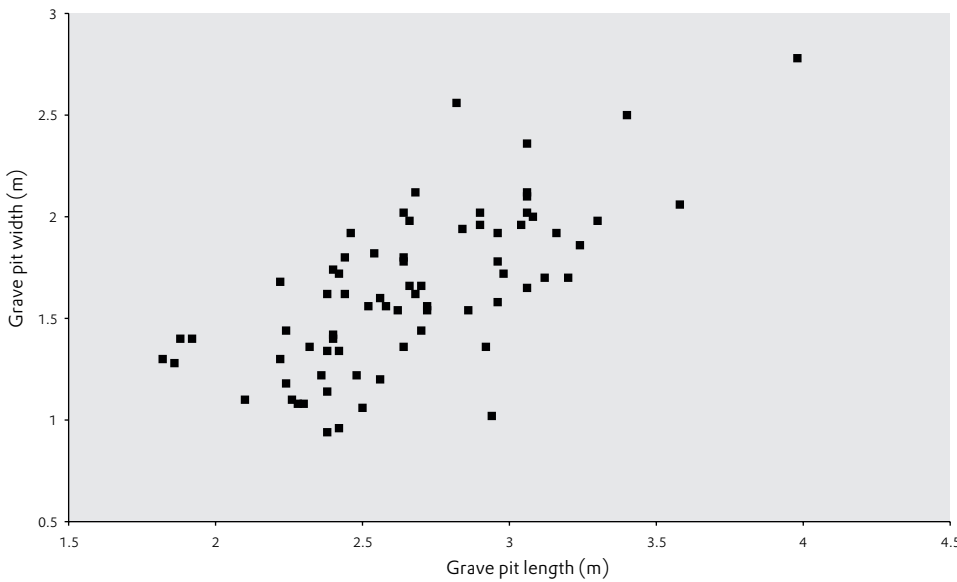


Fig. 3.4
The relation between grave pit length and width.



(6) Similar observations were made in Geldrop grave 16. There the short beams at the head and foot end are rather extra beams (Theuvs in prep.d).

Fig. 3.5
The relation between wooden container length and width.

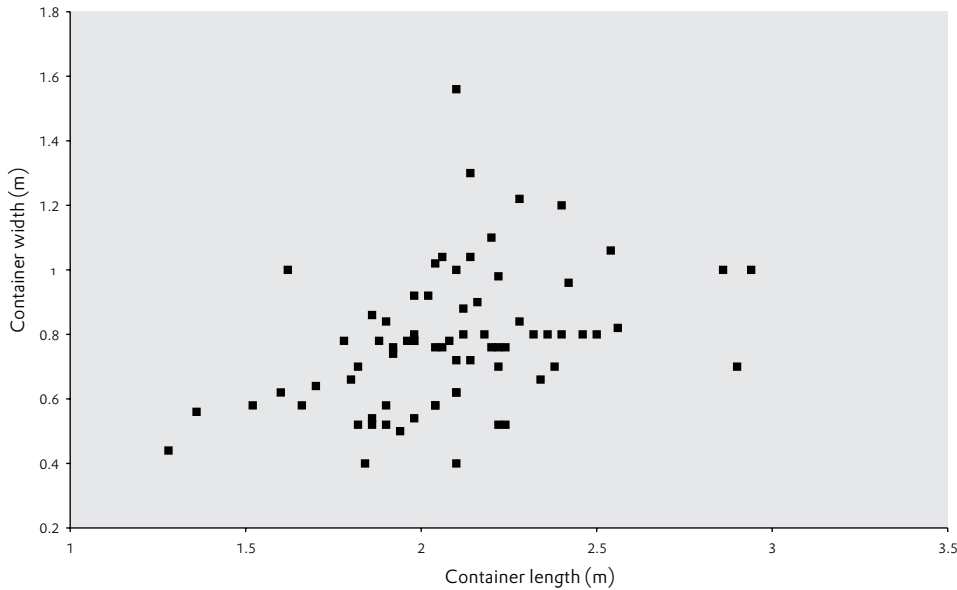


Fig. 3.6
The relation between grave dimensions and chronological phases.

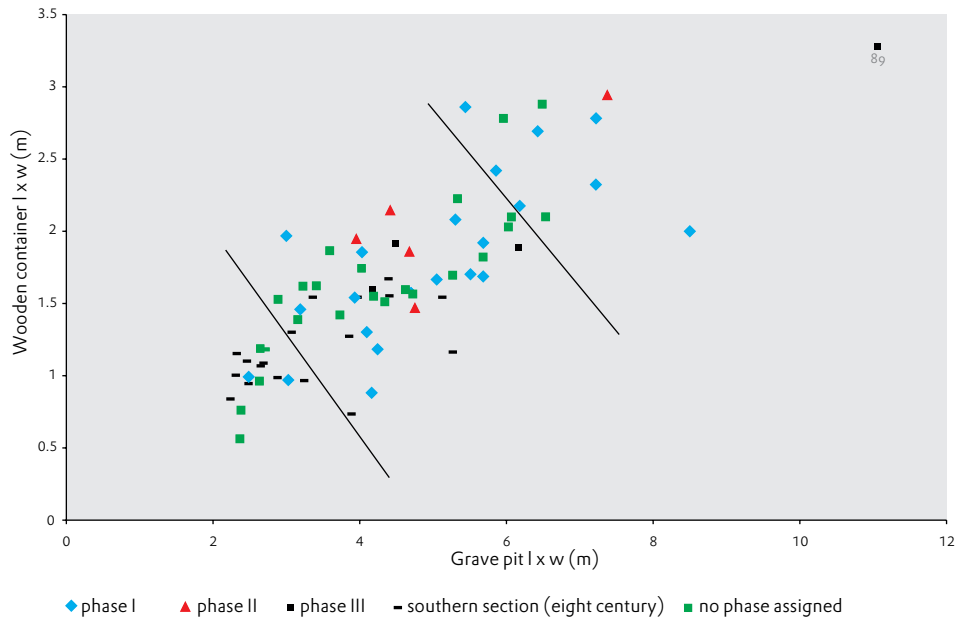
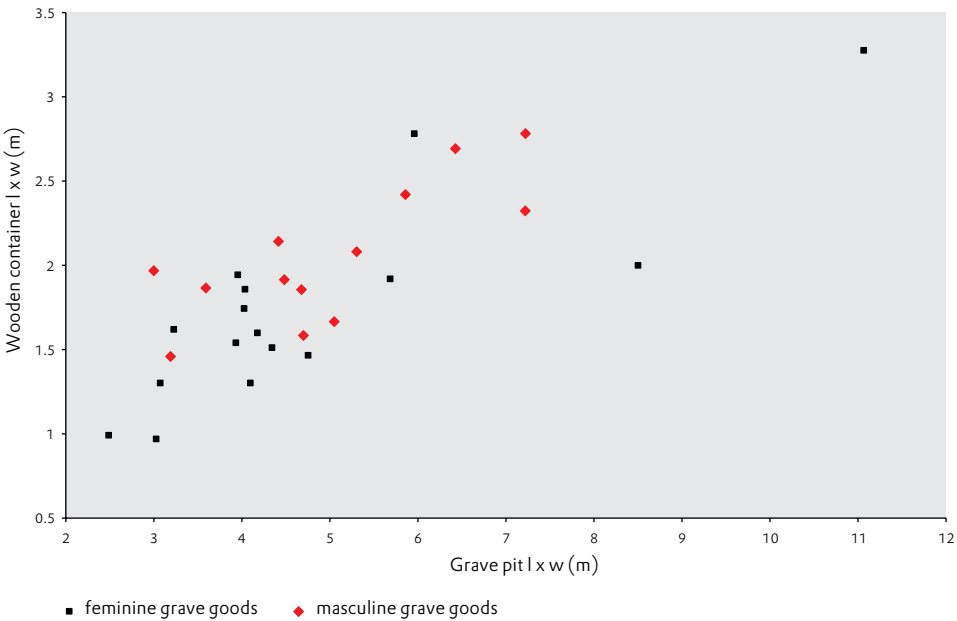


Fig. 3.7
Gendered grave goods plotted against grave pit and container dimensions.



grave 89),⁷ which suggests that the space in the grave pit served an additional purpose besides offering space for positioning or building the container. However, any activities performed in the grave pit must remain entirely hypothetical, since there are no finds to substantiate this suggestion.

The dimensions of the graves varied considerably between various topographical areas and chronological phases in the cemetery (fig. 3.6). As far as could be determined, almost all the graves with the larger grave pits and wooden containers (rightmost group in the graph) dated to phase I and lay in the central and northern part of the cemetery (graves 24, 30, 41, 43, 65, 70, 79, 82, 112). Interestingly, the two largest graves are also the marked exceptions to this rule. Grave 69 dates to phase II, and the exceptionally large grave 89 dates to phase III. This is especially interesting since some authors have noted that burial in large ‘chamber graves’ is most popular around 600 AD, and that they disappear in the seventh century.⁸ In Bergeijk, this is certainly not the case.

However, excluding graves 69 and 89, the dimensions of grave pits and wooden containers do seem to have decreased towards the end of the cemetery’s use period. The graves from phase II are of average dimensions and form a relatively tight group in the centre of the graph. The graves from the cemetery’s final phase, the early eighth-century southern section of the cemetery, were on average much smaller than those in other parts. They cluster at the lower left end of the graph (they held no or few datable finds).

Given the high percentage of reopened graves in Bergeijk, the grave good ensembles are not representative of original deposition practices. A reliable analysis of the relation between the variation in grave goods and grave size is therefore not possible.⁹ Moreover, both grave good deposition and grave size varied significantly between different phases of the cemetery, so the analysis would have to be conducted separately for each phase. The quality and size of the dataset would not support such analysis.

It is nonetheless interesting to note that the early eighth-century graves in the southern part of the cemetery, dating to the cemetery’s last phase when the grave good custom was in decline, are also some of the smallest found in the cemetery. Perhaps this change in the construction and furnishing of graves signals a general change in the perception of the funerary ritual.

Apart from chronological and topographical differences, the size of the graves may have been related to some extent to the age and gender of the deceased. A small number of graves held wooden containers that were so short they probably belonged to children.¹⁰ These are graves 8, 72, 76, 106 and possibly grave 23, which may have had a child-sized container placed into a larger contain-

er. Several more graves possessed containers too small for adult males; they probably held children, adolescents, or women (graves 7, 28, 94).

It should be noted that most of the dead in Bergeijk were buried in containers extending far beyond their body length. Grave 19 would have been large enough to hold a small woman, but its skeletal remains revealed that it contained the remains of a young child. Many containers were considerably longer than 2 metres, more than needed to accommodate a large adult male. We can conclude that generally there is no straightforward relation between the body length of the deceased and the length of the wooden container.

Figure 3.7 shows the distribution of presumably masculine and feminine grave goods in relation to the dimensions of grave pits and containers. Graves without grave goods or yielding grave goods with no clear gender association and graves containing both masculine and feminine gendered grave goods were excluded from the chart.¹¹

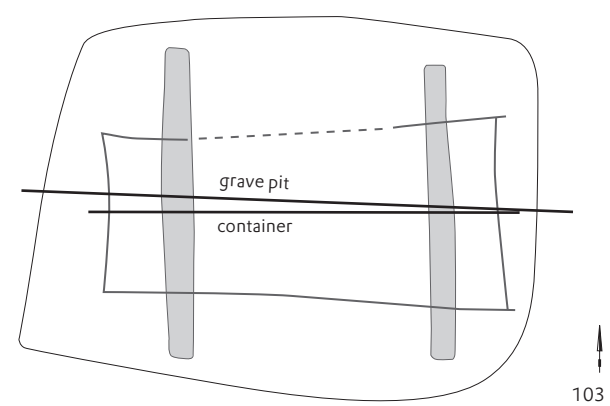
The larger graves more often held masculine gendered grave goods than feminine ones. Nonetheless, there were some significant exceptions, such as graves 88, 65 and especially 89, by far the largest sepulchre in the entire cemetery. It is probably best to state that on average men were likely to receive slightly larger graves than women, but women could occasionally be buried in extraordinarily large sepulchres as well.

Orientation

Wherever the graves from the Bergeijk cemetery graves retained skeletal remains and/or body silhouettes, the dead had been placed with their heads toward the west and their feet towards the east. If the three beads found in grave 103 indicate the location of the head, the body in this grave was oriented in the opposing, east-west direction. However, the beads may not have been worn around the neck, and could have been deposited in this location for numerous reasons. The grave may even have been disturbed. Context 12 is the only grave-like structure oriented northwest-southeast. The diminutive dimensions of this pit make it uncertain whether it was a grave. It may have been used to bury an animal or child, but as it contained no datable finds, it is uncertain whether it even dates to the Merovingian period. Since all inhumation graves for which the corpse’s orientation could be certainly established were oriented approximately west-east, we assume that most, if not all inhumations were oriented in this direction.

(7) These exceptionally large graves are not unique for Bergeijk, but are also found in other cemeteries in the region, such as Borsbeek, Hoogeloon-Broekeneind, Grobbendonk-Ouwen, Meerveldhoven, Velhoven-Oeienboschdijk, Dommelen and Geldrop in Noord-Brabant; Posterholt, Obbicht, Stein and Sittard in Limburg; and Engelmanshoven, Ophoven and Rosmeer in Belgian Flanders. A comparative analysis and socially oriented interpretation of these graves will be part of the PhD research of D. Smal on grave constructions (Smal in prep.). (8) Stork 1997, 421-422. (9) For examples of such analyses, see Theuvs 1982a. (10) Detailed information on the relation between age, gender and coffin size can be found in the chapter on physical anthropology, a contribution of R. Panhuysen. (11) For a discussion of the presumed gender associations of grave goods see the chapter on ritual aspects.

Fig. 3.8
The method of measuring grave orientations.



The micro-variation in the orientation of the grave pits and containers from the cemetery is difficult to study. As discussed in chapter 2, the exact orientation of the graves could not be established with certainty since the orientations often differed slightly between the site plan and detail drawings of the graves. Also, the excavators did not indicate the magnetic north on site plans of the second campaign in 1959. As a result, it is unclear to what extent the measured orientations reflect the actual placement of the graves. The measuring itself was also somewhat problematic since the traces of the graves were sometimes irregular shaped. The orientations were therefore measured from the centre of both the grave pit and container's short sides, as indicated in figure 3.8. The measurements are in degrees clockwise from true north (azimuth).

The orientation of the grave pit and container usually corresponded quite well (fig. 3.9). There were 96 graves where both the orientation of the grave pit and the container could be measured. In 70 cases, the measurements differed less than 3°. In 19 cases, the difference ranged between 4° and 6°. In grave 79, however, the difference was 10°, and in grave 19, it was an exceptional 14°.

There is a peak in the measured grave pit orientations between 81° and 92°, with a slight dip between 84° and 86° (fig. 3.10). The orientation of the containers showed a slightly broader, but continuous peak between 78° and 92° (fig. 3.11). This means that most graves were oriented east, often with a slight deviation towards the east-north-east. A smaller number of graves deviated towards the east-south-east.

We have tested the orientations of the graves in Bergeijk against variables such as location in the cemetery and gender association of the grave goods; this did not result in significant patterns. Various authors have argued that the graves in some Merovingian cemeteries may have been oriented towards sunrise. Since the

place on the horizon where the sun rises varies across the seasons, these orientations allow researchers to determine the approximate season in which burial took place.¹² The orientations of the graves in Bergeijk were all confined to the range between the points at which the sun rises during the summer and winter solstice (41° and 120° respectively),¹³ which means that it is indeed possible that their orientation was based on the sunrise.

If this is so, the orientations should allow us to estimate the season interment took place. In the cemetery of Sasbach-Behans for instance, the peak in the orientations of the graves was consistent with burial in late autumn or early spring. No burials were oriented to the sunrise in December or January. According to Fichter and Volker, this may have been due to the fact that the ground was usually frozen in this period, so the burial was deferred until the thaw set in (which would have been easy to do, since the corpse could also be kept frozen).¹⁴ In Bergeijk, burial towards the sunrise in late autumn or early spring would correlate with an orientation between 85° and 110°. A winter burial would have an orientation between 110° and 120°. As in Sasbach-Behans, none of the graves from Bergeijk fell into the winter-range. The peaks in the orientations of the grave pits and containers are consistent with burial in late September, early October or March. Especially in March, many people could have died from conditions associated with malnutrition when food supplies began growing thin. It is therefore plausible that the graves from Bergeijk were indeed oriented towards the point of sunrise.

Fig. 3.9
The orientation of grave pits plotted against the orientation of wooden containers.

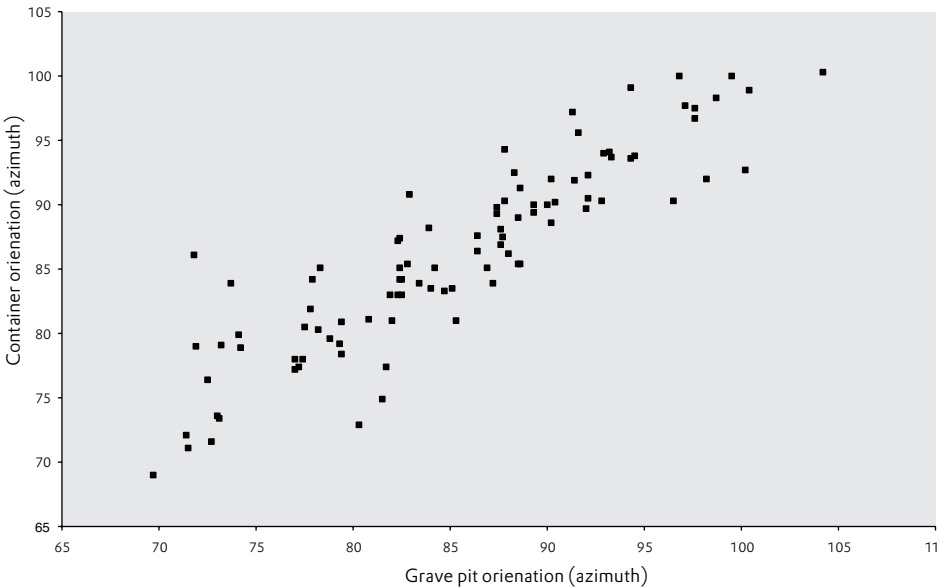


Fig. 3.10
The frequencies of grave pit orientations.

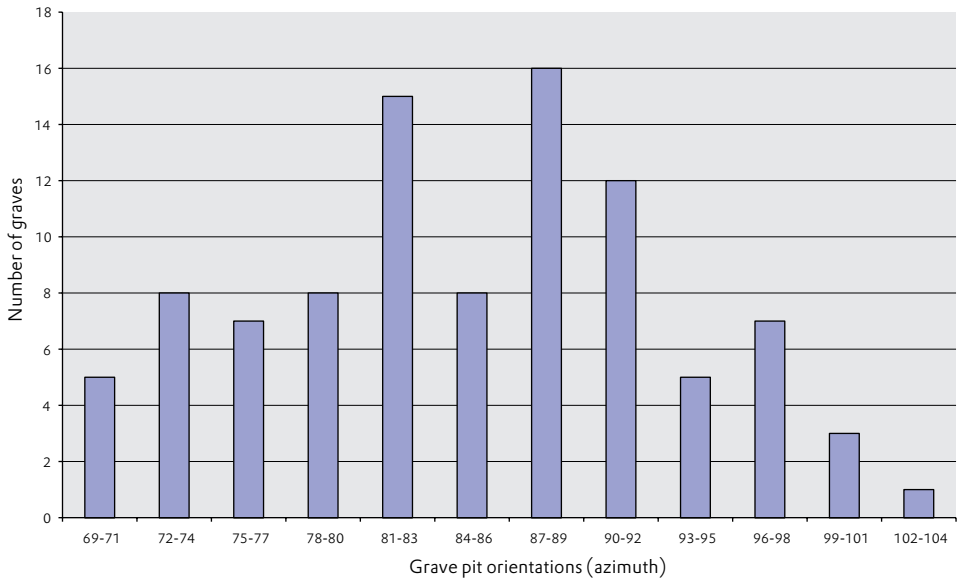
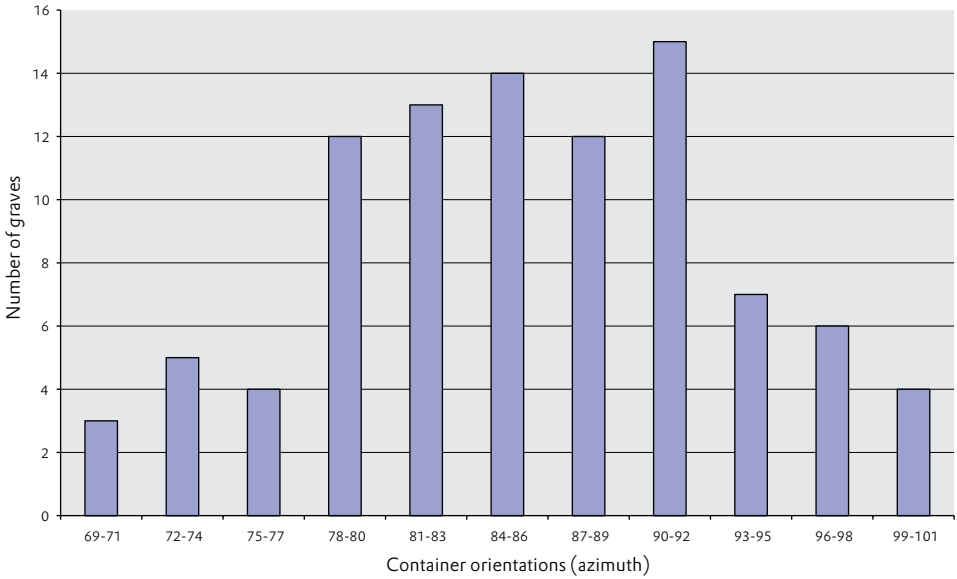


Fig. 3.11
The frequencies of wooden container orientations.



(12) For instance Fichter/Volk 1980. (13) The orientations were compared with the sunrise calculated for modern Eindhoven (near Bergeijk). The moment of sunrise was calculated using <http://www.dekoepel.nl/calculator.html>, after which the point of sunrise was calculated with <http://www.srrb.noaa.gov/highlights/sunrise/azel.html> (both consulted on 22-06-2010). (14) Fichter/Volk 1980, 53-55.

4 Inhumation Graves: Post-Depositional Interventions

Table 4.1
The distribution of intervention pits over the reopened graves.

Grave nr.	Gender	Head end	Head	Thorax	Pelvis	Legs	Foot end
112	Man	No	?	?	X	X	?
49	Man	No	?	X	X	?	No
79	Man	No	?	X	X	X	X
59	Man	No	X	X	X	X	No
114	Man	X	X	X	X	X	No
41	Man	?	?	X	X	X	X
24	Man?	X	X	X	X	X	?
44	Man	X	X	X	X	X	X
62	Man?	X	X	X	X	X	X
69	Man?	X	X	X	X	X	X
35	Man	X	X	X	X	X	X
86	Woman?	?	X	?	No	No	No
85	Woman	No	No	No	?	X	X
81	Woman	?	X	X	?	No	No
53	Woman	X	X	X	X	No	No
22	Woman	No	X	X	?	?	No
43	Woman	?	?	X	X	X	X
51	Woman	X	X	X	X	X	No
47	Woman	?	X	X	X	X	X
77	Woman?	X	X	X	X	X	?
108	Woman	X	X	X	X	X	X
80	Unknown	No	X	X	X	No	No
99	Unknown	No	?	X	X	?	No
91	Unknown	No	?	X	X	X	?
30	Unknown	No	X	X	X	X	No
82	Unknown	X	X	X	X	?	No
84	Unknown	?	?	X	X	X	?

the deceased; grey columns represent the container’s peripheral corners.

It appears graves could have been reopened in various ways. In most graves, the entire area around the dead body had certainly or possibly been reopened. The fact that traces of the grave pit and container in reopened graves were usually more or less intact indicates that reopenings were probably largely directed at the space inside the container. Intriguingly, the container’s peripheral areas were frequently left undisturbed, even when they contained grave goods (as in some of the cases that are described below). In five cases, the reopening pit was directed towards an even smaller area at the container’s head end (53, 80, 81 and 86) or foot end (85). It therefore seems that participants were primarily looking for objects buried on and in the immediate vicinity of the deceased. The only possible exception is grave 35, where the entire container and its content may have been dug out.

There are two predominant theories concerning the various methods used to reopen graves. One group of scholars argues that

the method chosen related to the container’s state of decomposition. They suppose, for instance, that when the container was still intact and the space inside still open, the diggers would either remove the lid or use a shaft to gain access to the space within. If the container had decomposed, the reopening pit would cover the entire grave and all traces of the container would be dug away.²

This theory has two principle challenges. First, the various methods are often difficult to recognise on the basis of their archaeological remains. If the reopening pit had, for instance, removed all traces of the container (as in grave 35), this could either mean that the container had decomposed and that all traces had been dug away (as traditionally assumed), or that the container was still intact and had been taken out as a whole. The grave may not have even held a container in the first place. Second, various methods, such as the shaft, were probably suitable for use on both decomposed and intact containers, thus the method used is not clearly related to the container’s state of decomposition. Furthermore, it is unclear whether the diggers consciously employed a repertoire

(2) This theory was first developed by Sági (1964) for the cemetery of Vörs. Over the years, a number of scholars have reaffirmed his ideas (primarily Roth 1978, 58-59). See Kümmel 2009 (135-165), Van Haperen (2010, 11-12) and Klevnäs (2011, 20-22) on the problems related to this line of reasoning.

Many of the graves in the Bergeijk cemetery had been reopened some time after burial. In cemeteries where skeletal remains are preserved, the distribution of the deceased’s bones is usually the most reliable indicator for post-depositional interventions. This type of evidence is almost absent in Bergeijk, although the occasionally observed body silhouettes may also be very informative. Especially if a grave contained few grave goods or had been disturbed in recent times, it was not always possible to determine whether it had been reopened in the medieval period. In addition, disturbances could also result from animal burrowing, ploughing and similar processes. Intercuts by later graves are a special type of post-depositional intervention discussed at the end of this chapter.

Reopened graves in Bergeijk were usually recognised only by the reopening cuts dug into the graves and the high degree of fragmentation and/or an atypical, chaotic distribution of artefacts. We have classified the graves from Bergeijk into four categories according to the likelihood that they were subjected to an intervention following burial:¹

Intact: Artefact distributions, traces of the grave’s construction and/or the deceased’s body silhouette show no indications that it was reopened.

Reopened: The excavators noted traces of a reopening pit, and/or the grave showed a marked atypical, chaotic artefact distribution and/or disarticulated position of the deceased’s body silhouette.

Possibly reopened: The excavators observed no traces of a definite reopening pit, yet the grave’s artefact distribution was vaguely chaotic and atypical. The above may have resulted from a reopening, but could also have been caused by ploughing or animal burrowing.

Unknown: It is impossible to determine whether the grave was subjected to an intervention or whether any observed disturbances resulted from an ancient or a recent intervention. This category includes many empty graves and sepulchres disturbed in recent times or partly dug away by the construction workers before they could be examined.

Reopening pits

The manner in which graves were reopened can most easily be reconstructed from the traces of the pits dug into them. These have been included on the composite drawings in the catalogue. Since such traces were observed in only a selection of reopened graves, the exact scope of the reopening pits was often difficult to determine. Moreover, if the space inside the wooden container was open at the time of the disturbance, the diggers may only have needed to make a small opening to access the grave’s contents. Atypically placed artefacts and damage to the traces of the container and grave pit nevertheless usually allowed us to estimate what parts of the grave had been opened.

To analyse which parts of the containers were most often accessed, the reopened graves were divided into six sections corresponding to the estimated positions of the deceased’s body: head end (beyond the head), head, thorax, pelvis, legs, and foot end (beyond the feet). In table 4.1 the various sections of each reopened grave have been labelled according to whether they had been accessed by a reopening pit: ‘X’ signifies a reopened grave, ‘No’, one that was intact, and ‘?’, one possibly reopened. The table’s yellow columns accentuate areas which probably held the body of

(1) We have taken great care to assign each grave to its proper category. Nevertheless, some ambiguous cases remain, and the reader should be aware that the figures produced in this chapter may therefore deviate slightly from reality.

Fig. 4.1
Reopened graves plotted against grave pit dimensions.

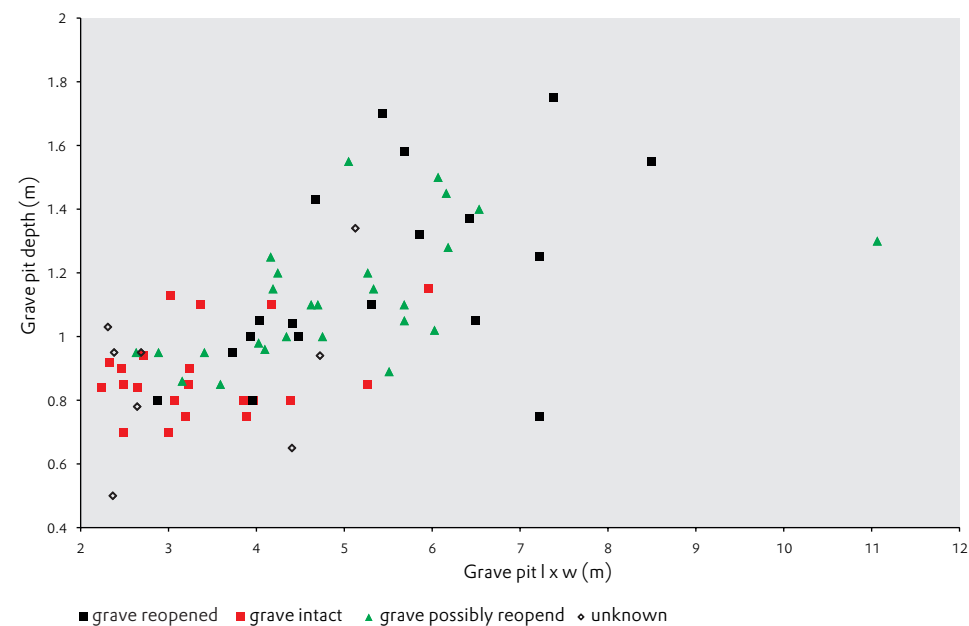
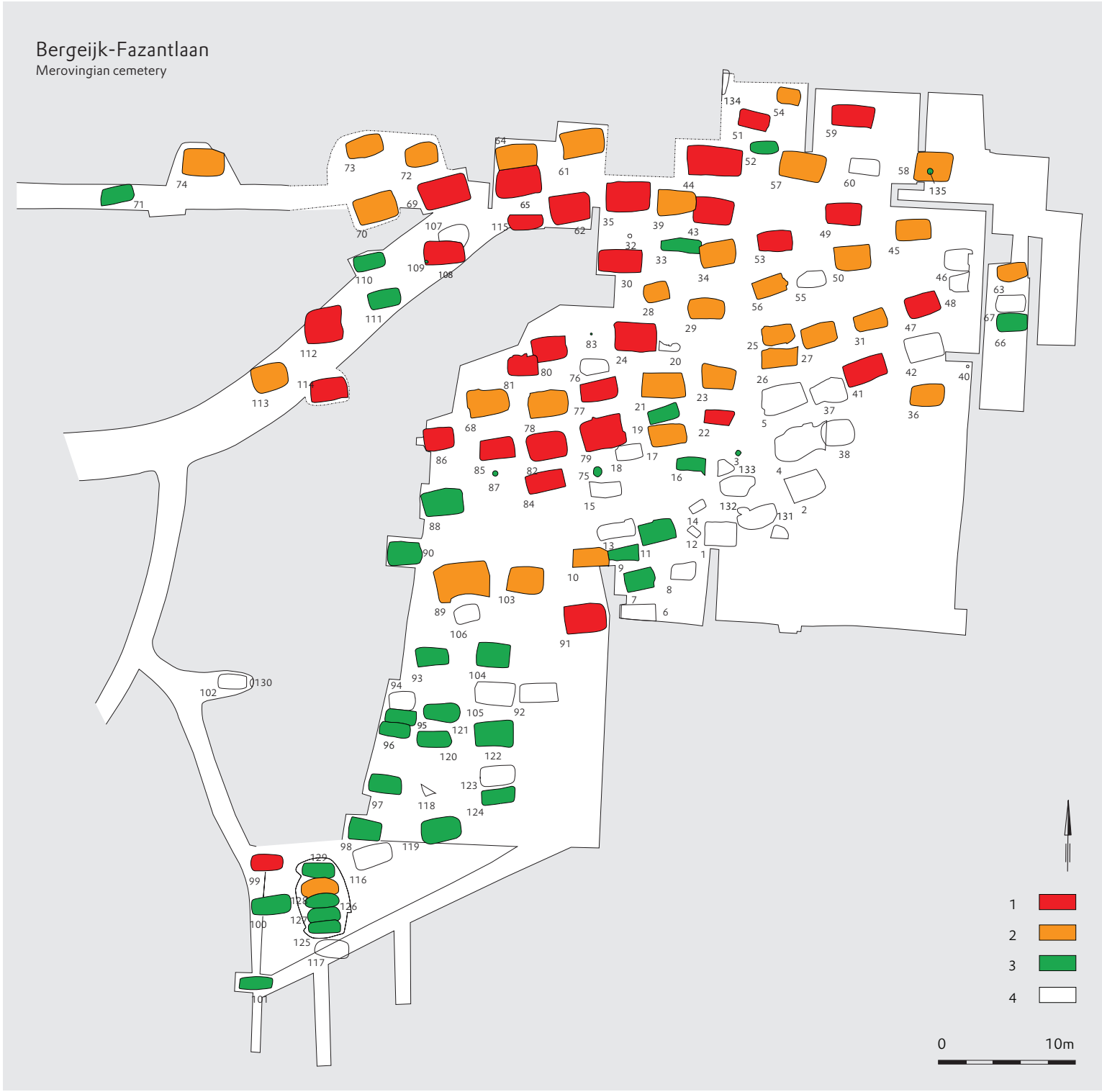


Fig. 4.2
The distribution of reopened graves over the cemetery.
1. Certainly reopened, 2. possibly reopened, 3. not reopened, 4. status unknown.



of distinct ‘methods’ suited to specific situations, or whether they simply dug pits which they expanded according to need. Cases such as grave 35 nevertheless suggest that the diggers may occasionally have deviated from their general practice of opening only the container area or a section thereof.

Other researchers have argued that the way graves were reopened related to diggers’ knowledge of the graves’ internal layout and the expected location of the grave goods that they wanted. This line of reasoning focuses mainly on the differences in artefact distribution in the graves of women and men. The finds in women’s graves, such as beads, fibulae and other jewellery, are supposed to have been concentrated around the head and thorax, while in men’s graves, most finds, such as decorated belts and weapons, were located in the area of the pelvis and legs.³ However, the matter is not straightforward, since women often also wore elaborate belt sets extending from the pelvis to the legs, while men frequently had weapons deposited near the head. Both sexes were provided with various types of artefacts in the peripheral parts of the grave.

In table 4.1, the reopened graves have been ordered according to the grave goods’ presumed gender association.⁴ The reopening pits of the probable men’s graves may have covered the entire container or, at least the area around the body. In four of the women’s graves however, only part of the area around the body had been opened. Three of these cases corresponded to the model described above, since it was indeed the head and thorax area that had been disturbed, but in grave 85 only the lower extremities had been affected. For Bergeijk at least, the empirical evidence in support of the relation between gender-specific grave good distribution and the placing of reopening pits are rather thin. It seems that reopen-

ings were usually directed towards the entire area around the deceased, but the diggers may have used various ‘methods’, including digging out the entire container, opening most of the container’s interior, or exposing a smaller section thereof.

The dimensions of reopened graves

Some scholars argue that the great depth of some graves could have served to guard them from being reopened, since the increased effort and time would have warded off diggers. In some cemeteries, deep graves were indeed occasionally left intact.⁵ The cemetery of Bergeijk showed a different picture: the deepest graves in the cemetery had all certainly or possibly been reopened, while most of the shallow sepulchres remained intact (fig. 4.1). It should be noted however, that this probably is primarily a chronological pattern, since the smallest, most shallow graves are largely from the southern eight-century section of the cemetery, which had almost no reopened graves (fig. 4.2).

Artefact removal

It has been noted in various cemeteries that artefacts were often left behind when a grave was reopened. Some authors have therefore argued that certain types of grave goods, such as beads, lances and objects endowed with Christian symbolism were tabooed and would therefore not be removed.⁶ Such taboos are difficult to study. Artefacts taken from the grave do not usually leave traces, so we cannot assess whether particular types of artefact were

(3) Stoll 1939, 8; Steuer 1998, 519; Stork 2001, 428; Effros 2006, 199 and Bofinger/Sikora 2008, 51. (4) The gendering of grave goods is discussed briefly in the chapter on ritual aspects. (5) See, for instance, the rich grave 1782 from the Krefeld Gellep cemetery, with a depth of 2.80 m (Pirling 1974, I, 200, II, 61–61). (6) Primarily Roth (1977, 189 and 1978, 67–71) and Koch (1974).

Table 4.2
The number of beads per bead-containing grave.

Grave category	Intact	Reopened	Possibly reopened
Total number of beads per grave in descending order	Grave 19 63 beads	Grave 85 28 beads	Grave 89 24 beads
	Grave 122 54 beads	Grave 54 24 beads	Grave 45 17 beads
	Grave 88 23 beads	Grave 47 17 beads	Grave 27 8 beads
	Grave 66 20 beads	Grave 82 8 beads	Grave 50 7 beads
	Grave 71 16 beads	Grave 22 4 beads	Grave 56 6 beads
	Grave 9 11 beads	Grave 43 4 beads	Grave 17 5 beads
	Grave 90 6 beads	Grave 108 3 beads	Grave 36 4 beads
	Grave 7 5 beads	Grave 81 2 beads	Grave 103 3 beads
	Grave 110 4 beads	Grave 86 2 beads	Grave 28 2 beads
		Grave 115 2 beads	Grave 74 2 beads
		Grave 30 1 bead	Grave 21 1 beads
		Grave 77 1 bead	Grave 23 1 bead
			Grave 29 1 bead
Average number of beads per grave			
Percentage of bead-containing graves per category	22,4 8,1% (n = 32)	8 42,8% (n = 28)	6,2 43, 3% (n = 30)

never taken. Moreover, we shall see below that there are a number of other technical and social reasons why particular artefact types could have been left behind more often than others. Any taboo, consequently, must remain hypothetical.

Beads are one of the grave good types regularly remaining in reopened graves that are sometimes supposed to have been tabooed. The cemetery of Bergeijk is no exception; many reopened graves contained a number of beads. The percentages of bead-containing graves per category (bottom row in table 4.2) show that beads were found at least as often in reopened as in intact sepulchres. This means that beads were certainly left behind when a grave was reopened.⁷ Superficially, this result seems to confirm the hypothetical bead taboo, but since Merovingian graves usually held many beads, substantial numbers could have been taken while others remained in the grave. An analysis confirms that this was indeed the case. A comparison of the average numbers of beads from bead-containing graves reveals that undisturbed sepulchres

contained almost three times more beads than reopened graves.⁸ We can conclude that when a grave was reopened, a substantial amount of beads were taken, while others were left behind. In cases where many beads remained (as in graves 85, 54, 47), this may have been done deliberately, but since beads are usually rather small, they may also simply have slipped the participants’ notice.

Lances are another category of grave goods sometimes supposed to have been tabooed. The cemetery of Bergeijk has yielded seven graves with lance heads or lance head fragments. Four of these had certainly been reopened (35, 59, 79, 82), one had possibly been reopened (56), one remained intact (33) and one had partly been dug away by construction workers (42) so its status could not be determined. In three graves, the lance heads seem to have remained untouched because they lay outside the scope of the reopening pit in a corner of the container or in the grave pit (although this is doubtful for grave 82). The reopened grave 59 contained only part of a lance head’s socket. It seems that the diggers took

(7) Many beads have gone missing and therefore had to be counted on the basis of the find records. Although the find administration was quite detailed and accurate, it was not always possible to determine the exact number of beads found in every grave. The numbers listed above may therefore vary slightly from the true amounts found. See the catalogue for details. (8) It is somewhat surprising to see that the average number of beads from the possibly reopened graves is even lower. This could be an indication that many of these graves really had been reopened, but is probably at least partially due to the fact that this category is prone to include many of the poorer graves holding fewer beads to begin with, since it is more difficult to determine whether a grave had been reopened if it contained few artefacts. (9) I shall return to the location and scope of the reopening pits below. (10) Neuffer-Müller/Ament 1973, 19; Grünewald 1988, 38 and Knaut 1993, 32, 37. (11) As is suggested by Ament (1976, 309-310) for pottery fragments from late Merovingian graves.

Table 4.3
The fragmentation of pottery and the removal of fragments from intact and reopened graves.

Pot nr.	Fragmentation	Fragments missing	Grave reopened
7g	No	No	No
19d	Yes	No	No
19c	Yes	No	No
33a	No	No	No
71a	No	No	No
111a	Yes	No	No
110a	No	No	No
22a	Yes	Yes	Yes
30k	Yes	No	Yes
30p	No	No	Yes
41-	Yes	Yes	Yes
44f	Yes	Yes	Yes
47a	Yes	No	Yes
49r	Yes	Yes	Yes
53j	No	No	Yes
53p	No	No	Yes
53q	No	No	Yes
53r	No	No	Yes
62-	Yes	Yes	Yes
65-	Yes	Yes	Yes
77b	No	No	Yes
77e	Yes	No	Yes
82c	No	No	Yes
84a	Yes	Yes	Yes
85a	Yes	Yes	Yes
112b	Yes	Yes	Yes
114b	No	No	Yes
23a	Yes	Yes	Possibly
31-	Yes	Yes	Possibly
34f	Yes	Yes	Possibly
36a	Yes	Yes	Possibly
39a	Yes	No	Possibly
58a	Unknown	Unknown	Possibly
64e	Unknown	Unknown	Possibly
72c	Yes	Yes	Possibly
73b	Yes	Yes	Possibly
78c	No	No	Possibly
113b	No	No	Possibly
18a	No	No	Unknown
20a	Yes	No	Unknown
32a	Yes	No	Unknown
42a	Yes	No	Unknown
42b	Yes	No	Unknown

the lance from the grave, broke it, removed the blade with part of the socket, and redeposited the remainder of the socket. Although the lance taboo cannot be dismissed, it seems more likely that lances often lay outside the reach of the reopening pit, which usually focussed on the area where the deceased lay.⁹ In at least one case where the diggers did encounter the lance, they broke and took most of the fragments.

Artefact fragmentation

The lance from grave 59 was only one of many damaged artefacts found in the cemetery of Bergeijk. Although the presence of fragmented objects in graves is usually taken as an indication of their reopening,¹⁰ grave goods could also have been damaged during the initial funeral.¹¹ Damage to a grave’s contents could also have resulted from other processes, such as the collapse of the wooden container, ploughing, animal burrowing, and accidents during excavation (which we only know of if the excavators had put it in the field notes). We have therefore chosen not to take artefact fragmentation into account when assessing whether a grave had been reopened. This allowed us to determine whether this practice is solely or primarily associated with reopened graves or whether it also occurs in intact sepulchres. This section only discusses the fragmentation of pottery and glass vessels, shield parts and belt fittings. Artefacts from other categories were not suitable for analysis because they had either largely gone missing after the excavation (such as knives) or were found in numbers too small (for example, seaxes).

In Bergeijk, fragmentation was most visibly manifested in pottery vessels, found in relatively great numbers. Their breakage patterns are easy to study because pottery is not subject to corrosion or decay. Table 4.3 shows the fragmentation and completeness of every pot or assemblage of fitting sherds that could be assigned to a grave. In addition to assemblages of sherds belonging to a pot, a number of graves also contained single sherds which could not be fitted to pots. The latter have been excluded from the present analysis because their provenance is too ambiguous. The processes by which sherds could have been introduced into a grave are discussed extensively below.

The table shows that broken pots occur in all categories of graves, including those that had not been reopened. Pottery fragmentation was therefore at least partly caused by processes unrelated to grave reopenings. This may mean that pots could have been broken during the funeral, but especially the lightly fragmented pots may also have been damaged by events unrelated to the funerary proceedings. However, the percentage of fragmented pots is higher in the reopened group (60%) than in the undisturbed group (43%), suggesting that some of the fragmentation was indeed associated with post-depositional interventions. This damage may have come about accidentally when diggers accessed the grave, but purposeful breaking cannot be excluded.

Most importantly, however, the analysis reveals a strong relation between grave reopenings and the completeness of pottery vessels. The broken pots from intact sepulchres were all complete, while 45% of the vessels from reopened graves were missing part of their sherds. It therefore seems that when a grave was reopened, the participants often took some fragments of the pots that had been broken before or during the reopening.

As is clear from the above, many ‘pots’ described in the catalogue were actually broken and now consist of fitted sherds. The possible provenance of such sherds requires some attention. If a grave contains many fragments of a single pot, it is usually assumed that the pot belonged to the grave goods and was broken during or after the funeral. However, some sherds from Bergeijk show that this is not necessarily the case.¹² The excavators’ find administration states that a number of sherds from grave 22 fitted to others found in the adjacent grave 23. Unfortunately, all the sherds in question have gone missing, prohibiting us from verifying this observation, but the graves probably contained fragments of a single pot. The same discussion may appertain to the neighbouring graves 62 and 65. The sherds from these graves are very much alike, but could not be fitted together. They may therefore either belong to the same pot or two nearly identical pots. Since graves 22, 62 and 65 were certainly reopened after burial and grave 23 may have been reopened as well, various scenarios can be conceived to account for the distribution pattern of the pot sherds in question.

- 1 The sherds were introduced into the graves during the funeral. This could mean that the graves were dug simultaneously or within a short time of one another and that the pot was broken during the funeral after which the sherds were put into both graves.
- 2a The sherds were introduced into the graves when they were reopened. This could mean that the graves were reopened around the same time. In this scenario the pot could have been taken from one of the graves and its fragments afterwards spread over both of them.
- 2b Alternatively, a ‘new’ pot could also have been broken at the time of the reopening and put into the graves when they were refilled. Here, the pot could date to a later period than one or both of the graves.
- 3a The pot was taken from one of the graves when it was reopened, broken and had some of its sherds left behind with others introduced into the other grave when it was first dug.
- 3b Conversely, a pot could also have been broken during the funeral, after which a portion of the sherds were put into a neighbouring grave that was being reopened around the same time. Here, the graves may differ in date so one of the graves could contain finds that do not date to the moment of burial.

As shown above, the fragmentation and especially the removal of fragments from the grave seems to have occurred primarily in reopened graves, so scenarios 2a, 2b and 3a are more likely to approximate the true course of events than 1 and 3b. In all these scenarios the sherds could have been introduced into the graves intentionally or accidentally. Since both pairs of graves in question lay in close proximity to one another, accidental dispersal of the sherds is certainly a possibility. The sherds may simply have been scattered in the soil used to refill the graves after the funeral or reopening.¹³

A number of reopened graves yielded broken glass vessels with fragments missing. Two sepulchres held only a single fragment (79 and 108); in two other cases, multiple fragments were found (62 and 108). It is plausible that the latter originally contained an entire broken vessel of which fragments were taken when the grave was reopened. There were two vessels in the possibly reopened grave 64. These were also fragmented and miss a number of fragments. Several of the reopened and possibly reopened graves have yielded unbroken vessels (30, 53, 78 and 113). None of the intact graves contained any glass vessels. It seems, as with the undamaged lances and pots discussed above, that the glasses were not always damaged or partially removed from these graves when they were reopened. This may once again be due to the location and scope of the reopening pits which, as we shall see below, frequently did not extend towards the foot end of the grave, where these vessels had usually been placed. The glass vessels in grave 64 stood left of the head, an exceptional location.

Many graves in Bergeijk also contained large iron rivets, sometimes plated with bronze foil, which lay scattered over part of the grave (24, 30, 34, 41, 42, 44, 49, 49, 59, 61, 62, 65 and 85). Although such rivets could have belonged to various types of artefacts, they were often part of wooden shields. This seems to be confirmed by the mineralised wood attached to many of the rivets’ pegs. Some of the graves in question also yielded relatively large flat fragments of iron, some with rivets attached. These may have belonged to shield bosses and grips. Since all the graves in question had certainly or possibly been reopened, it is likely that in a number of cases, the rivets and fragments are evidence that shield bosses and grips, or parts thereof, had been removed from the grave. The shield’s rivets were often left behind, but since the numbers of rivets found in some of these graves are rather low, they may have sometimes have been taken as well. If the graves were reopened before the wooden parts of the shield had decomposed, the shield could have been taken whole, rivets included.

It is difficult to ascertain whether decorated belts were also subjected to fragmentation and the removal of fragments. Since a belt’s plate number could vary considerably (see the section on belts in chapter 6), it is usually impossible to establish whether any (and if

so, how many) were taken when a grave was reopened. Especially in the case of iron belt fittings, individual plate damage is difficult to study since the planes of an ancient crack have usually corroded, making it impossible to fit fragments together. In addition, many metal artefacts from Bergeijk did not receive preservation treatment immediately after excavation and thus eroded further. The fact that a considerable number of the finds from the cemetery have disappeared after the excavation also hinders the analysis.

Nonetheless, we can be reasonably certain in a number of cases that some belt fittings were taken from the grave during a reopening. Reopened grave 82 yielded a large counter plate with silver-inlay in geometric style (h). Such plates were normally part of a set of multiple belt fittings including at least a decorated plate buckle and often a back plate as well. Neither were found in this grave. In reopened grave 69, the excavators found a rectangular back plate decorated with geometric silver inlay (l1). This was probably originally on a belt with a plate buckle and counter plate, which were no longer present in the grave upon its excavation. Since the fittings were originally attached to a belt, they probably were close together in the grave. Those reopening graves would have known that these fittings were part of a set and usually lay in close proximity to one another. When parts of these sets were left behind in reopened graves, this was likely due to a choice on the part of the participants.

Apart from the large decorated counter plate, grave 82 also contained two copper alloy pyramid-shaped sword belt fittings (d1 and j) which unfortunately have gone missing after the excavation. Grave 82 is one of the three reopened graves that yielded sword belt fittings. Grave 79 held a similar pyramid-shaped mount (f). In grave 44, the excavators found two rectangular sword-belt mounds with incised decoration (v1 and w1). It is not certain whether these fittings originally belonged to a complete sword belt (see chapter 6 for details), but it is nevertheless likely that they were originally associated with other fittings that were removed from the graves when they were reopened.

The presence of sword belt fittings in these graves suggests that they could originally have contained scabbards and swords. In this context it is interesting to note that the excavation find list of grave 69 mentions a sword point and a hand guard or grip. Unfortunately, these finds have gone missing, so their nature could not be verified. Since this grave was reopened it is possible a sword had been buried there and was later broken and partially removed from the grave. A similar scenario may apply to the iron fragment gg2 from reopened grave 24. This fragment, partially covered in mineralised leather fixed with small rivets, closely resembles the point of a sword or seax.

Damaged artefacts appear to be found more frequently in reopened graves than in intact ones. We must now wonder whether

such damage was accidental or intentional. Knaut argues that metal artefacts could have fractured accidentally due to brittleness resulting from corrosion in the grave.¹⁴ However, considerable force would still have been necessary to break these objects, making intentional damage a conceivable cause. Conversely, pottery and glass vessels may more easily have been damaged accidentally by the re-openers’ digging. The degree of fragmentation, however, occasionally seems rather severe, suggesting that artefacts may also have deliberately been broken so parts could be taken. In this context it is interesting to stress that the removal of fragments seems to have been associated exclusively with reopened graves. Whether the fragmentation was intentional or not, the fragments’ removal probably was.

The chronology of interventions

The date of the post-depositional interventions in Bergeijk must now be pursued. As shown above, the reopening pits were usually placed directly over the grave and dug with relatively great precision. Since there is no evidence for wood or stone markers, this precision indicates that the reopenings took place before possible perishable markers had disappeared and/or while memory of the graves’ location and layout remained fresh. Working from this premise, it is reasonable to assume that if particular phases of the cemetery show a high number of reopened burials, the interventions occurred more frequently during or just after these periods.

In a number of Merovingian cemeteries excavators noted that the earliest fifth- and early sixth-century graves had been left intact, while many of the graves from the later sixth and seventh centuries had been reopened. Graves from the cemeteries’ final late seventh- and early eighth-century phase often remained intact.¹⁵ A similar pattern can be observed in Bergeijk. As seen in figure 4.2, almost all reopened graves were found in the central and northern section of the cemetery and belong to phases I and II (late sixth and seventh century). Graves from phase III, especially those in the early eight-century southern section of the cemetery, had largely been left intact, graves 99 and 114 excepted.

These dates are no more than *termini post quem* for the moment the graves were reopened, since many years could have passed between the funeral and the intervention. Several authors have attempted to deduce this time span from the state of decomposition of various materials in the grave at the moment it was reopened.¹⁶ For many graves in Bergeijk, the excavators’ observations allow us to study the way the reopening affected the perishable materials in the grave. In several cases, the reopening pits seem to have dug through part of the container, possibly indicating that it had

(12) Similar distribution patterns have occasionally also been observed elsewhere (Werner 1953, 7; Christlein 1966, 17-18; Grünwald 1988, 35; Knaut 1993, 36 and communication by Maaik de Haas for the cemetery of Posterholt in the southern Netherlands). (13) In future cemetery excavations it is imperative that the location of each sherd be recorded accurately.

(14) Knaut 1993, 32. (15) Werner 1953, 7; Roth 1978, 61-5; Koch 1996, 736-7; Steuer 1998, 518; Theuvs 1999, 346-7 and Klevnäs 2011, 104-107. For significant exceptions to this general ‘rule’ see Knaut (1993, 34-6), Roth (1977, 290), Schneider (1983, 243-4) and Lorenz (1982, 738). (16) These materials include human remains (Neuffer-Müller/Ament 1973, 19), containers (Grünwald 1988, 36), and grave goods (Knaut 1993, 36).

decomposed before the grave was reopened. However, the diggers could also have dismantled part of an intact container’s walls to gain access to its interior.

Another method of dating interventions is studying the find distribution in the intervention pit’s fill. If all objects were found on approximately the same level near the bottom of the grave and were not mixed with the fill, this indicates that there had been an open space in which the diggers could search the grave’s contents, the wooden container not yet being filled with earth. This would place the intervention probably no longer than 35 years after burial.¹⁷ One must keep in mind that finds mixed with the pit’s fill need not mean that the container had decomposed, since the diggers could have jumbled the objects with the fill as well.

There are five cases where the finds lay in a layer near the bottom of reopened graves. Graves 79, 82 and 112 date in phase I, while graves 77 and 108 date in phase I or II. These graves demonstrate that grave reopenings were sometimes carried out while people still bore personal memories of the deceased and/or the funeral. We can also assume that the grave reopenings in Bergeijk probably began to take place at least sporadically from the middle of the seventh century. However, for the remainder of the graves it is not possible to narrow down the period that passed between burial and intervention to less than a few generations. In these cases reopening many decennia after burial cannot be excluded. However, as previously discussed, the intervention pits’ accurate location suggest that reopening took place while the cemetery was still in use. The social perspective on reopened graves presented in chapter 13, therefore, contains two interpretive scenarios, one for graves reopened shortly after burial, and one for sepulchres reopened near the end of the cemetery’s use period.

Intercuts

Grave intercutting is a distinct type of post-depositional intervention that does not seem to have a direct relation to reopening. Most graves in the cemetery of Bergeijk were dug so they did not cut other graves. There were, however, some cases where two or more graves did touch. Here, the new graves only slightly cut the grave pits of the older ones. The older graves’ wooden containers were never seriously damaged. In the groups of intercutting graves in the late seventh- and early eighth-century southern part of the cemetery, this practice is very pronounced.

Apparently, the gravediggers carefully avoided damaging the older graves’ structures. This pattern once again evinces that the locations of the graves were known though no traces of permanent grave markers (in the form of post holes or stones) were found. Since the cemetery did not lack for space, grave intercutting could

potentially have played a significant part in the mortuary practice as a means of physically interconnecting graves.

It is interesting to note that there seem to have been at least two ways the graves could be connected. All intercutting graves in the central and northern part of the cemetery were placed lengthwise to one another with the cuts primarily affecting the short walls and corners of the grave pits. The only exceptions to this pattern were graves 64 and 65, which cut into each others long sides and may have been dug simultaneously. The ‘groups’ formed by these intercuts were never larger than two graves. The cemetery’s southern section presented quite a different picture. Here was one cluster of five and one of three intercutting sepulchres. The grave pits cut each other’s long sides, so the graves formed compact north-south running rows. These rows will receive more detailed attention in chapter 11.

In the late seventh century we thus have at least three developing elements in the burial ritual. These also occur earlier but seem more commonplace in this period. They are: reopening, clustering, and cutting of graves. To this we can add the decreasing depth of graves. More elements are observed in other cemeteries, such as the reuse of old grave pits.¹⁸

In the cemeteries of Neresheim and Köisingen, Knaut noted a few cases where a grave and its reopening pit were cut by another grave, indicating that the former was reopened before or during the construction of the latter.¹⁹ This section therefore examines the possible relationships, similarities and dissimilarities of these cuts and actual reopenings.

Table 4.4
Intact and reopened intercut graves.

Cut grave	Cutting grave	Cut grave reopened
94	95	No
95	96	No
126	125	No
126	127	No
33	34	No
43	39	Yes
65?	64?	Yes
80	81	Yes
128	127	Possibly
128	129	Possibly
10?	9?	Possibly
58	135	Possibly
4	38	Unknown
20	24	Unknown

As can be seen in table 4.4, the majority of graves cut by another sepulchre had not been subjected to a reopening. In four cases only had cut graves been reopened, indicating no strong relation between reopenings and intercuts in this cemetery. Since the cuts were limited to the edges of the older graves, it was not possible to observe stratigraphic relations between the reopening pits and cutting graves, hence cuts cannot be used to date the interventions. The possibility cannot be excluded that in some of the cut reopened graves, these two types of interventions were indeed related and took place around the same time, but the fact that cuts and reopenings rarely occurred in the same grave and also focussed on entirely different sections of the grave suggests that to the participants, cuts and reopening were very different practices.

A third category of post-depositional interventions is the reuse of graves to bury additional people. Since the cemetery of Bergeijk yielded very little skeletal remains, it is usually impossible to determine whether the graves contained more than one body. The only grave we suspect was reused is 82, which contained separate clusters of grave goods usually associated with men and women respectively.

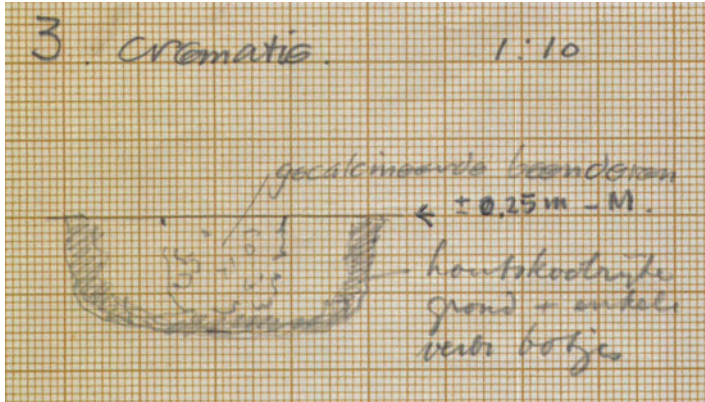
(17) This method of dating reopenings has been explored by Aspöck 2005, 251-252 and Klevnäs 2011, 100. (18) We will return to these aspects when analysing the graves of Geldrop and Dommelen, where all these elements occur. (19) Knaut 1993, 35-36.

5 Other possible Merovingian contexts in the cemetery

There were seven contexts that contained burned bone (3, 34, 75, 83, 97, 109 and 135). Four were small pits with burned bone (3, 75, 83, 87), and three were concentrations of burned bone in inhumation graves (34, grave 58 where the concentration of burned bone was defined as context 135, and grave 108 with concentration context 109). The bone was either not collected in the field or lost in the post-excavation moving and repacking. Therefore, it could not be examined to determine its nature. The field records and section drawings of these contexts indicate that the burned bone did not amount to the quantity normally expected from the cremation of an adult human body.¹ These may therefore have been children's graves or partial deposits of the cremated remains of adults. It is also possible that the bone in (some of) these pits was not human, but represented the remnants of a funeral meal and/or sacrifice.²

Contexts 3 (fig. 5.1), 75 (fig. 1.15), 83 and 87 consisted of relatively small and shallow round pits (depth min. 0.3 m and max. 0.6 m, width: min. 0.14 m and max. 0.74 m). The pits were placed independent of other graves and did not intercut other contexts. Since they did not contain any datable finds, we do not know whether they date to the Merovingian period. The pits all contained small amounts of burned bone. In context 3, the excavators observed that the centre of the pit was filled with a compact cluster of bone, charcoal and sand. The edges of the pit were covered by a layer of charcoal-rich soil which also contained some fragments of burned bone. The central cluster and the charcoal-rich edges of the pit were separated by a layer of sand containing only a little charcoal and no bone, suggesting that the pit was filled in stages. Perhaps fire was first lit in the pit to burn the bone, which would explain

Fig. 5.1
The section through the pit with burned bone context 3.
Scale 1:10.

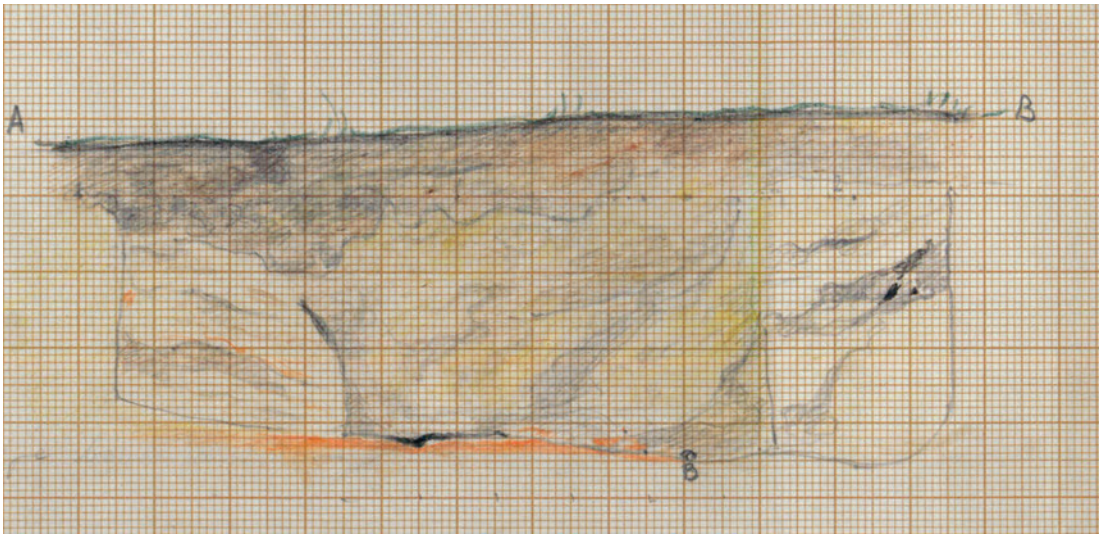


the presence of bone fragments in the outer layer. The remains of the fire were then put out by covering it with sand, after which the burned bone was re-deposited in the pit.

Contexts 109 and 135 were small concentrations of burned bone found inside the grave pit and container of inhumation graves 108 and 58 respectively. The stratigraphic relations between the graves and the clusters of bone are not entirely clear, but it appears that the bone had been put into the graves either while they were still open, or deposited in pits dug into the graves after they had been closed.

Context 109 was found in the grave pit of grave 108 at a height of 0.3 to 0.6 cm below surface level. Since grave 108 was 1.35 m deep, indicating that the bone was either deposited in the grave

Fig. 5.2
The section through grave context 58. On the bottom of the grave pit, orange and black layers indicated that a fire had been lit before the container was placed. Scale 1:20.



while it was being filled or put into a pit dug into the grave afterwards. Since this grave had been reopened, the burned bone could have been deposited here during the reopening.

The bone fragments from context 135 had been partially scattered throughout grave 58. The excavators interpreted this as evidence that context 135 was an older cremation that had later been cut by the inhumation grave. It seems more likely, however, that context 135 is contemporary with or later than 58, since the largest cluster of burned bone was found 5 cm above the bottom of the grave. The diggers of grave 58 would have had to dig around the protrusion of burned bone in the middle of their pit. In addition, context 135 would have had an exceptionally large depth for an isolated cremation grave (almost 1 m below the surface level),³ which makes it unlikely that the burned bone was buried here before grave 58 was dug. A section of this grave was drawn immedi-

ately to the west of the concentration of burned bone (fig. 5.2). In the area where the bone was found, the drawing shows a thin orange/red layer, which may represent burned sand on the bottom of the grave pit below the container. On top of this is a smaller black layer. These traces may represent the remains of a fire that was lit on the bottom of the pit as part of the burial ritual. The grave's wooden container seems to have been placed on top of the burned bone and the other remains of the fire. More bone was strewn into the fill of the pit, or scattered later when the grave was reopened. Similar processes may have taken place in grave 34. Here, burned bone had been scattered throughout the entire grave, although its density was highest on the southern side. No height measurements or exact locations were recorded for these bone remains, so their provenance and exact relation to the grave cannot be determined.

(1) Cremation remains from adults in Florida (United States) were shown to have an average weight of 2.4 kg (Warren/Maples, 1997) (2) See Effros 2002b, 80. (3) The depth of early medieval isolated cremation graves in the region is as follows: Hoogeloon-Broekeneind (Glasbergen 1955) grave I: 0.55 m, grave XIV: 0.45 m. It is not stated whether this depth was measured from the original surface or from the excavation level. It can be reasoned, however, that the depths of the inhumation graves were measured from the excavation level, which was situated c. 30/40 cm below the surface of the terrain. If we accept that the depth of the cremation graves was also

measured from the excavation level, we must conclude that the cremation graves were at least c. 75 to 85 cm deep. Meerveldhoven (Verwers 1978, 266): 4 to 19 cm below the excavation level. If c. 40 cm is added to compensate for the height of the original surface, one arrives at a depth of c. 45 to 60 cm for the cremation graves. Veldhoven-Oeienboschdijk (Verwers 1973, 329): 33 cm from the excavation level, which means that the grave originally was c. 60 cm deep.

6 Grave finds

Coins

Fig. 6.1
The triens (above) and sceatta (below) from graves 89 and 124 respectively. Scale 2:1.



Coin: *tremissis of the DORESTAT/MADELINUS type, 'gold'*
Grave 89.e

A tremissis of the DORESTAT/MADELINUS type was found in grave 89 (fig. 6.1).¹ The corrupted inscription of the obverse reads: ΛΟΜΞ~ΤΙΤΙΤ. In the centre is a head facing right on a collar of dots. The reverse reads backwards: ΠΑΛΕΛΙΑΣΗ. Between the letters 'L' and 'Π' are two dots. In the centre is a cross on an oblong foot over two rows of three dots.

Usually, DORESTAT/MADELINUS tremisses are dated to the period after c. 630/640, when Madelinus is supposed to have begun minting in Dorestat, following his leaving Maastricht.² The Bergeijk coin is probably a late example in the series of DORESTAT/MADELINUS tremisses and will date from the later seventh century rather than from the middle of this century.

Coin: *sceatta porcupine type, silver*
Grave 124.c*

On the record card of grave 124, find c was specified as a small copper alloy ring. Later this was changed to *'muntje'* (little coin), with the indication 'copper alloy' kept. No further information is available in the excavation's documentation. However, in the national database of coin finds (Numis), a sceatta grave find from Bergeijk in 1959 is mentioned with an indication that it is of the BMC type 4-5.³ A paper rubbing of the coin is kept in the archives of the Geldmuseum in Utrecht, of which a photograph is here presented (fig. 6.1).⁴ These are sceattas of the so-called porcupine type.⁵ Porcupine type sceattas are divided into several groups, many of which are difficult to date. Some early types are defined, but the Bergeijk specimen is not one of them. The porcupine sceattas are usually dated to the first half of the eighth century, or between 710-750.⁶

Belt and strap fittings

Fig. 6.2
Fragments of a belt set with round plates from grave 33. Scale 1:2.



In this section we discuss various metal fittings, most of which will have belonged to waist belts. It is possible that metal fittings of other types of objects, such as shoes, leg wear, and purses, are among the finds discussed here. The post-depositional interventions displaced the objects in many graves, making it difficult to determine their function because their original position is not known. Moreover, many fittings are fragmented or heavily corroded, and their original appearance can no longer be reconstructed.

Simple buckles with an oval loop, iron
Graves 7.b*; 24.cc1; 27.a*; 39.d1; 51.f*; 57.3; 66.z*; 74.c*; 74.d2*; 82.g*; 95.b*; 99.a*; 100.a*; 104.b*; 104.c*; 106.b*; 110.i*; 113.d*; 115.a*; 124.a*; 124.b*; 125.a*; 128.a*

Most of the simple iron buckles are either lost or in a poor condition. The lost buckles' shape cannot be determined, but as most of the simple buckles' loops were oval, they are listed here. The field drawings sometimes seem to indicate that the buckles did indeed have oval loops. It cannot be excluded that some had a rectangular loop. Those preserved are heavily corroded, but their shape can still be determined and all tongues were preserved. Most of these buckles were found at the height of the waist (clear examples are those in graves 125 and 128) or the expected height of the waist (graves 7, 39, 51 (disturbed), 66, 74, 82, 95, 99 (disturbed), 100, 104, 106, 110, 113, 115 (?), 124, 125, 128). In some of these graves a second simple buckle was present, usually somewhat smaller (graves 74, 104, 124). The second buckle may have been attached to a purse or other object hanging down from the waist belt.

In grave 24, buckle cc1 was located near the northern wall of the container, an unusual location. The grave had been reopened after the burial, signifying that this was probably not the object's original position. In grave 27, the buckle was near the presumed location of the shoulder, and in grave 57, near that of the legs. Grave 82 is probably a double grave. The northern burial, to which the buckle belongs, may have been that of a woman or a girl since some beads were found associated with the buckle. Most of the buckles described here were probably part of a waist belt. The belt widths, measured as the interior length of the buckle loop, vary from 1.8 to 4.9 cm. The buckles of wide belts (> 2.5 cm) are considered to be younger specimens and date from the seventh century.⁷ In general, it is difficult to date unadorned buckles, but waist belts show a tendency to become particularly simple in the later Merovingian period, where they possess an unadorned buckle and no other fittings. Graves 125 and 128 seem to illustrate this tendency very well. Most simple buckles from the Bergeijk cemetery will date to the seventh century.

Plate buckles: iron, round plate, undecorated
Grave 33.h1, probably associated with 33.b1, 33.e1, 33.e2 and 33.i4

Grave 33 contained the only belt with round iron plates in the cemetery (fig. 6.2). They are in a fragmented and heavily corroded condition. On fragment h1, one copper alloy rivet is preserved, as well as the remains of a second one. Mineralised remains of the leather belt are present on its back. If the skeleton was oriented west-east, plate h1 was located in the vicinity of the belly or hip. It cannot be determined whether fragment h1 belongs to a plate buckle or a counter plate. It is also unclear whether the plate was part of a bi-partite or tripartite belt set. Its width is between 6 and 6.5 cm.

In the same grave, a large oval iron buckle with shield tongue (33.b1) that may have formed a plate buckle together with this plate was found. Two other iron fragments with leather remains attached to the back (33.e1) may also have been associated with the plate or the same belt set. One shows the remains of a rivet and one has a curved outline. Finally, remains of three large copper alloy rivets are present (two in find number e2 and one in i4).

In some typologies, it is considered important whether such plates are part of single, bi- or tripartite belt sets, but often this cannot be determined due to later interventions in the grave or, as in this case, corrosion.⁸ Usually the single, undecorated smaller specimens are considered oldest.⁹ However, the Franken AG could not identify a chronological difference between belts with single small plates and those with tripartite large plates in their research

(1) NUMIS (Dutch national database of coins, Geldmuseum Utrecht) catalogue number: 1004583. Number in catalogue A. Pol: 418. (2) Pol 2001; Pol/Van der Veen 2008, 317; Pol 2010. Doubts as to this interpretation can be raised: Theuws 2003, 22-24. (3) The numismatists of the former Rijksmuseum het Koninklijk Munt- en Penningkabinet (now Geldmuseum Utrecht) identified the coin. Numis: catalogue number 1004584. (4) With the paper rubbing, Utrecht's Geldmuseum keeps two letters on this coin, the first from J. Ypey to W.J. de Boone on 14 May 1983, and the second from W. Op den Velde to W.J.H. Verwers on 14 February 1987. Jan van Pelsdonk and Arent Pol of the Geldmuseum in Utrecht kindly provided this information. (5) Grierson/Blackburn 1986, 153-154. (6) See for instance: Pol 1999; Pol/Van der Veen 2008, 312-313. (7) Siegmund 1998, 21. (8) Kars 2011, 246-247. (9) Koch 1977, 125-126; Siegmund 1998, 31; Legoux 2005, 150.

area.¹⁰ Plate buckles with round plates are considered among the earliest iron plate buckles, especially the undecorated ones. They are Siegmund's type Gür4.1 and Gür4.2, which he assigns to Rhineland phase 7 (585-610).¹¹ He discusses the inconsistencies regarding the chronological position of this belt type,¹² which mainly arise from the fact that Ament does not identify an intermediate chronological phase between his *Ältere Merowingerzeit* and *Jüngere Merowingerzeit*. In most chronological systems, this phase was created exactly because this is the period when the iron plate buckles become popular. Usually this phase is dated in the two decennia before and after 600 AD.

Legoux, Périn and Vallet identify this type of belt as nr 148.¹³ It is mainly assigned to their phase MA3 (560/570-600/610), but incidentally occurs in phase MR1 (600/610-630/640) as well. This type of belt is distributed over a large area in north-western Europe. In the cemetery of La Grande Oye in Doubs (France, *département* Doubs), this type of belt is assigned to phase HA, dated from 580 to around 610.¹⁴ In the cemetery of Cutry (France, *département* Meurthe-et-Moselle), this type is dated to phase DEF. The text marks that it should be dated to the end of the sixth and first half of seventh century. However, the figure with various chronological schemes of northern France assigns it to AD 600/610-630/640, phase MR1 of Legoux, Périn and Vallet 2004.¹⁵

In the Schretzheim cemetery (Germany, Baden Württemberg), the earliest single and small buckles with round plates date as early as phase 3 of the cemetery (565-590/600). However, the number of specimens that can be dated to this phase is limited, and the graves in which they are found are difficult to date independent of the plate buckles themselves. The majority of iron plate buckles with round plates are assigned to phases 4 and 5 (the large ones), dated to 590-650/60. Finally, the Franken AG merges Siegmund's types. It identifies these plates as Gür 4.1/2 because it is often not possible to establish how many fittings were part of a particular belt. They assign it to their phases 5 (565-580/590) and 6 (580/590-610/620), with the majority of the specimens dating to phase 5. The widest range of dates of this type of belt buckle is thus from phase 3 of Schretzheim (565-590/600) to phase MR1 of northern France (600/610-630/640). In most instances, however, this type of belt is assigned to a phase around the turn of the century.

Plate buckle: iron, triangular elongated plate, simple decoration in silver and copper alloy

Grave 47.j

Ypey published this plate buckle in 1977.¹⁶ The plate buckle was located at the place of the belly or hip if the skeleton was oriented west-east. Most likely, it is the buckle of a waist belt. The triangular plate's edges are more or less straight (fig. 6.3), and its iron

Fig. 6.3
Various belt fittings of iron inlaid with silver and/or a copper alloy. Scale 1:2.



rivets are relatively small. The central field is decorated with criss-crossed inlaid stripes of a copper alloy. The field is bordered by a narrow band of silver on the inside and a narrow band of a copper alloy on the edges of the plate. The roundel at the end of the plate and the loop of the buckle are decorated with groups of four inlaid stripes of a copper alloy. The tongue is a simple iron tongue. The width of the belt was 2.2 cm.

It is not easy to find comparable plate buckles with this plate form and type of decoration. The plate shape is comparable to that of a plate buckle in grave 756 of the Cutry cemetery, which has, however, an inlay of silver imitating garnets.¹⁷ This buckle is listed among examples of type 184 by Legoux, Périn and Vallet, which dates to their phase MA3, and may occur sporadically in the first part of phase MR1 (560/570-c. 620).¹⁸ In terms of shape it may also belong to their type 150, which dates in their phases MA3 to MR2 (560/570-660/670).¹⁹ The simple copper alloy decoration does match well with the general decoration schemes of iron plate buckles (garnet imitation, geometric, geometric with animal elements, animal style, plated plates, and honeycomb). Ament suggested that bi-chrome decorated belt fittings were younger than those decorated in silver only and were to be dated in his period *Jüngere Merowingerzeit* II.²⁰ This type of decoration was associated with multiple belt fittings. Tripartite belt fittings dominated the *Jüngere Merowingerzeit* I. This chronological model was revised.²¹ Bi-chrome decoration occurs earlier, but usually in the

context of imitating cloisonné decoration. Ament may be correct in stating that bi-chrome geometric and animal style decoration is generally somewhat younger than other decoration types. In that case, the plate buckle from grave 47 can be assigned to his *Jüngere Merowingerzeit* II, which he dates from 630/640 to 670/680.²² Criss-cross patterns also occur on shield tongues of plate buckles from the sword belt in Geldrop's grave 19 (Netherlands, province of Noord-Brabant). A tremissis of the DORESTAT/MADELINUS type dates the Geldrop grave to the second half of the seventh century.²³

Counter plate: iron, tongue shaped, geometric decoration in silver

Grave 82.h

Ypey published this counter plate in 1977.²⁴ It is found in grave 82 which, judging by the grave finds being distributed in two groups, may have contained two burials. The lance in its southern cluster and a bead necklace in its northern cluster may represent male and female burials respectively. This counter plate is associated with the southern set of grave finds. The plate must have been part of a larger set of belt fittings, which were probably removed when the grave was reopened.

It is tongue shaped with a protruding end rivet (fig. 6.3). Its rivets are iron, and it is decorated with monochrome silver inlay in a geometrical pattern. The central field is occupied by three intermingling braids²⁵ composed of dotted bands. The space between them is plated with silver. Its central field is surrounded by a frieze of stripes and a band with a step motif. On the short straight end, the step motif has been replaced by a T-shaped motif. Along the short end, the decoration is bordered by a zigzag line and a straight line.

This type of counter plates belongs to the second group as defined by Plumier-Torfs.²⁶ She dates this group to the first half of the seventh century. Within this group, plates with copper alloy rivets belong to an earlier part of this phase, and those with iron rivets, to a later part. In her fig. 10, however, she dates her group 2 to the first third of the seventh century, thus narrowing the date of these plates to a shorter period. In the typology of Legoux, Périn and Vallet, the counter plate is type 185, dated to their phases MR1 and MR2 (600/610-660/70).²⁷ They obviously assign this type of belt fittings to a longer period than do others. Siegmund identifies these plates as belonging to belts of type Gür 4.6, assigned to Rhineland phase 8(b) (610-640).²⁸ The Franken AG dated these plates to their phase 7 (610/620-640/650).²⁹ Siegmund points out that the Rhineland material does not allow chronological differentiation of bands dotted with points and bands with stripes.³⁰

Back plate: iron, geometric decoration in silver and a copper alloy

Grave 69.l1

Ypey published this back plate in 1977.³¹ It was found in the middle of the wooden container, but this need not have been its original location, as the grave had been reopened after burial. The plate must have been part of a larger set of belt mounts, probably taken during the reopening. The plate has four copper alloy rivets with a serrated edge (fig. 6.3). On a drawing by Ypey, there are two clips on the back of the plate, not visible on the object itself.³² Ypey may have reconstructed these to demonstrate how the mount was fixed to a belt.

The plate's central field is occupied by a single braid lined with silver bands. The braid's interior is decorated with a striped band of a copper alloy. Interwoven with the braid are two similar bands of a copper alloy that end against the rivets. The remaining fields in the central part of the braid are plated with silver. It can be observed that both the silver lines and plated fields were created by hammering in adjacent narrow threads of silver. The silver plating seems to have suffered damage, since several parallel stripes occur where the silver has disappeared. It is difficult to ascertain whether this stems from ancient wear or more recent phenomena. Between the rivets, a striped copper alloy band runs along the length of the plate. Such bands are not present along the short sides. The arguments used to date this type of back plate are nearly identical as those for the counter plate discussed above.

This type of back plate belongs to the second group as defined by Plumier-Torfs.³³ She dates this group to the first half of the seventh century. Within this group, the plates with copper alloy rivets belong to an earlier part of this phase, and those with iron rivets, to a later part. In her fig. 10, however, Plumier-Torfs dates her group 2 to the first third of the seventh century, thus narrowing the date of these plates to a shorter period. The typology of Legoux, Périn and Vallet distinguishes between dotted bands and striped bands. Thus this plate belongs to their type 186, dated to their phases MR1 and MR2 (600/610-660/70).³⁴ They obviously date this type of belt fittings to a longer period than others do. Siegmund identifies these plates as belonging to belts of type Gür 4.6, assigned to Rhineland phase 8(b) (610-640).³⁵ The Franken AG dated these plates to their phase 7 (610/620-640/650).³⁶ Siegmund points out that it is not possible for the Rhineland to differentiate chronologically between bands dotted with points and bands with stripes. Ament suggested that monochrome silver plates are older than bi-chrome ones, but this does not seem to be accurate since bi-chrome belt sets already occur among the earliest specimens of decorated iron belt fittings, especially those with a decoration that imitates garnets.³⁷ However, a general tendency from

(10) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 20. (11) Siegmund 1998, 30-31. (12) Siegmund 1998, 213. (13) Legoux/Périn/Vallet 2004, 16, 31, 53. (14) Urlacher/Passard/Manfredi-Gizard 1998, 142-144, 196-197. (15) Legoux 2005, 150, 203. (16) Ypey 1977, 188-190, afb. 6. (17) Legoux 2005, 308-309, planches 43, 75-76 (grave with axe and seax among other objects). (18) Legoux/Périn/Vallet 2004, 16, 33, 53. (19) Legoux/Périn/Vallet 2004, 16, 31, 53. (20) Ament 1976, 302, 307. (21) Giesler 1983,

523; Siegmund 1998, 30. (22) Ament 1976, 336. (23) Theuvs in prep. d. (24) Ypey 1977, 188, afb. 4-5. (25) Trenteseau 1966, 40: tresse de six brins. (26) Plumier-Torfs 1986, 102. (27) Legoux/Périn/Vallet 2004, 16, 33, 53. (28) Siegmund 1998, 32. (29) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 20-21. (30) Siegmund 1998, 32. (31) Ypey 1977, 190, afb. 7. (32) Ypey 1977, 190, afb. 7. (33) Plumier-Torfs 1986, 102. (34) Legoux/Périn/Vallet 2004, 16, 33, 53. (35) Siegmund 1998, 32.

monochrome to bi-chrome decoration seems to be present in material from the seventh century. This in conjunction with the general tendency of pointed bands to be earlier than striped ones, allows us to argue that this back plate belongs to a later phase in which the geometric style of decoration is common. This would be the second quarter of the seventh century, or even somewhat later.

Plate buckles, counter plates and belt mounts:
iron, undecorated, with large copper alloy rivets or iron rivets covered with copper alloy foil, sometimes difficult to determine shape

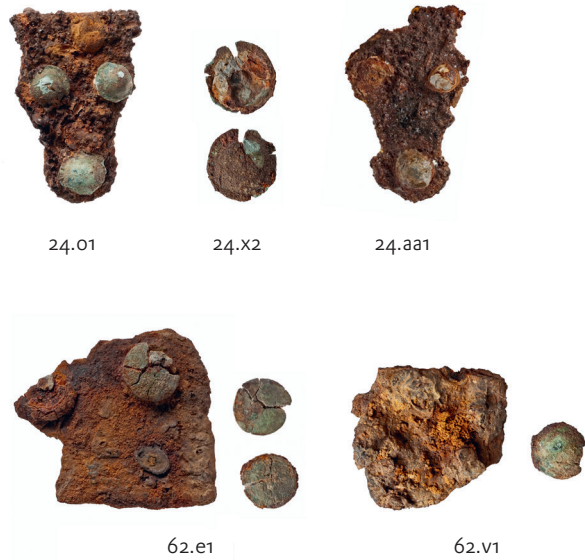
24.01; 24.v1; 24.x2; 24.aa1; 24.dd2; 24.dd3; 62.e1; 62.v1

In graves 24 and 62, the remains of belt fittings with relatively large copper alloy rivets, or iron rivets covered with copper alloy foil, were found (fig. 6.4). Due to reopening activities, most fittings are fragmented. Fragments v1, x2 and dd2 from grave 24 are rivets. Plate 24.aa1 could have been part of a plate buckle. It is a triangular plate with two of three copper alloy rivets remaining. One part of the loop fastening is preserved, but the loop itself is missing.³⁸ Another triangular plate (24.01) of almost identical size is related to this plate. It may have been a counter plate, as one of its ends is straight. It possesses three copper alloy rivets. Both objects are undecorated, as can be seen on the x-ray photographs. Finally, a fragment of a belt fitting (24.dd3) with the impression of a large copper alloy rivet was found. The rivet itself is lost.

In grave 62, two fragments of belt fittings with large copper alloy rivets were present. It is difficult to determine the shape of the plates on the basis of the remaining fragments. However, both fragments seem to have at least two edges at right angles to each other.

Iron belt fittings with relatively large copper alloy rivets are not considered a separate type in most recent typochronological studies. If we must fit the triangular plates into Siegmund's Rhineland typology, we end up with his type Gür4.5: *Dreiteilige Gürtelgarnitur mit dreinietigem, breit-trapezförmigen oder breit-triangulearem Beschlag*.³⁹ Unfortunately, we do not know whether our plates are part of a tripartite belt, and the plates are not exactly wide triangular. Moreover, the plates seem a bit small. On the other hand, they appear too large to be triangular belt mounts. According to Siegmund, the undecorated specimens of this type may be earlier than the decorated ones. These undecorated specimens are dated to his early phase 8 (c. 610-635). The Franken AG retained this type definition, but dated the belt fittings to a somewhat longer period (phases 6 and 7, c. 580/590-640/650).⁴⁰ In women's graves, this belt type may even last until their phase 8 (640/50-670/80).

Fig. 6.4
Various belt fittings of iron with large copper alloy rivets.
Scale 1:2.



In Legoux, Périn and Vallet's typology, type 150 comes closest to our belt plates. They date this type to their phases MA3 to MR2 (c. 560/570-660/670).⁴¹

In grave 71 of the Rosmeer cemetery (Belgium, province of Limburg), a plate buckle and counter plate of comparable form and size were found.⁴² The grave is dated to the first quarter of the seventh century, which fits with the spatial development of the central group of burials in that cemetery. Although some authors suggest a date later in the seventh century, it seems most likely that the belt fittings from graves 24 and 62 date to the earlier part or first half of the seventh century.

Various undecorated iron belt fittings with small copper alloy rivets in grave 24

24.d1; 24.k3; 24.m1; 24.o3; 24.x1; 24.y1+24.aa2; 24.dd1; 24.hh1; 24.hh3; 24.ffg1

In grave 24, many fragments of iron objects were present. Some belonged to belt fittings with large copper alloy rivets. Another series probably belonged to belt fittings with small copper alloy rivets (underlined in the list above). Some other objects seem directly related to these. Most of these objects were identified by x-ray photographs. The x-ray photographs show no decoration on the objects. 24.x1 is a short strap end with leather remains attached to its back. 24.d1 is a small triangular plate, either part of a plate buckle or a counter plate. Buckle 24.y fits to a fragment of a plate (24.aa2). Together they form a plate buckle with a triangular or trapezoidal plate. It is, however, larger than the triangular

plate 24.d1. 24.hh1 is a rectangular mount, c. 3.6 cm wide. It may have been a back plate. 24.ffg1 is a plate buckle. The shape of the plate may be trapezoidal or wide triangular. On the basis of this evidence, it is difficult to draw firm conclusions on the belt's nature.

Plate buckle: iron, plate folded around the loop
(German: Laschenbeschlag)

Grave 24.ee1; 24.ffb1; (possibly also 24.ffc1, which in that case, is not a knife)

The iron fragments from grave 24 originate from more than one belt.⁴³ It is unlikely that they belonged to a waist belt, as we have already identified many other waist-belt fittings in this grave.

The buckle 24.ee seems to have a rectangular plate that is probably folded around the rectangular loop. Buckle 24.ffb is almost identical. This type of buckle dates relatively late in the seventh century. Siegmund defined them as type Gür6.2 and dates them to Rhineland phase 10 (670-705).⁴⁴ This type of buckle is a common element of horse gear.⁴⁵

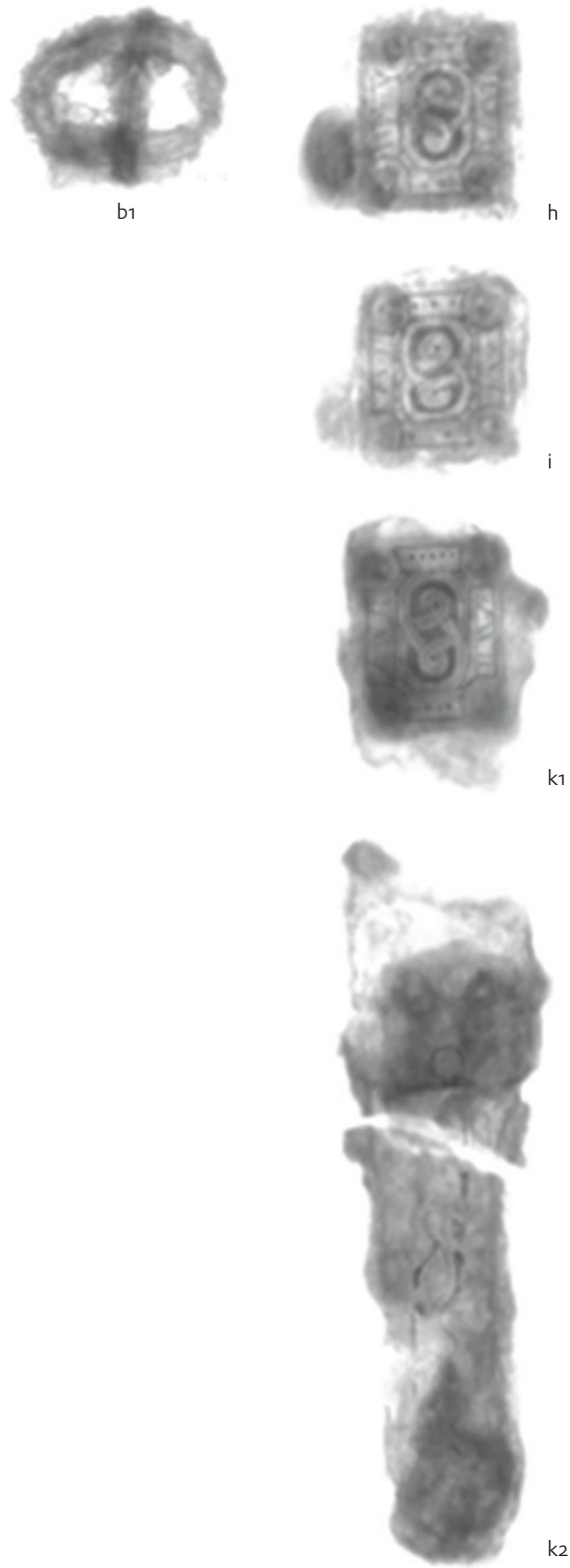
Belt of the 'Ophoven type', iron, decorated

89.b1; 89.h1; 89.i1; 89.k1; 89.k2

In the very large grave 89, a belt was found. The distribution of this type of belt seems confined to the middle and lower Meuse valley and adjacent regions. It consisted of a strap around the waist that was fastened with an iron buckle (in this case possibly: 89.b1) (fig. 6.5). A leather strap hung from the waist belt to the height of the knees or ankles. On this strap, three or four rectangular decorated iron mounts were fitted. A decorated iron strap end was fixed to the lower end of the strap. This reconstruction of the belt and strap is based on the location of the various fittings in the grave.⁴⁶ In Bergeijk, too, the fittings of the strap seem to be located in their original position. The fittings h, i, j (now k1) and k (now k2) lay in a neat row in the area where the upper left leg must have been situated. The buckle (89.b1) is rather simple, and was located a bit off the side compared to the other elements. The belt's original buckle may have been taken from the grave during the grave's possible reopening. Buckle B1 may have belonged to a purse or other object. It is also possible that the waist belt was closed with a knot. The grave may have been disturbed to some extent as a result of natural processes or a possible reopening, but these hardly affected the belt fittings' position. Grave 89 is likely the grave of a woman or girl in view of the beads found in it. The iron fittings of the belt are heavily corroded and have not been restored to their original form. The decoration can only be observed on x-ray photographs. A full restoration of the objects is not desirable because many textile remains are included in the iron oxide, which provide valuable information on the textiles present in the grave.

The buckle in grave 89 is of a simple oval type with an inner diameter of 1.8 cm. The central fields of rectangular mounts h, i and k1 are inlaid with silver with the undecorated parts forming two intermingling braids. Each contains a narrow loop in the centre

Fig. 6.5
X-ray photographs of the elements of the 'Ophoven' type belt in grave 89. Scale 1:1.



(36) Müsseseier/Nieveler/Plum/Pöppelmann 2003, 20-21. (37) Ament 1976, 302; Giesler 1983, 524; Siegmund 1998, 30, note 81. (38) However, simple buckle 24.cc1 may relate to this set of belt fittings. (39) Siegmund 1998, 31-32. (40) Müsseseier/Nieveler/Plum/Pöppelmann 2003, 20. (41) Legoux/Périn/Vallet 2004, 16, 31, 53. (42) Roosens/De Boe/De Meulemeester 1976, 25 and plate 17. (43) See the section at the end of this chapter. (44) Siegmund 1998, 38-39, see also the discussion on this type of buckle in the section on similar buckles of copper alloy. (45) See for many examples: Oexle 1992. (46) For a reconstruction drawing see Alenus-Lecerf 1981, 21.

of the field and curves around the narrow loop of the other with a wide loop. A silver line seems present in the centre of the braid of mount k1. It is difficult to determine whether copper alloy elements are part of the decoration. The central fields are bordered by a rectangular silver line. All three central fields differ slightly in their execution of the decoration. The one on mount i is a bit too small, which made it necessary to fill the space between the central field and the surrounding frieze. This frieze is situated on all four sides between the rivets and is bordered by straight silver lines. Along the length of the mounts, the frieze consists of double (mounts h and k1) or single (mount i) stripes arranged in zigzag form. Along the short sides, three or five silver dots are present. The mounts have four rivets in the corners.

The strap end possesses two rivets at the straight end. The other lower end is rounded. Its decoration can be identified through x-ray photographs, and seems to consist of a single long braid in the central field.

Belts of this type are found in northern Belgium and the southern Netherlands (fig. 6.6). Three were found in the Ophoven cemetery on the Meuse in the Belgian province of Limburg (fig. 6.7).⁴⁷ According to Roosens, all three graves were reopened after burial but, as he states, the reopening pit did not reach the bottom of the graves. In grave 64, the mounts were still in their original position, so the strap must have hung along the right upper leg. The set of fittings consisted of a plate buckle, three rectangular mounts, and a strap end. The decoration of the central fields of the rectangular mounts differs slightly from those in Bergeijk; the decoration of the strap end is probably identical. In Ophoven grave 131, the mounts seem to be in their original position, and probably lay along the right upper leg. The set of fittings consisted of a plate buckle, three rectangular mounts, and a strap end. The decoration of the mounts is comparable to those from Bergeijk. In Ophoven grave 132, the fittings of the strap were in their original position, and probably lay along the lower left leg. In this case, four rectangular mounts and a strap end were present, but no buckle. As the grave seems intact, it is likely that the waist belt was closed by a knot. This seems to have been one of the ways to close a belt in the late Merovingian period.⁴⁸ In Ophoven, these belts are associated with small equal armed fibulae, large earrings with a polyeder or biconical fitting with a dented middle rib, and knives and beads, among which are flat almond shaped beads. These three graves show a remarkably identical set of grave goods that belongs to the later phase of the Merovingian period, most probably to Rhineland phase 10 (670-705).⁴⁹ All three graves are situated along the eastern boundary of the cemetery.

In the cemetery of Posterholt (Netherlands, province of Limburg) two parts of such a belt were found in reopened grave 62.⁵⁰ One rectangular plate and the strap end were left behind in the

grave. Some beads were present as well, thus making it likely the grave of a woman.

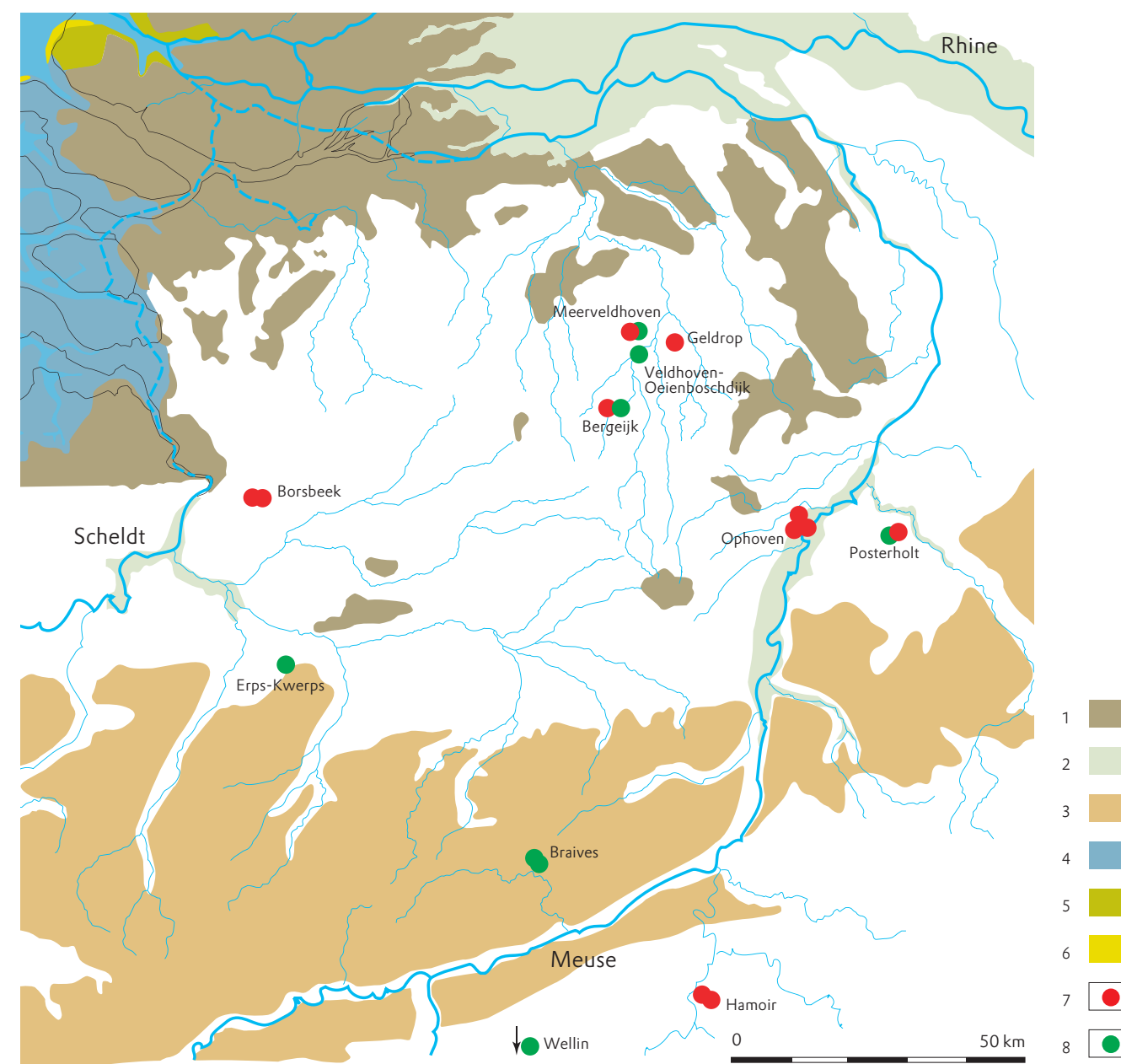
In the cemetery of Meerveldhoven, c. 10 km from Bergeijk as the crow flies, a similar belt was found in grave 41.⁵¹ Although the grave may have been reopened after burial, the mounts of the strap and the buckle seem to have retained their original position. The set of fittings consists of a plate buckle, four rectangular mounts, and a strap end. The decoration of all elements is almost identical to the fittings in grave 64 of Ophoven. In addition to these finds, the grave contained a knife. A child was probably buried in this grave. The grave cannot be dated independent of the belt fittings.

In grave 134 of the Hamoir cemetery (Belgium, province of Liège), a plate buckle, four rectangular mounts, and an iron strap end were found.⁵² They are not decorated. No plan of the grave is given, but the description indicates that the plate buckle was found at waist height, and the mounts and strap end lay in a row, while the strap end was located at knee height.

In grave 136 of the same cemetery, four rectangular mounts were found lying in a row, probably along the lower left leg.⁵³ The mounts' decoration is almost identical to those in grave 41 of Meerveldhoven and grave 64 of Ophoven. No strap end or buckles were found in this grave. Some iron fragments (possibly wire) along the mounts may also belong to strap's fittings. Other grave goods from the grave are: a knife, a small equal armed brooch, a simple arm ring and finger ring, a set of beads, and an ancient Roman fibula. The equal armed brooch is an element of grave good inventories of the later Merovingian period.⁵⁴ Grave 136 was located at the northern boundaries of the cemetery, and most likely dates to its late Merovingian phase of use.

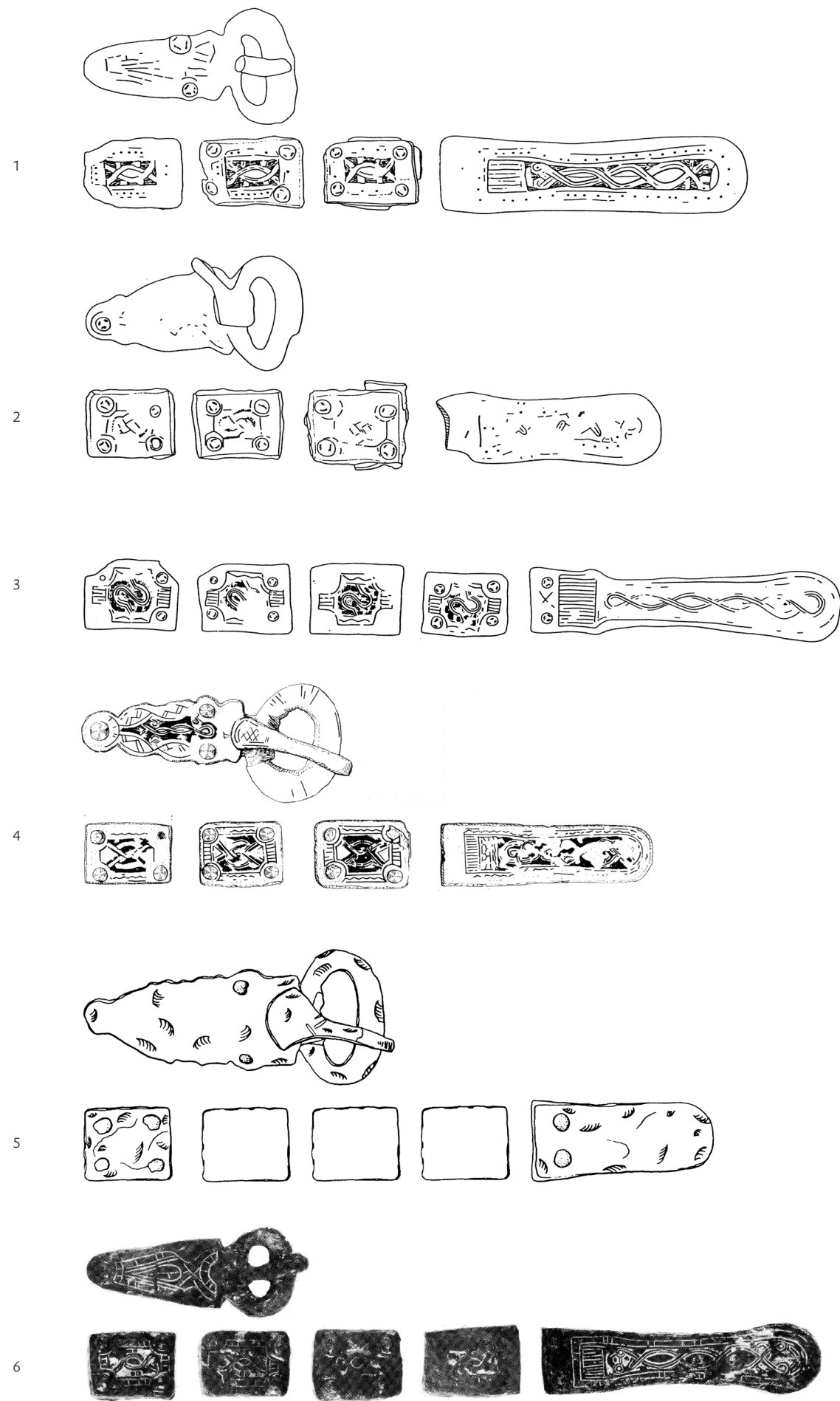
In grave II-III of Borsbeek (Belgium, province of Antwerp), two individuals were buried.⁵⁵ The northern corpse is probably that of a woman (based on the grave goods set) who seems to have been buried with her head in the east, which is exceptional. The eccentric location of the large plate buckle, however, seems to indicate that some disturbance of the grave took place. Two belts are associated with this burial. One is a tripartite waist belt with a plate buckle, counter plate and back plate. The plate buckle was located at a distance from the other two mounts. The other belt in this grave is of the Ophoven type, consisting of a plate buckle, three rectangular mounts, and a strap end. The three rectangular mounts and the strap end were lying in a row with the strap end in the east. They seem to be in their original position. However, if the strap end indicates the lower end of the strap and the orientation of the mounts, then the waist belt was lying with its lower end towards the skull. The skull and the large plate buckle may not be in their original position. The plate buckle of the Ophoven belt was near the western rectangular mount. The decoration of the rectangular mounts is quite similar to those of Hamoir grave

Fig. 6.6
The distribution of iron and copper alloy 'Ophoven' type belts. 1. peat area, 2. river clay area, 3. löss area, 4. tidal flat, 5. marsh, 6. coastal barriers, 7. iron belt sets, 8. copper alloy belt sets.



(47) Roosens 1977a. (48) Siegmund 1998, 39 (Gür 6.3, *geknoteter Gürtel*). (49) Siegmund 1998, 205. (50) De Haas/Theuvs in prep. (51) Verwers 1978, 292, fig. 44 (grave 41). (52) Alenus-Lecerf 1978, I, 31, planche 39 (134, 3-8), II, 27-28. (53) Alenus-Lecerf 1978, I, 31-32, planche 41 (136, 6-9), II, 32, fig. 3, d. (54) Siegmund 1998, 51 (Fib. 10); Hübener 1972. (55) De Boe 1970, 9-16.

Fig 6.7
The most complete specimens of iron
'Ophoven' type belt sets. Scale 1:2.
1. Ophoven grave 64, 2. Ophoven grave
66, 3. Ophoven grave 132, 4. Borsbeek
grave 2, 5. Hamoir grave 134,
6. Meerveldhoven grave 41.



136, Meerveldhoven grave 41, and Ophoven grave 64. The buckle's plate is decorated with a simple braid, and the strap end seems to have animal style II decoration. Two small equal armed brooches are associated with this burial, as well as a rare buckle with a fixed plate bearing pelta-like perforations, and a flint, possibly of prehistoric date. The equal armed brooches again date this burial to the late Merovingian period. However, the metal fittings of the waist belt, having triangular plates with undulating edges, display an animal style decoration and a central field. They are usually dated to an earlier phase, such as Rhineland phase 9 (640-670) (type Gür4.7), phase 8 (640/50-670/80) of the Franken AG (type S-Gür4.7), or phase MR2, and in some cases, MR3 of Legoux, Périn and Vallet (type 188). Such belts, however, could have been buried a generation later; that is, after 670.⁵⁶

In the same cemetery there is another grave that seems to have contained two burials: grave 14.⁵⁷ It yielded a number of beads, as well as a lance head and several iron belt fittings that do not seem to have belonged to a single belt. It also contained two plate buckles, one strap end, two triangular mounts, and two rectangular plates with a decoration similar to those on the rectangular plates in graves Hamoir grave 136, Meerveldhoven grave 41 and Ophoven grave 64. The plan of the grave shows that the fittings were arranged in two separate rows, one along the northern wall of the container and one near the southern wall. Which fittings belonged to which group is not recorded exactly, however. In any case, the fact that the fittings are arranged in rows is an indication that the two rectangular mounts belonged to a belt of the Ophoven type. The row of three along the northern wall of the container would be the normal position for the two rectangular mounts and the strap end. Moreover, a knife and beads are in the northern part of the container, indicating that a woman was interred there.

In Geldrop grave 6B, another belt of the Ophoven type was found. Its fittings consisted of a plate buckle, four rectangular mounts, and a strap end. The plate buckle lay at waist height and the rectangular mounts and strap end were located in a row, indicating that they were in their original position. It cannot be determined on which side of the body the strap was placed; it may have been situated between the legs. The mounts' decoration, consisting of 8-shaped motifs in a central field surrounded by silver plating and copper alloy lines, differs from most previous mounts.⁵⁸ The plate buckle's decoration resembles that of the buckle from Meerveldhoven grave 41. Other finds in the grave are a string of beads, a small knife, and a copper alloy bracelet. The whole context of the grave, located in a settlement, dates it to about 670/680.

Several conclusions can be drawn from the evidence presented above.

First, belts of the Ophoven type date to a later phase of the Merovingian period. Although some are associated with grave goods from phases that are generally dated after c. 640, it seems that most date to the last three decennia of the seventh century (Rhineland phase 10, Franken AG phase 9, Legoux, Périn and Vallet phase Mérovingien récent (MR) 3). The Bergeijk specimen is associated with a late tremissis of the MADELINUS/DORESTAT type. The date of this type of coin is subject to debate. The traditional terminus post quem date of c. 630/640 seems far too early to me. I will suggest that its terminus post quem date is rather somewhere in the 670's or early 680's.⁵⁹ The Bergeijk tremissis, moreover, seems to be a late imitation.

Second, the distribution of this type of belts is confined to a small area in north-east Belgium and south Netherlands. Browsing through cemetery publications of the Rhineland, the Moselle valley and northern France, I did not find comparable sets of belt fittings. This suggests that it is a regional type of belt produced somewhere in the Meuse valley.

Plate buckles, counter plates and belt fittings: iron, undecorated, sometimes difficult to determine shape
Graves 8.a*; 19.g1; 27.d*; 41.b*; 47.k*; 51.g*; 53.ii1*; 53.y*+53.b*; 66.aa*; 74.d1*; 74.d3*; 79.m1; 111.d*; 112.h*; 112.i*

Most of these belt fittings are now missing. Those that remain are either fragmented or corroded. Most came from graves disturbed by a post-depositional intervention. X-ray photographs occasionally provide additional information. In some cases it cannot be established whether the fragments belong to plate buckles or counter plates. The small plate buckle in grave 19 was found at waist height. Plate buckle 79.m1 bears a triangular plate with three small copper alloy rivets. An X-ray photograph shows that it is not decorated. It was found at the foot end of the container. All the fittings mentioned here cannot be dated more precisely than the seventh century. The plate 112.h may have been a back plate.

Various strap ends, iron
7.a*; 24.n1*; 53.ii2*; 74.a*; 74.d4*; 82.f*

All strap ends above are missing; it is not possible to provide information on them.

(56) Siegmund 1998, 32; Müssemeier/Nieveler/Plum/Pöppelmann 2003, 21; Legoux/Périn/Vallet 2004, 16, 33, 53; Plumier-Torfs 1986, 113 (group 4). (57) De Boe 1970, 22-25. The numbering of grave finds in the grave plan and in the figure with grave finds do not seem to correspond. (58) I will deal with this belt in the publication of the burials from Geldrop and Dommelen (Theuws in prep. d.). (59) I will study in more detail the chronology of the material culture of the late Merovingian period when studying the graves from Geldrop and Dommelen. Moreover, I am preparing a study titled 'Madelinus Monetarius and the History of the Netherlands in the Seventh Century'.

Belt of the 'Ophoven type', copper alloy

50.g1-h1/j1/k1

In grave 50, four rectangular copper alloy mounts were found (fig. 6.8). They measure c. 3 cm by 3 cm, contain rivets in each corner, and are simply decorated. The decoration of mounts h1, j1, k1 is more or less identical, and consists of a double row of points between the rivets with small circles stamped on the inside. Mount 50.g1 is differently decorated with a zigzag line between the rivets. Because three out of four mounts are located close together at the height of what must have been the left leg, it is likely that the mounts were fixed to a strap that hung from the waist belt. This configuration of copper alloy fittings thus resembles the arrangement of iron fittings of 'Ophoven type' belts. Other finds in the grave include beads and a knife.

A few belts with a similar set of copper alloy mounts have been found. The belt in Braives (Belgium, province of Liège) grave 89 is the best comparable specimen.⁶⁰ It encompasses an iron plate buckle, three square copper alloy mounts of which only one is decorated, and a copper alloy strap end. The mounts and the strap end lay in a row between the lower legs. A pot, knife, fibula with copper alloy foil (German: *Pressblechfibula*), finger ring, and some beads were associated with the belt. A girl of about 16 was buried in this grave. The fibula is an element of the later Merovingian period.⁶¹ In Braives grave 39, a belt with an iron plate buckle, two copper alloy rectangular mounts and a copper alloy strap end were found.⁶² The mounts and the strap end were located near the knees. The grave also contained a small biconical pot with rounded carination, a knife, a spindle whirl and beads. It was the grave of a young woman of about 17. In Erps-Kwerps (Belgium, province of Flemish Brabant) grave 24, a waist belt was found with a copper alloy plate buckle. A strap with three square mounts and a strap end hung from the belt.⁶³ The mounts and the strap end were lying in a row between the lower legs. The grave also contained two pots, a fragment of a third, two lead crosses, a spindle whirl, a knife and some beads. It was the grave of a girl approximately 12 years old. The excavator dates the grave to the second half of the seventh century, possibly around 675.

In Veldhoven-Oeienboschdijk (Netherlands, province of Noord-Brabant) grave 10, four rectangular copper alloy mounts, an iron plate buckle, and a copper alloy strap end were found.⁶⁴ They were located in a row along the southern wall of the container, the presumed location of the right leg. There are two round perforations in the centre of the plates. The grave also contained a pot, bowl, and string of beads. In Meerveldhoven grave 30, five

Fig. 6.8

Rectangular copper alloy fittings of an 'Ophoven' type belt from grave 50. Scale 1:2. Front and back sides.



square copper alloy belt mounts were found.⁶⁵ They lay in a row with a copper alloy strap end at the end. At the height of the waist was an undecorated iron plate buckle. A string of beads was also found in the grave. Finally, the description of the belt found in grave 29 at Wellin (Belgium, province of Luxembourg) indicates that it included four rectangular mounts with four rivets each, fitted on a strap suspended from a waist belt.⁶⁶ The waist belt retained an iron plate buckle with silver inlay.

Some important conclusions can be drawn from the information concerning these six graves. First, a difference must be made between the waist belt (iron plate buckle) and the strap suspended from it (copper alloy mounts). Second, the belts with copper alloy mounts might be somewhat older than those with iron fittings, which date mainly to the third quarter of the seventh century. Third, in three cases, skeletal remains allowed us to determine the sex and age of the deceased, and in all three cases, they were girls or young women between 10 and 20. Is this an indication that this type of belt is associated with young women? It is possible that copper alloy 'Ophoven type' belts are, in contrast to iron ones, also found outside the Meuse valley and adjacent regions (see below).⁶⁷

Rectangular or square belt mounts: copper alloy

Graves 17.a*/b*/d*/f*; 77.g1-h1/k1/k2/l1/m1/n1*/o1/q1/q2; 85.d*/e*/f*/h*/i*/r*; 108.b*/d*/e*

In four other graves, rectangular copper alloy mounts were discovered. The number of mounts per grave varies: 3, 4, 6 and 10. The mounts from three of these graves are missing, as well as one mount from grave 77. As far as can be established, the mounts retain four rivets, one in each corner of the plate. Only one mount from grave 77 (mount l) exhibited a decoration. This consisted of a double row of points or short stripes between the rivets. However, due to corrosion of these fragile mounts it is often impossible to determine whether they were decorated.

Since grave 17 was possibly reopened after burial, its copper alloy mounts may have been scattered. They may have been part of a belt of the 'Ophoven type'. Some beads were found in the grave as well. In grave 77, which had definitely been reopened, the ten mounts are scattered in the north-eastern corner of the container, which may indicate that they were originally located near the legs. The finds in this grave include a pot, iron mounts that may have belonged to a wooden box, and one amber bead. In grave 85, which had also been subjected to a post-depositional intervention, the mounts are scattered in the eastern part of the container; that is, in the leg area. A pot and beads were also found in this grave.

The mounts in the reopened grave 108 are in the western part of the grave, presumably in the area of deceased's thorax. The grave finds include a knife, some beads, and a fragment of a glass beaker. These mounts were usually found with presumably female gendered artefacts, making it probable that the graves they were found in were those of women.

Mounts of this type are found in varying numbers on different kinds of belts. To begin, they are found on belts of the 'Ophoven type' with copper alloy fittings on the strap, which are discussed above. These usually have three or four of such mounts. An Ophoven type belt could have been present in graves 17 and 108, but this cannot be determined definitively. The high number of mounts in grave 77 is difficult to explain. In theory, two belts could have been present in the grave. Grave 29 of the nearby Meerveldhoven cemetery (Netherlands, province of Noord-Brabant) also yielded ten rectangular copper alloy mounts.⁶⁸ They were situated at the height of the breast and could thus be an element of a pectoral ornament. The grave does not appear to have been reopened after burial. As the mounts possess rivets, they were probably attached to a leather strap. The grave further encompasses a pottery pitcher, an iron plate buckle, copper alloy strap end, and string of beads. The grave is dated by Verwers to the second half of the seventh century on the basis of these mounts. This date is confirmed by the fact that the grave is situated in one of the eastern rows of graves, which seem to belong to the younger phase of the cemetery.

The belts with multiple fittings are another type of belts that often has a large number of square copper alloy mounts. In addition to the square mounts, these belts have a plate buckle and a large number of strap ends suspended from the waist belt on short straps. An example of these belts with multiple copper alloy fittings was found in Borsbeek (Belgium, province of Antwerp) grave 27.⁶⁹ Those mounts, however, have an elongated rectangular shape. In Xanten (Germany, Kreis Wesel) grave 66/43, rectangular copper alloy mounts are part of a sword belt, as well as those in grave 74 of Iversheim (Germany, Kreis Euskirchen).⁷⁰ Böhner found comparable mounts in the Trier area.⁷¹ There they were associated with fibulae with metal foil (German: *Pressblechfibula*) and a pendant in the shape of a cross. Rectangular copper alloy mounts were sometimes also part of leg wear, as was the case in several graves of the Barga and Berghausen cemeteries in South Germany.⁷² It cannot be excluded that 'Ophoven type' belts with copper alloy rectangular mounts can also be found in the Moselle valley and Middle Rhine valley. Rectangular copper alloy mounts seem to be an element of seventh century grave inventories.

Plate buckle: copper alloy, plate folded around the loop (German: Laschenbeschlag)

Grave 22.b1

The buckle from grave 22 was found in the eastern half of the container. If this was a west-east burial, it was near the location of the feet. However, the grave was probably reopened after burial, so the buckle may not have been in its original position. The buckle was made from copper alloy and possessed a relatively long plate folded around the loop of the buckle. The function of this buckle is not clear. The beads in the grave indicate that it was probably the grave of a woman. Usually the plates of this buckle types are shorter than that of the Bergeijk specimen. Most also have more than one rivet (fig. 6.9). Buckles of this type are dated late in the Merovingian period, more specifically, in Rhineland phase 10 (670-705).⁷³ The Franken AG date these buckles to their phases 9 and 10, which run from 670/680 to the middle of the eighth century.⁷⁴ They are more common in southern Germany than they are in the North. Moreover, many of those in the south have a rectangular loop, whereas our specimen has a slender oval loop. A small comparable specimen (one rivet, oval loop, long plate) was found in grave 949 of Cutry. It is interpreted as part of shoe fittings, but it is more likely an element of a strap hanging from a waist belt.⁷⁵ The grave dates to the second half of the sixth century. The Cutry buckle is slightly smaller than the specimen from Bergeijk.

(60) Brulet/Moureaux 1979, 25, 72-73, planches 3, 14. (61) Klein-Pfeuffer 1993, 21-26. Although it is difficult to determine the exact type on the basis of the photographs given, the fibula seems to be of her type 'Pressblechfibeln mit bündig abschliessendem Rand'. She dates these in the second third of the seventh century. According to Koch, this type of fibula dates somewhat later (Koch 1982, 54). They are found along the Middle Rhine and in Baden-Württemberg. (62) Brulet/Moureaux 1979, 25, 57-58, planches 1, 7. (63) Verbeeck 1987-1988, 53, 55 (fig. 3-4), 58 (fig. 9). (64) Verwers 1973, 324, 325, 332 (fig. 28, 13-18). (65) Verwers 1978, 286. (66) Evrard 1997, 32. (67) An example could be the mounts in grave 18 of the Rill cemetery (Germany, Nordrhein-Westfalen), Siegmund 1998, 364, Taf. 145. (68) Verwers 1978, 284-285. (69) De Boe 1970, 38-43. (70) Siegmund 1989, Tafel 249; Neuffer-Müller 1972, 55-56, 86-87, Tafel 12. (71) Böhner 1958, 194 and Tafel 44. (72) Koch 1982, 62. (73) Siegmund 1998, 38-39 (Gür6.2). (74) Müssmeier/Nieveler/Plum/Pöppelmann 2003, 22. (75) Legoux 2005, planche 49 (949), 338, planches 141-142.

Fig. 6.9
Various copper alloy belt fittings. Scale 1:1.



Belt mounts, copper alloy

27.c*; 27.g*; 27.h*

In grave 27, three copper alloy pentagonal mounts were found. They are missing now, but Ypey sketched them on the grave's documentation card (fig. 6.10). The mounts are basically square but have one pointed side. The sketch shows three rivets. In the middle, a cross is drawn, probably indicating that the mount's opening was cross shaped. They were found in the eastern end of the grave. Curiously, a number of beads were found in the western part of the container, normally the foot end of the grave. These mounts belong to a group of mounts of various forms and sizes that adorn belts with copper alloy fittings. They date from the later sixth to the early seventh century.⁷⁶

Long stave shaped strap end, copper alloy

11.b1

This strap end consists of a small trapezoidal plate with two rivets on one split end, a stave shaped middle part, and a round knob at the other end. It was found in the middle of the container, suggest-

ing it was part of a waist belt. Its total length is 7.2 cm. The strap end was found next to a buckle with a fixed plate only 5.6 cm long that probably belonged to footwear (see below). Klein-Pfeuffer, however, suggests that the similar strap ends of Hohenfels, to be discussed, were part of leg wear. It is possible that the Bergeijk ensemble also belonged to leg wear. Similar strap ends with longer trapezoid plates were found in Hohenfels (Germany, Rheinland-Pfalz) grave 51.⁷⁷ Said grave was the undisturbed grave of a child which also contained a fibula with gold foil (*Pressblechfibel*). Klein-Pfeuffer dated it to the last decennia of the seventh century and first decade of the eighth.⁷⁸ Stein discussed such strap ends and dates them to the second half and end of the seventh century.⁷⁹ They are found mainly in Southern Germany; the specimens from Hohenfels (Germany, Kreis Vulkan-Eifel), Namèche (Belgium, province of Namur), and Bergeijk are northern outliers on the distribution map. They seem confined to women's graves. A specimen in grave 2 from Dürbheim (Germany, Baden-Württemberg) is another example of this.⁸⁰ This grave is also dated to the end of the seventh century, since it contained an extremely lengthy strap end. Thus it is likely that the strap end from Bergeijk also dates to the later seventh century.

Strap end, copper alloy with cast decoration

79.g1

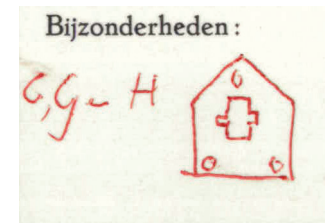
The strap end was located in the middle of the container in the area of the reopening pit. It had probably been moved when the grave was reopened. The strap end is only 5.1 cm long and shows a cast decoration in a degenerated animal style (fig. 6.9). It has two rivets at one end and is probably part of leg wear. Such strap ends with cast decoration seem to be an element of the second half of the seventh century.⁸¹ The larger ones may be somewhat older; those with degenerated animal style may even date up to the end of the seventh century.⁸² The Bergeijk specimen most likely dates from the second half of the seventh century.

Large strap end, copper alloy

90.g*

Unfortunately, this strap end is lost. Its length, however, has been recorded: 16 cm. In view of its length, it belongs to a group of late Merovingian long strap ends.⁸³ Stein dated these strap ends depending on the shape of the lower end. She dated it to her phase A (680-710/720) if the end was round, or to her phase B (after 710/720-750) if the end was pointed. The shape of the Bergeijk specimen is not certain, but the field drawing shows a pointed end. Long strap ends (*überlange Riemenzungen*) are mainly found in men's graves in southern Germany, but this may be due to a

Fig. 6.10
A portion of the documentation card of grave 27 indicating the presence of pentagonal copper alloy belt fittings.



decline in the deposition practices in the north and to the west of the Rhine. Stein lists some northern outliers such as those from Putten (Netherlands, province of Gelderland), Cologne, and Hillesheim (Germany, Kreis Vulkan-Eifel).⁸⁴ In one of the graves of the Dommelen settlement (Netherlands, province of Noord-Brabant) c. 5 km from Bergeijk, a long copper alloy strap end with six gold and or silver rivets with a pearl rim was found.⁸⁵ The context in which the grave is situated dates it to the late Merovingian period. The Bergeijk specimen thus most likely dates from the late seventh and early eighth century.

Various strap ends, copper alloy, decorated and undecorated

19.e1; 27.e*; 47.m*; 49.e1; 53.g*; 77.a1; 113.a1

Strap end 19e was found in the eastern end of the container. It may have belonged to leg- or shoe wear. It is decorated with a zigzag line along the edges and possesses one rivet. The location of strap end 49.e was not recorded. It is a long narrow specimen, indicating that it dates somewhat later in the seventh century. The strap end in grave 77 was located in the container's centre in the area of a reopening pit. The strap end of grave 113 is somewhat curious. Its construction seems to be of a rather inferior quality. It consists of two thin copper alloy plates with a leather strap between them, fixed together with four rivets. The other strap ends listed at the top of this section are missing and no further information could be gathered about them.

Sword belt mounts: copper alloy

Graves 44.v1-w1, 79.f, 82.d1*, j*

In three graves, mounts of sword belts were found. Unfortunately, the mounts from grave 82 are lost, but a sketch on the excavation record card showed that they were pyramid-shaped. They lay at the height of the trunk if the skeleton was oriented west-east. The contents of the grave were probably not intact since the grave had been reopened and/or used to bury a second individual in the northern part of the container.

Another pyramid shaped mount was found in grave 79 in the middle of the large container (fig. 6.9). The grave also contained a lance head and shield boss. This grave was reopened after burial, so these finds probably do not represent the complete grave good assemblage.

In grave 44, two rectangular decorated mounts were found (fig. 6.9). Both mounts were found in close proximity to where the head would have been had the skeleton been oriented west-east. The grave was probably reopened after the burial. The close association of both mounts suggests that they were still attached to a leather strap at the time of the grave's reopening. If both mounts were attached to a sword belt, this would be an unusual position in the grave. They could have been moved during the aforementioned reopening. We must reckon with the possibility that both mounts were reused on another type of strap. One of the mounts (44w1) had certainly been reused, either on a sword belt or another type of strap. It is a hollow mount with a narrow strip in which one of two rivet holes is still preserved; the other corner is damaged. The mount is broken and only one half remains. An 8-shaped hole made near the broken edge was probably used to reattach it to a strap.⁸⁶ A photograph taken shortly after the excavation shows textile remains preserved on the mount's flipside, suggesting that it had not been attached to a leather strap. This combined with the find location near the head may indicate that it was not part of a sword belt. The mount was decorated with incised lines imitating an animal style ornament.

The other mount (44v1) is exceptionally well preserved. The cast decoration shows animal heads attached to twisted animal bodies. Along the short sides between the animal heads are figure 8-shaped ornaments, and along the long sides of the mount are convoluted ornaments. The surface of the mount may have originally been coated with tin or niello. There also seem to be traces of a white substance in the round eyes of the animals, the round circles between the eyes, and the round holes of the 8-shaped and convoluted ornaments. The central part of the mount has a shiny surface, which may, however, be the result of post-excavation cleaning. The short edges of the mount are decorated with a very fine zigzag line.

Menghin studied sword belt mounts in detail.⁸⁷ Simple copper alloy pyramid shaped mounts are a regular phenomenon in cemeteries in the Rhineland and south Germany.⁸⁸ Menghin dates these objects in his later phase D (c. 600-620) and phase E (c. 630-650).⁸⁹ Siegmund assigns such mounts to Rhineland phase 8A (610-620/30).⁹⁰ Legoux, Périn and Vallet date these mounts somewhat differently. Their type 97 is assigned to the second part of phase MA 2 and phases MA3 and MR1 (c 545-630/40).⁹¹

The rectangular mounts belong to the Weihmörting type.⁹² Menghin dates these mounts in his later phase D, which he dates

(76) See for instance Legoux/Périn/Vallet 2004, type 160 (phase MA3, 560/570-600/610). See also the *Ösenbeschläge* of the Franken AG types 8A (phases 5-6, 565-610/620); 8B (phases 6-7, but mainly 7 (580/590-640/650); 8C (phases 6-8 but mainly 7, 580/590-670-680). (77) Böhner 1958, I, 195, Tafel 44, 2. (78) Klein-Pfeuffer 1993, 41-43, 364-365. (79) Stein 1967, 70. She lists 8 specimens. (80) Steuer 1997, 284. (81) Buchta-Hohm 1996, 66-67. (82) Buchta-Hohm 1996, 66-67. (83) Stein 1967, 35-36, 55-56, 414 and Tafel 111; Engemann/Rüger 1991, 245-246. (84) Stein 1967, 414, and Tafel 111. (85) This specimen will be published in the volume on the Merovingian

burials at Geldrop and Dommelen in this series. (86) Perhaps this form relates to a special function on the sword belt. See, for instance, the belt mounts of 'Männergrab 2 vom 11.6.1934' from Strassenheim 'Aue' (Koch 2007, Abb. 85). (87) Menghin 1983. (88) Menghin 1983, 150-151, Liste C III, Karte 22. (89) Menghin 1983, 150-151, chronological table: Abb. 25. (90) Siegmund 1998, 87. (91) Legoux/Périn/Vallet 2004, 15, 29, 52. (92) Ament 1974, who suggests a new interpretation of the way the mounts were fixed to the belt and additional strap.

to 580-620, a date in accordance with that suggested by Ament.⁹³ This type of mount thus seems to date to the late sixth and early years of the seventh century. Said mounts are found mainly in northern France, Belgium, along the Rhine, and in southern Germany. Siegmund mentions a few specimens from the lower Rhine area, which in his opinion date mainly from Rhineland phase 6 (570-585), but may occasionally occur up to Rhineland phase 8A (that is, up to c. 625). Legoux, Périn and Vallet identify these mounts as type 96 and assign it to phase MA3 (560/70-600/10).⁹⁴ On the basis of this evidence one would be inclined to date the rectangular mounts to the early decennia of the seventh century. However, it is most likely that they were reused on another object, possibly headwear, and buried at a later date.

Foot and leg wear fittings

Fig. 6.11
X-ray photographs of three elements of shoe wear from grave 77. Scale 1:1.



Shoe or leg wear fittings, iron, decorated
Graves 49.1; 77.q4/q5/r1

Fitting 49.1 is probably the plate of a plate buckle or counter plate. It is heavily corroded and covered by a crust of oxidized material, yet an X-ray photograph provides sufficient information on the object. It is triangular and posses three rivets, probably of copper alloy. The plate may have had undulating edges. The X-ray photograph shows that it is decorated with silver and copper alloy inlay. The decoration pattern is difficult to identify. There is a half circle with radial copper alloy lines on its wide end. Other copper alloy lines can be seen on the plate. It is probably a decoration in a degenerated animal style II. Triangular plates with an inlaid silver and copper alloy decoration in animal style II are common in Siegmund's phase 9 (640-670).⁹⁵ It is FAG type S-Sna2.5, which they assign to their phases 7 and 8 (580/590-640/650).

The three fittings from grave 77 probably belong to a single shoe or leg wear ensemble (fig. 6.11). They are found in the eastern part of the container, but may have been displaced during the reopening of the grave. They are in a corroded state, but the x-ray photographs allow for identification of the shape and decoration. The ensemble consists of a plate buckle, a counter plate, and a strap end. The plate buckle (q5) bears a triangular plate with three copper alloy rivets and an oval loop. The plate is decorated with silver inlay so that a single braid decorates the centre of the plate. It curves towards the edges of the plate near the loop. The edges of the plate are decorated with stripes, probably inlaid with silver. The loop is also decorated with stripes in either a silver or copper alloy. The

counter plate (r1) possesses a triangular shape with rounded edges and three copper alloy rivets. It is decorated with inlaid silver in a degenerated animal style. It is possible to identify one animal head. The strap end (q4) seems to have broken off at the rivet end. It is decorated with silver inlay forming a single braid. The edges are decorated with stripes in silver of a copper alloy.

It is not possible to determine whether the decoration is monochrome or bi-chrome, but these fittings seem to be decorated with animal style motives or derivates of these. They thus belong to Siegmund's Sna2.5, which he assigns to his Rhineland phase 9 (640-670).⁹⁶ The Franken AG dates these fittings in their phases 7 and 8 (610/20-670/80) because it has been established that these fittings were already found in the time that geometric ornamented waist belts with 'Bülach type' decoration were in use.⁹⁷ This is in accordance with the date given by Legoux, Périn and Vallet for this type of fittings (their type 135, phase MR1, 600/610-630/640).⁹⁸ Iron leg- or shoe wear seems to be relatively rare in the Meuse valley and adjacent regions. No comparable ensembles were present in cemeteries such as Rosmeer, Hamoir, Veldhoven-Oeienboschdijk, or Meerveldhoven. An ensemble with comparable decoration was found in the Krefeld-Gellep cemetery (Germany, Nordrhein-Westfalen), grave 2743, which is dated in the early Stufe IV (early seventh century).⁹⁹

Small plate buckles with fixed triangular plate and oval loop, copper alloy, probably shoe wear

10.f1; 11.a1

The plate buckles from graves 10 and 11 have an elongated triangular plate with profiled edges (fig. 6.12). The specimen from grave 10 has three perforated clips on its back to fix it to a leather strap. The specimen from grave 11 has three rivet holes, but no rivets are preserved. Such copper alloy buckles are included in Siegmund's large group of copper alloy buckles with fixed plates.¹⁰⁰ The Franken AG redefined these buckles as their type Sna2.2A, as shoe buckle with fixed triangular plate and oval loop. They assign it to their phases 5 to 8 (565-670/80).¹⁰¹ Their date range is thus quite large. The buckles belong to type 130 of Legoux, Périn and Vallet, which they date in phase MA2 to MR1 (520/530-630/640).¹⁰²

Small plate buckle with fixed round plate, decorated, copper alloy, probably shoe wear

30.a1

The small buckle from grave 30 is decorated by a simple engraved pattern of curving lines. It bears an iron prong and two perforated clips on its back to fix it to a leather strap (fig. 6.12).¹⁰³ Part of the iron prong has disappeared since the buckle's publication by Ypey.

It was found in the western part of the grave, probably the head end. If it is part of footwear it must have been considerably moved when the grave was reopened after burial. Ypey discussed the decoration on the plate, which he related to the decoration of the buckles of type Syrakus, defined by Werner.¹⁰⁴ On the occasion of a visit by Werner to Ypey's laboratory in Amersfoort, the Bergeijk buckle was shown to Werner, who did not agree with Ypey's interpretation. Werner suggested that the decoration represented the stylized heads of birds.¹⁰⁵ Plate buckles like these are identified by Legoux, Périn and Vallet as their type 131, which they date to their phases MA3-MR2 (560/570-670/680).¹⁰⁶

Fig. 6.12
Various copper alloy plate buckles with fixed plate. Scale 1:1.



(93) Menghin 1983, 146-148, chronological table: Abb. 25. (94) Legoux/Périn/Vallet 2004, 15, 29, 52. (95) Siegmund 1998, 32 (type Gür4.7). (96) Siegmund 1989, 41. (97) Müsseseimer/Nieveler/Plum/Pöppelmann 2003, 42. (98) Legoux/Périn/Vallet 2004, 16, 30, 53. (99) Pirling 1979, I, 126, II 68-69, Tafel 68. (100) Siegmund 1998, 40.

(101) Müsseseimer/Nieveler/Plum/Pöppelmann 2003, 41. (102) Legoux/Périn/Vallet 2004, 16, 30, 53. (103) See also Ypey 1957/1958, 84. (104) Ypey 1957/1958, 86; Werner 1955, 37. (105) Ypey 1957/1958, 86-87. (106) Legoux/Périn/Vallet 2004, 16, 30, 53.

Small plate buckle with fixed triangular plate and rectangular loop, copper alloy metal, probably shoe wear

49.q1

This extraordinary plate buckle was found in the northeast corner of the container. This location supports its interpretation as an element of footwear. The entire surface of the more or less triangular plate is decorated with a cast decoration of deep grooves and ridges (fig. 6.12). Where rivets would normally be, three blue dome shaped glass inlays were placed instead, of which only one survives. On the back are three perforated clips to fix the buckle to a leather strap. Metal wire is twisted around the rectangular loop. This buckle can be assigned to type 130 by Legoux, Périn and Vallet, dating to their phases MA2-MR1 (520/530-630/640).¹⁰⁷ The blue glass inlays, however, are exceptional. Belt fittings inlaid with glass or garnets are rather an element of the second half of the seventh century.¹⁰⁸

Dress accessories

Fig. 6.13
Various copper alloy and silver ear-, arm- and finger rings.
Scale 1:1.



Large earrings: silver

Grave 9.c9

Grave 9's record card mentions that on both sides of the skull remains, white material or metal was found. After conservation of the finds it turned out that the remains of two silver earrings and beads of small shell discs had been unearthed. The earrings are in a fragmented condition (fig. 6.13), and are composed of a wire, on which a polyhedron was strung. On each side of the polyhedron, a silver wire was twisted around the main wire of the ring. Complete specimens of this type of earring show that one of these wires is the main wire which is bent back and twisted around one end of the earring to form a loop. A small hook at the other end

could be attached to this loop to close the earring. Siegmund identified these earrings as his type Ohr7. They belong to Rhineland phase 10.¹⁰⁹ The inventory of earrings provided by Siegmund is not complete. Strangely enough, he did not use the catalogue of such earrings composed by Schulze-Dörrlamm.¹¹⁰ Her catalogue, however, is not complete either. We combined both catalogues and added new finds (fig. 6.14, appendix 6.1).¹¹¹ Schulze-Dörrlamm confirms the relatively late date of these earrings. This late date is also apparent from the find of such earrings in two graves in Dommelen. These were accompanied by pressed gold foil fibulae (*Pressblechfibeln*), long strap ends, simple iron buckles, equal armed fibulae, and in one case a sceatta of the continental runic type, usually dated between AD 700 and 710/20.¹¹² These earrings are thus still deposited in graves in the early eighth century. However, the inventory of grave 3046 from the Metzervisse cemetery (France, department Moselle) shows that they may occur somewhat earlier in the seventh century. Two large silver earrings were accompanied by a shield boss-shaped disc fibula and a plate buckle inlaid with silver and copper alloy in an animal style pattern as well as a knife, double sided comb and necklace incorporating almond shaped amber beads and small shell discs. The grave is dated to the middle third or third quarter of the seventh century by the author.¹¹³ Legoux, Périn and Vallet assign it to their type 307 in which, unfortunately, several types of earrings are grouped

together. They date it in their phase MR 2 (630/40-660/70), although it is occasionally also found in both older and younger graves.¹¹⁴ Thus the early date need not be compulsory for our type of earring, and a date later in the seventh century is most likely for the Bergeijk specimen.

Earrings: silver and unknown material

Graves 51.e; 120.b*/c*

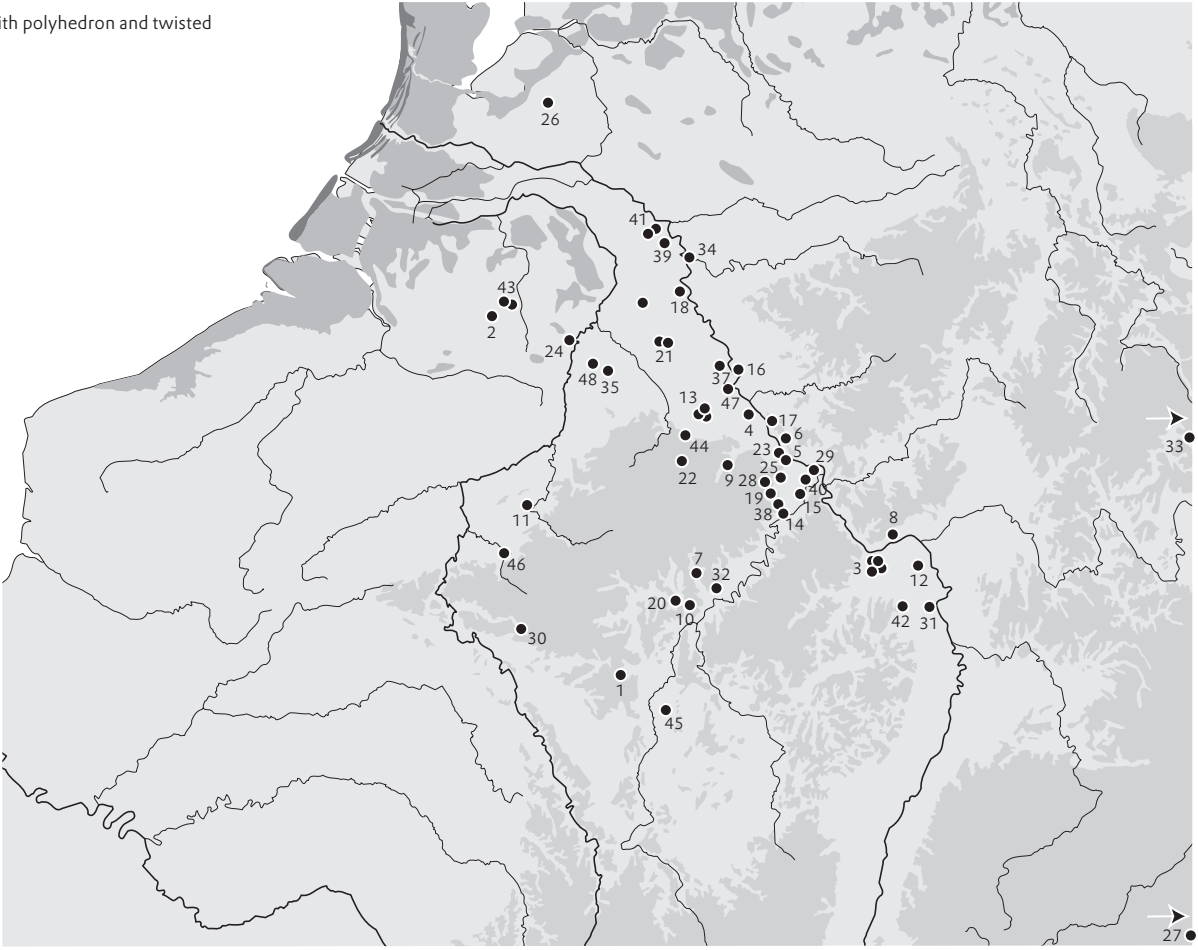
In grave 51, six fragments of a silver earring were found. They are severely corroded and fragmented. The earrings of grave 120 are mentioned on the grave documentation card. They were situated on each side of the skull, which was visible as a soil discoloration or silhouette. The earrings are lost now and no further information is available.

Bracelet: copper alloy

Grave 19.h1

In grave 19 a bracelet was found on what was probably the left side of the deceased's body, in the vicinity of a number of molars. If the molars indicate the location of the skull it is not likely that the bracelet was on the deceased's wrist. The bracelet is of an open type with thickened ends that are decorated with cast lines (fig.

Fig. 6.14
The distribution of ear rings with polyhedron and twisted wire. See appendix 6.1.



(107) Legoux/Périn/Vallet 2004, 16, 30, 53. (108) Werner 1950, 26. (109) Siegmund 1998, 43-44. (110) Schulze-Dörrlamm 1990, 160, 161 Abb. 6, Fundliste II (391-392). (111) See the find list in appendix 6.1. (112) Grierson/Blackburn 1986, 152-153. These graves will be dealt with in detail in one of the forthcoming publications of this research programme. (113) Lansival 2009, 507-516, fig. 23. (114) Legoux/Périn/Vallet 2004, 18, 38, 54.

6.13). The maximum outer diameter of the ring is rather small (62 mm), which fits well with the fact that the skeletal remains from this grave are those of a young child. Siegmund identified these types as Rng1.2. They occur only in Rhineland phase 8 (610-640) in his research area. The Franken AG suggested a wider date range: phases 5 to 8 with the majority of these rings dating in phases 6 and 7 (580/90-640/50).¹¹⁵ In the typology of Legoux, Périn and Vallet, it is type 338 dating mainly in phases MA1 to MA3 (470/80-600/10) and sporadically in phases MR1 to MR3 (600/10-700/10). This wide date range is probably due to the inclusion of several types of copper alloy bracelets in this single type, which in the German typologies are separated. The Bergeijk bracelet probably dates from the first half of the seventh century.

Pendants: gold

Graves 65.v2; 70.a1

In two graves gold pendants were found. Usually gold pendants form part of a bead necklace; however, no beads were found in either grave. In grave 65 was also a gold filigree disk fibula.

The pendant from grave 65 possesses an oblong rectangular shape with rounded corners and undulating edges (fig. 6.15). A band shaped loop was fixed at its top. It is more or less circular and is decorated with four ribs and three grooves. The rim of the pendant is marked by a gold twisted wire. Its inner field is characterised by six small protrusions encircled by either a filigree or twisted wire. There are small circles of filigree or twisted gold wire between the protrusions. Between the top four protrusions and above the top pair are larger circles of twisted gold wire. The central part of the pendant is partially covered by a large single braid of a double twisted gold wire placed lengthwise, as well as one small single braid, also of a double twisted gold wire, placed at right angles to the central axe of the pendant. At the back of the pendant, the hollows left by each of the protrusions can be seen.

The pendant from grave 70 is also composed of gold foil. Its shape is an oblong rectangle with rounded corners and undulating edges (fig. 6.15). A band shaped eye was fixed to the upper part of the pendant. It is decorated with two shallow grooves. The shape, furnishings, and motifs of this pendant differ slightly from those of grave 65's specimen. There are only two circular protrusions on the axis of the pendant and two semicircular ones along its length. Gold filigree wires encircle the protrusions. The edge of the pendant is decorated by a gold wire with notches on the inside imitating a filigree wire. The inner field of the pendant is divided into three zones by a thick twisted wire below the upper protrusion, and two thinner lines of plain gold pearl wire running from

Fig. 6.15
Gold pendants and disk fibula of graves 65 and 70. Scale 2:1.



the lower protrusion to the edges. In the upper and lower zones, curved filigree and twisted wires are present. The remaining spaces are filled with small circles of gold filigree wire. Both pendants are related in terms of their form and elements of their decoration (protrusions encircled by filigree wire, small circles, wire marking the edge), but the execution of the decoration of the specimen from grave 70 is more crude than that of grave 65. The graves are located close together in the northwest corner of the cemetery. Usually such a difference between two comparable objects is interpreted as one (grave 70) being an imitation of the other (grave 65) by a less well skilled craftsman. If so we have no indications as

to why the imitation occurred; one can suspect some kind of relation between the women.

Pendants with filigree are regularly found in graves of the sixth century, and are usually circular in shape.¹¹⁶ Siegmund dates these to Rhineland phases 5 to 7 (555-610), but they are found in seventh century contexts as well.¹¹⁷ The FAG dates these pendants in phases 4B to 8 (c. 540-670/680), although singular specimens may occur in phases 9 and 10 (670/680-750).¹¹⁸ Pendants with the form and arrangement comparable to the Bergeijk specimen are hard to find. The shape of the oblong pendants found in grave 53 from Hüfingen (Germany, Baden-Württemberg) is comparable to that found in grave 70.¹¹⁹ However, the Hüfingen pendants were constructed with cells as if they were meant to be decorated with garnets, which were, however, never fitted into them. The grave dates from around 600 AD. In grave 4 of the cemetery at Tübingen (*Fundstelle* II) (Germany, Baden-Württemberg), pendants were found with a shape comparable to that of the pendants from Bergeijk. As in Hüfingen, they were associated with a large disc fibula. The pendants of Tübingen, however, are decorated with a few garnets. The grave is dated to the last quarter of the sixth century.¹²⁰ In view of this evidence, the Bergeijk specimens may be considered 'imitations' of the high quality pendants of Hüfingen and Tübingen and date from the late sixth or early seventh century.

Finger ring: copper alloy

Grave 47.h*; 89.a; 124.d1

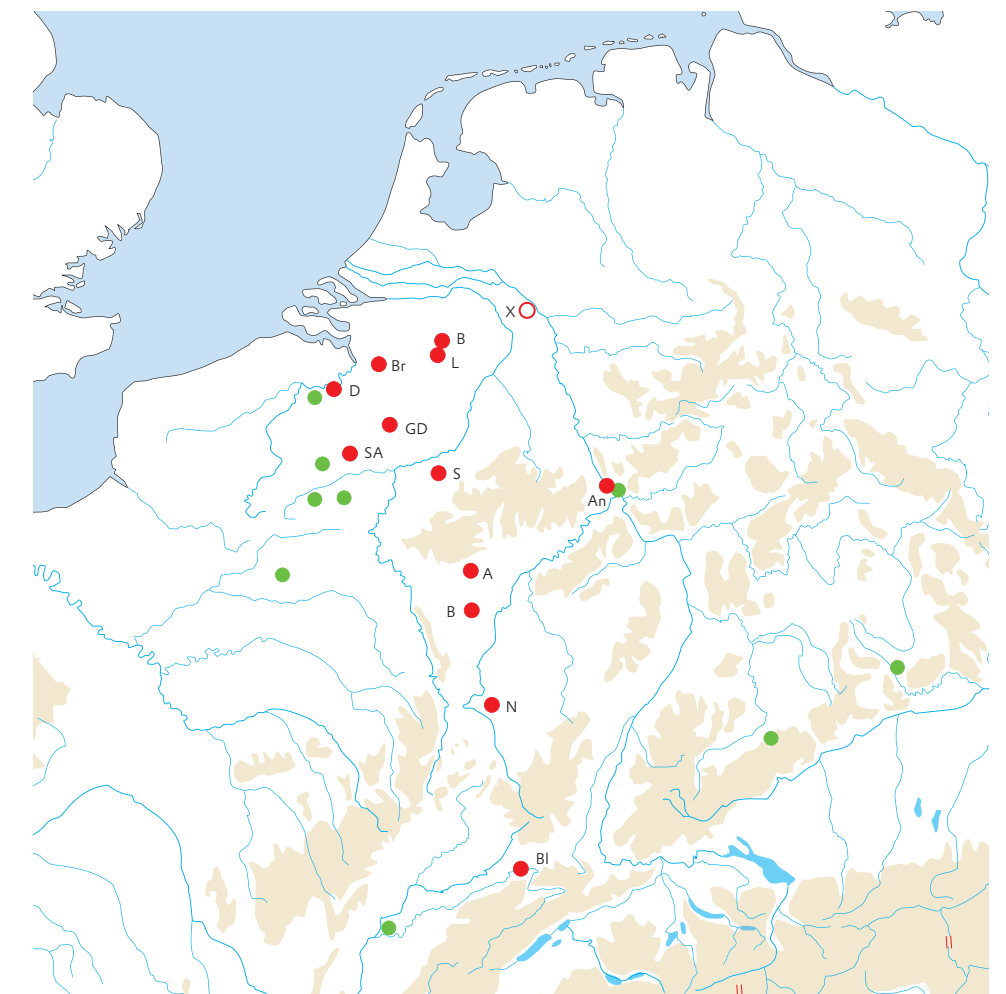
In grave 124, a copper alloy finger ring was found (fig. 6.13). It contains a d-shaped section. A portion of the ring is flat with undulating edges. Simple finger rings such as this are difficult to date precisely. The ring from grave 47 is missing. The excavators' drawing in the field administration suggests that it bore a bezel decorated by a spiral motif. The simple ring from grave 89 encloses a triangular section (fig. 6.13).

Disk fibula: copper alloy, gold and garnets

Grave 65.e1

In grave 65 a disc fibula was found (fig. 6.15). It consists of gold foil fixed to a copper alloy ground plate by three rivets. The gold foil is dented in some places, and its centre is raised (German: *Mittelbuckel*). The surface of the fibula thus contains two zones: the central raised zone and a circular outer zone. The outer zone is decorated with three birds in a cloisonné style with garnets as well as filigree wire in various shapes. Atop the raised area is a cell filled with a white paste, possibly opaque glass. Each of the birds in the outer zone consists of four cells. The cell walls are folded over the

Fig. 6.16
The distribution of disk fibulae with bird motive. Red: 'natural' birds, green: stylized birds (after Graenert 2007, with additions).



(115) Müsseseier/Nieveler/Plum/Pöppelmann 2003, 39. (116) Koch 2007a, 129-130; 2007b, 368-369. They are considered a form of jewellery 'imported' from the Eastern Mediterranean region. Contacts with the Longobards in the later sixth century is thought to have boosted the popularity of these round pendants. (117) Siegmund 1998, 78. For younger contexts, see for instance Ypey 1973; Stork 1997, 305, Abb. 326, 307, Abb. 329 (however, of a different 'type', without filigree); Theune Gross-kopf 1997, 477, Abb. 551 (also without filigree). Böhner, too, assigns such pendants mainly to the sixth century (Böhner 1958, 125). (118) Müsseseier/Nieveler/Plum/Pöppelmann 2003, 39. (119) Fingerling 1985, 428, Abb. 13; Steuer 1997, 280, Abb. 301. (120) Schmitt 2005, 45-46, 177-179, Tafel 73, 4-7.

inlaid garnets. The two lower cells, forming the body, were filled with flat red garnets or glass inlays below which a gold foil with a lozenge pattern was placed. In two cases, the head of the bird was constructed similarly. In one case, the head consisted of a piece of purple glass or garnet or perhaps amethyst. No gold foil is below that stone or glass. The oval eyes of the birds are filled with a white paste, which may be opaque glass or another material. The birds are of a naturalistic form.¹²¹ The remainder of the gold foil surface is filled with various shapes in filigree. Along the edges of the fibula are half circles of double filigree pearl wire. The circles are sometimes filled with irregular forms of single filigree wire. The raised central zone is decorated with filigree consisting of half circles of double filigree wire, of which one seems to be missing, and figure 8-shaped ornaments of a single filigree wire that are sometimes incomplete and in one case, end in a spiral. The filigree decoration seems to be somewhat irregular.

Disc fibulae have recently been studied anew by Graenert.¹²² The Bergeijk specimen possesses the following characteristics that she defines: with a diameter of 3.25 cm, it is small, round, decorated with naturalistic bird shaped cloisonné elements and filigree style 3 (possibly a), and has a raised central field. It is, however, difficult to determine the filigree style exactly. On the basis of these characteristics the Bergeijk specimen fits her fibulae group 2 best.¹²³ She dates this group with group 1 to the end of the *Ältere Merowingerzeit* III/beginning of the *Jüngere Merowingerzeit* I up to the *Jüngere Merowingerzeit* II. This implies a date range from c. 590-600 to c. 620-640.¹²⁴ The gold pendant found in the same grave has a similar date range.

Graenert lists ten fibulae with the naturalistic cloisonné bird motif of which one, found in Xanten, was uncertainly identified. The Bergeijk specimen is the northernmost example of this type of disc fibula, with the exception of the Xanten specimen. The others are found in Belgium and in a more or less straight line further to the south east of the Meuse river. One specimen is found on the Rhine in Andernach (Germany, Rheinland-Pfalz) (fig. 6.16). To this list a specimen from the cemetery of Grez-Doiceau (Belgium, province of Brabant Wallon) can be added and one from the Broechem cemetery (Belgium, province of Antwerpen).¹²⁵ The specimens with a stylized cloisonné bird motive are found to the west of these, with the exception of one along the Rhine in Andernach and two in south Germany.

Beads

Table 6.1
The distribution of beads over the various graves.

Context nr	Number of beads	Missing	Mono-chrome	Poly-chrome	Amber	Other
0	1	0	1			
7	5	1	4			
9	11	0	7	1		3
17	5	5				
19	63	0	44	14	4	1
21	1	1				
22	4	0	2	2		
23	1	0			1	
27	8	0	8			
28	2	0	2			
29	1	0	1			
30	1	0	1			
36	4	0	4			
38	1	0	1			
43	4	0	3	1		
45	19	2	17			
47	17	17				
50	7	7				
53	24	4	18		2	
56	6	6				
66	20	20				
71	16	16				
74	2	2				
77	1	0			1	
81	2	2				
82	8	8				
85	28	28				
86	2	2				
88	23	0	23			
89	24	0	20	2	2	
90	6	6				
103	3	3				
108	3	3				
110	4	4				
115	2	2				
122	54	0	49	5		
Total	383	139	205	25	10	4
Average	11					

During the excavation of the cemetery, at least 383 beads were found, distributed over 35 graves. Many of these graves had been reopened after burial and an unknown number of beads taken from the graves.¹²⁶ Of the beads that were excavated, at least 139 were lost after the excavation. Since the find lists do not always record the exact number of beads found, the exact number of excavated beads is not known.¹²⁷ The remaining number of beads that could be studied is 244.¹²⁸ One of these is a stray find of a Roman bead. Thus 243 Merovingian beads are available for study. The largest number of beads per grave is only 63 (grave 19). The average number of beads in the 35 graves is 10.6, which is low compared to the Rhineland.¹²⁹ These figures demonstrate that the collection of beads from Bergeijk cannot support far reaching analyses of beads and assemblages thereof. In table 6.1 the distribution of the beads over the 35 graves is given. It details that the complete collections of beads from 16 of the 35 graves were lost after the excavation (graves 21, 47, 50, 56, 66, 71, 74, 81, 82, 85, 86, 90, 103, 108, 110 and 115).

The majority of the beads, 230 specimens, are made of glass. There are 10 beads of amber, one of a copper alloy, three of shell, and one of an unknown material. The glass beads can be divided into two subgroups: a monochrome and a polychrome group. As can be seen in table 6.1, there are only 25 polychrome beads. This is in accordance with general observations on assemblages of seventh century beads that are, as a rule, less varied and extravagant than those from the sixth century.¹³⁰

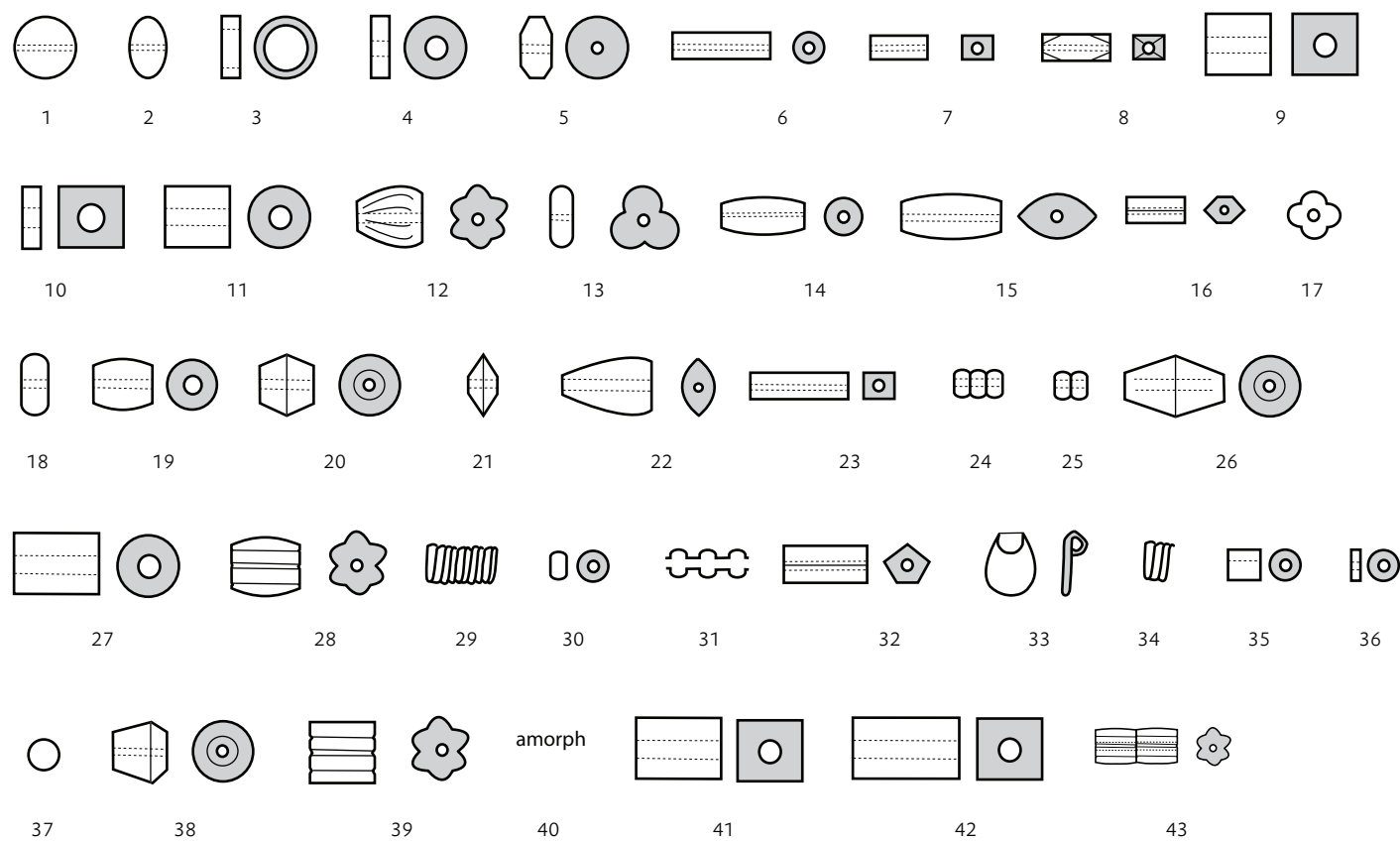
The study of Merovingian beads has developed considerably in recent years. One of the initial goals of this plethora of studies was to develop a sound typo-chronology of beads in order to date women's graves containing few other artefacts.¹³¹ Soon other research questions, such as those related to distribution mechanisms and the organisation of production, were also taken up.¹³² However, creating bead typologies that could be used in reliable statistical analysis and seriation turned out to be a difficult task. The variety of beads in terms of shape, colour and decoration seems endless, especially in the sixth century. Nevertheless, several attempts were made at creating such typologies and subsequent seriations.¹³³

It is acknowledged that creating seriations of bead ensembles is not a straightforward analysis.¹³⁴ Several cultural and post-depositional processes influence the composition of bead ensembles and thus the results of seriations. Beads are very durable objects that could have remained in use for several generations. They may have played a part in the intergenerational transfer of objects and old beads may have been combined with new ones on a string.¹³⁵ Seriations of beads in different regions seem to produce different results, suggesting that the beads were produced regionally. This may explain why several types in the Bergeijk cemetery cannot be found in the typo-chronology of beads from the Lower Rhine Valley. Social factors may also be a source of bead ensemble variation. To my knowledge, not much research has been done on the possible relation between the age of the deceased and the composition of the bead ensemble in a grave.

Other conditions influencing bead ensembles found during excavation are later disturbances, crude excavation and recording methods, disorderly storage after excavation, etc. One last factor not much included in bead theory is the function of the ensemble. Since function might influence the composition of ensembles, we should ask whether it is advisable to analyse necklaces, arm and ankle bracelets, and groups of beads sewn to garments or straps suspended from belts in a single seriation. It seems likely that seriations of bead ensembles are only useful if they concern ensembles with a comparable function from intact graves. Moreover, it would be of great help if the age of the women buried with the beads is included in the analysis. Although the way bead seriations are currently conducted is problematic, they seem to be used widely. Complications of the seriation procedure have resulted in a rough subdivision of bead analysts into groups of optimists and pessimists. Pessimists point to the fact that seriation results seem to indicate that it is relatively easy to distinguish a small group of early beads and a small group of late beads. However, the large group that comprises the bulk of the Merovingian beads is difficult to differentiate internally.¹³⁶ Optimists believe in the possibility of creating chronotypologies of beads that can be used to date women's graves accurately. We probably belong to the moderate pessimists, and did not strive to find well defined chronological

(121) Graenert 2007, 71, 140, Liste 8. (122) Graenert 2007. See also Thieme 1978; Rademacher 1940. (123) Graenert 2007, 43. (124) Graenert 2007, 60. (125) The Grez-Doiceau cemetery was excavated by Olivier Vrielinck. The specimen has not yet been published in extenso, but is presented in an exhibition flyer: ‘*De l’or sous la route. Découverte de la nécropole mérovingienne de Grez-Doiceau*’ published by the Direction de l’Archéologie du Ministère de la Région Wallonne. See also Mathis/Vrielynck/Laclavetine/Chiene/Strivay 2008. Broechem: unpublished, information kindly provided by Rica Annaert of the Flemish heritage organisation. (126) For an analysis of the relation between grave reopening and the number of beads found in graves, see chapter 4. (127) That is to say we have not been able to track them; they may be boxed in some storeroom. (128) The information regarding the lost beads in the original excavation documentation is insufficient to take into account in an analysis of the beads. (129) The average number of beads in Siegmund’s study area is different for various *Kombinationsgruppen* of beads. The figures for groups G, H and I are relevant for our present research. They are: G: 30.9, H: 51, I: 39.1 (Siegmund 1998, 60-61). (130) Walter 2008, 86. (131) Von Freeden/Wieckzorek 1997; Koch 2001, 160; Walter 2008, 71. In England the study of Anglo-Saxon beads flourished as well: Guido 1999; Brugmann 2004. (132) Matthes et al. 2004. (133) A few examples: Koch 1977, 71-72, 198-218, Farbtafel 1-6; Koch 2001, 160-164, 593-622, Farbtafel 1-8; Grünewald 1988, 79-93, 225-227, Tafel 132; Theune-Vogt 1990; Sasse-Theune 1996; Siegmund 1998, 57-80, Tafel 1-2; Legoux 2005, 111-117, Annexe 6-7, Annexe 9; Walter 2008, 71-86, Tafel 275-277. For Anglo-Saxon England see: Guido 1999; Brugmann 2004. (134) Müssemeier/Nieveler/Plum. Pöppelmann 2003, 35-36 (they point to the fact that narrowly defined types of beads only contain a few specimens, so that they are often not useful in a seriation); Walter 2008, 85. (135) Walter concludes that in several strings from the Mengen cemetery, old beads were a part of younger strings of beads (Walter 2008, 85). (136) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 36. Nevertheless, the analysis of the early and late groups is hampered by distortions appearing at the ‘edges’ of the seriations.

Fig. 6.17
The repertoire of bead forms included in tables 6.2 and 6.3.



differentiation in our material. Most of the Bergeijk material can be assigned to Siegmund's *Kombinationsgruppen* H and I, which overlap in time and date to the seventh century.¹³⁷ Some beads are probably older, but were integrated in younger ensembles.

The typo-chronology of beads

The research of Merovingian beads seems to have been monopolized by specialists who create overly meticulous typologies with types represented by only a few specimens. These are thus of little use in seriations. We decided to use a relatively simple system of classifying monochrome beads, consisting of a table with two variables: basic colours and a series of shapes (table 6.2). The shapes were defined on the basis of existing publications, so there are more shapes in figure 6.17 than were found in Bergeijk or in the southern Netherlands. We defined 43 shapes; others can be added in a later phase of cemetery research in the region. The table

distinguishes only basic colours: red, green, yellow, blue, orange, black, brown, white and colourless. Each of these colours can be opaque or translucent (see table 6.2). We added additional columns for beads with silver and gold foil (*Überfangperlen*); beads of crystal, amethyst, amber and shell; and finally two columns titled opaque general and translucent general. These last two serve to classify beads that cannot be put in one of the other columns.¹³⁸ A type indication is thus relatively simple: a Red Opaque bead with shape 34 is RO 34. We believe that we can thus simply identify all monochrome beads we encounter, resulting in no less than 25 times 43, meaning, 1075, possible types. Our goal is to create a relatively simple classification of the entire set of monochrome beads in the Merovingian cemeteries of the southern Netherlands.¹³⁹ We compared this classification with the one made by Siegmund by placing his types into the corresponding fields of our table (see table 6.2).

(137) Siegmund 1998, 63. (138) One criterion has not been considered by us: bead size. From the figure with forms it can be deduced that small and large beads can be distinguished to some extent, but we did not measure our beads to conduct a numerical analysis of their size. (139) We can thus provide relatively quickly overviews of bead ensembles in the region as a whole and in individual cemeteries without excessive detail work. (140) It is not always easy to distinguish between barrel shaped and biconical beads, thus the difference between these two groups is not very meaningful. (141) Koch 2001. (142) One such region could be the middle Meuse valley and adjacent regions, which can be demarcated fairly well (see Theuvs 2010). (143) Koch 2001. The overview of beads in northern France is neither detailed enough nor published in full colour (Legoux/Périn/Vallet 2004). (144) Below I refer to the plates in the publication of the cemetery of Pleidelsheim (Koch 2001, Farbtafel 1-8) (145) A bead workshop producing only monochrome beads has been excavated in Maastricht (Sablerolles 1995). (146) This type of bead is regularly encountered in cemeteries in the southern Netherlands and northern Belgium.

The glass monochrome beads

Table 6.3 has been simplified by omitting Siegmund's type identifications. The light brown fields in the table show the types of beads from Bergeijk that were identified. In each light brown field, the number of beads per type is indicated. The table can thus be used to establish which forms and colours are available for research. We identified 55 types of monochrome glass beads. At the bottom of the table, two new rows show the prevalence of the various colours. The upper row contains the number of forms of a particular colour; beneath, the total number of beads with that colour is given. It is clear that three opaque colours dominate the spectrum: yellow, orange, and white. However, the blue translucent beads also form quite a substantial group.

Two additional columns to the table's right delineate the variety of forms in Bergeijk. The left column shows the number of colours associated with each shape, and the right column presents the total number of beads of each shape. Four shapes have around 20 or more beads: barrel shaped (19), bi-conical (20), double segmented (25) and long twisted wire (29).¹⁴⁰ Other forms that regularly occur are: are ring shaped (4), almond shaped (15) and small barrel shaped (30). In terms of shapes and colours, the Bergeijk ensemble seems to possess characteristics typical of the seventh century.

The glass polychrome beads

Only 25 polychrome beads were found, the majority in grave 19. Koch and others demonstrated that the variety in polychrome beads is immense.¹⁴¹ It can be hypothesised that this is due to the large number of workshops producing these beads. It would therefore be interesting to compile all polychrome beads of a specific region and compare the regional assemblage with that of other regions.¹⁴² This is not yet possible for southern Netherlands and the Meuse valley, where many bead collections have not yet been published or were not published in detail.

Overviews of the variety of polychrome beads exist only for very few regions, with Koch's southern German surpassing the others.¹⁴³ It is for this reason that we compared the polychrome beads from Bergeijk with those from Southern Germany, and not with other regions. All polychrome beads from the Bergeijk cemetery have been gathered in one figure (fig. 6.18). A comparison with the bead types from southern Germany shows that quite a considerable number of bead types from Bergeijk were found there as well.¹⁴⁴ If regional workshops produced these beads, then there must have been, to some extent, a consensus on the form and decoration of beads. The other possibility is that production of polychrome beads was not regionalized to the extent usually supposed, and that a limited number of workshops produced polychrome beads traded over considerable distances. Monochrome beads may have been produced on a more regional scale.¹⁴⁵ Scientific methods should be used to test this hypothesis in the future.

The long red beads with yellow dots and a square section (89.g8; 22.c1-g1) are identical to Koch's type 3, 39.¹⁴⁶ The cube 19.j21 is almost identical to Koch type 67, 2 except for the small yellow dot in

Fig. 6.18
All polychrome beads from Bergeijk-Fazantlaan. Scale 1:1.



Table 6.2
The standard identification table for monochrome beads as used in the Anastasis project. The S-numbers in various fields are the bead types according to Siegmund (1998).

Shape	RO	RT	GO	GT	YO	YT	BO	BT	OO	OT	BLO	BLT	BRO	BRT	WO	WT	CT	SU	GU	C	AM	S	OG	TG	A
1															Tno.3										
2																									
3																							S5.5		
4																									
5																									
6	S35.1			S46.2			S1.2	S1.2								S42.3									
7																							S1.5	S1.5	
8								S47.9																	
9																						S1.6			
10																									
11			S36.2						S34.1																
12																									
13																									
14																									
15			S1.8																			S1.8	S1.8		
16				S46.4																		S1.4			
17																									
18																									
19																									
20	S35.6				S33.5		S37.1	S47.3	S34.1						S32.3										
21				S46.1		S48.1		S47.2																	
22								S47.6																	
23																									
24	S35.7		S36.4		S33.6		S37.2	S47.7			S31.2				S32.2										
25	S35.7		S36.4		S33.6		S37.2	S47.7			S31.2				S32.2										
26								S47.5																	
27				S46.3																					
28																									
29				S46.5				S47.4																	
30											S31.1														
31						S42.2										S42.2		S40.1	S40.2				S1.3		
32				S46.4																			S1.7		
33																									
34	S35.5		S36.3												S32.1										
35	S35.2		S36.1		S33.1			S47.1																	
36	S35.3				S33.2																				
37	S35.4		S45.1		S33.3	S48.1		S47.1								S42.1									
38					S33.4																				
39								S47.8																	
40																				S5.1					
41																									
42																									
43																									

Table 6.3
The bead types present in the Bergeijk-Fazantlaan cemetery. When a bead type is present, the field is marked light brown and the number of beads present

Shape																											Shape		
	RO	RT	GO	GT	YO	YT	BO	BT	OO	OT	BLO	BLT	BRO	BRT	WO	WT	CT	SU	GU	C	AM	S	OG	TG	A	# colours		# beads	
1																											0	0	1
2									2							1											3	4	2
3																											0	0	3
4																12											2	15	4
5																											0	0	5
6																											0	0	6
7																											0	0	7
8																											1	1	7
9																											1	1	8
10																											0	0	9
11																1											0	0	10
12																											1	1	11
13																											0	0	12
14																											0	0	13
15																											0	0	14
16																1											4	10	15
17																											0	0	16
18																											0	0	17
19																											2	2	18
20																											6	34	19
21																											6	37	20
22																											0	0	21
23																											2	7	22
24																											0	0	23
25																											7	11	24
26																											4	20	25
27																											0	0	26
28																											1	1	27
29																											1	1	28
30																											4	24	29
31																											4	18	30
32																											0	0	31
33																											0	0	32
34																											0	0	33
35																											2	3	34
36																											3	8	35
37																											3	5	36
38																											0	0	37
39																											0	0	38
40																											0	0	39
41																											4	1	40
42																											1	1	41
43																											1	1	42
# forms	8	0	4	3	9	1	4	11	2	0	1	1	0	1	11	0	0	0	0	0	0	1	0	0	0	0	5		
# beads	15	0	8	6	59	1	4	35	33	0	1	1	0	4	31	0	0	0	0	0	0	3	0	0	0	9			

of that type is indicated (for instance, there are 26 orange opaque beads of form 19). Presented thus, this table creates a ‘fingerprint’ of the monochrome bead composition of this cemetery.

Fig. 6.19
All amber beads from Bergeijk-Fazantlaan. Scale 1:1.



the middle of the blue cross. The cylindrical red beads with white lines and yellow edges (19.j15) are identical to Koch's type 58, 6. The small red bead with winding white stripes (43.e1) is identical to Koch's types 34, 48/49, but this type is very common in many regions. It is also Siegmund's type 35.8.¹⁴⁷ The combination of form and decoration of bead 19.i2 with five sides cannot be found in the Koch's typology, but the type of eyes (red dot in white field in blue circle) is a regular phenomenon in her group 15. The dark beads with small specks in various colours (9.c3; 122.c7) are Koch's type 11, 14/15. The red bead with white lines and a translucent blue line over the centre of the bead resembles Koch's type 30, 4. The blue bead with red dot in white field is Koch's type 7, 18. The red bead with blue dot in white field is Koch's type 6, 10/11. The red bead with yellow undulating lines 19.j4 is Koch's type 34, 67.

No comparable specimens were found in Koch's typology for a number of polychrome beads. These are: 19.j10; 19.j11; 19.j14; 19.42; 19.j29; 19.23 and 122.c11. Bead 89.g5 is probably a fragment and might belong to the group of beads with specks in various colours. Bead 19.j42 bears some resemblance to Siegmund's type 35.10, placed in his groups G to I that date in the late sixth and seventh centuries.¹⁴⁸

Beads of shell disks

The bead ensemble from grave 9 included three shell disc beads. They are corroded, so it is difficult to determine whether they are of mother of pearl or another type of shell. It is surprising that they were preserved in the sandy soil. Beads of this type were studied by Siegmund.¹⁴⁹ They are an element of his *Kombinationsgruppe* I, which dates to the later seventh century.¹⁵⁰ Scientific analyses of a number of these shell beads indicate that they were probably made from the shells of oysters living in warm conditions.¹⁵¹ Siegmund therefore suggests that these shell beads came from the Mediterranean.¹⁵²

Beads of amber

In five graves, a total of ten amber beads were found (table 6.1).¹⁵³ The specimen from grave 23 is fragmented. The beads vary in shape (fig. 6.19). Two (19.j17 and 53.e1) are flat almond shaped, one (53.nn2) is essentially round, two (19.j34 and 77.d1) are oblong with a square section, and the others, irregularly shaped. The amber beads will have been imported from the north and the Baltic area.¹⁵⁴

Copper alloy bead

In grave 19, a copper alloy or low grade corroded silver bead made of a twisted wire was found (fig. 6.20). Such beads are quite rare. In Xanten I, grave 44, three similar beads of silver wire were found.¹⁵⁵ Siegmund found comparable specimens in northern Germany, dating from the late Merovingian and Carolingian periods. In Xanten grave two, so called *Pressblechfibulae* were found, which date to the later Merovingian period. It is interesting to note that in the Xanten grave, small rings of silver wire with twisted ends were found; these are similar to the copper alloy ring in the Bergeijk grave 19 (discussed below). Thus we have two instances of these rare necklace elements occurring together. One combination is in silver (Xanten), and the other in a copper alloy, unless the bead is also of silver (Bergeijk).

Copper alloy ring with twisted ends

In grave 19, a small ring of copper alloy wire whose ends are twisted together was found (fig. 6.20). It must have belonged to the ensemble of beads. Similar specimens have been found in Xanten I grave 44.¹⁵⁶ This grave dates to the later seventh century. Similar rings were found in Schleithem (Switzerland, Kanton Schaffhausen) graves 363 and 455 as well.¹⁵⁷ These graves are the earliest graves in the cemetery. Grave 363 is dated to the second quarter of the fifth century, and grave 455 belongs to Schleithem Stufe 1, dated to the middle of the fifth century (440/450-460/470).¹⁵⁸ The graves' date is surprising because the Schleithem and the Xanten graves are at the chronological extremes of the Merovingian cemetery traditions. This type of necklace rings has also been found in a grave in Borgharen (Netherlands, province of Limburg) which was excavated recently.¹⁵⁹

Melon shaped bead (Roman)

A fragment of a Roman melon shaped bead was found as a stray find (fig. 6.20).

The location of the beads in the grave

Beads are often part of necklaces, but this is not their only use. They can be sewn onto clothes for different purposes, like accentuating hems of different types of cloths, or worn as bracelets around the arm or ankle.¹⁶⁰ Moreover, they could be part of strings of beads and other objects suspended from fibulae or waist belts.

One way of establishing the use of the beads is to study their distribution in the grave. This, of course, is not a clear-cut affair. The position of the beads as found by excavators is the outcome of

Fig. 6.20
Copper alloy bead and pendant from grave 19 and melon shaped Roman bead (stray find). Scale 1:1.



numerous processes such as original deposition of the beads, their movement during the decomposition of the organic materials in the grave (especially in the thorax area where downward movement can be considerable), movement due to animal activity, and movement and removal during grave reopenings. In addition, archaeologists often do not record the position of beads accurately, thereby limiting the possibilities for further research.

As a result, the function of the beads and their original position on a string can only be established in exceptional cases, which may nonetheless be quite meaningful. The present ordering of the beads on the strings as shown in the catalogue therefore need not be the original one. The spatial relations between contemporary and older beads would, for instance, be an interesting subject of study. The field documentation of the Bergeijk cemetery is not detailed enough to establish the original positions of individual beads. Many of the bead-containing graves in Bergeijk were certainly or possibly reopened, but a small number was intact.¹⁶¹ The average number of beads in intact bead containing graves is 22.6, which is quite a low figure. In what follows, I will discuss the position of the beads in the intact graves.

The beads in grave 7 were distributed so that no proper conclusions could be drawn as to their function. They were probably located in the thorax area.

The beads in grave 9 were orderly, located in a semicircular distribution pattern near the cheek. It is more than likely that the eleven beads formed a necklace.

In grave 19, the beads lay in the western part of the container, in an area c. 24 by 20 cm. According to the field documentation, they were found at various levels, as well as in mole holes at the grave's bottom. It is also recorded that some lay close together. The head of the deceased was probably located in the western part of the container. The beads lay in a semicircular distribution pattern and may have formed a necklace, although it cannot be ruled out that they were sewn to the clothing in the thorax area.

The beads from grave 66 are all missing. They were irregularly scattered over the western end of the container, probably in the area of the neck and thorax. The beads from grave 71 are also all missing. They lay quite closely together near the cheek and neck and were probably part of a necklace.

The beads in grave 88 were all located closely together near the presumable lower end of the skull. The concentrated distribution of the beads as recorded in the field makes it difficult to consider the ensemble as a necklace; the beads, however, could have concentrated during the decomposition process when they were still attached to a string. They could also have served another function, such as a headband or ornaments of headgear.

The beads in grave 89 are scattered over what is probably the thorax area, making identification as a necklace impossible. Some of the grave goods in this grave are in their original position, but the thorax area may have been disturbed by animals, grave reopening, or any number of things. It is of course possible that the beads were sewn to clothes.

The beads of grave 90 are all missing. They were found close together in the western part of the container and may have formed a necklace. The same remarks apply to the beads in grave 110.

Finally, the beads in grave 122 were found relatively close together in the western part of the container, but not far enough to the west to allow easy identification as a necklace unless a child was buried in this grave. It is more likely that the beads form part of the decoration of cloths in the thorax area.

A selection of bead ensembles examined in detail

It is interesting to examine the bead ensembles from graves 19, 88, 89 and 122 in greater detail. These can certainly not be considered as necklaces.

The ensemble of grave 19 consists of a string of 38 beads and one possible ceramic spindle whorl. On the photograph, three beads are not visible (j41, j43, one j19). In addition to this string, there are 22 separate beads, amounting to a total of 63 (fig. 6.21). This is quite a lavish ensemble consisting of a great variety of beads, including copper alloy, amber, monochrome glass, and polychrome glass, some of which specimens are quite rare. The quality of some of the beads, such as the ribbed yellow j23, is very high with a shiny surface. The number of monochrome barrel shaped and biconical beads is low. According to Walter, such ensembles including extravagant beads as well as simple ones, seem to be a feature of the years around 600.¹⁶² She suggests that such ensembles from the years around 600 are reminiscent of the chest ornaments of women in the late Roman period and suggests that this is a renaissance

(147) Siegmund 1998, 71. (148) Siegmund 1998, Tafel 1. (149) Siegmund 1998, 77-80. (150) Siegmund 1989, 59 and 62 (some specimens occur already in his phase 9 (640-670), but mainly in phase 10 (670-705)). (151) Siegmund/Weiss 1989. (152) Siegmund 1998, 78-80. (153) Another 7 from graves 50, 66, 90 and 103 are missing. Thus a total of 17 amber beads were found during the excavation. (154) Bohnsach 1976. (155) Siegmund 1998, 77-78, 452, Tafel 234, 44, 8-10. It is his type Per5.6. (156) See discussion above. (157) Burzler/Höneisen/Leicht/Ruckstuhl 2002, 236-237. (158) Burzler/Höneisen/Leicht/Ruckstuhl 2002, 254-255. (159) Unpublished and in the process of preservation treatment. The grave probably dates from the later sixth or first half of the seventh century, thus providing a specimen dating in between the chronological extremes just mentioned. (160) See, for instance, the discussion in Burzler/Höneisen/Leicht/Ruckstuhl 2002, 261-269; Walter 2008, 73-80. (161) See chapter 4. (162) Walter 2008, 80.

Fig. 6.21
All beads from grave 19. Scale 1:1.



sance of the fashion. Such a date for chest ornaments would fit the Bergeijk ensemble of grave 19 well. The pottery from the grave dates to the first half of the seventh century and does not contradict this date. In view of the coffin's length (1.60 m) and age determination based on tooth capsules, it is likely that the grave is that of a child between 4 and 9 years old. It is interesting to observe such a young child, probably female, buried with such a lavish ensemble of beads and number of other grave goods. In view of the uncertainties in the chronological ordering of pottery, one wonders to what extent the date of the pottery justifies dating this grave in the early seventh century. Conversely, it is also hazardous to date the whole grave to the later seventh century on the basis of two copper/silver alloy elements of the bead ensemble. The location of the grave in the cemetery also needs some consideration in this context. It appears to be placed between existing graves 17 and 21. This may indicate that the grave is younger than graves 17 and 21, which unfortunately, cannot be dated. Whatever is the case, it can be concluded that this ensemble of beads in a child's grave is exceptional for the region.

Only four beads were found in grave 36, one opaque white and three barrel shaped orange specimens (fig. 6.22). The core and edges around the hole of the orange beads have a dark green colour. This is not the first time that such observations were made regarding orange beads. Siegmund suggests that the orange colour was not the original one but developed after the beads were deposited in the soil. They may have originally been green but turned orange due to oxidising processes.¹⁶³

The string of beads in grave 88, like the one from grave 89 to be discussed below, seems to consist of a large number of identical pairs of beads (fig. 6.23). The ensemble is dominated by almond shaped transparent brown and green glass beads, ring shaped white opaque beads, and cylinder shaped beads consisting of twisted opaque blue and yellow glass wire. Only two biconical beads and no barrel shaped beads are present. The beads thus form a typical seventh century ensemble. In view of the paired presence of beads, it is likely that the beads were originally strung in symmetrical order.

The same pertains to the string of beads in grave 89 (fig. 6.24). Two large amber beads are its most prominent elements. Almost the entire ensemble consists of pairs, or in case of the ring shaped opaque white beads, double pairs. There are only four exceptions: the red bead with square section, the irregular bead with dots in different colours, a biconical yellow bead, and a fifth ring shaped white bead. It is possible, however, that the excavators did not recover all beads. If one puts the single red bead in the centre it is possible to reconstruct a symmetrical string of beads. In figure 6.24, a suggestion for the original ordering of the beads is presented.

Fig. 6.22
All beads from grave 36. Scale 1:1.



Fig. 6.23
All beads from grave 88. Scale 1:1.



(163) Siegmund 1998, 61. See also the remarks on the orange beads of grave 122.

Fig. 6.24
All beads from grave 89 (left), their rearrangement in pairs (centre), and a reconstruction of the original string (right). Scale 1:1.



Fig. 6.25
All beads from grave 122. Scale 1:1.



The ensemble of beads from grave 122 is entirely different from the three previous (fig. 6.25). Grave 122 is situated in the younger, southern part of the cemetery. This string of beads supports a grave date later in the seventh century. Barrel shaped monochrome beads determine the overall aspect of the string. The orange specimens especially are very prominent. Orange beads became increasingly popular during the seventh century but are mainly found in Siegmund's *Kombinationsgruppe* I, which he dates to the later seventh century.¹⁶⁴ In view of what has recently been said about the orange colour of beads, however, it is also possible that green beads became increasingly popular. There are only a few polychrome beads in this string. This ensemble is a good example of the changes in bead strings towards the end of the seventh century. The composition of strings became much less varied, which may indicate that fashion norms were more limited and restrictive than they were before.¹⁶⁵ Barrel shaped and biconical beads dominate the spectrum.

To conclude this section, it must be stated that it seems worthwhile to compare the bead ensembles of various cemeteries in southern Netherlands. A quick scan of published ensembles suggests that variability is substantial, but also that many types of beads are also found in cemeteries nearby. Most bead ensembles, however, are published in a manner rendering such a study unfeasible.

Weapons

Fig. 6.26
Various elements of seax scabbards. Scale 1:1.



Sword and scabbard: iron and copper alloy

Grave 24.gg2; 69.j*/n* and 69.a*/b*/k*

On the record card of grave 69, Ypey noted that find j could be the point of a sword, and that find n is one half of a sword guard. He wrote these remarks in red pencil, indicating that they were observations made while cleaning the rusty objects. He also noted that finds a, b and k were copper alloy fittings, probably edge reinforcements of the scabbard. All these objects are lost. On the basis of Ypey's remarks we may conclude that a sword was present in grave 69 but was broken into pieces and mostly removed when the grave was reopened some time after burial.

The corroded iron fragment 24.gg2 is shaped like the point of a sword. The fragment seems to be covered with leather remains. This identification, however, is very uncertain.

Seax and scabbard: iron and copper alloy

Graves 11.c; 33.i1; 52.a3; 52.a4; 52.a5; 68.a2 (?); 69.b*; 78.a1; 111.c*; 119.a*

Due to the bad conservation of iron and the reopening of the graves, only one nearly complete seax has been excavated (52.a5). However, the excavators recorded that in grave 111, a brown feature of approximately 40 cm long was observed. They interpreted this as the oxidized remains of a seax. Three rivets were found in relation to this feature and are identified as seax scabbard rivets. However, although iron is often severely corroded, it usually does not decompose entirely. It is therefore possible that only the remains of a scabbard were observed. Unfortunately, the rivets are lost, so it is not possible to verify the identification of the excavators. A similar observation was made in grave 119 where

(164) Siegmund 1998, 63. He, however, suggests that the orange colour was not the original one but developed when the beads were in the soil. Originally, they might have been green (Siegmund 1998, 61). It is not possible to establish whether the beads of Bergeijk have a green core. (165) Walter 2008, 86.

excavators found a long iron artefact of c. 28 cm long. They suggested that it was a knife, but it may also have been a seax or weaving sword. The length of the blade and grip of seax 52.a5 are 26.5 cm and 13.3 cm respectively. The width of the blade is difficult to establish, but will have been c. 4.2-4.4 cm. It is not possible to determine whether there were grooves on the blade. This seax thus belongs to Siegmund's 'light broad seaxes' (*Leichter Breitsax* type Sax2.1), which he dates to Rhineland phase 8, up to the middle of Rhineland phase 9 (c. 610-655). In the typology of Legoux, Périn and Vallet for northern France, it is type 60, although no grooves can be observed on the Bergeijk specimen (which they assign to their phases MR1-MR3 (600/610-700/710)). In their view, these seaxes may thus also date from the late Merovingian period.

On the seax of grave 52 remains of the leather scabbard are preserved (fig. 6.26). There are ten small copper alloy nails and a substantial amount of mineralised leather along the side of the cutting edge. Three other fragments of leather with small copper alloy nails are preserved separately (52.a3). One seems to be a corner fragment. The rivets follow the outer contour of the corner. There is a second line of nails one cm from the edge. This fragment must have been part of the scabbard mouth, which apparently did not have a copper alloy mouthpiece. The excavators also found two larger copper alloy rivets (52.a4) (fig. 6.26). They are dome shaped with dentated edges. They are decorated with an incised cross dividing the dome of the rivet into four quadrants, each of which contains a dot in a circle. Faint traces of a decoration of rubbed in grooves can be seen on the mineralised leather of the scabbard. One long line runs along the small rivets, while shorter ones run perpendicular to it.

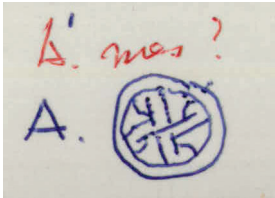
In grave 33 a V-shaped hollow mount was found (fig. 6.26). It was probably the reinforcement of the scabbard point. It is not certain whether it was related to a seax scabbard, since no other scabbard components were found in this grave.

A rivet belonging to a seax scabbard was found in grave 78 (78.a1). It is flat and decorated with a cast motif that cannot be identified. They are identified by Siegmund as Sax4.2 and assigned by him to Rhineland phases 8B up to 9 (c. 615-655). Another possible seax scabbard rivet was found in grave 68 at the height of the left shoulder. Unfortunately, it is missing. Ypey's sketch on the grave documentation card shows that it was decorated with a Greek cross with curved ends, an uncommon element on such rivets (fig. 6.27). It is not certain that this is a rivet of a seax scabbard.

Finally, the documentation mentions that a copper alloy mount, probably belonging to a seax scabbard, was found in grave 69. Unfortunately, it too is lost, so no further information is available.

The last object to be discussed here is an iron bent clamp (11.c). Such objects were often used to attach a seax scabbard to a belt. The clamp is incomplete; one of its two iron rivets is missing.

Fig. 6.27
A portion of the documentation card of grave 68 indicating the presence of a rivet from a seax scabbard with a cross.



Arrowhead: iron

Graves 26.e1; 41.h*; 49.j; 64.l*; 79.k; 112.a*

Six arrowheads were found in the cemetery. The arrowheads in graves 26, 41, 49 and 79 were located along the southern wall of the container near the upper part of the body. All these graves had been reopened. In grave 64, the arrowhead lay along the northern wall of the container near the head. The arrowhead in grave 112 was found outside the container, which probably indicates that it was displaced during the grave's reopening.

The length of the arrow head in grave 79 is 11.2 cm thus falling within Siegmund's category of arrows.¹⁶⁶ The blade is 7.2 cm long; the relative length of the blade is 0.64. The blade is an irregular diamond shape, and the socket is closed. Arrowheads with these characteristics fall into Siegmund's category Lan2.5, which he assigns to his phase 8B and 9 (c. 625-670).¹⁶⁷ The arrowhead of grave 49 consists of two non-fitting fragments. The blade is heavily corroded, but seems to have been oval. The length of the arrowhead cannot be determined, but may be of the same type as that from grave 79. It could also belong to type Lan2.4, assigned to Siegmund's phases 8B to 10 (c. 625-705).¹⁶⁸ The arrowhead from grave 26 is now fragmented, and it is not possible to determine its type. Mineralized wood remains are present in the shaft. In grave 41, only a fragment of an arrowhead socket was found, and it disappeared after the excavation. The same applies to the arrow heads in graves 64 and 112.

Lancehead: iron

Graves 33.c1/c2; 35.d1-4; 42.e1; 56.a1-3; 59.a1; 79.e2-e3/5; 82.m1-6 and possibly 67

In seven graves, remains of lance heads were recovered. Most lances are in a deplorable state. They were either already fragmented when recovered due to corrosion in the soil or grave reopening, or fragmented post excavation because corrosion-preventing measures were taken either too late or not at all. In only a few cases, it

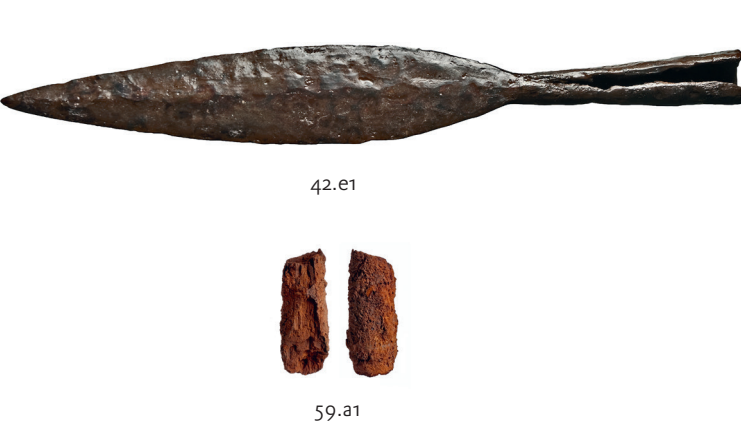
is possible to make certain statements about the shape of the blade or type of socket.

The best known lance head comes from grave 42 (fig. 6.28). It contains an open socket and oval blade. The relative blade length is 0.68. It thus belongs to Siegmund's type Lan1.4, which he assigns to his phase 7 (585-610). Occasionally they are also found in phases 6 to 8A, providing a date range of c. 570-625.¹⁶⁹ In the typology of Legoux, Périn and Vallet, this lance belongs to type 30, dating to phases PM-MA3 with date ranges from c.440/450 to 600/610.¹⁷⁰ This date range seems to be too great.

Another lance head with an open socket was found in grave 79. The lance head (e2) and the socket (e3) are probably from the same lance. It cannot be excluded, however, that we retain fragments of two different lances. Moreover, there are a number of small corroded iron fragments that have detached from the surface of the blade (e5). The fragments do not fit, so it is difficult to determine the relative blade length. If we attempt to reconstruct the lance head on the basis of the fragments' width, the lance head must have been at least 45.4 cm long. The point is lost, so the lance head was probably at least 55 to 60 cm long. The blade may have had an oval shape. It could have been of Siegmund's type Lan 1.3a, which he assigns to phase 6 (570-585).¹⁷¹ In Schretzheim, these lance heads belong to phase 3 (565-590/600).¹⁷² In the typology of Legoux, Périn and Vallet, it is again type 30, which dates to phases PM-MA3 with date ranges from c.440/450 to 600/610.¹⁷³

The lances from grave 33 (c1), 35 (d1) and 56 (a1-2) are heavily corroded. All their sockets were probably closed. The shape of the blades is difficult to determine, but they may have been elongated and oval. The relative blade lengths cannot be determined, making it difficult to assign these lance heads to a specific type. An educated guess would place them in Siegmund's types Lan2.3 and/or 2.4. They date in his phases 7 (Lan2.3, c. 585-610) and 8b to 10 (Lan2.4, c. 625-705). If, however, the measurements of the field drawing of lance head 35.d1 are used, and fragment d2 from a lance head's open socket belong to the same lance, one could place this lance head in Siegmund's type Lan1.3a, assigned to his phase 6 (570-585).¹⁷⁴ The FAG date these lances mainly to their phase 5, but also to the early phase 6 (565-580/90 (610/620)).¹⁷⁵ In grave 35, a complete lance head, now broken into a number of fragments, was found. It is, however, questionable whether this socket was of an open type. Two copper alloy rivets were attached to the socket. They are dome shaped, hollow, and have dentate edges. The FAG gave lances with such rivets a separate type identification: *Lanzenspitzen mit gekerbten Bronzenieten*.¹⁷⁶ They occur on lance heads with both open and closed sockets and are assigned to their phases 5 and 6 (565-610/20). Legoux, Périn and Vallet also gave a separate type identification to these lances: their type 44, mainly dating to their phases MA3 and MR1 (560/70-630/640). The lances

Fig. 6.28
The lance head from grave 42 and a fragment of a lance head from grave 59. Scale 1:4.



might have occurred already in phase MA2 (520/530-650/570).¹⁷⁷ Similar rivets are found on two exquisite lances in grave 123 of the Beerlegem cemetery (Belgium, province of Oost Vlaanderen).¹⁷⁸ In the grave, iron fittings of horse gear with geometric style decorations were found, indicating that the grave dates to the first decennia of the seventh century. Paulsen extensively discusses lance heads with copper alloy decorative rivets in connection with such a find in grave 9 of Niederstotzingen (Germany, Baden-Württemberg).¹⁷⁹ They are regularly found in southern Germany and are said to be an element of the first half of the seventh century. In more recent studies it is indicated that they also occur in the later sixth century. The fragment of the socket with the rivets (35.d3) and the lance head (35.d1) most probably date to the years around 600.

In grave 82, several fragments (m1-6) of a lance head were found. On the field drawing, a complete lance is indicated. The lance head may have fallen apart as a consequence of further corrosion post excavation. The present fragments are heavily corroded. It is difficult to determine the lance's type, but it may have had an oval blade. The socket seems closed. It probably dates to the seventh century.

A fragment of a lance head socket was found in grave 59 (fig. 6.28). It was probably closed and dates to the seventh century as well.

Finally, on grave 67's documentation card, Ypey noted that in the southwest corner of the grave, that is, near the head, a long trace of iron oxide was observed. He interprets this as the remains of a lance head. This, however, is not certain.

(166) Siegmund 1998, 95-96. Similar objects longer than 20 cm are considered to be lance heads. (167) Siegmund 1998, 103. (168) Siegmund 1998, 102-103. (169) Siegmund 1998, 101. (170) Legoux/Périn/Vallet 2004, 14, 25, 52. (171) Siegmund 1998, 100. (172) Koch 1977, 22, 37, 109. (173) Legoux/Périn/Vallet 2004, 14, 25, 52.

(174) Siegmund 1998, 100. (175) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 48. (176) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 50. (177) Legoux/Périn/Vallet 2004, 14, 26, 52. (178) Roosens/Van Doorselaer 1966; Roosens/Gyselinck 1975, I, 11, II, 32-34 pl. 30. (179) Paulsen 1967, 109-122.

Shield: shield bosses, grips and nails: iron
Graves 10.h1 (?)/i1 (?); 24.l1-2/o2/w1/q1 (?)/ffh1; 30.n1; 34.d1/e.1 (?)/l1-6/l8; 41.1/aa1/ab1; 42.c; 44.j1/t1; 49.d1/h1/i1/k* (?)/m* (?)/n1/o1 (?); 61.a*/c* (?); 62.d1/f1/w1 (?)/ff1/ff2; 64.abc1-3; 65.l1; 79.c1/e1/e4/i1-2/j1

A considerable number of graves may have originally contained a shield. However, due to corrosion and grave reopening, unmistakable evidence for their presence is scarce. In only three graves (42, 64, 79) a shield boss was found (fig. 6.29); in five graves (24, 61, 62, 64, 79) the possible remains of a shield grip were present, and in eleven graves were large rivets that could be interpreted as rivets of a shield boss or a shield. In a number of cases, wood remains attached to the rivets contributed to this interpretation. Leather remains are present on shield grip 24.w1, which is unusual. Its definitive identification as a shield grip is therefore uncertain. However, although the interpretation of the grip fragments and the rivets as belonging to shields is to some extent open to debate, we believe that it is the best possible interpretation. However, it cannot be excluded that some belonged to boxes or the container

Table 6.4 shows that in at least three graves, a shield was deposited. The maximum number of graves containing shield remains is 13. As is the case with all find types, the actual number of graves with shields could have been even higher, since the remains may have been removed when graves were reopened.

The iron rivets mainly belong to one of two types: those with a flat surface and those with a dome-shaped surface. Quite a few of the latter are covered with copper alloy foil (24.l1-2, 34.l2-6, 44.j1/t1, 64.abc3 and 65.l1). The dome-shaped rivets with copper alloy foil may have been somewhat older than the flat ones.

The fragments of shield grips do not allow a typological identification and need no further discussion.

The shield bosses from graves 42, 64 and 79 belong to the same type: Sbu5 of Siegmund or Sbu5A of the Franken AG.¹⁸⁰ The specimens from graves 64 and 79 seem to fit this type better than the specimen from grave 42. The first two have a clearly demarcated protruding carination at the transition from wall to cone. Siegmund dates these bosses to his phase 8 (610-640), the Franken AG, to their phases 6 to 9 (c. 580/90-710). Legoux, Périn and Vallet do not distinguish between various types bearing round cones and group them all in their type 80 (MR1-MR2, 600/610-660/670). The Bergeijk specimens can thus date from the entire seventh century.

Fig. 6.29
The shield bosses from graves 42, 64 and 79. Scale 1:4.

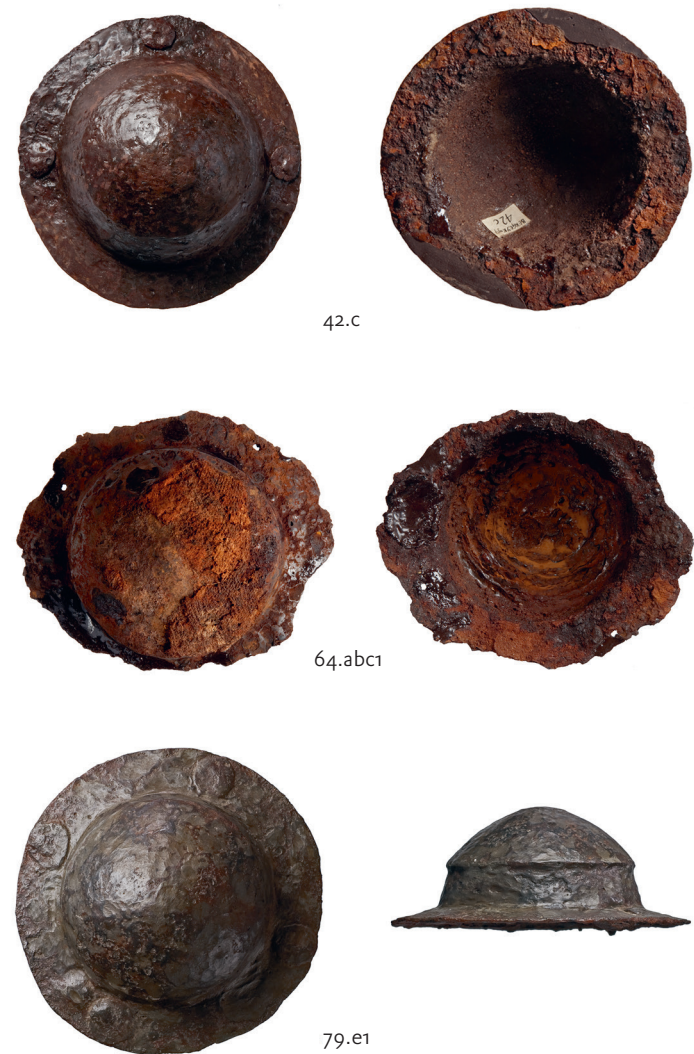


Table 6.4
The presence of various elements of shields in the cemetery of Bergeijk-Fazantlaan.

Grave nr	Shield boss	Shield grip	Rivets
10			1
24		1(?)	4
30			1
34			8
41			2
42	1		
44			2
49			7
61	1*(?)	1*	
62		2	3
64	1	1	1
65			1
79	1	2	4
13	3	7	31

Riding equipment

Fig. 6.30
The copper alloy spur and related strap ends from grave 114. Scale 1:2.



Spur: copper alloy
Graves 74.b*; 114.c1/c2/c3

Unfortunately, the spur from grave 74 is lost. A copper alloy band shaped spur was found in grave 114 in the east end of the container (fig. 6.30). It probably lay in its original location and must have been attached to the left foot of the deceased.¹⁸¹ A pot was deposited near the spur. Other finds in the grave were a fragment of a knife, a copper alloy rivet, and two strap ends. The grave had probably been reopened after the burial. Both ends of the spur end in a triangular plate with undulating edges. This possesses three rivets in a triangular pattern. On the inside of each end, small copper alloy plates were applied, through which the rivet ends were driven to fix the leather strap. The internal length of the spur is 11.25 cm, which is relatively long.¹⁸² Two strap ends were associated with this spur, but no buckles. Remains of the leather strap were preserved between the end of the spur and the copper alloy plates. Close to the ends, the outer surface of the spur was decorated with incised lines. The central motif was a cross of diagonal lines with dots placed in the four corners. This motif was bordered on two sides by a group of four lines. In the centre of the spur's arched end, a small thorn was placed. The arch of the spur was widened at the place of the thorn.

Copper alloy spurs can be divided into several groups. Legoux, Périn and Vallet distinguish spurs with long legs from those with short legs.¹⁸³ Short specimens date mainly to the sixth century, and long ones to the middle and second half of the seventh century.

ry. Copper alloy spurs can also be classified by the way the leather straps have been attached. One type employs slotted ends, and the other, rivets.¹⁸⁴ According to Stein and Siegmund, the spurs with rivets appear only in the later seventh century.¹⁸⁵ In Siegmund's research area, no such spurs like the one found in Bergeijk occur. Stein does not either list a spur comparable to the one from Bergeijk. Wachowski identifies many types of the end plates, but the Bergeijk shape is not among them.¹⁸⁶ Copper alloy spurs with rivets seem relatively rare. It is likely that the spur from Bergeijk dates in the very late seventh and beginning of the eighth century.

(180) Siegmund 1998, 109; Müssemeier/Nieveler/Plum/Pöppelmann 2003, 52-53. (181) North of the Alps, spurs are habitually not found in pairs but singular. They are usually attached to the left foot (Stein 1967, 26; Pescheck 1996, 63). (182) Wachowski 1986/1987, 52 and Abb. 3. (183) Legoux/Périn/Vallet 2004, 15, 29, 52. Wachowski (1986/1987) distinguishes three groups. (184) Stein 1967, 26; Siegmund 1998, 111, mentions further literature on this subject. (185) Stein 1967, 28; Siegmund 1998, 111. (186) Wachowski 1986/1987, Abb. 16, 17, 19.

Utensils

Knives: iron

Graves 1.b*; 9.b*; 10.b1 (?); 13.a1; 24.k1/r/q2/x4/ffa1/ffc1(?)/ffd1/ffj1; 25.a*; 29.d1/e1; 33.g1; 39.b1; 44.n1(?); 47.p1/p2; 50.i1; 52.a6; 55.a1(?); 56.l1; 60.b1; 66.y*; 68.a1*; 76.a*; 93.a*; 95.c*; 98.a*; 104.a*; 105.a*; 108.f; 112.j*; 114.a*; 120.a*; 123.a*

In 29 graves, knives or fragments thereof were found. These graves comprise 20% of the cemetery. Many of the knives and fragments are now lost, probably due to further corrosion after the excavation which probably caused the final removal of the corroded remains. The remaining fragments do not merit a discussion of types and dating. The only exception is the scabbard of the knife in grave 47. It is reinforced by two copper alloy bands, one at the mouth, the other half way down the scabbard. The bands are fixed with small copper alloy rivets. Fragment 24.ffc1 may have been part of a plate buckle instead of a knife. See: plate buckle: iron, plate folded around the loop (German: *Laschenbeschlag*).

Fire steel

Grave 64.1
The fire steel of grave 64 is hardly recognizable because it is severely corroded and covered with leather remains, probably of the purse in which the fire steel was kept. It is of a type with two curled ends, as can be seen on the X-ray photograph.

Flint

Graves 24.ffe1; 26.b1; 59.j2; 62.1; 64.3; 77.p1/78.p1*; 82.d*. Stray find 1959.6
Flints were found in several graves. The one in grave 24 has one retouched edge, and the one in grave 62 is probably burned. Whether the flints were purposely deposited in the graves or included in the fill accidentally is unable to be determined.

Comb

Grave 64.m1
A few teeth of a bone comb were preserved in the corrosion layer of fire steel 64.1.

Rings: various

Graves 10.g1; 12.a; 13.b1; 57.4; 57.5; 58.d*; 62.1l/m1; 63.c1; 79.l1; 119.b*; 21.a*
Various rings of iron and copper alloy of various diameters and shapes are found in the cemetery. The function of these rings is unclear. The one in grave 57 was enclosed in a folded copper alloy sheet. It may have been part of a handle.

Whetstone

Graves 60.a1; 73.c*
A small whetstone was found in grave 60. The only other find in the grave was a knife. According to the excavation record card, another whetstone was found in grave 73; this artefact has gone missing.

Spindle whorl: pottery

Grave 19.j12 (?)
It is unclear whether this artefact is a bead or a spindle whorl. See the photograph of the beads in this grave.

Awl: iron

Grave 95.a (?)*
According to the excavation record card of grave 95, this object was a fragment of a possible awl. This artefact has gone missing.

Chain: iron

Grave 53.d*/h*/s*/u*/v*/z*/aa*/ff*/gg*/jj*
On the back of grave 53's documentation card, Ypey noted that these iron fragments were elements of an iron chain. The chain may have been a belt pendant. Unfortunately, the fragments were lost after the excavation, and no further information is available

Various metal objects

Nails: iron

Graves 9.a*; 10.c1; 34.m1; 35.h*; 62.a1; 82.i*/k*/l*; 91.a*; 122.a*/b*
The iron nails may have belonged to coffins or to other wooden artefacts such as boxes that were deposited in the graves.

Rivets: iron

Graves: 10.h2; 24.i1; 39.c1; 41.z*; 49.d1/p; 59.e; 61.g; 62.y1; 63.2; 63.d1; 78d*/e*/f*; 107.a*; 111.b*
The iron rivets listed here can not be assigned to a specific type of object. They vary in size.

Rivets: copper alloy

Graves 44.l1; 50.j2; 62.e3/v2; 63.b1; 64.f*/g*/h*/i*; 112.f; 114.d*
The copper alloy rivets listed here can not be associated with a specific type of object. They are of various sizes.

Horse shoe

Context 40.1
In a non-grave context, an iron horse shoe fragment was found. It probably dates to the later medieval or modern period.

Various metal objects of indeterminate function

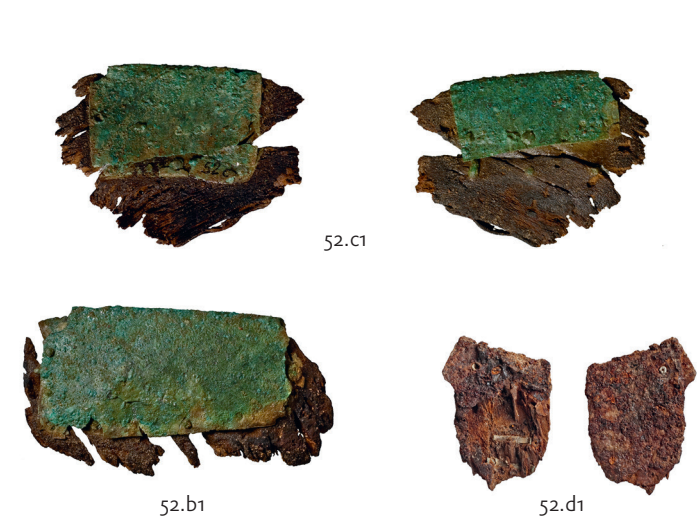
Graves 24.p1; 30.f1; 33.d1; 42.a1; 44.i1, k1, r1; 76.b*; 77.c1/e1/j1; 105.b*; 108.c*

In several graves, objects difficult to identify were found. They are described here briefly. 24.p1 are two small connected rings which are heavily corroded and only partially preserved. 30.f1 contains three fragments of a curved iron sheet with remains of the wood to which it was attached. An iron strip is attached to the outer surface of the fragments. 33.d1: a rolled up sheet of lead, possibly a weight or a container for a small object. 42.a1: two interconnected iron links which were originally attached to a leather strap, of which some remains are preserved. Each link is fixed to the strap with an iron rivet. Similar links were found in grave 1033 of Cutry (France, department of Meurthe-et-Moselle) where they were part of a strap with utensils, suspended from the belt.¹⁸⁷ 44.i1, k1: large iron cramps with leather and wood remains attached. 44.r1: two long narrow iron fragments. 76.b* are two copper alloy mounts on which no further information is available. 77.e1: small iron fragment with mineralised textile consisting of two plates fixed together with two small copper alloy rivets. 77.c1/j1 are iron mounts possibly of a wooden box or a coffin. 105.b* is a possible triangular belt fitting. 108.c* is a possible iron buckle associated with copper alloy fragments.

Wooden bowl

Grave 52.b1/c1/d1; 106.a*

Fig. 6.31
Various rim fragments of a wooden bowl with copper alloy sheets. Scale 1:2.



Three rim fragments of a wooden bowl were found in grave 52. (fig. 6.31). The relative dimensions of the body silhouette indicate that this grave probably belonged to an adult who was buried with his lower legs and/or feet underneath the bowl. The remains of the bowl probably obscured the silhouettes of the lower legs and feet.¹⁸⁸ The rim fragments were preserved because of the copper alloy and iron sheets folded around the rim. The metal sheets were fixed to the wood with small copper alloy nails. The metal sheets do not cover the entire rim of the bowl. Their edges are straight, indicating that they were not larger than the fragments excavated. The excavation drawing shows that these metal sheets were distributed over the rim of the bowl at regular intervals. Wooden bowls must have been a regular element of grave goods assemblies but because of the poor soil conditions, most objects of organic material have perished.

Such bowls with metal sheets are a rare phenomenon. However, a striking similar example was found in the Sontheim an der Brenz cemetery (Germany, Baden-Württemberg).¹⁸⁹ It was in the grave of a little girl (grave 175) and placed near the left lower leg. The copper alloy sheets were found in a black substance, probably the remains of the bowl itself. The wood remains preserved in the metal sheets could be identified as Rosaceae (in the black substance were eggshells, indicating that there were eggs in the bowl). In this case, too, the metal sheets were fixed to the wood with small nails. Neuffer-Müller does not provide a date for this grave. It is located in the oldest group of graves in the cemetery that may date to the later part of the sixth century and the years around 600.¹⁹⁰

On grave 106's documentation card, Ypey noted that wood and copper alloy was found together. Between brackets he wrote: "of a bowl?" It was located near the feet.

(187) Legoux 2005, 354-355, Planche 184. (188) In the grave a seax and a knife were found. It is possible that the bowl was placed on the feet of the deceased. (189) Neuffer-Müller 1966, 15-17. (190) Neuffer-Müller 1966, 40.

Glass vessels

Fig. 6.32
The glass vessels of the Bergeijk-Fazantlaan cemetery.
Scale 1:4.



Bell beakers with rounded base

Graves 62.01; 64.d1/k1/k2

Only fragments remain of the bell beaker in grave 62. It is therefore impossible to identify the exact type of the beaker, but it may have been of the same type as those in grave 64.

Two almost identical bell beakers were found in grave 64 (fig. 6.32). They belong to Siegmund's type 8.4 on the basis of the following calculations.¹⁹¹

Siegmund dates these beakers to his phases 6 and 7 (c. 570-610). Legoux, Périn and Vallet identify these beakers as their type 450, which dates to phases MA2(b)-MR1 (c. 545 to 640).¹⁹²

It is a rare phenomenon to find two almost identical beakers

in a single grave. In grave 250 of the Dover-Buckland cemetery (Kent), two almost identical beakers were found. These resemble Bergeijk's but possess pointed bases.¹⁹³ Other pairs of globular beakers were found in the cemeteries of Broomfield (Essex), and in Gilton and St. Peter's Tip in Kent.¹⁹⁴ It is remarkable that this combination of objects is also found in Kent, especially in view of the distribution pattern of other beakers from Bergeijk, discussed below. Schulze-Dörrlamm paid some attention to the phenomenon of beaker sets in early medieval German graves.¹⁹⁵ She lists only 18 cases, of which three involve pottery beakers. In 15 cases glass vessels are concerned, usually pairs, with one case of three vessels. The ensembles usually consist of identical types; in one case two different types were found. Most common is a pair of conical beakers, but pairs of tumblers, bell beakers, bowls, and in one case stemmed beakers, also occur. Schulze-Dörrlamm considers the presence of paired beakers an indication of the high social status of the buried person.¹⁹⁶ In the richly furnished grave of Prittlewell (England, Essex), two pairs of globular beakers were found. This seems to support the hypothesis that pairs of glass beakers are found in graves of outstanding persons.¹⁹⁷ Grave 64 of Bergeijk, however, does not stand out among the other graves. However, the grave was probably reopened after burial, and some objects may have been removed.

Koch suggests that there is a difference in the distribution pattern of bell beakers with a rounded base and those with a pointed base or knob.¹⁹⁸ The specimens with a rounded base are found along the Rhine, in the Trier area, along the Main and in Baden-Württemberg. Further west they are rare. The Bergeijk specimens would be the most westerly examples on Koch's distribution map. On the other hand, the beakers with a knob or pointed base are mainly found in northern France and Belgium, and occasionally along the Rhine. According to Koch the beakers with a round base, such as the Bergeijk specimens, are produced along the Rhine, and those with a pointed base, further west, possibly along the Meuse. This would signify that the bell beakers' origin is different than that of the beakers discussed below. However, it remains to be seen whether such a clear division in the distribution patterns will persist when more cemetery excavations are published. Feyeux distinguishes bell beakers with pointed bases type 52 of which he lists 177 specimens and those with a rounded base type 53 (60 specimens, of which 15 along the modern border with Germany). This means that many bell beakers with round bases are present in France.¹⁹⁹ Finally, it should be noted that this type of beaker is rare in England. Evison lists only 16 specimens almost exclusively found in Kent.²⁰⁰

Bag beaker

Grave 30.q1

This beaker is an exceptional find (fig. 6.32). It lay in the eastern (foot) end of the grave in the vicinity of a large globular pot.²⁰¹ The excavator Ypey immediately understood its importance and published it within a year of its discovery.²⁰² Moreover, he drew up an inventory of similar beakers found in English Kent and on the island of Gotland in the Baltic. Within this group, the Bergeijk beaker occupies a special position because of its pointed base.²⁰³ The bases of all the other beakers are rounded. Beakers of this type share a number of characteristics, but may differ in detail. Their body resembles a long bag, and they possess an upper part with more or less straight, slightly conical walls decorated with spiral trails. The beaker from Ålands on Gotland lacks such a trail on the upper part, but has a decoration of small bows protruding from the trail in the neck. The upper and lower parts are separated at the neck by a thick horizontal trail, usually indented. The body is generally decorated with vertical trails, which may be indented or plain. They run from the middle of the base up to the horizontal trail in the neck, or run from the neck over the base and back to the neck again at the opposite side.

The Bergeijk specimen differs to some extent from the others. As already mentioned, its base is pointed. The horizontal trail in the neck is not indented, and the trails on the body are alternatingly indented and plain. It bears a single spiral trail on the upper conical section. Ypey lists a total of eight bag beakers, including the one from Bergeijk (see appendix 6.2).²⁰⁴ Four were found in the cemetery of Faversham (England, Kent); one in the cemetery of Gilton (England, Kent); and one in Ålands on the Gotland island in the Baltic (fig. 6.33). There is one in the Ashmolean Museum whose provenance is unknown.

In 2008, Evison lists 18 bag beakers in England and 5 abroad.²⁰⁵ Among the last five, she lists the specimens from Ålands and Bergeijk, a fragment from Helgö (Sweden), a fragment from Hantes-Wihéries (Belgium, province of Hainaut), and the beaker of Pfalheim discussed by Fremersdorf in 1955.²⁰⁶ This group, however, is not homogeneous. The net-like decoration of the beaker from Pfallheim sets this beaker apart from those of Bergeijk and Ålands. It is more similar to a number of globular beakers from England.²⁰⁷ The fragment from Hantes-Wihéries most likely belongs to a bag beaker comparable to the Bergeijk specimen.²⁰⁸ The small fragment from Helgö cannot, in our opinion, be certainly identified as belonging to a bag beaker.²⁰⁹ It may well be a fragment of a globular beaker discussed below.

The group of bag beakers from England is also not homogeneous. Only the beakers of Evison's group 73 with horizontal and vertical trails are comparable to the Bergeijk specimen.²¹⁰ This group counts 13 specimens, of which two, from Faversham, are lost. Of the remaining eleven beakers, six are from the cemetery of Faversham, one from Gilton (Kent), one from Finglesham (England, Kent), one from Tattershall Thorpe (England, Lincolnshire), and two with unknown provenance. This signifies that with the exception of the Lincolnshire specimen, all beakers whose provenance is known are from Kent. Because of this distribution pattern, Evison, and prior to her, Harden, are convinced that production of these beakers took place in England, more specifically in Faversham itself, where eight of these beakers were found (including the two that are lost).²¹¹ It is hazardous, however, to draw conclusions about production on the basis of object deposition concentrations, since many variables may play a role in determining distribution patterns. For the moment we think it better to leave unanswered the question about the production location of this type of beakers. However, how the beaker got to Bergeijk is intriguing. This problem will be further discussed after we examine the globular beaker from grave 113 and related globular beakers.

A bag beaker with a shape comparable to the Bergeijk specimen, but whose lower part was differently decorated (with vertical loops), was found in the cemetery of Junkersdorf near Cologne (Germany-Nordrhein-Westfalen) in grave 355.²¹² It is generally dated to the sixth century.

The dating of the bag beakers is problematic. Evison dates the two almost identical beakers from Faversham in the British Museum to the late sixth and seventh centuries.²¹³ The Bergeijk beaker was found in a grave associated with a small and large pot, a small buckle with a pelta-like incised decoration, and a small yellow glass bead. The small red pot is almost identical to a specimen from the Maastricht-Vrijthof cemetery. The two pots are dated to the late sixth and early seventh century. The large pot is of a relatively rare type that is difficult to date precisely within the seventh century. Ypey dated the grave to the late seventh century, but this seems excessively late. The decoration on the Bergeijk bag beaker is identical to the decoration on a number of globular beakers that date to the late sixth and early seventh century. This suggests that the Bergeijk beaker should be dated to this period too, although it may have been deposited at a later date.

Archaeology website: www.molas.org.uk, <http://www.molas.org.uk/pages/siteReports.asp?siteid=pro3§ion=preface> Viewed 20 December, 2010. (198) Koch 1996, 616-617 and Abb. 469-470. (199) Feyeux 2003, 90-130, pl. 23-40, 208, fig. 28. (200) Evison 2008, 76-77 (groups 30, 46-49). For Harden (1956, 140) why so few were found in England is a mystery. (201) For an analysis of the vessel assemblage, see chapter 12. (202) Ypey 1957-1958. (203) For a detailed description of the beaker, see the catalogue of grave finds. (204) For a new discussion of bag beakers, see Evison 2008, 19-20. (205) Evison 2008, 20. See also Harden 1956 and Evison 2000. (206) Fremersdorf 1955a. (207) Evison 2008, 20. (208) Brulet 1970, 45 9, nr. b2 and fig. 23, nr. 2. (209) Holmquist 1961, 173, nr 488; Evison 1988 237 and 238, fig. 2. (210) Evison 2008, 78. (211) Harden 1956, 141; Evison 2008, 20. (212) Fremersdorf 1955, 33; La Baume 1967, 83, 219, Tafel 23, 46. The arrow heads in the grave indicate that it might have been the grave of a man. (213) Evison 2008, 67.

(191) The angle of the beakers' walls seem to differ slightly in the photographs and on the drawing. This depends on the side from which the photograph is taken. The drawings show the shape of the beakers best. The calculations are: 64.d1: wall angle is 88°, width carination (5.6)/height (17.9) = 0.31. Type formula is (0.03 * 88) - 2.155 = 0.485. Type 8.4 is 0.31 < 0.485. The beaker has a yellow-brown colour. 64.k1: wall angle is 83°, width carination (5.6)/height (17.7) = 0.32. Type formula is (0.03 * 83) - 2.155 = 0.335. Type 8.4 is 0.32 < 0.335. However, on the other side the angle is 90°. In that case, the result of the calculation is 0.545 and 0.32 < 0.545. The beaker has a yellow-brown colour. (192) Legoux/Périn/Vallet 2004, 21, 50, 55. (193) Evison 2008, 53, catalogue numbers 53 and 54. (194) Broomfield: Evison 2008, 65-66, catalogue numbers 150 and 151; St. Peter's Tip, Broadstairs, Kent: Evison 2008, 66, catalogue numbers 153 and 154; Gilton: Evison 2008, 78, group 62, 16-17; Kent cemeteries: Evison 2008, 16. (195) Schulze-Dörrlamm 1990, 358, 359 Abb. 19 and *Fundliste* XI. (196) In Roman times ensembles of identical pottery and glass vessels are more common especially in the tumulus graves of Belgium (Plumier 1986) and of Esch (Netherlands, province of Noord Brabant, Van den Hurk 1984, 14-18). (197) Information from the *Museum of London*

Globular beaker

Grave 113.c1

One globular yellowish-brown beaker was found (fig. 6.32). It is a complete specimen. The quality of the glass is mediocre, containing many small and large bubbles. It is undecorated, with a slightly thickened rim. The base is slightly indented. The type (Gla3.2) is relatively rare in the Lower Rhine valley.²¹⁴ Siegmund lists only nine specimens and assigns them to his phase 7 (585-610), although they may occur somewhat earlier and later. The Bergeijk specimen was found in one of the westernmost graves of the cemetery, in an area with graves from the later seventh century. A biconical pot that may date in the entire seventh century was found in the grave as well. It is, however, of a type that generally seems to be one of the younger biconical pots. In the Bergeijk cemetery, the distribution of this type of biconical pot also indicates that it is one of the younger types of pots (see below). Thus grave 113 could date from the second half of the seventh century.

The Franken AG list another 6 specimens of this type of glass for their research area.²¹⁵ Strangely, the common type of globular beakers is not included in the typology for northern France by Legoux, Périn and Vallet. They list a type *flacon piriforme*, but its figure relates it more to the pouch bottles of Britain.²¹⁶ Feyeux lists it as type 90.²¹⁷ Another globular beaker of blue glass with a thin red trail on the shoulder, was found in the nearby cemetery of Lommel-Lutlommel (Belgium, province of Limburg).²¹⁸ In Maastricht, on the other hand, globular beakers are a regular phenomenon. In the Vrijthof and Pandhof cemeteries, 14 specimens with both long and short necks were found, mainly of light green glass.²¹⁹ They are all undecorated. Maastricht thus occupies an exceptional position. In Britain, many specimens of plain globular beakers were found that are similar to the globular beaker of Bergeijk.²²⁰ Again a large number – twenty-two specimens – originate from the cemetery of Faversham. Evison also points to the difference in these beakers' distribution in England compared to the continent.²²¹ She is convinced that the beakers were produced in England, and more specifically, at Faversham itself.

There is a type of beaker that takes in an intermediate position between the globular beaker and the bag beaker discussed above. They are the globular beakers with a conical upper part and the type of decoration found on bag beakers. We have located ten specimens of such beakers, of which eight were accompanied by an illustration. (figs. 6.33 and 6.34, appendix 6.3). The first to be discussed is a brown globular beaker found in the Avernas-le-Bauduin cemetery (Belgium, province of Liège).²²² This beaker (nr

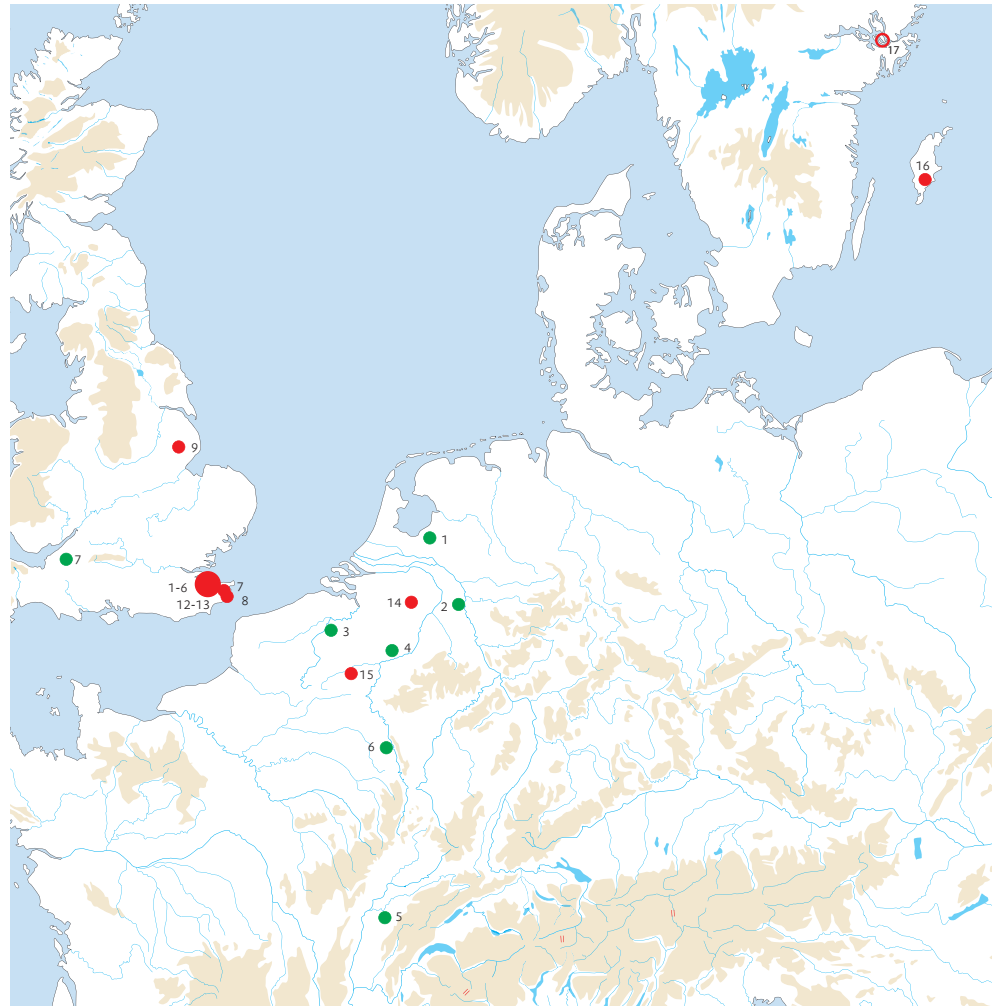
6) is similar in shape to the globular beakers, but lacks the conical upper element, and possesses a thickened rim different from the rims of most other beakers in this group. Its decoration consists of a horizontal trail in the neck, and nine vertical indented trails on the body. A number of globular beakers (nrs 1, 2, 3, 4 and 5) are decorated almost identically to the Bergeijk bag beaker. One was found in the context of an early medieval cemetery at Putten (nr 3) (Netherlands, province of Gelderland).²²³ An olive green beaker was found in grave 2777 of Krefeld-Gellep (nr. 4).²²⁴ Pirling dates the grave in Stufe III of the chronology of Böhner, implying that the grave dates to the sixth century. The biconical pot in the grave is, however, of Siegmund's type Kwt3.23 which he assigns to his phase 8 (610-640).²²⁵ The grave may thus also date from the early seventh century. One was found in the large grave 111 in Beerlegem (nr. 5) (Belgium, province of Oost-Vlaanderen).²²⁶ The grave was dated to the end of the sixth century.²²⁷ Two were found in eastern France: one in Charnay (nr. 1) (Saône-et-Loire) and one in Nixéville (nr. 2) (Meuse).²²⁸ A similar beaker is known from Chew Stoke (nr. 9) (England, Somerset).²²⁹ According to Evison, another came from Loveden (nr. 10) (England, Lincolnshire), but no further information on this beaker is known to us.²³⁰ Another beaker from Beerlegem (grave 123) is mentioned here because its decoration resembles that discussed here, but it lacks indented vertical trails.²³¹ This globular beaker belongs to a group decorated with loops of plain trails on the body.²³² One specimen was found in Freimersheim.²³³ The final example was found at Resteigne (nr. 8) (Province of Namur, Belgium).²³⁴ On this beaker, the trail in the neck bears a zigzag pattern. The body possesses one indented trail alternating with two plain trails. On the upper portion, a single spiralling plain trail is probably present.

There is thus a close connection between three types of beakers: plain globular beakers, globular beakers with indented vertical trails, and bag beakers. These beakers seem to form a coherent ensemble that dates in the late sixth and early seventh century.

Harden and Evison suggest that these forms are more common in England than on the continent, and that the continental specimens originate from England, more specifically from Faversham.²³⁵ However, it is uncertain whether this hypothesis will stand when a new inventory of this type of glass vessel is made. At present, it is clear that globular beakers decorated with indented trails are found more often on the continent than in England (8 against 2). Until we have a better view of the distribution of globular beakers in general, we should not entirely discard the idea of a Kentish origin of these beakers. It would show that there was not only a stream of objects entering England from the Frankish con-

Fig. 6.33

The distribution of bag beakers (red) and globular beakers with comparable decoration (green). See appendices 6.2 and 6.3 respectively.



continent, but also a flow of objects, such as these glass beakers, in the opposite direction, from England to the continent.²³⁶ It is noteworthy that Bergeijk contained two glass beakers of a type relatively rare on the continent, but common in England. Another interesting observation is that although most glass found in the region is light blue and light green, almost all Bergeijk beakers are a brown yellow colour. In view of their close chronological relationship, it is possible they arrived at Bergeijk in one shipment or at least along the same exchange route. One wonders whether there was a connection between the southern Netherlands and England, and more specifically, Kent, in the years around 600 AD. This is an interesting thought, but the methodological underpinning of the hypothesis is weak. A chemical analysis of the glass' composition can provide new insights into this problem.

Palm cups

Graves 53.p2; 78.b1

Two palm cups were found, one of which was broken with fragments missing (fig. 6.32). The palm cup of grave 53 is of high quality glass with almost no bubbles, whereas the cup of grave 78 is of a much lower quality, containing a large amount of bubbles. The cup from grave 78 is decorated with a horizontal spiral trail in the same colour as the glass of the cup. On the body are vertical loops of glass in the same colour. Both cups are of a low wide type. The average width/height index for 53.p2 is 1.32, and for 78.b1, 1.13.

Palm cups are a regular phenomenon in early medieval cemeteries. Both Bergeijk cups belong to Siegmund's type Gla2.1, which he assigns to his phase 7 (585-610).²³⁷ In the typology of Legoux,

(214) Siegmund 1998, 166. (215) Müsseseier/Nieveler/Plum/Pöppelmann 2003, 70. They mention that it is not a uniform type, which means that a variety of beakers are condensed in this heading. (216) Legoux/Périn/Vallet 2004, 21, 50, 55; Evison 2008, 19, 66-67, figure 28. (217) Feyeux 2003, 178, nos. 692-696, pl. 65. (218) Van Bostraeten 1965, 64-65, afb. 17, 97. (219) Kars 2011, 214-215, figures 12-13. (220) Evison 2008, 16-19, 60-62, 77-78 (group 61), figures 21-22. (221) Evison 2008, 18-19. However, no proper inventory has been made of this type of vessel on the continent. The low numbers in the Rhineland, however, will not have increased dramatically in the last 10 years. (222) *Tresors de Wallonie. Les Verres Mérovingiens* 1993, 119-20 and fig 12 (colour photograph). (223) Isings 1959, 223 and fig. 15 (black and white photograph); Ypey 1962-1963, 126-128 and Abb. 32. (224) Pirling 1979 (1964-1965), I, 81-82, II, 74, Tafel 73, 15. (225) Siegmund 1998, 131. He explicitly mentions this

very pot. (226) Roosens/Gyselinck 1975, I, 9, plate B, II 30-31, plate 26. (227) This date is based on dendrochronology dates of the container's wood. The date is 587+10 (Roosens 1977a, 143-144). (228) Charnay: Feyeux 2003, 182, Pl. 66 (nr. 710) and Koch 1996, 613 and Abb. 466 (colour photograph). Nixéville: Feyeux 2003, 182, Pl. 66 (nr. 709). (229) Harden 1956, fig. 25. (230) Evison 2008, 78, group 67 (only the 2 specimens from Chew Stoke and Loveden). (231) Roosens/Van Doorselaer 1966, 44-45; Roosens/Gyselinck 1975, I, 9, Pl. C, II, 32, Pl. 29, 1. (232) This group has not been studied in detail in the context of the finds from Bergeijk. (233) Ypey 1962-1963, 147-148, Abb. 41. (234) Bequet 1883, 30 and nr 2 on the *planche*. See also Barrière-Flavy 1901, planche 73, 7. (235) Harden 1956, 141, 146-147; Harden 1978, 2; Evison 2008, 18-19, 20. (236) For imports into England, see: Huggett 1988. (237) Siegmund 1998, 166.

Fig. 6.34
The globular beakers with a decoration comparable to the bag beakers. Scale 1:2. See appendix 6.3. 1. Charnay, 2. Nixéville, 3. Putten, 4. Krefeld-Gellep, 5. Beerlegem, 6. Avernas-le-Bauduin, 7. Freimersheim, 8. Resteigne, 9. Chew Stoke.



Périn and Vallet these cups are identified as type 451, dating to the second half of MA2 and MA3 (c. 550-600/610).²³⁸ The Franken AG date this type of cup somewhat differently. They assign it to their phases 6 and 7 (580/590-640/650).²³⁹ A cup from grave 90 in the cemetery of Rosmeer is comparable to the one in grave 78.²⁴⁰ The reopened grave, in which a beautiful filigree brooch was found, is dated to the first quarter of the seventh century.²⁴¹ The Bergeijk cups most likely date from the late sixth and early seventh century.

Glass: fragments
Graves 69.c*/g*/h*/i*; 79.h1; 108.a*

No information is available on the lost fragments from graves 69 and 108. The fragment from grave 79 is a wall fragment of brownish green glass.

Pottery: Merovingian

The description of the pottery is based on macroscopic inspection. As in most cemetery publications, most emphasis is given to the shapes and decoration of the pots. Less attention is paid to the pastes with their inclusions, and the surfaces' treatments. Almost all pottery vessels belong to the fine wares, with a smooth surface. Only a few have a coarse ware fabric.²⁴² In many cases where the pottery is complete or has been restored, it is difficult to study the interior composition of the paste, so our colour indications refer to the outer surface. To provide some indication of the pastes of which the pottery is made, the treatment of the surface, and the form of the decorations, we provide photographs of the pots' surface. These photographs feature an area of 4 by 4 cm at scale 1:1. Because the emphasis is on the shapes of the pots, we did not use firing atmosphere as a criterion in our pottery typology, so a type may contain pots produced both in an oxidizing or reducing environment. Nevertheless, colour and decoration are important for the social dimensions of pottery research, and will be discussed in a separate chapter. After pottery in the southern Netherlands has been studied in the context of individual cemeteries, we intend to produce a comprehensive study of all pottery and pottery depositions in the region.

Fine pottery: large bowl, orange-red
Grave 114b

This large bowl with a stand ring fired in an oxidising environment belongs to a rare type (fig. 6.35).²⁴³ Its colour is orange/red. It stood in the northeast corner of the wooden container. A copper alloy spur lay next to it, so it was probably placed near the left foot. Bowls of this type are Siegmund's Kwt4.3, although the specimens in his research area are more slender.²⁴⁴ Moreover, in his type definition, a clear ridge at the carination of the wall should be present. The Bergeijk specimen lacks this ridge. Siegmund dates these bowls in Rhineland phases 8B and 9 (c 625-670). The spur with rivets from this grave is dated late in the seventh century.²⁴⁵ The bowl can be compared to similar vessels found to the south of Siegmund's research area, such as the one from Eick grave 64 and Cologne-Junkersdorf grave 375.²⁴⁶ Grave 64 from Eick is generally dated to *Stufe* IV according to the chronology system of Böhner.²⁴⁷ This date, however, is too wide since the grave also contains multiple copper alloy belt fittings with short strap ends, which indicate a date later in the seventh century (Lower Rhineland phase 9 (640-670)).²⁴⁸ The bowl from Cologne-Junkersdorf has a yellow-

(238) Legoux/Périn/Vallet 2004, 21, 50, 55. (239) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 69. (240) Roosens/De Boe/De Meulemeester 1976 I, 29, plate XX, 2; Roosens 1978, 16. (241) Roosens 1978, 40-41. (242) We follow here the definitions by Van Wersch (2011) (fine wares with a smooth surface: *pâte fine à surface lissée*), although microscopic and chemical analyses are required to establish whether the Bergeijk pottery consists of precisely the same pastes as she has defined. (243) For a definition of foot forms, see Kars 2011. (244) Siegmund 1998, 132. (245) See the section on this spur. (246) Eick: Hinz 1969, 18-19, 07-98, Taf. 10 (he mentions the bowl from Bergeijk on the basis of the oral communication by J. Ypey); Cologne-Junkersdorf: La Baume 1967, 51, 222-223, Taf 24. (247) Böhner 1958. (248) Siegmund 1998, 36.

Fig. 6.35
Various pottery forms from Bergeijk-Fazantlaan.
Pots: scale 1:4, surfaces: scale 1:1.



ish fabric with a red engobe covering the surface. The grave contains another pot, which is supposed to date to the sixth century. For this reason, the grave is dated around 600.²⁴⁹ Another example was found in Huy, on a pottery production site related to oven 4.²⁵⁰ The upper wall is decorated with single stamp impressions of either twelve small squares or four grooves placed horizontally and vertically. The production of this pottery is dated in the late seventh and early eighth century.

However, dating pottery on the basis of internal criteria is problematic. The Franken AG retained the type definition by Siegmund and dated these bowls in their phases 7 and 8, but mainly in phase 7 (610/20/640/50). They correctly state that there is more variety in terms of fabric, colour and decoration than Siegmund's strict type definition allows for. The shape – a large open bowl on a stand ring – must in this case be the defining criterion. They are related to the lower small and shallow bowls or dishes fired in an oxidising environment. Bowls like the one from Bergeijk were also found in southern Germany. Koch presents an

example from the cemetery of Mannheim-Vogelstang and dates it in the Süddeutsche phase 11 (675-700), which accords well with the date of the Bergeijk bowl.²⁵¹ This pottery type is not found in the Chronologie Normalisée for northern France.²⁵² In general, these bowls seem to date in the second half of the seventh century. The Bergeijk specimen seems to be one of the latest examples of this type of bowl. More bowls of this type have been found in the region, such as those in Westerhoven and Meerveldhoven (fig. 6.36).²⁵³ The stray find from Meerveldhoven is a rough walled specimen, according to Verwers.

Fine pottery: bottle, orange-brown

Grave 53.j1

This orange brown coloured bottle is a remarkable object (fig. 6.35). Its nice shiny colour contrasts with the big dent in the upper wall which must have come about during firing. Nevertheless, it was exchanged and found its way to Bergeijk, where it was used

in a burial ritual. Pottery bottles are not found often in grave inventories, but neither are they very rare.²⁵⁴ Giesler indicates that there may be quite some regional variation in the number of bottles present in cemeteries.²⁵⁵ There are no pottery bottles in other cemeteries in the region around Bergeijk. It would be interesting to analyse the contexts of the deposition of such bottles in greater detail. The Bergeijk bottle is of Siegmund's type Fla 1.1, which he assigns to his phase 8 (610-640). They could, incidentally, be somewhat earlier. Almost all bottles from the lower Rhine area are made of coarse ware, while this one has a fine fabric.

A number of bottles presented here are similarly decorated with horizontal straight and undulating grooves.²⁵⁶ They were found in the cemeteries of Oestrum²⁵⁷, Niederkassel-Reidt²⁵⁸, Müngersdorf grave 126²⁵⁹, La Buissière²⁶⁰, Junkersdorf grave 488²⁶¹, Rittersdorf grave 80²⁶², Trivières²⁶³ and Junkersdorf grave 514²⁶⁴. They tend to date from the earlier part of the seventh century.

The Bergeijk bottle from grave 53 was found along with a pottery beaker, a small globular coarse wear pot, a fine wear biconical pot, and a glass palm cup. The relation between these objects is discussed in a later chapter.

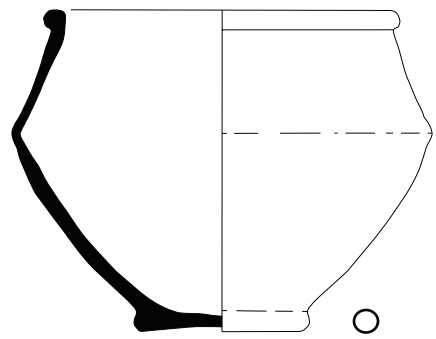
Fine pottery: small beaker with foot, black

Grave 53.r1

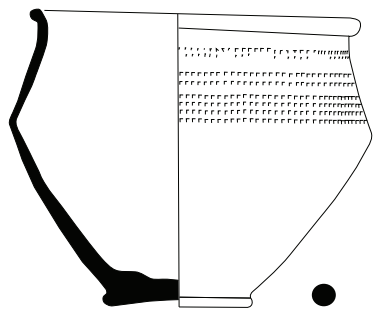
This type of small beaker is rare in the Netherlands and northern Belgium. Beakers of this type have a foot ring and an almost vertical or slightly conical wall (fig. 6.35). The rim is bent outwards only slightly. A characteristic element is the horizontal ribbed decoration of the wall.²⁶⁵ Siegmund does not mention such beakers in the lower Rhine valley.²⁶⁶ The Franken AG do not list them either.²⁶⁷ In the typochronology of Legoux, Périn and Vallet, they are included under type 398, a general type for small beakers. It is assigned to phases MR1 and MR2 (600/610-660/670).²⁶⁸ Böhner presents such a beaker from the cemetery of Nittel-Junkertswiese, grave 8.²⁶⁹ He mentions two other specimens, one from Tawern-Röler, grave 4 (Germany, Rheinland-Pfalz, southwest of Trier) and one from Wiltlingen (Germany, Rheinland-Pfalz, southwest of Trier).

Both Dasnoy and Dierkens discussed small ceramic beakers in the Meuse area in relation to finds from the cemeteries of Franchimont (Belgium, Province of Namur).²⁷⁰ Most, however, do not have a foot ring, but a foot stand. Another beaker with a foot stand is found in the cemetery of Franchimont, but its ribs are less pronounced.²⁷¹ Dasnoy mentions four other specimens from the cemetery of Wancennes (Belgium, Province of Namur), of which he illustrated one. He lists a specimen from Florennes (Belgium, Province of Namur), which is c. 7 km from Franchimont; one from Resteigne (Belgium, province of Luxemburg), which he illustrates; one from the cemetery of Sur-le-Mont in Éprave (Belgium, province of Namur); and one with a foot plate and slightly conical wall from the cemetery of Hantes-Wihéries (Belgium, province of Hainaut).²⁷² Two comparable beakers were found in the Pandhof cemetery in Maastricht.²⁷³ Another was excavated in

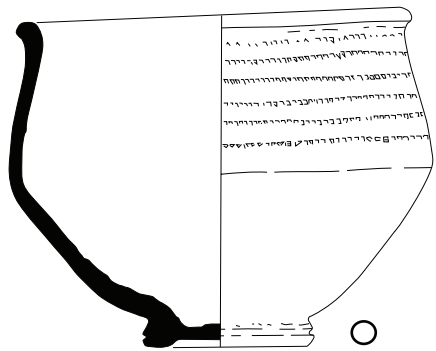
Fig. 6.36
Large open pots with foot ring from the Kempen region.
Scale 1:4.



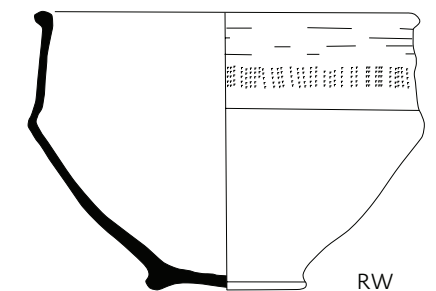
Westerhoven (stray find)



Meerveldhoven (grave 32)



Bergeijk (grave 114b)

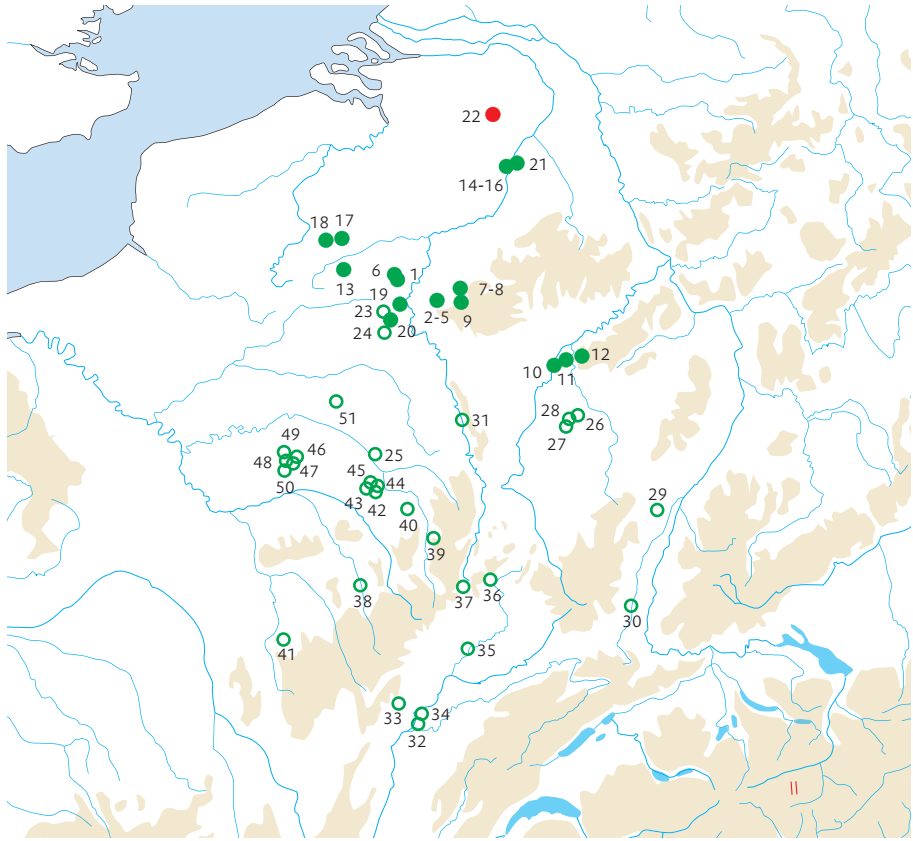


Meerveldhoven (stray find)

○ oxidised ● reduced RW rough walled

(249) La Baume 1967, 51. (250) Willems 1986, plance III, 2. See also now Van Wersch 2011, 107-108. (251) Koch 2007, 189. (252) Legoux/Périn/Vallet 2004. (253) Westerhoven: Bannenbergh 1957, 78; Meerveldhoven: Verwers 1978, 306 and fig. 60, 2. (254) Giesler 1983, 550-555; Siegmund 1998, 143-146. (255) Giesler 1983, 550. (256) I have not carried out a systematic survey. This would be a research project of its own following the analyses of Giesler and Siegmund. (257) Siegmund 1998, 47, Tafel 126, 15. It has a coarse fabric (258) Giesler 1983, 494-495, Abb. 11, 5. Coarse ware. (259) Siegmund 1998, 143. (260) Brulet 1970, 122, fig. 77, 36, Pl. III, 1. (261) La Baume 1967, 243, Tafel 31. It is a red bottle. (262) Böhner 1958, I, 48, II, Tafel 3, 11. (263) Faider-Feytmans 1970, I, 73, II, Pl. 9, Tr 107. In the cemetery of Trivières, many more pottery bottles were found. (264) La Baume 1967, 246, Tafel 32. A woman's grave. (265) Dasnoy suggests that it may be an imitation of turned wooden beakers (Dasnoy 1966, 6). (266) Siegmund 1998. (267) Müssemeier/Nieveler/Plum/Pöppelmann 2003. (268) Legoux/Périn/Vallet 2004, 20, 46, 55. I have not been able to trace the origin of the beaker illustrated. (269) Böhner 1958, I, 46-47, II, Tafel 3, 3. (270) Dasnoy 1966; Dierkens 1981, 26-27. (271) Dierkens 1981, 26-27, 100, Pl. III, 50. (272) Brulet 1970, 45, fig. 22, nr 11. (273) De Boone/Ypey 1959, figs. 24-25; Kars 2011. Pandhof context 10743 (find number 122-1) and context 10031 (find number 71-3).

Fig. 6.37
The distribution of small ceramic beakers with ribbed walls. Red: Bergeijk; Closed green dots: beakers in Belgium and Germany comparable to the one in Bergeijk; Open green dots: *gobelets à ressauts* in France according to Mathiaut-Legros 2006.



grave 87 of the cemetery at the Vrijthof square in Maastricht.²⁷⁴ Other specimens were discovered in grave 42 of the cemetery of Maurage (Belgium, province of Hainaut),²⁷⁵ and in grave 833 of the cemetery of Ciply (Belgium, province of Hainaut).²⁷⁶ Dierkens lists additional specimens: one from Mezières grave 47 (France, département of Ardennes), and one from Jandun grave 38. Finally, one specimen has been excavated recently in the cemetery of Borgharen (Netherlands, province of Limburg).²⁷⁷ It has been observed by previous authors that this type of small beaker is a regular feature in the Belgium province of Namur (fig. 6.37).

In a recent study of pottery in north-eastern France Mathiaut-Legros identified almost similar beakers, with and without foot ring, which she designated *gobelets à ressauts*.²⁷⁸ Most of these are without context and thus difficult to date, but they probably date mainly to the seventh century. Mathiaut-Legros mentions that such beakers are also found in the Picardie, but does not include these in her map. The specimens she mentions are indicated on the map figure 6.37. The northern fringe of the distribution of these beakers is found in Belgium and the Trier area. The Dutch beakers can be considered northern outliers. The Bergeijk beaker is as yet the northernmost specimen known. The absence of this type of

beaker in the studies by Siegmund and the Franken AG indicates that it is not common in the Rhine valley. The beakers are generally dated to the seventh century.

Fine pottery: spouted pot, black and orange-brown

Graves 41.u1; 78.c1; 82.c1; 85.a1

No less than four graves from Bergeijk contained spouted pots (fig. 6.38). Spouted pots are, like the bottles, not a regular phenomenon in early medieval cemeteries, but neither are they very rare. This indicates that they reflect a specific choice during the burial ritual. For that reason they merit a study of their own. We will analyse the context of deposition and the distribution of this type of pot in the Netherlands in a separate study. The four pots from Bergeijk differ to some extent from each other in terms of decoration, colour and rim shape. They can be classified according to various criteria.

Two of the pots are orange/brown and two are black/grey. The surface of one of the black ones is quite shiny. Two of pots have an open, slightly thickened outward bent rim, and two possess an added inward turned collar which partly closes the pot. These cat-

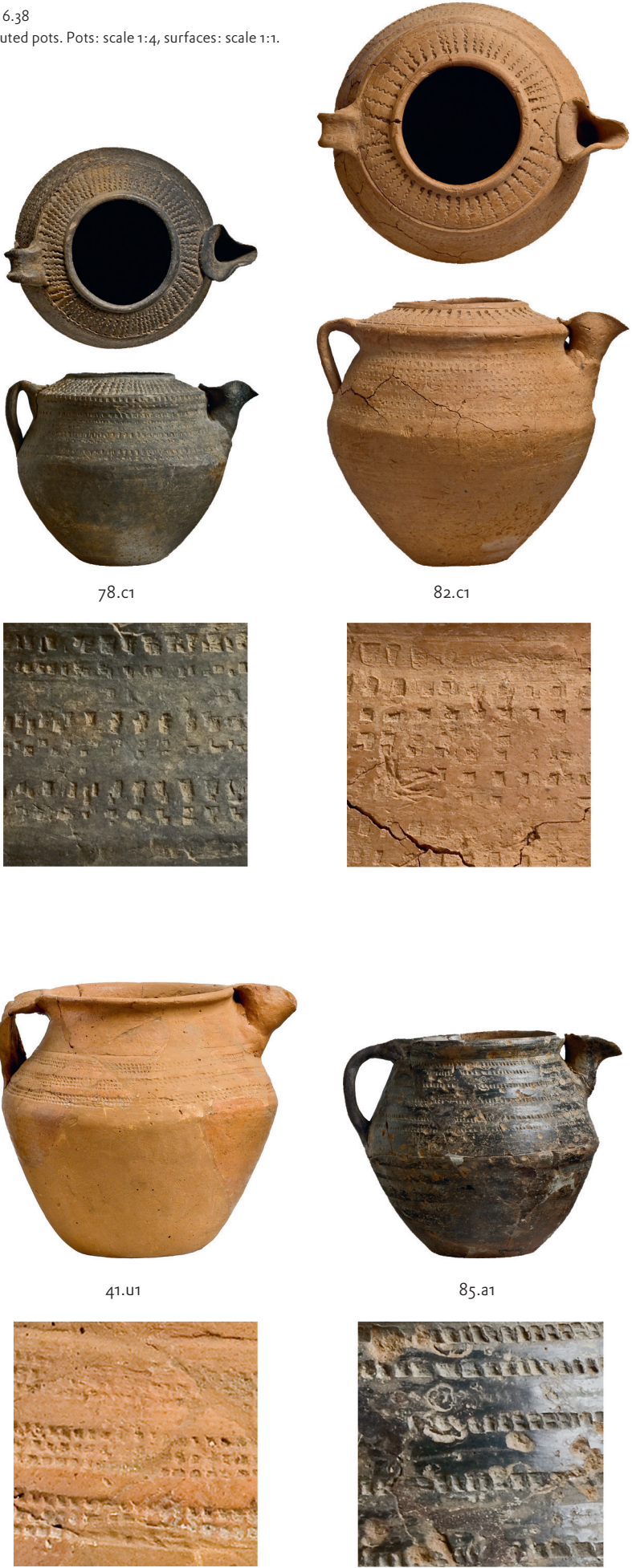
egories are comprised of one orange/brown and one black pot. The pots with an inward turned collar are decorated more or less identically. There is an irregular roulette decoration of larger and smaller rectangles on the upper part of the belly of pot 78.c1, and an irregular roulette decoration of rectangles of more or less the same size on the upper part of the belly of pot 82.c1. The rouletting is so irregular that it is difficult to reconstruct the basic pattern on the wheel of the roulette. The top of the inward folded collar was decorated with radially placed individual stamps. It is difficult to establish whether the stamps on both pots are identical, but the differences between them are minimal and could, for instance, have resulted from variations in the hardness of the pot at the time the impressions were made. If the stamps are identical, it could mean that the pots originate from the same potters' workshop. The impressions were made after the spout was attached to the pot, since the impressions are adjusted around the location of the spout (82.c1) or pressed into the rim of the spout (78.c1). However, the spout was attached after the pot's belly was provided with roulette stamps. The spout was attached after the collar on the rim, for it is folded over the rim. Thus the order of production on these pots could be: forming the biconical pot, adding rouletting on the upper part of the belly, adding a collar on the rim, adding a spout, add a handle, and finally, adding stamps on the collar.

The other two pots are also decorated with square roulette stamps on the upper part of the belly. Pot 85.a1 features a single or a double row of rectangular roulette impressions. In some places the impressions seem to consist of two small rectangles, while in other parts of the pot, they are single. This bears consequences for type identification in the FAG typology. Pot 41.u1's upper belly portion is decorated by a band with three lines of rectangular impressions.

Spouted pots with a collar on the rim are a rare phenomenon. Comparable examples can be found in southern Germany, such as the pot in grave 5 of Mannheim-Vogelstang.²⁷⁹ This type of spouted pot is not found in the lower Rhine area.²⁸⁰

Siegmund and the Franken AG did not define spouted pots as a separate type, but included them in the typology of biconical pots. I think it is necessary to separate the spouted pots from the biconical vessels, if only because they must have had a different use. Pottery types should be based on more criteria than those necessary for chronological studies.²⁸¹ Two pots (78.c1 and 85.a1) can be identified as Siegmund's type Kwt3.22, which he assigns to his late phase 7 and early phase 8B (585-640).²⁸² The other two are his type Kwt3.23, assigned to phase 8 (610-640).²⁸³ In the typology of the Franken AG, three (41.u1, 78.c1, 82.c1) fit into their type Kwt5B, assigned to their phases 5 to 7 (565-640/650).²⁸⁴ One (85.a1) fits type Kwt5A or 5B depending on how many rows of rectangular impressions one identifies (phases 5-6: 565-610/620 or phases 5-7: 565-640/650 respectively). It can be concluded that the spouted pots from Bergeijk date to the late sixth and first half of the seventh century.

Fig. 6.38
Spouted pots. Pots: scale 1:4, surfaces: scale 1:1.



(274) Kars 2011, Vrijthof context 87 (find number 1393-1) (275) Faider-Feytmans 1970, I, 258; II, Pl. 143. (276) Faider-Feytmans 1970, I, 218; II, Pl. 117. This specimen has to some extent, however, a carination in the wall. (277) Excavations by the University of Amsterdam and the Rijksdienst voor het Cultureel erfgoed (State Heritage Institute). This was an unusual red specimen. Unfortunately, the excavation was robbed, and the beaker was one of the stolen finds. (278) Mathiaut-Legros 2006, 197, 199, and figures 8 and 10. (279) Koch 2007, 310, Abb. 26. See also the pot in Koch 2007, 359, Abb. 54. (280) Siegmund 1998. (281) That is also the reason why 'size' and 'colour' should be added as relevant criteria in analysing pottery. (282) Siegmund 1998, 131. (283) Siegmund 1998, 131. (284) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 61.

Fig. 6.39
Ceramic bowls. Pots: scale 1:4, surfaces: scale 1:1.



Three spouted pots were found in the nearby cemetery of Meer-veldhoven. One is a stray find that led to the discovery of the cemetery. The vessel from grave 29 was associated with nine small rectangular copper alloy belt mounts and a strap end.²⁸⁵ In view of the presence of a string of beads it is likely that a woman was buried in the grave. The finds and location of the grave in the somewhat younger section of the cemetery indicate that it should be dated to the second half of the seventh century.²⁸⁶

The third pot was found in grave 53, which dates to the years around 600. This is one of the earliest graves in the cemetery, if not that of the founder. In addition to the pot, a sword, sword belt, seax, lance head, knife, axe, and shield were present in the grave.²⁸⁷ In the other cemeteries of the area, such as Veldhoven-Oeienboschdijk, Lommel-Lutlommel, and Alphen, no spouted pots were found. Neither were there spouted pots in the cemetery of Rosmeer (Belgium, province of Limburg).²⁸⁸

Further research into this type of pot must consider that it may have been used differently than bottles, jugs and jars. Moreover, it will be important to establish who were buried with these pots and in what kind of graves.

Fine pottery: bowls, orange-brown and black

Graves 36.a1/2; 42.b1; 72.c1

Three bowls were found in the cemetery: one orange-brown (36.a1/2), one red (42.b1) and one black (72.c1) (fig. 6.39). They are made of fine ware with a smooth surface, although the surface of

42.b1 is weathered. All three have a clearly demarcated foot plate. The rim and upper wall are different on each of the bowls. All three specimens fit Siegmund's type Sha2.21, which he assigns to his phases 5 to 8 (555-640).²⁸⁹ The Franken AG kept this type definition but assign it to a longer time period: phases 4 to 7 (510/520-640/650).²⁹⁰ The fact that all three specimens despite their different appearances fit the same type, suggests that this group is rather heterogeneous and merits further detailed examination. Van Wersch distinguishes bowls with a straight wall, like numbers 42.b1 and 72.c1, from bowls with short curved necks, like 36.a1/2.²⁹¹ Further subdivision, for instance between the forms of 42.b1 and 72.c1, might be relevant. In the typo-chronological system of Legoux, Périn and Vallet, the bowls belong to type 403, assigned to their phases MA2 (second half)-MA3 (c. 545-600/610). Tilkin-Peters carried out a more detailed analysis of this type of bowl.²⁹² The vessel from grave 42 resembles her type 12, dating from the late sixth and seventh centuries, and the specimen from grave 72 most closely resembles her type 7, again dating from the late sixth and seventh centuries. In the near future, a study will be made of the bowls from the southern Netherlands to improve our understanding of the variety of forms and its meaning.²⁹³

Fine pottery: biconical pots (general remarks)

The biconical pots are classified here according to the typology proposed by Siegmund.²⁹⁴ Although his criteria are very detailed, the pots assembled as a single type often differ considera-

bly in appearance and decoration. This is an indication that biconical pots vary widely, probably due to decentralized production. It is nevertheless interesting that the idea of the biconical pot 'conquered' northern Gaul quite rapidly in the sixth century. The question is, therefore, what exactly is the 'idea' of the biconical pot, and what constitutes variation. Moreover, it is important to establish what the variation in size, colour and decoration means, and how it relates to other aspects of the mortuary practice and/or daily life. Does variation result from producers' ideas or consumers' ideas? Is it associated with aspects such as valuation of substances, gender, local identities etc.? It is also important to establish whether there were any rules concerning the use of certain pots in the burial ritual.²⁹⁵ Another interesting subject of study is the exchange of these pots and the size of the areas over which they were distributed. These questions and others will be central in research on biconical pots from graves in the southern Netherlands.

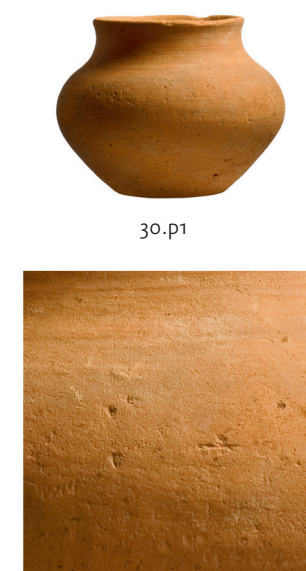
In the classification of biconical pots by Siegmund, the shape of the pot is considered most important, and his typological criteria are based on the relative measurements of the pots.²⁹⁶ This system has the advantage of working with variables that are easy to measure and compare. It has the disadvantage that important variables such as the absolute size of the pot and its colour disappear to the background. Small pots, or rather, biconical beakers may have had quite distinct functions and should be evaluated differently. The colour of a pot may have been of great importance in the symbolic system of both producers and users of pots.²⁹⁷ Moreover, the colour of the pot and its classification by users is often related to the substances it contained and to the valuation of these substances in the society concerned. Red and black, the basic colours of the Merovingian pottery, are in many cultures equated with 'good' and the 'bad' respectively. To what extent this applies to the Merovingian world should be subject to research. Until now, typologies have not given much emphasis to analysing the cultural and ideological connotations of the production and use of pottery, and are almost exclusively geared to questions of chronology. Databases and typologies should include a diverse range of variables, allowing researchers to experiment with various categorizations of pots and determine their social significance. This type of research, however, goes beyond the study of the pottery of a single cemetery.

Fine pottery: small biconical pot with rounded carination, orange

Grave 30.p1

This small biconical pot is described separately, for it seems to belong to a distinct type, of which identical specimens have been

Fig. 6.40
Small biconical pot. Pot: scale 1:4, surface: scale 1:1.



found in other cemeteries. It has an orange colour and a rounded carination (fig. 6.40).

A pot with a similar shape was discovered in grave 44 of the cemetery of Rosmeer.²⁹⁸ In the grave, iron belt fittings with round plates were found, dating it to the years around 600 AD. In grave 84 of the cemetery of Maastricht-Vrijthof, a comparable orange pot was present.²⁹⁹ It is decorated with grooves below the rim and a single line of roulette impressions. The grave did not contain any other grave goods. Pots of this type are identified by Siegmund as type Kwt4.11 and assigned to his phase late 7 and 8A (600-625). However, they are most popular in phase 8A.

Fine pottery: biconical pots of type Siegmund Kwt2.43, black and orange

Graves 7.g; 18.a1; 31.a1; 47.a; 49.f1; 112.b1; 113.b

The problems described in the introduction to this section present themselves already in the second group to be discussed. This group of seven pots can be split into two, very small pots, and medium sized and large pots (fig. 6.41). The small pots are the size of beakers and could well have been used as such. One is orange coloured. In addition to the size of the pot, the absence of decoration is a defining feature of this group. Three large pots look more or less alike, while one possesses a different ratio between the short upper and high lower wall. The pots from graves 18 and 49 may have had a polished surface. Siegmund assigns these biconical pots

(285) Verwers 1978, 284-285. (286) This is also the conclusion of the excavator: Verwers 1978, 265. (287) Verwers 1978, 302-305. (288) Roosens/De Boe/De Meulemeester 1976. (289) Siegmund 1998, 155-156. (290) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 67. (291) Van Wersch 2011, 97-102. (292) Tilkin-Peters 1986, figure 11. (293) See now also Van Wersch 2011, 97-102. (294) Siegmund 1998, 120-135. (295) A study based on only four cemeteries as to the colour and size of the pots in relation to

gender and age categories did not yet provide clear results, so perhaps other aspects are related to colour and size (Van der Knaap 2008). (296) This method of classifying biconical pots is an elaboration of the system of Böhner 1959. In the system of the Franken AG, decoration plays a crucial role: Müssemeier/Nieveler/Plum/Pöppelmann 2003, 57. (297) See for instance, Miller 1985. (298) Roosens/De Boe/De Meulemeester 1976, 19, Pl. XII; Roosens 1978, 15. (299) Kars 2011.

Fig. 6.41
Biconical pots of type Siegmund Kwt2.43.
Pots: scale 1:4, surfaces: scale 1:1.



to his phases 8 and 9 (610-670).³⁰⁰ The Franken AG kept this type in their typology and dated it to their phases 6 to 9 (580/90-c. 710).³⁰¹ These pots were found in the northern part of the cemetery. For their distribution pattern in relation to other pots, see below.

Fine pottery: biconical pots of type Siegmund Kwt3.22, black
Graves 39.a1; 53.p1; 71.a1; 77.e

Four biconical pots of type Siegmund Kwt3.22 were found (fig. 6.42). They are all black. These are a very common type of biconical pot, usually decorated with roulette stamps. Two of the Bergeijk pots are decorated with roulette stamps. Pot 77.e has eight turns of what is probably single line roulette (39.a1) with one turn of a four line roulette band.

The third specimen (71.a1) is decorated with vertical undulating lines. It is difficult to determine whether they were made with a single stamp or with a cog wheel. The fourth vessel (53.p1) is decorated with five turns of a complicated roulette band. Ypey found an identical roulette pattern on a pot in grave 243 in the Rhenen cemetery.³⁰² The Rhenen and Bergeijk cemeteries are 71 km apart as the crow flies. Siegmund assigned this type of pot to his phases late 7 to early 8B, which is a relatively short period (c. 600-630).³⁰³ Pot 53.p1 is type Kwt5G of the Franken AG, and assigned to their phases 5 and 6 (565-610/620).³⁰⁴ Pot 77.e might also be of type Kwt5A of the Franken AG, dating to phases 5 or 6 (565-610/620).³⁰⁵ The dates of the objects found in the graves with these pots do not contradict this date. Three of the pots were found in the northern part of the cemetery; one was found in the central part.

Fine pottery: biconical pot of type Siegmund Kwt2.32, black
Grave 33.a1

In grave 33, a pot of type Siegmund Kwt2.32 was found (fig. 6.43). The pot is decorated with four turns (or five where there is an overlap) of a band with five parallel grooves made with a comb-like instrument. Siegmund dates these pots to his phases 4 and 5 (530-570), which is quite early in view of the other finds from the Bergeijk cemetery.³⁰⁶ In grave 33, remains of an iron belt set with rounded plates was found, indicating that the grave belongs rather to Siemund's phase 7 (585-610), which is a plausible date for the grave in view of the other finds in the cemetery. The pot might thus also date to Siegmund's phase 7. This is in accordance with the dating of the pot by the Franken AG. It meets their criteria for type Kwt3A, that they date to their phases 4 and 5 (510/25-580/90) and occasionally to phase 6 (580/90-610/20).³⁰⁷

Fine pottery: biconical pots of type Siegmund Kwt3.23, black and orange-brown

Graves 19.c1; 42.a; 77.b

Three biconical pots of type Siegmund Kwt3.23 were found (fig. 6.44). Two are black and one is orange. Two are decorated with roulette stamps: one (42.a) probably with four turns of a double row roulette band, and one (19.c1) with roulette bands that cannot be easily identified. It may be a single row band with ten or eleven turns, but also a three or four row band with only three turns.

Pot 77.b is more complexly decorated with four turns of a band with two motifs: a group of nine rectangles and a stamp with a rosette motif consisting of triangular impressions. They do not seem to be in a regular order, but observation might be hampered by the poor quality of the impressions. Perhaps the impressions are of single stamps. This motif strongly reminds of such common motifs on biconical pots of types Kwt5F, 5G, 5H and 6 in the typology of the Franken AG.³⁰⁸ They are assigned to their phases 5 to 7 (565-640/650), with Kwt6 also to phase 8 (640/650-670/680).

Siegmund assigned this type of pot to his phase 8, which is a relatively short period (c. 610-640). The Franken AG type is Kwt5B assigned to phases 5-7 (565-640/650).³⁰⁹ However, because of the different decoration, the pot from grave 77 is better assigned to type Kwt 5G, which dates in phases 5 and 6 (565-610/620).³¹⁰ The dates of the other objects found in the graves with these pots do not contradict this date. In grave 42 a lance head with an open socket was present, dating to phase 7 and occasionally to phases 6 and 8A (date range: c. 570-625). In grave 77, many small rectangular copper alloy plates were found, which probably date somewhat later in the seventh century. In general, the other objects found in the grave do not contradict the date given for this type of pot, although it might date a bit earlier than phase 8. The pots were all found in the central part of the cemetery.

Fine pottery: biconical pot of type Siegmund Kwt3.21, black
Grave 44.f1

This low wide pot is decorated with eight turns of a single line roulette band of diagonal rectangles or triangles (fig. 6.45). Siegmund assigns this type to his phases 7 and 8 (585-640). He suggests that they appear in phase 7 and last into phase 8, suggesting that they rather belong to the central part of the period, that is c. 600-625. In the typology of the Franken AG, it can either be assigned to type Kwt 5A (phases 5-6, 565-610/620) or type Kwt 5E (mainly phases 5-6 too, but also occasionally in phases 7, lasting until 640/650).³¹¹ Grave 44 is in the northern part of the cemetery.

(300) Siegmund 1998, 130. (301) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 59. (302) Ypey 1959, 295. (303) Siegmund 1998, 131. (304) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 62. (305) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 60-61. (306) Siegmund 1998, 129-130. (307) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 59. (308) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 62-63. (309) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 61. (310) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 62. (311) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 60-61 and 62.

Fig. 6.42
Biconical pots of type Siegmund Kwt3.22.
Pots: scale 1:4, surfaces: scale 1:1.



Fig. 6.43
Biconical pot of type Siegmund Kwt3.32.
Pot: scale 1:4, surface: scale 1:1.



Fig. 6.44
Biconical pots of type Siegmund Kwt3.23.
Pots: scale 1:4, surfaces: scale 1:1.



Fig. 6.45
Biconical pot of type Siegmund Kwt3.21.
Pot: scale 1:4, surface: scale 1:1.



Fine pottery: biconical pots of type Siegmund Kwt2.42, black
Graves 19.d1; 20.a; 111.a1

Three pots of this type have been found (fig. 6.46). They are undecorated. Siegmund assigns these pots to his phase 7 (585-610).³¹² The Franken AG gives a wider date range for their type Kwt 4A, which they assign to phases 4 to 7 (510/525-640/650).³¹³ These pots are found in the central part of the cemetery. Pot 20a is found in a context that is probably not a grave.

Fine pottery: biconical pots of type Siegmund Kwt2.12 (?), black
Graves 34.f; 73.b1

Two pots of this type were found, although the identification of the pot from grave 73 is not certain- only its lower half has been preserved (fig. 6.47). The pot from grave 34 has an elongated shape and is decorated with one band of single stamps consisting of groups of squares or parts thereof. The band of stamps is bordered by two ridges. Below this zone are five shallow grooves. The grooves are not very pronounced. The pot meets to some extent the criteria of Siegmund's type 2.12, which is an elongated pottery shape decorated with single stamps between grooves. In this case,

however, the single stamps are not bordered by grooves, but by two slight ridges. The pot does have shallow grooves, but they do not border the single stamps. Type 2.12 is assigned to Siegmund's phase 4 (530-555),³¹⁴ which does not fit the general date of the finds in the cemetery. Since the grooves on this pot are so shallow that they need not be real decoration, it is also possible to assign the pot to type Kwt2.22. The criteria for this type are single stamps without grooves. It is assigned to phase 8A (610-625).³¹⁵ Similar problems of identification crop up with this pot when we try to relate it to the typochronology of the Franken AG. The Bergeijk pot meets the criteria of their type Kwt 2B to some extent.³¹⁶ However, the single stamps are not bordered by grooves, but by ridges. Pots placed in this group do, however, have stamps more or less identical to those on the pot from Bergeijk, such as the pots of Junkersdorf graves 335 and 336.³¹⁷ The Franken AG assign this type of pot to their phases 4 to 6. Most specimens are found in phases 4 and 5 (510/525-580/590).

The pot of grave 73 has single stamps between grooves. It can therefore also be identified with Siegmund's type Kwt2.22, or the Franken AG type Kwt 2B. Again, a date for this pot in the first half of the sixth century seems unlikely. A date later in the sixth century is more plausible. Graves 34 and 73 are situated in the northern/central part of the cemetery.

(312) Siegmund 1998, 130. (313) Müsseseimer/Nieveler/Plum/Pöppelmann 2003, 60. (314) Siegmund 1998, 129. (315) Siegmund 1998, 129. (316) Müsseseimer/Nieveler/Plum/Pöppelmann 2003, 58-59. (317) La Baume 1967, 214-215, Tafel 21.

Fig. 6.46
Biconical pots of type Siegmund Kwt2.42.
Pots: scale 1:4, surfaces: scale 1:1.

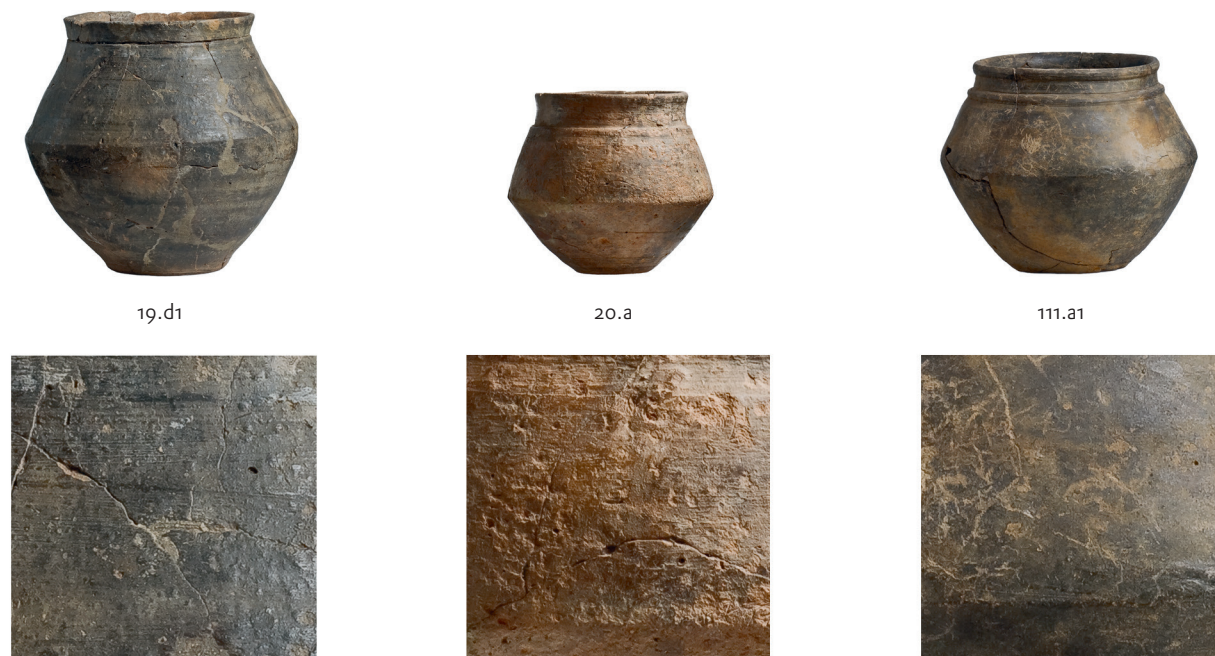


Fig. 6.47
Biconical pots of type Siegmund Kwt2.12 (?).
Pots: scale 1:4, surfaces: scale 1:1.



Fig. 6.48
Biconical pot of type Siegmund Kwt2.33.
Pot: scale 1:4, surface: scale 1:1.



Fine pottery: biconical pots of type Siegmund Kwt 2.33, black
Grave 67 (This is the number on the pot. However, according to the field documentation, no pot was found in this grave. The vessel may originate from graves 58 or 64)

The exact context of this pot is unfortunately not known due to past administrative errors. The pot is decorated with grooves that cover the entire upper part of its wall (fig. 6.48). This is an important characteristic of pots of type Kwt 3A of the Franken AG.³¹⁸ They assign it to their phases 4 and 5 (510/525-580/590) and occasionally to phase 6 (up to 610/620). In the typology of Siegmund, it fits the criteria of type Kwt 2.33 from phases 6 to 8 (570-640).³¹⁹ However, the variety of pots assembled under this type on the basis of numerical criteria is large, which casts doubt on the significance of this type definition.

Fine pottery: biconical pots of type Siegmund Kwt 4.11, black
Graves 62.bb/c/h/i/j/r/o/p/s1/s2/s3; 65.a/b/c/d/f/i/j/p/q/r/s1 (+g/h/n?)

The two specimens of these biconical pots are fragmented and not complete. They are very much alike and were found in two neighbouring graves. One might suppose that the fragments are of the same pot, but on closer inspection they turn out to be different. Both pots have a globular appearance and are for that reason classified as of type Kwt 4.11. They are decorated with two grooves just below the rim and two grooves just above the largest width of the belly. In between the grooves, but not exactly in the centre, there is a double row of roulette stamps. It is difficult to establish whether they were made with a single row wheel or a double row wheel. Such a decoration scheme is unusual. Siegmund dates this type to his phases late 7 and mainly 8A (c. 600-625).³²⁰ A similar decoration was found on a pot from grave 164 of the Eick cemetery (Germany, Nordrhein-Westphalen), which also contained a lance head with open socket, a plate buckle with triangular plate, a sword, a seax, arrowheads, knives, etc. Hinz dated the grave to *Stufe* III of Böhner's chronology system.³²¹ The pot itself was identified by the Franken AG as type Kwt 5A and assigned to their phases 5 and 6 (c. 565-610/620).³²² A similar decoration scheme was found on a spouted pot from grave 8 from the cemetery of Kaarst (Germany, Rheinland-Westphalen).³²³ Siegmund identified it as type Kwt3.12 and assigned it to his phase 6 (570-585), but as he says, they occur up to phase 7 (585-610).³²⁴ This date tallies well with that of the pot from Eick. Perhaps the pots from Bergeijk date from the later sixth and early seventh century. They are found both in the northernmost and central part of the cemetery.

Fine pottery: medium sized globular pots, black
Grave 84.a1

The one specimen of a medium sized globular pot is fragmented and incomplete. The pot from grave 84 is not decorated. Such pots are difficult to relate to any of the types defined by Siegmund.

Coarse pottery: small globular pot, coarse fabric, grey and orange
Graves 53.q1; 110.a

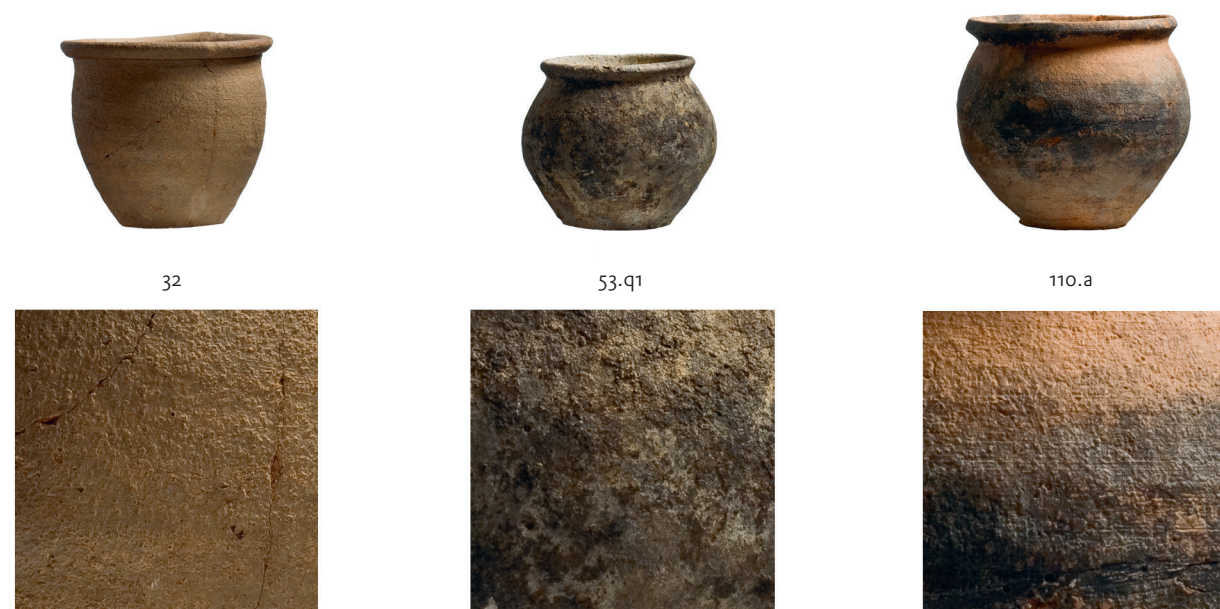
Small globular pots of a coarse fabric are relatively rare in funerary contexts. Siegmund identified them as type Kwt4.12 and listed only three specimens in his research area. Another three were found in Krefeld-Gellep.³²⁵ Characteristic elements of the pots are their globular belly and a long rim that is folded slightly outwards and somewhat concave on the inside (fig. 6.49). The Franken AG does not recognize this type. In the typology of Legoux, Périn and Vallet, type 404, which is dated to almost the entire Merovingian period, approximates it most closely.³²⁶ Siegmund cannot precisely date this type of pot either. The specimen from grave 53 was found together with a biconical pot, a pottery bottle that might date from the early seventh century, a glass palm cup dated to the late sixth and early seventh century and a pottery beaker. The grave probably dates to the early seventh century. Although they rarely occur in cemeteries, globular coarse wear pots are quite common in settlement contexts and were also found in large numbers in the pottery production centre of Maastricht-Wyck.³²⁷ Van Wersch could not find a complete specimen of the orange type, so the one from grave 110 provides a nice example of the shape of this type of pot. Both pots from the cemetery contain remains of black smoke or other black adhesives that point to their use as cooking pots. This phenomenon was been observed by Van Wersch on many other similar pots. The pot in grave 110 was the only object in that grave.

Coarse pottery: large globular pot, grey-black
Grave 30.k1

This type of pot is rare in Merovingian cemeteries. The quality of the coarse fabric is hard but relatively poor, since parts of the surface of the lower wall have disappeared. The pot shows many cracks, reinforced after the excavation with an adhesive that left stains on the surface (fig. 6.50). The rim is thickened and more or less vertical. The shape of the pot's mouth is slightly irregular. The upper part of the belly is decorated with four parallel grooves that encircle the pot three times, creating two intermediate zones. The upper zone is decorated with a wavy band of four grooves. The

(318) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 59. (319) Siegmund 1998, 130. (320) Siegmund 1998, 131-132. (321) Hinz 1969, 70-72, 120-121, Tafel 24. (322) Müssemeier/Nieveler/Plum/Pöppelmann 2003, 60-61. (323) Siegmund 1998, 318, Tafel 94. (324) Siegmund 1998, 130. (325) Siegmund 1998, 132. (326) Legoux/Périn/Vallet 2004, 20, 46, 55. (327) Van Wersch 2011, 164-166 (pot ovoïde à lèvres simple).

Fig. 6.49
Egg-shaped and globular pots.
Pots: scale 1:4, surfaces: scale 1:1.



base of the pot is flat. It is difficult to assign this shape of pot to one of the categories of biconical pots. Nevertheless, one pot in grave 19 of the cemetery of Kaarst (Germany, Nordrhein-Westfalen) resembles the Bergeijk specimen and is similarly decorated with wavy lines. Siegmund assigns it to his type Kwt 2.33.³²⁸ The pots assigned to this group do not form a very homogeneous group and are dated to his phases 6 to 8 (570-640). Grave 19 from Kaarst contained small rectangular copper alloy mounts pointing to a date in the seventh century, and a palm cup of type Gla 2.2, which is a form of phase 9 (640-670). Moreover, it contained a tremisses, which cannot be identified with certainty, but which has a date of c. 620/630.³²⁹ The grave thus dates most probably to Siegmund's phase 9 (640-670). The shape of the Bergeijk pot resembles rather jugs or jars of the type Siegmund Kru2.1 and 2.21, but the Bergeijk specimen has no handles. These jugs or jars are assigned to his phase 9 (Kru2.1) and 10 (Kru2.21) (640-705).

The pot from grave 30 is also related to a large pot from grave 2604, from the cemetery at Krefeld-Gellep.³³⁰ It is 29 cm high, has a slightly hollow base, is more carinated than the Bergeijk specimen, but bears an almost identical decoration of grooves and wavy lines. Pirling assigns it to biconical pots of Böhners type B1b. These are biconical pots with a shorter upper wall which are usually dated to Böhners Stufe III (sixth century). Grave 2604, which contains some beads, cannot be dated on the basis of other finds.

The decoration of horizontal groups of grooves of the Bergeijk specimen resembles to some extent those of a number of such jugs or jars. Undulating lines are usually considered an older element in pot decoration.³³¹ One pot from Liège is identical but for the fact that it bears a spout and handle.³³² It, too, is decorated with

groups of four grooves. It is dated to the seventh century. The evidence of Kaarst grave 19 points to a date in Siegmund's phase 9 or 10, but because such pots are rare, one must keep in mind that the type of decoration points to a somewhat earlier date. Van Wersch notes that this type of coarse pottery is common in settlement sites, and is also very common in the pottery production centre of Maastricht-Wyck.³³³ Whether the Bergeijk pot originates from that centre has not been established. The Bergeijk pot should be assigned to her category '*pot ovoïde à lèvres enroulées*', but the form is not so much ovoid as it is round. It can be compared to her '*grand vase à lèvres enroulées*'. The shape of the Bergeijk pot matches that of higher quality specimens in other techniques: '*céramique tournée grise à surface lissée et cuisson réductrice*' and '*céramique tournée grise à surface lissée cuisson réductrice et enfumage*'.³³⁴ These types are rare, and only single specimens were found at the pottery production site of Maastricht-Wyck and the Grognon site in Namur (Belgium, province of Namur). Both bear almost the same decoration as the Bergeijk specimen. Perhaps the pot from Bergeijk is also of the '*enfumage*' type. Van Wersch dates these pots in general to the entire Merovingian period. The pot is associated with a glass bag beaker that most likely dates to the late sixth and early seventh century, and a small biconical pot probably dating to the early seventh century. The Bergeijk globular pot may date from this period as well.

A final remark concerns the decoration of wavy lines. It is found on biconical pots, but also on bottles and Fla 2.2 according to the typology of Siegmund.³³⁵ This last type dates to his phase 11 (early eighth century). This may be the successor of the type of pot in grave 30. Perhaps the type of decoration is related to its function of containing liquids.

Coarse pottery: 'Wölbwandtopf'

Context 32

The find context of this pot is a bit strange. It was found in one of the foundation trenches of the new house just 10 cm below the surface level. It was broken and roots were growing through the cracks. It is unlikely that it was deposited in a grave. It is important to note that the almost intact state of the pot suggests that the upper soil levels were not heavily disturbed by later ploughing, otherwise the sherds of this pot would have been scattered over the field.

This type of vessel is termed '*Wölbwandtopf*', or egg shaped pot (fig. 6.49). Pots of this type are difficult to date. Siegmund defines an early group dating to the fifth and first half of the sixth century and a late group that dates to the seventh century.³³⁶ All the finds in the cemetery of Bergeijk date from the late sixth to early eighth century, so it is likely that the egg shaped pot belongs to the late group. Nevertheless, the Bergeijk specimen fits the criteria of the early group best, more specifically, those of type Wwt1.2. The angle of the wall is in this case 73°. They belong to Siegmund's phases 3 to 5 (485-570). The Franken AG dates this type to their phases 3-5 (460/80-580-590).³³⁷ It could have been a survival buried on the site somewhere in the late sixth or seventh century. A quick scan of publications of cemeteries in the Meuse valley and adjacent regions shows that this type of pot is extremely rare in that area. However, the shape (*pot ovoïde à lèvres enroulées*), produced in various pastes and techniques, frequently occurs in settlement contexts and was also found in the pottery production centre Maastricht Wyck.³³⁸

Fine pottery: fragments

Graves 23.b1/d*; 42.d1; 54.1/a1; 57.c1; 62.s4; 65.s2; 69.d. Stray finds: 1957.3; 1957/1959.2

Several single fragments of Merovingian pottery were found, both in graves and outside them. The finds without context were probably found in the topsoil during the opening of the excavation trenches. All sherds are made of black fine wares.

Three of the sherds are decorated. One shows a band of horizontal grooves and a band of undulating grooves, which is the type of decoration also found on the pottery bottle and large globular pot. The second fragment bears two bands of roulette stamps consisting of diagonally placed rectangles. The third (1957/1959.2) is decorated with grooves and single S-shaped stamps of rectangles, reminiscent of the decoration on the fragment of a pot from grave 73. This type of decoration is not present on any of the complete pots found in the cemetery, so this fragment may originate from a pot that removed from the grave during one of the re-openings.

(328) Siegmund 1998, 130. (329) Siegmund 1998, 319-321. (330) Pirling 1979, I, 71; II, 46, Tafel 36, 15. (331) Müssmeier/Nieveler/Plum/Pöppelmann 2003, 59-60, Kwt 3B, their phases 4 and 5 (510/25-580/590). (332) Otte 1986, figure 8. (333) Van Wersch 2011, 185. (334) Van Wersch 2011, 134 and 145. (335) Siegmund 1998, 146. (336) Siegmund 1998, 135-143. (337) Müssmeier/Nieveler/Plum/Pöppelmann 2003, 63. (338) Van Wersch 2001, 166-169; 186-187.

Fig. 6.50
Large globular pot. Pot: scale 1:4,
surface: scale 1:1.



Finally, a number of rim fragments, base fragments, and wall fragments were found. Most of the fragments have a fabric similar to that of the biconical pots.

Pottery: vessel missing, unknown shape and fabric

Graves 21.a*; 22.a*/23.a*; 58.a* or 64.e*

Some pots are missing, such as the one from grave 21. The sherds from graves 22 and 23 could be fitted to one pot but are lost. The pot from graves 58 and 64 are missing. There is a pot labelled ‘grave 67’ that cannot have come from this grave since it is not recorded on the find list. It is possible that this pot actually came from grave 58 or 64. In total, two pots and fragments of a third are lost.

Pottery: other

Pottery: fragments of prehistoric pottery

Graves 10.b2/h5; 22.d1/h1; 24.a1/c1/e1; 28.b1; 29.a1/c1; 30.d1/g1/h1/m1/o1; 33.z; 34.c1/b1; 39.1/44.1; 49.d1 or a1; 54.d1;57.6; 59.k1;62.n1/q1/s5/x1/cc1; 63.a1/c2; 65.m1/o1; 84.a2; 89.1/2. Stray finds: 1957.1/2; 1959.1-5

A large number of fragments of prehistoric pottery were found in graves and outside them.

One group consists of thick-walled pottery with quartz particles in the fabric. Some of these fragments have fingertip impressions either on the rim (o-1/3) or on a band of clay on the wall. This pottery can be dated to the Bronze Age, and probably originates from pots such as those found during the excavation of one of the barrows located 770 meters to the northwest.³³⁹ A smaller group of fragments probably dates to the Iron Age.

Pottery: fragments of high and late medieval pottery

Graves: 30.i1; 65.2/3. Stray finds: 1957.4; 1959.7; 1959.8-9

Some fragments of pottery are of a later date than the cemetery, such as those with a late medieval grey fabric. They were probably brought to the site when it was in use as an arable field.

Pottery: indeterminate fragments

Graves: 8.b*; 21.e*; 22.i*; 24.g1/j1; 31.f*; 35.g*; 45.f*; 46.a*; 49.d2 or a2; 51.a*/b*; 54.b; 59.o; 73.a; 77.r2; 79.r. Stray finds: 1957.5-6; 1957/1959.1

These are pottery fragments which cannot be identified specifically.

Various elements

Plant remains

Grave 24

In grave 24 mineralized plant remains are present on iron objects. It is not possible to make further statements on them because only the inside of stems are visible which are difficult to determine.³⁴⁰ They might be remains of straw located on the bottom of the grave or in a cushion.

Nuts: organic

Grave 7.c1

In grave 7 three burned nuts, probably acorns, were found.

Bone: organic

Graves 10.b3; 24.x6

The fragment of bone in grave 10 was burnt. The fragment in grave 24 may also be bone, but could not be identified with certainty.

Charcoal

Grave 30.f4

In grave 30, a large fragment of charcoal was found.

Stone fragment

Graves 77.3; 82.e*; 84.a3

In three graves, fragments of stone were found.

Brick

Graves 39.2; 56.l2; 57.7

In three graves, fragments of brick were found. All three are probably remains of Roman *tegulae*.

Grave finds: specific aspects

The grave goods of grave 24, conclusions

Grave 24 was heavily disturbed during its reopening after the funeral. A large number of corroded iron fragments were left behind in the fill of the wooden container and reopening pit. Enough objects remained to allow the conclusion that the grave originally contained grave goods usually associated with men. We meticulously studied the fragments and had X-ray photographs made to take full advantage of all available information.

Grave 24 seems to have contained the fittings of at least three different belts or leather straps.³⁴¹ First, there is a set of fittings with large copper alloy rivets, or rivets covered with copper alloy foil. Second, there are fittings with small copper alloy rivets, and third, two plate buckles with rectangular plates folded around the loop (*Laschenbeschlag*). The first group was probably part of a waist belt. The second group may have belonged to a second waist belt. However, in that case, the grave would have held two waist belts, which could mean that two persons were buried in the grave. The wooden container in grave 24 is one metre wide. Two persons could have been buried side by side, although it is a bit narrow for a double grave. It is possible that two persons were buried one after another and atop each other, but such a way of burying the dead is not often encountered in the Merovingian period. Another possibility is that the fittings with small rivets belong to a sword belt or to horse gear. The two buckles with *Laschenbeschlag* are common elements in horse gear. It is difficult to think of them as parts of waist or sword belts. Ultimately, we must conclude that it is not possible to determine the exact function of all the fittings found in this grave. The fittings with large copper alloy rivets date to the first half of the seventh century. It can be expected that the entire set of fittings from this grave dates from that period.

Other finds in this grave include large iron rivets covered by copper alloy foil which must originate from a shield boss, indicating that a shield was also deposited in this grave. Some iron fragments originate from a knife. This knife may have been related to a possible seax, of which only the point was retrieved. Lastly, the grave yielded two connected iron rings and a piece of flint, which, however, may be of prehistoric date. All this indicates that grave 24 probably belonged to a man and contained at least a seax, a shield and three different belts or straps with fittings, possibly horse gear.

The distribution of specific grave goods over the cemetery

One method of establishing the chronological development of the cemetery is mapping the distribution of several types of objects on the site plan. Moreover, these distribution patterns may help in

(339) Modderman 1955; Theunissen/Smits/De Kort/Lanting 2002; Theunissen 1999. (340) The remains were studied by drs. Anja Fischer (Diachron UvA bv). (341) Another strap end that is lost now should be added to the fittings described above.

elucidating the spatial structure of the cemetery. We must bear in mind that these distribution patterns do not represent the original deposition pattern of these types of objects, for many graves were re-opened, and objects disappeared after the excavation.

The distribution of belt fittings

The chronology of belt fittings has been intensively discussed, and there seems to be a consensus on the relative chronological positions of various types of belts as well as decorative patterns of silver and copper alloy inlay in iron fittings. In the Bergeijk cemetery, no copper alloy belt fittings of the sixth century were found. The earliest belt fittings seem to be those of iron with round plates. This type is found in only one grave (33) (fig. 6.51). Iron belt fittings with geometric monochrome silver inlay may belong to the same period as those with round plates, but they could date somewhat later. Such fittings were found in grave 82 to the southwest of grave 33. A geometric bi-chrome inlaid iron fitting was found in grave 69 to the west of grave 33. A simple bi-chrome fitting was found in grave 47 to the east of grave 33. These are the relatively early belts among the finds from Bergeijk. They are scattered over the northern part of the cemetery. Belts with large copper alloy rivets are found in the centre of the area circumscribed by the previous four graves. The Ophoven belt of grave 89 is dated to the later part of the seventh century. It was found at the southern limit of the area with the iron belt fittings. The rectangular copper alloy mounts, which might be somewhat older than the iron Ophoven belt, are located further north surrounding the area defined by the belts in graves 33, 24 and 62. They might be somewhat younger than the belts in these graves.

However, they are in the same area as the monochrome geometric belt element. This should warn us against considering the area around grave 33 as the oldest core of the cemetery, around which new graves were laid out in ever widening circles. Two particularly late belt fittings, the long strap end and the stave copper alloy strap end, are also found in the southern periphery of the area in which belt fittings are distributed. Together with the grave with the Ophoven belt, they seem to form some kind of southern boundary of the belt fittings distribution area. The one exception to this rule is the distribution of simple iron buckles. They are mainly found to the south of the boundary just described. They also occur in the westernmost part of the cemetery, with some found in the northern part of the excavation, which, however, need not be the northern part of the cemetery. Such simple iron buckles are typical for late seventh century graves. This suggests that the part of the cemetery south of the large grave 89 is of late seventh century and early eighth century date.

The distribution of jewellery and dress accessories

Not much jewellery was found, so its distribution pattern is not very informative (fig. 6.52). The older two types of jewellery, the disc brooch and gold pendants, are found in the northern part of the excavated area. The late large silver earrings in grave 9 are in

the same zone as the younger belt fittings. Of interest is the distribution of graves with beads. The main distribution area is indicated by a black line. It is almost identical to the area in which most belt fittings were found.

The distribution of weapons

Weapons, or rather fragments thereof, are found in a substantial number of graves.

Sword belt mounts were found in three graves, one of which was in the northern part of the excavated area (fig. 6.53). It is not certain that the mounts in grave 44 belonged to a sword belt. They may have been reused. Possible sword fragments were found in two graves in the central and northern part of the excavated area. If all these finds do refer to swords or scabbards in graves, then there were swords and/or scabbards in at least five graves. The two pyramid shaped belt mounts in adjacent graves 79 and 82 are, of course, elements of belts or scabbards, not swords proper. If we rely on Ypey's identifications of the sword elements in grave 69, there are at least three graves that may have contained swords.

Parts of seaxes, seax scabbards, lances and arrow heads are distributed over the northern half of the excavated area. The distribution of weapons largely corresponds with the distribution of beads, but near the northern boundaries of the excavation, more weapon graves than bead graves were found. Two graves with spurs, dating late in the seventh century, were found along the western boundaries of the cemetery. That section therefore probably dates to the late seventh century. No weapons were found in the southern part of the cemetery. A seax may have been found in one grave of the area, but it could also have been a large knife. The absence of weapons may have various causes, but it is most likely that this southern part of the cemetery dates late in the seventh and early eighth century when the deposition of objects in the grave had ceased.

The distribution of pottery

The majority of the pottery dates to the later sixth and first half of the seventh century. The distribution pattern of pots corresponds closely to the distribution of the weapons and to a lesser extent, that of the beads (fig. 6.54). Again, along the northern limit of the excavated area, there seem to be more graves with pots than beads, which 'avoid' the northernmost area. Pots are also found in the western part of the cemetery. The one type of biconical pot that can also easily date in the second half of the seventh century (Kwt 2.43, the high slender specimens) is found in the graves along the edges of the area with graves that contain pottery. These pots may thus rather date in the second half of the seventh century in this cemetery. As previously mentioned, this seems to present a problem in grave 113 (at the western edge of the cemetery) which in addition to this type of pot, also contained a glass beaker of a type that usually is dated late in the sixth or early seventh century.

Fig. 6.51
The distribution of belt fittings over the Bergeijk-Fazantlaan cemetery.

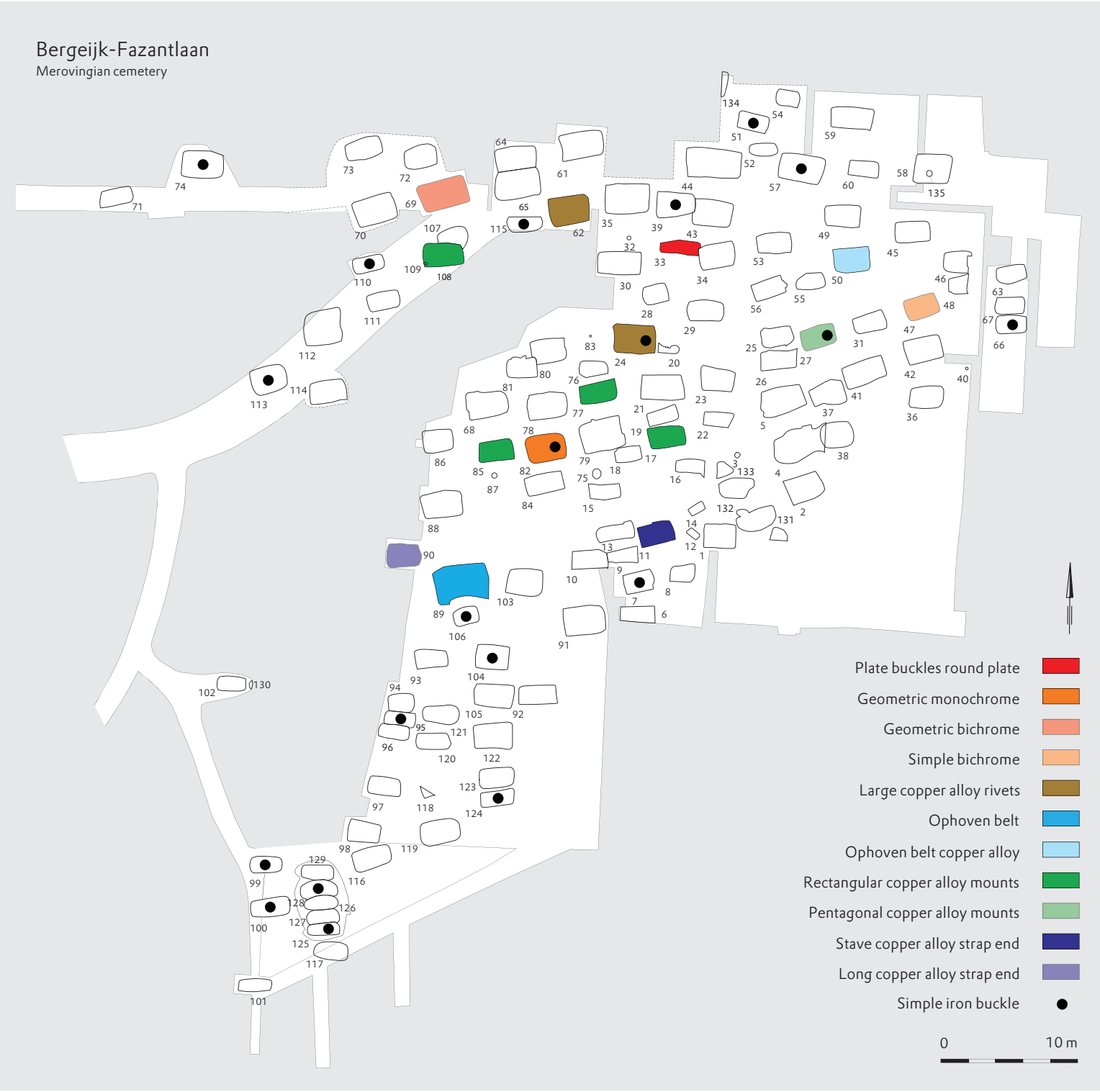


Fig. 6.52
The distribution of jewellery over the Bergeijk-Fazantlaan cemetery.

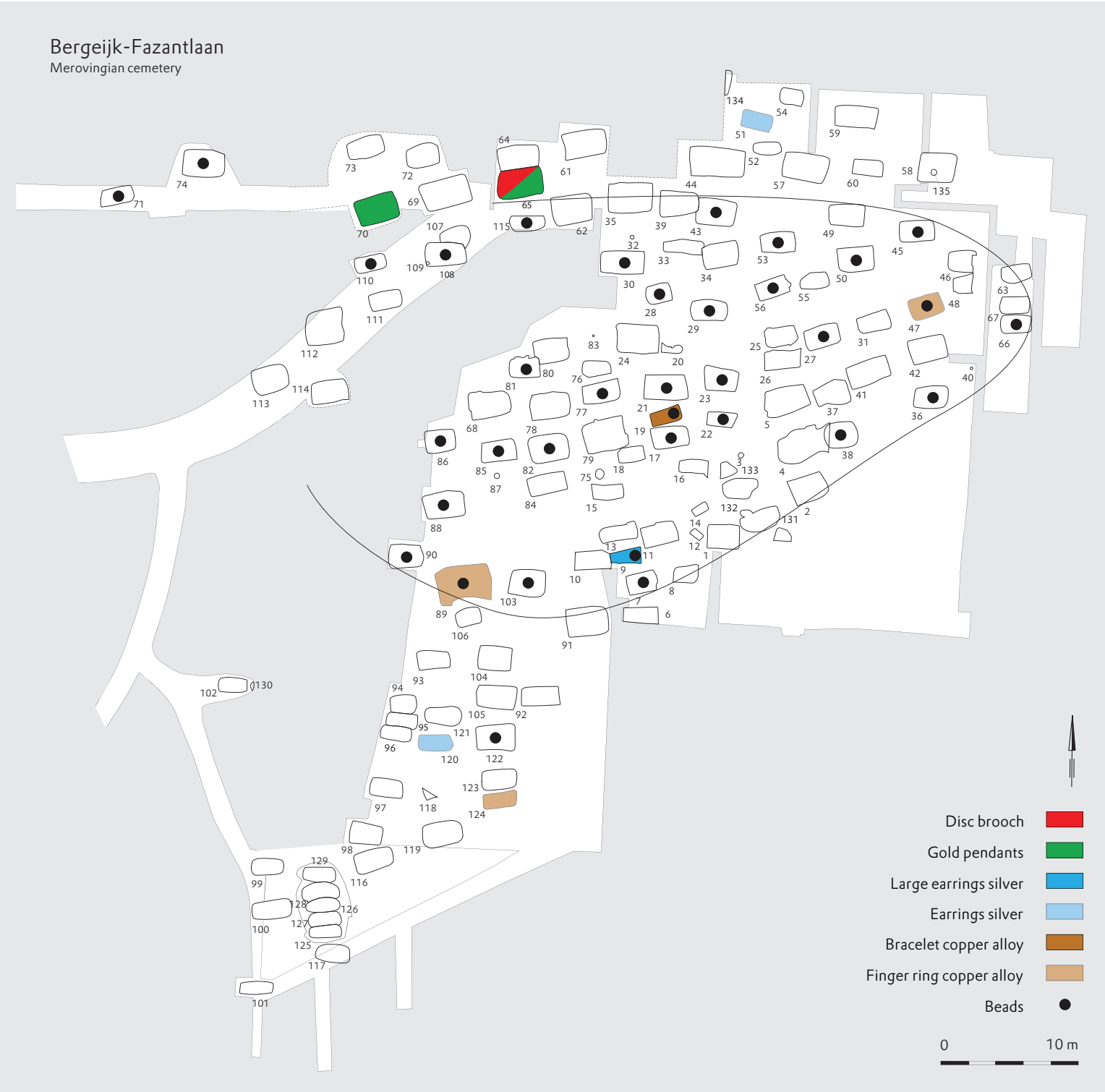


Fig. 6.53
The distribution of weapons or fragments thereof over the Bergeijk-Fazantlaan cemetery. 'O' indicates an open socket, a purple square indicates that only rivets indicate the presence of a shield.

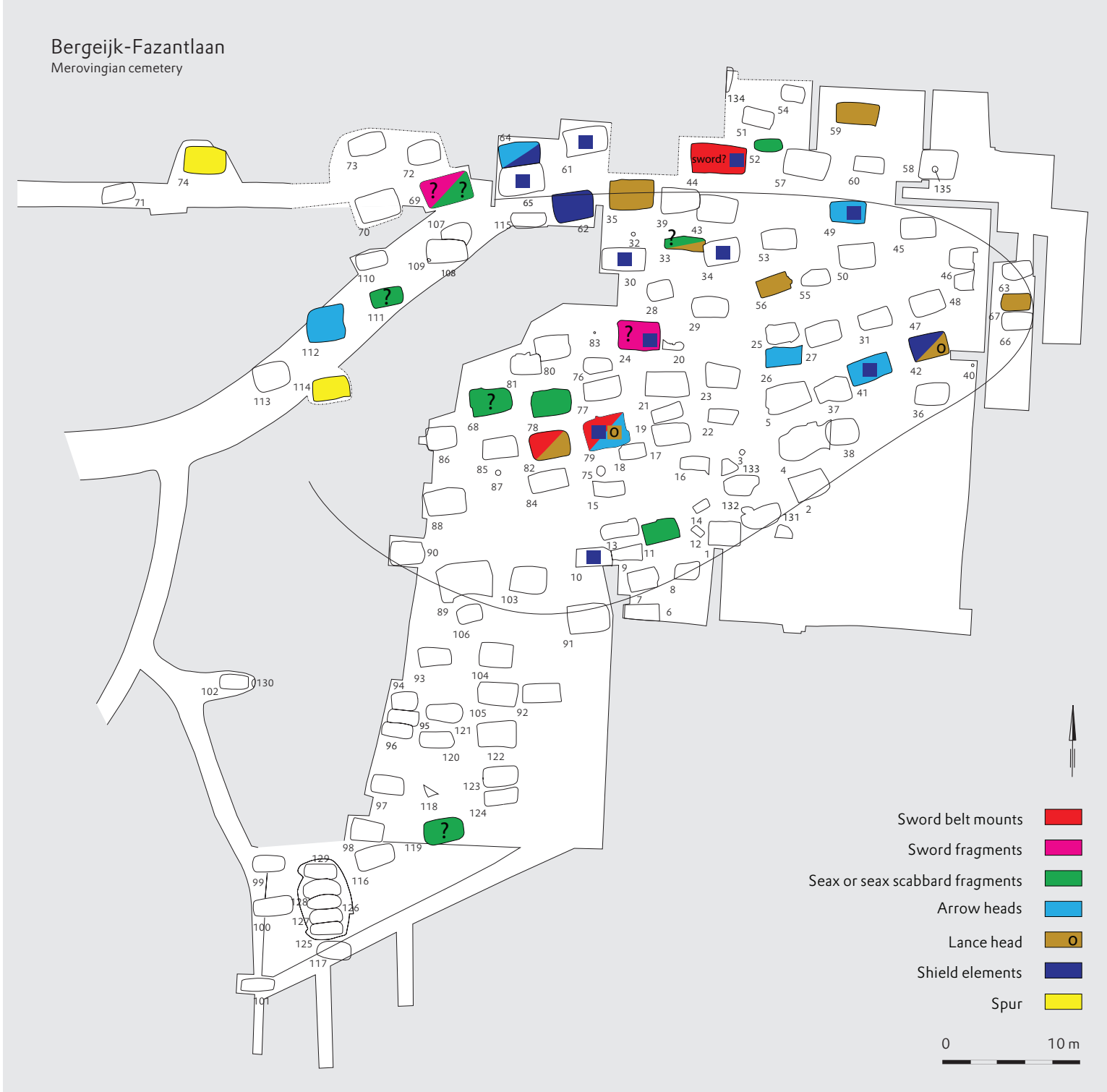


Fig. 6.54
The distribution of various types of pottery over the Bergeijk-Fazantlaan cemetery.

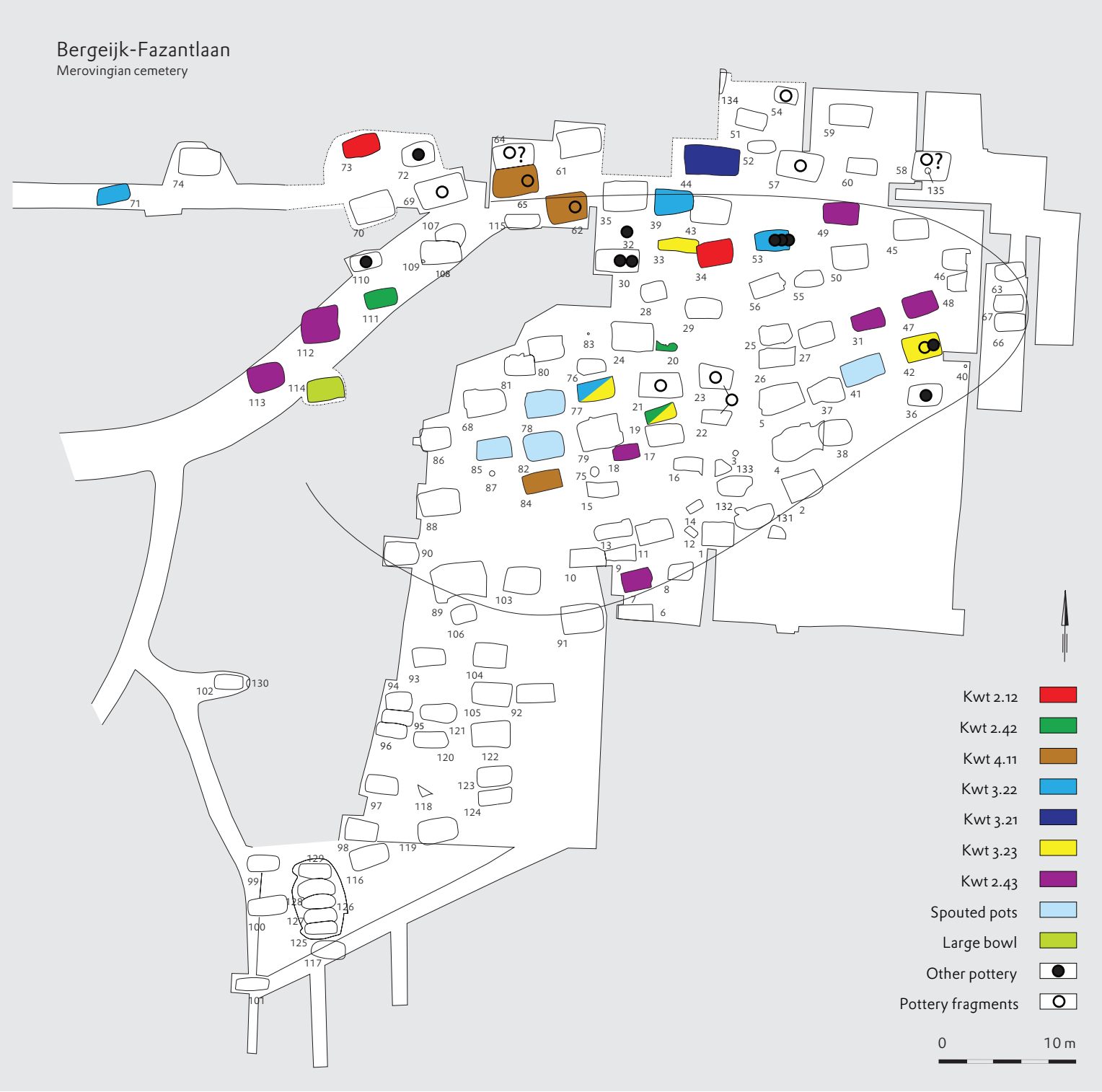


Fig. 6.55
The distribution of various types of glass vessels and wooden bowls over the Bergeijk-Fazantlaan cemetery.

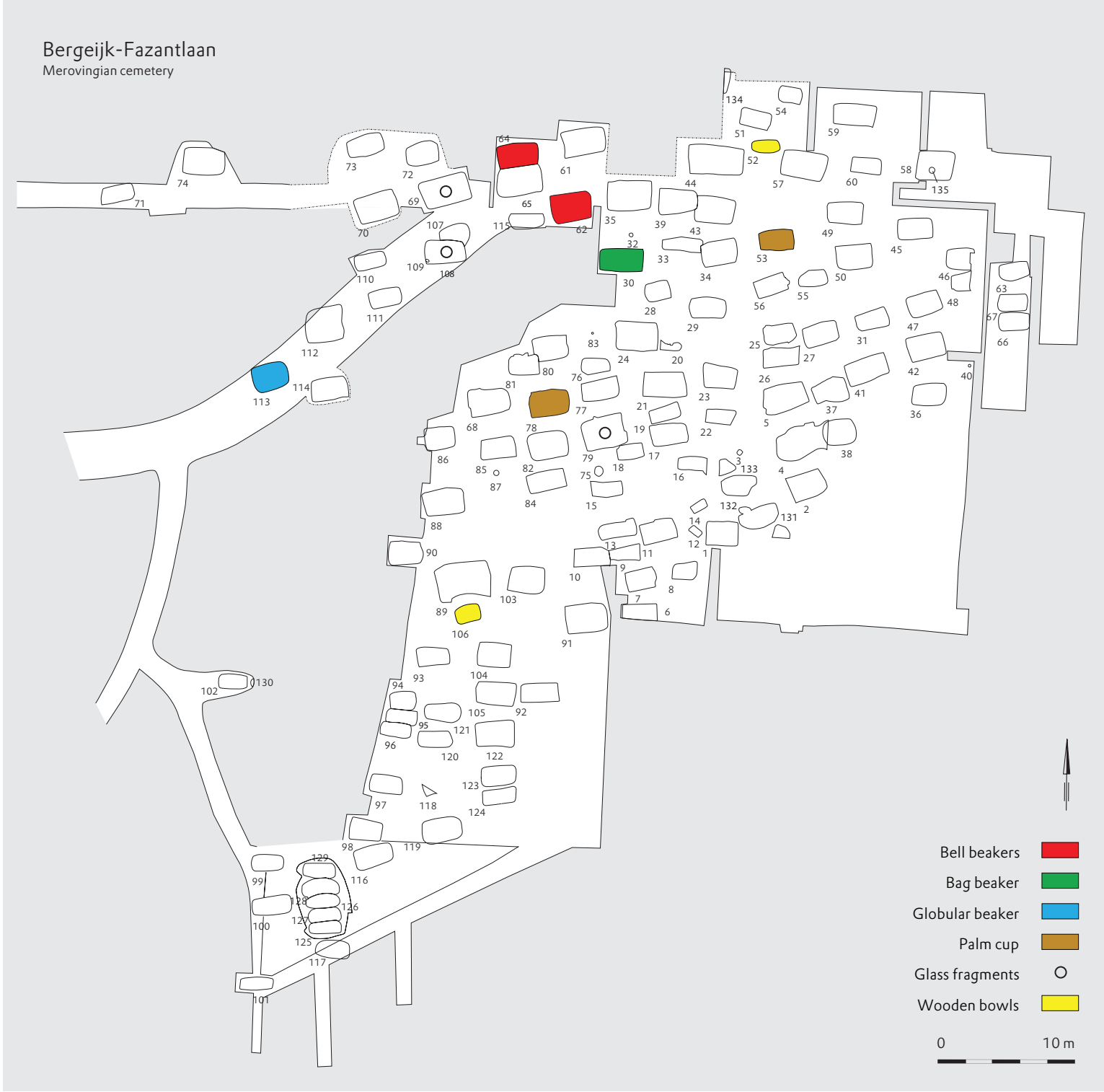
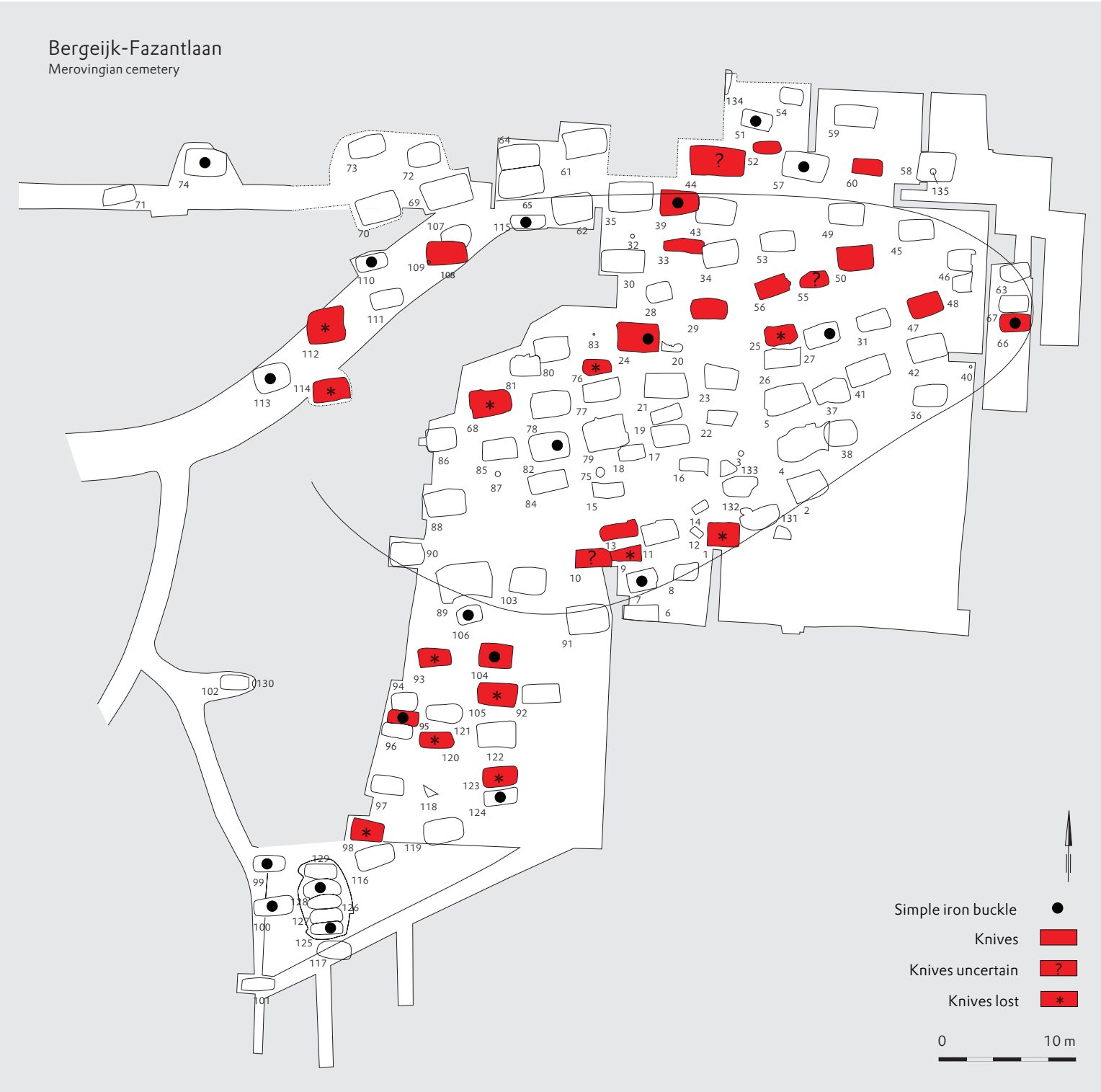


Fig. 6.56
The distribution of simple iron buckles and knives over
the Bergeijk-Fazantlaan cemetery.



The distribution of glass vessels and wooden bowls

The glass vessels are all distributed over the northern part of the cemetery (fig. 6.55). It is interesting to note that the bell beakers and bag beaker were found in graves relatively close to one another at the northern edge of the excavated area. The palm cup and globular beaker have a more scattered distribution. The globular beaker in grave 113 is in the westernmost part of the cemetery. If the outermost graves of the cemetery are also the youngest, this beaker must have been buried in the second half of the seventh century. The wooden bowls are found at the southern and northern boundaries of the area in which most pots, beads, and weapons were found.

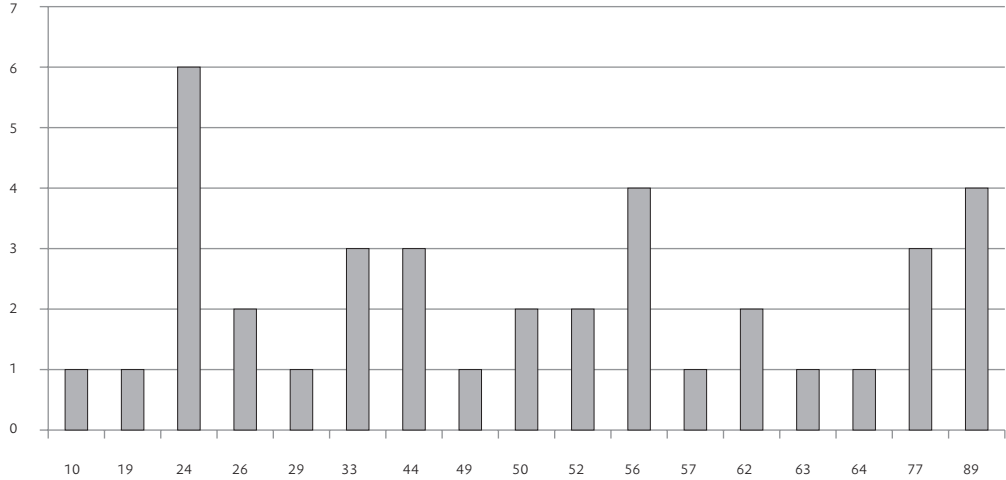
The distribution of knives

The deposition of objects in graves was gradually abandoned during the course of the second half of the seventh century. However, two types of objects are still found in later graves: simple iron buckles, indicating that the dead were still buried in some form of dress or shroud, and knives. It can thus be predicted that these two types of objects are found in those areas where other types are absent, as is also the case in Bergeijk (fig. 6.56). Both knives and simple buckles are found in the southern part of the cemetery where no other finds occur. However, the combination of simple iron buckle and knife also occurs in graves in the part of the cemetery where most finds were found.

The analysis of the distribution of various categories of objects over the cemetery concludes the chapter on the grave finds. The evidence presented here will be used in several analyses in the second part of this book.

7 The textiles from the cemetery of Bergeijk

Fig. 7.1
Number of individual textiles per grave.



harder to date. Most likely, this was also the case during early medieval funerary rituals. It is assumed that many burials were adorned with additional grave goods that were not directly associated with the body of the deceased⁵ and probably also textiles more rich than usual, including shrouds or death robes made especially for burial. Some of these objects may have been circulated and used by the living (including the deceased or his ancestors) long before they were buried in the grave.

In this line of interpretation, the numerous goods and clothing deposited in graves may represent a competitive display of resources⁶ or be laden with symbolic or amuletic meaning specific to the context of the funerary ritual.⁷ It is useful, therefore, when applying the above concepts to the Merovingian cemeteries in the southern Netherlands, to not only reconstruct the deceased's dress, graves' furnishings and textiles deposited as grave goods in their own right, but also to search for variability of textiles within a cemetery, between different cemeteries, and over time.

There are two additional reasons to search for differences in textiles within and between cemeteries in the area under investigation.

First, there are changes in the settlement and burial system in the Bergeijk region. In the middle of the sixth century, new settlements and cemeteries were created in an area that hitherto was uninhabited. Following this period in the middle of the seventh century, new and bigger settlements were created, and the spatial organisation of the cemeteries changed. We do not know where the newcomers from the sixth century came from, or whether the people creating the bigger settlements in the seventh century were newcomers or descendants of the original sixth century colonists. It has been argued that the seventh century inhabitants were new

to the area and came originally from the south.⁸ The study of textile remains from cemeteries in the area may in the long term provide evidence to the origin of the area's inhabitants, or point to other trends which have so far gone unnoticed. Certain textual examples demonstrate that costume as an ethnic marker was not unknown, although its role in marking social distinctions was probably far greater.⁹ Furthermore mobility of goods in this period was far greater than the mobility of people; changes in textiles, therefore, are not automatically a reflection of immigration.

Second, since the cemetery provides a well dated body of textiles, an analysis of long term shifts in textiles will provide a detailed overview of the types of textiles *in use* throughout the area, which will lead to a better understanding of production and (international) exchange of textiles.

Detailed textile research of early medieval cemeteries in the Netherlands has only just fully begun.¹⁰ A comparison of the fine chronology of the Bergeijk cemetery with those of other cemeteries is therefore not yet possible. As a result, this chapter will focus on the following questions:

1. In what textiles and clothing were people buried during the period the Bergeijk cemetery was in use?
2. Which differences and changes are visible within the cemetery over time?

The dataset

The cemetery of Bergeijk has yielded 66 fragments of textile. In some cases, several fragments of the same fabric were present

Introduction

The cemetery of Bergeijk yielded a considerable number of textiles. These consist of the remains of garments in which the dead were buried and of other textiles in the graves, such as mattress or pillow covers, shrouds, or pieces of cloth wrapped around objects deposited in graves. Of the 126 excavated graves, 17 contained one or more pieces of textile. This resulted in a total of 66 fragments of 40 individual textiles (appendix 7.1). The textiles were in most cases mineralized and imbedded in the corrosion on metal objects.

Many graves were reopened after burial, displacing many of the objects within. This makes it difficult, if not impossible, to reconstruct the garments of the deceased. However, in some cases it is possible to establish which textiles were worn under or over each other or specific dress accessories. The textile finds also enable some preliminary conclusions relating to the association of different fabric types to specific objects in the graves. Lastly, the cemetery provides a well dated body of textiles that can be compared to textiles from other regions. This will in the long term provide a detailed overview of the types of textiles in use throughout the area, which may lead to a better understanding in production and (long distance) exchange of textiles.

Research questions, data and method

It is commonly assumed in textile research that clothing is not merely 'practical' in function. In the past as in the present, dress holds a social dimension as well. In its simplest form, clothing, textiles, and dress accessories can be used to denote the identity of groups of people, or the position of an individual within a group. This concept may be true for the living population, but when dealing with the dead, it becomes more complex. It is often assumed that the textiles found in graves represent the daily clothing of the deceased, and therefore reflect the identity and social status of the deceased.¹ It is, however, possible to take a different view. To assume that people were buried in their daily clothes underestimates the social and symbolic function of early medieval burial rituals. The Merovingian funerary ritual was not merely used by the living to express the identity, status or wealth of the individual deceased during lifetime. It is also likely that the burial was instrumental in the creation of an identity, reflecting the *aspired* identity or status of the deceased or his/her descendants and expressing their own aspired relations with a leader or association with a specific group (of which they were or were not yet part).² This view is (partly) based on contemporary anthropological research pointing out that the dead were often accorded many extraneous objects in their graves, showing burial witnesses the wealth the heirs could afford.³ Exotic objects were purchased exclusively to play a role in the burial ritual,⁴ and old objects, having passed from one generation to another, were interred, making the burial context

(1) Walton Rogers 2007, 245-246, for example, on the basis of the numerous repairs and wear on garments and dress accessories in Anglo-Saxon graves, concludes that the objects and garments in those graves had been used for a considerable time, and were not made especially for the grave. This is seen as evidence that most people were buried in their daily clothes and is contrasted to the royal burials, such as Sutton Hoo, where the grave goods were more numerous, and probably served as a public display. (2) Halsall 1995, 245-248; Effros 2003, 124-128; Cohen 1985 shows how symbols have different meanings for different groups and can change over time, enabling people to (re)create the boundaries of their social group, p. 16 and 50. (3) It is also possible that objects were brought by funeral attendees. (4) Effros 2002b, 69-91. (5) Evidence from Swiss Alamannic burials from this period shows how the dead not only received objects in their graves, but also that these objects were sometimes either wrapped

in textiles or encased in specially made covers composed of leather and textile; Bartel 2003. (6) Pader 1982, 18ff. (7) Effros 2002a, 7; Coon 1997, 52-70 shows how the use of specific types of clothing plays an important role in the creation of archetypal roles in early Christian context. (8) Theuvs 1999. (9) Pohl 2006, 137. (10) There is an excellent study which gives a broad overview of the long term developments in textiles in northwestern Europe (Bender Jørgensen 1992). However, this study does not contain the fine chronology necessary to make a comparison with the cemetery of Bergeijk. In 2009, the author began PhD-research on early medieval textiles. This research will incorporate various Merovingian cemeteries in the southern and central parts of the Netherlands. Research questions relating to the comparison of Bergeijk with other cemeteries will be addressed in the course of this PhD-research.

Fig. 7.2
Shield boss 64.abci with large fragment of 2/2 plain twill
z/s attached. Scale 1:2.



within one grave. These identical fabrics have been grouped together, resulting in a total of 40 individual textiles. These textiles were found distributed over 17 graves. Most graves contained one or two different textiles; six graves provided more (fig. 7.1). The dataset is not very large considering that only 13.5% of the graves are represented, with these being distributed over a period of c. 150 years. Furthermore, the excavated textiles are not a complete representation of the textiles present when the deceased were buried, since they were probably fully dressed while the graves were furnished with additional textiles. Therefore, developments or differences observed in the textiles are not supported by sufficient data and should be considered preliminary.

Most of the textiles were preserved in the corrosion layer of the metal objects. The textiles not in contact with metal decayed in the years after burial. Because of this, the fragments of textile remaining are often very small, measuring between 0.5x0.5 and 3x3 cm. One extraordinary large fragment measured 5x10 cm (fig. 7.2)

Practically no restoration had been conducted on the metal objects in the graves. This was more or less advantageous for the textiles because in most cases they were well preserved and not polished off during restoration.

Cemetery textiles as a source for textile research

Research of cemetery textiles has many benefits. Cemetery finds are often reasonably well dated. The metal objects' fine chronology offers the possibility of creating a detailed typology of the associated textiles used throughout the Merovingian period in different areas.

Furthermore, the sex and age of the deceased and the position of the textiles in the grave and in relation to the body are often known. Research of cemetery textiles therefore offers many opportunities for reconstructing the clothing of the deceased, and the manner in which graves were furnished during the Merovingian period. After the Merovingian period, burial tradition shifted from conspicuous deposition of grave goods towards wealth display by building chapels, sponsoring masses, and recitation of the deceased's names by clergymen. The contents of the graves from this later period are more sober, for they lack the grave goods used in the previous period. This change of burial tradition did not coincide with the shift from pagan to Christian belief in northern Gaul; rather, it took place at a later stage, when Christian belief had already been established.¹¹ Unfortunately, the decrease of the number of grave objects over time leaves us with fewer textiles, making it increasingly difficult to reconstruct burial clothing in this later period.

Some critical remarks are in order. In most cases, textiles are preserved only in contact with metal artefacts; therefore remains of cloths are almost exclusively found in graves containing metal dress accessories. Many graves lack metal objects. The persons buried there were dressed either without accessories or with objects made of other materials, such as bone or wood. One could theorize that only a small, more wealthy portion of society could afford metal artefacts and that the textiles excavated in cemeteries are those from the upper part of Merovingian society, but considering the context of the cemetery, this is not likely. Some of the graves without metal objects may have belonged to poorer populace, but objects made of organic materials could have been equally precious and worn with luxurious textiles as well. Moreover, metal object deposition gradually disappears during the course of the later seventh century. Since no textiles are available from these 'empty' graves, it is difficult to determine whether excavated textiles are a realistic mirror of the type and quality of clothing in this period or whether these textiles were only worn by a small percentage of the population.

The cemetery of Bergeijk does not allow us to investigate all these potential leads. First, no human bones were preserved. The age of the deceased could therefore not be ascertained, and gender determination was based on presumed gender associations of the objects present in the grave. Consequently, differentiat-

ing between textiles from graves of men and women becomes somewhat disputable, for one should not overlook the possibility that women may have been buried with weapons or men with female objects. Archaeological evidence for women being buried in rich weapon graves is available from Eastern Europe¹² and Scandinavia.¹³ Closer to home is the man buried in female attire in the Oosterbeintum cemetery, in the northern part of the Netherlands.¹⁴

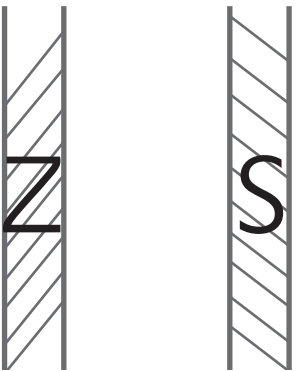
Second, a large part of the graves were reopened while the cemetery was in use. In most cases this was not economically motivated (i.e. grave robbery), but was probably part of the complex process of treatment of the dead.¹⁵ During the graves' reopening, objects were often displaced. This makes it difficult, if not impossible, to reconstruct the primary position of the textiles in the graves. However, some insight in the process of mineralization enables us to take a more optimistic perspective. Mineralization, a chemical reaction whereby metal incorporates the textiles lying on or beneath it, occurs in the first months after deposition in the grave.¹⁶ It is assumed that the graves were usually reopened after the soft tissues of the body had decayed, leaving only the bones, hereby marking another phase in the transition from the living to the dead.¹⁷ Reopening, therefore, must have taken place after mineralization had occurred. Consequently, the textiles adhering to metal objects were in their primary position unless they were displaced during this short period by animals or the decay of the body's soft tissues. Although the objects may not have been excavated in their original place, in theory it is possible to reconstruct which type of fabric/garment was associated with which dress accessories.

Methods

The analysis of the textiles comprises two phases:

1. A technical analysis of the finds from individual cemeteries to present an overview of the range of textiles used in the cemetery. The cemetery textiles have been analysed using a stereomicroscope (magnification 6-40x). The technical analysis of the textiles comprised identification of weave and yarn and assessment of the quality of the textile. Fibre identification was conducted using an optical microscope (magnification 200x or 400x). Fibres were identified as either wool or plant fibres.¹⁸
2. Spatial and chronological analysis of the finds to distinguish different groups within the cemetery on the basis of textiles. Weave analysis is conducted to provide a detailed and local chronology of the different textiles used in the cemetery. Any changes or differences in the texture of the fabrics through time and between men and women can be discerned on the basis of this weave analysis.

Fig. 7.3
The direction of the twist of a yarn is indicated as z or s.



Quality of textiles may indicate wealth or social status. An assessment of the quality or fineness of the fabrics, based on thread thickness and count, brings to light changes in quality through time and differences between types of fabrics or between men and women.

Also recorded are the position of the textile on the metal object and the position of the object in the grave. It may be possible to distinguish certain groups of textiles associated with specific objects in the graves, although in many cases these objects are no longer in their original position.

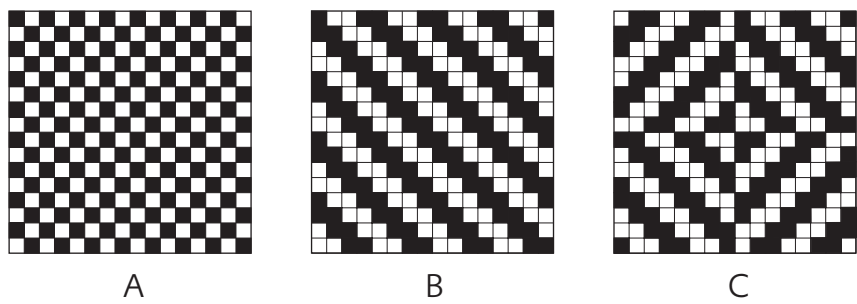
The textiles from Bergeijk

In the early middle ages, many techniques were used to process raw fibres into yarns, ropes, pieces of cloth, or garments.¹⁹ In the cemetery of Bergeijk, only woven fabrics and pieces of plied rope were found. The techniques used to produce the former will be briefly elaborated, followed by a description of the fabrics present in the cemetery.

Early medieval textiles were made of fibres from plants or animals such as flax, wool, and in small quantities, silk. Fabrics in which fleeces from goat, beaver or rabbit were used have been known in this period as well, although these are much rarer and not observed in Bergeijk. Textile production was a long and elaborate process in which fibres were spun into yarns and yarns were woven into pieces of fabric. Spinning yarns from fibres required a spindle and a distaff. Depending on the direction the spindle rotated, the threads were twisted either clockwise or anticlockwise, resulting in z- or s-spun thread (fig. 7.3). To produce a thicker or stronger yarn, string, or rope, two or more threads were plied together. The process of weaving large pieces of cloth was generally conducted on a warp-weighted loom.²⁰ This type of loom would have stood at a slight angle against the wall of a building. The vertical threads of the fabric, the warp, were hung onto the upper crossbeam of the loom and put under tension by attaching

(11) Effros 2002a, 5-12. (12) Pohl 2004, 31-32. (13) Price 2002, 149-153. (14) Knol e.a. 1996, 302, table 18 and fig. 33. The person in Oosterbeintum grave 398 is osteologically a man, but is buried with grave goods that are typical for women's graves. (15) Van Haperen 2010. (16) Gillard e.a. 1994. (17) Van Haperen 2010. (18) Plant fibres were not further identified into species. (19) For an overview see Walton Rogers 2007, chapter 2.

Fig. 7.4
Weaves present in the cemetery of Bergeijk. A: tabby;
B: 2/2 plain twill; C: 2/2 broken diamond twill.



loom weights. Another type of loom, known from the countries surrounding the Netherlands, is the two-beam vertical loom. The appearance of a fabric is determined by the way the horizontal weft threads were woven into the vertical warp threads. During the early Middle Ages, several types of weaves were in use, but in the Bergeijk cemetery, only fabrics woven in tabby, 2/2 plain twill, and 2/2 broken diamond twill were observed (fig. 7.4). Most graves containing more than two textiles show a variety of fabrics. In one grave (grave 33), there is only one cloth type present.

Tabby weaves

In a tabby weave, the weft threads regularly pass over and under each warp thread. In Bergeijk, nine fabrics were woven in this manner, of which six were made out of wool. The other three tabbies are probably woven out of linen, but positive fibre identification was not possible due to damage to the fibres. Most tabbies were woven out of z-spun yarns in both warp and weft. Two of the woollen tabbies were woven in a spin-pattern.²¹ These patterns are created using both z- and s-twisted threads in the warp. The different direction of the twist of the yarns bestows a very subtle but clear striped pattern to the fabric. The first is woven in warp-pattern: 1z-1s-1z-1s..., and is a rather open weave with 11x12 threads/cm. The other fabric is much finer (25x22 threads/cm) and woven in warp-pattern: 4z-4s-4z-4s...

2/2 twills

In 2/2 plain twills, the weft thread passes over two and under two warp threads, creating a diagonal woven pattern. 2/2 broken diamond twills are woven in more or less the same technique, but result in a diamond shaped pattern. In most cases where the fabric was evidently woven in 2/2 twill, it was not possible to ascertain whether it was a 2/2 plain twill or a variety of this weave, such as diamond twill. Only where the fragments were of a consid-

erable size was the pattern in the twill visible. Consequently, most of the smaller fragments are assigned to the group of 2/2 plain twill, making this group considerably overrepresented. A large share of the textiles from Bergeijk were woven in a variety of 2/2 twill. The majority of these textiles were woven of woollen fibres, with z-spun warp threads and s-spun weft threads. Few examples are present of woollen twills woven in z-spun yarn in both warp and weft. No linen fibres have been observed in this group of textiles, although several fibres could not be identified.

With several finds, it was not possible to ascertain the type of twill, either because the weave was very decayed or because the fabric was contorted. These fabrics are indicated as ‘2/? Twill’. Some textiles were decayed to such an extent that identification of weave was not possible. Also present in the cemetery were two fragments of plied rope.

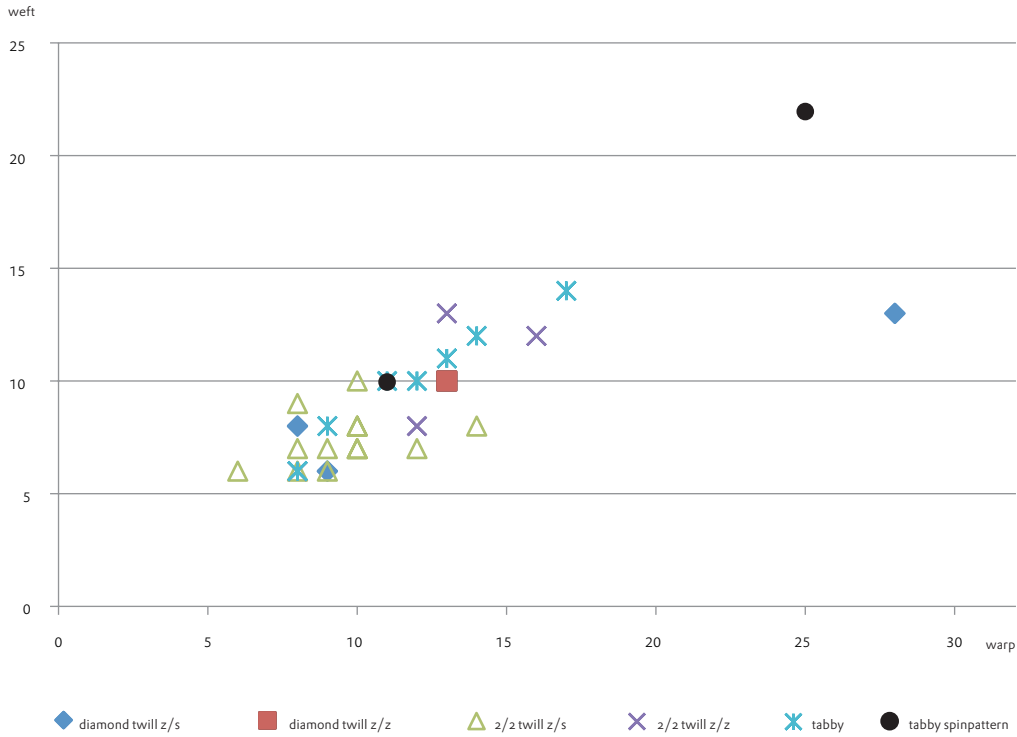
Quality of the fabrics

A common method of estimating a fabric’s quality is establishing the number of threads per centimetre in both warp and weft. As visible in figure 7.5, there are considerable differences in quality of the textiles from Bergeijk, with most tabbies and 2/2 twill z/z in the higher quality groups, and 2/2 twill z/s in the lower quality. Diamond twills are present in all qualities.

The cemetery of Bergeijk differs notably from textiles excavated in settlements in the Netherlands. In settlements, the majority of textiles possessed thread counts below 12 threads/cm.²² In cemeteries, the fine and coarse groups are more evenly represented. This difference is not caused by the fact that the settlements only contained woollen fabrics, since in the cemetery of Bergeijk, most textiles were woollen as well, and the few linen textiles were rather coarse.

(20) Many early medieval settlements in the Netherlands have yielded considerable numbers of loom weights, used on the warp-weighted loom. Another type of loom, known from the countries surrounding the Netherlands, is the two-beam vertical loom. If and when this loom type was actually in use in the Netherlands is not certain, since no parts of this type of loom have yet been found. (21) Find numbers 63.d1 and 89.h1. (22) Brandenburg 2010. (23) Müssemeier/Nieveler/Plum/Pöppelmann 2003. (24) Graves 33, 44 and 64. (25) Grave 19 contains one textile and is assigned to phase FAG 5-7; Graves 24 and 62 together contain eight textiles and are assigned to FAG 6-7.

Fig. 7.5
The quality of the different fabrics in Bergeijk in number of threads per cm in warp (horizontal) and weft (vertical).



Developments in textiles

In the cemetery of Bergeijk, graves have been grouped into three phases. Phase I consists of graves from the late sixth century and the first half of the seventh century (510/20 – 640/50). Phase II is relatively short, from 640/50 – 670/80, and phase III lasts from 670/80 to c. 730/40. The textiles have been analyzed according to this chronology, but in order to compare the textiles from Bergeijk to those from other cemeteries and create a fine textile-chronology, they have also been analyzed according to the Franken AG-phases.²³ Comparing the different weaves throughout time can, in the case of Bergeijk, seem a somewhat misleading exercise since some phases, such as phase III, are represented by only one grave. Its textiles may not reflect the totality of textiles of that particular phase, and may differ from the other graves in that period. To analyze the textiles through time, they have been grouped together into the following phases (fig. 7.6). The first two phases FAG 5-6 (565-610/20) and FAG 5-7 (565-640/50), seem to have a large overlap. However, the three graves assigned to the first phase are dated in the period 5-6 and are representative of the sixth century²⁴, while most of the graves and textiles assigned to the period 5-7 in reality are dated in phase 6-7 (580/90-640/50) and are more representative of the first half of the seventh century.²⁵ Phase FAG 7-8 (610/20-670/80) and FAG 8 (640/50-670/80) are each represented by two graves. The last phase FAG 9 (670/80-710) consists of only one grave. Seven textiles could not be dated more accurately than the seventh century, and three textiles are of an unknown date.

The different weaves are not evenly represented through time (figs. 7.7 and 7.8). In the first phase, only 2/2 twills z/s are present.

In the following phase, different types of weaves come into use: initially diamond twills z/s, 2/2 plain twills z/z and diamond twills z/z emerge, and in the second half of the seventh century, tabbies also occur. The increase of weave types in the seventh century becomes more evident when textiles are grouped together in the sixth and seventh century (fig. 7.8). We must, however, keep in mind that among the 2/2 twills there may be diamond twills that were not recognised as such due to textile fragmentation. It is therefore possible that the variability of weaves in the sixth century is larger than shown in figure 7.8 and it is impossible to conclude anything about the popularity of the 2/2 plain twills over other types of twills. Comparing the periods before and after 650 AD (phase I opposed to phase II-III) brings to light some differences as well. The z/s twills seem less dominant after 650, and other weaves like z/z twills and tabbies are increasingly present (fig. 7.9).

The textiles from the earliest phase are all of coarse to medium quality, while the later textiles are more fine (fig. 7.10). This is partly caused by the new types of textiles such as tabby and 2/2 twill z/z, generally of finer quality, which are previously not present (fig. 7.5).

Textiles from graves of men and women

Gender determination is based on ‘male’ or ‘female’ objects present in the grave. Five graves, containing a total of 11 textiles, have been assigned to women. Seven graves, containing 18 textiles, were probably men’s graves. The dataset from Bergeijk is too small

Fig. 7.6
Number of textiles per phase.

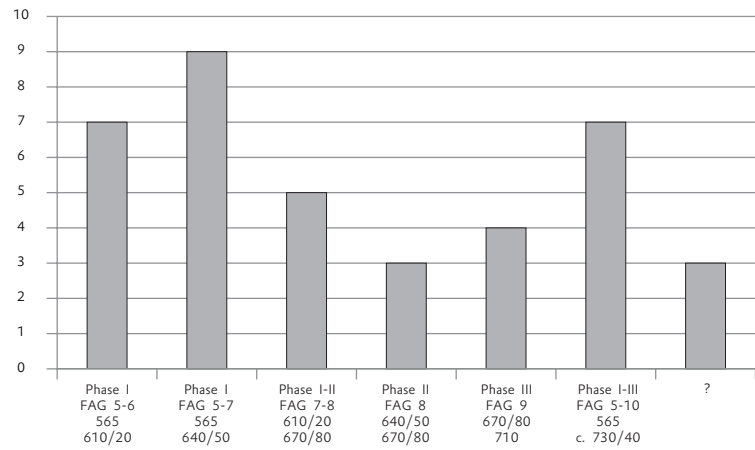


Fig. 7.7
Distribution of the different types of weaves per phase.

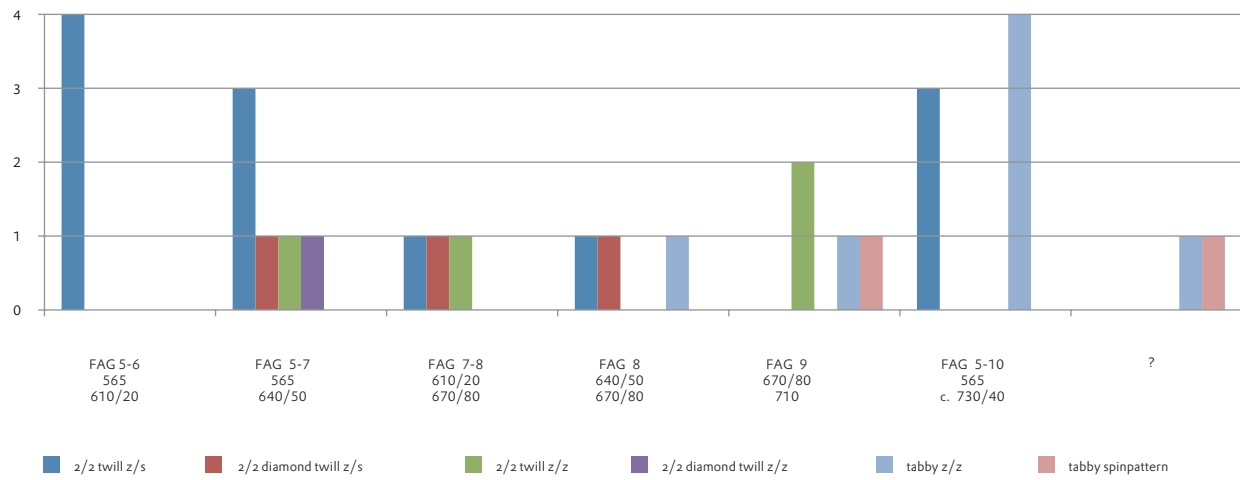


Fig. 7.8
Distribution of the different types of weaves in the later sixth and seventh century.

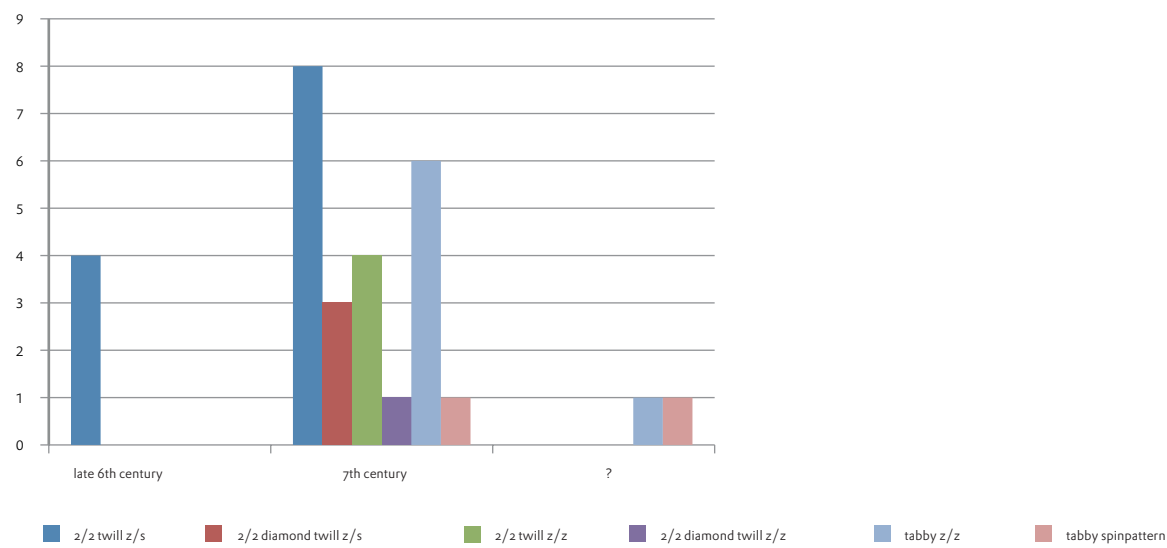


Fig. 7.9
Distribution of the different types of weaves before and after 650 AD.

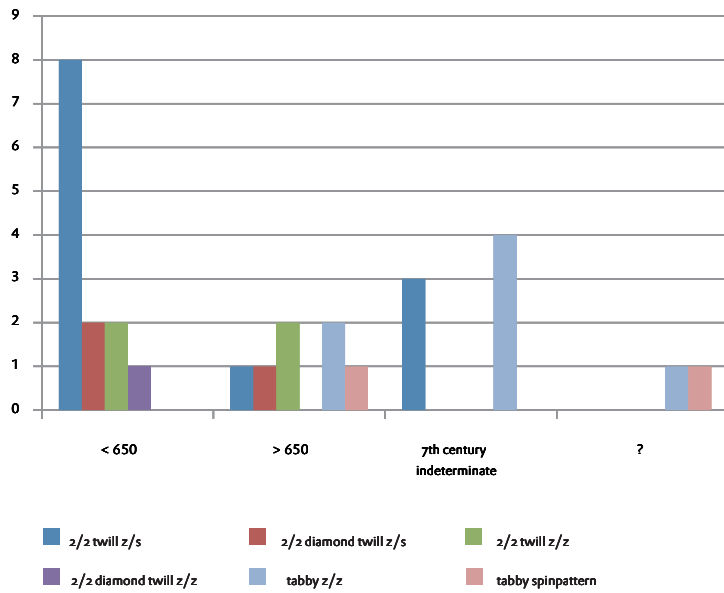


Fig. 7.10
Quality of the textiles per phase in number of threads per cm in warp (horizontal) and weft (vertical).
1. phase I / FAG 5-6 (565-610/20), 2. phase I / FAG 5-7 (565-640/50), 3. phase I-II / FAG 7-8 (610-670/80), 4. phase II / FAG 7-8 (640-670/80), 5. phase III / FAG 9 (670/80-710).

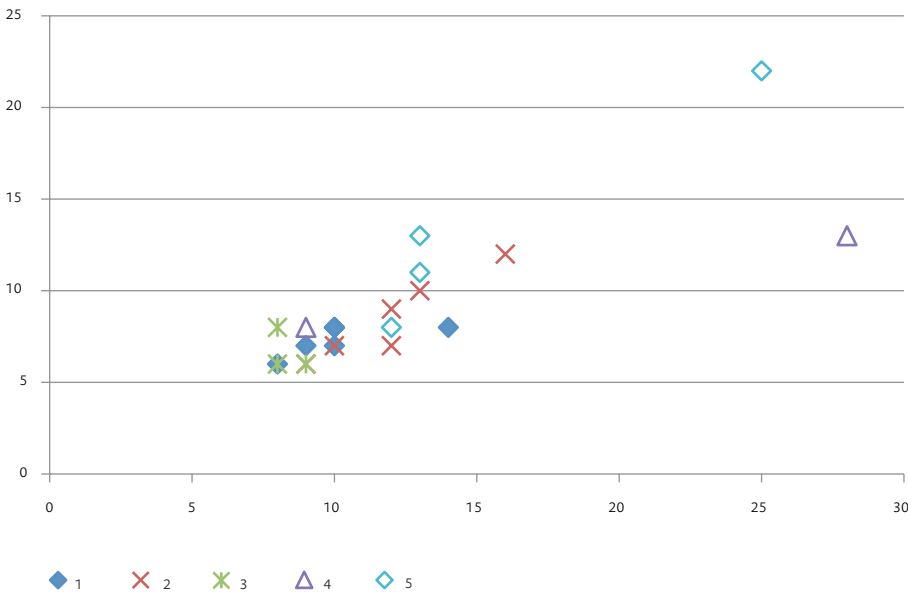


Fig. 7.11
Distribution of the different weaves in graves of women and men.

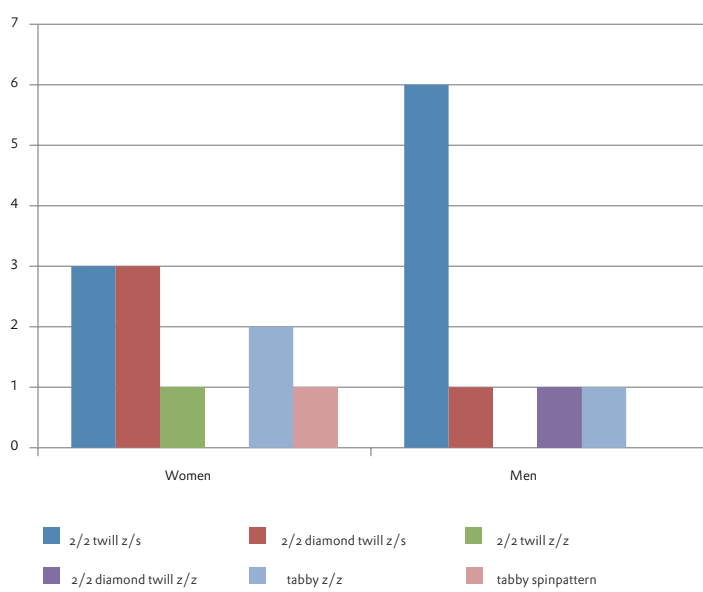
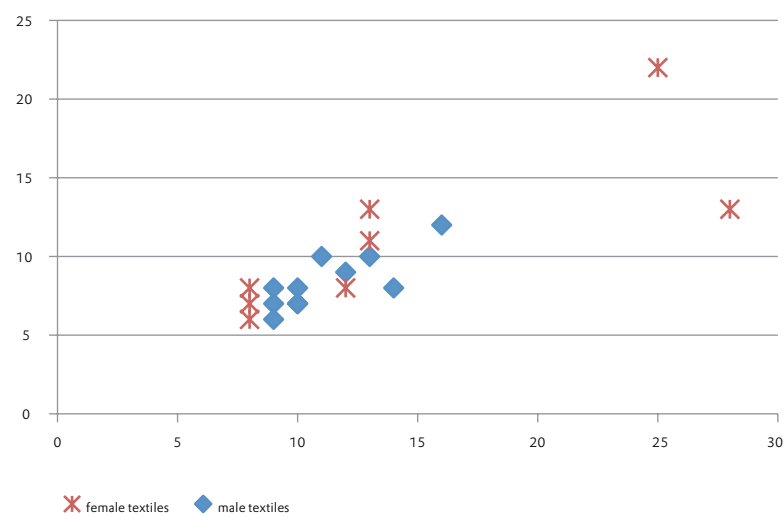


Fig. 7.12
Quality of the textiles in graves of women and men via number of threads per cm in warp (horizontal) and weft (vertical).



to discern differences per phase but may serve as a building block in a future comparative study.

When comparing graves of men and women from Bergeijk, some differences emerge, but considering the small dataset, these differences are not significant (fig. 7.11). In women's graves, there is an equal share of 2/2 plain twills z/s and 2/2 diamond twills z/s. In men's graves, the majority of textiles are 2/2 plain twill z/s with only one example of diamond twill. This distribution should not be given too much weight, since in most cases it was not possible to differentiate between different variations of 2/2 twill. Hägg has previously called attention to the clear pattern of gender-related textiles for Scandinavian and German cemeteries in the North Sea region during the period 750-1000. Women's graves tend to contain equal amounts of plain twills and diamond twills, whereas diamond twills are practically absent in men's graves.²⁶ More textile research is needed on Dutch cemeteries to provide a larger gender-related dataset and to enable a comparison with other regions and periods. Some differences in quality between men and women are visible in figure 7.12. Textiles from men's graves are grouped together in a relatively small cluster of quality, while textiles associated with women have a wider range of qualities, both slightly coarser and some considerably finer. The finer textiles are represented by two textiles from two women's graves from the end of the seventh century.

Graves rich in textiles

Several graves contain three or more individual textiles. It is sometimes possible to confer an impression of textile wealth in these graves, although it is not possible to fully reconstruct the clothing

in which the persons were buried. The following paragraph will elaborate on the textiles in grave 24, 56, 77 and 89.

Grave 24

Grave 24, a man's grave, contained at least three different types of weaves and several threads. The grave was reopened, as a result of which the objects in the grave were displaced. Several objects belonging to one belt²⁷ had fragments of the same type of textile as well as straw adhered (fig. 7.13). The textile is a dense and somewhat irregularly woven woollen z/z diamond twill with 12-15x9-12 threads/cm. The textile was present on the front side of a plate buckle, suggesting that it (partly) covered the belt while in its original position. Considering the fact that the grave was probably reopened after mineralisation had taken place, the straw attached to the objects was in its original position as well. This means the belt was either lying beside or beneath the body. It is also possible that the belt was not part of the clothing of the deceased, but was a loose object lying in straw or on a straw filled pillow, partly or entirely covered by the diamond twill.

On the backside of plate buckle 24.ee1, three fragments of a woollen 2/2 twill z/s were present (fig. 7.14). This textile is rather coarse, woven with 10x7 threads/cm, and was worn or lying under the belt. On the front of the same buckle, several strands (5mm thick) or untwisted bundles were visible.

On the face of strap end 24.x1, a second woollen 2/2 twill z/s is present, with 12x9 threads/cm (fig. 7.15). This twill is only slightly finer than the one described above, but has similar thread thicknesses and may therefore be the same fabric. In that case, and if it is worn in its normal position hanging from the belt, this strap end may have been partly covered by a fold in the same garment worn under the belt.

On two indeterminate fragments of iron, a woollen 2/2 twill z/z and straw were present. This textile is much finer and more regular than the diamond twill, although the thread count is not much higher (16x12 threads/cm). Neither the function of this textile nor its original position in the grave or its relation to the body are clear. The presence of straw on the object suggests it was lying besides or under the body.

Lastly, on a small fragment of iron, a negative cast of a z/s fabric was present. The weave and thread count of this fabric could not be ascertained.

Grave 56

Grave 56 yielded at least three different weaves. It is unclear whether these textiles belonged to one burial. It is possible that the grave was used secondarily, since it contained a substantial number of glass beads in the upper half of the grave as well as a spearhead, artefacts not usually buried together due to different gender association. All textiles were adhered to indeterminate fragments of iron, making it difficult to affix a function to the textiles. The grave contained two woollen 2/2 twills z/s: one coarse with 6-7x6 threads/cm, and one finer with 8x9-10 threads/cm. Both weaves have similar threads and are open and distorted. It is possible that the different thread count was caused by the garment stretching during wear and that both fragments are from the same cloth.

Also present in the grave is a fine woollen tabby with 14x12 threads/cm. A coarser tabby with 8x6 threads/cm is made out of a plant fibre.

Grave 77

In the centre of the grave, the remains of two belt fittings were found.²⁸ It is not clear whether both belts were originally positioned on the body. It is possible that one was placed beside the body. The position of both strap ends in the lower half of the grave may indicate that they were lying in their original location, had they been positioned on the body. There are at least two, and possibly three, different textiles in this grave, of which one is associated with these belts. Five fragments of a non-mineralized woollen diamond twill z/s have been found in association with two copper belt plates 77.q1 and 77.o1 (fig. 7.16). This diamond twill is regularly woven with 8-10x8-10 threads/cm. The other two textiles are associated with pieces of shoe or leg wear. This ensemble consists of a plate buckle, counter plate, and strap end. On strap end 77.r1, a woollen textile was present. The fabric had decayed to the extent that the weave could not be ascertained, but its threads were thinner (0.5-0.75mm) than those on the belt plates (0.75-1mm). It is however possible that the fabric on this strap end identical with the diamond twill described above. Strap end 77.q4, also belonging to leg or shoe wear, had been in close contact with a coarse and somewhat open woollen 2/2 twill z/z, woven with 8x6 threads/cm. The threads of this fabric were 1mm thick.

Assuming that both the belts and the leg or shoe wear were worn on the body, the deceased was dressed in or covered by at least two

Fig. 7.13
Fragment 24.hh3, part of a belt, with straw and z/z diamond twill attached. Scale 2:1.



Fig. 7.14
Back (left) and front side (right) of plate buckle 24.ee1. On the back, fragments of 2/2 twill z/s are present; on front, several strands of fibres. Scale 1:1.



Fig. 7.15
Strap end 24.x1 with 2/2 twill z/s. Scale 1:1.



(26) Hägg 1993, 86-89. (27) Three fragments of indeterminate iron, one fragment of plate, one plate buckle and one belt plate together contained six fragments of the same textile. (28) Textiles are associated with belt plates 77.q and 77.o, counter plate 77.r1, and strap end 77.q4.

Fig. 7.16
Fragment of non-mineralized diamond twill z/s, found
in association with belt plates 77.q (above) and 77.o
(below). Scale 2:1.



types of fabrics, the diamond twill covering the area around and below the waist, and the 2/2 twill z/z swathing the lower part of the legs. If positioned beside the body, the belts could also have been lying on, covered by, or wrapped in the textiles.

Grave 89

Grave 89 is the only grave from phase III to yield textiles. This grave, assigned to a woman, contains very fine and very varied textiles. The grave was reopened, but the 'Ophoven' type belt it contained was still in its original position. This makes the grave very interesting, because it enables a reconstruction of which types of textiles were worn from the waist down in relation to the belt.

Belt fitting 89.h1 was part of the strap suspended from the waist. On the front of this object, two different fabrics were present (fig. 7.17). This implies that the belt was lying in the folds of one garment and was partly covered by a second outer garment or shroud. Partly wrapped around one edge is a very fine woollen tabby, 25x22 threads/cm, woven with a spin pattern in the warp: 4s-4z-4s-4z... The threads were very fine and regularly spun with a thickness of 0.2 mm. The belt was probably lying in the folds of this fabric. Also covering the belt was a coarser 2/2 twill z/z woven with 12x8 threads/cm. The threads were irregularly spun, ranging from 0.5-1mm in warp and 0.2-0.3mm in weft, resulting in a very uneven and open fabric. The fibres had the curly appearance of wool but were much damaged; no positive fibre identification was possible.

A bit lower on the body was strap end 89.k2. Textile and straw were present on one side of the strap end, indicating that it had been lying on a fabric on the grave's bottom. This textile and straw may have been part of the container's lining or of a mattress on which the deceased was lying. The textile was a fine 2/2 twill z/z, smoothly spun and woven with 13x13 threads/cm. The regularity of both weave and threads is very different from the fabric found in association with the belt fitting a bit higher on the body.

It is not clear whether buckle loop 89.b1 was part of the same belt, since it was found on the other side of the body, in the waist area. It is also possible that it belonged to a pouch or other type of strap. On the front side of this buckle loop were two layers of the same fabric: a z/z tabby woven with 13x11 threads/cm. The threads of this fabric were very irregularly spun, varying from 0.2-0.7 mm thick. The threads bore the somewhat curly appearance of wool, but no positive fibre identification could be made.

In summation, it is most likely that the person buried in this grave was lying on a mattress or cloth made of a fine 2/2 twill z/z. The person was dressed in a garment composed of very fine tabby woven in a spin pattern covering at least part of the legs. Over this lay another garment (or shroud?) made of a coarser fabric, very irregularly spun and woven. The function of the fine 2/2 twill found on the buckle loop is not clear. It may have belonged to a pouch or a garment covering the waist but not the legs.

Some preliminary trends in burial textiles

When comparing the different graves described above, it is obviously not yet possible to discern any clear patterns in burial clothing. Only in graves 24, 77 and 89 it is to some extent possible to reconstruct which types of textiles were worn over each other and how metal dress accessories were arranged in relation to the textiles or clothing. These graves belong to different genders and are dated at least a hundred years apart.²⁹ In grave 56, the textiles could not be localised so precisely. It is evident, however, that the deceased was dressed in or covered by four different textiles of varying quality. In grave 24, the male deceased wore a garment made of a coarse 2/2 twill under the belt. This garment ranged at least to the upper legs. A finer diamond twill covered the belt. It is possible that this textile belonged to a garment such as a cloak; it may also have been a shroud. It is equally plausible that the belt was lying under the body and that the person was actually lying on top of this second textile. In that case, the fine diamond twill could still be a cloak but could also have been a mattress or other type of grave lining.

The woman in grave 77 was dressed in or covered by a garment composed of a diamond twill reaching at least to the waist. Unfortunately, the textiles associated with the belt were not adhered to the metal anymore, making it impossible to ascertain whether the garment was worn atop or beneath the belt. The leg or shoe wear worn on the lower part of the legs was covered by a 2/2 twill z/z, suggesting either a long garment or a shroud encasing the entire body.

The woman in grave 89 was dressed in a garment made of a very fine tabby woven in a spin pattern. This covered at least part of her legs and was tied at the waist with a belt. Over this garment and belt lay another garment (or shroud), made of a coarser fabric, and possibly a third garment of a fine 2/2 twill reaching at least to the waist. It is noteworthy that the quality of both the undergarments varies in these two graves. In the case of grave 24, the undergarment is much coarser than the outer garment. In grave 89, the opposite is true, containing a very fine undergarment and a coarser outer garment.

The textile finds also enable some preliminary conclusions relating to the association of types of fabrics to specific objects in the graves. Many textiles were found in association with belt parts. In practically all these cases, the textiles were either 2/2 twills or 2/2 diamond twills of varying quality. In most cases these fabrics were present on the front side of the belts. This does not necessarily mean that the garments were worn over the belt; it is also possible that they were worn beneath but partly folded over the belt. One example clearly showed a 2/2 twill worn under the belt. Grave 89 is the only grave where it can be shown that the deceased wore a garment woven in a fine tabby under the belt.

Fig. 7.17
Belt fitting 89.h1 with two types of textile adhered.
Scale 2:1.



The shield boss from grave 64 was covered by a 2/2 twill z/s of medium quality (10x7 threads/cm). The shield was probably standing against the side of the grave. It is possible that the shield fell on top of the clothing, but it is also likely that the shield was completely wrapped in a separate piece of textile.

There are only a few textiles woven in tabby observed in the cemetery of Bergeijk. These fabrics are associated with a broad range of objects: a knife, a rivet (function unknown), a buckle loop (of a belt or pouch), a belt and an iron ring. In some cases, these objects may have been worn under or between the cloths, making it likely that the tabby was used as an undergarment.

(29) Grave 24 belongs to phase I / FAG 5-7 (565-640/50); grave 77 is dated in phase I-II / FAG 7-8 (610/20-670/80) and grave 89 is dated in phase III / FAG 9 (670/80-710).

8 Human remains, body silhouettes and container lengths from the cemetery in Bergeijk

Introduction

The analysis of data related to the human body has great potential to enhance the archaeological interpretation of information collected from a cemetery. Analysis of human remains in the grave context and subsequently in the laboratory provides knowledge concerning burial practices, demographic composition of the cemetery population, and their living conditions and health. Normally, age, sex and other biological characteristics of the inhumed individuals are collected by examining bones and teeth. Since very few human remains were recovered from the cemetery in Bergeijk, alternative sources of information were used to gain insight into the demographical composition of the cemetery population. In addition to the data collected from the sparse human remains, this chapter will present information obtained from analysis of body silhouettes and burial pit and container lengths. With regards to the burial practices, body silhouettes were studied to determine the position of the body in the grave. All body silhouettes, pits, and coffins were measured to acquire an indication of the age at death. Due to the limited number of cases with preserved skeletal remains, questions regarding the demographic composition of the whole population, general living conditions and health cannot be answered.

Material

The total number of observed burial contexts in the cemetery is 117. The cemetery was not completely excavated, and within the excavated area, graves may have been lost due to later interventions. As can be observed from the field drawings and photographs, human remains were preserved in few graves. In six graves, human remains were collected: graves 11, 19, 26, 28, 110 and 117. The remains (molars) from graves 110 and 117 are missing and could not be examined. As in other excavations in this region, soil conditions seem to have negatively affected the conservation

of bone. In those cases that human remains were collected, these consisted of small fragments of bone and limited numbers of dental elements. Body silhouettes were recorded in 30 graves.

Examination of the 30 body silhouettes showed that the majority of individuals were buried on their back. The only exception was grave 127, where the individual seems to have been buried on the right side with flexed legs.

When body silhouettes were not observed, it was sometimes possible to determine whether the individual was either an adult or a non-adult based on the length of the grave pit or wooden container. Container lengths could be measured in 106 graves; in addition pit lengths, were measured in 8 graves. For 3 graves, no reliable measurements could be taken.

Methods

To obtain information on the age at death of the individuals buried in Bergeijk, two types of evidence were used: human remains and the length of either the body silhouette or archaeological context (preferably the wooden container, and if this was not observed, the burial pit). The human remains were studied using standard physical anthropological methods developed for European populations. In this specific case, determination of the age at death was based on the mineralization and eruption of the dental elements as summarized in the scheme of Ubelaker.¹ In addition, the attrition of the dental elements was inspected to assess whether the dental elements had erupted and been abraded by contact with the occluding teeth.

In most cases, an alternative method was used to acquire an indication of the age at death using the length of the body silhouette or container. This method is based on the increase in stature of humans between birth and the age of circa 21 years. Human growth curves have been intensively studied, providing a reliable overview of mean statures at any age between birth and 21 years. Especially between birth and 13 years of age, growth velocity is high enough

to see significant differences in stature between individuals of different ages. Therefore, indications of the stature of the deceased can be used in determining whether an individual was probably younger or older than 13. In the case of individuals under 13, stature can also be used to estimate an interval in years for the age at death. In this study, the 2010 growth data of the Dutch population were used.² Since the mean adult stature of the present day Dutch population is higher than the population in the early medieval period, the 2010 values had to be corrected for this difference in stature. The statures calculated for two early medieval cemeteries in Maastricht were used as reference series to calculate the correction factor.³ The mean male and female stature in early medieval Maastricht was 172.8 cm and 161.7 cm. In 2010, this was 183.8 cm for males and 170.7 cm for females. Correction factors were calculated for each sex by dividing the mean 2010 stature by the mean early medieval stature. For male and female stature, the correction factors are respectively 0.9402 and 0.9473.

The stature in the 2010 growth tables were for each life year corrected for both sexes separately with the appropriate factor. On the basis of these corrected values for males and females, reference table 8.1 was composed for the ages between 0 and 15 years. At the age of 15, most male individuals will have reached a stature that falls within the standard deviation of the mean adult stature. In females, this occurs around the age of 13. Consequently, it is generally not possible to discern between juveniles 13 or older and adult individuals. Statures in that order can only be considered to be of individuals of 13 years of age or older. Since biological sex could not be determined in the majority of cases, the highest statures for each life year have been included in the reference table below. Generally this implies that corrected male statures were used. Exceptions are the ages of 10, 11, 12 and 13 years, when females are generally taller than males.

The measurements from complete body silhouettes are expected to correspond quite well with the original stature of the deceased. Therefore, measurements were preferably collected from complete body silhouettes. From these silhouettes, the body length was reconstructed, measuring from the top of the skull to the distal end of the talar bones. If no complete body silhouette was observed, the length of the wooden container was measured. Measurements from wooden containers and burial pits are less likely to provide a value corresponding with the actual stature of the deceased. For contexts with wooden containers, generally only maximum lengths of the whole container can be measured. Therefore, often only indications of the maximum possible stature of the deceased can be inferred. Sometimes these measurements can be improved due to the presence of a skull or an indication of the location of the feet. In those cases, the maximum length can be reduced, thus reducing the range of the age estimate. In those cases where both the body silhouette and traces of the wooden container were lacking, the length of the burial pit was recorded.

(1) Ubelaker 1989. (2) TNO groeidiagrammen 2010. (3) Panhuysen 2005.

Table 8.1
Reference table for age estimations and standard physical anthropological age categories on the basis of stature.

Mean length in centimetres	Age in years	Age Category
51.7	0	Infans I
72.1	1	Infans I
83.1	2	Infans I
91.9	3	Infans I
99.2	4	Infans I
106.4	5	Infans I
112.7	6	Infans I
118.6	7	Infans II
124.6	8	Infans II
130.2	9	Infans II
135.9	10	Infans II
141.8	11	Infans II
147.5	12	Infans II
152.3	13	Juvenile - adult
158.4	14	Juvenile - adult
164.7	15	Juvenile - adult

All measurements are taken from digitized field drawings either in Adobe Illustrator or Mapinfo. Measurements were recorded in centimetres. It is evident that these measurements do not represent the actual dimensions of pits, coffins, bodies and bones. Taphonomic factors will have altered the outline of the bodies and objects. In addition, the recording process and digitizing procedure will have introduced small errors. Measurements from field drawings have an error range of 1 to 3 centimetres depending on the thickness of pencil lines in relation to the scale at which the original field drawings were made. Within the framework of this study there was no opportunity to calculate correction factors for the impact of these errors. Sources of errors and bias like the nature of body silhouettes, measurement exactness, the use of modern growth curves for a historic population, and retarded growth of children dying before the age of 15 are numerous. Consequently, the results of the study of the lengths of the body silhouettes and containers must be considered rough indicators of the age category to which the deceased belonged. Only when complete body silhouettes of young individuals are documented can a more specific age interval be determined.

In table 8.2, an overview is given of the age categories used in this chapter. In some cases, age intervals or specific maximum ages could be determined. In non-adults, these are either based on complete lengths for body silhouettes or on skeletal remains; for adults these are derived from examination of the skeletal remains. When incomplete lengths for body silhouettes or only wooden container lengths were available, it was usually possible to deter-

mine a maximum age at death for non-adults. For graves with a container length of 1.90 metres or more, it was assumed that the deceased was probably an adult. An intermediate category was created for individuals with lengths of the body silhouette suggesting an age of 13 years or more or a container length shorter than 1.90 metres, since it is likely that they were either juveniles or adults.

Results

As mentioned above, only four graves contained human remains available for examination (table 8.3). The field drawings and written documentation suggest that in some other graves human remains were observed, but these were not among the finds available for study.

The available human remains were few in number and poorly preserved. The dental remains available from graves 11 and 19 made it possible to determine an interval for the age at death of these individuals. The individual in grave 11 was between 15 and 30 years old. In grave 19 a child aged between 4 and 9 years was buried. Some fragments of the skull from grave 26 were recovered. These suggested this was an adult individual aged between 20 to 60 years. The remains from grave 28 were too fragmented for age estimation. In none of the cases could sex be determined, and other characteristics like stature and possible pathological changes could not be observed due to the poor state of conservation.

Body silhouettes were observed for 30 individuals. In 11 graves sufficient parts of body silhouettes could be documented to measure the total length (table 8.4). In several other cases, the incomplete body silhouette contributed to an estimate of the maximum stature of the individual.

On the basis of the lengths of body silhouettes, two graves were categorised as graves of non-adults, seven as graves of juvenile to adult individuals, and two as the grave of a “probably adult” individual.

For 101 graves, an indication of the age at death could be acquired from the length of the wooden container. Before these data were used as an indicator of the age at death, container lengths were compared with body silhouette lengths. This was done to examine the relation between these two measurements, e.g. to determine whether there was a constant difference between the two.

In 11 graves, both the length of the container and the length of the body silhouette could be measured (table 8.5). On average, the container was 30 centimetres longer than the body silhouette. The difference between the two ranged between 10 and 57 centimetres. This indicates that in the Bergeijk cemetery, container lengths are generally at least 10 centimetres longer than body silhouettes. In the small series, shorter body silhouettes appear to be lying in longer wooden containers. Overall, it seems acceptable to assume that the majority of containers 1.90 metres or longer were used to bury adult individuals. It cannot be excluded that incidentally non-adults have been buried in long containers.

When the graves for which either human remains or body silhouettes had already provided an age indication were subtracted from the 101 graves for which a length of the container could be measured, 78 graves remained. Five of these were incomplete measurements, but these still could be used to acquire an indication of the age at death. On the basis of these data, seven graves were categorised as graves of non-adults, 15 as graves of juvenile to adult individuals, and 56 graves as the burial place of “probably adult” individuals.

As far as can be determined by the methods described above, the majority of graves were probably used to bury adult individuals (table 8.6). Little can be said about the intermediate category; the individuals in this category could all be adults, or a considerable number could be juveniles. Apart from females dying during childbirth, the general mortality among juveniles is relatively low. For the interpretation of non-adult mortality in this cemetery population, it is necessary to analyse the composition of this group in more detail.

The distribution of non-adult deaths over the traditional physical anthropological age categories in table 8.7 shows that seven individuals died in the age interval between 6 and 12 years. Two individuals died before the age of 6 and two died between 13 and 20 years. Normally non-adult mortality is the highest among newborns and during the first two years of life. This age category seems to be missing. If context 12 was indeed a Merovingian grave, it must have contained the youngest individual in the cemetery, who died between 2 and 3 years. The vulnerable age category between birth and 2 years sometimes accounts for 30 percent of the total number of deaths in a cemetery. In Bergeijk, these graves may be missing because some of the dead were buried in another location, either in the settlement or at another cemetery. Alternatively, these individuals were buried in the cemetery of Bergeijk, but in a section that was not excavated. Graves may also have been lost due to the taphonomic processes also causing severe decomposition of adult skeletal remains.

Standard physical anthropological methods to determine the sex of the individuals could not be used due to the poor state of preservation of the skeletal remains. In three cases, an indication for the sex of the deceased could be acquired from the length of the body silhouette. This was only possible for male individuals, as it is based on the fact that male stature exceeds the mean female stature. When the length of the silhouette falls within the range of adult male stature for early medieval human remains, we can assume that the individual was of male sex. In this study, individuals with a stature above the mean early medieval stature plus two times the standard deviation, viz. above 175.5 cm, are considered to be of male sex. This was the case with three individuals, buried in graves 68, 100, and 128.

Table 8.2
Age categories used in this chapter.

Age indication	Description
Non-adult: #-# yr.	Interval in years, based on either human remains or a complete body silhouette
Adult: #-# yr.	Interval, based on human remains
Non-adult: ≤#	Maximum age at death, based either on an incomplete body silhouette or the length of a wooden container
Juvenile-adult	Individual older than circa 13 years, length of the body silhouette or the wooden container in the range of an adult female (wooden containers up to 1.90 m)
Adult?	Probably an adult individual because the length of the wooden container or the burial pit was similar to what is generally observed in the graves of adults in other early medieval cemeteries (wooden containers longer than 1.90 m)

Table 8.4
Body silhouettes in metres for which complete lengths could be measured, ordered by age category.

Context	Length body silhouette (maximum length)	Age (based on human remains or length silhouette or context)
16	1.40	Non-adult: 10-12 year
121	1.48	Non-adult: 11-13 year
63	1.86	Juvenile-adult
95	1.72	Juvenile-adult
97	1.70	Juvenile-adult
98	1.66	Juvenile-adult
101	1.65	Juvenile-adult
120	1.67	Juvenile-adult
127	1.51	Juvenile-adult
96	1.74	Adult?
128	1.76	Adult?

Table 8.6
The distribution of graves over the three age categories on the basis of human remains, body silhouettes and lengths of wooden containers.

Age category	Number	Percentage
Non-adult	11	9%
Juvenile-adult	31	27%
Adult	75	64%
Total	117	100%

Table 8.3
Results of the physical anthropological examination of the human remains.

Grave	Description
11	Young individual between 15 to 30 years, based on dental eruption and limited attrition
19	A child between 4 and 9 years, based on dental development: only crowns available for examination, no sign of attrition. It is therefore assumed that these elements had not yet erupted, hence age is based on the crown formation and eruption
26	Fragments of the neurocranium of an adult individual with open endocranial aspect of the sagittal suture. Adult individual between 20 to 60 years
28	Small fragments of one or two long bones. Indeterminate sex and age

Table 8.5
Container lengths and the lengths of body silhouettes in metres, ordered by descending body silhouette length.

Grave	Container length	Body silhouette length
63	1.96	1.86
128	2.03	1.76
96	1.90	1.74
95	1.82	1.72
97	1.86	1.70
120	2.10	1.67
98	1.82	1.66
101	2.22	1.65
125	2.10	1.60
127	1.98	1.51
121	1.84	1.48

Table 8.7
Age determination of 11 non-adult individuals.

Context	Length wooden container	Length body silhouette (maximum length)	Age (based on human remains or length silhouette or context)	Anthropological age category
8	1.28		Non-adult: ≤ 9 year	Infans II
11			Non-adult: ≥ 12 year	Juvenile
12	0.92		Non-adult: ≤ 3 year	Infans I
14	1.20		Non-adult: ≤ 8 year	Infans I
16		1.40	Non-adult: 10-12 year	InfansII
19	1.60		Non-adult: 4-9 year	InfansII
22	1.46		Non-adult: ≤ 12	InfansII
23	1.46		Non-adult: ≤ 12	Infant II
72	1.52		Non -adult: ≤ 13 year	Juvenile
106	1.36		Non-adult: ≤ 10 year	Infant II
121	1.84	1.48	Non-adult: 11-13 year	Infant II

9 The chronology of individual graves and the chronological structure of the cemetery

Merovingian cemeteries are an important source of evidence for studies on early medieval society.¹ Understanding the chronological sequence of burial at a site in some detail can give us insight into a number of topics. If the sequence is known, it is possible to track changes in burial rites, demographic structure of burial groups, relations between subsequent burials, etc. An accurate chronological sequence is difficult to establish; select topics, however, can be studied on the basis of a less detailed chronological resolution. In recent years, a debate has flared up on the possibilities of dating objects and graves accurately using seriation. Some scholars have presented detailed chronologies, where others deny the possibility of creating short phases in the typo-chronological ordering of objects and graves in a region.² At present, seriation appears to be a generally accepted method of arranging graves and objects in chronological order. This is only possible, however, after detailed study of the material in a region. Moreover, grave and object seriation is fraught with difficulties, since it relies upon a series of suppositions regarding production, distribution, and deposition of objects. Due to new research and changes in the theoretical debate, many of these assumptions are no longer considered valid. A grave's position in a seriation may be determined not only by chronology, but also by other variables, such as the age category of the deceased and the circulation history of the grave goods. Additionally, important portions of the dataset, such as rare objects, common types of objects with a long use period, and single objects in graves cannot be included in seriations. The data from early medieval cemeteries in the southern Netherlands has not yet been sufficiently analysed and/or published to support seriations of graves. As a result, there is no typo-chronology of Merovingian

material culture from this region as yet. For this reason, the traditional methods described below were used to date the graves.

Methods

First, individual objects were dated as described in chapter 6. Next, we compared dates of objects found in a single grave and established a date for the grave good ensemble as a whole. This rather traditional method is often the only one possible when dealing with small cemeteries containing many frugally furnished or reopened graves, as is the case with the Bergeijk cemetery. The dating method we applied is subjective and the dates of graves are determined exclusively on the basis of objects present. The advantage of this method is that in principle, graves are dated independent of each other.³ Its disadvantage is that objects are dated on the basis of typo-chronologies imported from outside the region. Not all objects found in the southern Netherlands are represented in these chronologies, and if they are, it is not certain that they date to the same periods. This stresses the need to build a typo-chronology of Merovingian material from the region itself.

A second method of dating is based on association of objects in graves. Comparisons of object assemblages with identical assemblages in other regions are made. An important presupposition of this method is that identical grave inventories are contemporary. This need not necessarily be the case.

A third method takes into consideration the topographical structure of the cemetery. A cemetery's layout may develop in various manners that may aid in demonstrating the sequence of

burials on the site. Some cemeteries develop from a single core in a specific direction; others expand radially from that core. Others possess several cores that individually develop in linear or radial patterns which may eventually overlap. Other factors influencing the layout of cemeteries are the presence of prehistoric monuments, fences, paths, etc. In some cemeteries, graves are neatly organised in uniformly oriented rows, while in others, they may be organised in groups with varying orientations. The horizontal stratigraphy of real row-grave cemeteries is often much clearer and easier to analyse than it is for cemeteries organised in groups. The Bergeijk cemetery is an intermediate form; the graves are organised in row-like groups, but it does not possess the uniform layout of a true row-grave cemetery. Caution is therefore required when analysing the horizontal stratigraphy of the site. Moreover, dating graves on the basis of topography harbours the risk of circular arguments, for some preliminary chronological knowledge is necessary to utilise this method. In chapter 11 we will conduct an analysis of the topographical structure of the cemetery using all available variables.

Dating individual graves

As detailed above, we were forced to date individual graves by comparing the dates given to individual objects in each grave. In some cases, this resulted in conflicts within the assemblage, as in grave 113. In these cases, we cautiously assigned the grave a wide date range, rather than using the youngest object to date the ensemble.

Moreover, many objects, such as pottery vessels, cannot be dated accurately. The typo-chronological studies of complete pottery vessels from cemeteries are far from satisfying. Siegmund and the Franken AG employ different criteria, resulting in different classifications and datings. In view of the present state of research on Merovingian pottery from graves, we hesitate to place too much weight on the dates and date ranges ascribed to individual pots. Pottery, unfortunately, is one of the largest find categories in Bergeijk. Belt fittings, a more reliable chronological indicator, were found only sparingly. Thus the conditions allowing us to date individual graves are not very favourable. The results are presented in appendix 9.1 and in figure 9.1.

It is our opinion that the objects and graves are best divided into three chronological groups. The first is an early group of objects generally dated to the years around 600 and the first decennia of the seventh century; the second is a late group, generally dated to the last decennia of the seventh and first decennia of the eighth century; the third, a group in between. We designated these

groups as the three phases of the Bergeijk cemetery (thus, phases I to III). These roughly concur with Aments *Jüngere Merowingerzeit* I, II and III, although the last or last two decennia of the sixth century should be added to his *Jüngere Merowingerzeit* I to cover the entire period of Bergeijk phase I.⁴ The Bergeijk phases also correspond to several phases of the Franken AG. They are: phases 5 to 7 for Bergeijk phase I (c. 565-640/650), phase 8 for Bergeijk phase II (640/650-670/680), and phases 9 to 10 for Bergeijk phase III (670/680-middle of the eighth century).⁵ In appendix 9.1, we also indicated which Franken AG phases and corresponding calendar dates we think are most appropriate to the find assemblages of individual graves. The various phases of the Bergeijk cemetery thus have a span of c. 30 to 60 years. Applying phases thus does not automatically do justice to the cemetery's true chronology, especially in the case of the oldest and youngest graves, whose dates do not necessarily match the earliest and latest possible dates of the phase to which they are assigned. Moreover, using successive chronological phases may conceal gaps in the chronological sequence, since the graves from a certain phase do not necessarily span its entire duration. In figure 9.2, this problem is represented graphically. In the lower half of the image the graves assigned to a specific phase are spread out over the entire period, suggesting continuous use of the cemetery. The upper half shows the distribution of graves in time as it may have been in reality.

The total date range of the cemetery

Although phase I dates from c. 565 onwards, it is unlikely that the oldest finds actually date this far back. The early dates result mostly from the wide date ranges assigned to pottery vessels. In our view, there are no common sixth century belt fitting types present in the Bergeijk collection. The oldest belt set, found in grave 33, possessed rounded iron plates. All available waist belt sets were of iron. They were sometimes inlaid with silver or copper alloy or copper alloy with multiple fittings. The belt fittings of the oldest graves thus point to a date in Siegmund's phase 7 (585-610), Franken AG phase 6 (580/590-610/620), or Legoux/Périn/Vallet MA 3 (560/570-600/610).⁶ Dating pottery much earlier is possible, but most of the specimens with possible early dates may also date to the later sixth and early seventh centuries. A number of glass vessels can also be dated in this phase.

The youngest graves can be dated to the eighth century on the basis of a sceatta of the porcupine type, at present assigned to the years 715/720 - c. 740.⁷ Obviously, the exact date of the coin's burial is uncertain, but may lie before the middle of the eighth century.⁸ The sceatta grave is not necessarily the youngest grave on the site;

quem. The dates given by the numismatists are usually production dates, but in the case of the sceattas, numismatists cannot rely solely on hoards, but are also dependant on the deposition dates of archaeological contexts for establishing their dates. It is therefore not clear what the dating of the sceattas means. The coin from Bergeijk could have circulated for some time. Theoretically, the grave could also date some time after c. 740, but this is unlikely because the chronological distance between individual graves in that part of the cemetery would then be very large. However, in view of what was previously mentioned, it cannot be excluded that burial on the site continued for a long time.

(1) See the basic introduction to the subject by Halsall 1995a and his study of cemeteries in the Metz region (Halsall 1995b). See also Effros 2002a and 2003, and Williams 2005. (2) See Kars 2011 for this debate. (3) This is only true to some extent, because most typo-chronologies on which the dates are based are created with the help of grave seriation (see below). The dates thus obtained are checked against the location of the graves in the cemetery. (4) Ament 1976. (5) Müssemeier/Nieveler/Plum/Pöppelmann 2003. (6) Siegmund 1998; Müssemeier/Nieveler/Plum/Pöppelmann 2003; Legoux/Périn/Vallet 2004. (7) See chapter 6. (8) The date of the coin is, of course, a terminus post

Fig. 9.1
The distribution of graves over the cemetery throughout various phases. The broken grey line indicates the main distribution area of graves from phases I and II.

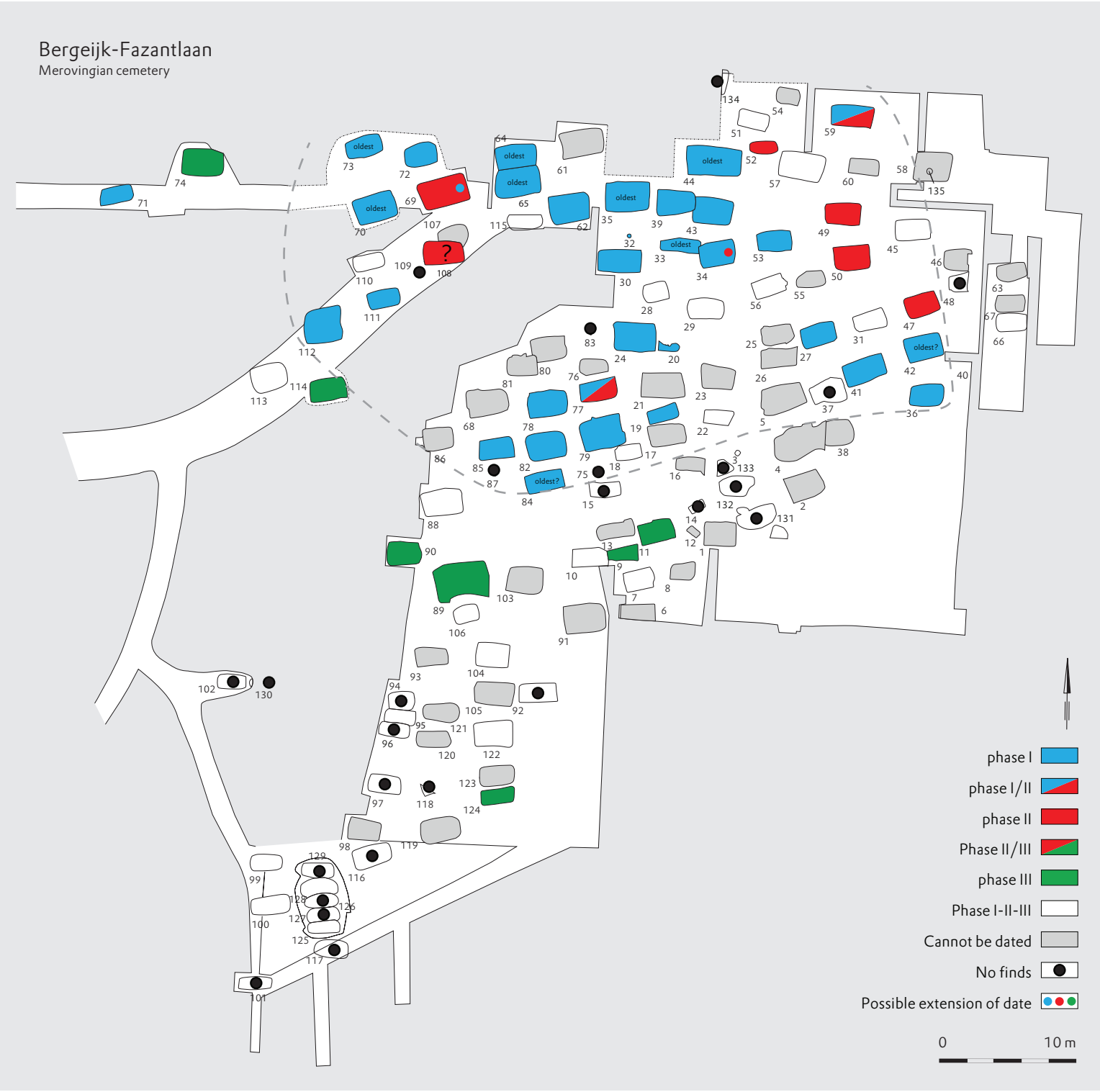
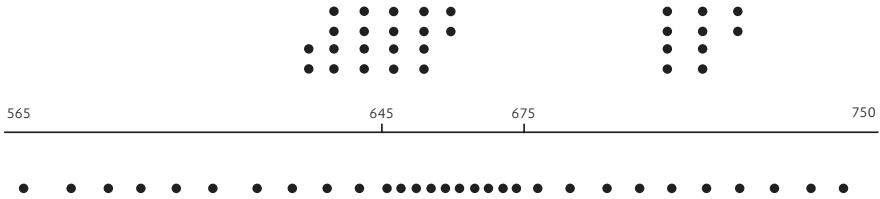


Fig. 9.2
A graphic representation of two different grave distributions within archaeologically defined phases. Below the line, the graves are evenly distributed over the phases, suggesting continuity of use of the cemetery. Above the line, the distribution of graves as it may have been in reality.



later graves may have been dug to its southwest. It is thus most likely that burial continued at least up into the second quarter of the eighth century. The cemetery was thus in use for c. 140/150 years, between c. 590 and c. 730/740.

The number of graves per phase

The use period of the cemetery is divided into a long opening phase, a slightly shorter intermediary period, and a long closing phase. The number of graves that can unambiguously be attributed to each of these phases varies considerably (table 9.1).⁹ A substantial number of graves are assigned to phase I, only a few to phase II, and some to phase III (see table 9.1, column 2). However, a total of 82 graves contained no grave goods, could not be dated, or could not be dated more accurately than to the entire use period of the cemetery. The majority of these graves may belong to phases II and III.

If we examine the topographical distribution of graves from the three phases, several interesting patterns emerge (fig. 9.1). The graves of phase I are all located in the northern portion of the excavated area. The oldest graves in this group, dated to Franken AG phases 5 and 6, are situated mainly along the northern boundary of the excavation (from west to east: graves 70, 73, 64, 65, 35, 33 and 44). These graves probably form the oldest core of the cemetery. There are, however, two graves further south that can be dated to more or less the same early phase: graves 84 and 42, although the date of grave 84 is based on the dating of a pot, which is rather ambiguous. These graves seem to indicate that the cemetery did not develop from a single core. Around the time the first graves were dug in the northern part of the cemetery, people were also being buried in other areas, perhaps by other families, households, or farmyard groups. Before we elaborate on that topic we must first analyse various topographic aspects of the cemetery.¹⁰

The few graves of phase II are dispersed over two areas, one in the east and two further west. The eastern group seems to have been placed outside the core area of graves from phase I. The two western graves are located amidst graves of phase I.

It is interesting to see that the datable graves of phase III were located outside the area containing graves from phases I and II. More specifically, they are located in a half circle to its south and west. It is nonetheless possible that a number of graves without

finds and graves that cannot be dated belong to this phase, and that they do intermingle with graves from phases I and II. More importantly, in view of the distribution of simple buckles and knives, it seems almost certain that the southern group of graves also belongs to phase III. This pattern seems to confirm that the northern area was mainly in use in phases I and II and that in the later seventh century, the cemetery was mainly laid out further south, with occasional graves to the west. The main distribution area of phase I and II graves is indicated by a broken grey line in figure 9.1.

Some graves at the eastern boundary of the cemetery also date to phase III. Although we cannot be certain, it seems that the old core of the cemetery was no longer in use in phase III. We cannot know whether there were more graves in the unexcavated area north of the cemetery's old core. In our opinion, all graves in the southern part of the cemetery probably date to phase III. If this is correct, a substantial number of the graves without finds can be assigned to this phase. This considerably alters the image of grave distribution over the three phases (see table 9.1 column 3), since phase I and phase III now contain 28 and 41 graves respectively. Phase II, however, only includes six graves. A total of 48 graves still cannot be dated properly. A considerable number of these graves could belong to phase II. This phase, however, is relatively short compared to phases I and III. If the size of the burial community remained stable over the years, the number of burials in phase II should be smaller than it is for the other phases. This evidence on the chronological structure of the cemetery will be used for the analyses in part two of this book.

Table 9.1
The quantitative distribution of graves over various phases. Also indicated are the graves that cannot be dated and those that do not contain any finds.

Phase	Number of graves	if south is phase 3
1	28	28
1-2	2	2
2	6	6
2-3	1	1
3	7	4 ¹
1-3	23	13
No date	37	26
No finds	22	9
Total	126	126

(9) In table 9.1, inhumation graves and possible inhumation graves are tallied together (N=126). (10) See chapter 11.

10 Prehistoric remains and post-Merovingian features

Prehistoric remains

When we collected the cemetery finds from the archaeological depot of North-Brabant, we were also given two boxes containing a mixture of sand and burned bone. Upon examination, both boxes produced small cards reading ‘Bergeijk 20’. Since the field records of context 20 from the Merovingian cemetery do not mention burned bone, and the pot found in this context was too small to contain the large amount of material, it seems that the contents of the boxes originate from a different location. Bergeijk’s Iron Age urn field, excavated in 1959 and 1960 in a location north of the cemetery, is a likely candidate.¹

The fill of a large number of graves contained fragments of Bronze and Iron Age pottery. This is not surprising, since the area was also intensively inhabited in prehistory, and pottery fragments from these periods can still be found in the vicinity.² One group of pottery found is thick-walled with quartz particles in the fab-

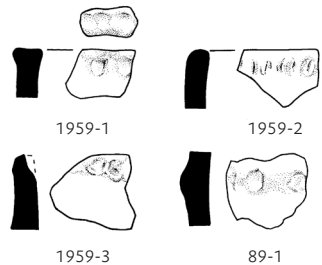
ric (fig. 10.1). Some of these fragments bear fingertip impressions on the rim or on a band of clay on the wall. This pottery can be dated to the Bronze Age, and probably stems from pots such as those found during the excavation of one of the barrows located 770 meters to the northwest.³ A smaller group of fragments probably dates to the Iron Age. The prehistoric pottery is not distributed randomly over the cemetery, but is concentrated in the northern part of the excavation (fig. 10.2), in the area where the oldest Merovingian graves can be found. In our opinion, this concentration points to the presence of a prehistoric burial mound, probably dating from the Bronze Age, which was reused in the Iron Age and Merovingian period. We will discuss this in chapter 11.

On the cemetery plan, some features that might be of prehistoric date are indicated. They may also date from later periods. A portion of the burned bone found on the site may also be of prehistoric date. However, it is impossible to make any certain statements on this. It is also interesting to note that fragments of possible Roman roof tiles and half of a Roman bead were found on the site. It is unclear whether these finds represent actual Roman-period activity or whether they were (deliberately) transported to the site during the Merovingian period.

Post-Merovingian ditches and postholes

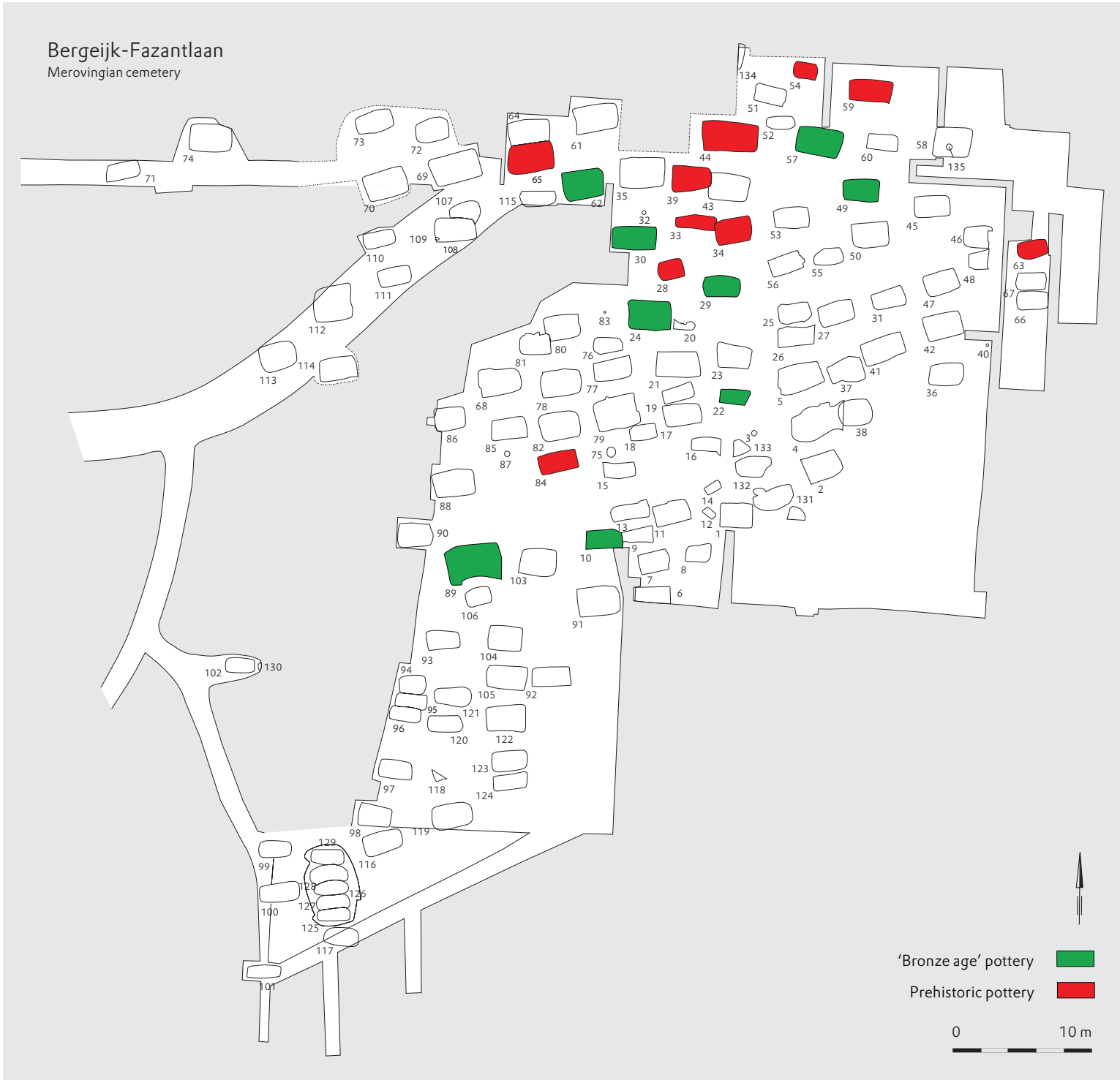
The excavators uncovered several ditch-like structures and a possible post-hole (see the map with all documented features (fig. 2.9). Although these were sometimes included on the field drawings, they were not documented in detail. Their date and nature is

Fig. 10.1
Some of the characteristic middle Bronze Age pottery sherds. Scale 1:4.



(1) Published by Modderman 1967. Unfortunately, no nr 20 is indicated on his map of the urn field. Additionally, cremation pits are indicated without a number. A new evaluation of this Iron Age cemetery is needed. (2) In addition to the Iron Age urn field, there are several Bronze Age burial mounds in the vicinity of the cemetery. For prehistoric habitation in the area, see: Modderman 1967; Slofstra 1977; Slofstra 1982; Theunissen et al. 2002. The intensive prehistoric habitation in the Bergeijk/Riethoven/Westerhoven ‘Siedlungskammer’ needs a thorough re-investigation. (3) Modderman 1955; Theunissen 1999; Theunissen et al. 2002.

Fig. 10.2
The distribution of prehistoric pottery sherds in the graves of the Merovingian cemetery.



therefore unclear. In his article from 1957, Ypey mentions that he excavated several ditches that could not be accurately dated, but which contained brick fragments and fifteenth century pottery. He assumed these were boundary ditches, since their orientation corresponded to the current plot division of the land.⁽⁴⁾ The section that was documented in the westernmost part of the excavation (fig. 1.17) corresponded with the location of a north-south oriented ditch. As was suggested in chapter 1, this section was at the location of an earthen bank separating two fields, or was an element of a system of banks fencing arable fields off from the heather fields to the west. Other parts of the arable fields’ fence were observed further to the north.

Context 40 was a horseshoe deposit. Horseshoes were not yet used in the Merovingian period, so this deposit may represent a practice from a later period.⁽⁵⁾ The horseshoe has corroded and fragmented severely, so no further observations could be made.

(4) Ypey 1957/1958, 83. (5) On horseshoe deposits see Verspay 2011.

PART 2

INTERPRETATIONS

11	The topography of the cemetery and the ‘history’ of the burial community <i>Frans Theuws/Martine van Haperen</i>	p. 150
12	Aspects of the burial rituals <i>Frans Theuws/Martine van Haperen</i>	p. 166
13	Consecutive mortuary practices <i>Martine van Haperen</i>	p. 176
14	A world of connections and peasant agency <i>Frans Theuws</i>	p. 180

11 The topography of the cemetery and the ‘history’ of the burial community

The topography of a cemetery may provide important insights into various aspects of a burial community, such as its social structure, imaginary world and mentalities. The burial community is defined as the group of people who buried *most* of their dead in a specific cemetery. We expect the people using a specific cemetery to be interconnected in one way or another. A burial community, however, need not replicate other social entities such as a cult community, local co-resident group, kin group, etc. A burial community might thus be its own type of community and not a direct reflection of another type of social group. Moreover, the people buried may not necessarily be an exact demographic reflection of the burial community; some members may have been buried elsewhere.¹ We must clearly distinguish between the people buried at a specific cemetery (the cemetery population) and the living burial community using it. Consequently, we cannot automatically consider the demographic composition of the cemetery and the variation in burial rituals (including grave goods deposition, grave structures and grave re-openings) a direct reflection of a living group or community.² Nonetheless, the burial community will not have been an entirely fictitious social entity. Especially in the case of small rural cemeteries such as the one in Bergeijk, we can expect the burial community to have been closely related to the local co-resident group. It is erroneous, however, to *a priori* consider the group of buried people identical to the local co-resident group. This relation should be analysed, not supposed. Included in this analysis is the network of cemeteries burial communities might have used.

There is another reason why the cemetery population may not reflect the structure of the burial community or other social entities. Burial is one of the contexts in which past tensions and re-

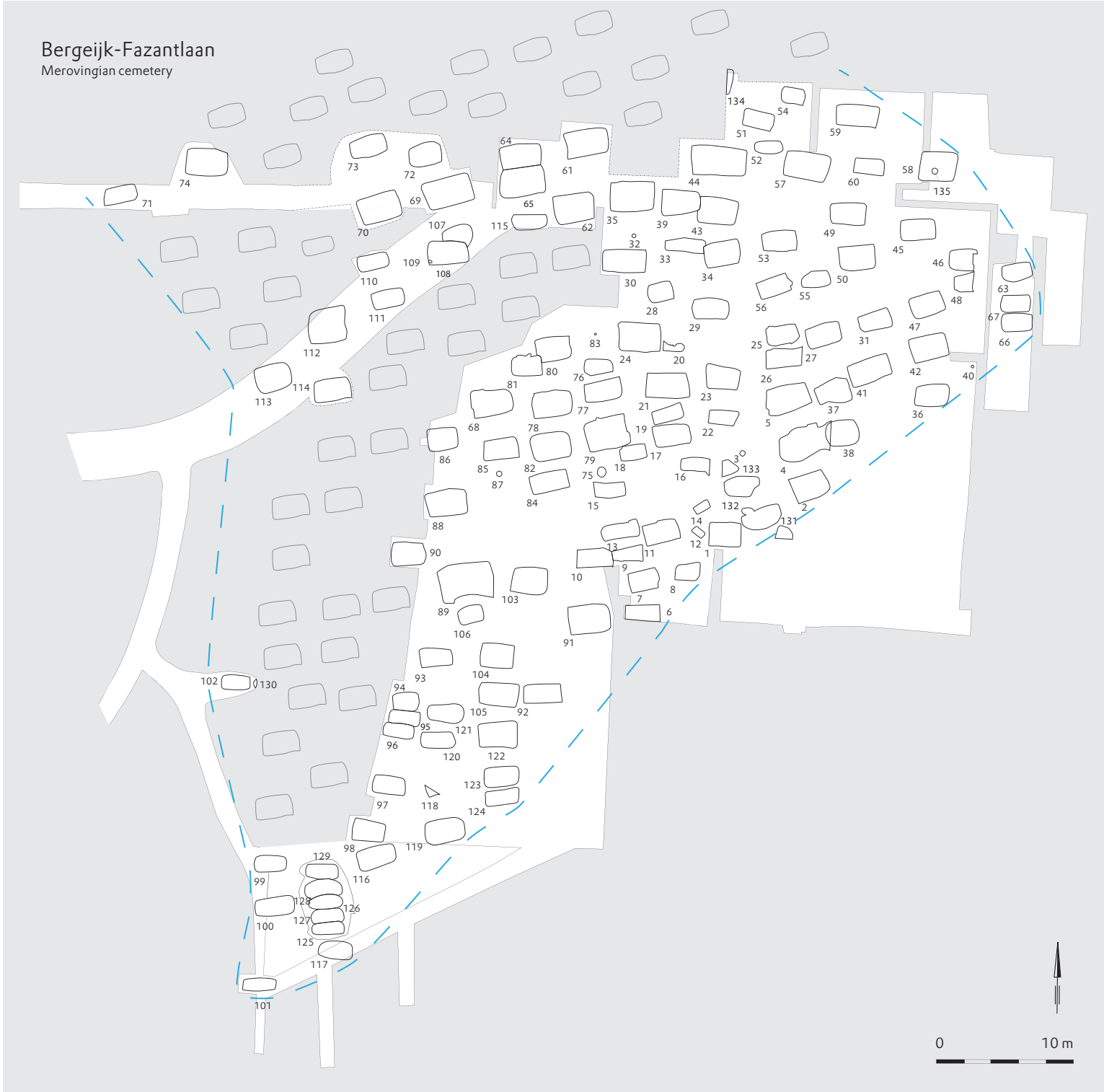
lations between society and individuals, shared values and individual interpretations thereof, structure and agency, ideas on the person and body, strategies of remembrance etc. were dealt with.³ Next to social behaviour observable by an anthropologist ‘visiting the Early Middle Ages’, norms and abstract aspects such as values, ideas and mentalities seem to determine the exact nature of the burial ritual. In this sense, the burial ritual is a ‘total social fact’.⁴ Two people with comparable social positions and similar age and gender could have received very different burials according to the circumstances of the event. Thus, variation in early medieval burial rituals may be immense. Describing and analysing this variation is the only route to understanding the nature and meanings of the burial ritual. One aspect of that scholarly process involves analysing the topographical structure of a cemetery.

This analysis hinges on the assumption that the choice of a grave’s location is not a random process or an *ad hoc* meaningless choice. Even in a true row grave cemetery where new dead are buried near the last grave in the line, this was no doubt a conscious choice. Before these preferences can be reflected upon, some basic empirical research into the topographic structure of the cemetery must be pursued.

The boundaries of the cemetery

Merovingian cemeteries can possess various types of boundaries. Some cemeteries seem limited to a clearly demarcated area, suggesting that they were fenced. Examples of such cemeteries are those at Lauchheim (Germany, Baden-Württemberg) and La Grande Oye at Doubs (France, departement of Doubs).⁵ Other

Fig. 11.1
A plan of the cemetery on which its boundaries and a possible number of unexcavated graves are indicated.



(1) See Theuvs 1999. (2) On the use of the terms ‘group’ and ‘community’ in this context, see Theuvs 2010. (3) An interesting parallel research into the topographic structures of the modern cemeteries of Bergeijk shows how mentalities especially determine the layout of successive modern burial grounds. This is subject to research by Sophie Hennebert in the context of an internship at the State Service for Cultural Heritage and an MA thesis at the University of Amsterdam. (4) Mauss 1993² [1923-1924], 78-79.

cemeteries' boundaries are less clearly defined and seem to fade into the countryside as single graves or small groups of graves are irregularly distributed around a concentrated core. Such is the situation in Rosmeer, especially in its northern part.⁶ There are also cemeteries whose grave distribution is so ephemeral that trying to establish boundaries is impracticable.⁷ Establishing the boundaries of a cemetery also depends on the size of the excavated area and how far the area extends beyond the outer graves. If the limits of the excavation do not reach far beyond the outer graves, one can never be certain that all graves were excavated.

In the case of Bergeijk, at least one boundary seems apparent. However, the excavation does not continue far beyond the outer graves. Only the southeast corner of the excavation lies at some distance from the nearest graves (numbers 1-2 and 131). In the east, beyond graves 63, 66-67, a trench was dug to check for graves in that direction, but none were found. Additionally, trenches were dug to the south beyond graves 101 and 117. Graves were not found there either, suggesting a boundary close at hand (fig. 11.1). We do not know what the nature of this boundary was and whether no graves were present further south. The boundary may have consisted of a fence or perhaps the track mentioned in chapter 1. To the west, several trenches were dug during the construction of garden paths, sewers, and gas and water supplies. No graves were discovered in the westernmost part of these trenches. A line can be drawn from grave 101 along grave 102 to grave 71 to obtain an impression of the western boundary of the cemetery. The northern boundary of the cemetery cannot be defined; the cemetery certainly extends further in that direction beyond the excavated area. There, more early graves containing grave goods can be expected.⁸

In conclusion, we may have distinguished the eastern, southern and western boundaries, but until more trial trenches are dug we cannot be certain that no graves lie in these directions.

The estimated number of graves in the cemetery

The cemetery was not excavated completely. So far, 117 inhumation graves, nine possible inhumation graves, four pits with burned bone and one concentration of burned bone were found, some of which were not excavated. We plotted inhumation graves in the unexcavated area, restricting ourselves to the north due to the possibility of a late seventh century section comparable to the southern one there. We can thus easily add 40 inhumation graves to the present number (fig. 11.1), in which case the cemetery would count at least 170 graves. This figure implies that during the use period of the cemetery, an average of one to 1.5 burials a year took place.

The layout of the cemetery

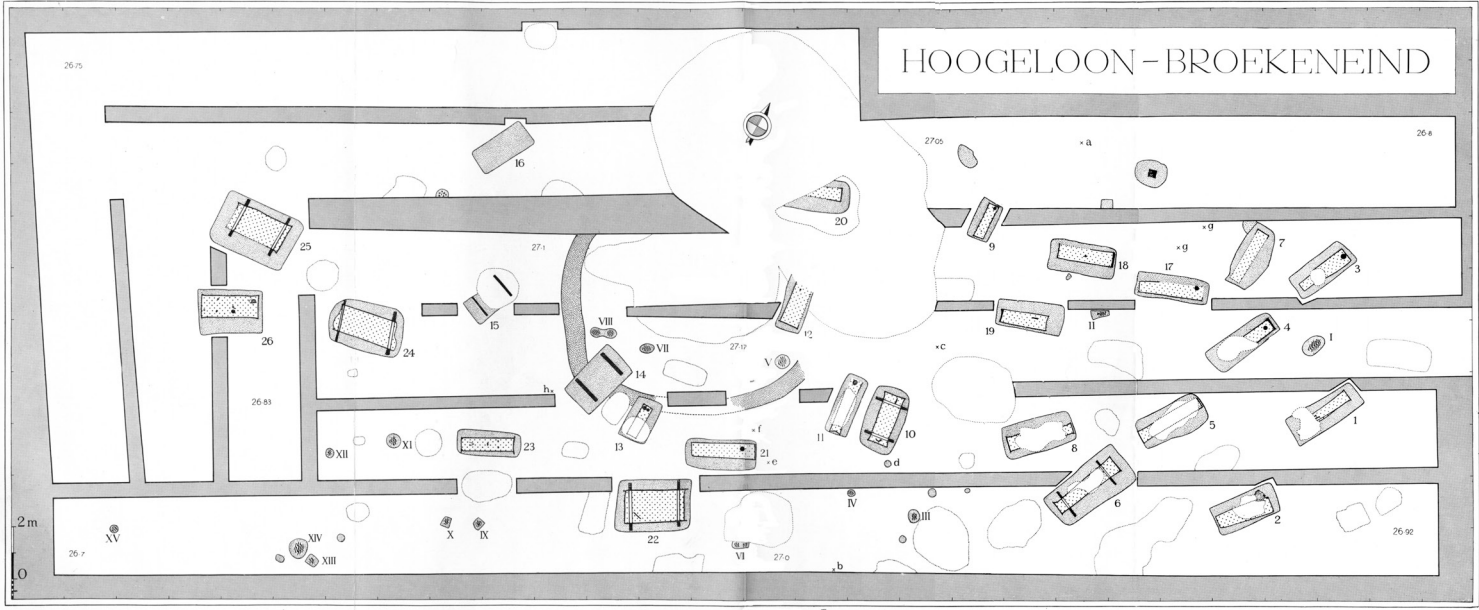
As explicated in this chapter's introduction, we expect the location of graves in relation to each other to have been selected consciously. Can we discover the motivation behind these choices? Were new grave locations chosen in relation to existing graves? We must recall that the scarcity of burials per year indicates such decisions were not made often. Thus 'rules' and considerations may not follow easily identifiable patterns; new considerations might have surfaced with each new burial.

A preliminary glance at the cemetery's map illuminates rows of graves in both east-west and north-south directions. This grants the cemetery quite an ordered and organised appearance. The plan of the cemetery of Hoogeloon-Broekeneind, for instance, conveys a more disorderly impression, though the cemetery's organisation may have been perfectly clear to contemporaries (fig. 11.2). As point of departure for our topographic analyses, we took the organisation of a substantial number of graves in rows. Our analyses differ in some respects from the traditional chorological ones, for it does not take the chronological ordering of graves as a point of departure.⁹

The analysis of east-west and north-south oriented rows of graves is based on simple principles (fig. 11.3). Both north-south and east-west rows were identified by drawing a central axe over the graves. A new row began when the central axe of a row could not be continued. Several adjacent rows ending simultaneously may indicate a boundary between two different groups.¹⁰ We first searched for such non-alignment situations in the north-south rows (fig. 11.4). Enumerating all rows is unnecessary; some examples, such as that between graves 104 and 124, will suffice. The row just mentioned ends to the north with grave 104; the central axe of this row slips between graves 89 and 103. North of these two graves is a small empty area indicated on the map in grey (indicated with letter A). To this area's north are rows possessing graves 88, 85, 84, 15, 17 and 22 as their southernmost graves. Grave 18 does not fit the row system and may have later been placed near grave 79.

Further east are rows with the northern graves 25, 27, 47, 46 and 63. North of these rows is a narrow empty strip (letter B) where a grave could have been dug. Leaving this strip empty was, in all probability, a conscious act. However, graves 56, 55 and 45 may have continued these rows in the south. Grave 31 could have belonged to a row further north. There is an empty space south of grave 41 (letter C) that could have been reserved for a grave never dug. We are uncertain whether such reservations existed in the Early Middle Ages.

Fig. 11.2
The plan of the Merovingian cemetery of Hoogeloon-Broekeneind as published by Glasbergen in 1955.

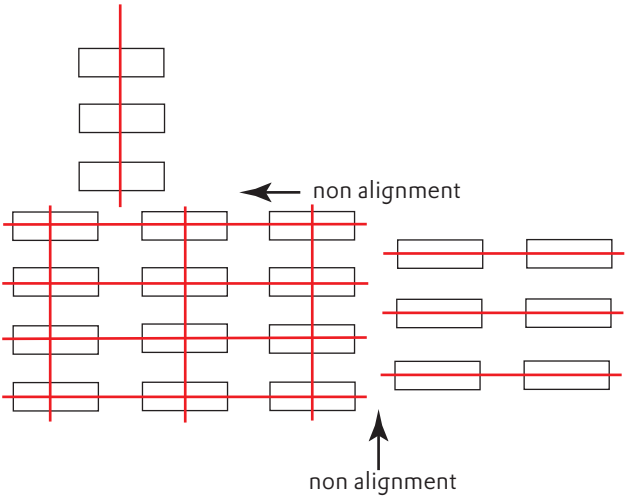


In the northern part of the excavation, several short north-south rows can be identified. How far north or south they extend cannot be determined.

After 'creating' rows, graves incompatible with this system remain. An interesting group is formed by graves 20, 24, 28 and 29, which do not align with any rows. On figure 11.4, the group is indicated with a dotted orange line. In the north-eastern part of the excavation, there is a group of graves lacking row organisation. A cluster of graves south of the empty area near graves 89 and 103 are similarly disarranged, although one row could be defined between graves 13 and 6. Further south, rows resume once more, although in various directions.

In addition to the north-south rows are east-west rows (figure 11.5). East-west rows are more difficult to define. Two parallel rows are formed by graves 85-17 and 68-23 respectively; grave 19 seems to have been placed between 17 and 21. Grave 22 may be aligned with the two aforementioned rows; it forms a short north-south row with 23. The lines end in the west as grave 86 does not align with these rows. In addition to the first two rows are two parallel rows to the east. They are formed by graves 27 to 47 and 5 to 42 respectively. To the west, the lines end; graves 25 and 26 do not align, and grave 22 is probably not part of this row in view of its orientation and the distance between graves 5 and 22. Were graves 25 and 26 considered one grave, they could be part of the row. In this case, the line stops with graves 25-26; further west, the layout of the cemetery changes. A line of graves further south (4-36) could be defined. To the north several rows extend in different directions. Two run parallel to the ones just discussed. The rows in the cemetery's centre suggest that the cemetery consisted of two sections. These are separated in figure 11.5 by a dotted orange line.

Fig. 11.3
A schematic representation of the definition of north-south and east-west rows.



This division is supported by the observation that the east-west rows in each part have different orientations. The sections could have been separated by a path or an open space in which at a certain time children's graves 22, 23 and 16 were placed.

The two northernmost rows orient somewhat differently than those in the parts to the south of it. In the north-west, the graves are more or less equivalently orientated, seemingly indicating the presence of rows. However, rows are difficult to pinpoint. In figure 11.6, both north-south and east-west rows are indicated. Despite the cemetery plan's incompleteness, several interesting patterns surface. First, there appear to be two groups of graves defined by north-south and east-west rows in the centre of the

(5) Stork 1997, 292-293; Urlacher/Passard/Manfredi-Gizard 1998, 26. (6) Roosens/De Boe/De Meulemeester 1976; Roosens 1978. (7) See for instance the cemetery of Gilze-Verhoven, which was excavated by the University of Amsterdam and the State Service for Cultural Heritage. It is yet unpublished, but was the subject of a Master's thesis by J.-P. Backx. It will be published in the context of this Anastasis project. (8) See the preface on the preferred heritage policy for this cemetery. (9) On chorological analyses, see Siegmund 1998, 178-179. (10) Although this analysis yields interesting results, it is nevertheless important to note that its basis is a bird's eye perspective. Cemetery contemporaries never viewed it thus. Therefore, this analysis' results may not represent their perceptions of the cemetery's structure.

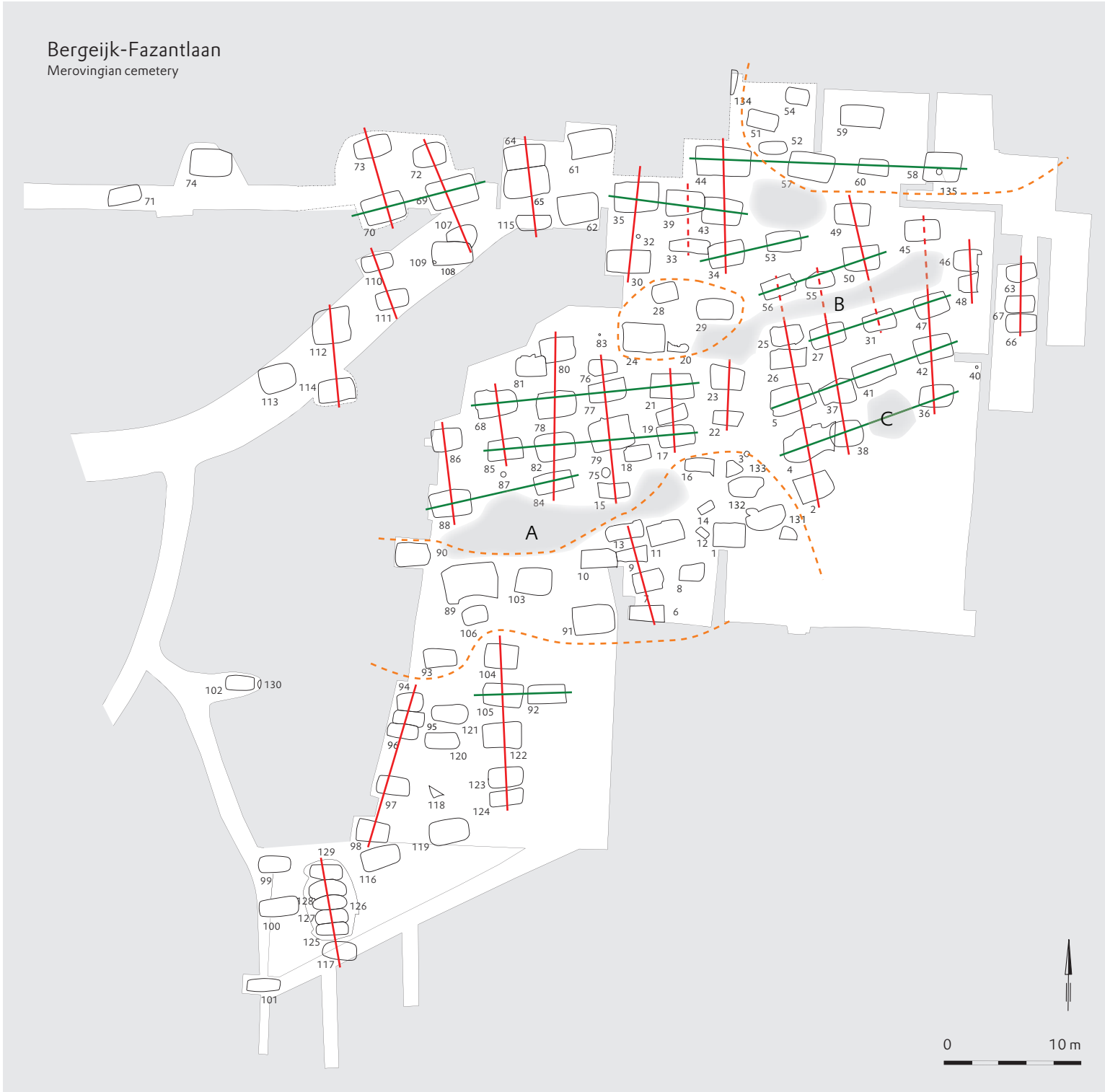
Fig. 11.4
A plan of the cemetery on which the north-south rows are indicated.



Fig. 11.5
A plan of the cemetery on which the east-west rows are indicated.



Fig. 11.6
A plan of the cemetery on which the north-south and east-west rows are indicated.



excavation. They are the two sections described above. It is currently too premature to draw conclusions as to the meaning of this observation. Suggestions, however, can be made. Rows seem to be the prevalent organisational form in the cemetery's centre. Rows' occupants probably factored into new burial decisions, and row position may have conferred varied statuses upon its buried.¹¹ We would like to be able to establish whether rows were created chronologically and/or whether spots were reserved for later burial. Unfortunately, evidence normally used to make these decisions, such as chronological details and the distribution of men, women and children, and their age at death, is not clear enough in Bergeijk to provide definite answers.

Chronology, grave depth and topography

In chapter 9, we established the dates of individual graves and assigned datable graves to three successive use phases. Phase II contains few graves compared to phase I. Phase III is large; the southern portion of the cemetery dates almost entirely to that period. By comparing this distribution to the topography just described, several noteworthy observations emerge (fig. 11.7). It was previously stated that the oldest graves were found along the northern edges of the excavation. Each of the two groups organised by neat north-south and east-west rows possesses a grave that could belong to the oldest graves (indicated in fig. 11.7 with 'oldest?'), although their date depends on weak evidence. Could these groups form newly established groups of the burial community in addition to one or more existing groups represented by the northern graves? Between the new groups and the northern burials is the 'irregular' group of graves 20, 24, 28 and 29.

Another element that may contribute to understanding the topography is the variable depth of the graves. Why some people were buried deeper than others is unclear. Figure 11.8 showcases the variability of the graves' recorded depths. These measurements represent depth beneath the surface level, since absolute NAP measurements were not taken. The terrain's surface may have been somewhat undulated, but chapter 1 concluded that the surface at the time of the excavation could not have altered much since Merovingian times, although some modest levelling may have taken place. Moreover, the differences of sometimes more than 50 to 60 cm in depth between neighbouring graves indicate that the recorded depths reflect the original variation in depths of graves. When graves were deeper than 120 cm the depth was noted in figure 11.8. The northern graves are conspicuous with their relatively great depth in contrast to the graves further south.

A closer examination of the distribution of deep graves in the central and southern part of the excavation is insightful. In the central region, two graves (79 and 82) are deeper than the others. They are situated in the centre of an area characterised by well defined

east-west and north-south rows, and may be the oldest graves in that area. Further east, graves 41 and 42 may occupy a similar position in that part of the cemetery. They are shallower than 79 and 82, but considerably deeper than the surrounding graves. Further south, two more deep graves (89 and 105) were found. Grave 89 is exceptionally large, and may have been the founding grave of the southern part of the cemetery. Grave 105 might also have been the first grave of a subgroup. The same may hold true for grave 128 in the southernmost row of the cemetery. Stratigraphically, along with grave 126, it is the oldest grave of the group.¹² We now can speculate whether graves marking new areas for cemetery use were deliberately dug deeper. We can also wonder if these graves are those of founders of subgroups of the burial community.

Gender and age

Another element relevant to understanding the burial ground's topography is the location of men's, women's and children's graves. Unfortunately, osteological information on sex and age for this cemetery is very sparse; analysis depends largely on the presumed gender associations of grave goods.¹³ Identification of children is based on coffin size or tooth remains. The evidence is represented in figure 11.9. Apparent is the even distribution of men and women.

Only one child's grave, however, was found in the northern part of the cemetery. Young children are usually underrepresented in Merovingian cemeteries; they were either buried elsewhere or deposited differently. In the southern Netherlands, the number of children's graves increases throughout the seventh century, pointing to changing attitudes towards dead children.¹⁴ It is interesting to observe that both children's graves 22 and 23 are in a space between two areas with neat rows of graves. Children's graves seem to be associated with women's graves, as demonstrated by grave 76's location near 77 and 16, 19, 22, 23 near 17 and possible woman's grave 21.

Noteworthy is the fact that in both areas, the centre's deeper graves are those of men (graves 79 and 82, and 41 and 42). Large grave 89 is that of a woman. In the northern part of the excavation there is no clear relation between grave depth and the deceased's gender.

Occasionally, opposite genders seem paired, such as graves 69 and 70, and 64 and 65. Grave 44 might also form a pair with grave 33. In a number of cases, the manner in which grave pits are dug expresses a relationship between the graves. Several methods are observed. First, the digging of graves pits immediately proximate to one another, an example of which, graves 64 and 65, was previously noted. Secondly, we find small pit overlaps that do not disturb the container of the first grave. This condition features in graves 39 and 43, 33 and 34, 80 and 81, and possibly 20 and 24, 9

(11) Interesting aspects of burial in a row were suggested by Chapman while studying rows of graves in late Neolithic Hungaria (Chapman 2000). (12) The stratigraphic position of grave 129 and 128 is not entirely clear. Ypey notes on the grave 128's documentation card that grave 128 is most likely cut by grave 129. (13) See chapter 12. (14) This observation is based on the farmyard cemeteries of Dommelen and the cemetery of Gennep-Touwslagersgroes.

Fig. 11.7
A plan of the cemetery on which is indicated which graves could be assigned to one of the three phases in the use of the cemetery. The grey broken line encircles the main area with graves from phases I and II.

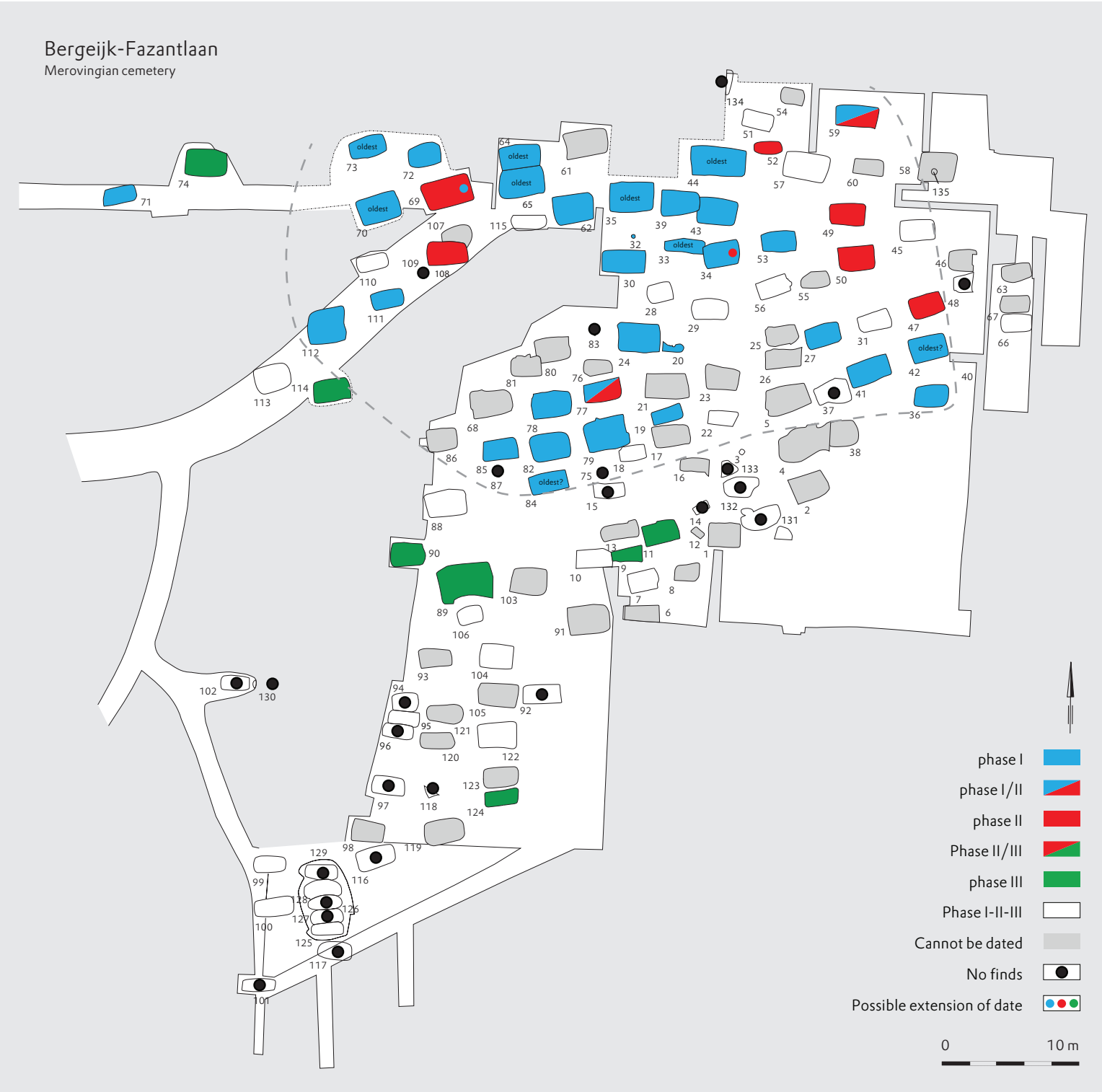


Fig. 11.8
A plan of the cemetery on which the depth of the graves is indicated.

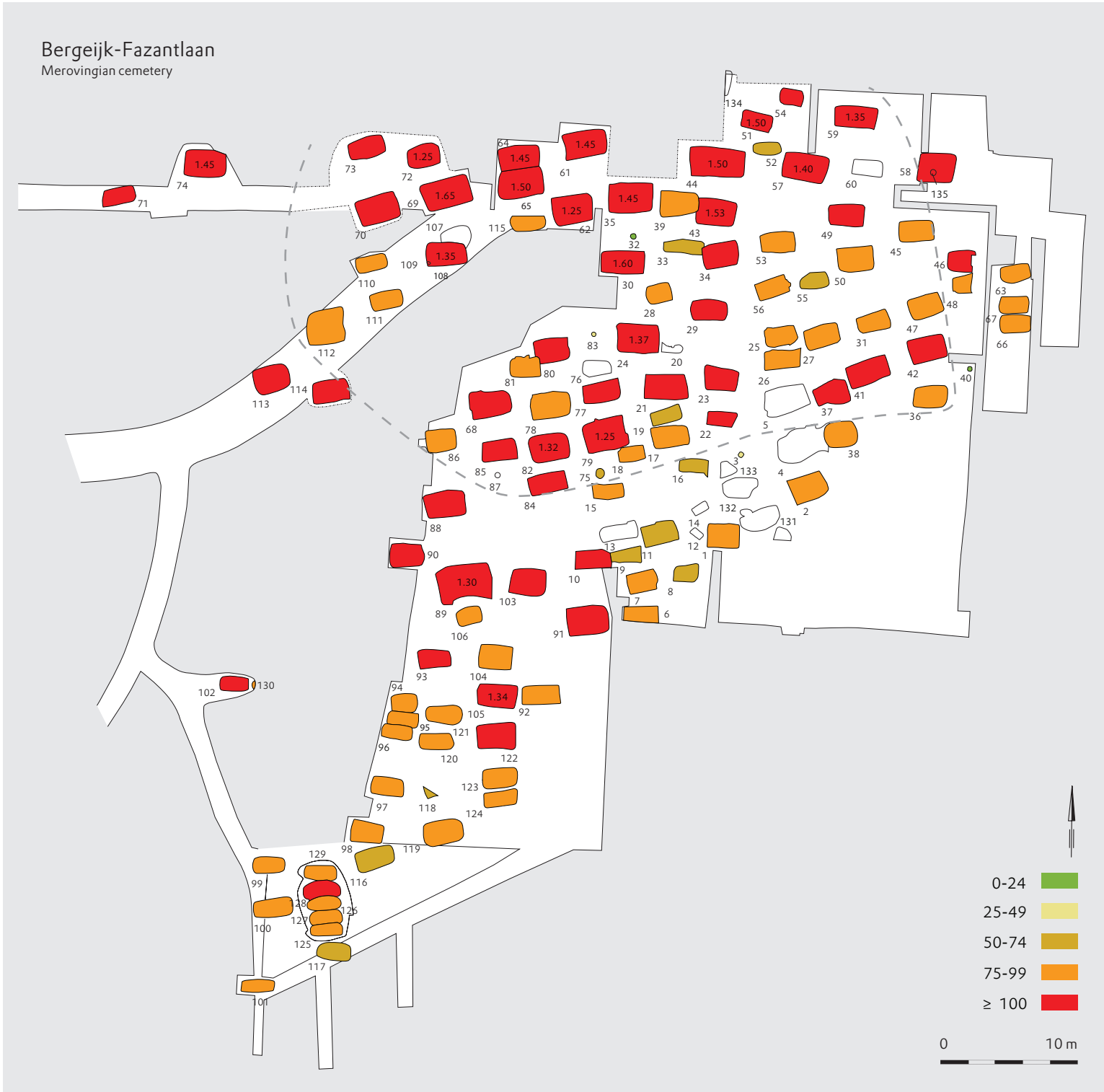
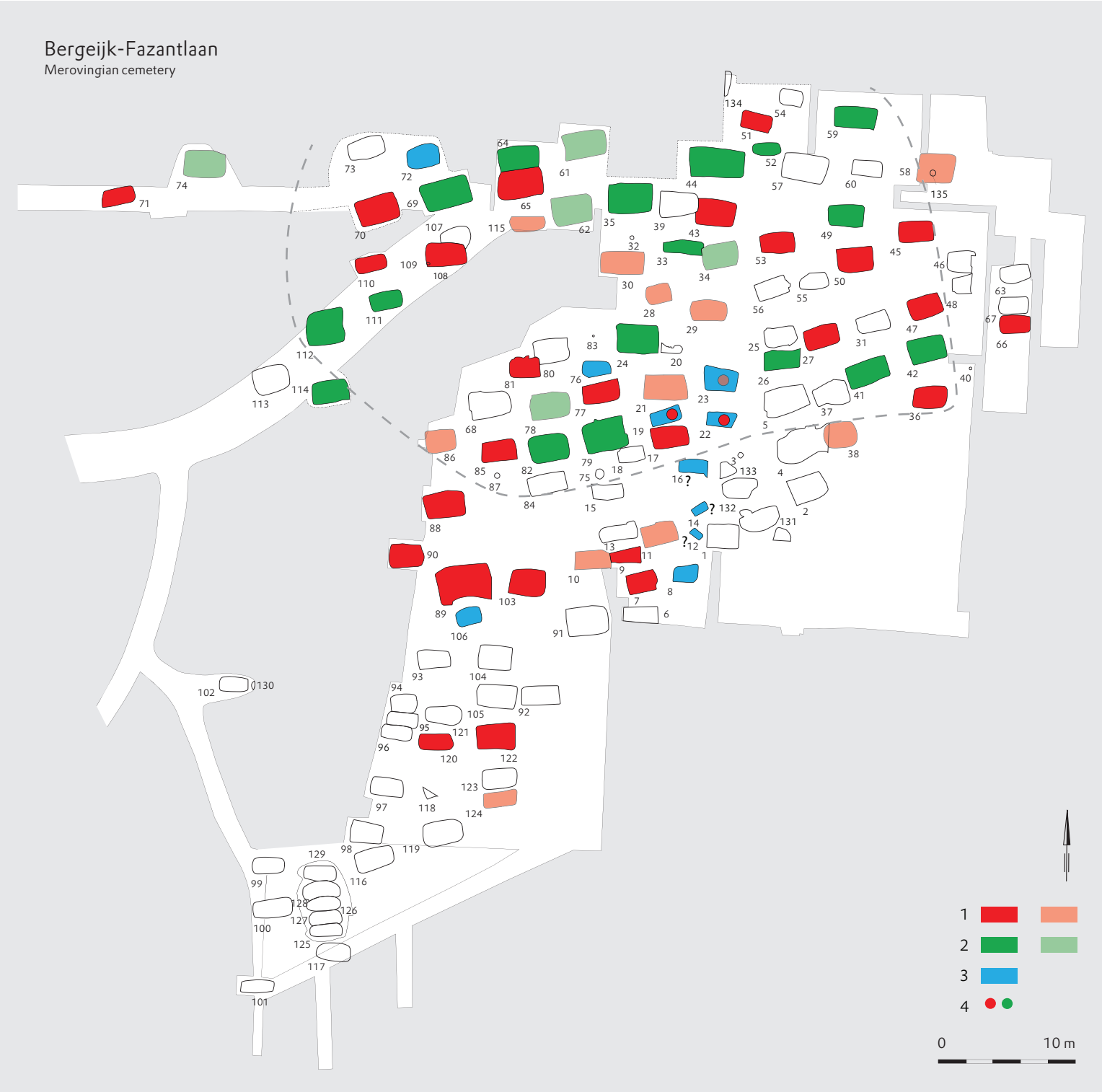


Fig. 11.9
A plan of the cemetery on which the gender or possible gender (light colours) of the deceased is indicated. 1. women, 2. men, 3. children, 4. the gender of a child, red: female, green: male.



and 10, 107 and 108. It seems that rows of overlapping graves were created, as is the case with graves 94 to 96 and graves 125 to 129. These rows of intercutting graves are observed in contemporary burial grounds in settlements as well as in local cemeteries such as Bergeijk.¹⁵ They are a phenomenon of the late seventh and early eighth century. Intercutting graves are also discussed in the chapter on post-depositional interventions.

Open spaces and a prehistoric monument?

Some graves appear to be surrounded by more open space than others. This may be due to various causes. First, some space may have been kept free around particular graves to mark their special position. Such might be the case with the small group of graves 89, 103, and 106. Grave 106 belongs to a child and is near grave 89 (a woman or a girl). Grave 103 seems to have been placed in relation to 89 as well. Grave 89 is exceptional due to its uncommonly large grave pit and relative depth compared to other graves in that part of the cemetery. Second, graves (such as grave 29) were placed in the open spaces between the topographical groups. Third, space around graves may have been reserved but never filled.

A last subject of discussion concerning the topography of the cemetery is the relationship between the old core of the cemetery and the distribution of the prehistoric pottery (fig. 11.10). Prehistoric pottery sherds were concentrated in a limited area in the north of the cemetery's core.¹⁶ This does not seem coincidental; we hypothesize that a prehistoric monument existed in that location and perhaps was the starting point of the cemetery. Merovingian cemeteries have previously been found to be located in landscapes with a 'history' such as a Roman building, or cemetery monument (as seems to be the case in Posterholt), or a prehistoric monument such as a barrow.¹⁷ In the case of Bergeijk, this could be a Middle Bronze Age barrow that may have been reused in the Iron Age. Such barrows are a regular phenomenon in the area. Unfortunately, we cannot reconstruct the size and exact location of a possible barrow.

A possible 'history' of the Bergeijk burial community

As previously stated, one of the problems of burial archaeology is that the structure of the cemetery does not necessarily reflect

the social structure of the living community burying their dead.¹⁸ Traditional opinions that those buried in the cemetery reflect the community of the living in numbers, composition and social structure, are no longer considered absolutely correct. Numerous factors influence composition of a cemetery population and the manner in which dead are interred. It was common practice to analyse cemetery populations as if they were the local group or the village population. However, peasant mobility and migration on a regional and supra-regional scale may have been more intensive than supposed. Inhabitants left a local group to settle elsewhere, men may have left the group to serve a leader, and families may have buried their members in more than one cemetery.

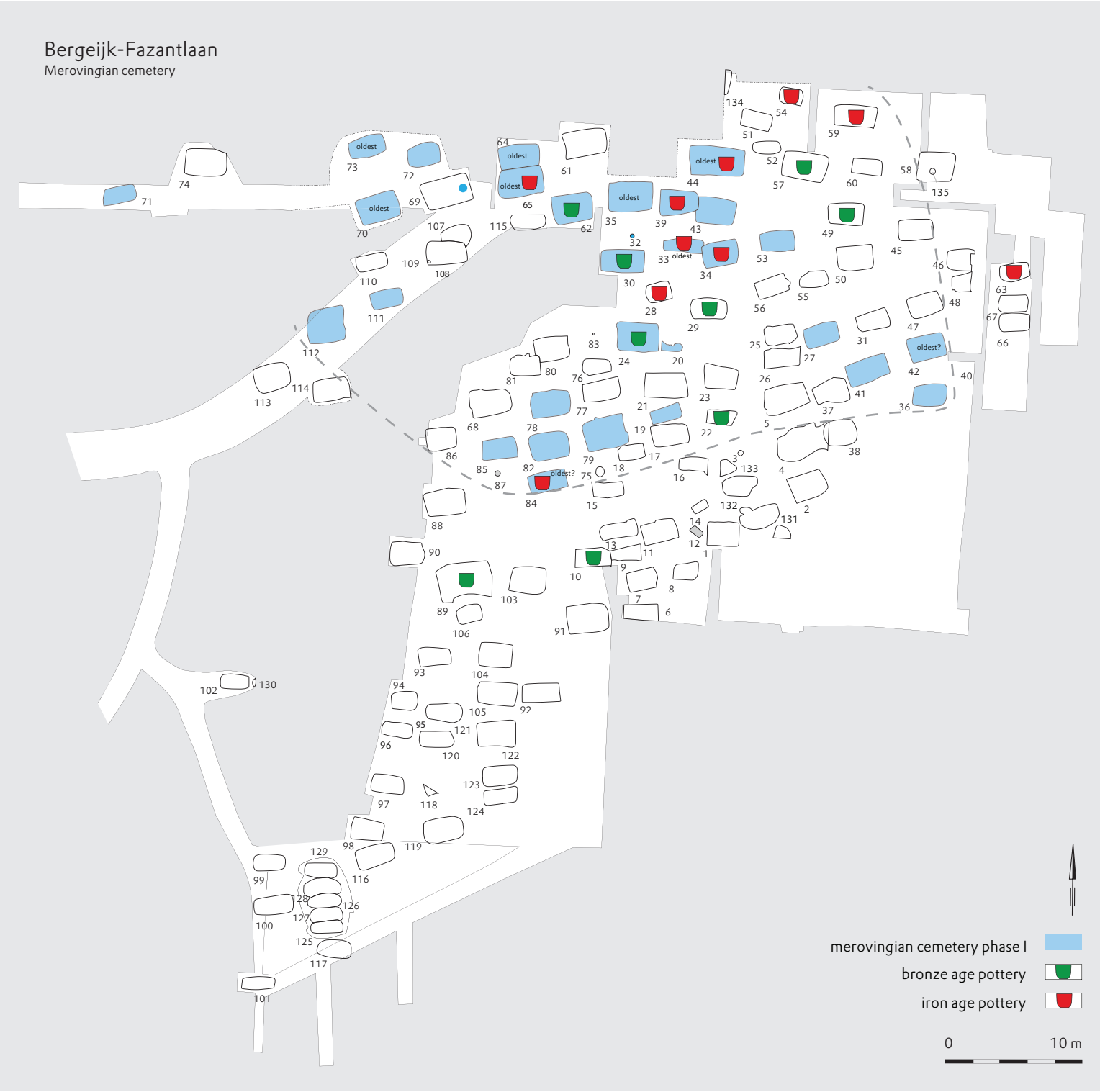
Moreover, the burial ritual may have been a rhetorical strategy to define social positions and ideas thereof rather than a representation of actual historical persons.¹⁹ Thus the community of the dead may not reflect the community of the living and all the changes that took place therein in the course of time. Nevertheless, small rural cemeteries, such as Bergeijk-Fazantlaan, may afford better insight into the structure of local societies than large cemeteries like Rhenen (Netherlands, province of Utrecht) where more than 1000 graves were found, or those in 'towns' such as Vrijthof and Servatius in Maastricht.²⁰ Large rural cemeteries might have attracted burials from a series of neighbouring local groups or settlements, and 'town' cemeteries may have attracted burials from a wide region around the town, for instance, because they provided opportunities for burial in the vicinity of a saint.²¹

The size of the burial community

Complicated formulas have been devised to calculate the average population size of a burial community.²² These formulas, however, demand a level of quality that the Bergeijk data do not meet. The cemetery was not completely excavated, and there are probably too few children buried on this cemetery. Burials of children are, however, a problematic element of early medieval cemetery research. The child mortality rate traditionally considered is too high.²³ Kölbl explains that child mortality may differ substantially from region to region and settlement to settlement, and will not have been stable during the entire early medieval period. Moreover, child mortality is not determined only by medical and hygienic conditions, but also by cultural conditions.²⁴ In smaller communities fewer children are born, thus less perished. Adequate

(15) Illustrations of intercutting graves are found in the settlements of Dommelen (Theuws 1988, 233-238) and Geldrop, where an almost identical group of graves was found. The cemetery of Geldrop is yet unpublished. A comparable row of graves was also found in the cemetery of Posterholt, although there the graves do not all touch (De Haas/Theuws in prep.) (16) See chapter 10. (17) See Effros 2001; Williams 1997 and 1998. The cemetery of Posterholt is at the location of a Roman cemetery marked by a stone monument whose remains were found in the fill of the Merovingian graves (De Haas/Theuws in prep.) The cemetery of Rosmeer is located at the site of a Roman villa (Roosens/De Boe/De Meulemeester 1976, 5). Another probable Merovingian cemetery in Bergeijk was located at the site of a Bronze Age barrow. Two other examples are Casteren (mentioned in Chapter 1) and Hoogeloon-Broekeneind. See figure 11.2. As part of this programme we will compile all available information on location choice of Merovingian burial grounds in the southern Netherlands. This topic was the subject of the MA thesis of M. de Haas MA, member of this project. (18) See for instance: Steuer 1982; Samson 1987; Halsall 1995; Effros 2002 and 2003, and a host of recent literature such as reviewed by Dickinson 2002 and Williams 2005. For Germany, see Brather 2008. For Italy, Barbiera 2005. (19) Coon 1997; Theuws 2009. (20) Rhenen: Ypey 1973; the Maastricht cemeteries: Kars 2011; Theuws et al. in prep. (21) See for instance how Metz seems to attract burials in the seventh century (Halsall 1995). (22) Acsadi/Nemeskeri 1970; Donat/Ullrich 1971. (23) Kölbl 2004, indicates that child mortality in the Early Middle Ages has been estimated too high. Numerous children's graves could indicate a high birth rate. (24) Meurkens 1984, 135.

Fig. 11.10
A plan of the cemetery on which the graves of phase I
and the distribution of prehistoric pottery sherds
are indicated.



child care would also have minimized the number of children’s graves. Nevertheless, unless children were buried in adult sized graves, too few children were buried in the northern part of the Bergeijk cemetery. Only one child’s grave could be identified. This grave dates to the advanced seventh century. The cemetery was probably in use for c. 140 years, which are 5 or 6 generations. It was estimated that the cemetery contained c. 170 graves, an average of c. 34 burials per generation. We should probably add some more graves to account for the dead children not buried on the site. The number of graves per generation could have been 40 if all the deceased persons were buried on this site. If we use families as a unit for illustrating the size of this burial community and suppose that a family consisted of 4 or 5 persons, an average of eight families could have used the cemetery. This is a small burial community, but nevertheless, is one of the larger in the region.²⁵

The first settlers

The cemetery’s earliest graves probably belonged to a group of settlers who colonised the area. There are no archaeological indications that the area was inhabited before this cemetery was installed. The group’s size cannot be established on the basis of direct evidence. If the northernmost part of the excavation represents the oldest horizon of graves, and during phase I, new areas, now the central part of the cemetery, were designated, we can hypothesize that a small group of families, perhaps 4 or 5, first arrived. They were followed by some more families. Whatever the case, the burial community’s original size will not have been very large. Whether they represent all of the area’s colonists is uncertain; other cemeteries, and thus, burial communities, may be present in the area. Bergeijk’s oldest graves date around the years 580/590. We do not know how much time elapsed between the arrival of the colonists and the first burial, but if we suppose that they lived for some time, settlement may have taken place in the years around 570.

A host of interesting questions about the colonists can be asked, none of which are answered by the Bergeijk cemetery evidence. From where did these settlers come? Did they all originate from the same region? How large was their group? Did all early colonists arrive cohesively? Were any kin? Did they know each other before they arrived? How soon did they arrange marriage relations with similar groups of colonists in the region, or amongst each other? Who did they leave behind in their regions of origin? Did they continue to search for partners in their native region? Were people who later arrived their relatives? Did they have any knowledge of the area before their arrival? Why did they choose to create a single burial ground? What was the group’s composition in terms of age and sex? Were all subgroups or households equal in a

social, economic and/or juridical sense? Were dependants included in the colonists? Several aspects deserve further elaboration: the social, cultural and economic horizons of the members of the burial community. We will deal with these aspects on the basis of the cemetery’s material culture in chapter 14.

What about the burial group’s social structure? Verwers attempted to generate some insight into the social differentiation of the Bergeijk cemetery population using Christlein’s model of *Besitzabstufungen*.²⁶ The method does not seem entirely appropriate in view of the many grave re-openings and the incompleteness of the original grave inventories.²⁷ Moreover, the burial ritual is probably not a direct reflection of the social processes in the community. Therefore, ranking individual graves on the basis of the quality and quantity of grave inventories is not a reliable method for understanding the social structure of this burial community.

Possible new arrivals and a change in burial rituals

The graves of phase III show a change in burial rites and cemetery layout. Depositing large numbers of grave goods was no longer practice from the later seventh century on. Occasionally, a simple iron buckle was found in this period’s graves, indicating that the deceased were buried wearing clothes. Knives, too, continued to be deposited in the youngest graves of the cemetery. There is no skeletal evidence to determine whether they are in men’s or women’s graves.²⁸

In addition to changes in burial rites, the layout of the cemetery was adjusted. The area used in phases I and II was abandoned in favour of a new area to the south (fig. 11.7). Incidentally, almost no grave re-openings took place in this southern part of the cemetery (fig. 4.2). These developments spur us to question whether the southern part of the cemetery was layed out by the existing burial community, or whether it was a new community that began burial there. This section may also have been used by both the existing burial community as well as new arrivals. I will briefly discuss both possibilities. A full discussion of this phase of transformation, however, is only possible after farmyard burials found elsewhere in the region are studied in detail.

A number of arguments support the hypothesis of new arrivals. The large, well-furnished and relatively isolated grave 89 could have functioned as a founder’s grave for the new southern burial ground.²⁹ The exact nature of founder’s graves is subject to debate.³⁰ A number of scholars find it puzzling that graves of women seem at times to be founder’s graves. Founder’s graves, however, may not exactly reflect a colony’s chain of power, where men were probably dominant. These graves may rather have been intended to mark founding ancestors with specific capacities. Female founders could have represented continuity and fertility, whereas graves

(25) See Theuws 1988, 189-196. (26) Verwers 1987, 192-193; Christlein 1973. (27) Verwers reasoned that grave re-openings did not substantially impact the subdivision in ‘*Besitzabstufungen*’ (Verwers 1987, 188). (28) The knives could have been deposited because of their symbolic function. Later in the Middle Ages, knives had a symbolic function in several contexts, such as the transfer of landed property (Bijsterveld 2007 (1998), 58). (29) On founders graves see: Brather 2004, 487-488; Krohn 2007. (30) Williams 2005, 214-215.

of men with weapons could have stressed the need for protection. In short, a founder’s grave need not have been a reflection of the social order, but an instrument for the creation of ancestors and the representation of the group as a whole.

Creating such a founder’s grave may also have been a ritual act marking the presence of a specific group of people and substantiating claims on a part of the territory, making the fact that the founding grave was that of a woman all the more interesting. If the southern part of the cemetery was indeed established by newcomers, then what happened to the existing burial community? On the basis of the present evidence, this group seems to disappear from sight archaeologically. It is unlikely that these people actually moved away, although they may have stopped burying their dead on this cemetery. The cemetery, however, has not been completely excavated, and there may be a section from the late seventh and early eighth century further north. The new community may have buried their dead next to the old cemetery as a ritual expression of their claim to the area.

We must remember that this is the period in which the farmyard burials in nearby settlements in Dommelen and Geldrop appear.³¹ In the farmyard graves, material culture identical to that found in Bergeijk was found: trientes of Madelinus/Dorestat type, sceatta’s, large earrings of the same type as those in Bergeijk grave 9, large copper alloy strap ends, and Ophoven belts. Included in this repertoire were also pressed foil fibulae (*Pressblechfibeln*) and multiple belt sets (*Vielteilige Gürtelgarnituren*), which are not found in the Bergeijk cemetery. This material culture is characteristic for the period when burial ritual begins changing. Once again we must ask whether these are the graves of newcomers or descendants of the existing population. Geldrop seems to be a newly developed settlement.³² This pleas for a settlement largely inhabited by newcomers, whose graves possess quite exotic objects. The creation of the new burial area in Bergeijk and the creation of farmyard burial grounds in nearby or even related settlements may thus be due to identical incentives.

The changes in the burial rituals and organisation of burial grounds are part of a broad societal transformation in Late Merovingian times, which consists of a range of transformations in various societal fields. Christianity was breaking through in the north, where one of many micro-Christendoms developed.³³ The relations of production were altered due to the process of manorialisation.³⁴ Political changes brought the Carolingians to power.³⁵ Changes in the economic sphere are related to the rise of *emporia* and the change-over to new currencies.³⁶ Archaeologists observe

dramatic changes in material culture. All Merovingian pottery types gradually disappear,³⁷ pottery production is organised differently,³⁸ silver coinage replaced gold coinage,³⁹ burial ritual changes, traditional cemeteries are abandoned, and the layout of houses and settlements changes, at least in some areas.⁴⁰ All these modifications took place within one or two generations in the years between 675 and 725. These winds of change were so intrusive that even at a local level the burial rites and cemetery layout were altered, as is discernable in Bergeijk and many other cemeteries. Burial rites and the restructuring of burial grounds may have been vital in shaping to a new way of life. These changes take place before cemeteries are ultimately abandoned in favour of other burial grounds.⁴¹

It has been suggested that the abandonment of cemeteries is a process in which some members of the burial community are gradually buried in other locations. These locations may include: first, the farmyard, second, the churchyard, third, an important cult site outside the region, and fourth, possibly another new rural Christian burial ground which may not yet have been attached to a religious building.⁴² As suggested in the chapter on consecutive mortuary practices, it is possible that this was also the period during which some graves in the northern section of the Bergeijk cemetery were reopened.⁴³ This interpretation implies that the emergence of the southern part of the cemetery is not necessarily related to the arrival of new settlers, but results from transformations in the social life of the existing burial community. What the southern part of the cemetery demonstrates is that those who buried their dead there possessed a different relationship with the ancestral order than those who buried their dead in the northern part. Whether the southern part of the burial ground is created by newcomers or the changing existing population is yet a matter of speculation.

The abandonment of the cemetery

The last stage to be discussed in the context of the burial community’s history is the abandonment of the cemetery. Merovingian cemeteries in former northern Gaul are altogether abandoned in the last decennia of the seventh and the first decennia of the eighth century. Researchers have sought an all encompassing explanation for this widespread abandonment. Traditionally, the Christianisation of the countryside was the general process held responsible for the change. Merovingian cemeteries were supposedly abandoned in favour of a Christian cemetery near a newly founded church. This explanation implies that one *communal* cem-

etry was replaced by another for religious reasons. Modern research has shown that the dissolution of the Merovingian cemeteries is a complicated process not solely determined by religious transformation. The weakening role of the *communal* cemetery represents a weakening of the social cohesion and identity of a traditional burial community. The final abandonment of the cemetery was preceded by a burial strategy geared to representing a variety of social identities, not only the burial community.⁴⁴

In the years around 700 AD, social positions were changing; for instance, in the context of the process of manorialization.⁴⁵ New positions had to be defined. During this transition period, dead persons of single families were probably buried in different locations that each represented a different identity: the house or farmyard group, the local group, the estate community, and possibly, the group of Christian believers. Recent research in France suggests that in the subsequent Carolingian period, a large variety of burial places came into being, a variety determined by the ideas of families and local groups, and lords and dependants, rather than the church.⁴⁶ The church, in an effort to institutionalize its grip on the lay population, began to regulate burials and burial grounds only later.⁴⁷ Organizing burial grounds may in fact have been an important instrument in establishing that control on the population, rather than being its result. This went hand in hand with the establishment of a network of parish churches. In the southern Netherlands, this process of institutionalisation does not seem to begin before the middle of the tenth century.⁴⁸

This late date must be considered in relation to a rather curious lacuna in archaeological data from the southern Netherlands and a number of other regions in the Low Countries. There are no Carolingian cemeteries found yet in the region except farmyard burial grounds. Also, tenth- to thirteenth- century churchyards excavated at the sites of Romanesque churches cannot be dated back in time before the middle of the tenth century.⁴⁹ On the one hand, this indicates that the process of ecclesiastical institutionalisation began at that time, but on the other hand, we lack burials of the local Carolingian population between c. 735 and 950. This is especially the case in Bergeijk itself, where a Merovingian cemetery and the church were both excavated.⁵⁰ The church site, however, only came into use in the tenth century. The early medieval centre of Bergeijk or ‘Old Bergeijk’, from before c. 950, must be located elsewhere- probably not far from the Merovingian cemetery. It is likely that the organisation of Carolingian burial grounds was as ephemeral as it was in some places in France, which means that burials of that period can be expected almost

everywhere in the habitation/cultivation area and its outer periphery (see chapter 1).

In Bergeijk, the last burials on the site of the Merovingian cemetery must have taken place in the years after 710. Grave 124 contained a sceatta of the porcupine type that is dated to the period 710-750.⁵¹ Its position at the southern end of a row of graves that we expect to have started further north indicates that it is one of the last graves of that row. The coin will not have been buried immediately after 710, so the last graves of the cemetery may well date from the years 720-730. However, when the last graves were constructed there, burial in the communal cemetery had become the exception rather than the rule. Most of the community’s dead were probably buried elsewhere at that time. Therefore, the graves in this section of the cemetery are not very numerous, even though the community had probably continued to grow in size. Knowing who cleaved to the tradition of burying dead at this cemetery and when they gave this up would be instructive. Knowing where Carolingian dead were buried would be equally informative.

The cemetery in the local context

In chapter 1, it was explained that Bergeijk probably formed the centre of a large early medieval estate, possibly even have been a royal estate. Unknown is how and when this estate came into being and when it came into royal hands or the hand of aristocrats or an abbey. It has been suggested that manorialisation began in the middle and especially the second half of the seventh century.⁵² This does not mean, however, that estates immediately possessed the form of the fully developed Carolingian bipartite estates. Merovingian estates differ significantly from the later Carolingian ones. Estates were formed in areas already inhabited, connoting that they developed by slow aggregation, reclamation and inclusion. We cannot outline the exact extent and organisational structure of such estates without more detailed information. Perhaps the cemetery is related to the centre of the estate, as was suggested in chapter 1. When estates develop from c. 650 on, it is not possible to relate the burials of phases I and II to an estate centre. The burials of phase III could relate to an early estate. Perhaps the arrival of newcomers is related to the creation of such an estate. However, the number of deceased persons seems too small for a cemetery of an estate centre. From the end of the seventh century, other cemeteries or another cemetery must also have been related to such a centre.

(31) For preliminary publications of the groups in Dommelen and Geldrop see: Theuws 1988, 233-238; Theuws 1983; Theuws 1999. (32) The settlement of Geldrop will gradually be published in a series of articles in the journal *Medieval and Modern Matters* (see Theuws 2010). (33) Brown 1996. See for the Netherlands: Eijnatten/Lieburg 2005, 42-78. (34) Verhulst 2002, 33-60; Devroey 2006, 519-583; Theuws 2008; Devroey 2003, 56-77, 2006, 317-351. (35) Werner 1980; 1982. For the Netherlands see: Blok 19793. For the region see: Theuws 1991; Bijsterveld/Noomen/Thissen 1999. (36) Hodges 2000; Devroey 1998; Devroey 2003; Wickham 2005. (37) Van Wersch 2011. (38) Châtelet/Picon/Thierrin-Michel/Waksman 2005. (39) Grierson/Blackburn 1986. (40) Changes seem more visible to the south of the Rhine than to its north, where there is greater continuity in house building. Hamerow 2002; Theuws in prep. (41) Theuws 1999. (42) Theuws 1999. (43) For a new interpretation of grave re-openings, see van Haperen 2010. Further research on this topic might show that several interpretations could be valid. It is too early to determine which possible interpretations best fits the data. Van Haperen will develop this research as a PhD at the University of Leiden. (44) Treffort 1996; Theune-Grosskopf 1997; Theuws 1999; Zadorra-Rio 2003,

2-8; Zadorra-Rio 2005, 18-20. (45) Theuws 2008. (46) For the slow development of clerical and ecclesiastical control of the burial ritual, see Paxton 1990 and Treffort 1996. For burial grounds in northern France, see Durand 1988 and Peytremann 2003, 295-316. (47) Effros 1997; Zadorra-Rio 2005. (48) Theuws in prep. b. (49) In some excavations of Romanesque churches, such as in Bergeijk itself and in Reusel c. 15 km to the west, burials older than the foundation trenches of these churches were found. In the case of Reusel 14C dates indicate that they date from the middle of the tenth century on. They were related to a wooden church. Those of Bergeijk, recorded in an excavation of little interest for the old graves, cannot be dated exactly. In Bergeijk, however, the whole moated site, of which the cemetery and church is a part, does not date before the middle or end of the tenth century (Theuws 1989). (50) The church excavation of Bergeijk (1974) has been reinterpreted by Theuws on the basis of the old excavation documentation in the context of an analysis of the process of church institutionalization in the countryside. The manuscript still awaits publication, because the Merovingian cemeteries were given priority. (51) See chapter 6. (52) Theuws 2008.

12 Aspects of the burial rituals

In this chapter we will briefly discuss some aspects of Bergeijk’s burial rituals, namely: gender associations of grave goods, burial of pots in the cemetery, deposition of vessel assemblages in graves, and the fire in grave 58. Other aspects of the burial ritual, such as the meaning of variation in grave pit size, will be dealt with in one of the forthcoming volumes of the Anastasis project.

Gender-specific objects

It is generally accepted that the variability of objects found in graves is dependant to some extent on the sex and or gender of the deceased.¹ Certain types of objects mainly occur in women’s graves, such as beads, brooches and some types of belts. Other objects, such as weapons and associated belts, are mainly found in graves of men. These objects are considered associated with a particular gender. In addition, some kinds of objects are found in graves of both men and women. Exceptions as well as mismatched combinations occur; thus grave objects cannot conclusively indicate the deceased’ sex. These anomalies are difficult to explain unless we assume objects were later intermingled (for instance, during grave re-openings) or that additional burials were added to an existing grave or alternative gender roles are expressed. In our analyses, we used traditional identifications of gender-specific objects while aware of this method’s flaws. On the basis of these identifications, various maps were created.²

Buried vessels

Contexts 32 and possibly 20 are not graves, but vessels buried in shallow pits. According to the documentation card of context 32, no grave structures were observed around this vessel. The top of the vessel was only 10 cm below the surface. The type of pot is a coarse ware egg shaped pot. These pots belong to the normal household vessels and are associated with cooking. Unfortunately, this pot is difficult to date; these vessels have a wide date range. They might date from the later fifth and first half of the sixth century as well as from the seventh century.³ The depth of the pit in which the pot was buried would have been extremely shallow for an inhumation grave, especially when compared with the depth of the pits of adjacent inhumation graves. It is therefore most likely that this is a pottery deposition outside a grave context. If the pot dates from the fifth and sixth century, it is the cemetery’s earliest find. In that case, it may have played role in an inaugural ritual for the cemetery. If the pot is from the seventh century, its deposition could have been part of a funerary meal taking place at the site. Whatever is the case, finding a vessel in such a shallow pit is exceptional.

Context 20 offers a second example of a pottery vessel not enclosed in a clear grave context. The excavators observed some colour differences in the soil surrounding this biconical pot, but it is unclear whether these represented part of a grave. The pit was probably cut by grave 24. Since this deposit was also found inside the foundation trench, other traces of the possible grave pit

may have been dug away before they could be examined. The pot was found at a greater depth than the previous specimen (the bottom was 40 cm below surface level), and could therefore have been located in a shallow inhumation grave. However, this depth would be very low compared to other graves in that part of the cemetery (see fig. 11.8). It would also be the only grave largely cut by a younger grave. Context 20 may not have been a grave, but a shallow pit in which a pot was deposited, like context 32. If the pit is cut by grave 24 it must have been older than this grave. As in the previous case, no traces of the vessel’s contents were preserved.

Both finds are important indications that apart from burial, various other activities took place at the cemetery. It is rare to find pots in shallow pits; the top layers of a site are usually destroyed by soil working in the Middle Ages and Modern period. In Bergeijk, however, these layers have been preserved. For this reason the site deserves more scholarly attention than it currently receives.⁴

The fire in grave 58

In grave 58, a fire was lit at the bottom of the grave pit before the container was placed in the grave. The remains of burned bone found scattered at the bottom and in the fill of the grave are probably related to this fire. The cremation remains are lost and could not be studied. It is thus not known whether they are human or animal. Because of the lack of additional information, this feature is impossible to interpret.

Vessel combinations in graves

In post-Roman northern Gaul until the beginning of the eighth century, it was a common practice to place wooden, ceramic, bronze or glass vessels in graves. This practice began to gradually disappear from the seventh century onwards. Ceramic vessels are found most often, but numerous wooden vessels must have originally been present in graves. These are usually not preserved due to the soil’s poor conservation conditions but sometimes soil discolorations indicate their presence.⁵ Amongst pottery vessels, biconical pots dominate the spectrum. Most vessels, especially the closed forms, probably contained liquids or solid food. In other cemeteries there is evidence for the deposition of eggs, meat and nuts.⁶ Usually no remains of food or drinks could be

recovered from the vessels, again due to poor conservation conditions.⁷ One argument for the supposition that vessels contained food or liquids is that when conservation conditions were favourable, remains of food and even drinks were found on dishes and bowls, and in pots and bottles.⁸ Another argument is that most vessels were found in an upright position. Some vessels, however, were found broken or lying on their side.⁹ Vessels that were originally upright could have fallen over during decomposition processes in the grave. Others, such as beakers without a foot, could deliberately have been placed on their side. Last, some vessels are supposed to have been placed on a wooden container that decomposed and caused them to fall.

The number of vessels deposited in graves varies. In many graves, only one vessel, usually pottery, was found. However, there are a relatively high number of graves in which vessel ensembles of different or identical materials (wood, pottery, glass and bronze) were deposited. Finally, each cemetery contains a number of graves in which no vessels were found, although other grave goods were. It is thus by no means evident that when grave goods were placed in the grave, vessels with food and drink were part of the set.

If vessels contained food and drinks we can hypothesize that differing shapes, sizes, decoration and material of vessels were related to various practices in the processing of food and drinks, as is the case in many societies.¹⁰ Jugs were probably used for pouring liquids, not a straightforward affair in early medieval dining and drinking situations such as the *convivium* and *bibationes*.¹¹ Drinking from glass vessels was different than drinking from ceramic or wooden vessels. Open forms of vessels, such as dishes and bowls, may have been used to display food; others may be related to storing or cooking food.

Accepting that shape, colour, decoration and material of vessels are associated with various practices in the processing of food and drinks is one matter, but explaining why vessels were deposited in some graves and not in others is another. Vessels with food and drinks could have been deposited to symbolically provide the deceased person with nourishment during his/her journey to the afterlife. The deposition could have had various other functions as well. Food and drinks could have been consumed during the funeral, with the empty vessels thereafter being deposited in the grave, perhaps expressing the relationship between the participants and the deceased. Funeral attendees may have contributed the vessels with their food, the funeral being a pot-luck affair. Ament supposed that parts of the broken beakers in late Merovingian graves were thrown in before the grave was filled,

(1) Halsall 1995, 75-163. See also Effros 2000. (2) See appendix 9.1. (3) See chapter 6. (4) See the remarks on heritage policy for this site in the preface. (5) In exceptional conditions, the wooden vessels have been preserved, as in the cemetery of Oberflacht (Paulsen 1992). (6) Kokabi 1997. It is of course possible that they were empty and only served symbolic purposes. (7) Scientific research, however, could be carried out on substances that sometimes stick to the pottery. Pollen analyses can be carried out on the contents of pots, but this is usually not possible for old excavations where the content of the pots was not collected. (8) See for instance Kokabi 1997; Rösch 2010. (9) In grave 12 of the Wijchen-Centrum cemetery (Netherlands, province of Gelderland) a biconical pot broken in two was found. The two parts were deposited in different places in the container. Inside the largest fragment a complete glass bell beaker was found. The pot fragment could not have contained any food or drinks (Heeren/

Hazenberg 2010, 107, fig. 7.3, 194, 367). In grave 176 of the same cemetery, a biconical pot with a bell beaker inside was lying on its side. The pot seemed to have been placed thus in the grave. It could have fallen over when the container collapsed, but other pots did not (Heeren/Hazenberg 2010, 107, fig. 7.4, 284-285, 439). (10) Some of the thoughts developed below were tested in a research master class (curriculum 2010-2011) tutored by F. Theuws and M. Gnade and attended by Donna Dieperink, Barbara Oosterwijk, Jelmer Scheringa and Jessica van der Does. The latter two students studied several Merovingian cemeteries. (11) On the meaning of drinking see: Zimmermann 2006; Müller/Teggen/Steuer 2007. See also Enright 1996, 97-168; Effros 2002; Hen 2006. On *bibationes*: Kuchenbuch 1978, 193-194. (12) Ament 1976, 289. (13) This is for instance suggested by Dasnoy for the triple connected beakers (Dasnoy 1966).

which may account for their damage.¹² Vessel deposition could also be associated with other contexts in which food and drinks were distributed or processed, such as the *convivium* and *bibationes*.¹³ The *convivium* and *bibationes* were social events in which relations were created and renewed. The vessels used in these events or similar vessels could have been deposited in the grave to accentuate these relations of the deceased person.

To conclude: the burying group had a variety of motives for depositing or declining to deposit vessels in a grave. It will therefore be difficult to ascertain:

1. to what context the deposition of vessels refers;
2. why there is such variation in vessel depositions;
3. why vessels are deposited in particular graves and absent in others.

Archaeological research on the deposition of vessels assemblages in Merovingian graves is rare.¹⁴ Ament paid some attention to the topic in his analyses of the cemeteries from Mayen and the Pellenz.¹⁵ Key words in his analyses are ‘*Volkssitte und Brauchtum*’, and ‘*die Auswahl von Gefäße wird bestimmt von den mitgegebenen Speise und Getränke*’. He concludes that around the middle of the seventh century, food deposition came to an end, but that of drinks continued.¹⁶ Others ventured suggestions as to the use of certain vessels.¹⁷ One reason for the lack of interest in vessel assemblages is that generally only one vessel, a biconical pot, was deposited in a grave. Another explanation is that in the typo-chronology dominating continental European archaeological research, vessels are compared and studied within their respective categories (ceramics, glass, bronze, wood). Studying combinations as complete ensembles of multi-material vessels would truly be informative. The specific materiality of the vessels concerned, however, should not be overlooked. Although analyses of vessel assemblages are rare, there has been a recent rise in analyses of food remains in graves.¹⁸ Analysing food remains is also a fine method of improving our understanding of food and vessel depositions in graves.¹⁹ By combining various means, archaeology should develop an ethnography and anthropology of vessels in Merovingian times.

Archaeological research of early medieval vessel ensembles may be almost absent, and the study of food remains is fairly recent. However, historians already paid considerable attention to the meaning of food, food processing and food consumption in various contexts.²⁰ They have considered various aspects of these practices, including the role of women in the *convivium*, the role of food and drink consumption in the creation of relations, the

meaning of food representation in competitive situations, and the continuity of Roman dining habits.²¹

To develop the analysis of the grave vessel deposition, it is necessary to define the range of activities related to food and drinks.²² We divided these into ‘active activities’ and ‘static or stationary activities’ (fig. 12.1). Active activities in relation to food are: transporting food, preparing food, consuming food and presenting food. As for the last type of actions, we refer to the active presentation of food by one person to another. Stationary activities related to food are storage and passive presentation, such as food on a plate or table. Unfortunately for our research purposes, vessel type could have been consistent for both manners of food presentation. We presume that open vessels were often used for active and static presentation of food. Pots used for cooking (*Wölbwandtöpfe*) can probably be distinguished from those used for storage or presentation (the larger biconical vessels).²³ Specimens of the first type of pot often bear burned residue attached to their exterior, indicating they were in contact with fire. This observation is hardly made for biconical pots, which are considered ‘fine wares’.²⁴ Pots do not seem to have been extensively used for transporting food because most biconical pots are relatively small. Large pots such as the one in Bergeijk grave 30 are very rare. Transport of foodstuffs (such as grain and wine) must have taken place in wooden barrels or other types of containers; these are not deposited in graves. Biconical pots could have been used for food storage at the household level, but it is likely that most food was stored in wooden vessels and perhaps leather or textile bags.

Active activities in relation to liquids and drinks are: transport, preparation, consumption and presentation. Not many of the vessel types from early medieval cemeteries were used for the transport of liquids. Examples of such transporting vessels are the amphorae of the Mediterranean world, which were used until the Carolingian age.²⁵ In the northern early medieval continental world, such amphorae were no longer used. Vessels specifically related to the preparation of liquids such as wine are also not found among early medieval pottery ensembles from graves. However, several vessel types that could have been used in the consumption of liquids have been identified. These include beakers and bowls of glass, wood and pottery. There is great variety in the form and decoration of these beakers. It is probably possible to distinguish between vessels used for drinking or active presentation of drinks and those that could also have been used in more stationary forms of presentation. There are several types of glass beakers that

Fig. 12.1
A scheme which mentions the most important ‘active’ and ‘static’ actions related to food and drink and presents a selection of related vessels.

Action	Vessel (pottery, glass, bronze, wood)
Food active	
transport	pots, barrels
preparation	cooking pots
consumption	bowl, plate, dish (knife)
presentation	bowl, plate, dish
Food static	
storage	pot, amfora, barrel
presentation	bowl, plate, dish
Liquids active	
transport	pot, amfora, barrel
preparation	
consumption	beaker, bowl, cup
presentation	jug, spouted pot, beaker, bowl
Liquids static	
storage	amfora, pot, bottle
presentation	jug, spouted pot, beaker, bowl
	cup, bottle, bucket



(14) See, however, Effros 2002b, 69-91. (15) Ament 1976, 29-35. (16) Van Wersch concludes that vessels related to drinking already dominate the spectrum from about c. 550. This is due to her supposition that biconical pots were mainly used as drinking vessels (Van Wersch 2011, 452). (17) See the discussion in Peters 2011. (18) See various publications mentioned in note 4. (19) In the sandy soils of the southern Netherlands, organic remains of the contents of the pots are lost. Moreover, excavation photographs show that the contents of the pots were removed in the field (see chapter 2). In some cemeteries, the contents of pots have been sampled or preserved, but not yet analysed due to costs and low expectations regarding results. (20) One interesting archaeological analysis of pottery in relation to processing food using historical and iconographical sources is Vroom 2003. (21) Enright 1996, 97-168; Effros 2002b; Hen 2006; Kuchenbuch 1978, 193-194; Dierkens/Plouvier 2008. (22) This scheme has been discussed in the research master class archaeology mentioned in note 6. (23) See also Van Wersch 2011, 439-455. She supposes that biconical pots were mainly used for drinking. This may be true for the smaller specimens, though it is doubted for larger ones. (24) Van Wersch 2011. (25) Gelichi 2008, 92-94.

cannot stand upright on their own. At least when filled, they must be held or supported, either by earth or a holding device, such as exist for the modern glasses of the Belgium beer brand ‘Kwak’.²⁶ Such beakers referring to active drinking can represent the importance of ‘drinking together’. Other beakers, with a foot ring or stem, can represent the same activity. These glasses, however, can be put on a table to rest and display as such the act of drinking. A fine example of this are claw beakers, which must have looked upon with admiration when filled for instance with red wine as is illustrated by the reconstruction drawing of the claw beaker from Mucking cemetery 2, grave 843.²⁷

Actively presenting drinks is also possible by pouring liquids from jugs, spouted pots or bottles, or by handing over beakers, cups or bowls filled with drinks. It is probably important to distinguish between jugs and jars, and spouted pots. With jugs and jars, liquid is poured over the rim, whereas spouted pots make it possible to pour liquid from beneath the rim. This could be important when a substance is floating atop the liquid, such as cream in the case of milk. A spouted pot enables the pouring of degreased milk.

Two static actions related to liquids are storage and presentation. Liquid storage in small quantities is possible in pots, jugs, bottles, etc. Stationary presentation of liquids is possible in bottles (especially glass bottles), beakers with a foot or stem, buckets, etc. Visibility might be an important aspect of the stationary presentation of drinks such as red wine. There may thus be an important difference between presenting drinks in pottery and wooden vessels as opposed to glass vessels.²⁸

By analysing vessel assemblages not only in terms of type, but in relation to the processing of food and drinks, we may benefit from better insight into the meaning of the vessel ensembles deposition in Merovingian graves.

Vessel combinations in the Bergeijk cemetery

We will now present the material from the Bergeijk cemetery. It is our intention to develop this research in the course of the Anastasis project by including vessel assemblages from other cemeteries.

First, we will describe and analyse the graves with more than one vessel. Then we will turn to the graves in which only one vessel was found, for single vessel depositions vary interestingly. It should be noted, however, that the outcome of this study is affected by post-depositional interventions to some extent. In some reopened graves, the pots were broken and some of the fragments were removed from the grave. The remainder of the sherds were found scattered in the container and reopening pit. In most of these cases, the pots were restored after the excavation; the missing parts were substituted with plaster in the colour of the pot.²⁹ However, even in reopened graves, pottery was often left undisturbed since it was deposited at the foot end of the coffin, which was usually not affected by the interventions. Verwers concluded that interventions did not affect the graves’ wealth image.³⁰ This conclusion seems based on a focus on pottery, and is incorrect in relation to other find categories. This is demonstrated by the many graves in which all the inventory, save the pottery at the foot end, was highly fragmented.

The Bergeijk cemetery yielded 41 pottery vessels (table 12.1) distributed over 34 graves³¹, 8 glass vessels distributed over 7 graves, and one wooden bowl in one grave. In a number of graves (30, 53, 62, 78, 113), both pottery and glass vessels are found. In one grave (64), two glass vessels were found, and in one grave (52) only a wooden vessel. Nine graves (53, 30, 19, 42, 62, 64, 77, 78, 113) contain more than one vessel (fig. 12.2).³² The maximum number is five vessels in grave 53. Two graves, 19 and 77, possess an identical combination of one larger and one somewhat smaller biconical pot. It is possible that this reflects the deposition of a ‘standard’ set of foodstuffs. These types of vessels most likely had the stationary function of ‘containing food’.

There are seven graves that contained glass vessels. They differ in shape but have one thing in common: they are drinking beakers. None can stand upright when filled, with the exception of 113.c. These can represent the action of drinking itself. In four cases, this action may be represented as non-individual because two drinking beakers are deposited (graves 30, 53, 64 and 113). Grave 64 contained two identical glass beakers, but in the other graves, a glass beaker was combined with a ceramic specimen. If two beak-

Table 12.1
The presence of vessels in graves of the Bergeijk cemetery arranged by the number of vessels in the grave.

Grave nr.	Pottery							Σ pots	Glass			Wood	Σ vessels	Gender
	Biconical pot normal	Biconical pot small	Spouted pot	Bowl	Cooking pot	Globular pot large	Beaker		Beaker high	Beaker low	Unknown			
53	1				1		1	1					5	F
30		1				1		2	1			1?	3	F?
19	2							2					2	ch>F
42	1				1			2					2	M
62	1							1	1				2	M? both fragmented
64									2				2	M and missing vessel
77	1	1						2					2	F
78			1					2		1			2	M?
113								1		1			2	?
7		1						1					1	F
18		1						1					1	?
20	1							1					1	? probably not a grave
31	1							1					1	?
33	1							1					1	M
34	1							1					1	M?
36		1						1					1	F
39	1							1					1	?
41			1					1					1	M
44	1							1					1	M
47	1							1					1	F
49	1							1					1	M
52												1	1	M
58								1					1	F? missing
65	1							1					1	F same as grave 62?
67	1							1					1	? uncertain association
71	1							1					1	F
72					1			1					1	ch
73	1							1					1	? halve
79											1		1	M fragment
82			1					1					1	M
84	1							1					1	?
85			1					1					1	F
110					1			1					1	F
111	1							1					1	M possibly one missing
112	1							1					1	M
114					1			1					1	M
22/23														ch missing
Σ vessels	21	6	4	3	2	1	1	2	4	3	1	1	91	
Σ graves	20	6	4	3	2	1	1	2	34	3	3	1		

(26) A ‘Kwak bier’ internet search will yield many examples. The modern Dutch name for such glasses is *Koetsiersglas* (<http://nl.wikipedia.org/wiki/Koetsiersglas>). See also http://nl.wikipedia.org/wiki/Pauwel_Kwak. (27) Evison 2009, 553 in Hirst/Clark 2009. (28) An important source of inspiration for the analysis of the relation between the materiality of the vessels, their form and decoration is Miller 1985. (29) This sometimes made it difficult to establish which parts had disappeared. Future restoration of finds of reopened graves should bear witness to the fragmentation of the finds. See chapter 4. For our present analyses it is possible to use fragmented vessels, for they indicate which vessels were placed in the grave. We should, however, not exclude the possibility that pottery fragments or even whole vessels were deposited into the grave during the reopening and refilling of the grave (see chapter 4). (30) Verwers 1987, 188. (31) Context 20 is included in table 1 but excluded from these figures. (32) Grave 62 contained fragmented vessels which are not illustrated in figure 12.2. It is of course possible that more graves contained more vessels that were removed when the graves were reopened.

Fig. 12.2
The vessel assemblages from the Bergeijk cemetery.



ers represent ‘drinking together’ with a relative or friend, one could imagine that in the first case the identical beakers represent drinking among peers and in the other case it represents drinking among people with different social statuses (for instance gender and age), although we cannot tell how variation in status related to different beakers and types of drinks. Not much research has been done on identical sets of vessels. Schulze-Dörrlamm paid some attention to it in the context of her analysis of the finds from Kobern-Gondorf (Germany, Rheinland-Pfalz).³³ She refers to one grave in which two conical glass beakers are present and noticed that this phenomenon is only found in graves of Christlein’s *Qualitätsstufe* C, that is, rich graves.³⁴ Identical beakers occur in rich graves such as the Prittlewell grave (England, Essex), but as evidenced in Bergeijk, they are found in common rural contexts as well.³⁵ Schulze-Dörrlamm presents a map with the distribution of pairs of drinking vessels in graves (pottery as well as glass vessels). Not all pairs consist of identical beakers. She lists 18 graves scattered over Germany.³⁶ To this inventory we can add grave 165 of Soest (Germany, Rheinland-Westfalen), in which two wooden cups with ornamented copper alloy foil fittings were found.³⁷ The Bergeijk example insinuates that this phenomenon is not exclusively related to the elite.

The beaker in grave 30 is part of an ensemble that includes an exceptionally large pot and a small pot, which could have been a beaker. It is difficult to relate the large pot to the beaker in terms of actions related to drinking, unless it was a container from which drinks were served. In this sense it may be of significance that the beaker was found immediately next to the large pot while the small pot or beaker was a bit further away. If there is any relationship between the large pot and the beakers, it could represent the action of drinking together, while the combination of a large pot and only one beaker could represent drinking one after the other.

The large ensemble of vessels in grave 53 includes a ceramic and a glass beaker. The small globular pot bears a black substance on the outer surface, probably a result of contact with fire. The pot may have been used as for cooking. The pottery beaker has a foot and can stand upright while filled. Such beakers may have had different associations than the glass beakers as they did not need to be held and were suitable for the stationary presentation of liquids.³⁸

Biconical pots could also have been used in drinking activities, for in several cemeteries, glass beakers are found in them or associated with them.³⁹ The beaker could have been submerged in the liquid inside the pot, filling the beaker. However, often the mouth of the biconical beaker is too narrow to insert a glass beaker. If

the glass beaker and biconical pot are related, then it is more likely that drinks were poured from the pot into the beaker, perhaps with the use of a wooden ladle. In grave 53, the glass palm cup was placed on top of the biconical pot, a clear indication of the relation between the palm cup and the biconical pot. The pottery bottle in the ensemble of grave 53 is another element associated with the activity of ‘pouring out liquids’. In grave 78, the glass palm cup was placed on top of the spouted pot, showing the related activities of pouring out liquids and the act of drinking.

Pouring out liquids is not a neutral and value free activity, as Enright has shown in his study on the role of women pouring drinks during the *convivium*.⁴⁰ It is interesting to study the relation between vessels and vessel assemblages and the sex and/or gender and age of the persons in whose graves they are deposited. Unfortunately, the Bergeijk cemetery lacks osteological information on the sex and age of the deceased in whose graves the ensembles were found. Grave 19 contained numerous beads and a bracelet. A young girl is probably interred in this grave. In grave 30, one bead was found, but this may not be sufficient to determine that it was a woman who was interred in this grave. In grave 53, sufficient beads were found to suggest that it was the grave of a woman. In grave 64, a shield boss was found, suggesting the presence of a man. Only one amber bead was present in grave 77, evidence not strong enough to presume the grave was a woman’s, although the small copper alloy rectangular plates found augment this idea. The gender of the persons in graves 78 and 113 could not be determined. On the basis of this scanty evidence it is not yet possible to identify any gender aspects of the multi vessel depositions.

Single vessel depositions in graves and graves without vessels

There are 27 graves in which only one vessel was found.⁴¹ Except for the wooden bowl in grave 52, they are all ceramic vessels. ‘Normal’ biconical pots dominate the spectrum with 15 specimens, followed by small biconical pots (4 specimen), spouted pots (3 specimen), and bowls and cooking pots (one specimen each). Contrary to our expectation, three of four spouted pots are single vessel depositions, although these graves may originally have contained wooden vessels or pottery vessels or beakers to drink from, removed during reopenings.

Equally worthy of note as the deposition of pots is the absence of pots in graves. In the southern part of the cemetery, this is due

(33) Schulze-Dörrlamm 1990, 358-359. (34) Christlein 1973. (35) <http://www.molas.org.uk/pages/siteReports.asp?siteid=pro3§ion=preface>, consulted at June 29 2011. (36) Schulze-Dörrlamm 1990, 397-398. The combinations are: 2 glass bowls, 3 glass bowls, 2 conical beakers, 1 claw beaker and a conical beaker, 2 palm cups, 2 hand made pottery beakers, 2 conical beakers, 2 bell beakers, 2 palm cups, 2 palm cups, 2 glass bowls, 2 shoe shaped beakers, 2 conical beakers, 1 double pottery beaker, 2 glass beakers, 2 palm cups, 2 palm cups, 2 stemmed beakers. Thus pairs of conical beakers, palm cups and bowls dominate the spectrum. (37) Peters 2011, 132-136, 476-480, Tafel 31. (38) As said, the glass beakers may have been supported by wooden frames. (39) See for instance note 5. Many examples are found in the cemetery of Krefeld-Gellep (Pirling 1974, 1979). (40) Enright 1996, 97-168. (41) Not counting context 20. We should constantly keep in mind that the graves could nevertheless have contained wooden vessels.

Fig. 12.3
The distribution of vessel assemblages and single
vessel depositions over the cemetery.

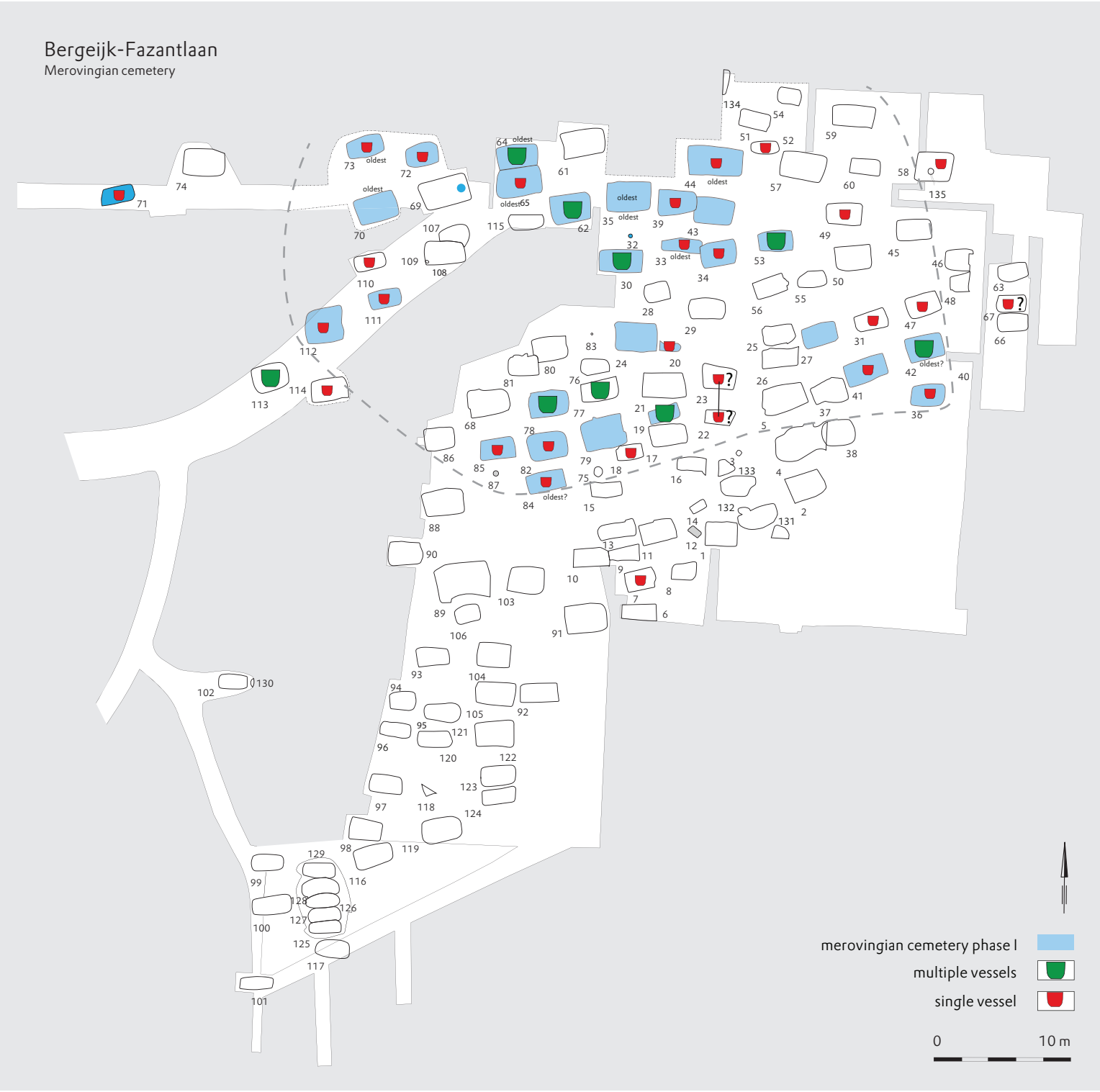
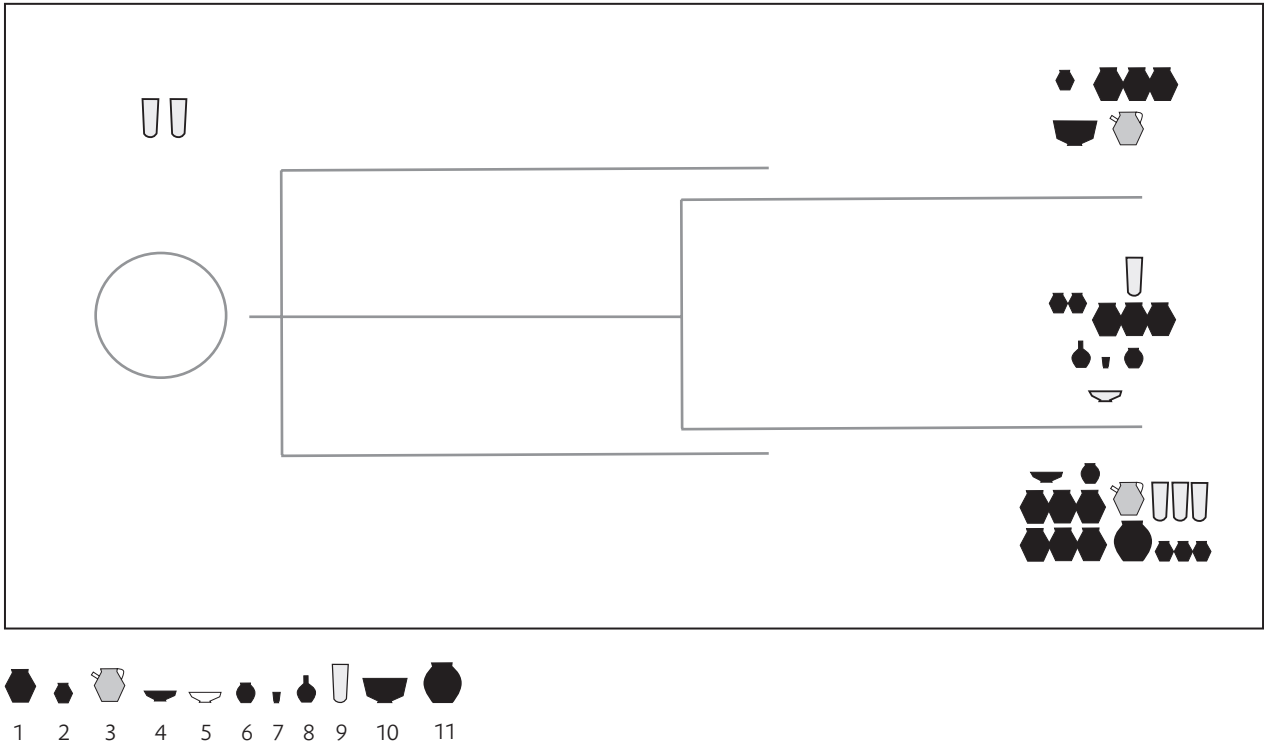


Fig. 12.4
A schematic representation of the position of vessels in
the container. 1. 'normal' biconical pot; 2. small biconical
pot; 3. spouted pot; 4. bowl ceramic; 5. bowl wood;
6. small globular pot or cooking pot; 7. beaker ceramic;
8. bottle ceramic; 9. beaker glass (all types);
10. large bowl ceramic; 11. large globular pot.



to the general decline of the grave good custom. However, there are also many graves without vessels in the area with graves from phases I and II (fig. 12.3). Some of the pots in these graves could have been taken during reopening. The decision to place no vessels in the grave must have been conscious. However, the relatively low quality of the Bergeijk cemetery evidence does not allow us to recognise patterns in the characteristics of these graves.

The position of vessels in the grave

In Bergeijk vessels are, as a rule, placed in the foot end of the container. Most vessels are placed to the right of the right foot; a somewhat smaller portion of vessels, between the feet; and a minority, to the left of the left foot (fig. 12.4). Both glass vessels in grave 64 were placed to the left of the head. The deposition of these two identical glass beakers is thus exceptional in every respect.

two subtypes: those cut on their width and those cut on their length. Although these subtypes have an almost mutually exclusive distribution across the cemetery, they share the characteristic of restriction to the peripheral sections of the grave, leaving the container intact. The construction of the cutting grave usually seems to have occurred within the same chronological period as that of the cut grave. This practice could therefore be interpreted as a non-intrusive means of physically creating or confirming a social bond between two or more ancestors which, by association, may also have concerned their respective living relations. Distributing sherds of the same pot over multiple graves (as in graves 22 and 23) may have been another method for creating such connections.

The actual grave reopenings all focussed on the central part of the grave and involved the fragmentation and/or removal of a selection of the deceased's grave goods. However, these do not form a homogeneous category either. In most graves, the interventions were limited to the interior of the wooden container, but in grave 35, diggers seem to have removed the entire container, leaving nothing but a lance head that had been buried in the grave pit. The participants may have intended to transfer the entire burial to a new location. Such a procedure is known from later written sources, where it is employed when a person dies far from the desired place of burial and the mourners do not want to transport the putrefying corpse.⁷ This was probably a different sort of practice from the other reopenings observed in the cemetery, where the container was left in the grave and only part of the grave goods and possibly some bones were taken, while the remainder was left behind.

The reopening pits whose scopes were limited to the containers' interior varied in size and seem to have focussed on different areas on and around the remains of the deceased. Most pits covered the entire interior of the container, or at least the area of the corpse's presumed location. However, in a small number of graves with female gendered grave goods, the pits focussed on the head and thorax section of the grave, and in one case, only the area around the legs had been opened. It is unclear whether these variations in the location and size of reopening pits represent different 'methods' for reopening the grave, or whether diggers merely expanded the pit according to inclination or need. Given the small size of the dataset and the difficulties in ascertaining whether a particular part of the grave and the corpse had been accessed, no definite conclusions can be drawn from these observations. It is nevertheless likely that those involved in grave reopenings made conscious choices concerning the size and location of their pits.

We have seen noted that the grave reopenings in Bergeijk, as those from other cemeteries, are difficult to date. They seem to have occurred while the location and layout of the graves were still remembered or recognisable above-ground, but how much time

actually passed before a grave was reopened is unclear. Nearly all reopened graves were found in the central and northern part of the cemetery, which probably dates largely to the early and middle seventh-century. Since a small number of these graves were reopened while the space inside the wooden container was still open, at least some of the reopenings took place in the seventh century. However, given that a number of the late seventh and early eighth-century graves had also been reopened, it is likely that part of the interventions in the northern and central part of the cemetery were also carried out by the eight-century generation whose graves occupied the cemetery's southern section. We can therefore envisage at least two ways in which reopenings could have been perceived, depending on how much time passed between the burial and the intervention.

If a reopening took place in the same period as the burial, some of the participants could probably still remember the deceased as he or she had been during life, and may even have attended his or her funeral. For them, the reopening would bring back strong memories of the dead person. Such reopenings may have been experienced as a continuation of relations initiated with the deceased during life and/or at during the funeral proceedings. They could have served to strengthen bonds within the community and, if people from elsewhere were also invited to attend, bonds with other communities and geographically distant relatives.

Grave reopenings where the participants had not known the deceased and had not been present at the funeral could not evoke this undertone of recognition and continuation. Such circumstances could have arisen had the interventions been carried out by non-local participants, or if eighth-century denizens opened early seventh-century graves. In such situations, the participants had no clear previous relation with the deceased (unless they were their descendants), but since the grave was recognizable as a resting place of human remains, the reopening could still have been perceived as a moment of interaction with the departed. Grave reopenings of this kind could therefore have been used to create new relationships between the living and the dead. Communities and individual persons could have employed this propensity of grave reopenings and other post-depositional interventions to emphasize and manipulate their perceived ties to local ancestors. This may have been a means of reinforcing the community's social standing or substantiating claims on land.

(7) See for instance Weiss-Krejci (2005).

14 A world of connections and peasant agency

Distribution maps are an important tool for analytical studies of early medieval cemeteries and burial archaeology; this book contains a considerable number. The simplest type of distribution map marks the distribution of a certain type of object over a specific area. Analysing these maps is not straightforward; interpretation of distribution patterns largely depends on the interpreter’s suppositions.

Geibig, for instance, created distribution maps of very narrowly defined sword types.¹ His supposition was that identical swords were produced in a single workshop and that consequently, the distribution map showed the ‘market area’ of that workshop. He assumed that workshops producing a particular type of sword were located where that type was most densely distributed.

Others use distribution maps to reconstruct movements of ethnic groups and persons, identified on the basis of identical objects.² They assume that specific types of objects represent specific ethnic identities and that object distribution is due to migration. The presence of certain artefacts in graves should thus pinpoint corresponding ethnic identities. A variation on this method utilises the distribution of specific weapon combinations in graves to illustrate the Frankish ‘conquest’ or establishment of power in sixth century northern Gaul.³

Yet others use the maps to illustrate exchange routes and even the presence of trade as a dominant form of exchange. All these and other suppositions and interpretations contain their advantages and flaws.⁴ One of the major flaws is that distribution maps almost

never include an indication of the context in which the object was found. The context could have been a grave, element of a settlement, deposition in the landscape, stray find, or river find. Also, such maps direct attention towards the areas where the objects are found. Empty areas are neglected, though explaining an object’s absence is as important as interpreting its presence. Focussing on empty areas might spur alternative interpretations of the distribution pattern.⁵ Périn interprets the absence of ‘Frankish’ swords in the oldest Frankish kingdoms to be a result of the emigration of aristocrats to foreign territories.⁶ Many distribution maps depend on the presence of cemeteries with grave goods and thus on a specific burial ritual. If there are hardly any cemeteries in a region, the distribution maps of the Merovingian period will show empty areas. A good distribution map should show the probability of objects of that type being found in a particular region.⁷ Referencing Geibig once more, we note that he took little account of the different types of depositions in his analyses. In north Germany, early swords are found in rivers, while in the south they occur almost exclusively in graves.⁸ An analysis of their distribution patterns should certainly consider deposition type.⁹ This criticism does not mean that distribution maps should be discarded as an instrument of archaeological analyses, but that our techniques and interpretations should be evaluated and altered where necessary.

We will first discuss the necessary changes in techniques. It is currently customary to present the distribution of certain types of objects against a simple blind map showing only rivers and middle

and high mountain ranges. In the future, the background of distribution maps should at least include all locations of relevant sites, such as cemeteries, that date to the period of the mapped object. Finds from different context types should be indicated with distinct symbols. In addition, the background of the map should indicate variation in the intensity of archaeological research, to allow an estimation of whether absence of evidence should be considered evidence of absence. However, the data necessary for creating such backgrounds is usually not available. It is surprising to see how few usable excavation inventories were created for different parts of north-western Europe.¹⁰ Moreover, these are not compiled in a single database. This means that intensive research effort is needed just to improve the analytical value and reliability of distribution maps. The Anastasis project aims to create this overview for the Netherlands, and we hope to eventually to include Belgium as well. This database must be connected to a GIS environment with international coordinate systems.

Aside for technique change, we must question what interpretations can be made on the basis of distribution patterns without relying too heavily on unwarranted or ill-defined assumptions. Our response is to go back to basics. The distribution maps of objects dating to the Merovingian period usually show objects found in graves. Each dot indicates that at some point in time and for some reason, someone was buried with that type of object. It is often neglected, however, that prior to deposition, objects had a ‘life’ of their own in terms of production, distribution and use.¹¹ Some objects were produced locally, some in the wider region, and others in distant lands. Objects do not self-transport. They must have changed several hands between their creation and deposition. Thus, the ‘life trajectory’ of an object contains both a temporal and a spatial component. These dimensions were interconnected. They probably influenced the perceived value and meaning of an object and consequently the choice to deposit it in a grave. The creation and circulation of an object can thus relate not only to a disenchanted economic sphere where value is created on the basis of the production process and because of the differences between supply and demand, but also because the object is related to the persons possessing the object in its life time and their statuses.¹² Consequently, the movement of an object through space and time is also a movement in social-political-ideological space.¹³

A sound interpretation of distribution maps requires knowledge of several aspects of the object’s life trajectories. We must know where and when an object was produced, how it was moved in space and what elements factored into the choice to depos-

it it in a grave. At this point we run into trouble interpreting Merovingian distribution maps. For a few types of objects, their exact place of production has been identified. In those cases, some idea of the spatial component of its life trajectory can be formed, although the object need not have travelled in a straight line between the point of production and the point of deposition. For other types of objects (such as dated coins), somewhat more of their temporal trajectories is known. However, we do not know where and when most objects were produced. A plethora of explanations as to how they moved in space have been suggested: trade, gifts, plunder, marriage gifts, etc. Very little is known about the factors determining deposition pattern (such as gender and age). The strength of our interpretations is influenced significantly by the fact that objects need not have been deposited with equal density in the entire area where they circulated. For instance, deposition may be limited to certain regions, such as the periphery of power networks.

Should archaeologists cease using distribution maps until they are more complete? Probably not, but we must begin asking new and better questions. The distribution of deposited objects is not merely a reflection of their combined spatial and temporal life trajectories. They are also the result of a mental process, namely that this type of object was considered socially acceptable material culture. The time between a new type of material culture’s introduction and wide acceptance can be astonishingly short. A prime example can be found in the iron belt sets distributed over large areas of western Europe at the end of the sixth century, especially belts with fittings of the so-called Bülach type.¹⁴ The latter seem to have spread over north-western Europe within a period of 10 years. This process has two aspects: the physical movement of the belt fittings through time and space, and their mental acceptance as a ‘proper’ way of dressing. We must ask how such rapid acceptance of a new type of object was possible in a pre-modern society where there was no ‘marketing’. This is a good example of novel questions and avenues for research prompted by distribution maps.

Another worthwhile avenue of research would identify the various individuals involved in the ‘life trajectories’ of objects and their role in the trajectory. Several authors have proposed models for various modes of object exchange. Steuer, for instance, assumes that the movement of objects in early medieval society was a trickle down process.¹⁵ Objects moved down the social scale.¹⁶ Peasants and dependent people received their objects from lords who in turn obtained them from (supra-regional) traders. This model tallies to some extent with what was recently proposed by

An older one is, of course, Böhner 1958. Closer to our research area is the inventory of the Belgian province of Limburg: Heymans 1978. They seem to be lacking in France and are absent in the Netherlands. One study coming closest to this ideal is Knol 1993 for the northern dwelling mound area. (11) This aspect was to some extent neglected by recent archaeology primarily geared to analysing deposition ritual. However, recently Kars (2011) solicited a renewed interest in this aspect of the material culture found in cemeteries. (12) There is extensive literature on this subject. A source of inspiration was Godelier 1999. (13) Helms 1988; Kopytoff 1988; Bloch/Parry 1988; Godelier 1999 [1996]. Especially for the Early Middle Ages: Bazelmans 1999. (14) Werner 1953. (15) Steuer 1997. (16) This model seems to be inspired by the ‘prestige goods economy’ model. See for instance Friedman/Rowlands 1977.

(1) Geibig 1991. (2) On this debate, see Brather 2004; Theuvs 2009. (3) See for instance, Périn (1997, 77), who departs from the (unproven) identification of swords of type ‘Krefeld-Gellep’ and those decorated with garnets, such as ‘Frankish’ swords. Alternative explanations are possible; see for instance Theuvs/Alkemade 2000. (4) Dierkens/Périn 2005. (5) See note 5, and Theuvs/Alkemade 2000 and Theuvs 2009, for instance. (6) Signifying that no aristocrats were left in these kingdoms. (7) For instance by indicating areas where no cemeteries are found. (8) Only on one map is grave and river deposition differentiated (Geibig 1991, Abb. 42). (9) He ignores the practices behind river depositions by excluding the supposed heathen practise of votive deposition in a Carolingian Christian world. Swords found in rivers are thus interpreted as accidental losses and thus must represent a random distribution pattern of losses. Why then are there hardly any river finds in the south? (10) Such recent inventories, including sufficient data per cemetery to soundly assess them, exist in some parts of Germany. For instance: Siegmund 1998; Plum 2003; Nieveler 2003; Nieveler 2006.

Fig. 14.1
The distribution of iron and copper alloy 'Ophoven' type belts. 1. peat area, 2. river clay area, 3. löss area, 4. tidal flat, 5. marsh, 6. coastal barriers, 7. iron belt sets, 8. copper alloy belt sets.

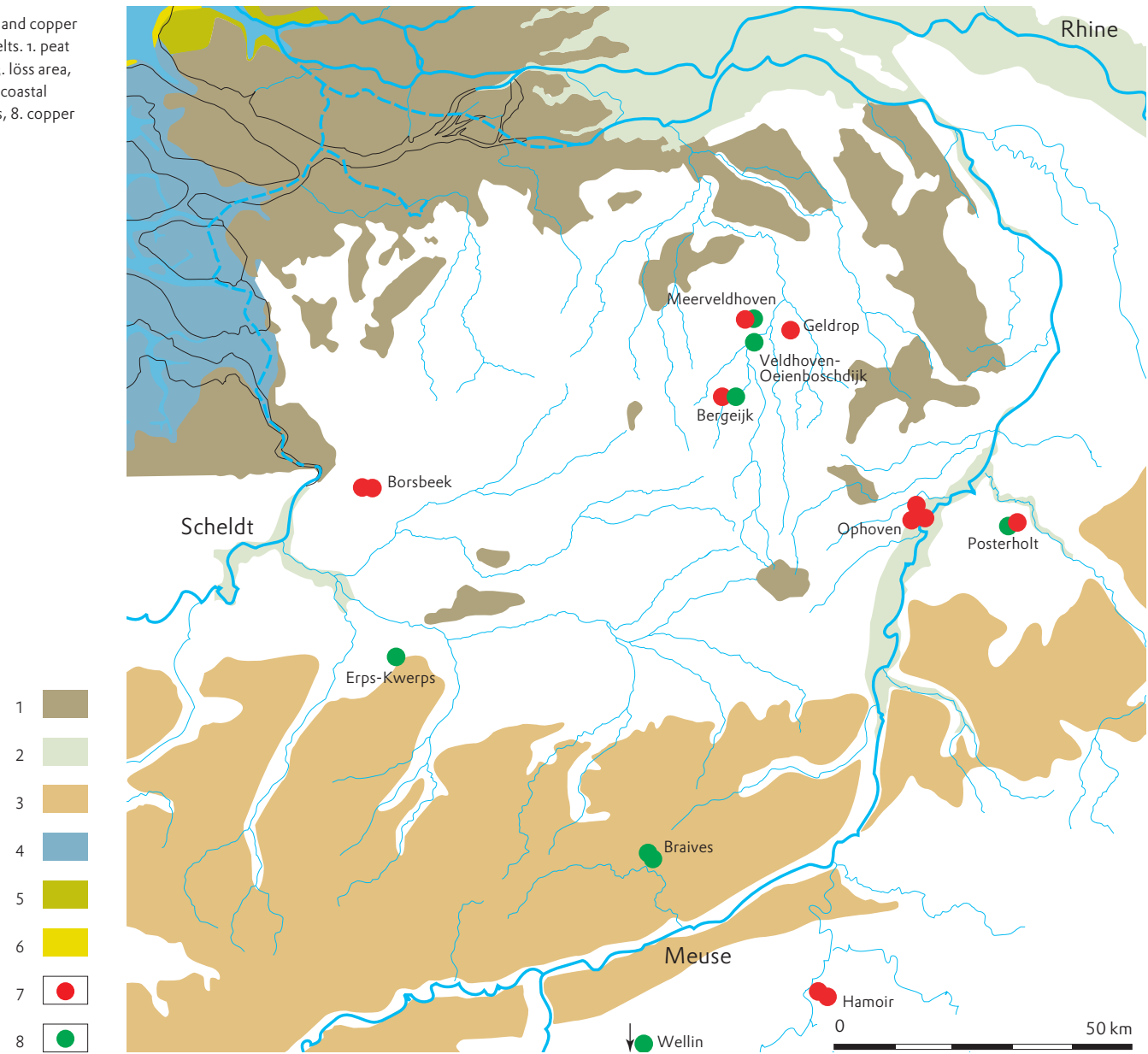
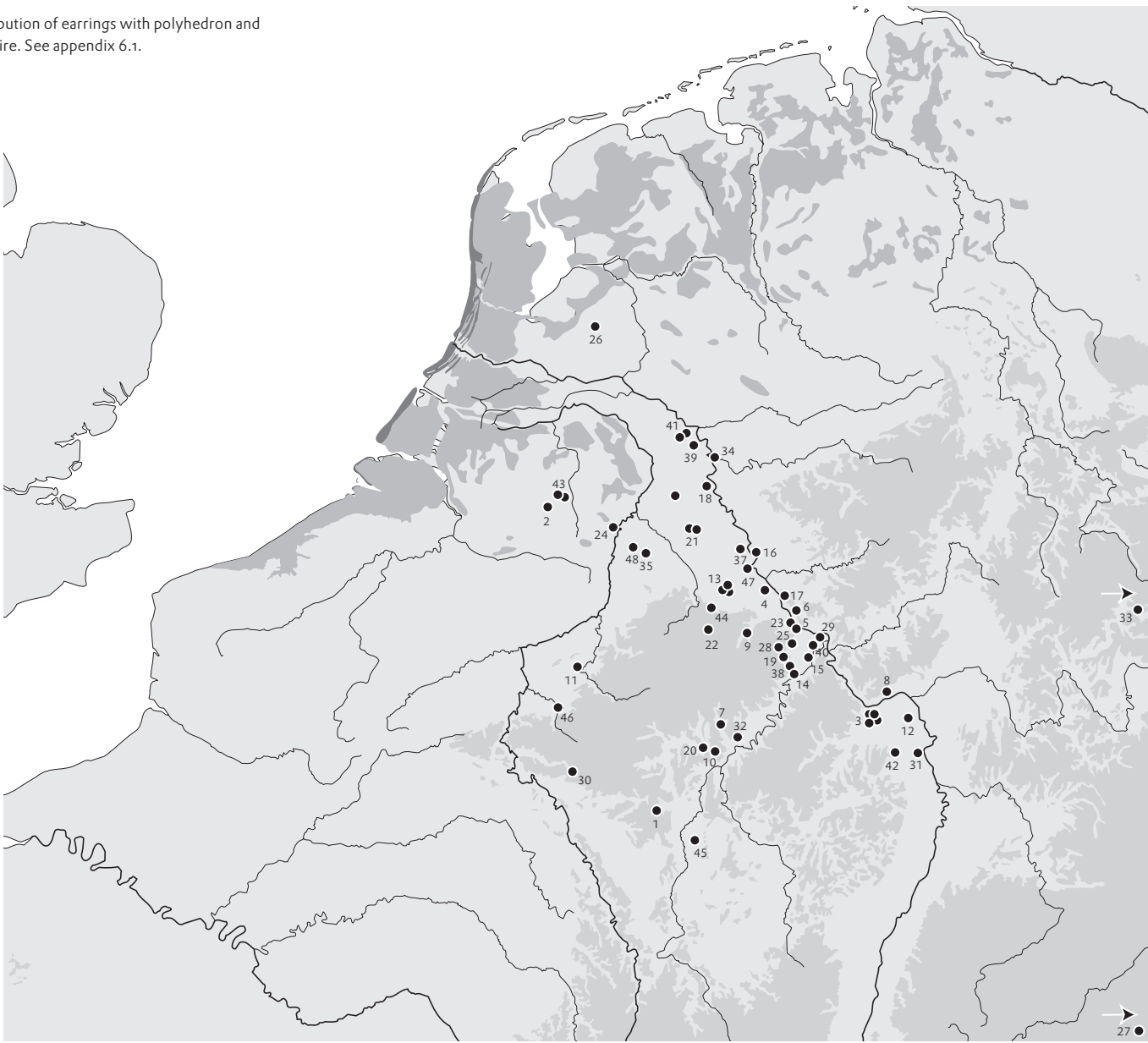


Fig. 14.2
The distribution of earrings with polyhedron and twisted wire. See appendix 6.1.



these objects are not found.¹⁹ It is difficult to determine whether these objects circulated through trade, gift-exchange, or along with people migrating for marriage-alliances, relations of dependency, or the creation of new estates. Theft and plunder cannot be excluded, but probably did not play an important role, given the common nature and wide availability of the objects in question. The distribution patterns presented are those of the 'Ophoven type' belt, large ear rings, disk fibulae, glass beakers, and small pottery beakers. We assume that these types of objects were not produced locally or even regionally, although some could have been made in the Meuse valley.

Although few maps are available, a number of interesting observations can be made. In my view, four different exchange net-

works of people, objects, and ideas can be detected in these maps. First, there is a network of exchange connecting regions along the Middle and Lower Meuse, illustrated by the distribution of 'Ophoven type' belts (fig. 14.1). This type of belt was most likely made somewhere along the Meuse and was buried in the graves of women, perhaps young women. None of the other illustrated distribution patterns show this network, but we can suppose that most of the pottery and wooden vessels in the Bergeijk cemetery circulated in a network of this size or even smaller.

Second, there is the network of the Rhine and lower Moselle valleys, illustrated by the distribution of large ear rings (fig. 14.2). The Bergeijk specimen, together with Dommelen's, are the westernmost examples (nrs 2 and 43). This could indicate that the

(17) Wickham 2005. (18) Theuvs in prep e. (19) This supposition is based on the nature of the objects. They are quite common objects (with the exception of grave 30's glass beaker). As stated above, it is possible that exceptional and quite unique objects, such as the early swords, were deposited in areas smaller than their circulation areas.

Wickham, who considers elite demand the motor of the early medieval economy.¹⁷ In view of the substantial number of non-local objects found in rural graves, this point of view is difficult to maintain for the Merovingian period. The cemetery evidence suggests that on the contrary, rural populations seem to have created an enormous demand for goods. Peasants were not the passive receivers of objects but likely actively involved in their procurement. Cemetery distribution maps invite us to reconsider a topic of great importance for early medieval Europe: peasant agency, and economic agency in particular. Distribution maps reveal an important element of peasant life: rural populations had access to supra-regional and even international exchange networks. We can now question how this access was accomplished and who were involved. This probably varied location to location and period to period. We should also inquire to what extent systems of exchange were fixed or closed, even institutionalised, or whether they were more open and fluid. Perhaps the Merovingian economy shared

some characteristics with what is called the eclectic economy in the Amazon basin.¹⁸ These questions cannot be answered on the basis of the Bergeijk cemetery alone, but introducing the world of connections around such a cemetery is very relevant.

The burial community of the Bergeijk cemetery and its networks

In chapter six, several simple distribution maps of specific types of objects were given. It is worthwhile to reproduce them here with commentary. In view of what has been said above, I consider the distribution patterns presented first and foremost as an indication of where these types of objects were deposited. However, for most of these object types, the area of circulation can be supposed to have been more or less identical to the area of deposition because in many contemporary cemeteries outside the distribution area

Fig. 14.3
The distribution of disk fibulae with a bird motif.
Red: 'natural' birds, green: stylized birds.

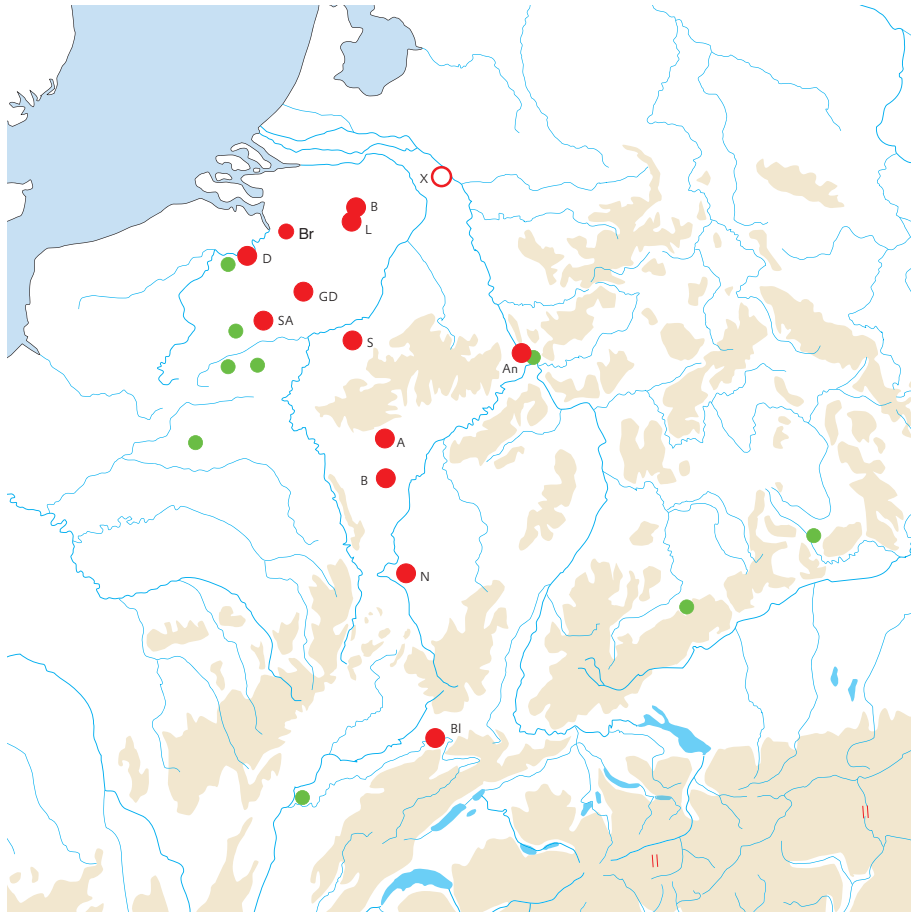
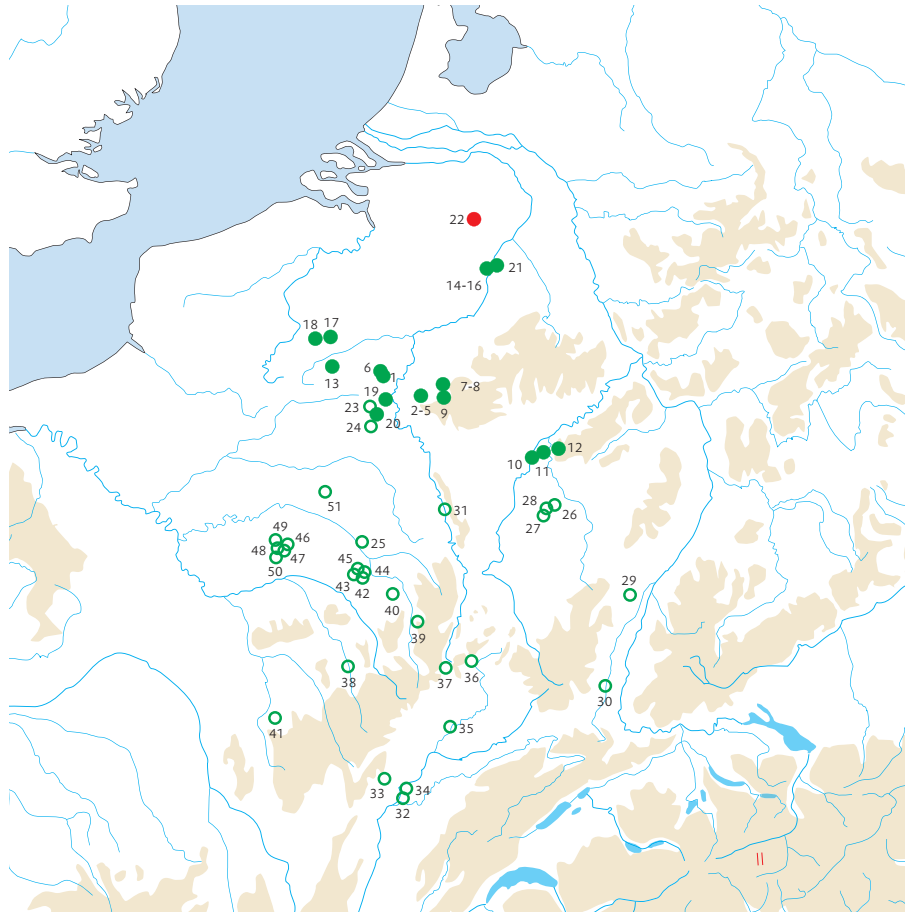


Fig. 14.4
The distribution of small ceramic beakers with
ribbed walls. Red: Bergeijk, closed green dots:
beakers in Belgium and Germany comparable to the
one in Bergeijk, open green dots: *gobelets à ressauts*
in France according to Mathiaut-Legros 2006.



Rhine-Moselle network reached just as far as the Kempen region, or the pagus Texandrië, as the region was called in early medieval times. Along the Rhine, it may have reached a bit further north. It is too early to comment further on this network, but it is probably no coincidence that just one or two decades later, aristocrats owning landed property in the pagus Texandrie donated it to the abbey of Echternach.²⁰ This abbey was part of the sphere of influence of Plectrud, Pippin II's wife, and Adela of Pfalz, whose geographical spheres of influence are very similar to the area in which the earrings are found.²¹ The distribution pattern of earrings, and, as we will see when studying the graves finds of Dommelen and Geldrop, of other objects as well, may thus reflect a Rhine/Moselle based network in which objects and people circulated.²² Objects characteristic for the network are all found in women's graves. This distribution pattern could have resulted from trade, but could also have come about through the movement of women travelling for marriage or through the (perhaps forced) migration of dependent people by the aristocrats in the network.²³ Most likely, a combination of all these factors is involved.

The third are the networks of the Middle and Upper Meuse and Upper Moselle valley and north-western France. These net-

works are well illustrated by the distribution of disk fibulae bearing a bird motif (fig. 14.3). These fibulae are almost all found west of the distribution area of large earrings.²⁴ They also seem to indicate that a north-south route along the Meuse and upper Moselle valleys is part of this network. This may be evidence for the supposed long distance trade network from Marseille to the north along the Rhone, Saône, Moselle and Meuse valleys. These fibulae, too, are normally found in women's graves. The same network is also reflected by the distribution of small pottery beakers (fig. 14.4). This distribution pattern extends from Bergeijk, the northernmost example, to Dijon, France, in the south. Other examples of such beakers are found in north-western France. Very few are found along the Rhine.

The fourth network is illustrated by the distribution of glass bag beakers. It combines the region discussed above (the third network) with a network that extended to the east to England, more specifically, Kent.²⁵ Vessels of this type are found in England, the Baltic, and on the continent (fig. 14.5). This distribution could have been determined by trade networks using such ports as Domburg.²⁶ However, globular beakers with identical decoration patterns have a different distribution pattern resembling that

of disk fibulae and small pottery beakers. The fact that a globular beaker was also found in the Putten cemetery indicates that this network stretched further north than exhibited by the distribution of disk fibulae and pottery beakers. Perhaps the middle Meuse valley connects these north-south and east-west networks. The glass vessels are not associated with a specific gender.

Interpreting the networks

After having described a number of distribution patterns indicating the presence of various networks, it is time to interpret them. When looking at a large scale map, the lack of disk fibulae with a bird motif in the Rhine valley (fig. 14.3) is probably true evidence of absence, since there are numerous excavated cemeteries in the region. On a smaller scale of for instance map figure 14.1, the absence/presence of cemeteries determines the distribution pattern of belt sets significantly, since large areas of the map are entirely empty of cemeteries. This should have been indicated on the map, but the insufficient collection of data does not yet allow for this. The patterns observed on the large scale indicate that two major

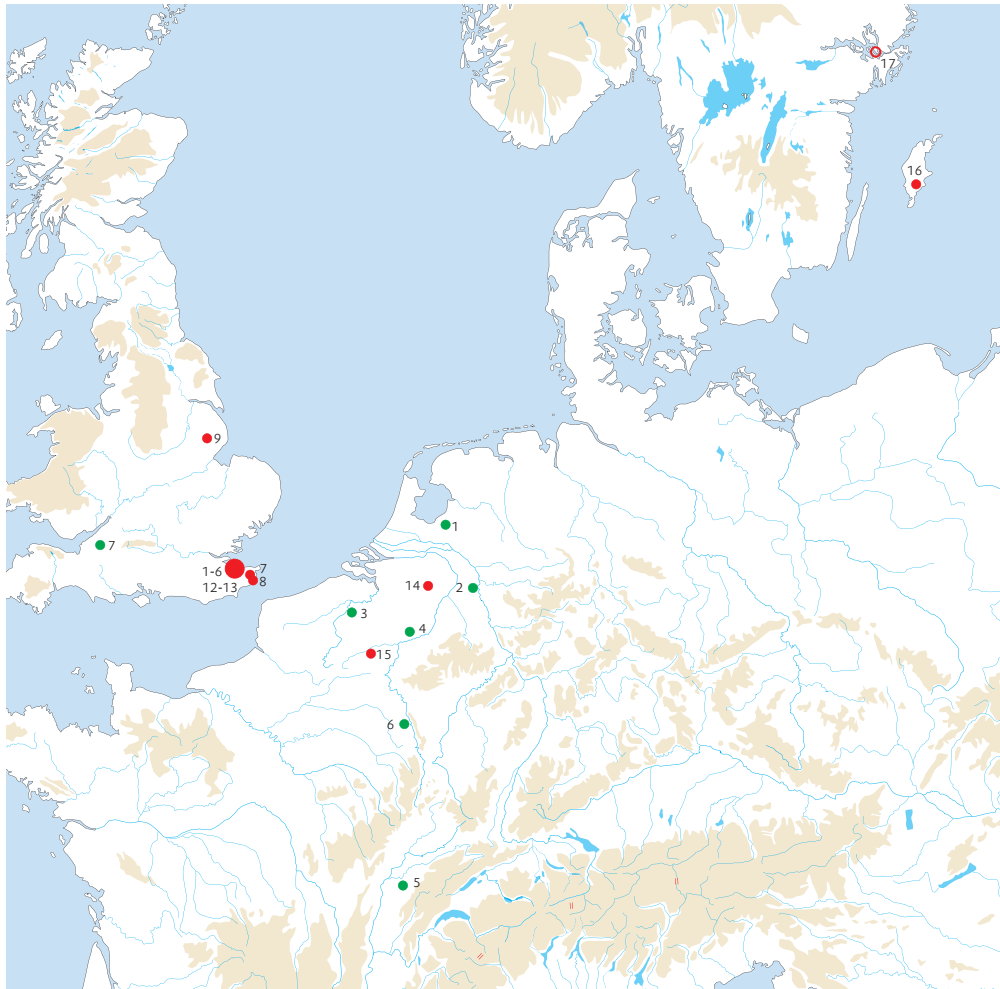
networks existed, that of the Meuse/Upper Moselle valley and that of the Rhine/Lower Moselle valley. New maps with distribution patterns of other types of objects will probably show many objects circulating only within one of these networks. It does not seem constructive to interpret such networks as '*Kulturmodelle West und Ost*' with an ethnic background.²⁷ Within these areas the variability in material culture, burial rites and settlement patterns is so great that homogeneity is not a valid suggestion. Stressing the dynamics of connections, movement and mobility resulting in these distribution patterns would be more apt.

By now we can identify several networks with differing spatial scopes. Some have a rather restricted circulation area, while others, such as that of the Rhine and Lower Moselle valleys, are larger. However, certain types of objects circulate in all of these networks. These objects are exotics, such as amethyst beads, amber beads, cowry shells, crystal balls, garnets, etc.²⁸ The distribution of these objects most likely resulted from a combination of long distance trade and circulation in the exchange networks discussed here. The Bülach type belt sets also circulated between multiple networks. Understanding their exchange between networks requires knowing whether the objects were all produced in one

(20) Theuvs 1991. (21) See the map in Werner 1980, 161. Adela is often supposed to be a sister of Plectrud, but Werner concludes that the evidence is not strong enough to consider this an established fact. (22) See also the distribution map of Mayen pottery (Brather/Wotzka 2006, 209 based on the work by Redknap 1999) and certain types of glass beakers (Brather/Wotzka 2006, 209 based on the work by Maul 2002). (23) The latter solution does not connote that women buried with these earrings necessarily

obtained them from these aristocrats. (24) Brather (2008, 245, Abb. 1) also used this type of fibula to oppose eastern and western distribution areas of fibulae. (25) See also Hugget 1988. (26) Domburg: Jankuhn 1958; Verhulst 1999, 41-42, 46-47, 51. See also various contributions in Van Heeringen/Henderikx/Mars 1995. (27) Siegmund 2000, whose model received serious critique by Brather/Wotzka 2006.

Fig. 14.5
The distribution of bag beakers (red) and globular
beakers with comparable decoration (green).
See appendices 6.2 and 6.3 respectively.



location or in several places. For each of these options we must create a model of exchange explaining the distribution pattern. We also must explain how the concept of the ‘Bülach type belt’ was distributed and how it became widely accepted. As indicated before, besides objects and people, it is likely that ideas also circulated these networks. Unfortunately, the mechanisms behind these exchanges remain largely unknown.

What is surprising is that *all* the categories of objects discussed above are encountered in rural cemeteries, even in relatively small ones such as Bergeijk. This means that the objects exchanged between networks were not restricted to an upper class of aristocrats, but were available to a large part of the population. Moreover, the maps provide the minimal variant of the distribution and circulation.

A model of exchange in which long distance trade connected the various networks described above could be produced. In this model, however, various agents are responsible for the exchange and distribution of objects. This includes not only traders and

aristocrats, but also peasants.²⁹ Moreover, locally and regionally produced objects were introduced in these networks and were ‘exported’ through long distance trade.³⁰ In addition to trade, a host of other exchange mechanisms were probably involved in the distribution of the objects. In contrast to past models, I suggest that the contacts between various networks were not restricted to controlled entry points such as elite dominated ports of trade or gateway communities, but that a more eclectic system of exchange existed.³¹ In this eclectic system it was possible for members of *all* social strata to participate as active agents and not merely as passive receivers of goods. In this line of thought, emporia like Dorestat may in later times have originated as ideologically ‘neutral’ places where intercultural exchange could take place.³² If that is so, the elite may not have begun to tax international trade in these places until a later period. In such a model, the emporia were not elite or royal initiatives intending to control the trade.³³ However the interpretation of emporia is another book.

(28) For the distribution of amethyst beads and other exotics see for instance: Drauschke 2008; Drauschke 2010. (29) Theuws in press. (30) This poses the problem of the relation between ‘petty commodity production’ and exchange or non-agricultural household production and the wider economy (Nugent 1993, 176-198), usually formulated (unjustly, in my opinion) as town-countryside relations. (31) Theuws in press. (32) Theuws 2003, 2004. (33) I will explore this line of thought further in a forthcoming article (Theuws in press).

PART 3
CATALOGUE

Presented in the catalogue printed below are short descriptions of the most relevant elements of the graves’ structures, human remains and grave finds. This is a summary of the extensive database created for this cemetery. For details of all the elements listed below, this database must be consulted. It is archived in the e-depot Nederlandse Archeologie (EDNA), the electronic depot of Dutch archaeology, and can be retrieved at www.edna.nl. In addition to this database, a digital copy of the original documentation is archived in the EDNA. It consists of field drawings, data cards per grave, photographs and a list of photographs (see chapter 2). The descriptions of the contexts contain the following standard list of fields.

CONTEXT NUMBER

These are the designations by which we identify these contexts. If the excavators assigned a grave number to a context, our context number corresponds to their grave number,

CONTEXT TYPE

This indicates the presumed nature of the context. Not all contexts are graves.

FIELD DATE

This is the date on which the data on a context were recorded in the field (month, day, year). In a number of cases, no date, or only a year, was recorded in the field administration.

GRAVE TYPE

This indicates the construction type of the grave.

GRAVE PIT LENGTH, GRAVE PIT WIDTH, GRAVE PIT DEPTH

These are the reconstructed dimensions of the grave. The depth is the *remaining* depth, measured from the surface at the time of the excavation.

ORIENTATION

This indicates the orientation of the grave, determined on the basis of the layout of the deceased’s corpse, where this could be established.

STRATIGRAPHIC RELATION

This lists stratigraphic relations between contexts.

DESCRIPTION

This discusses the construction of the grave and the formation processes that affected its appearance.

PHYSICAL ANTHROPOLOGY

These are notes on the human remains found in the grave and information concerning the deceased inferable from the grave structure

DATE

This is the presumed date of the grave, based on the finds it contained.

FINDS

These are short descriptions of the objects found in the grave. Location is the depot where at present the object is deposited. PDBNB means *Provinciaal Depot voor Bodenvondsten in Noord Brabant* (Provincial depot for archaeological finds in the province of Noord Brabant). If a find is missing, this is also indicated under Location.

All vessels are illustrated at scale 1:4, all other objects are illustrated at scale 1:2 unless it is indicated otherwise. The individual grave plans are illustrated at scale 1:40.

1 GRAVE

Field date	6/27/1957
Grave type	wooden container grave
Grave pit length	2.35
Grave pit width	1.80
Grave pit depth	0.90

DESCRIPTION

This grave was not completely excavated as it lay partially beneath a section of the foundation trench’s bank that was not removed. The grave’s container lay inside the trench, and most of it had probably been dug away by the construction workers before it could be examined. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. The shape of the container could not be established with certainty. We do not know whether this grave had been reopened in ancient times.

PHYSICAL ANTHROPOLOGY

No osteoarchaeological information. The observed container length, between 1.35 m and 1.80 m, does not allow classification as an adult or non-adult.

DATE

cannot be dated

FINDS

- A Indeterminate fragment, iron
Find number: 1.a
Location: missing
- B Knife, iron
Find number: 1.b
Elongated iron fragment which was a knife according to the find list.
Location: missing

2 GRAVE

Field date	6/27/1957
Grave type	wooden container grave
Grave pit length	2.62
Grave pit width	1.90
Grave pit depth	0.80

DESCRIPTION

Most of this grave had been dug away by the builders before it could be examined. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The excavators could only determine the northern part of the container outline with certainty. The field notes show that the south-west side of the container outline was rather vague. The shape of the container and grave pit could not be established with certainty. A charcoal-rich area was found in the grave pit to the north of the container. We do not know whether this grave had been reopened in ancient times. The excavators found several indeterminate iron fragments in this grave. Other grave goods may have been lost when construction workers disturbed the grave.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

cannot be dated

FINDS

- 1 Indeterminate fragments, iron
Find number: 2.1
These finds probably correspond to the find spots on the composite drawing
Seven iron fragments
Location: PDBNB

3 PIT WITH BURNED BONE

Field date	6/27/1957
Pit width	0.40
Pit depth	0.400

The builders did not disturb this context, although it lay in the foundation trench. It consisted of a round pit, in the centre of which was a concentration of sand, charcoal and burned bone without a container. The edges of the pit were lined with charcoal-rich soil and some fragments of burned bone. There was a layer of sand with some traces of charcoal between the edges and the concentration of charcoal and burned bone, suggesting that the pit had been filled in stages. The bone material has disappeared, so it is not clear whether this is a human cremation or concentration of burned animal bone (either from an animal burial or the remains of a funeral meal).

DATE

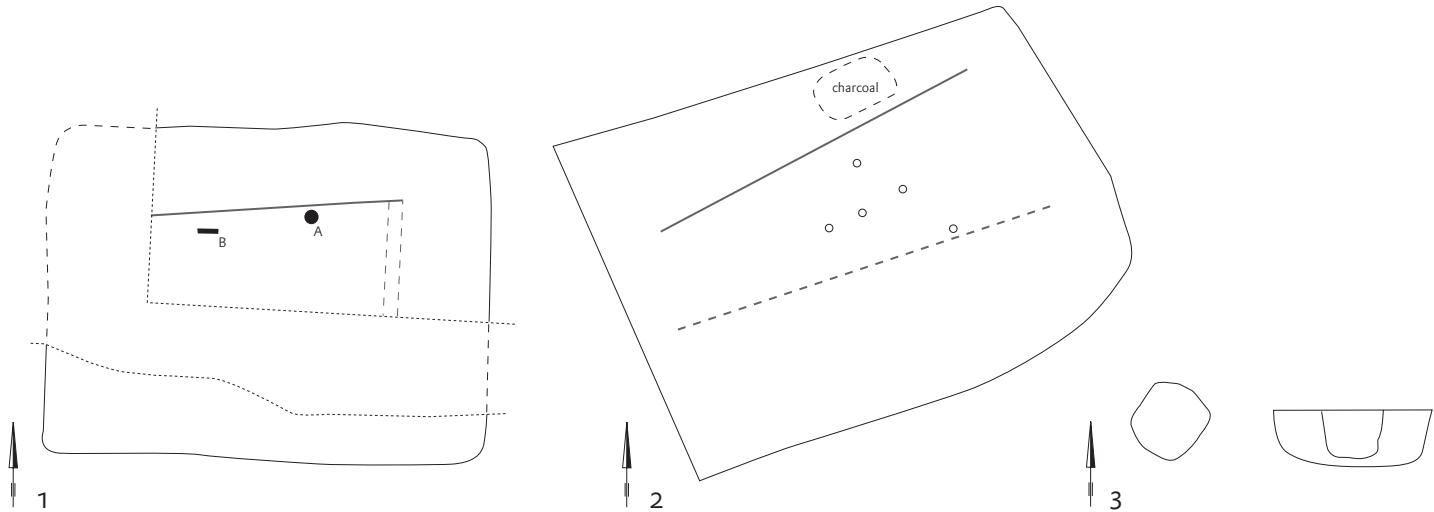
no finds, cannot be dated

4 POSSIBLE GRAVE

Field date	6/27/1957
Stratigraphic relation	below 38

DESCRIPTION

Most of this possible grave had been dug away by the builders before it could be examined. It was probably cut by grave 38. The relation between the graves is unclear, but grave 4 was probably older than grave 38. We assume this possible grave was oriented west-east, but this is not certain, as no human remains were found. The outline of the grave pit was indistinct. No container outline was observed. We do not know whether this grave had been reopened in ancient times.



DATE

cannot be dated

FINDS

1

Indeterminate fragments, iron

Find number: 4.1

Location: missing

5

GRAVE

Field date

6/27/1957

Grave pit length

3.28

Grave pit width

2.00

DESCRIPTION

Most of the grave had been dug away by the builders before it could be examined. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. No traces of a container were found. We do not know whether this grave had been reopened in ancient times.

DATE

cannot be dated

FINDS

1

Rivet, Iron

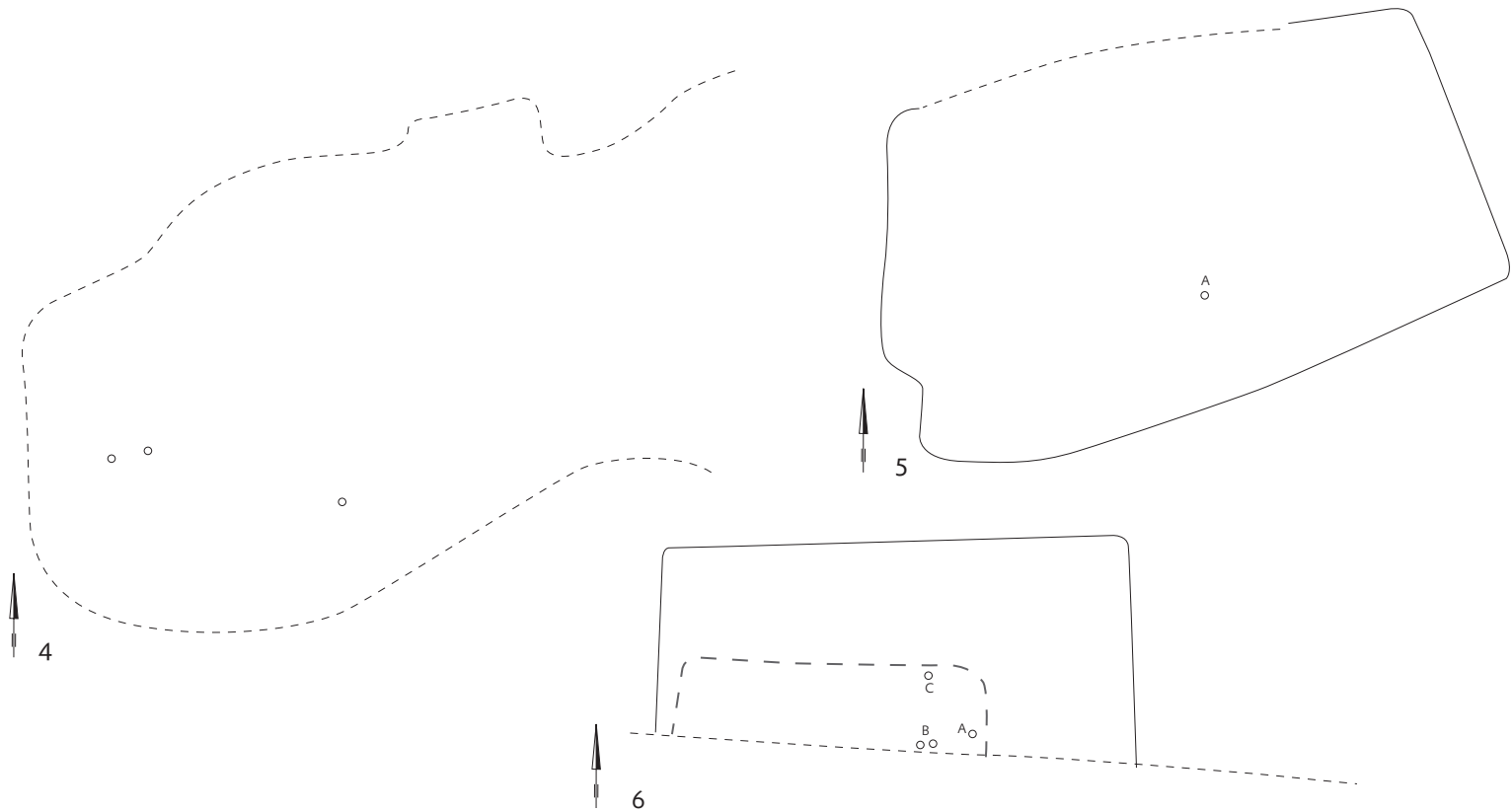
Find number: 5.1

Probably corresponds to find 5.a on the composite drawing

Condition: corroded, edge partly missing

Diameter: 22 mm

Location: PDBNB



6

GRAVE

Field date

6/27/1957

Grave type

wooden container grave

Grave pit length

2.56

Grave pit depth

0.95

DESCRIPTION

Only part of this grave was excavated because trees prevented the enlargement of the excavation trench. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Grave with a wooden container with a length of 1.66 m. Based on the average stature of males and females in the Merovingian period it is less likely that an adult male was buried in this grave. It was probably either an adult female or a non-adult of unknown sex.

DATE
Cannot be dated

- FINDS

A

Indeterminate fragment, iron

Find number: 6.a

Location: missing

B

Indeterminate fragment, iron

Find number: 6.b

Location: missing

- C

Indeterminate fragment, iron

Find number: 6.c

Location: missing

7

GRAVE

Field date

6/26/1957

Grave type

wooden container grave

Grave pit length

2.24

Grave pit width

1.44

Grave pit depth

0.85

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. One of the long walls extended beyond the width. There are no indications that this grave had been disturbed.

PHYSICAL ANTHROPOLOGY
Grave with a wooden container with a length of 1.62 m. Based on the average stature of males and females in the Merovingian period it is not likely that an adult male would be buried in this grave. It was probably either an adult female or a non-adult of unknown sex.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

- FINDS

1

Bead, glass?

Find number: 7.1

Fragment of an opaque brown glass? bead, indeterminate shape

Condition: half missing

Location: PDBNB

2

Bead, glass

Find number: 7.2

Four-sided cylindrical red bead decorated with yellow dots

Location: missing

A

Strap end, iron

Find number: 7.a

Find depth: 0.60 m

Location: missing

B

Buckle, iron

Find number: 7.b

Find depth: 0.60 m

Iron buckle, possibly part of a waist belt.

Date: probably seventh century

Location: missing

F

Nut, organic

Find number: 7.c1

This find corresponds to find number f on the composite drawing

Three burned acorns

Location: PDBNB

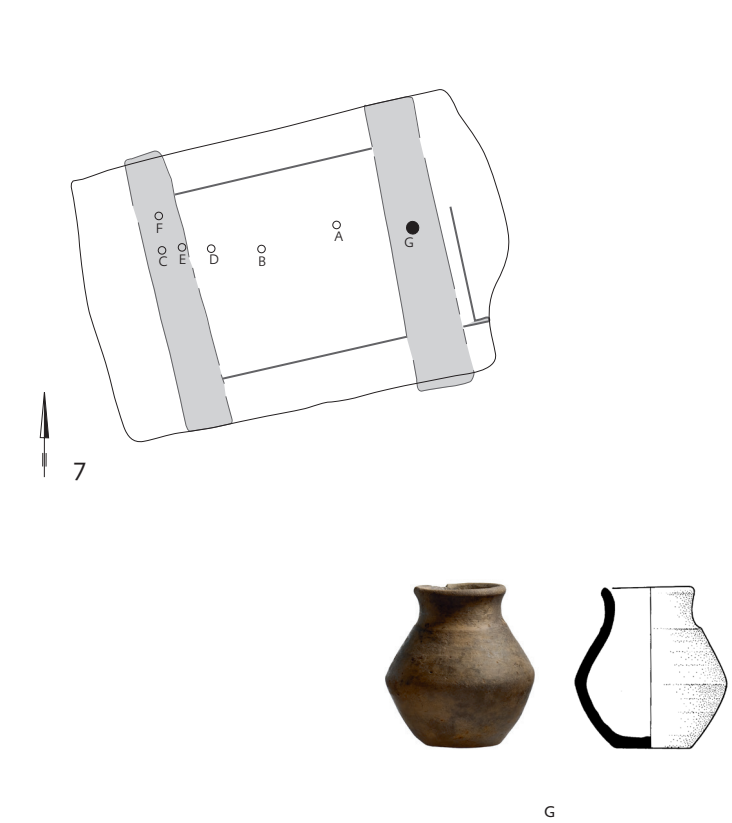
C

Bead, glass

Find number: 7.c2

Find depth: 0.65 m

Triple segmented transparent blue glass bead



Condition: complete

Type: BT 24

Location: Eicha Museum

D

Bead, glass

Find number: 7.d1

Find depth: 0.80 m

Biconical opaque yellow glass bead

Condition: complete

Type: YO 20

Siegmund type: Per33.5 (groups H-I)

Rhineland date: 610-705

Alternative type: FAG S-Per33.5 (group IV)

FAG date: not before 610/20-640/50

Location: Eicha Museum

E

Bead, glass

Find number: 7.e1

Biconical opaque red glass bead

Condition: complete

Type: RO 20

Siegmund type: Per35.6 (groups G-I)

Rhineland date: 585-705

Alternative type: FAG S-Per35.6 (group IV)

FAG date: not before 610/20-640/50

Location: Eicha Museum

G

Pottery Vessel

Find number: 7.g

Undecorated biconical pot, reduced ware

Condition: rim slightly damaged, restored

Maximum height: 85 mm

Type: Siegmund KWT2.43

Rhineland phase: 8-9

Rhineland date: 610-670

Alternative type: FAG S-KWT2.43

FAG date: 6-9: 580/90-670/80-710

Location: Eicha Museum

8

GRAVE

Field date

6/27/1957

Grave type

wooden container grave

Grave pit length

1.82

Grave pit width

1.30

Grave pit depth

0.50

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY

Grave with a wooden container, 1.28 m in length. Because of the length of the grave, the individual in this grave was a non-adult up to 9 years of age.

DATE

cannot be dated

FINDS

A

Belt plate, iron

Find number: 8.a

This find was listed as an iron fragment. The sketch in the field administration indicates that the fragment may have been a trapezoid belt plate. Its size is unclear

Date: probably seventh century

Location: missing

B

Pottery fragment

Find number: 8.b

Location: missing

9
GRAVE

Field date	6/27/1957
Grave type	wooden container grave
Grave pit length	1.22
Grave pit depth	0.50
Orientation	West-East
Stratigraphic relation	juxtaposed to 10

DESCRIPTION
Grave 9 is juxtaposed to grave 10. It is unclear which of the graves was dug first. The grave pit was trapezoidal with slightly rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Silhouette of the skull. The length measured between the skull silhouette and the foot end of the wooden container was 1.80 m.

DATE
Bergeijk phase III, FAG phases 9-10, 670/80-mid eighth century

- FINDS**
- A Nail
Find number: 9.a
Nail, size or material unknown
Location: missing
 - B Knife, iron
Find number: 9.b
Location: missing
 - C Bead, glass
Find number: 9.c1
Almond shaped transparent blue glass bead
Condition: broken, half lost
Type: BT 15
Siegmund type: Per1.8 (groups H-I)
Rhineland date: 610-705

Alternative type: FAG S-Per1.8 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

Beads, shell
Find number: 9.c2
Three disc-shaped white seashell beads
Condition: heavily corroded
Type: S 4
Siegmund type: Per5.5 (group I)
Rhineland date: 640-705
Alternative type: FAG S-Per5.5 (group V)
FAG date: 640/50-710/mid eighth century
Location: van Daalen family

Bead, glass
Find number: 9.c3
Barrel shaped opaque green glass bead decorated with blue and yellow dots
Condition: complete
Siegmund type: Per2.15 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per2.15 (group V)
FAG date: 640/50- 710/mid eighth century
Location: van Daalen family

Bead, glass
Find number: 9.c4
Compressed globular transparent green bead
Condition: complete
Type: GT 02
Location: van Daalen family

Bead, glass
Find number: 9.c5
Barrel shaped opaque red glass bead
Condition: complete
Type: RO 19
Location: van Daalen family

Bead, glass
Find number: 9.c6
Biconical transparent blue glass bead
Condition: complete

Type: BT 20
Siegmund type: Per47.3 (group I)
Rhineland date: 640-705
Alternative type: FAG S-Per47.3 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

Bead, glass
Find number: 9.c7
Barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 19
Location: van Daalen family

Bead, glass
Find number: 9.c8
Cylindrical transparent blue glass bead with a square section
Condition: one end broken off
Type: BT 07
Location: van Daalen family

Earrings, silver
Find number: 9.c9
Fragments of two silver earrings with a polyeder, partially wrapped in silver wire
Condition: broken, half lost
Ring diameter: 37 mm
Type: Siegmund Ohr7
Rhineland phase: 10
Rhineland date: 670-705
Alternative type: FAG S-Ohr 7
FAG date: (8)9-10: (640/50) 670/80-mid eighth century
Alternative type: LPV 307: 630/40-660/70
Location: van Daalen family

D Indeterminate fragments
Find number: 9.d1
10 fragments of indeterminate material
Location: PDBNB

10
GRAVE

Field date	6/27/1957
Grave type	wooden container grave
Grave pit depth	1.10
Stratigraphic relation	juxtaposed to 9

DESCRIPTION
It is unclear which of the graves, 9 or 10, was dug first. We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. Since the grave was only partially excavated, the shape of the grave pit and container could not be established with certainty. The small rectangular feature on the east side of the container was probably the trace of a tree root. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Observed length of the wooden container is 2.10 m. Probably adult.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

- FINDS**
- A Indeterminate fragment, iron
Find number: 10.a
Location: missing
 - B Knife, iron
Find number: 10.b1
Two fragments of a possible iron knife with leather remains attached
Condition: corroded fragments
Location: PDBNB

Pottery fragment
Find number: 10.b2
Wall fragment of handmade pottery
Date: Prehistoric
Location: PDBNB

Indeterminate fragment, bone
Find number: 10.b3
Three fragments of burned bone
Location: PDBNB

C Nail, iron
Find number: 10.c1
Nail-like iron fragment
Condition: corroded
Length: 67 mm
Location: PDBNB

D Indeterminate fragment, iron
Find number: 10.d1
Location: PDBNB

E Indeterminate fragment, iron
Find number: 10.c1
Location: PDBNB

F Plate buckle, copper alloy
Find number: 10.f1
Small, cast copper alloy plate buckle with an oval loop and three clips on the back. The plate has profiled edges. Associated leather remains preserved
Condition: slightly corroded, the loop is fragmented
Loop length: 21 mm
Plate length: 33 mm
Type: FAG Snaz.2A
FAG phase: 5-8
FAG date: 565-670/80
Alternative type: LPV 130: 520/30-630/40
Location: PDBNB

G Ring, copper alloy
Find number: 10.g1
Slightly oval copper alloy ring with an angular

section decorated on one side with an engraved line
Condition: slightly corroded
Diameter: 47 mm
Location: PDBNB

H Indeterminate fragments, iron
Find number: 10.h1
Seven flat iron fragments with wood remains, possibly part of an umbo?
Condition: corroded
Location: PDBNB

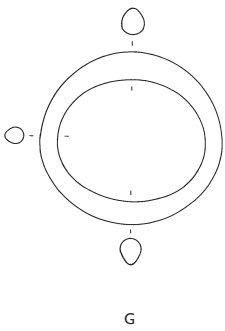
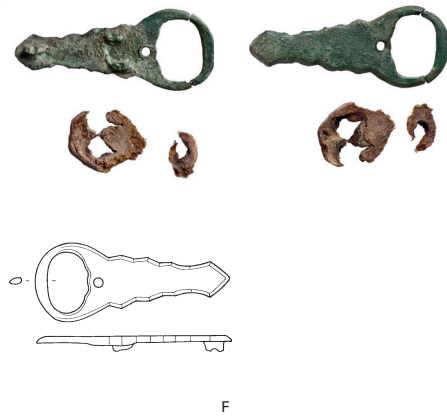
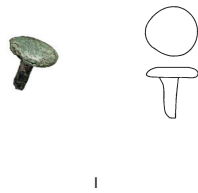
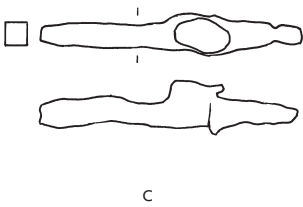
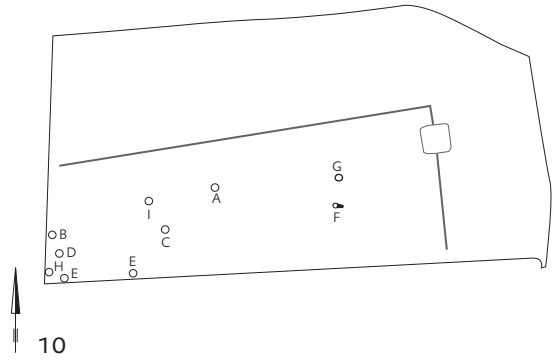
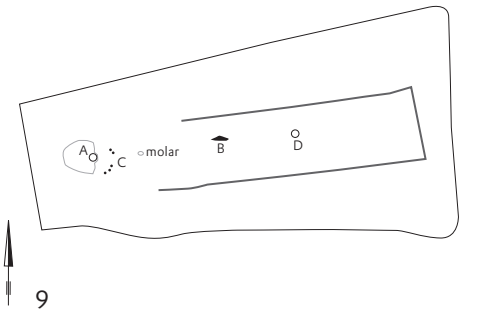
Rivet, iron
Find number: 10.h2
Iron fragment with at least one small iron rivet. Possible leather remains attached
Condition: corroded
Diameter: 6 mm
Location: PDBNB

Indeterminate fragment, textile
Find number: 10.h3
Condition: mineralized
Location: PDBNB

Indeterminate fragment, organic
Find number: 10.h4
Fragment of bone or mineralized leather with textile remains attached
Location: PDBNB

Pottery fragment
Find number: 10.h5
Wall fragment of handmade pottery
Date: possibly Bronze Age
Location: PDBNB

I Rivet, copper alloy
Find number: 10.i1
Flat copper alloy rivet
Condition: corroded
Diameter: 14 mm
Location: PDBNB



11
GRAVE

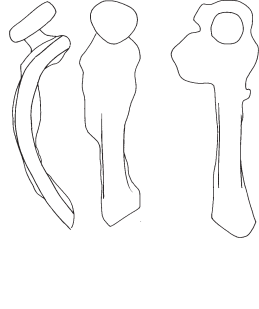
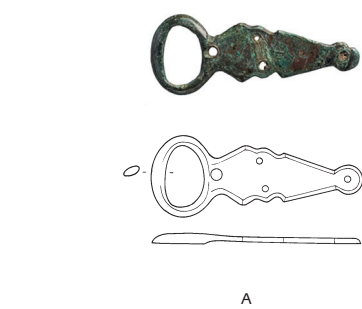
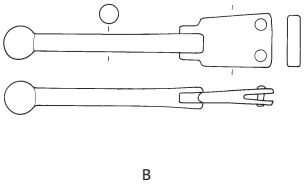
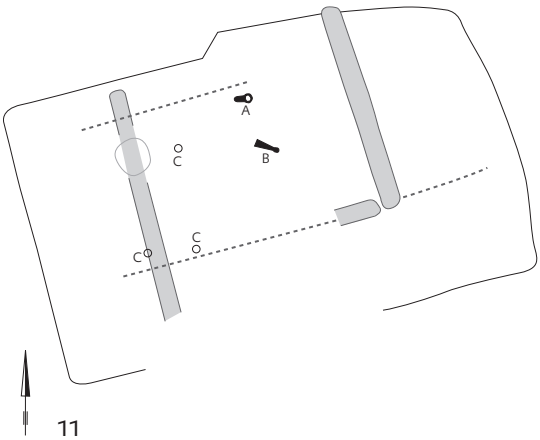
Field date	6/27/1957
Grave type	wooden container grave
Grave pit length	2.60
Grave pit width	1.60
Grave pit depth	0.55
Orientation	West-East

DESCRIPTION
The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The deceased probably lay in the northern part of the container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Skull silhouette. Only a few fragments of bone and dental remains recovered, indicating the individual was 12 years or older. The dimensions of the grave suggest it measured at least 1.50 m.

DATE
Bergeijk phase III, FAG phase 9, 670/80-710

FINDS
A Plate Buckle
Find number: 11.a1
Small copper alloy plate buckle with a fixed triangular plate with three rivet holes. No rivets or tongue are preserved.
Condition: slightly corroded
Loop length: 21 mm
Plate length: 38 mm
Type: FAG Sna2.2A
FAG phase: 5-8
FAG date: 565-670/80
Alternative type: LPV 130: 520/30-630/40
Location: Eicha Museum



C Mounts, iron
Find number: 11.c1
Iron clamp, possibly related to a seax scabbard. Near one of the rivets wood remains are preserved.
Condition: corroded
Length: 62 mm
Location: PDBNB

12
POSSIBLE GRAVE

Field date	6/27/1957
Grave type	trench grave
Grave pit length	0.92
Grave pit width	0.54
Orientation	North-South

DESCRIPTION
This possible grave was oriented northwest-southeast. The small pit is rectangular with slightly rounded corners. It has an irregular depth. There are no traces of a container. The small size and deviant orientation of the pit make it uncertain whether this is a grave. Possibly a child or animal was buried here. We could not ascertain whether this possible grave was reopened.

PHYSICAL ANTHROPOLOGY
If this context was a grave, it belonged to a non-adult.

DATE
cannot be dated

FINDS
A Ring, iron
Find number: 12.a
Find depth: 0.40 m
Oval iron ring
Condition: corroded
Ring diameter: 62 mm
Location: PDBNB

13
GRAVE

Field date	6/28/1957
Grave type	trench grave
Grave pit length	2.80
Grave pit width	1.08

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. No traces of a container were found. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Only an outline of a burial pit was documented, possibly adult.



A

DATE
cannot be dated

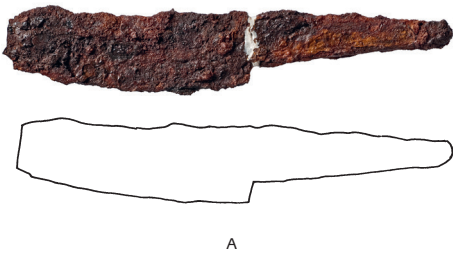
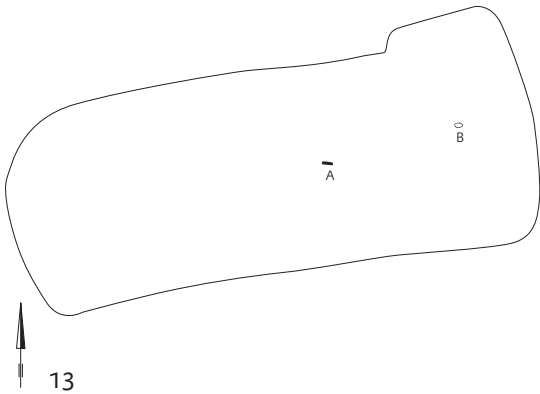
FINDS
A Knife, iron
Find number: 13.a1
Iron knife of which the point is missing. Some wood remains preserved of the hilt
Condition: corroded and restored, point is missing
Grip length: 52 mm
Blade length: 64 mm
Location: PDBNB

B Ring, iron
Find number: 13.b1
Round iron ring
Condition: corroded and restored
Ring diameter: 28 mm
Location: PDBNB

14
POSSIBLE GRAVE

Field date	6/27/1957
Grave type	trench grave
Grave pit length	1.20
Grave pit width	0.64

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The small pit is rectangular with slightly rounded corners. There are no traces of a container. The small size of the pit and the lack of finds make it uncertain whether this is a grave. We do not know whether this grave was reopened.



A

PHYSICAL ANTHROPOLOGY
Probably a grave of a non-adult.

DATE
no finds, cannot be dated

15
GRAVE

Field date	1957 and 3/17/1959
Grave type	wooden container grave
Grave pit depth	0.85

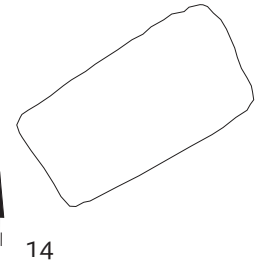
DESCRIPTION
The eastern half of this grave was excavated in 1957, the western half in 1959. The drawings from the two stages of excavation do not correspond. Especially the width of the container and the orientation of the grave are unclear. The trees previously planted on the site damaged the grave. We assume the grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
The wooden container is relatively short. Possibly the grave was constructed for a young individual.

DATE
no finds, cannot be dated



B



16
GRAVE

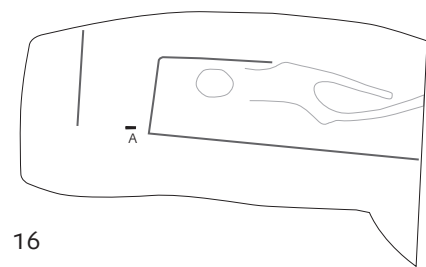
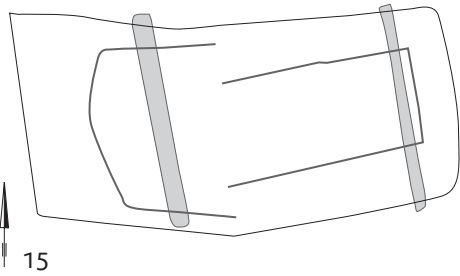
Field date	6/28/1957
Grave type	wooden container grave
Grave pit width	1.00
Grave pit depth	0.65
Orientation	West-East
Stratigraphic relation	juxtaposed to 133

DESCRIPTION
The eastern end of the grave was disturbed while digging the foundation trench of the house. The protrusion on the south-eastern end of the grave pit suggests that the grave may have cut another feature, possibly context 133. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The meaning of the stripe, which the excavators drew between the western end of the container and the outline of the grave pit, is unclear. There are no indications that this grave had been reopened in ancient times.

PHYSICAL ANTHROPOLOGY
Body silhouette. Represented are the skull, thorax, abdomen and legs. The arms and feet were not recognizable in the silhouette. The legs were lying relatively wide apart, suggesting decomposition in an open space, possibly a wooden container. The length of the body silhouette was circa 1.30-1.40 m. Probably a juvenile individual.

DATE
cannot be dated

FINDS
A Indeterminate fragment, iron
Find number 16.a
Large iron fragment
Location: missing



A

17
GRAVE

Field date 7/1/1957
Grave type wooden container grave
Grave pit length 2.68
Grave pit width 1.62
Grave pit depth 0.90
Orientation West-East

DESCRIPTION
If the molars found in western part of the container represent the location of the head, this grave was oriented west-east. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Teeth found in grave but not available for examination. Probably adult.

DATE
cannot be dated

FINDS
A Belt plate, copper alloy
Find number: 17.a
This find lay in the eastern section of the grave, but its exact location was not indicated on the field drawing. Copper alloy plate with leather remains attached. Size and shape unknown.
Type: possible copper alloy plate of an Ophoven belt
Date: possibly 650-675
Location: missing

B Plate, copper alloy
Find number: 17.b
Find depth: 0.85 m
Copper alloy plate with leather remains attached. Size and shape unknown

Type: possible copper alloy plate of an Ophoven belt
Date: possibly 650-675
Location: missing

C Bead, glass
Find number: 17.c
Find depth: 0.85 m
Small yellow bead
Location: missing

D Plate, copper alloy
Find number: 17.d
Copper alloy plate with leather remains attached. Size and shape unknown
Type: possible copper alloy plate of an Ophoven belt
Date: possibly 650-675
Location: missing

E Bead, glass
Find number: 17.e1
Blue bead, other characteristics unknown.
Location: missing

Bead, glass
Find number: 17.e2
Two yellow beads, which had disintegrated during excavation.
Location: missing

F Plate, copper alloy
Find number: 17.f
Find depth: 0.95 m
Copper alloy plate with leather remains attached. Size and shape unknown
Type: possible copper alloy plate of an Ophoven belt
Date: possibly 650-675
Location: missing

G Bead, glass
Find number: 17.g
Yellow bead, which had disintegrated during excavation.
Location: missing

18
GRAVE

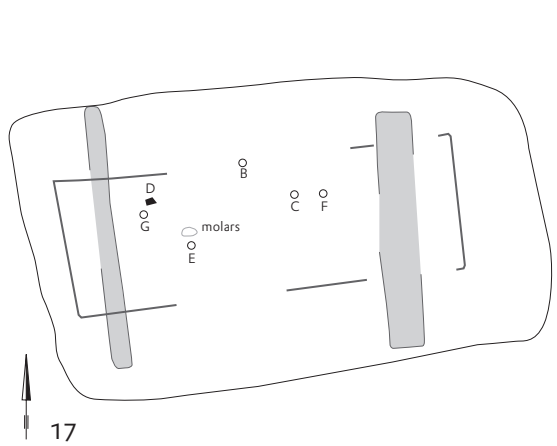
Field date 7/1/1957
Grave type wooden container grave
Grave pit length 1.94
Grave pit depth 0.80

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. We do not know whether this grave was reopened.

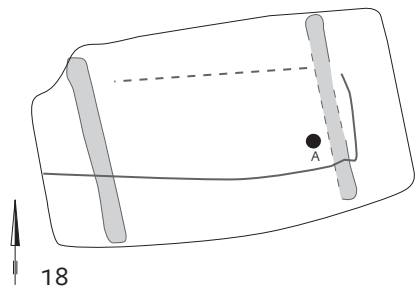
PHYSICAL ANTHROPOLOGY
The wooden container is relatively short. Possibly the grave was constructed for a young individual.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

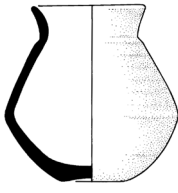
FINDS
A Pottery vessel
Find number: 18.a1
Small undecorated biconical pot
Condition: complete
Maximum height: 96 mm
Type: Siegmund KWT2.43
Rhineland phase: 8-9
Rhineland date: 610-670
Alternative type: FAG: S-KWT2.43
FAG date: 6-9: 580/90-670/80-710
Location: van Daalen family



17



18



A

19
GRAVE

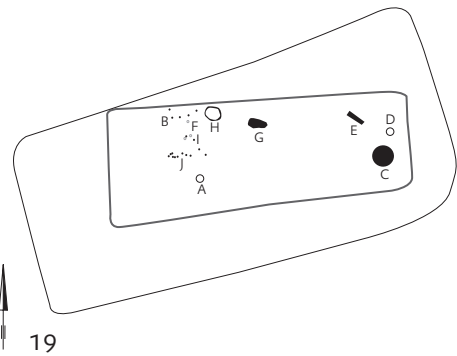
Field date 7/2/1957
Grave type wooden container grave
Grave pit length 2.26
Grave pit width 1.10
Grave pit depth 0.70
Orientation West-East

DESCRIPTION
If the molars found in western part of the container represent the location of the head, this grave was oriented west-east. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The container seems to be placed in an oblique position to the pit. In this case, there is quite a large discrepancy between the size of the pit and the size of the container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Recovered were dental remains of a child between 4 and 9 years. No body silhouette documented. The dental elements were spread in the grave, possibly due to post-depositional intervention.

DATE
Bergeijk phase I, FAG phases 5-7, 565-640/50

FINDS
1 Bead, glass
Find number: 19.1
Biconical opaque blue glass bead
Condition: complete
Type: BO 20
Siegmund type: Per37.1 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per37.1 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB



19



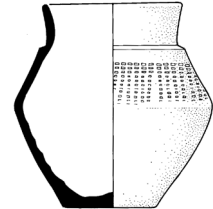
1-3, A, B

2 Bead, glass
Find number: 19.2
Biconical opaque yellow glass bead
Condition: complete
Type: YO 20
Siegmund type: Per33.5 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per33.5 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

3 Bead, glass
Find number: 19.3
Barrel shaped opaque? green glass bead
Condition: complete
Type: GO 19
Location: PDBNB

A Bead, glass
Find number: 19.a1
Cylindrical, opaque white bead consisting of twisted glass wire
Condition: complete
Type: WO 29
Like Siegmund type: Per32.1 (Group H)
Rhineland date: 610-705
Alternative type: FAG S-Per32.1 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

B Bead, glass
Find number: 19.b1
Triple segmented opaque white glass bead
Condition: complete
Type: WO 24
Siegmund type: Per32.2 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per32.2 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB



C

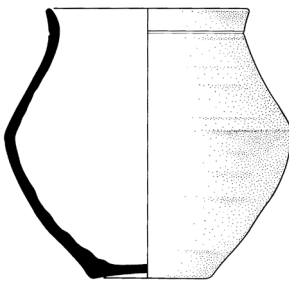
C Pottery vessel
Find number: 19.c1
Small biconical pot decorated with small square roulette stamps
Condition: restored
Maximum height: 108 mm
Type: Siegmund KWT3.23
Rhineland phase: 8A-8B
Rhineland date: 610-640
Alternative type: FAG KWT5B
FAG date: 5-7: 565-640/50
Location: van Daalen family

D Pottery Vessel
Find number: 19.d1
Undecorated biconical pot, reduced ware
Maximum height: 141 mm
Type: Siegmund KWT2.42
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG KWT4A
FAG date: 4-7: 510/25-640/50
Location: Eicha Museum

E Strap end, copper alloy
Find number: 19.e1
Small copper alloy strap end with one rivet. The front side is decorated with an engraved zigzag pattern. Leather remains are preserved on the back
Condition: slightly corroded
Plate length: 50 mm
Location: van Daalen family

F Skeletal element
Find number: 19.f
Human molar
Location: PDBNB

G Plate buckle, iron
Find number: 19.g1
Fragments of an iron plate buckle with three copper



D

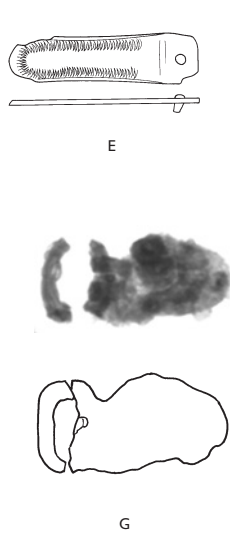
alloy? rivets and textile remains attached.
Associated with a leather fragment. The x-ray photograph shows no decoration
Condition: corroded, loop partly missing
Loop length: 25 mm
Plate length: 33 mm
Date: seventh century
Location: PDBNB

H Bracelet, copper alloy
Find number: 19.h1
Small copper alloy bracelet with thickened ends. The ends are decorated with lines
Condition: slightly corroded
Ring diameter: 62 mm
Type: Siegmund Rng1.2
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG S-Rng 1.2
FAG date: (5-8) 6-7: (565-670/80) 580/90-640/50
Location: Eicha Museum

Indeterminate fragment, textile
Find number: 19.h2
Location: PDBNB

I Bead, glass
Find number: 19.i1
Biconical opaque red glass bead decorated with four white raised eyes with blue centres
Condition: complete
Type: Siegmund Per2.10 (G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per2.10 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

Bead, glass
Find number: 19.i2
Cylindrical five-sided opaque white bead. Each side is decorated with three stratified eyes. The eyes on the ends of the bead consist of a green circle with a red dot in the white centre. The eyes in the middle are made up of a red circle with a red dot in the white centre.
Condition: complete
Type: shape 32
Location: PDBNB



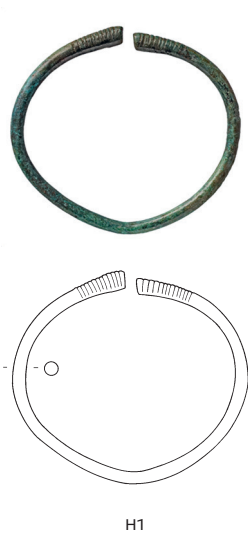
J Wire, copper alloy
Find number: 19.j1
Fragments of twisted copper alloy wire, possibly associated with the beads found in this grave
Condition: corroded
Siegmund type: Per6.2
Rhineland phase: 9 and onwards
Rhineland date: from 640-670
Alternative type: FAG S-Per6.2 (V)
FAG date: 610/20- mid eighth century
Location: Eicha Museum

Beads, glass
Find number: 19.j2
Three small barrel shaped opaque yellow glass beads
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: Eicha Museum

Beads, glass
Find number: 19.j3
Three double segmented opaque yellow glass beads
Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j4
Segmented yellow opaque glass bead
Condition: complete
Type: YO 24
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Beads, glass
Find number: 19.j5
Two small barrel shaped opaque red glass beads
Condition: complete



Type: RO 30
Siegmund type: Per35.4 (groups D-G)
Rhineland date: 555-640
Location: Eicha Museum

Bead, glass
Find number: 19.j6
Small barrel shaped opaque white glass bead
Condition: complete
Type: WO 30
Location: Eicha Museum

Bead, glass
Find number: 19.j7
Biconical opaque yellow glass bead
Condition: complete
Type: YO 20
Siegmund type: Per33.5 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per33.5 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, amber
Find number: 19.j8
Droplet shaped amber bead
Condition: corroded
Type: A 22
Location: Eicha Museum

Bead, glass
Find number: 19.j9
Biconical opaque red bead, decorated with yellow crossed lines
Condition: complete
Type: Siegmund Per35.11 (groups F-G)
Rhineland date: 585-640
Alternative type: Koch 2001, types 34.59 and 34.60
Location: Eicha Museum

Bead, glass
Find number: 19.j10
Ribbed barrel shaped opaque red bead decorated with white and blue stripes
Condition: complete
Type: shape 28
Location: Eicha Museum



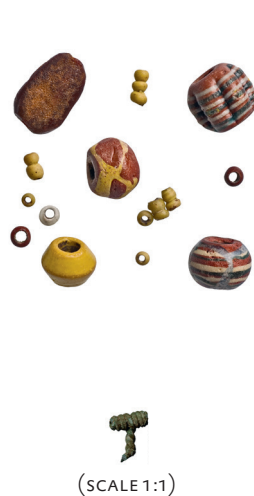
Bead, glass
Find number: 19.j11
Barrel shaped opaque red bead decorated with opaque white and blue lines. Over these lines lies a web-like transparent blue line.
Condition: complete
Type: shape 19
Location: Eicha Museum

Spindle whorl, pottery
Find number: 19.j12
Possible orange ceramic spindle whorl. The artefact is rather small for a spindle whorl and may also be a bead
Condition: complete
Location: Eicha Museum

Beads, glass
Find number: 19.j13
Two biconical opaque yellow glass beads
Condition: complete
Type: YO 20
Siegmund type: Per33.5 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per33.5 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j14
Large barrel shaped black glass bead decorated with three red lines. Two bands of white zigzag lines run between the red lines
Condition: complete
Type: shape 19
Location: Eicha Museum

Bead, glass
Find number: 19.j15
Two cylindrical opaque red glass beads decorated with white swirling threads. The ends of the beads were originally decorated with yellow bands, which have now largely eroded
Condition: slightly corroded
Type: Koch 2001, type 58.6
Location: Eicha Museum



Beads, glass
Find number: 19.j16
Two biconical opaque red glass beads
Condition: complete
Type: RO 20
Siegmund type: Per35.6 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per35.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, amber
Find number: 19.j17
Large polyhedral amber bead
Condition: complete
Type: A 08
Location: Eicha Museum

Bead, glass
Find number: 19.j18
Transparent blue almond shaped glass bead
Condition: complete
Type: BT 15
Siegmund type: Per1.8 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per1.8 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Beads, glass
Find number: 19.j19
Four small disc-like opaque white beads built up from wound glass tread (one of them cannot be seen on the photograph)
Condition: complete
Type: WO 36
Location: Eicha Museum

Bead, glass
Find number: 19.j20
Biconical transparent blue glass bead
Condition: complete
Type: BT 20
Siegmund type: Per47.3 (group I)
Rhineland date: 640-705
Alternative type: FAG S-Per47.3 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j21
Cube-shaped opaque white glass bead. The surfaces of the cube are decorated with a transparent blue cross and opaque red and yellow dots. The edges are decorated with red lines
Condition: complete
Type: very much like Koch 2001, type 67.2
Location: Eicha Museum

Bead, glass
Find number: 19.j22
Compressed globular transparent green glass bead
Condition: complete
Type: GT 02
Location: Eicha Museum

Bead, glass
Find number: 19.j23
Ribbed barrel shaped opaque yellow glass bead decorated with a spiralling transparent blue line
Condition: complete
Location: Eicha Museum



Bead, glass
Find number: 19.j24
Biconical opaque brownish red bead decorated with opaque white waves. A transparent blue band with opaque white dots covers the carination
Condition: edges damaged
Type: shape 20
Location: Eicha Museum

Bead, glass
Find number: 19.j25
Biconical opaque yellow glass bead
Condition: complete
Type: YO 20
Siegmund type: Per33.5 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per33.5 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j26
Double segmented opaque green glass bead
Condition: complete
Type: GO 25
Siegmund type: Per36.4 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per36.4 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, amber
Find number: 19.j27
Large amorphous amber bead
Condition: complete
Type: A 40
Location: Eicha Museum

Bead, glass
Find number: 19.j28
Short cylindrical opaque white glass bead
Condition: complete
Type: WO 11
Location: Eicha Museum

Bead, glass
Find number: 19.j29
Barrel shaped opaque black glass bead, decorated with crossed opaque white and transparent blue lines. Opaque yellow eyes with a transparent green iris are place between the lines
Condition: edges damaged
Type: shape 19
Location: Eicha Museum

Bead, glass
Find number: 19.j30
Double segmented transparent blue glass bead
Condition: complete
Type: BT 25
Siegmund type: Per47.7 (groups G-H)
Rhineland date: 585-670
Location: Eicha Museum

Bead, glass
Find number: 19.j31
Compressed globular opaque blue bead decorated with three opaque white eyes with opaque red pupils
Condition: complete

Type: eyes comparable to Siegmund Per2.10 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per2.10 (group IV)
FAG date: not before 610/20-640/50
Alternative type: Koch 2001, type 7.16
Location: Eicha Museum

Beads, glass
Find number: 19.j32
Three biconical opaque white beads
Condition: complete
Type: WO 20
Siegmund type: Per32.3 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per32.3 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, copper alloy?
Find number: 19.j33
Elongated biconical copper alloy? bead, made from spiralling metal wire
Condition: complete
Type: comparable to S Per5.6
Rhineland phase: 9-(10)
Rhineland date: (640)-705
Location: Eicha Museum

Bead, amber
Find number: 19.j34
Cylindrical four-sided amber bead with rounded corners
Condition: complete
Type: A 08
Location: Eicha Museum

Bead, glass
Find number: 19.j35
Opaque yellow glass bead with four segments
Condition: complete
Type: YO 24
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Beads, glass
Find number: 19.j36
Three double segmented opaque yellow glass beads
Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j37
Small barrel-shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: Eicha Museum

Bead, glass
Find number: 19.j38
Small disc-shaped opaque red glass bead
Condition: complete
Type: RO 36
Siegmund type: Per35.3 (groups D-H)
Rhineland date: 555-670
Location: Eicha Museum

Bead, glass
Find number: 19.j39
Opaque red glass bead consisting of four segments
Condition: complete
Type: RO 24
Siegmund type: Per35.7 (group H)
Rhineland date: 610-670
Alternative type: FAG S-Per35.7 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j40
Opaque double segmented white glass bead
Condition: complete
Type: WO 25
Siegmund type: Per32.2 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per32.2 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j41
Triple segmented opaque red glass bead (not visible on photograph)
Condition: complete
Type: RO 24
Siegmund type: Per35.7 (group H)
Rhineland date: 610-670
Alternative type: FAG S-Per35.7 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j42
Disc-shaped opaque red bead, decorated with protruding opaque white eyes with a transparent blue iris
Condition: complete
Type: Siegmund Per2.10 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per2.10 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 19.j43
Small disc-shaped opaque yellow glass bead (not visible on photograph)
Condition: complete
Type: YO 36
Siegmund type: Per33.2 (groups D-G)
Rhineland date: 555-640
Location: Eicha Museum

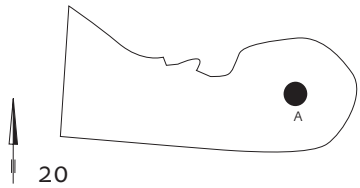
20 FIND

Field date 7/2/1957
Grave type unknown
Stratigraphic relation below 24

DESCRIPTION
Most of the context had been dug away by the builders before it could be examined. It consisted of a pot that lay in a shallow pit. Context 20 probably lay below grave 24, but the relation between the two is unclear. The outline of the pit was indistinct. The context could be the remains of a very shallow grave, but is probably a pottery deposit. According to the field documentation, the top of the pot was found only 30 cm below the surface. We could not ascertain whether this context had been reopened in ancient times.

DATE
Bergeijk phase I, FAG phases 4-7, 565-640/50

- FINDS**
- A Pottery vessel
Find number: 20.a
Find depth: 0,40 m
Undecorated biconical pot, reduced ware
Condition: restored
Maximum height: 100 mm
Type: Siegmund KWT2.42
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG KWT4A
FAG date: 4-7: 510/25-640/50
Location: Eicha Museum



A

21 GRAVE

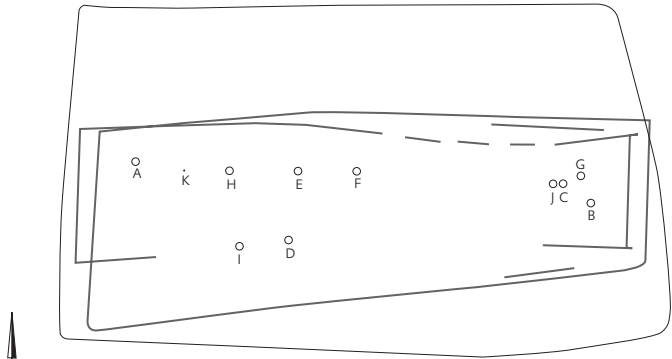
Field date 7/3/1957
Grave type wooden container grave
Grave pit length 3.24
Grave pit width 1.86
Grave pit depth 1.00

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The excavators drew several outlines of the container, a combination of which was used in the composite drawing. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

- FINDS**
- A Pottery vessel
Find number: 21.a
Find depth: 0.60 m
Bottom of a terra sigillata bowl
Location: missing
 - B Indeterminate fragment, iron
Find number: 21.b
Find depth: 0.75 m
Location: missing
 - C Indeterminate fragment, iron
Find number: 21.c
Find depth: 0.78 m
Location: missing
 - D Indeterminate fragment, iron
Find number: 21.d
Find depth: 0.83 m
Location: missing
 - E Pottery fragment
Find number: 21.e
Find depth: 0.83 m
Location: missing
 - F Indeterminate fragment, iron
Find number: 21.f
Find depth: 0.85 m
Location: missing
 - G Indeterminate fragment, iron
Find number: 21.g
Find depth: 0.94 m
Location: missing
 - H Indeterminate fragment, iron
Find number: 21.h
Find depth: 0.94 m
Location: missing
 - I Indeterminate fragment, iron
Find number: 21.i
Location: missing
 - J Indeterminate fragment, iron
Find number: 21.j
Find depth: 0.98 m
Location: missing
 - K Bead, glass
Find number: 21.k
Find depth: 1.02 m
Greenish blue bead, other characteristics unknown
Location: missing



21

22
GRAVE

Field date	7/3/1957
Grave type	wooden container grave
Grave pit length	2.18
Grave pit width	1.04
Grave pit depth	1.00

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The container was supported by at least one beam. The location of the finds in the grave indicates that it was reopened. Pottery sherds from this grave fitted to those from grave 23.

PHYSICAL ANTHROPOLOGY
Rectangular context, probably a grave of a non-adult.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

- FINDS**
- A Pottery vessel
Find number: 22.a
Find depth: 0.84 m
Three rim fragments of a pot. The excavators fitted these sherds with fragments found in grave 23. The type and size of the pot are unknown
Location: missing
- B Plate buckle, copper alloy
Find number: 22.b1
Find depth: 0.90 m
Small copper alloy buckle with a plate consisting of a folded copper alloy sheet fixed with one rivet. Leather remains have been preserved between the plates
Condition: slightly corroded
Loop length: 22 mm

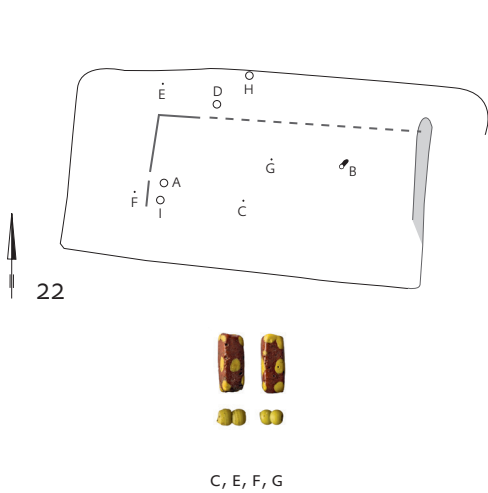
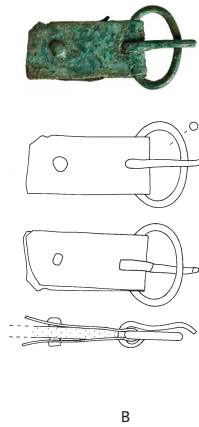


Plate length: 32 mm
Type: Siegmund Gür6.2
Rhineland phase: 10
Rhineland date: 670-705
Alternative type: FAG S-Gür6.2
FAG date: 9-10: 701-mid eighth century
Location: van Daalen family

- C Bead, glass
Find number: 22.c1
Find depth: 0.90 m
Cylindrical, four-sided opaque red glass bead decorated with yellow dots
Condition: complete
Type: Siegmund Per2.5 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per2.5 (IV)
FAG date: not before 610/20-640/50
Alternative type: Koch 2001, type 3.39
Location: PDBNB
- D Pottery fragment
Find number: 22.d1
Find depth: 0.93 m
Wall fragment of thick walled, grit tempered handmade pottery
Date: probably Bronze Age
Location: PDBNB
- E Bead, glass
Find number: 22.e1
Find depth: 0.93 m
Double segmented opaque yellow glass bead
Condition: damaged
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB
- F Bead, glass
Find number: 22.f1
Find depth: 0.93 m
Double segmented opaque yellow glass bead

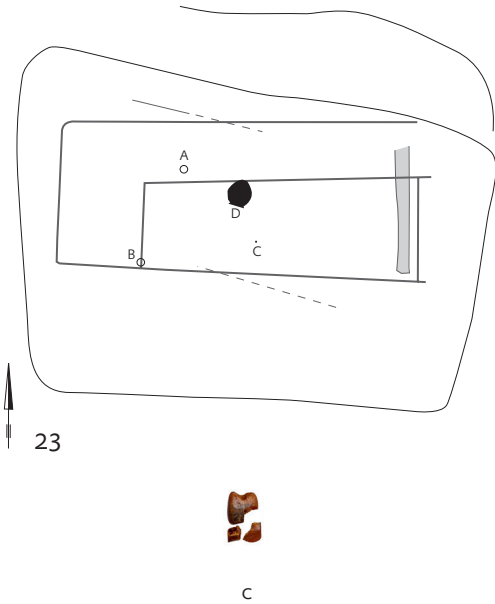


Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

- G Bead, glass
Find number: 22.g1
Find depth: 0.93 m
Cylindrical, four-sided opaque red glass bead decorated with yellow dots
Condition: complete
Type: Siegmund Per2.5 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per2.5 (IV)
FAG date: not before 610/20-640/50
Alternative type: Koch 2001, type 3.39
Location: PDBNB
- H Pottery fragment
Find number: 22.h1
Wall fragment of thick walled, grit tempered handmade pottery
Date: probably Bronze Age
Location: PDBNB
- I Pottery fragment
Find number: 22.i
Location: missing

23
GRAVE

Field date	7/3/1957
Grave type	wooden container grave
Grave pit length	2.54
Grave pit width	1.82
Grave pit depth	1.05

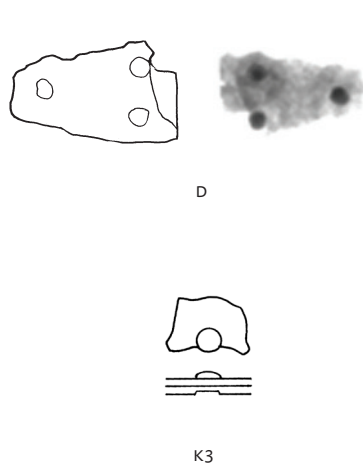
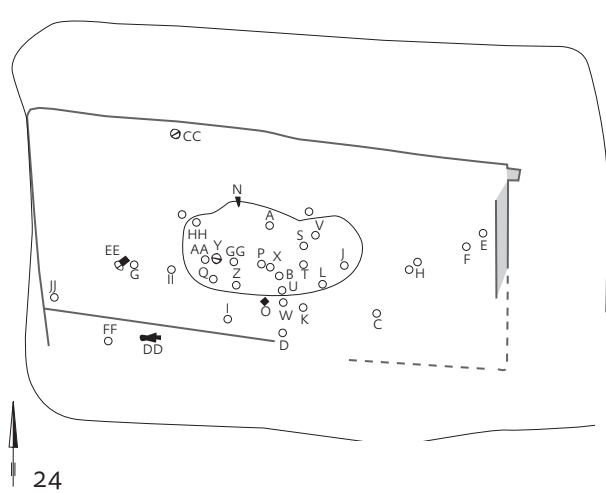


DESCRIPTION
A ditch-like feature cut into this grave at a high level. We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The container was supported by at least one beam. We assume that the largest of the two container outlines in the drawing represents a built-in container, while the smaller outline may belong to a coffin. In that case, the grave may have belonged to a child. The grave pit is quite large compared to the size of the containers. The grave pit may have been even larger at a higher level, as is suggested by the second outline to the north of the actual grave pit. The meaning of the diagonal lines on the sides of the container, which run parallel to the outward extension of the north-western part of the pit, is unclear. The location of the finds in the grave indicates that it may have been reopened. This is also suggested by the fact that pottery sherds from this grave fitted to those from grave 22.

PHYSICAL ANTHROPOLOGY
The innermost wooden container measure 1.46 m in length; a young individual under the age of 12 years.

DATE
cannot be dated

- FINDS**
- A Pottery Vessel
Find number: 23.a
Find depth: 0.40 m
The excavators fitted a number of sherds from this grave to others from grave 22, forming a pottery vessel of unknown type
Location: missing
- B Pottery fragment
Find number: 23.b1
Find depth: 0.65 m
Round base fragment of wheel thrown black burnished pottery, probably a biconical pot
Location: PDBNB



- C Bead, amber
Find number: 23.c1
Find depth: 0.72 m
Irregularly shaped amber bead
Condition: broken
Type: A 41
Location: PDBNB
- D Pottery fragment
Find number: 23.d
Find depth: 1.08 m
Large fragment of a pot
Location: missing

24
GRAVE

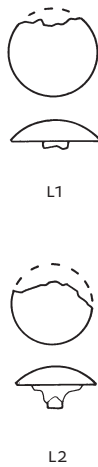
Field date	7/4/1957
Grave type	wooden container grave
Grave pit length	3.06
Grave pit width	2.10
Grave pit depth	1.37
Stratigraphic relation	above 20

DESCRIPTION
This grave lay above and cut into possible grave 20. We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. In the north-western corner, a plank from the length of the container extends beyond its width. The possible reopening pit and the location of the finds in the grave indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 6-7, 580/90-640/50

- FINDS**
- A Pottery fragment
Find number: 24.a1
Date: possibly Bronze Age
Location: PDBNB
- B Indeterminate fragments, iron
Find number: 24.b1
Three iron fragments
Location: PDBNB
- C Pottery fragment
Find number: 24.c1
Date: possibly prehistoric
Location: PDBNB
- D Belt plate, iron
Find number: 24.d1
Counter plate or plate buckle with three iron rivets. Mineralized leather attached
Condition: corroded, upper end missing
Plate length: 43 mm
Location: PDBNB
- E Pottery fragment
Find number: 24.e1
Date: possibly Bronze Age
Location: PDBNB
- F Indeterminate fragment, bone?
Find number: 24.f1
Location: PDBNB
- G Pottery fragment
Find number: 24.g1
Find depth: 0.98 m
Condition: eroded fragment
Location: PDBNB
- H Indeterminate fragment, iron
Find number: 24.h
Find depth: 0.98 m
Location: missing



I Rivet, iron
Find number: 24.i1
Find depth: 1.00 m
Fragment of an iron rivet or an iron plate with a small rivet attached to it
Condition: severely corroded
Diameter: 15 mm
Location: PDBNB

J Pottery fragment
Find number: 24.j1
Location: PDBNB

K Knife, iron
Find number: 24.k1
Find depth: 1.05 m
Iron knife hilt fragment, mineralized wood remains attached. Fits to 24n or r
Condition: fragment, corroded
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.k2
Find depth: 1.05 m
Iron fragment, possibly associated with 24k1
Location: PDBNB

Plate, iron
Find number: 24.k3
Find depth: 1.05 m
Fragment of an iron plate with a small copper alloy rivet attached
Location: PDBNB

L Rivet, iron
Find number: 24.l1
Find depth: 1.15 m
Iron rivet covered with copper alloy foil
Condition: corroded, part of rim missing
Diameter: 23 mm
Location: PDBNB

Rivet, iron
Find number: 24.l2
Find depth: 1.15 m
Iron rivet covered with copper alloy foil
Condition: corroded, part of rim missing
Diameter: 21 mm
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.l3
Find depth: 1.15 m
Two iron fragments
Location: PDBNB

M Plate, iron
Find number: 24.m1
Find depth: 1.10 m
The location of this find was not indicated on the field drawing
Flat iron fragment with textile and straw remains attached. The x-ray photograph reveals that this plate has two copper alloy rivets. The x-ray photograph shows no decoration
Location: PDBNB

N Strap end, iron
Find number: 24.n1
Find depth: 1.15 m
Location: missing

O Plate, iron
Find number: 24.o1
Find depth: 1.15 m
Part of a plate buckle or counter plate with three copper alloy rivets. The x-ray photograph shows no decoration
Plate length: 51 mm
Type: Siegmund Gür4.5
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG S-Gür4.5
FAG date: 6-7: 580/90-640/50
Alternative type: LPV 150: 560/70-660/70
Location: PDBNB

Rivet, iron
Find number: 24.o2
Find depth: 1.15 m
Large iron rivet covered with copper alloy foil
Diameter: 22 mm
Location: PDBNB

Plate, iron
Find number: 24.o3
Find depth: 1.15 m
Fragment of an iron plate with two small copper alloy rivets. Mineralized straw and textile remains attached. The x-ray photograph shows no decoration.

The plate may have been a belt mount
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.o4
Find depth: 1.15 m
Four iron fragments
Location: PDBNB

P Link, iron
Find number: 24.p1
Find depth: 1.15 m
Two small connected iron rings
Condition: corroded, rings only partially preserved
Ring diameter: 20 mm
Location: PDBNB

Q Rivet, copper alloy?
Find number: 24.q1
Find depth: 1.18 m
Two hollow rivets with a whitish surface, material unknown
Condition: well preserved
Diameter: 21 mm
Location: PDBNB

Knife, iron
Find number: 24.q2
Find depth: 1.18 m
Fragment of a knife or seax with mineralized wood remains attached
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.q3
Find depth: 1.18 m
Two iron fragments with mineralized textile and straw remains attached
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.q4
Find depth: 1.18 m
Three iron fragments
Location: PDBNB

Indeterminate fragment
Find number: 24.q5
Find depth: 1.18 m
Sandy concretion like 24 f1
Location: PDBNB

R? Knife, iron
Find number: 24.n or r
Find depth: 1.16 m
R is probably the correct designation for this find. The location of find r was not indicated on the field drawing
Fragment of a knife hilt. Fits to fragment k1
Location: PDBNB

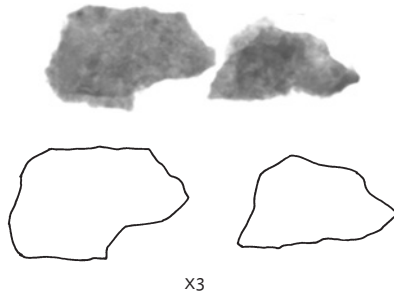
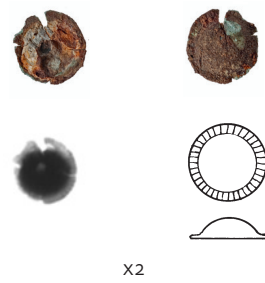
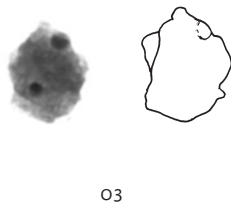
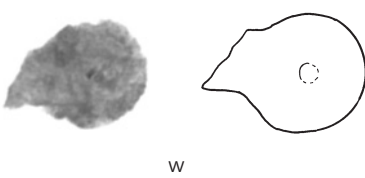
S Indeterminate fragment, iron
Find number: 24.s
Find depth: 1.16 m
Location: missing

T Indeterminate fragment, iron
Find number: 24.t
Find depth: 1.20 m
Location: missing

V Rivet, copper alloy
Find number: 24.v1
Find depth: 1.30 m
Copper alloy rivet, possibly belongs to plate 24 o1. It possibly had serrated edges
Condition: edges missing
Diameter: 16 mm
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.v2
Find depth: 1.30 m
Condition: corroded
Location: PDBNB

W Plate buckle, iron
Find number: 24.w1
Find depth: 1.28 m
Fragment of an iron plate with a round shape at its end and mineralised leather remains on its back. A large rivet impression is preserved on the front side of the round end. The x-ray photograph shows no decoration
Condition: corroded fragment
Plate length: 41 mm
Location: PDBNB



x Strap end, iron
Find number: 24.x1
Find depth: 1.28 m
Iron strap end with two copper alloy rivets.
Mineralized leather and textile remains attached.
The x-ray photograph shows no decoration. Many maggot impressions are preserved in the corrosion layer
Condition: slight corrosion
Plate length: 65 mm
Location: PDBNB

Rivet, copper alloy
Find number: 24.x2
Find depth: 1.28 m
Condition: slightly corroded
Diameter: 19 mm
Location: PDBNB

Plate, iron
Find number: 24.x3
Find depth: 1.28 m
Iron plate broken into two fragments with mineralized leather remains attached. The x-ray photograph shows no decoration
Location: PDBNB

Knife, iron
Find number: 24.x4
Find depth: 1.28 m
Possible fragment of an iron knife, may be associated with 24.q2. The x-ray photograph shows no decoration
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.x5
Find depth: 1.28 m
Six iron fragments
Location: PDBNB

Indeterminate fragment, bone?
Find number: 24.x6
Find depth: 1.28 m
Small fragment, possibly bone
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.x7
Find depth: 1.28 m
Condition: corroded
Location: PDBNB

y Buckle, iron
Find number: 24.y1
Find depth: 1.30 m
Iron buckle with a band shaped oval loop, mineralized leather remains attached. The x-ray photograph shows no decoration. Fits to plate aa2
Condition: slightly corroded
Loop length: 44 mm
Location: PDBNB

z Indeterminate fragment, iron
Find number: 24.z
Find depth: 1.37 m
Location: missing

AA Belt plate, iron
Find number: 24.aa1
Find depth: 1.28 m
Iron plate of a plate buckle with two out of three copper alloy rivets preserved. X-ray photograph shows no decoration
Condition: corroded
Plate length: 53 mm
Type: Siegmund Gür4.5
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG S-Gür4.5

FAG date: 6-7: 580/90-640/50
Alternative type: LPV 150: 560/70-660/70
Location: PDBNB

Plate buckle, iron
Find number: 24.aa2
Fragment of an iron plate buckle with two rivets. Mineralized leather attached. Fits to loop 24 y1 and closely resembles 24 ffg1. The x-ray photograph shows no decoration. Possibly horse gear
Condition: corroded fragment, part missing
Plate length: 48 mm
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.aa3
Large iron fragment with a rivet impression
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.aa4
Three iron fragments
Location: PDBNB

CC Buckle, iron
Find number: 24.cc1
Iron buckle with mineralized leather remains attached. The x-ray photograph shows no decoration
Condition: severely corroded
Loop length: 38 mm
Date: probably seventh century
Location: PDBNB

DD Plate, iron
Find number: 24.dd1
Find depth: 1.32 m
Iron plate fragment with two small copper alloy rivets. The x-ray photograph shows no decoration
Location: PDBNB

Rivet, copper alloy
Find number: 24.dd2
Find depth: 1.32 m
Condition: the edges are missing
Diameter: 15 mm
Location: PDBNB

Belt plate, iron
Find number: 24.dd3
Find depth: 1.32 m
Fragment of a belt plate with a large impression of a rivet. The x-ray photograph shows no decoration
Type: Siegmund Gür4.5
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG S-Gür4.5
FAG date: 6-7: 580/90-640/50
Alternative type: LPV 150: 560/70-660/70
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.dd4
Find depth: 1.32 m
Five iron fragments
Location: PDBNB

EE Plate buckle, iron
Find number: 24.ee1
Small plate buckle with remains of mineralized textile attached. The plate is folded around the loop (*Laschenbeschlag*). The x-ray photograph shows no decoration
Condition: corroded, part of plate missing
Loop length: 31 mm
Plate length: 25 mm
Type: Siegmund Gür6.2
Rhineland phase:10
Rhineland date: 670-705

Alternative type: FAG S-Gür6.2
FAG date: 9-10: 670/80-mid eighth century
Location: PDBNB

FF Knife, iron
Find number: 24.ffä1
Iron fragment, possibly of a knife. The x-ray photograph shows no decoration
Location: PDBNB

Plate buckle, iron
Find number: 24.ffb1
Fragment of a small iron plate buckle. Plate is folded around the loop. Mineralized leather remains preserved in the loop. The x-ray photograph shows no decoration
Condition: corroded
Loop length: 24 mm
Type: Siegmund Gür6.2
Rhineland phase:10
Rhineland date: 670-705
Alternative type: FAG S- Gür6.2
FAG date: 9-10: 670/80-mid eighth century
Location: PDBNB

Plate buckle or knife fragment, iron
Find number: 24.ffc1
Small iron plate with remains of mineralized textile attached. The plate is folded around the loop (*Laschenbeschlag*) in the case it is a plate buckle. The x-ray photograph shows no decoration
Condition: corroded, part of plate missing
Type: Siegmund Gür6.2
Rhineland phase:10
Rhineland date: 670-705
Alternative type: FAG S-Gür6.2
FAG date: 9-10: 670/80-mid eighth century
Location: PDBNB

Knife, iron
Find number: 24.ffd1
Fragment of a possible iron knife. May have mineralized leather attached
Condition: severely corroded fragment
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.ffd2
Five small iron fragments
Location: PDBNB

Flint
Find number: 24.ffe1
Flint fragment with one retouched edge
Length: 37 mm
Location: PDBNB

Indeterminate fragment, iron?
Find number: 24.fff1
Location: PDBNB

Belt plate, iron
Find number: 24.ffg1
Iron belt plate (with part of a buckle?). Mineralized leather, straw and textile attached. The x-ray photograph shows two copper alloy? rivets. Possibly associated with plate buckle y1. Possible horse gear
Condition: corroded, end missing
Plate length: 46 mm
Location: PDBNB

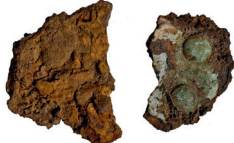
Rivet, iron
Find number: 24.ffh1
Flat iron rivet with a small iron plate attached to the end of the peg. Originally the rivet and plate seem



CC



EE



FFA



FFC



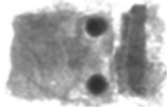
DD3, DD1



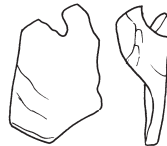
FFB



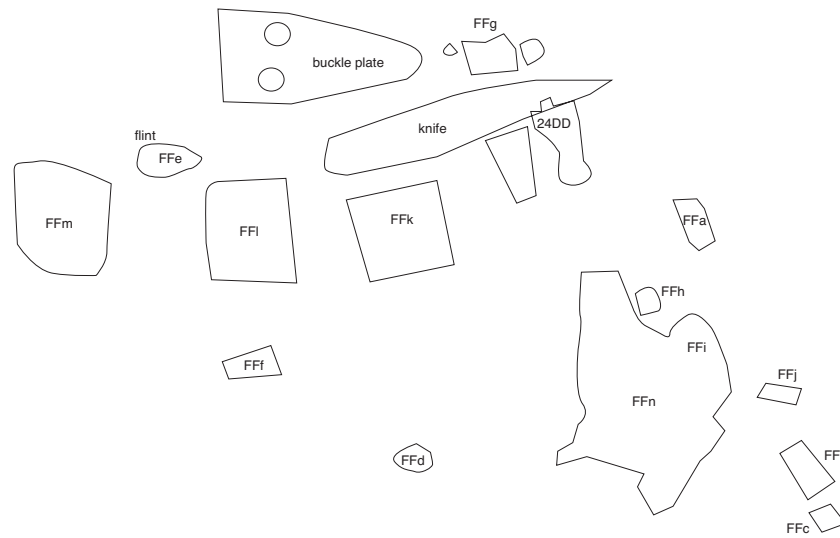
FFG



FFE



FFH



THE LOCATION OF IRON FRAGMENTS OF FIND NUMBER FF

to have held a sheet of organic material which has decomposed
Condition: severely corroded
Diameter: 19 mm
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.ffi1
Location: PDBNB

Knife, iron
Find number: 24.ffi1
Possible fragment of a knife with leather remains attached
Condition: corroded fragment
Location: PDBNB

GG Indeterminate fragment, iron
Find number: 24.gg1
Iron fragment with mineralized textile and straw attached. The x-ray photograph shows no decoration
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.gg2
Large iron fragment, possibly the point of a sword. The x-ray photograph shows no decoration
Location: PDBNB

Rivet, copper alloy
Find number: 24.gg3
Possibly associated with aa1
Condition: edges missing
Diameter: 9 mm
Location: PDBNB

Indeterminate fragments, iron
Find number: 24.gg4
Six iron fragments
Location: PDBNB

HH Belt plate, iron
Find number: 24.hh1
Fragment of a rectangular iron belt plate with three of four? rivets remaining. The x-ray photograph shows no decoration. Mineralised textile remains and other organic fibres attached
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.hh2
Two iron fragments
Location: PDBNB

Indeterminate fragment, iron
Find number: 24.hh3
Iron fragment with mineralized textile and straw attached. The x-ray photograph shows no decoration
Location: PDBNB

II Indeterminate fragment, iron
Find number: 24.ii
Location: missing

JJ Indeterminate fragment, iron
Find number: 24.jj
Location: missing



HH1 (SCALE 1:1)



GG2,1 (SCALE 1:1)



HH3 (SCALE 1:1)



24.3 (SCALE 1:1)

25 GRAVE

Field date 7/5/1957
Grave type wooden container grave
Grave pit length 2.24
Grave pit width 1.38
Grave pit depth 0.85

DESCRIPTION
The two features indicated with dotted lines are probably traces of tree roots. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with indistinct corners and a wooden container of indeterminate shape supported by two beams. The irregularity of the features on the drawing indicates that the grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Knife, iron
Find number: 25.a
Possible fragment of a knife grip
Location: missing

26 GRAVE

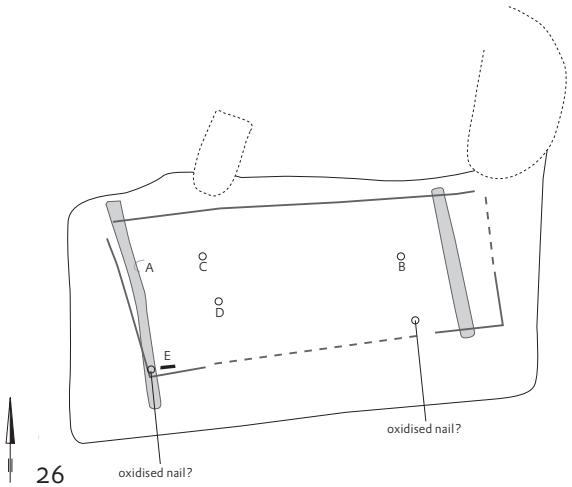
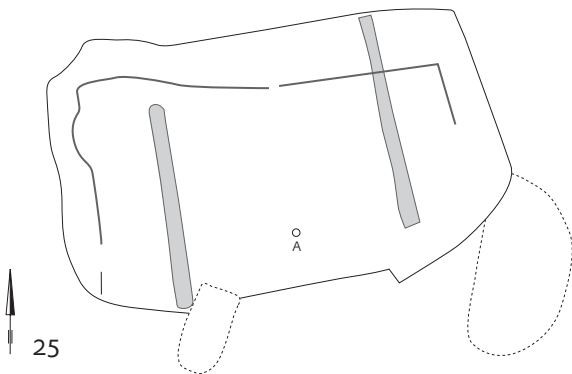
Field date 7/5/1957
Grave type wooden container grave
Grave pit length 2.64
Grave pit width 1.36
Grave pit depth 0.80
Orientation West-East

DESCRIPTION
The two features indicated with dotted lines are probably traces of tree roots. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Recovered were fragments of the skull of an individual between 20 to 60 years. No body silhouette observed.

DATE
cannot be dated

FINDS
A Skeletal element
Find number: 26.a
Find depth: 0.70 m
Human skull fragment
Location: PDBNB



B Flint
Find number: 26.b1
Find depth: 0.65 m
Condition: fragment
Length: 20 mm
Location: PDBNB

C Indeterminate fragments, iron
Find number: 26.c1
Two iron fragments
Location: PDBNB

D Indeterminate fragment, iron
Find number: 26.d1
Three iron fragments, one of which has mineralized textile attached
Location: PDBNB

E Arrowhead
Find number: 26.e1
Find depth: 0.82 m
Fragmented remains of an iron arrowhead. Mineralized wood preserved in the shaft
Condition: corroded fragments
Blade length: 49 mm
Location: PDBNB

27 GRAVE

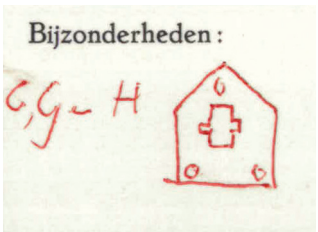
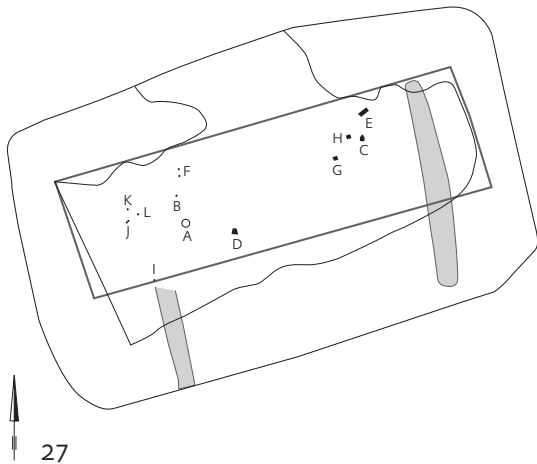
Field date 7/8/1957
Grave type wooden container grave
Grave pit length 2.56
Grave pit width 1.60
Grave pit depth 0.88

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in the grave indicates that it may have been reopened. The drawing of this grave suggests that there may have been a reopening pit covering the entire container.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 6-7, 580/90-640/50

FINDS
A Buckle, iron
Find number: 27.a
Find depth: 0.76 m
Date: probably seventh century
Location: missing



C, G, H

B Bead, glass
Find number: 27.b1
Find depth: 0.76 m
Cylinder shaped transparent blue bead consisting of twisted glass wire
Condition: complete
Type: BT 29
Siegmund type: Per47.4 (groups F-I)
Rhineland date: 585-705
Location: Eichha Museum

C Belt plate, copper alloy
Find number: 27.c
Find depth: 0.75 m
Pentagonal copper alloy plate with three rivets.
The excavators' sketch in the field administration suggests that there was a cross-shaped opening in the centre of the plate.
Date: Late sixth to early seventh century
Location: missing

D Belt plate, iron?
Find number: 27.d
Find depth: 0.79 m
Concentration of iron, bronze and textile remains, possible belt plate
Date: probably seventh century
Location: missing

E Strap end, copper alloy
Find number: 27.e
Find depth: 0.83 m
Copper alloy strap end with associated leather remains
Location: missing

F Bead, glass
Find number: 27.f1
Find depth: 0.84 m
Transparent blue cylinder-shaped bead consisting of twisted glass wire
Condition: complete
Type: BT 29
Siegmund type: Per47.4 (groups F-I)
Rhineland date: 585-705
Location: Eichha Museum

Bead, glass
Find number: 27.f2
Find depth: 0.85 m
Short transparent blue glass bead consisting of twisted wire
Condition: complete
Type: BT 34
Like Siegmund type 47.4 (groups F-I)
Rhineland date: 585-705
Location: Eichha Museum

G Belt plate, copper alloy
Find number: 27.g
Find depth: 0.85 m
Pentagonal copper alloy plate with three rivets.
The excavators' sketch in the field administration suggests that there was a cross-shaped opening in the centre of the plate
Date: late sixth to early seventh century
Location: missing

H Belt Plate, copper alloy
Find number: 27.h
Find depth: 0.85 m
Pentagonal copper alloy plate with three rivets.
The excavators' sketch in the field administration suggests that there was a cross-shaped opening in the centre of the plate.
Date: late sixth to early seventh century
Location: missing

I Bead, glass
Find number: 27.i1
Find depth: 0.85/0.90 m
Biconical opaque white glass bead
Condition: complete
Type: WO 20
Siegmund type: Per32.3 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per32.3 (group IV)
FAG date: not before 610/20-640/50
Location: Eichha Museum

J Bead, glass
Find number: 27.j1
Find depth: 0.85/0.90 m
Biconical opaque red glass bead
Condition: complete
Type: RO 20
Siegmund type: Per35.6 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per35.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eichha Museum

Bead, glass
Find number: 27.j2
Segmented opaque yellow glass bead
Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: Eichha Museum

K Bead, glass
Find number: 27.k1
Find depth: 0.85/0.90 m
Condition: complete
Cylindrical transparent blue glass bead consisting of twisted wire
Type: BT 29
Siegmund type: Per47.4 (groups F-I)
Rhineland date: 585-705
Location: Eichha Museum

L Bead, glass
Find number: 27.l1
Biconical transparent blue glass bead
Condition: complete
Type: BT 20
Siegmund type: Per47.3 (group I)
Rhineland date: 640-705
Alternative type: FAG S-Per47.3 (group IV)
FAG date: not before 610/20-640/50
Location: Eichha Museum

28 GRAVE

Field date 7/8/1957
Grave type wooden container grave
Grave pit length 1.88
Grave pit width 1.40
Grave pit depth 0.95
Orientation West-East

DESCRIPTION
The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The possible reopening pit in the northwest part of the grave indicates that this grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Body silhouette. Represented are the skull and the legs. The legs were lying relatively wide apart; the body was probably not wrapped in cloth for deposition in the grave. The observed length of the incomplete body silhouette was circa 1.30 m. The maximum length from the top of the skull to the foot end of the wooden container is 1.60 m. A small fragment of a long bone is preserved, probably two bones close together: possibly radius and ulna.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
A Skeletal element
Find number: 28.a
Find depth: 0.60 m
Small fragments of human bone
Location: PDBNB

B Pottery fragment
Find number: 28.b1
Find depth: 0.80 m
Wall fragment of handmade grit tempered pottery
Date: probably Iron Age
Location: PDBNB

C Bead, glass
Find number: 28.c1
Find depth: 0.90 m
Barrel shaped transparent blue glass bead
Condition: complete
Type: BT 19
Like Siegmund type Per47.3 (group I)
Rhineland date: 640-705
Location: Eichha Museum

D Bead, glass
Find number: 28.d1
Find depth: 0.90 m
Short cylindrical opaque yellow glass bead
Condition: complete
Type: YO 35
Siegmund type: Per33.1 (groups D-G)
Rhineland date: 555-640
Location: Eichha Museum

29 GRAVE

Field date 7/8/1957
Grave type wooden container grave
Grave pit length 2.72
Grave pit width 1.54
Grave pit depth 1.15

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The location of the finds in the grave indicates that it may have been reopened.

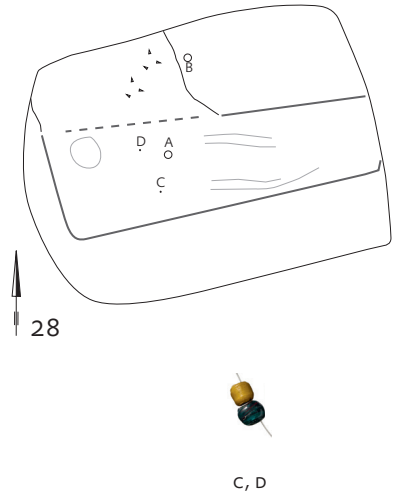
PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
A Pottery fragment
Find number: 29.a1
Find depth: 0.60 m
Wall fragment of handmade pottery. Reduced inside, oxidized outside
Date: Iron or Bronze Age
Location: PDBNB

B Bead, glass
Find number: 29.b1
Find depth: 1.10 m
Triple segmented opaque yellow glass bead
Condition: complete
Type: YO 24
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

C Pottery fragment
Find number: 29.c1
Find depth: 1.10 m



Wall fragment of handmade pottery, oxidized, grit tempered
Date: probably Bronze Age
Location: PDBNB

D Knife, iron
Find number: 29.d1
Find depth: 1.10 m
Iron fragment with leather remains, possibly of a knife
Condition: corroded fragment
Location: PDBNB

E Knife, iron
Find number: 29.e1
Find depth: 1.15 m
Two fitting fragments of an iron knife with mineralized leather and textile remains attached
Condition: corroded
Location: PDBNB

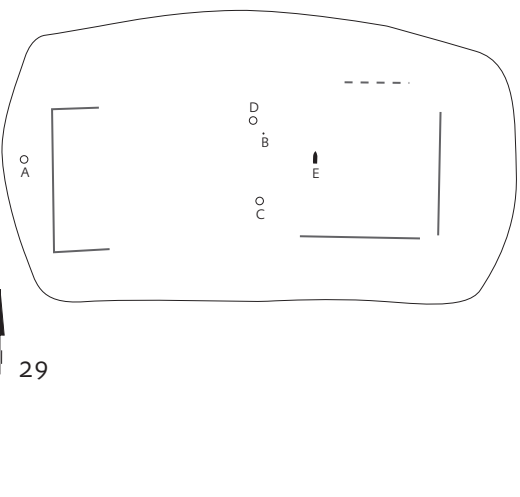
30 GRAVE

Field date 7/9/1957
Grave type wooden container grave
Grave pit length 3.20
Grave pit width 1.70
Grave pit depth 1.60

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. In the north-western corner, a plank from the width of the container extended beyond its length. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 6-7, 580/90-640/50



FINDS
A Plate buckle, copper alloy
Find number: 30.a1
Find depth: 0.80 m
Small copper alloy plate buckle with iron tongue, decorated with an engraved line
Condition: slightly corroded, tongue damaged
Loop length: 18 mm
Plate length: 16 mm
Type: LPV 130
LPV phase: MA2-MR1
Rhineland date: 520/30-630/40
Location: van Daalen family

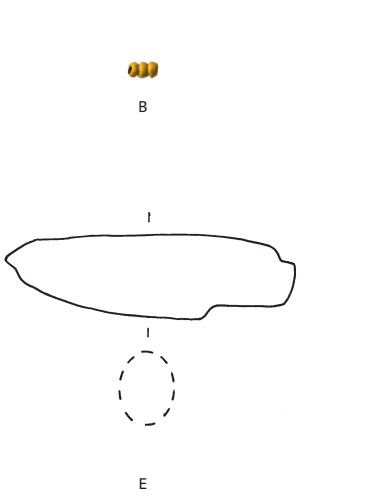
B Bead, glass
Find number: 30.b1
Find depth: 1.00 m
Small barrel shaped opaque yellow bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

C Indeterminate fragment, iron
Find number: 30.c1
Find depth: 1.10 m
Location: PDBNB

D Pottery fragment
Find number: 30.d1
Find depth: 1.13 m
Wall fragment of handmade pottery, reduced-oxidized
Date: Bronze or Iron Age
Location: PDBNB

E Indeterminate fragment, iron
Find number: 30.e1
Find depth: 1.15 m
Location: PDBNB

F Mount, iron
Find number: 30.f1
Find depth: 1.15 m
Three fragments of a curved iron sheet with remains of the wood to which it was attached. An iron strip is attached to the outer surface of the fragments



Condition: corroded fragments
Length: 40 mm
Location: PDBNB

Mount, iron
Find number: 30.f2
Find depth: 1.15 m
Iron sheet that was folded around the rim of a wooden object of which some mineralized wood is preserved
Condition: corroded fragment
Length: 30 mm
Location: PDBNB

Mount, iron
Find number: 30.f3
Find depth: 1.15 m
Fragment of an iron sheet formerly attached to a wooden object
Condition: corroded
Length: 21 mm
Location: PDBNB

Charcoal
Find number: 30.f4
Find depth: 1.15 m
Large fragment of charcoal
Location: PDBNB

G Pottery fragment
Find number: 30.g1
Find depth: 1.15 m
Rim/wall fragment of handmade grit tempered pottery. The rim is decorated with finger impressions

Date: probably Bronze Age
Location: PDBNB

H Pottery fragment
Find number: 30.h1
Find depth: 1.15 m
Wall fragment of handmade pottery, oxidized
Date: Bronze or Iron Age
Location: PDBNB

I Pottery fragment
Find number: 30.i1
Find depth: 1.30 m
Wall fragment of wheel thrown black burnished pottery
Date: Medieval
Location: PDBNB

J Indeterminate fragments, iron
Find number: 30.j1
Find depth: 1.35 m
Three iron fragments
Location: PDBNB

K Pottery vessel
Find number: 30.k1
Find depth: 1.35 m (top of vessel)
Large pot of hard reduced ware with a narrow opening. The upper part of the pot is decorated with four sets of four grooves, three of which are horizontal and one is undulating
Condition: restored
Maximum height: 273 mm
Type: Siegmund Kwt2.33

Rhineland phase: 6-8
Rhineland date: 570-640
Location: Eicha Museum

L Indeterminate fragment, iron
Find number: 30.l1
Find depth: 1.35/1.50 m
Iron fragment with leather remains attached
Location: PDBNB

M Pottery fragment
Find number: 30.m1
Find depth: 1.35/1.50 m
Wall fragment of handmade pottery, reduced-oxidized
Date: Bronze or Iron Age
Location: PDBNB

N Rivet, iron
Find number: 30.n1
Find depth: 1.35/1.50 m
Large iron rivet with wood remains and remains of an iron plate attached
Condition: corroded
Diameter: 19 mm
Location: PDBNB

Indeterminate fragment, iron
Find number: 30.n2
Find depth: 1.35/1.50 m
Iron fragment with wood remains attached
Location: PDBNB

O Pottery fragment
Find number: 30.o1
Find depth: 1.50 m
Wall fragment of handmade pottery, reduced-oxidized
Date: Bronze or Iron Age
Location: PDBNB

P Pottery vessel
Find number: 30.p
Find depth: 1.45 m
Small biconical red pot of soft fineware with a pouch shaped belly
Condition: rim slightly damaged
Maximum height: 94 mm
Type: Siegmund KWT4.11
Rhineland phase: late 7-8A
Rhineland date: 600-625
Location: Eicha Museum

Q Glass vessel
Find number: 30.q1
Find depth: 1.40/1.45 m
Complete bag beaker, yellowish to light greenish-brown. Slightly everted rim, narrowing somewhat at the neck. Cylindrical body widening before curving into a convex base with a sharp point. It is decorated below the rim with a fine self-coloured trail turned unevenly eight times, ending in a blob. A thick plain trail was turned once round the neck. Eight vertical trails were laid from this trail down to the base. The vertical trails are alternatively indented or plain. The glass is of rather poor quality with many bubbles (several of them up to 13 mm in length). The remains

of a punty mark were observed at the point of the vessel. The point and decoration were only slightly damaged in several places
Condition: complete
Maximum height: 195 mm
Date: late sixth-seventh century A.D.
Location: van Daalen family

31 GRAVE

Field date 7/9/1957
Grave type wooden container grave
Grave pit length 2.40
Grave pit width 1.42
Grave pit depth 0.90

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The western beam had probably been dug into the northern wall of the pit. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

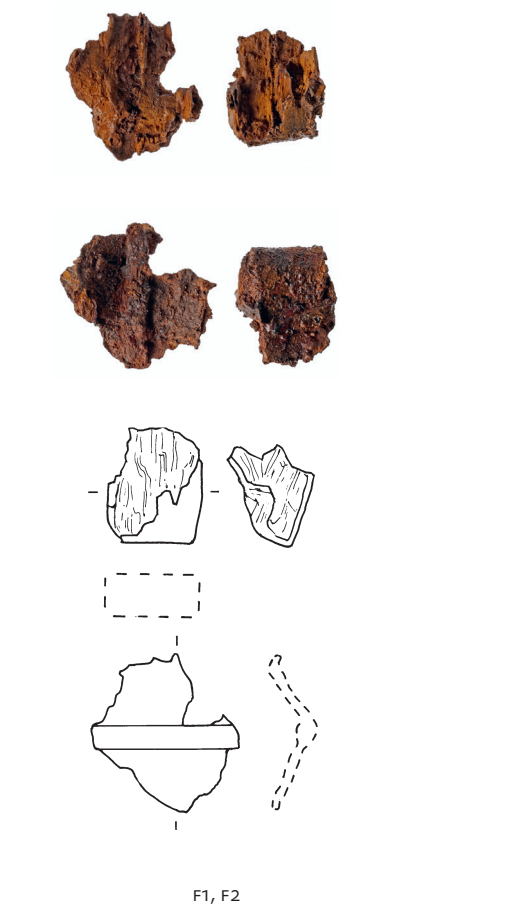
DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
A Pottery vessel
Find number: 31.a
Find depth: 0.78/0.85 m
The pottery sherds documented as b and c may also have been fitted to this pot
Undecorated biconical pot, reduced ware
Condition: restored
Maximum height: 120 mm
Type: Siegmund KWT2.43
Rhineland phase: 8-9
Rhineland date: 610-670
Alternative type: FAG S-KWT2.43
FAG date: 6-9: 580/90-670/80-710
Location: Eicha Museum

D Indeterminate fragment
Find number: 31.d
Find depth: 0.79 m
Fragments of calciferous material
Location: missing

E Indeterminate fragment, iron
Find number: 31.e
Find depth: 0.85 m
Location: missing

F Pottery fragment
Find number: 31.f
Find depth: 0.83 m
Location: missing



32
FIND

Field date 7/9/1957

DESCRIPTION

This context consisted of a cracked pot, not associated with a grave. The top of the pot was located only 10 cm below the surface level. No cremation remains or other residues were found inside the vessel.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

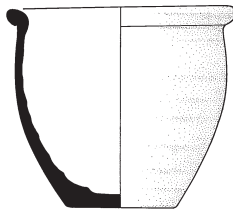
Bergeijk phase I or before, FAG 3-5, 460/80-580/90

FINDS

- A Pottery vessel
Find number: 32.a
Find depth: 0.20/ 0.25 (bottom of pot)
Small egg-shaped yellow course ware pot
Condition: restored
Maximum height: 118 mm
Type: Siegmund Wwt1.2
Rhineland phase: 3-5
Rhineland date: 485-570
Alternative type: FAG S-WWT1.2
FAG date: 3-5: 460/80-580/90
Location: Eicha Museum

33
GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.94
Grave pit width 1.02
Grave pit depth 0.70
Stratigraphic relation below 34



32A

DESCRIPTION

The pit of this grave was cut by grave 34. The cut did not damage the container of grave 33. A straight structure seems to have cut into the north-west corner of the grave at a high level. The nature of this feature is unclear, since the excavators did not comment on it. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened. A section was drawn of the pit and container. It is apparent that the grave was already visible at 20 cm below the surface.

PHYSICAL ANTHROPOLOGY

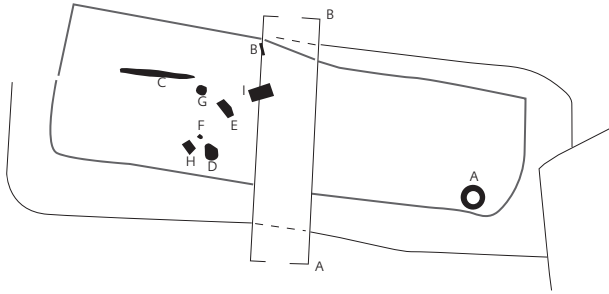
Probably adult

DATE

Bergeijk phase I, FAG phase 6, 580/90-610/20

FINDS

- 1 Indeterminate fragments, iron
Find number: 33.1
Many very small fragments of iron bronze and wood
Location: PDBNB
- 2 Pottery fragment
Find number: 33.2
Wall fragment of handmade oxidized pottery
Date: probably Iron Age
Location: PDBNB
- A Pottery vessel
Find number: 33.a1
Find depth: 0.50/0.54 m
Medium sized biconical pot decorated with a set of five parallel grooves made with a comb-like instrument turned four times around the upper body
Condition: complete, slightly cracked
Maximum height: 133 mm
Type: Siegmund KWT2.32
Rhineland phase: 4-5
Rhineland date: 530-570



33

Alternative type: FAG KWT3A

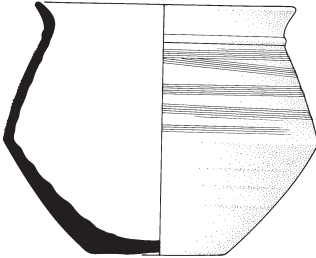
FAG date: 4-5 (occasionally 6): 510/25-580/90 (-610/20)

Location: van Daalen family

- B Buckle, iron
Find number: 33.b1
Find depth: 0.30 m
Large ovular iron buckle with a shield tongue of indeterminate shape. Possibly associated with plate 33.h1 and 33.e1. The X-ray photograph shows no decoration
Condition: corroded and fragmented
Loop length: 58 mm
Type: see h1 and e1
Location: PDBNB
- C Lance head, iron
Find number: 33.c1
Find depth: 0.65 m
Iron lance head. Remains of the wooden shaft are preserved in the socket
Remaining blade length: 145 mm
Condition: severely corroded
Type: possibly Siegmund Lan2.3/2.4
Rhineland phase: 7/8b-10
Rhineland date: 585-610/625-705
Alternative type: FAG S-Lan2.3/2.4
FAG date: 7-10: 610/20-mid eighth century
Location: PDBNB

Indeterminate fragments, iron
Find number: 33.c2
Find depth: 0.65 m
Many surface fragments of an iron lance head
Location: PDBNB

- D Indeterminate object, lead
Find number: 33.d1
Find depth: 0.65 m
A rolled up sheet of lead, possibly a weight or a container for a small object
Location: PDBNB



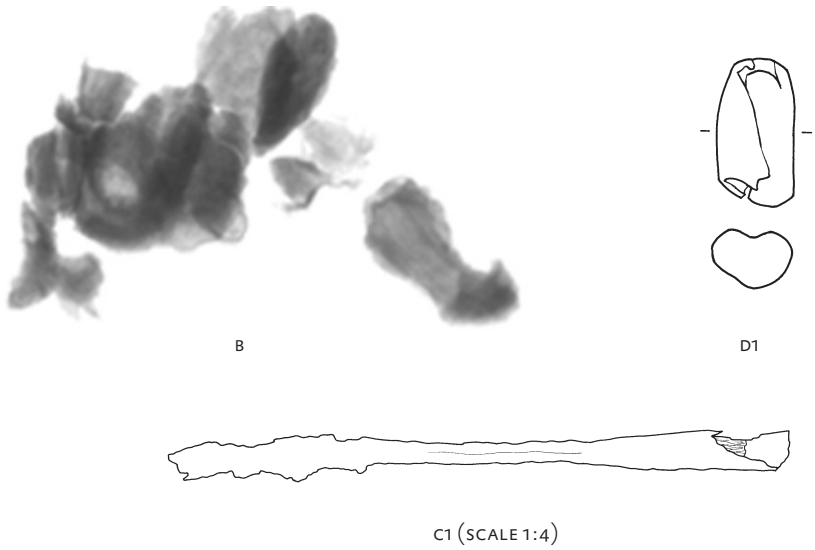
A

Indeterminate fragment, textile
Find number: 33.d2
Find depth: 0.65 m
Textile fibres, possible rope
Location: PDBNB

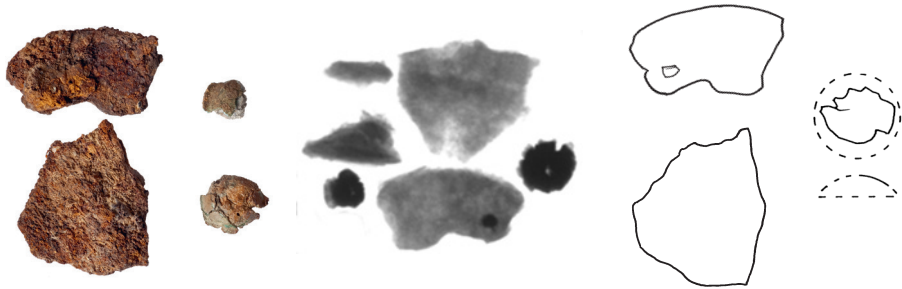
Indeterminate fragment, wood
Find number: 33.d3
Find depth: 0.65 m
Condition: mineralized
Location: PDBNB

- E Belt plate, iron
Find number: 33.e1
Find depth: 0.65 m
Two fragments of a semicircular iron buckle plate or counter plate with mineralized leather on the back. One of these has the remains of a rivet and mineralized textile attached. The x-ray photograph shows no decoration
Condition: corroded fragments
Type: Siegmund Gür4.1 or 4.2
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG Gür4.1/2
FAG date: 5-6: 565-610/20
Alternative type: LPV 148: 560/70-600/10
Location: PDBNB

Rivets, copper alloy
Find number: 33.e2
Find depth: 0.65 m
Remains of two copper alloy rivets, possibly associated with belt plates h1 or e1



C1 (SCALE 1:4)



E1, E2

Condition: corroded fragments
Diameter: 18 mm
Location: PDBNB

Indeterminate fragments, iron
Find number: 33.e3
Find depth: 0.65 m
Three iron fragments with wood remains attached.
X-ray photograph shows no decoration
Location: PDBNB

- F Indeterminate fragments, iron
Find number: 33.f1
Find depth: 0.65 m
Nine iron fragments, some of which have leather remains attached
Location: PDBNB

- G Knife, iron
Find number: 33.g1
Find depth: 0.65 m
Iron fragment with wood remains attached. Possible hilt of a knife
Condition: small fragment
Location: PDBNB

- H Belt plate, iron
Find number: 33.h1
Find depth: 0.65 m
Semicircular plate buckle or counter plate in two fragments with leather remains on the back. Two of three rivets are preserved. The x-ray photograph shows no decoration
Condition: corroded, part of the edges missing

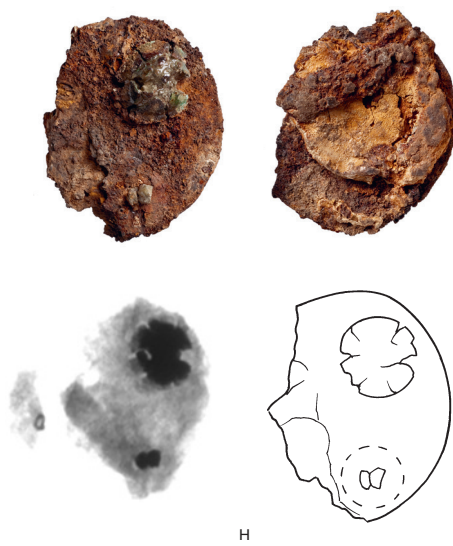
Plate length: 57 mm
Type: Siegmund Gür4.1 or 4.2
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG Gür4.1/2
FAG date: 5-6: 565-610/20
Alternative type: LPV 148: 560/70-600/10
Location: PDBNB

- I Mount, iron
Find number: 33.i1
Find depth: 0.65/ 0.70 m
V-shaped fragment of iron with a semicircular section. Possible knife or seax scabbard reinforcement
Condition: fragment
Length: 28 mm
Location: PDBNB

Indeterminate fragments, iron
Find number: 33.i2
Find depth: 0.65/ 0.70 m
Thirteen iron fragments
Location: PDBNB

Indeterminate fragments, organic
Find number: 33.i3
Find depth: 0.65/ 0.70 m
Two fragments of possible mineralized leather
Location: PDBNB

Rivet, copper alloy
Find number: 33.i4
Find depth: 0.65/ 0.70 m
Copper alloy fragment, probably a rivet
Location: PDBNB



I1

34
GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	2.64
Grave pit width	1.78
Grave pit depth	1.05
Stratigraphic relation	above 33

DESCRIPTION
Remains of burned bone were scattered throughout the entire grave, with a concentration in the south. These remains may derive from a cremation grave disturbed by the grave pit, but could also have been deposited during the funeral. The bone is lost, so it is unclear whether they were human or animal. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. On the eastern end, the planks of the container’s lengths extended beyond those of its width. The possible reopening pit in the western half of the container indicates that this grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I(II), FAG phases 7-8, 610/20-670/80

FINDS
A Indeterminate fragments, iron
Find number: 34.a1
Find depth: 0.50 m
The location of this find was not indicated on the field drawing
Two iron fragments
Location: PDBNB

- B Indeterminate fragment, unknown material
Find number: 34.b
Location: missing
- C Pottery fragment
Find number: 34.c1
Find depth: 0.55 m
Wall fragment of handmade pottery, reduced
Date: probably Iron Age
Location: PDBNB
- D Rivet, iron
Find number: 34.d1
Find depth: 1.00 m
Large iron rivet with mineralized wood on the back
Condition: corroded
Diameter: 28 mm
Location: PDBNB
- E Mount, iron
Find number: 34.e1
Find depth: 1.00 m
Large flat iron fragment with a large iron rivet, possible part of a shield grip or coffin mount
Location: PDBNB
- F Pottery vessel
Find number: 34.f
Find depth: 0.96 m
Small biconical pot of reduced ware decorated with a line of single rectangular stamps. The line of single stamps is framed by two horizontal ridges. The grooves on this pot are not very pronounced and perhaps should not be used as a dating element for this pot. Ignoring the grooves would place the pot in Siegmund’s phase 8A and Franken AG’s phase 7-8
Condition: restored
Maximum height: 150 mm
Type: Siegmund KWT2.12/2.22
Rhineland phase: 4/8A

- Rhineland date: 530-555/610-625
Alternative type: FAG KWT2B/2C
FAG date: 510/25-610/20 or 610/20-670/80
Location: Eicha Museum
- G Indeterminate fragment, iron
Find number: 34.g1
Find depth: 0.95 m
Long narrow iron fragment
Location: PDBNB
- H Pottery fragment
Find number: 34.h
Find depth: 0.95 m
Pottery rim fragment with a spout attached
Location: missing
- I Indeterminate fragment, iron
Find number: 34.i1
Find depth: 1.00 m
Narrow iron fragment
Location: PDBNB
- J Indeterminate fragment, organic
Find number: 34.j1
Find depth: 1.00 m
Possible mineralized leather fragments
Location: PDBNB
- K Indeterminate fragment, iron
Find number: 34.k
Find depth: 1.00 m
Concentration of corroded iron fragments
Location: missing
- L Rivet, iron
Find number: 34.l1
Find depth: 1.00 m
Condition: slightly corroded, edges missing
Location: PDBNB

Rivet, iron
Find number: 34.l2
Find depth: 1.00 m
Large iron rivet covered with copper alloy foil.
Mineralized wood attached
Condition: corroded, edges missing
Diameter: 20 mm
Location: PDBNB

Rivet, iron
Find number: 34.l3
Find depth: 1.00 m
Large iron rivet covered with copper alloy foil.
Mineralized wood attached
Condition: slightly corroded
Diameter: 22 mm
Location: PDBNB

Rivet, iron
Find number: 34.l4
Find depth: 1.00 m
Large iron rivet covered with copper alloy foil.
Mineralized wood attached
Condition: slightly corroded
Diameter: 20 mm
Location: PDBNB

Rivet, iron
Find number: 34.l5
Find depth: 1.00 m
Large iron rivet covered with copper alloy foil.
Mineralized wood attached
Condition: corroded, edges partly missing
Diameter: 23 mm
Location: PDBNB

Rivet, iron
Find number: 34.l6
Find depth: 1.00 m
Large iron rivet covered with copper alloy foil.
Mineralized wood attached
Condition: slightly corroded
Diameter: 21 mm
Location: PDBNB

Indeterminate fragments, iron
Find number: 34.l7
Find depth: 1.00 m
Three long narrow iron fragments
Location: PDBNB

Indeterminate fragment, iron
Find number: 34.l8
Find depth: 1.00 m
Location: PDBNB

M Nail, iron
Find number: 34.m1
Find depth: 1.00 m
Two nail-like iron fragments
Location: PDBNB

Indeterminate fragment, wood
Find number: 34.m2
Find depth: 1.00 m
Condition: mineralized
Location: PDBNB

N Indeterminate fragment, iron
Find number: 34.n
Find depth: 1.00 m
Copper alloy and iron fragments
Location: missing

O Indeterminate fragment, iron
Find number: 34.o1
Find depth: 1.00 m
Cylindrical iron fragment
Location: PDBNB

P Indeterminate fragments, wood
Find number: 34.p1
Find depth: 1.00 m
Ten fragments of mineralized wood
Location: PDBNB

Q Indeterminate fragment, iron
Find number: 34.q
Find depth: 1.00 m
Fragments of corroded iron and mineralized wood
Location: missing

R Indeterminate fragments, iron
Find number: 34.r1
Find depth: 1.00 m
Three iron fragments
Location: PDBNB

S Indeterminate fragments, iron
Find number: 34.s1
Find depth: 1.00 m
Five iron fragments
Location: PDBNB

T Indeterminate fragments, iron
Find number: 34.t1
Find depth: 1.00 m
Five iron fragments
Location: PDBNB

possible reopening pit indicates that this grave had probably been reopened. The container had either decayed completely or was dug out whole.

PHYSICAL ANTHROPOLOGY
Possibly adult.

DATE
Bergeijk phase I, FAG phases 5-6, 565-610/20

FINDS
A Indeterminate fragment, iron
Find number: 35.a
Find depth: 0.68 m
Location: missing

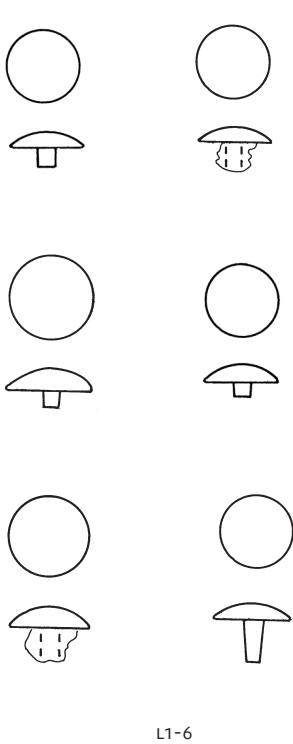
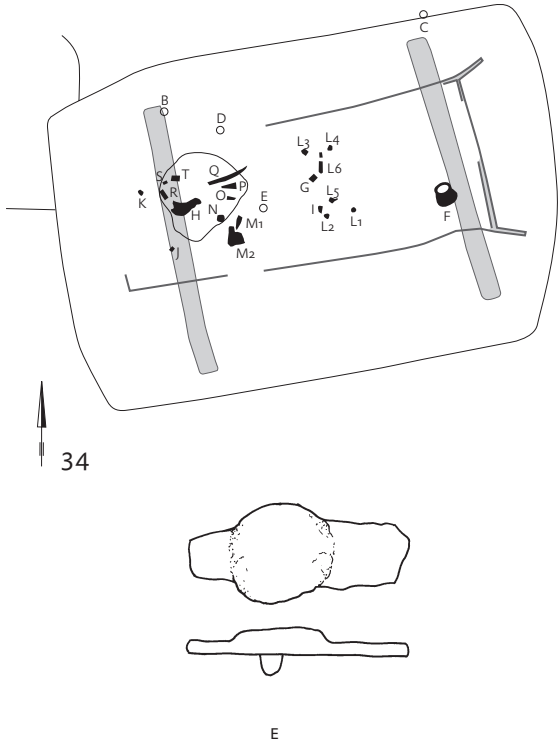
B Indeterminate fragment, iron
Find number: 35.b
Find depth: 0.73 m
Location: missing

C Indeterminate fragment, iron
Find number: 35.c
Find depth: 1.45/1.50 m
Location: missing

D Lance head
Find number: 35.d1
Find depth: 1.40 m
Large part of an iron lance head. A small part of the shaft is preserved. Possibly associated with serrated copper alloy rivets d3 and socket fragment d2
Remaining blade-length: 280 mm
Condition: corroded fragment
Type: Siegmund Lan1.3a (based on the excavator’s drawing)
Rhineland phase: 6
Rhineland date: 570-585
Alternative type: FAG S-Lan1.3a
FAG date: 5(- early6) 565-580/90(- 610/620)
Alternative type: LPV 32: (440/50) 470/80 - 600/10
Location: PDBNB

Lance head, iron
Find number: 35.d2
Find depth: 1.40 m
Two fragments of an open iron lance head socket. Probably associated with d1. Wood remains of the shaft preserved in the socket. Rivet from d3 fits to one of the fragments
Condition: corroded fragments
Type: see d1 and d3
Location: PDBNB

Rivet, copper alloy
Find number: 35.d3
Find depth: 1.40 m
Two oval dome shaped copper alloy rivets with serrated edges. One of these fits on one of the shaft fragments in d2
Condition: slightly corroded
Diameter: 23 mm
Type: FAG gekerbten Bronzenieten
FAG phase: 5-6
FAG date: 565-610/20
Alternative type: LPV 44
LPV date: (520/30) 560/70 - 630/40
Location: PDBNB



Indeterminate fragment, iron
Find number: 35.d4
Find depth: 1.40 m
Many surface fragments of an iron lance head
Location: PDBNB

E Indeterminate fragment, copper alloy
Find number: 35.e
Find depth: 1.35 m
Location: missing

F Indeterminate fragment, iron
Find number: 35.f
Find depth: 1.35 m
Location: missing

G Pottery fragment
Find number: 35.g
Find depth: 1.40 m
Location: missing

H Nail, iron
Find number: 35.h
Iron nail, possibly associated with the bottom of the coffin
Location: missing

36 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.44
Grave pit width 1.64
Grave pit depth 0.95

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The grave pit outline in the composite drawing was copied from a site plan. The other features were taken from the detail drawing. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Length of the wooden container probably circa 1.80 m, at most, 2.10 m. The length of the wooden container does not allow us to determine whether this grave was constructed for a juvenile or adult individual.

DATE
Bergeijk phase I, FAG phase 7, 610/20-640/50

FINDS
A Pottery fragments
Find number: 36.a1
Find depth: 0.90 m
Rim-wall fragments of a biconical bowl, oxidized.
Probably belong to bowl a2
Location: PDBNB

Pottery vessel
Find number: 36.a2
Find depth: 0.90 m
Undecorated biconical bowl, oxidised ware
Condition: restored
Maximum height: 88 mm
Type: Siegmund Sha2.21
Rhineland phase: 5-8
Rhineland date: 555-640
Alternative type: FAG S-Sha2.21
FAG date: 4-7: 510/25-640/50
Location: Eicha Museum

B Pottery fragment
Find number: 36.b1
Find depth: 0.94 m
Wall fragment of handmade pottery, reduced-oxidized ware
Date: probably Iron Age
Location: PDBNB

C Beads, glass
Find number: 36.c1
Three biconical opaque orange glass beads. The insides and edges of the holes in the beads are green, suggesting the outside may have turned orange as a result of corrosion
Condition: complete
Type: OO 20
Siegmund type: Per34.1 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per34.1 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

Bead, glass
Find number: 36.c2
Compressed biconical opaque white glass bead
Condition: complete
Type: WO 20
Siegmund type: Per32.3 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per32.3 (group IV)
FAG date: not before 610/20-640/50
Location: Eicha Museum

37 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit depth 1.00

DESCRIPTION
Most of the western part of the grave had been dug away by the construction workers before it could be examined. The remainder of the grave lay underneath the foundation trench wall and was excavated at a later time. The drawings from the two excavation stages do not fit together very well. The outline of the western part may rather represent the outline of the wooden container. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and a wooden container of unknown shape supported by at least one wooden beam. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
no finds, cannot be dated

38 GRAVE

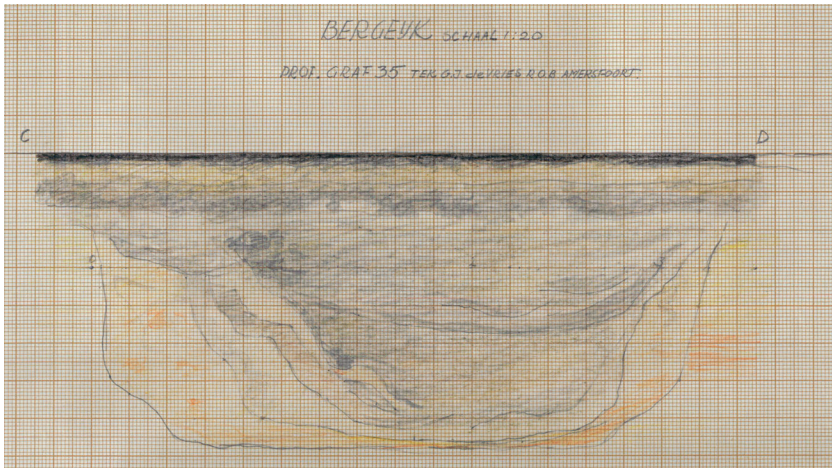
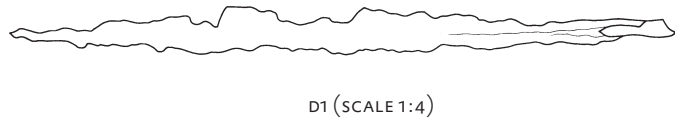
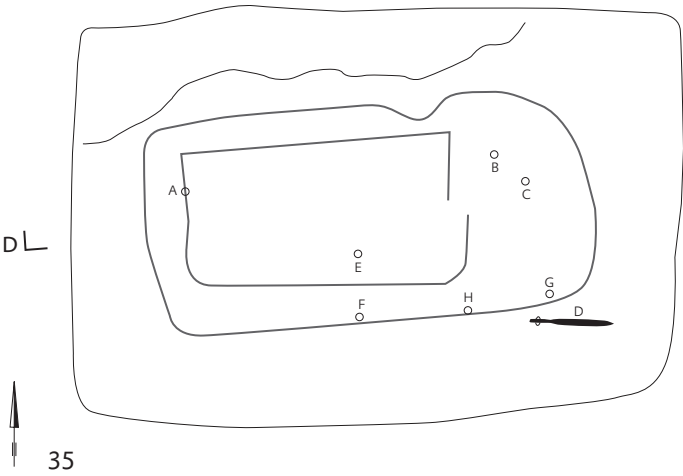
Field date 1957
Grave type wooden container grave
Grave pit length 2.46
Grave pit width 1.92
Grave pit depth 0.90
Stratigraphic relation above 4

DESCRIPTION
The western end of this grave was slightly damaged by the foundation trench. This grave probably cut possible grave 4. The relation between the graves is unclear, but grave 4 probably lay underneath grave 38. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with rounded corners and held a rectangular wooden container supported by two beams. We do not know whether this grave was reopened.

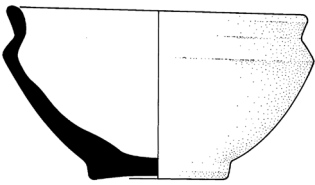
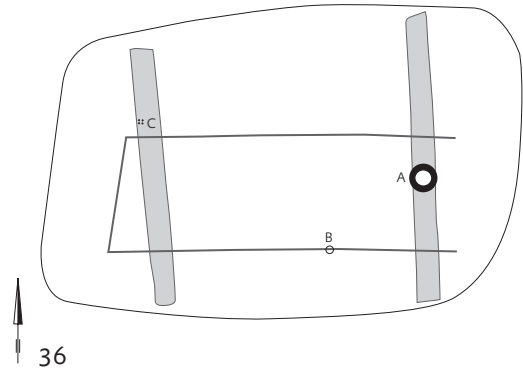
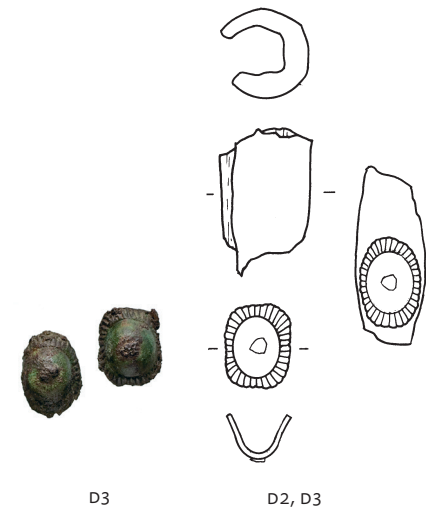
PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Bead, glass
Find number: 38.a1
Find depth: 0.90 m
Opaque greenish white disc shaped glass bead
Condition: complete
Type: WO 4
Location: Eicha Museum



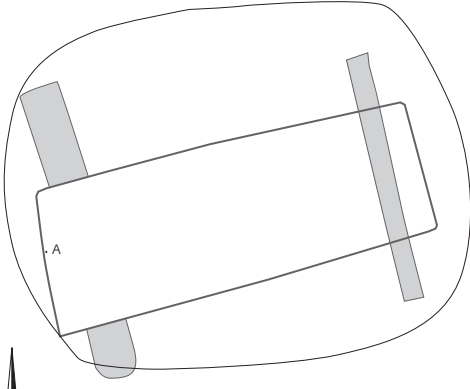
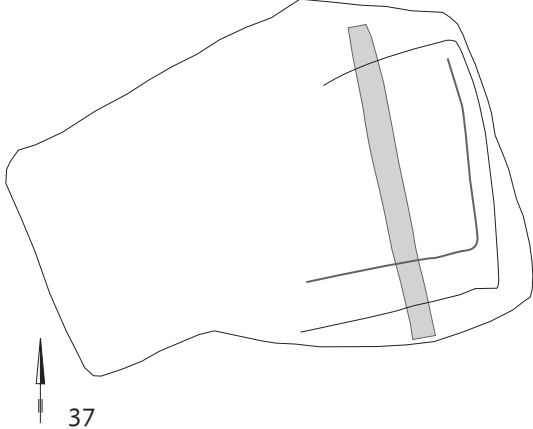
SECTION THROUGH GRAVE 35 (SCALE 1:40)



A2



C



38



A

39
GRAVE

Field date	7/12/1957
Grave type	wooden container grave
Grave pit length	2.84
Grave pit width	1.94
Grave pit depth	0.84
Stratigraphic relation	above 43

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. This grave cut into the pit of grave 43. The grave pit was trapezoidal with slightly rounded corners, and held a rectangular wooden container supported by two or possibly three beams. The grave pit outline in the composite drawing was copied from a site plan. The other features were taken from the detail drawing. The location of the finds and the indistinctness of the western half of the container outline in the grave indicate that this grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 5-7, 565-640/50

FINDS

- 1

Pottery fragment
Find number: 39.1
Wall fragment of handmade pottery, oxidized-reduced ware
Date: probably Iron Age
Location: PDBNB
- 2

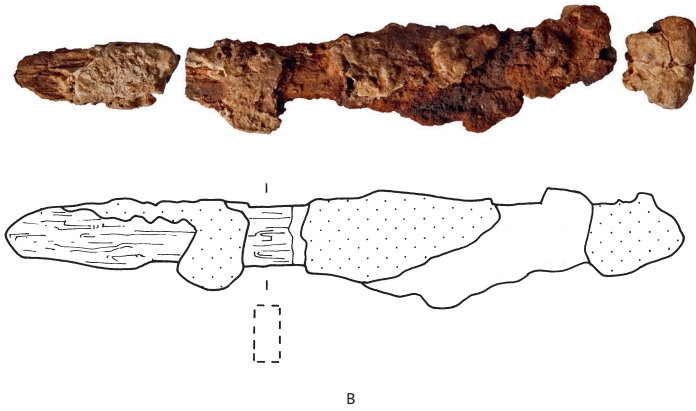
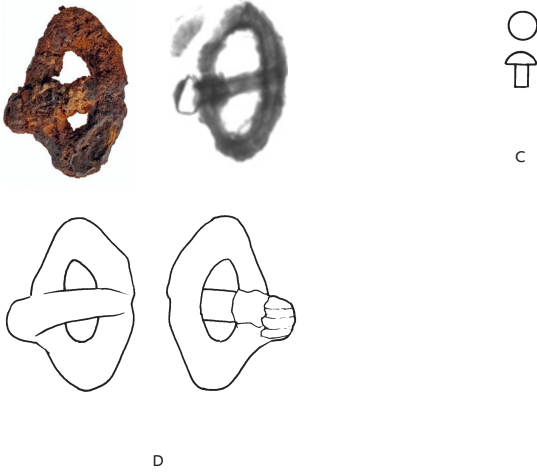
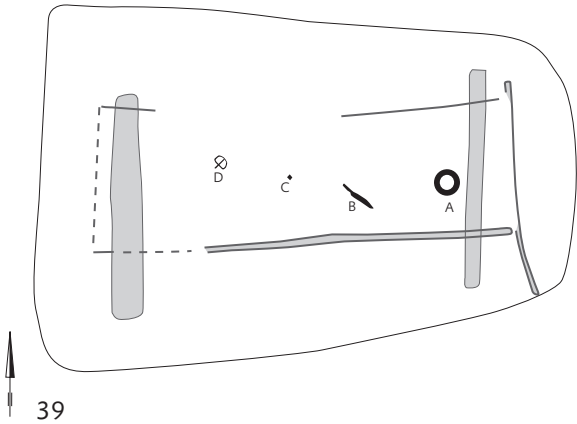
Brick fragment
Find number: 39.2
Possible fragment of a Roman *tegula*
Location: PDBNB
- A

Pottery Vessel
Find number: 39.a1
Find depth: 0.64 m
Biconical pot decorated with small square roulette stamps, reduced ware
Condition: slightly damaged
Maximum height: 135 mm
Type: Siegmund KWT 3.22
Rhineland phase: late 7- early 8B
Rhineland date: 600-630
Alternative type: FAG KWT 5B
FAG date: 5-7: 565-640/50
Location: Eicha Museum
- B

Knife, iron
Find number: 39.b1
Find depth: 0.75 m
Iron knife with remains of the leather scabbard and wooden hilt attached
Condition: corroded and fragmented
Blade length: 171 mm
Location: PDBNB
- C

Rivet, iron
Find number: 39.c1
Find depth: 0.77 m
Condition: corroded
Diameter: 8 mm
Location: PDBNB
- D

Buckle, iron
Find number: 39.d1
Find depth: 0.75 m
Oval iron buckle. The x-ray photograph shows no decoration
Condition: corroded
Loop length: 45 mm
Date: probably seventh century
Location: PDBNB



40
FIND

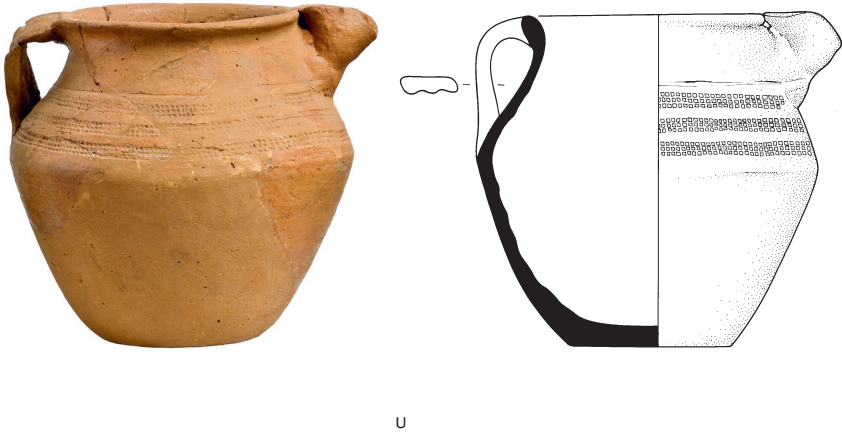
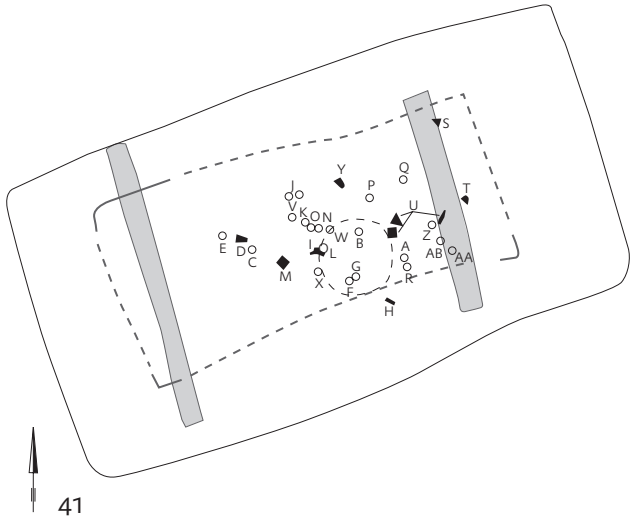
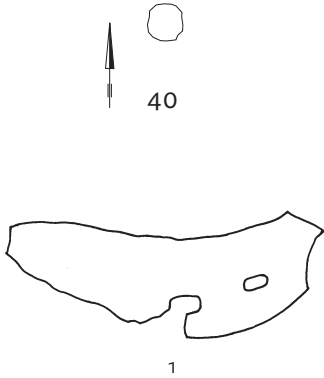
Field date	1957
Depth	0.15

DESCRIPTION
This context consists of a buried horseshoe, which was not associated with a grave.

DATE
post-Merovingian

- FINDS**
- 1

Horse shoe, iron
Find number: 40.1
Fragment of an iron horse shoe
Condition: corroded
Location: PDBNB



41
GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	3.12
Grave pit width	1.70
Grave pit depth	1.05

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The reopening pit in the middle of the grave and the location of the finds indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 5-7, 565-640/50

- FINDS**
- 1

Indeterminate fragments, iron
Find number: 41.1
Five iron fragments. According to the excavators, a number of the iron fragments in this grave may originally have been part of a shield boss
Location: PDBNB

- 2

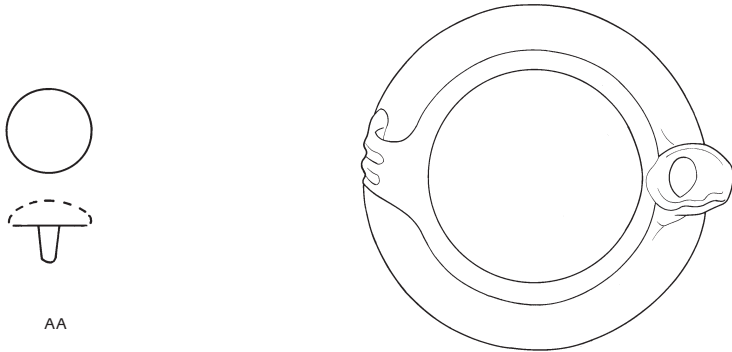
Indeterminate fragments, iron
Find number: 41.2
Four iron fragments
Location: PDBNB
- A

Indeterminate fragment, iron
Find number: 41.a
Find depth: 0.64 m
Location: missing
- B

Belt plate, iron
Find number: 41.b
Find depth: 0.52 m
Iron belt plate. The excavators noted on the find list that some silver was found with or on this plate, suggesting that it may have been decorated with silver inlay or had silver plated rivets
Date: probably seventh century
Location: missing
- E

Indeterminate fragment, iron
Find number: 41.e
Find depth: 0.68 m
Location: missing
- F

Indeterminate fragment, iron
Find number: 41.f
Find depth: 0.74 m
Location: missing



G Indeterminate fragment, iron
Find number: 41.g
Find depth: 0.74 m
Location: missing

H Arrow head, iron
Find number: 41.h
Find depth: 0.75 m
Socket fragment of an iron arrowhead
Location: missing

J Indeterminate fragment, iron
Find number: 41.j
Find depth: 0.86 m
Location: missing

K Indeterminate fragment, iron
Find number: 41.k
Find depth: 0.86 m
Location: missing

L Indeterminate fragment, iron
Find number: 41.l
Find depth: 0.86 m
Location: missing

O Indeterminate fragment, iron
Find number: 41.o
Find depth: 0.90 m
Location: missing

P Indeterminate fragment, iron
Find number: 41.p
Find depth: 0.80 m
Location: missing

Q Indeterminate fragment, iron
Find number: 41.q
Find depth: 0.82 m
Location: missing

R Indeterminate fragment, iron
Find number: 41.r
Find depth: 0.82 m
Location: missing

U Pottery Vessel
Find number: 41.u1
Find depth: 0.95 m (other fragments were found at depths between 0.63 and 0.85 m below surface level). The pottery fragments which are designated as c, d, i, m, n, s and t were probably also fitted to this pot. Oxidized biconical jug decorated with small square roulette stamps in tree bands of three rows. The entire bottom of this pot was restored, so its original height could not be determined
Condition: restored
Maximum height: 173 mm
Type: Siegmund KWT3.23
Rhineland phase: 8A-8B
Rhineland date: 610-640
Alternative type: FAG KWT5B
FAG date: 5-7: 565-640/50
Location: Eicha Museum

V Indeterminate fragment, iron
Find number: 41.v
Find depth: 0.89 m
Location: missing

W Indeterminate fragment, iron
Find number: 41.w
Find depth: 0.89 m
Location: missing

X Indeterminate fragment, iron
Find number: 41.x
Find depth: 0.89 m
Location: missing

Y Indeterminate fragment, iron
Find number: 41.y
Find depth: 0.92 m
Location: missing

Z Rivet, iron
Find number: 41.z
Find depth: 1.06/1.08 m
Location: missing

AA Rivet, iron
Find number: 41.aa1
Find depth: 1.06/1.08 m
Large flat iron rivet with wood remains attached
Condition: corroded, edges partly missing
Diameter: 20 mm
Location: PDBNB

AB Rivet, iron
Find number: 41.ab1
Find depth: 1.06/1.08 m
Large flat iron rivet with wood remains attached
Condition: corroded and fragmented
Diameter: 19 mm
Location: PDBNB

42 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.70
Grave pit width 1.80
Grave pit depth 1.00

DESCRIPTION
Most of the north-eastern half of the grave had been dug away by the construction workers before it could be examined. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and a wooden container of unknown shape supported by two beams. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phase 6, 580/90-610/20

FINDS
A Pottery vessel
Find number: 42.a
Reduced biconical pot decorated with lines of small square roulette stamps
Condition: partially restored
Maximum height: 154 mm
Type: Siegmund KWT3.23

Rhineland phase: 8A-8B
Rhineland date: 610-640
Alternative type: FAG KWT5B
FAG date: 5-7: 565-640/50
Location: Eicha Museum

Link, iron
Find number: 42.a1
Two interconnected iron links which were originally attached to a leather strap of which some remains are preserved. Each link is fixed to the strap with an iron rivet
Condition: corroded fragment
Ring diameter: 14 mm
Location: PDBNB

B Pottery Vessel
Find number: 42.b1
Undecorated biconical bowl, oxidised ware
Condition: restored
Maximum height: 101 mm
Type: Siegmund Sha2.21
Rhineland phase: 5-8
Rhineland date: 555-640
Alternative type: FAG S-Sha2.21
FAG date: 4-7: 510/25-640/50
Location: Eicha Museum

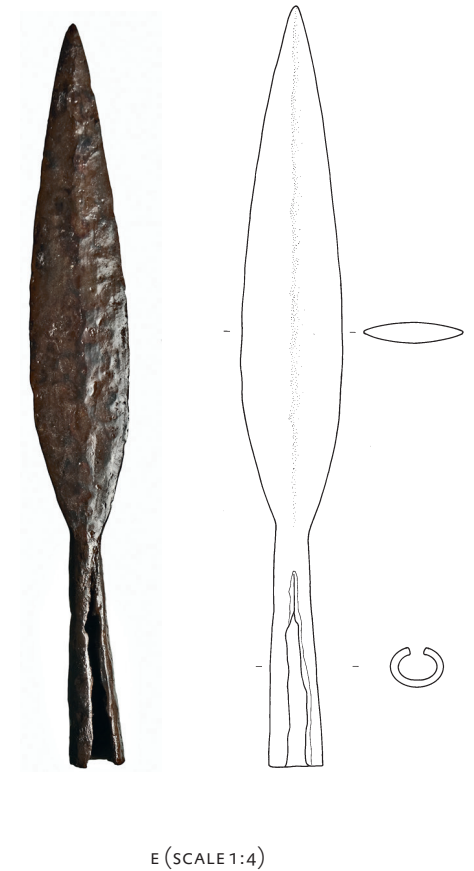
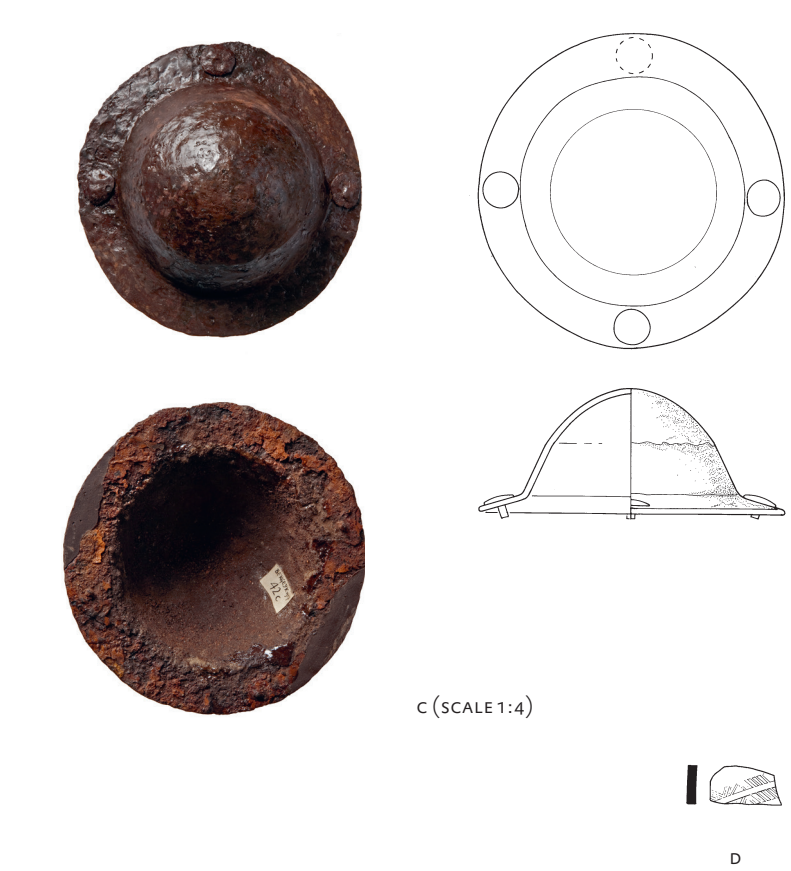
C Shield boss, iron
Find number: 42.c
Iron umbo with the remains of four rivets
Maximum width: 116
Condition: restored
Type: Siegmund Sbu5

Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG Sbu5A
FAG date: 6-9: 580/90-710
Location: PDBNB

D Pottery fragment
Find number: 42.d1
Find depth: 0.40 m
Wall fragment of wheel thrown, oxidized pottery, decorated with two rows of roulette stamps consisting of diagonal lines running in two directions
Date: Merovingian
Location: PDBNB

Indeterminate fragment, iron
Find number: 42.d2
Find depth: 0.40 m
Location: PDBNB

E Lance head, iron
Find number: 42.e1
Find depth: 0.97 m
Iron lance head with an open socket
Total length: 400
Condition: restored
Type: Siegmund Lan1.4
Rhineland phase: 7 (6-8A)
Rhineland date: 585-610 (570-625)
Alternative type: FAG S-Lan 1.4
FAG date: 5-6: 565-610/20
Alternative type: LPV 32: (440/50) 470/480- 600/10
Location: van Daalen family



- R Indeterminate fragments, iron
Find number: 44.r1
Find depth: 1.50 m
Two long narrow iron fragments
Location: PDBNB
- S Indeterminate fragments, iron
Find number: 44.s1
Find depth: 1.50 m
Two iron fragments
Location: PDBNB
- T Rivet, iron
Find number: 44.t1
Find depth: 1.50 m
Large iron rivet covered with copper alloy foil
Condition: slightly corroded
Diameter: 22 mm
Location: PDBNB
- U Indeterminate fragment, iron
Find number: 44.u1
Find depth: 1.50 m
Location: PDBNB
- V Belt plate, copper alloy
Find number: 44.v1
Find depth: 1.50 m
Rectangular hollow copper alloy mount of a sword belt with the remains of two clips on the back.
Decorated with cast animal style motives
Condition: slightly damaged
Plate length: 56 mm
Type: Menghin Weihmörting
Menghin phase: D
Menghin date: 580-620
Siegmund date: 6(-8A): 570-585(625)
Alternative Type: FAG Spa3: 510/20-640/50
Alternative type: LPV 96: 560/70-600/10
Location: Eicha Museum

- W Belt plate, iron
Find number: 44.w1
Find depth: 1.53 m
One half of the hollow rectangular mount of a sword belt, decorated with an incised animal style-like motif. An 8-shaped hole was made near the plate's fissure so it could be reused. A photograph taken shortly after excavation shows that a piece of textile remains was preserved on the back of the fitting.
Condition: halved fragment
Plate length: 36 mm
Type: Menghin Weihmörting
Menghin phase: D
Menghin date: 580-620
Siegmund date: 6(-8A): 570-585(625)
Alternative Type: FAG Spa3: 510/20-640/50
Alternative type: LPV 96: 560/70-600/10
Location: Eicha Museum

45 GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	2.58
Grave pit width	1.56
Grave pit depth	0.90

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. On the eastern end, the planks of the container's lengths extended beyond those of its width. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

A Beads, glass
Find number: 45.a1
Find depth: 0.70 m
Two almond shaped transparent blue beads
Condition: complete
Type: BT 15
Siegmund type: Per1.8 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per1.8 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

- B Bead, glass
Find number: 45.b1
Find depth: 0.70 m
Cylindrical twisted wire opaque yellow glass bead
Condition: YO 29
Type: form as Siegmund type 47.4 (groups (F) H-I)
Rhineland date: mainly 610-705
Location: van Daalen family

- C Bead, glass
Find number: 45.c1
Find depth: 0.70 m
Almond shaped opaque white glass bead
Condition: broken, one half missing
Type: WO 15/22
Siegmund type: possibly Per1.8 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per1.8 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

- D Bead, glass
Find number: 45.d
Find depth: 0.70 m
Location: missing

- E Pottery fragment
Find number: 45.e
Find depth: 0.80 m
Location: missing
- F Indeterminate fragment, copper alloy
Find number: 45.f
Find depth: 0.74 m
Location: missing

- G Bead, glass
Find number: 45.g1
Find depth: 0.86 m
Twisted wire transparent blue glass bead
Condition: complete
Type: BT 29
Siegmund type: Per47.4 (groups (F) H-I)
Rhineland date: 610-705
Location: van Daalen family

- H Bead, glass
Find number: 45.h1
Find depth: 0.86 m
Double segmented transparent blue glass bead
Condition: complete
Type: BT 25
Siegmund type: Per47.7 (groups G-H)
Rhineland date: 585-670
Location: van Daalen family

- I Bead, glass
Find number: 45.i1
Find depth: 0.94 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: van Daalen family

- J Beads, glass
Find number: 45.j1
Find depth: 0.84 m
Two almond shaped transparent blue beads
Condition: complete
Type: BT 15
Siegmund type: Per1.8 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per1.8 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

- K Bead, glass
Find number: 45.k1
Find depth: 0.92 m
Triple segmented transparent green glass bead
Condition: slightly corroded
Type: GT 24
Location: van Daalen family

- L Bead, glass
Find number: 45.l1
Find depth: 0.86 m
Small twisted wire opaque yellow glass bead
Condition: complete
Type: YO 34
Location: van Daalen family

- M Bead, glass
Find number: 45.m1
Find depth: 0.82 m
Twisted wire transparent blue glass bead
Condition: complete
Type: BT 29
Siegmund type: Per47.4 (groups F-I)
Rhineland date: 585-705
Location: van Daalen family

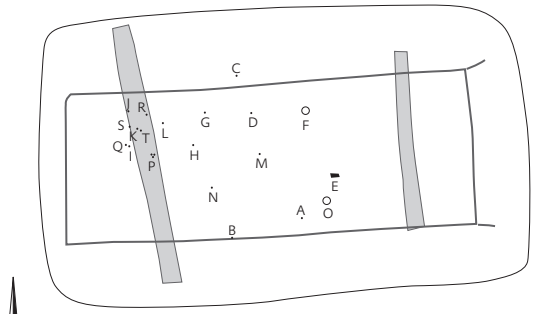
- N Bead, glass
Find number: 45.n
Find depth: 0.82 m
Location: missing

- O Indeterminate fragment, copper alloy
Find number 45.o
Find depth: 0.86 m
Location: missing

- P Bead, glass
Find number: 45.p1
Find depth: 0.95 m
Cylindrical twisted wire opaque yellow glass bead
Condition: complete
Type: YO 29
Form as Siegmund type Per47.4 (groups (F) H-I)
Rhineland date: mainly 610-705
Alternative type:
Alternative date:
Location: van Daalen family

- Bead, glass
Find number: 45.p2
Find depth: 0.95 m
Small twisted wire opaque yellow glass bead
Condition: complete
Type: YO 34
Form as Siegmund type Per47.4 (groups (F) H-I)
Rhineland date: mainly 610-705
Location: van Daalen family

- Bead, glass
Find number: 45.p3
Find depth: 0.95 m
Cylindrical twisted wire opaque yellow glass bead
Condition: complete
Type: YO 29
Form as Siegmund type Per 47.4 (groups (F) H-I)
Rhineland date: mainly 610-705
Location: van Daalen family



45

- Q Bead, glass
Find number: 45.q1
Find depth: 0.90 m
Double segmented opaque yellow glass bead
Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

- R Bead, glass
Find number: 45.r1
Find depth: 0.92 m
Double segmented transparent blue glass bead
Condition: complete
Type: BT 25
Siegmund type: Per47.7 (groups G-H)
Rhineland date: 585-670
Location: van Daalen family

- S Bead, glass
Find number: 45.s1
Find depth: 0.94 m
The subnumber of this find may not be correct
Biconical opaque red glass bead
Condition: large chip broken off
Type: RO 20
Siegmund type: Per35.6 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per35.6 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

- T Bead, glass
Find number: 45.t1
Find depth: 0.94 m
Biconical opaque bluish white glass bead
Condition: complete
Type: WO 20
Siegmund type: Per32.3 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per32.3 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family



A-D, G-N, P-T

46 GRAVE

Field date	7/18/1957
Grave type	wooden container grave
Grave pit length	2.02
Grave pit width	1.60
Grave pit depth	1.00

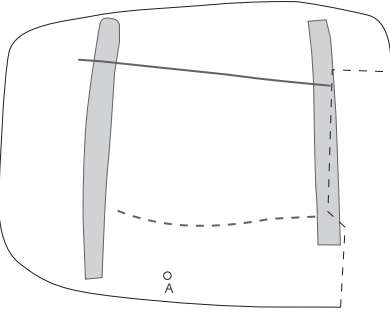
DESCRIPTION
The eastern end of this grave could not be excavated because it lay beneath the foundation trench wall. The remainder of the grave lay inside the building trench and construction workers probably damaged it before it could be examined. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
The length of the burial pit in combination with the length of the incomplete wooden container suggests the dimensions of the grave were comparable to the graves of adult individuals

DATE
cannot be dated

FINDS

A Pottery fragment
Find number: 46.a
Find depth: 0.55 m
Location: missing



46

47
GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.44
Grave pit width 1.62
Grave pit depth 0.75

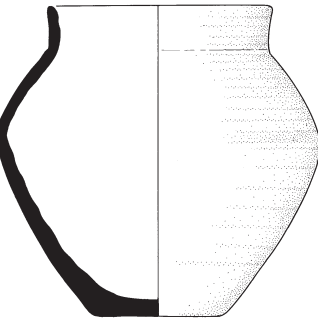
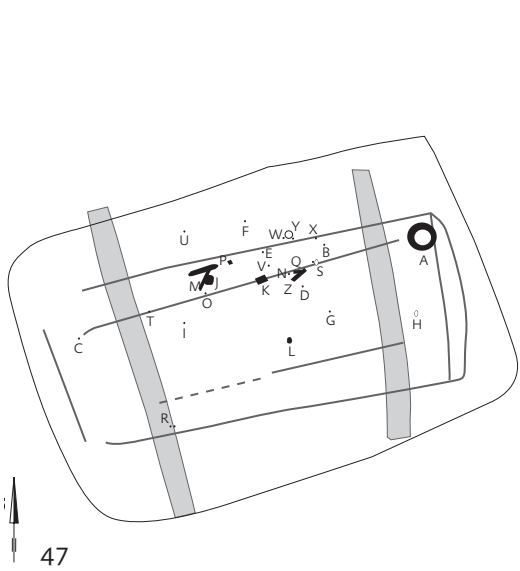
DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two or possibly four wooden beams. One of the beams had been dug into the northern wall of the grave pit. The lines running west-east in the area of the container probably represent either container floorboards or traces of the caved in container lid. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase II, FAG phase 8, 640/50-670/80

FINDS

A Pottery Vessel
Find number: 47.a
Find depth: 0.60 m
Undecorated biconical pot, reduced ware
Condition: restored
Maximum height: 162 mm
Type: Siegmund KWT2.43
Rhineland phase: 8-9



A

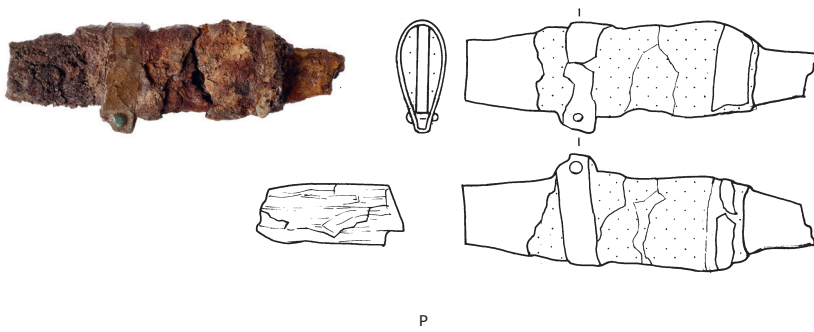
- Rhineland date: 610-670
Alternative type: FAG S-KWT2.43
FAG date: 6-9: 580/90-710
Location: Eicha Museum
- B Bead, glass
Find number: 47.b
Find depth: 0.60 m
Location: missing
- C Bead, glass
Find number: 47.c
Find depth: 0.68 m
Green bead, other characteristics unknown
Location: missing
- D Bead, glass
Find number: 47.d
Find depth: 0.65 m
Location: missing
- E Bead, amber
Find number: 47.e
Find depth: 0.62 m
Location: missing
- F Bead, glass
Find number: 47.f
Find depth: 0.60 m
Location: missing
- G Bead, glass
Find number: 47.g
Find depth: 0.62 m
Red and yellow bead, other characteristics unknown
Location: missing

- H Ring, copper alloy
Find number: 47.h
Find depth: 0.62 m
Copper alloy finger ring. The excavators' drawing in the field administration suggests that it possessed a bezel decorated with a spiral motif
Location: missing
- I Bead, glass
Find number: 47.i
Find depth: 0.68 m
Bluish green spiral shaped glass bead
Location: missing
- J Plate buckle, iron
Find number: 47.j1
Find depth: 0.70 m
Iron plate buckle with a triangular plate and three iron rivets, one of which is preserved. The plate is decorated with criss-cross inlaid copper alloy stripes bordered by bands of copper alloy and silver inlay. The buckle has a simple tongue and a band shaped section, and is decorated with copper alloy lines.
Condition: restored
Loop length: 45 mm
Plate length: 63 mm
Type: LPV 184 or 150
LPV phase: MA3-MR2
LPV date: 560/70-660/70
Location: Eicha Museum
- K Mount, iron
Find number: 47.k
Find depth: 0.70 m
Iron mount or belt plate
Date: probably seventh century
Location: missing



J

- L Indeterminate fragment, iron
Find number: 47.l
Find depth: 0.72 m
Location: missing
- M Strap end, copper alloy
Find number: 47.m
Find depth: 0.72 m
Location: missing
- N Bead, amber
Find number: 47.n
Location: missing
- O Bead, glass
Find number: 47.o
Find depth: 0.75 m
Location: missing
- P Knife, iron
Find number: 47.p1
Find depth: 0.75 m
The hilt and part of the blade of an iron knife, with remains of the leather scabbard and wooden grip attached. The scabbard is reinforced with narrow copper alloy bands, one at the mouth of the scabbard and one lower down. The latter is fixed with a copper alloy rivet.
Condition: corroded and fragmented
Location: PDBNB
- Scabbard
Find number: 47.p2
Find depth: 0.75 m
Three copper alloy rivets that may belong to the scabbard of knife 47 p1 and three fragments of mineralized wood which may have been part of the hilt of the knife
Condition: fragments
Location: PDBNB



P

- Q Indeterminate fragment, iron
Find number: 47.q
Find depth: 0.73 m
Location: missing
- R Beads, glass
Find number: 47.r
Find depth: 0.70 m
Two beads, characteristics unknown
Location: missing
- S Bead, glass
Find number: 47.s
Find depth: 0.70 m
Characteristics unknown. The bead was attached to a small copper alloy ringlet
Location: missing
- T Bead, glass
Find number: 47.t
Find depth: 0.73 m
Colourless glass bead, other characteristics unknown
Location: missing
- U Bead, glass
Find number: 47.u
Find depth: 0.70 m
Location: missing
- V Bead, amber
Find number: 47.v
Find depth: 0.75 m
Location: missing
- W Bead, glass
Find number: 47.w
Find depth: 0.73 m
Location: missing
- X Bead, amber
Find number: 47.x
Find depth: 0.74 m
Location: missing

- Y Bead, copper alloy
Find number: 47.y
Find depth: 0.75 m
Small bead-shaped copper alloy shell
Location: missing
- Z Indeterminate fragment, iron
Find number: 47.z
Find depth: 0.74 m
Location: missing

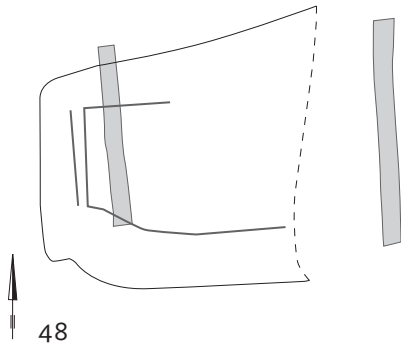
48
GRAVE

Field date 7/18/1957
Grave type wooden container grave
Grave pit width 1.36
Grave pit depth 0.95

DESCRIPTION
The eastern end of this grave could not be excavated, because it lay beneath the foundation trench wall. The remainder of the grave lay inside the trench and was probably damaged by the construction workers before it could be examined. We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The shape of the grave pit and container could not be established. The container was supported by two beams. The meaning of the line between the western end of the container and the grave pit outline is unclear. We do not know whether this grave had been reopened in ancient times.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
no finds, cannot be dated



48

49
GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.66
Grave pit width 1.66
Grave pit depth 1.00

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The lines running west-east in the area of the container probably represent traces of the caved in container and lid. The lengths and the western width of the container were pressed inwards during the process of decomposition. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase II, FAG phase 8, 640/50-670/80

FINDS
1 Belt Plate, iron
Find number: 49.1
Small triangular iron belt plate with three copper (alloy?) rivets. The plate may have had undulating edges. The X-ray photograph shows that it was decorated with silver and copper alloy inlay, probably in animal style II

Condition: severely corroded
Plate length: 42 mm
Rhineland date: 9: 640-670
Location: PDBNB

2 Indeterminate fragment, leather
Find number: 49.2
Find depth: 0.50 or 0.64 m
This find probably corresponds to find number b or c in the composite drawing
Mineralized leather fragment with textile remains
Location: PDBNB

3 Indeterminate fragment, iron
Find number: 49.3
Find depth: 0.50 or 0.64 m
This find probably corresponds to find number b or c in the composite drawing
Iron fragment with wood remains
Location: PDBNB

4 Indeterminate fragments, bone
Find number: 49.4
Find depth: 0.87 m
This find probably corresponds to find number l in the composite drawing
Two fragments of burned bone
Location: PDBNB

A Pottery fragment
Find number: 49.d or a 1
Find depth: 0.74 or 0.46 m
Wall fragment of thick walled, grit tempered hand-made pottery, reduced-oxidized ware
Date: probably Bronze Age
Location: PDBNB

Pottery fragment
Find number: 49.d or a 2
Find depth: 0.74 or 0.46 m
Wall fragment of oxidized pottery
Date: unknown
Location: PDBNB

D Rivet, iron
Find number: 49.d1
Find depth: 0.74 m
Part of a flat iron rivet
Condition: corroded, edges missing
Diameter: 20 mm
Location: PDBNB

E Strap end, copper alloy
Find number: 49.e1
Find depth: 0.76 m
The location of this find was not indicated on the field drawing
Undecorated, copper alloy strap end with two rivets
Condition: well preserved and restored
Plate length: 87 mm
Date: later seventh century
Location: PDBNB

F Indeterminate fragment, iron
Find number: 49.f1
Find depth: 0.79/0.80 m
Location: PDBNB

G Indeterminate fragments, iron
Find number: 49.g
Find depth: 0.80 m
Location: missing

H Rivet, iron
Find number: 49.h1
Find depth: 0.83 m
Flat iron rivet with wood remains attached
Condition: corroded
Diameter: 18 mm
Location: PDBNB

I Rivet, iron
Find number: 49.i1
Find depth: 0.84 m
Flat iron rivet with wood remains attached
Condition: corroded
Diameter: 20 mm
Location: PDBNB

J Arrow head, iron
Find number: 49.j
Find depth: 0.82 m
Location: PDBNB

K Rivet, iron
Find number: 49.k
Find depth: 0.87 m
Location: PDBNB

M Rivet, iron
Find number: 49.m
Find depth: 0.88 m
Location: PDBNB

N Rivet, iron
Find number: 49.n1
Find depth: 0.88 m
Flat iron rivet with wood remains attached

Condition: corroded
Diameter: 20 mm
Location: PDBNB

O Mount, iron
Find number: 49.o1
Find depth: 0.88 m
Fragment of an iron mount with wood remains attached. Possibly belongs to a shield grip or coffin
Condition: corroded fragment
Length: 25 mm
Location: PDBNB

P Rivet, iron
Find number: 49.p
Find depth: 0.88 m
Location: missing

Q Buckle, copper alloy
Find number: 49.q1
Find depth: 0.90 m
Copper alloy shoe buckle with three clips on the back and three fake rivets, decorated with strongly profiled cast decoration. The heads of the fake rivets consisted of blue glass droplets of which one is preserved. A thin metal wire is twisted around the loop
Condition: loop is damaged
Loop length: 20 mm
Plate length: 34 mm
Type: LPV 130
LPV phase: MA2-MR1
LPV date: 520/30 -630/40
Location: PDBNB

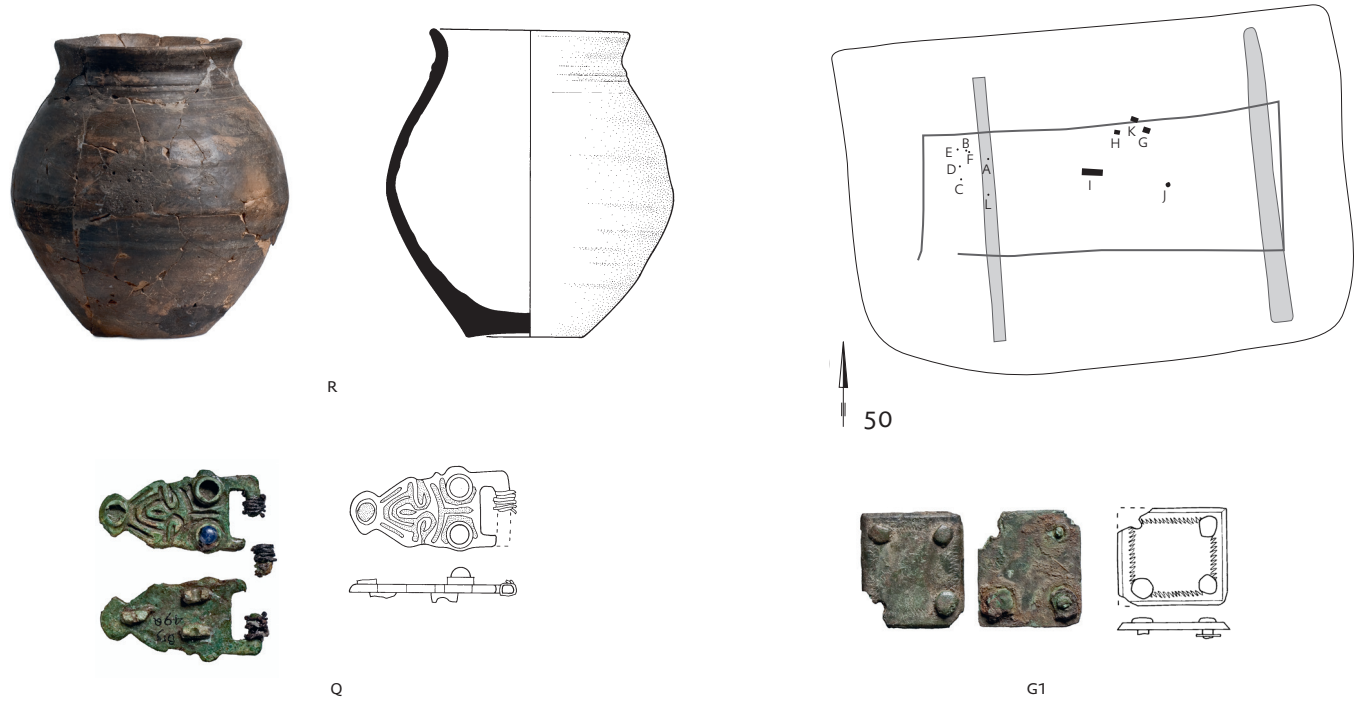
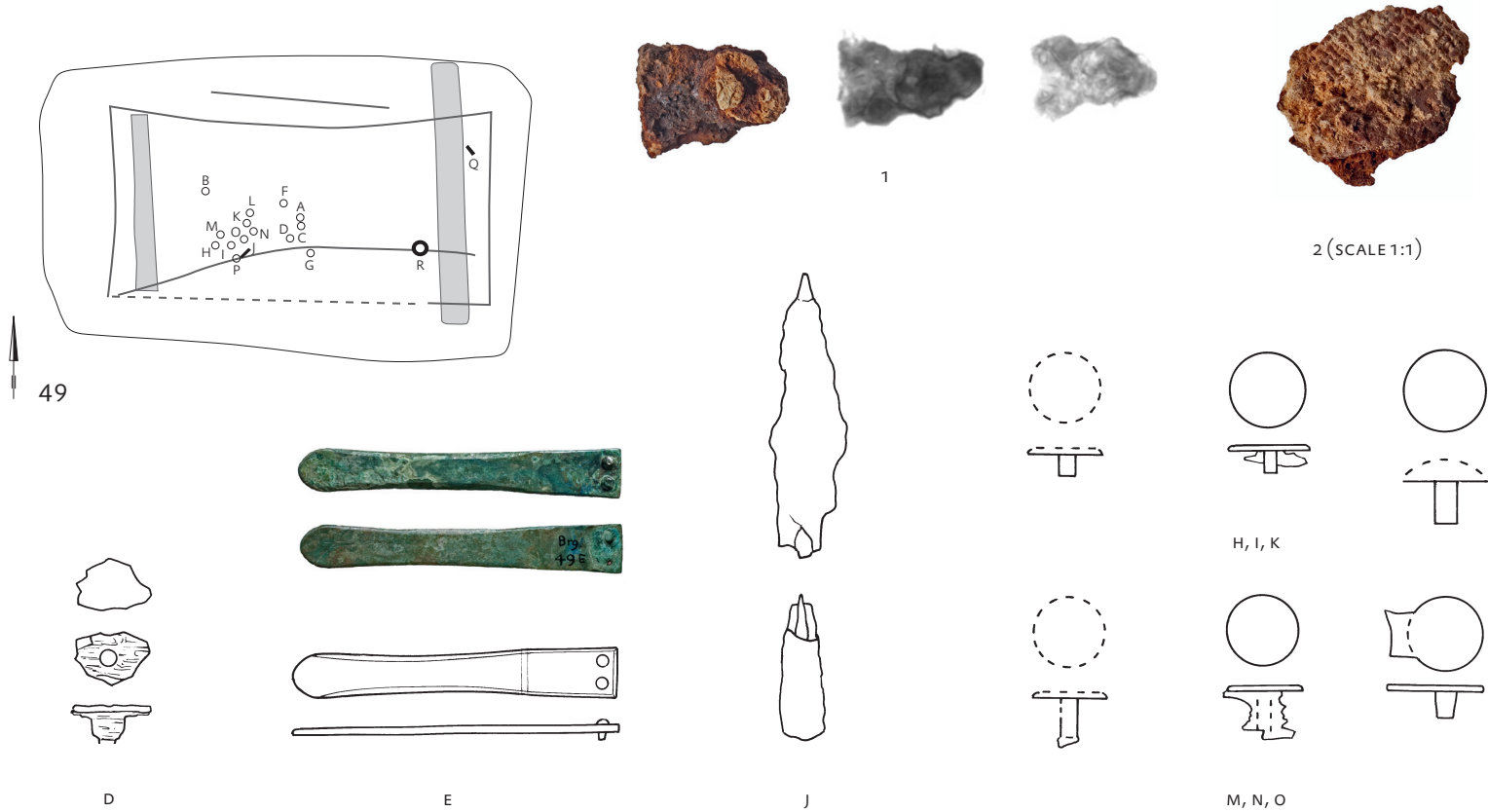
Indeterminate fragment, leather
Find number: 49.q2
Find depth: 0.90 m
Leather remains associated with buckle q1
Location: PDBNB

R Pottery Vessel
Find number: 49.r1
Find depth: 0.90 m
Undecorated biconical pot, reduced ware
Condition: restored
Maximum height: 164 mm
Type: Siegmund KWT2.43
Rhineland phase: 8-9
Rhineland date: 610-670
Alternative type: FAG S-KWT2.43
FAG date: 6-9: 580/90-670/80-710
Location: Eicha Museum

50
GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.64
Grave pit width 1.80
Grave pit depth 0.97

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden



container supported by two beams. The grave pit outline in the composite drawing was copied from a site plan. The other features were taken from the detail drawing. The location of the finds in the grave indicates that it may have been reopened.

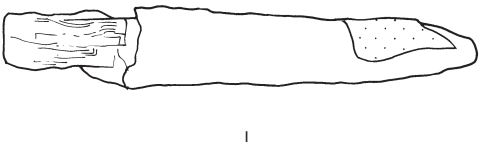
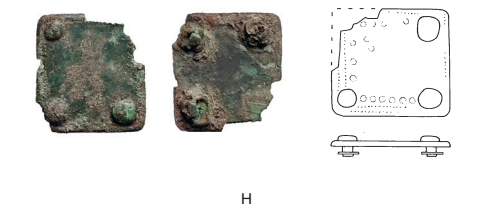
PHYSICAL ANTHROPOLOGY
The length of the wooden container does not allow us to determine whether this grave was constructed for a juvenile or an adult individual.

DATE
Bergeijk phase II, FAG phase 8, 640/50-670/80

FINDS
A Bead, glass
Find number: 50.a
Find depth: 0.92 m
Spiral shaped yellow glass bead, other characteristics unknown
Location: missing

B Bead, amber
Find number: 50.b
Find depth: 0.92 m
Location: missing

C Bead, glass
Find number: 50.c
Find depth: 0.95 m
Double segmented yellow glass bead, other characteristics unknown
Location: missing



D Bead, glass
Find number: 50.d
Find depth: 0.95 m
Green glass bead, other characteristics unknown
Location: missing

E Bead, glass
Find number: 50.e
Find depth: 0.93 m
Triple segmented red glass bead
Location: missing

F Bead, glass
Find number: 50.f
Find depth: 0.95 m
White bead, other characteristics unknown
Location: missing

G Belt plate, copper alloy
Find number: 50.g1
Find depth: 0.92 m
Rectangular copper alloy belt plate decorated with engraved zigzag lines. Leather remains preserved on the rivets
Condition: slightly corroded, one corner missing
Plate length: 29 mm
Type: copper alloy Ophoven belt
Date: possibly 650-675
Location: PDBNB

Indeterminate fragment, textile
Find number: 50.g2
Find depth: 0.92 m
Textile fragment with leather and copper alloy remains
Location: PDBNB



H Belt plate, copper alloy
Find number: 50.h1
Find depth: 0.93 m
Rectangular copper alloy belt plate with four rivets of which three remain, decorated with two lines of stamped in dots and one line of small stamped in circles. Leather remains preserved on the rivets
Condition: slightly corroded, edges partly missing
Plate length: 31 mm
Type: copper alloy Ophoven belt
Date: possibly 650-675
Location: PDBNB

Indeterminate fragments, copper alloy
Find number: 50.h2
Find depth: 0.93 m
Two copper alloy fragments, one of which contains a rivet. Associated with textile remains
Location: PDBNB

I Knife, iron
Find number: 50.i1
Find depth: 0.93 m
Fragments of an iron knife with leather and wood remains from the scabbard and hilt attached
Location: PDBNB

J Belt plate, copper alloy
Find number: 50.j1
Find depth: 0.96 m
Rectangular copper alloy belt plate with four rivets of which three remain, decorated with lines of stamped in dots and lines of circles. Leather remains preserved on the rivets
Condition: corroded, two corners missing
Plate length: 32 mm



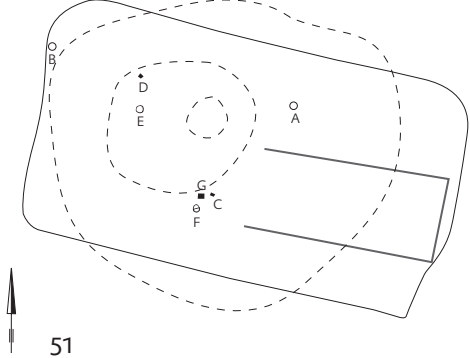
Type: copper alloy Ophoven belt
Date: possibly 650-675
Location: PDBNB

Rivet, copper alloy
Find number: 50.j2
Find depth: 0.96 m
Copper alloy rivet and leather remains
Condition: slightly corroded
Diameter: 5 mm
Location: PDBNB

K Belt plate, copper alloy
Find number: 50.k1
Find depth: 0.96 m
Rectangular copper alloy belt plate with four rivets, decorated with two lines of dots and one line of circles. Leather remains preserved on the rivets
Condition: slightly corroded
Plate length: 32 mm
Type: copper alloy Ophoven belt
Date: possibly 650-675
Location: PDBNB

Indeterminate fragment, textile
Find number: 50.k2
Find depth: 0.96 m
Location: PDBNB

L Bead, glass
Find number: 50.l
Find depth: 1.02 m
Green bead, other characteristics unknown
Location: missing



51 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.26
Grave pit width 1.26
Grave pit depth 1.50

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. Its western part at the location of the reopening pit could not be recorded. The reopening pit and the location of the finds in this grave indicate it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
A Pottery fragment
Find number: 51.a
Find depth: 0.92 m
Location: missing

B Pottery fragment
Find number: 51.b
Find depth: 0.72 m
Location: missing

C Indeterminate fragment, iron
Find number: 51.c
Find depth: 1.20 m
Location: missing

D Indeterminate fragment, iron
Find number: 51.d
Find depth: 1.20 m
Copper alloy fixed on an iron fragment
Location: missing

E Earring, silver
Find number: 51.e
Find depth: 1.25 m
Six fragments of a silver earring
Condition: severely corroded and fragmented
Location: PDBNB

F Buckle, iron
Find number: 51.f
Find depth: 1.30 m
Date: probably seventh century
Location: missing

G Buckle, iron
Find number: 51.g
Find depth: 1.35 m
Iron plate or possible buckle
Date: probably seventh century
Location: missing

52 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.06
Grave pit width 0.94
Grave pit depth 0.65
Orientation West-East

DESCRIPTION
The grave pit was rectangular with rounded corners and slightly curved walls and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Incomplete body silhouette with a length of between 1.40 - 1.60 cm. Based on the observed length of the femora and the thorax, it is assumed that this was an adult individual. The feet probably lay underneath a wooden bowl. The body silhouette indicates that the bones were lying close together, possibly because of the use of a textile wrapping of the body.

DATE
Bergeijk phase II, FAG phases 7(8), 610/20-640/50 (640/50-670/80)

FINDS
A Indeterminate fragments, iron
Find number: 52.a1
Find depth: 0.47 m
Small fragments of iron and wood
Location: PDBNB

Indeterminate fragments, textile
Find number: 52.a2
Find depth: 0.47 m
Four fragments of mineralized textile
Location: PDBNB

Scabbard, leather
Find number: 52.a3
Find depth: 0.47 m
Three leather fragments with small copper alloy rivets, one of which is a corner fragment. The rivets are located along the sides of the fragments in one or two rows
Condition: fragments
Location: PDBNB

Rivets, copper alloy
Find number: 52.a4
Find depth: 0.47 m
Two copper alloy rivets with serrated edges, decorated with an incised cross and small point circles in the sections of the cross
Condition: slightly corroded
Diameter: 15 mm
Location: PDBNB

Seax, iron
Find number: 52.a5
Find depth: 0.47 m
Iron seax, with remains of the leather scabbard and wooden hilt attached. At the lower end of the

scabbard and in the middle, six and five small copper alloy rivets respectively are preserved, ordered in a straight line. Remains of decorated leather are preserved on the lower part of the scabbard. The decoration consists of a long straight line parallel to the rivets and smaller lines perpendicular to the long line

Condition: severely corroded
Blade length: 265 mm
Grip length: 133 mm
Type: Siegmund Sax2.1
Rhineland phase: (7)8-9
Rhineland date: (585) 610-670
Alternative type: LPV 60
LPV date: MR1-MR3: 600/10-700/10
Location: PDBNB

Knife, iron
Find number: 52.a6
Find depth: 0.47 m
Small iron knife with remains of the leather scabbard and wooden hilt preserved. The knife has a symmetrical blade with the point on the axis of the knife

Condition: corroded
Grip length: 42 mm
Blade length: 82 mm
Location: PDBNB

B Bowl, wood and copper alloy
Find number: 52.b1
Find depth: 0.47 m
Rim fragment of a wooden bowl which is partially plated with a copper alloy sheet. The sheet is attached with small copper alloy rivets

Condition: slightly corroded
Length: 66 mm
Location: PDBNB

C Bowl, wood and copper alloy
Find number: 52.c1
Find depth: 0.49 m
Rim fragment of a wooden bowl which is partially

plated with a copper alloy sheet. The sheet is attached with small copper alloy rivets

Condition: slightly corroded
Length: 44 mm
Location: PDBNB

D Bowl, wood and iron
Find number: 52.d1
Find depth: 0.50 m
Rim fragment of a wooden bowl which is partially plated with a tongue shaped iron sheet. The sheet is attached with copper alloy staples

Condition: corroded
Length: 37 mm
Location: PDBNB

53 GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	2.52
Grave pit width	1.56
Grave pit depth	0.95

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY

The distance between the head end of the wooden container to the ceramic vessels placed at the foot end is 1.55 m. This suggests the deceased was either a non-adult or adult female.

DATE

Bergeijk phase I, FAG phases 6-7, 580/90-640/50

FINDS

A Bead, glass
Find number: 53.a
Find depth: 0.53 m
Fragment of a yellow bead, characteristics unknown
Location: missing

B Belt plate, iron
Find number: 53.b
Find depth: 0.54 m
Iron counter plate with copper alloy rivets. The excavators made a sketch on the back of the field administration card showing this plate to be triangular with a circular ending and three rivets. The plate may be associated with missing buckle 53y

Date: probably seventh century
Location: missing

C Bead, glass
Find number: 53.c1
Find depth: 0.68 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

D Chain, iron
Find number: 53.d
Find depth: 0.70 m
This find was distributed over 10 find numbers: d, h, s, u, v, z, aa, ff, gg and jj
Links of an iron belt pendant chain
Location: missing

E Bead, amber
Find number: 53.e1
Find depth: 0.82 m
Droplet shaped amber bead
Condition: complete
Type: A 22
Location: PDBNB

F Bead, glass
Find number: 53.f
Find depth: 0.78 m
Fragment of a yellow bead, characteristics unknown
Location: missing

G Strap end, copper alloy
Find number: 53.g
Find depth: 0.78 m
Copper alloy strap end. According to the drawing which the excavators made on the back of the find administration card, the strap end had two rivets

Location: missing

H Indeterminate fragment, iron
Find number: 53.h
Find depth: 0.78
Location: missing

I Bead, glass
Find number: 53.i1
Find depth: 0.82 m
Triple segmented opaque whitish blue glass bead
Condition: complete
Type: BO 24
Location: PDBNB

J Pottery Vessel
Find number: 53.j
Find depth: 0.78 m
Oxidised, fine ware bottle with a large dent in its shoulder which probably results from a manufactur-

ing error. The shoulder of the pot is decorated with straight and undulating horizontal grooves

Condition: rim slightly damaged
Maximum height: 203 mm
Type: Siegmund Fla1.1
Rhineland phase: 8, occasionally slightly younger
Rhineland date: 610-640
Alternative type: FAG: S-Fla1.1
FAG date: 5-7: 565-640/50
Location: Eicha Museum

K Bead, glass
Find number: 53.k1
Find depth: 0.82 m
Double segmented opaque bluish white glass bead
Condition: complete
Type: WO 25
Siegmund type: Per32.2 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per32.2 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

L Bead, glass
Find number: 53.l1
Find depth: 0.82 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

N Bead, glass
Find number: 53.n1
Find depth: 0.82 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

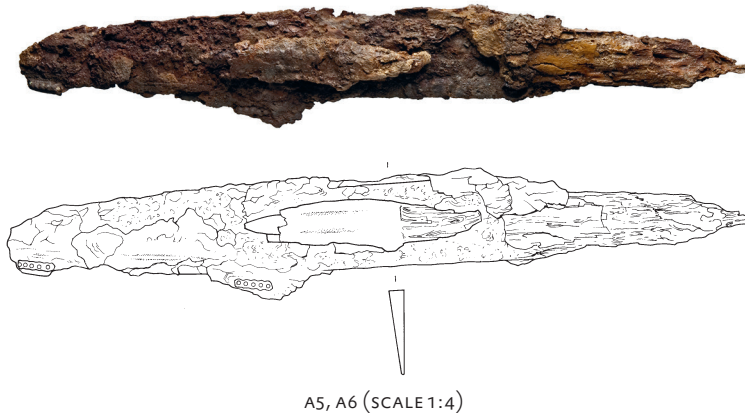
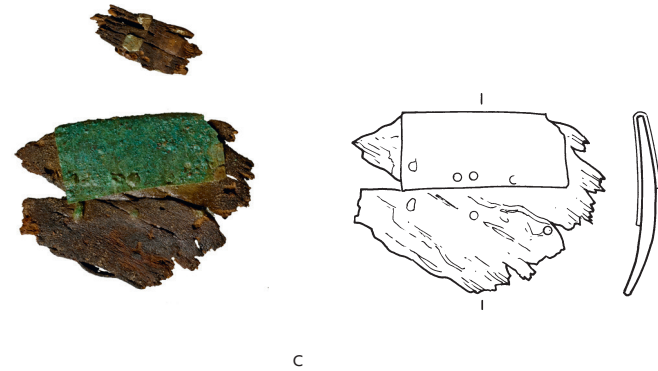
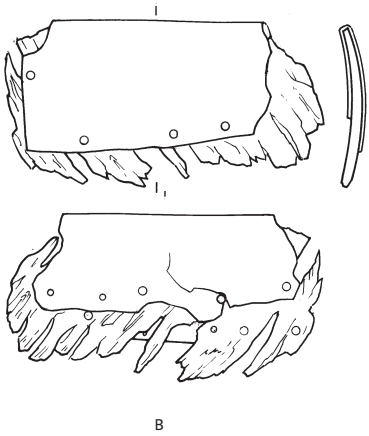
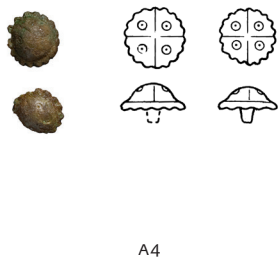
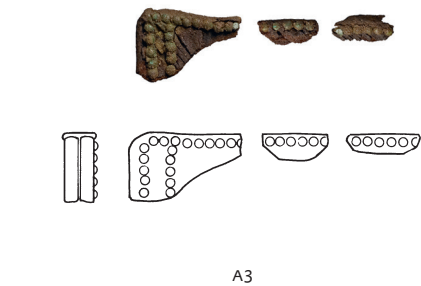
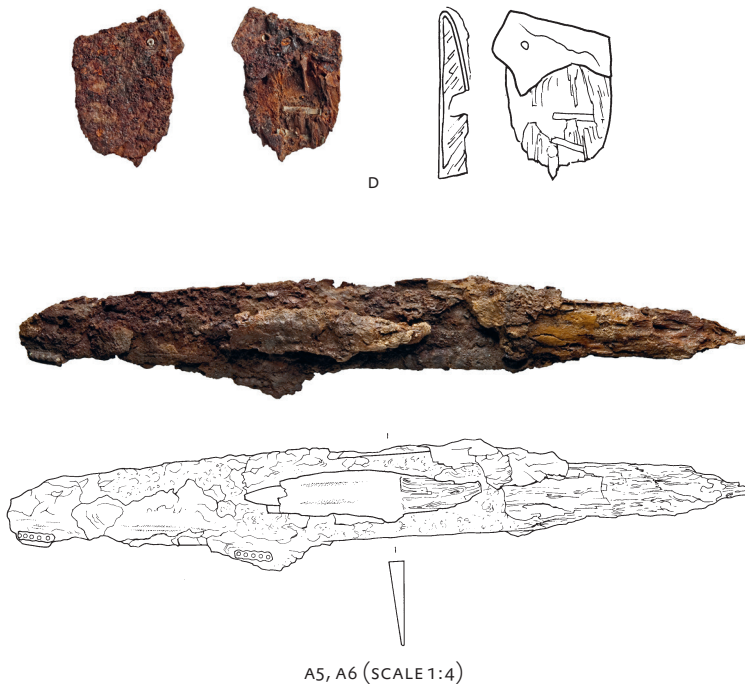
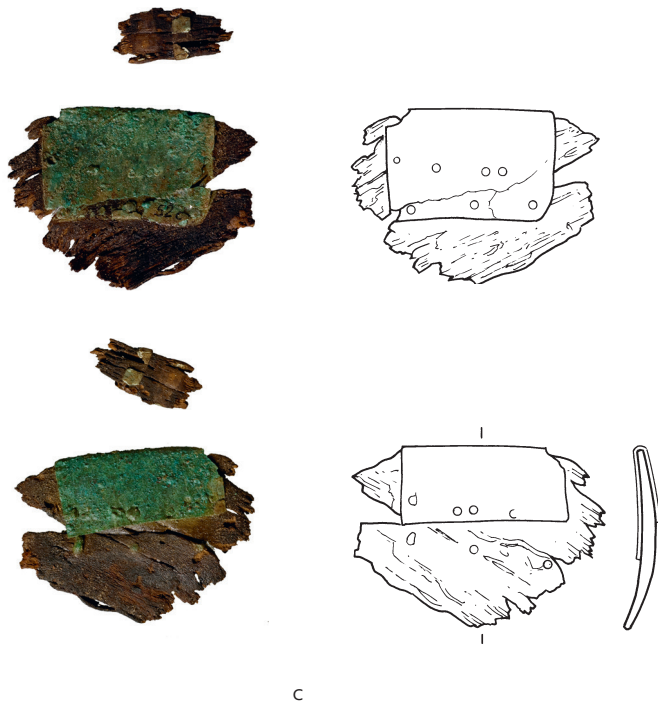
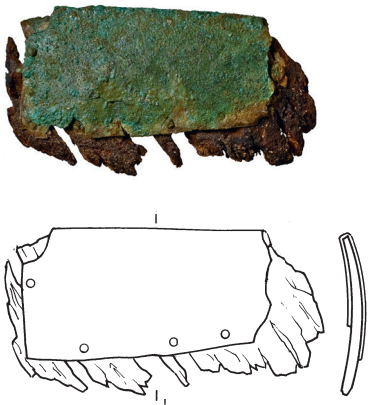
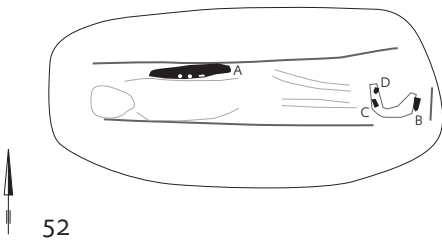
O Beads, glass
Find number: 53.o1
Find depth: 0.82 m
Two small barrel shaped opaque yellow glass beads
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

P Pottery Vessel
Find number: 53.p1
Find depth: 0.82 m
Reduced ware biconical pot decorated with roulette stamps consisting of vertical stripes, crosses and horse shoe-like shapes

Condition: rim slightly damaged
Maximum height: 160 mm
Type: Siegmund KWT3.22
Rhineland phase: late 7- early 8B
Rhineland date: 600-630
Alternative type: FAG Kwt5G
FAG date: 5-6: 565-610/20
Location: Eicha Museum

Glass vessel
Find number: 53.p2
Palm cup, yellow-brown (amber coloured). Out-turned rim, edge cracked off. Under the rim a broad and deep horizontal band with wheel-cut lines. The body has a S-curve from rim to base. On the base a large, carelessly retouched punty scar. Very good quality; almost no bubbles

Condition: complete
Maximum height: 65 mm
Type: Siegmund Gla2.1
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG S-Gla 2.1
FAG date: 6-7: 580/90-640/50
Location: Eicha Museum



Q Pottery vessel
Find number: 53.q
Find depth: 0.85 m
Small reduced course ware pot with a round belly
Condition: whole
Maximum height: 91 mm
Type: Siegmund Kwt4.12
Rhineland phase: not assigned
Location: Eicha Museum

R Pottery vessel
Find number: 53.r1
Find depth: 0.85 m
Ribbed pottery beaker
Condition: complete
Maximum height: 104 mm
Type: LPV 398
LPV phase: MR1-MR2
LPV date 600/10-660/70
Location: Van Daalen family

S Indeterminate fragment, iron
Find number: 53.s
Find depth: 0.90 m
Location: missing

T Bead, glass
Find number: 53.t
Find depth: 0.90 m
Green bead, characteristics unknown
Location: missing

U Indeterminate fragment, iron
Find number: 53.u
Find depth: 0.88 m
Location: missing

V Indeterminate fragment, iron
Find number: 53.v
Find depth: 0.92 m
Location: missing

W Indeterminate fragment, iron
Find number: 53.w
Find depth: 0.92 m
Location: missing

X Bead, glass
Find number: 53.x1
Find depth: 0.90 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

Y Buckle, iron
Find number: 53.y
Find depth: 0.94 m
Iron buckle. Possibly associated with counter plate 53b
Date: probably seventh century
Location: missing

Z Indeterminate fragment, iron
Find number: 53.z
Find depth: 0.94 m
Location: missing

AA Indeterminate fragment, iron
Find number: 53.aa
Find depth: 0.95 m
Location: missing

BB Bead, glass
Find number: 53.bb1
Find depth: 0.95 m
Triple segmented transparent blue glass bead
Condition: complete
Type: BT 24
Location: PDBNB

CC Bead, glass
Find number: 53.cc1
Find depth: 0.95 m
Triple segmented opaque yellow glass bead
Condition: complete
Type: YO 24
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

DD Bead, glass
Find number: 53.dd1
Find depth: 0.95 m
Double segmented opaque yellow glass bead
Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

EE Bead, glass
Find number: 53.ee1
Find depth: 0.95 m
Small barrel shaped opaque yellow glass bead

Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

Bead, glass
Find number: 53.ee2
Find depth: 0.95 m
Double segmented opaque yellow glass bead
Condition: complete
Type: YO 25
Siegmund type: Per33.6 (groups G-H)
Rhineland date: 585-670
Alternative type: FAG S-Per33.6 (group IV)
FAG date: not before 610/20-640/50
Location: PDBNB

FF Indeterminate fragment, iron
Find number: 53.ff
Find depth: 0.98 m
Location: missing

GG Indeterminate fragment, iron
Find number: 53.gg
Find depth: 0.94 m
Location: missing

HH Disc, glass
Find number: 53.hh
Find depth: 0.95 m
Location: missing

II Belt plate, iron
Find number: 53.ii1
Find depth: 0.97 m
Small iron belt plate

Date: probably seventh century
Location: missing

Strap end iron
Find number: 53.ii2
Find depth: 0.97 m
Location: missing

JJ Indeterminate fragment, iron
Find number: 53.jj
Find depth: 0.92 m
Location: missing

KK Bead, glass
Find number: 53.kk1
Find depth: 0.92/1.00 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

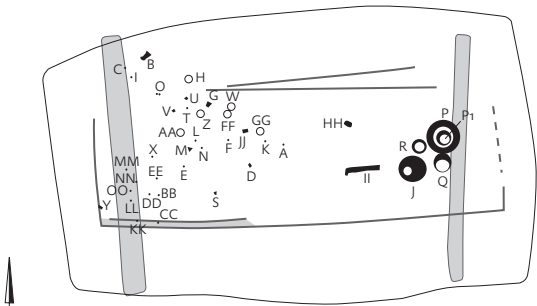
LL Beads, glass
Find number: 53.ll1
Find depth: 0.92/1.00 m
Two double segmented transparent blue glass beads
Condition: complete
Type: BT 25
Siegmund type: Per47.7 (groups G-H)
Rhineland date: 585-670
Location: PDBNB

MM Bead, glass
Find number: 53.mm
Find depth: 0.92/1.00 m
Location: missing

NN Bead, amber
Find number: 53.nn1
Find depth: 0.92/1.00 m
Irregularly shaped amber bead
Condition: complete
Location: PDBNB

Bead, glass
Find number: 53.nn2
Find depth: 0.92/1.00 m
Small barrel shaped opaque yellow glass bead
Condition: complete
Type: YO 30
Siegmund type: Per33.3 (groups D-H)
Rhineland date: 555-670
Location: PDBNB

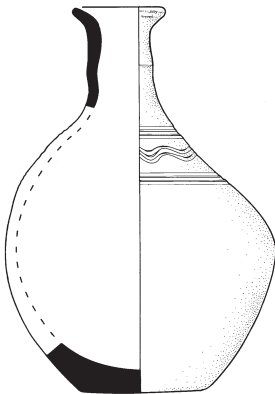
OO Bead, glass
Find number: 53.oo1
Find depth: 0.92/1.00 m
Small barrel shaped opaque black glass bead
Condition: complete
Type: BLO 30
Siegmund type: Per31.1 (groups C-D)
Rhineland date: 485-585
Alternative type: FAG S-Per31.1 (group II)
FAG date: ~580/90 (460/80-565)
Location: PDBNB



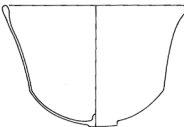
53



J



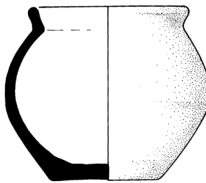
BEADS



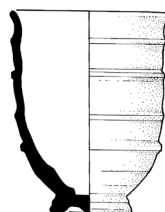
P2



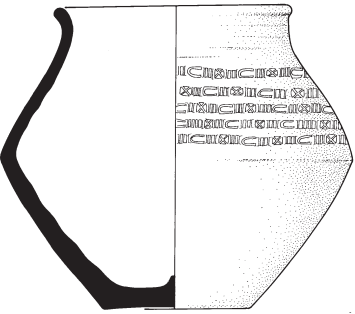
Q



R



P1



54
GRAVE

Field date	1957
Grave type	trench grave
Grave pit length	1.76
Grave pit width	1.18
Grave pit depth	1.10

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. No container traces were found, but these may have been destroyed when the grave was reopened. The location of the finds in the grave indicates that it may have been reopened.

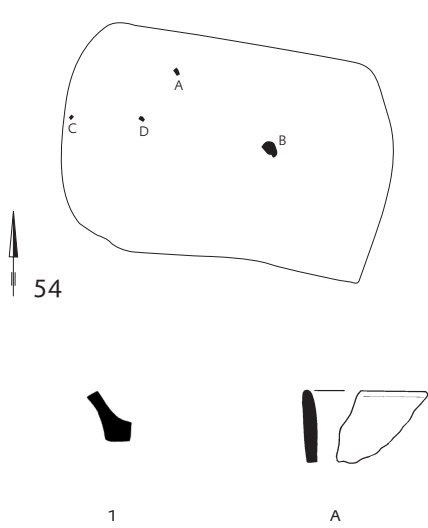
PHYSICAL ANTHROPOLOGY
A relatively small burial pit, possibly intended as the grave of a non-adult or female individual.

DATE
cannot be dated

FINDS
1 Pottery fragment
Find number: 54.1
Find depth: 0.92 m
This find probably corresponds to find number c on the composite drawing
Base fragment of handmade reduced pottery
Date: probably Iron Age
Location: PDBNB

A Pottery fragment
Find number: 54.a1
Find depth: 0.88 m
Rim-wall fragment of wheel-turned oxidized pottery bowl
Date: Merovingian
Location: PDBNB

B Pottery fragment
Find number: 54.b
Find depth: 1.00 m
Fragment of a pottery bowl, characteristics unknown
Location: missing



D Pottery fragment
Find number: 54.d1
Find depth: 1.00 m
Wall fragment of handmade reduced-oxidized pottery
Date: probably Iron Age
Location: PDBNB

55
GRAVE

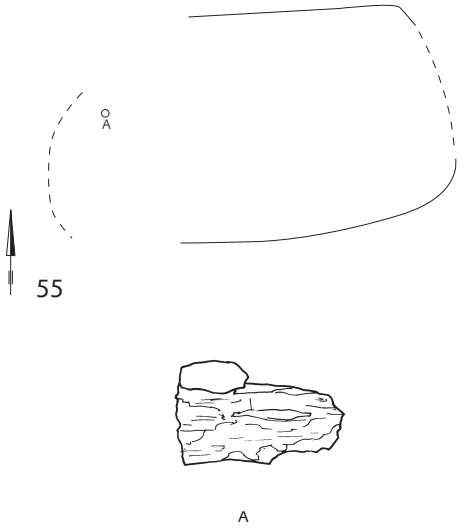
Field date	1957
Grave type	trench grave
Grave pit length	2.14
Grave pit width	1.20
Grave pit depth	0.60

DESCRIPTION
This grave lay in the foundation trench and was probably damaged by the construction work before it could be examined. The grave was cut by a ditch-like structure. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. No container traces were found. We do not know whether this grave had been reopened in ancient times.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Knife, iron
Find number: 55.a1
Find depth: 0.48 m
Iron fragment with wood remains attached, possible knife
Location: PDBNB



56
GRAVE

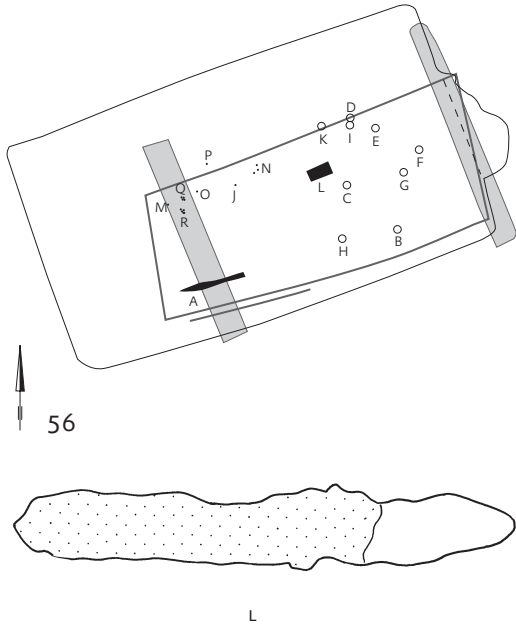
Field date	1957
Grave type	wooden container grave
Grave pit length	2.32
Grave pit width	1.36
Grave pit depth	0.80

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. It was placed in the south-eastern corner of the pit. The grave pit outline in the composite drawing was copied from a site plan. The other features were taken from the detail drawing. This might be the reason they do not fit exactly at the eastern end, for it is unlikely that the eastern beam had been dug into the width of the pit. The possible reopening pit in the eastern half of the grave and the location of the finds indicate that this grave may have been reopened. Since the grave contained both beads and a spearhead, artefacts usually not buried together due to their different gender association, it may also have been used secondarily.

PHYSICAL ANTHROPOLOGY
The length of the wooden container does not allow us to determine whether this grave was constructed for a juvenile or an adult individual.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
1 Indeterminate fragments, iron
Find number: 56.1
Eight iron fragments, one of which has textile remains attached. The fragments were stray finds, dispersed over the grave
Location: PDBNB



A Lance head, iron
Find number: 56.a1
Find depth: 0.75/0.80 m
Large part of an iron lance head. Only a small part of the socket is preserved
Remaining blade length: 2.10
Condition: corroded fragment
Type: possibly Siegmund Lan2.3/2.4
Rhineland phase: 7/8b-10
Rhineland date: 585-610/625-705
Alternative type: FAG S-Lan2.3/2.4
FAG date: 7-10: 610/20-mid eighth century
Location: PDBNB

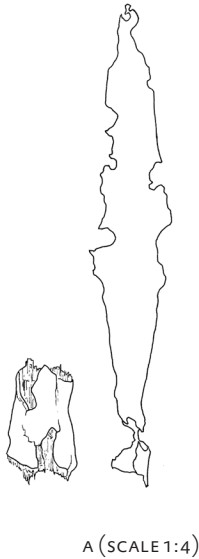
Lance head, iron
Find number: 56.a2
Find depth: 0.75/0.80 m
Part of the closed iron socket of a lance head.
Remains of the wooden shaft are preserved in the socket. This find may be associated with a1, but does not fit
Condition: corroded fragment
Type: see a1
Location: PDBNB

Indeterminate fragments, iron
Find number: 56.a3
Find depth: 0.75/0.80 m
31 iron fragments associated with lance head a1/a2
Location: PDBNB

B Indeterminate fragment, iron
Find number: 56.b1
Find depth: 0.75 m
Location: PDBNB

C Indeterminate fragment, iron
Find number: 56.c1
Find depth: 0.75 m
Location: PDBNB

D Indeterminate fragment, iron
Find number: 56.d1
Find depth: 0.75 m
Iron fragment with textile remains
Location: PDBNB



E Indeterminate fragment, iron
Find number: 56.e1
Find depth: 0.65 m
Location: PDBNB

F Indeterminate fragment, iron
Find number: 56.f1
Find depth: 0.75 m
Location: PDBNB

G Indeterminate fragment, iron
Find number: 56.g1
Find depth: 0.65/0.75 m
Location: PDBNB

H Indeterminate fragment, iron
Find number: 56.h1
Find depth: 0.75 m
Two iron fragments with textile remains
Location: PDBNB

I Indeterminate fragment, iron
Find number: 56.i1
Find depth: 0.75 m
Iron fragment with textile remains
Location: PDBNB

J Bead, glass
Find number: 56.j
Find depth: 0.76 m
Location: missing

K Indeterminate fragment, iron
Find number: 56.k1
Find depth: 0.75 m
Location: PDBNB

L Knife, iron
Find number: 56.l1
Find depth: 0.80 m
Three fragments of an iron knife with leather remains attached
Location: PDBNB

Brick fragment
Find number: 56.l2
Find depth: 0.80 m
Possibly a tile or Roman *tegula*
Location: PDBNB

M Bead, glass
Find number: 56.m
Find depth: 0.78 m
Red and white bead, characteristics unknown
Location: missing

N Bead, glass
Find number: 56.n
Find depth: 0.80 m
Three glass beads, characteristics unknown
Location: missing

O Bead, glass
Find number: 56.o
Find depth: 0.80 m
This find consisted either of a single blue and yellow bead, or of two separate beads, a blue and a yellow specimen
Location: missing

P Bead, glass
Find number: 56.p
Location: missing

Q Beads, glass
Find number: 56.q
This find is listed as an undefined number of blue and yellow beads. It is unclear whether the colours were combined in polychrome beads, or whether there were monochrome beads of different colours
Location: missing

R Beads, glass
Find number: 56.r
This find consisted of an undefined number of beads, characteristics unknown
Location: missing

57
GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	3.30
Grave pit width	1.98
Grave pit depth	1.40

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. A reopening pit may have been dug into the north side of the grave. The possible reopening pit and the location of the finds indicate that this grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
1 Indeterminate fragment, iron
Find number: 57.1
Find depth: 0.80 or 1.13 m
This find may correspond to find number b or e in the composite drawing
Elongated iron fragment
Location: PDBNB
2 Indeterminate fragment, iron
Find number: 57.2
Find depth: 0.80 or 1.13 m
This find may correspond to find number b or e in the composite drawing
Location: PDBNB
3 Buckle, iron
Find number: 57.3
Iron buckle with remains of the leather belt preserved in the loop. The x-ray photograph shows no decoration

Condition: corroded
Loop length: 37 mm
Date: probably seventh century
Location: PDBNB

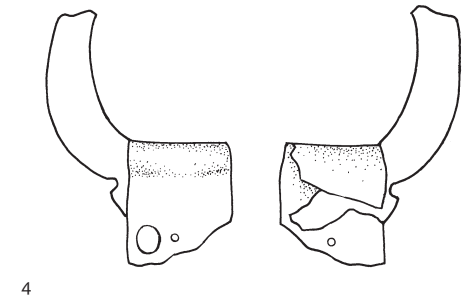
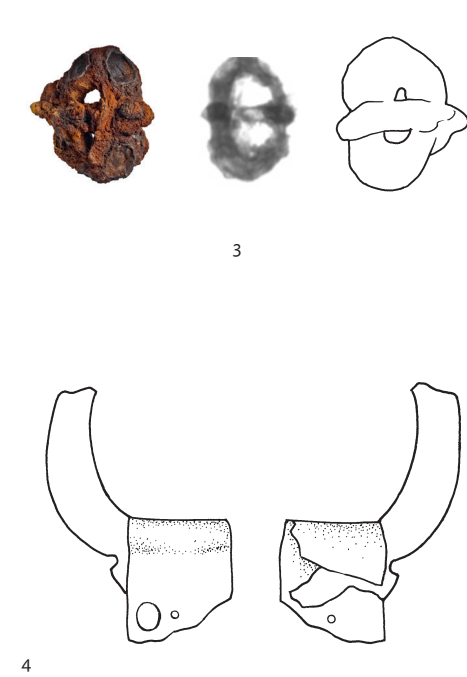
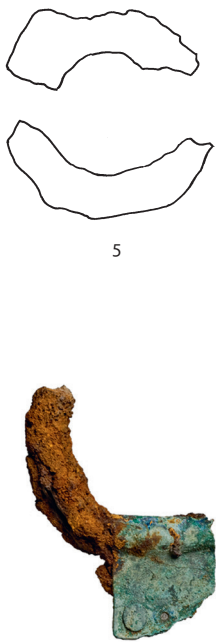
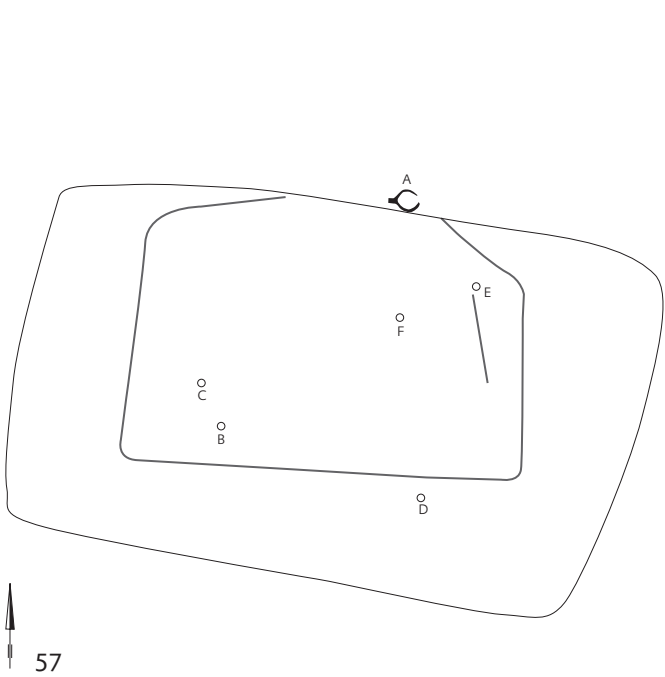
4 Ring, iron
Find number: 57.4
Find depth: 1.05 m
This find probably corresponds to find number d in the composite drawing
Three fragments of an iron ring with a copper alloy sheet folded around it. The sheet was fixed with at least two rivets, one of which one is preserved
Ring diameter: 75 mm
Location: PDBNB

5 Indeterminate fragments, iron
Find number: 57.5
Find depth: 0.22 or 1.30 m
This find probably corresponds to find number a and/or f on the composite drawing
Twenty iron fragments which are probably parts of a large iron ring
Location: PDBNB

6 Pottery fragment
Find number: 57.6
Wall fragment of handmade, grit tempered, oxidized pottery
Date: probably Bronze Age
Location: PDBNB

7 Brick fragment
Find number: 57.7
Possibly a Roman tegula
Location: PDBNB

C Pottery fragment
Find number: 57.c1
Find depth: 1.00 m
Wall fragment of wheel thrown coarse, reduced pottery
Date: Merovingian
Location: PDBNB



58 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.68
Grave pit width 2.12
Grave pit depth 1.10
Stratigraphic relation cut by 135

DESCRIPTION

The excavators observed a small concentration of burned bone at the bottom of this grave (identified as context 135). More burned bone was scattered in the grave. They interpreted it to be an older cremation grave cut by grave 58. Considering the bone's stratigraphic position - it was first observed 5 cm above the bottom of the grave - it seems more likely that it was placed in the grave during the funeral. A section was made of this grave immediately west of the burned bone concentration. In the area where the bone was found, a thin orange/red layer, which may represent burned sand, is indicated on the bottom of the grave pit below the container. A smaller black layer rested on top of this. This combination may represent the remains of a fire lit on the bottom of the pit as part of the burial ritual. The burned bone could be the remains of a small child or animal. The grave's wooden container seems to have been placed on top of the bone and the possible fire's other remains. More bone was strewn into the fill of the pit, or scattered later when the grave was reopened. We assume this grave was oriented west-east, but this is not certain, as no articulated human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The boards of the western width extend beyond the

length on the north-western corner. The section shows that the container was at least c. 70 cm high. The top of the container was at a depth of only c. 18 cm below the surface level. The location of finds in the grave indicates that it may have been reopened, although not much of this can be seen in the section.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

cannot be dated

FINDS

- A Pottery vessel
Find number: 58.a
Find depth: 0.80 m
Characteristics unknown
Location: missing
- B Ring, glass
Find number: 58.b
Find depth: 0.90 m
Small glass ring associated with iron remains, characteristics unknown
Location: missing
- C Skeletal element
Find number: 58.c
Find depth: 0.90/1.10 m
Concentration of burned human or animal bone
Location: missing
- D Ring, copper alloy
Find number: 58.d
Find depth: 0.90 m
Small oval copper alloy ring, characteristics unknown
Location: missing

59 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.96
Grave pit width 1.58
Grave pit depth 1.35

DESCRIPTION

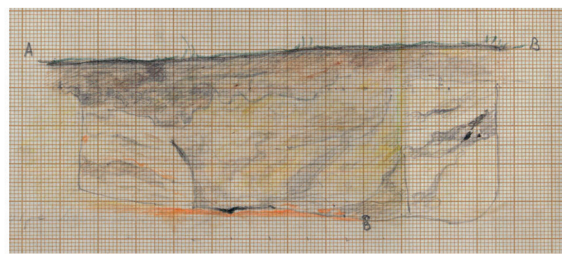
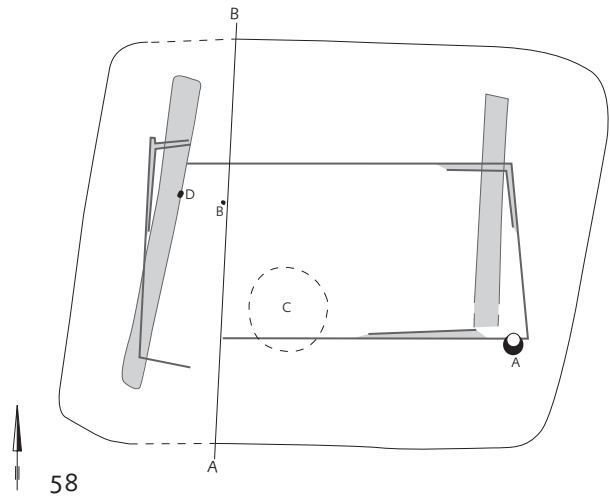
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The lines running west-east in the area of the container probably represent container floorboards. At both ends, the boards of the lengths extend beyond the widths. At the eastern width, the container's wall appears to have been pushed inward. The way the short eastern wall has broken suggests that the container was constructed by inserting the board of the short wall into a slot in the board of the long wall. The large feature covering most of the container is probably a reopening pit. The reopening pit and location of the finds in this grave indicate that it was reopened.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

Bergeijk phases I-II, FAG phases 5-8, 565-670/80



SECTION OF GRAVE 58 (SCALE 1:40)

FINDS

- A Lance head, fragment
Find number: 59.a1
Find depth: 0.59 m
Fragment of a lance head socket, which was probably closed. Remains of the wooden shaft are preserved in the socket
Condition: corroded fragment
Type: Siegmund Lan 2.?
Rhineland phase: 7-10
Rhineland date: 585-610
Alternative type: FAG S-Lan2.?
FAG date: 4-10: 510/25 - mid eighth century
Location: PDBNB

Indeterminate fragment, iron
Find number: 59.a2
Find depth: 0.59 m
Two long narrow iron fragments that have fallen into smaller fragments
Location: PDBNB

B Indeterminate fragment, iron
Find number: 59.b
Find depth: 1.05 m
Location: missing

C Indeterminate fragments, iron
Find number: 59.c1
Find depth: 1.15 m
Two iron fragments
Location: PDBNB

D Indeterminate fragment, iron
Find number: 59.d

Find depth: 1.15 m
Location: missing

E Rivets, iron?
Find number: 59.e
Find depth: 1.15 m
Ten iron? rivets with copper alloy dome shaped heads. Some of these rivets were probably filed under other find numbers, but it is unclear which these are
Location: missing

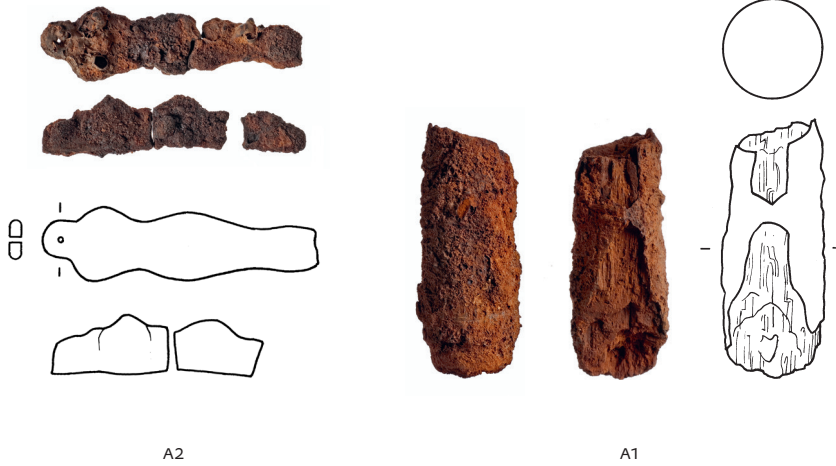
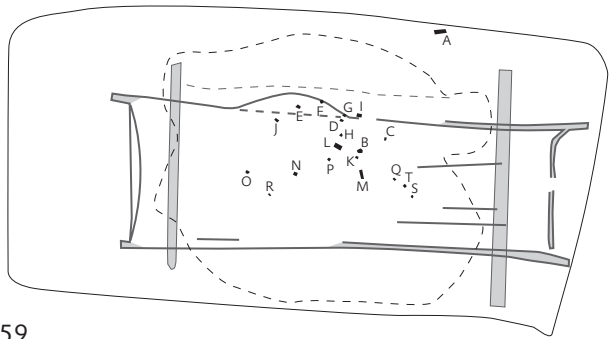
F Indeterminate fragment, iron
Find number: 59.f
Find depth: 1.20 m
Location: missing

G Indeterminate fragment, iron
Find number: 59.g
Find depth: 1.17 m
Location: missing

H Indeterminate fragment, iron
Find number: 59.h
Find depth: 1.19 m
Location: missing

I Indeterminate fragment, iron
Find number: 59.i
Find depth: 1.18 m
Location: missing

J Indeterminate fragment, iron
Find number: 59.j1
Find depth: 1.25 m
Location: PDBNB



Flint
Find number: 59.j2
Find depth: 1.25 m
Flint fragment, possibly associated with a fire steel
Length: 31 mm
Location: PDBNB

K Pottery fragment
Find number: 59.k1
Find depth: 1.25 m
Wall fragment of handmade, reduced-oxidized pottery
Date: Bronze or Iron Age
Location: PDBNB

L Indeterminate fragment, iron
Find number: 59.l
Find depth: 1.27 m
Location: missing

M Indeterminate fragment, iron
Find number: 59.m
Find depth: 1.35 m
Location: missing

N Indeterminate fragment, iron
Find number: 59.n
Find depth: 1.35 m
Location: missing

O Pottery fragment
Find number: 59.o
Find depth: 1.35 m
Location: missing

P Rivet, iron
Find number: 59.p
Find depth: 1.35 m
Location: missing

Q Indeterminate fragment, iron
Find number: 59.q
Find depth: 1.35 m
Location: missing

R Indeterminate fragment, iron
Find number: 59.r
Find depth: 1.35 m
Location: missing

S Indeterminate fragment, iron
Find number: 59.s
Find depth: 1.35 m
Location: missing

T Indeterminate fragment, iron
Find number: 59.t
Find depth: 1.35 m
Location: missing

60 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.24
Grave pit width 1.18

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
The length of the wooden container does not allow us to determine whether this grave was constructed for a juvenile or adult individual.

DATE
cannot be dated

FINDS
A Whetstone
Find number: 60.a1
Find depth: 0.42 m
Fragment of a whetstone

Length: 52 mm
Location: PDBNB

B Knife, iron
Find number: 60.b1
Find depth: 0.78 m
Two fragments of an iron knife with leather remains from the scabbard attached
Condition: corroded
Location: PDBNB

61 GRAVE

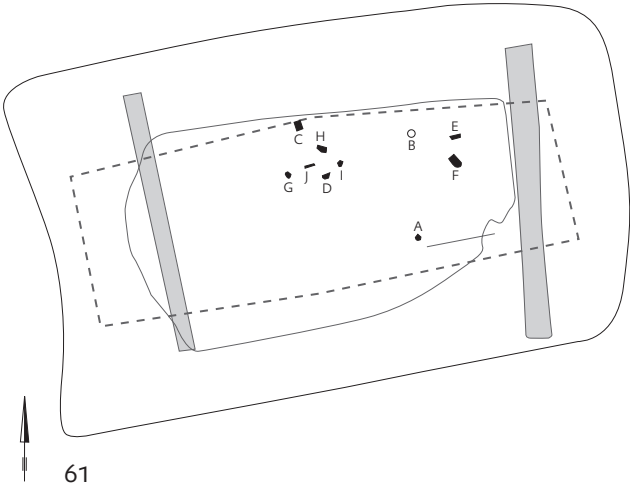
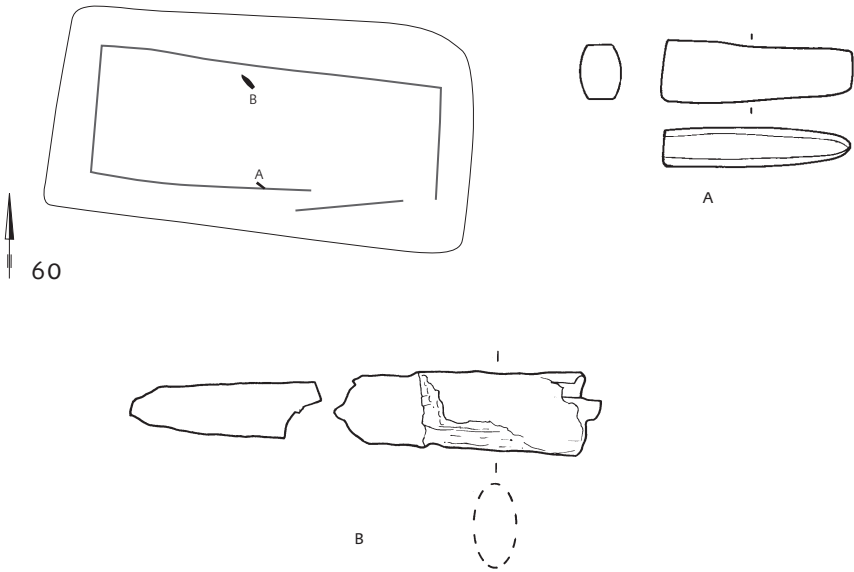
Field date 1957
Grave type wooden container grave
Grave pit length 3.16
Grave pit width 1.92
Grave pit depth 1.45

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The large feature covering most of the container may be a reopening pit. The possible reopening pit and location of the finds in this grave indicate that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Shield grip
Find number: 61.a
Find depth: 1.20 m
Fragment of a shield grip
Location: missing



B Indeterminate fragment, iron
Find number: 61.b
Find depth: 1.25 m
Location: missing

C Shield boss, iron
Find number: 61.c
Find depth: 1.20 m
Fragment of a possible shield boss
Location: missing

D Indeterminate fragment, iron
Find number: 61.d
Find depth: 1.20 m
Location: missing

E Indeterminate fragment, iron
Find number: 61.e
Find depth: 1.30 m
Location: missing

F Indeterminate fragment, iron
Find number: 61.f
Find depth: 1.30 m
Location: missing

G Rivet, iron
Find number: 61.g
Find depth: 1.45 m
Iron rivet which may have been copper alloy plated
Location: missing

H Indeterminate fragment, iron
Find number: 61.h
Find depth: 1.35 m
Location: missing

I Indeterminate fragment, iron
Find number: 61.i
Find depth: 1.38 m
Location: missing

J Indeterminate fragment, iron
Find number: 61.j
Find depth: 1.40 m
Location: missing

62 GRAVE

Field date 1957
Grave type probably a wooden container grave
Grave pit length 2.98
Grave pit width 2.12
Grave pit depth 1.25

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. The feature observed in the grave pit was probably a reopening pit. The two wooden beams suggest that the grave originally held a container. The reopening pit and location of the finds in the grave indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 6-7, 580/90-640/50

FINDS
1 Flint
Find number: 62.1
Flint fragment, probably burned
Length: 30 mm
Location: PDBNB

A Nail, iron
Find number: 62.a1
Find depth: 0.90 m
Long nail-like fragment, leather or bone remains attached
Condition: corroded fragment
Location: PDBNB

B Indeterminate fragment, iron
Find number: 62.b1
Find depth: 0.80 m
Narrow iron fragment
Location: PDBNB

D Rivet, iron
Find number: 62.d1
Find depth: 0.70 m
Large iron rivet
Condition: corroded, part of the edges missing
Diameter: 25 mm
Location: PDBNB

E Belt plate, iron
Find number: 62.e1
Find depth: 0.70 m
Fragment of an iron belt plate with at least two dome shaped copper alloy rivets.
Condition: corroded fragment
Plate length: 54 mm
Type: Siegmund Gür4.5
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG S-Gür4.5
FAG date: 6-7: 580/90-640/50
Alternative type: LPV 150: 560/70-660/70
Location: PDBNB

Indeterminate fragment, iron
Find number: 62.e2
Find depth: 0.70 m
Location: PDBNB

Rivet, copper alloy
Find number: 62.e3
Find depth: 0.70 m
Condition: slightly corroded
Diameter: 16 mm
Location: PDBNB

F Rivet, iron
Find number: 62.f1
Find depth: 0.90 m
Large flat iron rivet on an iron plate, with wood remains attached
Condition: corroded
Location: PDBNB

G Indeterminate fragment, iron
Find number: 62.g1
Find depth: 0.95 m
Iron fragment with leather and textile remains.
The x-ray photograph shows no decoration.
Location: PDBNB

J Indeterminate fragment, iron
Find number: 62.j1
Find depth: 1.00 m
Three iron fragments
Location: PDBNB

K Indeterminate fragments, iron
Find number: 62.k1
Find depth: 1.00 m
Two iron fragments
Location: PDBNB

L Ring, iron
Find number: 62.l1
Find depth: 1.00 m
Half of an oval iron ring, which may have been part of an oval buckle loop. Possibly associated with 62.m1. The X-ray photograph shows no decoration
Condition: corroded
Ring diameter: 28 mm
Location: PDBNB

M Ring, iron
Find number: 62.m1
Find depth: 1.05 m
Half of an oval ring, possibly part of an oval buckle loop. Possibly associated with 62.l1. The x-ray photograph shows no decoration.
Condition: corroded
Ring diameter: 26 mm
Location: PDBNB

N Pottery fragment
Find number: 62.n1
Find depth: 1.00 m
Wall fragment of oxidized handmade, grit tempered and thick walled pottery
Date: probably Bronze Age
Location: PDBNB

O Glass vessel
Find number: 62.o1
Find depth: 1.05 m
2 rim and 4 wall fragments of a glass bell beaker. Yellowish green glass. Rim thickened and slightly bent outwards. On the body, beginning 20 mm under the rim, faint vertical ribs. Rather good quality with very small bubbles, especially under the rim
Location: PDBNB

Q Pottery fragment
Find number: 62.q1
Find depth: 1.05 m
Ear fragment of handmade, reduced-oxidized pottery
Date: probably Iron Age
Location: PDBNB

Pottery fragment
Find number: 63.c2
Find depth: 0.88 m
Fragment of wheel thrown or handmade pottery
Date: Iron or Roman Age
Location: PDBNB

D Rivet, iron
Find number: 63.d1
Find depth: 0.88 m
Iron rivet with textile remains
Condition: corroded
Diameter: 13 mm
Location: PDBNB

Indeterminate fragment, iron
Find number: 63.d2
Find depth: 0.88 m
Location: PDBNB

E Indeterminate fragments, iron
Find number: 63.e1
Find depth: 0.90 m
Six iron fragments
Location: PDBNB

64 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 3.06
Grave pit width 1.65
Grave pit depth 1.45
Stratigraphic relation above 65

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. Graves 64 and 65 were very close to one another and may have been dug at the same time. The eastern beam of grave 64 lay on top of the beam from grave 65, indicating that the latter may have been dug first. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by at least two beams. The container's widths may have extended beyond its lengths. It is more likely, however, that beams supported the widths of the container, as was the case in grave 65. The lines running west-east in the area of the container probably represent traces of the caved in container and lid. A number of objects were found outside and on the borders of the container outline. These may have originally been placed on top of and around the container. It is also possible that the container walls collapsed inwards, giving the impression that the finds were outside the container. However, the dispersion of glass pieces in the grave makes it more likely that the grave was reopened

PHYSICAL ANTHROPOLOGY

Probably adult

DATE
Bergeijk phase I, FAG phases 5-7, 565-640/50

FINDS

- 1 Fire steel, iron
Find number: 64.1
Find depth: 1.45 m
This find probably corresponds to find number m in the composite drawing
Fire steel in two fragments with leather remains and the remains of comb 64.m1 attached
Condition: corroded
Length: 120 mm
Location: PDBNB
- 2 Glass vessel
Find number: 64.2
Find depth: 1.45/1.50 m
This find probably corresponds to find number j in the composite drawing
Seven fragments of a yellow glass bell beaker decorated with faint vertical optical blown ribs.
These probably belong to either of the partially restored bell beakers found in this grave
Location: PDBNB
- 3 Flint
Find number: 64.3
Find depth: 1.45 m
This find corresponds to find number m in the composite drawing
Unworked flint fragment
Length: 23 mm
Location: PDBNB

ABC Shield boss, iron
Find number: 64.abc1
Find depth: between 0.75 and 0.90 m
Umbo with a severely corroded edge, two rivet holes remaining. Large patches of mineralised textile are preserved on the outer surface.
Type: Siegmund Sbu5
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG Sbu5A
FAG date: 6-9: 580/90-710
Location: PDBNB

Shield grip, iron
Find number: 64.abc2
Find depth: between 0.75 and 0.90 m
Three fragments of an iron shield grip. Associated with 64.abc1.
Condition: corroded
Location: PDBNB

Rivet, iron
Find number: 64.abc3
Find depth: between 0.75 and 0.90 m
Iron rivet with copper alloy foil
Condition: corroded
Diameter: 23 mm
Location: PDBNB

D Glass vessel
Find number: 64.d1
Find depth: 1.10/1.20 m
Bell beaker, yellowish glass. Rim thickened and slightly folded in. Almost identical to beaker 64.k1. Nearly cylindrical body, narrowing towards the base before expanding into a carination and finishing in a rounded base without knob. Between 15 mm below the rim and 35 mm above the carination,

faint diagonal ribbing. Poor quality with many, also elongated, bubbles. Punt mark on the base. Almost complete, parts of the body are missing
Condition: restored
Maximum height: 177 mm
Type: Siegmund Gla8.4
Rhineland phase: 6-7
Rhineland date: 570-610
Alternative type: FAG S-Gla8.4
FAG date: 5: 565-580/90
Alternative type: LPV 450: 545-640
Location: Eich a Museum

E Pottery vessel
Find number: 64.e
Find depth: 1.35 m
Location: missing

F Rivet, copper alloy
Find number: 64.f
Find depth: 1.40 m
Location: missing

G Rivet, copper alloy
Find number: 64.g
Find depth: 1.40 m
Location: missing

H Rivet, copper alloy
Find number: 64.h
Find depth: 1.45 m
Location: missing

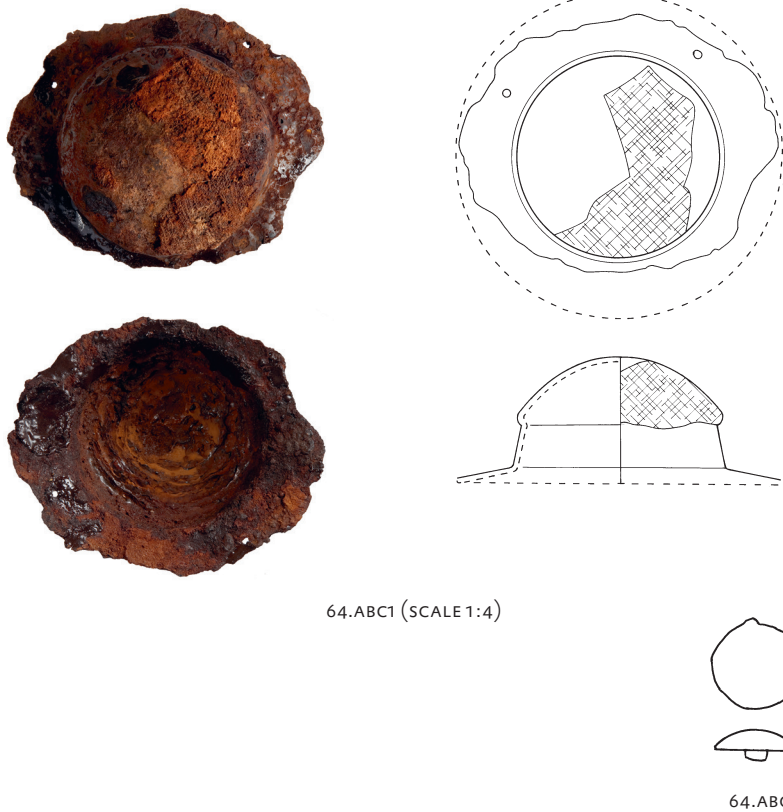
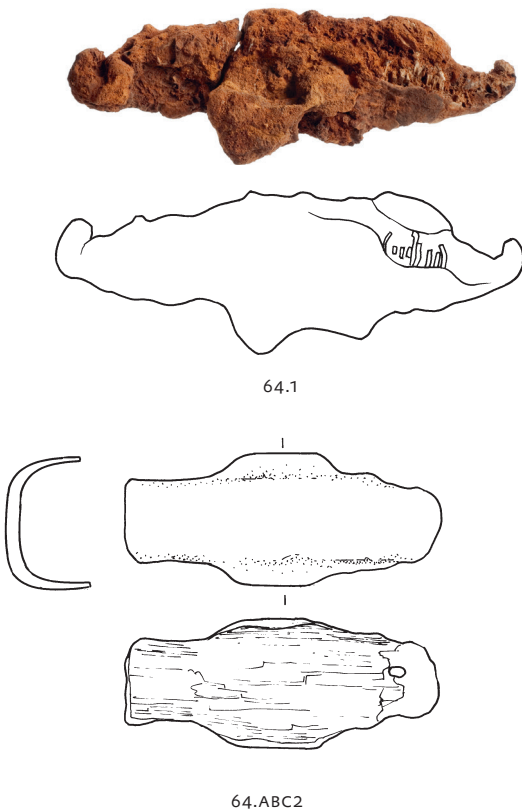
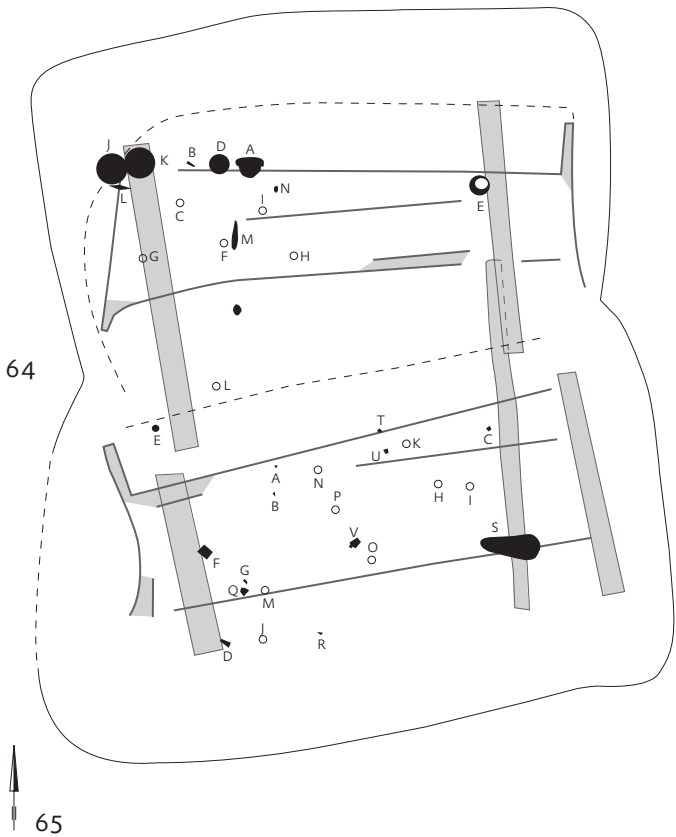
I Rivet, copper alloy
Find number: 64.i
Find depth: 1.45 m
Location: missing

K Glass vessel
Find number: 64.k1
Find depth: 1.45/1.50 m
Upper part of a yellowish glass bell beaker. Thickened and slightly infolded rim. Almost identical to beaker 64.d1. Nearly cylindrical body, from 15 mm below the rim faint diagonally blown ribs. Poor quality with many bubbles
Condition: restored, bottom missing
Type: Siegmund Gla8.4
Rhineland phase: 6-7
Rhineland date: 570-610
Alternative type: FAG S-Gla8.4
FAG date: 5: 565-580/90
Alternative type: LPV 450: 545-640
Location: Eich a Museum

L Arrow head, iron
Find number: 64.l
Find depth: 1.45 m
Location: missing

M Comb, bone?
Find number: 64.m1
Find depth: 1.45 m
Mineralized fragment of a comb attached to fire steel 64.1
Location: PDBNB

N Indeterminate fragment, iron
Find number 64.n
Find depth: 1.45 m
Location: missing



65
GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	3.40
Grave pit width	2.50
Grave pit depth	1.50
Stratigraphic relation	below 64

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. Graves 64 and 65 were very close to one another and may have been dug at the same time. The eastern beam of grave 64 lay atop grave 65’s beam, indicating that the latter may have been dug first. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by four wooden beams. The lines running west-east in the area of the container probably represent traces of the caved in container and lid. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

Bergeijk phase I, FAG phase 6, 580/90-610/20

FINDS

- 1 Indeterminate fragments, iron
Find number: 65.1
Four iron fragments
Location: PDBNB
- 2 Pottery fragment
Find number: 65.2
Ear fragment of oxidized pottery
Date: probably High Medieval
Location: PDBNB

- 3 Pottery fragment
Find number: 65.3
Base fragment of wheel thrown, oxidized pottery
Date: High Medieval
Location: PDBNB

- A... Pottery vessel
Find number: 65.a,b,c,d,f,i,j,p,q,r,s1
Find depth: between 0.85 and 1.20 m
The pottery fragments which are indicated on the composite drawing as g, h and n may also have been fitted to this pot
Forty fragments of a biconical pot, decorated with two grooves below the rim and two grooves just above the carination. Between the sets of grooves, there is a row of rectangular roulette stamps. These fragments may be from the same pot as those in grave 62, but they could not be fitted together
Condition: fragments
Type: S KWT 4.11
Rhineland phase: late 7 – 8A
Rhineland date: 600-625
Alternative type: FAG KWT5A
FAG date: 5-6:565-610/20
Location: PDBNB

- E Brooch, gold
Find number: 65.e1
Find depth: 0.88 m
Umbo-shaped fibula with a copper alloy base plate and golden front. The front sheet is decorated with filigree patterns and cloisonné cells in the shape of bird heads, filled with a red glass or garnet. The birds’ eyes and the cell in the middle of the fibula are filled with a white opaque substance. Very fine textile remains are preserved on the back. They are mineral-ized with iron corrosion, indicating that the needle and spring were probably made of iron.
Condition: complete, but needle is missing
Type: Graenert group 2
Graenert date: 590/600-620/40
Location: van Daalen family

- K Indeterminate fragment, iron
Find number: 65.k1
Find depth: 1.00 m
Location: PDBNB
- L Rivet, iron
Find number: 65.l1
Find depth: 1.00 m
Large hollow dome shaped iron rivet with copper alloy foil
Condition: slightly corroded
Location: PDBNB

- M Pottery fragment
Find number: 65.m1
Find depth: 1.10 m
Wall fragment of handmade, reduced pottery
Date: probably Iron Age
Diameter: 22 mm
Location: PDBNB
- O Pottery fragment
Find number: 65.o1
Find depth: 1.10 m
Wall fragment of handmade, reduced pottery
Date: probably Iron Age
Location: PDBNB

- S Pottery fragment
Find number: 65.s2
Find depth: 1.20 m
Wall fragment of a reduced biconical pot decorated with six horizontal grooves
Date: Merovingian
Location: PDBNB

- T Indeterminate fragment, iron
Find number: 65.t1
Find depth: 1.40 m
Cylindrical iron fragment
Location: PDBNB

- V Indeterminate fragments, iron
Find number: 65.v1
Find depth: 1.40 m
Should probably be find number u.
Four iron fragments. The x-ray photograph shows no decoration.
Location: PDBNB

- Necklace pendant, gold
Find number: 65.v2
Find depth: 1.35 m
Gold pendant decorated with gold filigree, probably belonged to a necklace
Condition: complete
Diameter: 27 mm
Type: Siegmund Per6.1
Rhineland phase: 5-7
Rhineland date: 555-610
Alternative type: FAG S-Per6.1
FAG date: 4B-10: 540-mid eight century
Location: Van Daalen family

66
GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	2.26
Grave pit width	1.34
Grave pit depth	0.98

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by three beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

- A Bead, glass
Find number: 66.a
Find depth: 0.85 m
The location of this find was not indicated on the field drawing
Polychrome bead, characteristics unknown
Location: missing
- B Bead, glass
Find number: 66.b
Find depth: 0.90 m
Flat white bead, other characteristics unknown
Location: missing
- C Bead, glass
Find number: 66.c
Find depth: 0.92 m
Red and yellow bead, characteristics unknown
Location: missing

- D Bead, glass
Find number: 66.d1
Find depth: 0.95 m
Red, yellow and white bead, characteristics unknown
Location: missing

- E Bead, glass
Find number: 66.e
Find depth: 0.95 m
Green spiral-shaped bead, characteristics unknown
Location: missing

- F Bead, glass
Find number: 66.f
Find depth: 0.96 m
Green bead with polychrome decoration, other characteristics unknown
Location: missing

- G Bead, glass
Find number: 66.g
Find depth: 0.96 m
Blue and white bead, characteristics unknown
Location: missing

- H Bead, glass
Find number: 66.h
Find depth: 0.98 m
This object was found in the general area marked as h/x
Green spiral-shaped bead, other characteristics unknown
Location: missing

- I Glass, bead
Find number: 66.i
Find depth: 0.98 m
This object was found in the general area marked as h/x
Red and yellow bead, characteristics unknown
Location: missing

- J Bead, glass
Find number: 66.j
Find depth: 0.98 m
This object was found in the general area marked as h/x
White bead, characteristics unknown
Location: missing

- K Bead, glass
Find number: 66.k
Find depth: 0.98 m
This object was found in the general area marked as h/x
Green bead, characteristics unknown
Location: missing

- L Bead, glass
Find number: 66.l
Find depth: 0.98 m
This object was found in the general area marked as h/x
Yellow bead, characteristics unknown
Location: missing

- M Bead, glass
Find number: 66.m
Find depth: 0.98 m

- This object was found in the general area marked as h/x
Orange/yellow bead, characteristics unknown
Location: missing

- N Bead, glass
Find number: 66.n
Find depth: 0.98 m
This object was found in the general area marked as h/x
Red and yellow bead, characteristics unknown
Location: missing

- O Bead, amber
Find number: 66.o
Find depth: 0.98 m
This object was found in the general area marked as h/x
Location: missing

- P Bead, glass
Find number: 66.p
Find depth: 0.98 m
This object was found in the general area marked as h/x
Polychrome bead, characteristics unknown
Location: missing

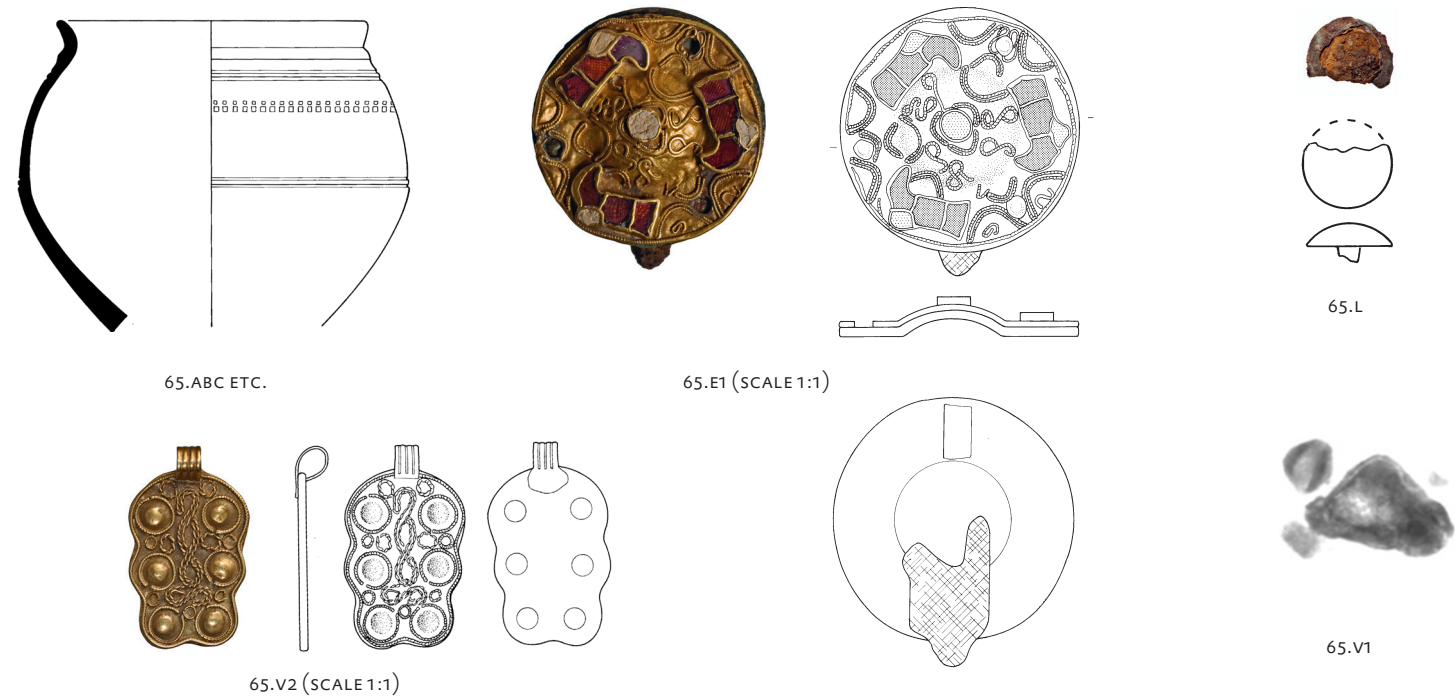
- Q Bead, glass
Find number: 66.q
Find depth: 0.98 m
This object was found in the general area marked as h/x
Green bead, characteristics unknown
Location: missing

- R Bead, glass
Find number: 66.r
Find depth: 0.98 m
This object was found in the general area marked as h/x
Polychrome bead, characteristics unknown
Location: missing

- S Bead, glass
Find number: 66.s
Find depth: 0.98 m
This object was found in the general area marked as h/x
Yellow bead, characteristics unknown. Associated with a small copper alloy ringlet
Location: missing

- T Bead, glass
Find number: 66.t
Find depth: 0.98 m
This object was found in the general area marked as h/x
Blue biconical bead, other characteristics unknown
Location: missing

- U Bead, glass
Find number: 66.u
Find depth: 0.98 m
This object was found in the general area marked as h/x
Flat white bead, other characteristics unknown
Location: missing



v Bead, glass
Find number: 66.v
Find depth: 0.98 m
This object was found in the general area marked as h/x
Yellow biconical bead, other characteristics unknown
Location: missing

w Bead, glass
Find number: 66.w
Find depth: 0.98 m
This object was found in the general area marked as h/x
Red biconical bead, other characteristics unknown
Location: missing

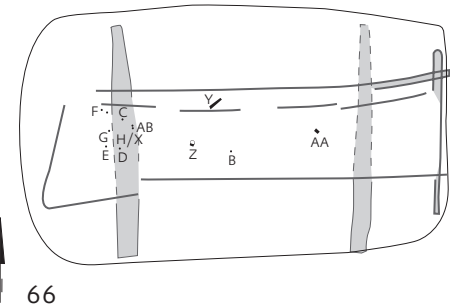
x Bead, glass
Find number: 66.x
Find depth: 0.98 m
This object was found in the general area marked as h/x
Blue biconical bead, other characteristics unknown
Location: missing

y Knife, iron
Find number: 66.y
Find depth: 0.95 m
Location: missing

z Buckle, iron
Find number: 66.z
Find depth: 0.95 m
Date: probably seventh century
Location: missing

AA Belt plate, iron
Find number: 66.aa
Find depth: 0.95 m
Possible iron belt plate, characteristics unknown
Date: probably seventh century
Location: missing

BB Bead, glass
Find number: 66.bb
Find depth: 1.00 m
This find probably corresponds to find number ab in the composite drawing
White bead, characteristics unknown
Location: missing



67 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.20
Grave pit width 1.26
Grave pit depth 0.90
Orientation West-East

DESCRIPTION

This grave was oriented west-east if the traces in the east end of the container are silhouettes of the deceased's legs. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The south end of the western beam had been dug into the southern wall of the pit. We do not know whether this grave was reopened. The roots of a tree growing in the grave probably obliterated remains of the body-silhouette in the western part of the grave.

PHYSICAL ANTHROPOLOGY

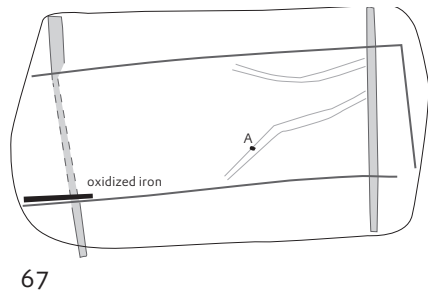
A body silhouette consisting of two legs, probably the femur and tibia, was documented. At the supposed location of the pelvis, the bones were lying wide apart (circa 55 cm); at the knees, the bones were closer together (circa 12 cm apart). The wide position of the bones at the pelvis could be the result of post-depositional intervention. The length of the right leg (probably representing the femur, tibia and perhaps foot bones) is 86 cm. This suggests that this was a juvenile or adult individual.

DATE
cannot be dated

FINDS

? Pottery vessel
Find number: 67.?

The association of this pot with grave 67 is highly dubious, since the find list for this grave does not mention a pottery vessel. The pot may however belong to graves 58 or 64.
Reduced biconical pot decorated with grooves
Condition: complete
Maximum height: 128 mm
Type: Siegmund KWT2.33



Rhineland phase: 6-8
Rhineland date: 570-640
Alternative type: FAG KWT3A
FAG date: 4-6: 510/25-610/20
Location: van Daalen family

A Indeterminate fragment, iron
Find number: 67.a
Find height: 0.80 m
Location: missing

68 GRAVE

Field date 1957 and 1959
Grave type wooden container grave
Grave pit length 3.08
Grave pit width 2.02
Grave pit depth 1.15
Orientation West-East

DESCRIPTION

This grave was partially destroyed in 1957 when it was cut by a water conduit trench, unearthing a skull. What remained of the grave was excavated in 1959. The grave pit was rectangular with slightly rounded corners and held an indeterminately shaped wooden container supported by two beams. The excavators observed silhouettes of the deceased's legs. In combination with the skull found two years earlier, this enables us to presume that the body lay outstretched with extended legs. The possible reopening pit in the western end of the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY

The skull, mandible, teeth and cervical vertebrae were documented as bone in situ but were not available for examination. The postcranial part of the body was partially preserved as a body silhouette. On the basis of the skull and body silhouette, expected cadaveric length was 1.75 or more. The documented length of the left leg was 95 cm. The legs were lying close together; between the knees was a free space of circa 4 cm.



DATE
cannot be dated

FINDS

A Knife, iron
Find number: 68.a1
Fragments of a possible knife, characteristics unknown
Location: missing

Rivet, copper alloy
Find number: 68.a2
Find depth: 1.10 m
Copper alloy rivet. The excavators' sketch shows that the head was decorated with a spiralling cross motif
Location: missing

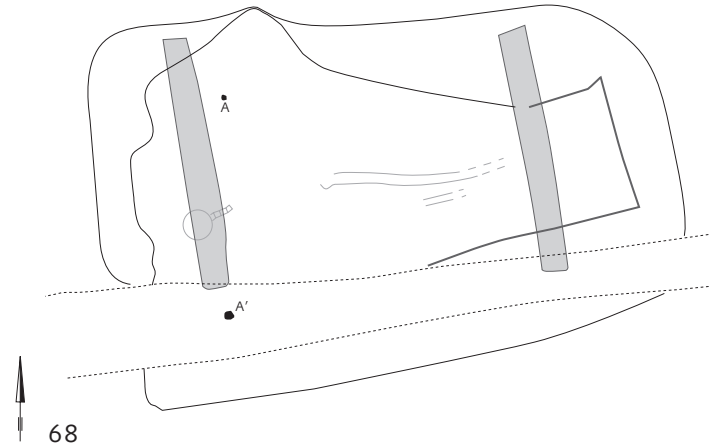
69 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 3.58
Grave pit width 2.06
Grave pit depth 1.65

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult



DATE
Bergeijk phase (I)-II , FAG (phase 7), (565-640/50)

FINDS

A Mount, copper alloy
Find number: 69.a
Find depth: 1.10 m
Copper alloy mount, possibly belonging to a scabbard
Location: missing

B Mount, copper alloy
Find number: 69.b
Find depth: 1.10 m
Copper alloy mount which possibly belonged to a seax scabbard
Location: missing

C Glass fragment
Find number: 69.c
Find depth: 1.00 m
Location: missing

D Pottery fragment
Find number: 69.d
Find depth: 0.90 m
Fragment of a biconical pot, characteristics unknown
Location: missing

E Indeterminate fragment, iron
Find number: 69.e
Find depth: 1.10 m
Location: missing

F Indeterminate fragment, iron
Find number: 69.f
Find depth: 1.05 m
Location: missing

G Glass fragment
Find number: 69.g
Find depth: 1.10 m
Location: missing

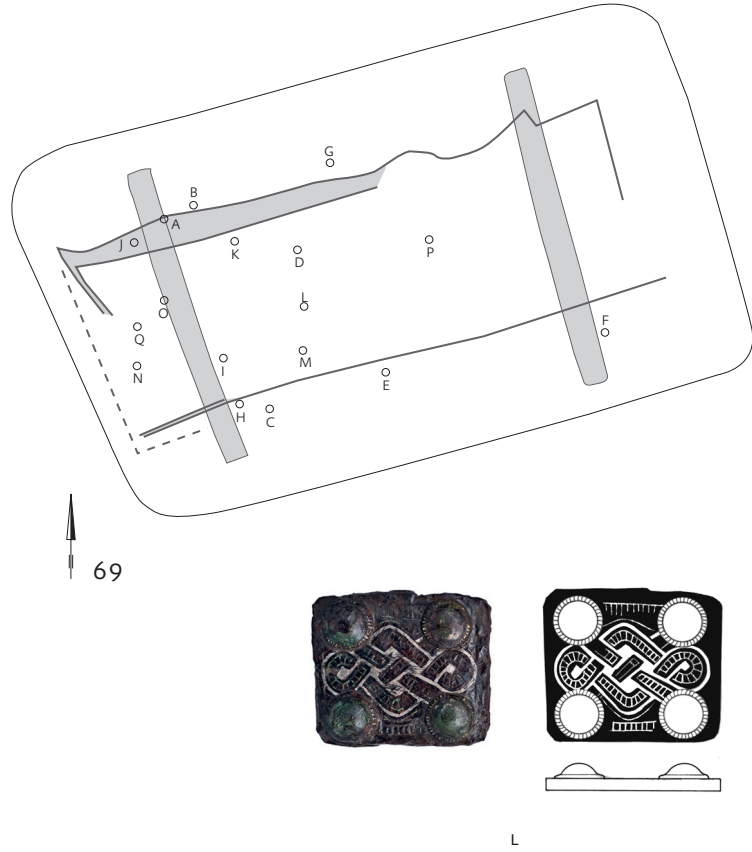
H Glass fragment
Find number: 69.h
Find depth: 1.15 m
Location: missing

I Glass fragment
Find number: 69.i
Find depth: 1.20 m
Location: missing

J Sword, iron
Find number: 69.j
Find depth: 1.48 m
Possible point of a sword blade
Location: missing

K Mount, copper alloy
Find number: 69.k
Find depth: 1.45 m
Copper alloy mount, possibly belonging to a scabbard
Location: missing

L Belt plate, iron
Find number: 69.l1
Find depth: 1.38 m
Rectangular iron back plate with four copper alloy rivets with serrated edges. Decorated with a braid lined with silver bands.
Condition: restored
Plate length: 46 mm
Type: Plumier-Torfs group 2
Plumier-Torfs date: 600-630/50



Alternative type: Siegmund Gür4.6
Rhineland date: 8(B): 610-640
Alternative type: FAG S-Gür4.6
FAG date: 7: 610/20-640/50
Alternative type: LPV 186 :600/10-60/70
Location: Eicha Museum

M Indeterminate fragment, iron
Find number: 69.m
Find depth: 1.35 m
Location: missing

N Sword, iron
Find number: 69.n
Find depth: 1.60 m
Fragment of a possible sword hand guard or grip consisting of iron and copper alloy
Location: missing

O Indeterminate fragment, iron
Find number: 69.o
Find depth: 1.60 m
Location: missing

P Indeterminate fragment, iron
Find number: 69.p
Find depth: 1.65 m
Location: missing

Q Indeterminate fragment, iron
Find number: 69.q
Find depth: 1.63 m
Location: missing

70 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 3.06
Grave pit width 2.02
Grave pit depth 1.20

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container whose length extended beyond the eastern width. The lack of finds, other than one gold pendant of a type usually part of a bead necklace, suggests that the grave may have been reopened. The relatively high position of this find (40 cm above the bottom of the grave) may indicate that it was located in the fill of a reopening pit.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

Bergeijk phase I, FAG phases 5-7, 565-640/50

FINDS

A Necklace pendant, gold
Find number: 70.a1
Find depth: 0.80 m
Gold pendant decorated with gold filigree which probably belonged to a necklace
Condition: complete
Diameter: 21 mm
Type: Siegmund Per6.1

Rhineland phase: 5-7
Rhineland date: 555-610
Alternative type: FAG S-Per6.1
FAG date: 4B-10: 540-mid eight century
Location: van Daalen family

71 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.48
Grave pit width 1.22
Grave pit depth 1.10
Orientation West-East

DESCRIPTION

The grave pit was rectangular with slightly rounded corners and held a narrow rectangular wooden container supported by three wooden beams. At the eastern end, it can be observed that vertical rectangular wooden posts may have served to fix the container's boards. At the western end, the length's boards extended beyond the width. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Silhouette of the skull, probably adult.

DATE

Bergeijk phase I, FAG phases 5-7, 565-640/50

FINDS

A Pottery vessel
Find number: 71.a1
Find depth: 0.97/1.00 m

Small biconical pot decorated with vertically undulating roulette stamps and grooves
Condition: complete, slightly cracked
Maximum height: 117 mm
Type: Siegmund KWT3.22
Rhineland phase: late 7- early 8B
Rhineland date: 600-630
Location: van Daalen family

B Bead, glass
Find number: 71.b
Find depth: 1.00/1.10 m
Spiral shaped blue bead, other characteristics unknown
Location: missing

C Bead, glass
Find number: 71.c
Find depth: 1.00/1.10 m
Barrel shaped orange bead, other characteristics unknown
Location: missing

D Bead, glass
Find number: 71.d
Find depth: 1.00/1.10 m
Blue bead, characteristics unknown
Location: missing

E Beads, glass
Find number: 71.e
Find depth: 1.00/1.10 m
Two spiral shaped blue beads, other characteristics unknown
Location: missing

F Bead, glass
Find number: 71.f
Find depth: 1.00/1.10 m

Spiral shaped yellow bead, other characteristics unknown
Location: missing

G Beads, glass
Find number: 71.g
Find depth: 1.00/1.10 m
A yellow, a red and a blue bead, characteristics unknown
Location: missing

H Beads, glass
Find number: 71.h
Find depth: 1.00/1.10 m
Seven spiral shaped beads in the colours red, yellow and blue, other characteristics unknown
Location: missing

72 GRAVE

Field date 1957
Grave type wooden container grave
Grave pit length 2.42
Grave pit width 1.72
Grave pit depth 1.25

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and curved walls, and held a rectangular wooden container. We do not know whether this grave was reopened. The two fragments of a ceramic bowl found at different heights in the fill of the grave pit are interesting features. The 'common sense'

hypothesis would be that the sherds were simply lying in the vicinity of the grave and were accidentally thrown in when it was filled. The grave may alternatively have been reopened, in which case the sherds may have lain in the fill of a reopening pit. It is also possible that a bowl was broken as part of the funerary ritual with the sherds thrown in when the grave pit was filled.

PHYSICAL ANTHROPOLOGY

Small coffin, probably a juvenile or young child.
Maximum age for this container length is 13 years.

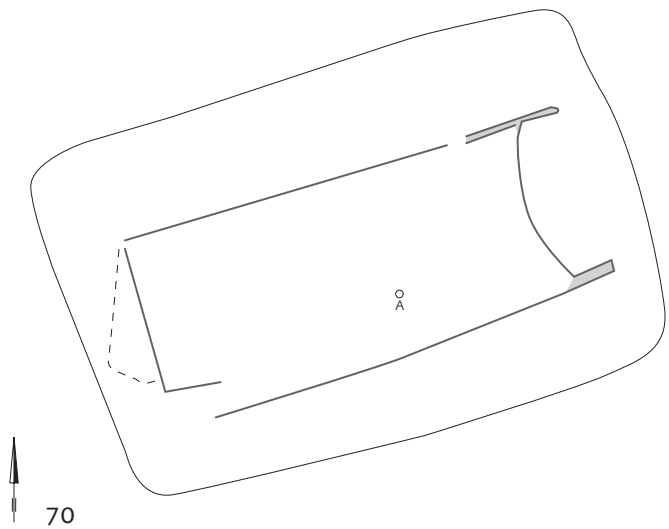
DATE

Bergeijk phase I, FAG phases 5-7, 565-640/50

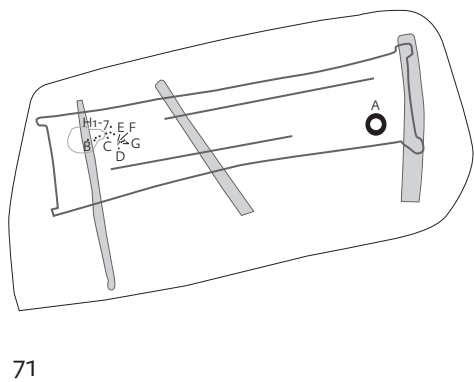
FINDS

A Indeterminate fragment, iron
Find number: 72.a
Find depth: 0.90 m
Location: missing

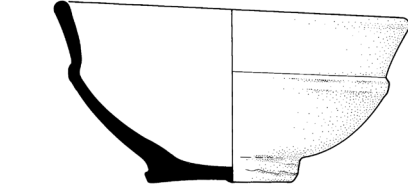
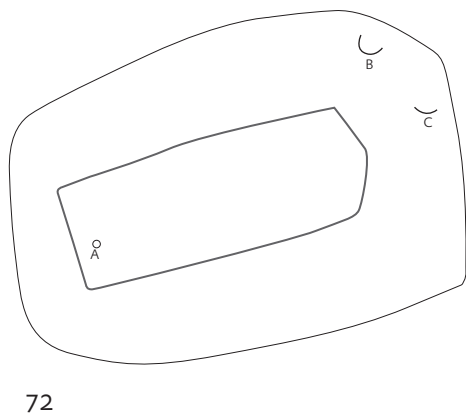
C Pottery vessel
Find number: 72.c1
Find depth: 1.20 m
The pottery fragment b was also fitted to this pot
Undecorated reduced biconical bowl
Condition: restored
Maximum height: 97 mm
Type: Siegmund Sha2.21
Rhineland phase: 5-8
Rhineland date: 555-640
Alternative type: FAG S-Sha2.21
FAG date: 4-7: 510/25-640/50
Location: Eicha Museum



A (SCALE 1:1)



A



C

73
GRAVE

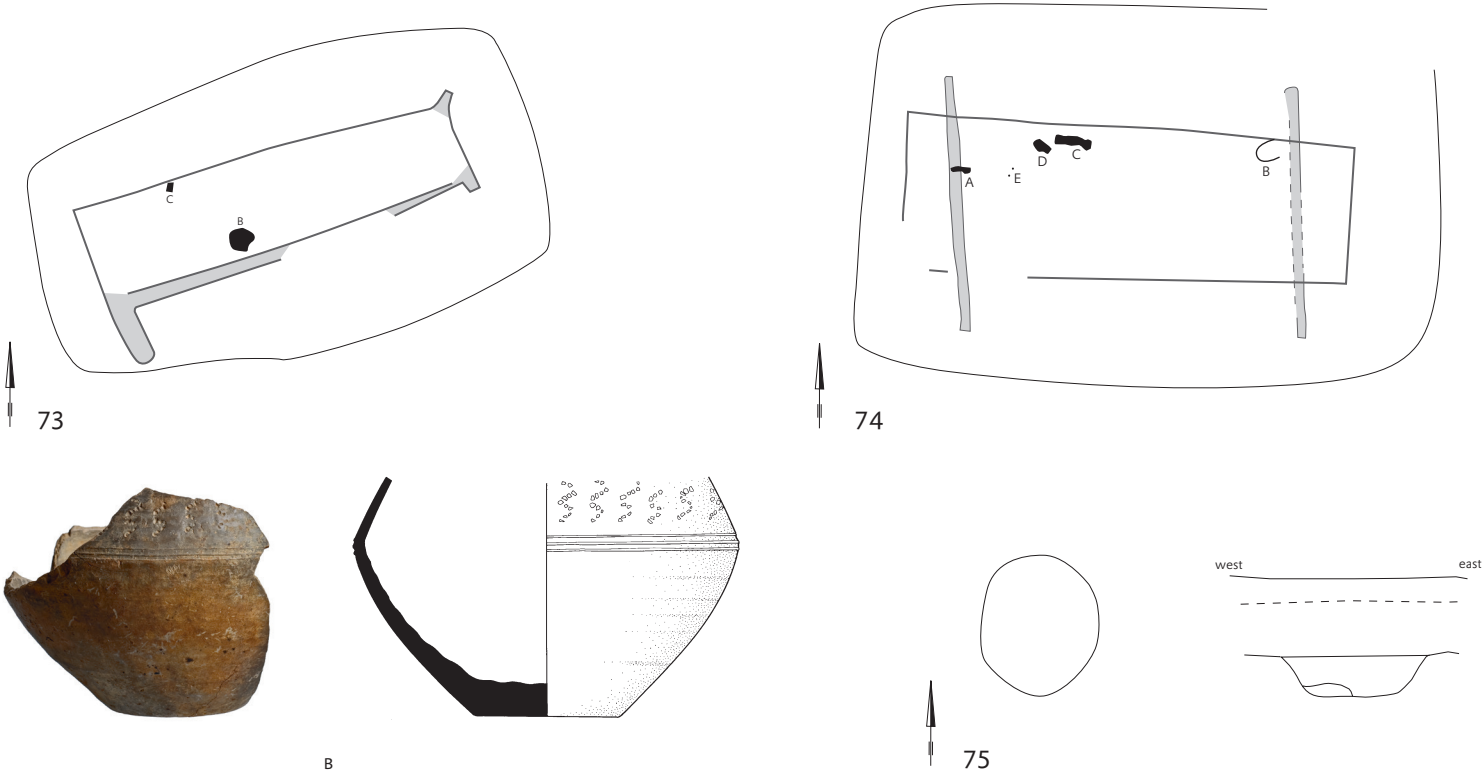
Field date	1957
Grave type	wooden container grave
Grave pit length	2.72
Grave pit width	1.56
Grave pit depth	1.20

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and curved walls, and held a rectangular wooden container. The container was either supported by two beams or the boards of its short walls extended beyond those of the long walls. The finds’ fragmentation indicates that the grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 4-5 (6), 510/25-580/90 (610/20)

- FINDS**
- A Pottery fragment
Find number: 73.a
Find depth: 0.80 m
Location: missing
 - B Pottery vessel
Find number: 73.b1
Find depth: 0.80 m
Bottom half of a biconical pot, decorated with grooves and single stamps of vertical undulating lines



consisting of small dots
Condition: large fragment
Maximum height: 0 mm
Type: Siegmund KWT 2.12/2.22
Rhineland phase: 4/ 8A
Rhineland date: 530-555/610-625
Alternative type: FAG KWT2B/2C
FAG date: 510/25-610/20 or 610/20-670/80
Location: Eicha Museum

- C Stone
Find number: 73.c
Find depth: 1.10 m
Whetstone, characteristics unknown
Location: missing

74
GRAVE

Field date	1957
Grave type	wooden container grave
Grave pit length	3.08
Grave pit width	2.00
Grave pit depth	1.45

DESCRIPTION
If the spur located in the north-eastern corner of the grave indicates the location of the deceased’s feet, this grave was oriented west-east. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase III, FAG phases 9-10, 670/80-mid eighth century

- FINDS**
- A Strap end, iron
Find number: 74.a
Find depth: 1.30 m
Location: missing
 - B Spur, copper alloy
Find number: 74.b
Find depth: 1.40 m
Location: missing
 - C Buckle, iron
Find number: 74.c
Find depth: 1.40 m
Possible iron buckle, characteristics unknown
Date: probably seventh century
Location: missing
 - D Belt plate, iron
Find number: 74.d1
Find depth: 1.40 m
Iron counter plate, characteristics unknown
Date: probably seventh century
Location: missing
 - Buckle, iron
Find number: 74.d2
Find depth: 1.40 m
Small buckle, characteristics unknown
Date: probably seventh century
Location: missing
 - Belt plate, iron
Find number: 74.d3
Find depth: 1.40 m

Date: probably seventh century
Location: missing

Strap end, iron
Find number: 74.d4
Find depth: 1.40 m
Location: missing

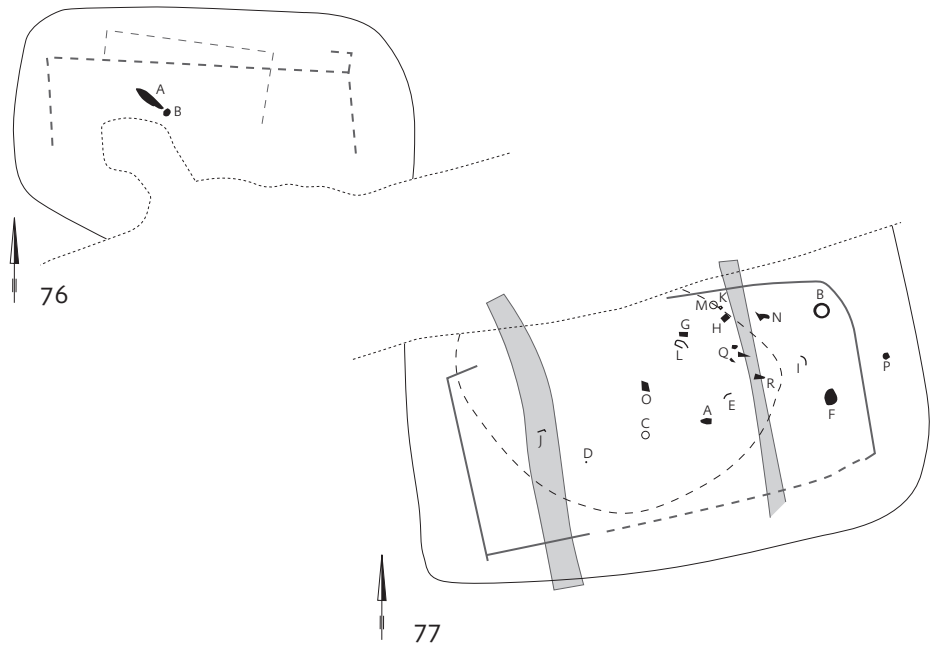
- E Beads, glass
Find number: 74.e
Find depth: 1.40 m
Two blue beads, characteristics unknown
Location: missing

75
PIT WITH BURNED BONE

Field date	1959
Pit length	0.74
Pit depth	0.60

DESCRIPTION
The top of the concentration of bone (observed at 40 cm below the surface level) was disturbed by soil working. This context consisted of a round pit containing a small quantity of burned bone. The bone has gone missing, so it is not clear whether this was a human cremation or a concentration of burned animal bone (either from an animal burial or the remains of a funeral meal). Neither is it clear whether this context dates to the Early Middle Ages. There are no indications that this context had been reopened.

DATE
no finds, cannot be dated



76
GRAVE

Field date	3/17/1959
Grave type	wooden container grave
Grave pit length	2.10

DESCRIPTION
The southern section of this grave was partially destroyed in 1957 when it was cut by a water conduit trench. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The meaning of the smaller rectangular feature in the container area is unclear. We do not know whether this grave was reopened in ancient times.

PHYSICAL ANTHROPOLOGY
Small coffin, probably a juvenile or young child.

DATE
cannot be dated

- FINDS**
- A Knife, iron
Find number: 76.a
Find depth: 0.70 m
Location: missing
 - B Mounts, copper alloy
Find number: 76.b
Find depth: 0.75 m
Two copper alloy mounts, function and characteristics unknown
Location: missing

77
GRAVE

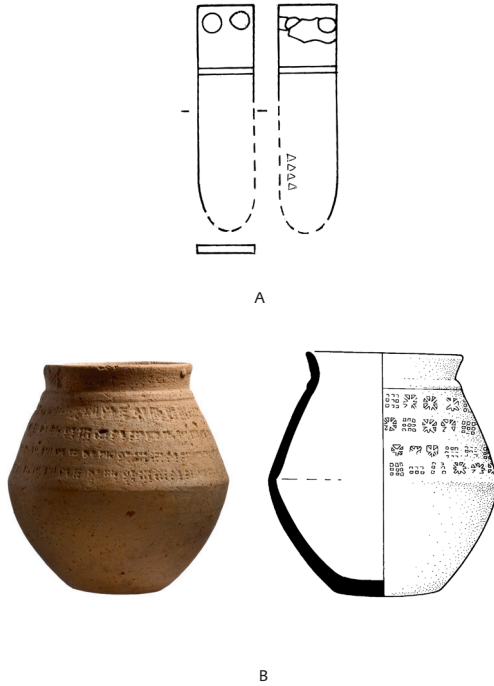
Field date	3/17/1959
Grave type	wooden container grave
Grave pit length	2.76
Grave pit depth	1.20

DESCRIPTION
The northern limit of this grave was partially destroyed in 1957 when it was cut by a water conduit trench. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The reopening pit in the middle of the grave and the location of the finds indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I-II, FAG phases 7-8, 610/20-670/80

- FINDS**
- 1 Indeterminate fragment, loam
Find number: 77.1
Fragment of burned loam
Location: PDBNB
 - 2 Indeterminate fragment, wood
Find number: 77.2
Fragment of mineralised wood
Location: PDBNB



- 3 Stone
Find number: 77.3
Small stone fragment, possibly quartz
Location: PDBNB
- 4 Indeterminate fragment, bone
Find number: 77.4
Fragment of burned bone
Location: PDBNB
- A Strap end, copper alloy
Find number: 77.a1
Find depth: 1.00 m
Copper alloy strap end with two rivets. Both the front and backside are decorated with two straight lines that run across the plate at approximately one-third of its length. They are also decorated with an indeterminate incised pattern running in straight lines along the edges and undulating in the centre of the plate
Condition: slightly corroded, point not preserved
Plate length: 56 mm
Location: PDBNB
- B Pottery vessel
Find number: 77.b
Find depth: 1.00 m (top of vessel)
Small oxidised biconical pot decorated with four turns of a band with two motives: a group of nine rectangles and a cross motive consisting of triangular impressions.
Condition: slightly damaged rim
Maximum height: 127 mm
Type: Siegmund KWT3.23
Rhineland phase: 8A-8B
Rhineland date: 610-640

- Alternative type: FAG KWT5F/G/H
FAG date: 5-7: 565-640/50
Location: Eicha Museum
- C Mount, iron
Find number: 77.c1
Find depth: 1.05 m
Iron fitting with wood remains attached which may have belonged to a wooden box or coffin
Condition: corroded fragment
Length: 33 mm
Location: PDBNB
- D Bead, amber
Find number: 77.d1
Find depth: 1.05 m
Large cylindrical four-sided amber bead
Condition: complete
Type: A 42
Location: PDBNB
- E Pottery vessel
Find number: 77.e
Find depth: 1.05/1.10 m
The pottery fragments f and i may also have been fitted to this pot
Small reduced biconical pot decorated with (single?) lines of small rectangular roulette stamps
Condition: restored
Maximum height: 99 mm
Type: Siegmund KWT3.22
Rhineland phase: late 7- early 8B
Rhineland date: 600-630
Alternative type: FAG KWT 5B (or KWT5A)
FAG date: 5-7: 565-640/50 (5-6: 565-610/620)
Location: Eicha Museum

- Strap end, iron
Find number: 77.e1
Find depth: 1.05 m
Small iron fragment consisting of two plates fixed together with two small copper alloy rivets. Textile remains attached. Possibly part of a strap end
Condition: corroded fragment
Location: PDBNB
- G Belt plate, copper alloy
Find number: 77.g1
Find depth: 1.10 m
Fragment of a rectangular copper alloy belt plate with two out of four rivets remaining, leather remains attached. No visible decoration.
Condition: corroded fragment
Plate length: 26 mm
Date: seventh century
Location: PDBNB
- H Belt plate, copper alloy
Find number: 77.h1
Find depth: 1.10 m
Fragment of a rectangular copper alloy belt plate with two out of four rivets remaining, covered in leather and textile remains. No visible decoration
Condition: corroded fragment
Plate length: 26 mm
Date: seventh century
Location: PDBNB
- J Mount, iron
Find number: 77.j1
Find depth: 1.10 m
Iron fitting with wood remains attached, which may have belonged to a wooden box or coffin

- Condition: corroded fragment
Length: 29 mm
Location: PDBNB
- K Belt plate, copper alloy
Find number: 77.k1
Find depth: 1.12 m
Rectangular copper alloy belt plate with three out of four rivets remaining, leather remains attached. No visible decoration
Condition: slightly corroded, edges partly missing
Plate length: 27 mm
Date: seventh century
Location: PDBNB
- Belt plate, copper alloy
Find number: 77.k2
Find depth: 1.12 m
Rectangular copper alloy belt plate with three out of four rivets remaining, leather and textile remains attached. No visible decoration
Condition: corroded, edges partly missing
Plate length: 28 mm
Date: seventh century
Location: PDBNB
- L Belt plate, copper alloy
Find number: 77.l1
Find depth: 1.12 m
Fragments of a rectangular copper alloy belt plate with two out of four rivets remaining, leather remains attached to the rivets. Decorated with indeterminate stamped in pattern
Plate length: 23 mm
Date: seventh century
Location: PDBNB

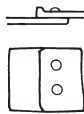
- M Belt plate, copper alloy
Find number: 77.m1
Find depth: 1.13 m
Fragment of a rectangular copper alloy belt plate with two out of four rivets remaining. Textile remains attached to the front of the plate and leather remains to the back. The decoration, if present, is invisible due to the attached textile
Condition: edges missing
Plate length: 25 mm
Date: seventh century
Location: PDBNB
- N Belt plate, copper alloy
Find number: 77.n
Find depth: 1.13 m
Bronze plate, which may have been similar to the rectangular belt plates found in this grave
Date: seventh century
Location: missing
- O Belt plate, copper alloy
Find number: 77.o1
Find depth: 1.15 m
Rectangular copper alloy belt plate with three out of four rivets remaining, decorated with stamped in herringbone motives: one line along the edges of the plate and one diamond shaped line in the centre. A small fragment of associated textile is also preserved
Condition: slightly corroded, part missing
Plate length: 25 mm
Date: seventh century
Location: PDBNB

- Indeterminate fragment, iron
Find number: 77.o2
Find depth: 1.15 m
Location: PDBNB
- Wire, silver
Find number: 77.o3
Find depth: 1.15 m
Eight fragments of silver wire, one of which ends in a knot.
Siegmund type: possibly Per6.2
Rhineland phase: 9 and onwards
Rhineland date: from 640-670
Alternative type: FAG S-Per6.2 (phase 7-9/10)
FAG date: 610/20-mid eighth century
Location: PDBNB
- P Flint
Find number: 77.p1
Find depth: 1.10 m
Unworked flint fragment
Length: 44 mm
Location: PDBNB
- Q Belt plate, copper alloy
Find number: 77.q1
Find depth: 1.15 m
Rectangular copper alloy belt plate with three out of four rivets remaining, leather remains attached. No visible decoration
Condition: corroded, edges partly missing
Plate length: 26 mm
Date: seventh century
Location: PDBNB

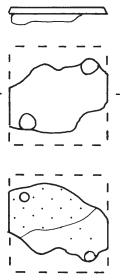
D



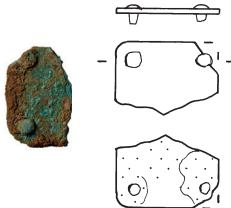
E1



G



H



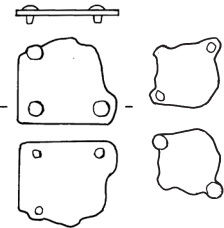
O (TEXTILE SCALE 1:1)



Q3



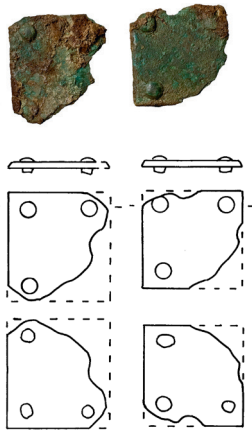
Q1, Q2



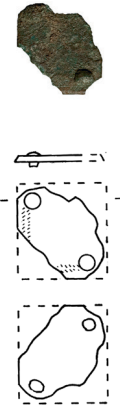
E



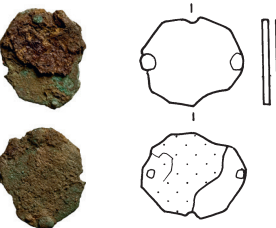
K1, K2



L



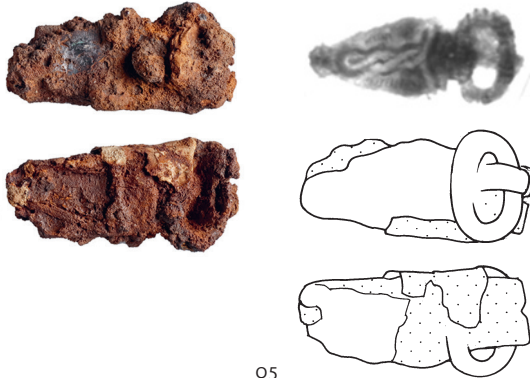
M



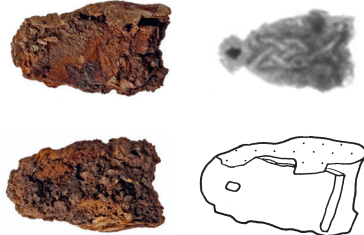
Q4



Q5



R1



Belt plate, copper alloy
Find number: 77.q2
Find depth: 1.15 m
Fragment of a rectangular copper alloy belt plate with two out of four rivets remaining. No visible decoration
Condition: corroded fragment
Date: seventh century
Location: PDBNB

Indeterminate fragment, textile
Find number: 77.q3
Find depth: 1.15 m
Location: PDBNB

Strap end, iron
Find number: 77.q4
Find depth: 1.15 m
Iron strap end decorated with a silver inlay braid surrounded by silver stripes. Associated with 77.q5
Condition: corroded
Plate length: 37 mm
Type: Siegmund Snaz.5
Rhineland phase: 9
Rhineland date: 640-670
Alternative type: FAG S-Snaz.5
Alternative date: 7-8: 610/20-670/80
Alternative type: LPV 135: 600/10-630/40
Location: PDBNB

Plate buckle, iron
Find number: 77.q5
Find depth: 1.15 m
Small plate buckle with an oval loop, possible shoe buckle. The plate is decorated with an inlaid silver braid surrounded by silver? stripes. The loop is also decorated with silver or copper alloy stripes. Leather remains preserved on the back and in the loop
Condition: corroded
Loop length: 29 mm
Plate length: 38 mm

Type: Siegmund Snaz.5
Rhineland phase: 9
Rhineland date: 640-670
Alternative type: FAG S-Snaz.5
Alternative date: 7-8: 610/20-670/80
Alternative type: LPV 135: 600/10-630/40
Location: PDBNB

R Counter plate iron
Find number: 77.r1
Find depth: 1.18 m
Iron counter plate with leather and textile remains. The X-ray photograph shows silver inlay in degenerated animal style.
Condition: corroded
Plate length: 40 mm
Type: Siegmund Snaz.5
Rhineland phase: 9
Rhineland date: 640-670
Alternative type: FAG S-Snaz.5
FAG date: 7-8: 610/20-670/80
Alternative type: LPV 135: 600/10-630/40
Location: PDBNB

Pottery fragment
Find number: 77.r2
Find depth: 1.18 m
Condition: eroded fragment
Location: PDBNB

78 GRAVE

Field date 3/18/1959
Grave type wooden container grave
Grave pit length 2.96
Grave pit width 1.92
Grave pit depth 0.90

DESCRIPTION
This grave was partially damaged in 1957 when it was cut by a water conduit trench. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The lines running west-east in the area of the container probably represent container floorboards. The location of the finds in the grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 6-7, 580/90-640/50

FINDS

- 1 Flint
Find number: 78.1
Location: missing
- A Rivet, copper alloy
Find number: 78.a1
Large flat copper alloy rivet of a seax scabbard, decorated with cast lines. Leather remains attached to the back
Condition: slightly corroded
Diameter: 22 mm
Type: Siegmund Sax4.2

Rhineland phase: 8B-9
Rhineland date: 615-655
Alternative type: FAG S-Sax 4.2
FAG date: 7-8: 610/20-670/80
Location: Eicha Museum

- B Glass vessel
Find number: 78.b1
Find depth: 0.75 m
Yellowish-brown palm cup with an outplayed thickened rim. Below the rim is a self-coloured horizontal spiral trail, unevenly turned twice, and ending in a blob. Irregular self-coloured applied vertical loops are on the body, probably finishing star-shaped at the base, but covered by traces of a large punty scar. The body has a slightly S-curved profile. Intact, except for a gap in the wall. Exceptionally bad quality, numerous bubbles
Condition: restored
Maximum height: 76 mm
Type: Siegmund Gla2.1
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG S-Gla 2.1
FAG date: 6-7: 580/90-640/50
Location: Eicha Museum

- C Pottery vessel
Find number: 78.c1
Find depth: 0.90 m
Reduced ware biconical jug of which the opening is partly covered by an inward turned rim that is decorated with stamped in undulating lines. The shoulder of the pot is decorated with small rectangular roulette stamps
Condition: complete
Maximum height: 152 mm
Type: Siegmund KWT3.22
Rhineland phase: late 7- early 8B
Rhineland date: 600-630
Alternative type: FAG KWT 5B
FAG date: 5-7: 565-640/50
Location: van Daalen family

- D Rivet, iron
Find number: 78.d
Find depth: 0.85 m
Iron rivet, characteristics unknown
Location: missing

- E Rivet, iron
Find number: 78.e
Find depth: 0.90 m
Iron rivet, characteristics unknown
Location: missing
Rivet, iron
Find number: 78.f
Find depth: 0.90 m
Location: missing

79 GRAVE

Field date 3/18/1959
Grave type wooden container grave
Grave pit length 3.06
Grave pit width 2.36
Grave pit depth 1.25

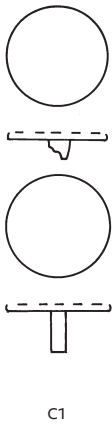
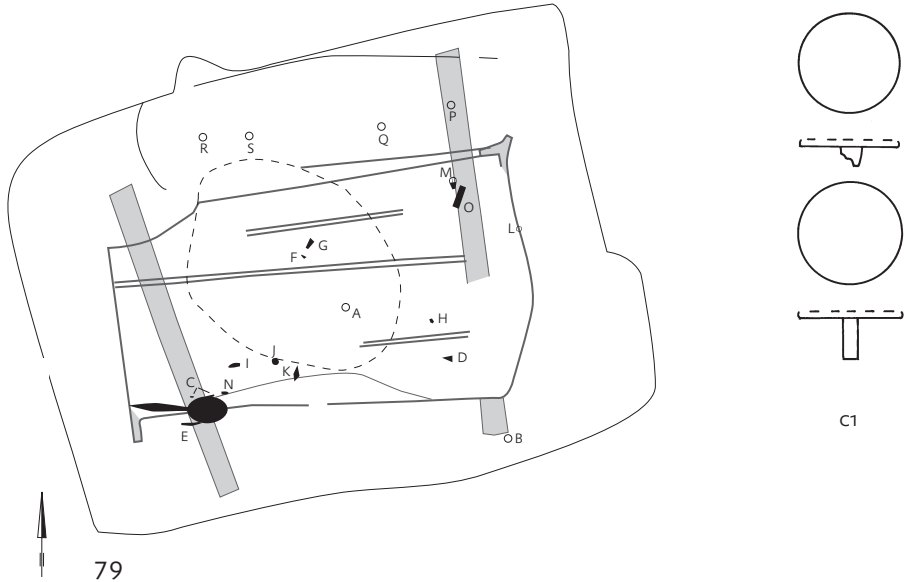
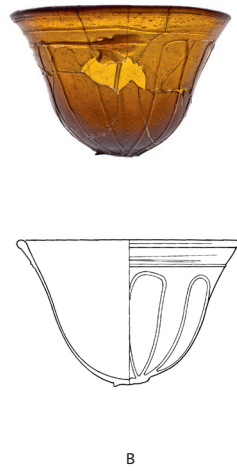
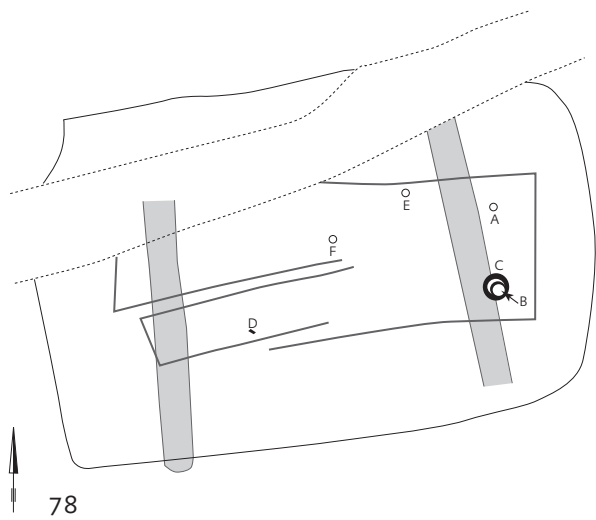
DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The lines running west-east in the area of the container probably represent either container floorboards or traces of the caved in container lid. In the north-east and south-west corners of the container, the boards of the short walls extended beyond those of the length. The reopening pit in the middle of the grave and the location of the finds in this grave indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 6-7, 580/90-640/50

FINDS

- 1 Indeterminate fragments, iron
Find number: 79.1
Seven iron fragments, indeterminate
Location: PDBNB
- A Indeterminate fragment, loam
Find number: 79.a1
Find depth: 0.78 m
Fragment of burned loam
Location: PDBNB
- B Indeterminate fragments
Find number: 79.b1
Find depth: 0.78 m
Two fragments of natural iron concretions
Location: PDBNB
- C Rivets, iron
Find number: 79.c1
Find depth: 1.05 m
Two large flat iron rivets with wood remains attached
Condition: corroded, edges partly missing
Diameter: 28 mm
Location: PDBNB
- D Indeterminate fragment, iron
Find number: 79.d1
Find depth: 1.05 m
Iron fragment with leather remains attached
Location: PDBNB



E Shield boss, iron
Find number: 79.e1
Find depth: 1.15 m
Iron shield boss with four rivets
Maximum width: 165 mm
Condition: restored
Type: Siegmund Sbu5
Rhineland phase: 8
Rhineland date: 610-640
Alternative type: FAG Sbu5A
FAG date: 6-9: 580/90-710
Location: Eicha Museum

Lance head, iron
Find number: 79.e2
Find depth: 1.15 m
Large section of an iron lance head. Only a small part of the socket is preserved. Wood remains of the shaft preserved in the socket. Probably associated with socket e3
Remaining blade length: 240 mm
Condition: severely corroded
Type: see e3
Location: PDBNB

Lance head, iron
Find number: 79.e3
Find depth: 1.15 m
Large part of an open iron lance head socket, decorated with six engraved lines. Wood remains of the shaft preserved in the socket
Remaining total length together with blade e2: 410 mm
Condition: corroded fragment
Type: Siegmund Lan1.3a (based on the excavator's drawing)
Rhineland phase: 6
Rhineland date: 570-585

Alternative type: FAG S-Lan1.3a
FAG date: 5(-early 6) 565-580/90(- 610/620)
Alternative type: LPV 30: (440/50) 470/80 - 600/10
Location: PDBNB

Mount, iron
Find number: 79.e4
Find depth: 1.15 m
Fragments of an iron mount which may have belonged to a shield grip. Wood remains attached. On one of the fragments an iron rivet is preserved
Condition: corroded fragments
Length: 100 mm
Location: PDBNB

Indeterminate fragments, iron
Find number: 79.e5
Find depth: 1.15 m
Many surface fragments of an iron lance head
Location: PDBNB

F Mount, copper alloy
Find number: 79.f1
Find depth: 1.15 m
Hollow pyramid shaped copper alloy mount
Condition: fragment
Diameter: 17 mm
Menghin phase: late D-E
Menghin date: 600-650
Siegmund date: 8A: 610-620/30
Alternative type: LPV 97: 545-630/40
Location: PDBNB

G Strap end, copper alloy
Find number: 79.g1
Find depth: 1.20 m
Copper alloy strap end with two rivets and cast decoration in degenerated animal style

Condition: slightly corroded
Plate length: 51 mm
Buchta-Hohn date: 650-700
Location: Eicha Museum

H Glass fragment
Find number: 79.h1
Find depth: 1.20 m
Wall fragment of brown/green glass
Location: PDBNB

I Rivet, iron
Find number: 79.i1
Find depth: 1.25 m
Flat iron rivet with wood remains attached
Condition: corroded
Diameter: 25 mm
Location: PDBNB

Shield grip, iron
Find number: 79.i2
Find depth: 1.25 m
Three fragments of a possible shield grip.
Location: PDBNB

J Rivet, iron
Find number: 79.j1
Find depth: 1.25 m
Large flat iron rivet with wood remains attached
Condition: corroded
Diameter: 26 mm
Location: PDBNB

K Arrow head, iron
Find number: 79.k1
Find depth: 1.25 m
Four fragments of an iron arrow head with wood remains of the shaft preserved in the socket

Condition: corroded fragments
Blade length: 60 mm
Type: Siegmund Lan2.5
Rhineland phase: 8B-9
Rhineland date: 625-670
Location: PDBNB

L Ring, copper alloy
Find number: 79.l1
Find depth: 1.20 m
Round copper alloy ring with a round section
Condition: slightly corroded
Ring diameter: 31 mm
Location: PDBNB

M Plate buckle, iron
Find number: 79.m1
Find depth: 1.25 m
Iron plate buckle with at least two rivets remaining (see X-ray photograph), part of the leather belt is preserved in the loop. The x-ray photograph shows no decoration
Condition: corroded
Loop length: 33 mm
Plate length: 40 mm
Date: probably seventh century
Location: PDBNB

N Indeterminate fragment, iron
Find number: 79.n
Find depth: 1.25 m
Location: missing

O Indeterminate fragment, iron
Find number: 79.o
Find depth: 1.25 m
Location: missing

P Indeterminate fragment, iron
Find number: 79.p
Find depth: 0.55 m
Location: missing

Q Indeterminate fragment, iron
Find number: 79.q
Find depth: 0.65 m
Location: missing

R Pottery fragment
Find number: 79.r
Find depth: 0.65 m
Location: missing

S Indeterminate fragment
Find number: 79.s1
Find depth: 0.75 m
Location: PDBNB

80 GRAVE	
Field date	3/19/1957
Grave type	wooden container grave
Grave pit length	2.56
Grave pit width	1.78
Grave pit depth	1.00
Stratigraphic relation	below 81

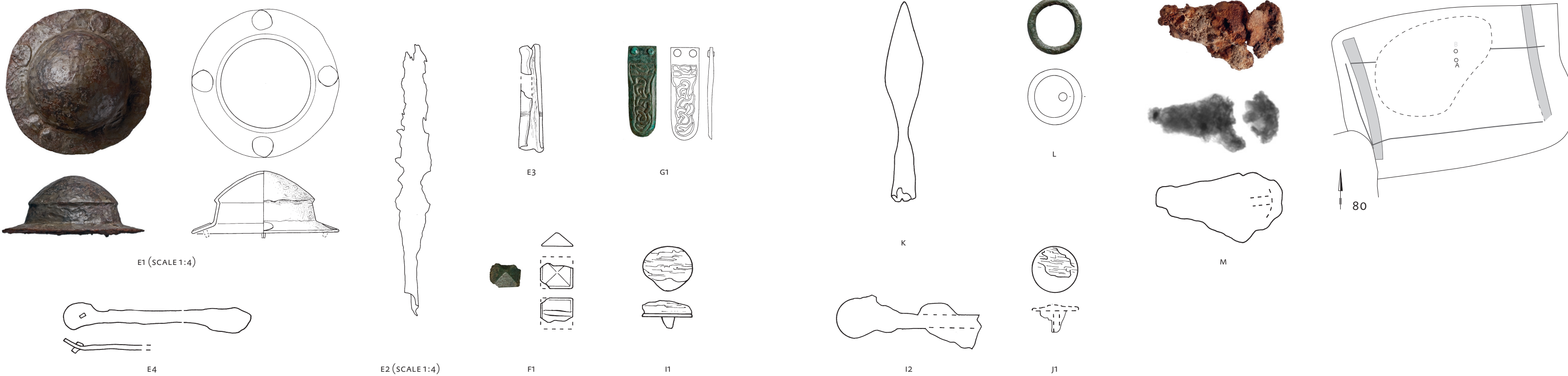
DESCRIPTION
Part of this grave was cut by grave 81. The container was not damaged by this cut. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The reopening pit in the middle of the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Indeterminate fragment, iron
Find number: 80.a
Find depth: 0.95 m
Location: missing

B Indeterminate fragment, iron
Find number: 80.b
Find depth: 0.95 m
Location: missing



81
GRAVE

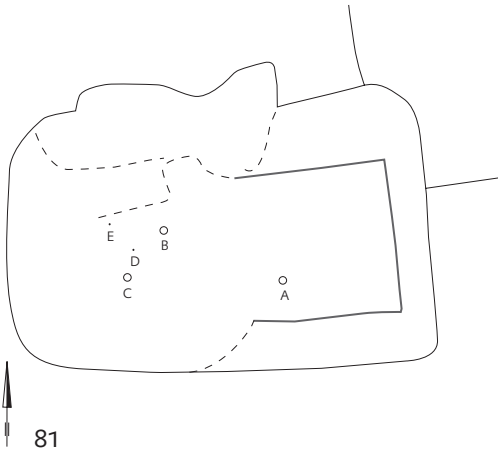
Field date	3/19/1959
Grave type	wooden container grave
Grave pit length	2.24
Grave pit width	1.48
Grave pit depth	0.85
Stratigraphic relation	above 80

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners. The shape of the coffin could not be established with certainty, but was probably rectangular. The possible reopening in the western end of the grave and location of the finds indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

- FINDS**
- A Pottery fragment
Find number: 81.a
Find depth: 0.80 m
Location: missing
 - B Pin, copper alloy
Find number: 81.b
Find depth: 0.80 m
Upper part of a copper alloy pin. The excavators' sketch in the field administration shows that the head had a carinated profile and a blunt pointed top
Location: missing
 - C Flint
Find number: 81.c
Find depth: 0.80 m
Location: missing



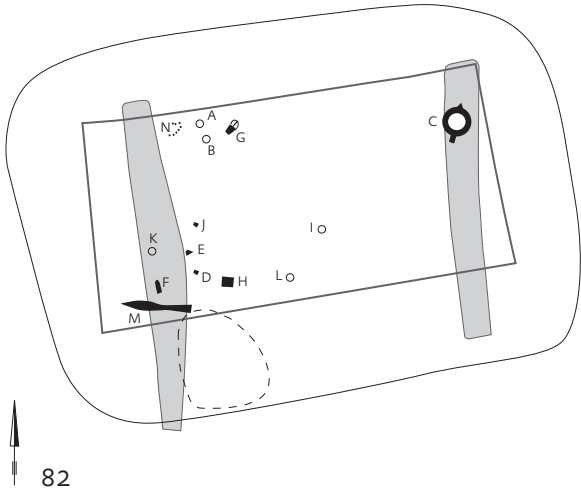
- D Bead, glass
Find number: 81.d
Find depth: 0.85 m
Yellow bead with three segments, other characteristics unknown
Location: missing
- E Bead, glass
Find number: 81.e
Find depth: 0.85 m
Blue bead with five segments, other characteristics unknown
Location: missing

82
GRAVE

Field date	3/19/1959
Grave type	wooden container grave
Grave pit length	2.90
Grave pit width	2.02
Grave pit depth	1.32

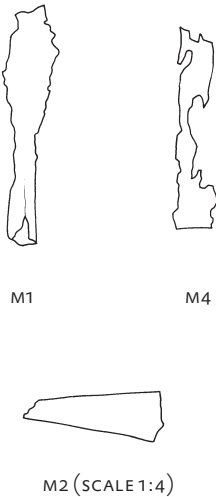
DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with rounded corners and held a rectangular wooden container supported by two wooden beams. The meaning of the small round feature on the south-west side of the grave is unclear. The location of the finds in the grave indicates that it was reopened. The grave good types and their distribution indicate that the grave may have contained two burials, a woman in the northern part of the container and a man in the southern part.

PHYSICAL ANTHROPOLOGY
Possibly two individuals based on grave finds. No human remains. Probably at least one of the individuals was an adult.



- DATE**
Bergeijk phase I, FAG phases 6-7, 580/90-640/50
- FINDS**
- A Indeterminate fragment, iron
Find number: 82.a
Find depth: 0.85 m
Location: missing
 - B Indeterminate fragment, iron
Find number: 82.b
Find depth: 1.10 m
Location: missing
 - C Pottery vessel
Find number: 82.c1
Find depth: 1.25 m
Oxidised ware biconical jug whose opening is partly covered by an inward turned rim decorated with stamped in undulating lines. The shoulder of the pot is decorated with small rectangular roulette stamps
Condition: slightly cracked, not broken
Maximum height: 181 mm
Type: Siegmund KWT3.23
Rhineland phase: 8A-8B
Rhineland date: 610-640
Alternative type: FAG KWT5B
FAG date: 5-7: 565-640/50
Location: Eicha Museum
 - D Flint
Find number: 82.d
Find depth: 1.30 m
Location: missing

Mount, copper alloy
Find number: 82.d1
Find depth: 1.30 m
Pyramid shaped copper alloy mount
Menghin phase: late D-E
Menghin date: 600-650
Siegmund date: 8A: 610-620/30
Alternative type: LPV 97: 545-630/40
Location: missing



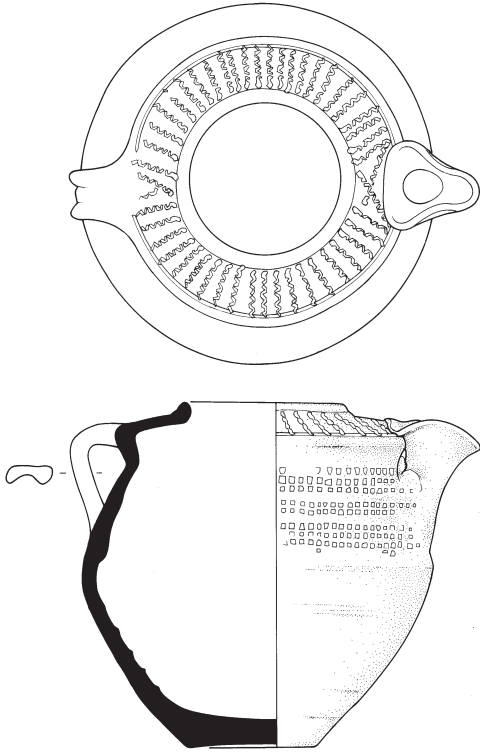
- E Stone
Find number: 82.e
Find depth: 1.30 m
Small stone, characteristics unknown
Location: missing
- F Belt part, iron
Find number: 82.f
Find depth: 1.30 m
Iron buckle or strap end, characteristics unknown
Location: missing
- G Buckle, iron
Find number: 82.g
Find depth: 1.30 m
Date: probably seventh century
Location: missing
- H Belt plate, iron
Find number: 82.h1
Find depth: 1.31 m
Tongue shaped iron counter plate with three copper alloy? rivets decorated with silver inlay in 'punkt-band' geometric style. Leather and textile remains preserved on the back
Condition: restored
Plate length: 83 mm
Type: Plumier-Torfs group 2
Plumier-Torfs date: 600-630/50
Alternative type: Siegmund Gür4.6
Rhineland date: 8(B): 610-640
Alternative type: FAG S-Gür4.6
FAG date: 7: 610/20-640/50
Alternative type: LPV 185 :600/10-60/70
Location: van Daalen family

- I Nail, iron
Find number: 82.i
Find depth: 1.32 m
Location: missing



- J Mount, copper alloy
Find number: 82.j
Find depth: 1.32 m
Pyramid shaped copper alloy mount
Menghin phase: late D-E
Menghin date: 600-650
Siegmund date: 8A: 610-620/30
Alternative type: LPV 97: 545-630/40
Location: missing
- K Nail, iron
Find number: 82.k
Find depth: 1.32 m
Location: missing
- L Nail, iron
Find number: 82.l
Find depth: 1.32 m
Location: missing
- M Lance head, iron
Find number: 82.m1
Find depth: 1.32 m
Large part of an iron lance or arrow head. Remains of the wooden shaft preserved in the socket. Possibly associated with m2 in which case m1 and m2 would form a lance head
Condition: severely corroded fragment
Date: probably seventh century
Location: PDBNB

Lance head, iron
Find number: 82.m2
Find depth: 1.32 m
Part of the iron socket of a lance. Possibly associated with m1, in which case m1 and m2 would form a lance head
Condition: severely corroded fragment
Location: PDBNB



Lance head, iron
Find number: 82.m3
Find depth: 1.32 m
Iron point of a lance head. Probably not associated with m1
Condition: corroded fragment
Location: PDBNB

Lance head, iron
Find number: 82.m4
Find depth: 1.32 m
Possible fragment of an iron lance head. Possibly associated with m3
Condition: severely corroded fragments
Location: PDBNB

Indeterminate fragment, iron
Find number: 82.m5
Find depth: 1.32 m
Small iron fragment possibly related to M1, 2 and 3
Location: PDBNB

Indeterminate fragments, iron
Find number: 82.m6
Find depth: 1.32 m
Many severely corroded surface fragments of a lance head, some of which have textile remains attached
Location: PDBNB

- N Beads, glass
Find number: 82.n
Find depth: 1.32 m
This find consists of at least 8 beads; characteristics unknown
Location: missing



83
PIT WITH BURNED BONE

Field date	1959
Pit width	0.14

DESCRIPTION
This context consisted of a very small round pit containing fragments of burned bone, found only 30 cm below the surface. The bone has gone missing, so it is not clear whether this is a human cremation or a concentration of burned animal bone (either from an animal burial or funeral meal). Whether it dates from the Early Middle Ages is also unclear. There are no indications that this context had been reopened.

Date: no finds, cannot be dated

84
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.80
Grave pit width	1.46
Grave pit depth	1.00

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The fragmentation of the finds and the possible reopening pit in the middle of the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 5-6, 565-610/20

FINDS
A Pottery vessel
Find number: 84.a1
Find depth: 0.80 m
Many fragments of a medium-sized globular pot
Condition: fragments
Location: PDBNB

Pottery fragment
Find number: 84.a2
Find depth: 0.80 m
Wall fragment of handmade reduced-oxidized pottery
Date: probably Iron Age
Location: PDBNB

Stone
Find number: 84.a3
Find depth: 0.80 m
Stone fragment, probably part of a cooking stone
Length: 25 mm
Location: PDBNB

85
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.62
Grave pit width	1.54
Grave pit depth	1.05

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container

supported by two beams. The location of the finds in the grave indicates that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 5-7, 565-640/50

FINDS
A Pottery vessel
Find number: 85.a1
Find depth: 0.82/0.85 m
The pottery fragments b, c, and g were probably also fitted to this pot
Reduced biconical jug decorated with lines of square roulette stamps. It is uncertain whether this pot originally possessed an ear
Condition: restored, ear entirely fake
Maximum height: 152 mm
Type: Siegmund KWT 3.22
Rhineland phase: late 7- early 8B
Rhineland date: 600-630
Alternative type: FAG KWT 5B
FAG date: 5-7: 565-640/50
Location: van Daalen family

D Belt plate, copper alloy
Find number: 85.d
Find depth: 0.85 m
Possible copper alloy belt plate, characteristics unknown
Date: seventh century
Location: missing

E Belt plate, copper alloy
Find number: 85.e
Find depth: 0.85 m
Possible copper alloy belt plate, characteristics unknown
Date: seventh century
Location: missing

F Belt plate, copper alloy
Find number: 85.f
Find depth: 0.85 m
Possible copper alloy belt plate, characteristics unknown
Date: seventh century
Location: missing

H Belt plate, copper alloy
Find number: 85.h
Find depth: 0.86 m
Possible copper alloy belt plate, characteristics unknown
Date: seventh century
Location: missing

I Belt plate, copper alloy
Find number: 85.i
Find depth: 0.97 m
Possible copper alloy belt plate, characteristics unknown
Date: seventh century
Location: missing

J Beads, glass
Find number: 85.j
Find depth: between 0.97 and 1.00 m
28 beads, administrated under find numbers J to Q_z
characteristics unknown
Location: missing

R Belt plate, copper alloy
Find number: 85.r
Find depth: 1.00 m
Possible copper alloy belt plate, characteristics unknown
Date: seventh century
Location: missing

86
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.22
Grave pit width	1.68
Grave pit depth	0.95

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The indistinctness of the features in the western half of the container and the location of the finds in this grave indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Bead, glass
Find number: 86.a
Find depth: 0.75 m
Location: missing

B Bead, glass
Find number: 86.b
Find depth: 0.90 m
Location: missing

87
PIT WITH BURNED BONE

Field date	1959
Pit width	0.40

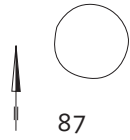
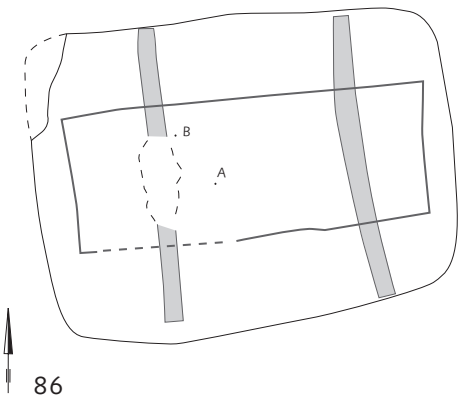
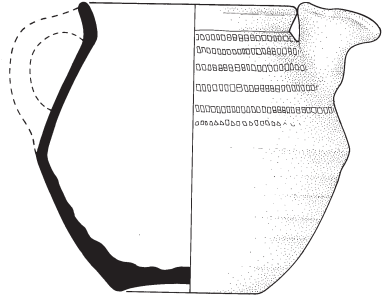
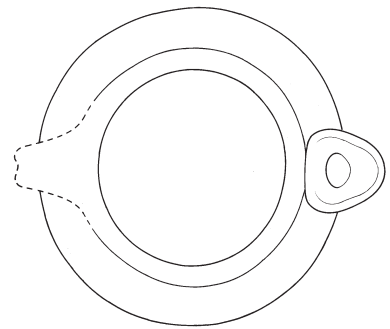
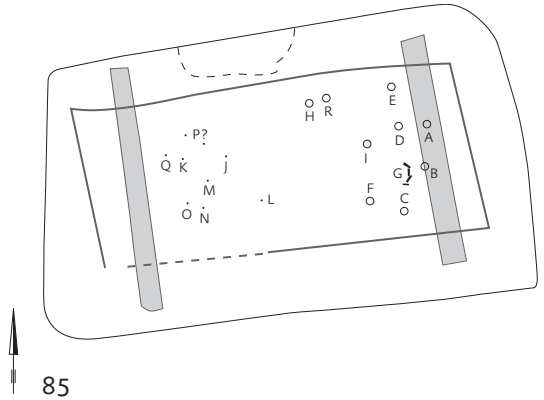
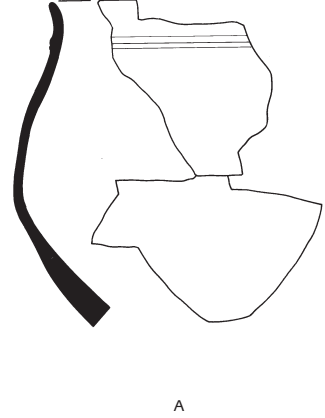
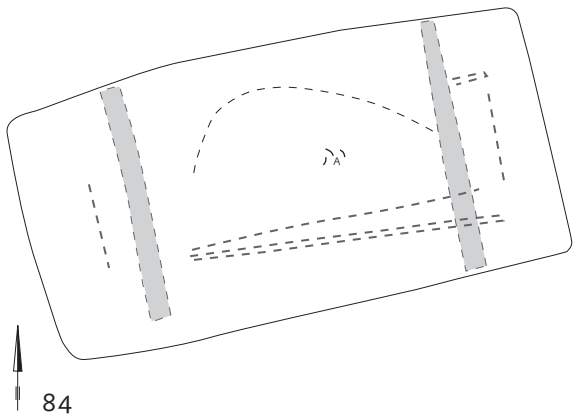
DESCRIPTION
This context was disturbed when a tree was planted here. This possible grave consisted of a round pit containing a small quantity of burned bone. The bone has gone missing, so it is not clear whether this is a human cremation or a concentration of burned animal bone (either from an animal burial or funeral meal). Neither is it clear whether it dates to the Early Middle Ages. There are no indications that this context was reopened.

DATE
no finds, cannot be dated

88
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	3.04
Grave pit width	1.96
Grave pit depth	1.15
Orientation	West-East

DESCRIPTION
The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The lines running west-east in the area of the container probably represent container floorboards. There are no indications that this grave had been reopened.



PHYSICAL ANTHROPOLOGY

Remains of the skull were observed as discolorations of the soil. Probably adult.

DATE

Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

- A Indeterminate fragment, iron
Find number: 88.a
Find depth: 1.05 m
Location: missing

- B Indeterminate fragment, iron
Find number: 88.b
Find depth: 1.10 m
Location: missing

- C Beads, glass
Find number: 88.c1
Find depth: 1.10/115 m
Seven opaque greenish white disc shaped glass beads
Condition: complete
Type: WO 4
Location: van Daalen family

Beads, glass
Find number: 88.c2
Find depth: 1.10/115 m
Seven opaque yellow twisted wire glass beads
Condition: some beads broken/damaged
Type: YO 29
Form as Siegmund Per47.4 (groups (f) H-I)

Rhineland date: mainly 610-705

Location: van Daalen family

Bead, glass

Find number: 88.c3

Find depth: 1.10/115 m

Opaque red twisted wire glass bead

Condition: complete

Type: RO 29

Form as Siegmund Per47.4 (groups (f) H-I)

Rhineland date: mainly 610-705

Location: van Daalen family

Beads, glass

Find number: 88.c4

Find depth: 1.10/115 m

Three transparent twisted blue wire blue glass beads

Condition: slightly damaged

Type: BT 29

Siegmund type: Per47.4 (groups F-I)

Rhineland date: 585-705

Location: van Daalen family

Bead, glass

Find number: 88.c5

Find depth: 1.10/115 m

Two almond shaped green transparent glass beads

Condition: complete

Type: GT 15

Siegmund type: Per1.8 (groups H-I)

Rhineland date: 610-705

Alternative type: FAG S-Per1.8 (group IV)

FAG date: not before 610/20-640/50

Location: van Daalen family

Bead, glass

Find number: 88.c6

Find depth: 1.10/1.15 m

Four almond and/or droplet shaped transparent

brown glass beads

Condition: complete

Type: BT 22

Siegmund type: Per1.8 (groups H-I)

Rhineland date: 610-705

Alternative type: FAG S-Per1.8 (group IV)

FAG date: not before 610/20-640/50

Location: van Daalen family

Bead, glass

Find number: 88.c7

Find depth: 1.10/1.15 m

Opaque green biconical glass bead

Condition: complete

Type: GO 20

Location: van Daalen family

89
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	3.98
Grave pit width	2.78
Grave pit depth	1.30

DESCRIPTION

The south-eastern corner of the grave was damaged by an unknown, probably recent, feature. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The size of the pit is exceptionally large in relation to container size. It was impossible to indicate the position of all beads exactly on the basis of the excavators' drawing. The thorax area was probably disturbed, given the fact that the buckle b and finger ring a were in atypical locations; the beads are scattered in such a way that even a suggestion that they were sewn on a dress seems unlikely. However, it is unclear whether this displacement resulted from a reopening or from other formation processes, such as animal activity in the open space of the coffin.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

Bergeijk phase III, FAG phase 9, 670/80-710

FINDS

- 1 Pottery fragment
Find number: 89.1
Wall fragment of handmade thick walled pottery, oxidized-reduced ware. Decorated with a clay strip with finger impressions
Date: probably Bronze Age
Location: PDBNB

- 2 Pottery fragment
Find number: 89.2
Six wall fragments of reduced-oxidized handmade thick walled pottery
Date: probably Bronze or Iron Age
Location: PDBNB

- A Ring, copper alloy
Find number: 89.a1
Find depth: 1.20 m
This find corresponds to find number c in the composite drawing
Copper alloy ring with a triangular section.
Condition: slightly corroded
Ring diameter: 31 mm
Location: PDBNB

Indeterminate fragment, iron
Find number: 89.a3
Find depth: 1.20 m
Location: PDBNB

- B Buckle, iron
Find number: 89.b1
Find depth: 1.30 m
Iron buckle loop with leather and textile remains.
The x-ray photograph showed no decoration
Condition: corroded
Loop length: 32 mm
Type: Ophoven belt
Date: (640) 670-700
Location: PDBNB

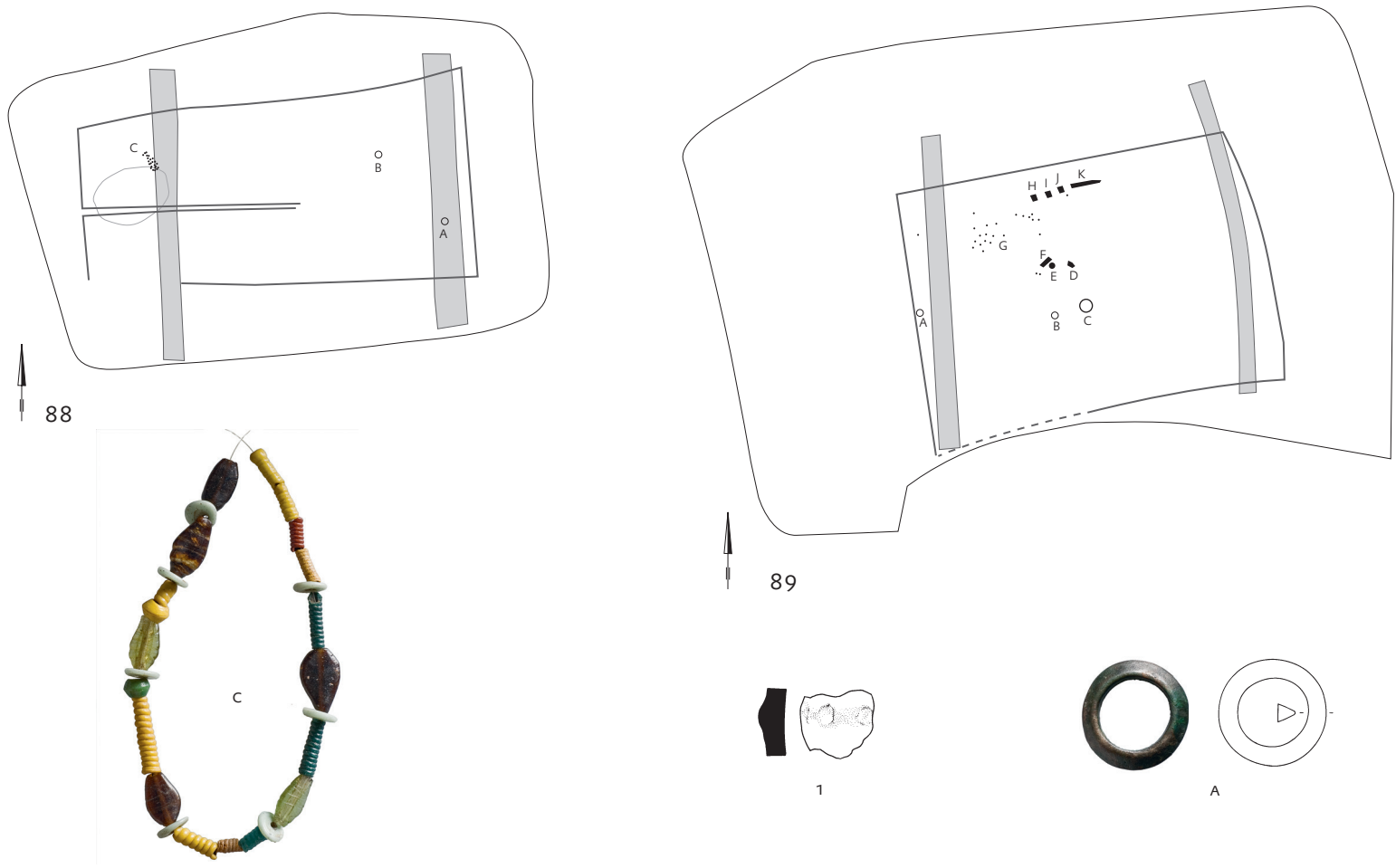
- C Indeterminate fragment
Find number: 89.c1
Find depth: 1.30 m
Forty very small fragments of indeterminate material
Location: PDBNB

- D Indeterminate fragments
Find number: 89.d1
Find depth: 1.30 m
Twenty very small fragments of indeterminate material
Location: PDBNB

- E Coin, gold
Find number: 89.e1
Find depth: 1.30 m
Dorestad/Madelinus tremissis
Condition: complete
Date: (630/40) 670/680 and onwards
Location: van Daalen family

- F Indeterminate fragment, iron
Find number: 89.f1
Find depth: 1.30 m
Location: PDBNB

The original find subnumbers of 89 g were letters indicated on the field drawing. These letters are not recorded on the actual find cards accompanying the beads. It is thus not presently possible to relate individual beads to find locations on the drawing and find documentation card (see illustration added to this catalogue entry). The present find subnumbers were created by us. The original find subnumbers are not recorded on the plan of the grave in this catalogue.



92
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.82
Grave pit width	1.38
Grave pit depth	0.80

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
no finds, cannot be dated

FINDS
A Nail, iron
Find number: 91.a
Find depth: 0.95 m
Location: missing

B Indeterminate fragment, iron
Find number: 91.b
Find depth: 0.95 m
Location: missing

C Indeterminate fragment, iron
Find number: 91.c
Find depth: 0.95 m
Location: missing

D Indeterminate fragment, iron
Find number: 91.d
Find depth: 1.00 m
Location: missing

E Indeterminate fragment, iron
Find number: 91.e
Find depth: 1.05 m
Location: missing

F Skeletal element
Find number: 91.f
Find depth: 1.05 m
Possible human bone fragments
Location: missing

G Skeletal element
Find number: 91.g
Find depth: 1.05 m
Possible human bone fragments
Location: missing

H Indeterminate fragment, iron
Find number: 91.h
Find depth: 1.05 m
Location: missing

93
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.40
Grave pit width	1.40
Grave pit depth	1.10

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly

rounded corners and held a rectangular wooden container supported by two beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Knife, iron
Find number: 93.a
Find depth: 1.10 m
Location: missing

94
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	1.92
Grave pit width	1.40
Grave pit depth	0.95
Stratigraphic relation	below 95

DESCRIPTION
Part of this grave lay below and was cut by grave 95. The container was not damaged by this cut. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and curved walls and held a rectangular wooden container. The lines running west-east in the area of the container probably represent traces of the caved in container lid. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Fairly small coffin, an adult male burial is therefore unlikely.

DATE
no finds, cannot be dated

95
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.30
Grave pit width	1.08
Grave pit depth	0.85
Orientation	West-East
Stratigraphic relation	above 94, below 96

DESCRIPTION
This grave cut into the grave pit of grave 94 and was cut by grave 96. The grave’s container was not damaged by these interventions. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The boards of the container’s lengths extended beyond those of its widths. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Observed was a body silhouette consisting of a skull and both lower legs. The estimated stature of the cadaver was 1.70-1.72 (max). Legs lay 20cm apart. Burial in a close fitting shroud is therefore ruled out. The skull was slightly displaced/rolled to the right side. The knife and buckle were found in the region of the hip.

DATE
Bergeijk phase I-III, FAG phases 5-10, seventh century, but the combination of a knife and simple iron buckle points to a date in the later seventh century.

FINDS
A Awl, iron
Find number: 95.a
Find depth: 0.75 m
Fragment of a possible iron awl
Location: missing

B Buckle, iron
Find number: 95.b
Find depth: 0.85 m
Date: probably seventh century
Location: missing
Knife, iron
Find number: 95.c
Find depth: 0.85 m
Location: missing

96
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.28
Grave pit width	1.08
Grave pit depth	0.90
Orientation	West-East
Stratigraphic relation	above 95

DESCRIPTION
The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Observed was the silhouette of the skull. The reconstructed maximum cadaveric length was 1.74 m.

DATE
no finds, cannot be dated, but the stratigraphic relation indicates that the grave most likely dates from the later seventh century or early eight century.

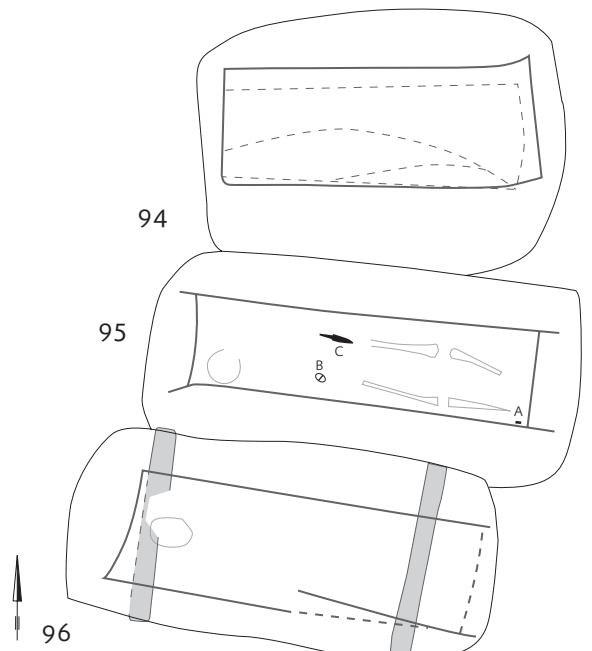
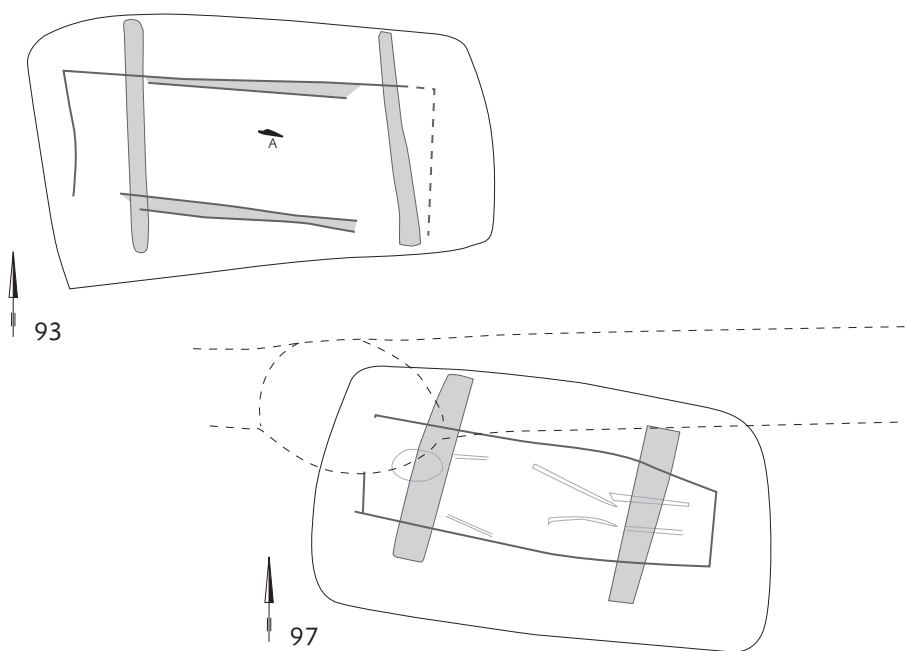
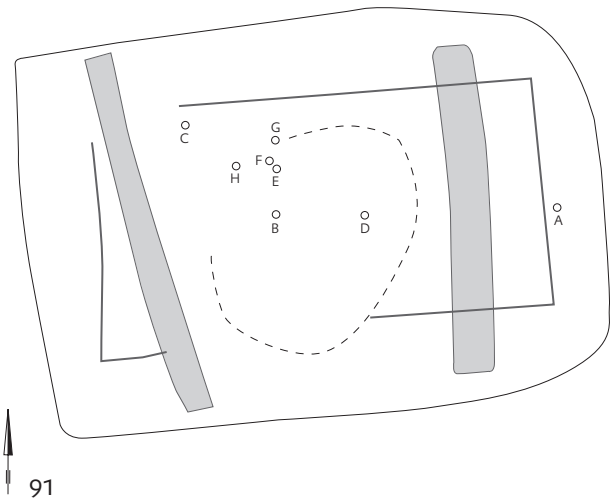
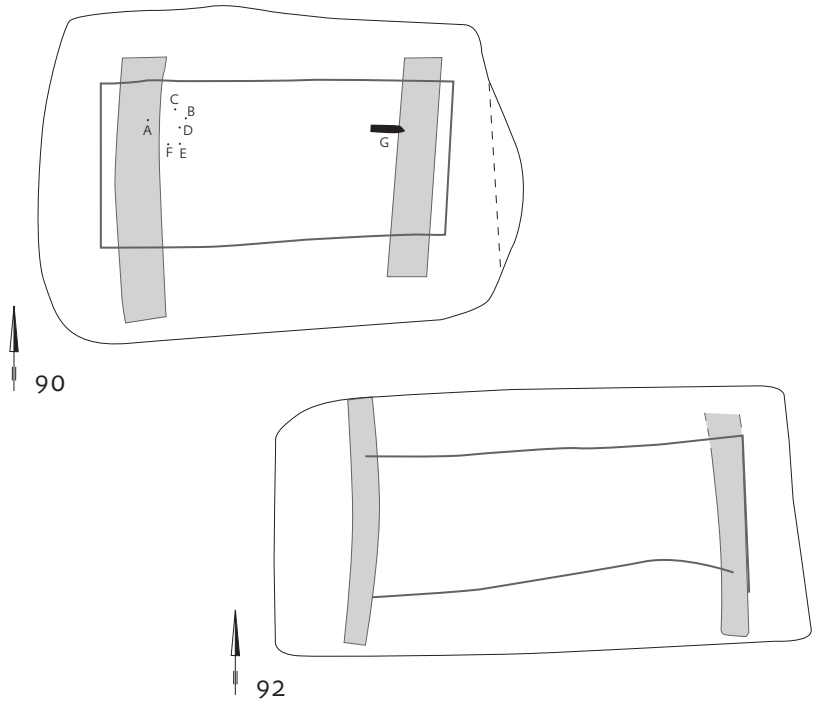
97
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.42
Grave pit width	1.34
Grave pit depth	0.90
Orientation	West-East

DESCRIPTION
The grave was probably cut by a ditch-like structure at a high level. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Observed was a body silhouette consisting of the skull, right and left humeri and right and left femora and tibiae. The estimated stature of the cadaver is 1.70 m. The right humerus was lying close to the southern wall of the coffin, whereas the left humerus was lying closer to the central axis of the body. The right and left femur were 23 cm apart in the region of the hip, which could be a normal anatomical position. Both tibiae were lying parallel with a distance of 13 cm. The left femur was lying with its distal end adjacent to the proximal end of the left tibia.

DATE
no finds, cannot be dated



98
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.38
Grave pit width	1.62
Grave pit depth	0.80
Orientation	West-East

DESCRIPTION

The grave pit was rectangular to trapezoidal with slightly rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

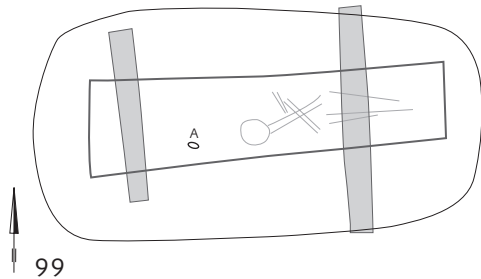
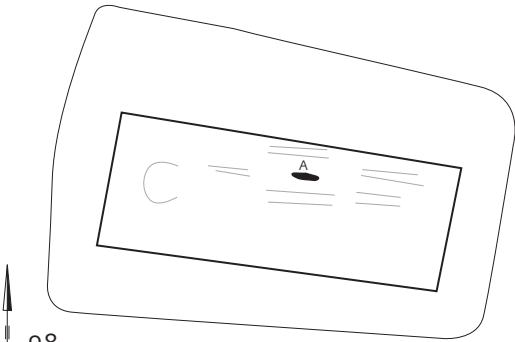
Observed was a body silhouette composed of what was probably the skull, the vertebral column, the right and left femur and the right and left tibia. The bones of the leg were found in a parallel position with a distance of 19 cm between the femora and a distance of 9 cm between the tibiae. This could be interpreted as an indication that the body was wrapped. The maximum possible stature is 1.66 m.

DATE

cannot be dated

FINDS

- A Knife, iron
Find number: 98.a
Find depth: 0.75 m
Location: missing



99
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.36
Grave pit width	1.22
Grave pit depth	0.80
Orientation	West-East

DESCRIPTION

The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. It is unlikely that the location of the bones represents the original posture of the body in the grave. This connotes the grave had probably been reopened. This must have happened after the corpse's soft tissues had begun to decay.

PHYSICAL ANTHROPOLOGY

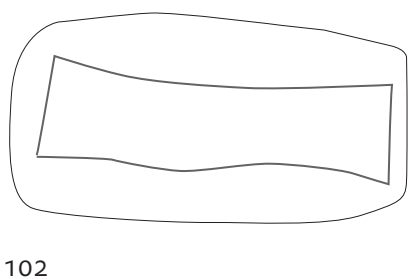
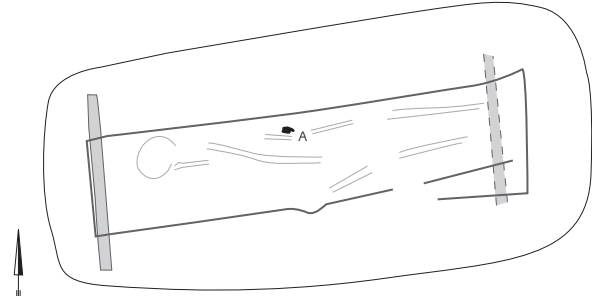
Observed was a body silhouette. The composition is unclear and the position of the remains differs from the other burial. Most probably the bones in the area between the skull and including the femora were disturbed. This resulted in a displacement of the skull to the area of the hip. The femora were also displaced and lying in a crossed position. The supposed tibiae were presumably observed in anatomical position about 10 to 3 cm apart. Following this hypothesis, this probably was an adult burial.

DATE

Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

- A Buckle, iron
Find number: 99.a
Find depth: 0.75 m
Date: probably seventh century
Location: missing



100
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.92
Grave pit width	1.36
Grave pit depth	0.80
Orientation	West-East

DESCRIPTION

The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

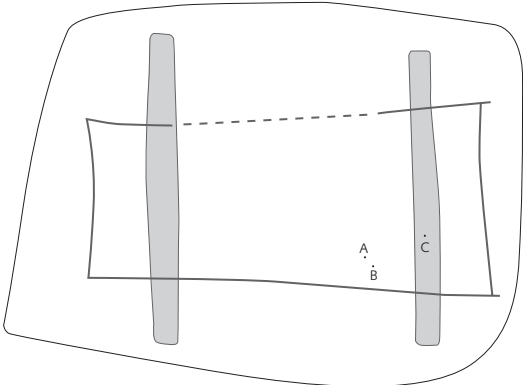
Observed was a body silhouette. This included the skull, sections of the right and left femur and tibia, and probably also some cervical vertebrae and the lower left arm. In the area of the upper left arm and the thoracic and lumbar vertebrae, a discoloration was observed. Minimum length is 1.86 m and the maximum reconstructed length of the cadaver is 1.99 m. This was likely a tall individual of male sex. The distance between the femora in the area of the pelvis was 30 cm and the distance between the tibiae in the area of the knees was 18 cm. The lower extremities seem to be found in anatomical position. The skull was lying on the left side. No indication for tight wrapping of the corpse.

DATE

Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

- A Buckle, iron
Find number: 100.a
Find depth: 0.75 m
Date: probably seventh century
Location: missing



101
GRAVE

Field date	4/6/1959
Grave type	tree trunk container grave
Grave pit length	2.42
Grave pit width	0.96
Grave pit depth	0.92
Orientation	West-East

DESCRIPTION

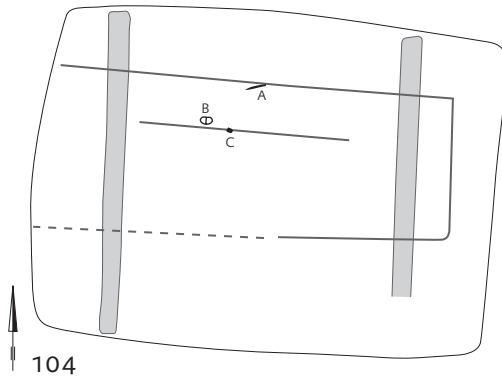
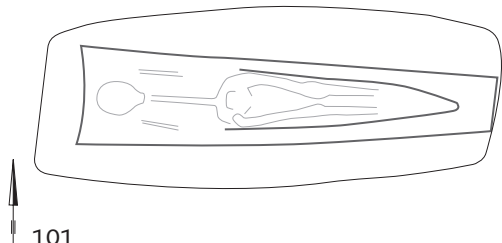
The grave pit was rectangular with slightly rounded corners and a trapezoidal tree trunk container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Observed was a body silhouette consisting of a skull, the right and left humerus, the vertebral column, pelvis and the right and left femur and tibia. The reconstructed length of the silhouette was 1.65 m; the preserved length of the body silhouette was about 1.50 m. The length suggests this was likely a young individual or a female. The silhouette indicates that most bones were lying in anatomical position, e.g. the hip. The skull may have tilted forward, resulting in a position of the skull between the humeri instead of above/to the west of these bones. The knees were found close together: distance 3 cm. It is not clear whether this is the result of tight wrapping of the corpse or a small displacement due to decomposition within the possibly hollow shape of the tree trunk coffin.

DATE

no finds, cannot be dated



102
GRAVE

Field date	4/7/1959
Grave type	wooden container grave
Grave pit length	2.10
Grave pit width	1.10
Grave pit depth	1.03

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY

Remains of a wooden container indicate age category juvenile-adult.

DATE

no finds, cannot be dated

103
GRAVE

Field date	4/8/1959
Grave type	wooden container grave
Grave pit length	2.64
Grave pit width	2.02
Grave pit depth	1.15

DESCRIPTION

If the beads in the eastern part of the grave represent the location of the head, this grave was oriented east-west. It is also possible that the beads were not worn on the neck, or that the grave was disturbed. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The location of the finds in this grave indicates that it may have been reopened.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

cannot be dated

FINDS

- A Bead, glass
Find number: 103.a
Find depth: 1.15 m
Green bead, characteristics unknown
Location: missing
B Bead, amber
Find number: 103.b
Find depth: 1.18 m
Location: missing
C Beads, glass
Find number: 103.c
Find depth: 1.15 m
Red and white bead, other characteristics unknown
Location: missing

104
GRAVE

Field date	4/9/1959
Grave type	wooden container grave
Grave pit length	2.44
Grave pit width	1.80
Grave pit depth	0.80

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Probably adult

DATE

Bergeijk phases I-III, FAG phases 5-10, seventh century, but in view of the find of an ensemble of knife and simple iron buckle, a date late in the seventh or early eight century is most likely.

FINDS

- A Knife, iron
Find number: 104.a
Find depth: 0.75 m
Location: missing
B Buckle, iron
Find number: 104.b
Find depth: 0.78 m
Date: probably seventh century
Location: missing
C Buckle, iron
Find number: 104.c
Find depth: 0.78 m
Date: probably seventh century
Location: missing

105
GRAVE

Field date	4/17/1959
Grave type	wooden container grave
Grave pit length	2.98
Grave pit width	1.72
Grave pit depth	1.34

DESCRIPTION

We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The lines running west-east in the area of the container probably represent either container floorboards or traces of the caved in container lid. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated, but in view of the find of an ensemble of knife and an iron belt part, a date late in the seventh or early eight century is most likely.

- FINDS**
- A Knife, iron
Find number: 105.a
Find depth: 1.25 m
Location: missing
- B Plate, iron
Find number: 105.b
Find depth: 1.25 m
Possible iron belt part, triangular shape
Location: missing

106
GRAVE

Field date 4/8/1957
Grave type wooden container grave
Grave pit length 1.86
Grave pit width 1.28
Grave pit depth 0.95

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were

found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. The small size of the container suggests that this may have been a child's grave. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Size of the coffin suggests a non-adult individual up to 10 years of age.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

- FINDS**
- A Mount, copper alloy
Find number: 106.a
Find depth: 0.80 m
Copper alloy object associated with wood remains which formed part of a bowl, characteristics unknown
Location: missing
- B Buckle, iron
Find number: 106.b
Find depth: 0.95 m
Date: probably seventh century
Location: missing
- C Indeterminate fragment, leather
Find number: 106.c
Possible concentration of partially decomposed leather
Location: missing

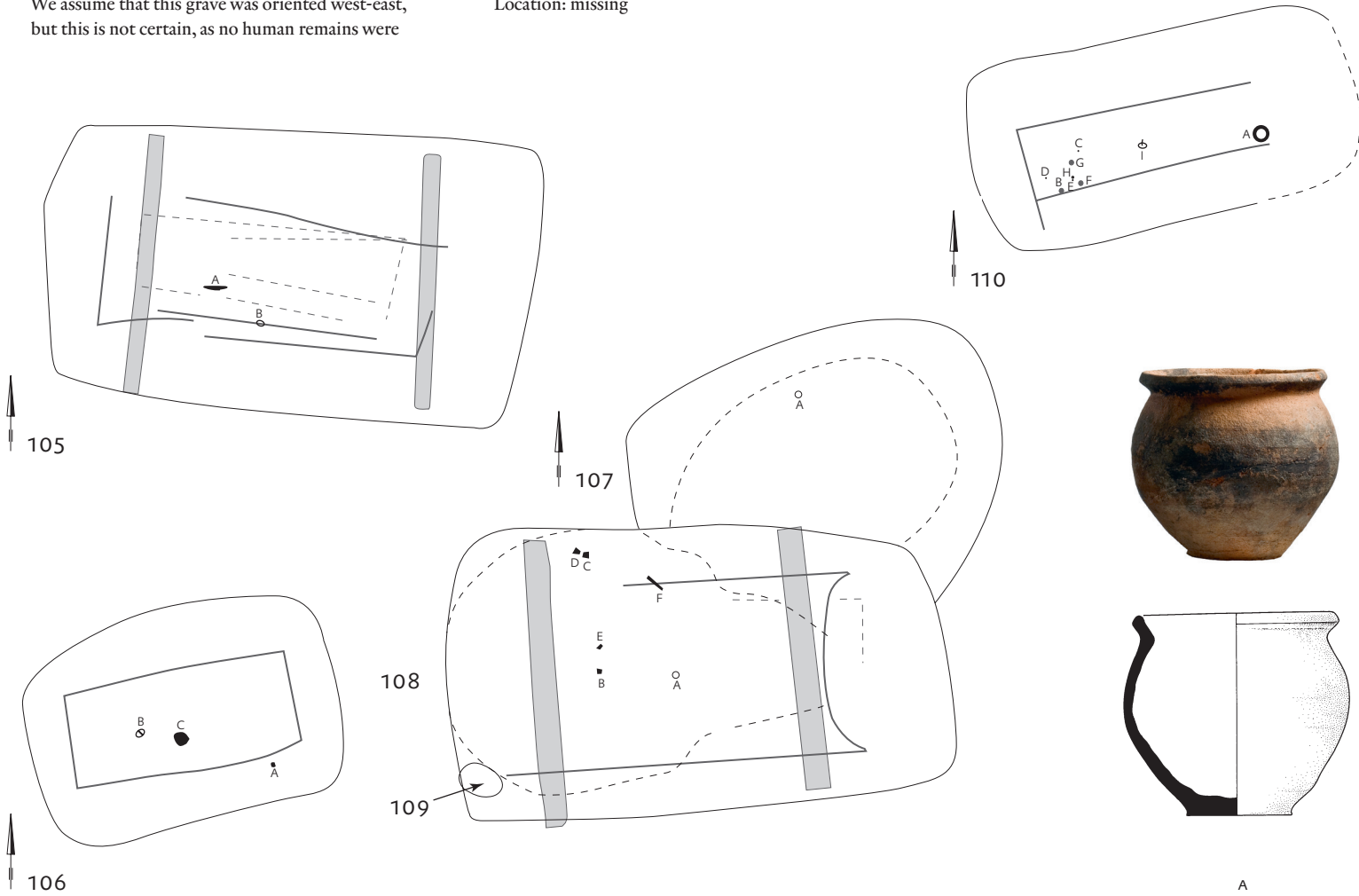
107
PIT

Field date 4/8/1959
Stratigraphic relation below 108

DESCRIPTION
This context was cut by grave 108. The excavators marked this context as a grave, but the shape of the pit and lack of other typical grave features make this an unlikely hypothesis. As it is below grave 108, it must either be older than or contemporary with the use of the site as a cemetery. The two Merovingian type rivets found in its fill suggest a contemporary use. The circular feature in the middle of the pit probably represents a colour difference between different layers of filling. The function of this pit is unclear.

DATE
cannot be dated

- FINDS**
- A Rivets, iron?
Find number: 107.a
Find depth: 0.65 m
Two iron? rivets with dome shaped copper alloy heads
Location: missing



108
GRAVE

Field date 4/8/1959
Grave type wooden container grave
Grave pit length 3.00
Grave pit depth 1.35
Stratigraphic relation above 107, below 109

DESCRIPTION
This grave cut into context 107. Possible cremation grave 109 had been placed into grave 108. It is uncertain whether this happened during or after the grave pit was filled up with earth. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a wooden container supported by two beams. The container's shape could not be determined with certainty, but was probably rectangular. The eastern short wall has been pressed inwards in the process of its decomposition. The reopening pit in the middle of the grave and location of the finds indicate that it was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase II?, FAG phase 8, 640/50-670/80

FINDS
Beads, glass
Find number: 108.1
Three beads, characteristics unknown. Since these beads appear to have been added to the find list after the excavation, it is not certain that they were originally found in this grave
Location: missing

- A Glass fragment
Find number: 108.a
Find depth: 0.60 m
Glass fragment which possibly belonged to a beaker, characteristics unknown
Location: missing
- B Belt plate, copper alloy
Find number: 108.b
Find depth: 1.25 m
Rectangular copper alloy plate, other characteristics unknown
Type: possible copper alloy element of Ophoven belt
Date: possibly 650-675
Location: missing
- C Buckle, iron
Find number: 108.c
Find depth: 1.25 m
Possible iron buckle associated with copper alloy remains
Location: missing
- D Belt plate, copper alloy
Find number: 108.d
Find depth: 1.25 m
Rectangular copper alloy plate, other characteristics unknown

Type: possible copper alloy element of Ophoven belt
Date: possibly 650-675
Location: missing

- E Belt plate, copper alloy
Find number: 108.e
Find depth: 1.25 m
Rectangular copper alloy plate, other characteristics unknown
Type: possible copper alloy element of Ophoven belt
Date: possibly 650-675
Location: missing
- F Knife, iron
Find number: 108.f
Find depth: 1.25 m
Location: missing

109
PIT WITH BURNED BONE

Field date 4/8/1957
Pit width 0.26
Pit depth 0.60
Stratigraphic relation above 108

DESCRIPTION
This context was placed into grave 108 at a depth between 30 to 60 cm below the surface level. It is uncertain whether this happened during or after the grave pit of 108 had been filled up with earth. This context consisted of a round pit containing a small quantity of burned bone. The bone has gone missing, so it is not clear whether this is a human cremation or a concentration of burned animal bone (either from an animal burial or the remains of a funeral meal). There are no indications that this context had been reopened.

DATE
no finds, cannot be dated

110
GRAVE

Field date 4/9/1959
Grave type wooden container grave
Grave pit length 2.34
Grave pit width 1.16
Grave pit depth 0.90
Orientation West-East

DESCRIPTION
The teeth found in the western part of the container indicate that this grave was oriented west-east. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Coffin length uncertain. Probably adult.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

A Pottery vessel
Find number: 110.a
Find depth: 0.60 m
Small oxidised coarse ware pot with a round belly
Condition: restored
Maximum height: 121 mm
Type: Siegmund Kwt4.12
Rhineland phase: not assigned
Location: Eicha Museum

B Skeletal element
Find number: 110.b
Find depth: 0.70 m
Molar, probably human
Location: missing

C Bead, glass
Find number: 110.c
Find depth: 0.70 m
Yellow bead, characteristics unknown
Location: missing

D Bead, glass
Find number: 110.d
Find depth: 0.71 m
Blue bead, characteristics unknown
Location: missing

E Bead, glass
Find number: 110.e
Find depth: 0.71 m
White bead, characteristics unknown
Location: missing

F Skeletal element
Find number: 110.f
Find depth: 0.71 m
Molar, probably human
Location: missing

G Skeletal element
Find number: 110.g
Find depth: 0.71 m
Molar, probably human
Location: missing

H Bead, glass
Find number: 110.h
Find depth: 0.72 m
Blue bead, characteristics unknown
Location: missing

I Buckle, iron
Find number: 110.i
Find depth: 0.72 m
Date: probably seventh century
Location: missing

111
GRAVE

Field date	4/8/1959
Grave type	wooden container grave
Grave pit length	2.38
Grave pit width	1.34
Grave pit depth	0.75

DESCRIPTION
We assume that this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a container which was broader at its presumed foot end, making it trapezoidal in shape. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase I, FAG phases 4-7, 510/25-640/50

FINDS
A Pottery vessel
Find number: 111.a1
Find depth: 0.65 m
Undecorated, reduced biconical pot. A later addition to the find administration for this grave mentions sherds of two biconical pots. Since only one pot with this find number could be examined, it seems that the remains of the second one have gone missing
Condition: restored
Maximum height: 117 mm
Type: Siegmund KWT2.42
Rhineland phase: 7
Rhineland date: 585-610
Alternative type: FAG KWT4A
FAG date: 4-7: 510/25-640/50
Location: Eicha Museum

- B Rivet, iron
Find number: 111.b
Find depth: 0.75 m
Possible iron rivet
Location: missing
- C Scabbard
Find number: 111.c
Find depth: 0.75 m
This find consists of three flat copper alloy rivets which probably belonged to a seax scabbard. The rivets were found among an elongated brown trace with a length of approximately 40 cm, which the excavators interpreted as the remains of a severely corroded seax. Since the other iron artefacts in the cemetery had not corroded to this extent, it seems more likely however that the brown traces solely represent the remains of a scabbard which did not contain a seax
Location: missing
- D Belt plate, iron
Find number: 111.d
Find depth: 0.75 m
Possible iron belt plate, characteristics unknown
Date: probably seventh century
Location: missing

112
GRAVE

Field date	4/9/1959
Grave type	wooden container grave
Grave pit length	2.82
Grave pit width	2.56
Grave pit depth	0.75
Orientation	West-East

DESCRIPTION
The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The boards of the container's length extend beyond those of the widths and vice versa. The large extension to the grave's north of it cannot easily be explained and may have been part of a reopening pit. An arrow head and indeterminate iron fragment were found there. The circular feature in the middle of the coffin marks the spread of the iron fragments with find number k and is probably not a reopening pit. The location of the finds nevertheless indicates that this grave was reopened.

PHYSICAL ANTHROPOLOGY
Observed was a skull silhouette. The top of the skull was found at 2.05 m from the foot end of the wooden container. Probably an adult individual.

DATE
Bergeijk phase I, FAG phases 4-7, 410/25-640/50

- FINDS**
A Arrow head, iron
Find number: 112.a
Find depth: 0.50 m
Location: missing
- B Pottery vessel
Find number: 112.b1
Find depth: between 0.65 and 0.70 m
Pottery fragments d and e were probably also fitted to this pot
Undecorated reduced biconical pot
Condition: restored
Type: Siegmund Kwt2.43
Maximum height: 162 mm
Rhineland phase: 7-8-9
Rhineland date: -
Alternative type: FAG: S-KWT 2.43
Alternative date: phase 4-9
Location: Eicha Museum

- C Indeterminate fragment, iron
Find number: 112.c
Find depth: 0.65 m
Location: missing
- F Rivet, copper alloy
Find number: 112.f
Find depth: 0.66 m
Small copper alloy rivet, characteristics unknown
Location: missing
- H Belt plate, iron
Find number: 112.h
Find depth: 0.70 m
Possible iron belt back plate, characteristics unknown
Date: probably seventh century
Location: missing
- I Plate buckle
Find number: 112.i
Find depth: 0.70 m
Date: probably seventh century
Location: missing
- J Knife, iron
Find number: 112.j
Find depth: 0.70 m
Location: missing
- K Indeterminate fragments, iron
Find number: 112.k
Find depth: 0.70 m
Concentration of very thin iron fragments
Location: missing
- L Indeterminate fragment, iron
Find number: 112.l
Find depth: 0.65 m
Location: missing

- M Indeterminate fragment, charcoal
Find number: 112.m
Find depth: 0.70 m
Concentration of charcoal fragments
Location: missing

113
GRAVE

Field date	4/13/1959
Grave type	wooden container grave
Grave pit length	2.66
Grave pit width	1.98
Grave pit depth	1.20

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with rounded corners and held a rectangular wooden container supported by two beams. The indistinctness of the middle of the container and the artefact found in the extension to the north of the grave pit suggest that the grave may have been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

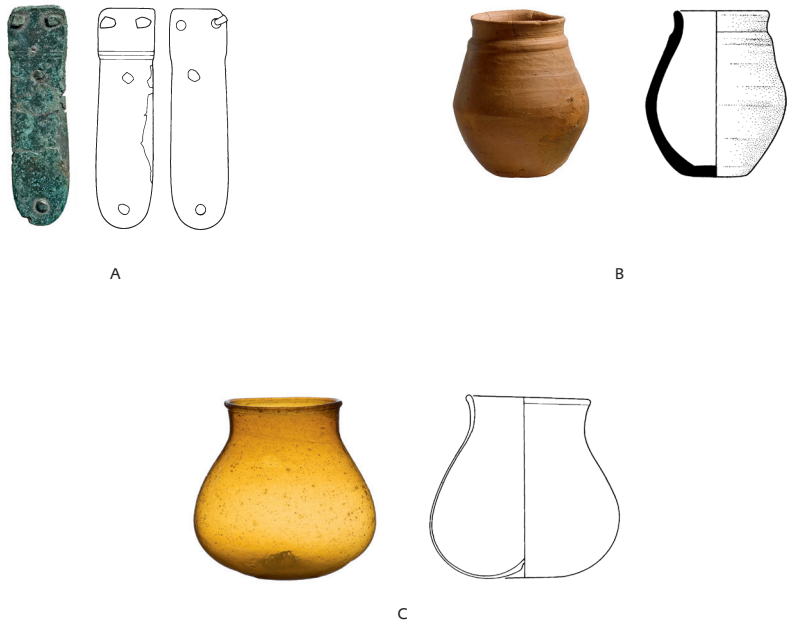
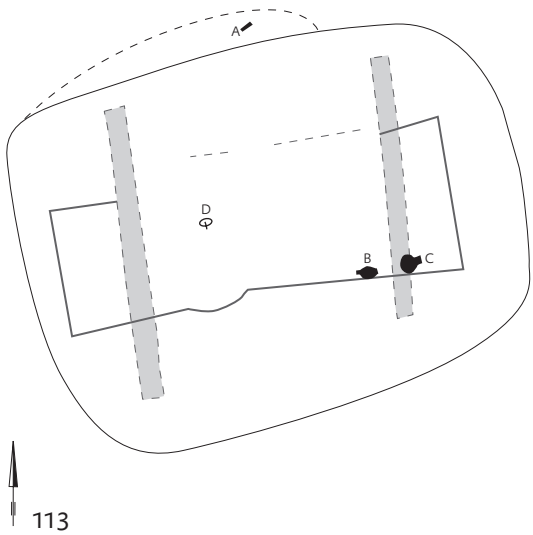
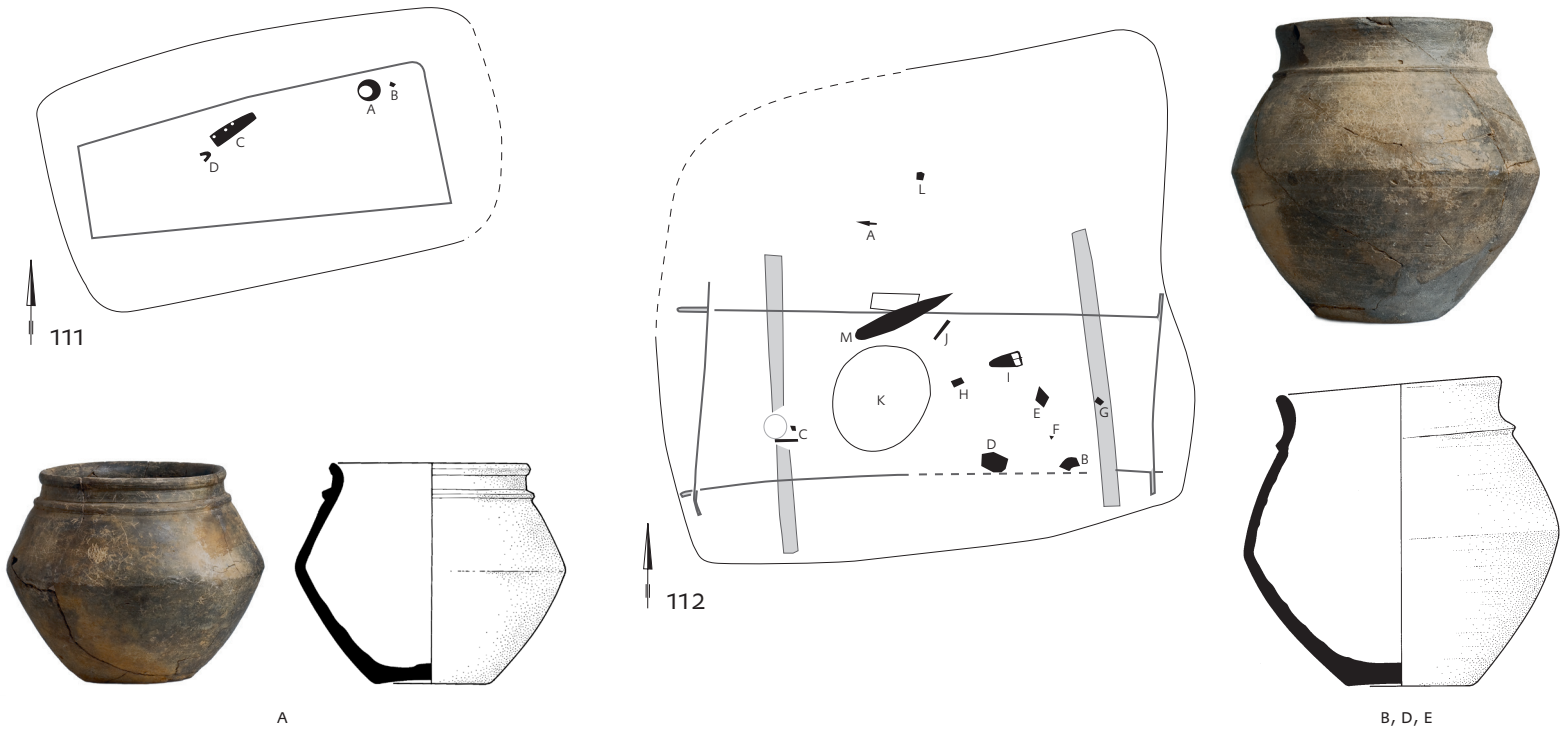
DATE
Bergeijk phase I-II, FAG phases 4-7, 510/25-640/50

- FINDS**
A Strap end, copper alloy
Find number: 113.a1
Find depth: 0.60 m
Copper alloy strap end consisting of two copper alloy plates fixed together with four copper alloy rivets, decorated with three engraved lines. Leather remains were preserved between the plates

- Condition: slightly corroded
Plate length: 58 mm
Location: PDBNB
- B Pottery vessel
Find number: 113.b
Find depth: 1.10 m
Beaker sized undecorated oxidised biconical pot with a rounded carination
Condition: complete
Maximum height: 88 mm
Type: Siegmund KWT2.43
Rhineland phase: 8-9
Rhineland date: 610-670
Alternative type: FAG S-KWT2.43
FAG date: 6-9: 580/90-670/80-710
Location: Eicha Museum

- C Glass vessel
Find number: 113.c1
Find depth: 1.10 m
Globular beaker, yellowish-brown (amber coloured). Undecorated. Slightly thickened outsplayed rim, incurved neck and low maximum girth. Base slightly pushed in with pointed tool. Punty ring on the base (?). Many small and larger bubbles in the glass.
Condition: complete
Maximum height: 98 mm
Type: Siegmund Gla3.2
Rhineland phase: around phase7
Rhineland date: 585-610
Alternative type: FAG S-Gla3.2
FAG date: 8: 640/50-670/80
Location: Eicha Museum

- D Belt part, iron
Find number: 113.d
Find depth: 1.20 m
Iron buckle, characteristics unknown
Date: probably seventh century
Location: missing



114
GRAVE

Field date 4/14/1959
Grave type wooden container grave
Grave pit length 2.70
Grave pit width 1.66
Grave pit depth 1.00

DESCRIPTION
If the spur located in the north-eastern corner of the grave indicates the location of the deceased's feet, this grave was oriented west-east. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container supported by two beams. The reopening pit indicates that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phase III, FAG phases 9-10, 670/80-mid eight century

FINDS
A Knife, iron
Find number: 114.a
Find depth: 0.90 m
Iron knife grip, characteristics unknown
Location: missing

B Pottery vessel
Find number: 114.b1
Find depth: 0.88 m
Large oxidized biconical bowl on a foot stand.
The upper part of the bowl is decorated with small rectangular roulette stamps
Condition: rim slightly damaged
Maximum height: 178 mm
Type: Siegmunt KWT 4.3
Rhineland phase: 8B-9
Rhineland date: 625-670
Alternative type: FAG S-KWT 4.3
FAG date: 7-8: 610/20-670/80
Location: Eicha Museum

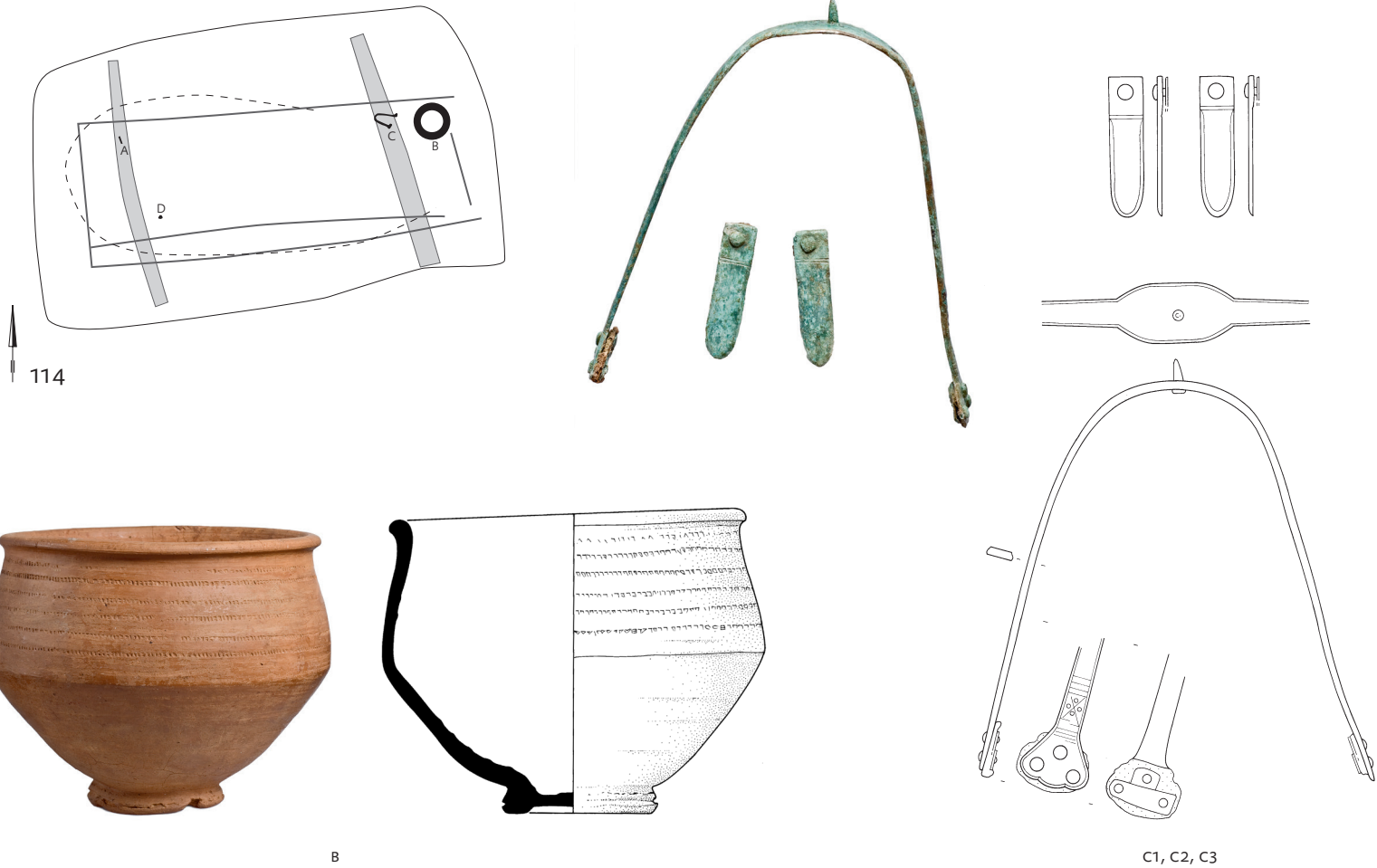
C Spur, copper alloy
Find number: 114.c1
Find depth: 1.00 m
Copper alloy spur with flattened ends. There are three rivets on each end. Mineralised leather attached. The bands running towards the ends are decorated with incised lines and stamped in dots
Condition: slightly corroded
Date: end seventh and early eight century
Location: Eicha Museum

Strap end, copper alloy
Find number: 114.c2
Find depth: 1.00 m
Small copper alloy strap end with one rivet, decorated with two grooves. Leather remains attached.
Associated with spur 114.c1

Condition: slightly corroded
Plate length: 40 mm
Location: Eicha Museum

Strap end
Find number: 114.c3
Find depth: 1.00 m
Small copper alloy strap end with one rivet, decorated with two grooves. Leather remains attached.
Associated with spur 114.c1. On the back of this strap end the excavators indicated that this was the specimen that lay on the left side.
Condition: slightly corroded
Plate length: 4 mm
Location: Eicha Museum

D Rivet, copper alloy
Find number: 114.d
Find depth: 1.00 m
Location: missing



115
POSSIBLE GRAVE

Field date 4/15/1959
Grave type unknown
Grave pit length 2.62
Grave pit depth 0.90

DESCRIPTION
If this context was a grave, it had been disturbed. This context was possibly cut by a ditch-like structure. We assume this possible grave was oriented west-east, but this is not certain, as no human remains were found. The pit was indeterminately shaped with slightly rounded corners. If the possible grave held a container, any traces of it had been destroyed when it was disturbed.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS
A Buckle, iron
Find number: 115.a
Find depth: 0.64 m
Date: probably seventh century
Location: missing

B Indeterminate fragment, iron
Find number: 115.b
Find depth: 0.68 m
Location: missing

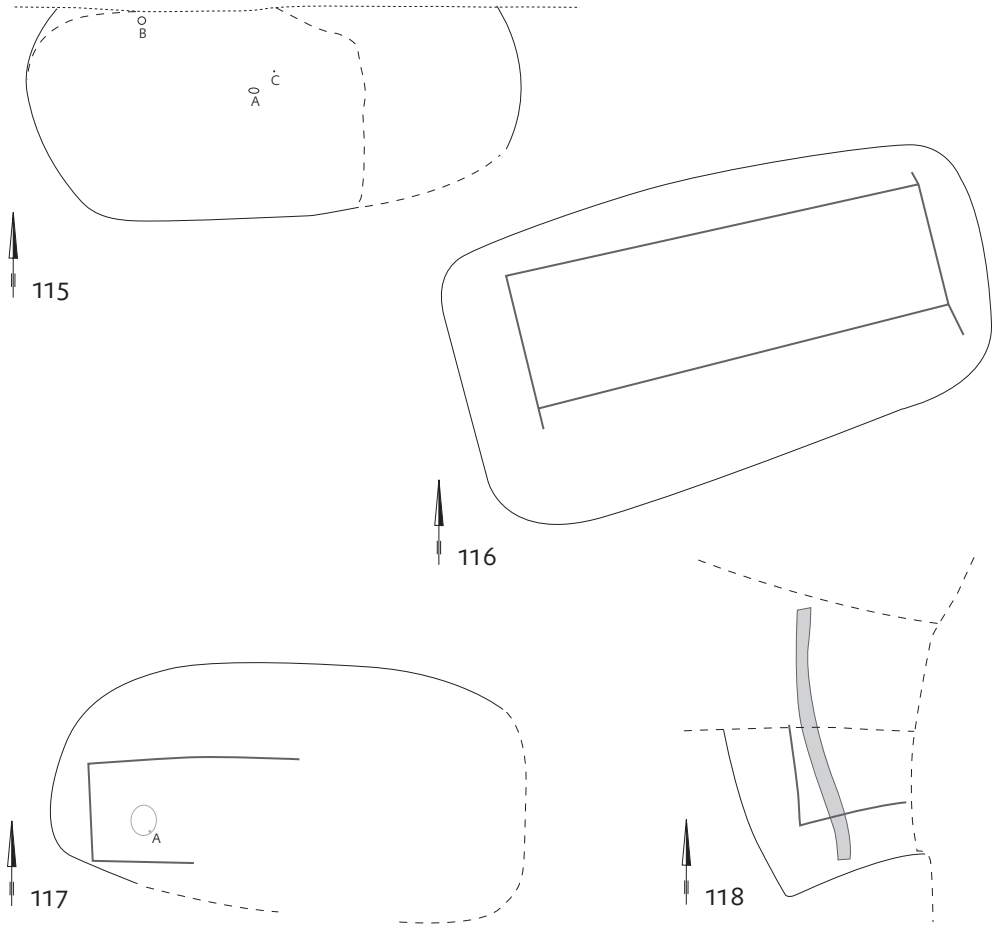
C Bead, blue
Find number: 115.c
Find depth: 0.90 m
Two bluish green beads, characteristics unknown
Location: missing

116
GRAVE

Field date 4/15/1959
Grave type wooden container grave
Grave pit length 2.86
Grave pit width 1.54
Grave pit depth 0.65

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container whose widths extended beyond those its lengths. We do not know whether this grave was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult



DATE
no finds, cannot be dated

117
GRAVE

Field date 4/15/1957
Grave type wooden container grave
Grave pit length 2.50
Grave pit width 1.32
Grave pit depth 0.58
Orientation West-East

DESCRIPTION
Possibly tree roots damaged the eastern part of the grave. The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. We do not know whether this grave was reopened

PHYSICAL ANTHROPOLOGY
Observed was a skull silhouette. The top of the skull was found at 2.08 m from the foot end of the grave pit. Probably an adult individual

DATE
cannot be dated

FINDS
A Skeletal element
Find number: 117.a
Molar, probably human
Location: missing

118
GRAVE

Field date 4/15/1959
Grave type wooden container grave
Grave pit depth -0.70

DESCRIPTION
Most of this grave had been destroyed by recent ditch-like structures. We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The shape of the grave pit and container could not be established, but the latter was supported by at least one beam. We do not know whether this grave was reopened in ancient times.

DATE
no finds, cannot be dated

119
GRAVE

Field date	4/15/1959
Grave type	wooden container grave
Grave pit length	2.96
Grave pit width	1.78
Grave pit depth	0.85

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with rounded corners and held a rectangular wooden container supported by two beams. There are no indications that this grave was reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
cannot be dated

FINDS
A Knife, iron
Find number: 119.a
Find depth: 0.85 m
Large elongated iron artefact (about 28 cm long). The excavators suggested that it was a knife, but it may also have been (part of) a seax or a weaving sword
Location: missing

B Ring, iron
Find number: 119.b
Find depth: 0.85 m
Location: missing

C Indeterminate fragment, iron
Find number: 119.c
Find depth: 0.85 m
Location: missing

120
GRAVE

Field date	4/16/1959
Grave type	wooden container grave
Grave pit length	2.56
Grave pit width	1.20
Grave pit depth	0.80
Orientation	West-East

DESCRIPTION
The grave pit was rectangular with slightly rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Body silhouette representing the skull, right and left humerus, lower half of the vertebral column, the pelvis the left and right femur and tibia and possibly the right foot. Distance between the top of the skull and the distal end of the right foot is 1.67. At the foot end, a u-shaped silhouette was observed.

The nature of this object is unknown. The pelvis was 31 cm measured from iliac crest to iliac crest, the proximal femur was well articulated on the left side, and the right side shows a discontinuation in the body silhouette. The knees were close together with a documented distance of 6 cm.

DATE
cannot be dated

FINDS
A Knife, iron
Find number: 120.a
Find depth: 0.78 m
Location: missing

B Earring
Find number: 120.b
Find depth: 0.76 m
Location: missing

C Earring
Find number: 120.c
Find depth: 0.76 m
Location: missing

121
GRAVE

Field date	4/16/1959
Grave type:	wooden container grave
Grave pit length	2.70
Grave pit width	1.44
Grave pit depth	0.75
Orientation	West-East

DESCRIPTION
The grave pit was rectangular with rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Body silhouette representing the skull, the right and left humerus, the right and left femur, tibia and foot. The humeri were both positioned close to the respective coffin walls, about 37 cm apart (coffin width 42 cm). Length from the top of the skull to the most distal end of the feet 1.48 m. The feet were lying close together.

DATE
cannot be dated

FINDS
A Ring, copper alloy
Find number: 121.a
Small copper alloy ring, characteristics unknown
Location: missing

122
GRAVE

Field date	1959
Grave type	wooden container grave
Grave pit length	2.88
Grave pit width	2.00
Grave pit depth	1.20

DESCRIPTION
We assume this grave was oriented west-east, but this is not certain, as no human remains were found. The grave pit was rectangular with slightly rounded corners and held an indeterminately shaped wooden container supported by two beams. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY
Probably adult

DATE
Bergeijk phases II-III, FAG phases 8-10, 640/50-mid eighth century

FINDS
A Nail, iron
Find number: 122.a
Find depth: 0.93 m
Location: missing

B Nail, iron
Find number: 122.b
Find depth: 1.03 m
Location: missing

C Beads, glass
Find number: 122.c1
Find depth: 1.18 m
23 opaque orange barrel shaped beads
Condition: complete
Type: OO 19
Location: van Daalen family

Beads, glass
Find number: 122.c2
Find depth: 1.18 m
Three opaque orange biconical beads
Condition: Complete
Type: OO 20
Siegmund type: Per34.1 (groups G-I)
Rhineland date: 585-705
Alternative type: FAG S-Per34.1 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

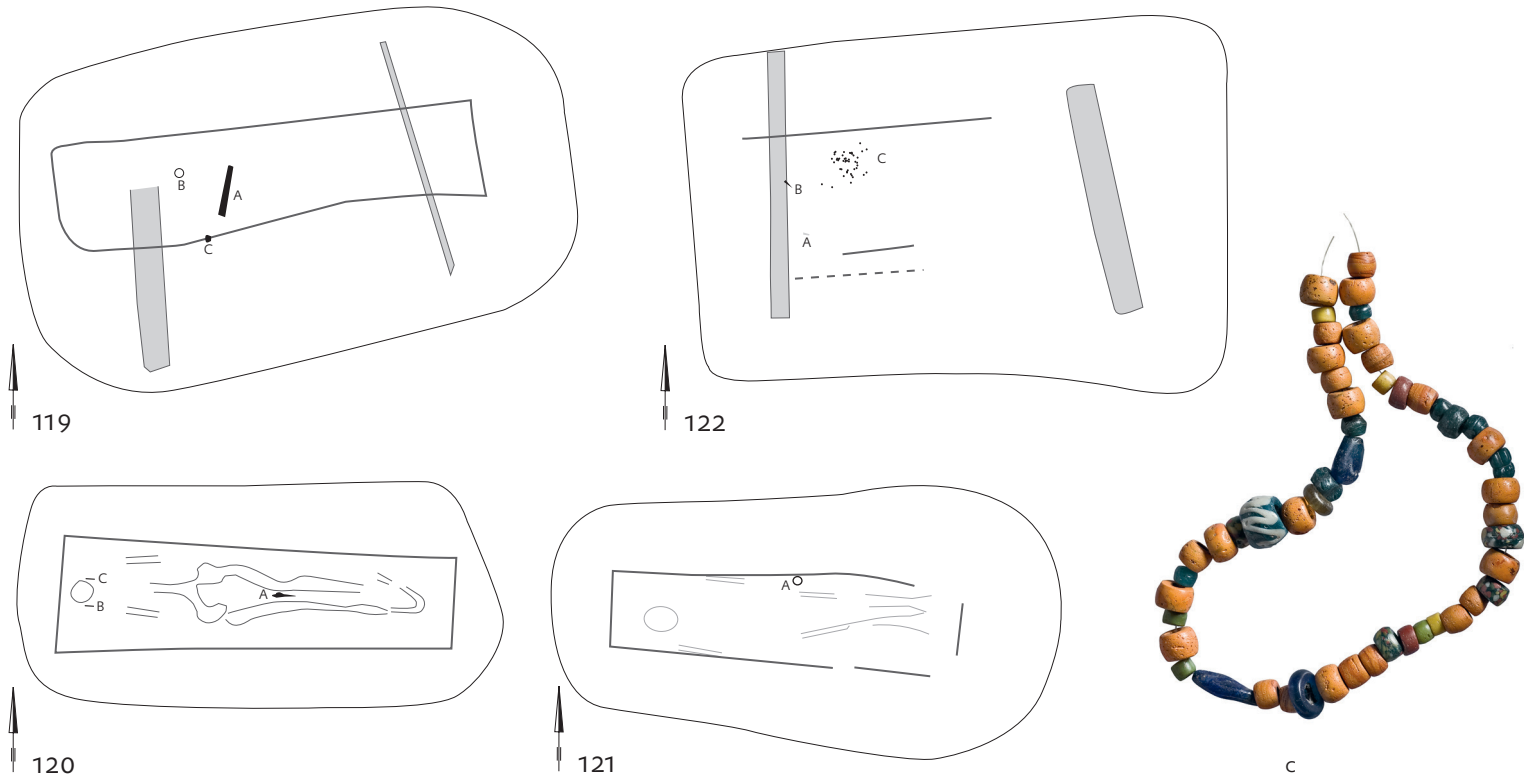
Beads, glass
Find number: 122.c3
Find depth: 1.18 m
Six transparent blue biconical beads
Condition: complete
Type: BT 20
Siegmund type: Per47.3 (group I)
Rhineland date: 640-705
Alternative type: FAG S-Per47.3 (group IV)
FAG date: not before 610/20-640/50
Location: van Daalen family

Beads, glass
Find number: 122.c4
Find depth: 1.18 m
Three short cylindrical opaque yellow glass beads
Condition: complete
Type: YO 35
Siegmund type: Per33.1 (groups D-G)
Rhineland date: 555-640
Location: van Daalen family

Beads, glass
Find number: 122.c5
Find depth: 1.18 m
Two opaque red beads
Condition: complete
Type: RO 36
Siegmund type: Per35.3 (groups D-H)
Rhineland date: 555-670
Location: van Daalen family

Bead, glass
Find number: 122.c6
Find depth: 1.18 m
Blue transparent ribbed double segmented glass bead
Condition: slightly damaged
Type: BT 43
Location: van Daalen family

Beads, glass
Find number: 122.c7
Find depth: 1.18 m
Four opaque blue barrel shaped beads decorated with white, red, yellow and green spots
Condition: complete
Siegmund type: Per2.15 (groups H-I)
Rhineland date: 610-705
Alternative type: FAG S-Per2.15 (group V)
FAG date: 640/50- 710/mid eighth century
Location: van Daalen family



123
GRAVE

Field date	1959
Grave type	unknown
Grave pit length	2.56
Grave pit width	1.46
Grave pit depth	0.90
Orientation	West-East

DESCRIPTION

The grave was possibly cut by a ditch, or disturbed by soil improvement work. The grave pit was rectangular with slightly rounded corners. No container outline was found, but the two wooden beams suggest that originally, the grave did hold a container. The traces of the container may have been destroyed by the soil improvement work. Both beams had been dug into the northern wall of the grave pit. We do not know whether this grave had been reopened in ancient times.

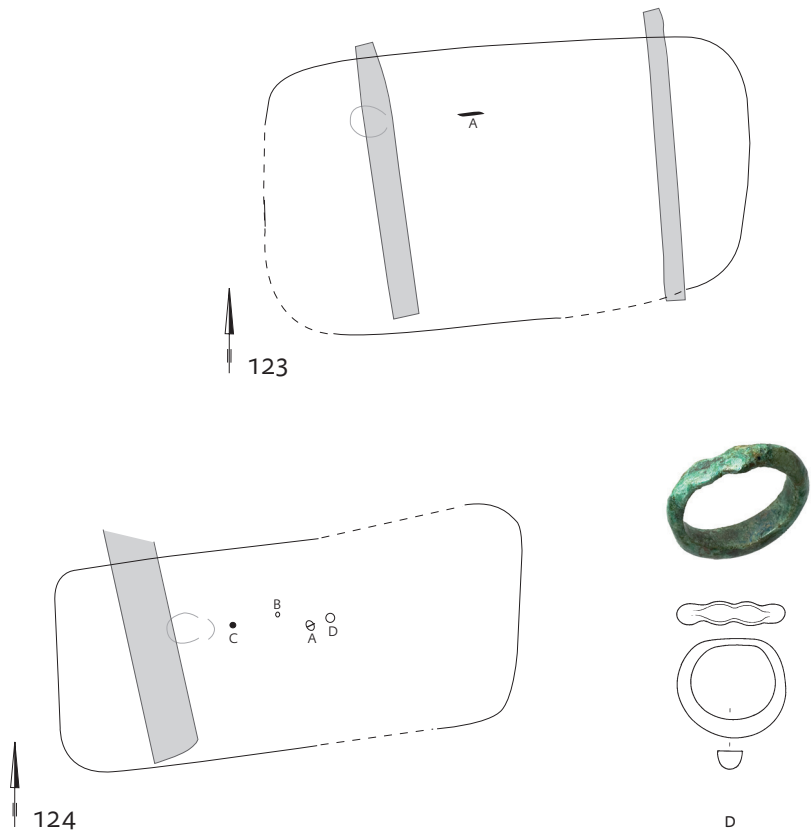
PHYSICAL ANTHROPOLOGY

Skull silhouette preserved. Probably an adult individual.

DATE
cannot be dated

FINDS

- A Knife, iron
Find number: 123.a
Find depth: 0.85 m
Characteristics unknown
Location: missing



124
GRAVE

Field date	1959
Grave type	unknown
Grave pit length	2.48
Grave pit width	1.18
Grave pit depth	0.80
Orientation	West-East

DESCRIPTION

The grave was possibly cut by a ditch, or disturbed by soil improvement work and tree planting. The grave pit was rectangular with slightly rounded corners. No traces of a container were found. The north-south oriented feature in the west of the grave is probably a beam, indicating that a container was present. There are no indications that this grave had been reopened in ancient times.

PHYSICAL ANTHROPOLOGY

Skull silhouette preserved. Probably an adult individual.

DATE
Bergeijk phase III, FAG phase 10, 710-mid eight century

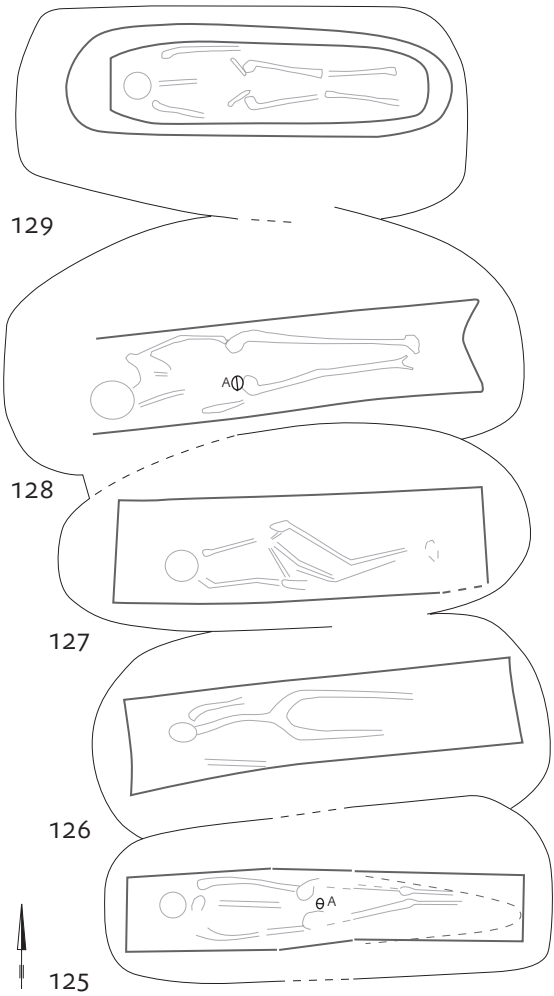
FINDS

- A Buckle, iron
Find number: 124.a
Find depth: 0.80 m
Date: probably seventh century
Location: missing

- B Buckle, iron
Find number: 124.b
Find depth: 0.80 m
Date: probably seventh century
Location: missing

- C Coin, silver
Find number: 124.c
Find depth: 0.80 m
Silver sceatta
Type: BMC 4-5 (porcupine type)
Date: 710-750
Location: missing

- D Ring, copper alloy
Find number: 124.d1
Find depth: 0.80 m
Copper alloy finger ring with a semicircular section on one end and a flat section on the other. The flat section has two rounded protrusions
Condition: slightly corroded
Ring diameter: 39 mm
Location: Eicha Museum



125
GRAVE

Field date	4/22/1959
Grave type	tree trunk container grave
Grave pit length	2.38
Grave pit width	0.94
Grave pit depth	0.84
Orientation	West-East
Stratigraphic relation	above 126

DESCRIPTION

The grave pit was rectangular with slightly rounded corners and held a rectangular tree trunk container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Preserved was an almost complete body silhouette; missing were the shoulders, hands and feet. Buried in dorsal position, legs and arms extended, hands probably on pelvis, but not together on abdomen. Knees relatively close together, possibly a consequence of the concave shape of the coffin. Distance top skull to distal end body silhouette is 1.60 m excluding missing feet. Distance between knees is 2 cm. Distance from iliac crest to iliac crest 27 cm.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century, but in view of the presence of only a simple iron buckle it most likely dates to the late seventh or early eight century.

FINDS

- A Buckle, iron
Find number: 125.a
Find depth: 0.84 m
Date: probably seventh century
Location: missing

126
GRAVE

Field date	4/22/1959
Grave type	wooden container grave
Grave pit length	2.42
Grave pit depth	0.86
Orientation	West-East
Stratigraphic relation	below 125 and 127

DESCRIPTION

The wooden container was not damaged by the cutting graves 125 and 127. The grave pit was rectangular with rounded corners and the wooden container was rectangular. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Preserved was a body silhouette consisting of a skull, a vertebral column, pelvis, the right and left humerus, the left femur and tibia and the right femur. Body in extended position (dorsal?), legs fairly wide apart (distance 17/18 cm). Total observable length from top skull to left lower leg 1.30 m.

DATE
no finds, cannot be dated

127
GRAVE

Field date	4/23/1957
Grave type	wooden container grave
Grave pit length	2.50
Grave pit width	1.06
Grave pit depth	0.84
Orientation	West-East
Stratigraphic relation	above 126 and 128

DESCRIPTION

The grave pit was ovular with rounded corners and held a rectangular wooden container. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Preserved was a body silhouette consisting of a skull, the left and right humerus, left and right lower arm, the left pelvis the left and right femur and tibia, possibly the right and left hand. The silhouette documented in the distal end of the coffin could well be the left foot. The position of the elements of the body silhouette suggests the body was interred on its right side, with arms along the trunk, possibly with the lower left arm extended to the right. The legs were lying in a flexed position; angle at knee joint was circa 135 degrees. The reconstructed length of the body (compensating for legs not fully extended) was circa 151 cm. Possibly female, corroborated by the measurements of the femur and tibia of the body silhouette: femur circa 41 cm, tibia circa 33 cm.

DATE
no finds, cannot be dated

128
GRAVE

Field date	4/24/1959
Grave type	wooden container grave
Grave pit length	2.76
Grave pit depth	1.00
Orientation	West-East
Stratigraphic relation	below 127 and 129

DESCRIPTION

The container was not damaged when the grave was cut by graves 127 and 129. The grave pit was ovular with rounded corners and the wooden container was rectangular. The dislocation of the right humerus (see below) suggests that a disturbance took place in this grave. However, it is unclear whether this resulted from a reopening or animal activity in the coffin's open space.

PHYSICAL ANTHROPOLOGY

Preserved was a body silhouette consisting of a skull, left shoulder, left humerus and lower arm, a small section of the vertebral column, the right humerus

and the right lower arm, plus the right and left femur, tibiae and feet. The right humerus seems to be displaced in medial direction and was not articulated with the remainder of the right lower arm. The skull may also have been displaced, possibly during the decomposition process. Displacement of the right humerus seems not likely to have been associated with the decomposition process; it is more suggestive of some form of post-depositional intervention. Reconstructed length 1.76 m from skull to most distal remainder of the foot. The buckle was positioned in the region of the pelvis. The knees were positioned circa 13 cm apart, suggesting the body was not wrapped in a shroud for deposition in the grave.

DATE
Bergeijk phases I-III, FAG phases 5-10, seventh century

FINDS

- A Buckle, iron
Find number: 128.a
Find depth: 1.00 m
Date: probably seventh century
Location: missing

129
GRAVE

Field date	4/24/1959
Grave type	tree trunk container grave
Grave pit length	2.38
Grave pit width	1.14
Grave pit depth	0.94
Orientation	West-East
Stratigraphic relation	above 128

DESCRIPTION

This grave cut into the grave pit of grave 128. The grave pit was rectangular with slightly rounded corners and an oval tree trunk container. The inside and outside of the container were lined with a thin layer of charcoal. The container may have been exposed to fire as part of the construction process and/or funeral ritual. There are no indications that this grave had been reopened.

PHYSICAL ANTHROPOLOGY

Preserved was a fairly complete body silhouette; missing were the shoulder area R+L, the right lower arm, the lower section of the vertebral column and the hands and feet. The body was lying extended, with the arms along the body and the legs extended. The femora articulated with the hip joints. The knees were circa 7 cm apart. This position may have been the result of a possibly narrow/concave bottom of the tree trunk coffin.

DATE
no finds, cannot be dated

130
POSSIBLE GRAVE

Field date 4/7/1959
Grave pit depth 0.90

DESCRIPTION
A small section of this possible grave was examined in the trench dug to excavate grave 102. The excavators did not extend the trench to include this context as well. The excavated section was not large enough to establish the shape of the burial pit and to see if this grave held a container.

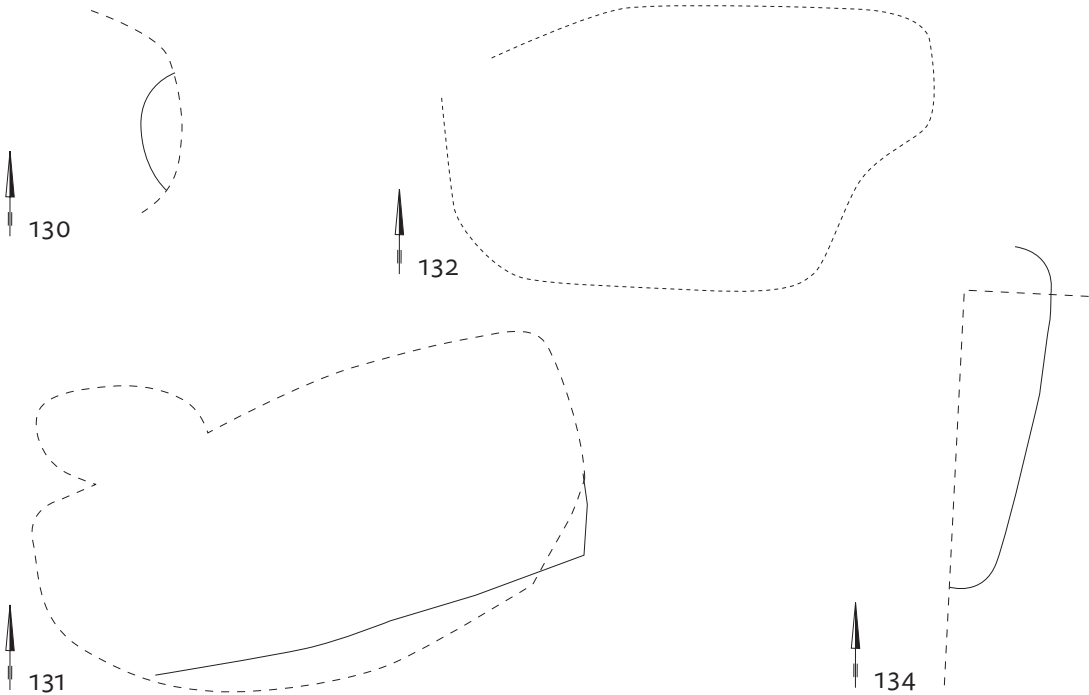
DATE
no finds, cannot be dated

131
POSSIBLE GRAVE

Field date 6/27/1957

DESCRIPTION
The excavators did not recognize this pit as a possible grave. Most of it had probably been dug away by the builders before the start of the excavation. We assume this context was oriented west-east, but this is not certain, as no human remains were found. The pit was probably rectangular. No traces of a container were found. We do not know whether this possible grave had been reopened in ancient times.

DATE
no finds, cannot be dated



132
POSSIBLE GRAVE

Field date 6/27/1957
Grave type unknown

DESCRIPTION
The excavators did not recognize this pit as a possible grave. Most of it had probably been dug away by the builders before the start of the excavation. We assume this context was oriented west-east, but this is not certain, as no human remains were found. The shape of the pit could not be established. No traces of a container were found. We do not know whether this context had been reopened in ancient times.

DATE
no finds, cannot be dated

133
POSSIBLE GRAVE

Field date 6/27/1957
Stratigraphic relation juxtaposed 16

DESCRIPTION
The excavators did not recognize this feature as a possible grave. Most of it had probably been dug away by the builders before the start of the excavation. The rectangular feature may be a container outline. In that case, most of the grave pit had probably been dug away by the construction workers. The nature of the feature cutting into the possible container is unclear, but it may be a recent disturbance. We do not know whether this context had been reopened in ancient times.

DATE
no finds, cannot be dated

134
POSSIBLE GRAVE

DESCRIPTION
Only a part of this pit was excavated. The excavators did not recognize it as a possible grave. The shape of the pit could not be established. No traces of a container were found. We do not know whether this possible grave was reopened.

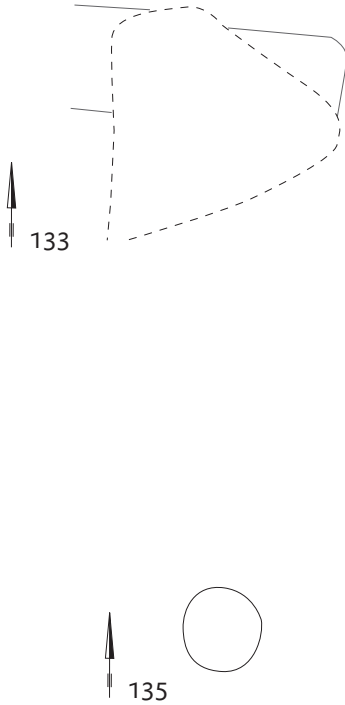
DATE
no finds, cannot be dated

135
CONCENTRATION OF
BURNED BONE

Stratigraphic relation juxtaposed to 58

DESCRIPTION
The excavators found a small concentration of burned bone at the bottom of grave 58 (find nr. C). More burned bone was scattered in the grave. They interpreted it as an older cremation grave, cut by grave 58. See, however, our interpretation of this phenomenon while describing context 58.

DATE
no finds, cannot be dated



STRAY FINDS

57 Pottery fragment
Find number: 0.57-1
Wall fragment of handmade oxidized-reduced pottery
Date: probably Bronze Age
Location: PDBNB

Pottery fragment
Find number: 0.57-2
Rim fragment of handmade reduced pottery
Date: probably Roman or Iron Age
Location: PDBNB

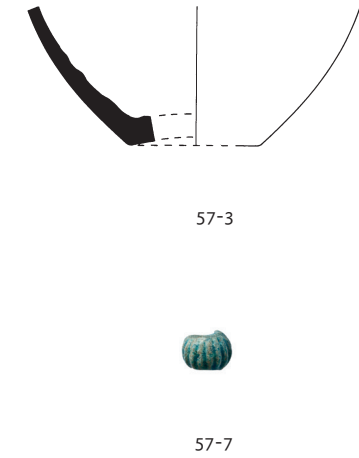
Pottery fragment
Find number: 0.57-3
Base-wall fragment of a black burnished biconical pot
Date: Merovingian
Location: PDBNB

Pottery fragment
Find number: 0.57-4
Wall fragment of wheel thrown, grey burnished ware
Date: probably Late Medieval
Location: PDBNB

Pottery fragment
Find number: 0.57-5
Wall fragment of wheel thrown, grey burnished ware
Location: PDBNB

Pottery fragment
Find number: 0.57-6
Wall fragment of wheel thrown, grey burnished ware
Location: PDBNB

Bead, glass
Find number: 0.57-7
Blue ribbed melon shaped bead
Condition: one half lost
Date: Roman Age
Location: PDBNB



59 Pottery fragment
Find number: 0.59-1
Rim fragment of handmade pottery, decorated with finger impressions on the rim and on the wall just below the rim
Date: possibly Bronze Age
Location: PDBNB

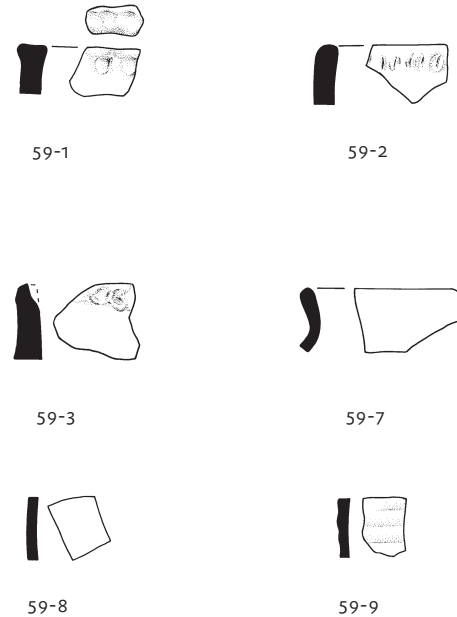
Pottery fragment
Find number: 0.59-2
Wall fragment of handmade oxidized-reduced pottery, decorated with a band of fingernail impressions
Date: probably Bronze Age
Location: PDBNB

Pottery fragment
Find number: 0.59-3
Wall fragment of handmade oxidized-reduced pottery. Decorated with a band of finger impressions
Date: probably Bronze Age
Location: PDBNB

Pottery fragment
Find number: 0.59-4
Wall fragment of handmade pottery, undecorated
Date: probably Bronze Age
Location: PDBNB

Pottery fragment
Find number: 0.59-5
Wall fragment of handmade pottery, undecorated
Date: probably Bronze Age
Location: PDBNB

Flint
Find number: 0.59-6
Fragment of flint, possibly burned
Length: 22 mm
Location: PDBNB



Pottery fragment
Find number: 0.59-7
Rim fragment of wheel thrown pottery with traces of red paint
Type: South Limburg ware
Date: High Medieval
Location: PDBNB

Pottery fragment
Find number: 0.59-8
Wall fragment of wheel-thrown, black burnished pottery. Possibly Late Medieval grey ware.
Date: possibly Late Medieval
Location: PDBNB

Pottery fragment
Find number: 0.59-9
Wall fragment of wheel thrown, oxidized pottery
Date: possibly Late Medieval or Early Modern
Location: PDBNB

57- Pottery fragment
59 Find number: 0.57-59-1
Wall fragment of pottery, probably wheel thrown, oxidized ware
Date: unknown
Location: PDBNB

Pottery fragment
Find number: 0.57-59-2
Wall fragment of wheel thrown pottery, decorated with grooves and single S-shaped stamps which consisted of square impressions
Date: Merovingian
Location: PDBNB

Iron slag
Find number: 0.57-59-3
Four fragments of iron slag
Location: PDBNB



Appendices

Nr map Theuws	Nr Schulze-Dörflamm	Nr Siegmund	Place name	N	Material	Literature
1	1		Audun-le-Tiche grave 67	2	silver	Simmer 1988, 39, planche 12.
2	2		Bergeijk	2	silver	
3	3		Bingen-Dietersheim single find 13	2		Zeller 1992, Taf. 50, 5a/b
3	3		Bingen-Dietersheim single find 247	2		Zeller 1992, Taf. 50, 6a/b
3	3		Bingen-Dietersheim single find 248	2		Zeller 1992, Taf. 50, 8a/b
3	3		Bingen-Dietersheim single find 12	2		Zeller 1992, Taf. 51, 1a/b
4	4		Bonn			
5	5		Brohl-Niederlützingen			
6	6		Dattenberg			
7	7	21	Eisenach grave 56	2	bronze	
8	8	17	Eltville grave 157	?	silver	
9	9	11	Freilingen	1	?	
10	10	19	Godendorf stray find	2	silver	
11	11	8	Hamoir grave 102	?	silver	
12	12		Harxheim-Lörzweiler			
13	13	10	Bad-Münstereifel, Iversheim grave 54	2	silver	
14	14		Karden, St Kastor grave 57	2	silver	Back 1989, Taf. 13, 9-10.
15	15		Koborn-Gondorf			
16	16		Cologne-Pöll			
17	17		Königswinter-Niederdollendorf			
18	18	5	Krefeld-Gellep grave 1157	2	silver	
19	19	13	Kruft grave 1	2	silver	
20	20	20	Minden grave 3	2	bronze	
21	21	9	Morken grave 6	2	silver	
22	22		Nettersheim grave 9	2		Nieveler 2003, Taf. 123.
23	23		Niederbreisig			
24	24	7	Ophoven grave 132	2	?	
25	25	14	Pommerhof grave 45	2	silver	
26	26	1	Putten grave 98	1?	?	
27	27		Waging			
28	28	12	Wassenach grave 5	2	bronze	
29	29		Weissenthurm			
30	30		Villers-devant-Orval			
31	31		Worms			
32	32	18	Zemmer grave 37/3	2	bronze	
33		23	Alach grave 7/81	2	silver	

Appendix 6.1 (fig. 6.14)
A list of find locations of earrings with a polyhedron and twisted wire. This is based on the lists of Schulze-Dörflamm 1990 and Siegmund 1998 and our own additions. In some cases, more recent literature is indicated when the objects were part of a new publication of the finds of a cemetery or region.

Nr map Theuws	Nr Schulze-Dörflamm	Nr Siegmund	Place name	N	Material	Literature
34	4		Beeck II stray find	2	silver	
35	6		Geilenkirchen grave 8	1?	bronze	
13	10		Bad-Münstereifel, Iversheim grave 205	2	silver	
13	10		Bad-Münstereifel, Iversheim grave 223	2	bronze	
37	9b		Cologne Saint Severins church grave III, 110	2	silver	Should be grave III, 74
38	16		Mertloch	10	?	Ament 1993, 58-59, Abb. 46, 3-4, 7-11.
21	9		Morken grave 8	2	bronze	
39	3		Rill grave 1924/1	2	silver	
40	15		Rübenach grave 665	2	silver	
41	2		Xanten I grave 44	2	silver	
41	2		Xanten I grave 46?	?	bronze	
41	2		Xanten I grave 301	2	silver	
42	22		Zellertal-Harxheim grave 3	2	silver	
42	22		Zellertal-Harxheim grave 4-21	2	silver	
43			Dommelen grave 2	2	silver	unpublished
43			Dommelen grave 3b	2	silver	unpublished
44			Mechernich/Eicks II grave 8	2	?	Nieveler 2003, Taf. 60.
45			Metzervisse grave 3045	2	silver	Lansival 2007, 507-516, fig. 23.
46			Eprave grave 327	2	bronze	Dasnoy 1997, 14, fig. 10, 5
47			Wesseling grave 110	2	?	Müssemeier 1997, 68 and Abb. 20, 5-6.
48			Sittard grave #			unpublished

Appendix 6.2 (fig. 6.33)
A list of find locations of glass bag beakers. Based on Ypey 1957/1958, Harden 1956 and Evison 2008.

Nr map	Illustration	Nr Evison 2008	Nr Harden 1956	Nr Ypey 1957/1958	Museum cat. Nr	Notes	Place
1	*	1	B VIa 1	2	British Museum 1321.70	Evison cat nr 161	Faversham
2	*	2	B VIa 2	3	British Museum 1321a.70	Evison cat nr 162 transferred to V&A museum	Faversham
3	*	3	B VIa 3	4	Maidstone Museum		Faversham
4		4			English Heritage AML 721301 (Ancient monuments Laboratory bar code?)	fig. 12: b, pl 4: g	Faversham
5		5			Salesbury Museum 3D3A6	fig. 11: c	Faversham
6	*	6	B VIa 4	5	Canterbury Museum 5803		Faversham
7	*	7	B VIa 5	6	Liverpool Museum 6647		Gilton
8		8				Grave 86	Finglesham
9		9					Tattershall Thorpe
10	*	10			British Museum 1893,6-1.206	Evison fragment 163	No provenance
11		11		8	Ashmolean Museum		No provenance
12		12			Farnham Museum	Lost	Faversham
13		13			Farnham Museum	Lost	Faversham
14	*			7	Collection Van Daalen Amsterdam		Bergeijk
15	*				Musée Archéologique Charleroi	stray find cemetery 1b2	Hantes-Wéheries
16	*			1	Statens Historiska Museum Stockholm 6048		Alands
17	*	no	no	no	Statens Historiska Museum Stockholm 6049	Uncertain identification, could also be a globular beaker. Holmquist 1961, 173, nr 488; Evison 1988, 237 and 238, fig. 2.	Helgö

Appendix 6.3 (fig. 6.33)
A list of find locations of glass globular beakers with a decoration identical to that of bag beakers.

Nr	Place	Heigth	M/W	Colour	Depot	Publication
1	Charnay	12.3	?	light blue greenish	Musée de Saint-Germain -en Laye 34622	Feyeux 2003, 182 (cat. nr 710), pl. 66 (cat. Nr 710); Koch 1996, 613, Abb. 466 (colour photograph
2	Nixéville ‘Cercueil’	c. 10.5	?	?	détruit en 1918	Feyeux 2003, 182 (cat. nr 709), pl. 66 (cat. Nr 709).
3	Putten	c. 12.5	?	light blue green	Haags Gemeente museum	Isings 1959, 223, fig. 15; Ypey 1962-1963, 126-128, Abb. 32.
4	Krefeld-Gellep,	6	W?	olive green	Museum Burg Linn grave 2777	Pirling 1979, I, 81-82; II, 74, Taf. 73,15a/b, Taf. 89,2, Typentafel 3.
5	Beerlegem, grave 111	11	W	yellow	Museum University Gent?	Roosens/Van Doorselaer 1966; Roosens/Gyselinck 1975, I, 9, Pl. B, II, 30, Pl. 26, 2.
6	Avernas-le-Bauduin	12.5	?	brown	Musée Royaux d’Art et d’Histoire Brussels	Alenus 1977; <i>Tresors de Wallonie. Les verres Mérovingiens</i> , 1993, fig. 12 (color photograph), 119-120.
7	Freimersheim	11.5	?	?	Altertumsmuseum Mainz inv 3351 lost	Ypey 1962-1963, 147-148, Abb 41.
8	Resteigne	?	?	‘warm yellow’	Musée Archéologique de Namur?	Bequet 1883, 30 et planche, Barrière-Flavy 1901, plance 73, 7.
9	Chew Stoke	c. 8 cm	?	?	Bristol Museum	Harden 1956, fig. 25, VillaV1, 164; Evison 2008, 78 (group 67, nr 1).
10	Lovenden (Lincolshire)	?	?	?	?	Evison 2008, 78 (group 67, nr 2).

Appendix 6.4 (fig. 6.37)
A list of ceramic beakers with ribbed walls in the Netherlands, Belgium and Germany.

Nr	Place name	Country	Province	Literature	Illustration
1	Franchimont	Belgium	Namur	Dasnoy 1966, 5-6; Dierkens 1982, 26-27	Yes
2	Wancennes	Belgium	Namur	Dasnoy 1966, 5-6; Dierkens 1982, 26-28	Yes
3	Wancennes	Belgium	Namur	Dasnoy 1966, 5-6; Dierkens 1982, 26-29	No
4	Wancennes	Belgium	Namur	Dasnoy 1966, 5-6; Dierkens 1982, 26-30	No
5	Wancennes	Belgium	Namur	Dasnoy 1966, 5-6; Dierkens 1982, 26-31	No
6	Florennes	Belgium	Namur	Dasnoy 1966, 6; Dierkens 1982, 27	no
7	Éprave	Begium	Namur	Dasnoy 1966, 6; Dierkens 1982, 28	no
8	Éprave	Belgium	Namur	Dasnoy 1966, 6; Dierkens 1982, 29	no
9	Resteigne	Belgium	Luxembourg	Dasnoy 1966, 6; Dierkens 1982, 30	Yes
10	Nittel-Junkertswiese grave 8	Germany	Rheinland-Pfalz	Böhner 1958, I, 46-47, II, Tafel 3,3	Yes
11	Tawern-Röler grave 4	Germany	Rheinland-Pfalz	Böhner 1958, I, 46-47.	no
12	Wiltingen	Germany	Rheinland-Pfalz	Böhner 1958, I, 46-47.	no
13	Hantes-Wihéries	Belgium	Hainaut	Brulet 1970, 45, fig. 22, nr 11	Yes
14	Maastricht-Pandhof grave 10031	Netherlands	Limburg	De Boone/Ypey 1959, figs. 24; Kars 2011, 193-194, figure 6	Yes
15	Maastricht-Pandhof grave 10743	Netherlands	Limburg	De Boone/Ypey 1959, figs. 25; Kars 2011, 193-194, figure 6	Yes
16	Maastricht-Vrijthof grave 87	Netherlands	Limburg	Kars 2011, 193-194, figure 6	Yes
17	Maurage	Belgium	Hainaut	Faider-Feytmans 1970, I, 258; II, Pl. 143	yes
18	Ciply	Belgium	Hainaut	Faider-Feytmans 1970, I, 218; II, Pl. 117	yes
19	Mezières grave 47	France	Ardennes	Périn 1968, 13-25, pl.VI; Dierkens 1981, 26	yes
20	Jandun	France	Ardennes	Périn 1971, 29, pl. VI; Dierkens 1981, 26	yes
21	Borgharen	Netherlands	Limburg	unpublished yet	yes
22	Bergeijk	Netherlands	Noord-Brabant	this publication	yes

Nr	Place name	Country	Province	Literature	Illustration
Gobelets à ressauts					
23	Thin-Le-Moutier	France		Mathiaut-Legros 2006, nr 133	no
24	Saucles-Monclin	France		Mathiaut-Legros 2007, nr 125	no
25	Le Fresne Saint-Hilare	France		Mathiaut-Legros 2008, nr 63	no
26	Forbach-Le Herapel	France		Mathiaut-Legros 2008, nr 62	no
27	Cocheren	France		Mathiaut-Legros 2008, nr 45	no
28	Morsbach	France		Mathiaut-Legros 2008, nr 102	no
29	Molsheim	France		Mathiaut-Legros 2008, nr 97	no
30	Heidolsheim	France		Mathiaut-Legros 2008, nr 75	no
31	Dieu-sur Meuse	France		Mathiaut-Legros 2008, nr 55	no
32	Charnay-lès-Chalon	France		Mathiaut-Legros 2008, nr 41	no
33	Quincey	France		Mathiaut-Legros 2008, nr 112	no
34	La Bruyère	France		Mathiaut-Legros 2008, nr 36	no
35	Mantoche	France		Mathiaut-Legros 2008, nr 93	no
36	Blondefontaine	France		Mathiaut-Legros 2008, nr 26	no
37	Andilly-en-Bassigny	France		Mathiaut-Legros 2008, nr 5	
38	Buxerolle	France		Mathiaut-Legros 2008, nr 37	no
39	Lezéville	France		Mathiaut-Legros 2008, nr 88	no
40	Villiers-aux-Chênes	France		Mathiaut-Legros 2008, nr 143	no
41	Vaudonjon	France		Mathiaut-Legros 2008, nr 137	yes
42	Bréban	France		Mathiaut-Legros 2008, nr 32	no
43	Mailly-le-Camp	France		Mathiaut-Legros 2008, nr 92	no
44	Le Meix-Tiercelin	France		Mathiaut-Legros 2008, nr 94	no
45	Poivres	France		Mathiaut-Legros 2008, nr 106	no
46	Joches	France		Mathiaut-Legros 2008, nr 78	no
47	Broussy-le-Petit	France		Mathiaut-Legros 2008, nr 35	no
48	Oyes	France		Mathiaut-Legros 2008, nr 104	no
49	Villevenard	France		Mathiaut-Legros 2008, nr 142	no
50	Saint-Loup	France		Mathiaut-Legros 2008, nr 119	no
51	Reims	France		Mathiaut-Legros 2008, nr 148	no

Found number	Date	Gender /Age	Fibre	Weave	Thread Count	Spin	Pattern	Comments
10.h3	FAG 5-10 (7th century)	?	Wool	2/2 twill	10-11x10	z/s	?	2 loose fragments of wool textile
24.q3	FAG 6-7 (580/90-640/50)	M	Wool	2/2 twill	16x12	z/z		two indeterminate fragments iron with textile and straw attached to both.
24.x1	FAG 6-7 (580/90-640/50)	M	wool ?	2/? Twill	12x8-10	z/s	?	remains of textile on front side. of strap end. Textile is heavily abbrased, making weave poorly visible
24.ee1.1	FAG 6-7 (580/90-640/50)	M	wool	none		2sZ	cord 5mm thick	On front side of plate buckle two strands (5mm thick) of possibly twined cord have but been documented. Perhaps not twined but untwisted bundle of fibres because tist and twine is very low and in some places not noticable.
24.ee1.2	FAG 6-7 (580/90-640/50) fabric	M	Wool	2/2 twill	10x7	z/s	?	On backside of plate buckle three fragmenst of same coarse woollen textile are present.
24.gg1	FAG 6-7 (580/90-640/50)	M	Wool	2/2 diamond twill	12-15x9-12	z/z	diamond twill, pattern repeat not visible	3 fragments of indeterminate iron and 1 fragment of plate, 1 plate buckle and 1 belt plate with fabric and pieces of straw attached. Weave and spinning are on some fragments somewhat irregularly carried out. TX on outside of plate buckle 24.ffc1
24.aa4	FAG 6-7 (580/90-640/50)	M	??	??	??	z/s		small fragment of fe with negative cast of a few threads (z&s twisted)
26.d1	?	M	?? (resembles linen, no fibre identification possible)	Tabby	11-12x10	z/z		
26.e1	?	M	??	??	??	s/?		Very worn down
29.e1	FAG 5-10 (7th century)	?	??	Tabby (?)	16-18x14	z/z		Textile is present on 1 side of the knife. Textile is very worn down hence weave not 100% sure. No fibre identification possible.
33.f1	FAG 6 (580/90-610/20)	M	??	??	??			Very worn down, textile on 1 side of rivet. No identification possible.
33.d2	FAG 6 (580/90-610/20)	M	Plant	none		s		33d1 is a rolled up sheet of lead with piece of rope inside. Rope is s-twisted. Fibres very damaged.
33.b1	FAG 6 (580/90-610/20)	M	Wool	2/2 twill	8x6-7	z/s		FE buckle and several indeterminate fragments of iron. TX on one side of two fragments. Same as 33.e1 and 33.i2!
33.e1	FAG 6 (580/90-610/20)	M	Wool	2/2 twill	8-10x6-8	z/s		Two fragments of a semicircular iron buckle plate. On both pieces textile remains are present on the frontside. On the back remains of leather of belt are still present. Same as 33.b1 and 33.i2!
33.i2	FAG 6 (580/90-610/20)	M	Wool	2/2 twill	10x8	z/s		Several fragments of indeterminate iron. On two fragments tx-remains are present. Same as 33.b1 and 33.e1!
44.2	FAG 5-6 (565-610/20)	M	Wool	2/2 twill	14x8	z/s		
44.g1	FAG 5-6 (565-610/20)	M	wool	2/2 twill	10x8-9	z/s		weave very stretched, either diamond or chevron twill. Too frgamented to make positive identification of pattern.
44.q1	FAG 5-6 (565-610/20)	M	wool ?	2/? Twill	?x6	z/s		very worn down. No fibre identification possible.
49.2	Fag 8 (640/50-670/80)	M	Wool	tabby	9x8	z/z		fabric is folded double, rather thick threads, barely spun, dense weave.
50.g2	Fag 8 (640/50-670/80)	F	Wool	2/2 diamond twill	28x13-14	z/s	Diamond twill, pattern repeat 20/14 ? Pattern is hard to count.	5 fragments of non-mineralized textile with leather and copper adherred to two pieces. Pieces found in area of waist. 2 fragments associated with copper rivet.
50.h2	Fag 8 (640/50-670/80)	F	Wool	2/2 twill	8x7-8	z/s		Non-mineralized textile
52.a2	FAG (7)-8 (640/650-670/80)	M	Wool ?	2/2 twill	9-10x6-7	z/s		2 fragments of textile, not associated with object. 1 fragment is adhered to piece of wood
52.a2	FAG 7-8 (610/20-670/80)	M	Wool?	2/? Twill	7-8 x ?	z/z		Fabric is wrapped around the shaft of the object. Weave is distorted (warp/ weft at oblique angles). Big gaps between the threads. Badly preserved.
56.1	FAG 5-10 (7th century)	?	Wool	2/2 twill	6-7x6	z/s		Open weave, distorted (warp and weft pulled oblique).

Quality weave	Quality spinning	Measurements (cm)	TwistX	TwistY	Thread thicknessX (mm)	Thread thicknessY (mm)	N frag-ments
		1,5x1,5cm & 0,5x1cm	medium	medium	0.75-1	0.5-0.7	2
fine & regular		2x1cm (x2)	medium	medium - high	0.4-0.8	0.4-0.8	2
		2x2.5	Low	Low	0.75	0.75-1	1
coarse	regular	0.6x1.5; 0.5x0.5	medium	medium	0.7-1	1	3
irregular, dense	irregular	0.5x0.5; 3x2; 3x3	medium-high	medium-high	0.3-0.7	0.75-1	6
			medium	medium	0.5-0.7	0.5-0.7	1
dense	smoothly spun		medium	medium	0.6	0.7-1	1
					0.5-1		1
Fine	good	1x0.5	medium	low	0.2-0.3	0.5	1
		0.4x0.3					
		Ø 3mm, 1,3 cm long			3mm		1
		1x1	low-medium	low	0.75-1	0.75-1	2
		2x0.6	medium	medium	1	0.75	2
	a bit irregular		medium-high	medium	0.75-1	1-1.2	2
dense		0.8x0.3	medium-high	low	0.5-0.75	0.5	1
	regular	2.5x2	low-medium	medium	0.5	0.5	1
			medium	medium	0.75	0.75	1
dense		2.5x2	low	low	1-1.2	1-1.2	1
fine	good	1x2; 2x2;; 1.5x3 0.5x0.8	medium	low-medium	0.2-0.4	0.2-0.4	5
coarse	regular	0.8x1.3	medium	low	0.75-1	1-1.2	1
		0.5x0.5; 1.5x2; 1x1	medium	low-medium	0.75	0.75	3
coarse	regular		low	low	0.75	0.75	1
open		1.5x1.5	medium-high	medium	0.75-1	0.5-0.75	1

Found number	Date	Gender /Age	Fibre	Weave	Thread Count	Spin	Pattern	Comments
56.d1	FAG 5-10 (7th century)	?	Wool	2/2 twill	8x9-10	z/s		Open, distorted (warp/weft pulled at oblique angles). Finer fabric than 56.i
56.f1	FAG 5-10 (7th century)	?	Wool	Tabby	14x12	z/z		Fine weave. A bit distorted (warp/weft a bit oblique).
56.h1	FAG 5-10 (7th century)	?	Plant?	Tabby	8x6	z/z		On 56.h1: 2 layers of same fabric on top of each other. A bit open tabby.On 56.i1 only 1 layer.
57.5	FAG 5-10 (7th century)	?	Wool	Tabby	12x10-11	z/z		20 indeterminate fragments of iron together part of a large fe ring. TX on one side of one fragment. Fine, dense weave. Threads are smoothly spun.
62.g1	FAG 6-7 (580/90-640/50)	?	wool	2/2 diamond twill	9-10x6-7	z/s	diamond twill. Very large pattern, pattern repeat falls beyond this fragment.	Indeterminate fragment of iron with leather and tx. Fe is covered completely with textile.
62.s	FAG 6-7 (580/90-640/50)	?	Wool	2/2 twill	12x7	z/s		Very regular fabric. Large piece of textile attached to piece of fe.
63.d1	?	?	Wool	Tabby	11-12x10	z&rs/z	Spinpattern in warp (z-s-z-s)	fe rivet with piece of fabric folded three times on the head of the rivet A bit open tabby.
64.abcd1	FAG 5-6 (565-610/20)	M	Wool	2/2 twill	10x7-8	z/s	plan twill	Large fragment of tx on head of the umbo. Thin warp, thicker weft. A bit open weave.
77.w	FAG 7-8 (610/20-670/80)	F	Wool	2/2 diamond twill	7-10x7-9	z/s	diamond twill	5 fragments of non-mineralized tx found in. association with 2 copper belt plates. Thick, compact weave, 1.5mm thick
77.r1	FAG 7-8 (610/20-670/80)	F	wool	?		z/s		tx on 1 side of strap end. Very decayed: bind not visible any more. Threads seem thicker than those in fabric on belt plates.
77.q4	FAG 7-8 (610/20-670/80)	F	wool	2/2	8x6	z/z		coarse 2/2 twill on edge of fe strap end. A bit open weave.
89.b1	Fag 9 (670/80-710)	F	? Fibre was too much damaged. On surface it appeared like wool (curly)	Tabby	13-14x11	z/z		2 layers of same fabric on front side of the buckle loop. Irregular threadthickness.
89.k2	Fag 9 (670/80-710)	F	??	2/2(?) twill	13x13	z/z		fine weave, smoothly spun and woven. Tx is found on one side of strap end. On same side straw has been found.
89.h1.1	Fag 9 (670/80-710)	F	wool	tabby	25x22	z&rs/s	spinpattern in warp ...42-45-42-45...	Very fine tabby, found on front of belt fitting and wrapped around the edge toward the back.
89.h1.1	Fag 9 (670/80-710)	F	?? Too little sample to make positive identification. Surfce looked like wool.	2/2 twill	12x8	z/z		very damaged. Irregularly spun, open weave. TX on backside of belt fitting.
19h2	FAG 5-7 (565-640/50)	F	Wool?	2/2 twill		z/s		Very decayed and fallen apart. Probably a very open weave. Textile not in association with object.

Quality weave	Quality spinning	Measurements (cm)	TwistX	TwistY	Thread thicknessX (mm)	Thread thicknessY (mm)	N frag-ments
open	irregular	1x1	medium-high	medium	0.75-1	0.75	1
fine	regular	2x2	medium	medium-high	0.4-0.6	0.4	1
a bit open, regular	regular	2x2	medium	medium	1	1	2
Fine, dense	regular	0.5x0.5	medium	medium	0.5	0.5	1
very regular	regular	2.5x2.5	medium-high	medium	1	1-1.5	1
regular	regular	2x2	medium	medium	0.75	0.75	1
a bit open	regular		medium	medium	0.5-0.75	0.75	1
a bit open	regular	5x10	medium	medium	0.2	1	1
regular	a bit irregular	1.4x1; 1x0.5; 2x2	medium	medium	0.75-1	0.75-1	3
			medium	medium	0.5-0.75	0.75	1
a bit open		2.5x1	medium	medium	1	1	1
irregular	irregular	3x2	low-medium	low	0.2-0.7	0.2-0.7	1
fine	smooth	1x0.75	low	low	0.5	0.5	1
fine, dense	fine	3x4mm - 2.5x1cm	medium	medium	0.2	0.2	8
open	irregular	2.5x1	low-medium	medium	0.5-1	0.2-0.3	1
open	irregular	1x1	medium	medium	0.5-1	0.5-1	1

The dates of individual graves as well as indications on gender, age and sex and postdepositional interventions.

Context	Type	B-Phase	FAG-Phase Date		Gender	Sex/Age	Intervention
1	Grave	ND	ND	ND	X	Juvenile-adult	unknown
2	Grave	ND	ND	ND	X	Adult?	unknown
3	Pit, burned bone	NF	NF	NF	X	?	no
4	Possible grave	ND	ND	ND	X	Unknown	unknown
5	Grave	ND	ND	ND	X	Unknown	unknown
6	Grave	ND	ND	ND	X	Juvenile-adult	unknown
7	Grave	I-III	5-10	7th century	F	Juvenile-adult	no
8	Grave	ND	ND	ND	X	Non-adult: ≤ 9 year	unknown
9	Grave	III	9-10	670/80-mid 8th century	F	Juvenile-adult	no
10	Grave	I-III	5-10	7th century	X/F	Adult?	possibly
11	Grave	III	9	670/80-710	X/F	Non-adult: ≥ 12 year	no
12	Possible grave	ND	ND	ND	X	Non-adult: ≤ 3 year	unknown
13	Grave	ND	ND	ND	X	Adult?	unknown
14	Grave	NF	NF	NF	X	Non-adult: ≤ 8 year	unknown
15	Grave	NF	NF	NF	X	Juvenile-adult	unknown
16	Grave	ND	ND	ND	X	Non-adult: 10-12 year	no
17	Grave	ND	ND	ND	F	Adult?	possibly
18	Grave	I-III	5-10	7th century	X	Juvenile-adult	unknown
19	Grave	I	5-7	565-640/50	F	Non-adult: 4-9 year	no
20	Pottery vessel	I	4-7	510/25-640/50	X	?	unknown
21	Grave	ND	ND	ND	X/F	Adult?	possibly
22	Grave	I-III	5-10	7th century	F	Non-adult: ≥ 12	yes
23	Grave	ND	ND	ND	X/F	Non-adult: ≤ 12	possibly
24	Grave	I	6-7	580/90-640/50	M	Adult?	yes
25	Grave	ND	ND	ND	X	Adult?	possibly
26	Grave	ND	ND	ND	M	Adult: 20-60 year	possibly
27	Grave	I	6-7	580/90-640/50	F	Adult?	possibly
28	Grave	I-III	5-10	7th century	X/F	Juvenile-adult	possibly
29	Grave	I-III	5-10	7th century	X/F	Adult?	possibly
30	Grave	I	6-7	580/90-640/50	X/F	Adult?	yes
31	Grave	I-III	5-10	7th century	X	Adult?	possibly
32	Pottery vessel	I or before	3-5	460/80-580/90	X	?	unknown
33	Grave	I	6	580/90-610/20	M	Adult?	no
34	Grave	I(II)	7-8	610/20-670/80	X/M	Adult?	possibly
35	Grave	I	5-6	565-610/20	M	Adult?	yes
36	Grave	I	7	610/20-640/50	F	Juvenile-adult	possibly
37	Grave	NF	NF	NF	X	Adult?	unknown
38	Grave	ND	ND	ND	X/F	Adult?	unknown
39	Grave	I	5-7	565-640/50	X	Adult?	possibly
40	Horse shoe	Not Merovingian!		Post-medieval	X	?	unknown
41	Grave	I	5-7	565-640/50	M	Adult?	yes
42	Grave	I	6	580/90-610/20	M	Adult?	unknown
43	Grave	Probably I	5-7	565-640/50	F	Adult?	yes
44	Grave	I	5-6	565-610/20	M	Adult?	yes
45	Grave	I-III	5-10	7th century	F	Adult?	possibly

Context	Type	B-Phase	FAG-Phase Date		Gender	Sex/Age	Intervention
46	Grave	ND	ND	ND	X	Juvenile-adult	unknown
47	Grave	II	8	640/50-670/80	F	Adult?	yes
48	Grave	NF	NF	NF	X	Juvenile-adult	unknown
49	Grave	II	8	640/50-670/80	M	Adult?	yes
50	Grave	II	8	640/50-670/80	F	Juvenile-adult	possibly
51	Grave	I-III	5-10	7th century	F	Adult?	yes
52	Grave	II	7-(8)	(610/20-670/80) 640/50-670/80	M	Adult?	no
53	Grave	I	6-7	580/90-640/50	F	Juvenile-adult	yes
54	Grave	ND	ND	ND	X	Adult?	possibly
55	Grave	ND	ND	ND	X	Adult?	unknown
56	Grave	I-III	5-10	7th century	M/F	Juvenile-adult	possibly
57	Grave	I-III	5-10	7th century	X	Adult?	possibly
58	Grave	ND	ND	ND	X/F	Adult?	possibly
59	Grave	I-II	5-8	565-670/80	M	Adult?	yes
60	Grave	ND	ND	ND	X	Juvenile-adult	unknown
61	Grave	ND	ND	ND	X/M	Adult?	possibly
62	Grave	I	6-7	580/90-640/50	X/M	Adult?	yes
63	Grave	ND	ND	ND	X	Juvenile-adult	possibly
64	Grave	I	5-6	565-610/20	M	Adult?	possibly
65	Grave	I	6	580/90-610/20	F	Adult?	yes
66	Grave	I-III	5-10	7th century	F	Adult?	no
67	Grave	ND	ND	ND	X	Juvenile-adult	unknown
68	Grave	ND	ND	ND	X	Juvenile-adult	possibly
69	Grave	(I) II	(7)	640/50-670/80	M	Adult?	yes
70	Grave	I	5-7	565-640/50	F	Adult?	possibly
71	Grave	I	5-7	565-640/50	F	Adult?	no
72	Grave	I	4-7	410/25-640/50	X	Non -adult: ≤ 13 year	possibly
73	Grave	I	4-5(6)	410/25-580/90(610/20)	X	Adult?	possibly
74	Grave	III	9-10	670/80-mid 8th century	M(/F)	Adult?	possibly
75	Pit, burned bone	NF	NF	NF	X	?	no
76	Grave	ND	ND	ND	X	Juvenile-adult	unknown
77	Grave	I-II	7-8	610/20-670/80	F	Adult?	yes
78	Grave	I	6-7	580/90-640/50	X/M	Adult?	possibly
79	Grave	I	6-7	580/90-640/50	M	Adult?	yes
80	Grave	ND	ND	ND	X	Adult?	yes
81	Grave	ND	ND	ND	F	Adult?	yes
82	Grave	I	6-7	580/90-640/50	M	Adult?	yes
83	Pit, burned bone	NF	NF	NF	X	?	no
84	Grave	I	5-6	565-610/20	X	Adult?	yes
85	Grave	I	5-7	565-640/50	F	Adult?	yes
86	Grave	ND	ND	ND	X/F	Adult?	yes
87	Pit, burned bone	NF	NF	NF	X	?	no
88	Grave	I-III	5-10	7th century	F	Adult?	no
89	Grave	III	9	670/80-710	F	Adult?	possibly
90	Grave	III	9-10	670/80-mid 8th century	F	Juvenile-adult	no

Abbreviations

Franken AG	Müssemeier/Nieveler/Plum/Pöppelmann 2003
FAG = Franken AG	Müssemeier/Nieveler/Plum/Pöppelmann 2003
h/c area	habitation/cultivation area
PDBNB	Provinciaal Depot voor Bodemvondsten in Noord-Brabant
RCE	Rijksdienst voor het Cultureel Erfgoed
ROB	Rijksdienst voor het Oudheidkundig Bodemonderzoek

Context	Type	B-Phase	FAG-Phase Date		Gender	Sex/Age	Intervention
91	Grave	ND	ND	ND	X	Adult?	yes
92	Grave	NF	NF	NF	X	Adult?	unknown
93	Grave	ND	ND	ND	X	Adult?	no
94	Grave	NF	NF	NF	X	Juvenile-adult	unknown
95	Grave	I-III	5-10	7th century	X	Juvenile-adult	no
96	Grave	NF	NF	NF	X	Adult	no
97	Grave	NF	NF	NF	X	Juvenile-adult	no
98	Grave	ND	ND	ND	X	Juvenile-adult	no
99	Grave	I-III	5-10	7th century	X	Adult?	yes
100	Grave	I-III	5-10	7th century	X	Adult	no
101	Grave	NF	NF	NF	X	Juvenile-adult	no
102	Grave	NF	NF	NF	X	Juvenile-adult	unknown
103	Grave	ND	ND	ND	F	Adult?	possibly
104	Grave	I-III	5-10	7th century	X	Adult?	no
105	Grave	ND	ND	ND	X	Adult?	unknown
106	Grave	I-III	5-10	7th century	X	Non-adult: ≤ 10 year	unknown
107	Pit	ND	ND	ND	X	?	unknown
108	Grave	II?	8	640/50-670/80	F	Adult?	yes
109	Pit, burned bone	NF	NF	NF	X	?	no
110	Grave	I-III	5-10	7th century	F	Juvenile-adult	no
111	Grave	I	4-7	410/25-640/50	M	Adult?	no
112	Grave	I	4-7	410/25-640/50	M	Adult?	yes
113	Grave	I-II	4-8	410/25-670/80	X	Adult?	possibly
114	Grave	III	9-10	670/80-mid 8th century	M	Adult?	yes
115	Possible grave	I-III	5-10	7th century	X/F	Adult?	yes
116	Grave	NF	NF	NF	X	Adult?	unknown
117	Grave	NF	NF	NF	X	Adult?	unknown
118	Grave	NF	NF	NF	X	Unknown	unknown
119	Grave	ND	ND	ND	X	Adult?	no
120	Grave	ND	ND	ND	F	Juvenile-adult	no
121	Grave	ND	ND	ND	X	Non-adult: 11-13 year	no
122	Grave	II-III	8-10	640/50-mid 8th century	F	Adult?	no
123	Grave	ND	ND	ND	X	Adult?	unknown
124	Grave	III	10	710-mid 8th century	X/F	Adult?	no
125	Grave	I-III	5-10	7th century	X	Juvenile-adult	no
126	Grave	NF	NF	NF	X	Juvenile-adult	no
127	Grave	NF	NF	NF	X	Juvenile-adult	no
128	Grave	I-III	5-10	7th century	X	Adult	possibly
129	Grave	NF	NF	NF	X	Juvenile-adult	no
130	Possible grave	NF	NF	NF	X	?	unknown
131	Possible grave	NF	NF	NF	X	?	unknown
132	Possible grave	NF	NF	NF	X	?	unknown
133	Possible grave	NF	NF	NF	X	?	unknown
134	Possible grave	NF	NF	NF	X	?	unknown
135	Pit, burned bone	NF	NF	NF	X	?	no

Bibliography

- Acsádi, G./J. Nemeskéri, 1970: *A history of human life span and mortality*, Budapest.
- Alenus-Lecerf, J., 1978: *Le cimetière mérovingien de Hamoir* 1-2, Bruxelles (Archeologia Belgica 201).
- Alenus-Lecerf, J., 1981: *Hamoir nécropole mérovingienne*, Bruxelles (Archaeologicum Belgii Speculum 12).
- Ament, H., 1974: Merowingische Schwertgurte vom Typ Weihmörting, *Germania* 52, 153-161.
- Ament, H., 1976: Chronologische Untersuchungen an fränkischen Gräberfeldern der jüngeren Merowingerzeit im Rheinland, *Berichte der Römisch-Germanische Kommission* 57, 285-336.
- Ament, H., 1993: *Siedlung und Gräberfeld des frühen Mittelalters von Mertloch, Künzerhof (Kreis Mayen-Koblenz)*, Nürnberg.
- Aspöck, E., 2005: Graböffnungen im Frühmittelalter und das Fallbeispiel der Langobardenzeitlichen Gräber von Brunn am Gebirge, Flur Wolfholz, Niederösterreich, *Archaeologia Austriaca* 87 (2003), 169-224.
- Backx, J. P., 2002: *Het Merovingisch grafveld van Gilze-Verhoven*, Amsterdam (MA thesis University of Amsterdam).
- Bannenberg, G., 1957: Merovingisch aardewerk in Noord-Brabant, *Brabants Heem* 9, 74-79.
- Barbiera, I., 2005: *Changing lands in changing Memories. Migration and Identity during the Lombard Invasions*, Firenze.
- Barrière-Flavy, M. C., 1901: *Les arts industriels des peuples barbares de la Gaule du Vme au VIIIme siècle, Tome I. Étude archéologique, historique et géographique*, Toulouse/Paris.
- Bartel, A., 2003: Schutz – Verpackung oder Zier? Schutzvorrichtungen an metal-len Trachtbestandteilen und Beigaben. Beobachtungen – Befunde – Rekonstruktionen, in L. Bender Jorgensen/J. Bank-Burgess/ A. Rast-Eicher (eds.), 2003: *Textilien aus Archäologie und Geschichte. Festschrift für Klaus Tidow*, Neumünster, 132-141.
- Bazelmans, J., 1999: *By weapons made worthy: lords, retainers and their relationship in Beowulf*, Amsterdam.
- Beex, G., 1954: Twee bronstijdgrafheuvels en enige graven uit de Merovingische tijd te Casteren (gemeente Hoogeloon c.a.), *Brabants Heem* 6, 57-65.
- Beex, G., 1969: Merovingische vondsten te Riethoven, *Brabants Heem* 21, 121-122.
- Beex, G., 1979: Vondstmeldingen, *Brabants Heem* 31, 83-87.
- Bender Jorgensen, L., 1992: *North European Textiles until AD 1000*, Aarhus.
- Bequet, A., 1883: Nos fouilles en 1881 et 1882, *Annales de la Société Archéologique de Namur* 16, 21-36.
- Biemans, J., 1977: Peter Norbertus Panken, pionier van de Brabantse archeologie, in N. Roymans/ J. Biemans/J. Slofstra/W.J.H. Verwers (eds.), 1977: *Brabantse Oudheden*, Eindhoven (Bijdragen tot de Studie van het Brabantse Heem 16), 225-236.
- Biemans, J., 2010: Met Panken terug naar Turnhout, in *Ontdekkingsreis door Bergeijkse Historie* IV, Bergeijk (Stichting Vriendenkring Eicha), 17-28.
- Bieze, J.W., 1985: De uitvoering van het grenstractaat tussen Nederland en België, *De Rosdoek* 36, 14-22; 37, 9-15.
- Bijsterveld, A.-J. A., 1989a: Een zorgelijk bezit. De benedictijnenabdij van Echternach en St. Truiden en het beheer van hun goederen en renten in Oost-Brabant, 1100-1300, *Noordbrabants Historisch Jaarboek* 6, 7-44.
- Bijsterveld, A.-J. A., 1989b: >>Sinte Willebrordus eygen<<. Het bezit van de abdij van Echternach in Texandrië (Nederland en België), circa 700-1300, in G. Kiesel/J. Schroeder (eds.), 1989: *Willibrord. Apostel der Niederlande. Gründer der Abtei Echternach. Gedenkgabe zum 1250. Todestag des angelsächsischen Missionars*, Luxembourg, 271-290.
- Bijsterveld, A. J. A., 1993: *Laverend tussen Kerk en wereld. De pastoors in Noord-Brabant 1400-1570*, Amsterdam.
- Bijsterveld, A.-J. A., 2000: De la Texandrie à la Campine: le nord du diocèse de Liège aux Xe-XIIe siècles, in J. L. Kupper/P. George (eds.), 2000: *Liège. Autour de l'an mil, la naissance d'une principauté (Xe-XIIe siècle)*, Liège, 45-48.
- Bijsterveld, A.-J. A., 2007: *Do ut Des. Gift giving, Memoria, and conflict management in the medieval Low Countries*, Hilversum.
- Bijsterveld, A.-J. A., in press: De Notger à Henri de Leez: la formation du patrimoine liégeois en Texandrie, fin du Xe-moitié du XIIe siècle, in A. Wilkin/J. -L. Kupper (eds.), in press: *Notger de Liège (972-1008). 1000 ans*, Liège.
- Bijsterveld, A.-J. A./P. N. Noomen/B. Thissen, 1999: Der Niederländische Fernbesitz der Abtei Echternach im Früh- und Hochmittelalter, in M. C. Ferrari/J. Schroeder/H. Trauffler (eds.) mit J. Krier, 1999: *Die Abtei Echternach 698-1998*, Luxembourg (Publications du Cludem 15), 203-228.
- Bloch, M./J. Parry, 1989: Introduction: money and the morality of exchange, in J. Parry/M. Bloch (eds.), 1989: *Money and the morality of exchange*, Cambridge, 1-32.
- Blok, D. P., 1979³ (1968): *De Franken in Nederland*, Haarlem.
- Bofinger, J./P. Sikora, 2008: Reihenweise ausgeraubt: Beobachtungen zum Grabraub im frühen Mittelalter, in F. Brunecker (ed.), 2008: *Raubgräber Schatzgraber*, Biberach, 48-59.
- Böhner, K., 1958: *Die fränkischen Altertümer des Trierer Landes*, Berlin (Germanische Denkmäler der Völkerwanderungszeit Serie B1).
- Bohnsach, D., 1976: Bernstein und Bernsteinhandel, *Reallexikon der Germanischen Altertumskunde* 2, 288-295.
- Brandenburgh, C. R., 2010: Early medieval textile remains from settlements in the Netherlands. An evaluation of textile production, *Journal of Archaeology in the Low Countries* 2, 41-79.
- Brather, S., 2004: *Ethnische Interpretationen in der frühgeschichtlichen Archäologie. Geschichte, Grundlagen und Alternativen*, Berlin/New York.
- Brather, S., 2008: Kleidung, Bestattung, Identität. Die Präsentation sozialer Rollen im frühen Mittelaleter, in S. Brather (ed.), 2008: *Zwischen Spätantike und Frühmittelalter. Archäologie des 4. bis 7. Jahrhunderts im Westen*, Berlin/New York (Ergänzungsbande zum Reallexikon der Germanischen Altertumskunde 57), 237-273.
- Brather, S./H. P. Wotzka, 2006: Alemannen oder Franken? Bestattungsmodi, ethnische Identitäten und wirtschaftliche Verhältnisse zur Merowingerzeit, in S. Burmeister/N. Müller-Schessel (eds.), 2006: *Soziale Gruppen, Kulturelle Grenzen. Die Interpretation sozialer Identitäten in der Prähistorische Archäologie*, München/Berlin, 139-224.
- Brown, P., 1996: *The Rise of Western Christendom. Triumph and Diversity AD 200-1000*, Oxford.
- Brugmann, B., 2004: *Glass Beads from Early Anglo-Saxon Graves*, Oxford.
- Brulet, R., 1970: *. Catalogue du matériel mérovingien conservé au Musée Archéologique de Charleroi*, Brussels (Repertoires archéologiques, series B: Les collections).
- Brulet, R./G. Moureau, 1979: *La nécropole mérovin-gienne <en village> à Braives*, Louvain-la-Neuve (Publications d'Histoire de l'Art et d'Archéologie de l'Université Catholique de Louvain 18).
- Buchta-Hohm, S., 1996: *Das Alamannische Gräberfeld von Donaueschingen*, Stuttgart (Schwarzwald-Baar-Kreis).
- Burzler, A./M. Höneisen/J. Leicht/B. Ruckstuhl, 2002: *Das frühmittelalterliche Schleithelm. Siedlung, Gräberfeld und Kirche*, Schaffhausen (Schaffhauser Archäologie 5).
- Cabart, H./J.-Y. Feyeux, 1995: *Verres de Champagne. Le verre à l'époque mérovingienne en Champagne-Ardenne*, Reims (Bulletin de la Société Archéologique Champenoise 88).
- Camps, H. P. H. (ed.), 1979: *Oorkondenboek van Noord-Brabant tot 1312. I. De Meierij van 's-Hertogenbosch (met de Heerlijkheid Gemert)*, 's-Gravenhage.
- Chapman, J., 2000: Tension at funerals. Social practic-es and the subversion of community structure in later Hungarian prehistory, in M.-A. Dobres/J. E. Robb (eds.), 2000: *Agency in Archaeology*, London/ New York, 169-195.
- Châtelet, M./M. Picon/G. Thierrin-Michael/Y. Waksman, 2005: Une centralisation des ateliers de céramiques au VIIe siècle: Bilan d'un programme d'analyses sur la production de la céramique en Alsace et en Pays de Bade pendant la période du haut Moyen Âge, *Archéologie Médiévale* 35, 11-38.
- Christlein, R., 1966: *Das alamannische Reihengräberfeld von Marktoberdorf im Allgäu*, Kallmünz.
- Christlein, R., 1973: Besitzabstufungen zur Merowingerzeit im Spiegel reicher Grabfunde aus West- und Süddeutschland, *Jahrbuch des Römisch-Germanisches Zentralmuseums* 20, 147-180.
- Cohen, A. P., 1985: *The Symbolic Construction of Community*, London.
- Coon, L. L., 1997: *Sacred Fictions. Holy women and hagiography in Late Antiquity*, Philadelphia.
- Dasnoy, A., 1966: Une curiosité céramique prove-nant d'un cimetière mérovingien de Franchimont, *Namurcan* 38, 1-7.
- De Bakker, H./J. Schelling (edited by J. Brus/C. van Wallenburg), 1989¹: *Systeem voor de bodemclassifica-tie voor Nederland, de hogere niveaus*, Wageningen.
- De Boe, G., 1970: *Een Merovingisch grafveld te Borsbeek (Antwerpen)*, Brussel (Archacologia Belgica 120).
- De Boone, W. J./J. Ypey, 1959: Nederland in de tijd der Merovingen, in J. E. Bogaers *et al.* (eds.), 1959: *Honderd eeuwen Nederland*, Den Haag, 198-223.
- De Haas, M., 2010: *Landscapes for the dead, an analysis of the location of early medieval cemeteries in the south-ern Netherlands and northern Belgium*, Amsterdam (University of Amsterdam MA thesis).
- De Haas, M./F. Theuws, in prep.: *The Merovingian cemetery of Posterholt-Achterste Voorst*, Bonn.
- De Nooijer, B., 2009: De wegen, in D. Vangeluwe/K. de Nooijer/R. Knaepen/J. Biemans, 2009: *Bergeijk in Kaart. Historische geografie en toponymie, verkenning van grondbezit en grondgebruik, vanaf de Middeleeuwen tot onze tijd*, Bergeijk, 145-153.
- Delaplace, Chr., 2005: Avant-Propos, in Chr. Delaplace (ed.), 2005: *Aux origines de la paroisse rurale en Gaule méridionale IVe-IXe siècles. Actes du colloque international 21-23 mars 2003*, Paris, 7-9.
- Delaruelle, S./B. De Smaele/C. Thijs/S. Verdegem/ S. Scheltjens/J. Van Doninck 2011: Merovingian colonization of Bronze Ages barrows at Beerse-Krommenhof (Province of Antwerp, Belgium), in *Conference Book. Archaeology in contemporary Europe ACE 2011. The very beginning of Europe? Cultural and Social Dimensions of Early-Medieval Migration and Colonisation (5th-8th century)*, Brussels, 79-81.
- Demandt, A., 2002: *Über allen Wipfeln. Der Baum in der Kulturgeschichte*, Köln.
- Devroey, J.-P., 1998: Twixt Meuse and Scheldt: town and country in the medieval economy of the Southern Netherlands from the sixth to the twelfth century, in I. Kockelbergh/K. Verlinden (eds.), 1998: *The fascinating Faces of Flanders: through art and society*, Antwerpen, 48-76.
- Devroey, J.-P., 2003: *Économie rurale et société dans l'Europe franque (VIe-IXe siècles). Tome 1. Fondements matériels, échanges et lien social*, Paris.
- Devroey, J.-P., 2006: *Puissants et misérables. Système social et monde paysan dans l'Europe des Francs (VIe-IXe siècles)*, Bruxelles.
- Dickinson, T. A., 2002: Review article: What's new in early medieval burial archaeology?, *Early Medieval Europe* 11, 71-87.
- Die Franken. Wegbereiter Europas. Vor 1500 Jahren: König Chlodwig und seine Erben* 1-2, Mainz, 1997.
- Dierkens, A., 1981: *Les deux cimetières mérovingiens de Franchimont (Province de Namur). Fouilles de 1877-1878*, Namur.
- Dierkens, A./L. Plouvier (eds.), 2008: *Festins mérovin-giens*, Brussels.
- Dierkens, A./P. Périn 2005: Cartes de repartition du matériel archéologique et mise en évidence du rôle économique des voies d'eau dans le monde mérovingien, in J. Plumier/M. Regnard (eds.), 2005: *Voies d'eau, commerce et artisanat en Gaule mérovingienne*, Namur, 29-50.
- Donat, P./H. Ullrich, 1971: Einwohnerzahlen und Siedlungsgrösse der Merowingerzeit, *Zeitschrift für Archäologie* 5, 234-265.
- Drauschke, J., 2008: Zur Herkunft und Vermittlung 'byzantinischer Importe' der Merowingerzeit in Nordwesteuropa, in S. Brather (ed.), 2008: *Zwischen Spätantike und Frühmittelalter. Archäologie des 4. bis 7. Jahrhunderts im Westen*, Berlin/New York, 367-423.
- Drauschke, J., 2010: Byzantine Jewellery? Amethyst Beads in East and West during the Early Byzantine Period, in Chr. Entwistle/N. Adams (eds.), 2010: *"Intelligible Beauty". Recent Research on Byzantine Jewellery*, London (British Museum Research Publication 178), 50-60.
- Durand, M., 1988: *Archéologie du cimetière médiéval au sud-est de l'Oise. Relations avec l' habitat et évolution des rites et des pratiques funéraires du VIème au XVIème siècle*, s.l.
- Effros, B., 1997: Beyond cemetery walls: Early medieval funerary topography and Christian salvation, *Early medieval Europe* 6, 1-23.
- Effros, B., 2000: Skeletal sex and gender in Merovingian mortuary archaeology, *Antiquity* 74, 632-639.
- Effros, B., 2001: Monuments and memory. Repossessing ancient remains in early medieval Gaul, in M. de Jong/F. Theuws (eds.) with C. van Rhijn, 2001: *Topographies of Power in the Early Middle Ages*, Leiden/Boston/Köln, 93-118.
- Effros, B., 2002a: *Caring for body and soul. Burial and the afterlife in the Merovingian World*, University Park/ Pennsylvania.
- Effros, B., 2002b: *Creating community with food and drink in Merovingian Gaul*, New York.
- Effros, B., 2003: *Merovingian Mortuary archaeology and the making of the Early Middle Ages*, Berkeley.
- Effros, B., 2006: Grave goods and the ritual expression of identity, in T. Noble (ed.), 2006: *From Roman provinces to medieval kingdom*, London, 189-232.
- Eijnatten, J. van/F. van Lieburg, 2005: *Nederlandse religiegeschiedenis*, Hilversum.
- Engemann, J./Chr. B. Rüger (eds.), 1991: *Spätantike und frühes Mittelaleter. Ausgewählte Denkmäler im Rheinischen Landesmuseum Bonn*, Köln/Bonn.
- Enright, M., 1996: *Lady with a bead cup. Ritual, Prophecy and Lordship in the European Warband from La Tène to the Viking Age*, Blackrock.
- Evison, V., 1988: Some Vendel, Viking and Saxon glass, in B. Härdh/L. Larsson/D. Olausson/R. Petré (eds.), 1988: *Trade and Exchange in Prehistory. Studies in Honour of Berta Stjernquist*, Lund (Arcta Archaeologica Lundensia 8°, 16), 237-245.
- Evison, V., 2008: *Catalogue of Anglo-saxon Glass in the British Museum*, London.
- Evison, V., 2009: Glass vessels, in S. Hurst/D. Clark, 2009: *Excavations at Mucking. Volume 3, the Anglo-Saxon cemeteries. Excavations by †Tom and †Margaret Jones*, London, 551-554.
- Evvard, M., 1997: Les recherches archéologiques à Wellin, in Stavelot-Wellin-Logne. *Une abbaye et ses domaines*, 23-51.
- Faider-Feytmans, G., 1970: *Les collections d'archéologie régionale du musée de Mariemont. Les nécropoles mérovingiennes*, Morlanwelz-Mariemont.
- Feyeux, J.-Y., 2003: *Le Verre mérovingien du quart nord-est de la France*, Paris.
- Fichter, G./P. Volk, 1980: The Eastern Orientation of Merovingian Graves and the Seasonal Distribution of Morbidity and Mortality (Using the Sasbach-Behans and Bischoffingen- Bigärten Cemeteries as Examples), *Journal Human Evolution* 9, 49-59.
- Fingerling, G., 1985: Hüfingen, ein zentraler Ort der Baar im frühen Mittelalter, in *Der Keltenfürst von Hochdorf. Methoden und ergebnisse der Landesarchäologie*, Stuttgart, 411-447.
- Freeden, U. von/A. Wieckzorek (eds.), 1997: *Perlen. Archäologie, Techniken, Analysen. Akten des Internationalen Perlensymposium Mannheim 1994*, Bonn.
- Fremersdorf, F., 1955a: Zu dem blauen Glasbecher aus dem Reihengräberfeld von Pfahlheim (Kr. Ellwangen) im Germanischen Nationalmuseum Nürnberg, *Kölnr Jahrbuch* 1, 33-35.
- Fremersdorf, F., 1955b: *Das Fränkische Reihengräberfeld Köln-Müngersdorf*, Berlin.
- Friedman, J./M. J. Rowlands, 1977: Notes towards an epigenetic model of the evolution of 'civilisation', in J. Friedman/M. J. Rowlands (eds.), 1977: *The evolution of social systems*, Pittsburg, 201-276.
- Geibig, A., 1991: *Beiträge zur morphologischen Entwicklung des Schwertes im Mittelalter. Eine analyse des Fundmaterials vom ausgehenden 8. bis zum 12. Jahrhundert aus Sammlungen der Bundesrepublik Deutschland*, Neumünster (Offa-Bücher 71).
- Gelichi, S., 2008: The eels of Venice. The long eight century of the emporia of the northern region along the Adriatic coast, in S. Gasparri (ed.), 2008: *774 Ipotesi su una transizione. Atti del Seminario di Poggibonsi, 16-18 febbraio 2006*, Turnhout, 81-117.
- Giesler, J., 1983: Frühmittelalterliche Funde aus Niederkassel, Rhein-Sieg-Kreis, *Bonner Jahrbücher* 183, 475-590.
- Gillard, R. D./S. M. Hardman/R. G. Thomas/ D. E. Watkinson, 1994: The mineralization of fibres in burial environments, *Studies in Conservation* 39, 132-140.
- Glasbergen, W. 1955: *Het rijengrafveld te Broekeneind bij Hoogeloon (N. Br.)*, Eindhoven (Bijdragen tot de studie van het Brabantse heem 6).
- Godelier, M., 1999: *The enigma of the gift*, Cambridge, (trans. of 1996: *L'énigme du don*, Paris).
- Graenert, G., 2007: *Merowingerzeitliche Filigranscheibenfibeln westlich des Rheins*, Montagnac (Europe médiévale 7).
- Grierson, P./M. Blackburn, 1986: *Medieval European Coinage I, The Early Middle Ages (5th-10th centuries)*, Cambridge.
- Grünewald, Chr., 1988: *Das Alamannische Gräberfeld von Unterthürheim, Bayerisch-Schwaben*, Kallmünz/Opfingen (Materialhefte zur Bayerische Vorgeschichte A59).
- Guido, M., 1999: *The Glass Beads of Anglo-Saxon England c. AD 400-700*, Woodbridge.
- Hägg, I., 1993: Friesische Tuch, in G. Jaacks/ K. Tidow (eds.), 1993: *Archäologische Textilfunde-- Archaeological Textiles: Textilsymposium Neumünster 4.-7.5. 1993*. NESATV., Neumünster, 82-94.
- Halsall, G., 1995: *Settlement and social organization. The Merovingian region of Metz*, Cambridge.
- Halsall, G., 1995a: *Early medieval cemeteries. An introduction to burial archaeology in the post-Roman West*, Glasgow.
- Hamerow, H., 2002: *Early Medieval settlements. The archaeology of rural communities in Northwest Europe 400-900*, Oxford.

Harden, D. B., 1956: Glass vessels in Britain and Ireland, A. D. 400-1000, in D. B. Harden (ed.), 1956: *Dark-Age Britain. Studies presented to E.T. Leeds with a bibliography of his works*, London, 132-167.

Harden, D. B., 1978: Anglo-Saxon and later medieval glass in Britain: some recent developments, *Medieval Archaeology* 22, 1-24.

Hautefeuille, F., 2005: La cartographie de la paroisse et ses difficultés de réalisation, in Chr. Delaplace (ed.), 2005: *Aux origines de la paroisse rurale en Gaule méridionale IV-e-IXe siècles. Actes du colloque international 21-23 mars 2003*, Paris, 24-32.

Heeren, S./T. Hazenbergh (eds.), 2010: *Voorname dames, stoere soldaten en eenvoudige lieden. Begravingen en nederzettingssporen uit het Neolithicum, de laat-Romeinse tijd en Middeleeuwen te Wijchen-Centrum*, Leiden.

Heesters, W., 1973: Archaeologische sprokkelingen, *Brabants Heem* 25, 4-13.

Helms, M., 1988: *Ulysses' Sail. An ethnographic odyssey of power, knowledge and geographical distance*, Princeton.

Hen, Y., 2006: Food and Drink in Merovingian Gaul, in B. Kasten (ed.), 2006: *Tätigkeitsfelder und Erfahrungshorizonte des ländlichen Menschen in der frühmittelalterlichen Grundherrschaft (bis ca. 1000)*, Stuttgart, 99-110.

Heymans, H., 1978: De topografie van de Merovingische grafvelden in Belgisch Limburg en Maastricht. *Acta Archaeologica Lovaniensia* 17, 66-134.

Hiddink, H., 2005: *Archeologisch onderzoek aan de Beekseweg te Lieshout*, Amsterdam (Zuidnederlandse Archeologische Rapporten 18).

Hinz, H., 1969: *Das fränkische Gräberfeld von Eick, Gemeinde Rheinkamp, Kreis Moers*, Berlin (Germanische Denkmäler der Völkerwanderungszeit B4).

Hirst, S./D. Clark, 2009: *Excavations at Mucking. Volume 3, the Anglo-Saxon cemeteries. Excavations by †Tom and †Margaret Jones* (2 vols), London.

Hodges, R., 2000: *Towns and Trade in the Age of Charlemagne*, London.

Holmquist, W., 1961: *Excavations at Helgö, I*, Stockholm.

Holwerda, J. H., 1928: *Rijksmuseum van Oudheden te Leiden. Verslag van den directeur over het jaar 1927*, 's-Gravenhage.

Holwerda, J. H., 1929: *Rijksmuseum van Oudheden te Leiden. Verslag van den directeur over het jaar 1928*, 's-Gravenhage.

Hübener, W., 1972: Gleicharmige Bügelfibeln der Merowingerzeit in WestEuropa, *Madrider Mitteilungen* 13, 211-244.

Huggett, J. W., 1988: Imported grave goods and the early Anglo-Saxon Economy, *Medieval Archaeology* 32, 63-96.

Huijbers, A., 1994: Beek en Donk, *Brabants Heem* 46, 33-37.

Isings, C., 1959: Merovingisch glas uit Nederland, in J. E. Bogaers *et al.* (eds.), 1959: *Honderd eeuwen Nederland*, Den Haag, 212-223.

Jankuhn, H., 1958: Die frühmittelalterliche Seehandelsplätze im Nord- und Ostseeraum, in F. Vittinghoff/Th. Mayer (eds.), 1958: *Studien zu den Anfängen des europäischen Städtewesens, Reichenau-Vorträge 1955-1956*, Lindau-Konstanz (Vorträge und Forschungen 4), 451-498.

Kars, M., 2011: *A cultural perspective on Merovingian burial archaeology and the grave goods from the Vrijthof and Pandhof cemeteries in Maastricht*, Amsterdam.

Klein-Pfeuffer, M., 1993: *Merowingerzeitliche Fibeln und Anhänger aus Pressblech*, Marburg (Marburger Studien zur Vor- und Frühgeschichte 14).

Klevnäs, A., 2010: *Whodunnit? Grave-robbery in early medieval northern and western Europe*, Cambridge (PhD thesis, University of Cambridge, Girton college).

Knaut, M., 1993: *Die alamannischen Gräberfelder von Neresheim und Kösing, Ostalbkreis*, Stuttgart (Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 48).

Knol, E., 1993: *De Noordnederlandse kustlanden in de Vroege Middeleeuwen*, Amsterdam.

Knol, E./W. Prummel/H. T. Uytterschaut/ M. L. P. Hoogland/W. A. Casparie/ G. J. de Langen/E. Kramer/J. Schelvis, 1996: The Early medieval cemetery of Oosterbeintum (Friesland), *Palaeohistoria* 37/38, 245-416.

Koch, U., 1974: Beobachtungen zum frühen Christentum an den fränkischen Gräberfeldern von Bargaen und Berghausen in Nordbaden, *Archäologisches Korrespondenzblatt* 4, 259-266.

Koch, U., 1977: *Das Reihengräberfeld bei Schretzheim*, Berlin (Germanische Denkmäler der Völkerwanderungszeit A13).

Koch, U., 1982: *Die fränkische Gräberfelder von Bargaen und Bergenhausen in Nordbaden*, Stuttgart (Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 12).

Koch, U., 1996a: Glas - Luxus der Wohlhabenden, in *Die Franken, Wegbereiter Europas. König Chlodwig und seine Erben* Mainz., 605-617.

Koch, U., 1996b: Stätten der Totenruhe - Grabformen und Bestattungssitten der Franken, in *Die Franken, Wegbereiter Europas. König Chlodwig und seine Erben* Mainz., 723-737.

Koch, U., 2001: *Das Alamannisch-fränkische Gräberfeld bei Pleidelsheim*, Stuttgart.

Koch, U., 2007: Mannheim unter fränkischer Herrschaft. Die merowingerzeitlichen Grabfunde aus dem Stadtgebiet, in H. Probst (ed.), 2007: *Mannheim vor der Stadtgründung*, I, 2, Regensburg, 10-420.

Kokabi, M., 1997: Fleisch für Lebende und Tote. Haustier in Wirtschaft und Begräbniskult, in *Die Alamannen*, Stuttgart, 331-336.

Kölbl, S., 2005: *Das Kinderdefizit im frühen Mittelalter - Realität oder Hypothese? Zur Deutung demographischer Strukturen in Gräberfeldern*, Tübingen.

Kopytoff, I., 1988: The cultural biography of things: commoditization as process, in A. Apadurai (ed.), 1988: *The social life of things: Commodities in a cultural perspective*, Cambridge, 64-94.

Krohn, N., 2007: Stiftergrab, *Reallexikon der Germanischen Altertumskunde* 35, 6-19.

Kuchenbuch, L., 1978: *Bäuerliche Gesellschaft und Klosterherrschaft im 9. Jahrhundert. Studien zur Sozialstruktur der Familia der Abtei Prüm*, Wiesbaden.

Kümmel, Chr., 2009: *Ur- und Frühgeschichtlicher Grabraub. Archäologische Interpretation und kulturantropologische Erklärung* (Tübinger Schriften zur Ur- und Frühgeschichtlichen Archäologie 9).

La Baume, P., 1967: *Das Fränkische gräberfeld von Junkersdorf bei Köln*, Berlin (Germanische Denkmäler der Völkerwanderungszeit B3).

Lahaye, L., 1942: Fragments d'un polyptique de la collégiale Saint-Jean Evangéliste à Liège, de l'an 1250, *Bulletin de la Commission Royale d'Histoire* 107, 199-292.

Lansival, R., 2007: La nécropole mérovingienne de Metzervisse (Moselle), *Revue archéologique de l'Est* 56. Placed on the WWW 29 januari 2009. URL: <http://rac.revues.org/index5022.html>. Consulted at 11 September 2010.

Legoux, R., 2005: *La nécropole mérovingienne de Cutry (Meurthe-et-Moselle)*, Paris (Mémoires publiés par l'Association française d'Archéologie mérovingienne 14).

Legoux, R./P. Périn/F. Vallet, 2004: *Chronologie normalisée du mobilier funéraire mérovingien entre Manche et Lorraine*, Paris.

Lorenz, H., 1982: Review of Herbert Jankuhn/ Hermann Nehlsen/Helmut Roth (eds.), 1978: *Zum Grabfrevl in vor- und frühgeschichtlicher Zeit, Bonner Jahrbücher* 182, 734-739.

Mandos, H., 1971: Meester Petrus Norbertus Panken 1819-1904, in H. Mandos/A. D. Kakebecke, 1971: *De Acht Zaligheden. Oude kern van de Kempen*, Oisterwijk, 7-113.

Marti, R., 2000: *Zwischen Römerzeit und Mittelalter. Forschungen zur frühmittelalterlichen Siedlungsgeschichte der Nordwestschweiz (4.-10. Jahrhundert)* 1-2, Liestal.

Mathiaut-Legros, A., 2006: Céramiques fines et identité régionale, le cas de la céramique dite 'burgonde', in V. Hincker/Ph. Husi (eds.), 2006: *La céramique du haut Moyen Âge dans le nord-ouest de l'Europe. Ve-Xe siècles*, Condé-sur-Noireau, 195-208.

Mathis, F./O. Vrielynck/K. Laclavetine/G. Chene/ D. Strivay, 2008: Provenance of Belgium Garnets by PIXE on IPNAS cyclotron, *Nuclear Instruments and Methods in Physics Research B* 266, 2348-2352.

Matthes, Chr./M. Heck/C. Theune/P. Hoffmann/J. Callmer 2004: Produktionsmechanismen frühmittelalterlicher Glasperlen, *Germania* 82, 109-157.

Maul, B., 2002: *Frühmittelalterliche Gläser des 5.-7./8. Jahrhunderts n. Chr. Sturzbecher, glockenförmige Becher, Tünnmler und Glockentünnmler*, Bonn.

Mauss, M., 1993² [1950-1923/1924]: *The gift. The form and reason for exchange in archaic societies*, London.

Melsen, J. Th. M., 1988: Een onbekende oorkonde voor Eersel/Bergeijk, *Brabants Heem* 40, 72-75.

Menghin, W., 1983: *Das Schwert im frühen Mittelalter*, Stuttgart.

Merovingische Ambachtskunst. Sieraden, wapens en gebruiksvoorwerpen uit de vijfde, zesde en zevende eeuw, with an introduction by G. Beex, 1961, s.l.

Meurkens, P., 1984: *Sociale verandering in het oude Kempenland (1840-1910). Demografie, economie en cultuur van een preindustriële samenleving*, Nijmegen.

Meurkens, P., 2004: *De wereld van schoolmeester Panken. Een portret van het oude Kempenland in de negentiende eeuw*, Zaltbommel.

Miller, D., 1985: *Artifacts as categories. A study of ceramic variability in Central India*, Cambridge.

Modderman, P. J. R., 1955: Het onderzoek van enkele Brabantse en Utrechtse grafheuvels, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 6, 44-65.

Modderman, P. J. R., 1967: The Kattenberg and the 'De Paal' urnfield near Bergeyk (North Brabant), *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 17, 59-63.

Müller, R./W.-R. Teegen/H. Steuer, 2007: Trinkgefäße und Trinkgeschirr, *Reallexikon der Germanischen Altertumskunde* 35, 244-264.

Müssemeier, U./E. Nieveler/R. Plum/H. Pöppelmann, 2003: *Chronologie der merowingerzeitlichen Grabfunde vom linken Niederrhein bis zur nördlichen Eifel*, Köln/Bonn (Materialien zur Bodendenkmalpflege im Rheinland 15).

Neuffer-Müller, Chr., 1966: *Ein Reihengräberfriedhof in Sontheim an der Brenz (Kreis Heidenheim)*, Stuttgart.

Neuffer-Müller, Chr. 1972: *Das fränkische Gräberfeld von Iversheim (Kreis Euskirchen)*, Berlin (Germanische Denkmäler der Völkerwanderungszeit B6).

Neuffer-Müller, C./H. Ament, 1973: *Das fränkische Gräberfeld von Rübenach, Stadt Koblenz*, Berlin.

Nieveler, E., 2003: *Die merowingerzeitliche besiedlung des Erftkreises und des Kreises Euskirchen*, Mainz (Rheinische Ausgrabungen 48).

Nieveler, E., 2006: *Geschichtlicher Atlas der Rheinlande. Beiheft IV/10. Merowingerzeitliche Besiedlung: archäologische Befunde in den nördlichen Rheinlanden*, Bonn.

Nugent, S., 1993: *Amazonian Caboclo Society. An essay on invisibility and peasant economy*, Providence/Oxford.

Oexle, J., 1992: *Studien zu Merowingerzeitlichem Pferdegeschirr am Beispiel der Trensen*, Mainz (Germanische Denkmäler der Völkerwanderungszeit A16).

Otte, M., 1986: Liège à l'époque mérovingienne, in M. Otte/J. Willems (eds.), 1986: *La civilisation mérovingienne dans le bassin mosan*, Liège, 65-69.

Pader, E. J., 1982: *Symbolism, social relation, and the interpretation of mortuary remains*, Oxford (BAR International Series 130).

Panhuyzen, R. G. A. M., 2005: *Demography and health in early medieval Maastricht: prosopographical observations on two cemeteries*, Amersfoort.

Paulsen, P., 1967: *Alamannische Adelsgräber von Niederstotzingen (Kreis Heidenheim)*, Bonn.

Paulsen, P., 1992: *Die Holzfinde aus dem Gräberfeld bei Oberflacht*, Stuttgart (Forschungen und Berichte zur Vor- und Frühgeschichte in Baden-Württemberg 41-2).

Paxton, F. S., 1990: *Christianizing Death. The creation of a Ritual Process in Early medieval Europe*, Ithaca/ London.

Périn, P., 1997: L'expansion franque (vers 486-vers 540), in *Les Francs, précurseurs de l'Europe. Musée du Petit Palais 23 avril-22 juin 1997*, Paris, 70-83.

Pescheck, Chr., 1996: *Das fränkische Reihengräberfeld von Kleinlangheim, Lkr. Kitzingen/Nordbayern*, Mainz (Germanische Denkmäler der Völkerwanderungszeit A17).

Peters, D., 2011: *Das frühmittelalterliche Gräberfeld von Soest. Studien zur Gesellschaft in Grenzraum und Epochenunbruch*, Münster.

Peytremann, E., 2003: *Archéologie de l'habitat rural dans le nord de la France du IVe au XIIe siècle, I et II*, Saint-Germain-en Laye.

Pirling, R., 1974: *Das römisch-fränkische Gräberfeld von Krefeld-Gellep 1960-1963*, Berlin (Germanische Denkmäler der Völkerwanderungszeit B8).

Pirling, R., 1979: *Das römisch-fränkische Gräberfeld von Krefeld-Gellep 1964-1965*, Berlin (Germanische Denkmäler der Völkerwanderungszeit B10).

Pirling, R., 1997: *Das römisch-fränkische Gräberfeld von Krefeld-Gellep 1975-1982*, Berlin (Germanische Denkmäler der Völkerwanderungszeit B15).

Plum, R. M., 2003: *Die merowingerzeitliche Besiedlung in Stadt und Kreis Aachen sowie im Kreis Düren*, Mainz (Rheinische Ausgrabungen 49).

Plumier-Torfs, S., 1986: Les garnitures de ceintures et de chaussures damasquinées mérovingiennes en Belgique (fin VIe-VIIe s). La permutacion matricielle: essai d'application d'un traitement informatique, in R. Brulet *et al.*, 1986: *Documents d'archéologie régionale 1*, Louvain-La-Neuve, 95-118.

Plumier, J., 1986: *Tumuli belgo-Romains de la Hesbaye occidentale. Séron, Hantret, Bois de Buis, Penteville*, Namur.

Pohl, W., 2004: Gender and ethnicity in the early middle ages, in L. Brubaker/J. M. H. Smith (eds.), 2004: *Gender in the early medieval world*, Cambridge, 23-43.

Pohl, W., 2006: Telling the difference. Signs of ethnic identity, in T. F. X. Noble (ed.), 2006: *From Roman provinces to medieval kingdoms*, London, 120-167.

Pol, A., 1999: Medieval coins from Wijinaldum, in J. C. Besteman/J. M. Bos/D. A. Gerrets/H. A. Heidinga/J. De Koning, 1999: *The excavations at Wijinaldum. Reports on Frisia in Roman and medieval Times*, Rotterdam/Brookfield, 217-227.

Pol, A., 2001: Madelinus, *Reallexikon der Germanischen Altertumskunde* 19, Berlin/New York, 92-95.

Pol, A., 2010: Madelinus and the disappearing of gold, in A. Willemsen/H. Kik (eds.), 2010: *Dorestad in an international Framework. New research on centres of Trade and Coinage in Carolingian times. Proceedings of the first 'Dorestad Congress' held at the National Museum of Antiquities Leiden, The Netherlands june 24-27, 2009*, Turnhout, 91-94.

Pol, A./B. J. van der Veen, 2008: De middeleeuwse munten van Katwijk-Zanderij, in H. M. van der Velde (ed.), 2008: *Cananefaten en Friezen aan de monding van de Rijn. Tien jaar archeologisch onderzoek op de Zanderij-Westerbaan te Katwijk (1996-2006)*, Amersfoort, 311-337.

Price, N. S., 2002: *The Viking Way. Religion and War in Late Iron Age Scandinavia*, Uppsala.

Redknap, M., 1999: Die römischen und mittelalterlichen Töpfereien in Mayen, Kreis Koblenz, *Berichte zur Archäologie an Mittelrhein und Mosel* 6, 11-401.

Roosens, H., 1977a: Het Merovingisch grafveld van Ophoven, *Conspectus* 1976, Brussel (Archaeologia Belgica 196), 63-67.

Roosens, H., 1977b: Dendrochronologie van graf 111 van Beerlegem, *Conspectus* 1976, Brussel (Archaeologia Belgica 196), 60-62.

Roosens, H., 1978: *Het Merovingisch grafveld van Rosmeer II*, Brussel (Archaeologia Belgica 204).

Roosens, H./A. van Doorselaar, 1966: Enkele merkwaardige graven uit de Merovingische begraafplaats van Beerlegem, *Helinium* 6, 26-45 (Archaeologia Belgica 91).

Roosens, H./J. Gyselinck, 1975: *Een merovingisch grafveld te Beerlegem* 1-2, Brussel.

Roosens, H./G. de Boe/J. de Meulemeester, 1976: *Het Merovingisch grafveld van Rosmeer I*, Brussel (Archaeologia Belgica 188).

Rösch, M., 2010: Starkbier und Honig, in B. Theune-Grosskopf (ed.), 2010: *Mit Leier und Schwert. Das frühmittelalterliche 'Sängerggrab' von Trossingen*, Friedberg, 90-91.

Roth, H., 1977: Bemerkungen zur Totenberaubung während der Merowingerzeit, *Archäologisches Korrespondenzblatt* 7, 287-290.

Roth, H., 1978: Archäologische Beobachtungen zum Grabfrevl im Merowingerreich, in H. Jankuhn/H. Nehlsen/H. Roth (eds.), 1978: *Zum Grabfrevl in vor- und frühgeschichtlicher Zeit. Untersuchungen zu Grabraub und "haugbrot" in Mittel- und Nordeuropa*, Göttingen, 53-84.

Roth, H./C. Theune, 1988: *SWol-IV: Zur Chronologie merowingerzeitlicher Frauengräber in Südwestdeutschland*, Stuttgart.

Sablerolles, Y., 1995: Made in Maastricht: glaskralen uit de Merovingische tijd, *Vormen uit vuur* 155, 15-23.

Sablerolles, Y./J. Henderson/W. Dijkman, 1997: Early medieval glass bead making in Maastricht (Jodenstraat 30), The Netherlands.

An archaeological and scientific investigation, in U. von Freeden/A. Wiczorek (eds.), 1997: *Perlen. Archäologie, Techniken, Analysen. Akten des Internationalen Perlensymposiums in Mannheim vom 11. bis 14. November 1994*, Bonn, 293-313.

Sági, K., 1964: Das Langobardische Gräberfeld von Vörs, *Acta Archaeologica Hungarica* 16, 359-408.

Samson, R., 1987: Social structures from Reihengräber: mirror or mirage?, *Scottish Archaeological Review* 4, 116-126.

Sasse, B./C. Theune, 1996: Perlen als Leittypen der Merowingerzeit, *Germania* 74, 187-231.

Schabbink, M., 1999: In geen velden of wegen. Een verdwenen middeleeuws gehucht in Someren, *Brabants Heem* 51, 129-139.

Schmauder, M., 1991: Riemenzunge, in J. Engemann/Chr. B. Rüger (eds.), 1991: *Spätantike und frühes Mittelalter. Ausgewählte Denkmäler im Rheinischen Landesmuseum Bonn*, Cologne/Bonn, 245-247.

Schmitt, G., 2005: *Die Alamannen im Zollernalbkreis*, Pirna.

Schneider, J., 1983: Ein völkerwanderungszeitliches Gräberfeld im Nordharzvorland, *Jahreszeitschrift für mitteldeutsche Vorgeschichte* 66, 75-358.

Schreutelkamp, F. H., 2001: Het aardmagnetisch veld ontrafeld, *Zenit* 28, 136-143.

Schulze-Dörlamm, M., 1990: *Die spätromischen und frühmittelalterlichen Gräberfelder von Gondorf, Gem. Kobern-Gondorf, Kr. Mayen-Koblenz*, Stuttgart (Germanische Denkmäler der Völkerwanderungszeit B14).

Siegmund, F., 1998: *Merowingerzeit am Niederrhein. Die frühmittelalterlichen Funde aus dem Regierungsbezirk Düsseldorf und dem Kreis Heinsberg*, Köln/Bonn (Rheinische Ausgrabungen 34).

Siegmund, F., 2000: *Alemannen und Franken*, Berlin/New York.

Siegmund, F./M. Weiss, 1989: Perlen aus Muschelscheibchen im merowingerzeitlichen Mitteleuropa, *Archäologisches Korrespondenzblatt* 19, 297-307.

Slofstra, J., 1977: Met Panken terug naar Boshoven, in N. Roymans/J. Biemans/J. Slofstra/W. J. H. Verwers (eds.), 1977: *Brabantse Oudheden*, Eindhoven (Bijdragen tot de Studie van het Brabantse Heem 16), 55-70.

Slofstra, J., 1982: De archeologische Landesaufnahme, in J. Slofstra/H. H. van Regteren Altena/N. Roymans/F. Theuws, 1982: *Het Kempenproject. Een regionaal-archeologisch onderzoeksprogramma*, Waalre (Bijdragen tot de studie van het Brabantse Heem 22), 84-92.

Smal, D., in prep. Grave constructions in the Meuse valley and adjacent regions.

Stauch, E., 2004: *Wenigumstadt. Ein Bestattungsplatz der Völkerwanderungszeit und des frühen Mittelalters im nördlichen Odenwaldvorland*, Bonn.

Stein, F., 1967: *Adelsgräber des achten Jahrhunderts in Deutschland*, Berlin (Germanische Denkmäler der Völkerwanderungszeit A9).

Steuer, H., 1982: *Frühgeschichtliche Sozialstrukturen in Mitteleuropa. Eine Analyse der Auswertungsmethoden des archäologischen Quellenmaterials*, Göttingen (Abhandlungen der Akademie der Wissenschaften in Göttingen, philologisch-historische Klasse, dritte Folge 128).

Steuer, H., 1997: Krieger und Bauern - Bauernkrieger. Die gesellschaftliche Ordnung der Alamannen, in *Die Alamannen*, Stuttgart, 275-287.

Steuer, H., 1998: Grabraub, Archäologisches, *Reallexicon der Germanischen Altertumskunde* 12, 516-523.

Stoll, H., 1939: *Die Alamannengräber von Hailfingen in Württemberg*, Berlin.

Stork, I., 1997: Als Persönlichkeit ins Jenseits. Bestattungssitte und Grabraub als Kontrast, in *Die Alamannen*, Stuttgart, 418-432.

Stork, I., 1997: Friefhof und Dorf, Herrenhof und Adelsgrab. Der einmalige Befund Lauchheim, in *Die Alamannen*, Stuttgart, 290-310.

Stroobant, L., 1903: Note sur la nécropole anté-romaine de Luiks-gestel, *Bulletin de l'Académie Royale d'Archéologie de Belgique*, 179-186.

Stroobant, M. L., 1921: Les nécropoles à incineration de Bergeik (Brabant Septentrional), *Bulletin de la Société d'Anthropologie de Bruxelles* 36, 47-58.

Theune-Grosskopf, B., 1997: Der lange Weg zum Kirchhof. Wandel der Germanischen Bestattungstradition, in *Die Alamannen*, Stuttgart, 471-480.

Theune-Vogt, C., 1990: *Chronologische Ergebnisse zu dem Perlen aus dem Alamannischen Gräberfeld von Weingarten, Kr. Ravensburg: eine Datenanalyse*, Marburg.

Theunissen, L., 1999: *Midden-bronstijdsamenlevingen in het zuiden van de Lage Landen. Een evaluatie van het begrip 'Hilversum cultuur'*, Leiden.

Theunissen, E. M./E. Smits/J. W. de Kort/J. N. Lanting, 2002: *Een dubbele duik in het verleden. Hernieuwd onderzoek naar de grafheuvel aan de Eerselsedijk te Bergeijk*, Amersfoort.

Theuws, F., 1976: Palissaden(?) op de grens van gemeynt en akkergebied in de Kempen, *Brabants Heem* 28, 143-147.

Theuws, F., 1981: De oerparochie in de Kempen en haar belang voor het nederzettingsonderzoek I, de latere middeleeuwen, *Brabants Heem* 33, 184-207.

Theuws, F., 1982a: Een middeleeuws akkercomplex op de Krieschoor bij Bladel, in J. Slofstra/H. H. van Regteren Altena/N. Roymans/F. Theuws, 1982: *Het Kempenproject. Een regionaal-archeologisch onderzoeksprogramma*, Waalre, 126-129.

Theuws, F., 1982b: *De Frankische frontier in de Kempen (550-725). Een archeologisch perspectief*, Amsterdam (MA thesis University of Amsterdam).

Theuws, F., 1988: *De archeologie van de periferie. Studies naar de ontwikkeling van bewoning en samenleving in het Maas-Demer-Schelde gebied in de vroege middeleeuwen*, Amsterdam.

Theuws, F., 1989: Middeleeuwse parochiecentra in de Kempen; in A. Verhoeven/F. Theuws (eds.), 1989: *Het Kempenproject 3. De middeleeuwen centraal*, Waalre (Bijdragen tot de studie van het Brabantse heem, 33), 97-216.

Theuws, F., 1991: Landed property and manorial organisation in northern Austrasia: some considerations and a case study, in N. Roymans/F. Theuws (eds.), 1991: *Images of the past, studies on ancient societies in northwestern Europe*, Amsterdam (Studies in praee- en protohistorie 1), 299-407.

Theuws, F., 1999: Changing settlement patterns, burial grounds and the symbolic construction of ancestors and communities in the late Merovingian southern Netherlands, in Ch. Fabech/J. Ringtved (eds.), 1999: *Settlement and Landscape. Proceedings of a conference in Arhus, may 4-7 1998*, Arhus, 329-341.

Theuws, F., 1999: The archaeology and history of the curia of the abbey of Saint Trond at Hulsel (province of North Brabant) (c. AD 700 - 1300), in F. Theuws/N. Roymans (eds.), 1999: *Land and Ancestors. Cultural dynamics in the urnfields period and the middle ages in the southern Netherlands*, Amsterdam (Amsterdam Archaeological Studies 4), 241-308.

Theuws, F., 2003: *De sleutel van Sint Servaas. Uitwisseling, religie, identiteit en centrale plaatsen in de Vroege Middeleeuwen*, Amsterdam (Inaugural lecture University of Amsterdam).

Theuws, F., 2004: Exchange, religion, identity and central places in the Early Middle Ages, *Archaeological Dialogues* 10, 121-138, 149-159 with comments by R. Hodges (138-144) and J. Moreland (144-149).

Theuws, F., 2008: Settlement research and the process of manorialization in Northern Austrasia, in S. Gasparri, 2008: *774 Ipotesi su una transizione. Atti del Seminario di Poggibonsi, 16-18 febbraio 2006*, Turnhout, 199-220.

Theuws, F., 2009: Grave goods, ethnicity, and the rhetoric of burial rites in Late Antique Northern Gaul, in T. Derks/N. Roymans (eds.), 2009: *Ethnic Constructs in Antiquity. The role of power and tradition*, Amsterdam, 283-319.

Theuws, F., 2010: Early Medieval Transformations: aristocrats and dwellers in the pagus Texandria. A publication programme, *Medieval and Modern Matters* 1, 37-72.

Theuws, F., 2011: De nederzettingontwikkeling in de Middeleeuwen: een model en enige thema's voor toekomstig onderzoek, in F. Theuws/M. van der Heiden/J. Verspay, 2011: *De archeologie van de Brabantse akkers. Toegelicht aan de hand van het onderzoek van de Universiteit van Amsterdam in Veldhoven*, Amsterdam, 60-77.

Theuws, F., in prep. a: The Merovingian and Carolingian buildings of Geldrop and the Meuse-Demer-Scheldt region.

Theuws, F., in prep. b: Christian cult places and burial grounds in the ancient parish of Bergeijk and the Christianization of the countryside AD 950-1400.

Theuws, F., in prep. c: Early Medieval Transformations: the colonisation of the pagus Texandria (c. 575-650).

Theuws, F., in prep. d: The Merovingian burials of Geldrop and Dommelen and other farmyard burials in the Southern Netherlands.

Theuws, F., in press: Peasant agency, long-distance trade and the early medieval economy.

Theuws, F./A. Verhoeven/H. H. van Regteren Altena, 1988 (1990): Medieval Settlement at Dommelen. Parts I and II, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 38, 229-430.

Theuws, F./A.-J. Bijsterveld 1991: Der Maas-Demer-Schelde-Raum in ottonischer und salischer Kaiserzeit, in H. W. Böhme (ed.), 1991: *Siedlungen und Landesausbau zur Salierzeit, Teil 1. In den nördlichen Landschaften des Reiches*, Sigmaringen, 109-146.

Theuws, F./H. Hiddink, 1996: Der Kontakt zu Rom, in *Die Franken, Wegbereiter Europas. König Chlodwig und seine Erben*, Mainz, 66-80.

Theuws, F./M. Alkemade, 2000: A kind of mirror for men: sword depositions in Late Antique northern Gaul, in F. Theuws/J. Nelson (eds.), 2000: *Rituals of power. From late Antiquity to the Early Middle Ages*, Leiden, 401-476.

Theuws, F., et.al., in prep: *The Merovingian cemetery of Maastricht-Vrijthof*.

Tilkin-Peters, C., 1986: Traits particuliers et évolution de la céramique mérovingienne des régions mosanes, in M. Otte/J. Willems (eds.), 1986: *La civilisation mérovingienne dans le bassin mosan*, Liège, 225-239.

TNO Groeidiagrammen 2010 webpage: http://www.tno.nl/content.cfm?context=thema&content=innocase&laag=891&laag2=902&item_id=1141 Consulted on 5/10/2011.

Treffort, C., 1996: *L'église carolingienne et la mort. Christianisme, rites funéraires et pratiques commémoratives*, Lyon.

Trenteseau, B., 1966: *La damasquinure mérovingienne en Belgique. Plaques-boucles et autres accessoires de buffleterie*, Brugge (Dissertationes Archaeologicae Gandensis 9).

Ubelaker, D. H., 1989: *Human skeletal remains. Excavation, analysis, interpretation*, Washington.

Urlacher, J.-P./F. Passard/S. Manfredi-Gizard, 1998: *La nécropole Mérovingienne de la Grande Oye à Doubs, département du Doubs. VIe-VIIe siècles après J.-C.*, Saint-Germain-en-Laye.

Van Bostracten, H. C., 1965: *De Merovingische begraafplaats te Lutlommel*, Brussel (Archaeologia Belgica 86).

Van den Hurk, L. J. A. M., 1984: The Tumuli from the Roman Period of Esch, Province of North Brabant, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 34, 9-38.

Van der Knaap, F., 2008: *Onderzoek naar correlaties tussen aardewerk en overledenen in Merovingische graven in het Maasgebied*, Amsterdam (BA thesis University of Amsterdam).

Van Es, W. A./R. Hulst, 1991: *Das merowingische Gräberfeld von Lent*, Amersfoort.

Van Haperen, M. C., 2010: Rest in pieces: an interpretive model of early medieval 'grave robbery', *Medieval and Modern Matters* 1, 1-36.

Van Heeringen, R. M./P. A. Henderikx/A. Mars (eds.), 1995: *Vroege-Middeleeuwse ringwalburgen in Zeeland*, Goes/Amersfoort.

Van Wersch, L., 2011: *Céramiques et verres mérovingiens dans la vallée mosane. Apports de l'archéologie et de l'archéométrie à l'histoire économique, sociale et culturelle*, Liège.

Vandenboer, A., 1993: Vechtend om Kockaertskolk, *Turkenshoek en Moonkensputje I, De Rosdoek* 65, 3-15.

Vangheluwe, D., 1989: Een reconstructie van het cijnsgoed van Thorn te Bergeyk, *Brabants Heem* 41, 26-32.

Vangheluwe, D., 1999: Local communities in their landscape in the rent district of Eersel/Bergeijk, in F. Theuws/N. Roymans (eds.), 1999: *Land and Ancestors. Cultural dynamics in the urnfield period and the middle ages in the southern Netherlands*, Amsterdam (Amsterdam Archaeological Studies 4), 349-399.

Vangheluwe, D., 2009: Een schets van de Villa Echa. Het gezamenlijke verleden van Bergeijk en Lommel, in D. Vangheluwe/K. de Nooijer/R. Knaepen/J. Biemans, 2009: *Bergeijk in Kaart. Historische geografie en toponymie, verkenning van grondbezit en grondgebruik, vanaf de Middeleeuwen tot onze tijd*, Bergeijk, 97-122.

Vangheluwe, D., in prep.: Gemeentsgrenzen en gemeentegrenzen van Bergeijk.

Vangheluwe, D./K. de Nooijer/R. Knaepen/J. Biemans, 2009: *Bergeijk in Kaart. Historische geografie en toponymie, verkenning van grondbezit en grondgebruik, vanaf de Middeleeuwen tot onze tijd*, Bergeijk.

Vangheluwe, D./Th. Spek, 2008: De laatmiddeleeuwse transitie van landbouw en landschap in de Noord-Brabantse Kempen, *Historisch geografisch tijdschrift* 26, 1-23.

Verbeeck, M., 1987-1988: De Merovingische begraafplaats te Erps-Kwerps (Prov. Brab.). Drie ongestoorde graven van naderbij bekeken, *Acta Archaeologica Lovaniensia* 26-27, 41-58.

Verhoeven, A., 1989: Middeleeuws aardewerk uit Bergeyk, in A. Verhoeven/F. Theuws (eds.), 1989: *Het Kempenproject 3. De middeleeuwen centraal*, Waalre (Bijdragen tot de studie van het Brabantse heem 33), 217-243.

Verhulst, A., 1999: *The rise of Cities in North-west Europe*, Cambridge.

Verhulst, A., 2002: *The Carolingian Economy*, Cambridge.

Verspay, J., 2011: Zaaiden de Oerlese boeren geluk?; in F. Theuws/M. van der Heiden/J. Verspay, 2011: *De archeologie van de Brabantse akkers. Toegelicht aan de hand van het onderzoek van de Universiteit van Amsterdam in Veldhoven*, 171-173.

Verwers, W. J. H., 1973: A merovingian cemetery in Veldhoven, province of North-Brabant, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 23, 315-335.

Verwers, W. J. H., 1977: North Brabant in Roman and Early Medieval Times II. The Merovingian Cemetery of Alphen Reconsidered, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 27, 165-189.

Verwers, W. J. H., 1978: North Brabant in Roman and early medieval times III, the Merovingian cemetery of Meerveldhoven (mun. of Veldhoven), *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 28, 251-307.

Verwers, W. J. H., 1987: North-Brabant in Roman and early medieval times, IV: the Merovingian cemeteries, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 37, 173-224.

Von Freeden, U./A. Wieckzorek (eds.), 1997: *Perlen. Archäologie, Techniken, Analysen. Akten Internationales Perlensymposium Mannheim 1994*, Bonn.

Vroom, J., 2003: *After Empire: ceramics and society in the Aegean from the 7th to the 20th century a. C.: a case study from Boeotia, Central Greece*, Leiden.

Wachowski, K., 1986/1987: Merowingische und Karolingische Sporen auf dem Kontinent, *Zeitschrift für Archäologie des Mittelalters* 14/15, 49-79.

Walter, S., 2008: *Das frühmittelalterliche Gräberfeld von Mengen (Fr. Breisgau-Hochschwarzwald)*, Stuttgart (Materialhefte zur Archäologie in Baden-Württemberg 82).

Walton Rogers, P., 2007: *Cloth and clothing in Early Anglo-Saxon England, AD 450-700*, York.

Warren, M. W./W. R. Maples, 1997: The anthropometry of contemporary commercial cremation, *Journal of forensic sciences* 42 (3), 417-423.

Weiss-Krejci, E., 2005: Excarination, evisceration and exhumation in medieval and post-medieval Europe, in G. Rakita/J. Buikstra/L. Beck/S. Williams (eds.), 2005: *Interacting with the dead. Perspectives on mortuary archaeology for the new millenium*, Gainesville, 155-172.

Werner, J., 1950: *Das Alamannische Fürstengrab von Wittislingen*, München.

Werner, J., 1953: *Das Alamannische Gräberfeld von Bülach*, Basel.

Werner, J., 1955: Byzantinische Gürtelschnallen des 6. und 7. Jahrhunderts aus der Sammlung Diergardt, *Kölnher Jahrbuch für Vor- und Frühgeschichte* 1, 36-48.

Werner, M., 1980: *Der Lütticher Raum in frühkarolingischer Zeit. Untersuchungen zur Geschichte einer karolingischer Stammlandschaft*, Göttingen.

Werner, M., 1982: *Adelsfamilien im Umkreis der frühen Karolinger. Die Verwandtschaft Irminas von Oeren und Adelas von Pfälzel. Personengeschichtliche Untersuchungen zur frühmittelalterlichen Führungsschicht im Maas-Mosel-Gebiet*, Sigmaringen (Vorträge und Forschungen 28).

Wickham, C., 2005: *Framing the Early Middle Ages. Europe and the Mediterranean 400-800*, Oxford.

Willems, J., 1986: La production de poterie à l'époque mérovingienne dans la région hutoise, in M. Otte/J. Willems (eds.), 1986: *La civilisation mérovingienne dans le bassin mosan*, Liège, 241-260.

Williams, H., 1997: Ancient landscapes and the dead: the reuse of prehistoric and Roman monuments as early Anglo-Saxon burial sites, *Medieval Archaeology* 41, 1-32.

Williams, H., 1998: Monuments and the past in Anglo-Saxon England, *World Archaeology* 30, 90-108.

Williams, H., 2005: Review article: rethinking early medieval mortuary archaeology, *Early medieval Europe* 13, 195-217.

Wood, S., 2008 (2006): *The proprietary church in the medieval West*, Oxford.

Ypey, J., 1957/1958: Een zeldzaam laat-Merovingisch glas in het rijengravelveld te Bergeijk Noord-Brabant, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 8, 82-91.

Ypey, J., 1959: Een methode om versieringen in bas-reliëf op metaal en aardewerk snel en accuraat vast te leggen, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 9, 293-296.

Ypey, J., 1962/1963: Die Funde aus dem frühmittelalterlichen Gräberfeld Huinerveld bei Putten im Museum Nairac in Barneveld, *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 12/13, 99-152.

Fig. 2.9
A plan of the excavation showing all discovered features.
Scale 1:250. 1. inhumation grave; 2. other features;
3. tree stump and recent disturbance; 4. reconstructed
boundary of excavation; 5. reconstructed context outline.

Bergeijk-Fazantlaan
Merovingian cemetery

