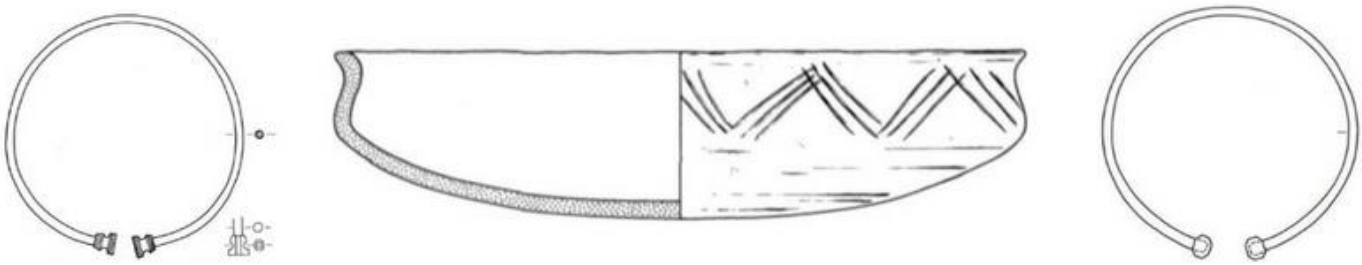
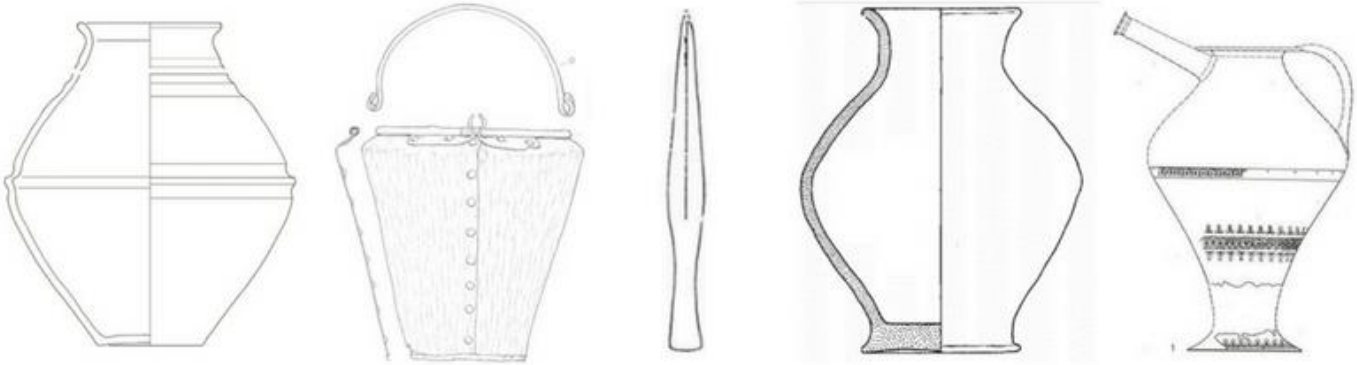
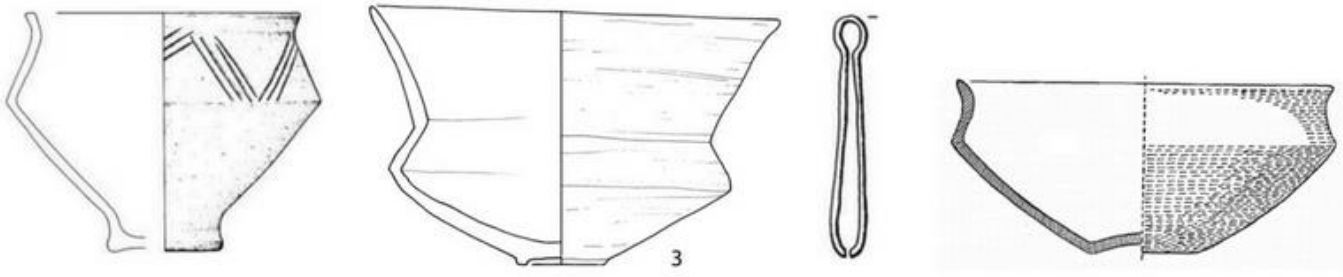


Interactions, elites and Inconspicuous burials

Interregional connections and changes in the burial ritual in the Meuse-Demer-Scheldt area and neighbouring Dutch and German riverine areas in the Middle Iron Age (500-250 BCE)





Lasse van den Dikkenberg

Front page picture: Middle Iron Age grave goods found in the study area (after: Beex 1968; Fontijn 1995; Hulst 1999; Mariën 1987; Modderman 1961a; Tol 2009; Van Impe and Creemers 1991; Vermue *et al.* 2015; Verwers 1972; Wesselingh 1993).

Interactions, elites and inconspicuous burials

Interregional connections and changes in the burial ritual in the Meuse-Demer-Scheldt area and neighbouring Dutch and German riverine areas in the Middle Iron Age (500-250 BCE)

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Content

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1 Introduction

The study of identity has always been a key concern for archaeological studies (Arnold 1995; Matthews 2004; Stoddart and Popa 2014; Treherne 1995). This concept can help us to elucidate on the roles of race, ethnicity, sexuality, age, class, gender, health and religion. For prehistoric societies the study of material culture forms an important tool for studying past identities, since these are negotiated through the use of material culture (Casella and Fowler 2005, 1-3). Studies concerned with past identities draw from a wide range of archaeological sources including settlement research, landscape archaeology and burial archaeology (Arnold 1995; Carroll 2013, 562-5; Gerritsen 2003, 1-2; Potrebica and Dizdar 2014, 141).

The burial ritual allows us to connect material culture with buried individuals. This does not mean that a burial portrays and individual as a living individual. A burial is constructed by a community as whole; burials often represent ideals rather than persons as they used to be in life (Fowler 2013; Wells 2014, 309-22). Nevertheless, from the archaeological record it becomes clear that certain roles in society such as gender and social status are often negotiated through the burial ritual. Therefore, the burial ritual provides a suitable source for the study of past identities, especially when dealing with gender or social differentiation (Arnold 1995, 153; Treherne 1995, 107; Van der Vaart-Verschoof 2017a, 24).

The first millennium BCE is widely viewed as a period of rapid developments resulting in the rise of social complexity. During the Early Iron Age we can observe the rise of elite graves in large parts of Europe (Arnold 1995, 154; Cuntliffe 2005, 501; Potrebica and Dizdar 2014, 131; Van der Vaart-Verschoof 2017a, 1; Wells 2008, 15). These developments take place within the existing Urnfield culture, some of it's or local variants, a tradition which has existed since the Late Bronze Age (1100-800 BCE). In this period there is a strong influence from the Hallstatt culture in Austria and Southern Germany (Arnold 1995, 154; Fontijn and Van der Vaart-Verschoof 2017, 522-4; Gerritsen 2003, 2; Potrebica and Dizdar 2014, 131). Around 500 BCE several rapid developments take place across Europe. In Austria and Southern Germany the Hallstatt culture disintegrates. The Hallstatt influence in other regions also stops abruptly, and in large parts of Europe the Urnfield tradition is abandoned rather brusequely. In Southern

Europe historical accounts, to some extend backed-up by archaeological evidence, document migrations from the Celtic homeland in the Marne-Moselle and Hunsrück-Eifel areas. These changes have been documented across Europe (Arnold 1995, 159; Potrebica and Dizdar 2014, 139; Wells 1980, 102-3).

In this respect, an area which presents a good amount of documentation is that of the Meuse-Demer-Scheldt in the Southern Netherlands and Northern Belgium. This area yielded several hundred urnfields dating to the Late Bronze Age and Early Iron Age, and which are thought to have been largely abandoned by the 5th century BCE. Although many studies have discussed this transition, it has generally been viewed from the perspective of the Early Iron Age (Fontijn 1996, 85; Gerritsen 2003, 245, 291-98; Roymans 1995, 6-9). The focus of these studies has been on the question "Why did people abandon urnfields around 500 BCE?" In this thesis, nevertheless, I aim to take an alternative viewpoint; rather than studying the abandonment of an older tradition, I seek to understand why new traditions developed. Hence here I will mainly deal with the question "What caused the changes in the burial ritual after 500 BCE?"

The Meuse-Demer-Scheldt area has been chosen as a case study especially because here the data for the Early Iron Age has been documented quite well (Gerritsen 2003). This study will provide an overview of Middle Iron Age burials and cemeteries in the Meuse-Demer-Scheldt area, the Dutch riverine area and the neighbouring German Rhineland. The transition between the Early Iron Age and the Middle Iron Age will be viewed primarily from the perspective of Middle-Iron-Age developments. The study will deal with the expression of identity through the incorporation of prestige goods from other regions in elite burials. Nonetheless, the study will also incorporate the other, common burials from this period. In this regard, the concepts of globalization and glocalization will be used to analyse the incorporation of global identities into local burial customs. This chapter will first deal with the current state of research on the Middle Iron Age in the study area. This will be followed by a review of the current theories concerning the transition of the Early Iron Age to the Middle Iron Age. After this, I will discuss the methods and research questions, so as to deal, in the last part, with the data which has been gathered as part of this thesis.

1.1 The Middle Iron Age and the Meuse-Demer-Scheldt area: the current discourse

The most significant difference between the Early Iron Age and the Middle Iron Age (see tab. 1 for the chronology) is, from the viewpoint of an archaeologist, the difference in available data. As many as 192 Early Iron Age cemeteries are known from the Meuse-Demer-Scheldt area. For the Middle Iron Age, the figure drops to 34 cemeteries, according to the data produced by Gerritsen (2003, 223). Roymans proposes that this drop, which is also seen in the presence of settlements, was caused by a depopulation of the Meuse-Demer-Scheldt area in the 6th and 5th centuries BC (Roymans 1995, 6).

Table 1: Chronology table Middle Iron Age (Arnold 2011, 152; Van den Broeke et al. 2005, 28).[1]

BCE	Hallstatt, La Tène periodization	Dutch periodization
650 625	Hallstatt D1	Early Iron Age
600 575 550	Hallstatt D2-3	
525 500 475 450	La Tène A	Middle Iron Age
425 400 375 350 325 300 275	La Tène B	
250 225 200 175	La Tène C	Late Iron Age
150 125 100	La Tène D	

[1] It should be noted that the absolute chronology for the Hallstatt and La Tène period, originally created by Reinecke, varies in different publications; the absolute dates for the Early, Middle and Late Iron Age in the Netherlands are more or less commonly accepted (e.g. Diepeveen-Jansen 2001, 18; Reinecke 1965; Roymans 1991, 20; Wells 2011, 406).

Gerritsen proposes that, instead of focussing on the abandonment of settlements and cemeteries, we should focus on the changes in land use. He concludes that, rather than a total abandonment, we see resettling. People moved away from the sandy soils to the loamier parts of the landscape. Although in some sandier areas we do indeed observe a population drop, Gerritsen argues that we also see population increases in the loamier parts. This is for example documented in the micro-region of Oss and in the riverine area in the north in general (2003, 224). Gerritsen relates the changes in settlement patterns to economic changes. He argues that Celtic field agriculture gave way to more intensive agriculture which depended on manuring. He notes that this process would have taken place over the course of several centuries (Gerritsen 2003, 231).

The abandonment of urnfields

In addition to the re-settlement and changes in agriculture another major change takes place. This is the change in the burial ritual, which will be the subject of this thesis. According to Gerritsen the urnfield burial tradition was completely abandoned during the early Middle Iron Age. He argues that during the 5th century BC we observe a complete break with the preceding urnfield tradition (2003, 245). Recent studies both in Flanders and in the southern Netherlands, however, indicated that urnfields were occasionally still used during the Middle and Late Iron Age. In the sandy parts of the southern Netherlands ca. 13% of the Middle and Late Iron Age cemeteries were still located near older urnfields (Van den Dikkenberg 2016, 180). The same goes for Flanders. Sometimes urnfields did see a break in their usage, only to be reused later on. In other cases urnfields remained in use in the Middle and Late Iron Age. These studies indicate that the burial ritual in the Middle Iron Age does not represent a complete break with the urnfield tradition, although most urnfields were indeed abandoned (Beek and De Mulder 2014, 303-6; Van den Dikkenberg 2016, 180).

Changes in the burial ritual

The beginning of the Middle Iron Age resulted in several changes in the burial ritual. Old cemeteries were not just abandoned, but also the nature of cemeteries changed considerably. New cemeteries were less monumental in their appearance. Most graves no longer had surrounding ditches or barrows, as far as we can observe archaeologically. A new type of monument, the square ditch, becomes a common

feature. The cemeteries themselves were less clustered than in the urnfield period. Cemeteries often consisted of only a few graves, and the presence of single graves became more common. From this moment onwards urn graves became scarce. Most graves only consisted of a small pit with cremation or funeral pyre remains. These developments also have archaeological implications because they decrease the chances of preservation and discovery for these cemeteries (Gerritsen 2003, 134; Hessing and Kooi 2005, 649-650; Hiddink 2003, 9-10; Roymans 1991, 65-6).

Grave goods and elite graves

As noted before most graves in the Middle Iron Age in the Meuse-Demer-Scheldt area do not contain any grave goods. Still, certain types of grave goods do appear in cemeteries of this period. Hiddink provides an overview of Late Iron Age grave goods (2014). This overview largely holds true for the Middle Iron Age as well, albeit certain minor changes. The first category is pottery, which includes urns that actually serve as containers for the cremation remains (Hiddink 2014, 189-196). The urns themselves were sometimes covered with a ceramic plate or bowl. Sometimes other ceramic vessels were also incorporated into the graves, not necessarily as a container for the cremation (Vermue *et al.* 2015, 109-223). In Geldermalsen Middengebied a ceramic spindle whorl was discovered in one of the graves (Hulst 1999, 42-3). Metal objects mainly include dress accessories such as fibulae and belt hooks (Hiddink 2014, 189-196; Reichmann 1979, taf. 21, 39, 40). Sometimes, these objects were put on the funeral pyre after which they were put in the grave. However, it appears that quite often these goods do not end up in the grave, even though they had been present on the funeral pyre. This is attested to by bronze discolouration on the cremated bone, which was for example observed in many graves in the cemetery in Boxmeer (Vermue *et al.* 2015, 214). Animal bones are also often incorporated in graves; these were probably part of food offerings which were made on the funeral pyres. Animals include pigs, sheep/goats, cows and deer (Van der Helm 2016, 104-110; Van Dijk 2012, 74). Certain types of grave goods appear to be related to elite graves or an elite identity. These graves incorporate prestige- goods which are thus not found in the other graves. They include bronze vessels, drinking utensils, wagon parts, horse gear, weapons and torques (Ball 1999, 63).

Interregional connections in the Middle Iron Age

During the Early Iron Age we see a strong connection between the Hallstatt area in Austria and the Meuse-Demer-Scheldt area. Local communities incorporated objects from the Hallstatt area into so-called "chieftain graves." These elite burials thus incorporated elements from the burial tradition in the Hallstatt region (Fontijn and Van der Vaart-Verschoof, 2017, 526-31). Around 500 BC we observe a break in this tradition. The Hallstatt connections disappear and they make way for connections with the Hunsrück-Eifel and Marne-Moselle region (Ball 1999, 52-3). This corresponds with the idea of a redefinition of social relations, conflict and new ideas about identity, which are thought to have taken place in this period (Løvschal 2014, 739). These changes are mainly observed in the burial ritual, but also in the ceramic traditions which during the early Middle Iron Age appear to be influenced by the Marne region in France (Van den Broeke 2012, 33).

Current discourse on the changing burial ritual

The changes in the burial ritual between the Early and Middle Iron Age are often viewed as an ideological change (Fontijn 1996, 85; Gerritsen 2003, 193-4). Fontijn proposed that during the Early Iron Age the emergence of rich chieftain graves broke the "code of equality" which, in his view, started the process of individualisation that ultimately led to the abandonment of the collective urnfield burial tradition (Fontijn 1996, 84). Gerritsen states that this is not entirely convincing, since the abandonment of urnfields does not coincide with the emergence of these rich graves. Furthermore, he noted that the statement is based only on a small number of elite graves, which he finds unconvincing as an argument for individualisation (Gerritsen 2003, 246). I agree here with Gerritsen that a trend towards individualisation, which would express itself as a trend towards social competition, is not convincingly reflected in the burial ritual. First of all, Middle Iron Age graves do not appear to be expressions of social competition. Rather than being more richly furnished and monumental, which one would expect if they signal competition, their monumentality decreased. In the second place, as Gerritsen noted, the emergence of richly furnished graves takes place during the Early Iron Age, not the Middle Iron Age (Gerritsen 2003, 134; Hessing and Kooi 2005, 649-650).

Gerritsen proposed a new hypothesis for the changes in this period. Along with the changing settlement patterns, he suggests that social fragmentation resulted in the abandonment of the urnfield tradition. He concludes that during the transition,

"[w]hile there are no indications in the archaeological record for periods of acute social unrest, intra-regional migration would have occurred, possibly accompanied by breaks in social networks, fission and social stress. With this, the rules and principles underlying the construction and reproduction of local communities lost their significance, leading to a more unstable social structure. This would have been the case just as much in areas that became increasingly unattractive for habitation as in those where habitation patterns intensified as a result of the incursion of groups from the more sandy plateaus" (Gerritsen 2003, 246).

He suggested that the kin group increased in its social importance at the expense of local communities (Gerritsen 2003, 246).

1.1.1 Reviewing the current discourse

The above sections outlined the current discourse on the Early-to-Middle-Iron-Age transition and the changes observed in the burial ritual during this transition. There are several problems with the outlined discourse which should be addressed. The first is of a methodological nature. The theories which were proposed by Fontijn, Roymans and Gerritsen are mainly based on general observations of cemeteries in this period (Fontijn 1996; Gerritsen 2003; Roymans 1995). Although the study provided by Gerritsen does provide some level of detail concerning the observations, a quantitative study will still be needed in order to properly identify the changes in the burial ritual. So far this has not yet been provided.

Periodization

A second problem is the problem with time periods. Gerritsen excludes the 5th century from the Middle Iron Age and he considers this period a transitional one. This is problematic because most of the changes observed in the Middle Iron Age actually already take place during this period (Gerritsen 2003, 126, 131, 198). For example, the interregional focus shifted away from the Hallstatt area to the Marne-Moselle and Hunsrück-Eifel regions during this period (Ball 1999). This is also the period during

which rectangular structures appeared in the funerary landscape. Lastly, during this period most of the traditional Early Iron Age urnfields ceased to be used. Excluding the 5th century would mean that about 40% of the Middle Iron Age (in terms of timespan) would be excluded from the analysis. In general Gerritsen seems to view the Middle Iron Age as a transitional period between the Early Iron Age and the Late Iron Age/Roman periods. This in itself is problematic because many of the characteristics of the Middle Iron Age are not necessarily shared during either the Early Iron Age or the Late Iron Age. For example, the elite graves which seem to refer to the traditions in the Marne-Moselle and Hunsrück-Eifel regions are restricted specifically to the Middle Iron Age. Also, the emergence of Marne pottery is a specifically Middle-Iron-Age phenomenon (Ball 1999; Gerritsen 2003; Van den Broeke 2012). He does recognize that this is problematic, as the period is easily overlooked in longer term studies of the area (Gerritsen 2003, 248). Because the Middle Iron Age has its own period-specific characteristics, it should also be studied as a separate period, not as an intermediate phase.

Middle Iron Age graves in urnfields

Furthermore, it should be noted that Gerritsen excluded Middle Iron Age cemeteries which were connected to urnfields. In his view these are simply late continuations of the urnfield tradition. This division however should be revised now. Many, mainly recent large-scale, excavations yielded cemeteries which were not abandoned after the urnfield period or during the Middle Iron Age. Some cemeteries such as the cemeteries of Breda-Steenakker, Boxmeer, Lomm Hoogwatergeul, Lommel Kattenbosch, Neerharen-Rekem and Zoersel continued well into the Late Iron Age, clearly continuing in a non-urnfield tradition, even though they were located in the same location as the urnfield (Berkvens 2004; Bruggeman and Reyns 2013; De Laet and Mariën 1950; Gerrets and de Leeuwe 2011; Temmerman 2007; Vermue et al. 2015). Hence, the break with the urnfield burial tradition does not necessarily coincide (even though it usually does) with a break in the usage of a cemetery. Therefore, I think that Middle Iron Age burials which are located near an older urnfield should not be excluded from an analysis of Middle Iron Age burials.

Micro-regions

A fourth problem is that Gerritsen, due to the lack of a sufficient dataset for the Middle Iron Age, excluded this period from his analysis of the different micro-regions (Gerritsen 2003, 205). This is an understandable choice because, at that time, he only had about 34 Middle Iron Age cemeteries at his disposal for this analysis (Gerritsen 2003, 223-4). Still, such an approach is problematic because it made it impossible to establish exactly which observed patterns are of a local, regional or interregional nature. His main conclusion, namely that after the urnfield period the collective urnfield identity, which was based on the identity of local communities, gave way to an identity which was mainly based on the level of kin groups, is hard to test without an analysis of patterns on these different scales.

1.1.2 Middle-Iron-Age developments in Europe

The developments in the Meuse-Demer-Scheldt area should not be viewed as an isolated phenomenon. Several developments which took place here occurred simultaneously over a large area in Europe. The abandonment of traditional urnfields was not a local phenomenon. In the North-Eastern Netherlands, the German Lower Rhine Basin and Westaphalia a similar development is observed (Roymans 1991, 69-70). In the core area of the Hallstatt culture we observe depopulation, social unrest and an abandonment of settlements. In the Moselle-Marne and Middle-Rhine areas we see the rise of a new elite, which is not oriented towards the Hallstatt area. In this area around 500 BCE the cremation tradition is replaced by inhumation (Diepeveen-Jansen 2001, 69-134; Von Nakoinz 2005, 47). These areas form the core of what might be loosely classified as the La Tène culture. Besides the local phenomena, as they are studied by Gerritsen, the changes in these European connections will also be included in this thesis as these are thought to have contributed to the changes in the local burial ritual in the Meuse-Demer-Scheldt area and neighbouring riverine areas (Van den Broeke 2014).

1.2 Research questions

Since previous theories dealing with the changes in the burial ritual at the dawn of the Middle Iron Age are still unsatisfactory, this thesis will now provide a detailed quantitative study in order to deal with the question "What changes can we observe in the Middle Iron Age burial traditions in the Meuse-Demer-Scheldt area and the riverine areas in the Netherlands and in the bordering German Rhineland, and are these changes a reflection of changing ideas about identity?"

In order to answer the main research question, I will test the theory, proposed by Gerritsen (2003). With this in mind, I have formulated the following sub-questions:

1. Which changes occurred in the burial ritual during the transition from the Early to the Middle Iron Age?

In order to answer this question the burial ritual in the Middle Iron Age will be described in detail based on the data which I gathered. The burial ritual will be described in general and on a micro-regional scale. After this, the burial ritual in this period will be compared to the burial ritual of the Early Iron Age, as it is described in the literature.

2. How have burial traditions in other regions influenced the burial ritual in the study area and how are these influences incorporated in the local burial traditions as part of an expressed identity?

From the perspective of glocalization this question will be answered by comparing the local burial ritual (as it is identified based on the data I gathered) with those from other regions (based on literature on other regions). For this study I will discuss which objects are imitated or imported from other regions, but I will also discuss other types of influence -most notably, the (re-)introduction of inhumation in the burial ritual- will be discussed. This part will discuss how the burial ritual is used in order to express a certain identity. The section will explore how identities from other regions are incorporated in the local burial ritual.

3. Should the Middle Iron Age be considered a period of globalization?

This question ties in to the second question. In order to establish the nature of these foreign influences it is important to answer the question whether we can consider this period as a period of globalization. This will be done by applying the criteria which have been proposed by Jennings; these will be further discussed in chapter 2 (Jennings

2017).

4. On which scales did Middle Iron Age communities express their identity and do we, as Gerritsen proposed, observe a move from a collective identity towards an individual or kin identity?

This question will also be studied from the perspective of glocalization. It will incorporate the different scales at which communities can identify themselves. According to the theory proposed by Fontijn we would expect that burial served as an individual expression of identity, as opposed to a collective urnfield identity (1996). The theory proposed by Gerritsen states that kin groups form the focal point, and that variation would thus occur mainly at the level of individual cemeteries (2003).

This study will deal with the different scales at which variation in the burial ritual can occur. Variation can occur at:

1. The level of individual graves;
2. The level of cemeteries;
3. The level of regional groups;
4. An interregional level.

By studying the burial ritual on all of these levels we might be able to discern whether the focal point of communities shifted from the local community to the smaller kin-group.

1.3 Methods

This study will mainly concern a literature study based on excavated and published cemeteries in the region. The data from the well published and excavated Middle Iron Age cemeteries will be gathered in an Access database. As part of an internship I have reviewed the data from the cemetery Oss-IJsselstraat. This site was not published in detail and the individual graves had not been described individually (Wesselingh 1993). For the excavation Wijchen Woezik-Sportpark, I have examined the animal bones which were found among the cremation remains. These were identified as animal bones during the osteological study, but the bones were not studied (Heierbaut 2011, 40-58).

The sites will be combined in seven micro-regions. The application of this term will be similar to that of Gerritsen in his research on the Meuse-Demer-Scheld area. A micro-region is not seen as a unit with cultural, territorial or geographical significance. The

micro-regions are defined based on their available extensive dataset. Gerritsen used these micro-regions to analyse regional differences in the Urnfield period, the Late Iron Age and the Roman period. The micro-region of Oss, which was part of his study, will also be part of this study. The micro-region Weert-Nederweert corresponds roughly with the larger area Northern Limburg and Eastern Noord-Brabant which has been chosen for this study (2003, 204-5).

The thesis will incorporate two aspects of the burial ritual in this period. It will encompass the so-called elite or chieftain graves which are found in several locations in the research area. These are graves which incorporate certain prestige goods which are related to an elite identity. These graves often incorporate grave goods which come from the Hunsrück-Eifel and Marne-Moselle region (Ball 1999, 52-3). Therefore, these graves provide us with a unique opportunity to study interregional, globalized connections with other regions in Europe. These graves will be studied from the perspective of glocalization: the incorporation of globalization, or in this case globalized identities, within the local community (Fontijn and Van der Vaart-Verschoof, 2017, 526-33; Versluys 2014, 13-4).

The second part of this study will deal with "the other 99%," as Fontijn and Van der Vaart-Verschoof called them in their study of Hallstatt elite graves (2017, 526-33). These are graves which do not incorporate these prestige goods but which are actually far more representative of the "normal" or common burial ritual in this period. For the comparison between cemeteries and micro-regions the presence of burial monuments and grave goods, such as urns, animal bones and simple personal objects, will be studied. But since many of these graves do not have any grave goods at all, the study will not be limited to a study of grave goods. For the Late Iron Age and Roman graves, Hiddink developed a typology based on the way cremation remains were treated when they were buried. This typology is not concerned with grave goods but only with the cremation remains and their selection from the from the funeral pyre (Hessing and Kooi 2005, 649-650; Hiddink 2003, 9-10). The typology consists of three main grave types. Type A consists only of selected cremation remains without remains of the funeral pyre. Type B consists of both selected cremation remains and remains of the funeral pyre, which are usually deposited on top of the selected cremation remains. Type C consists of remains of the funerary pyre from which cremation remains have not specifically

been selected (Hiddink 2014, 189). Graves of which the type could not be identified (either due to preservation issues or due to a lack of documentation) will be classified as a type D. A last type of burial in this region is the inhumation burial. These graves are only known from the first half of the Middle Iron Age (500-375 BC) and they appear mainly in the Dutch central river area (Van den Broeke 2014, 169). For this study these graves will also be incorporated because these inhumation burials show clear links with the traditions of the Marne-Moselle region and the Hunsrück-Eifel region (Van den Broeke 2014, 173-5). The typology suggested by Hiddink might help to elaborate the local differences in the burial ritual without relying only on grave goods, which are only rarely incorporated in graves in this period. The inhumation burials as well as elite burials and other burials with above par inventories will serve to study the broader interregional connections in this period.

1.4 Dataset and database

The first Middle Iron Age cemeteries in the study area were excavated around AD 1800. In general these cemeteries consisted of Early Iron Age urnfields with a Middle Iron Age component. This includes for example the cemetery of Alphen-Molenheide which was excavated between 1792 and 1845. In this, predominantly Early Iron Age urnfield several Marne-style pots have been found (Peeters 1978, 188). Pots in this cemetery include pottery which might be classified as a Van den Broeke type 75, which is dated between 500-375 BC (Van den Broeke 2012, 82-6). These early excavations are unfortunately not published in enough detail to be included in the database. Graves have to be described on an individual basis in the database, and cemeteries are therefore only included if they are published in enough detail, which allows for an entry of individual graves.

The database which is used in this thesis was made on Microsoft Access. The database consists of six different forms: Site Information, Graves, Monuments, Cremation, Inhumation and Objects (see fig. 1).

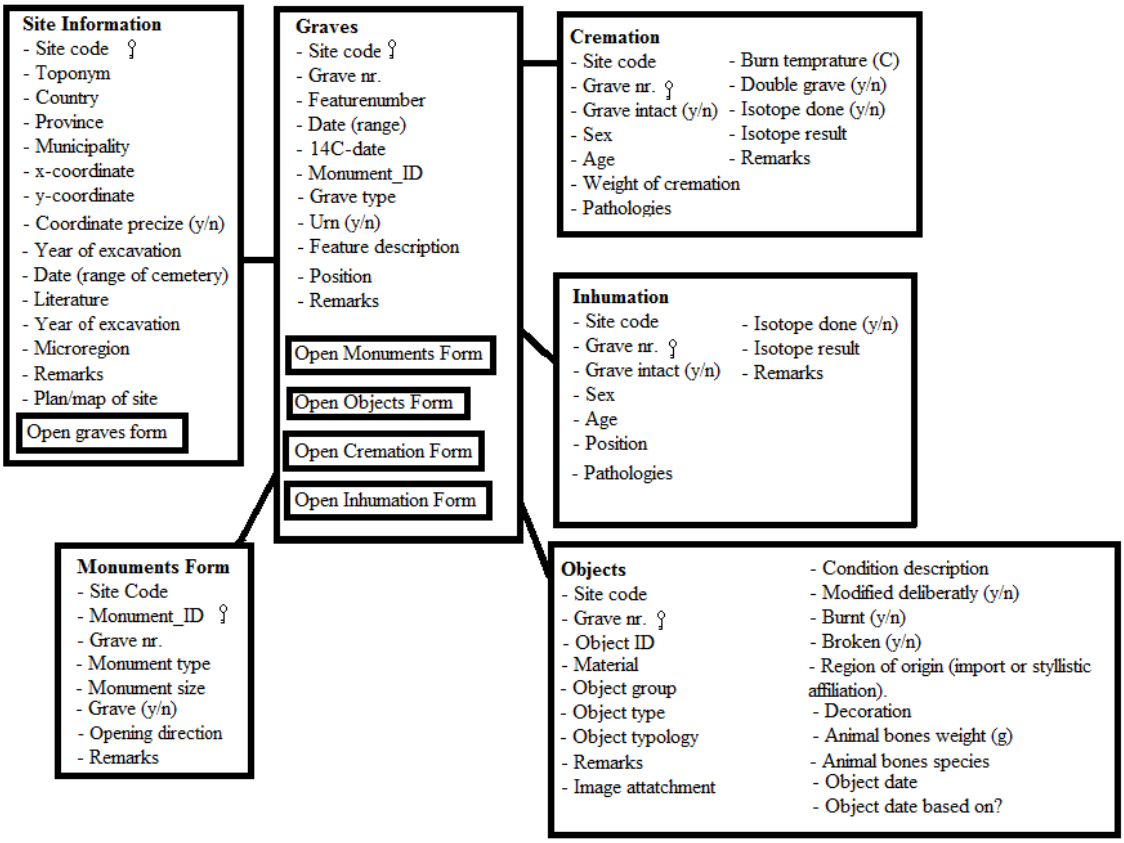

Figure 1: Database structure.

The dataset itself will contain cemeteries in the Meuse-Demer-Scheldt area, including the Dutch river area and the neighbouring German Lower Rhine region (see Appendix 1 for a list of cemeteries). All graves will be included in the database, both the elite graves and the other graves, but the elite graves and inhumation burials will also be described individually in chapter 4. In this thesis burial monuments of which the actual grave has not been preserved will also be included as separate graves. Cemeteries such as Bergijk-Waterlaan and Oss Ussen 1 cluster C, Breda Emerakker and Breda Huifakker will therefore also be included even though no actual cremations or inhumations were found there (Berkvens 2004; Parlevliet and Flamman 2003; Van der Sanden 1998). Monuments without a burial will have an individual Grave nr. and an individual Monument_ID. If a monument contained several graves, the graves will be included separatly but they will share a Monument_ID, which means that only one monument will be included even though it is linked to several graves. The Grave nr. in the monument form will, if a central grave is present, be assigned to the central grave in the monument (see Appendix 2 for a list of graves).

The dataset consists of 71 cemeteries which contain graves from the Middle Iron Age and which are located in the study area (see Appendix 6 located on a separate USB-stick). They are located in three countries: the Netherlands, Belgium (the provinces Antwerp and Limburg) and Germany. The site Hever-Stationslaan is located in Vlaams-Brabant, but because since the site is located on the border with Antwerp, and because it is one of the few well-documented Middle Iron Age cemeteries in Flanders, I included it in the database, even though it technically falls outside of the research area.

The focus will be on the graves from the Middle Iron Age. However, for some cemeteries the graves from different periods cannot be securely separated. This is especially a problem for the Late Iron Age graves. When it is impossible to separate the Middle Iron Age graves from the Late Iron Age graves, the latter will also be incorporated in the database; this is only the case if a dated Middle-Iron-Age component is present in these cemeteries. This will also happen with Early Iron Age graves which cannot be separated from the Middle Iron Age graves. For cemeteries where it is possible to distinguish between Middle Iron Age graves and later or earlier graves, only the Middle Iron Age graves will be included.

Micro-regions

Most of the 71 cemeteries can be clustered into one of the eight micro-regions. As noted before these are only formed based on the clustering of cemeteries, not on cultural or geographical grounds. Some of the micro-regions in this study are relatively large compared to those in the study by Gerritsen (2003). This was necessary because of the relatively small dataset, when compared to the dataset for the Early Iron Age. The eight micro-regions are Geldermalsen, Oss, Nijmegen, the German Rhineland, Northern Limburg and Eastern Noord-Brabant, West Noord-Brabant, Western Flanders, and Southern Limburg (see fig. 2). For the Geldermalsen, Nijmegen and Oss regions the micro-region exceeds the municipality borders of modern Oss or Nijmegen. These names have however been adopted because the areas around Geldermalsen, Oss and Nijmegen actually form three well-studied areas in terms of Middle Iron Age cemeteries (see the clustering in fig. 2). Three sites fall more or less outside these areas. These are Nijnsel-Huisakker, Tilburg-Udenhout Den Bogerd and Veghel-Scheifelaar. These sites will be included in the analysis of the study area in general but they will not be included in the regional comparisons.

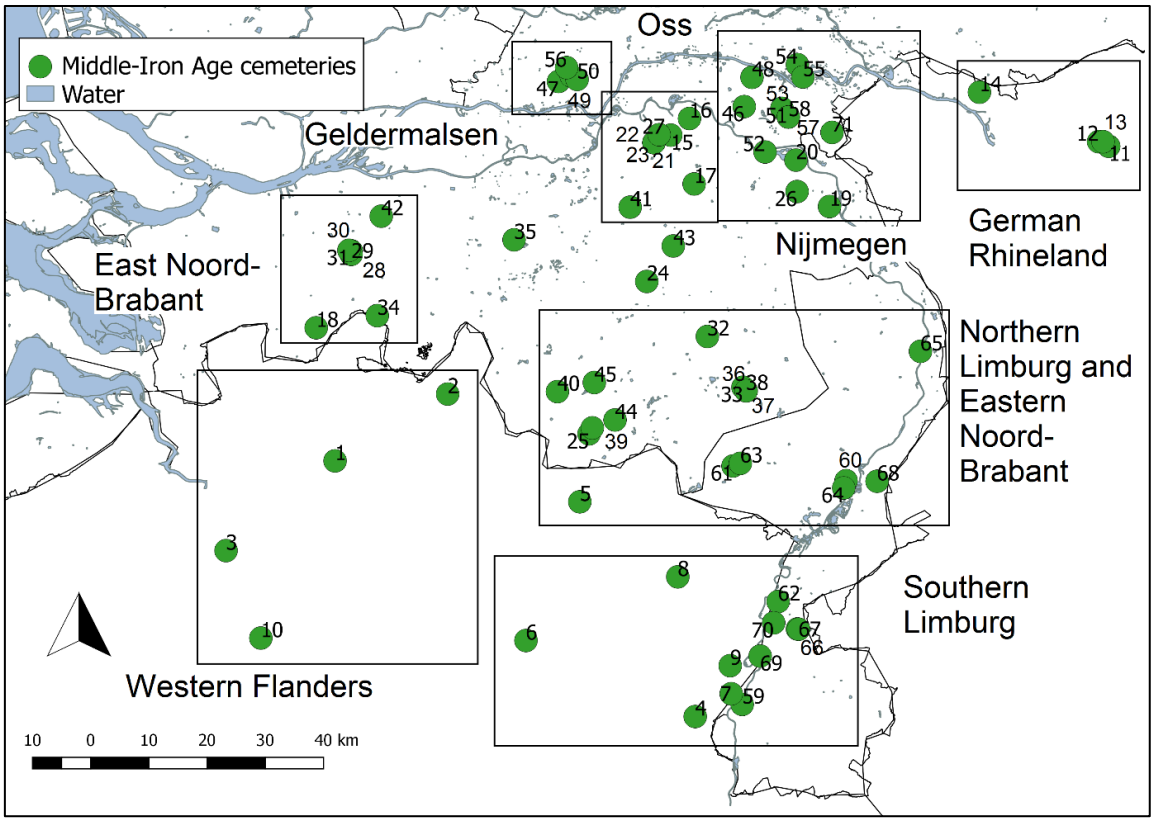

Figure 2: Middle Iron Age cemeteries and eight micro-regions. The numbers in the map match those in Appendix 1.

The four northern micro-regions and the region West Noord-Brabant are densely clustered and therefore relatively small in size. The micro-regions Western Flanders, Southern Limburg and Northern Limburg and Eastern Brabant are slightly bigger. The last area could technically have been divided in several small micro-regions, but in order to maintain a sufficient dataset this larger area will be studied as one micro-region.

Interregional influences

Interregional influences in the Middle Iron Age appear to be characterised by a decreased influence from the Hallstatt region and an increased influence from the Hunsrück-Eifel region and the Marne-Moselle region. These influences are seen mainly through the inclusion of prestige goods from these regions, or which show influences from these regions, in graves (Ball 1999, 52-3). These influences are also seen in the sporadic inhumation graves. Inhumation is not a local practise and it appears to derive either from the Middle-Rhine region (the Hunsrück-Eifel area) or the Champagne (notably the Moselle-Marne area) and Southern Belgium (Van den Broeke 2014, 172-

3). The study will compare these regions to the gathered data based on existing studies which will help to compare the observed burial ritual in general (e.g. Belard 2014; Diepeveen-Jansen 2001; Haffner 1976; Von Nakoinz 2005).

1.4.1 Excluded cemeteries

The dataset which is presented in this thesis is not complete. Many cemeteries are not dated properly (often they are only broadly dated as Middle or Late Iron Age) and many publications do not describe the graves individually. Cemeteries such as the cemetery of Valkenburg Vroenhof are therefore excluded from this study (Bloemers 1975, 40-1). In some cases it could not be established with certainty if a Middle Iron Age cemetery was present. This is usually due to the poor preservation and poor documentation of such sites; this is for example the case with the possible cemetery found at Deursen (Gerritsen 2003, 133; Verwers 1990, 177). Often the documentation is not sufficient for an inclusion in this database since, in order to be included, the graves in a cemetery had to be described individually, at least to some extent. This meant that especially old, 19th century, excavations had to be excluded; this is for example the case with the cemeteries as Baarle-Nassau such as Baarle-Nassau-De Dekt or Baarle-Nassau-Bedafse Heide/Veldbraak, which were excavated in the 1840s (Verhagen 1984; 1997, 20-23, 37-47). For reasons which are mentioned above the twenty cemeteries in Table 2 have thus not been included in the database.

Table 2: Middle Iron Age cemeteries (and possible Middle Iron Age cemeteries) which have been excluded from this study.

Nr.	Cemetery	Literature
1	Deursen	Verwers 1990, 177
2	Knegsel de Beemt	Verwers and Kortlang 1983, 57
3	Mierlo-Het Loo	Kortlang pers. comm. in: Gerritsen 2003
4	Eindhoven-Meerhoven	Arts pers. comm. in: Gerritsen 2003
5	Tilburg	Jan Roymans pers. comm. in: Gerritsen 2003
6	Rijkevorsel-Helhoeksheide	Stroobant 1921; Theunissen 1993
7	Baarle-Nassau-De Dekt	Verhagen 1997, 17-20, 51-54
8	Baarle-Nassau-Bedafse Heide/Veldbraak	Verhagen 1984; 1997, 20-23
9	Alphen-Molenheide	Peeters 1978; Verhagen 1984; idem 1997, 37-47
10	Deursen/Ravenstein-Dennenburg	RMO; coll. A. Stuart (Wijchen) in: Gerritsen 2003
11	Bergeyk-Bergerheide	CAA; RMO in: Gerritsen 2003
12	Knegsel-Huisakker	CAA in: Gerritsen 2003
13	Valkenburg Vroenhof	Bloemers 1975, 40-1
14	Ravenstein-Deursen	Verwers 1981, 33
15	Julianakanaal-Graetheide	Vaars 2010
16	Riel-Brakel	Peeters 1978
17	Oss-Kraaijennest	Fokkens 1993
18	Kesteren	Hulst 1971, 36-37
19	Berkel-Enschot-Akkerweg	Kleij and Verwers 1994, 131-133
20	Wijchen-Valendries[2]	Modderman 1961b

This chapter has so far reviewed the current discourse, the methodology and the dataset. The following chapter will deal with the theoretical framework for this thesis.

[2] Wijchen-Valendries is mentioned by Gerritsen as a Middle Iron Age grave, but based on the finds it can be dated in the Early Iron Age. Hence, this site wil be excluded from the map in Figure 4, because it could be established that it is not a Middle-Iron-Age grave (Gerritsen 2003; Peddemors 1975, 98).

2 Theoretical framework

Several theories on the subject of what triggered the transition from Early to Middle Iron Age in the study area were discussed in chapter one. Chapter two will discuss the theoretical framework which will be used to tackle the problems which have been discussed in chapter one. First, the study of identity in a burial context will be discussed. The second part will deal with the concepts of globalization and glocalization. The third part will deal with the study of elites and the study of gender. Finally, a discussion on migration theories, notably dealing with prehistoric migrations, will be provided.

2.1 Identity and the burial ritual

Identity has always been an important subject in archaeology. Traditionally these studies were mainly concerned with the ethnicity of groups (Stoddart and Popa 2014, 3). From the 19th century onwards these studies were mainly concerned with linking Iron-Age finds to tribes and cultures which were described in historical, mainly Roman, sources (Jansen 1836, 12; Stoddart and Popa 2014, 3). For many scholars this still remained an important theme in Iron Age archaeology in the 20th century (Roymans 1990, 11). But new approaches to identity in the Iron Age emerged as well, moving away from ethnicity; they focus on identity as a fluid and dynamic concept (Stoddart and Popa 2014, 3). This latter approach will be the focus of this thesis.

The period which is studied here is situated well before the Roman period, so Roman ethnic labels should not be considered to be meaningful in this period. Neither would this old approach, which focussed on classical sources, be suited for this study because it focusses on a monolithic and static type of identity, namely ethnicity. This study actually focusses on different scales of identity, local and global expressions. Identity is not seen as a static concept but as an expression. Meskell defined identity as "the ways in which individuals and collectivities are distinguished in their social relations with other individuals and collectivities" (2002, 279-80). Identity is therefore relational and fluent. For the burial ritual, the expression of identity is both an individual expression of identity as well as a collective expression. It is an expression of the community who distinguishes themselves from other communities through their burial rituals (Wells 2014, 309-22). This expression is not necessarily a reflection of the dead as they used to

be during their lifetime. The dead therefore do not necessarily reflect the living. Hodder surveyed the burial practices amongst the Nuba. Here he observed that they did not necessarily portray the dead as they used to be in life. Rather they used their burial practices for an ideal representation of the dead. Identity is thus more than an objective representation of the dead. This is furthermore strengthened by the notion that the living could manipulate the dead for their own interests (Chapman 2013).

Although the role of the living in the construction of a burial should not be underestimated, this does not automatically mean that a burial is completely detached from the buried individual. Identities of the living and, more specifically, idealised identities of that person are negotiated through the burial ritual. As Treherne noted: "Social categorisation, or the communication of personal status, was achieved partially through differentiation in burial by means of grave goods" (1995, 107). It has also been noted that other aspects of identities, such as gender, are also negotiated through the burial ritual (Arnold 1995, 153-5). The burial ritual is also used to negotiate ethnic identities. This is usually a problematic issue, but especially when dealing with migrants it is interesting to note how a person's origin is reflected in the burial ritual. Recent isotope studies have increasingly been able to establish a link between a-typical graves and a non-local origin (Van den Broeke 2014). This link between archaeology and a non-local origin had long been assumed based on the archaeological record, and already several cases in which written sources confirmed such a link are known (e.g. Arnold 1995, 158). These cases indicate that even though burials are not necessarily a reflection of a living person, they do represent ideals which are nonetheless attributed by a society to a specific buried individual.

2.2 Globalization and glocalization

This section will discuss globalization theory and glocalization in archaeology. Globalization in this study will be used to understand communication, connectivity and influences between different groups. Globalization is about the transformative capacities of intercultural encounters. From this the concept of glocalization emerged. Glocalization combines the global perspective with the local perspective (Versluys 2014, 14). Glocalization is a term which was introduced in the late 1980s as part of business and economic studies. Friedman defined glocalization as "the ability of a culture, when it encounters other strong cultures, to absorb influences that naturally fit

into and can enrich the culture, to resist those things that are truly alien, and to compartmentalize those things that, while different, can nevertheless be enjoyed and celebrated as different" (Friedman 2000, 294). Glocalization is thus the art of balancing the assimilation of foreign influences without overwhelming the local tradition (Dumitrescu and Vinerean 2010, 150). In business studies the term is mainly used to understand how global enterprises and global markets interplay with local markets and how they can adapt to fit in with these local markets, for example by locally customizing global products (Dumitrescu and Vinerean 2010, 150-151). In general, glocalization is a term which is used to study the interplay between global and local action. Local actions have the ability to trigger global phenomenon while on the other hand the global can also affect local actions (Appadurai 2000, 5; Swyngedouw 1997, 137).

In archaeology glocalization and globalization can be used to study the nature of foreign influences. These concepts can thus help us to bridge the gap between hyper-regional phenomenon and the locally observed traditions (Vandkilde 2016, 103). The concept of globalization often implies a global phenomenon or a world system (Storper 1997, 31-2). However, in archaeology a true global system is usually not present, so new labels are often adapted to imply a hyper-regional, but in essence not global, interconnectivity. Labels such as Romanization, Mediterranization and recently Bronzization have been adopted to study these interregional connections (Morris 2005, 33; Vandkilde 2016, 104; Versluys 2014). Several views exist concerning globalization in the past. Some view globalization as an ongoing trend in which the world becomes increasingly connected and globalized. Others view globalization as a strictly modern phenomenon. Another group of scholars argue that globalization has occurred repeatedly in the past. In this view, periods of interconnectivity and globalization are intersected by periods of regionalization (Jennings 2017, 12). This last view on past globalization will be adopted here.

2.2.1 Jennings trends for identifying past globalizations

In order to be able to argue for past globalizations it is necessary to be able to distinguish periods of past globalizations. Jennings proposed that eight closely related trends can be identified in modern globalization. He defined globalization, based on the work of Tomlison, as "complex connectivity, a condition created by a dense network of

intense interactions and interdependencies between disparate people brought together through the long-distance flows of goods, ideas, and individuals" (Jennings 2017, 13). The eight trends, which will be listed below, should be present in a period in the past in order to be able to describe this period as a period of globalization.

The first trend is the so-called *time-space compression*; this is an acceleration of long-distance economic, political, and social processes that shrink one's experience of space and time. The second trend is *deterritorialization,* the sense that a place seems only tenuously connected to its local, geographically-fixed context. Thus a place might seem more affiliated with far away centres than it is to its immediate surroundings. The third trend is *standardization*, which can be observed through the spread of languages, ideologically charged motives, etcetera. The fourth trend is *unevenness,* which means that networks are not geographically ubiquitous and therefore there can be considerable power differentials between regions. The fifth trend is *homogenization*; this is observed when previously distinct groups begin to adopt similarities in, for example, styles or social organisation. The sixth trend consists of *cultural heterogeneity*, which occurs because cultural variation actually increases despite the homogenization. The blending of outside influences is therefore unique from one place to the next. *Re-embedding of local culture* is the seventh trend seen in globalization: it is caused by those who react to global flows of ideas, objects and people by attempting to reassert local traditions. This might be seen as a counter trend in globalization, it seems that globalization thus enhances the local cultural differences. The final trend is *vulnerability*, complex connectivity creates interdependence. Due to this interdependence, changes in a part of the network can have massive implications for other areas. This is mainly observed in the collapse of ancient networks. Globalized exchange networks often tend to fall along with important centres. In the past this is for example observed in the collapse of the Roman Empire (Jennings 2017, 12-16).

2.2.2 Reviewing Jennings trends for the identification of past globalizations

The eight trends proposed by Jennings seem to provide an adequate methodology for identifying past globalizations or periods of globalization. However, there is an important problem with these criteria which needs to be tackled first. Time-space compression, the first trend observed by Jennings, is defined as a progressive, developing criteria. It is only present when it emerges. It should "shrink one's

experience of space and time" (Jennings 2017, 14). It makes perfect sense to apply this criteria to our modern day society since the globalization which we observe is still an increasing phenomenon. Globalization studies are in general concerned with the "growth" of these traits. Scholars therefore are mainly interested in explaining how this phenomenon emerged, in order to identify how it affects and will affect our society (Cox 1997, 1-4). Yet when we deal with the past we can also encounter phases in which globalization was not on the rise, even if many of the characteristics proposed by Jennings were present. A problem with applying these modern criteria is the limited scope of modern globalization studies. As archaeologists we study long periods of time; during a period of 500 years of globalization, probably only the first phase is characterised by time-space compression. This is for example the case when we are dealing with globalization in the Bronze Age. A study presented by Vandkilde identified the Bronze Age as a phase of globalization. She concluded that between 2200-2000 BC globalization emerged through the inception of global networks for the exchange of copper and tin. Around 1600 BC a period of rapid growth of these networks began, and then Vandkilde states that by 1200 BC globalization was declining again (Vandkilde 2016, 117). The period we are dealing with is a period of a thousand years. During the start of this period we observe time-space compression in the sense that these newly formed networks created a new level of connectivity over longer distances. But between, for example, 1600-1400 BC this time-space compression would no longer be an emerging phenomenon when compared to the previous period. This should not exclude this period from being a phase of globalization; it merely means that this trend is not continuously on the rise.

For this study I will therefore exclude time-space compression from the analysis, because it seems mainly indicative for the emergence of globalization, rather than for the presence of globalization. This is important because the definition used by Jennings: globalization as "complex connectivity, a condition created by a dense network of intense interaction and interdependencies between disparate people brought together through the long-distance flows of goods, ideas, and individuals", does not necessarily exclude a phase during which this complex connectivity is present due to the presence of these dense networks. It does not only apply, thus, to phases of emerging globalization (Jennings 2017, 13). Therefore, the first trend will be excluded. The other seven trends will be used in order to establish whether we should consider the Middle

Iron Age a period of globalization for this region.

2.2.3 Previous globalizations

This section will briefly give an overview of studies in which attempts have been made to identify past globalizations in Europe. Vandkilde studied the applicability of the concept of globalization for the Eurasian Bronze Age. She compared the present day globalization to the observed interconnectivity in the Bronze Age. She concluded that a global bronze network emerged because the scarcity of copper and tin sources demanded the emergence of interregional networks. In her view this global network dissolved at the end of the Bronze Age (Vandkilde 2016, 118).

Although a global bronze-based network was no longer in place during the Iron Age, far flung connections still played an important role in Iron Age societies. In the early Iron Age far flung contacts with the Hallstatt area in Austria and Southern Germany emerged. The connections become clear when we look at elite burials in which non-local items are buried. We see a standardization in shared characteristics within these elite burials, which appear to express a shared identity that is influenced by the Hallstatt area. According to Fontijn and Van der Vaart-Verschoof we cannot, with certainty, ascribe this as a phase of globalization. Although these far flung networks were in place they were only relevant to the 1% of exceptional Halltstatt graves. For the average, or other 99%, Early-Iron-Age burials, there is no indication for a globalized society (Fontijn and Van der Vaart-Verschoof 2017, 525-6). In the Middle Iron Age this Hallstatt connection dissolves but far flung networks are still in place. On a theoretical level, however, the concept of globalization is generally abandoned. It is usually only re-applied in relation to the emergence of a global system during the Roman period (Versluys 2014, 14).

After the Early Iron Age the Hallstatt connections are mainly replaced by connections with the Hunsrück-Eifel and Moselle-Marne regions (Ball 1999, 52-3). But connections are not limited to these areas. In some graves, so-called *Rippensitzen* are found. These bronze buckets are thought to have been produced mainly in Italy (Ball 1999, 67; Mariën 1987). The burial ritual is not only influenced simply by the incorporation of imported or imitated objects; other aspects of the burial ritual also seemed to be related to far flung influences. Another interesting case in this respect is the re-introduction of

inhumation in the burial ritual. It has already been noted that the introduction of inhumation in this area seems to be related to the introduction of foreign aspects into the local funerary ritual (Van den Broeke 2001, 141). It is interesting in this respect to discuss how these changes occurred.

Several hypotheses have been formed in terms of how influences from other regions have affected the burial traditions in this area. A hypothesis is that the local traditions have changed directly due to migrations from other regions. Based on a combination of both isotope studies and an analysis of the origin of the grave goods it has been established that some Middle Iron Age inhumation graves indeed seem to represent migrants. This is for example the case with the Geldermalsen Middengebied grave 1 (Van den Broeke 2014, 171-3). Although the study on Early Iron Age graves remained inconclusive in determining whether this period should be considered a phase of globalization, I think it is interesting to ask the same question regarding the Middle Iron Age. The connections with the Hunsrück-Eifel and Marne-Moselle regions do not necessarily have to be less globalized than the preceding Hallstatt period. Unlike in the Early Iron Age, some characteristics appear to be shared beyond the 1% of elite graves. The emergence of inhumation graves and Marne-style ceramics indicate that this connection was not only relevant for the Middle Iron Age elites (Van den Broeke 2012; Van den Broeke 2014). Therefore, this thesis will test, using the characteristics proposed by Jennings, whether we should consider the Middle Iron Age to be a phase of globalization.

2.3 Elites and elite identities

Concerning elites during the Middle Iron Age in the Meuse-Demer-Scheldt area, several theories have been proposed to explain the social organisation of these societies. These discussions focus on the role of elites within these societies. Two major forms of social organisation have been proposed for this area. Either we are dealing with a so-called chiefdom society or we are dealing with a tribal (Big Man) society (Bloemers 1987; Bloemers 2016; Gerritsen 2003, 218). Anthropological and ethnographic literature has used the term chief to describe leaders of society for a very long time. Even in 18th century literature the term chief is often used to describe a specific type of leader. Early on, when the study of Melanesian societies began, it seemed the term chief was not adequate to describe the type of leaders which were found on the Melanesian islands

(Lindstorm 1981, 900-1). Even in the 18th century James Cook remarked on the different status of these leaders: "They seem to have chiefs among them: at least some were pointed out to us by that title; but, as I before observed, they appeared to have very little authority over the rest of the people" (Cook 1777, II, 83). Indeed, Melanesian societies did not fit the concept of a chief in the sense that they were the type of leader which was expected for a chiefdom society. As an alternative for the term chief, the term Big Man was employed to mark another type of social organisation (Lindstorm 1981).

2.3.1 Big Man systems, tribal societies

The theory concerning tribal societies is in general more egalitarian than a chiefdom society. The leading political figures in these societies are the so-called "Big Man". The term has been derived from anthropological studies on Melanesian societies. A "Big Man" in this respect can be defined as "a person who by means of his personal skills and abilities achieves a position of renown and power" (Trouwborst 1986, 51). These "Big Man" are able to maintain a body of followers who grant them their power and prestige (Trouwborst 1986, 51). A "Big Man" thus achieves his rank through his own abilities and positions of power (Bakel *et al.* 1986, 3-4). Comparable "Big Man" systems are found in other regions in the world as well. Often these are slightly different from the traditional model of the Melanesian "Big Man" but they in general fit the definition noted here. The theory has also been applied to interpret archaeological data. It has also been applied in order to explain the Middle Iron Age cart-burial which was found at Nijmegen Trajanusplein (Bloemers 1986, 76-88). According to Bloemers, this burial represents the burial of a Middle Iron Age Big Man. Later, however, Bloemers revised his view after two osteological studies indicated that the burial did not belong to a man but to a woman (Bloemers 2016, 29). According to Bloemers this is no reason to review the Big Man theory; rather he states that this burial belonged to what we might classify as a "Big Woman."

Recent studies by Paul Roscoe on Big Men systems provided more data on anthropological case studies concerning Big Man systems (Roscoe 2017). This can be used to create an archaeological model or hypothesis. If we would expect a Big Man or Big Women system in the Middle Iron Age in the Meuse-Demer-Scheldt area and bordering Rhineland, what archaeological patterns should we expect to find?

Following Roscoe, there are three main aspects of Big Man which we might be able to encounter archaeologically. The first is **Material Display**, based on which the status of Big Man could be judged by the communities. Material display served largely as a proxy for the second aspect: **Military Strength** which is a key aspect in becoming a Big Man (Roscoe 2017, 218). Finally, and very importantly for archaeology, is the **Age at which you become a Big Man**. This last one is interesting because although war is a young man's game at which people at their early thirties would usually excel, based on ethnographic examples in New Guinea, the age at which you became a political Big Man is much higher. Only in rare cases could men achieve the rank of Big Man in their forties and the average Big Man only became one during his fifties (Roscoe 2017, 217). Thus, during the earlier years of one's Big Man career, one gained status through military success. Only after that phase, Big Men excelled not through war, but through material display and political power (Roscoe 2017, 217).

Translating these observations into an archaeological hypothesis, we might state the following: if the social organization during the Middle Iron Age was similar to that of Big Man systems we expect to find elite graves in which members of the community distinguish themselves through material display, possibly also reflecting military strength, as is the case in the Nijmegen Trajanusplein burial (Bloemers 2016). We expect that individuals who achieved the rank of Big Man could only do this when they were middle aged, usually in their fifties. As Bloemers stated these Big Man could in theory also be Big Woman (2016). Nevertheless, we expect elite graves which excel in terms of material display and we expect these graves to belong invariably to older males or females, people usually in their fifties although occasionally individuals might have achieved this rank already at their forties.

2.3.2 Chiefdoms

The above section discussed the possibility of a Big Man system as a form of social organisation for the Middle Iron Age in this area. Another theory is, however, that we are dealing with an even more complex form of social organisation, namely that of the chiefdom. Unlike in Big Man system, chiefdoms can have powerful chiefs whom inhered their status from their ancestors (Claessen 2011, 5). According to Kristiansen such chiefdoms would have been present across Europe form the Bronze Age onwards

(2016). In the Netherlands such chiefdom structures are thought to have mainly become apparent during the Late Bronze Age and especially the Early Iron when throughout the Southern Netherlands we see the emergence of so-called "Chieftain graves." These richly furnished graves are thought to have belonged to local chiefs (Fontijn and Fokkens 2007, 369-370). Nevertheless, many studies dealing with Iron Age chiefdoms often fail to define the term chiefdom or chieftain for that matter. These terms are often used implicitly, especially when dealing with the richly furnished Early Iron Age graves in the Southern Netherlands. These studies generally neglect the implications about social organisation, which the term inherently entails (Fontijn and Fokkens 2007; Gerritsen 2003; Van der Vaart-Verschoof 2017). When the term chiefdom is defined it is often noted that chiefdoms are set apart from more egalitarian societies because here we see the rise of chiefly lineages. Thus, unlike the position of a Big Man, the position of a chief can be inherited (Ball 1999, 27; Claessen 2011, 5; Gat 2006, 150).

Another aspect frequently mentioned concerning chiefdoms is the role chiefs played in the local economy. In a chiefdom a chief has the ability to redistribute goods. Furthermore, chiefs often fulfil ritual roles within societies (Claessen 2011, 5; Kristiansen 2016, 167; Sahlins 1958, 1-10). As this present study only deals with the burial ritual I will confine my focus to the aspect of inheritance.

When combining the above sections we might conclude that we can, hypothetically, make an archaeological distinction between chiefdoms and Big Man systems based on the burial ritual. In a Big Man system we expect to find rich graves with connotations of material display and possibly displays of military strength (thought the latter can be replaced with the first). It is important to note here that individuals in such richly furnished graves are supposed to be "self-made men" or women. We thus expect to see older individuals who climbed up the social ladder based on military and political achievements. If we are dealing with a chiefdom we would also observe graves displaying material wealth or military strength. But these graves would belong to people who were not necessarily "self-made" elites. We would observe chiefly lineages in which wealth and influence could be transferred across generations. Thus in a chiefdom society we would expect to find, besides richly furnished graves for elder men, similar graves belonging to younger persons, young adults and possibly even children.

2.3.3 Elite identities in Iron Age burials

Social stratification is signalled through internal or external signs, the latter being mainly relevant for archaeology (Van der Vaart-Verschoof 2017, 24). External sings include adornment in the form of clothing, jewellery, vehicles, culinary aspects and, although not directly relevant for this study, houses (Daloz 2010, 64-77).

Arnold discussed the social, political and economic status of women in Iron Age Europe (1995). She noted that there were three sources from which we could draw information in regard to this subject. First of all the classical Greek and Roman sources, then the Celtic insular laws and legends, and lastly the burial ritual. For our study area classical sources only appear about 200 years after the end of the Middle Iron Age, and thus these are not applicable. A similar problem applies to the Celtic laws and legends: therefore, the only source for a discussion on the social, political and economic status of women, she concluded, was the burial ritual (Arnold 1995, 153). Arnold dealt specifically with female graves and for elite graves in general the burial ritual would also be our main source of information.

From the Bronze Age onwards specific sets of objects which are generally associated with elites appear. Treherne identified four categories of objects which characterized a common Bronze Age male-warrior ideal. The four categories were: 1) weapons, 2) drinking vessels (relating to alcohol consumption), 3) riding/driving gear, 4) bodily ornaments (Begerbrant 2007, 92; Treherne 1995, 108). During the Early Iron Age the Hallstatt elite graves still appear to be constructed around these four meaningful categories (Arnold 1998, 154; Diepeveen-Jansen 2001, 81-87, 100-106). The Hochdorf elite burial for example contained a four-wheeled wagon, bronze drinking vessels weapons and a torque (Verger 2006). For the Early La Tène period we still see similar objects appearing in elite graves. The Rodenbach burial, dated ca. 420-350 BCE, in the Rheinland-Palatinate contained a gold bracelet, finger ring, an iron sword, a knife, three iron spearheads and a bronze Etruscan Schnabelkanne and several other bronze vessels. The Vix burial in Burgundy is dated around 480 BCE, and it contained a huge bronze krater, a golden torque and a four-wheeled wagon (Arnold 1995, 154-6). Thus, these four categories of objects which had already been identified for the Bronze Age remained meaningful in the Early La Tène period. These categories are not only meaningful for the core area of the La Tène culture. In the Meuse-Demer-Scheldt area

these categories are also a recurring theme. In Eigenbilzen a tomb was found with several bronze drinking vessels: similar vessels are also known from the cemetery of Wijshagen de Rietem (Mariën 1987; Van Impe and Creemers 1991). In the area around Nijmegen several graves which contained spearheads have been found, and at Nijmegen Trajanusplein the remains of a two-wheeled wagon was found alongside several spearheads (Bloemers 1986; Fontijn 1995). In Oss, Geldermalsen and Wijchen several elite graves that contained torques were found (Heierbaut 2011; Hulst 1999; Wesselingh 1993). These four categories can thus be used to distinguish between elite graves and non-elite graves for the Middle Iron Age in this area. The categories of weapons, bronze drinking vessels and horse gear are generally quite clear. The presence of these objects in graves always seems to indicate an elite grave.

Torques

For the category of bodily ornaments this is more problematic. The category torques, which is also known from other regions in Europe in this period, seems to be tied to elites (Arnold 1995). Apart from their appearance in graves, these objects are also found as iconographic representations where they also seem to be related to the elites. An example is the statue which was found on the Early La Tène burial mound of Heuneburg (Verger 2006, 8). The Gundestrup cauldron, although of a later date, also depicts several heads, including some which are interpreted to be deities, with torques (Maumené 2016, 354). It seems clear that these torques are related to the upper strata of Iron Age societies. In the case of gold toques it is even argued that these are symbols of the highest social order of Early La Tène societies (Arnold 1995, 159).

Other objects related to bodily adornment

For other objects in the category of bodily adornments, such a function is less clear. Bracelets are often associated with what are classified as elite graves. Examples are the Early Iron Age elite grave found in Slabroek, the Middle or Late Iron Age grave found in Nunhem-Voort and the early Late Iron Age grave found in Koningsbosch (Hiddink and Roymans 2008; Van den Broek 2011; Wilgen *et al*. 2016, 160). Bracelets are also found in elite graves in La Tène graves outside the research area. Examples are the earlier mentioned grave of Rodenbach (Arnold 1995, 158). Nevertheless, in other contexts, such as in the cemetery of Boxmeer, with graves in which only a bracelet is found (without other objects which might indicate an elite grave), graves are in general

not thought to resemble an elite grave (Vermue 2015, 247). Objects such as belt hooks and fibula, for example, appear quite frequently in graves, especially towards the end of the Iron Age (Hiddink 2014, 192-3). Graves which contain fibula or belt hooks but which lack other objects to indicate an elite grave are generally not classified as an elite grave (Wilgen *et al*. 2016, 160). For many of these objects we might state that, if multiple objects are found we might attribute them to a distinct group whereas graves with only one of these objects: belt hooks, bracelets and/or fibula, are probably not elite graves (Harding 2007, 48).

For this thesis a grave will thus be classified as an elite grave when it contains either weapons, metal drinking vessels, horse or riding gear, torques or multiple objects which relate to bodily adornment. This definition is relatively broad when compared to the definitions adopted for the Hunsrück-Eifel and Moselle-Marne areas or when compared to definitions used traditionally to define Early Iron Age chieftains graves (Diepeveen-Jansen 2001, 53, 145-6; Van der Vaart-Verschoof 2017, 27). This is justified partially because studies concerning these graves in general seem to adhere implicitly to such a wider definition (Ball 1999; Geerts and Veldman 2012, 36; Heierbaut 2011, 126; Tol 2000; 114-5; Wesselingh 1993). It is also justified by the specific nature of these Middle Iron Age graves, which practically never appear to include a "complete set" of grave goods, as will be discussed in chapter 4.

2.3.4 Gender in graves

Although gender is not necessarily part of this study, the discrepancy between the archaeological dataset and the so far assumed gender roles in Middle Iron Age societies made it necessary to review the subject (see chapter 3).

For the core area of the La Tène culture a distinction is made between typical male grave goods or grave good inventories and female grave goods and grave good inventories. During the preceding Hallstatt period elite graves are almost always male graves; female elite graves appear to be virtually absent (Arnold 1995, 154; Van der Vaart-Verschoof 2017a, 164). Weapons are often thought to be an attribute of male graves in the Early Iron Age and in the Early La Tène period (Arnold 2012, 90-2; Roymans 1991, 56; Van der Vaart-Verschoof 2017a, 83). A similar pattern is observed for bronze vessels, wagons and horse gear (Roymans 1991, 56). This correlation has led

to the notion that it is possible to distinguish between male and female elite graves from Hallstatt and La Tène periods based on specific grave good inventories (Arnold 1995, 156). For the La Tène period in the Meuse-Demer-Scheldt area, this idea of gender attribution based on grave good inventories has been common practice: graves such as the elite graves of Eigenbilzen, Nijmegen-Kopsplateau and Overasselt are invariably seen as male elite graves or so-called "Fürsetengraber" (Bloemers 1986, 78; Geerts and Veldman 2012, 103-4; Mariën 1987; 103).

The problem of gender assumptions

This attribution of gender is problematic because the correlation between gender and grave goods is not based on a review of Middle Iron Age elite burials in the Meuse-Demer-Scheldt area. The assumptions are based on patterns observed in Early Iron Age graves in this area and based on patterns observed in the core area of the La Tène region. This is problematic because the analysis of gender in Iron Age burials should also take into account the geographic and temporal variation (Arnold 2012, 106-7). In the case of the cart burial found in Nijmegen Trajanusplein, these gender attributions have already posed problems for archaeologists. The burial was originally considered a male burial, based on the presence of weapons, but later an osteological study indicated that the buried individual was actually a woman (Bloemers 1986; Bloemers 2016).

In order to overcome these previously made assumptions, an overview will be provided of elite graves in the study area which allows for a sex identification based on an osteological analysis, omitting identifications which are made based on grave-inventories. This should help to determine whether the assumed male categories of weapons, bronze vessels, horse gear and wagon parts indeed belong to male graves in this area.

Besides the identification of sex in burials it is also interesting to review the concept of migration. Recent isotope studies indicated that inhumation graves in the study area resemble a migrant community (Kootker *et al.* 2017; Van den Broeke 2014). In other areas of Europe this period is thought to have been characterized by "Celtic" migrations. The following section will discuss prehistoric migrations in more detail.

2.4 Migrations

Until fairly recently migration had largely been a taboo subject within prehistoric archaeology (Anthony 1990). However, recent studies, mainly based on DNA research, have put migration studies back in the spotlight (e.g. Allentoft 2015; Haak *et al.* 2015). In this section these new studies will be discussed and the second part will discuss migration theories which were traditionally used to interpret European developments of the Early La Tène period.

2.4.1 Earlier prehistoric migrations

Recent DNA studies indicate that two major migrations were crucial in the development of Prehistoric Europe. The first is the introduction of agriculture. DNA studies indicate that agriculture was introduced to Europe by migrants from the Middle East. During the Early Neolithic, around 5000 BCE, agriculture spread through Europe with migrants whom moved from the core area of the Linear Pottery Culture (Haak *et al.* 2015, 4-11). A second major migration concerns the migrations in the 3rd millennium BCE from the Ukrainian steppes. People from the Yamnaya culture migrated throughout Europe, which resulted in several regions in the emergence of the Corded Ware Culture (Allentoft 2015, 171; Haak *et al.* 2015, 4-11). From the perspective of the archaeology of the burial ritual, this last migration is very relevant. The spread of the Corded Ware Culture coincides with the emergence of barrows in the Meuse-Demer-Scheldt area, a tradition which would continue until the emergence of the urnfields around 1100 BCE (Drenth and Lohof 2005, 433).

2.4.2 Celtic migrations

Theories about Celtic migrations have existed since the 19th century. Archaeological evidence for such migrations is found in several regions in Europe. In the Marne region and the German Rhineland it is thought that around 400 BCE large numbers of men left the area (Arnold 1995, 159). In several cemeteries in Bohemia isotope studies indicated that men, especially men from warrior graves, were of a non-local origin (Scheeres *et al.* 2014). This fits to some extend with the historical sources which mention a high mobility amongst Celtic men. Similar isotope studies of the Italian cemetery of Monte Bibele and the German cemetery of Neberingen also indicate that migrants were buried in these cemeteries. However, in these cases a distinction could not be made based on grave goods or gender (Scheeres *et al.* 2013, 3623). In the Carpathian Basin Celtic

migrations are also documented, in these cases based on archaeological data (Rustoiu 2014, 147-156).

Celts?

There is an ongoing debate amongst archaeologists whether we should adopt the term "Celt" to describe people from the heartland of the Moselle-Marne and Hunsrück-Eifel areas, or to refer to those of other regions in Europe which are associated with cultural elements of the La Tène cultural phase. In this thesis the term Celt will not be used to describe people in the Meuse-Demer-Scheldt area. The term is based on historical sources which are written about other areas in Europe, notably areas which are directly in contact with the Mediterranean world. Furthermore, even for these areas it is debatable if we should consider these people Celts just because people from outside these areas defined them as such. But, since migration studies in Europe which are concerned with Iron Age migrations between roughly 600 BCE and the end of the Iron Age usually speak of Celtic migrations, the term has been adopted, for the sake of convenience, to describe these migratory debates.

3 The inconspicuous burials of the Middle Iron Age

A total of 505 cremation graves have been found in the study area (see Appendix 3 for a list of cremations). Only 19 graves were inhumation graves. This means that less than 4% of the graves consisted of inhumation graves. In terms of grave goods, inhumation graves usually also represent a different type of burial than the regular cremation graves. Because they form a clearly distinct group these inhumation burials will be dealt with separately in chapter 4. This chapter will therefore focus on the cremation burial ritual.

3.1 Cemeteries in the Middle Iron Age Meuse-Demer-Scheldt area

In previous studies several general remarks have been made about Middle Iron Age cemeteries in the Meuse-Demer-Scheldt area. First of all, it is noted that we have far fewer cemeteries dating to this period, in comparison with the preceding urnfield period (Gerritsen 2003, 126-32). Secondly, cemeteries greatly declined in terms of size. Furthermore, Gerritsen noted that cemeteries moved from the sandier-soils, the home of the traditional urnfields, to the loamier parts of the landscape, most notably the riverine area (2003, 224). Finally, it was generally accepted that Middle Iron Age cemeteries were not located near older burial monuments (Gerritsen 2003, 245; Roymans 1995, 6). However, this has recently been re-evaluated to some extend (Beek and De Mulder 2014, 303-6; Van den Dikkenberg 2016, 180). This section will review these three observed trends.

3.1.1 Cemeteries and their locations within the study area

First of all, it should be noted that for this study the dataset has been greatly extended since Gerritsen's study (2003). In 2003 his overview included 34 Middle Iron Age cemeteries. The overview which is presented in this study includes 67 cemeteries in the Meuse-Demer-Scheldt area and the Dutch riverine area and an additional four sites in the neighbouring German Rhineland. Although the dataset which can now be studied practically doubled the total amount of cemeteries it is still a small sample compared to the amount of cemeteries which are known from the urnfield period. For the Early Iron Age a total of 192 urnfields are known from the Meuse-Demer-Scheldt area (Gerritsen 2003). The observed drop in cemeteries thus still holds true, despite the numerous newly excavated cemeteries. Rather than a complete de-population, as proposed by Roymans (1995), Gerritsen views this drop mainly as a change in location-choice (2003,

224). He states cemeteries moved from the sandier-soils to the loamier parts of the landscape, most notably the riverine area (2003, 224). His map of the Meuse-Demer-Scheldt area and the location of Middle and Late Iron Age cemeteries and isolated graves indeed seems to support this theory (Gerritsen 2003, 132; see fig. 3).

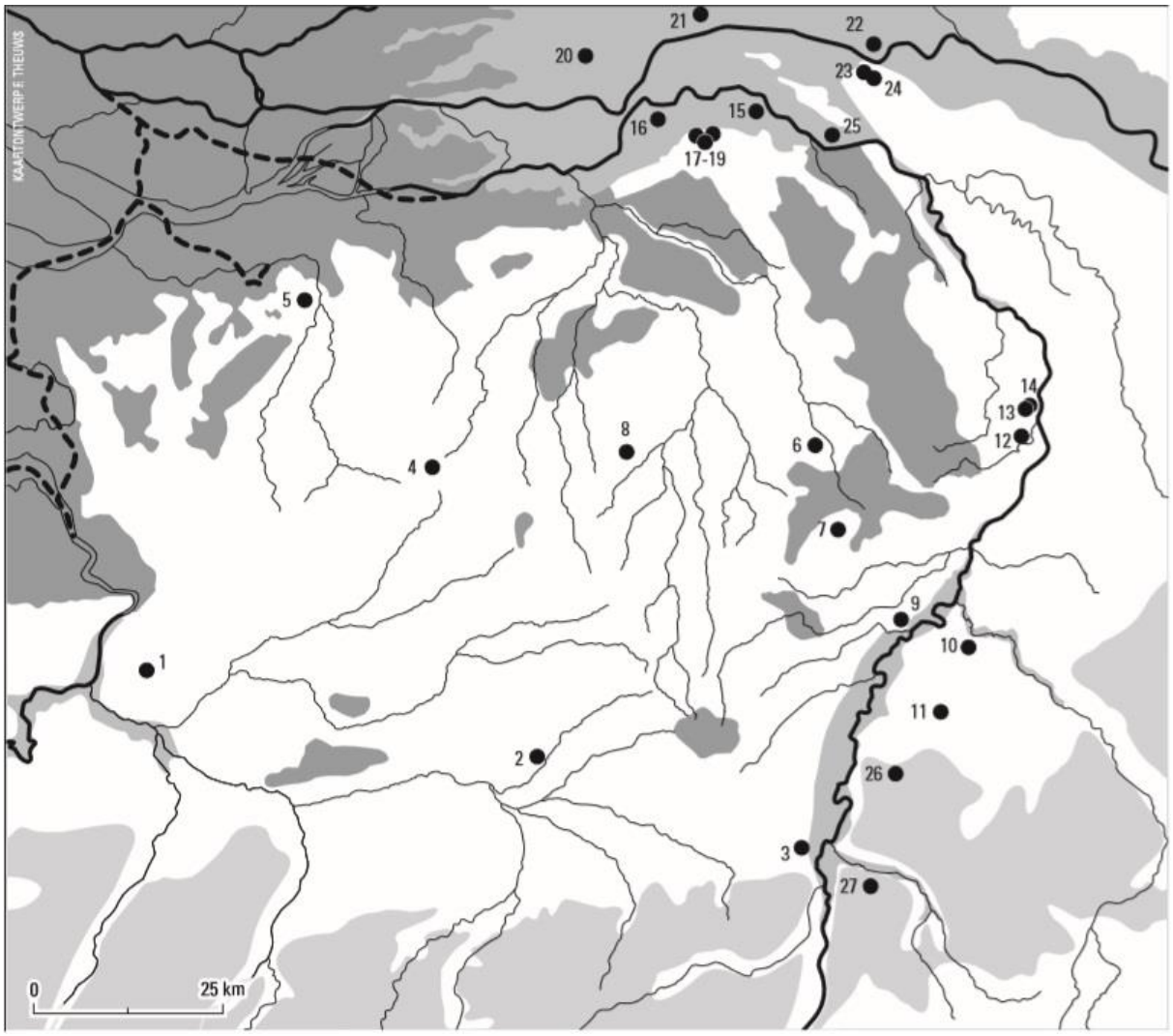

Figure 3: Middle and Late Iron Age (ca. 400-100 BCE) cemeteries and isolated graves, map by Gerritsen (2003, 132).

Based on the gathered data a new map has been composed for Middle Iron Age cemeteries and isolated graves in the Meuse-Demer-Scheldt area and the neighbouring riverine areas. The map includes both the sites which are included in the database and the sites which could not be included in the database either due to poor dating or poor documentation. This map, which consists of a total of ninety sites, presents us with a rather different geographical spread. Although the riverine areas still show large clusters

of sites, the empty spaces in the sandy soils, as observable in the map presented by Gerritsen (see fig. 4), are filled in with sites as well. We might still agree that we see an increase in cemetery density in the riverine area. But a relocation from the sandier parts of the landscape towards the loamier parts is not observable in this map.

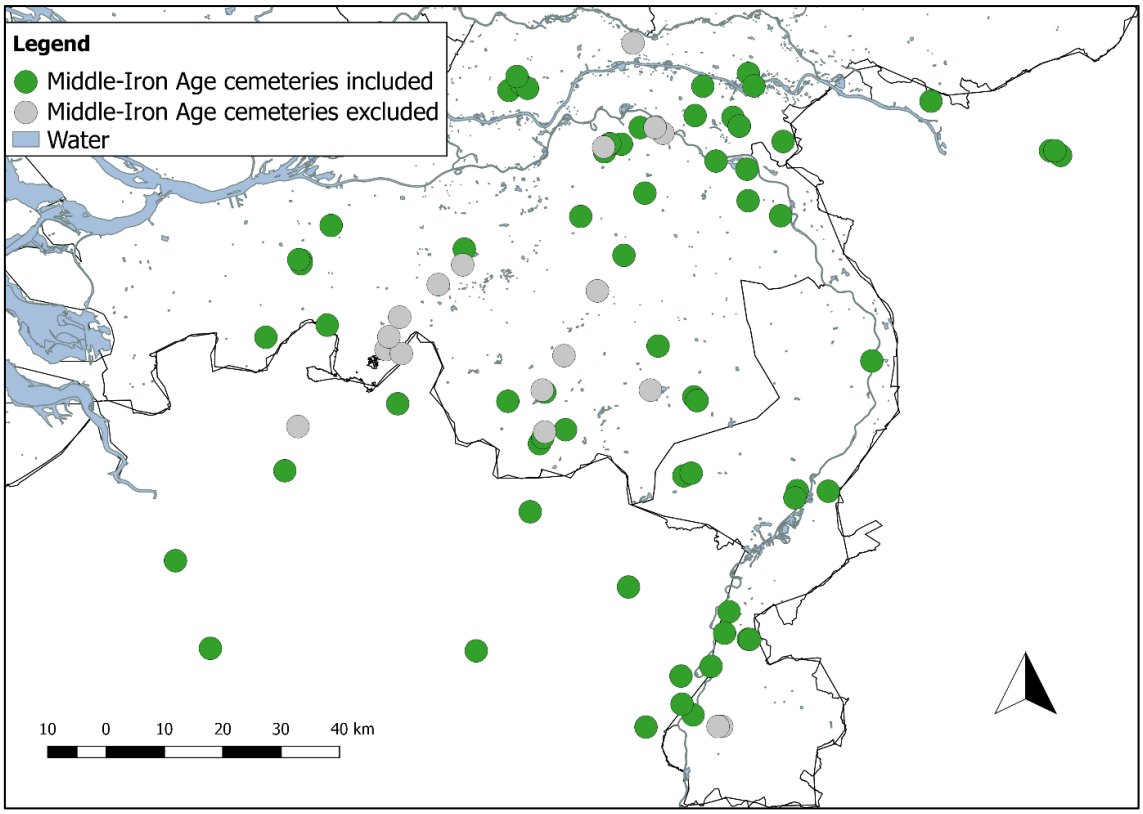

Figure 4: Map Middle Iron Age (500-250 BCE) cemeteries in the Meuse-Demer-Scheldt area and neighbouring riverine areas, in green are the sites which have been included in the database in grey are the sites from Table 2 which have not been included in the database.[3]

Thus re-evaluating these two trends, we might state that there is still a sharp drop in cemeteries between the urnfield period and the Middle Iron Age, we also observe an increase in cemeteries along the riverine areas but an abandonment of the sandier soils is not observable. This can partially be explained by the fact that Gerritsen excluded the 5th century in his analysis, his map is based on cemeteries which date between 400-100 BCE, rather than cemeteries which date between 500-250 BCE (2003, 131-2). But it also ties into the second problem which will be evaluated in the next section, the

[3] Excluding Wijchen-Valendries which has been dated in the Early Iron Age.

relationship between Middle Iron Age cemeteries and older burial monuments, most notably older urnfields.

3.1.2 Middle Iron Age cemeteries and older monuments

Traditionally, it was thought that Middle Iron Age cemeteries were no longer located near urnfields. It was thought that there was a break in the urnfield tradition and that with this break these older burial locations were abandoned (Gerritsen 2003, 245; Roymans 1995, 6). Two recent studies in Flanders and the Southern Netherlands have, to some extend, refuted this idea. A survey of Middle and Late Iron Age cemeteries in the Southern Netherlands indicated that 13.3% of the Middle and Late Iron Age (400-100 BCE) cemeteries were still located near an older urnfield. In Flanders it was also observed that Middle and Late Iron Age cemeteries were still often located near urnfields and barrows (Beek and De Mulder 2014, 303-6; Van den Dikkenberg 2016, 180).

The data gathered here further strengthens this notion. Of the 71 Middle Iron Age cemeteries in the study area 26 are actually located near an older urnfield or barrow. This means that 37% of all Middle Iron Age cemeteries are actually located near an older burial monument. In many of the other cases it could not be ascertained that an older burial monument was not present. At sites such as Bergeijk, Berlicum-Middelrode, Eigenbilzen, Nijmegen-Hunerberg, Overasselt and Westerhoven-Loveren it is not known if older features are present near the Middle Iron Age graves, since these sites were not properly excavated. In the cases of Berlicum-Middelrode and Westerhoven-Loveren it actually seems likely that the graves were part of a larger urnfield (Ball 1999; Bannenberg 1960; Beex 1968; Mariën 1987; Modderman 1961a). If we would exclude these six sites from this analysis 40% (26 out of 65) of the Middle Iron Age cemeteries are located near an older urnfield or barrow.

It still holds true that urnfields were abandoned on a large scale during the Middle Iron Age. But this does not mean that newly erected Middle Iron Age graves and cemeteries avoided these older burial locations. More than one third of all cemeteries is still located near an older burial location. In all these cases the older burial monuments are respected. In some cases the Middle Iron Age graves are constructed as a clear part of the urnfield. These are often only distinguishable when pottery typology or ^{14}C-dating

allows us to distinguish between different periods. This is for example the case with the two Middle Iron Age graves which are located in the urnfield at the Slabroekse Heide in Uden (Van den Broek 2011, 152). In this case neither the older urnfield nor the urnfield tradition seems to be abandoned when these Middle Iron Age graves were erected. In the case of Meteren de Bogen we see an even older tradition which is continued in the Middle Iron Age. Here, an older Bronze Age barrow, which was erected over a Late Neolithic grave, was re-used in the Middle Iron Age when two inhumations were buried inside the barrow (Meijlink 2002, 768-786).

Besides burials which are constructed according to an older tradition, we also know Middle Iron Age cemeteries and graves which are located near an older urnfield but which are, in terms of the burial ritual, constructed in a typical Middle Iron Age fashion. In many cases it seems that the urnfield simply continues to expand but that rather than constructing the individual graves in an urnfield tradition the graves are increasingly constructed in a Middle Iron Age manner, thus constructing square ditches rather than round ditches, and in general constructing graves without a surrounding structure. This is for example observed in the cemetery of Someren-Waterdael I (Kortlang 1999, 169). In several other cases there seems to be spatial a break between the older urnfield and the Middle Iron Age graves. In Nijmegen-Kopsplateau the Middle Iron Age graves are located near the urnfield but they clearly form a separated cluster which is spatially not attached to the urnfield (Fontijn 1996). A similar pattern is observed in Lommel-Kattenbosch where the Early Iron Age urnfield forms clusters in the southern part of the cemetery and the Middle and Late Iron Age graves are all constructed slightly northwards of the original cemetery (De Laet and Mariën 1950, fig. 45). In these cases the graves were still constructed near the older urnfield but both in terms of the burial tradition and in terms of the spatial location of these graves they break from the older urnfield.

In short we can summarize that Middle Iron Age graves can either:
1. Be constructed in a newly erected cemetery which is not located near an older monument;
2. Be located near an older urnfield or barrow respecting both the location and burial tradition;
3. Be located near an older urnfield or barrow respecting and the location of the older

monument, although the individual graves are constructed according to a new burial tradition;

4. Be located near an older urnfield or barrow but breaking both with the location and the burial tradition. In these cases the Middle Iron Age graves form a spatially separate cluster which is also constructed according to a new burial tradition (see fig. 5 for a schematic model).

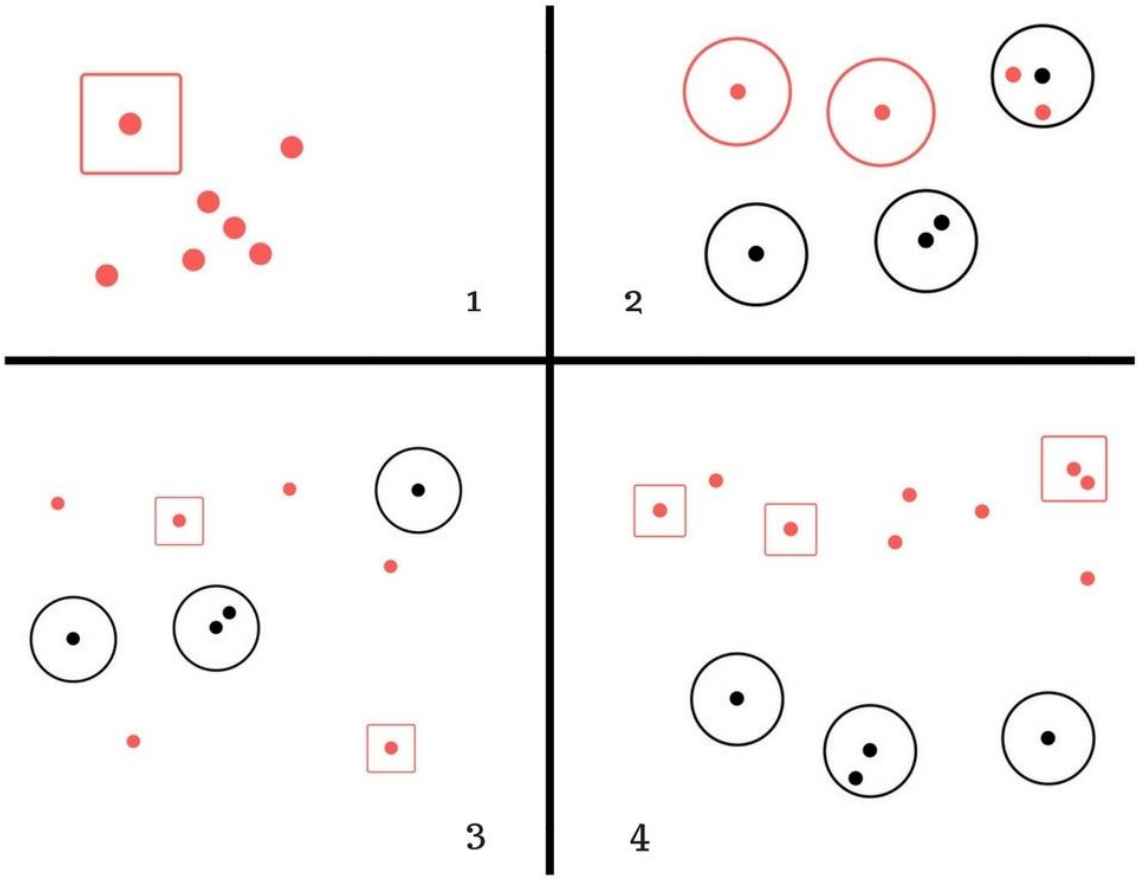

Figure 5: Model: four modes of referring to older monuments and graves (indicated in black) when constructing Middle Iron Age graves and cemeteries (indicated in red).

The high frequency of the re-use of older monuments seems to fit with the idea that the traditional location for the construction of urnfields, the sandy soils, were not really abandoned as noted in the previous section. The fact that urnfields generally lack Middle Iron Age graves has led the notion that Middle Iron Age must have avoided urnfields and their locations. But if we view this problem from a Middle Iron Age perspective it becomes clear that Middle Iron Age cemeteries and graves were still frequently constructed near urnfields. The observed abandonment of urnfields can thus

largely be attributed to the scarcity of Middle Iron Age cemeteries and graves. Urnfields were still favoured as locations for the construction of Middle Iron Age cemeteries and graves.

3.1.3 Middle Iron Age cemetery size

In the literature about Middle Iron Age cemeteries it is often noted that these cemeteries are relatively small in terms of size (e.g. Gerritsen 2003; Hessing and Kooi 2005). The average urnfield size is a bit problematic since urnfields can vary greatly in size. According to Fokkens the average urnfield size is estimated to be about two hundred graves (1997, 363). It should be noted here that regional differences in this respect exist within the study area. In Flanders the average urnfield size is only ca. 24 graves (De Mulder 2011, 207).

Based on the gathered data on Middle Iron Age cemeteries the estimate for an average Middle Iron Age cemetery is only about nine graves per cemetery. But this is partially a methodological reflection. As noted in the previous section more than one third of the Middle Iron Age cemeteries had their origins in an older urnfield. In cases where a cemetery was in use for a long period of time only the dated graves have been included in the database. Thus for the cemetery of Boxmeer only 36 graves have been included in the database but the cemetery as a whole, which dates between 1800 BCE and 175 AD, included a total of 468 graves (Vermue *et al.* 2016, 186). Many of these graves are undated and it could well be that there are more graves which date in the Middle Iron Age. Keeping this problem in mind the following distribution has been made of cemetery size based on the data in the database (see fig. 6).

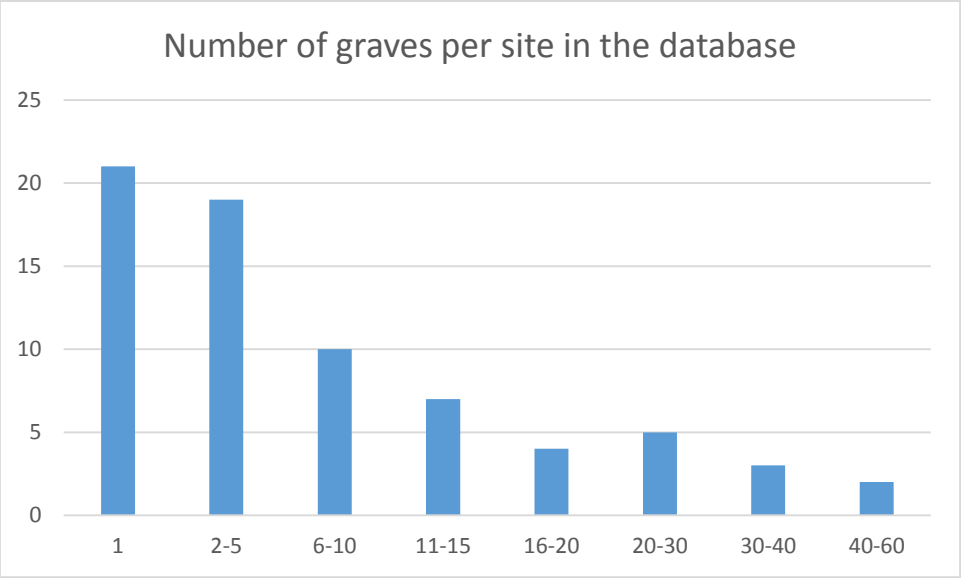

Figure 6: Cemetery size based on the database (x= number of graves, y=number of cemeteries).

None of the cemeteries comes close to an average urnfield in the Netherlands terms of size and only the largest cemeteries in the study area are the size of an average urnfield in Flanders. Although certain methodological problems should be taken into account it is clear that the Middle Iron Age cemeteries are much smaller than most urnfields. The cemetery of Nunhem-Voort has been completely included in the database, this is the largest Middle Iron Age cemetery comprising of 59 graves, but even this cemetery still contains far less than 200 graves, which would be the average for urnfields in the Netherlands (Fokkens 1997, 363; Wilgen *et al.* 2016). Other "large" sites which have completely been included are the cemetery Meteren de Plantage consisting of 45 graves and the cemetery of Wijchen-Woezik Sportpark consisting of 32 graves (Heierbaut 2011; Jezeer and Veniers 2012). It is clear that all of these sites are smaller than an average urnfield. Therefore, we must conclude that Middle Iron Age sites are indeed generally a lot smaller than urnfields.

This analysis gives us 'food for thought' when it comes to our expectations of cemetery sizes for Middle Iron Age cemeteries. The cemetery of Oss-IJsselstraat, consisting of 26 graves (of which 25 were described in the original publication) is originally described as a "small urnfield" (Wesselingh 1993, 113). Considering that this cemetery belongs in the top ten of largest Middle Iron Age cemeteries in the study area we might conclude that this is actually a relatively large Middle Iron Age cemetery.

3.1.4 Population statistics

For the urnfield period population estimates have been made for the Meuse-Demer-Scheldt area based on cemeteries, it is assumed that in this period a large portion of the population was buried inside urnfields and that these can therefore serve to reconstruct local populations (Gerritsen 2003, 138-46). As noted before the Middle Iron Age is characterized by a poor preservation of graves and cemeteries. According to Gerritsen it is not likely that the whole population was selected for burial in Middle Iron Age cemeteries (Gerritsen 2003, 138-141). Due to these problems it is not feasible to make population reconstructions based on this dataset. However, it is interesting to see if a selection is made in terms of whom (in terms of sex and age) is buried in the sparse cemeteries we have.

In total 55 male and possible male cremation graves have been found in the study area. In total 49 female and possible female cremation graves have been found. It appears that both men and women were cremated in this period. Of the inhumation graves four graves are male or possibly male graves and five graves are female or possibly female graves. In general there thus appears to be no gender preference in the burial ritual. In terms of age 74 graves belong to children and young adults. Graves belong to all age categories including babies whom are younger than 1 years old. In total 194 adult graves have been found. In terms of age these are hard to separate but both younger individuals and adults whom are older than 40 years old have been found. Four inhumation graves belonged to children and young adults, ten inhumations belonged to adults. These also range between relatively young adults and adults whom were older than 40 years old. It can be stated that there appears to be no clear selection of individuals based on either age or gender. In this sense the Middle Iron Age burial practices do not divert from those in the preceding urnfield period. This is somewhat surprising because it in general assumed that only a selection of the population was buried in an archaeological visible manner during the Middle Iron Age (Gerritsen 2003, 138-46). This could still hold true, but in that case the selection is not made based on the age or sex of the individuals.

In total 19 cremation graves contained multiple individuals (see tab. 3). Double graves are found in the micro-regions of Geldermalsen, Oss, Nijmegen, Southern Limburg, Northern Limburg and Eastern Noord-Brabant. In the German Rhineland area none of

the cremations have been studied. In West Noord-Brabant and Western Flanders relatively few cremations have been preserved. It thus seems that in general double graves do not necessarily represent a regional phenomenon. It should be noted that the cemetery of Meteren de Plantage represents an exceptional case in this respect. Here 24% of the graves contained multiple individuals (Jezeer and Veniers 2012, 69). In this cemetery ten double graves were found, more than half of the total amount of double graves in the study area. The only grave with three individuals was also found at this site. In total ten women have been found in a double grave, only three men have been found in a double grave, in all cases the man was found together with an adult woman. In the other cases where a female double grave was found it concerns the combination of a woman and a child. Children in general end up very frequently in double graves, in total 15 children and young adults were found in double graves. In seven cases a woman was found together with a child or young adult. In eight cases an adult of an unknown gender was found in association with a child or young adult. Considering that no male graves are found in association with children while seven graves are known were a woman was found in association with a child it seems likely that these also mainly concern graves in which a woman was buried together with a child. A last case which is interesting to note is a grave found in Oss-IJsselstraat where a 7-12 year old child was found together with a 4-7 year old child. In general this cemetery contained relatively many double graves (Veselka 2016, 11-2). This is the only double grave where two children have been buried together.

Table 3: Double graves in the study area.

Site Code	Grave ID	Sex indiv. I	Age indiv. I	Sex indiv. II	Age indiv. II	Age indiv. III	Sex indv. III
NL_BR_01	140	Indet	4-7	Indet	7-12	None	None
NL_GE_04	425	Indet	>16	Indet	0-6	None	None
NL_GE_04	423	Indet	>18	Indet	7-12	None	None
NL_GE_04	430	Indet	>18	Indet	6	None	None
NL_GE_04	442	Indet	>18	Indet	0-6	None	None
NL_GE_04	458	Female?	>25	Indet	7-12	None	None
NL_BR_27	333	Female	18-40	Indet	0-1	None	None
NL_BR_01	136	Male?	20-40	Female	20-40	None	None
NL_BR_01	137	Male?	20-40	Female?	20-40	None	None
NL_GE_04	419	Female	20-40	Indet	0-1	None	None
NL_GE_04	424	Female?	20-40	Indet	7-12	None	None
NL_GE_04	429	Indet	20-40	Indet	7-12	None	None
NL_GE_04	431	Indet	20-40	Indet	0-6	None	None
NL_GE_04	446	Indet	20-40	Indet	0-6	None	None

NL_GE_04	452	Male	20-40	Female	20-40	0-6	Indet
NL_GE_04	456	Indet	20-40	Indet	0-6	None	None
NL_BR_06	199	Female	25-30	Indet	>18	None	None
BE_LI_04	28	Female?	25-35	Indet	15-20	None	None
NL_LI_03	608	Female?	25-40	Indet	0-6	None	None

It appears that there were clear rules concerning these double graves. All graves of which the sex of the individuals could be established contained a female individual. In three cases these women were buried along with a male individual of approximately the same age. In one case a woman was buried with another adult of which the gender could not be established. In all other cases these women were buried together with a child or a young adult. It appears that double graves are only common in specific cemeteries. In Meteren de Plantage and Oss-IJsselstraat double graves are fairly common (Jezeer and Veniers 2012, 69; Veselka 2016, 11-2). But other equally large cemeteries do not contain any double graves. The large cemetery of Nunhem-Voort (where the cremation remains have also been studied) did not contain any double graves (Wilgen *et al.* 2016). Although double graves are found in most micro-regions, they are not a general feature and it appears that the choices related to creating a grave with multiple individuals was a choice only made by specific local communities.

3.2 Monuments, urns and typology

In total 195 monuments have been found which date in the Middle Iron Age (see Appendix 4 for a list of monuments). This means that ca. 30% of the graves had a monument. But it should be noted that this percentage in reality would have been far lower. Of these monuments only 78 had one or multiple graves. In the other cases the grave itself was not preserved. Thus more than half of the graves have disappeared over time. Monuments are, in these cases, dug-in deeper than the actual graves which allows them preserve more often. If we consider that the vast majority of Middle Iron Age graves would not have a monument it becomes clear that the vast majority of the graves from this period would simply not have survived. If we then consider that many cemeteries did not have monuments at all we can begin to grasp the scale of the missing data.

3.2.1 Monuments as a proxy for preservation

As noted before, a large portion of our data is missing due to preservation issues. These issues differ greatly per site. At some sites, such as Oss-Mettegeupel, no burials have been preserved at all (Jansen and Fokkens 1999, 70). In other cases some burials are preserved but mainly monuments remain. For example in Oosterhout de Contreie 35 monuments were found of which only three contained a grave (Roessingh and Blom 2012). In other instances all monuments which have been found contained graves, this is for example the case in the cemetery of Weert-Laarveld (Tol 2009). These differences indicate that there are large differences in terms of preservation of the sites. At the cemetery of Weert-Laarveld only four monuments have been found in addition to eighteen graves which were located outside these monuments. If only the monuments would have been preserved here only four graves would have been counted. Furthermore, it should be noted that the two largest cemeteries in the study area, Nunhem-Voort and Meteren de Plantage, did not contain any monuments at all (Van den Broeke 2014; Wilgen, et al. 2016). Had the preservation of these cemeteries been different these would not have been discovered at all.

Estimating preservation

To put these preservation issues in perspective percentages have been calculated per micro-region for monuments which did or did not contain a grave (see tab. 4). It is clear that there are huge differences per micro-region. In West Noord-Brabant and Western Flanders the preservation is especially low. In the German Rhineland no monuments have been found at all, since graves have been found in this region it seems likely that this concerns a regional preference for graves without monuments. In Geldermalsen graves are almost never covered by a visible monument. Only one monument here contained graves. This concerns the older barrow in Meteren de Bogen where two inhumation graves had been dug into a Bronze Age barrow (Meijlink 2002, 768-786). Thus it seems that in the Geldermalsen area monuments were not constructed during this period. Besides the Geldermalsen and German Rhineland areas monument construction seems to be a common but infrequent feature. In the Nijmegen area the preservation of graves within monuments is better than in other regions here all monuments contained a grave. Here in total less than 9% of the graves actually were constructed inside a monument.

If we look at the map of cemeteries in the study area and if we consider these preservation differences it becomes clear that there is a strong link between areas with a good preservation and a dense clustering of graves (e.g. the Nijmegen area and Southern Limburg). Areas which are characterized by bad preservation show a much less dense clustering (e.g. West Noord-Brabant and Western Flanders). This again supports the notion that we should not view the Middle Iron Age as a period during which people moved from the sandy soil to the riverine areas as Gerritsen suggested (2003, 224). It suggests that the whole Meuse-Demer-Scheldt area was still populated but that due to the low preservation on the sandy soils, especially in the western part, our data has become biased towards the loamier riverine areas.

Table 4: Monuments per micro-region and percentages of graves preserved.

Micro-region	**Amount of graves[4]**	**Amount of monuments**	**Monuments with graves**	**Percentage of preserved graves**
West Noord-Brabant	75	62	14	23%
Western Flanders	33	11	3	27%
Oss	48	20	8	40%
Northern Limburg and Eastern Noord-Brabant	171	69	29	42%
Southern Limburg	54	7	5	71%
Geldermalsen	71	1	1	100%
Nijmegen	128	11	11	100%
German Rhineland	45	0	0	100%

If we would compensate for the loss of graves based on the calculated percentages we can try to calculate the estimated percentage of graves with monuments for the different micro-regions. If we would not compensate for this difference in preservation we would conclude that in West Noord-Brabant more than 77% of the burials were located inside a monument. The estimated total amount of graves is calculated as follows: for West Noord-Brabant, for example, only 23% of the graves was preserved, based on the differences between the total amount of monuments and the amount of monuments which contained graves. This means that the 75 graves actually only represent an estimated 23% of the total amount of graves which would have been located in this micro-region. Thus if 75 graves only represents 23% it can be estimated that approximately a total of 326 graves would originally have been present. In this area a total of 62 monuments had been found. This would mean that of the 326 estimated

[4] This includes cremation burials, inhumations and monuments in which no actual burials have been found.

grave 62 would have been located inside a monument.[5] This means that an estimated 19% of the graves in this micro-region would have been located inside a monument. Although this is only a rough approximation it seems a more reasonable percentage than the 77% which would be the percentage if we had not compensated for the loss of graves.

In Table 5 the compensated estimated total amount of graves per micro-region has been listed and based on that estimate the estimated percentage of graves which would have been located in a monument has been listed. It becomes clear that the compensated percentages are fairly consistent. As noted before Geldermalsen and the German Rhineland appear to lack a tradition of monument building in this period. In the other micro-regions the compensated percentages vary between 9-19% with an average of 13%.

Table 5: Compensated percentage of graves with monuments.

Microregion	**Compensated total amount of graves based on loss of graves**	**Compensated percentage of graves with monuments**
West Noord-Brabant	326	19%
Western Flanders	122	9%
Oss	120	16%
Northern Limburg and Eastern Noord-Brabant	407	17%
Southern Limburg	76	9%
Geldermalsen	71	1%
Nijmegen	128	9%
German Rhineland	45	0%

In general the percentages seem to be fairly consistant. The percentages for the areas West Noord-Brabant, Oss and Northern Limburg and Eastern Noord-Brabant are slightly higher. All these areas are located in the sandier parts of the study area which are characterized by a low preservation. This might still reflect a preservation bias as in these areas cemeteries without monuments are not likely to be found here, even though they might have been present. This would however be impossible to compensate for as

[5] It should be noted that this presupposes that monuments have not been lost. It is not unlikely that in some cases not only the burials but also the monuments have been lost due to poor preservation. But no estimate can be made to incorporate this loss, thus this estimate probably still represents a conservative estimate of the preservation problems.

it cannot be said with certainty that there would be more of these cemeteries in these areas. In general we can conclude that a tradition of monument building is lacking in the German Rhineland and the Geldermalsen area and that in the other areas the percentage of graves with monuments would have varied between 9-19%. This confirms the idea that monuments became a scarce feature during the Middle Iron Age (Gerritsen 2003, 148-9; Hessing and Kooi 2005, 649-650).

3.2.2 Monument typology

In total thirteen different types of monuments have been found (see tab. 6). Circular ditches, square ditches and rectangular ditches are found both with and without entrances. One longbed has been incorporated in the database. These monuments are usually dated in the Early Iron Age but it was included here because based on the finds this grave could also date in the Middle Iron Age (Hessing and Kooi 2005; Kortlang 1999, 157).

Table 6: Monument typology and count of monument types.

Monument type	**Count**
Circular ditch	14
Circular ditch with entrance	19
Circular mound	6
Longbed	1
Oval ditch with entrances	3
Rectangular cult place	8
Rectangular ditch	28
Rectangular ditch with entrance	19
Square ditch	34
Square ditch with one or multiple entrances	61
Square posthole structure	1
Trapezium-shaped ditch	1

By far most monuments are either square (n=95) or rectangular ditches (n=47). Circular ditches are also a common monument type (n=33). Both square and circular ditches usually have an entrance. Circular mounds are rather exceptional but it should be noted that this is probably also due to preservation issues since these are usually only discovered if the mound is preserved above ground. Other monuments such as oval ditches, trapezium-shaped ditches and square posthole structures are clearly exceptional monuments which are not a common feature for this period. Cult places are rare but

they are quite important because they often contain multiple graves. For example the cult place found in Hever Stationslaan contained seven graves (Jezeer 2015, 27; see fig. 7). The monuments in Lomm Hoogwatergeul and Sittard-Koeweide also contained multiple graves (Gerrets and de Leeuwe 2011, 97; Van der Leije 2016, 63). In all cases it seems that cult places when they are build become a focal point within a cemetery. This is clear for the cemeteries of Hever-Stationslaan and Lomm Hoogwatergeul where in both cases most graves are either located inside or next to the cultplaces (Gerrets and de Leeuwe 2011, 97; see fig. 7).

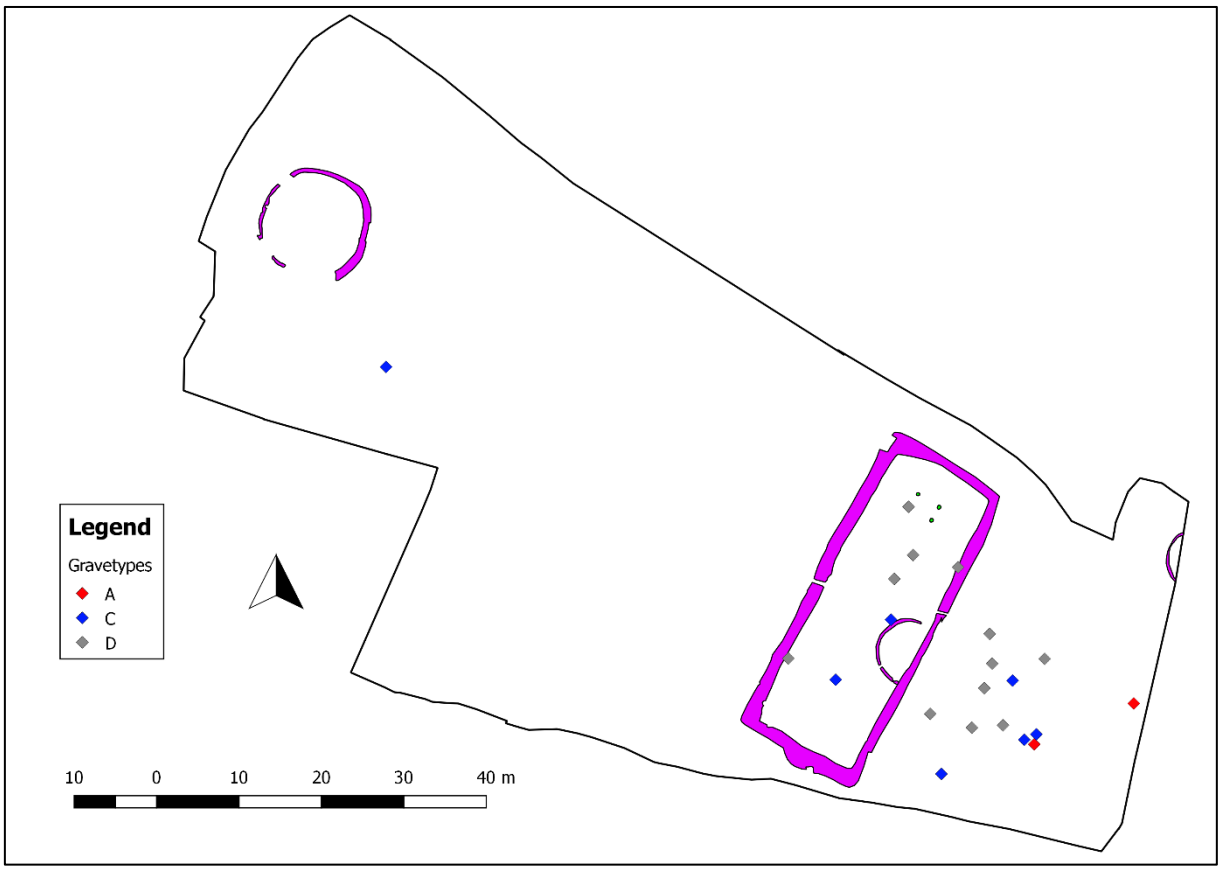

Figure 7: Hever-Stationslaan excavationplan with rectangular cult place with seven graves (after: Jezeer 2015, 27).

Cult places are often treated as a separate category, thus as being different compared to other burial monuments. They are being considered as a different category mainly based on their extraordinary size (Van den Broeke 2005, 672-4). I think it is indeed justified that they are treated as a separate category in the sense that they do indeed represent extremely large monuments and that they should not be treated as simply a rectangular structure. But I do not think that there is a functional difference. Five out of eight cult

places contain burials and considering the preservation issues which we have touched upon in the previous section we might state that they contain graves just as often as other monuments. The main distinction, besides their size, is their collective use.[6] But this should not come as a surprise as burial monuments throughout Late Prehistory have been used as collective burials. Bronze Age barrows also quite often contained multiple burials. In Meteren de Bogen a Bronze Age barrow was even re-used in the Middle Iron Age (Meijlink 2002, 768-786). Also, many Middle Iron Age burial monuments which are not classified as cult places also contained multiple graves. This is for example the case with some of the square ditches found in Nijnsel Huisakker (see fig. 8).

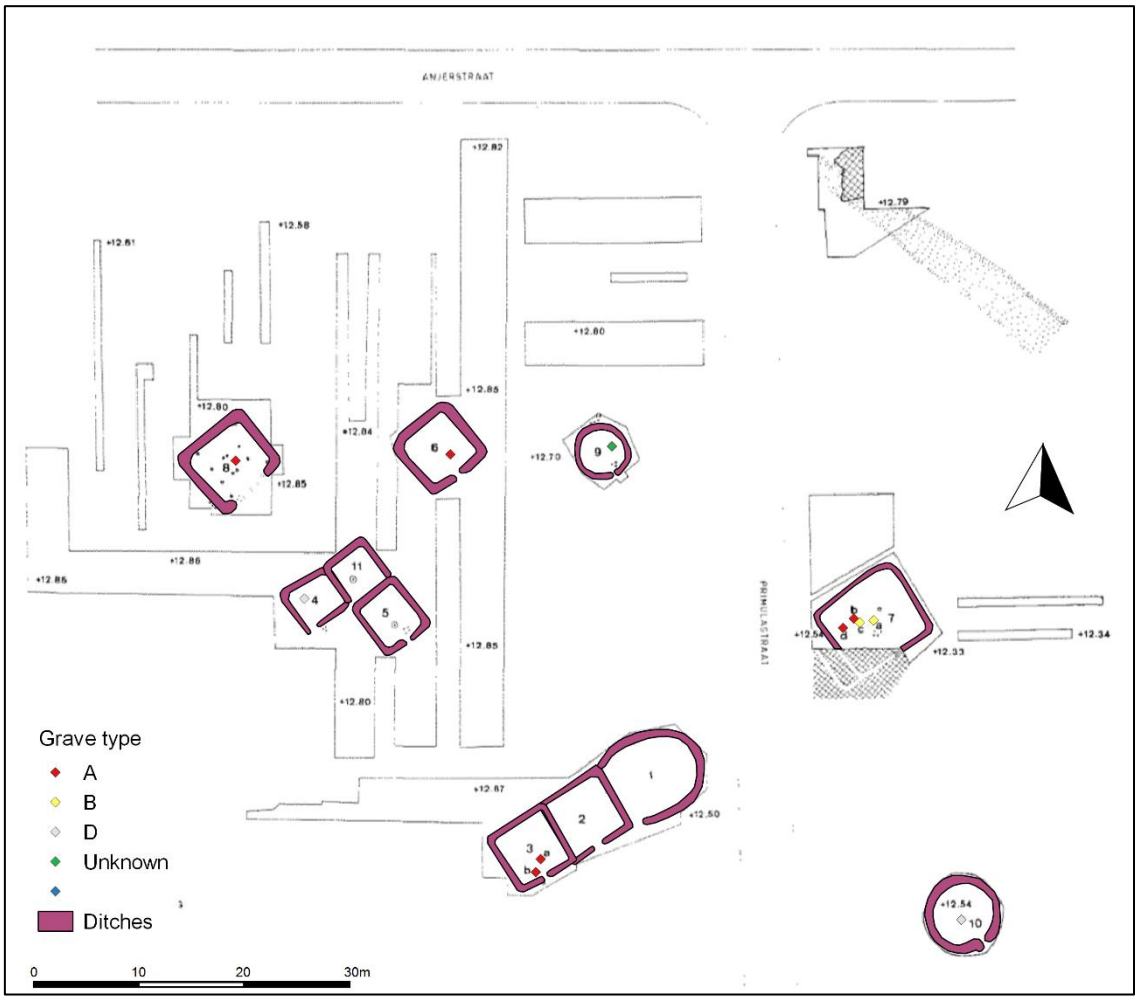

Figure 8: Nijnsel Huisakker with two square ditches which contained multiple graves (after: Hulst 1964, 75).

[6] As cult-places thus do not really represent a cult-place in terms of function in my view they could well be put in parenthesis but as the term is commonly used in the literature to describe these monuments, even when claims about a different function are not made, I chose to simply adopt the term to describe these monuments.

I think cult places in the Meuse-Demer-Scheldt area should be primarily seen as burial monuments. But their nature is different in the sense that they are probably constructed in advance for a larger community, rather than for an individuals, whereas other burial monuments would be constructed for an individual after which they could be re-used. As with other monuments it cannot be excluded that they were not also used for other ritual practices. But based on the current evidence there appears to be no clear distinction in function between these monuments and other rectangular monuments. The interpretation of cult places as being different from other burial monuments mainly derives from the evidence of later cult places. In the Roman period cult places are often transformed into temples. This gave rise to the idea that cult places should be seen as a separate category (Gerritsen 2003, 82). But I would argue that we should not overlook the chronological differences here. In Late Iron Age and Roman contexts we also find cult places which do no longer appear to have a direct funerary function. This is for example the case with the cult place found in Kontich Alfsberg which dates to the first century BCE (Annaert 1993, 114). The disassociation of cult places from funerary contexts is thought to have taken place during the Late Iron Age (Gerritsen 2003, 163). For the Middle Iron Age it seems more appropriate to consider these monuments primarily as funerary structures which, during the Late Iron Age and Roman period, were increasingly disassociated from their original funerary context. Although, even during the Roman period they were also still used for funerary purposes (Gerrets and de Leeuwe 2011, 272-3; Van den Broeke 2005, 672-3).

3.2.3 Monument entrances

Most of the monuments (n=103) have an entrance, an opening in the ditch. Usually they have only one entrance, but five monuments have multiple entrances. The directions of these openings have been plotted in a wind rose diagram (see fig. 9).

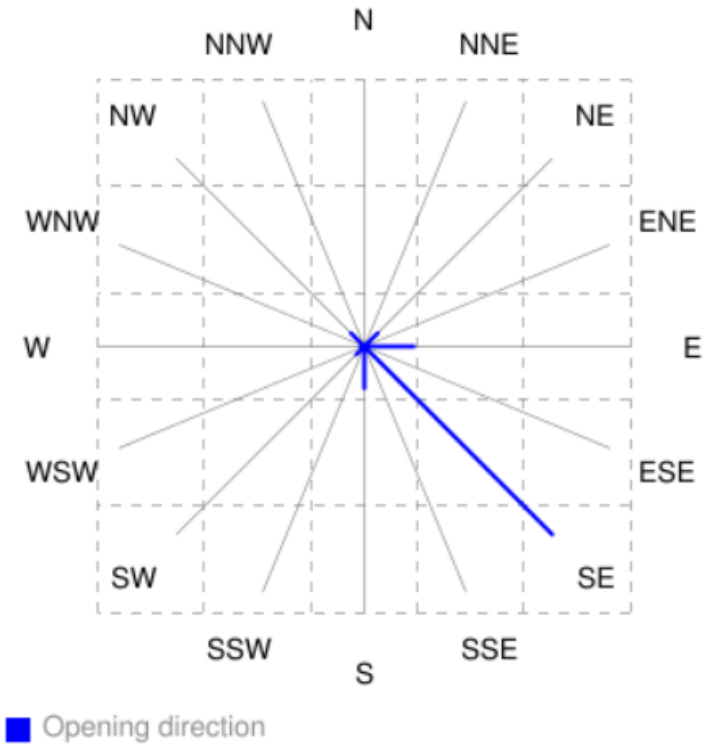

Figure 9: Windrose diagram for the orientation of the openings of monuments (www.enviroware.com).

Although openings could be made in several direction more than 60% of the openings is directed towards the south-east. It is interesting in this respect that the phenomenon of openings has been studied in Early Bronze Age barrows. The openings of these monuments varied but here, also, generally the openings of these barrows were directed towards the south-east. Similarly, it has been noticed that Neolithic and Early Bronze Age roundhouses have entrances which generally are oriented towards the south-east. For these cases it is often suggested that this south-east orientation might be guided by symbolic considerations (Bradley 1998, 149-50). A similar phenomenon is observed in Early Iron Age urnfields where ring ditches often have an opening in the south-east (Gerritsen 2003, 128). It is clear that the placement of the openings in Middle Iron Age monuments was not random. The choices for the orientation of these openings seems to be guided by symbolic rather than functional considerations. Apparently this is a continuation of an older tradition which was already in place in the Early Iron Age, and probably even during the Bronze Age.

3.2.4 Grave typology

The cremation graves are classified according to the typology developed by Hiddink, in addition to that the category inhumation graves can be added (Hiddink 2003, 9-10; Hiddink 2014, 189; Van den Broeke 2014). If we plot the grave types for the eight micro-regions on a map a north-west versus south-east division becomes apparent (see fig. 10). In this analysis type D (thus unknown graves) have been excluded. In the regions of Oss (n=26), West Noord-Brabant (n=14) and Geldermalsen (n=70) grave type A is very dominant, comprising in all cases of more than 75% of the grave types. In the Nijmegen area (n=100) type A still comprises 60% of the burials. In the regions Northern Limburg and southern Noord-Brabant (n=105), Southern Limburg (n=51), the German-Rhineland (n=37) and Western Flanders (n=12) grave type A consists of less than 50% of the burials. In all these areas type B and C occur much more frequently. Furthermore, it is notable that inhumation graves have only been found in Geldermalsen, Nijmegen and Northern Limburg and Eastern Noord-Brabant. In the latter only one inhumation grave is found in Someren-Waterdael I (Kortlang 1999).

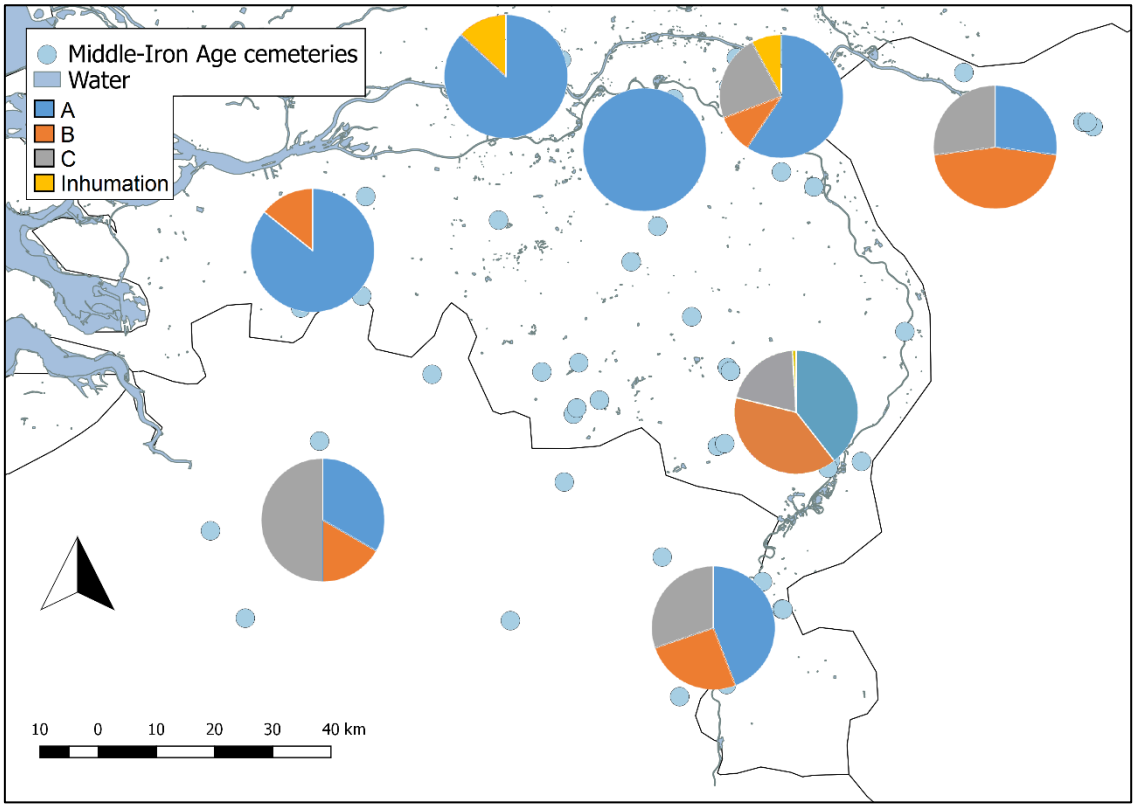

Figure 10: Map of the micro-regions and the distribution of grave types.

Due to the small size of the cemeteries it is difficult to study the distribution of grave types on the level of individual cemeteries. But is clear that the choices which were

made in relation to the selection and the deposition of cremation remains, varied across the region. In the north-west cremation remains were almost always selected and deposited without remains from the funerary pyre. In the south-east it was much more common to either deposit remains from the funerary pyre on top of the cremation nest or to deposit the remains from the funerary pyre with remains without prior selection of the cremation remains.

3.2.5 Urn graves

Of the 505 cremation graves, only 94 were buried inside an urn. This means that about 19% of the cremations was buried inside an urn. It should be noted that this does not mean that the other burials were not buried inside a container. Often it is thought that cremations, which were not buried in an urn, were deposited inside an organic container. Nevertheless, the low frequency of urn graves appears to be a characteristic for the Middle and Late Iron Age (Hiddink 2014, 189). During the Early Iron Age urns were much more frequent, although at the end of the Early Iron Age the number of urn graves already declined (De Mulder 2011, 221-2, 271; Gerritsen 2003, 125-8). Of the urn graves six consisted of situla graves, which will be dealt separately in the next chapter as these are classified as elite graves. Of the other urn graves, 62 consist of pots which are used as an urn. In 14 cases a bowl is used as a container and in one case it is unclear if a bowl or a pot is used as a container. Urns are found in all micro-regions except in the Geldermalsen area (see tab. 7). In the German Rhineland urns are found very frequently, here they are found in 24 out of the 45 graves (thus in 53% of the graves). In the other areas urns are found in between 11-28% of the graves.

Table 7: Urn graves and percentages per micro-region.

Micro-region	**Number of urn graves**	**Number of creamtion graves**	**Percentage**
Geldermalsen	0	61	0%
Northern Limburg and Eastern Noord-Brabant	14	133	11%
Southern Limburg	9	59	15%
Western Flanders	4	25	16%
Western Noord-Brabant	5	26	19%
Nijmegen	27	118	23%
Oss	10	36	28%
German Rhineland	24	45	53%

It is unclear to what extend the percentages of the other areas reflect a regional characteristic, but the complete absence of urn graves in Geldermalsen and the high frequency of urn graves in the German Rhineland appear to be characteristic for those regions.

Sex distributions and typology of urns

In terms of sex distribution urns appear to be slightly more frequent among male graves (n=10 urns) than among female graves (n=7). In terms of age urn graves were both used to bury children (n=6) and adults (n=22). The urns can be attributed to at least 26 different types in addition to urns of an unknown typology. Most urns could be classified according to the typology which was established by Van den Broeke (2014). Four types of urns from the German Rhineland fall outside this typology. These are therefore classified according to the local typology which was established by Reichmann (1979). Lastly the urn found in the Boxmeer grave 400 should be mentioned separately here. This urn is classified as a Knickwandgefäße and it is thought that this urn was imported from the Hunsrück-Eifel area (Vermue *et al.* 2016, 227). Some of the other urns also show typological affiliation with the Marne-area but these are usually considered imitations rather than direct imports.

3.3 Grave goods

The presence of urns has already been discussed in the previous section. This section will deal with all grave goods found in the study area. Of all graves, a total of 318 graves contained grave goods. This means that approximately 61% of all graves contained grave goods. In reality this percentage was probably a lot lower as many graves could only be dated to the Middle Iron Age because they contained datable grave goods. Grave goods found in elite graves will be dealt with in more detail in the next chapter. In Appendix 5 a list is presented of all the objects and urns found in the study area.

In total 665 grave goods have been found in the study area. The largest group (n=250) of grave goods consists of pottery. Most of these are bowls, pots and other objects which are thought to be related to food consumption. Another large group (n=121) consists of objects which are directly related to the consumption of food or drinks these

also include animal bones (nearly always burnt) which are thought to be the remains of sacrificial meals which were put on the funerary pyre. It should be noted that a large group of the pottery objects were probably also be related to sacrificial meals. A third group (n=99) consists of objects which are related to appearance, to this group a single razor blade might also be added. Other groups of objects such as weapons (n=38), wagon parts and objects related to horse-riding (n=21) are exclusively found in elite graves. Furthermore, a large group (n=121) of objects have been classified as miscellaneous objects.

Tools are almost completely absent in graves. Only six knives have been found. Furthermore, one spindle whorl, one loom weight, one whetstone and one hammerstone have been found. It becomes clear that objects which are found in non-elite graves almost exclusively consist of either objects related to the consumption of foods and drinks or to the dress of a person. Tools are nearly always absent in graves and many important tools such as axes, drills, adzes, hammers, chisels etcetera are completely absent. The few tools which have been found are always small tools which someone might have carried around, the loom weight might be the only exception to this rule. They thus could usually be considered a part of the dress rather than a burial gift which was deliberately added to the funerary pyre.

In terms of materials clay objects are by far the most frequently occurring objects (94 urns and 236 clay grave goods). A total of 282 metal (mainly iron and bronze) objects are found in 92 graves, this means that approximately 18% of all graves included metal objects. However, this also included the 36 elite graves, which all contained metal objects. If we would exclude these about 11% of all regular graves contained metal grave goods. Compared to the urnfield period this is still an exceptionally high percentage. In the southern Netherlands the average percentage of urnfield period graves which contain metal grave goods is usually below the 5% in the Netherlands and ca. 6% in Flanders (De Mulder 2011, 276; Hessing and Kooi 2005, 641). The relatively high percentage for the Middle Iron Age can partially be explained by the micro-regional differences. In the German Rhineland metal grave goods are extremely common. In total 16 out of 45 graves in this area contained metal grave goods. This means that in this area about 35% of all graves contained metal grave goods. A last distorting factor is the fact that many undated graves have been excluded from the

database as it could not be established if these graves should be considered to be Middle Iron Age graves. Graves with metal grave goods are often easier to date than graves without such goods. Nevertheless, it does appear to be so that metal grave goods become more common in the Middle Iron Age, when compared to the Early Iron Age. It seems that this trend continues towards the Late Iron Age when objects such as belt hooks and fibula become even more common (Hiddink 2014, 192-3). There thus seems to be a gradual increase in the frequency of metal grave goods throughout the Iron Age. The following sections will discuss the grave good categories, which are not restricted to elite graves, in more detail.

3.3.1 Pottery

As noted before, pottery consists of the largest group of grave goods. A total of 330 clay objects were found in 231 graves. Of these 88 consisted of urns, in total 164 graves yielded clay grave goods, thus 31% of all graves yielded clay grave goods. The largest group consists of bowls (n=99). Another large group is formed by pots (n=54). Also, in many cases only loose sherds are found in the graves (n=88). The majority of these probably belonged to either bowls or pots which ended up on the funerary pyre. In terms of typology the Middle Iron Age spectrum appears to be more affiliated to that of the Late Iron Age, than to that of the Early Iron Age, as in both the Middle and Late Iron Age bowls are the most frequently found type of pottery whereas in the Early Iron Age pots, beakers and cups are more common (De Mulder 2011, 278-9; Hessing and Kooi 2005, 640-1; Hiddink 2014, 195). Other objects in this category are rare. They consist of cups (n=4), sieves (n=1), a spindle whorl (n=1) a loom weight (n=1) and a jar (n=1). Also in two cases burnt clay was found in the grave. The high frequency of bowls and pots seems to be related to food offerings which ended up in graves.

Pottery typology

For the typological analysis of the pottery the urns have also been added to the list (see tab. 8). Of the 142 pots and bowls to which a specific type could be attributed 35 appear to be either imports or imitations of Marne pottery (Van den Broeke 2012, 45-87; see fig. 11). In addition to that, four pots were related to pottery from central Europe, Northern France or Belgium and the Lower-Rhine area or Switserland. One pot from Boxmeer is considered to be an imported pot from the Hunsrück-Eifel area (Vermue *et al*. 2015, 227-8). This means that 28% of the pots should be considered to be either

imported or imitated based on pottery from other areas, 25% of which consists of Marne pottery.

Table 8: Pottery and urns, typology and count of types.

Type	Amount	Type	Amount
Van den Broeke local Hooidonkse akkers type, Ic	1	Van den Broeke type 43	1
Van den Broeke local Hooidonkse akkers type, IIIb	1	Van den Broeke type 45a	3
Van den Broeke type 1	1	Van den Broeke type 45b	1
Van den Broeke type 3a	1	Van den Broeke type 52	1
Van den Broeke type 3b	6	Van den Broeke type 55a	8
Van den Broeke type 4b	2	Van den Broeke type 55b	1
Van den Broeke type 5a	12	Van den Broeke type 57	4
Van den Broeke type 5b	2	Van den Broeke type 72	2
Van den Broeke type 11a	11	Van den Broeke type 73a	1
Van den Broeke type 11b	3	Van den Broeke type 75	5
Van den Broeke type 13	10	Caréné type	1
Van den Broeke type 21	5	Reichmann type K2	1
Van den Broeke type 22	1	Reichmann type K4	1
Van den Broeke type 23a	12	Reichmann type K5	1
Van den Broeke type 25	1	Reichmann type K9	1
Van den Broeke type 31	1	Reichmann type K12	1
Van den Broeke type 32	6	Reichmann type K13	1
Van den Broeke type 33	9	Reichmann type K16	1
Van den Broeke type 41	13	Reichmann type K20	1
Van den Broeke type 42a	6	Knickwandgefäße	1
Van den Broeke type 42b	1		

Many of the pots which are thought to be imitations or imports of Marne-pottery are found in graves which are not considered to be elite graves. Examples of Marne-pottery which is not found in elite graves are the pots found at Haps Kampersveld, Someren-Waterdael I and Wijchen-Woezik Sportpark (Heierbaut 2011, 95; Kortlang 1999, 149; Verwers 1972, 45-7).

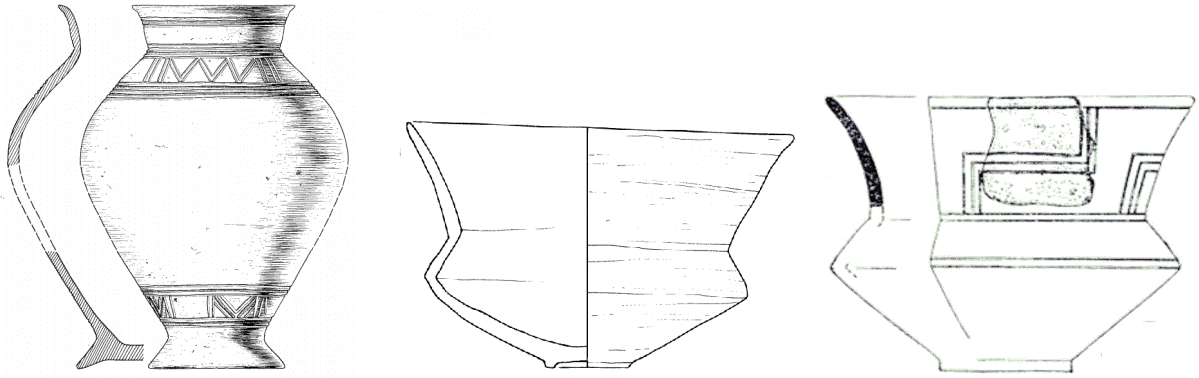

Figure 11: Marne pottery found in Bergeijk, Wijchen-Woezik Sportpark and Lommel-Kattenbosch (Modderman 1961a, 549; Heierbaut 2011, 40; De Laet and Mariën 1950, 344).

Aside from the Marne-pottery, most of the pottery appears to be local pottery which is found throughout the Meuse-Demer-Scheldt area. It should also be noted that eight types of pots appear to be local types which are only found in the German Rhineland (Reichmann 1979; see fig. 12).

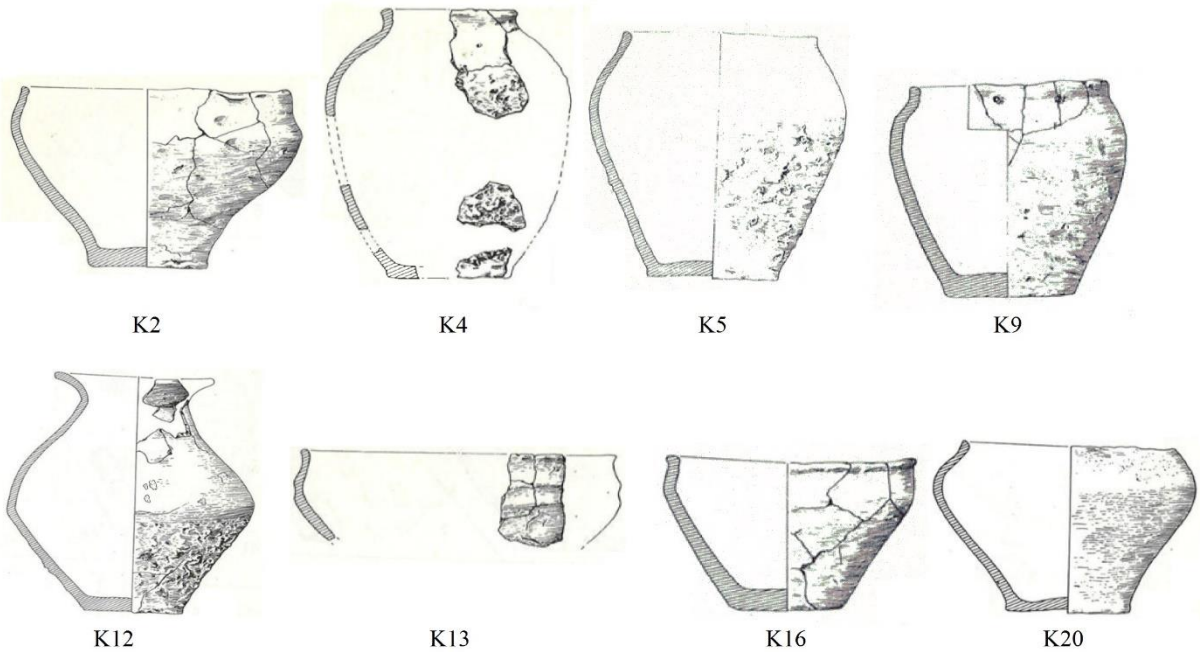

Figure 12: Local pottery from the German Rhineland area (Reichmann 1979).

3.3.2 Animal bones in graves

A total of 101 graves yielded remains of animal bones. Of the cemeteries with more than ten Middle Iron Age graves the percentages have been calculated for the amount of graves which contain animal bones (see tab. 9). The percentages vary greatly between

7-80%. This variation can mainly be attributed to the small datasets per cemetery. On average 36% of the graves contain animal bones, which means that about one third of the graves contain animal remains. Animal remains were found in 22 cemeteries, but it is likely that they were present in many of the other sites as well. A micro-regional analysis of the presence of animal bones is difficult because in many cemeteries the animal bones and cremations have not been studied, this is especially the case with old excavations.

Table 9: Percentages of graves with animal bones for Middle Iron Age cemeteries with ten or more graves.

Cemetery	**Number graves**	**Number animal bones**	**Percentage animal bone**
Beuningen-Ewijk	15	12	80%
Itteren-Emmaus 2	20	13	65%
Oss-IJsselstraat	19	11	58%
Boxmeer Sterckenwijck	36	20	56%
Geldermalsen-Plantage	45	21	47%
Nijmegen Kopsplateau	10	4	40%
Weert-Laarveld	23	9	39%
Neerharen-Rekem	13	4	31%
Wijchen-Woezik Sportpark	32	4	13%
Oss-Ussen cluster B centrum	10	1	10%
Someren Waterdael I	22	2	9%
Nunhem-Voort	59	4	7%
Zundert-Akkermolenweg	14	1	7%

If we look at the distribution of the 22 sites which yielded animal remains we see that most sites are located in the riverine areas (see fig. 13). This seems to mainly reflect a research bias towards those areas. In none of the German sites the cremation remains have been studied, which means that animal bones would also not have been recognized. The focus on the riverine area seems to be mainly caused by the fact that most recent excavations of Middle Iron Age sites took place in those areas.

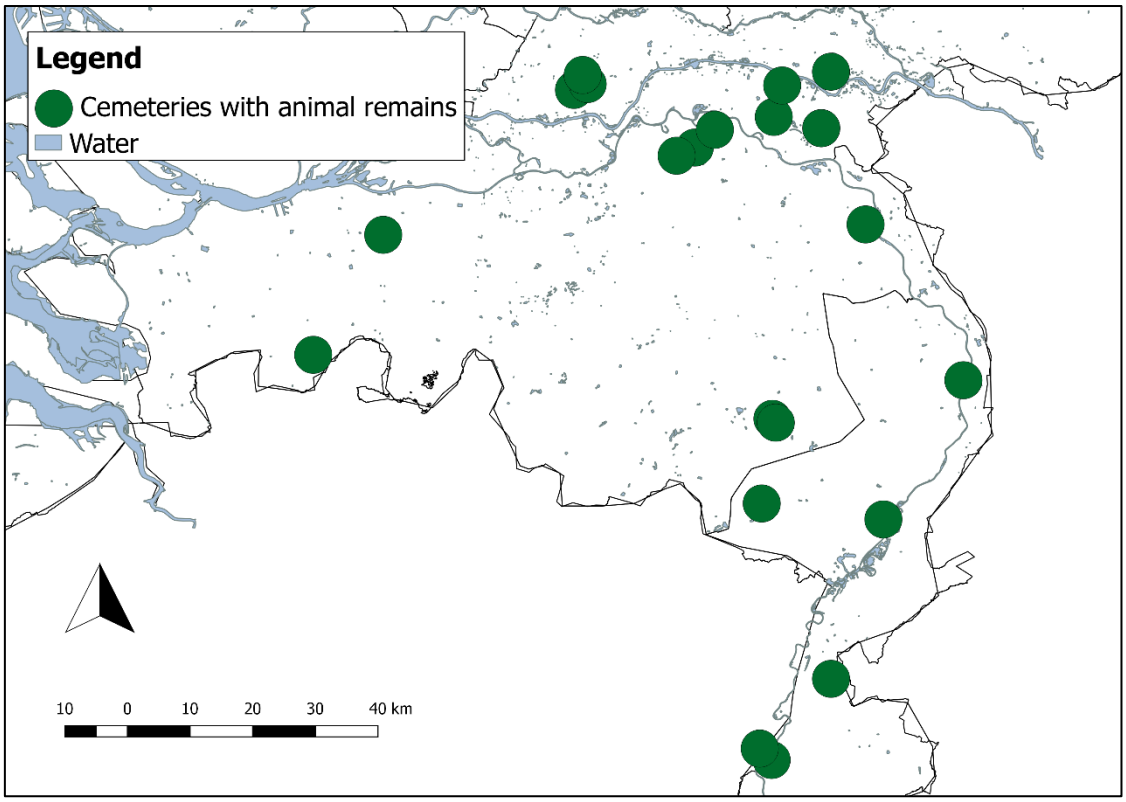

Figure 13: Map Middle Iron Age sites where animal bones had been found in graves.

In Table 10 a species list is presented for all the cemeteries combined. It becomes clear that pigs are by far the most frequently included species. Sheep and goat are the second most frequently occurring species. Cattle make up only 6% of the total and all other species make up less than 1% of the total. It should be noted that the deer bones in the table consist of an antler handle for a dagger, thus deer was not part of the food offerings in this case (Kortlang 1999, 157). The medium mammal bones (20%) probably largely belong to the categories pig and sheep/goat and the large mammal bones (2%) probably mainly belong to the category cow.

Table 10: Species list of all the cemeteries combined.

Species	Latin name	Amount	Percentage
Domesticates			
Cow	*Bos taurus*	7	6,00%
Pig	*Sus domesticus*	36	30%
Sheep or goat	*Ovis aries/Capra hircus*	8	7,00%
Sheep	*Ovis aries*	6	5%
Wild-species			
Deer	*Cervidae*	1	1,00%
Marten	*Martes*	1	1,00%
Rodent indet.	*Rodentia*	1	1,00%
Mammal			
Medium mammal	*Mammalia medium*	24	20%
Large mammal	*Mammalia magna*	3	2,00%
Mammal indet.	*Mammalia indet.*	5	4,00%
Birds			
Bird indet.	*Aves indet.*	1	1,00%
Amphibians			
Frog	*Anura*	1	1,00%
Toad	*Bufonidae*	1	1,00%
Fish			
Perch	*Percoidei*	1	1,00%
Flatfish	*Pleuronectiformes*	1	1,00%
Indet.		**14**	12,00%
No information		**9**	7,00%
Total		**120**	101,00%

The dominance of pig

The dominance of pig bones has been noted by Van den Helm and Van Dijk for the Iron Age in general (2017, 110). Hiddink noted a similar pattern for the Late Iron Age (Hiddink 2014, 197). In settlements cow bones are usually dominant in the bone assemblage. Sheep and goat usually form the second largest category (Van den Helm and Van Dijk 2017, 112-3; Brinkkemper en Wijngaarden-Bakker 2005, 494). Hiddink explained the discrepancy between the settlement data and the data from the burial ritual by stating that beef would probably end up on the funerary pyre after it was deboned, whereas pig and sheep/goat meat would end up on the funerary pyre with bones still attached to the meat (Hiddink 2014, 197). But this still does not explain the dominance of pig as opposed to sheep/goat, which is not observable in settlement data (Brinkkemper en Wijngaarden-Bakker 2005, 494). Van den Helm and Van Dijk thought that beef would be less likely to end up on the funerary pyre because cows, unlike pigs,

also yield secondary products such as milk. Hence, they would be less likely to be slaughtered (2017, 114). Because sheep would also yield secondary products such as milk and wool this seems a plausible explanation for the dominance of pig as opposed to either cows or sheep.

Although the explanation given by Van den Helm and Van Dijk is plausible I think that, since we are dealing with a ritual context, we should also consider that we are dealing with an either religious or cultural preference for certain species. Such a preference for specific species in a ritual context is also known from Late Iron Age Britain. In a sanctuary in Hayling, one of the Channel Islands, Iron Age layers yielded 2395 fragments of animal bones, 59% belonged to sheep and 41% were pig bones. Cow bones completely lacked in this context. Other religious sites such as Uley in Gloucestershire yielded a similar preference. Based on the analysis of these ritual sites it was thought that only certain species were deemed worthy of being sacrificed to the gods (King and Soffe 1998, 41-2). A similar preference for pig as opposed to cattle in the funerary ritual has also been noted on Roman sites both in the Meuse-Demer-Scheldt area and in Britain. In the case of Britain this has also been interpreted as being a cultural preference (White 2007, 121-4).

The idea of a cultural preference is also supported by the fact that when cows do end up in the burials they are often found in more or less exceptional graves. In Meteren de Bogen one inhumation grave contained two cow molars (Hielkema *et al.* 2002, 211). In Geldermalsen Middengebied one of the elite inhumation graves also contained the remains of unburnt cow bones (Van den Helm 2016, 110). In Beuningen Ewijk two graves contained the remains of cow bones. In one of the graves these were found in association with bones of fish, bird, toad, frog, sheep/goat and pigs (Blom *et al*. 2012, 124). Lastly in Wijchen-Woezik Sportpark the cow bones which have been found consist of three vertebra of a cow tail. In this case it is possible that the tail represents a cow hide which ended up on the funerary pyre, rather than that it represents a last meal. In Boxmeer the paws of a marter have been found in a grave, here it is also thought that this represents the remains of a marter hide which was burned on the funerary pyre (Vermue *et al.* 2015, 214). In four of the seven graves which yielded cow remains they are thus found in a rather unusual context. Cow bones are thus set apart from pig bones and sheep/goat bones in the sense that they, more often than not, represent something

else than a sacrificial meal. This fits with the idea that cow bones are omitted in ritual meals in the Late Iron Age (King and Soffe 1998, 41-2).

Animal bones have been found in 26 male and possible male graves and 21 female and possible female graves. Animal bones thus in general do not seem to be a sex specific grave good. Animal remains have been found in 13 graves belonging to children and young adults and in 62 adult graves. Therefore, animal bones also do not seem to be age specific either.

Worked bone, antler and ivory

Only three graves contained the remains of worked bone, antler or ivory. The grave found in Stein-Graetheide contained the remains of an adult woman. In the grave several iron, bronze and even a gold object were found. The grave also contained four fragments of an ivory object (Beckers and Beckers 1940, 184). The grave is poorly documented and the publication is very old. Hence, it is difficult to assess if the identification of these ivory objects was correct. If it was, this would be very unique because the nearest source for ivory would be in either Africa or Asia. If the identification is incorrect this grave would probably contain either worked bone or worked antler. Whether the grave contained worked ivory, bone or antler either would be remarkable finds as worked bone is almost never found in Middle Iron Age graves.

Only two other examples of worked bone or antler are known, one is the grave from Someren-Waterdael I which contained the remains of a worked antler handle of a dagger (Kortlang 1999, 157). The second concerns a grave found in the cemetery of Itteren-Emmaus 2 which contained fragments of worked bone (Meurkens 2011a, 90). Besides these finds, worked bone is was not found in the study area. In general worked bone is almost never found in Iron Age cremation graves (Van den Helm and Van Dijk 2017, 110). It seems that worked bone objects only became more common during the Late Iron Age when bone hairpins become a regular feature in cremation graves (Hiddink 2014, 190-1).

Side note on plant foods in graves

In only one grave, in Maasmechelen-Mottekamp, a single cereal grain has been found in the grave of a 20-40 year old woman (Steenhoudt and Smeets 2012, 203). This find is

the only find of its kind but usually no botanical studies have been conducted. Although plant remains are not very likely to survive a cremation ritual, it would be worthwhile to at least attempt more of these botanical studies. This find proves that it is not impossible to find such remains. Considering the frequency at which animal bones ended up on the funerary pyre it seems fair to state that these last meals were a frequent feature. It is quite likely that these last meals did not only consist of meat but that plants were also part of this ritual.

3.3.3 Appearance

As noted before, appearance makes-up a large component of grave goods. Objects related to appearance are found in 56 graves, approximately 11% of all graves. The main groups are bracelets, fibula, ear or hair rings, fibula, belt hooks and torques (see tab. 11). But even these groups are still very rare, the largest group, bracelets, is only found in ca. 2% of the graves. Bracelts mainly consist of round undecorated bracelets (n=8), but other types such as flat, hollow and decorated bracelets are also found. Ear-rings and hair rings and the nose ring are only found in the cemeteries of Geldermalsen Middengebied, Meteren de Plantage, Wijchen Woezik-Sportpark, Lent Laauwikstraat (Heierbaut 2011; Hulst 1999; Jezeer and Veniers 2012; Van den Broeke 1999). They are clearly a geographically restricted phenomenon, which are in most cases related to inhumation graves. Torques will be discussed separately in the following chapter. Fibula are found in several areas but eight out of the 15 are found in the German Rhineland area. This means that in this micro-region 18% of the graves contained fibula whereas in the rest of the study area less than 1.5% of the graves (n=479) contained fibula. All other objects are extremely rare which confirms the notion that metal grave goods are only scarcely found in Middle Iron Age cemeteries (Gerritsen 2003, 132).

Table 11: Objects related to appearance.

Object type	Number of objects	Object type	Number of objects
Beads	2	Pins and needles	5
Belt hooks	11	Nose ring	1
Bracelets	18	Pendant	1
Button	1	Razor	1
Chain (fragments)	4	Torque	10
Ear- or hair rings	14	Tweezers	2
Fibula	15	Other	16

Although these objects are very rare, it is thought that in reality they might have ended up on the funerary pyre much more frequently. In many graves a green discolouration was found on some of the cremated bones. This is thought to indicate that the cremated individual wore bronze or copper alloyed objects during the cremation but that these objects were not retrieved from the funerary pyre when the deceased was buried (Vermue *et al.* 2015, 214; Veselka 2016; Wilgen 2016, 148). This could indicate that the scarcity of these grave goods is, at least partially, a reflection of the selection of grave goods after the cremation.

3.3.4 Knives in Middle Iron Age graves

Knives appear to be found mainly in female graves (see tab. 12). They are found in three elite graves (Geldermalsen Middengebied, Neerharen Rekem, Oss-IJsselstraat) and in three non-elite graves (Boxmeer, Lent Laauwikstraat, Zundert Akkermolenweg).

Table 12: Knives in Middle Iron Age graves.

Site	Grave	Material	Age	Sex	Date
Boxmeer	CR282	Iron	Unknown	Unknown	500-250 BCE
Geldermalsen	Graf 1	Iron	34-40	Female	450-375 BCE
Lent Laauwikstraat zuid	Cr02	Iron	Unknown	Unknown	600-400 BCE
Neerharen Rekem	Graf 4	Iron	25-35	Female??	392-204 BCE
Oss-IJsselstraat	Graf 4	Iron	Unknown	Unknown	500-350 BCE
Zundert-Akkermolenweg	Graf 22	Iron	Unknown	Unknown	500-200 BCE

The knives mainly consist of tanged knives but it appears that the knife found in Neerharen Rekum might have had a completely iron handle.

3.3.5 Sex and age in relation to grave goods

For urns it has already been noted that they are found slightly more frequently in male graves than in female graves. The relation between sex, age and animal bones in graves has also already been discussed. In this section the relation between other types of grave goods and the sex and age of individuals will be further discussed. Only objects (or categories of objects) of which ten or more specimens have been found will be discussed here. Objects which are exclusively related to elite graves or inhumations will be discussed separately in the next chapter.

Belt hooks

One belt hook, or belt attachment was found in the grave of a possibly male adult individual. One was found inside a grave of a child, aged between 0-6 years old, one was found in the grave of an individual aged between 10-40 years old, the other belt hooks were found in adult graves (n=4). The sex of the individuals could only be determined in one case, this concerns a possible male grave from Groesbeek. The belt hook is found here in association with a spear and therefore this grave will be treated under the heading elite graves. In the Late Iron Age belt hooks are usually found in female or children's graves (Hiddink 2014, 193). For the Middle Iron Age the relation between sex and belt hooks in non-elite graves is still unclear but it is clear that during this period they are found in graves of both children and adults.

Bracelets

Bracelets are found in three female and possible female cremation graves and two female inhumation graves (which will be discussed later), they are not found in any male graves. They are found in two children's graves and in four adult cremation graves graves and two adult inhumation graves. Bracelets thus seem to be a type of grave goods which are only associated with female and children's graves. This seems to fit with the traditions in the Hunsrück-Eifel area where bracelets area also usually found in female graves, although male graves occasionally also have a single bracelet in this area (Diepeveen-Jansen 2001, 71).

Fibula

In eleven graves the remains of fibula have been found. In six cases the age of the buried individual was known, in all these cases the individual was an adult. These

objects thus seem to be exclusively tied to adult graves. Of only three graves the gender was known. In two cases the individual was female or possibly female. In one case the individual was possibly male. These objects are thus found in both male and female graves.

Pins, nails and rings

Pins and nails, which are not clothing pins, have been found in three male and possibly male graves and in four female and possibly female graves. They are found in three graves of children and young adults and in nine adult graves. Rings are found in one male grave and in two female graves, they are found in four adult graves and in one children's grave. For neither groups of objects a clear sex or age preference can be observed although they might be found slightly more often in female graves.

Pottery

This section discusses pottery which has been found in graves, pottery which has been used as urn is excluded. Bowls are found in 12 male graves and in nine female graves (of which one is an inhumation grave). They are found in 33 adult graves, three graves of young adults (15-20 years old) and in 5 children's graves. Bowls are thus found in both male, female and children's graves. Pots are found in five male and possible male graves and in seven female and possible female graves (three of which are inhumation graves). Pots are found in five graves belonging to children and young adults and in 15 graves belonging to adult individuals. Cups are found in one male adult grave and in one female adult grave. No cups have been found in children's graves, but it should be noted that only four cups have been found. Thus based in such as small dataset it is difficult to make statements about age. An Eierbecher had been found in the grave of a 20-30 year old adult. One pottery jar has been found in a female grave belonging to a woman aged 20-40 years old. A loom weight is found in a grave of an individual of whom the age and sex is unknown. In Ressen-Zuiderveld the remains of a sieve was found in an inhumation grave of a 33-55 year old woman (Van den Broeke *et al.* 2010, 133-4). A spindle whorl was found in an inhumation grave of someone who was older than 12 years old in Geldermalsen Middengebied (Hulst 1999, 42-3). Lastly, potsherds have been found in 11 male and possible male graves and in eight female and possible female graves (one of which is an inhumation grave). They are found in seven children's graves and in 34 adult graves. In general it seems that pottery grave goods

are, as far as this can be determined, not sex or age specific grave goods.

Conclusion on age and sex in grave-goods

Bracelets appear to be the only sex specific objects found in Middle Iron Age graves. Fibula are only found in adult graves. For specific categories related to appearance a clear gender preference could usually not be determined but in general they are found more often in female (n=8) graves than in male (n=4) graves.

4 Elite burials, inhumations and prestige goods

Middle Iron Age elite graves in the study area have been excavated since the 19th century. Burials such as the Overasselt and Eigenbilzen graves have, therefore, been known for a long time. Unfortunately, this means that many of these graves lack proper documentation. Often the grave type is unknown and in many cases it is even not clear whether a monument was present (Ball 1999; Mariën 1987). Although in these cases the documentation is very poor, these graves are also included in the database. Mainly because especially the Overasselt and Eigenbilzen graves represent two of the richest Middle Iron Age burials in the study area. Besides these poorly documented graves some elite graves are actually well documented. This is the case with the more recently excavated graves in Nijmegen Trajanusplein, Sittard Hoogveld; Woezik and Wijshagen de Rietem (Bloemers 2016; Heierbaut 2011; Tol 2000; Van Impe and Creemers 1991). In this chapter the nature of these elite graves will be discussed as well as their locality within cemeteries and within the wider region.

Besides elite graves this chapter will also discuss another separate category of graves: inhumation graves. Until recently, it was assumed that during the Middle Iron Age all graves from this period would consist of cremations. In the past decades this view has been revised after the discovery of several inhumation graves, most of which date in the Middle Iron Age (Van den Broeke 2014, 161). These graves form a distinct category of graves which do not fit with the traditional burial ritual of this period. Several of these graves can be classified as elite graves based on the presence of prestige goods such as torques (Hulst 1999). But most inhumation graves do not fit with this classification (Kortlang 1999; Meijlink and Kanendonk 2002). In terms of grave goods these are not always set apart from other Middle Iron Age burials. The distinctive feature is the choice for inhumation rather than cremation. Because these burials do not fit the local grave typology it is often thought that these might represent migrant burials. In the Hunsrück-Eifel and Marne-Moselle regions inhumation is the norm and it is often thought that these burials are fashioned after these traditions (Van den Broeke 2001). Recent isotope studies have also indicated that indeed the majority of inhumation graves represent a non-local population (Diepeveen-Jansen 2001, 147; Kootker *et al.* 2017; Van den Broeke 2014, 174-8). Because inhumations do not represent the local burial tradition, and because they also do not necessarily represent elite graves, they are

incorporated here in this chapter as a separate category.

4.1 Elite graves in the Meuse-Demer-Scheldt area

In total 36 graves could be classified as elite graves. The grave 85-80 found in Neerharen Rekem could also be classified as an elite grave, since it contained multiple objects related to bodily adornment (Temmmerman 2007, 603). But this grave contained a fragment of a glass bracelet which makes it more likely that this grave should be interpreted as a Late Iron Age grave, rather than as a Middle Iron Age grave (Roymans and Veniers 2010, 24). Hence, the grave has been excluded from the analysis here, even though it was included in the database. The 36 elite graves are found in 21 cemeteries in the Meuse-Demer-Scheldt area and the bordering riverine areas. Elite graves are most frequently found in the micro-regions Southern Limburg and Nijmegen (see tab. 13). They are completely absent in the areas Western Flanders and Western Noord-Brabant. On average, about 7% of the graves could be classified as an elite grave, based on the characteristics described in chapter 2.

Table 13: Elite graves and percentage per micro-region.

Micro-region	Number of elite graves	Number of graves	Percentage
Nijmegen	17	128	13%
Southern Limburg	7	52	13%
German Rhineland	4	45	9%
Oss	2	36	6%
Geldermalsen	3	71	4%
Northern Limburg and Eastern Noord-Brabant	3	131	2%
Western Flanders	0	25	0%
Western Noord-Brabant	0	27	0%

The following sections will describe the individual elite graves per micro-region and per cemetery. The sections after that will deal with thematic aspects of Middle Iron Age elite graves.

4.2 Elite graves in the different micro-regions

In this section the elite graves of each micro-region will be discussed briefly. The micro-regions of Western Flanders and Western Noord-Brabant will not be discussed separately as no elite graves have been found in these areas.

4.2.1 Elite graves in Southern Limburg

Southern Limburg yielded seven elite graves. They are located in four different cemeteries: Wijshagen de Rietem, Eigenbilzen, Sittard-Hoogveld and Stein-Graetheide. The graves of the first three cemeteries seem to adhere to a certain pattern, the grave found in Stein-Graetheide is rather unique.

Wijshagen de Rietem

In Wijshagen de Rietem a total of four elite graves is found. Three of these consist of situla graves (see fig. 14). Two graves consisted of type B graves, for one grave the type could not be established. Grave C contained, in addition to the situla, remains of a torque, two bracelet fragments, a belt hook, a bowl, a pot and cup fragments. Grave E contained two metal balls with tubular ends and a melted bronze fragment. Grave H contained, besides the rippensitze, eight bronze balls with tubular ends, four conical bronze tubes, four phalerae, a horse bit and fragments of an iron rod. A fourth grave, a type C grave, contained a fragment of a bracelet, a razor, a set of tweezers, four iron rings and pottery sherds (Van Impe and Creemers 1991).

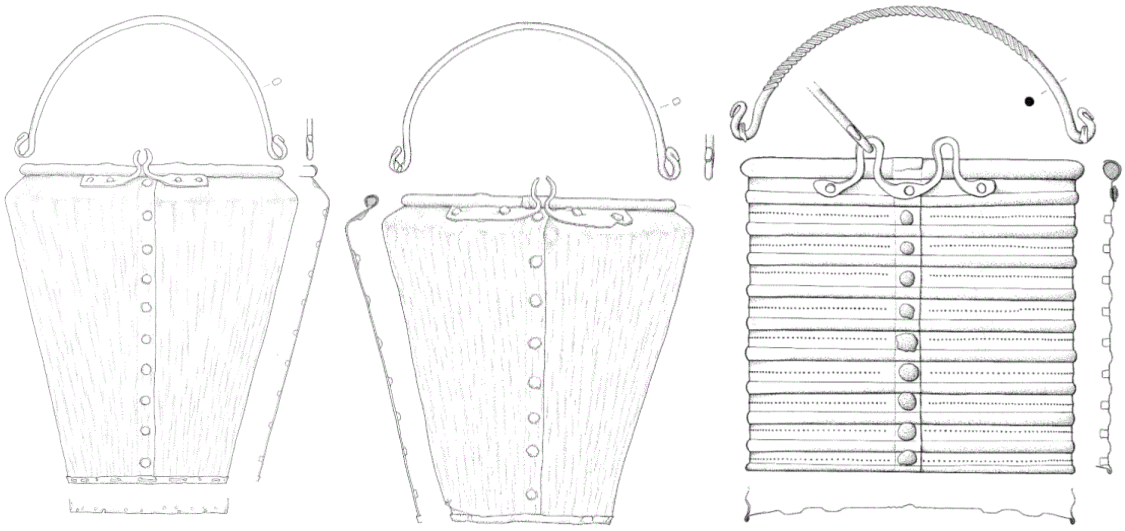

Figure 14: Bronze situla found in grave C (left), grave E (middle) and grave H (right) in Wijshagen de Rietem (Van Impe and Creemers 1991, 57,60,64).

Eigenbilzen

In Eigenbilzen a situla grave was discovered in 1871. The grave was not properly excavated and it is quite likely that smaller finds have been overlooked (Mariën 1987). The grave contained a rippensitze similar to the one found in Wijshagen de Rietem in grave H (Van Impe and Creemers 1991, 64; Mariën 1987, 14-17). Furthermore, the

grave contained an Etruscan bronze jug and another bronze jug which is affiliated to jugs in the Eastern La Tène area. It also contained a decorated gold sheet fragment which is thought to have been part of a decorated drinking horn. Lastly, it contained the remains of unidentified iron objects (Mariën 1987).

Sittard-Hoogveld

In Sittard-Hoogveld a situla grave was discovered which contained the remains of a rippensitze which appears to have been similar to those found in Eigenbilzen and Wijshagen de Rietem (Van Impe and Creemers 1991, 64; Mariën 1987, 14-17; Tol 2000, 112-4). Furthermore, it contained the remains of a bronze pin, an iron ring, an iron nail, pottery sherds and parts of a lower pig jaw (Tol 2000, 109-14). The grave belonged to a 30-60 year old male (Tol 2000, 115).

Stein-Graetheide

In Stein-Graetheide a rather unusual elite (probably female) grave was found. The grave contained a bowl, fragments of a gold rod, four fragments of worked ivory, an iron fibula and several bronze and iron rings and pin and nail fragments (Beckers and Beckers 1940, 186-7). The ivory objects area unique in the study area, but as they are poorly documented they are hard to interpreted. The fragment of a golden rod could possibly resemble the remains of a torque or bracelet but as proper documentation lacks this is so far unclear (Beckers and Beckers 1940, 186-7). Although the grave is poorly documented, it appears to resemble a very unique grave as gold is almost never found in graves within the study area, the only other examples are the earlier mentioned Eigenbilzen grave and the gold plated phalerae found in Nijmegen Hunerberg (Ball 1999; Mariën 1987). If the identification of the ivory objects is correct these would represent unique finds which must have been imported from far away.

4.2.2 Elite graves in Nijmegen

The Nijmegen area yielded by far the most elite graves. A total of 17 elite graves was found here in 9 different cemeteries.

Nijmegen Kopsplateau

The cemetery found at Nijmegen Kopsplateau yielded a total of five elite graves. All

graves contained the remains of spears and lances. The graves are thought to date between 500 and 375 BCE. Grave PG 72 contained six spearheads, one lancehead and remains of burnt animal bones (Fontijn 1995; Kortlang 1999, 165). PG 78 contained three spearheads. PG 79 contained two spearheads and burnt pig remains (Fontijn 1995; Kortlang 1999, 165). PG 81 contained a spearhead and a spearfoot holder. Grave PG 83 contained another spearhead (Fontijn 1995).

Wijchen-Woezik Sportpark

The cemetery of Wijchen-Woezik Sportpark contained a total of four elite graves. Three graves contained the remains of bronze torques and one grave contained other objects which are related to bodily adornment. All graves except grave 22 (which could be classified as a type C grave) could be classified as a type A grave. Grave 11 belonged to a seven year old child. The grave contained a bronze torque fragment, a bronze bracelet, a bronze bracelet fragment, several bronze chain fragments, a fragment of a bronze ring, the remains of a ring-headed pin and an iron ring with a bronze link (Heierbaut 2011, 45-6). Grave 12 belonged to a five year old child and it contained the remains of a bronze torque and a single bronze bracelet (Heierbaut 2011, 49). The cremation remains of grave 22 have not be identified. The grave contained fragments of two different torques, the remains of a bronze ring, bowl and pot fragments, and melted metal (Heierbaut 2011, 60). Grave 30 belonged to a 25-40 year old woman and it contained several fragments of hair rings (Heierbaut 2011, 67).

Groesbeek-Hüsenhoff

In Groesbeek two elite graves were found. Both could be classified as type B graves. They are dated in the Middle Iron Age based on a comparison with the graves at Nijmegen Kopsplateau, Overasselt and Nijmegen Trajanusplein (Ball 1999; Bloemers 2016; Fontijn 1995). Grave CR06 belonged to an adult, probably male, individual. The grave contained the remains of a spearfoot holder, the remains of an iron belt hook or belt attachment, and fragments of a bowl and a pot. The grave was located inside a circular ditch monument (Geerts and Veldman 2012, 103, 220). Grave CR10 belonged to an adult, probably male, individual. It contained the remains of a spearhead, a spearfoot holder and the remains of a bowl with holes under the rim (Geerts and Veldman 2012, 104, 225). Along the grave a straight part of a ditch was found. In the publication this was interpreted as a longbed but since only a small section of one of the

ditches has been found this cannot be verified (Geerts and Veldman 2012, 33-8). The ditch could equally well be part of a rectangular or square structure. At least it seems likely that the grave was surrounded by either of these three monument types.

Nijmegen Trajanusplein

The cemetery of Nijmegen Trajanusplein yielded one elite grave. This burial, 60/9, belonged to a female individual aged between 30 and 52 years old. The type A grave was not located in a monument. The grave contained a large spearhead, a spear or arrowhead and a fragment of a spearhead. Furthermore, it contained two horsebits, four phalerae, the remains of a two-wheeled wagon, several iron and bronze objects, textile fragments and pig remains belonging to at least three different pigs (Bloemers 2016). Such wagon graves appear to be affiliated to graves in the Hunsrück-Eifel, Champagne and Ardenne region (Bloemers 2016; Von Nakoinz 2005, 168-9). The origin of these graves with two-wheeled wagons lies in the Middle-Rhine Moselle region, the core area of the Hunsrück-Eifel culture (Diepeveen-Jansen 2001, 82). In some graves in the German Rhineland wagon parts are found as well but the grave in Nijmegen represents the only grave in the study area where the remains of a complete wagon were found.

Nijmegen Hunerberg

This, probable, grave has only been documented very poorly.[7] It is unclear what type of grave this was. In the grave four spearheads were found. Furthermore, a ball with tube shaped openings and the remains of a phalerae with gold inlay were found (Ball 1999, 134-5).

Overasselt

The Overasselt grave is the only grave within the study area which contained objects which are related to all four categories: 1) weapons, 2) drinking vessels (relating to alcohol consumption), 3) riding/driving gear, 4) bodily ornaments (see fig. 15). The objects were found inside a bronze situla together with cremation remains (probably a type A grave). The grave contained four spearheads, a spear fragment, one swan-neck needle, seven balls with tube shaped openings, a bronze cup, four iron chains with

[7] It is not even certain that these finds were actually found inside a grave. This assumption has been made based on their content which is somewhat comparable to other elite graves found in the Nijmegen area, e.g. the Overasselt grave and the spear graves found at Nijmegen Kopsplateau (Ball 1999; Fontijn 1995).

attachments which are thought to be horse decorations, two horse bits and three phalerae (Ball 1999, 135-6).

Figure 15: Overasselt grave containing horse gear, weapons, bronze vessel and a hairpin (http://www.collectiegelderland.nl).

Ressen Zuiderveld

Grave 22, a type A grave, found in Ressen Zuiderveld contained the remains of an iron sword sheath, a Marne style bowl and the remains of a crooked needle. The grave is not yet published but it is worth noting as this is the only grave which yielded evidence for swords in a Middle Iron Age funerary context (although the grave didn't contain the remains of the sword but only the remains of the sheath).[8]

Haps Kampersveld

The grave 190 found at Haps Kampersveld, a type A grave, contained the remains of an Antenna dagger and sheath, a crooked needle, and three arrowheads (Verwers 1972, 57-9). The grave was located inside a circular ditch (Ball 1999, 127).

Lent Laauwikstraat

The inhumation grave 2 found at Lent Laauwikstraat yielded remains of two hair rings

[8] Information personal communication with Peter van den Broeke 2017.

and the remains of one ear ring (Van den Broeke 1999). The grave has been classified as an elite grave because it yielded multiple objects in the category bodily adornment. The grave belonged to an adult male (Van den Broeke 2001, 144).

4.2.3 Elite graves in the German Rhineland

The German Rhineland area yielded four elite graves. They are found in two cemeteries, Halderen Colettenberg and Haldern Sommersberg. None of these graves was located inside a monument.

Haldern Colettenberg

Haldern Colettenberg yielded three elite graves. Grave 20, a type B grave, yielded the remains of an *ösenstifte* and a large iron pin which are both thought to be wagon parts (see fig. 16). Also, the grave contained fragments of two pottery bowls (Reichmann 1979, taf. 47). Grave 30, a type C grave, yielded two large nails which were interpreted as wagon parts. Furthermore, it yielded the remains of an iron fibula, an iron belt hook and a bowl (Reichmman 1979, taf. 50). Grave 49, type B grave, yielded an urn, the remains of a bowl and an *ösenstifte* which was interpreted as being part of a wagon (Reichmann 1979, taf. 52-3).

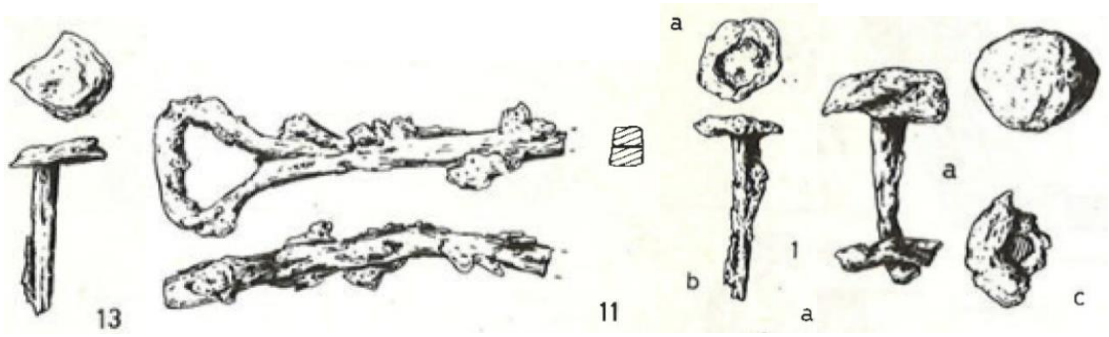

Figure 16: Wagon parts, left and centre-left grave 20, centre-right and right grave 30 (Reichmann 1979, taf. 47, 50).

Haldern Sommersberg

In Haldern Sommersberg one elite grave was found. Grave 16, a type B grave, contained a shield handle, the remains of an iron fibula, a nail and a bowl (Reichmann 1979, taf. 17).

4.2.4 Elite graves in Oss

In Oss two elite graves have been found, both graves are found in the cemetery of Oss-IJsselstraat.

Oss-IJsselstraat

Both elite graves found in Oss-IJsselstraat consisted of type A graves. Both were located inside a square dich monument. Grave 3 belonged to a 7-12 year old child. It contained the remains of an iron torque (Wesselingh 1993, 119). Grave 4 contained burnt fragments of a bronze torque, of a similar type to the torque found in grave 12 of Wijchen-Woezik Sportpark (see fig. 17). Furthermore, the grave contained fragments of an iron knife.

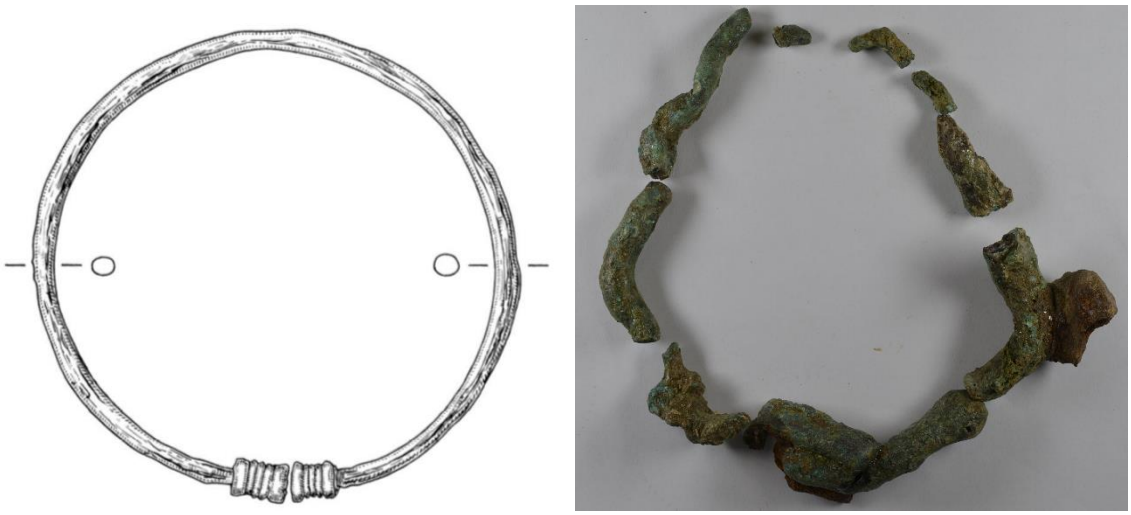

Figure 17: Left: drawing of the iron torque found in grave 3, right: photo of the bronze torque found in grave 4 (Wesselingh 1993, 119).

4.2.5 Elite graves in Geldermalsen

The Geldermalsen area yielded three elite graves. They are found in two cemeteries.

Geldermalsen Middengebied

The cemetery of Geldermalsen Middengebied yielded two elite graves. Both are inhumation graves which were not located inside a monument. Grave 1 belonged to a 34-40 year old woman (see fig. 18). The grave yielded a bronze torque, two bronze bracelets, two bowls, a pot, an iron knife, eight pig ribs and the lower jaw of a cow (Hulst 1999, 42-5). An isotope study indicated that the individual was of a non-local origin (Van den Broeke 2014, 171-3).

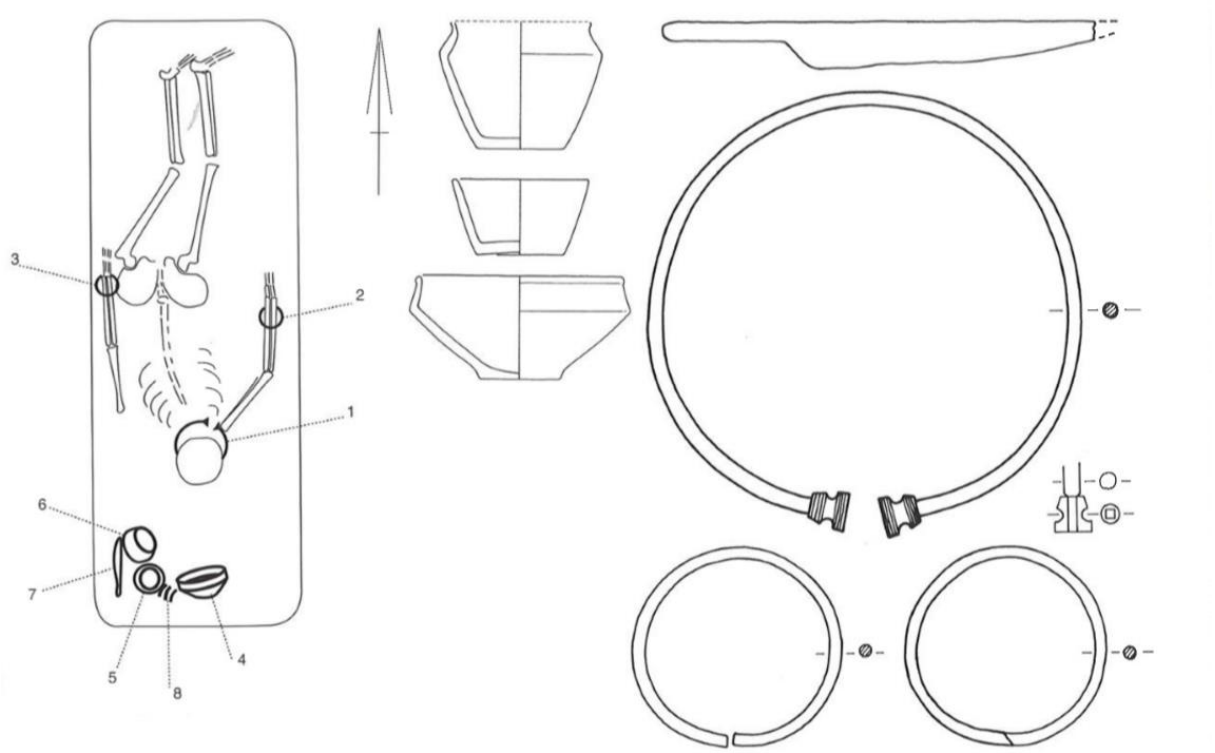

Figure 18: Geldermalsen Middengebied grave 1 with grave goods and their arrangement in the grave (Hulst 1999, 45).

Grave 3 found in Geldermalsen Middengebied belonged to an individual who was older than 12 years ±30 months.[9] The grave contained an iron torque, a bronze nose piercing with an amber bead, an unidentified iron object and a spindle-whorl (Hulst 1999, 42-3).

Meteren de Plantage

The cemetery of Meteren de Plantage yielded one grave which could be classified as an elite grave because it contained multiple objects related to bodily adornment. Inhumation grave 2 belonged to a 30-40 year old woman, the grave contained six bronze hair rings or earrings with amber beads and one similar ring without a bead (Blom *et al.* 2012, 84, 283). The grave also contained a bronze bracelet and two pottery sherds (Blom *et al.* 2012, 83-5). An isotope study indicated that the woman was of a local origin (Kootker *et al.* 2017, 78-9).

[9] This odd age indication is taken directly from the publication (Hulst 1999). It is rather odd that a margin 2.5 years is included when it was mentioned that the invidual is older than 12 years old, as it would make more sense to simply note the individual was at least older than 9 years old. Possibly this is a mistake in the publication and perhaps the individual was actual 12 years old ±30 months. But this can't be stated with any certainty.

4.2.6 Elite graves in Northern Limburg and Eastern Noord-Brabant

In Northern Limburg and Eastern Noord-Brabant three elite graves have been found in two cemeteries: Someren-Waterdael I and Nunhem-Voort.

Someren-Waterdael I

Someren-Waterdael I yielded two elite graves, both type A cremation graves. Grave 6 belonged to an adult aged 30-60 years old. The grave contained three arrowheads. The grave was located inside a circular ditch monument with eighteen postholes inside the ditch. Grave 175 belonged to an adult male aged between 23-40 years old. The grave contained the remains of an antler handle for an antenna dagger (see fig. 19). The grave also contained fragments of sheep bones. The grave was located in the centre of a longbed (Kortlang 1999, 157-62, 192-3).

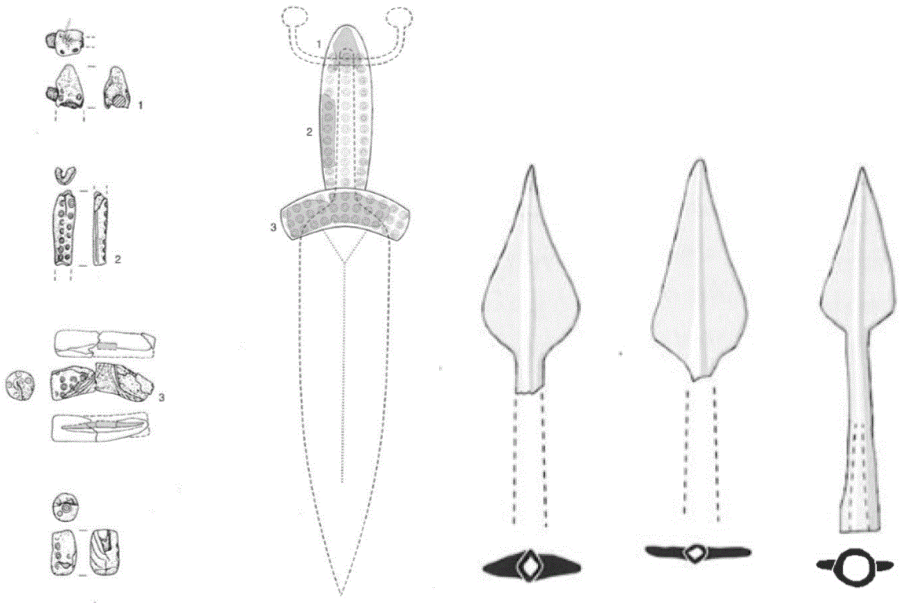

Figure 19: Left: dagger fragments found in Someren-Waterdael I grave 175, right: three arrowheads found in Someren-Waterdael I grave 6 (Kortlang 1999, 157, 161).

Nunhem-Voort

The cemetery of Nunhem-Voort yielded one elite grave. Grave S11(AO) is dated to the transition between the Middle and Late Iron Age, between 280-190 BCE. The grave belonged to an adult woman. The grave contained a bronze fibula, seven fragments of probably four bracelets, 56 links of a bronze chain, 37 bronze fragments of fibula or bracelets, tiny bronze and iron fragments and burnt sheep bones (Wilgen 2016, 62-5).

4.3 Monuments, grave types and grave goods in elite graves

This section will provide a thematic discussion on monuments, grave types and grave goods found in elite graves. It will also discuss the sex and age of individuals found in these elite burials.

4.3.1 Monuments and elite graves

Of the 36 elite graves, only 11 are located inside a monument (see tab. 14). It should be noted here that for some graves, such as the Eigenbilzen and Overasselt graves, were not excavated properly and that it is possible that these graves might have been located under a barrow. About 31% of the elite graves is located under a monument. In this respect elite graves do not divert from the other Middle Iron Age graves, on average 30%. But it should be noted here that the 30% also included monuments of which the burials were not preserved thus in reality the percentage is probably somewhat lower for non-elite graves (see the discussion on preservation in chapter three). If we take a closer look at the individual monuments it is striking that the monuments are highly varied. Both square ditches, circular mounds, circular ditches and even a longbed contained elite graves. What is furthermore surprising is that, in terms of sizes, these monuments are usually not exceptional. Only the Wijshagen mounds are larger than comparable monuments of non-elite graves. Normally, circular monuments vary in size between 2.5-13 meters. The Wijshagen monuments vary between 14-20 meters, they are thus larger than other monuments of this type.

Table 14: Monuments found surrounding elite graves.

Grave	**Monument type**	**Dimensions**	**Literature**
Oss-IJsselstraat grave 3	Square ditch	6.20x6.20	Wesselingh 1993
Oss-IJsselstraat grave 4	Square ditch	6.00x6,00	Wesselingh 1993
Haps	Circular Ditch	Dm. 7.5m	Verwers 1972
Wijshagen Grave C	Circular Mound	Dm. 20 m	Creemers and Van Impe 1991
Wijshagen Grave E	Circular Mound	Dm. 14 m	Creemers and Van Impe 1991
Wijshagen Grave A grave 2	Circular Mound	Dm. 18 m	Creemers and Van Impe 1991
Nijmegen Kopsplateau PG72	Circular Ditch	Dm. 6.5 m	Fontijn 1995
Someren-Waterdael I grave 6	Circular Ditch	Dm. 12.75	Kortlang 1999

Someren-Waterdael I grave 175	Longbed	9.75x4.50	Kortlang 1999
Groesbeek CR06	Circular Ditch	Dm. 11.75m	Geerts and Veldman 2012
Groesbeek CR10	Unclear	Unclear	Geerts and Veldman 2012

If we look at the position of these monuments within the cemetery it should be noted that the monuments usually do not have an exceptional position within the cemetery in which they are found. The Wijshagen graves are an exception here, as they are located around the actual cemetery. Within the Oss-IJsselstraat cemetery the two graves and monuments have quite a central position within the cemetery (see fig. 20). But other graves such as grave 5 and grave 8 in the cemetery lack elite grave goods even though they are constructed in a similar fashion. Hence, the burial monuments in this case do perhaps strengthen the centrality of these graves, but that position was not necessarily reserved for elite graves.

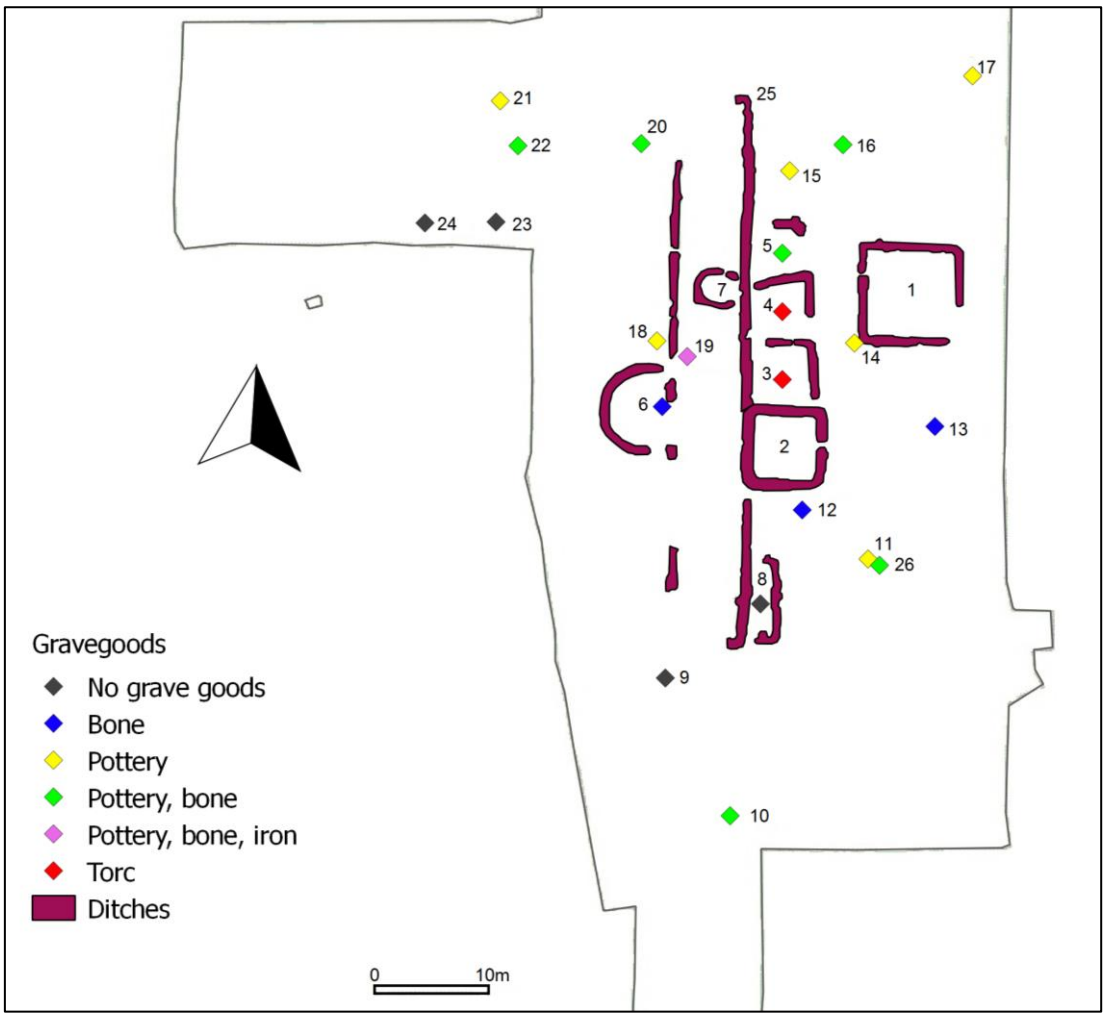

Figure 20: Oss-IJsselstraat grave goods and torque graves (after: Wesselingh 1993).

In general we can conclude that burial monuments hardly played a role in the construction of elite burials. Only rarely are they used as a method to emphasize the importance of these burials within a cemetery. Only in the Wijshagen cemetery do the burial monuments have an exceptional position within the cemetery both in terms of size and location.

4.3.2 Grave types and elite graves

Elite graves of all four grave types (A, B, C and inhumation graves) have been found in addition to four unknown, or type D, graves. In general the distribution of grave types for elite graves seems to fit with the general picture for the study area (see fig. 21). Elite inhumation graves are relatively common making up 11% of the elite graves whereas they comprise only of 4% of the total graves in the study area. In general the elite graves seem to comply with the distribution of grave types for the different micro-regions. In the Nijmegen area all grave types are represented but type A is dominant. In Oss only type A is present. In the German Rhineland three type B graves are found in addition to one type C grave. In Northern Limburg and Eastern Noord-Brabant two type A graves and one type B grave have been found. Southern Limburg is somewhat diverting three type B graves and one type C grave have been found, in addition to three type D graves. This is interesting because in this area type A is the most common grave type in this aera. Geldermalsen also provides an interesting case as all three elite graves in this area comprise of inhumation graves, while these only comprise of a small portion of the graves in that area.

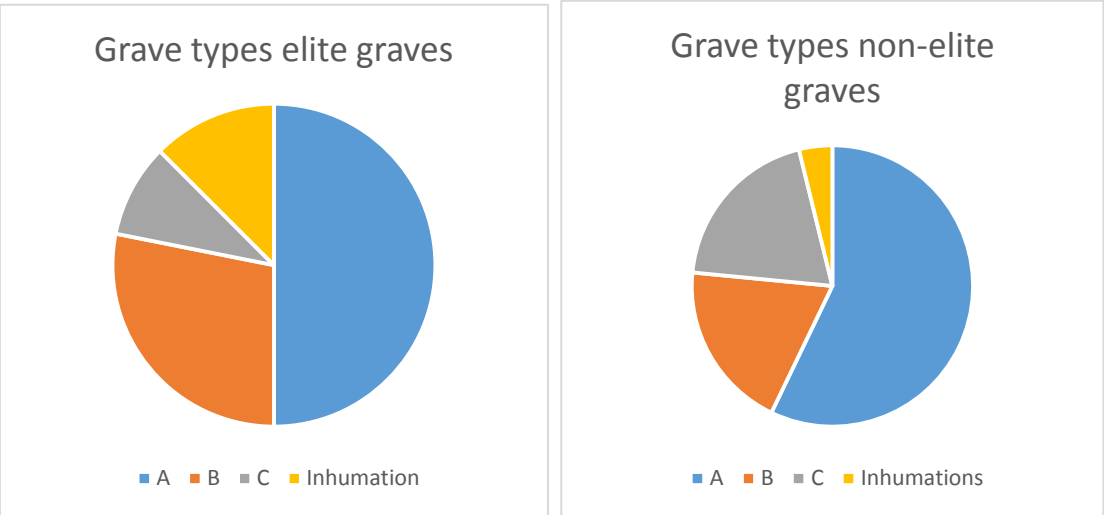

Figure 21: Distribution of grave types for elite graves compared to non-elite graves (excluding type D graves).

Besides a relatively high frequency of inhumation graves (especially in Geldermalsen), and an absence of type A graves in Southern Limburg, it seems that elite graves comply to the general picture of the study area and for the micro-regions more specifically, although in general type B graves also seem to be slightly more common in elite graves than in non-elite graves. It seems that the selection of cremation remains and the manner of their deposition was not a means for expressing an elite identity in the burial ritual.

4.3.3 Grave goods in elite graves

As noted before elite graves are constructed using grave goods which can attributed to four main categories: 1) weapons, 2) drinking vessels, 3) riding/driving gear, 4) bodily ornaments (Begerbrant 2007, 92; Treherne 1995, 108). But grave goods which do not belong in either of these categories are also found. In some cases the original function of these grave goods is not clear. A striking example are the bronze balls with tubular ends which are found in Nijmegen Hunerberg, Overasselt and Wijshagen (Ball 1999; Van Ime and Creemers 1991, 57-68). Grave goods which are known from non-elite graves are also found frequently in elite graves. Both pottery, fibula, belt hooks and animal bones are found in elite graves. Animal bones in these cases are thought to be a form of food-offerings. The pottery might in many cases also have been related to a last meal. The following sections will discuss typical elite related objects and categories of objects. Object categories which have been discussed extensively in the previous chapter will not be discussed unless a discussion specifically focussed on elite-graves is deemed to be relevant.

Weapons in elite graves

The vast majority of weapons which are found in elite graves consist of spearheads (n=25), arrowheads (n=6), spearfoot holders (n=3) and lanceheads (n=1). The incorporation of these objects in graves seems to have originated from the Hunsrück-Eifel culture, where these objects are found in large quantities (Diepeveen-Jansen 2001, 72; Von Nakoinz 2005, 151-3). In the Hunsrück-Eifel area weapons appear to be objects which are specifically attributed to men (Diepeveen-Jansen 2001, 72). In the study area they are found in one female grave and in two male graves. For the other graves no gender specifications are given. It seems that a clear distinction based on gender cannot be securely made. Other weapons include a shield handle, remains of a sword sheath

and two daggers (see fig. 22). Of these graves only in the case of the dagger found at Someren-Waterdael I could it be established that this concerned the grave of an adult male. Fifteen graves yielded weapons, two of these were male graves and one was a female grave. In four cases the age of the individual was known, in all cases it concerned adults.

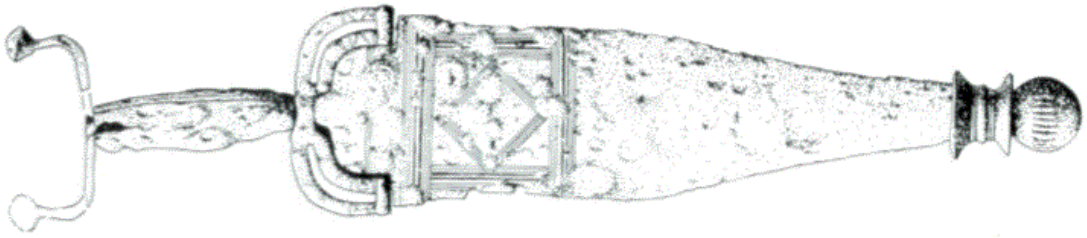

Figure 22: Iron dagger found in grave 190 at Haps Kampersveld (Verwers 1972, 57).

Wagons, wagon parts and horse gear in elite graves

In Haldern-Colettenberg three graves yielded parts of wagons. In all cases only one or two wagon parts were found. Only in the cemetery of Nijmegen Trajnusplein a nearly complete two-wheeled wagon was discovered (Bloemers 1986; Bloemers 2016). The wagon grave of Nijmegen Trajanusplein belonged to a 30-52 year old woman (Bloemers 2016, 29). Of the wagon burials in Haldern-Colettenberg there are no osteological studies to indicate the age or gender of the individuals. Wagon graves are, in the literature, often considered to be male graves (Bloemers 1986). However, recent studies indicated that Middle Iron Age female wagon graves, also two-wheeled wagons similar to the one found in Nijmegen Trajanusplein, are also found in female graves in the Marne-Moselle and Hunsrück-Eifel areas (Metzner-Nebelsick 2009, 254-6).

Horse gear is found in the earlier mentioned grave found at Nijmegen Trajanusplein. Here, two horse-bits are found which are related to the wagon (Bloemers 2016, 25). In the grave found at Overasselt horse gear was also found. Here, iron chains with bronze attachments were found together with horse bits (Ball 1999, 135-6). Lastly, grave H found at Wijshagen de Rietem also contained a horse bit (Van Impe and Creemers 1991). In general it seems that horse gear is only found in the most extravagant Middle Iron Age graves in the study area. Again, only one osteological study is known from the Nijmegen Trajanusplein burial to give an indication of gender or age.

Metal drinking utensils

Metal drinking utensils mainly consist of situla (n=3) and rippensitzen (n=3). In addition to these groups the Overasselt grave also yielded a small bronze cup (Ball 1999, 135-6). In the grave found at Eigenbilzen two wine jugs have been found, both of a different type. The grave also yielded the remains of a golden band which is thought to be part of a drinking horn (Mariën 1987).

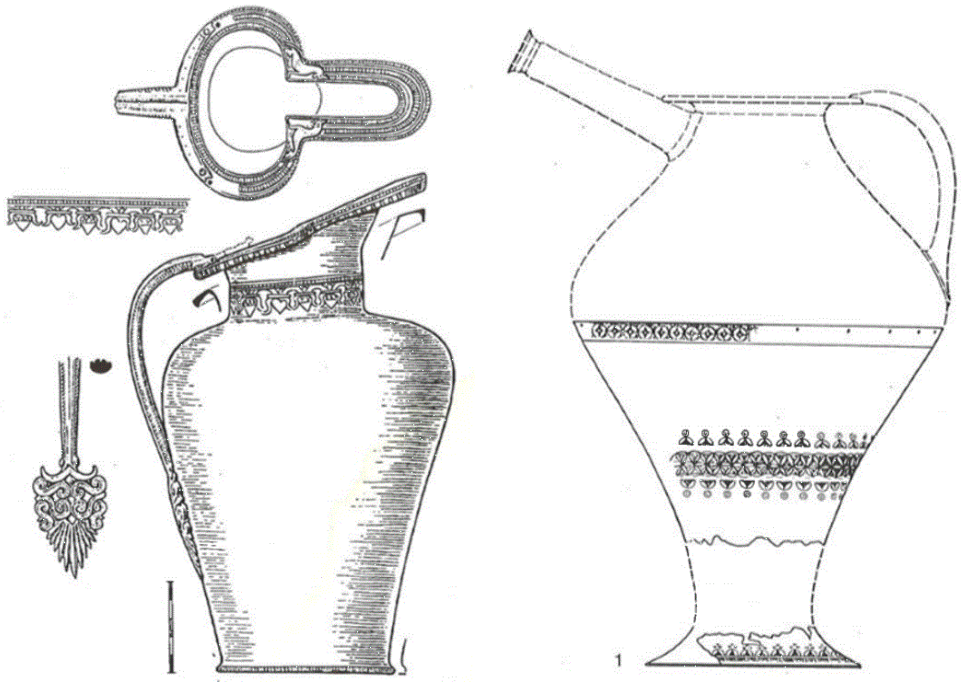

Figure 23: Jugs found in Eigenbilzen (Mariën 1987, 20,28).

All these drinking utensils appear to be imported from far away. The Etruscan "beaked jugs" are thought to originate from Italy (see fig. 23 on the left). However, these jugs are frequently found in the Hunsrück-Eifel area and it seems likely that this jug ended up in Eigenbilzen via the contacts which existed with the Hunsrück-Eifel area, rather than through direct contacts with Etruria (Haffner 1976, taf. 1-17; Mariën 1987, 19-22). The "spouted jug" found in Eigenbilzen is only partly preserved (see fig. 23 on the right). This jug seems to originate from an area north of the Alps probably somewhere in the Eastern La Tène area (Mariën 1987, 23-7). The golden sheet, which was part of a drinking horn, seems stylistically affiliated to a bowl found in Schwarzenbach (Mariën 1987, 32).

The three situla are of the so-called Ticino type. They are found in Wijshagen de Rietem

and in Overasselt. They are often thought to originate from southern Europe (Ball 1999, 135-6; Van Impe and Creemers 1991, 60-4).

The three rippensitzen are also thought to originate from Southern Europe. The rippensitze from Eigenbilzen is thought to represent a Tincino type rippensitze. The one found in Wijshagen de Rietem represents a slightly different type (Van Impe and Creemers 1991, 65). In Central Europe, these rippensizten are usually found in male graves. This fits with the grave found in Sittard-Hoogveld, but this is the only grave where a sex identification has been made (Tol 2000, 114-5). For none of the other bronze drinking vessels a sex identification is available hence it is difficult to state (although it is not unlikely), based on only one case, if a similar pattern is observable in the Meuse-Demer-Scheldt area.

Torques in graves

It has already been noted that torques largely represent a local phenomenon for the Dutch riverine area west of Nijmegen (see tab. 15). The only notable exception is the torque found in a situla in the Wijshagen de Rietem cemetery (Van Impe and Creemers 1991, 60).

Table 15: Torque graves in the Meuse-Demer-Scheldt area and neighbouring Dutch Rhineland (Heierbaut 2011; Hulst 1999; Van Impe and Creemers 1991, 60-8; Wesselingh 1993).

Site	Grave	Material	Age	Sex	Date
Geldermalsen Middengebied	Grave 1	Bronze	34-40	Female	450-375 BCE
Geldermalsen Middengebied	Grave 3	Iron	>12 ±30	Unknown	450-375 BCE
Oss-IJsselstraat	Grave 3	Iron	7-12	Unknown	500-350 BCE
Oss-IJsselstraat	Grave 4	Bronze	Unknown	Unknown	500-350 BCE
Wijshagen de Rietem	Grave C	Bronze	Unknown	Unknown	470-330 BCE
Woezik-Sportpark	Grave 11	Bronze	7	Unknown	550-450 BCE
Woezik-Sportpark	Grave 12	Bronze	5	Unknown	550-450 BCE
Woezik-Sportpark	Grave 22	Bronze	Unknown	Unknown	500-325 BCE

All torques appear to date in the La Tène A period or the earlier part of the Middle Iron Age. The torque found in Lent Laauwikstraat is included in the database but based on its typology it is thought that it probably dates in the 6th century BCE, thus before the

Middle Iron Age (Van den Broeke 2001, 142-3). Hence, this find is excluded from the analysis here. The idea that torques are only found in graves dating to the earlier part of the Middle Iron Age fits with the observed patterns for elite graves in the Hunsrück-Eifel area where torques are also mainly found during the La Tène A period. In the Hunsrück-Eifel area torques are thought to be related specifically to female graves (Diepeveen-Jansen 2001, 71-2). In the Meuse-Demer-Scheldt area they are not found in male graves but only one of them is found in a female grave. It is noticeable that three of the torques are found in children's graves. It thus seems that these objects in this area are not just a specific female related object, but they are also associated with children.

Bracelets

Bracelets are not exclusively found in elite graves, but the majority of them is found in elite graves (n=10). They are found in two graves in Wijshagen de Rietem, two graves in Wijchen Woezik-Sportpark, one grave in Geldermalsen Middenebied, one grave in Meteren de Plantage and in one grave in Nunhem-Voort. The (probably four) bracelets found in Nunhem-Voort are all flat bracelets. Nearly all other bracelets are round undecorated bracelets (Geldermalsen Middengebied, Meteren de Plantage and Wijchen Woezik-Sportpark). In Wijchen Woezik-Sportpark grave 11 also yielded a fragment of a bracelet with horizontal stripes on the outer surface of the bracelet. One bracelet found in Wijshagen de Rietem consisted of a hollow round bronze bracelet (Maes and Van Impe 1985, 30).

Bronze chains

Fragments of bronze chains have been found in Nunhem-Voort and Wijchen Woezik-Sportpark grave 11 (Heierbaut 2011, 45-6; Wilgen 2016, 62-5). They are considered to be part of jewellery.

Swan neck and crooked needles

These objects are thought to be clothing pins. They are only found in relatively richly furnished graves. They are found in Haps Kampersveld, Overasselt, Ressen Zuiderveld and Wijchen Woezik-Sportpark (Ball 1999, 135-6; Heierbaut 2011; Verwers 1972, 58-9). They are often found in Northern Germany but similar needles are also known from the Hunsrück-Eifel area (Haffner 1976, taf. 21, 33; Verwers 1972, 58-9; Von Nakoinz 2005, 142). These objects are only found in elite graves. It is interesting that they are all

found in the Nijmegen area, mainly (but not exclusively) in association with weapons.

Razors

Only one grave (barrow A grave 2) in Wijshagen de Rietem yielded a fragment of a razor blade (Maes and Van Impe 1985, 30). The blade appears to be sickle-shaped, a type which is also known from the Hunsrück-Eifel area (Haffner 1976, taf. 24, 28, 32-33, Von Nakoinz 2005, 165-6).

Phalerae

Phalerae are thought to be either part of the armour of a warrior, or parts of decorations of wagons or horses. They are found in Overasselt, Nijmegen Trajanusplein, Nijmegen Hunerberg, Wijshagen de Rietem grave H (Ball 1999; Bloemers 2016; Van Impe and Creemers 1991). It is clear that they are thus mainly related to the more exceptional Middle Iron Age graves in the area. Nevertheless, their exact function is unclear. They are found in both the Marne-Moselle region and in the Hunsrück-Eifel area (Diepeveen-Jansen 2001, 155; Haffner 1976, taf. 1; Van Impe and Creemers 1991, 66-7). Although these graves are located outside the study area, it is interesting to note that these objects have also been found in elite graves in Drenthe, for example in Anloo (De Wit 1998, 334).

Bronze balls with tubular ends

Bronze balls with tubular ends are found in three graves, in Overasselt, Wijshagen de Rietem and in Nijmegen Hunerberg (Van Impe and Creemers 1991, 58-9). The last grave contained four spearheads, a phalerae and one of these balls with tubular ends. The Overasselt grave also contained weapons, phalerae and spears (Ball 1999). In Wijshagen de Rietem grave E two of these objects were found in a situla. In Wijshagen de Rietem grave H eight of these objects are found in a situla here together with horse gear, bronze conical tubes, phalerae (Van Impe and Creemers 1991). They are in general only found in relatively richly furnished graves. Unfortunately, their function is still unclear. One interpretation is that they are decorative elements belonging to a piece of furniture (Van Impe and Creemers 1991, 67).

Animal bones

Although animal bones have been discussed extensively in the previous chapter, some

remarks should be made on animal bones in elite graves. In most elite graves depositions of animal bones do not divert from what we find in non-elite graves. However, a few exceptions should be noted. The first is the grave found in Nijmegen-Trajanusplein. Here the cremated remains of at least three different pigs have been found. If we consider that these bones represent a last meal we can grasp that if three pigs had to be slaughtered for such a meal that this would have been quite an exceptional meal (Bloemers 2016). Grave 1 in Geldermalsen Middengebied yielded pig ribs and the lower jaw of a cow, this last deposition is also quite exceptional (Hulst 1999). Besides these find the distribution of animal bones follows the patterns observed for non-elite graves. In four graves pig bones have been found, in two graves sheep bones and in one grave cow bones have been found.

Miscellaneous

Some objects in this category have been discussed separately. In Wijshagen de Rietem grave H four hollow bronze tubes have been found. They are thought to be either decorations of wagons or they are thought to be part of a warriors outfit. They at least seem to be stylistically affiliated to objects found in the Marne-Moselle region (Van Impe and Creemers 1991, 66-7). The grave in Stein-Graetheide contained several unique objects. It included several fragments of worked ivory and a gold rod. As the grave is poorly documented the exact nature of these objects could not be determined (Beckers and Beckers 1940, 186-7). In many elite graves iron and bronze nails, rings and pins have been found. These objects were probably part of larger (organic?) objects. Due to their fragmentary nature it is usually impossible to establish their original function (e.g. Beckers and Beckers 1940, 186-7; Heierbaut 2011, 45-6; Tol 2000, 109-14).

To this category textile might also be added. This has only been found in the cart burial found at Nijmegen Trajanusplein. The textile fragments appear to have been part of a finely woven, good quality piece of cloth (Bloemers 2016, 257). Unfortunately, there is no other data from other graves. Often textiles are not preserved, not recognized or not studied. For Early Iron Age elite burials there have been several recent studies which indicated that textiles played an important role in the burial ritual of that time (De Looff 2017; Van der Vaart-Verschoof 2017a, 110). In the Hunsrück-Eifel area similar finds have also been found, though they are usually also not preserved or recognized (Haffner

1976, taf. 172). In a burial in Glauberg a *schnabelkanne* was found which was also wrapped in textile (Van der Vaart-Verschoof 2017a, 159). A similar function might have existed in the Middle Iron Age, but more studies on this subject are needed to make general statements about the use of textiles in Middle Iron Age elite graves.

4.3.4 Locations of elite graves

The elite graves can be classified based on the four categories of related objects: 1) weapons, 2) drinking vessels, 3) riding/driving gear, 4) bodily ornaments (Begerbrant 2007, 92; Treherne 1995, 108). The 36 elite graves are found in 21 cemeteries, eight of these have multiple elite burials. It is striking that within a cemetery elite graves always seem to follow a specific pattern. If one elite burial is constructed in the cemetery the other elite graves will most likely be constructed using the same objects. For example: the cemetery of Nijmegen Kopsplateau contains five elite burials. All of these are graves with spearheads, arrowheads or lance heads (Fontijn 1995). None of these graves contain bronze drinking vessels or torques. In the cemetery of Wijchen-Woezik Sporpark four elite burials are found. Of these three contain the remains of bronze torques and the fourth one contains other bronze objects which are related to bodily adornment (Heierbaut 2011, 44-68). None of these graves contain weapons, wagons, riding gear or bronze vessels. In the cemetery of Wijshagen de Rietem four elite graves are found. Three of these contain bronze vessels, the other grave has objects related to bodily adornment (Van Ime and Creemers 1991, 57-68). None of these graves contain weapons. It thus seems that the four categories of objects do not need to be incorporated in every grave. It appears that there are local rules which determine which types of objects are found in a grave.

This pattern becomes clearer when we plot all the graves on a map (see fig. 24). It becomes clear that three distinct groups are formed based on the objects in these graves. In the central Dutch riverine area there is a cluster of three cemeteries in which torques are found in elite graves. The cluster consists of the cemeteries of Geldermalsen-Middengebied: with two torque graves, Oss-IJsselstraat: with two torque graves, Wijchen-Woezik Sportpark: with four elite graves of which three contained torques (Heierbaut 2011, 44-60; Hulst 1999, 45-7; Wesselingh 1993, 115). Torques are virtually absent in the rest of the study area. The only exception is Grave C which is found in the cemetery of Wijshagen de Rietem, here a burial with a bronze situla also contained the

remains of a bronze torque (Van Impe and Creemers 1991, 60).

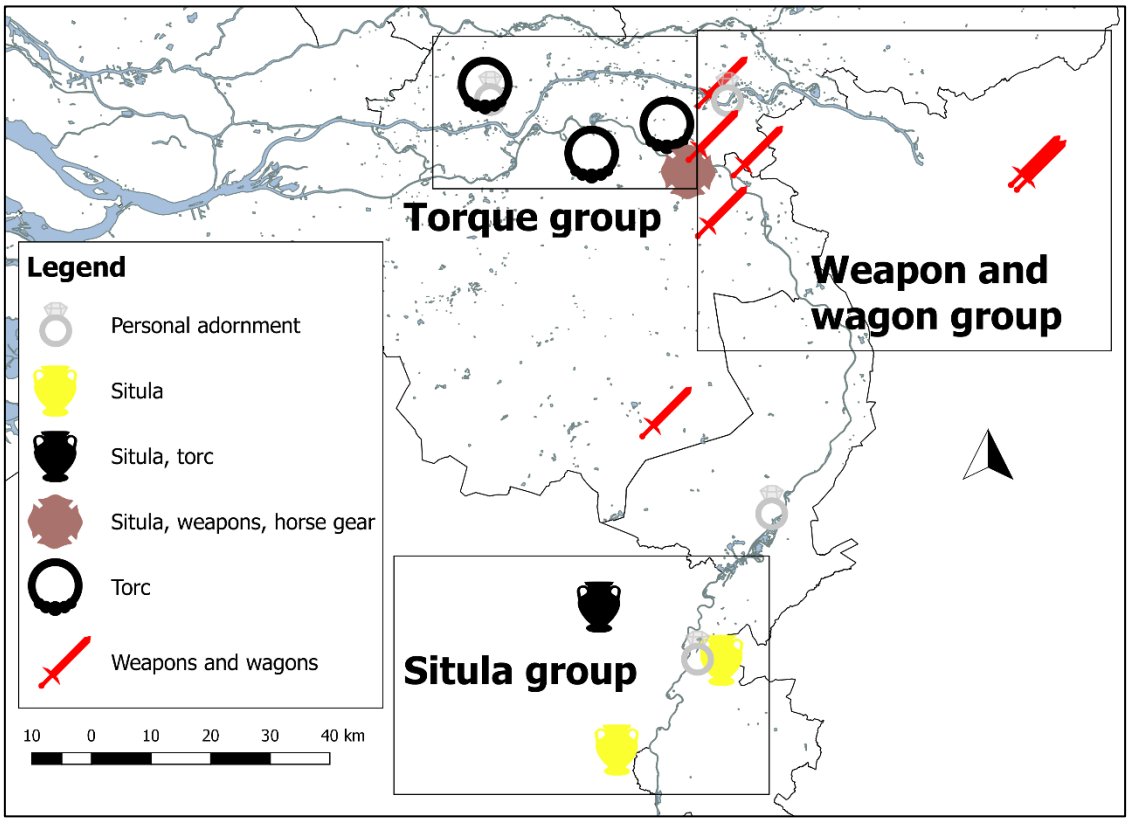

Figure 24: Map elite burials in the Meuse-Demer-Scheldt area and bordering Rhineland. Three groups of elite graves.[10]

A second area is the eastern Dutch riverine area and the bordering German Rhineland. Here, a large cluster of graves is found which contain weapons and or wagon parts. Both of these categories appear in the area. Weapons nearly always consist of spearheads, lanceheads or arrowheads. In total 12 graves in this area contain either spearheads, lanceheads or arrowheads. Only one other grave outside this area, grave 6 found at Someren-Waterdael I, contained weapons: a set of three arrowheads (Kortlang 1999, 161). Remains of daggers are found in two graves both in Haps and again at Someren-Waterdael I (Kortlang 1999, 157; Verwers 1972, 57-59). In Ressen-Zuiderveld the remains of a sword sheath have been found and in Haldern-Sommersberg the remains of a shield handle has been found (Reichmann 1979, tab. 17). In addition to weapons, this area also yielded several graves which contained horse gear and or wagon

[10] Personal adornment here is only noted if no other objects are present, these objects are often also found in addition to other object categories.

parts. In the case of Nijmegen-Trajanusplein the remains of a two-wheeled chariot were found in association with a lancehead and two spearheads. In Haldern-Colettenberg three graves contained wagon parts (Bloemers 1986, 77-82; Reichmann 1979). In all cases only one or two wagon-parts were found. Wagon-parts and riding gear appear to be mainly restricted to the same area as the weapon graves.

The third group of elite graves is located in Limburg (Belgium Limburg and the southern part of Dutch Limburg). This group consists of graves in which bronze vessels are found. They are found in the cemeteries of Wijshagen-de Rietem: three graves with bronze vessels, Eigenbilzen: one grave with bronze vessels and Sittard-Hoogveld: one grave containing the remains of a bronze vessel (Mariën 1987, 14-21; Tol 2000, 109-115 Van Ime and Creemers 1991, 57-68). Bronze vessels are practically unknown outside this area, the only exception is the grave found in Overasselt (Ball 1999, 135). This last grave deserves to be mentioned separately here because it is the only grave in the study area which contains objects which are related to all four categories.

The fact that elite burials clustered in the riverine areas seems to have had its roots in the Early Iron Age. But in the Early Iron Age the clustering of elite graves appears to be more located along the river Meuse whereas in the Middle Iron Age the elite graves mainly cluster in the area where the Meuse and Rhine rivers converge (see fig. 25).

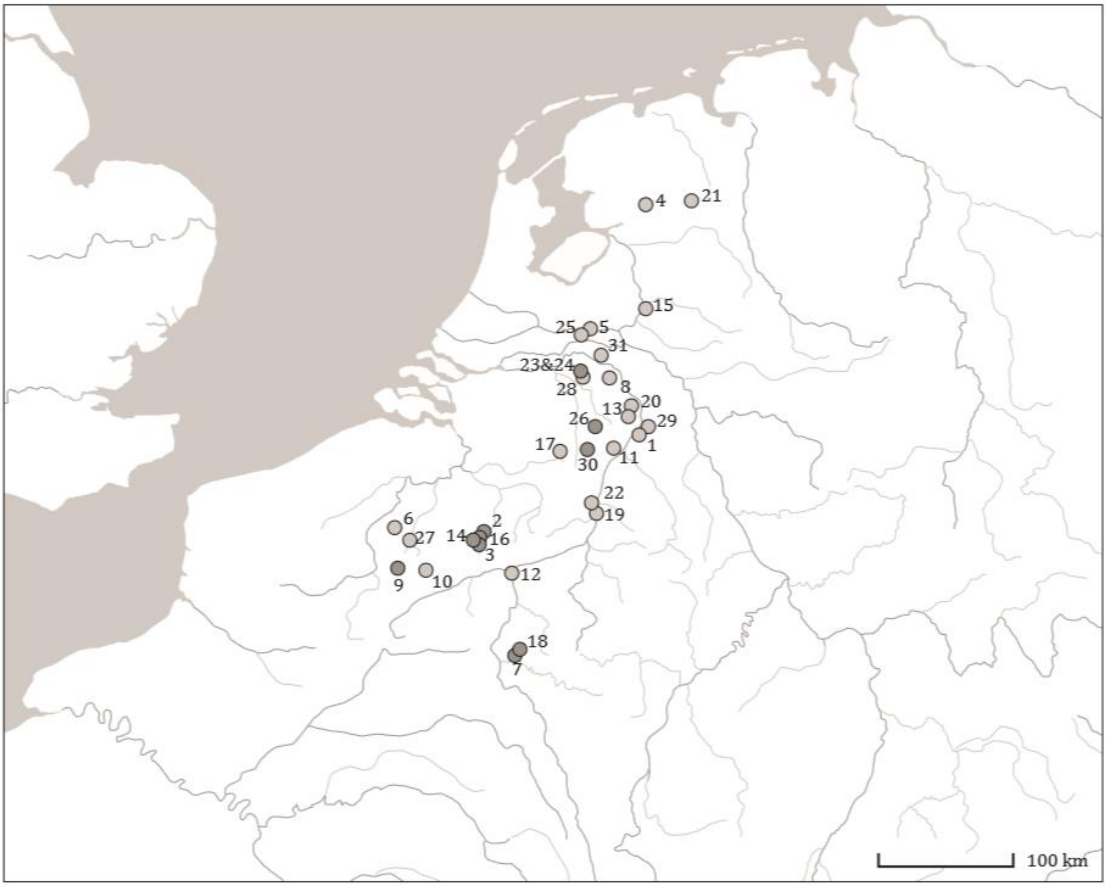

Figure 25: Early Iron Age elite burials in the Low Countries (Van der Vaart-Verschoof 2017a, 50).

Although the clustering of graves seems to have its roots in the preceding Hallstatt period, the observed regionalised differences appear to be a distinctively Middle-Iron-Age development. In the Early Iron Age bronze vessels were for example also known from Baarlo, Venlo and Oss, thus they were not a local characteristic for southern part of Dutch Limburg and Belgium Limburg (Van der Vaart-Verschoof 2017a, 117). In the Early Iron Age weapons were also not restricted to the eastern Dutch riverine area and the bordering German Rhineland. In Heythuizen, Maastricht, Neerharen-Rekum, Oss and Weert weapons were also found in elite graves (Van der Vaart-Verschoof 2017a, 73-77).

4.3.5 Men, women and children

In terms of elite graves, it is interesting to review the current ideas on gender and age for Iron Age burials. In general it is thought that during the Iron Age elite burials with weapons should be considered to be male burials (Arnold 2012, 101). Female burials

are thought to be mainly associated with jewellery. For the Early Iron Age in the Low Countries this indeed seems to be a valid assumption. Elite burials from this period which contained weapons indeed always seem to belong to males, for those instances where the gender of the person is known. Ornaments on the other hand were usually related to female burials (Van der Vaart-Verschoof 2017b, 14-6).

This section will deal with sex and age in Middle Iron Age elite graves. It should, however, be noted that the amount of graves where a sex or age determination has been made is very small. In many cases there were no osteological studies of the cremation remains. In total five female or possibly female elite burials and four male or possibly male elite burials have been found. In terms of sex it seems that both sexes are equally represented in elite graves in the study area. In terms of age at least three children's and 12 adult elite graves have been found. One grave belonged to an <12±30 year old individual. It is unclear if this is a child or an adult individual. This means that approximately 20% of the elite graves, where it could be determined if the individual was an adult or a child, consisted of children's graves. Of all the cremations found in the study area it was determined that 74 of these consisted of children's graves and that 194 consisted of adult graves. This means that approximately 28% of all cremations consisted of children's graves. Children are slightly more common in normal cremation graves than in elite graves, but in general the representation of women, men and children does not divert from the patterns observed for ordinary Middle Iron Age graves (see fig. 26).

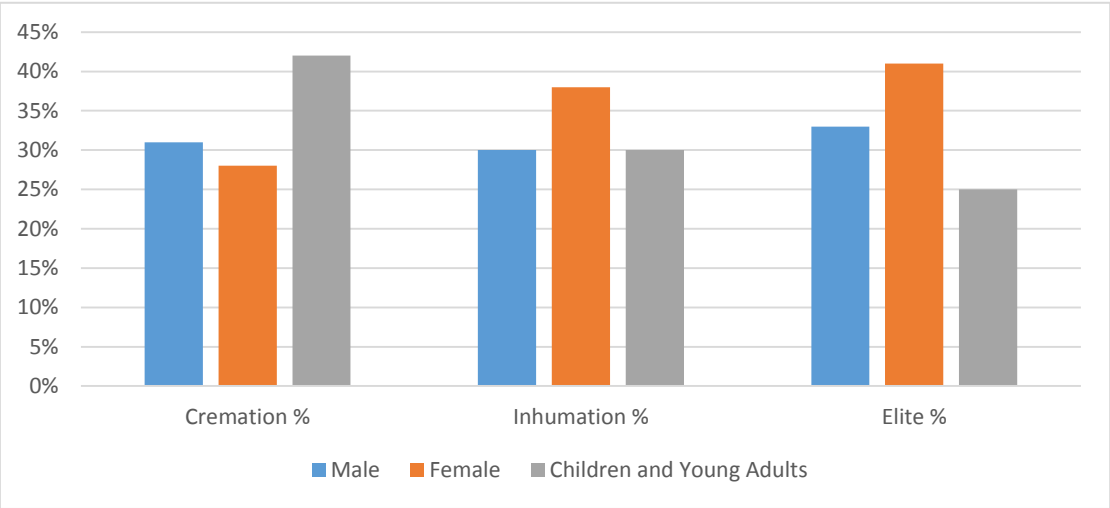

Figure 26: Sex and age distributions for cremation graves, inhumations and elite graves (graves where sex and age could not be determined have been excluded).

In terms of grave goods, torques are an interesting case as they are only related to children's graves and female graves. Weapons are found in two male graves and one female grave. The fact that these objects are also found in female graves should not be overlooked. A grave in Drenthe where fragments of chain mail armour were found also probably belonged to an adult female, although this could not be determined with any certainty (Van der Sanden 2004, 369-2). For the Low Countries I would state that weapons cannot be assigned as an exclusive male grave good category. The same caution should be taken for wagon graves as the grave found as the cart burial found at Nijmegen Trajanusplein also contained the remains of a woman. It does however appear that these objects are always associated with adult graves. For bronze drinking vessels only one grave is known where a sex and age has been determined. This is the grave of Sittard-Hoogveld which contained a 30-60 year old male (Tol 2000, 115).

4.3.6 Elite graves, selective deposition and elites in the Late Iron Age

The Late Iron Age is not part of this study, but a short side note should be made here on elite graves in the Late Iron Age. The Nunhem-Voort grave which is mentioned here dates around the transition between the Middle and Late Iron Age (Wilgen 2016, 62-5). There are only two true Late Iron Age elite graves in the Meuse-Demer-Scheldt area. The Neerharen Rekem grave 4, which was dated using a ^{14}C-date between 392-204 BCE[11], based on the presence of a glass bracelet the grave probably dates in the last halve of the 3rd century BCE (Bronk Ramsey 2009; Reimer et al. 2013; https://c14.arch.ox.ac.uk/oxcal/OxCal.html). Another Late Iron Age elite grave was found in Echt-Koningsbosch. The grave contained bronze bracelets a bronze belt hook, a fibula and some smaller objects. Again, this grave dates in the last halve of the 3rd century BCE (Hiddink 2008, 12, 17).

It seems that after the third century BCE social stratification was no longer expressed in the burial ritual. The objects which were, during the Middle Iron Age, deposited in graves are now only found in ritual depositions in rivers and cult places (Ball 1999, 79). All Late Iron Age elite graves, and the transitional Nunhem-Voort grave, contain multiple objects related to personal adornment. Bronze vessels, wagons, horse gear and weapons are not present in any 3rd century BCE elite grave (Hiddink 2008, 12, 17;

[11] Not the date in the publication but the re-calibrated date based on the most recent, IntCall13 calibration curve.

Temmmerman 2007, 603; Wilgen 2016, 62-5). These objects are not absent in Late Iron Age societies. Weapons, fibula, bracelets, bronze vessels and tools all appear in Late Iron Age depositions (Taelman 2007, 53-107).

If we zoom out, and if we include the whole 1st-millennium BCE, the idea fits with the notion of selective deposition as it was formulated by Fontijn (2002). During the Late Bronze Age (1100-800 BCE) we see an emphasis on depositions in wet places. At the end of the Late Bronze Age objects such as swords appear in graves for the first time. This practice increases in the Early Iron Age, during which swords are no longer deposited in wet contexts. During the Middle Iron Age, swords are almost never deposited in graves (the Ressen-Zuiderveld grave seems to be a last example, although this is only the sheath and not the actual sword). During the Middle and Late Iron Age swords again become frequent in depositions. The view which is presented here also, largely, fits the depositional practices concerning objects such as spears and bronze vessels (Fontijn 2002; Taelman 2007). For many categories of objects (swords, bronze vessels and torques) the Middle Iron Age represents the last phase during which these objects were deposited in graves. From this perspective, it becomes clear that this period should not be lumped together with the Late Iron Age, as this heavily distorts the picture. The elite burial practice which was initiated around 900 BCE comes to an end around 250-200 BCE when it increasingly gives way to other depositional practices (Van der Vaart-Verschoof 2017a, 87). To some extend the taboo on placing weapons in graves, as it existed during the Late Bronze Age, seems to be re-installed at the end of the Middle Iron Age (Fontijn 2002, 230).

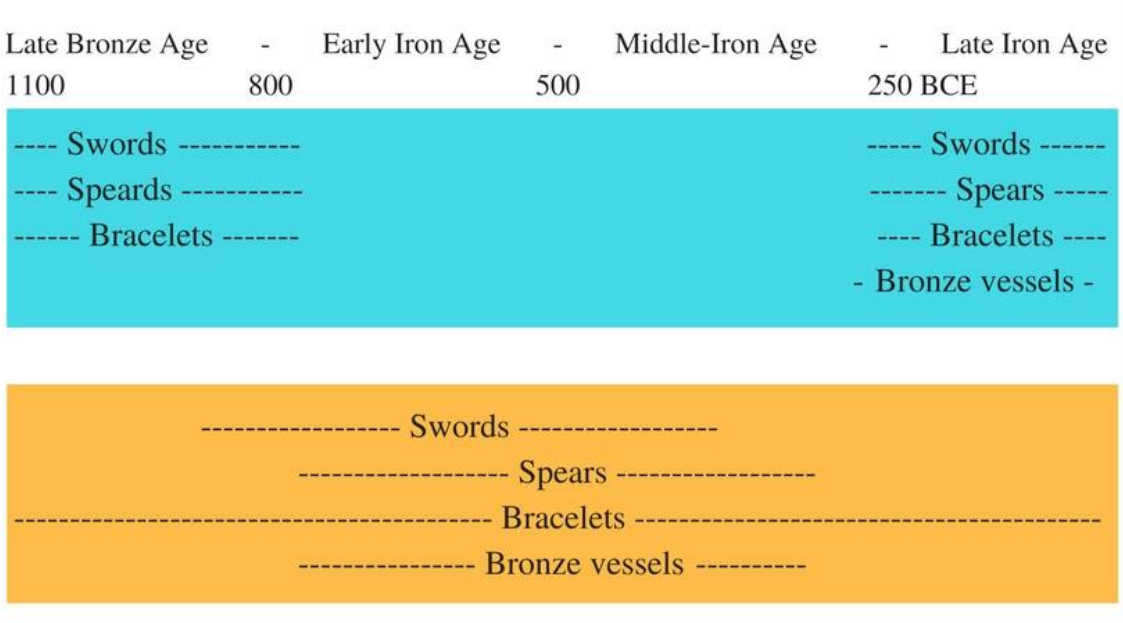

Figure 27: Schematic timeline for selective depositional practices throughout the 1st-millenium BCE. Blue represents wet depositional contexts, orange represents burials.

Figure 27 presents a schematic overview of the depositional practices for certain object categories. It clearly illustrates the break in elite burial practices at the end of the Middle Iron Age. It is probably not realistic to view the transition between the Middle Iron Age and the Late Iron Age as a return to Bronze Age practices. It rather indicates that these contexts, wetland contexts and graves, were throughout the 2nd- and 1st-millennium mutually exclusive for many object categories. It is interesting in this respect that the start of the Middle Iron Age, which is a rather sharp transition based on the burial ritual, did not bring about any significant changes and that it was only through the course of period, up until about 200 BCE, that objects shifted back from being deposited in burials to being deposited in wetland contexts (Gerritsen 2003, 245).

4.4 Inhumation graves in the Dutch Rhine area

In total 19 Middle Iron Age inhumation graves have been found in the study area. Inhumation graves are thus quite rare and therefore they deserve to be treated separately. The first Iron Age inhumation graves are thought to appear around 700/650 BCE (Van den Broeke 2014, 169). For some of the Middle Iron Age inhumations ^{14}C-dates and typological dates are available. Table 16 lists the ^{14}C-dates and the date ranges (based on typology and/or the ^{14}C-dates) of the Middle Iron Age inhumation graves. Six graves could be securely dated in the earlier part of the Middle Iron Age. For the other

five graves the data ranges are too broad to make an interpretation about the chronology.

Table 16: Dates for Middle Iron Age inhumation graves.

Site_Code	Grave_ID	Feature number	Date (range)	^{14}C-date
NL_GE_11	491	Grave 1	450-375 BCE	
NL_GE_11	493	Grave 3	450-375 BCE	
NL_GE_10	480	Inhumation no. 1, individual 1.	500-400 BCE	500-400 BCE
NL_GE_09	475	Graf 1	500-375 BCE	731-368 BCE
NL_GE_04	463	Inhumatiegraf 2 (Meta)	440-350 BCE	765-414 BCE
NL_GE_03	416	INH1 (52;23)	500-250 BCE	
NL_GE_03	417	INH2 (56;6)	500-250 BCE	
NL_GE_03	418	INH3 (56;7)	500-250 BCE	
NL_GE_02	405	Graf 5	450-250 BCE	481-203 BCE; 759-233 BCE
NL_GE_02	406	Graf 6	450-250 BCE	407-261 BCE; 481-173 BCE
NL_BR_19	293	Grave 184	500-375 BCE	

Based on the current dataset, it seems that inhumations should be considered to be a phenomenon which is restricted to the earlier part of the Middle Iron Age, corresponding with the La Tène A phase. This seems to fit the interpretations of Van den Broeke who stated that the inhumation tradition disappeared again between 400/375 BCE (2014, 169).

4.4.1 Location of inhumation burials

The 19 inhumation burials are found in eight cemeteries. Seven of these are located in the riverine area. Only the cemetery of Someren-Waterdael I is located more to the south, in the micro-region of Northern Limburg and Eastern Noord-Brabant (see fig. 28).

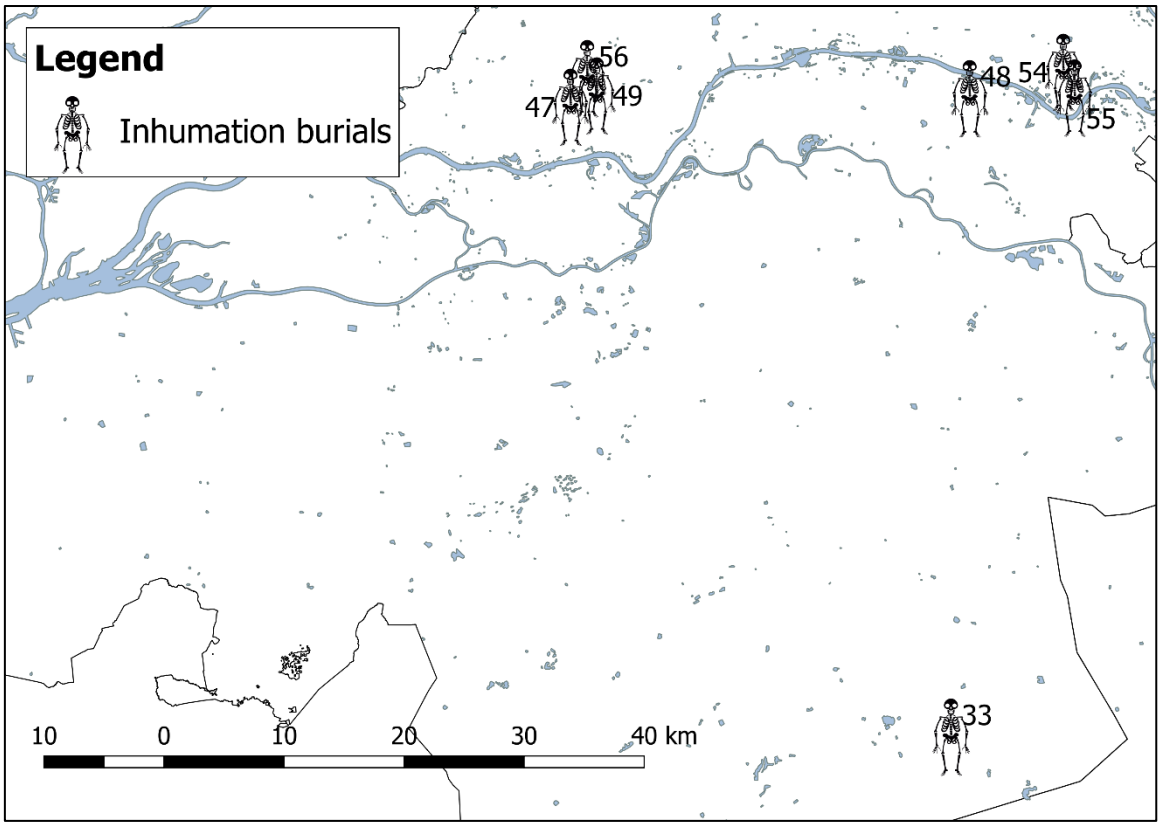

Figure 28: Location of inhumation burials, numbers correspond with the site numbers in Appendix 1.

It is interesting that all cemeteries, except Someren-Waterdael I and Meteren de Plantage, yielded multiple inhumations per cemetery (Jezeer and Veniers 2012; Kortlang 1999). The strong clustering of inhumation graves in the riverine area can have multiple causes. First of all, inhumations do not preserve in the sandy soils of the inlands of Noord-Brabant, Limburg, Flanders and the German Rhineland. Thus the preservation chances for these burials are much higher in the clay sediments of the riverine area. Especially graves which lack any grave goods would simply not preserve in the sandy soils. Nevertheless, this lack of preservation does not mean that these graves cannot be discovered by archaeologists. Empty burial pits would still be recognizable features (Van den Broeke 2014, 166). It should also be noted that such burials have also been recognized in Someren-Waterdael I and an Early Iron Age inhumation grave which was found at the Slabroekse Heide in Uden (Kortlang 1999; Van den Broeke 2014, 166). We should also take into account that the notion that inhumation was practiced during the Iron Age in this area is relatively new. These Middle Iron Age inhumation graves have only been excavated since the 1990s (Blom *et*

al. 2012; Hielkema *et al.* 2002; Hulst 1999; Jezeer and Veniers 2012; Kortlang 1999; Van den Broeke 1999; Van den Broeke *et al*. 2010). The possibility that archaeologists would have missed such graves in older excavations, simply because they didn't except to find them, cannot be ruled out. Nevertheless, based on the current distribution pattern we might state that the inhumation practice was mainly a local practice related to the riverine areas of the Geldermalsen and Nijmegen micro-regions.

4.5 Inhumations in the different micro-regions

In this section the nineteen inhumation graves will be described individually for each micro-region. Micro-regions where no inhumations have been found will not be discussed. The inhumation graves which have already been discussed individually in the section about elite graves will be mentioned, but they will not be described again.

4.5.1 Inhumation graves in Geldermalsen

Most inhumation graves (n=10) in the study area are found in the micro-region of Geldermalsen, three cemeteries here yielded Middle Iron Age inhumation graves: Geldermalsen Middengebied, Meteren de Plantage and Meteren de Bogen.

Geldermalsen Middengebied

This cemetery yielded a total of seven inhumation graves, none of these were located inside a monument. Two (grave 1 and 3) could be considered to be elite graves, these have been described earlier in this chapter. The other graves will be discussed here. Grave 2 contained the disturbed grave of a 34-47 year old adult. The grave contained the remains of a highly fragmented pot. Grave 4 belonged to a 3-7 year old child. Grave 5 belonged to a 47-54 year old male. Grave 6 belonged to a 40-47 year old woman. Grave 7 belonged to a 17-25 year old individual. The graves 4, 5, 6 and 7 did not contain any grave goods (Hulst 1999, 42-3).

Meteren de Plantage

The cemetery of Meteren de Plantage yielded one inhumation grave. This grave could be considered to be an elite grave based on the presence of multiple objects which are related to bodily adornment. This grave has therefore been described earlier in this chapter.

Meteren de Bogen

In Meteren de Bogen two Middle Iron Age inhumation graves have been found inside an older Bronze Age barrow (Meijlink 2002, 768-786). Grave 5 belonged to a 9-12 year old child (Robb 2002, 684). It contained a tin and an amber bead (Butler 2002, 543). Amber beads have been found in the study area as part of other pieces of jewellery, but this is the only Middle Iron Age tin bead which has been found in the study area and therefore this represents a unique find (e.g. Blom *et al.* 2012, 84, 283; Hulst 1999, 42-3). Grave 6 belonged to a 15-18 year old child (Robb 2002, 685-6). This grave contained two cow teeth as grave goods. The hands of the individual were close together and it was suggested that the hands might have been tied when the individual was buried (Meijlink 2002, 787). An isotope study indicated that the individual was of a non-local origin (Kootker *et al.* 2017, 78-9).

4.5.2 Inhumation graves in Nijmegen

In the Nijmegen area eight Middle Iron Age inhumation graves have been found in three different cemeteries: Beuningen Ewijk, Ressen-Zuiderveld and Lent Laauwikstraat.

Beuningen Ewijk

The cemetery of Beuningen Ewijk yielded three inhumation graves. Inhumation grave 1 contained the remains of a 30-40 year old, probably, male individual. The grave was not located within a monument and the grave did not contain any grave goods. Inhumation grave 2 contained the remains of a 4-6 year old child. A strontium analysis indicated that the child was of a non-local origin. Inhumation grave 3 contained the remains of a 33-44 year old male. An isotope study indicated that the individual was of a non-local origin. The signal indicated that the child of inhumation grave 2 and the adult of inhumation grave 3 had a shared non-local origin. The inhumations 2 and three were both located inside the same oval ditch monument. Both graves were located in the southern part of the monument, they were not located in the centre of the monument (Blom *et al.* 2012, 56-60, 146-9).

Ressen-Zuiderveld

The cemetery of Ressen-Zuiderveld yielded one Middle Iron Age inhumation grave. The grave, grave 1, was not located inside a monument. The grave belonged to a 35-55 year old woman, it contained the remains of a pot and a clay (cheese?) sieve (Van den

Broeke et al. 2010, 133-6; see fig. 29). An isotope study indicated that the individual was of a local origin (Kootker *et al.* 2017, 79).

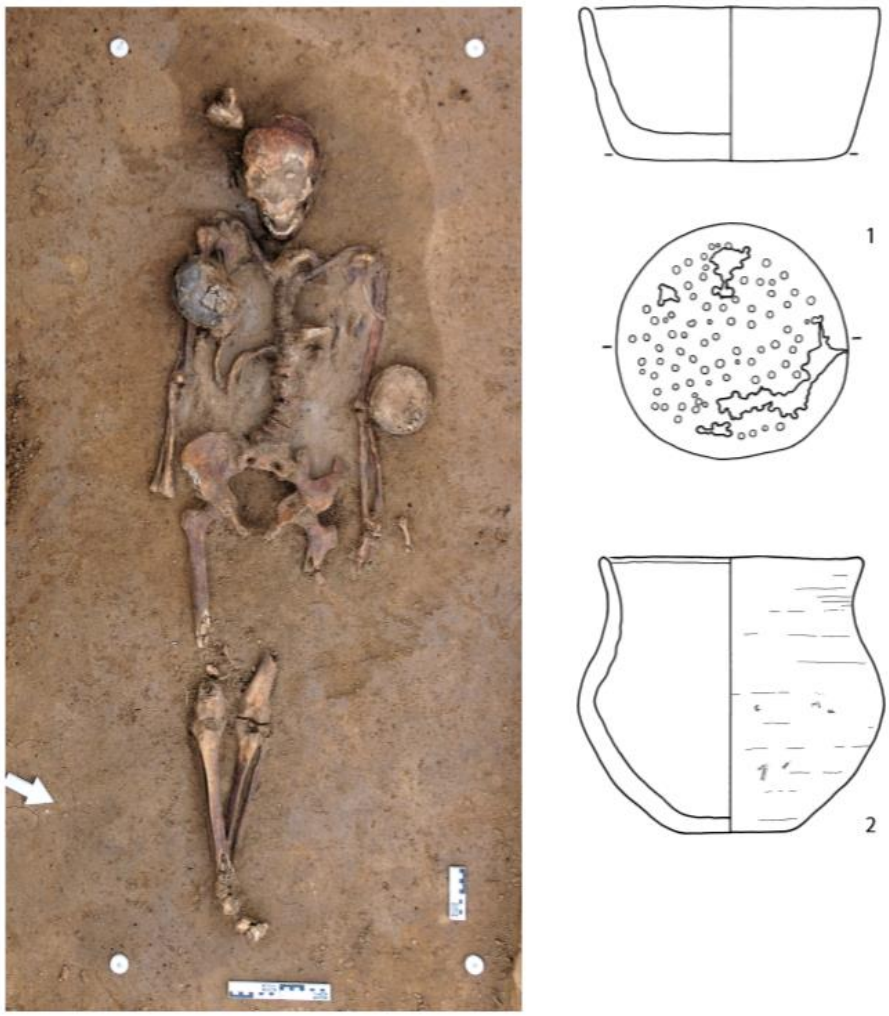

Figure 29: Ressen Zuiderveld inhumation grave 1 and gravegoods (Van den Broeke et al. 2010, 135).

Lent Laauwikstraat

The cemetery of Lent Laauwikstraat yielded four inhumation burials. None of the inhumations was located inside a monument. Inhumation burial 2 has already been described earlier in this chapter. Inhumation burial 1 yielded the remains of an adult individual. The grave did not contain any grave goods. Inhumation burial 3 contained the remains of a 20-40 year old woman. The grave did not contain any grave goods (Van den Broeke 1999). According to Van den Broeke the individual of inhumation 1 died a violent death. The person was buried laying on his or her belly with his/her left hand touching the neck. According to Van den Broeke, it looked as if the person fends

of a final blow (1999). I think this interpretation is somewhat overdrawn as there is no osteological evidence for a violent death. Based on the current evidence I think the position of the skeleton is not enough to claim that this person died of a violent death.

4.5.3 Inhumation graves in Northern Limburg and Eastern Noord-Brabant

In this area only one inhumation grave has been found in the cemetery of Someren-Waterdael I.

Someren-Waterdael I

The inhumation grave found at Someren-Waterdael I is extremely poorly preserved. Grave 184 yielded a feature of a coffin with the silhouette of a body. The grave contained a Marne pot which might have contained food remains. Based on the pot the grave could be dated between 500-375 BCE. As the skeleton was not preserved it was impossible to determine the age and gender of the individual (Kortlang 1999, 150).

4.6 Monuments and grave goods in inhumations

This section will discuss monuments and grave goods which are found in relation with inhumation graves

4.6.1 Monuments and inhumation graves

Four inhumation graves are located within a burial monument. None of these graves appear to be the central grave within these monuments. In Meteren de Bogen two inhumations have been buried in an older Bronze Age barrow, which in turn had been constructed on top of a Neolithic grave (Meijlink 2002, 768-786). In Beuningen two inhumation burials are located inside an oval ditch. The central grave within the structure has not been found here (Blom *et al*. 2012, 56). The fact that so far no evidence has been found that monuments were constructed for inhumation burials is significant. In this respect the inhumation ritual seems to comply with the burial ritual in the Aisne-Marne area. Here, the burial ritual is characterized by inhumation burials which are located in flat graves. But in this area it is thought that in some cases mounds had been erected on these burial but that these mounds have not been preserved (Diepeveen-Jansen 2001, 133). For the Meuse-Demer-Scheldt area it seems that mounds have not been present on these inhumation burials (Van den Broeke 2014, 169).

4.6.2 Inhumation graves and grave goods

Grave goods in inhumation graves belong mainly to the category of objects related to appearance (n=18). The second largest group is pottery (n=11). Animal bones have been found in two graves. In one grave in Geldermalsen cow bones and bones of pigs have been found (Van den Helm 2016, 110). In a grave in Meteren de Bogen two cow molars have been found in an inhumation grave (Hielkema *et al.* 2002, 211).

The emphasis on objects related to appearance is surprising, considering that in cremation graves pottery and objects related to food consumption are more common. A possible explanation for this difference might be that food related objects were mainly related to the funerary pyre. Perhaps, a last meal was meant to be burnt on a funerary pyre rather than it being put in the ground. If we exclude the Someren-Waterdeal I inhumation grave where bone material was not preserved we can see that animal bones have only been found in 11% of the inhumation graves (n=18). In the study area on average 36% of the graves contained animal bones. Thus it seems that animal bones are found less frequently in inhumation graves than in cremation graves. Considering that the two cow molars found in the inhumation grave at Meteren de Bogen would not have been meant for consumption, we can state that actually only the grave found in Geldermalsen Middengebied appears to have remains related to a last meal (Hielkema *et al.* 2002, 211; Hulst 1999; Van den Helm 2016, 110). Pots, bowls and fragments of pots or bowls have been found in seven graves. In two inhumation graves Marne pottery has been found. One grave yielded the remains of a (cheese?) sieve. One grave yielded a spindle whorl. In terms of objects related to appearance it is noticeable that ten ear and or hair rings have been found. One grave also yielded a nose ring. In the whole study area only 14 ear, hair or nose rings have been found. The vast majority of these objects have thus been found in inhumation graves, they are almost exclusively related to inhumation graves. In addition to these objects three bracelets and two torques have been found in inhumation graves (Hulst 1999, 42-4; Jezeer and Veniers 2012, 85).

Inhumation graves with multiple objects related to appearance and bodily adornment have now been described in the previous section under elite graves. But it should be noted that it is unclear if that is really justified. Green discolouration on the bones of some cremations showed that metal objects might have ended up on the funerary pyre more frequently than we think (Vermue *et al.* 2015, 214; Wilgen 2016, 148). If this

would be the case and if these objects are indeed lacking because they were not selected from the funerary pyre the relative abundance of these objects in inhumation graves might thus also be mainly a reflection of different burial practices. For the graves found at Lent Laauwikstraat and Meteren de Plantage it is thus difficult to really assess if these should be classified as elite graves based on their assemblage (Jezeer and Veniers 2012; Van den Broeke 1999).

Many of the grave goods in inhumation graves appear to be of a non-local origin. The two torques, two bowls and one pot appear to be stylistically affiliated to the Marne-Moselle, Hunsrück-Eifel and or Ardenne regions. The nose ring is stylistically affiliated to the Champagne region (see fig. 30). The ten ear and hair rings also appear to be stylistically a non-local phenomenon. Ear rings with beads are a frequent feature in the Hunsrück-Eifel area (Von Nakoinz 2005, 126-8).

Figure 30: Left: nose piercing found in Geldermalsen Middengebied grave 3, middle and right: ear or hairrings found in Meteren de Plantage (Hulst 1999, 47; Jezeer and Veniers 2012, 282-3).

In total 16 out of 36 objects appear to be made according a non-local tradition. If we take into account that the stone fragment, animal bones, unidentified pottery sherds and an unidentified miscellaneous iron objects cannot be classified as either local or non-local we might state that about half of the objects are stylistically non-local.

Gender and age in inhumation burials

Of the nineteen inhumation burials in nine cases the sex of the individual could be determined based on the skeletal material. Five of the nine skeletons were female, or possible female and four were male or possible male. Of the other burials at least four consisted of sub-adult graves. Twelve graves contained the remains of adults. Only one

male inhumation grave contained grave goods, the grave found at Lent Laauwikstraat (Van den Broeke 2014). The female graves usually contained grave goods. The grave found at Ressen Zuiderveld contained a pot and a cheese sieve. Grave 1 found at Geldermalsen Middengebied a bronze torque, two bronze bracelets, two bowls, a pot, an iron knife, eight pig ribs and the lower jaw of a cow. The inhumation grave found at Meteren de Plantage yielded several ear and hairrings a bracelet and pottery. The other two female inhumations did not contain any grave goods. In general it seems that grave goods are thus more common in female graves than in male graves. Grave goods are found both in graves belonging to adults and children.

5 Local and interregional connections in the Meuse-Demer-Scheld area

This chapter will discuss the data presented in chapters three and four, based on the framework provided in the first two chapters. The first section discusses the transition between the Early Iron Age and the Middle Iron Age, in the Meuse-Demer-Scheldt area and the neighbouring Dutch and German riverine areas. The second part deals with the differences between the eight micro-regions. The third part discusses the burial ritual in the Moselle-Marne and Hunsrück-Eifel areas, and the relations between these areas and the study area. The final section will deal with these changes on a wider geographical scale.

5.1 Local burial ritual in the Middle Iron Age compared to the Early Iron Age

In this section the Middle Iron Age burial ritual in the Meuse-Demer-Scheldt area and the neighbouring German Rhineland will be discussed in relation to that of the Early Iron Age.

5.1.1 Cemetery size and locations

In chapter three the average cemetery sizes and cemetery locations of Middle Iron Age cemeteries have been discussed. It was noted that none of the Middle Iron Age cemeteries came close to the size of an average urnfield, at least for the Netherlands. In general Middle Iron Age cemeteries are much smaller in terms of size than urnfields (De Mulder 2011, 207; Fokkens 1997, 363). In terms of frequency, Middle Iron Age cemeteries are scarce in comparison with Early Iron Age urnfields (De Mulder 2011, 104; Gerritsen 2003). So far this confirms the existing views on the burial ritual for this period. In terms of locations of cemeteries it was noted that they did not move from the sandier soils to the riverine areas, as was previously suggested by Gerritsen (2003). They were still constructed in both areas and, considering the poor preservation on the sandy soils, it cannot be stated that the clustering in the riverine areas represents an actual difference in cemetery density. The drop in available data, both on the level of cemeteries and on the level of graves, is still difficult to explain. Preservation seems to partly explain the difference, as many Middle Iron Age graves often lack a burial monument. Furthermore, the graves often lack datable material and when undated graves are found they are often dated in the same period as the other graves, hence Middle Iron Age graves within an urnfield might often not be recognized if ^{14}C-dates

are lacking.

A research bias also seems to add to the problem, urnfields have been extensively studied since the 19th century. Middle Iron Age cemeteries were, at that time, often not recognized or studied, mainly due to the fact that they are less archaeologically visible. Recently, more attention has been given to the study of Middle Iron Age cemeteries. This is clearly seen in the excavation dates of the cemeteries. Only three Middle Iron Age cemeteries have been excavated in the 19th century while more than half of all the cemeteries in the database (n=40) were excavated since the 1990s. Thus the majority of the sites in the database consist of recent excavations. Although preservation issues and a research bias might partially explain the difference, it also seems probable that we are also looking at an actual drop in the population, or at least a drop in the part of the population which was buried.

5.1.2 Discussion on funerary monuments

In terms of frequency, it is clear that monumentality decreased in the Middle Iron Age as opposed to the Early Iron Age. Less than a quarter of the graves are thought to have been constructed inside a monument during this period. During the Early Iron Age in the southern Netherlands funerary monuments were more common than in Flanders (De Mulder 2014, 301). This opposition between north and south is no longer present in the Middle Iron Age. During this period funerary monuments are relatively scarce, in the Geldermalsen and Nijmegen areas and they are completely absent in the German Rhineland. In West Noord-Brabant and Western Flanders it was estimated that about a quarter of the graves was located inside a funerary monument.

In terms of monument typology, it becomes clear that longbeds practically cease to be constructed. This was to be expected based on previous studies. During the Middle Iron Age new monument types such as square ditches, rectangular monuments and cult places emerge. It should be noted here that the typological dates for these monuments have also been included as an argument for dating, hence it was to be expected that this confirms the existing views on the chronology of these monuments (Hessing and Kooi 2005, 635). This could unfortunately not be avoided as ^{14}C-dates or other dates for most monuments are simply lacking. As in the Early Iron Age, the entrances of monuments are predominantly oriented towards the south-east (De Mulder 2011, 246; Hessing and

Kooi 2005, 639).

5.1.3 Grave types, urns and grave goods

During the Middle Iron Age urns become infrequent in the burial ritual. The decrease in urn frequency is thought to have started at the end of the Early Iron Age (Gerritsen 2003, 128). Grave goods are still a scarce feature. Metal grave goods appear to be more common in the Middle Iron Age than in the Early Iron Age. This appears to represent a long term trend in which metal grave goods become more frequent in grave from the Early Iron Age towards the Late Iron Age, especially fibula and belthooks seem to become more frequent through time (Heerens and van Feijst 2017, 27-101; Hessing and Kooi 2005, 641; Hiddink 2014, 192-3). A similar phenomenon is observed for the presence of animal bones in graves. Animal bones appear to be an infrequent feature in Early Iron Age graves while they are relatively common for the Middle Iron Age (Gerritsen 2003, 129; Hessing and Kooi 2005, 128-9). In the Middle Iron Age ca. 36% of all graves contained animal bones, based on cemeteries with more than 10 graves (where the animal bones had been studied). In the Late Iron Age animal bones appear to become even more frequent in the burial. A survey of five Late Iron Age cemeteries in the study area indicated that animal bones were found in ca. 46% of all graves (n=473). It might be stated that animal bones become a more frequent feature in graves throughout the Iron Age (Hiddink 2014, 197; Van den Helm 2016, 66).

It seems that grave goods might actually be a more common feature amongst Middle Iron Age graves, than amongst Early Iron Age graves. In Flanders 288 urnfield period graves yielded grave-good (out of a total of 729 graves). This means that in total ca. 40% of all graves yielded grave goods (De Mulder 2011, 269-76). For the Southern Netherlands no statistics are known on the exact frequency of grave goods (Gerritsen 2003). For the Middle Iron Age 61% of all graves in the Meuse-Demer-Scheldt area and neighbouring Dutch and German Rhineland yielded grave goods. Contrary to what was expected, grave goods thus become more frequent in the Middle Iron Age (Gerritsen 2003). In terms of pottery it seems that bowls become more frequent in comparison with the previous period, when pots, beakers and cups appear to be more common (De Mulder 2011, 278-9). About a quarter of all pots and bowls consist of Marne pottery. In the Early Iron Age it was noted that the connections with the Hallstatt area were only relevant for the elites, “the 1%” (Fontijn and Van der Vaart-Verschoof 2017, 532-3).

For the Middle Iron Age it seems that the connections with the Moselle-Marne area are in many respects relevant both for the elites and for the "other 99%." This is also seen in the rise of inhumation graves. The inhumation practice is thought to have been imported from the Moselle-Marne or Hunsrück-Eifel area. These graves consist mainly of non-elite graves, although elite inhumation burials are also known. Again this practice does not appear to be restricted to the 1% of the population.

5.1.4 Elite graves changes in the Middle Iron Age

This section will discuss the changes in the elite burial practices. First of all, it should be noted here that the definition used to define elite graves here is relatively broad. Traditionally, Iron Age elite graves were considered to be those graves which contained both wagon parts or horse gear, weapons, bronze vessels and objects related to personal adornment (Van der Vaart-Verschoof 2017a, 27). Only the Overasselt grave contained a nearly complete set, although it lacked wagon parts (Ball 1999). Other elite graves in the study area only contain parts of this elite set. Hence, a broader definition was taken here in order to also include these graves.

Monumentality

In terms of monumentality, there is a clear distinction between Early Iron Age elite graves and Middle Iron Age elite graves. In the Early Iron Age elite graves were nearly always located under a monument. In the Early Iron Age these monuments are often relatively large (Van der Vaart-Verschoof 2017a, 51-2). For the Middle Iron Age elite graves monuments play a much more insignificant role. There appears to be no distinction between elite graves and non-elite graves in terms of the choices for monumentality. The only exception appears to be the cemetery of Wijshagen de Rietem where the barrows are relatively large, compared to other similar monuments (Van Impe and Creemers 1991). The role monumentality played in the elite burial ritual thus seemed to have decreased significantly between the Early and Middle Iron Age.

Grave goods

In terms of grave goods, there are significant differences between the Early Iron Age and the Middle Iron Age. Especailly the category weaponery seems to change. During the Early Iron Age the most common weapon in elite graves is the sword (Van der Vaart-Verschoof 2017a, 72). During the Middle Iron Age spears and arrows become

much more common. Only one grave yielded the remains of a sword sheath, none of the Middle Iron Age graves yielded an actual sword. This should not be seen as a decrease in the use of swords. Although these objects are not present in Middle or Late Iron Age graves they are still found frequently in river depositions (Taelman 2007, 53-107). It thus seems that the ideas behind the depositions of swords changed in the Middle Iron Age. They were no longer considered to be appropriate grave goods, whereas they were increasingly considered to be appropriate goods for riverine depositions. Similar ideas surrounding the changes in the depositions locations for such objects have also been observed for the Bronze Age (Fontijn 2002).

In terms of wagons, it is interesting to note that Early Iron Age wagons are always four-wheeled wagons (Van der Vaart-Verschoof 2017a, 130). For the Middle Iron Age only one grave yielded the remains of a complete two-wheeled wagon (Bloemers 1986; Bloemers 2016). This seems to fit with the developments in the Moselle-Marne and Hunsrück-Eifel areas where two-wheeled wagons also seem to replace the earlier four-wheeled wagons (Diepeveen-Jansen 2001, 82, 171; Von Nakoinz 2005, 168-9). Bronze vessels appear to be a constant factor, if we compare the Early and Middle Iron Age. In both periods bronze vessels appear to be related to feasting and alcohol consumption. Futhermore, both in the Early and Middle Iron Age bronze vessels occasionally show repairs. Lastly, in both periods bronze vessels are mainly used as urns when they end up in the grave (Ball 1999; Mariën 1987; Tol 2000; Van der Vaart-Verschoof 2017a, 117-121; Van Impe and Creemers 1991). In terms of typology the situla of the Middle Iron Age still appear closely affiliated to those of the Early Iron Age (Van der Vaart-Verschoof 2017a, 117). Rippensitzen appear to be a specifically Middle Iron Age type of bronze vessel (Mariën 1987; Tol 2000; Van Impe and Creemers 1991).

For the category of personal adornment it is odd that Early Iron Age graves almost never contain torques. The dataset presented by Van der Vaart-Verschoof does not contain a single elite grave with torques (Van der Vaart-Verschoof 2017a, 78-81). In Haps and in two cemeteries in the Nijmegen area a few “wendelringen” have been found which are dated in the 6th century BCE (Eimermann and Van den Broeke 2016, 40; Van den Broeke 2001, 142-3; Verwers 1972, 54). In these cases no other elite related objects have been found, hence they were excluded in the study conducted by Van der Vaart-Verschoof (2017a). Torques in general seem to be a late Early Iron Age

and mainly a Middle Iron Age phenomenon. They also seem to have disappeared again from the burial ritual during the Late Iron Age, although they are still found in Late Iron Age depositions (Hiddink 2014). In terms of other objects it seems that the importance of razors and tweezers declined as these objects are only rarely encountered in Middle Iron Age elite graves while they are considered to be an important aspect within Early Iron Age elite graves (Van der Vaart-Verschoof 2017a, 78-81). Objects such as bracelets, horse gear, clothing pins etcetera seem to be a continuous factor in elite graves for both the Early and Middle Iron Age (Van der Vaart-Verschoof 2017a). In terms of affiliation, the elite graves of the Early Iron Age mainly show similarities with those of the Hallstatt area (Van der Vaart-Verschoof 2017a, 165). The Middle Iron Age elite graves are mainly affiliated to those from the Moselle-Marne and Hunsrück-Eifel areas. This was already expected based on previous studies on the subject (e.g. Ball 1999; Hessing and Kooi 2005, 643-51).

5.2 Micro-regional differences

The fragmentary nature of Middle Iron Age cemeteries makes an analysis on the level of individual cemeteries very difficult. Only rarely could specific preferences within individual cemeteries be discerned. This is for example the case with the unusually high frequency of double graves in the cemetery of Meteren de Plantage (Jezeer and Veniers 2012, 69). In terms of monument size it is often observed that the first constructed monument seems to set the tone for later monuments of comparable types. In terms of elite graves it also seems that choices within a cemetery effect the construction of other elite graves. The elite graves in cemeteries such as Nijmegen Kopsplateau, Oss-IJsselstraat, Wijshagen de Rietem and Wijchen Woezik-Sportpark all seem to quite closely resemble the previously constructed elite graves (Fontijn 1995; Heierbaut 2011; Van Impe and Creemers 1991; Wesselingh 1993). For most other phenomenon it is difficult to identify variation between different cemeteries, especially because cemetery size is a limiting factor in this respect. For larger cemeteries, in general, it seems that they confirm (mainly due to their large contribution to the dataset on a micro-regional scale) the patterns observed in the different micro-regions. Therefore, it becomes more fruitful in this respect to study these phenomenon on a micro-regional scale. The following section discusses the differences between the eight micro-regions by describing the regional characteristics of the different regions.

5.2.1 Geldermalsen

The Geldermalsen area is one of the two micro-regions where inhumation burials are fairly common. The area characterises itself by a near complete lack of funerary monuments. Only two burials in Meteren de Bogen were dug into an older Bronze Age barrow (Meijlink 2002, 768-786). But the region seems to lack a tradition of monument building during the Middle Iron Age. In terms of grave types it is noticeable that all cremation graves consist of type A graves. Lastly, this area characterizes itself by a complete lack of urns. This is unique within the study area as all other micro-regions have urn graves.

In terms of elite graves it is interesting to note that all elite graves in this micro-region consist of inhumation graves. Two of these contain torques and the third graves contained other objects related to the category bodily adornment.

5.2.2 Oss

The Oss micro-region does not have any inhumation graves. All graves in the area are type A cremation graves. It was estimated that ca. 16% of the graves were located inside a monument. Urns are relatively common in this area, 28% of the graves consist of urn graves.

In the area of Oss the two elite graves are found, both consist of torque graves. They are both found in the cemetery of Oss-IJsselstraat. They are fairly similar in their set-up, being located inside a square ditch monument and both consisting of urnless type A graves.

5.2.3 Nijmegen

The Nijmegen area is an area with a high cemetery density. Especially in terms of elite graves, about half of all the elite graves in the study area are found inside the Nijmegen area. Nijmegen has, together with Southern Limburg, the highest percentage of elite graves, they make up about 13% of all graves in this region, based on the characteristics defined in chapter 2. Inhumations and cremations are both found in the area. Cremation graves of all types, A, B and C are found, but 60% of the graves could be classified as type A graves. Monuments are relatively infrequent, only 9% of the graves is located inside a monument.

The high density of elite graves in the area is remarkable. The graves mainly consist mostly of graves with weapons and wagon equipment. In this respect the area fits in with the micro-regions of Northern Limburg and Southern Noord-Brabant and with the German Rhineland.

5.2.4. The German Rhineland

In many respects the German Rhineland is set apart from the other micro-regions. In this area there are no monuments. In terms of grave types this is the only area where type B graves clearly dominate the spectrum. In total 53% of the graves consist of urn graves. In this respect the area sets itself apart from all other micro-regions, where urn graves are always an exception. In terms of pottery, it is also noticeable that the area has several local types of pottery which are not found in other parts of the region. Lastly, the high frequency of fibula should be noted. In this area 18% of the graves contained fibula whereas in the other areas they are only found in approximately 1.5% of the graves.

The elite graves in this area consist mainly of burials with wagon parts. None of the graves contained a complete wagon but they often only contained specific parts such as the *Ösenstifte* or the kingpin. Only one grave contained weapons, namely the remains of a handle for a shield. This object is not found in any other grave in the study area. Although, only four elite graves are found in the area they do appear to represent a separate group, eventhough it to some extend fits with the Nijmegen area in the sense that they mainly contain wagon and weapon graves.

5.2.5 Northern Limburg and Eastern Noord-Brabant

In this area type A and type B graves are both found frequently. Type C graves are also common. In the area only one inhumation grave was found at Someren-Waterdael I. In terms of urns and monuments the area isn't deviating from the general view of the study area.

In terms of elite graves this area contained two graves which both contained weapons. A third elite grave contained objects related to the category of bodily adornment. In terms of elite graves this area seems to be mainly affiliated with the Nijmegen area and with the German Rhineland area. In general the area seems to be affiliated to the Nijmegen

area.

5.2.6 West Noord-Brabant

Ca. 85% of all graves consist of type A graves. The rest of the graves could be classified as type B graves. Inhumation graves and type C graves are completely absent in this area. Monuments and urns are found quite frequently in this area.

This area is completely devoid of elite graves. It should be noted here that this area does have a poor preservation for graves and that a large amount of graves seem to have been lost. Nevertheless, considering that the neighbouring area Western Flanders also hasn't yielded any elite graves this does to some extend seem to reflect a micro-regional trait for the (south-) western part of the study area.

5.2.7 Western Flanders

In the area of Western Flanders it is estimated that ca. 9% of the graves is located inside a monument. In terms of grave types the area is remarkable in the sense that this is the only area in which most graves consist of type C graves (50%). Type A graves form the second largest group but type B graves are also frequently found.

As noted before this area does not contain any elite graves. And, as with the area of Western Noord-Brabant, the area is characterized by a poor preservation of graves.

5.2.8 Southern Limburg

Most graves in this area consist of type A and type C graves, both consisting of 39% of the graves, the rest of the graves could be classified as type C graves. Inhumation graves are completely absent in this area. Monuments are relatively, though not unsually, infrequent. An estimated 9% of the graves was located inside a monument. In terms of urns the area does not divert from the general view of the study area.

In terms of elite graves the area of Southern Limburg, together with the Nijmegen area, contains the highest percentage of elite graves, namely 13% of all graves could be classified as elite graves. It should, however, be noted that elite graves in this area are overrepresented due to a research bias. Of the Wijshagen de Rietem cemetery only the elite graves were published in enough detail to be included in the database. The other 44

cremation graves are not included (Van Impe and Creemers 1991, 68). This probably distorts the picture to some extent. In most cases these elite graves consisted of graves with bronze vessels, mainly situla and rippensitzen. This appears to be a distinctly local feature as only the Overasselt grave in the Nijmegen area also contained such an object. The other elite grave found in Stein Graetheide contained objects which are related to the category of bodily adornment.

5.2.9 Conclusion on micro-regional differences

It is clear that all micro-regions have distinct local traits. Sometimes, areas can be more or less affiliated to neighbouring areas in terms of certain traits. Especially the Nijmegen area and the area of Northern Limburg and Eastern Noord-Brabant are quite similar. Also, the areas of West Noord-Brabant and Western Flanders appear to be affiliated. The areas of Geldermalsen and the German Rhineland on the other hand appear to have quite different local traditions which do not fit with their neighbouring micro-regions.

The fact that these differences can play out in relatively small areas is quite surprising. The areas of Geldermalsen, Oss and Nijmegen are only about 20 kilometres apart but they all have quite distinctive local traits. In many respects the burial ritual seems to represent a local phenomenon, even though the groups in general make use of the same elements, e.g. the same types of monuments, graves and objects. These local differences are also seen in the elite graves which seem to form four distinct local groups, the first being the areas of West Noord-Brabant and Western Flanders, areas where elite graves are completely absent. The second group consists of the areas of Geldermalsen and Oss and the western part of the Nijmegen area where torque graves are mainly found. In the areas of Nijmegen, the German Rhineland and in Northern Limburg and Eastern Noord-Brabant graves with weapons and wagon parts are mainly found. In Southern Limburg graves are characterized by the incorporation of bronze vessels. It is possible that the observed differences in the burial ritual might be representative of local or regional groups. But this cannot not be securely assessed as only one aspect, the burial ritual has beens studied here.

5.3 Power structures in the Middle Iron Age

This section will discuss power structures in the Middle Iron Age based on the criteria formulated in chapter 2. In section 2.3.1 three archaeological characteristics for a Big Man system were formulated based on the work of Roscoe (2017, 217-8). In a Big Man system the status of Big Man was achieved firstly through military strength. These military achievements were translated into material display which could serve as a proxy for military strength. Lastly, it was noted that the rank of Big Man was only achieved at a later age. Only rarely did people achieve this rank during their forties, usually this rank was achieved by people in their fifties or sixties (Roscoe 2017, 217-8). In section 4.3.6 the sex and age distributions of Middle Iron Age elite graves have been discussed. It was noted that men and women were equally represented in the elite burial ritual. Although the Big Man theory is based on male dominated societies it should be noted that we should also consider the possibility that women could also achieve the rank of Big Man, or Big Woman (Bloemers 2016). However, if we look at the age distributions for elite graves the Big Man theory becomes very improbable. Three Middle Iron Age elite graves consist of children's graves. Furthermore, of the twelve adult graves at least four graves belonged to people whom were younger than forty years old. The Nijmegen Trajanusplein burial belonged to a woman aged between 30-52 years old, only three graves were estimated to belong to an individual aged between 30-60 years old. Only these four burials, Lent Laauwikstraat inhumation burial 2, Sittard-Hoogveld situla grave, Someren-Waterdael I grave 6 and Nijmegen Trajanusplein cart-burail fit with the Big Man or Big Woman (in the case of Nijmegen Trajnusplein) theory in terms of age distribution.

In general it seems that the individuals found in Middle Iron Age elite graves were too young to have achieved the rank of a Big Man, the three children's graves and the four graves of individuals whom were clearly young than 40 years old contradict such an interpretation. As these graves do clearly show material display, and in some cases they also reflect military strength, it seems fair to state that Middle Iron Age societies should not be seen as being less hierarchical than Big Man systems. Rather, it seems more likely that wealth and status, to some extend, were transferred through generations, a phenomenon which is not observed in Big Man systems. It is therefore more appropriate to consider these societies as chiefdom societies, a society in which wealth and status could be inherited (Claessen 2011, 5).

5.4 Interregional influences

The next section summarizes, based on literature studies, the burial ritual in the Moselle-Marne and the Hunsrück-Eifel regions. This will be followed by a discussion on the similarities between the burial ritual in these regions and the burial ritual in the study area.

5.4.1 Burial ritual in the Moselle-Marne region

This section will describe the burial ritual in the Moselle-Marne region, the Belgian Ardennes can be considered to be a part of this region from the Early La Tène period onwards (Diepeveen-Jansen 2001, 146). The Moselle-Marne area is located in the northern part of the French Champagne region (Diepeveen-Jansen 2001, 130). The burial ritual in the Moselle-Marne region is mainly characterized by inhumation graves which are not located inside monuments. Besides inhumation cremation was also practiced in this area. Inhumation became the dominant burial type in the area from the 6th century BCE onwards, in the beginning of the La Tène C period cremation becomes the dominant burial form again (Diepeveen-Jansen 2001, 134; Pichon 2002, 74). There is no distinction between cremations and inhumations in terms of grave goods. Burial monuments are almost completely absent, except when it concerns elite graves. Burial monuments in the beginning of the La Tène period consist mainly of ring ditches but in the course of this period square and rectangular ditches also become common (Belard 2014, 79; Diepeveen-Jansen 2001, 133-5). Multiple inhumation burials are a common feature in this region. Re-opened graves are frequently found.

Pottery is deposited in most Early La Tène graves. Both situla shaped pots and Marne pottery is frequently found. The Marne pottery is characterized by sharp angular transitions between the belly, shoulder and neck. During the La Tène B period this Marne pottery is increasingly being replaced by rounder shapes. The most common form of pottery is the dish, but pots and beakers are also a common feature. If food was present it is usually indicated by animal bones which are found in the graves. Pigs and swine predominate but sheep/goat is also found, cattle comes in at third place. Wild species have not been found in graves in this area. Knives are only found in richer graves (Diepeveen-Jansen 2001, 135-9). Clothing ornaments are usually only found in richer graves. Brooches become more common when compared to the preceding Hallstatt period. Both torques and bead necklaces are found. Bracelets are worn in pairs

by women and girls. If there are two bracelets these are usually of two different types. Earrings and hair rings are only rarely found in graves (Belard 2014, 191-4; Diepeveen-Jansen 2001, 139-41).

Weapons and razors are traditionally considered exclusively male grave goods (Diepeveen-Jansen 2001, 139-41). Recent studies of the burial ritual in the area have however indicated that more caution should be taken and that the distinction between male and female burials, in terms of grave goods is less clear-cut than it was so far assumed (Belard 2014, 92). Weapons include spears, arrows, lances, daggers, swords, helmets, breastplates and shields. Weapons are almost exclusively considered to be elite grave goods. Only lances, spears, and occasionally shields and arrows are also found in ordinary graves (Diepeveen-Jansen 2001, 139-41).

Cemeteries are often divided into small groups and clusters. These are considered to resemble family or kin groups. For the Marne-Moselle region graves have been classified into three categories based on the composition of grave goods: 1) graves without grave goods, 2) graves with a simple assemblage of graves-goods: pottery and one or two pieces of jewellery such as brooches or belt hooks, 3) graves with weapons and graves with complete sets of jewellery (neck-ring and bracelet) usually supplemented with other grave goods, 4) graves with chariots, which sometimes stand out for their greater wealth of other grave-goods. The first two categories make up about three-quarters of all graves. The third group makes up 10-20% of all graves. The last group makes up less than 0.5% of all graves. In French studies swords and daggers are usually included in the third group, in the study conducted by Diepeveen-Jansen these have been included in the fourth group as they are only rarely included in graves (2001, 144-5).

In the Moselle-Marne region only chariot graves, graves with daggers or swords and graves with horse gear are considered to be elite graves, in total 468 graves in the region fit that description (Diepeveen-Jansen 2001, 152). If we would adopt a similar definition for elite graves in the study area less than ten graves could be considered to be elite graves. For this thesis graves from the third category of graves in the Moselle-Marne region are thus also considered to be elite graves. Chariot graves are usually located inside a monument. All elite graves in the Marne-Moselle region consist of inhumation

graves. Phalerae are in this area always considered to be horse gear, they are usually found in association with chariots. Richly decorated objects with zoomorphic decorations, dragons and other mythological creatures appear to be exclusively related to elite graves. Imported grave goods are only occasionally found in this area (Diepeveen-Jansen 2001, 154).

5.4.2 Burial ritual in the Hunsrück-Eifel region

In the Hunsrück-Eifel area, graves are usually located under a circular mound (between 8-20 meters), often enclosed by a ring ditch, post ditch or stone structure. Only during the La Tène B period do these monuments lose their conspicuous character. The mounds become smaller and stone and post structures become rare. Inhumation is the norm in this area during the La Tène period A, but cremations are also known. It is only during the La Tène C period that cremations in flat graves become the norm. In some cemeteries earthen banks are found (Diepeveen-Jansen 2001, 67-8). Most burials consist of one individual per monument, but secondary burials are also known.

Most graves in the La Tène A period contain grave goods, usually objects related to the personal dress or pottery. Often pots of a "bottle type" are found, these are pots with a wide belly and a narrow neck. Bowls and dishes are also found frequently, these often include *omphalos*-bowls. Wheel thrown pottery becomes frequent from the La Tène B period onwards. Marne pottery is also found in the western parts of the area (Diepeveen-Jansen 2001, 71; Haffner 1976). Female jewellery includes neck-rings, chains, one or more bracelets and finger rings. A single bracelet on the left arm is also found in male graves. Neck-rings and bracelets usually have thickened ends in the form of a stamp. Through the course of the Early La Tène period decorations on these objects become more common. In the La Tène B period, neck-rings disappear in favour of strings of beads. Ear rings with amber beads are also found frequently (Diepeveen-Jansen 2001, 71-2; Von Nakoinz 2005, 126-8). Anklets are virtually absent in the Hunsrück-Eifel area. Knives are found in both male and female graves, larger knives were often given to men. Usually, knives are deposited near pottery in a grave. Due to poor preservation little is known about the deposition of animal remains in this area but it is likely that meat was also accompanying the dead (Diepeveen-Jansen 2001, 71-2).

Weapons and razors are exclusively male burial gifts. Razors are often accompanied by

a set of tweezers, an ear scoop and a double-toothed object of which the function is unknown. The whole set is usually found together on a ring. Weapons mainly consist of spears and lances. Swords and daggers are only found in a small number of graves. Shields are occasionally found, in these cases only the handle is preserved. Occasionally sling projectiles are found. Bronze ware, wagons or chariots and swords are always related to elite burials (Diepeveen-Jansen 2001, 72; Haffner 1976). The most conspicuous graves of the area belong to men. Women and children are more often found as secondary burials in tumili. The graves in the area are classified into three groups according to their assemblages. 1) graves without grave goods, 2) graves with grave goods (including swords), 3) graves with wagons or chariots and/ or bronze ware (Diepeveen-Jansen 2001, 73). The average number of graves in cemeteries of in this area is under 20 graves. Only a few cemeteries contain more than a 100 graves. Cemeteries mainly consist of small clusters or groups, related to local communities or perhaps several families. Elite graves are often located under large mounts (20-35 meters). They are constructed from soil but in many cases they have a stone core. Post circles and ditches are often surrounding these monuments (Diepeveen-Jansen 2001, 74-80). Eltie graves often contain two-wheeled wagons, some of these are decorated with bronze fittings and corner knobs. Wagons were always placed whole in the graves, only one exception was found, here the wheels are dismantled. Bronze ware mainly consisted of large vessels, situla, buckets and cloudrons. Beaked jugs, spouted jugs and drinking horns (in one case with a gold mounts) are also found (Diepeveen-Jansen 2001, 80-2).

5.4.3 Northern and Eastern Netherlands

Many developments in the Meuse-Demer-Scheldt area also observable in the Northern and Eastern Netherlands. Here, in comparison with the Early Iron Age, Middle Iron Age cemeteries are also relatively scarce. Furthermore, the cemeteries which date from this period are in general relatively small in size, urns and monuments are also scarce (Van Beek 2009, 81). As in the Meuse-Demer-Scheldt area this reduced the archaeological visibility of these cemeteries. As a result of this, Middle and Late Iron Age cemeteries in the Eastern and Northern Netherlands are very scarce, only 21 cemeteries in the Eastern Netherlands could be dated to the period 500 BCE – AD 100 (Van Beek 2009, 432). In the northern Netherlands local pottery traditions such as Ruinen-Wommels pottery and Frisian pottery characterize the area. In the area above the Dutch riverine area Marne pottery appears to be completely absent (Van Beek 2009, 81; Van den

Broeke 2012, 53, 61-2, 71-3, 90-1). Little is known about metal finds from this area, only several fibulae are known from the area (Van Beek 2009, 82). In terms of settlements the developments in the Northern Netherlands are thought to be largely similar to what we observe in the Meuse-Demer-Scheldt area (Van Beek 2009, 389). Elite graves are only found in the province of Drenthe (De Wit 1998; 365-7; Van Beek 2009, 435; Van der Sanden 2004, 369-2). These elite graves to some extend yielded objects similar to those found in the Meuse-Demer-Scheldt area, most notably fairly similar spearheads, bracelets, daggers, phalerae and situla were found (De Wit 1998, 338-54).

5.4.4 Connections with the Moselle-Marne and Hunsrück-Eifel areas

This section will discuss the similarities in the burial ritual between the Meuse-Demer-Scheldt area and the neighbouring Dutch and German riverine areas and the Moselle-Marne and Hunsrück-Eifel area.

Inhumations

Inhumation graves in the study area appear somewhere around 700/650 BCE and they disappear again around 400/375 BCE (Van den Broeke 2014, 169). For the Middle Iron Age, they thus appear to be restricted to the earlier part of this period. Because of the scarcity of these graves they are thought to represent a non-local phenomenon. This idea is also confirmed by isotope studies which indicate that most individuals who are buried in this manner are of a non-local origin (Kootker *et al.* 2017). In the Marne-Moselle region inhumation became the dominant burial form in the 6th century BCE (Diepeveen-Jansen 2001, 134). Inhumation remained the dominant burial type until the La Tène C period (Pichon 2002, 74). In the Hunsrück-Eifel area inhumations become the dominant burial form at the end of the Hallstatt period. During the La Tène B phase cremation becomes the dominant type of burial (Diepeveen-Jansen 2001, 67-9). The chronology for inhumation graves in these regions is indicated in figure 31. It becomes clear that inhumations in the Meuse-Demer-Scheldt area are indeed largely contemporary with the periods during which inhumation became the dominant burial form in the Moselle-Marne and Hunsrück-Eifel areas.

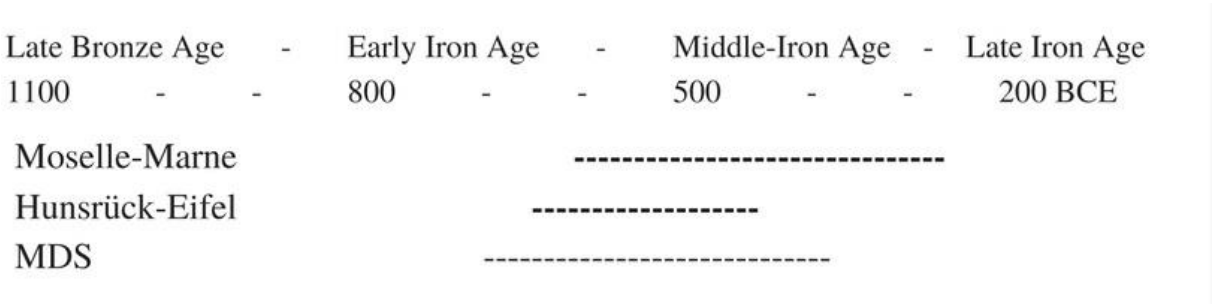

Figure 31: Chronology for inhumation graves in the Moselle-Marne, Hunsrück-Eifel and Meuse-Demer-Scheldt areas. For the first two regions the periods are indicated during which inhumation became the dominant burial type. For the Meuse-Demer-Scheldt area the period is indicated during which inhumation was practiced.

As discussed in chapter 4 it is noted that inhumations, more often than cremation graves, contained objects which were imports or imitations of objects from the Moselle-Marne and Hunsrück-Eifel areas. Isotope studies confirmed that many of these burials contained individuals who were of a non-local origin (Kootker *et al.* 2017; Van den Broeke 2014, 174). Combining all evidence it has been suggested that there is sufficient evidence to consider these individuals as migrants from these areas (Van den Broeke 2014, 175). In general inhumations only seemed to make-up a small insignificant part of the population (less than 4%). However, on a micro-regional scale they are more common. In the Geldermalsen area about 17% of all graves consist of inhumation graves. In Nijmegen about 8% of all graves consist of inhumation graves. These are all found in the riverine part of this region. In that specific area the percentage would thus be even higher. If we consider that these inhumations would all be dated to a brief period of ca. 100 years (notably the 5th century) it becomes clear that for a short period of time in a very select region inhumations were relatively common. If we consider these individuals to be migrants from the Moselle-Marne and Hunsrück-Eifel areas, we might state that during a brief period of time these people made up a significant part of the population in a relatively small area. These inhumations provide the most direct evidence for intensive contacts with these areas, although they are limited to a small area and a brief period of time. So far, only the inhumation graves have been studied using isotope analyses. For future studies it would be interesting to conduct similar studies on cremation graves in order to whether these also contain individuals of a non-local origin. This might help to illuminate the role migrants played in the observed changes in the burial ritual, beyond the partial introduction of inhumation.

Marne pottery

Marne pottery in the Meuse-Demer-Scheldt area is characteristic for the short period between 500-375 BCE (Van den Broeke 2012, 136-9). Marne pottery is found frequently in Middle Iron Age graves, nearly 25% of all pottery finds consist of Marne pottery. It should be noted here that Marne pottery is one of the main characteristics for the Middle Iron Age, and for many graves a date in the Middle Iron Age is based on the inclusion of this type of pottery. This probably means that Marne pottery is overrepresented in the database, as graves without Marne pottery might often not be dated to a specific period. Nevertheless, this pottery appears to have been a regular feature in the burial ritual of the early Middle Iron Age which is not restricted to elite graves.

Hunsrück-Eifel pottery

The Hunsrück-Eifel area seems to be less influential in terms of pottery imports and imitations. Only one pot could be considered an import from this area. The urn found in grave 400 in Boxmeer-Sterckwijck can be considered to be an imported urn from this area. The pot is dated to the period 380-280 BCE which means that it dates later than the imported or imitated Marne pottery (Vermue *et al.* 2015, 214-27).

Metal grave-goods

Several metal grave goods should be mentioned as well, as they also indicate connections with both the Moselle-Marne and Hunsrück-Eifel regions. The two-wheeled wagon found in Nijmegen Trajanusplein is considered to be of a type which originated from the Hunsrück-Eifel area. The horse bits found in this grave are considered to be affiliated to those found in the Champagne region or those from Bohemia (Bloemers 2016; Von Nakoinz 2005, 169). The spears which are found in the study area are considered to be typologically affiliated to those found in the Hunsrück-Eifel area (Geerts and Veldman 2012, 225; Haffner 1976, taf. 18,30,33). The torques and some of the bracelets found in Geldermalsen, Oss-IJsselstraat and Wijchen Woezik-Sportpark are also affiliated to objects found in the Champagne region and to those found in the Ardennes and Hunsrück-Eifel area (Heierbout 2011, 94; Hulst 1999; Wesselingh 1993).

The rippensitzen and situla are stylistically affiliated to objects found in southern

Europe. These area usually considered to be imports (Mariën 1987, 14-17; Van Impe and Creemers 1991, 57-60). The bronze jugs found in Eigenbilzen are thought to be related to objects from Etruria and from the Eastern La Tène area (Mariën 1987, 2-20). Crooked needles are in the literature often considered to be affiliated to objects found in Northern Europe (Verwers 1972, 59). However, these objects are also known from the Hunsrück-Eifel area (Haffner 1976, taf. 33; Von Nakoinz 2005, 142). It is interesting that nearly all metal objects which are imported or imitated from objects from other regions are affiliated to either the Champagne, Moselle-Marne regions or the Hunsrück-Eifel area. Objects from other regions such as Southern Europe are scarce. In these cases it always concerns objects which come from areas which were closely connected to the Hunsrück-Eifel and Moselle-Marne areas (Diepeveen-Jansen 2001, 201-5). The only exception to the rule might be the crooked needles, which are for example found in Haps Kampersveld, these might have a more northern origin (Verwers 1972, 59).

In total 74 objects could be considered to be imports, or imitations of objects from other regions. In nearly all cases it concerned objects which were affiliated to either the Moselle-Marne or Hunsrück-Eifel area. In total 763 grave goods have been included in the database. Of the total a large portion concerned animal bones (n=115). Furthermore in 21 cases it concerned metal objects which were no longer recognizable. If we exclude these objects, as it would be impossible to establish whether these should be considered imports, imitations or objects of a local origin, we can state that 12% of all objects in the database are either imports or imitations of objects from other regions, nearly exclusively from the Moselle-Marne or Hunsrück-Eifel area.

5.5 Scales of identity

It was noted that variation in the burial ritual could occur on several levels. Differences existed between individual graves, cemeteries, micro-regions and regions (interregional variation). Below, the four levels at which variation occurs are discussed. In the last section this will be discussed in relation with the theory proposed by Gerritsen (2003).

5.5.1 Interregional variation

In the previous section the similarities between the study area and other regions were discussed. This section will focus on the interregional variation. Although, the study area showed many similarities with, mainly, the Moselle-Marne and Hunsrück-Eifel

area the differences are also quite pronounced. The most notable difference is the preference for cremation in the study area. Inhumation only make up less than 4% of the graves (although in Geldermalsen and Nijmegen these percentages are higher). In most micro-regions within the study area inhumations are completely lacking. In terms of the burial ritual the Meuse-Demer-Scheldt area seems in many respects more similar to that of the Northern and Eastern Netherlands than it does to the Moselle-Marne and Hunsrück-Eifel areas. Mainly in terms of the "ordinary" burial ritual the Meuse-Demer-Scheldt area is similar to that of the Northern and Eastern Netherlands. Both are characterized by a decrease in cemeteries, cemetery size, and the use of monuments, urns and burial gifts (Van Beek 2009). But unlike the Meuse-Demer-Scheldt area the Northern Netherlands seem to lack intensive contacts with the Moselle-Marne and Hunsrück-Eifel area, as the Northern Netherlands is devoid of inhumation graves and Marne pottery (Van Beek 2009; Van den Broeke 2012).

5.5.2 Micro-regional variation

On a micro-regional scale there was a surprisingly high degree of variation in the burial ritual. The areas of Western Flanders and West Noord-Brabant seemed to be quite similar to each other but beyond that a large amount of variation could be observed between the micro-regions. Inhumations, the construction of monuments and urn burials appeared to phenomenon only shared by certain micro-regions. Furthermore, the selection of cremation remains varied across the regions. A north-west vs. south-east division could be seen in the respect where type A graves dominated in the north-western part of the study area whereas type B and C graves were also quite common in the south-eastern part of the study area. The elite burial ritual also seemed to express profound differences between micro-regions. The elite burials could be classified into three geographically distinct areas based on the inclusion of specific elements (torques, weapons, wagons and bronze vessels). At least in this respect it seems that variation on a micro-regional scale has increased since the preceding urnfield period.

5.5.3 Variation on the level of individual cemeteries

Variation on the level of individual cemeteries was hard to grasp, due to the small sizes of cemeteries. For larger cemeteries these often quickly made up a large portion of the graves within certain micro-regions. Hence, the variation observed on the scale of micro-regions complies largely with the variation between the larger cemeteries.

Nevertheless, a few phenomenon appeared to represent choices which were made on the level of individual cemeteries. A notable example are the double graves. Graves with multiple individuals are usually absent in Middle Iron Age cemeteries. But in Oss-IJsselstraat and Meteren de Plantage these graves are fairly common (Jezeer and Veniers 2012, 69; Veselka 2016, 11-2). Furthermore, it seems that the choices for monument sizes were often made on the level of individual cemeteries. Monuments of specific types within cemeteries were often of similar sizes, while in general the variation in sizes for these types was quite large. In terms of monument sizes it seems that the choices made for the construction of the first monuments thus affected the construction of later monuments. Lastly, variation on the level of individual cemeteries is also observed in the way cemeteries did or did not comply with older traditions. Middle Iron Age graves could in some urnfields be constructed in a tradition which fitted more with the urnfield traditions than with Middle Iron Age traditions, for example in the case of Slabroek (Van den Broek 2012). In other cases Middle Iron Age graves which were located in older urnfield were constructed in a new tradition while still being located in the same location, this is for example the case with the cemetery of Someren-Waterdael I (Kortlang 1999, 169). In Nijmegen Kopsplateau and Lommel-Kattenbosch the Middle Iron Age graves break with urnfields, in terms of tradition and location, but they are still constructed near the older urnfield, but they are geographically separated from the older graves (De Laet and Mariën 1950, fig. 45; Fontijn 1996). These choices appear to reflect local choices for dealing with these older monuments.

5.5.4 Variation on the level of individual graves

Variation on the level of individual graves appears to be quite distinct. Many graves seem to represent graves of "one of a kind." This is mainly the case with elite graves, which is obviously due to their scarcity. The graves found at Overasselt, Stein Graetheide, Nijmegen Trajanusplein, Geldermalsen Middengebied grave 1, Nijmegen Hunerberg and Eigenbilzen all represent unique cases (Ball 1999; Beckers and Beckers 1940; Bloemers 2016; Hulst 1999; Mariën 1987). But also certain monument types, which are not necessarily associated with elite graves, represent unique cases. For example only one square posthole structure has been found in the study area. Also the two inhumation graves found at Meteren de Bogen, which were dug into an older Bronze Age barrow, represent unique cases within the study area (Meijlink 2002). The

cremation grave 400 found in Boxmeer also represents a unique case in terms of its grave goods assemblage (Bloo and Geerts 2014, 56-7; Vermue *et al.* 2016, 227). Furthermore, specific graves with grave goods such as frog and toad bones, a loom weight and a spindle whorl are all unique finds. The high level of variation on the level of individual graves can probably mainly be attributed to the scaricity of Middle Iron Age graves within the study area. This is strengthened further by the fact that grave goods and monuments are rare in general.

5.5.5 Moving from a collective identity to a kin-based identity?

According to Gerritsen, the collective urnfield identities made way for an identity which was based on the local kin-group (2003, 246). Such a view is supported by the observation that cemeteries decreased in size and they often form small clusters within a larger landscape. Elite graves also often seem to cluster in specific cemeteries. For example when torque graves are found there are usually multiple graves with torques within a cemetery, while in the vast majority of cemeteries these objects are completely absent. However, both Fontijn and Gerritsen proposed that such a social or ideological change should be considered to be the prime motivator behind the changes in the burial ritual between the Early and Middle Iron Age. I think this is unconvincing. As Fontijn noted we should study this phenomenon from a far larger perspective, rather than as a local phenomenon as Roymans initially sought to explain the transition between the Early and Late Iron Age (Roymans 1995; Fontijn 1996). Furthermore, the observations by Gerritsen do not explain the decrease in contacts with the Hallstatt zone and the rise in contacts with the Moselle-Marne and Hunsrück-Eifel area. I think it is therefore more appropriate to consider these changes to be the result of a combination of local changes and changing interregional connections.

5.6 Intensive contacts?

In terms of the burial ritual it is interesting that inhumations, although they represent a local phenomenon, should be considered to be an important direct link with the Moselle-Marne and/or Hunsrück-Eifel areas. For the Geldermalsen and Nijmegen areas quite a large portion of the graves is constructed in this manner during the earlier part of the Middle Iron Age. These graves are thought to represent migrants, and it interesting in that respect that these migrant graves do not only represent elite graves (Kootker *et al.* 2017). Also, in terms of age and sex it seems that both men, women and children are

represented. Although the exact role of this immigrant community cannot be securely assessed, it seems likely that they played a part in the process of intensifying the contacts between the study area and the Moselle-Marne and Hunsrück-Eifel areas, where they are thought to originate from.

In terms of grave goods about 12% of all grave goods could be considered to be imports or imitations of objects from other regions. In nearly all cases this concerned objects related to the Moselle-Marne and Hunsrück-Eifel areas. The most important category in this respect is represented by the Marne pottery. In total 25% of all pottery finds could be identified as Marne pottery. For all these influences it is notable that they do not only represent an elite phenomenon. In this respect the connections between the Meuse-Demer-Scheldt area and neighbouring riverine areas appears to be more intensive than the Early Iron Age connections with the Hallstatt area. During the Early Iron Age these contacts were only relevant for the local elites, the "1%" of the Early Iron Age societies (Fontijn and Van der Vaart-Verschoof 2016, 532-3). The Middle Iron Age connections with the Moselle-Marne and Hunsrück-Eifel area were clearly not only restricted to the upper strata of society.

5.6.1 Globalization according to the trends defined by Jennings

This section discusses the criteria for globalization as they were defined in chapter 2 based on the work of Jennings (2017).

Deterritorialization

This trend concerns the sense that a place seems only tenuously connected to its local, geographically-fixed context. Places might in this respect be more affiliated to far away centres than to their immediate surroundings (Jennings 2017). This trend is clearly observable for the Middle Iron Age. The most striking examples are the inhumation graves found in the Nijmegen and Geldermalsen areas. In Geldermalsen-Middengebied, Beuningen-Ewijk, Lent-Laauwikstraat and in several other cemeteries inhumation graves, constructed in a manner which resembles that of the Hunsrück-Eifel and Moselle-Marne areas, are found in association with cremation graves which are constructed in a local manner (Blom *et al.* 2012; Hulst 1999; Van den Broeke 1999). In these cases it seems that a part of the population, in this case a migrant community, negotiates an identity through the burial ritual which appears to be more affiliated with

far flung regions than with the local traditions. This trend is furthermore observable in elite graves, graves such as the Nijmegen Trajanusplein cart burial and the Overasselt elite grave also seem to be more affiliated, in terms of grave goods, with elite burials in the Moselle-Marne and Hunsrück-Eifel areas than they are to other local burials (Ball 1999; Bloemers 2016).

Standardization

This trend is mainly concerned with ideologically charged motives. For the Early Iron Age Fontijn and Van der Vaart-Verschoof note that certain elite graves were more similar to each other than to the majority of graves in their immediate surroundings. This was, according to them, an indication of "cosmopolitan" nature which characterizes this trend (2016, 530-1). This is to some extend observable in the Middle Iron Age as well.

However, this phenomenon is much more regionalized than during the Early Iron Age. In chapter 4 it was noted that elite burials could be divided into three geographic groups, a group characterized by graves with torques, a group of graves with weapons and a last group of graves with bronze vessels. The cosmopolitan notions which were observable for the Early Iron Age seem to have been broken down. Nevertheless, these differences should not be considered to be actual differences in terms of available objects. It seems highly unlikely that elites in Geldermalsen only possessed torques and the elites in Southern Limburg only had bronze vessels but that none of these people had access to spears and other weapons. It seems far more likely that in life elites in all these regions had access to objects belonging to the four categories: 1) weapons, 2) drinking vessels, 3) riding/driving gear, 4) bodily ornaments. I think these categories would still resemble a shared cosmopolitan identity which is only fragmented post-mortem in the burial ritual. It therefore seems that these graves represent a unique form of par-pro-toto inclusion of grave goods. Although a set of objects relating to multiple categories represented an elite identity, this set was fragmented across the region in order to emphasize micro-regional differences between local groups. The idea of a cosmopolitan elite identity was still present but it is fragmented to emphasize a localized identity. This seems to fit with the idea of glocalization (Fontijn and Van der Vaart-Verschoof, 2017, 526-33; Versluys 2014, 13-4).

Unevenness

This trend indicates that networks were not geographically ubiquitous. This means that considerable power differences were present between regions. This trend is clearly observable in the Middle Iron Age. First of all the elite graves are not evenly distributed across the area. Elites clearly seem to centre on the riverine areas of the Meuse and Rhine. These rivers provide a direct connection to the Moselle-Marne and Hunsrück-Eifel areas. It is thus clear that a favourable location in terms of these riverine connections indeed created power differences. Although, we noted that these connections became relevant for a wider part of society, thus not only for the elites, they were probably to some extend still under an elite control. The riverine areas in this respect formed a powerful hub which connected the hinterlands of the Meuse-Demer-Scheldt area with the Moselle-Marne and Hunsrück-Eifel areas.

Homogenization

This trend is mainly observable by the widespread adaptation of Marne-pottery across a large region. In general a large portion of all grave goods (ca. 12%) appears to resemble objects from other regions, mainly the Moselle-Marne and Hunsrück-Eifel areas. There thus appears to be an increased homogenization. This trend appears to be much stronger than it was during the Early Iron Age when it was only relevant for a very small number of graves (Fontijn and Van der Vaart-Verschoof 2016, 532-3).

Cultural heterogeneity

This trend indicates that the blending of outside influences is unique from one place to the next. This is seen in the fact that the burial traditions in the micro-regions are all characterized by local variations. Variation occurs in grave types, the presence of monuments and urns but even more profoundly in the differentiation between elite graves. Elite graves are constructed using homogenized elements but the burials are clearly constructed according to local traditions (the three groups) which use these overarching connections to emphasize local differences.

Re-embedding of local culture

This again fits with the previously described phenomenon. The imports and imitations of objects from far flung regions are re-embedded in the local culture to express differences on a local scale. This trend is especially prominent when it concerns elite

graves.

Vulnerability

This trend is most clearly observable when we consider the chronology for these connections. Both the inhumation tradition and Marne-style ceramics are limited to the first part of the Middle Iron Age. These trends quickly disappear. These networks were indeed characterized by a complex form of connectivity. The Meuse-Demer-Scheldt area was clearly depending on these other regions in order for these intensive contacts to continue. When the Moselle-Marne area and Hunsrück-Eifel areas saw a crisis phase at the beginning of the La Tène B period (as indicated by a sharp drop in cemeteries, graves and elite graves) the connections between the Meuse-Demer-Scheldt area and bordering riverine areas and the Moselle-Marne and Hunsrück-Eifel area also seem to cease (Diepeveen-Jansen 2001, 179). Clearly, these areas where interdependent and these connections could only flourish when the Moselle-Marne and Hunsrück-Eifel areas flourished.

5.6.2 Globalization in the Middle Iron Age

All trends which we considered to be important for identifying past globalizations were clearly present in the burial ritual of the Middle Iron Age, or at least for the earlier phase of this period, notably the La Tène A period. These connections were seemingly not only relevant for the local elites. They are shared by a larger part of society. It thus seems that this period can definitely be considered to be phase of globalization, at least according to the criteria defined in chapter 2.

But, in hindsight there is a criterium which is too easily overlooked in archaeological studies which should have been taken into account here. It was noted in the introduction that globalization initially implied a global phenomenon (Storper 1997, 31-2). As a true global phenomenon cannot really be present in Late Prehistory for practical reasons, for example the fact that there is no evidence for connections between the Americas and Eurasia or Africa prior to AD 1000 we have, as archaeologists, lowered our standard for what we should consider global (Fitzhugh 2000, 1; Vandkilde 2016). For the Bronze Age Vandkilde argued for a globalization on a Eurasian scale (2016). This is still a large intercontinental area. But the Meuse-Demer-Scheldt area is only ca. 250 kilometres

away from the Hunsrück-Eifel area, and 350 kilometres from the Moselle-Marne area.[12] Furthermore, it should be noted that for the La Tène A period the Belgian Ardennes are considered to be part of the Moselle-Marne area. This region is situated directly on the border with the Meuse-Demer-Scheldt area. Considering that the earths diameter is 6.371 kilometre a connection over a distance of several hundreds of kilometres cannot truly be considered to be "global."

I think we should not overlook the need for a geographical criterium, as the criteria which were proposed by Jennings are also observable on smaller distances. For example, homogenization, unevenness, deterritorialization are also observable within the study area, if we would excludethe far flung connections and if we only look at the data from this area. The differences and similarities between the micro-regions could in fact even be described in terms of these criteria. It might be stated that these trends which Jennings defined represent a specific form of connectivity rather than globalization. The first trend time-space compression, as defined by Jennings which, was excluded from this study, does not solve this problem. This trend can also be observed on a very small scale. We can illustrate this with a hypothetical case. There are two villages (ca. 20 kilometres apart) where no other mode of transport is known except for walking. At some point the bicycle is introduced to these villages. From that moment onwards the 20 kilometre distance will become shorter in the perception of these people. In this case we might state that we observe time-space compression but this is by no means an indication for globalization.

In general all these trends might be to some extend be observable on a local scale. But globalization as a phenomenon is characterized by the fact that it is more or less global. I think that in order to really be able to talk about globalization connections should at least be intercontinental. This would mean that the Bronze Age and the Roman period indeed still can be considered to be phases where globalizaiton might have taken place (Vandkilde 2016, 118; Versluys 2014, 14). I would still consider the Middle Iron Age in the study area a period of intensive contacts. In many respects these connections have reached a level of intensity which is not observed in, for example, the Early Iron Age. In their nature these connections qualify as globalized connections but the geographical

[12] Distances measured from Nijmegen. Southern Limburg is even closer, approximately 250 kilometres from the Moselle-Marne region and only 150 kilometres from the Hunsrück-Eifel area.

limitations of these connections in my view disqualify them for such a definition. In order not to neglect this insight the following section will attempt to review the phenomenon observed in the study area in a wider European context also including, as far as possible the Mediterranean world and western Asia.

5.7 Towards a 'global' perspective

The observed drastic changes which are described here do not necessarily make sense if we explain them as a local development. Vulnerability, one of the trends of globalization defined by Jennings, might be a key aspect in this story (2017, 12-16).

The contacts with the Hallstatt area are nearly entirely abandoned at the end of the Early Iron Age. The abandonment of these contacts coincides with the emergence of intensive contacts between the Meuse-Demer-Scheldt area and bordering Dutch and German riverine areas and the Moselle-Marne and Hunsrück-Eifel areas around 500 BCE. This development cannot be merely considered as a local phenomenon. It runs parallel, chronologically speaking, with the abandonment of both hillforts and cemeteries in the Hallstatt zone and movement of people into and out of the Hallstatt area (Arnold 1995, 162). In central Europe the transition between the Early Iron Age and the Middle Iron Age coincides with a temporary break in contacts with the Mediterranean world (Wells 1980, 102-3). Furthermore, the development runs parallel with the flourishing of the Moselle-Marne and Hunsrück-Eifel areas. In the Meuse-Demer-Scheldt area, the Dutch riverine area, the northern and eastern Netherlands and Westphalia the urnfield traditions are abandoned (Roymans 1991, 69-70; Van Beek 2009, 81, 432). In Italy these developments run parallel with the expansion of Etruscan territory across the Apennines into the Po Valley, starting between 530-520 BCE (Potter 1981, 231; Wells 1980, 130-132). Between the 6th and 5th centuries BCE close contacts were established between Etruria and Greece. In southern France the Greek colony of Massalia (Marsseiele) was founded in the early 6th century BCE (Wells 1980, 62-72).

Considering that migrant communities, probably from the Moselle-Marne and Hunsrück-Eifel area were present in the Meuse-Demer-Scheldt area and bordering Dutch riverine area I think the debate surrounding Celtic migrations should not be ignored too easily here (Van den Broeke 2014). Before we turn to this theory several notes should be made here. In general Celtic migrations are thought to have started

around 400 BCE, this is also the period in which they are documented in most studies (Arnold 1995, 159; Rustoiu 2014; Scheeres *et al.* 2013; Scheeres *et al.* 2014; Wells 1980, 132). Hence, the developments in the Meuse-Demer-Scheldt area, the migrant communities documented in inhumation graves, the introduction of Marne-pottery and the abandonment of urnfields, all pre-date what we consider Celtic migrations in other parts of Europe. Furthermore, Celtic migrations are traditionally considered to be directional, focussed on southern Europe (Bell-Fialkoff 2016, 107).

Nevertheless, the observed developments are quite similar. In many areas we see an incursion of a migrant community which results in cultural changes on many fronts (Rustoiu 2014). I think in this respect this concept of Celtic migrations in other regions in Europe might be seen as an analogue for the developments in the Meuse-Demer-Scheldt area. Migrations from the Moselle-Marne and Hunsrück-Eifel areas are connected to the developments in those areas. These in turn are related to the decline of the Hallstatt area which is also connected to the transition between the Early and Middle Iron Age in the Meuse-Demer-Scheldt area and bordering riverine areas. On a wider scale these developments are probably also connected to the developments in Italy, the expansion of Etruscan territory into the Po Valley. In the Moselle-Marne, Hunsrück-Eifel and to a lesser extend the Meuse-Demer-Scheldt area these developments are seen by the emergence of Etruscan imports in the burial ritual (Diepeveen-Jansen 2001; Mariën 1987). In this respect the question of globalization should perhaps not be dealt with on a regional scale but rather on a wider European scale. Trends such as unevenness and vulnerability are more pronounced on a European scale (Jennings 2017, 12-16). Between 600-400 BCE we can observe rapid changes, mainly related to the flourishing and decline of important centres and connections between regions. The decline of the Hallstatt and the rise of the Moselle-Marne and Hunsrück-Eifel areas had major consequences for the developments in the Meuse-Demer-Scheldt area and the neighbouring Dutch and German rhinelands.

These developments are not isolated as they are also related to developments in Greece, Italy and even Hungary (Rustoiu 2014, 147-156; Wells 1980). It would be more fruitful to study these developments on a broader European scale. And perhaps even on a Mediterranean or Eurasian scale as they also coincide with the rise of the Persian Empire in the Middle East which directly affected the developments in Greece and in

the Phoenician and Greek colonies in the western-Mediterranean (Cartledge 1981, 201-4; Stronach 1981, 206-7). Such a broader interregional approach is also taken in studies concerned with globalizaiton in the Bronze Age or Roman period (Kristiansen and Suchowska-Ducke 2015, 366; Vandkidle 2016; Versluys 2014). For now it can be stated that the interregional connections discussed in this study comply with the characteristics for globalization as they are defined by Jennings but that the geographical scope of the study is too limited to really define the Middle Iron Age as a phase of globalizatoin (2017).

6 Conclusion

In this chapter the conclusions for this study will be summarized. The first part will deal with the changes in the burial ritual which occurred after the transition between the Early and the Middle Iron Age. The second part will deal with elite graves and inhumation graves. The third part will discuss power structures, identity and interregional connections and globalization.

6.1 The burial ritual in the Middle Iron Age

This section will discuss the burial ritual in the Middle Iron Age and it will compare the burial ritual with that of the Early Iron Age. The section will also deal with variation in the burial ritual within the study area.

6.1.1 General characteristics of cemeteries in the Middle Iron Age

A first difference between the Early Iron Age and the Middle Iron Age, which has been noted for a long time, is the difference in cemetery density across the study area (Gerritsen 2003; Fontijn 1996; Roymans 1995). A total of 194 Early Iron Age cemeteries were known from the Meuse-Demer-Scheldt area (Gerritsen 2003). The overview of Middle Iron Age cemeteries which is presented here only included 71 cemeteries. In addition to that, 19 Middle Iron Age cemeteries have been excluded from this study due to their poor documentation or dating.

It is clear that the previously observed drop in cemeteries still holds true. The drop is also visible on the level of individual cemeteries: in general Middle Iron Age cemeteries were much smaller than Early Iron Age urnfields. Many cemeteries consisted of single graves and even the largest Middle Iron Age cemeteries are generally much smaller than most urnfields in the southern Netherlands. The drop seems to have been caused by several factors; first of all Middle Iron Age cemeteries and graves have a lower chance of preservation due to the fact that they often lack urns and monuments. Furthermore, there appears to have been a research bias in the past favouring Early Iron Age urnfields. Lastly it also seems probable that there was an actual drop in the population, or it is also possible that at this point only part of the population was buried in an archaeologically visible manner. Gerritsen proposed that the drop should partially be seen as a move from the sandier inlands of the Meuse-Demer-Scheldt area towards the loamier riverine areas (2003). This appears to be incorrect as the new dataset also

includes many Middle Iron Age cemeteries which are located in the sandier inlands. It appears that there is indeed an increase in cemetery density in the riverine area, but a depopulation of the sandier parts of the landscape could not be observed.

Another aspect which needs to be discussed is the relationship between Middle Iron Age graves and cemeteries. Middle Iron Age cemeteries were very often located near older urnfield graves or burial mounds. Of the 71 cemeteries, 26 were located near an older urnfield or barrow. This means that approximately 37% of all cemeteries were located near older graves. In at least six cases it could not be established whether the Middle Iron Age graves were located near older graves. If we exclude these from the analysis ca. 40% of all Middle Iron Age cemeteries and graves were located near older urnfield graves or barrows. The re-use of older burial locations could be classified into four categories:

1. Middle Iron Age graves could be constructed in a newly erected cemetery which is not located near an older monument;
2. They could be near an older urnfield or barrow respecting both the location and burial tradition;
3. They could be located near an older urnfield or barrow respecting and the location of the older monument, although the individual graves are constructed according to a new burial tradition;
4. Or be located near an older urnfield or barrow but breaking both with the location and the burial tradition. In these cases the Middle Iron Age graves form a spatially separate cluster which is also constructed according to a new burial tradition.

It can thus be concluded that the re-use of older monuments was a frequent and diverse feature in the Middle Iron Age.

Finally, the concept of double graves deserves to be treated here. In the study area a total of 19 cremation graves contained multiple individuals. These consisted of 18 double graves and one grave with three individuals. Double graves were especially a frequent feature in the cemeteries of Meteren de Plantage and Oss-IJsselstraat. In many other cemeteries these were completely absent. It seems that the choices to construct, or not to construct, double graves were choices made on the level of individual

communities. The graves consisted of adult and children graves. Female graves were far more common than male graves. In most cases the graves consisted of a woman who was buried together with a child or young adult. Other combinations, such as an adult male buried with an adult female, were scarce.

6.1.2 Monuments, grave-types and urns in the Middle Iron Age

In total 195 monuments have been found in the study area, meaning that ca. 30% of all graves would have had a monument. However, in reality this is partially a reflection of the better preservation of monuments as opposed to burials. Only 78 monuments contained actual burials, thus more than half of the graves in these monuments are thought to have disappeared. In order to more adequately assess the frequency of monument building, an attempt was made to take these preservation issues into account. It was estimated that originally ca. 13% of all graves would have consisted of monuments. On a micro-regional scale this percentage varied between 0% and 19%.

In terms of typology twelve different types of monuments were found. Square and rectangular ditches were the most frequent monument types, but circular ditches and mounds were also found quite frequently. A total of eight rectangular cult places were found in the study area. It was concluded that these should be seen primarily as collective burial monuments rather than actual cult places. Many monuments had openings in their ditches. These were nearly always directed to the south-east, a practice which is widely observed in prehistoric monument building.

Grave types

Four different types of graves were identified in the study area. These consisted of type A, B and C cremation graves, according to the typology developed by Hiddink, and inhumation graves (2014, 189). Graves of which the type could not be identified were noted as type D graves. A micro-regional analysis showed that inhumation graves were only found in the riverine areas of Geldermalsen and Nijmegen; only one inhumation grave was found outside these areas in Someren (Northern-Limburg and Eastern Noord Brabant). A north-west/south-east division was visible in terms of the distribution of cremation grave types. In the north-west the vast majority of cremation graves consisted of type A graves while in the south-east type B and type C graves were also prominent.

Urns

In total 19% of the cremations were buried inside an urn. This low frequency was expected based on previous research (Hiddink 2014, 189). Six of these urns consisted of bronze situla; these graves can be classified as elite graves. Urns consisted mainly of pots but occasionally bowls were also used. Urns are found in all micro-regions except for Geldermalsen. In the German Rhineland urns are found very frequently in 53% of all graves. Urns were used in both male, female and children's graves.

6.1.3 Grave goods

Approximately 61% of all graves contained grave goods; this percentage is probably lower in reality as grave goods often allow for the attribution of a specific date and mainly dated graves are included in the database. In general grave goods appear to be more common in Middle Iron Age graves than they had been in Early Iron Age graves. The largest group of grave goods consist of pottery. Another large group is linked to objects related to food consumption (pottery finds are also mainly linked to food consumption). A third large group consists of objects related to appearance, mostly bracelets, hair or ear-rings, belt hooks and fibula. Jewellery is more prevalent in female graves. Tools are almost completely absent in graves. In about 11% of all graves metal grave goods have been found (if we exclude elite graves); this is more than in the Early Iron Age. It seems that metal grave goods become more frequent throughout the Iron Age. In the German Rhineland metal grave goods, especially fibula, are found more frequently than in other areas, namely in 35% of all graves. Pottery finds mainly consist of bowls, pots and loose sherds. Bowls are more frequent, while in the Early Iron Age pots are found more frequently than bowls. In total 28% of all the pots and bowls should be considered either imported or imitated pottery from other areas; 25% of these consist of so-called Marne pottery.

Animal bones are found in 101 graves. The percentage of graves with animal bones varies greatly per cemetery, between 7-80%. This is probably due to the small cemetery sizes which creates larger variations. On average 36% of the graves contained animal bones. It seemed that the practice of including animal bones in graves became more frequent throughout the Iron Age. Animal bones were found in 22 cemeteries, but it is likely that in many others these have simply not been identified. There appears to be a

preference for pig bones while cow bones are quite uncommon, which is a contrast with contemporary settlements where cows are the most frequently found species. Sheep/goat bones come in second in terms of frequency. It appears that there is a ritual or culturally determined preference for the inclusion of pig bones as opposed to the inclusion of other species. Worked bone and antler is extremely rare in these graves. Only one grave contained plant remains, probably as a funerary meal, but it is likely that these have been included more often but are usually not preserved.

6.1.4 Variation in the burial ritual

It appears that there is a surprising degree of variation on a micro-regional scale. Inhumations, cremation types, the inclusion of urns and monuments all seem to vary in different regions. At the level of individual cemeteries variation was difficult to assess due to the small cemetery sizes. But it appeared that the inclusion of double graves mainly varied on the level of individual cemeteries. Also monument sizes appeared to be determined within a cemetery, as most monuments within a cemetery were similar in size, even though in general they could vary to a larger extend. Furthermore, the variation in terms of dealing with older monuments also appeared to be determined on the level of individual cemeteries, rather than reflecting micro-regional choices. Due to the scarcity of data, many "one of a kind" graves have been found. But it is difficult to assess to what extend variation on the level of individual graves was important.

6.2. Elite burials and inhumations

This section will summarize the conclusions about elite burials, inhumations and selective depositions.

6.2.1 Elite burial ritual

In total 36 elite graves have been found in the study area, about 7% of the total amount of graves could be classified as elite graves, based on the characteristics listed in chapter 2. Elite graves were mainly found in the riverine areas of the eastern part of the study area. No elite graves have been found in Western Flanders or Western Noord-Brabant. Most elite graves were not located under a monument, and if they were, these were usually similar in size to monuments which were used for non-elite graves. In general monuments did not seem to be very important features for the construction of elite identities. Only rarely are monuments actually used to emphasize the importance of

these elite graves within a cemetery. Elite graves of all four grave types (A, B, C and inhumations) have been found. Inhumation graves are relatively common, consisting of 11% of the graves while only 4% of the "regular" graves consist of inhumations. In general the distribution of grave types complies with that identified for the individual micro-regions, although it is interesting that no type A elite graves have been found in Southern Limburg. In general the selection of cremation remains, and the manner of their deposition was not deemed important for expressing elite identities in the burial ritual.

Elite graves are constructed using grave goods belonging to the following categories: 1) weapons, 2) drinking vessels, 3) riding/driving gear, 4) bodily ornaments. It seemed that these categories should not necessarily all be included in one grave: only the Overasselt grave contained objects relating to all four categories. In general, the region could be divided into three major groups based on the inclusion of these categories. The Geldermalsen and Oss regions, and the western part of the Nijmegen area seemed to be characterised by the inclusion of torques in elite graves. The eastern Nijmegen area and German Rhineland were characterised by the inclusion of weapons, wagon parts and horse gear. The Southern Limburg area was characterised by the inclusion of bronze situla. This regional distribution of different categories is not observable for the Early or Late Iron Age and this thus appears to represent a distinctly Middle Iron Age feature.

6.2.2 Gender in elite graves

Elite graves belonged to both male and female burials; also three children's graves have been found. In terms of sex and age, the distribution of elite graves does not divert from that of ordinary graves. Unlike what is usually assumed, weapons do not appear to be exclusively male burial gifts: they are found in both male and female graves. A similar note can be made for wagon burials, as the only wagon burial, of which the sex of the individual could be determined belonged to a female grave.

6.2.3 Selective deposition

It appeared that objects which during the Early Iron Age and in the Middle Iron Age were included in elite burials are no longer included in burials after the 3rd century BCE. Swords are probably already no longer included in burials from the Middle Iron Age onwards (although one grave contained an empty sword sheath). Increasingly these

objects reappear in wet context deposits. This seems to relate to the idea of selective deposition which was formulated for the Bronze Age (Fontijn 2002). We might state that throughout the Iron Age these contexts were largely mutually exclusive. In the Early Iron Age objects related to elite identities were mainly deposited in graves and not in wet places. During the Middle Iron Age, swords were no longer deposited in graves but only in wet contexts. Other objects such as bronze vessels and torques were still deposited in graves. After the 3rd century BCE these objects are also no longer deposited in graves and only in wet contexts.

6.2.4 Inhumation graves

In total 19 inhumation burials have been found. It appears that they are all dated (as far as this could be established) in the early part of the Middle Iron Age, the La Tène A phase. They are practically all located in the riverine areas near Geldermalsen and Nijmegen. The only exception is the inhumation burial found to the south, in Someren Waterdael I. Inhumations therefore appear to represent a local phenomenon for these areas.

Only four inhumation burials are located inside a burial monument and in none of these cases can the inhumation be considered the central grave. It therefore seems that monuments were not constructed for inhumation burials, but that inhumations were occasionally placed inside older monuments. Grave goods mainly consist of objects related to appearance, more often than in cremation graves. Pottery consists of the second largest group of objects. Animal bones are found less frequently than in cremation graves. About half of the grave goods in inhumation graves consist of non-local objects (either imports or imitations). As recent isotope studies confirmed that many of these graves belonged to people of a non-local origin, it seems that inhumation graves can generally be considered immigrant graves (Kooter *et al.* 2017). Inhumation graves consist of both male, female and children's graves. Grave goods, mainly related to appearance, were more common in female graves than in children's or male graves. Although their role is difficult to assess, it does seem likely that this community of immigrants, probably from the Moselle-Marne and Hunsrück-Eifel areas, played a part in intensifying the contacts between the study area and their homeland. I would recommend that future isotopic studies also attempt to include cremation graves, to study the influence of these migrant communities on the burial ritual, beyond the role

they played in introducing inhumation.

6.3 Power structures, identity and interregional connections

Below the power structures, the question of whether the Middle Iron Age societies in the study area should be seen as Big Man societies, will be discussed. Then, the hypothesis proposed by Gerritsen—that the collective urnfield identity was replaced by a kin-based identity—will be discussed. Lastly, the interregional connections and the question of globalization will be addressed.

6.3.1 Power structures in the Middle Iron Age

In a Big Man society the elites (who can be recognized by military and/or material display) worked their way up through the ranks due to personal achievements. The rank of Big Man could only be achieved at a later age, usually by people in their fifties or sixties. In general the elite burials found in the Middle Iron Age do not indicate a preference for older males. Males, females and children are represented just as much as they are among the rest of the population. The fact that some elite burials consisted of children's graves suggest that during the Middle Iron Age wealth and status could, at least to some extent, be inherited. As this is not possible within a Big Man system, we should consider the social organization to be of a more stratified order—probably what we can observe in chiefdom societies. During the Early Iron Age elite burials still largely belong to older males and therefore it seems that this change from a Big Man system to a more stratified chiefdom society took place during the Middle Iron Age.

6.3.2 Moving from a collective identity to a kin-based identity?

The idea, proposed by Gerritsen, that during the Middle Iron Age the collective urnfield identity was replaced by a local kin-group identity is indeed supported by the observation that the Middle Iron Age mainly represent small clusters in the landscape, rather than collective urnfields (2003, 246). Gerritsen proposed that this, together with the displacement of settlements, was the driving force behind the changes in this period. This seems unconvincing as it does not take into account other changes, such as the decrease in contacts with the Hallstatt area and the increase in contacts with the Moselle-Marne and Hunsrück-Eifel areas. It seems more likely that these changes are the result of a combination of local changes and changing interregional connections,

which were, at least to some extend, related to incoming migrant communities from the Moselle-Marne and Hunsrück-Eifel areas.

6.3.3 Interregional connections

Imported and imitated objects become more common in Middle Iron Age graves and, unlike during the Early Iron Age, these no longer appear to be reserved for the 1% of the population. The period sees a rise in inhumation graves, a practice which is thought to be imported from the Moselle-Marne or Hunsrück-Eifel area. Objects which are imported or imitated generally come from the Moselle-Marne and Hunsrück-Eifel areas. When reviewing the trends for globalization, as they are proposed by Jennings, and as they are noted in chapter 2, the interregional connections during this period could be classified as a form of past globalization (2017).

However, it was noted that the geographical scale of these connections was very limited. They hardly reach beyond the Moselle-Marne and Hunsrück-Eifel areas. There are no directly visible intercontinental links which could be securely identified (although one grave appeared to contain ivory objects which must have come from either Africa or Asia, if the interpretation of the material was correct). We might conclude that in order to truly identify globalization, a clear geographical limit should be established in advance. In order to truly speak of globalization, a minimal geographical scope should be adopted; possibly connections should for example, span at least three continents in order to be classified as "global". True past globalization, literally spanning the globe, would obviously not be possible before the early modern period. But, if we want to broaden our definition of globalization in order to also include phenomena such as Bronzization, Romanization, etcetera, we need to determine in advance a minimum geographical scope. For the Middle Iron Age this would mean that in the future such a study should also include developments in, for example, the Mediterranean, Greece, Italy, Eastern Europe and Persia. As this unfortunately falls outside the scope of this study I will have to conclude that, so far, the interregional connections fit the trends identified by Jennings to define globalization, but that a more detailed study of a wider region should be included in order to truly establish whether we should see this phase as a period of globalization.

7 Abstract

This study set out to investigate the changes in the burial ritual during the Middle Iron Age (500-250 BCE) in the Meuse-Demer-Scheldt area and the Dutch and bordering German Rhineland. The study aimed to identify these changes and to investigate how these were related to shifting ideas about identity and how they related to changing interregional connections. For the latter, an attempt was made to review whether this period should be considered to be a period of globalization. In order to investigate changing identities, both elite graves and the "other 99%" of regular graves have been analysed. A database was set-up including 71 cemeteries with a total of 651 graves located within the study area.

The burial ritual changed in many respects, for example, monument building and urn burials became less frequent. Longbeds disappeared in favour of square and rectangular burial monuments and rectangular cult places. Grave goods, especially metal grave goods and animal bones, became a more frequent feature during this period. There also appeared to be many differences in the burial traditions between the different micro-regions. This seemed to indicate that the burial ritual was highly localized, especially the elite burial practices which appeared to be more localized than in the Early Iron Age. It was therefore concluded that it seemed plausible that the expression of identities changed from a collective urnfield identity in the Early Iron Age to a kin-based identity in the Middle Iron Age. In terms of social organization, the Middle Iron Age seemed to represent a more stratified society than the previous period. It appeared that wealth and status could be inherited through generations. The Early Iron Age connections with the Hallstatt area seemed to have disappeared during the Middle Iron Age. These were replaced by connections with the Moselle-Marne and Hunsrück-Eifel area. Unlike in the Early Iron Age, when the connections with the Hallstatt area were restricted to the upper 1% of the population, large parts of the population appeared to share in these connections. Especially Marne pottery, and for some micro-regions inhumation graves, were a frequent feature in the burial ritual. It was concluded that these connections did fit with the characteristics for a period of globalization. However, geographically the connections hardly reached beyond the Moselle-Marne and Hunsrück-Eifel areas. It was concluded that, in order to speak of globalization a wider geographical scope, preferably intercontinental, should be studied in order to truly assess such connections.

8 Samenvatting

Deze studie onderzoekt de veranderingen in het grafritueel van de Midden-IJzertijd (500-250 v.Chr.) in het Maas-Demer-Scheldegebied en het aangrenzende Nederlandse en Duitse Rijnland. Het doel was om deze veranderingen te identificeren en om te onderzoeken hoe deze gerelateerd waren aan veranderende ideeën over identiteit en veranderingen in interregionale contacten. Ook is onderzocht of deze periode gezien moet worden als een periode van globalisatie. Voor de studie over identiteit zijn zowel de elitegraven als de 'andere 99%' normale graven bestudeert. Hiervoor is een database opgezet met 71 grafvelden en in totaal 651 graven in het onderzoeksgebied.

Vele veranderingen konden worden waargenomen in het grafritueel. Het gebruik van urnen en grafmonumenten nam af. Langbedden verdwenen en rechthoekige en vierkante grafmonumenten en collectieve cultusplaatsen werden opgericht. Grafgiften, vooral van metaal en dierenbotten, kwamen vaker voor dan in de periode daarvoor. Er bleken veel verschillen te bestaan in het grafritueel in de verschillende micro-regio's. Het grafritueel bleek dus in veel opzichten lokaal georganiseerd, dit was zeker ook belangrijk voor de elitegraven, meer dan in de Vroege IJzertijd (800-500 v.Chr.). Het is plausibel dat de expressie van identiteit in het grafritueel veranderde van een collectieve expressie van identiteit naar een identiteit die is gebaseerd op verwantschap binnen een kleinere groep. In de Midden-IJzertijd lijkt de sociale organisatie meer gestratificeerd te zijn en rijkdom en status lijken voor een deel overerfbaar te zijn, anders dan in de Vroege IJzertijd. Contacten in de Vroege IJzertijd met het Hallstatt gebied zijn in de Midden-IJzertijd verdwenen. Deze zijn vervangen door contacten met het Moselle-Marne- en Hunsrück-Eifelgebied. Anders dan in de Vroege IJzertijd zijn deze contacten niet meer voorbehouden voor de bovenste 1% van de samenleving. Vooral Marne-aardewerk, en in sommige micro-regio's inhumatiegraven, zijn veelvoorkomend in het grafritueel in deze periode. De connecties met deze gebieden voldeden aan de criteria voor periode van globalisatie. Maar geografisch gezien rijkten deze contacten nauwelijks verder dan het Moselle-Marne en Hunsrück-Eifelgebied. Daarom luidt de conclusie dat, om daadwerkelijk over globalisatie te kunnen spreken, er een groter geografisch gebied onderzocht moet worden. Bij voorkeur moet dit een intercontinentale studie zijn.

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Appendices

Appendix 1: List of Middle Iron Age cemeteries which are included in the database.

	Cemetery	**Date**	**Literature**	**Code database**	**Nr. of graves**
1	Zoersel Oostmallebaan - Graffendonk	1800-250 BCE	Bruggeman and Reyns 2013	BE_AN_01	6
2	Ravels-Klein Ravels-Heike	800-250 BCE	Annaert and Van Impe 1985	BE_AN_02	1
3	Kontich-Duffelsesteenweg	900-200 BCE	Tiri *et al*. 2008	BE_AN_03	2
4	Eigenbilzen	450-400 BCE	Mariën 1987	BE_LI_01	1
5	Lommel-Kattenbosch Noord	800-250 BCE	De Laet and Mariën 1950	BE_LI_02	6
6	Lummen-Meldert	500-250 BCE	Creemers 1996	BE_LI_03	8
7	Neerharen-Rekum	400-100 BCE	Temmerman 2007	BE_LI_04	13
8	Wijshagen de Rietem	500-12 BCE	Creemers and van Impe 1991; Maes and Van Impe 1986; Impe 1998	BE_LI_05	5
9	Maasmechelen-Mottekamp	400 BCE-AD 300	Steenhoudt and Smeets 2012	BE_LI_06	3
10	Hever-Stationsstraat	550 BCE-AD 100	Jezeer 2015	BE_VB_01	24
11	Haldern Colettenberg	400-100 BCE	Reichmann 1979, 159	GE_NW_01	17
12	Haldern Spelmannsberg	400-100 BCE	Reichmann 1979, 159	GE_NW_02	10
13	Haldern Sommersberg	400-100 BCE	Reichmann 1979, 159	GE_NW_03	17
14	Emmerich Hüthum	480-380 BCE	Reichmann 1979, 370	GE_NW_04	1
15	Oss-IJsselstraat	800-250 BCE	Wesselingh 1993	NL_BR_01	26
16	Haren-Groenstraat	500-12 BCE	Knippenberg 2014, 117-126	NL_BR_02	6
17	Uden Slabroek	800-250 BCE	Van den Broek 2011	NL_BR_03	2
18	Zundert	500-250 BCE	Krist 2005	NL_BR_04	14
19	Boxmeer-Sterckwijck	1500 BCE-AD 700	Vermue *et al*. 2015	NL_BR_05	36
20	Cuijk-Heeswijkse Kampen	500 BCE-400 AD	Ball *et al*. 2001	NL_BR_06	1
21	Oss Ussen 1, cluster C	500-250 BCE	Van der Sanden 1998	NL_BR_07	1
22	Oss Ussen 2, cluster B central	500-250 BCE	Van der Sanden 1998	NL_BR_08	10
23	Oss Ussen 3, cluster B east	500-12 BCE	Van der Sanden 1998	NL_BR_09	1
24	Nijsel	500-250 BCE	Hulst 1964	NL_BR_10	15
25	Bergijk Waterlaan	500-250 BCE	Parlevliet and Flamman 2003	NL_BR_11	5
26	Haps Kampersveld	1800-250 BCE	Verwers 1972	NL_BR_12	7
27	Oss-Mettegeupel	500-250 BCE	Jansen 1997; Jansen and Fokkens 1999	NL_BR_13	1
28	Breda-Emerakker NW	500-12 BCE	Berkvens 2004	NL_BR_14	1
29	Breda-Emerakker SE	500-250 BCE	Berkvens 2004	NL_BR_15	3
30	Breda-Steenakker	800 BCE-AD 250	Berkvens 2004	NL_BR_16	14

31	Breda-Huifakker	500 BCE-AD 250	Berkvens 2004	NL_BR_17	2
32	Mierlo-Hout	800-400 BCE	Tol 1999	NL_BR_18	12
33	Someren Waterdael I	650-400/375 BCE	Kortlang 1999	NL_BR_19	22
34	Strijbeek-Strijbeekse Hei	500-250 BCE	Bursch 1937	NL_BR_20	6
35	Tilburg-Udenhout	400-210 BCE	Verbeek and Mostert 2012	NL_BR_21	1
36	Someren « Waterdael III », site 1	800-375 BCE	Hiddink and De Boer 2011	NL_BR_22	6
37	Someren « Waterdael III », site 2	500-250 BCE	Hiddink and De Boer 2011	NL_BR_23	20
38	Someren « Waterdael III », site 4	500-250 BCE	Hiddink and De Boer 2011	NL_BR_24	4
39	Bergijk	450-325 BCE	Modderman 1961a	NL_BR_25	1
40	Hoogeloon-Hoogpoort	800-325 BCE	Modderman 1961a, 550; Beex 1964, 103	NL_BR_26	1
41	Berlicum-Middelrode	450-325 BCE	Beex 1968	NL_BR_27	1
42	Oosterhout-de Contreie	1100-250 BCE	Roessingh 2012	NL_BR_28	35
43	Veghel-Scheifelaar	800-250 BCE	Kleij and Verwers 1994, 133-134	NL_BR_29	2
44	Westerhoven-Loveren	500-250 BCE	Bannenberg 1960	NL_BR_30	1
45	Knegsel	500-325 BCE	Beex 1968a, 123-126	NL_BR_31	1
46	Wijchen Sportpark	500-250 BCE	Heirbaut 2011	NL_GE_01	32
47	Meteren de Bogen	2500-250 BCE	Van den Broeke 2014	NL_GE_02	2
48	Beuningen	800-250 BCE	Blom *et al.* 2012	NL_GE_03	12
49	Meteren de Plantage	600-400 BCE	Van den Broeke 2014	NL_GE_04	45
50	Est	500-250 BCE	Gehasse and Leijnse 2002	NL_GE_05	1
51	Nijmegen Hatert	500-250 BCE	Haalebos 1990	NL_GE_06	5
52	Overasselt	500-250 BCE	Ball 1999	NL_GE_07	1
53	Nijmegen Trajanusplein	500-250 BCE	Bloemers 1986; Bloemers 2016	NL_GE_08	5
54	Ressen Zuiderveld	800-375 BCE	Broeke *et al.* 2010	NL_GE_09	5
55	Lent Laauwikstraat zuid	600-400 BCE	Hiddink 2014	NL_GE_10	11
56	Geldermalsen	450 BCE-AD 650	Hulst 1999	NL_GE_11	23
57	Nijmegen Kopsplateau	800-250 BCE	Fontijn 1995	NL_GE_12	10
58	Nijmegen Hunnerberg	500-375 BCE	Ball 1999	NL_GE_13	1
59	Itteren-Emmaus 2	500-200 BCE	Meurkens and Tol 2009	NL_LI_01	20
60	Nunhem-Voort	310-190 BCE	Wilgen, *et al.* 2016	NL_LI_02	59
61	Weert-Laarveld	500-200 BCE	Tol 2009	NL_LI_03	23
62	Sittard-Koeweide	500-250 BCE	Van der Leije *et al.* 2016	NL_LI_04	4
63	Weert-Kampershoek Noord, site 6	500-400 BCE	Hiddink 2010	NL_LI_05	5
64	Buggenum Berikstraat	500-250 BCE	Hensen 2006	NL_LI_06	1
65	Lomm Hoogwatergeul	1800 BCE-AD 200	Gerrets and De Leeuw 2011	NL_LI_07	2

66	Sittard Hoogveld, vindplaats 4	800-100 BCE	Tol 2000	NL_LI_08	1
67	Sittard Hoogveld, vindplaats 9	800-250 BCE	Tol and Schabbink 2004	NL_LI_09	5
68	Swalmen-Heide	500-250 BCE	Lanting and Van der Waals 1974, 92-93	NL_LI_10	2
69	Stein-Kerkweg	500-12 BCE	Beckers and Beckers 1940	NL_LI_11	1
70	Stein-Graetheide	800-12 BCE	Beckers and Beckers 1940	NL_LI_12	1
71	Groesbeek-Hüsenhoff	800 BCE-AD 270	Geerts and Veldman 2012	NL_GE_14	3

Appendix 2: List of graves with corresponding monument numbers, site-codes correspond to those in Appendix 1.

Site_Code	Grave_ID	Monument_ID	Urn (y/n)	Grave type	Date (range)	Date absolute
BE_AN_01	1	1	YES	A		
BE_AN_01	2	2	NO			
BE_AN_01	3	3	NO			
BE_AN_01	4	4	NO			
BE_AN_01	5	5	NO			
BE_AN_01	6	6	NO			
BE_AN_02	7	7	YES	A	500-250 BCE	
BE_AN_03	8		YES	B	1100-450 BCE	404-207 BCE
BE_AN_03	9		YES	B		396-206 BCE
BE_LI_01	10		YES	D	450-400 BCE	
BE_LI_02	11		YES	A	500-325 BCE	
BE_LI_02	12	8	YES	A	500-250 BCE	
BE_LI_02	13	9	YES	B	500-250 BCE	
BE_LI_02	14		YES	B	500-375 BCE	
BE_LI_02	15	10	NO	A	500-250 BCE	
BE_LI_02	16		NO	A	500-250 BCE	
BE_LI_03	17		NO	A		
BE_LI_03	18		NO	C		
BE_LI_03	19		NO	C		
BE_LI_03	20		NO	C		
BE_LI_03	21		NO	C		
BE_LI_03	22		NO	C		
BE_LI_03	23		NO	C		
BE_LI_03	24		NO	C		
BE_LI_04	25		NO	B		
BE_LI_04	26		NO	A		
BE_LI_04	27		YES	A		
BE_LI_04	28		NO	A	275-12 BCE	392-204 BCE
BE_LI_04	29		YES	A	500-450 BCE	

BE_LI_04	30		YES	A		
BE_LI_04	31		YES	A		
BE_LI_04	32		NO	D		
BE_LI_04	33		NO	D		
BE_LI_04	34		NO	D		
BE_LI_04	35		NO	B		
BE_LI_04	36		NO	D	175-12 BCE	
BE_LI_04	37		YES	A	500-400 BCE	
BE_LI_05	38	11	NO	B	500-300 BCE	
BE_LI_05	39	12	YES	B	500-300 BCE	481-209 BCE
BE_LI_05	40		YES	D	500-400 BCE	
BE_LI_05	41	13	NO	A	500-250 BCE	
BE_LI_05	42	13	NO	C	500-250 BCE	
BE_LI_06	43		NO	A		396-210 BCE
BE_LI_06	44		NO	A		373-201 BCE
BE_LI_06	45		NO	A		384-204 BCE
BE_VB_01	46	14	NO		500-250 BCE	
BE_VB_01	47	15	NO			
BE_VB_01	48	16	NO		500-250 BCE	
BE_VB_01	49	17	NO	C		401-209 BCE
BE_VB_01	50	17	NO	C		376-201 BCE
BE_VB_01	51	17	NO	D		
BE_VB_01	52	17	NO	D		
BE_VB_01	53	17	NO	D		
BE_VB_01	54		NO	D		
BE_VB_01	55	17	NO	D		
BE_VB_01	56		NO	A		731-397 BCE
BE_VB_01	57		NO	D		
BE_VB_01	58		NO	D		
BE_VB_01	59		NO	D		
BE_VB_01	60		NO	D		
BE_VB_01	61		NO	D		
BE_VB_01	62		NO	D		
BE_VB_01	63	17	NO	D		
BE_VB_01	64		NO	C		
BE_VB_01	65		NO	D		
BE_VB_01	66		NO	C		413-232 BCE
BE_VB_01	67		NO	C		
BE_VB_01	68		NO	C		
BE_VB_01	69		NO	A		
GE_NW_01	70		YES	A		
GE_NW_01	71		YES	D		
GE_NW_01	72		YES	D		
GE_NW_01	73		YES	B		
GE_NW_01	74		YES	B		

GE_NW_01	75		YES	B		
GE_NW_01	76		NO	C		
GE_NW_01	77		YES	D		
GE_NW_01	78		YES	D		
GE_NW_01	79		NO	C		
GE_NW_01	80		NO	B		
GE_NW_01	81		YES	A	500-325 BCE	
GE_NW_01	82		YES	B		
GE_NW_01	83		NO	D		
GE_NW_01	84		NO	B		
GE_NW_01	85		NO	A		
GE_NW_01	86		NO	B		
GE_NW_02	87		NO	C		
GE_NW_02	88		NO	C		
GE_NW_02	89		NO	B		
GE_NW_02	90		YES	B		
GE_NW_02	91		YES	B		
GE_NW_02	92		YES	B		
GE_NW_02	93		NO	C	500-325 BCE	
GE_NW_02	94		YES	A		
GE_NW_02	95		NO	A		
GE_NW_02	96		NO	A		
GE_NW_03	97		YES	B		
GE_NW_03	98		YES	B		
GE_NW_03	99		YES	B	650-125 BCE	
GE_NW_03	100		NO	D		
GE_NW_03	101		NO	C	500-325 BCE	
GE_NW_03	102		NO	D		
GE_NW_03	103		NO	C		
GE_NW_03	104		YES	B		
GE_NW_03	105		NO	C		
GE_NW_03	106		YES	B	280-150 BCE	
GE_NW_03	107		NO	C		
GE_NW_03	108		YES	B		
GE_NW_03	109		NO	A		
GE_NW_03	110		YES	A		
GE_NW_03	111		YES	D		
GE_NW_03	112		YES	A		
GE_NW_03	113		YES	A		
GE_NW_04	114		NO	C	480-380 BCE	
NL_BR_01	115	18	YES		500-12 BCE	
NL_BR_01	116	19	NO		500-12 BCE	
NL_BR_01	117	20	NO	A	500-250 BCE	746-386 BCE
NL_BR_01	118	21	NO	A	500-350 BCE	
NL_BR_01	119	22	NO	A	500-12 BCE	

NL_BR_01	120	23	NO	A	800-12 BCE	
NL_BR_01	121	24	NO		800-12 BCE	
NL_BR_01	122	25	NO	D	500-12 BCE	
NL_BR_01	123		NO	D	800-12 BCE	
NL_BR_01	124		NO	D	800-12 BCE	
NL_BR_01	125		YES	A	575-375 BCE	
NL_BR_01	126		NO	A		
NL_BR_01	127		NO	A		
NL_BR_01	128		NO	D	800-450 BCE	
NL_BR_01	129		NO	A	800-12 BCE	
NL_BR_01	130		NO	A	800-12 BCE	
NL_BR_01	131		YES	A	800-12 BCE	
NL_BR_01	132		NO	A	800 BCE-400 AD	
NL_BR_01	133		NO	D	800-12BCE	
NL_BR_01	134		NO	A		
NL_BR_01	135		YES	A	450-400 BCE	536-264 BCE
NL_BR_01	136		YES	A	450-350 BCE	759-416 BCE
NL_BR_01	137		NO	A		
NL_BR_01	138		NO	A		
NL_BR_01	139	26	YES	D	500-250 BCE	
NL_BR_01	140		YES	A	575-375 BCE	
NL_BR_02	141		NO	A	500-375 BCE	732-397 BCE
NL_BR_02	142		NO	A	522-383 BCE	522-383 BCE
NL_BR_02	143		NO	A	500-12 BCE	
NL_BR_02	144		YES	A	500-12 BCE	
NL_BR_02	145	27	NO		250-12 BCE	
NL_BR_02	146	28	NO		250-12 BCE	
NL_BR_03	147	29	NO	D	500-250 BCE	
NL_BR_03	148	30	YES	D	500-250 BCE	
NL_BR_04	149	31	NO	B	400-200 BCE	
NL_BR_04	150	32	NO	A	450-400 BCE	
NL_BR_04	151	33	NO	D	400-200 BCE	
NL_BR_04	152	33	NO	D	400-200 BCE	
NL_BR_04	153	33	NO	D	400-200 BCE	
NL_BR_04	154	33	NO	D	400-200 BCE	
NL_BR_04	155	34	NO	D	400-200 BCE	
NL_BR_04	156	34	NO	A	450-400 BCE	
NL_BR_04	157		NO	D		
NL_BR_04	158		NO	D	500-250 BCE	
NL_BR_04	159		NO	D		
NL_BR_04	160		NO	D		
NL_BR_04	161		NO	B		
NL_BR_04	162		NO	D	500-250 BCE	
NL_BR_05	163		YES	A	375-250 BCE	

NL_BR_05	164		NO	A	391-206 BCE	391-206 BCE
NL_BR_05	165		NO	A	450-250 BCE	
NL_BR_05	166		YES	A	500-250 BCE	
NL_BR_05	167		YES	A	500-250 BCE	
NL_BR_05	168		YES	A	500-250 BCE	
NL_BR_05	169		NO	C	500-250 BCE	
NL_BR_05	170		YES	A	450-325 BCE	
NL_BR_05	171		NO	C	500-250 BCE	
NL_BR_05	172		NO	B	500-250 BCE	
NL_BR_05	173		NO	B	450-325 BCE	
NL_BR_05	174		NO	A	500-250 BCE	
NL_BR_05	175		NO	B	500-250 BCE	
NL_BR_05	176		NO	A	394-206 BCE	394-206 BCE
NL_BR_05	177		YES	A	450-375 BCE	
NL_BR_05	178		YES	A	500-250 BCE	
NL_BR_05	179		YES	A	500-375 BCE	
NL_BR_05	180		YES	A		500-250 BCE
NL_BR_05	181		YES	A	600-300 BCE	
NL_BR_05	182		NO	A	500-250 BCE	
NL_BR_05	183		NO	A	500-250 BCE	
NL_BR_05	184		YES	A	500-250 BCE	
NL_BR_05	185		YES	A	500-250 BCE	
NL_BR_05	186		YES	D	500-250 BCE	
NL_BR_05	187		YES	A	575-375 BCE	
NL_BR_05	188		NO	A	500-250 BCE	
NL_BR_05	189		NO	B	500-250 BCE	
NL_BR_05	190		YES	A	575-400 BCE	
NL_BR_05	191		YES	A	350-250 BCE	
NL_BR_05	192		NO	A	500-375 BCE	729-410 BCE
NL_BR_05	193		YES	A	380-280 BCE	
NL_BR_05	194		NO	A	361-172 BCE	361-172 BCE
NL_BR_05	195		YES	A	500-250 BCE	
NL_BR_05	196		YES	A	500-250 BCE	
NL_BR_05	197		YES	D	500-250 BCE	
NL_BR_05	198		YES	A	600-350 BCE	
NL_BR_06	199		NO	A	375-250 BCE	
NL_BR_07	200	35	NO		350-275 BCE	
NL_BR_08	201	36	NO			
NL_BR_08	202		NO	A		
NL_BR_08	203		NO	A		
NL_BR_08	204		NO	A		
NL_BR_08	205		NO	A		
NL_BR_08	206		NO	D	500-250 BCE	
NL_BR_08	207	37	NO			
NL_BR_08	208	38	NO		350-275 BCE	

NL_BR_08	209	39	NO			
NL_BR_08	210		NO	A		
NL_BR_09	211	40	NO		350-275 BCE	
NL_BR_10	212	41	NO	D		
NL_BR_10	213	42	NO			
NL_BR_10	214	43	NO	A		
NL_BR_10	215	43	NO	A		
NL_BR_10	216	44	NO	D		
NL_BR_10	217	45	NO			
NL_BR_10	218	46	NO	A		765-428 BCE
NL_BR_10	219	47	NO	B		775-430 BCE
NL_BR_10	220	47	NO	A		749-395 BCE
NL_BR_10	221	47	NO	B	500-325 BCE	747-397 BCE
NL_BR_10	222	47	NO	A		
NL_BR_10	223	48	NO	A		
NL_BR_10	224	49	NO			
NL_BR_10	225	50	NO	D		
NL_BR_10	226	51	NO			
NL_BR_11	227	52	NO			
NL_BR_11	228	53	NO		500-250 BCE	
NL_BR_11	229	54	NO		500-250 BCE	
NL_BR_11	230	55	NO		500-250 BCE	
NL_BR_11	231	56	NO		500-250 BCE	
NL_BR_12	232	57	YES	A	500 BCE-400 AD	746-386 BCE
NL_BR_12	233	58	NO	A	500 BCE-400 AD	
NL_BR_12	234	58	YES	A	500 BCE-400 AD	
NL_BR_12	235	58	NO	A	500 BCE-400 AD	
NL_BR_12	236		YES	A	500-375 BCE	
NL_BR_12	237		YES	A	500-375 BCE	
NL_BR_12	238	59	NO	A	500-400 BCE	
NL_BR_13	239	60	NO		375-250 BCE	
NL_BR_14	240	61	NO		500-250 BCE	
NL_BR_15	241	62	NO		500-250 BCE	
NL_BR_15	242	63	NO		500-250 BCE	
NL_BR_15	243	64	NO		500-250 BCE	
NL_BR_16	244		YES	A	450-375 BCE	
NL_BR_16	245		NO	D	500-250 BCE	
NL_BR_16	246	65	NO		500-250 BCE	
NL_BR_16	247	66	NO		500-250 BCE	
NL_BR_16	248		YES	D	500-250 BCE	
NL_BR_16	249	67	NO		500-250 BCE	
NL_BR_16	250	68	NO		500-250 BCE	
NL_BR_16	251	69	NO		500-250 BCE	

NL_BR_16	252	70	NO		500-250 BCE	
NL_BR_16	253	71	NO		500-250 BCE	
NL_BR_16	254	72	NO		500-250 BCE	
NL_BR_16	255	73	NO		500-250 BCE	
NL_BR_16	256	74	NO		500-250 BCE	
NL_BR_16	257	75	NO		500-250 BCE	
NL_BR_17	258	76	NO		500-250 BCE	
NL_BR_17	259	77	NO		500-250 BCE	
NL_BR_18	260	78	NO	B		
NL_BR_18	261	79	NO	D		
NL_BR_18	262	80	NO	D		
NL_BR_18	263	81	NO	D	500-375 BCE	
NL_BR_18	264		NO	D	500-12 BCE	
NL_BR_18	265	82	NO			
NL_BR_18	266	83	NO			
NL_BR_18	267	84	NO	D		
NL_BR_18	268	84	NO	D		788-537 BCE
NL_BR_18	269	85	NO			
NL_BR_18	270	86	NO			
NL_BR_18	271	87	NO			
NL_BR_19	272	88	NO	A	500-375 BCE	
NL_BR_19	273	89	NO	D	761-415 BCE	761-415 BCE
NL_BR_19	274	90	NO	A		
NL_BR_19	275		NO	A		703-206 BCE
NL_BR_19	276	91	NO	A		
NL_BR_19	277	92	NO	D	500-450 BCE	792-434 BCE
NL_BR_19	278	93	NO			
NL_BR_19	279	94	NO	D		
NL_BR_19	280	95	NO			
NL_BR_19	281	96	NO			
NL_BR_19	282	97	NO	A	764-430 BCE	764-430 BCE
NL_BR_19	283	98	NO			
NL_BR_19	284	99	NO	A	754-407 BCE	754-407 BCE
NL_BR_19	285	100	NO	A		
NL_BR_19	286	101	NO			
NL_BR_19	287	102	NO	A	550-375 BCE	
NL_BR_19	288	103	NO			
NL_BR_19	289	104	NO			
NL_BR_19	290	105	NO			
NL_BR_19	291	106	NO			
NL_BR_19	292	107	NO	D		
NL_BR_19	293		NO	Inhumation	500-375 BCE	
NL_BR_20	294	108	YES	A		
NL_BR_20	295	109	YES	A	350-300 BCE	

NL_BR_20	296	110	YES	A		
NL_BR_20	297	111	NO	A		
NL_BR_20	298	112	NO	A		
NL_BR_20	299	113	NO	A		
NL_BR_21	300	114	NO		400-210 BCE	400-210 BCE
NL_BR_22	301	115	NO	A	500-375 BCE	728-385 BCE
NL_BR_22	302	116	NO	A	500-400 BCE	751-401 BCE
NL_BR_22	303	117	NO		500-400 BCE	
NL_BR_22	304	118	NO		500-400 BCE	
NL_BR_22	305	119	NO		500-400 BCE	
NL_BR_22	306	120	NO		500-400 BCE	
NL_BR_23	307	121	NO			
NL_BR_23	308	122	NO			
NL_BR_23	309		NO	D		
NL_BR_23	310	123	NO			
NL_BR_23	311	124	NO			
NL_BR_23	312	125	NO			
NL_BR_23	313		NO	D		
NL_BR_23	314		NO	C		
NL_BR_23	315	126	NO	C		
NL_BR_23	316	126	NO	A	781-511 BCE	781-511 BCE
NL_BR_23	317	127	NO	A	751-401 BCE	751-401 BCE
NL_BR_23	318	128	NO	A		
NL_BR_23	319	129	NO	A		
NL_BR_23	320	130	NO			
NL_BR_23	321	131	NO	B		
NL_BR_23	322	132	NO	A	739-401 BCE	739-401 BCE
NL_BR_23	323	133	NO			
NL_BR_23	324		NO	D		
NL_BR_23	325	134	NO			
NL_BR_23	326	135	NO			
NL_BR_24	327	136	NO			
NL_BR_24	328	137	NO			
NL_BR_24	329	138	NO			
NL_BR_24	330	139	NO			
NL_BR_25	331		NO	C	450-325 BCE	
NL_BR_26	332		YES	D	450-325 BCE	
NL_BR_27	333		YES	D	450-325 BCE	
NL_BR_28	334	140	NO	A		
NL_BR_28	335	141	NO		790-421 BCE	790-421 BCE
NL_BR_28	336	142	NO			
NL_BR_28	337	143	NO			
NL_BR_28	338	144	NO			
NL_BR_28	339	145	NO			
NL_BR_28	340	146	NO			

NL_BR_28	341	147	NO			
NL_BR_28	342	148	NO			
NL_BR_28	343	149	NO			
NL_BR_28	344	150	NO			
NL_BR_28	345	151	NO			
NL_BR_28	346	152	NO			
NL_BR_28	347	153	NO			
NL_BR_28	348	154	NO			
NL_BR_28	349	155	NO			
NL_BR_28	350	156	NO			
NL_BR_28	351	157	NO			
NL_BR_28	352	158	NO			
NL_BR_28	353	159	NO		500-375 BCE	766-416 BCE
NL_BR_28	354	160	NO	A	500-375 BCE	696-387 BCE
NL_BR_28	355	161	NO			
NL_BR_28	356	162	NO			
NL_BR_28	357	163	NO			
NL_BR_28	358	164	NO			
NL_BR_28	359	165	NO		500-250 BCE	
NL_BR_28	360	166	NO			
NL_BR_28	361	167	NO			
NL_BR_28	362	168	NO			
NL_BR_28	363	169	NO			
NL_BR_28	364	170	NO			
NL_BR_28	365	171	NO			
NL_BR_28	366	172	NO	A		
NL_BR_28	367	173	NO			
NL_BR_28	368	174	NO			
NL_BR_29	369	175	NO	D		
NL_BR_29	370	176	NO	D		
NL_BR_30	371		YES	B	500-250 BCE	
NL_BR_31	372		YES	D	500-325 BCE	
NL_GE_01	373		NO	A		
NL_GE_01	374		NO	A		
NL_GE_01	375		NO	A		
NL_GE_01	376		NO	C		
NL_GE_01	377		NO	D		
NL_GE_01	378		NO	C	500-375 BCE	
NL_GE_01	379		NO	C	450-375 BCE	
NL_GE_01	380		NO	D		
NL_GE_01	381		NO	D	500-250 BCE	
NL_GE_01	382		NO	D	500-325 BCE	
NL_GE_01	383		NO	A	550-450 BCE	
NL_GE_01	384		NO	A	550-450 BCE	
NL_GE_01	385		NO	A		

NL_GE_01	386		NO	D		
NL_GE_01	387		NO	D		
NL_GE_01	388		NO	D		
NL_GE_01	389		NO	D		
NL_GE_01	390		NO	C		
NL_GE_01	391		NO	D		
NL_GE_01	392		NO	C		
NL_GE_01	393		NO	A		
NL_GE_01	394		NO	C	500-325 BCE	
NL_GE_01	395		NO	D		
NL_GE_01	396		NO	D		
NL_GE_01	397		NO	B		
NL_GE_01	398		NO	C	500-375 BCE	
NL_GE_01	399		NO	D		
NL_GE_01	400		NO	D		
NL_GE_01	401		NO	D		
NL_GE_01	402		NO	A	800-250 BCE	
NL_GE_01	403		NO	C		
NL_GE_01	404		NO	C		
NL_GE_02	405	177	NO	Inhumation	450-250 BCE	481203 BCE; 759233 v. Chr.
NL_GE_02	406	177	NO	Inhumation	450-250 BCE	407261 BCE; 481 173 v. Chr.
NL_GE_03	407	178	NO	C	500-250 BCE	
NL_GE_03	408	179	NO	C	500-250 BCE	
NL_GE_03	409	179	NO	C	500-250 BCE	
NL_GE_03	410		YES	B	350-250 BCE	
NL_GE_03	411	180	NO	C	500-250 BCE	
NL_GE_03	412		NO	B	500-250 BCE	
NL_GE_03	413		NO	C	500-250 BCE	
NL_GE_03	414	180	NO	C	500-250 BCE	
NL_GE_03	415		NO	C	500-250 BCE	
NL_GE_03	416		NO	Inhumation	500-250 BCE	
NL_GE_03	417	181	NO	Inhumation	500-250 BCE	
NL_GE_03	418	181	NO	Inhumation	500-250 BCE	
NL_GE_04	419		NO	A		
NL_GE_04	420		NO	A		
NL_GE_04	421		NO	A		
NL_GE_04	422		NO	A	450-325 BCE	
NL_GE_04	423		NO	A		
NL_GE_04	424		NO	A		
NL_GE_04	425		NO	A		
NL_GE_04	426		NO	A		

NL_GE_04	427		NO	A		
NL_GE_04	428		NO	A		
NL_GE_04	429		NO	A		
NL_GE_04	430		NO	A		
NL_GE_04	431		NO	A		
NL_GE_04	432		NO	A		
NL_GE_04	433		NO	A		
NL_GE_04	434		NO	A		
NL_GE_04	435		NO	A		
NL_GE_04	436		NO	A		
NL_GE_04	437		NO	A		
NL_GE_04	438		NO	A		
NL_GE_04	439		NO	A		
NL_GE_04	440		NO	A		
NL_GE_04	441		NO	A		
NL_GE_04	442		NO	A	730-400 BCE	730-400 BCE
NL_GE_04	443		NO	A		
NL_GE_04	444		NO	A	440-390 BCE	
NL_GE_04	445		NO	A		
NL_GE_04	446		NO	A		
NL_GE_04	447		NO	A		
NL_GE_04	448		NO	A		
NL_GE_04	449		NO	A		
NL_GE_04	450		NO	A		
NL_GE_04	451		NO	A		
NL_GE_04	452		NO	A	755-440 BCE	755-440 BCE
NL_GE_04	453		NO	A		
NL_GE_04	454		NO	A		
NL_GE_04	455		NO	A		
NL_GE_04	456		NO	A		
NL_GE_04	457		NO	A		
NL_GE_04	458		NO	A	765-415 BCE	765-415 BCE
NL_GE_04	459		NO	A		
NL_GE_04	460		NO	A		
NL_GE_04	461		NO	A		
NL_GE_04	462		NO	A		
NL_GE_04	463		NO	Inhumation	440-350 BCE	765-414 BCE
NL_GE_05	464		NO	D	400-350 BCE	398-112 BCE
NL_GE_06	465		NO	B	396-206 BCE	396-206 BCE
NL_GE_06	466		NO	C	392-204 BCE	392-204 BCE
NL_GE_06	467		NO	C		
NL_GE_06	468		NO	C		
NL_GE_06	469		NO	C		
NL_GE_07	470		YES	A	500-400 BCE	

NL_GE_08	471		NO	A	450-350 BCE	790-430 BCE
NL_GE_08	472		NO	A	450-350 BCE	
NL_GE_08	473		NO	A		
NL_GE_08	474		NO	A		
NL_GE_09	475		NO	Inhumation	500-375 BCE	731-368 BCE
NL_GE_09	476		NO	A	500-375 BCE	
NL_GE_09	477		NO	C	389-204 BCE	389-204 BCE
NL_GE_09	478		NO	A	500-375 BCE	
NL_GE_09	479		NO	D	500-12 BCE	
NL_GE_10	480		NO	Inhumation	500-400 BCE	500-400 BCE
NL_GE_10	481		NO	Inhumation		
NL_GE_10	482		NO	Inhumation		
NL_GE_10	483		NO	Inhumation		
NL_GE_10	484		NO	D		
NL_GE_10	485		NO	D		
NL_GE_10	486		NO	D		
NL_GE_10	487		NO	D		
NL_GE_10	488		NO	D		
NL_GE_10	489		NO	D		
NL_GE_10	490		NO	D		
NL_GE_11	491		NO	Inhumation	450-375 BCE	
NL_GE_11	492		NO	Inhumation		
NL_GE_11	493		NO	Inhumation	450-375 BCE	
NL_GE_11	494		NO	Inhumation		
NL_GE_11	495		NO	Inhumation		
NL_GE_11	496		NO	Inhumation		
NL_GE_11	497		NO	Inhumation		
NL_GE_11	498		NO	A	450-350 BCE	
NL_GE_11	499		NO	A		
NL_GE_11	500		NO	A		
NL_GE_11	501		NO	A		
NL_GE_11	502		NO	A		
NL_GE_11	503		NO	A		
NL_GE_11	504		NO	A		
NL_GE_11	505		NO	A		
NL_GE_11	506		NO	A		

NL_GE_11	507		NO	A		
NL_GE_11	508		NO	A		
NL_GE_11	509		NO	A		
NL_GE_11	510		NO	A		
NL_GE_11	511		NO	A		
NL_GE_11	512		NO	A		
NL_GE_11	513		NO	A		
NL_GE_12	514	182	NO	A	500-375 BCE	
NL_GE_12	515		NO	A		
NL_GE_12	516		NO	A		
NL_GE_12	517		NO	A		
NL_GE_12	518		NO	A		
NL_GE_12	519		NO	D		
NL_GE_12	520		NO	A	500-375 BCE	
NL_GE_12	521		NO	A	500-375 BCE	
NL_GE_12	522		NO	A	500-375 BCE	
NL_GE_12	523		NO	D	500-375 BCE	
NL_GE_13	524		NO		500-375 BCE	
NL_GE_14	525	183	NO	B	500-250 BCE	
NL_GE_14	526	184	NO	B	500-250 BCE	752-406 BCE
NL_GE_14	527	185	NO	A	500-250 BCE	
NL_LI_01	528		NO	C	376-200 BCE	376-200 BCE
NL_LI_01	529		NO	B	500-12 BCE	
NL_LI_01	530		NO	C		
NL_LI_01	531		NO	C		
NL_LI_01	532		NO	C	376-200 BCE	376-200 BCE
NL_LI_01	533		NO	A	800-12 BCE	
NL_LI_01	534		NO	B	250-12 BCE	
NL_LI_01	535		NO	B	800-12 BCE	
NL_LI_01	536		NO	B	800-12 BCE	
NL_LI_01	537		NO	A		
NL_LI_01	538		NO	A		
NL_LI_01	539		NO	A	406-209 BCE	406-209 BCE
NL_LI_01	540		NO	A		
NL_LI_01	541		NO	B	250-200 BCE	315-208 BCE
NL_LI_01	542		NO	C	800-12BCE	
NL_LI_01	543		NO	C		
NL_LI_01	544		NO	C		
NL_LI_01	545		NO	C	500-250 BCE	703-368 BCE
NL_LI_01	546		NO	C	350-100 BCE	
NL_LI_01	547		NO	C		
NL_LI_02	548		NO	B		
NL_LI_02	549		NO	A		
NL_LI_02	550		NO	A		
NL_LI_02	551		NO	B		

NL_LI_02	552		NO	A		
NL_LI_02	553		NO	B	1100-12 BCE	
NL_LI_02	554		NO	B		
NL_LI_02	555		NO	D		
NL_LI_02	556		NO	A		
NL_LI_02	557		NO	D		
NL_LI_02	558		NO	D		
NL_LI_02	559		NO	D		
NL_LI_02	560		NO	D		
NL_LI_02	561		NO	D		
NL_LI_02	562		NO	C		
NL_LI_02	563		NO	C		
NL_LI_02	564		NO	B	280-190 BCE	355-120 BCE
NL_LI_02	565		NO	B		
NL_LI_02	566		NO	A		
NL_LI_02	567		NO	D		
NL_LI_02	568		NO	B	250-12 BCE	
NL_LI_02	569		NO	A		
NL_LI_02	570		NO	B		
NL_LI_02	571		NO	B		
NL_LI_02	572		NO	B		
NL_LI_02	573		NO	B		
NL_LI_02	574		NO	B		
NL_LI_02	575		NO	A		
NL_LI_02	576		NO	B		
NL_LI_02	577		NO	D		
NL_LI_02	578		NO	C		
NL_LI_02	579		NO	C		
NL_LI_02	580		NO	B		
NL_LI_02	581		NO	D		
NL_LI_02	582		NO	B		
NL_LI_02	583		NO	C		
NL_LI_02	584		NO	C		
NL_LI_02	585		NO	D		
NL_LI_02	586		NO	C		
NL_LI_02	587		NO	C		
NL_LI_02	588		NO	D		
NL_LI_02	589		NO	B		
NL_LI_02	590		NO	B		
NL_LI_02	591		NO	B		
NL_LI_02	592		NO	C		
NL_LI_02	593		NO	B		
NL_LI_02	594		NO	B		
NL_LI_02	595		NO	B		
NL_LI_02	596		NO	B		

NL_LI_02	597		NO	A		
NL_LI_02	598		NO	A		
NL_LI_02	599		NO	D		
NL_LI_02	600		NO	B		
NL_LI_02	601		NO	B		
NL_LI_02	602		YES	A	725-25 BCE	
NL_LI_02	603		NO	C		
NL_LI_02	604		NO	C		
NL_LI_02	605		NO	C		
NL_LI_02	606		YES	A	725-25 BCE	
NL_LI_03	607		NO	C		
NL_LI_03	608		YES	B	350-125 BCE	
NL_LI_03	609		NO	A		
NL_LI_03	610		NO	B	410-200 BCE	410-200 BCE
NL_LI_03	611		YES	B	400-125 BCE	
NL_LI_03	612		NO	B	250-100 BCE	360-160 BCE
NL_LI_03	613		NO	D		
NL_LI_03	614		YES	B	350-125 BCE	380-170 BCE
NL_LI_03	615	186	NO	A	390-190 BCE	390-190 BCE
NL_LI_03	616		NO	B	380-180 BCE	380-180 BCE
NL_LI_03	617	187	NO	A	300-150 BCE	410-200 BCE
NL_LI_03	618		NO	B	400-200 BCE	400-200 BCE
NL_LI_03	619	188	NO	B	410-200 BCE	410-200 BCE
NL_LI_03	620		NO	C		
NL_LI_03	621		NO	A	390-200 BCE	390-200 BCE
NL_LI_03	622		NO	C	300-200 BCE	
NL_LI_03	623		NO	B	350-125 BCE	380-160 BCE
NL_LI_03	624		NO	C	300-200 BCE	
NL_LI_03	625		NO	C		
NL_LI_03	626		NO	A	750-390 BCE	750-390 BCE
NL_LI_03	627		NO	B	410-200 BCE	410-200 BCE
NL_LI_03	628	189	NO	A	410-200 BCE	410-200 BCE
NL_LI_03	629	189	NO	A	760-410 BCE	760-410 BCE
NL_LI_04	630	190	NO	A	400-100 BCE	
NL_LI_04	631	190	NO	D	400-100 BCE	
NL_LI_04	632		NO	A	407-234 BCE	407-234 BCE
NL_LI_04	633	191	NO		400-100 BCE	
NL_LI_05	634	192	NO			
NL_LI_05	635		NO	A		850-400 BCE
NL_LI_05	636		NO	A		550-400 BCE
NL_LI_05	637		NO	A	500-325 BCE	550-400 BCE
NL_LI_05	638		NO	D		550-400 BCE
NL_LI_06	639		NO	C	500-250 BCE	
NL_LI_07	640	193	NO	A	500-250 BCE	
NL_LI_07	641	193	NO	A	500-250 BCE	

NL_LI_08	642		YES	D	450-350 BCE	
NL_LI_09	643	194	NO	C	817-541 BCE	817-541 BCE
NL_LI_09	644		NO	C	388-169 BCE	388-169 BCE
NL_LI_09	645		NO	B	450-375 BCE	751-393 BCE
NL_LI_09	646		NO	D		
NL_LI_09	647	195	NO			
NL_LI_10	648		YES	B		
NL_LI_10	649		YES	B		
NL_LI_11	650		YES	A	500-375 BCE	
NL_LI_12	651		NO	B	500-250 BCE	

Appendix 3: List of cremations, site-codes correspond to those in Appendix 1.

Site_Code	Grave _ID	Sex	Age	Burn tempreature (C)	Pathologies	Double grave (y/n)
BE_AN_01	1	Indet	Indet	650-800		NO
BE_AN_03	8	Indet	12	650-800		NO
BE_AN_03	9	Indet	4-5	650-800		NO
BE_LI_01	10	No information				NO
BE_LI_02	11	No information				NO
BE_LI_02	12	No information				NO
BE_LI_02	13	No information				NO
BE_LI_02	14	No information				NO
BE_LI_02	16	No information				NO
BE_LI_04	25	Indet	13-20	650->800		NO
BE_LI_04	26	Indet	13-20	650->800		NO
BE_LI_04	27	Man?	>30	650->800		NO
BE_LI_04	28	Woman?	25-35	650->800		YES
BE_LI_04	29	Man?	>20	650->800		NO
BE_LI_04	30	Indet	20-40	650->800		NO
BE_LI_04	31	Man?	35-45	650->800		NO
BE_LI_04	32	No information		650->800		NO
BE_LI_04	33	No information		650->800		NO
BE_LI_04	34	Indet	0-6	650->800		NO
BE_LI_04	35	Man?	25-40	650->800		NO
BE_LI_04	36	Indet	0-6	650->800		NO
BE_LI_04	37	Woman	16-20	650->800		NO
BE_LI_05	38	No information				NO
BE_LI_05	39	No information				NO
BE_LI_05	40	No information				NO
BE_LI_05	41	No information				NO
BE_LI_05	42	No information				NO
BE_LI_06	43	Woman?	20-40	650->800		NO
BE_LI_06	44	Woman?	30-50	>800		NO

BE_LI_06	45	Indet	>20	650->800		NO
BE_VB_01	49	Indet	>20	500->800		NO
BE_VB_01	50	Woman?	30-60	500->800	Peripheral osteoarthrosis	NO
BE_VB_01	51	No information				NO
BE_VB_01	52	No information				NO
BE_VB_01	53	No information				NO
BE_VB_01	54	No information				NO
BE_VB_01	55	No information				NO
BE_VB_01	56	Woman?	27-30	500->800		NO
BE_VB_01	57	No information				NO
BE_VB_01	58	No information				NO
BE_VB_01	59	No information				NO
BE_VB_01	60	Indet	9-19	500->800		NO
BE_VB_01	61	No information				NO
BE_VB_01	62	No information				NO
BE_VB_01	63	No information				NO
BE_VB_01	64	Indet	>20	500->800		NO
BE_VB_01	65	No information				NO
BE_VB_01	66	Indet	30-60	500->800		NO
BE_VB_01	67	Man?	30-60	500->800		NO
BE_VB_01	68	Indet	13-14	500->800		NO
BE_VB_01	69	Indet	30-60	500->800	Possible ante mortem toothloss.	NO
GE_NW_01	70	No information				NO
GE_NW_01	71	No information				NO
GE_NW_01	72	No information				NO
GE_NW_01	73	No information				NO
GE_NW_01	74	No information				NO
GE_NW_01	75	No information				NO
GE_NW_01	76	No information				NO
GE_NW_01	77	No information				NO
GE_NW_01	78	No information				NO
GE_NW_01	79	No information				NO
GE_NW_01	80	No information				NO
GE_NW_01	81	No information				NO
GE_NW_01	82	No information				NO
GE_NW_01	83	No information				NO
GE_NW_01	84	No information				NO
GE_NW_01	85	No information				NO
GE_NW_01	86	No information				NO
GE_NW_02	87	No information				NO
GE_NW_02	88	No information				NO
GE_NW_02	89	No information				NO
GE_NW_02	90	No information				NO
GE_NW_02	91	No information				NO
GE_NW_02	92	No information				NO

GE_NW_02	93	No information				NO
GE_NW_02	94	No information				NO
GE_NW_02	95	No information				NO
GE_NW_02	96	No information				NO
GE_NW_03	97	No information				NO
GE_NW_03	98	No information				NO
GE_NW_03	99	No information				NO
GE_NW_03	100	No information				NO
GE_NW_03	101	No information				NO
GE_NW_03	102	No information				NO
GE_NW_03	103	No information				NO
GE_NW_03	104	No information				NO
GE_NW_03	105	No information				NO
GE_NW_03	106	No information				NO
GE_NW_03	107	No information				NO
GE_NW_03	108	No information				NO
GE_NW_03	109	No information				NO
GE_NW_03	110	No information				NO
GE_NW_03	111	No information				NO
GE_NW_03	112	No information				NO
GE_NW_03	113	No information				NO
GE_NW_04	114	No information				NO
NL_BR_01	117	Indet	7-12	>800 C	Porosity of the eyesocket (cribra orbitalia). This is a non-specific stress-marker. It is usually linked to anaemia (a lack of iron in the blood) but other kinds of malnutrition such as a lack of vitamine C, D or B12 could also cause this.	NO
NL_BR_01	118	No information				NO
NL_BR_01	119	Man?		>800		NO
NL_BR_01	120	Man?		>800		NO
NL_BR_01	122	No information				NO
NL_BR_01	123	No information				NO
NL_BR_01	124	Indet		600-700		NO
NL_BR_01	125	Indet		600-700		NO
NL_BR_01	126	Man?	20-40	500-1000		NO
NL_BR_01	127	Indet		600-700	Degeneration of the spine was visible.	NO
NL_BR_01	128	Indet		600-700		NO
NL_BR_01	129	Indet		500-1000		NO
NL_BR_01	130	Indet	20-40	>800		NO
NL_BR_01	131	No information				NO
NL_BR_01	132	Man?	20-40	>800		NO
NL_BR_01	133	Indet	20-40	500-1000		NO

NL_BR_01	134	Indet		500-1000		NO
NL_BR_01	135	Man?		500-1000		NO
NL_BR_01	136	Man?	20-40	500-1000	Cribra Cranii, porosoty of the skull was found on fragment(s) of the cremation remains. It is unclear to which individual this pathology belonged.	YES
NL_BR_01	137	Man?	20-40	600-700	Ante morten toothloss. One of the individuals had lost a tooth in the lower jaw before he/she died.	YES
NL_BR_01	138	Woman	20-40	500-1000	Cribra cranii. Porosity of the skull. This is a non-specific stress marker, possibly related to periods of disease or malnutrition.	NO
NL_BR_01	139	Indet				NO
NL_BR_01	140	Indet	4-7	500-1000		YES
NL_BR_02	141	Man?	20-40	650-800		NO
NL_BR_02	142	Man	20-40	>800		NO
NL_BR_02	143	Indet	20-30	650-800		NO
NL_BR_02	144	Indet				NO
NL_BR_03	147	No information				NO
NL_BR_03	148	No information				NO
NL_BR_04	149	Woman?	20-40	>800		NO
NL_BR_04	150	Man	30-60	>800		NO
NL_BR_04	151	Indet				NO
NL_BR_04	152	Indet				NO
NL_BR_04	153	Indet				NO
NL_BR_04	154	Woman?	20-40	650->800		NO
NL_BR_04	155	Man?	20-40	650-800		NO
NL_BR_04	156	Man?	23-40	>800		NO
NL_BR_04	157	Indet	>18			NO
NL_BR_04	158	Indet	20-60	>800		NO
NL_BR_04	159	Indet				NO
NL_BR_04	160	Indet				NO
NL_BR_04	161	Man	20-60	>800		NO
NL_BR_04	162	No information				NO
NL_BR_05	163	Man?	20-30	>800		NO
NL_BR_05	164	Man?	20-30	>800		NO
NL_BR_05	165	Indet	12-16	>800		NO
NL_BR_05	166	Man?	20-40	>800		NO
NL_BR_05	167	Woman?	20-40	>800		NO
NL_BR_05	168	Indet	20-40	450->800		NO
NL_BR_05	169	No information				NO
NL_BR_05	170	No information				NO
NL_BR_05	171	Indet		650->800		NO
NL_BR_05	172	No information				NO

NL_BR_05	173	Indet	20-40	>800		NO
NL_BR_05	174	Man?	20-40	>800		NO
NL_BR_05	175	Indet	2-4	>800		NO
NL_BR_05	176	Man?	20-40	>800		NO
NL_BR_05	177	Man?	20-30	>800		NO
NL_BR_05	178	Woman?	20-40	>800		NO
NL_BR_05	179	Woman?	20-30	>800		NO
NL_BR_05	180	Indet	15-18	>800		NO
NL_BR_05	181	Indet	12-16			NO
NL_BR_05	182		<18	>800		NO
NL_BR_05	183	No information				NO
NL_BR_05	184	No information				NO
NL_BR_05	185	Woman?	20-40	>800		NO
NL_BR_05	186	Indet	20-30	>800		NO
NL_BR_05	187	Indet	>20	>800		NO
NL_BR_05	188	Indet	20-40	>800		NO
NL_BR_05	189	No information				NO
NL_BR_05	190	Indet	20-30	>800		NO
NL_BR_05	191	Indet	20-40	>800		NO
NL_BR_05	192	No information				NO
NL_BR_05	193	Woman?	26-35	450->800		NO
NL_BR_05	194	No information				NO
NL_BR_05	195	Indet	20-40	>800		NO
NL_BR_05	196	Indet	<18	>800		NO
NL_BR_05	197	No information				NO
NL_BR_05	198	No information				NO
NL_BR_06	199	Woman?	25-30	650-800	The person from the second grave showed signs of arthrosis.	YES
NL_BR_08	202	Indet				NO
NL_BR_08	203	Indet				NO
NL_BR_08	204	Indet	>14-18			NO
NL_BR_08	205	Indet	>18			NO
NL_BR_08	206	No information				NO
NL_BR_08	210	Indet				NO
NL_BR_10	212	No information				NO
NL_BR_10	214	Indet				NO
NL_BR_10	215	No information				NO
NL_BR_10	216	No information				NO
NL_BR_10	218	No information				NO
NL_BR_10	219	Woman	15-16			NO
NL_BR_10	220	Woman	<18			NO
NL_BR_10	221	Man	25-30			NO
NL_BR_10	222	Woman	>25			NO
NL_BR_10	223	No information				NO
NL_BR_10	225	No information				NO

NL_BR_12	232	No information				NO
NL_BR_12	233	No information				NO
NL_BR_12	234	No information				NO
NL_BR_12	235	No information				NO
NL_BR_12	236	No information				NO
NL_BR_12	237	No information				NO
NL_BR_12	238	No information				NO
NL_BR_16	244	No information				NO
NL_BR_16	245	No information				NO
NL_BR_16	248	No information				NO
NL_BR_18	260	Indet	>18	650-800		NO
NL_BR_18	261	Indet		650-800		NO
NL_BR_18	262	No information				NO
NL_BR_18	263	Indet		650-800		NO
NL_BR_18	264	No information				NO
NL_BR_18	267	No information				NO
NL_BR_18	268	Indet		650-800		NO
NL_BR_19	272	Indet	30-60	650-800	Osteophytosis on lumbal vertebra.	NO
NL_BR_19	273	Indet		650-800		NO
NL_BR_19	274	Indet	>12	650-800		NO
NL_BR_19	275	Man?	30-60	650-800		NO
NL_BR_19	276	Indet		650-800		NO
NL_BR_19	277	Indet	20-60	650-800		NO
NL_BR_19	279	No information				NO
NL_BR_19	282	Indet		650-800		NO
NL_BR_19	284	Woman?	>18	650-800		NO
NL_BR_19	285	Indet		650-800		NO
NL_BR_19	287	Man	23-40	650-800		NO
NL_BR_20	294	No information				NO
NL_BR_20	295	No information				NO
NL_BR_20	296	No information				NO
NL_BR_20	297	No information				NO
NL_BR_20	298	No information				NO
NL_BR_20	299	No information				NO
NL_BR_22	301	Indet	30-50	650-800		NO
NL_BR_22	302	Indet		650-800		NO
NL_BR_23	309	Indet	3-7	650-800		NO
NL_BR_23	313	Indet		650-800		NO
NL_BR_23	314	Indet		650-800		NO
NL_BR_23	315	Indet		650-800		NO
NL_BR_23	316	Man?	20-30	650-800		NO
NL_BR_23	317	Indet	2-4	650-800		NO
NL_BR_23	318	Indet		650-800		NO
NL_BR_23	319	Indet	20-40	650-800		NO

NL_BR_23	321	Man?	20-40	650-800		NO
NL_BR_23	322	Indet	20-40	650-800		NO
NL_BR_23	324	Indet	3-7	650-800		NO
NL_BR_25	331	No information				NO
NL_BR_27	333	Woman	18-40			YES
NL_BR_28	334	Woman?	20-40	650-800		NO
NL_BR_28	354	Indet		650-800		NO
NL_BR_28	366	Indet	>18	650-800		NO
NL_BR_29	369	No information				NO
NL_BR_29	370	No information				NO
NL_BR_30	371	No information				NO
NL_BR_31	372	Woman	>30			NO
NL_GE_01	373	Indet	20-40	>800		NO
NL_GE_01	374	Woman	>12	>800		NO
NL_GE_01	375	Woman	ca. 30	>800		NO
NL_GE_01	376	Indet				NO
NL_GE_01	377	No information				NO
NL_GE_01	378	Indet				NO
NL_GE_01	379	Indet				NO
NL_GE_01	380	Indet	>18			NO
NL_GE_01	381	Indet				NO
NL_GE_01	382	Indet				NO
NL_GE_01	383	Indet	7	650->800		NO
NL_GE_01	384	Indet	5	650-800		NO
NL_GE_01	385	Woman	25-40	>800	Sutura metopica, morphological anatomical condition on the skull. Not harmful.	NO
NL_GE_01	386	Indet				NO
NL_GE_01	387	Indet				NO
NL_GE_01	388	Indet				NO
NL_GE_01	389	Indet				NO
NL_GE_01	390	Indet				NO
NL_GE_01	391	Indet				NO
NL_GE_01	392	Indet				NO
NL_GE_01	393	Indet	>20	>800		NO
NL_GE_01	394	Indet				NO
NL_GE_01	395	Indet				NO
NL_GE_01	396	Indet				NO
NL_GE_01	397	Indet				NO
NL_GE_01	398	Indet				NO
NL_GE_01	399	Indet				NO
NL_GE_01	400	Indet				NO
NL_GE_01	401	Indet				NO
NL_GE_01	402	Woman	25-40	>800		NO
NL_GE_01	403	Indet				NO

NL_GE_01	404	Indet				NO
NL_GE_03	407	Indet	0-12	500->800		NO
NL_GE_03	408	Indet	>13	400->800		NO
NL_GE_03	409	Indet	>15	500->800		NO
NL_GE_03	410	Indet	>15	500->800		NO
NL_GE_03	411	Indet	13-19	400->800		NO
NL_GE_03	412	Indet	>6	500->800		NO
NL_GE_03	413	Indet	>13	400->800		NO
NL_GE_03	414	Man	>15	100->800		NO
NL_GE_03	415	Indet	>13	300->800		NO
NL_GE_04	419	Woman	20-40	600->800		YES
NL_GE_04	420	Indet	>18	600->800		NO
NL_GE_04	421	Man?	20-40	600->800		NO
NL_GE_04	422	Woman?	>18	600->800		NO
NL_GE_04	423	Indet	>18	600->800		YES
NL_GE_04	424	Woman?	20-40	600->800		YES
NL_GE_04	425	Indet	>16	500->800		YES
NL_GE_04	426	Indet	4,5-5,5	600->800		NO
NL_GE_04	427	Man?	>20	600->800		NO
NL_GE_04	428	Indet	>15	600->800		NO
NL_GE_04	429	Indet	20-40	600->800		YES
NL_GE_04	430	Indet	>18	600->800		YES
NL_GE_04	431	Indet	20-40	500->800		YES
NL_GE_04	432	No information				NO
NL_GE_04	433	No information				NO
NL_GE_04	434	Indet	7,5-8	600->800		NO
NL_GE_04	435	Indet	18-25	500->800		NO
NL_GE_04	436	Indet	>15	500->800		NO
NL_GE_04	437	Woman?	>18	600->800		NO
NL_GE_04	438	No information				NO
NL_GE_04	439	No information				NO
NL_GE_04	440	Man?	20-40	600->800		NO
NL_GE_04	441	Indet	>15	>800		NO
NL_GE_04	442	Indet	>18	>800		YES
NL_GE_04	443	Woman?	>30	600->800		NO
NL_GE_04	444	No information				NO
NL_GE_04	445	Indet	15-19	>800		NO
NL_GE_04	446	Indet	20-40	400->800		YES
NL_GE_04	447	Indet	20-40	>800		NO
NL_GE_04	448	Man	20-40	600->800		NO
NL_GE_04	449	Indet	20-40	500->800		NO
NL_GE_04	450	Indet		400->800		NO
NL_GE_04	451	Woman?	18-25	>800		NO
NL_GE_04	452	Man	20-40	500->800		YES
NL_GE_04	453	Indet	0-6	>800		NO

NL_GE_04	454	Indet	>15	600-800		NO
NL_GE_04	455	Indet	>18	>800		NO
NL_GE_04	456	Indet	20-40	600->800		YES
NL_GE_04	457	Indet	20-40	>800		NO
NL_GE_04	458	Woman?	>25	>800		YES
NL_GE_04	459	Indet	7-12	>800		NO
NL_GE_04	460	Indet	0-6	>800		NO
NL_GE_04	461	No information				NO
NL_GE_04	462	Man	>18	600->800		NO
NL_GE_05	464	Indet	9-12			NO
NL_GE_06	465	Indet	>18			NO
NL_GE_06	466	Indet	>18			NO
NL_GE_06	467	Indet	>18			NO
NL_GE_06	468	Indet				NO
NL_GE_06	469	Indet				NO
NL_GE_07	470	No information				NO
NL_GE_08	471	Woman	30-52	>700		NO
NL_GE_08	472	Indet	<13	650-800		NO
NL_GE_08	473	No information				NO
NL_GE_08	474	Indet	23-40	650-800		NO
NL_GE_09	476	Man?	20-40	>800		NO
NL_GE_09	477	Indet	10-40	>800		NO
NL_GE_09	478	No information				NO
NL_GE_09	479	No information				NO
NL_GE_10	484	No information				NO
NL_GE_10	485	No information				NO
NL_GE_10	486	No information				NO
NL_GE_10	487	No information				NO
NL_GE_10	488	No information				NO
NL_GE_10	489	No information				NO
NL_GE_10	490	No information				NO
NL_GE_11	498	No information				NO
NL_GE_11	499	No information				NO
NL_GE_11	500	No information				NO
NL_GE_11	501	No information				NO
NL_GE_11	502	No information				NO
NL_GE_11	503	No information				NO
NL_GE_11	504	No information				NO
NL_GE_11	505	No information				NO
NL_GE_11	506	No information				NO
NL_GE_11	507	No information				NO
NL_GE_11	508	No information				NO
NL_GE_11	509	No information				NO
NL_GE_11	510	No information				NO
NL_GE_11	511	No information				NO

NL_GE_11	512	No information				NO
NL_GE_11	513	No information				NO
NL_GE_12	514	No information				NO
NL_GE_12	515	No information				NO
NL_GE_12	516	No information				NO
NL_GE_12	517	No information				NO
NL_GE_12	518	No information				NO
NL_GE_12	519	No information				NO
NL_GE_12	520	No information				NO
NL_GE_12	521	No information				NO
NL_GE_12	522	No information				NO
NL_GE_12	523	No information				NO
NL_GE_14	525	Man?	>20	>800		NO
NL_GE_14	526	Man?	>20	>800		NO
NL_GE_14	527	Indet		>800		NO
NL_LI_01	528	Man?	>20	>800		NO
NL_LI_01	529	Indet	>20	650->800		NO
NL_LI_01	530	Indet	7-15	650->800		NO
NL_LI_01	531	Indet		650-800		NO
NL_LI_01	532	Man?	30-50	650->800		NO
NL_LI_01	533	Indet	10-20	650->800		NO
NL_LI_01	534	Man?	20-40	650->800		NO
NL_LI_01	535	Woman	20-40	650->800		NO
NL_LI_01	536	Man?	>20	650->800		NO
NL_LI_01	537	Woman	>20	>800		NO
NL_LI_01	538	Woman?	>20	>800		NO
NL_LI_01	539	Indet	>20	>800		NO
NL_LI_01	540	Man?	>40	650->800	Endocranial depressions. Non harmful pathology.	NO
NL_LI_01	541	Indet	2-4	650->800		NO
NL_LI_01	542	Indet	1-4	650->800		NO
NL_LI_01	543	Man?	30-50	650->800		NO
NL_LI_01	544	Indet	<10	650->800		NO
NL_LI_01	545	Indet	3-20	650->800		NO
NL_LI_01	546	Indet	20-40	650-800		NO
NL_LI_01	547	Indet		450-800		NO
NL_LI_02	548	Indet	>18	650-700		NO
NL_LI_02	549	Man?	>18	650-700		NO
NL_LI_02	550	Indet	>18	650-700		NO
NL_LI_02	551	Indet	>18	650-700		NO
NL_LI_02	552	Woman?	18-40	650-700		NO
NL_LI_02	553	Indet	>18	650-700		NO
NL_LI_02	554	Indet	<15	650-700		NO
NL_LI_02	555	Indet				NO
NL_LI_02	556	Indet	>18	650-700		NO

NL_LI_02	557	No information				NO
NL_LI_02	558	No information				NO
NL_LI_02	559	Indet		650-700		NO
NL_LI_02	560	No information				NO
NL_LI_02	561	Indet	>40	650-700		NO
NL_LI_02	562	Indet		650-700		NO
NL_LI_02	563	Indet		650-700		NO
NL_LI_02	564	Woman	>18			NO
NL_LI_02	565	Indet	18-40	650-700		NO
NL_LI_02	566	Indet	>18	650-700		NO
NL_LI_02	567	Indet		650-700		NO
NL_LI_02	568	Woman?	>18	650-700		NO
NL_LI_02	569	Indet	>18	650-700		NO
NL_LI_02	570	Indet	>18	650-700		NO
NL_LI_02	571	Indet	>18	650-700		NO
NL_LI_02	572	Indet	<18	650-700		NO
NL_LI_02	573	Woman?	>18	650-700		NO
NL_LI_02	574	Indet	40±	650-700	Degeneration marks on the vertebra.	NO
NL_LI_02	575	Indet	>18	650-700		NO
NL_LI_02	576	Indet	>18	650-700	Teeth not fully developed (hypoplasia).	NO
NL_LI_02	578	Indet	>18	650-700		NO
NL_LI_02	579	Indet		650-700		NO
NL_LI_02	580	Indet	>18	650-700		NO
NL_LI_02	581	Indet	>18	650-700		NO
NL_LI_02	582	Indet		650-700		NO
NL_LI_02	583	Indet		650-700		NO
NL_LI_02	584	Indet		650-700		NO
NL_LI_02	585	Indet	>18	650-700		NO
NL_LI_02	586	Indet		650-700		NO
NL_LI_02	587	Indet	>18	650-700		NO
NL_LI_02	588	Indet		650-700		NO
NL_LI_02	589	Indet	>18	650-700		NO
NL_LI_02	590	Indet	18-40	650-700		NO
NL_LI_02	591	Indet	>18	650-700		NO
NL_LI_02	592	Indet		650-700		NO
NL_LI_02	593	Woman?	>18	650-700		NO
NL_LI_02	594	Woman?	>18	650-700		NO
NL_LI_02	595	Indet	>18	650-700		NO
NL_LI_02	596	Indet		650-700		NO
NL_LI_02	597	Indet	>18	650-700		NO
NL_LI_02	598	Indet	20-25	650-700		NO
NL_LI_02	599	Indet		650-700		NO
NL_LI_02	600	Indet	>18	650-700		NO

NL_LI_02	601	Indet		650-700		NO
NL_LI_02	602	Indet	>18	650-700		NO
NL_LI_02	603	Indet	>18	650-700		NO
NL_LI_02	604	Indet		650-700		NO
NL_LI_02	605	Indet		650-700		NO
NL_LI_02	606	Indet	>18	650-700		NO
NL_LI_03	607	Indet				NO
NL_LI_03	608	Woman?	25-40			YES
NL_LI_03	609	Indet				NO
NL_LI_03	610	Man	20-24			NO
NL_LI_03	611	Indet	0,5-1			NO
NL_LI_03	612	Indet	16-19			NO
NL_LI_03	613	Indet	>20			NO
NL_LI_03	614	Man?	20-24			NO
NL_LI_03	615	Indet	9-12			NO
NL_LI_03	616	Indet	20-40			NO
NL_LI_03	617	Indet	30-60			NO
NL_LI_03	618	Man	30-40			NO
NL_LI_03	619	Indet	3-7			NO
NL_LI_03	620	Indet				NO
NL_LI_03	621	Indet	>20			NO
NL_LI_03	622	Indet				NO
NL_LI_03	623	Man	35-45			NO
NL_LI_03	624	Indet				NO
NL_LI_03	625	Indet	12			NO
NL_LI_03	626	Woman	20-60			NO
NL_LI_03	627	Man	30-40			NO
NL_LI_03	628	Man?	20-30			NO
NL_LI_03	629	Indet	30-60			NO
NL_LI_04	630	Indet	>18	650-800		NO
NL_LI_04	631	Indet	>18	650-800		NO
NL_LI_04	632	Man	>40	500->800	Cribra cranii or porosity of the skull was identified. This is a non-specific stress inidcator which usually indicates anemia, vitamine C or D deficiency. But it can also indicate periods of malnutrition. The condition was healing at the time of death thu	NO
NL_LI_05	635	Man?	35-44			NO
NL_LI_05	636	Indet	>18			NO
NL_LI_05	637	Indet	>20			NO
NL_LI_05	638	Indet				NO
NL_LI_06	639	Indet	>20	>800		NO
NL_LI_07	640	Indet	18-25	>645		NO
NL_LI_07	641	Indet	>18	>645		NO

NL_LI_08	642	Man	30-60	650-800		NO
NL_LI_09	643	Indet	>18	650->800		NO
NL_LI_09	644	Indet	0-1	650-800		NO
NL_LI_09	645	Indet	20-40	650->800		NO
NL_LI_09	646	No information				NO
NL_LI_10	648	No information				NO
NL_LI_10	649	No information				NO
NL_LI_11	650	No information				NO
NL_LI_12	651	Woman?	>18			NO

Appendix 4: List of monuments, site-codes correspond to those in Appendix 1.

Site_Code	Monument _ID	Grave _ID	Monument type	Grave (y/n)	Opening direction	Monument size
BE_AN_01	1	1	Rectangular ditch	YES		3,75x2,85
BE_AN_01	2	2	Rectangular ditch	NO		12,6x5,0 meters
BE_AN_01	3	3	Square ditch	NO		3,9x3,7 meters
BE_AN_01	4	4	Rectangular ditch	NO		6,4x5,2 meters
BE_AN_01	5	5	Square ditch	NO		4,0x3,8 meters
BE_AN_01	6	6	Rectangular ditch	NO		4,9x3,0 meter
BE_AN_02	7	7	Circular ditch	YES		Diameter between 5-7 meters.
BE_LI_02	10	15	Circular ditch	YES		
BE_LI_02	8	12	Circular ditch	YES		2,50 diameter
BE_LI_02	9	13	Circular ditch	YES		4 meter diameter.
BE_LI_05	11	455	Circular mound	YES		Diameter 20 m, height 0,5 m.
BE_LI_05	12	456	Circular mound	YES		Diameter 14 m, height 1m.
BE_LI_05	13	542	Circular mound	YES		Diameter 18 meters
BE_VB_01	14	46	Circular ditch	NO		Diameter 7,5 m
BE_VB_01	15	47	Circular ditch	NO		Diameter ca. 7,5 m.
BE_VB_01	16	48	Circular ditch	NO		Diameter 12,9 m.
BE_VB_01	17	49	Rectangular cult place	YES		38x15
NL_BR_01	18	115	Square ditch with opening	NO	East	9,00x9,00
NL_BR_01	19	116	Square ditch with opening	NO	East	6,50x6,50
NL_BR_01	20	117	Square ditch	YES		6,20x6,20
NL_BR_01	21	118	Square ditch	YES		6,00x6,00
NL_BR_01	22	119	Square ditch	YES		6,40x6,40
NL_BR_01	23	120	Circular ditch	YES		Diameter: 7,00
NL_BR_01	24	121	Circular ditch with opening	NO	East	Diameter 4,00 m
NL_BR_01	25	122	Square ditch	YES		7,40x7,40
NL_BR_01	26	139	Rectangular ditch	YES		50x7

NL_BR_02	27	145	Rectangular ditch	NO		10,5x8,5
NL_BR_02	28	146	Rectangular ditch	NO		7,2x4,7
NL_BR_03	29	147	Circular ditch with opening	YES	East	Diameter 9,5 meters.
NL_BR_03	30	148	Circular ditch	YES		Diameter 5,60 meters.
NL_BR_04	31	149	Circular ditch with opening	YES	South-East	ca. 5,5 meter in diameter.
NL_BR_04	32	150	Circular ditch with opening	YES	South-East	Indet.
NL_BR_04	33	151	Rectangular ditch	YES		Indet.
NL_BR_04	34	155	Rectangular cult place	YES		48x48
NL_BR_07	35	200	Trapezium-shaped ditch	NO		20,0x10,20x15,50
NL_BR_08	36	201	Circular ditch with opening	NO	South-West	11 meter diameter
NL_BR_08	37	207	Square posthole structure	NO		25x26
NL_BR_08	38	208	Rectangular cult place	NO	East	32,5x33,5 meters
NL_BR_08	39	209	Rectangular cult place	NO		16,5x16,5
NL_BR_09	40	211	Rectangular cult place	NO	East	18,5x19 meter
NL_BR_10	41	212	Oval ditch with opening	YES	South-East	8,40x7,10 meter
NL_BR_10	42	213	Square ditch with opening	NO	South-East	5,70x5,70
NL_BR_10	43	214	Square ditch with opening	YES	South-East	5,40x5,40
NL_BR_10	44	216	Square ditch with opening	YES	South-East	4,40x3,60
NL_BR_10	45	217	Square ditch with opening	NO	South-East	4,50x5,00
NL_BR_10	46	218	Square ditch with opening	YES	South-East	5,40x5,40
NL_BR_10	47	219	Square ditch with opening	NO		8,10x7,40
NL_BR_10	48	223	Square ditch	YES	South-East	6,40x5,50
NL_BR_10	49	224	Circular ditch with opening	NO	South-East	4,20 diameter.
NL_BR_10	50	225	Circular ditch with opening	NO	South-East	5,90 diameter.
NL_BR_10	51	226	Square ditch	NO		4,30x3,50
NL_BR_11	52	227	Rectangular ditch	NO		
NL_BR_11	53	228	Square ditch multiple entrances	NO	North-west and south-east	
NL_BR_11	54	229	Square ditch	NO		
NL_BR_11	55	230	Square ditch multiple entrances	NO	North-east and south-east	

NL_BR_11	56	231	Square ditch with opening	NO	South-East	
NL_BR_12	57	232	Square ditch	YES		11,00 or 10,50x10 meter
NL_BR_12	58	235	Square ditch	YES		10,50 or 11x10 meter
NL_BR_12	59	238	Circular ditch	YES		Diameter 7,5 meters
NL_BR_13	60	239	Square ditch with opening	NO	South-West	
NL_BR_14	61	240	Rectangular ditch with opening	NO	South-East	4,30x3,90
NL_BR_15	62	241	Rectangular ditch with opening	NO	South-East	4,30x3,70
NL_BR_15	63	242	Rectangular ditch with opening	NO	South	3,90x3,30
NL_BR_15	64	243	Square ditch with opening	NO	East	4,50x4,50
NL_BR_16	65	246	Rectangular ditch	NO		3,50x3,00
NL_BR_16	66	247	Rectangular ditch	NO		
NL_BR_16	67	249	Square ditch with opening	NO	East	4,50x4,50
NL_BR_16	68	250	Rectangular ditch	NO		1,50x2,00
NL_BR_16	69	251	Rectangular ditch	NO		3,20x2,90
NL_BR_16	70	252	Square ditch with opening	NO	North-west and south-west	5,75x5,75
NL_BR_16	71	253	Square ditch with opening	NO	West	3,00x3,00
NL_BR_16	72	254	Rectangular ditch	NO		
NL_BR_16	73	255	Square ditch with opening	NO		3,25x3,00
NL_BR_16	74	256	Rectangular ditch	NO		3,50x3,00
NL_BR_16	75	257	Rectangular ditch	NO		4,50x3,50
NL_BR_17	76	258	Rectangular ditch with opening	NO	East	5,50x4,50
NL_BR_17	77	259	Square ditch	NO		
NL_BR_18	78	260	Square ditch	YES	South-East	5,5x5,5
NL_BR_18	79	261	Square ditch	YES	South-East	5,5x5,5
NL_BR_18	80	262	Rectangular ditch	YES	South-East	6,7x7
NL_BR_18	81	263	Circular ditch with opening	YES	South-East	Diameter 6,75
NL_BR_18	82	265	Square ditch with opening	NO	South-East	6,25x6,25
NL_BR_18	83	266	Rectangular ditch with opening	NO	South-East	6x5,5
NL_BR_18	84	267	Square ditch with opening	YES	South	5x5 meters
NL_BR_18	85	269	Rectangular ditch with opening	NO	South	7,5x?
NL_BR_18	86	270	Rectangular ditch	NO	South	6,75x?
NL_BR_18	87	271	Rectangular ditch with opening	NO	East	4,75x3,75 meters.

NL_BR_19	100	285	Square ditch with opening	YES	South-East	6,35x6,30
NL_BR_19	101	286	Square ditch with opening	NO	South-East	5,90x5,30
NL_BR_19	102	287	Longbed	YES	North-west and south-east	9,75x4,50
NL_BR_19	103	288	Rectangular ditch with opening	NO	South-East	Unknown
NL_BR_19	104	289	Rectangular ditch	NO		Unknown
NL_BR_19	105	290	Rectangular ditch with opening	NO	South	22,00x17,75
NL_BR_19	106	291	Rectangular ditch	NO		Unknown
NL_BR_19	107	292	Square ditch with opening	NO	South	5,90x5,75
NL_BR_19	88	272	Circular ditch with opening	YES	South	Diameter: 12,75
NL_BR_19	89	273	Square ditch with opening	YES	South-East	5,55x5,40
NL_BR_19	90	274	Square ditch with opening	YES	North-East	7,60x7,30
NL_BR_19	91	276	Square ditch with opening	NO	South-East	6,15x6,15
NL_BR_19	92	277	Square ditch with opening	YES	South-East	6,30x6,15
NL_BR_19	93	278	Rectangular ditch with opening	NO	South-East	Unknown
NL_BR_19	94	279	Rectangular ditch with opening	YES	South-East	8,40x7,75
NL_BR_19	95	280	Rectangular ditch	NO		Unknown
NL_BR_19	96	281	Rectangular ditch with opening	NO	South-East	7,20x6,80
NL_BR_19	97	282	Rectangular ditch with opening	YES	South-East	7,00x6,35
NL_BR_19	98	283	Square ditch with opening	NO	South-East	6,15x6,05
NL_BR_19	99	284	Square ditch with opening	YES		4,70x4,60
NL_BR_20	108	294	Circular ditch with opening	YES		Unknown
NL_BR_20	109	295	Circular ditch with opening	YES		Unknown
NL_BR_20	110	296	Circular ditch with opening	YES		Unknown
NL_BR_20	111	297	Circular ditch with opening	YES		Unknown
NL_BR_20	112	298	Circular ditch with opening	YES		Unknown
NL_BR_20	113	299	Circular ditch with opening	YES		Unknown
NL_BR_21	114	300	Square ditch with opening	NO	East	3,5x3,5 meters

NL_BR_22	115	301	Circular ditch	YES		Diameter 5,2 meters
NL_BR_22	116	302	Square ditch with opening	YES	South-East	5,7x5,3 meters
NL_BR_22	117	303	Square ditch with opening	NO	South-East	6,5x6,5 meter
NL_BR_22	118	304	Rectangular ditch with opening	NO	South-East	6,5x6,0 meters
NL_BR_22	119	305	Rectangular ditch	NO		5,5 meters wide, width not preserved.
NL_BR_22	120	306	Square ditch with opening	NO	South-East	8,1x7,5 meters
NL_BR_23	121	307	Square ditch with opening	NO	South-East	7,2x6,9 meters.
NL_BR_23	122	308	Square ditch with opening	NO	South-East	11-11,5x10,4x11,2 meters
NL_BR_23	123	310	Square ditch	NO		6,1x6,0 meters
NL_BR_23	124	311	Square ditch with opening	NO	South-East	5.3x5.3 meters
NL_BR_23	125	312	Circular ditch with opening	NO	South-East	Diameter: 5,6 meters.
NL_BR_23	126	315	Rectangular ditch	YES		7,5x5,6-6 meters.
NL_BR_23	127	317	Circular ditch with opening	YES	South-East	Diameter 4,3 meters.
NL_BR_23	128	318	Square ditch	YES		8,7-10x8,9 meters.
NL_BR_23	129	319	Square ditch	YES		10,5x10 meters.
NL_BR_23	130	320	Rectangular ditch with opening	NO	South	35x6,5 meters.
NL_BR_23	131	321	Rectangular ditch with opening	YES	South	33,5-35x7 meters.
NL_BR_23	132	322	Rectangular ditch with opening	YES	South	30-13x4,7 meters.
NL_BR_23	133	323	Circular ditch with opening	NO	South-East	Diameter 6,2 meters.
NL_BR_23	134	325	Rectangular ditch	NO		Minimally 4,6 meters long.
NL_BR_23	135	326	Rectangular ditch	NO		Minimally 6x2,8 meters.
NL_BR_24	136	327	Rectangular ditch with opening	NO	South-East	17,9x13,5 meters
NL_BR_24	137	328	Rectangular ditch with opening	NO	South-East	17x15,6 meters
NL_BR_24	138	329	Square ditch with opening	NO	South-East	21x21 meters
NL_BR_24	139	330	Square ditch with opening	NO	South-East	9,5x9 meters
NL_BR_28	140	334	Square ditch	YES		7,2x?
NL_BR_28	141	335	Square ditch with opening	NO	South-East	7,5x7,1 meter
NL_BR_28	142	336	Square ditch with opening	NO	South-East	5,5x5,1 meters

NL_BR_28	143	337	Square ditch with opening	NO	South-East	7,5x7,4 meters
NL_BR_28	144	338	Square ditch	NO		Unknown
NL_BR_28	145	339	Square ditch with opening	NO	South-East	5,2x5 meters
NL_BR_28	146	340	Square ditch	NO		Unknown
NL_BR_28	147	341	Square ditch with opening	NO	South-East	4,4x4,3 meters
NL_BR_28	148	342	Square ditch with opening	NO	South-East	5,5x5,2 meters
NL_BR_28	149	343	Square ditch	NO		Unknown
NL_BR_28	150	344	Square ditch	NO		Unknown
NL_BR_28	151	345	Square ditch with opening	NO	South-East	6,3x5,9 meters
NL_BR_28	152	346	Square ditch with opening	NO	South-East	5,3x4,9
NL_BR_28	153	347	Square ditch	NO		Unknown
NL_BR_28	154	348	Square ditch	NO	South-East	Diameter 6,7 meters
NL_BR_28	155	349	Square ditch with opening	NO	South-East	6x5,7 meters
NL_BR_28	156	350	Square ditch with opening	NO	South-East	5,9x5,6
NL_BR_28	157	351	Square ditch with opening	NO	South-East	Unknown
NL_BR_28	158	352	Square ditch	NO		Unknown
NL_BR_28	159	353	Square ditch with opening	NO	South-East	6x5,9 meters
NL_BR_28	160	354	Square ditch with opening	YES	South-East	4,6x4,6 meters
NL_BR_28	161	355	Square ditch with opening	NO	South-East	5,6x5,5 meters
NL_BR_28	162	356	Square ditch with opening	NO	South-East	4,2x4,2 meters
NL_BR_28	163	357	Square ditch	NO		Unknown
NL_BR_28	164	358	Square ditch with opening	NO	East	7,1x7 meters
NL_BR_28	165	359	Square ditch	NO		5,9x5,8 meters
NL_BR_28	166	360	Square ditch with opening	NO	South-East	6,2x5,3 meters
NL_BR_28	167	361	Square ditch with opening	NO	East	Unknown
NL_BR_28	168	362	Square ditch	NO		Unknown
NL_BR_28	169	363	Square ditch	NO		14,1x12,5 meters
NL_BR_28	170	364	Square ditch with opening	NO	South-East	5,5x5,3 meters
NL_BR_28	171	365	Square ditch multiple entrances	YES	North-east and south-east	Diameter 13 meters.
NL_BR_28	172	366	Square ditch with opening	YES	North-East	5,3x4,9 meters
NL_BR_28	173	367	Square ditch	NO		Diameter 6,3 meters.

NL_BR_28	174	368	Square ditch with opening	NO	South	5,5x4,9 meters
NL_BR_29	175	369	Square ditch with opening	YES	South-East	7x6,5 meters
NL_BR_29	176	370	Square ditch with opening	YES	North-East	6,5x6 meters
NL_GE_02	177	406	Circular ditch	YES		Diameter: 5,3 m, 0,5 m wide, 0,35 m deep.
NL_GE_03	178	407	Oval ditch with opening	YES	South-East	8x7 meter
NL_GE_03	179	409	Square ditch with opening	YES	North-West	11,5x8 meter
NL_GE_03	180	411	Square ditch	YES		10x10 meter
NL_GE_03	181	417	Oval ditch with opening	YES	North-West	9x6 meter.
NL_GE_12	182	514	Circular ditch	YES		Diameter 6,5 meters.
NL_GE_14	183	525	Circular ditch	YES		Diameter 11,75x11,75 m
NL_GE_14	184	526	Rectangular ditch	YES		Unclear, at least 3,4 m long
NL_GE_14	185	527	Circular ditch with opening	YES	South-East	Diameter 7m
NL_LI_03	186	615	Circular ditch	YES		Diameter 10,5 meter. Ditch 0,9 meters wide, depth 0,65 cm.
NL_LI_03	187	617	Rectangular ditch	NO		2,9x2,5 cm.
NL_LI_03	188	619	Circular ditch	YES		Diameter 11,5 meter. Width of the ditch 0,7 meter. Depth of the ditch 0,3 meter.
NL_LI_03	189	629	Square ditch	YES		9x9 meter.
NL_LI_04	190	630	Rectangular cult place	YES		43,5x25 meter, width of the ditch: 1,70-0,85 meter
NL_LI_04	191	633	Rectangular ditch	NO		20,8x14,5 meter
NL_LI_05	192	634	Circular ditch	NO		11-12 meters diameter and an inner circle with a diameter of 8,7-9,2 meters.
NL_LI_07	193	640	Rectangular cult place	YES		38x33,5
NL_LI_09	194	643	Rectangular cult place	YES	North	36,5x38 meters
NL_LI_09	195	647	Square ditch	NO		Unclear

Appendix 5: List of grave goods and urns per cemetery, site-codes correspond to those in Appendix 1.

Site_Code	Object_ID	Grave_ID	Material	Object group	Object type	Object typology	Animal bones species
BE_AN_01	1	1	Clay	Urn	Pot	Unknown	
BE_AN_02	2	7	Clay	Urn	Pot		
BE_AN_03	3	8	Clay	Urn	Pot	Van den Broeke type 25	
BE_AN_03	4	9	Clay	Urn	Pot	Van den Broeke type 55a	
BE_LI_01	5	10	Bronze	Urn	Situla	Rippenziste	
BE_LI_01	6	10	Bronze	Drinking vessels	Jug	Beaked Jug	
BE_LI_01	7	10	Bronze	Drinking vessels	Jug	Spouted Jug	
BE_LI_01	8	10	Gold	Drinking vessels	Drinking Horn		
BE_LI_01	9	10	Iron	Misc	Unknown		
BE_LI_02	10	11	Clay	Urn	Pot	Unknown	
BE_LI_02	11	11	Clay	Pottery	Bowl	Van den Broeke type 32	
BE_LI_02	12	12	Clay	Urn	Pot	Van den Broeke type 33	
BE_LI_02	13	12	Clay	Pottery	Sherds	Other/indet	
BE_LI_02	14	13	Clay	Urn	Bowl	Van den Broeke type 41	
BE_LI_02	15	14	Clay	Urn	Pot	Van den Broeke type 75	
BE_LI_02	16	14	Clay	Pottery	Bowl	Unknown	
BE_LI_02	17	15	Clay	Pottery	Pot	Unknown	
BE_LI_02	18	16	Clay	Pottery	Pot	Caréné type	
BE_LI_03	19	18	Clay	Pottery	Sherds	Other/indet	
BE_LI_03	20	19	Clay	Pottery	Sherds	Other/indet	
BE_LI_04	21	25	Clay	Pottery	Sherds	Body	
BE_LI_04	22	25	Bone	Food	Burnt bone		Pig
BE_LI_04	23	26	Glass	Misc	Unknown		
BE_LI_04	24	26	Iron	Misc	Unknown		
BE_LI_04	25	26	Bronze	Misc	Unknown		
BE_LI_04	26	27	Clay	Urn	Pot	Unknown	
BE_LI_04	27	27	Clay	Pottery	Bowl		
BE_LI_04	28	27	Bronze	Appearance	Decorative object		
BE_LI_04	29	28	Clay	Pottery	Bowl	Van den Broeke type 33	
BE_LI_04	30	28	Glass	Appearance	Glass bracelet	Haevernick 6a	

BE_LI_04	31	28	Bronze	Appearance	Pin	Double headed pin	
BE_LI_04	32	28	Bronze	Appearance	Bracelet	Fragment	
BE_LI_04	33	28	Iron	Blade	Knife		
BE_LI_04	34	28	Bronze	Appearance	Fibula		
BE_LI_04	35	28	Bone	Food	Burnt bone		Pig
BE_LI_04	36	29	Clay	Urn	Pot	Van den Broeke type 43	
BE_LI_04	37	29	Bone	Food	Burnt bone		Pig
BE_LI_04	38	30	Clay	Pottery	Pot	Unknown	
BE_LI_04	39	30	Clay	Pottery	Pot	Unknown	
BE_LI_04	40	30	Clay	Pottery	Pot	Unknown	
BE_LI_04	41	31	Clay	Urn	Pot	Unknown	
BE_LI_04	42	32	Clay	Pottery	Bowl	Van den Broeke type 3b	
BE_LI_04	43	32	Clay	Pottery	Pot	Unknown	
BE_LI_04	44	32	Clay	Pottery	Pot	Unknown	
BE_LI_04	45	33	Clay	Pottery	Bowl	Unknown	
BE_LI_04	46	34	Clay	Pottery	Pot	Unknown	
BE_LI_04	47	34	Clay	Pottery	Pot	Unknown	
BE_LI_04	48	35	Clay	Pottery	Bowl	Van den Broeke type 5a	
BE_LI_04	49	36	Clay	Pottery	Sherds	Body	
BE_LI_04	50	36	Iron	Appearance	Belthook		
BE_LI_04	51	36	Bone	Food	Burnt bone		Medium Mammal
BE_LI_04	52	37	Clay	Pottery	Pot	Van den Broeke type 42a	
BE_LI_04	53	37	Clay	Pottery	Bowl	Fragment	
BE_LI_04	54	37	Bone	Food	Burnt bone		Pig
BE_LI_05	55	38	Bronze	Urn	Situla	Ticino type	
BE_LI_05	56	38	Bronze	Appearance	Torque		
BE_LI_05	57	38	Bronze	Appearance	Bracelet		
BE_LI_05	58	38	Iron	Misc	Ring		
BE_LI_05	59	38	Iron	Appearance	Belthook		
BE_LI_05	60	38	Clay	Pottery	Bowl	Fragment	
BE_LI_05	61	38	Clay	Pottery	Cup		
BE_LI_05	62	38	Clay	Pottery	Pot	Unknown	
BE_LI_05	63	39	Bronze	Urn	Situla	Ticino type	
BE_LI_05	64	39	Bronze	Misc	Melted metal	Drop	
BE_LI_05	65	39	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	66	39	Bronze	Misc	Bronze balls with tube shaped openings		

BE_LI_05	67	40	Bronze	Urn	Situla	Rippenziste	
BE_LI_05	68	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	69	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	70	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	71	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	72	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	73	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	74	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	75	40	Bronze	Misc	Bronze balls with tube shaped openings		
BE_LI_05	76	40	Bronze	Misc	Concical tube	Decorative concical tube	
BE_LI_05	77	40	Bronze	Misc	Concical tube	Decorative concical tube	
BE_LI_05	78	40	Bronze	Misc	Concical tube	Decorative concical tube	
BE_LI_05	79	40	Bronze	Misc	Concical tube	Decorative concical tube	
BE_LI_05	80	40	Bronze	Misc	Phalerae	Unknown	
BE_LI_05	81	40	Bronze	Misc	Phalerae	Unknown	
BE_LI_05	82	40	Bronze	Misc	Phalerae	Unknown	
BE_LI_05	83	40	Bronze	Misc	Phalerae	Unknown	
BE_LI_05	84	40	Iron	Misc	Iron rod		
BE_LI_05	85	40	Iron	Horse gear	Horse bit		
BE_LI_05	86	42	Iron	Misc	Ring	Solid ring	
BE_LI_05	87	42	Iron	Misc	Ring	Solid ring	
BE_LI_05	88	42	Iron	Misc	Ring	Solid ring	
BE_LI_05	89	42	Iron	Misc	Ring	Solid ring	

BE_LI_05	90	42	Bronze	Appearance	Bracelet	Hollow round bracelet	
BE_LI_05	91	42	Iron	Blade	Razorblade		
BE_LI_05	92	42	Bronze	Appearance	Tweezers		
BE_LI_05	93	42	Clay	Pottery	Sherds	Other/indet	
BE_LI_06	94	43	Bronze	Appearance	Bracelet	Ribbed bracelet	
BE_LI_06	95	43	Clay	Pottery	Sherds	Bottom	
BE_LI_06	96	43	Cereal	Food	Plant remains	Cereal grain	
BE_LI_06	97	45	Clay	Pottery	Pot	Van den Broeke type 23a	
BE_VB_01	98	66	Metal indet	Appearance	Fibula		
GE_NW_01	99	70	Clay	Pottery	Pot	Reichmann type K5	
GE_NW_01	100	71	Clay	Urn	Pot	Unknown	
GE_NW_01	101	72	Clay	Urn	Pot	Van den Broeke type 57	
GE_NW_01	102	73	Clay	Urn	Bowl	Van den Broeke type 41	
GE_NW_01	103	73	Clay	Pottery	Sherds	Other/indet	
GE_NW_01	104	73	Iron	Misc	Pins/Nails	Nail	
GE_NW_01	105	73	Iron	Misc	Ösenstifte or part of a belthook		
GE_NW_01	106	74	Clay	Urn	Pot	Unknown	
GE_NW_01	107	74	Stone	Misc	Unknown		
GE_NW_01	108	74	Iron	Appearance	Fibula		
GE_NW_01	109	74	Iron	Misc	Unknown		
GE_NW_01	110	74	Iron	Misc	Unknown		
GE_NW_01	111	74	Iron	Misc	Unknown		
GE_NW_01	112	75	Clay	Urn	Pot	Van den Broeke type 33	
GE_NW_01	113	75	Clay	Pottery	Sherds	Other/indet	
GE_NW_01	114	76	Clay	Pottery	Bowl	Reichmann type K13	
GE_NW_01	115	76	Iron	Appearance	Belthook	Zungengürtelhaken	
GE_NW_01	116	76	Iron	Wagon parts	Nail		

GE_NW_01	117	76	Iron	Appearance	Fibula		
GE_NW_01	118	76	Iron	Wagon parts	Nail		
GE_NW_01	119	77	Clay	Urn	Pot	Van den Broeke type 55a	
GE_NW_01	120	78	Clay	Urn	Bowl	Van den Broeke type 13	
GE_NW_01	121	79	Clay	Pottery	Bowl	Van den Broeke type 21	
GE_NW_01	122	80	Clay	Urn	Pot	Reichmann type K12	
GE_NW_01	123	80	Clay	Pottery	Bowl	Van den Broeke type 11a	
GE_NW_01	124	80	Iron	Misc	Ösenstifte or part of a belthook		
GE_NW_01	125	80	Iron	Misc	Pins/Nails	Nail	
GE_NW_01	126	81	Clay	Urn	Bowl	Van den Broeke type 32	
GE_NW_01	127	82	Clay	Urn	Bowl	Reichmann type K2	
GE_NW_01	128	83	Clay	Pottery	Pot	Reichmann type K4	
GE_NW_01	129	83	Clay	Pottery	Sherds	Rim	
GE_NW_01	130	84	Clay	Pottery	Pot	Unknown	
GE_NW_01	131	86	Clay	Pottery	Pot	Van den Broeke type 55a	
GE_NW_01	132	86	Clay	Pottery	Bowl	Van den Broeke type 3b	
GE_NW_02	133	87	Clay	Pottery	Bowl	Van den Broeke type 11a	
GE_NW_02	134	87	Clay	Pottery	Sherds	Rim	
GE_NW_02	135	87	Bronze	Appearance	Fibula		
GE_NW_02	136	88	Clay	Pottery	Bowl	Van den Broeke type 11a	
GE_NW_02	137	88	Clay	Pottery	Bowl	Van den Broeke type 3b	
GE_NW_02	138	89	Clay	Pottery	Sherds	Rim	
GE_NW_02	139	90	Clay	Urn	Pot	Van den Broeke type 45a	
GE_NW_02	140	91	Clay	Urn	Pot	Van den Broeke type 45a	
GE_NW_02	141	91	Clay	Pottery	Sherds	Other/indet	

GE_NW_02	142	92	Clay	Urn	Bowl	Van den Broeke type 33	
GE_NW_02	143	93	Clay	Pottery	Bowl	Van den Broeke type 5a	
GE_NW_02	144	93	Stone	Tools	Whetstone		
GE_NW_02	145	94	Clay	Urn	Pot	Reichmann type K9	
GE_NW_02	146	94	Clay	Pottery	Bowl	Reichmann type K16	
GE_NW_02	147	95	Bronze	Appearance	Fibula		
GE_NW_02	148	95	Clay	Pottery	Sherds	Rim	
GE_NW_02	149	96	Clay	Pottery	Sherds	Rim	
GE_NW_03	150	97	Clay	Urn	Bowl	Van den Broeke type 11a	
GE_NW_03	151	97	Iron	Misc	Unknown		
GE_NW_03	152	98	Clay	Urn	Pot	Van den Broeke type 5b	
GE_NW_03	153	99	Clay	Urn	Pot	Van den Broeke type 23a	
GE_NW_03	154	99	Clay	Pottery	Bowl	Van den Broeke type 13	
GE_NW_03	155	99	Iron	Misc	Pins/Nails	Nail	
GE_NW_03	156	99	Bronze	Misc	Sheet	Fragment	
GE_NW_03	157	100	Clay	Pottery	Pot	Van den Broeke type 23a	
GE_NW_03	158	100	Iron	Misc	Unknown		
GE_NW_03	159	100	Clay	Misc	Burnt clay		
GE_NW_03	160	101	Clay	Pottery	Bowl	Van den Broeke type 32	
GE_NW_03	161	101	Clay	Pottery	Bowl	Van den Broeke type 13	
GE_NW_03	162	101	Iron	Misc	Pins/Nails	Nail	
GE_NW_03	163	101	Clay	Misc	Burnt clay		
GE_NW_03	164	102	Clay	Pottery	Sherds	Rim	
GE_NW_03	165	102	Clay	Pottery	Bowl	Van den Broeke type 11a	
GE_NW_03	166	103	Iron	Misc	Pins/Nails	Nail	
GE_NW_03	167	103	Iron	Misc	Ring		

GE_NW_03	168	103	Clay	Pottery	Sherds	Other/indet	
GE_NW_03	169	104	Clay	Urn	Bowl	Van den Broeke type 5a	
GE_NW_03	170	104	Clay	Pottery	Sherds	Other/indet	
GE_NW_03	171	105	Clay	Pottery	Bowl	Reichmann type K20	
GE_NW_03	172	105	Bronze	Appearance	Fibula		
GE_NW_03	173	106	Clay	Urn	Bowl	Van den Broeke type 33	
GE_NW_03	174	106	Iron	Weapons	Shield handle		
GE_NW_03	175	106	Iron	Misc	Pins/Nails	Nail	
GE_NW_03	176	106	Iron	Appearance	Fibula	Kostrzewski variant A	
GE_NW_03	177	107	Clay	Pottery	Bowl	Van den Broeke type 5a	
GE_NW_03	178	107	Clay	Pottery	Bowl	Van den Broeke type 11a	
GE_NW_03	179	107	Clay	Pottery	Sherds	Rim	
GE_NW_03	180	107	Iron	Misc	Pins/Nails	Nail	
GE_NW_03	181	107	Iron	Appearance	Button	Decorative button	
GE_NW_03	182	107	Iron	Misc	Chain link		
GE_NW_03	183	108	Clay	Urn	Pot	Van den Broeke type 55a	
GE_NW_03	184	109	Clay	Pottery	Bowl	Van den Broeke type 5b	
GE_NW_03	185	109	Iron	Misc	Unknown		
GE_NW_03	186	110	Clay	Urn	Bowl	Van den Broeke type 22	
GE_NW_03	187	111	Clay	Urn	Pot	Van den Broeke type 42a	
GE_NW_03	188	111	Clay	Pottery	Sherds	Rim	
GE_NW_03	189	111	Iron	Appearance	Fibula		
GE_NW_03	190	112	Clay	Urn	Pot	Van den Broeke type 23a	
GE_NW_03	191	113	Clay	Urn	Pot	Unknown	
GE_NW_04	192	114	Clay	Pottery	Sherds	Other/indet	

GE_NW_04	193	114	Bronze	Appearance	Bracelet	Strich und Wulstgruppen decorated bracelet	
GE_NW_04	194	114	Bronze	Appearance	Fibula		
NL_BR_01	195	117	Iron	Appearance	Torque	With tampons	
NL_BR_01	196	118	Bronze	Appearance	Torque		
NL_BR_01	197	118	Iron	Blade	Knife		
NL_BR_01	198	119	Clay	Pottery	Sherds		
NL_BR_01	199	119	Bone	Food	Burnt bone		Pig
NL_BR_01	200	120	Bone	Food	Burnt bone		Medium Mammal
NL_BR_01	201	124	Clay	Pottery	Sherds		Mammal indet.
NL_BR_01	202	124	Bone	Food	Burnt bone		
NL_BR_01	203	125	Clay	Pottery	Bowl	Van den Broeke type 4b	
NL_BR_01	204	126	Bone	Food	Burnt bone		Indet
NL_BR_01	205	127	Bone	Food	Burnt bone		Pig
NL_BR_01	206	128	Clay	Pottery	Sherds	Ear	
NL_BR_01	207	129	Clay	Pottery	Sherds	Other/indet	
NL_BR_01	208	130	Clay	Pottery	Sherds	Other/indet	
NL_BR_01	209	130	Bone	Food	Burnt bone		Pig
NL_BR_01	210	131	Clay	Pottery	Sherds	Other/indet	
NL_BR_01	211	132	Clay	Pottery	Sherds		
NL_BR_01	212	133	Clay	Pottery	Sherds	Rim	
NL_BR_01	213	133	Iron	Misc	Unknown		
NL_BR_01	214	133	Bone	Food	Burnt bone		Medium Mammal
NL_BR_01	215	134	Clay	Pottery	Sherds	Other/indet	Medium Mammal
NL_BR_01	216	134	Bone	Food	Burnt bone		
NL_BR_01	217	135	Clay	Urn	Bowl	Van den Broeke type 41	
NL_BR_01	218	136	Clay	Urn	Pot	Unknown	
NL_BR_01	219	136	Bone	Food	Burnt bone		Medium Mammal

NL_BR_01	220	139	Clay	Urn	Pot	Unknown	
NL_BR_01	221	140	Clay	Pottery	Bowl	Van den Broeke type 4b	
NL_BR_02	222	142	Bone	Food	Burnt bone		Pig
NL_BR_02	223	143	Bone	Food	Burnt bone		Pig
NL_BR_02	224	144	Clay	Urn	Pot	Unknown	
NL_BR_02	225	144	Bone	Food	Burnt bone		Pig
NL_BR_03	226	147	Clay	Urn	Pot	Van den Broeke type 73a	
NL_BR_03	227	147	Iron	Misc	Unknown		
NL_BR_03	228	147	Bronze	Misc	Sheet	Fragment	
NL_BR_03	229	148	Clay	Urn	Pot	Unknown	
NL_BR_04	230	149	Clay	Pottery	Sherds	Other/indet	
NL_BR_04	231	150	Bone	Food	Burnt bone		Pig
NL_BR_04	232	150	Clay	Pottery	Sherds	Other/indet	
NL_BR_04	233	151	Clay	Pottery	Bowl	Fragment	
NL_BR_04	234	152	Clay	Pottery	Pot	Unknown	
NL_BR_04	235	153	Clay	Pottery	Pot	Unknown	
NL_BR_04	236	154	Clay	Pottery	Sherds	Other/indet	
NL_BR_04	237	155	Clay	Pottery	Sherds	Other/indet	
NL_BR_04	238	156	Clay	Pottery	Bowl	Unknown	
NL_BR_04	239	157	Iron	Misc	Pins/Nails		
NL_BR_04	240	158	Clay	Pottery	Pot	Unknown	
NL_BR_04	241	158	Clay	Pottery	Pot	Unknown	
NL_BR_04	242	159	Clay	Pottery	Pot	Unknown	
NL_BR_04	243	160	Iron	Blade	Knife		
NL_BR_04	244	160	Clay	Pottery	Bowl	Unknown	
NL_BR_04	245	162	Clay	Pottery	Bowl	Van den Broeke type 33	
NL_BR_05	246	163	Clay	Urn	Pot	Van den Broeke type 57	
NL_BR_05	247	163	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_BR_05	248	165	Clay	Pottery	Bowl	Van den Broeke type 13	

NL_BR_05	249	166	Clay	Urn	Pot	Van den Broeke type 23a	
NL_BR_05	250	166	Bone	Food	Burnt bone		Indet
NL_BR_05	251	167	Iron	Misc	Unknown		
NL_BR_05	252	167	Clay	Urn	Pot	Unknown	
NL_BR_05	253	167	Clay	Pottery	Cup		
NL_BR_05	254	167	Clay	Pottery	Jar		
NL_BR_05	255	168	Clay	Urn	Pot	Van den Broeke type 23a	
NL_BR_05	256	169	Clay	Pottery	Bowl	Unknown	
NL_BR_05	257	170	Clay	Urn	Pot	Van den Broeke type 57	
NL_BR_05	258	170	Clay	Pottery	Bowl	Van den Broeke type 11b	
NL_BR_05	259	170	Clay	Pottery	Bowl	Van den Broeke type 32	
NL_BR_05	260	171	Clay	Pottery	Bowl	Van den Broeke type 3b	
NL_BR_05	261	171	Clay	Pottery	Pot	Van den Broeke type 23a	
NL_BR_05	262	171	Clay	Pottery	Pot	Van den Broeke type 23a	
NL_BR_05	263	171	Clay	Pottery	Pot	Van den Broeke type 55a	
NL_BR_05	264	171	Clay	Pottery	Pot	Van den Broeke type 55a	
NL_BR_05	265	171	Clay	Pottery	Sherds	Other/indet	
NL_BR_05	266	171	Clay	Pottery	Loom weight	Triangular loomweight	
NL_BR_05	267	172	Clay	Pottery	Bowl	Unknown	
NL_BR_05	268	172	Clay	Pottery	Bowl	Unknown	
NL_BR_05	269	172	Clay	Pottery	Bowl	Van den Broeke type 13	
NL_BR_05	270	172	Clay	Pottery	Pot	Unknown	
NL_BR_05	271	173	Clay	Pottery	Bowl	Van den Broeke type 11b	
NL_BR_05	272	173	Clay	Pottery	Pot	Unknown	
NL_BR_05	273	173	Bronze	Appearance	Bracelet	Fragment	
NL_BR_05	274	173	Bronze	Misc	Melted metal	Drop	
NL_BR_05	275	174	Clay	Pottery	Sherds	Other/indet	
NL_BR_05	276	175	Clay	Pottery	Bowl	Unknown	
NL_BR_05	277	175	Iron	Misc	Pins/Nails		

NL_BR_05	278	175	Stone	Stone	Hammerstone		
NL_BR_05	279	177	Clay	Urn	Pot	Van den Broeke type 57	
NL_BR_05	280	177	Clay	Pottery	Bowl	Van den Broeke type 11b	
NL_BR_05	281	177	Bone	Food	Burnt bone		Indet
NL_BR_05	282	178	Clay	Urn	Pot	Unknown	
NL_BR_05	283	179	Clay	Pottery	Bowl	Van den Broeke type 32	
NL_BR_05	284	179	Clay	Pottery	Pot	Unknown	
NL_BR_05	285	179	Clay	Pottery	Sherds	Other/indet	
NL_BR_05	286	180	Clay	Urn	Pot	Unknown	
NL_BR_05	287	180	Clay	Pottery	Bowl	Unknown	
NL_BR_05	288	180	Iron	Misc	Pins/Nails	Nail	
NL_BR_05	289	180	Iron	Misc	Pins/Nails	Nail	
NL_BR_05	290	181	Clay	Urn	Bowl/pot	Van den Broeke type 13/21	
NL_BR_05	291	182	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_BR_05	292	183	Clay	Pottery	Bowl	Unknown	
NL_BR_05	293	184	Clay	Urn	Pot	Unknown	
NL_BR_05	294	184	Clay	Pottery	Bowl	Unknown	
NL_BR_05	295	184	Clay	Pottery	Bowl	Unknown	
NL_BR_05	296	184	Iron	Blade	Knife		
NL_BR_05	297	185	Clay	Urn	Pot	Unknown	
NL_BR_05	298	185	Clay	Pottery	Sherds	Bottom	
NL_BR_05	299	186	Clay	Urn	Bowl	Unknown	
NL_BR_05	300	186	Iron	Appearance	Fibula		
NL_BR_05	301	186	Iron	Misc	Pins/Nails	Nail	
NL_BR_05	302	187	Clay	Urn	Pot	Van den Broeke type 72	
NL_BR_05	303	187	Bone	Food	Burnt bone		Pig
NL_BR_05	304	188	Iron	Appearance	Belthook		
NL_BR_05	305	189	Clay	Pottery	Sherds	Other/indet	
NL_BR_05	306	189	Bronze	Misc	Pins/Nails	Nail	

NL_BR_05	307	190	Clay	Pottery	Eierbecher	Van den Broeke type 3a	
NL_BR_05	308	190	Clay	Urn	Pot	Van den Broeke type 75	
NL_BR_05	309	190	Bone	Food	Burnt bone		Pig
NL_BR_05	310	191	Clay	Urn	Pot	Unknown	
NL_BR_05	311	191	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_BR_05	312	191	Clay	Pottery	Bowl	Van den Broeke type 13	
NL_BR_05	313	191	Bone	Food	Burnt bone		Sheep
NL_BR_05	314	193	Clay	Urn	Pot	Knickwandgefäße	
NL_BR_05	315	193	Bone	Food	Burnt bone		Marten
NL_BR_05	316	195	Clay	Urn	Pot	Unknown	
NL_BR_05	317	196	Clay	Urn	Pot	Unknown	
NL_BR_05	318	197	Clay	Urn	Pot	Unknown	
NL_BR_05	319	198	Clay	Urn	Pot	Unknown	
NL_BR_05	320	198	Bronze	Appearance	Bracelet	Round bracelet	
NL_BR_06	321	199	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_BR_06	322	199	Bone	Food	Burnt bone		Indet
NL_BR_08	323	202	Clay	Pottery	Sherds	Other/indet	
NL_BR_08	324	206	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_BR_10	325	215	Clay	Pottery	Cup		
NL_BR_10	326	215	Clay	Pottery	Bowl	Fragment	
NL_BR_10	327	216	Clay	Pottery	Sherds	Rim	
NL_BR_10	328	221	Clay	Pottery	Cup	Van den Broeke type 3b	
NL_BR_10	329	225	Bronze	Misc	Sheet		
NL_BR_12	330	234	Clay	Urn	Pot	Van den Broeke type 55b	
NL_BR_12	331	236	Clay	Pottery	Pot	Van den Broeke type 75	
NL_BR_12	332	237	Clay	Pottery	Pot	Van den Broeke type 75	
NL_BR_12	333	238	Iron	Blade	Dagger	Antenna dagger	
NL_BR_12	334	238	Iron	Appearance	Needle	Crooked needle	
NL_BR_12	335	238	Iron	Weapons	Arrowhead	Unknown	

NL_BR_12	336	238	Iron	Weapons	Arrowhead	Unknown	
NL_BR_12	337	238	Iron	Weapons	Arrowhead	Unknown	
NL_BR_16	338	244	Clay	Urn	Bowl	Van den Broeke type 11a	
NL_BR_16	339	244	Clay	Pottery	Sherds	Rim	
NL_BR_16	340	245	Clay	Pottery	Sherds	Other/indet	
NL_BR_16	341	248	Clay	Urn	Pot	Unknown	
NL_BR_18	342	264	Clay	Pottery	Pot	Van den Broeke type 23a	
NL_BR_19	343	272	Iron	Weapons	Arrowhead	Almond-shaped type	
NL_BR_19	344	272	Iron	Weapons	Arrowhead	Almond-shaped type	
NL_BR_19	345	272	Iron	Weapons	Arrowhead	Almond-shaped type	
NL_BR_19	346	273	Bone	Appearance	Pendant	Bone pendant	Sheep
NL_BR_19	347	273	Clay	Pottery	Sherds	Rim	
NL_BR_19	348	293	Clay	Pottery	Bowl	Van den Broeke type 33	
NL_BR_19	349	287	Antler	Blade	Dagger	Antenna dagger	Red or Roedeer
NL_BR_19	350	287	Bone	Food	Burnt bone		Sheep
NL_BR_19	351	275	Bone	Food	Burnt bone		Sheep
NL_BR_20	352	294	Clay	Urn	Pot	Van den Broeke type 55a	
NL_BR_20	353	295	Clay	Urn	Pot	Van den Broeke type 42a	
NL_BR_20	354	296	Clay	Urn	Pot	Unknown	
NL_BR_20	355	297	Clay	Pottery	Bowl	Unknown	
NL_BR_20	356	297	Bronze	Appearance	Bracelet	Round bracelet	
NL_BR_22	357	301	Bone	Food	Burnt bone		Medium Mammal
NL_BR_22	358	302	Clay	Pottery	Bowl	Unknown	
NL_BR_23	359	316	Clay	Pottery	Sherds	Other/indet	
NL_BR_23	360	318	Clay	Pottery	Sherds	Rim	
NL_BR_25	361	331	Clay	Pottery	Pot	Unknown	
NL_BR_26	362	332	Clay	Urn	Pot	Unknown	
NL_BR_26	363	332	Clay	Pottery	Bowl	Unknown	
NL_BR_27	364	333	Clay	Urn	Pot	Van den Broeke type 45a	

NL_BR_27	365	333	Clay	Pottery	Bowl	Van den Broeke type 11a	
NL_BR_28	366	334	Bone	Food	Burnt bone		Pig
NL_BR_30	367	371	Clay	Urn	Pot	Van den Broeke type 42a	
NL_BR_30	368	371	Clay	Pottery	Bowl	Van den Broeke type 1	
NL_BR_30	369	371	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_BR_30	370	371	Clay	Pottery	Bowl	Unknown	
NL_BR_31	371	372	Clay	Urn	Bowl	Van den Broeke type 33	
NL_BR_31	372	372	Clay	Pottery	Bowl	Van den Broeke type 13	
NL_GE_01	373	374	Bone	Food	Burnt bone		Medium Mammal
NL_GE_01	374	376	Clay	Pottery	Sherds	Other/indet	
NL_GE_01	375	378	Clay	Pottery	Pot	Unknown	
NL_GE_01	376	378	Clay	Pottery	Sherds	Rim	
NL_GE_01	377	379	Clay	Pottery	Pot	Van den Broeke type 75	
NL_GE_01	378	379	Clay	Pottery	Bowl	Van den Broeke type 11a	
NL_GE_01	379	379	Clay	Pottery	Bowl	Van den Broeke type 11a	
NL_GE_01	380	379	Bone	Food	Burnt bone		No information
NL_GE_01	381	381	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_GE_01	382	381	Clay	Pottery	Sherds	Rim	
NL_GE_01	383	381	Clay	Pottery	Sherds	Body	
NL_GE_01	384	382	Clay	Pottery	Pot	Unknown	
NL_GE_01	385	383	Bronze	Appearance	Bracelet	Round bracelet	
NL_GE_01	386	383	Bronze	Appearance	Bracelet	Round bracelet	
NL_GE_01	387	383	Bronze	Appearance	Torque		
NL_GE_01	388	383	Bronze	Appearance	Chain		
NL_GE_01	389	383	Bronze	Appearance	Rings	Fragments	
NL_GE_01	390	383	Iron	Appearance	Ring-headed pin		
NL_GE_01	391	383	Iron	Appearance	Ring	Iron ring with bronze link	
NL_GE_01	392	384	Bronze	Appearance	Torque		

NL_GE_01	393	384	Bronze	Appearance	Bracelet	Round bracelet	
NL_GE_01	394	385	Bone	Food	Burnt bone		Pig
NL_GE_01	395	385	Bone	Food	Burnt bone		Cow
NL_GE_01	396	387	Bronze	Appearance	Chain		
NL_GE_01	397	387	Bronze	Appearance	Fragment		
NL_GE_01	398	393	Bone	Food	Burnt bone		Pig
NL_GE_01	399	394	Bronze	Appearance	Torque		
NL_GE_01	400	394	Bronze	Appearance	Torque	With tampons	
NL_GE_01	401	394	Bronze	Appearance	Ring	Fragments	
NL_GE_01	402	394	Bronze	Misc	Melted metal	Drop	
NL_GE_01	403	394	Clay	Pottery	Bowl	Fragment	
NL_GE_01	404	394	Clay	Pottery	Pot	Unknown	
NL_GE_01	405	398	Clay	Pottery	Pot	Van den Broeke type 72	
NL_GE_01	406	402	Bronze	Appearance	Earring/hairring	Spiral wire	
NL_GE_01	407	402	Bronze	Appearance	Earring/hairring	Spiral wire	
NL_GE_01	408	402	Bronze	Appearance	Earring/hairring	Spiral wire	
NL_GE_01	409	402	Bronze	Appearance	Earring/hairring	Spiral wire	
NL_GE_02	410	405	Tin	Appearance	Bead		
NL_GE_02	411	405	Amber	Appearance	Bead		
NL_GE_02	412	406	Bone	Misc	Animal teeth		Cow
NL_GE_02	413	406	Bone	Misc	Animal teeth		Cow
NL_GE_03	414	407	Iron	Appearance	Decorative object		
NL_GE_03	415	407	Bone	Food	Burnt bone		Medium Mammal
NL_GE_03	416	407	Clay	Pottery	Sherds	Other/indet	
NL_GE_03	417	409	Bone	Food	Burnt bone		Sheep/goat
NL_GE_03	418	409	Bone	Food	Burnt bone		Pig
NL_GE_03	419	410	Bone	Food	Unburnt bone		Sheep/goat
NL_GE_03	420	410	Bone	Food	Burnt bone		Large Mammal

NL_GE_03	421	410	Clay	Pottery	Bowl	Van den Broeke type 13	
NL_GE_03	422	411	Bone	Food	Burnt bone		No information
NL_GE_03	423	412	Bone	Food	Burnt bone		Pig
NL_GE_03	424	412	Bone	Food	Unburnt bone		European flounder (flatfish)
NL_GE_03	425	413	Bone	Food	Unburnt bone		Sheep/goat
NL_GE_03	426	414	Clay	Pottery	Pot	Van den Broeke type 23a	
NL_GE_03	427	414	Clay	Misc	Burnt clay		
NL_GE_03	428	414	Bone	Food	Burnt bone		Cow
NL_GE_03	429	414	Bone	Food	Unburnt bone		Cow
NL_GE_03	430	414	Bone	Food	Unburnt bone		Sheep/goat
NL_GE_03	431	414	Bone	Food	Burnt bone		Sheep/goat
NL_GE_03	432	414	Bone	Food	Unburnt bone		Pig
NL_GE_03	433	414	Bone	Food	Unburnt bone		Bird indet.
NL_GE_03	434	414	Bone	Food	Unburnt bone		Perch
NL_GE_03	435	414	Bone	Food	Unburnt bone		Toad
NL_GE_03	436	414	Bone	Food	Unburnt bone		Frog
NL_GE_03	437	415	Bone	Food	Burnt bone		Cow
NL_GE_03	438	415	Clay	Pottery	Sherds	Body	
NL_GE_04	439	419	Bone	Food	Burnt bone		Pig
NL_GE_04	440	422	Clay	Pottery	Bowl	Broeke local Hooidonkse akkers type, Ic	
NL_GE_04	441	422	Clay	Pottery	Pot	Unknown	
NL_GE_04	442	422	Bone	Food	Burnt bone		Sheep/goat
NL_GE_04	443	422	Bone	Food	Burnt bone		Pig
NL_GE_04	444	424	Bone	Food	Burnt bone		No information
NL_GE_04	445	425	Bone	Food	Burnt bone		No information

NL_GE_04	446	428	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	447	432	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	448	432	Bone	Food	Unburnt bone		Indet
NL_GE_04	449	435	Bone	Food	Burnt bone		No information
NL_GE_04	450	436	Bone	Food	Burnt bone		Large Mammal
NL_GE_04	451	437	Bone	Food	Burnt bone		Pig
NL_GE_04	452	437	Bone	Food	Burnt bone		Large Mammal
NL_GE_04	453	438	Bone	Food	Burnt bone		Pig
NL_GE_04	454	441	Bone	Food	Burnt bone		No information
NL_GE_04	455	443	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	456	444	Bone	Food	Burnt bone		No information
NL_GE_04	457	444	Clay	Pottery	Bowl	Van den Broeke type 21	
NL_GE_04	458	444	Clay	Pottery	Bowl	Broeke local Hooidonkse akkers type, IIIb	
NL_GE_04	459	452	Bone	Food	Burnt bone		Cow
NL_GE_04	460	453	Bone	Food	Burnt bone		No information
NL_GE_04	461	454	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	462	456	Bone	Food	Burnt bone		Pig
NL_GE_04	463	457	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	464	458	Bone	Food	Burnt bone		Pig
NL_GE_04	465	459	Bone	Food	Burnt bone		No information
NL_GE_04	466	460	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	467	461	Bone	Food	Burnt bone		Medium Mammal
NL_GE_04	468	462	Bone	Food	Burnt bone		Sheep/goat
NL_GE_04	469	463	Clay	Pottery	Pot	Unknown	

NL_GE_04	470	463	Clay	Pottery	Pot	Unknown	
NL_GE_04	471	463	Bronze	Appearance	Earring/hairring	Flat bronze ring with amber bead	
NL_GE_04	472	463	Bronze	Appearance	Earring/hairring	Flat bronze ring with amber bead	
NL_GE_04	473	463	Bronze	Appearance	Earring/hairring	Flat bronze ring with amber bead	
NL_GE_04	474	463	Bronze	Appearance	Earring/hairring	Flat bronze ring with amber bead	
NL_GE_04	475	463	Bronze	Appearance	Earring/hairring	Flat bronze ring with amber bead	
NL_GE_04	476	463	Bronze	Appearance	Earring/hairring	Flat bronze ring with amber bead	
NL_GE_04	477	463	Bronze	Appearance	Earring/hairring	Flat bronze ring	
NL_GE_04	478	463	Bronze	Appearance	Bracelet	Round bracelet	
NL_GE_05	479	464	Clay	Pottery	Bowl	Van den Broeke type 11a	
NL_GE_06	480	465	Clay	Pottery	Sherds	Other/indet	
NL_GE_06	481	466	Clay	Pottery	Sherds	Rim	
NL_GE_06	482	466	Clay	Pottery	Sherds	Rim	
NL_GE_06	483	466	Clay	Pottery	Sherds	Body	
NL_GE_06	484	467	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_GE_06	485	467	Bronze	Misc	Unknown		
NL_GE_06	486	467	Iron	Misc	Pins/Nails	Nail	
NL_GE_07	487	470	Bronze	Urn	Situla	Ticino type	
NL_GE_07	488	470	Iron	Weapons	Spearhead	Slender-type	
NL_GE_07	489	470	Iron	Weapons	Spearhead	Slender-type	
NL_GE_07	490	470	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_07	491	470	Iron	Weapons	Spearhead	Slender-type	
NL_GE_07	492	470	Iron	Appearance	Needle	Swan-neck needle	
NL_GE_07	493	470	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_07	494	470	Bronze	Misc	Bronze balls with tube shaped openings		

NL_GE_07	495	470	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_07	496	470	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_07	497	470	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_07	498	470	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_07	499	470	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_07	500	470	Bronze	Drinking vessels	Cup		
NL_GE_07	501	470	Iron	Horse gear	Iron chain with bronze attachment		
NL_GE_07	502	470	Iron	Horse gear	Iron chain with bronze attachment		
NL_GE_07	503	470	Iron	Horse gear	Iron chain with bronze attachment		
NL_GE_07	504	470	Iron	Horse gear	Iron chain with bronze attachment		
NL_GE_07	505	470	Iron	Horse gear	Horse bit		
NL_GE_07	506	470	Iron	Horse gear	Horse bit		
NL_GE_07	507	470	Iron	Weapons	Spearhead	Fragment	
NL_GE_07	508	470	Bronze	Misc	Phalerae	Unknown	
NL_GE_07	509	470	Bronze	Misc	Phalerae	Unknown	
NL_GE_07	510	470	Bronze	Misc	Phalerae	Unknown	
NL_GE_08	511	471	Iron	Weapons	Spearhead	Unknown	
NL_GE_08	512	471	Iron	Weapons	Spear or arrowhead	Unknown	
NL_GE_08	513	471	Iron	Weapons	Spearhead	Fragment	
NL_GE_08	514	471	Iron	Horse gear	Horse bit		

NL_GE_08	515	471	Iron	Horse gear	Horse bit		
NL_GE_08	516	471	Bronze	Misc	Phalerae	Unknown	
NL_GE_08	517	471	Bronze	Misc	Phalerae	Unknown	
NL_GE_08	518	471	Bronze	Misc	Phalerae	Unknown	
NL_GE_08	519	471	Bronze	Misc	Phalerae	Unknown	
NL_GE_08	520	471	Bronze	Misc	Bronze boss		
NL_GE_08	521	471	Iron	Wagon parts	Nave-hoops		
NL_GE_08	522	471	Iron	Wagon parts	Nave-hoops		
NL_GE_08	523	471	Iron	Wagon parts	Nave-hoops		
NL_GE_08	524	471	Iron	Wagon parts	Nave-hoops		
NL_GE_08	525	471	Iron	Wagon parts	Wheel tyres		
NL_GE_08	526	471	Iron	Wagon parts	Wheel tyres		
NL_GE_08	527	471	Iron	Wagon parts	Nail from wheel tyre		
NL_GE_08	528	471	Iron	Wagon parts	Falloe joints		
NL_GE_08	529	471	Iron	Wagon parts	Falloe joints		
NL_GE_08	530	471	Iron	Wagon parts	Falloe joints		
NL_GE_08	531	471	Iron	Misc	Ring		
NL_GE_08	532	471	Iron	Misc	Ring		
NL_GE_08	533	471	Iron	Misc	Ring		
NL_GE_08	534	471	Iron	Misc	Ring		
NL_GE_08	535	471	Iron	Misc	Ring		
NL_GE_08	536	471	Iron	Misc	Unknown		
NL_GE_08	537	471	Bronze	Misc	Ring	Split-pin ring	
NL_GE_08	538	471	Bronze	Misc	Ring	Split-pin ring	
NL_GE_08	539	471	Wool	Misc	Textile fragment		
NL_GE_08	540	471	Bone	Food	Burnt bone		Pig
NL_GE_08	541	472	Clay	Pottery	Pot	Unknown	
NL_GE_09	542	475	Clay	Pottery	Sieve or cheese form	Van den Broeke type 3b	
NL_GE_09	543	475	Clay	Pottery	Pot	Van den Broeke type 45b	

NL_GE_09	544	475	Clay	Pottery	Sherds	Body	
NL_GE_09	545	475	Stone	Stone	Fragment		
NL_GE_09	546	476	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_GE_09	547	476	Clay	Pottery	Sherds	Other/indet	
NL_GE_09	548	476	Stone	Stone	Fragment		
NL_GE_09	549	477	Iron	Appearance	Belthook		
NL_GE_09	550	477	Clay	Pottery	Sherds	Body	
NL_GE_09	551	477	Stone	Stone	Fragment		
NL_GE_09	552	478	Clay	Pottery	Pot	Unknown	
NL_GE_09	553	478	Iron	Weapons	Sheath	Sword sheath	
NL_GE_09	554	478	Iron	Appearance	Needle	Crooked needle	
NL_GE_09	555	479	Bronze	Appearance	Bracelet		
NL_GE_09	556	479	Bronze	Appearance	Ring		
NL_GE_09	557	479	Iron	Appearance	Belthook		
NL_GE_09	558	479	Iron	Misc	Rod		
NL_GE_10	559	481	Bronze	Appearance	Earring/hairring	Flat bronze ring	
NL_GE_10	560	481	Bronze	Appearance	Earring/hairring	Flat bronze ring	
NL_GE_10	561	481	Bronze	Appearance	Earring/hairring	Flat bronze ring	
NL_GE_10	562	484	Bronze	Appearance	Torque	Twisted wire	
NL_GE_10	563	484	Bronze	Misc	Ring	Fragments	
NL_GE_10	564	485	Iron	Blade	Knife		
NL_GE_11	565	491	Bronze	Appearance	Torque	With tampons	
NL_GE_11	566	491	Bronze	Appearance	Bracelet	Round bracelet	
NL_GE_11	567	491	Bronze	Appearance	Bracelet	Round bracelet	
NL_GE_11	568	491	Clay	Pottery	Bowl	Van den Broeke type 33	
NL_GE_11	569	491	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_GE_11	570	491	Clay	Pottery	Pot	Van den Broeke type 42a	
NL_GE_11	571	491	Iron	Blade	Knife		
NL_GE_11	572	491	Bone	Food	Unburnt bone		Pig

NL_GE_11	573	491	Bone	Food	Unburnt bone		Cow
NL_GE_11	574	492	Clay	Pottery	Pot	Unknown	
NL_GE_11	575	493	Iron	Appearance	Torque	With tampons	
NL_GE_11	576	493	Bronze	Appearance	Nose piercing	Ring with amber bead	
NL_GE_11	577	493	Iron	Misc	Unknown		
NL_GE_11	578	493	Clay	Pottery	Spindle-whorl		
NL_GE_11	579	498	Clay	Pottery	Sherds	Rim	
NL_GE_12	580	514	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	581	514	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	582	514	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	583	514	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	584	514	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	585	514	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	586	514	Iron	Weapons	Lancehead	Almond-shaped type	
NL_GE_12	587	514	Bone	Food	Burnt or unburnt bone		Indet
NL_GE_12	588	516	Bone	Food	Burnt or unburnt bone		Indet
NL_GE_12	589	518	Bronze	Misc	Ring		
NL_GE_12	590	518	Bone	Food	Burnt or unburnt bone		Pig
NL_GE_12	591	520	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	592	520	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	593	520	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	594	521	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	595	521	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	596	521	Bone	Food	Burnt or unburnt bone		Pig

NL_GE_12	597	522	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_12	598	522	Iron	Weapons	Spearfoot holder	Hollow point	
NL_GE_12	599	522	Iron	Misc	Unknown		
NL_GE_12	600	523	Iron	Weapons	Spearhead	Almond-shaped type	
NL_GE_13	601	524	Iron	Weapons	Spearhead	Unknown	
NL_GE_13	602	524	Iron	Weapons	Spearhead	Unknown	
NL_GE_13	603	524	Iron	Weapons	Spearhead	Unknown	
NL_GE_13	604	524	Iron	Weapons	Spearhead	Unknown	
NL_GE_13	605	524	Bronze	Misc	Bronze balls with tube shaped openings		
NL_GE_13	606	524	Bronze	Misc	Phalerae	Unknown	
NL_GE_14	607	525	Clay	Pottery	Bowl	Van den Broeke type 21	
NL_GE_14	608	525	Clay	Pottery	Pot	Unknown	
NL_GE_14	609	525	Iron	Weapons	Spearfoot holder	Hollow point	
NL_GE_14	610	525	Iron	Appearance	Belthook belt attachment		
NL_GE_14	611	526	Clay	Pottery	Bowl	Unknown	
NL_GE_14	612	526	Iron	Weapons	Spearhead	Unknown	
NL_GE_14	613	526	Iron	Weapons	Spearfoot holder	Hollow point	
NL_LI_01	614	528	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	615	529	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_LI_01	616	530	Bone	Food	Burnt bone		Mammal indet.
NL_LI_01	617	532	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	618	532	Stone	Stone	Slate	Fragment	
NL_LI_01	619	532	Clay	Pottery	Sherds	Other/indet	
NL_LI_01	620	533	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	621	533	Clay	Pottery	Sherds	Grit	
NL_LI_01	622	533	Bone	Misc	Worked bone	Indet.	Indet
NL_LI_01	623	534	Clay	Pottery	Pot	Van den Broeke type 21	

NL_LI_01	624	534	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_LI_01	625	534	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	626	535	Clay	Pottery	Sherds	Body	
NL_LI_01	627	535	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	628	536	Clay	Pottery	Sherds	Grit	
NL_LI_01	629	536	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	630	537	Bone	Food	Burnt bone		Mammal indet.
NL_LI_01	631	538	Bone	Food	Burnt bone		Mammal indet.
NL_LI_01	632	539	Clay	Pottery	Sherds	Wheel turned	
NL_LI_01	633	539	Clay	Pottery	Sherds	Grit	
NL_LI_01	634	540	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	635	541	Clay	Pottery	Pot	Van den Broeke type 23a	
NL_LI_01	636	542	Clay	Pottery	Sherds	Other/indet	
NL_LI_01	637	542	Bronze	Appearance	Fragment	Twisted thread	
NL_LI_01	638	542	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	639	543	Bone	Food	Burnt bone		Medium Mammal
NL_LI_01	640	545	Clay	Pottery	Sherds	Grit	
NL_LI_01	641	546	Clay	Pottery	Sherds	Other/indet	
NL_LI_01	642	546	Bronze	Appearance	Bracelet	Braided threads	
NL_LI_01	643	546	Bronze	Appearance	Fragment		
NL_LI_01	644	546	Iron	Appearance	Belthook	Zungengürtelhaken	
NL_LI_02	645	550	Clay	Pottery	Bowl	Van den Broeke type 41/71	
NL_LI_02	646	550	Clay	Pottery	Sherds	Body	
NL_LI_02	647	550	Clay	Pottery	Bowl	Fragment	
NL_LI_02	648	553	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_LI_02	649	554	Bronze	Appearance	Fragment		
NL_LI_02	650	554	Iron	Appearance	Fragment		
NL_LI_02	651	556	Clay	Pottery	Bowl	Van den Broeke type 13	
NL_LI_02	652	564	Bronze	Appearance	Fibula	Feugère typ 1b2	
NL_LI_02	653	564	Bronze	Appearance	Bracelet	Flat bracelet	
NL_LI_02	654	564	Bronze	Misc	Pins/Nails		
NL_LI_02	655	564	Bronze	Appearance	Chain		
NL_LI_02	656	564	Bronze	Appearance	Fragment		
NL_LI_02	657	564	Bronze	Misc	Unknown		
NL_LI_02	658	564	Iron	Misc	Unknown		

NL_LI_02	659	564	Bone	Food	Burnt bone		Sheep
NL_LI_02	660	568	Clay	Pottery	Pot	Van den Broeke type 42b	
NL_LI_02	661	576	Clay	Pottery	Sherds	Other/indet	
NL_LI_02	662	576	Iron	Appearance	Rings	Fragments	
NL_LI_02	663	576	Bone	Food	Burnt bone		Indet
NL_LI_02	664	583	Clay	Pottery	Sherds	Bottom	
NL_LI_02	665	583	Clay	Pottery	Sherds	Body	
NL_LI_02	666	583	Clay	Pottery	Sherds	Bottom	
NL_LI_02	667	589	Bronze	Appearance	Fragment		
NL_LI_02	668	591	Bone	Food	Burnt bone		Indet
NL_LI_02	669	594	Bronze	Misc	Pins/Nails	Nail	
NL_LI_02	670	594	Bone	Food	Burnt bone		Indet
NL_LI_02	671	600	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_LI_02	672	600	Bronze	Appearance	Fragment		
NL_LI_02	673	602	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_LI_02	674	603	Clay	Pottery	Sherds	Body	
NL_LI_02	675	606	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_LI_02	676	606	Bronze	Appearance	Chain		
NL_LI_03	677	608	Clay	Urn	Pot		
NL_LI_03	678	608	Clay	Pottery	Sherds	Rim	
NL_LI_03	679	608	Iron	Misc	Pins/Nails		
NL_LI_03	680	608	Iron	Appearance	Fibula		
NL_LI_03	681	611	Clay	Urn	Pot		
NL_LI_03	682	612	Clay	Pottery	Pot	Van den Broeke type 23a	
NL_LI_03	683	612	Clay	Pottery	Bowl	Fragment	
NL_LI_03	684	612	Bone	Food	Burnt bone		Pig
NL_LI_03	685	613	Clay	Pottery	Sherds	Body	
NL_LI_03	686	614	Clay	Urn	Pot		
NL_LI_03	687	614	Clay	Pottery	Bowl		
NL_LI_03	688	614	Iron	Appearance	Fibula		
NL_LI_03	689	614	Bone	Food	Burnt bone		Pig
NL_LI_03	690	617	Iron	Appearance	Belthook	Hiddink type E	
NL_LI_03	691	617	Iron	Appearance	Tweezers		
NL_LI_03	692	617	Bone	Food	Burnt bone		Indet
NL_LI_03	693	618	Bone	Food	Burnt bone		Pig
NL_LI_03	694	618	Bone	Food	Burnt bone		Sheep
NL_LI_03	695	621	Bone	Food	Burnt bone		Sheep/goat
NL_LI_03	696	622	Iron	Appearance	Belthook	Hiddink type H	
NL_LI_03	697	623	Clay	Pottery	Bowl	Van den Broeke type 41	
NL_LI_03	698	623	Clay	Pottery	Pot	Van den Broeke type 52	

NL_LI_03	699	623	Bone	Food	Burnt bone		Sheep/goat
NL_LI_03	700	624	Iron	Appearance	Belthook	Hiddink type H	
NL_LI_03	701	626	Bone	Food	Burnt bone		Indet
NL_LI_03	702	627	Clay	Pottery	Pot	Unknown	
NL_LI_03	703	627	Iron	Misc	Pins/Nails		
NL_LI_03	704	627	Iron	Misc	Cap		
NL_LI_03	705	627	Clay	Pottery	Sherds	Other/indet	
NL_LI_03	706	627	Bone	Food	Burnt bone		Pig
NL_LI_03	707	628	Bone	Food	Burnt bone		Indet
NL_LI_03	708	629	Clay	Pottery	Sherds	Grit	
NL_LI_04	709	632	Clay	Pottery	Bowl	Unknown	
NL_LI_05	710	637	Clay	Pottery	Bowl	Van den Broeke type 32	
NL_LI_05	711	637	Clay	Pottery	Sherds	Rim	
NL_LI_05	712	637	Clay	Pottery	Sherds	Other/indet	
NL_LI_05	713	638	Clay	Pottery	Sherds	Rim	
NL_LI_06	714	639	Clay	Pottery	Sherds	Other/indet	
NL_LI_06	715	639	Bone	Food	Burnt bone		Medium Mammal
NL_LI_07	716	640	Bone	Food	Burnt bone		Pig
NL_LI_07	717	640	Clay	Pottery	Sherds	Other/indet	
NL_LI_07	718	641	Clay	Pottery	Bowl	Unknown	
NL_LI_07	719	641	Bone	Food	Burnt bone		Indet
NL_LI_08	720	642	Bronze	Urn	Situla	Rippenziste	
NL_LI_08	721	642	Bronze	Misc	Pins/Nails	Pin	
NL_LI_08	722	642	Iron	Misc	Ring	Fragments	
NL_LI_08	723	642	Iron	Misc	Pins/Nails	Nail	
NL_LI_08	724	642	Clay	Pottery	Sherds	Body	
NL_LI_08	725	642	Bone	Food	Burnt bone		Pig
NL_LI_09	726	643	Clay	Pottery	Sherds	Other/indet	
NL_LI_09	727	644	Clay	Pottery	Sherds	Other/indet	
NL_LI_09	728	645	Clay	Pottery	Sherds	Rim	
NL_LI_09	729	645	Clay	Pottery	Bowl	Van den Broeke type 13	
NL_LI_10	730	648	Clay	Urn	Pot	Van den Broeke type 55a	
NL_LI_10	731	649	Clay	Urn	Pot	Van den Broeke type 42a	
NL_LI_10	732	649	Clay	Pottery	Bowl	Van den Broeke type 5a	
NL_LI_10	733	649	Clay	Pottery	Bowl	Van den Broeke type 21	
NL_LI_11	734	650	Clay	Urn	Pot	Unknown	
NL_LI_11	735	650	Clay	Pottery	Bowl	Van den Broeke type 31	
NL_LI_12	736	651	Iron	Misc	Pins/Nails	Nail	
NL_LI_12	737	651	Iron	Misc	Pins/Nails	Nail	
NL_LI_12	738	651	Iron	Misc	Pins/Nails	Nail	

NL_LI_12	739	651	Iron	Misc	Ring	Split-pin ring	
NL_LI_12	740	651	Iron	Appearance	Fibula		
NL_LI_12	741	651	Iron	Misc	Unknown		
NL_LI_12	742	651	Bronze	Misc	Unknown		
NL_LI_12	743	651	Ivory	Misc	Worked Ivory	Round object with square hole in centre	
NL_LI_12	744	651	Ivory	Misc	Worked Ivory	Ivory cylinder-shaped object	
NL_LI_12	745	651	Ivory	Misc	Worked Ivory	Round pin with head	
NL_LI_12	746	651	Ivory	Misc	Worked Ivory	Indet.	
NL_LI_12	747	651	Gold	Misc	Rod	Fragment	
NL_LI_12	748	651	Clay	Pottery	Bowl	Unknown	