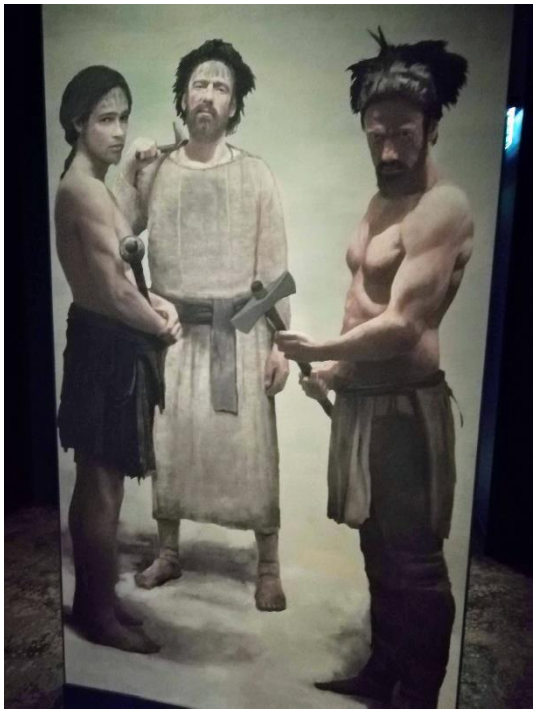

Battle-axes and binary prehistorians

A reassessment of the gender ideology of
the supra-regional Corded Ware culture,
in Europe of the third millennium BCE

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Fig. front page – Artist impression of battle-axe warriors from the Corded Ware culture, as part of the permanent exhibition on the Stone Age at Moesgaard Museum, Aarhus (own photo).

Battle-axes and binary prehistorians: A reassessment of the gender ideology of the supra-regional Corded Ware culture, in Europe of the third millennium BCE

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Part I – Theory & Methodology

1 Introduction

1.1 The third millennium BCE: synopsis of discourse

From the end of the nineteenth century onwards, a specific type of burial mounds, containing a single crouched individual with a standard set of grave goods, was encountered across Europe (**Fig. 1.1**) (Beckerman 2015, 13, 23-4; Ebbesen 2006, 153-4). These burials and their accompanying material culture were regionally prescribed to, amongst others, the 'Protruding Foot Beaker culture' (the Netherlands), the 'Single Grave culture' (southern Scandinavia), and the 'Fatjanovo culture' (eastern Europe), and were dated to the third millennium BCE. These cultures soon came to be seen as regional variants of a supra-regional, uniform 'Corded Ware culture' (CWC; c. 2900-2450 BCE), with a large distribution across Europe: from Scandinavia to the Alps and the Dutch coast to the Russian forest steppe (**Fig. 1.2**) (Beckerman 2015, 14; Schier 2014, 10). Moreover, this archaeological culture showed a marked change from the preceding period; these were the first barrows of Europe, with individual burials, and they had been placed in long alignments, stretching across large 'barrow landscapes'. In comparison, the fifth and fourth millennia BCE were characterized by communal megalithic tombs, with a smaller distribution area (Bourgeois 2013, 5, 12; Scarre 2002, 2).

Traditionally, there have been two hypotheses explaining the emergence and uniformity of the CWC. The first and oldest is that this culture has been brought by migration; militarist, pastoralist 'Yamnaya' migrants from the Pontic-Caspian steppe brought Indo-European language and culture, including the horse and wheel, into Europe (e.g. Anthony 2007; Childe 1929; Gimbutas 1956). The second hypothesis gained popularity under influence of New Archaeology and regards the CWC to have been spread by diffusion and thus as a development from older cultures (e.g. Ebbesen 2006; Hübner 2005; Lanting and Van der Waals 1976; Beckerman 2015, 15). More recently, some scholars argue that both migration and diffusion led to the spread of the CWC (e.g. Larsson 2009; Beckerman 2015, 15).

Interestingly, in the last few years, the older, migrationist hypothesis has gained momentum again; new ancient DNA (aDNA) research results indicate that mass migrations indeed took place in the third millennium BCE (Allentoft *et al.* 2015; Haak *et al.* 2015). Again, the origin of the migrants is seen to be the Yamnaya culture of the

Pontic-Caspian steppe, and the migrations are seen to correspond with the spread of Indo-European language and culture (Anthony and Ringe 2015; Kristiansen *et al.* 2017). It can thus be argued that this period in European prehistory was essential for the development of a substantial part of our history and our present-day society.

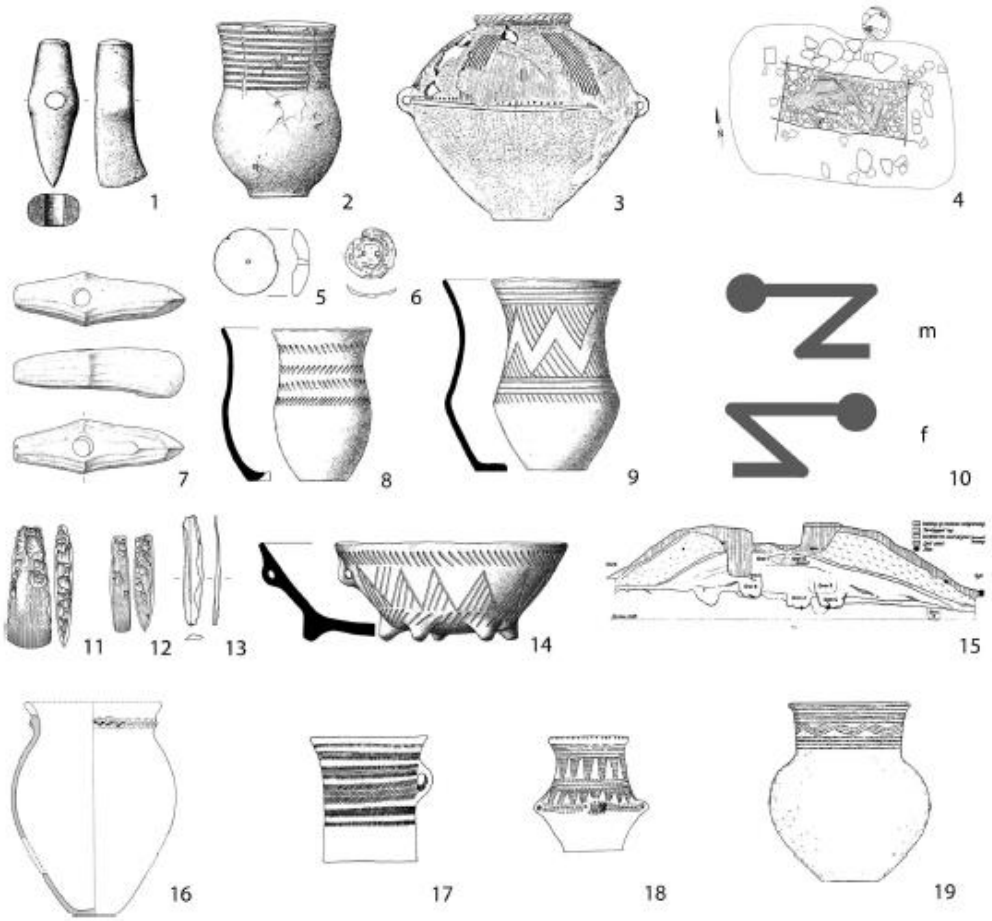

Figure 1.1 - The following aspects of the Corded Ware culture recur throughout Europe (Furholt 2014, 69, fig. 2): 1) Battle axes; 2) Corded Beaker; 3) 'Strichbündelamphora'; 4, 10 & 15) Single burial in a gender-specific, crouched flexed position and beneath a barrow; 5) Amber disc; 6) Bone disc; 7) Facetted battle axe; 8) Beaker with a herring-bone decoration; 9) Beaker with a triangle-ornament; 11-13) (Flint) axe, chisel and blade; 14) Bowl; 16) 'Wellenleisten' storage vessel; 17) Straight-walled beaker; 18) Amphora; 19) Short-necked beaker.

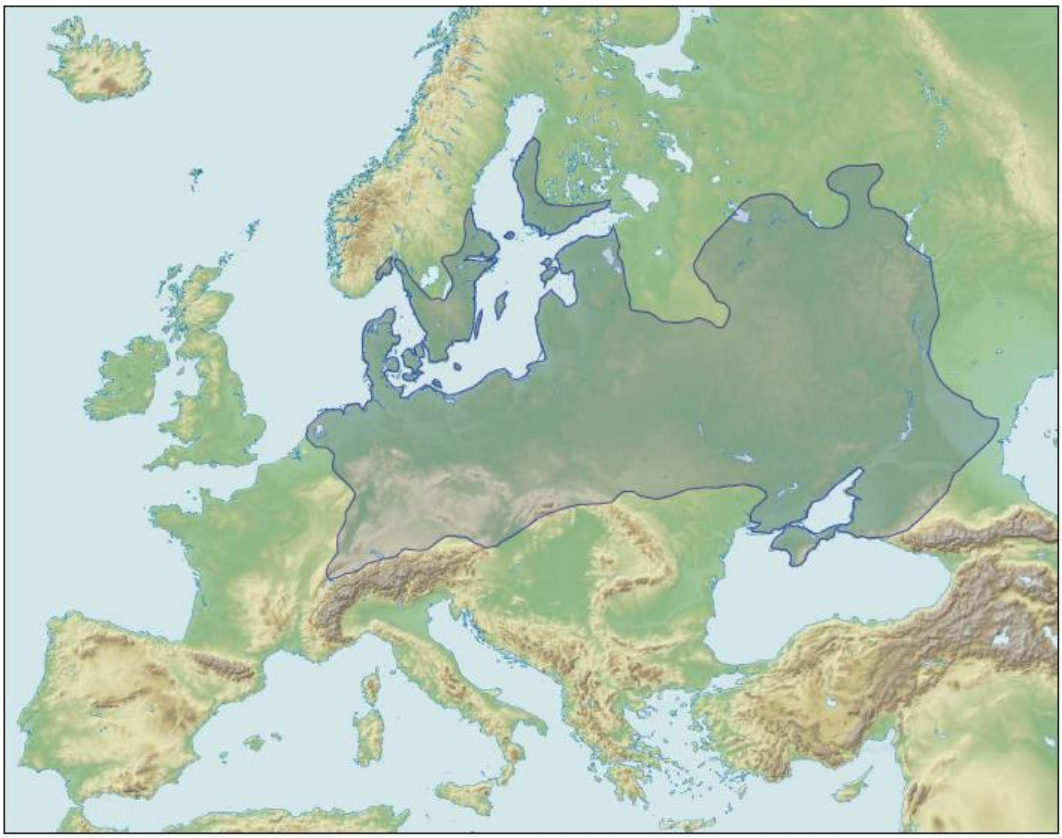

Figure 1.2 - The distribution of the Corded Ware culture (after Beckerman 2015, 15, fig. 1.1).

1.2 Problem statement

1.2.1 The 'grand narrative' of the third millennium BCE

In reaction to the new aDNA research results, the dominant narrative of the third millennium BCE is increasingly taking an uncritical and rather unidirectional 'migrationist' turn (Furholt 2016, 14). Kristiansen *et al.* (2017) for example write about male Yamnaya migrants, organised in 'Indo-European warrior youth bands', who take 'native' Neolithic women as their wives and thus establish a 'hybrid' CWC in Europe, which ultimately has the 'homogeneous' Middle Bronze Age as end-result (Kristiansen *et al.* 2017, 335-42). Heyd (2017) has already pointed out that this is reminiscent of the dangerous culture-historian equation of archaeological cultures with ethnicity, and that we should be wary of giving monocausal explanations to complex realities (Heyd 2017, 354). Moreover, both the genetic and the linguistic data

are not uncontested (see for example: Burmeister 2016, 55-6; Heyd 2017, 350; Klejn *et al.* 2017).

In my opinion, other aspects of this 'grand narrative' are also problematic. Firstly, many elements are based on assumptions: for example the Indo-European warrior bands, a concept based on comparative mythology (Anthony and Ringe 2015, 213), and the idea of a 'male-dominant' society, which is rooted in our own Western ideas of 'male' 'warriorhood' that we 'recognise' in CW burials with so-called 'battle-axes', which are stone axes that are regarded to be weapons (see below; cf. Beckerman 2015, 24-5; Edenmo 2008, 19-20; Kristiansen *et al.* 2017, 339-40). Even the idea of a Yamnaya 'culture' is taking a disproportionate form, as Slavic archaeology does not regard the Yamnaya to be a uniform culture, but a horizon of traits (Anthony 2007, 307; pers. comm. D. Fontijn 2017).

Secondly, large parts of the story are simply missing; the CWC is predominantly known from funerary contexts, while the domestic sphere and other ritual contexts are strongly underrepresented (Beckerman 2015, 20; Furholt 2014, 70). Admittedly, the domestic context of the CWC is little-known, as there are only known settlements in parts of Germany, Switzerland, Denmark, Finland, and the coast of the Netherlands (mainly recognised by cultural layers and only few structures, and these sites may be palimpsests of habitation), whereas funerary contexts have been found all over the CW area (Beckerman 2015, 22-3; Nobles 2016, 17-9, 303-4).

This brings us to my third point; in certain regional CW cultures, we still see some continuity of older practices (e.g. the reuse of megalithic graves, the deposition of axes) (Iversen 2014, 108-19; Wentink 2006, 105-8) and landscapes (e.g. the burial landscape at Angelslo-Emmerhout: Arnoldussen and Scheele 2012). Indeed, for the Eastern Danish Isles, Iversen (2014) questions whether there really was a Single Grave culture, and instead argues that new elements were incorporated within the preceding Funnel Beaker or *Trichterbecher* (TRB) culture (Iversen 2014, 182-95; Iversen 2016). For The Netherlands, it is particularly noteworthy that some late Funnel Beaker (c. 3050-2800 BCE) burials look exactly like CW burials (single graves with a crouched flexed burial), save the type of ceramic pot (Van de Velde and Bouma 2015, 22).

Thus it seems that the reality of the third millennium BCE may have been more complex than simply an incoming group of people bringing their culture and language and 'replacing' the 'native' inhabitants of Europe.

1.2.2 Supra-regional uniformity and regional variability

The CWC is not as uniform as often made out to be; Furholt (2014) writes about regional differences and argues for a later spread of the uniform 'A-horizon' as an end-result of regional developments. Indeed, before the publication of the aDNA research results, the trend in the research on the CWC seemed to be heading towards regional variability instead of supra-regional uniformity, and the CW 'complex' or 'phenomenon' instead of 'culture' (Beckerman 2014, 14; e.g. Furholt 2014, Iversen 2014, Larsson 2009).

Bourgeois and Kroon (2017) have recently conducted a network- and similarity-analysis of a large amount of CW burials across Europe; this resulted in the recognition of a supra-regional identity in right-flexed burials and regional identities in left-flexed burials, which they interpreted as respectively 'male' and 'female' burials (see **1.2.3**). Hence, it seems that on a local level there may have been more variability than what is usually implied when referring to the CW 'culture' or 'identity'. This is also related to a certain research bias; we prefer to look at 'classical' or even 'core' CW areas, such as Central Europe and Jutland, while more idiosyncratic areas, such as the Danish Islands, North-Germany and the coast of the Netherlands, take a more 'marginal' role in the 'grand narrative' on the CWC (or even no role at all).

Despite the numerous recent publications on the CWC, it still is not really clear what this archaeological culture really *is* and what this material expression means in social and cultural terms; the 'uniform' material characteristics do not seem to be the full story. Moreover, what then is the CW 'supra-regional identity', and how does this relate to local identities?

1.2.3 Gender in the Corded Ware culture

One of the main elements regarded to be part of the CW 'supra-regional identity' is a clear expression of binary gender in burials. This expression takes the form of a distinction between men and women, by burying them in 'gendered positions' (i.e. right-flexed positions for 'men' and left-flexed positions for 'women'), accompanied

by ‘gendered artefacts’ (‘male’ battle-axes, ‘female’ jewellery and ceramics). This is seen as a marked change in how the human body was perceived: the development of the individual, with a clear distinction in gender, in contrast to an earlier, contextual form of personhood (Harris *et al.* 2013; Robb and Harris 2018). Indeed, in a recent publication about gender in the late prehistory, the third millennium BCE is regarded as a transition period in which the ‘contextual’ Neolithic understanding of gender is replaced by a binary gender symbolism, which was thoroughly established in the Bronze Age (c. 2000-1200 BCE) (Robb and Harris 2018, 132-8).

While many scholars – if not all – touch upon gender in their studies about the CWC, it remains unknown what this type of identity really entailed, how it was expressed in other contexts rather than burials (in barrows), and what gender meant for CW society. In this thesis, I want to tackle one of the main assumptions in the ‘grand narrative’ of the third millennium BCE: the ‘male-dominant’ CW society. The characterisation of this society as ‘male-dominated’ is related to the overrepresentation of burials that are generally regarded to be ‘male’ (right-flexed, presence of a battle-axe) and the underrepresentation of ‘female’ burials (left-flexed, presence of jewellery). Skeletal remains are however often badly preserved; the categorization of ‘male’ and ‘female’ is thus rarely based on a biological determination of sex, and instead, largely based on the presence of ‘gendered artefacts’ (e.g. battle-axes, jewellery) (e.g. Bourgeois and Kroon 2017, 2; Larsson 2009, 61).

This identification mainly reflects our own categorization rather than necessarily how these prehistoric peoples saw gender, and these artefacts specifically, themselves (e.g. Sørensen 2000, 27; Turek 2017, 356). A first problem is that we are assuming the existence of only two genders, by equating biological sex with gender; this is a modern Western notion, rooted in Christianity and biological determinism, while there are known societies with more than two genders (e.g. man, woman, woman-man, man-woman) (Turek 2017, 353-6; Weglian 2001, 137-8). While sex and gender are interrelated, these are different concepts, and the relationship between the two is not straightforward (Sørensen 2000, 49-51). In fact, gender should be seen as a cultural construct, which assigns gendered meaning to behaviour (e.g. ‘masculinity’ or ‘femininity’), through norms and values, objects, and practices; gender is crucial for the organization of society, for people to understand themselves, and for people’s relationships (*Ibid.*, 51-2). Moreover, we can distinguish between

'gender ideology', i.e. the societal norms about gendered behaviour, and 'gender identity', i.e. the self-identification with a gender (*Ibid.,* 7-8*)*.

Returning to the CWC, it is clear that further research is required to gain a better understanding of gender. Besides the apparent bias behind the identification of 'male' and 'female' graves, there are known exceptions to the 'rule': for example, the Czech 'gay caveman' of 2011, or, in more nuanced and less anachronistic terms, a biologically male buried in a typically 'female' way (Falvey 2011). As stated above, it is also completely unknown how gender was expressed in contexts other than burials, even though gender is deeply ingrained in all of society (Sørensen 2000); a proper understanding of gender thus requires a study of multiple contexts, such as depositions and settlements, as well as burials. Indeed, patterns of 'selective deposition', in which particular (gendered) objects occur in specific contexts only, have been recognized throughout European prehistory (Fontijn 2002, 5); identifying this practice for the CWC may aid in our understanding of gender.

Particularly during the Bronze Age, there appear to have been gendered rules of selective deposition. A notable example is the hanging vessel and spectacle fibula from the Late Bronze Age, which are – albeit loosely – associated with femininity. These objects do not occur in graves but are deposited with other (regional) ornaments in large numbers throughout Europe, thus indicating a different type of communal (female?) identity (Fontijn *forthcoming*). Certain objects were associated with a particular *persona*, and therefore, at the end of their use-life, these objects had to be deposited in a particular way, even in contexts without a human body (in this thesis: depositions) (Fontijn 2002; pers. comm. D. Fontijn 2019).

While the above examples are from the later Bronze Age, there would have been rigid ideas about how to deposit objects associated with personae in the third millennium BCE, as becomes apparent from the standardized grave inventories often encountered in CW burials. Such prevailing rules of selective deposition may also be prevalent in other contexts. Indeed, 'male' battle-axes are also found in depositions and megalithic graves, following the same rules as the older, double-edged battle-axes of the TRB culture (Iversen 2014, 54; Iversen 2016, 164). Taking selective deposition into account for the CWC may thus give a more complete – and nuanced – picture of gender in this period. This is certainly necessary for the idea of the battle-axe as a masculine symbol; the grand narrative is largely based on the identification of battle-

axes in burials as a 'male' 'warrior' identity. There are quite fundamental problems with simply equating grave goods with gender, and regarding burials as a direct representation of a person's identity in life (Ekengren 2013). Moreover, the battle-axe being an actual weapon has been questioned, for example on the grounds of the small shafting hole (Edenmo 2008, 19).

Further nuance is critical for this particular period, in which we perhaps can see our Indo-European roots. By simply portraying this prehistoric period as 'male-dominant', which is largely based on our own conceptualization, a 'patriarchal' Western culture may accidentally be legitimized, or in reverse, an androgynist perspective, which sees a 'matriarchal' and peaceful society before the arrival of militarist, 'patriarchal' migrants from the east (e.g. Gimbutas 1956), thus further posing a danger of legitimizing xenophobia.

1.3 Aims and approaches of present research

The problem statement shows that we cannot simply state that the CW society was 'male-dominant', without any further investigation into what this entails and how 'gender' was expressed in this society more generally, and on a regional scale. This research thus aims to fulfil in this investigation, by tackling the broad question:

> *What did Corded Ware gender entail and how was this expressed in burial and depositional practices in different regions?*

By answering this question, I aim to test the hypothesis that CW gender was binary and that CW society was 'male-dominant'. My focus lies with the CW 'gendered artefacts', and their selective deposition; I aim to assess the contexts and correspondences in which these objects are found, in order to explore which (sets of) objects might be an expression of gendered roles. This is an innovative perspective, as studies into the CWC are mainly based on funerary evidence, and do not take a 'gender archaeology' approach.

1.4 Research questions

As specified above, the main research question of the present research is:

> *What did Corded Ware gender entail and how was this expressed in burial and depositional practices in different regions?*

This question can thus be divided into two main topics: gendered burials and the selective deposition of gendered artefacts. Several sub-questions have been formulated in order to structure this thesis:

1. How has gender been expressed in funerary contexts?
    - How are biologically male and female bodies of different ages treated and buried in the CW mortuary ritual? In which positions are they placed?
    - Which objects occur in biologically male and female burials of different ages, and/or with which positions and burial structures do these objects correlate? How do these objects relate to the body?
    - How do these patterns change or persist in different funerary contexts?
    - How do these patterns – and exceptions to these patterns – relate to gender?
2. How has gender been expressed through selective deposition?
    - Which objects occur exclusively in burials or in depositions? Which objects occur in both burials and depositions?
    - How do these objects relate to the body?
    - How do these patterns – and exceptions to these patterns – relate to gender?
3. What do the above patterns tell us about the (supra-)regional CW understanding of gender identities, and how does this conform to the *present* 'grand narrative' of the third millennium BCE?
    - Which patterns are typical for a certain region, and which are shared across the regions?
    - Was CW gender indeed binary? Was CW society indeed 'male-dominant'?

1.5 Methodology

The present research is a comparative database study of CW sites from two different regions in Europe: Bavaria and Southern Jutland (**Fig. 1.3**). The choice for these regions will be explicated below (see **1.6**). The data collection for the case study of Bavaria has been part of earlier coursework, but will be analysed in a different way in the present thesis.

The goal of this study is to investigate the presumed correlation between the position of the body and the presence of grave goods in burials, and binary gender, and to find patterns of selective deposition. Thus, CW finds from different contexts will be catalogued in a database and mapped: scientifically sexed burials, burials that have not or cannot be sexed, reused megalithic graves, and depositions.

Biologically sexed – and non-sexed – burials from different funerary contexts will be analysed according to whether they confer to the CW 'gendered positions' and whether they were buried with 'gendered artefacts' (*sub-question 1*). Moreover, the presence of 'gendered artefacts' will be analysed according to context. This will result in an overview of how gender is expressed in different contexts in each region (*sub-question 2*). These results will be compared to the other regions, in order to establish which elements of these expressions are regional, or even local, and which can be seen as supra-regional (and thus perhaps as the expression of a supra-regional CW identity or even 'gender ideology'; *sub-question 3*). In order to gain an understanding of these patterns, it is essential to place the outcomes of these regions into a larger supra-regional framework, by consulting existing research into the CWC. Therefore, I will compare my results to the large-scale, supra-regional network study conducted by Bourgeois and Kroon (2017).

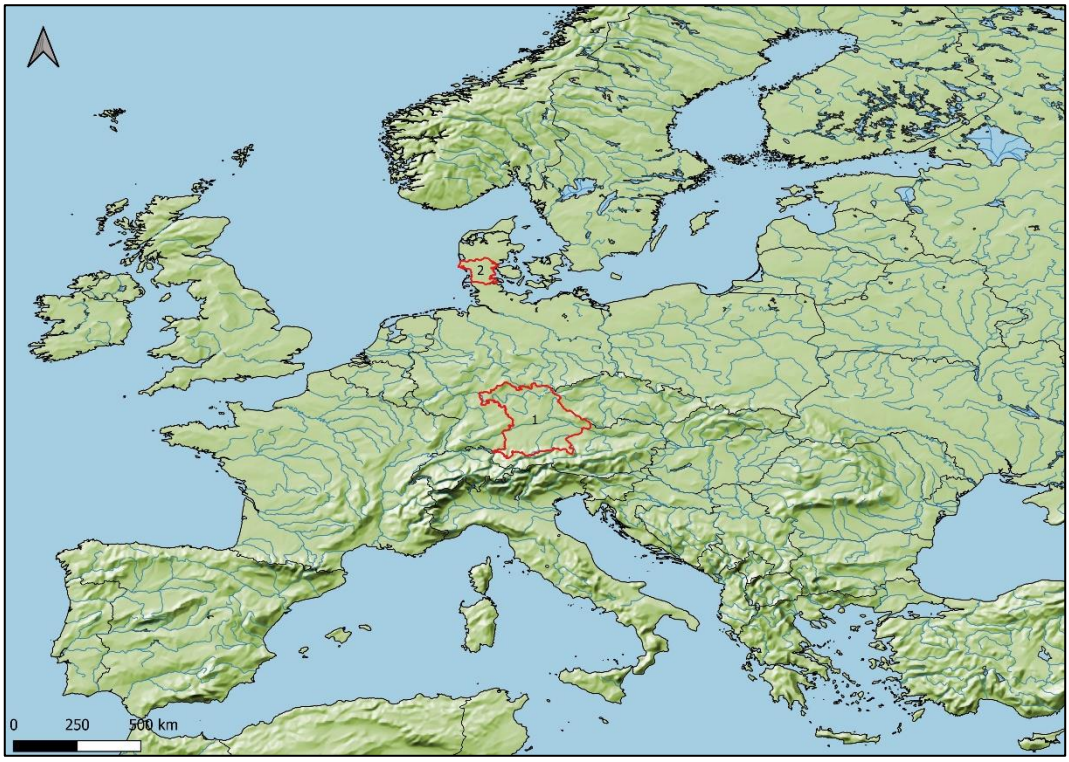

Figure 1.3 – The two regions which are studied in this thesis. 1: Bavaria; 2: Southern Jutland.

1.6 Dataset

The first case study is the region of Bavaria, Germany. This region has been chosen, because excavations from the 1980s onwards have yielded numerous cemeteries as well as hamlets, dated to the third and second millennia BCE. Recent research into this area, using scientific methodology such as aDNA and stable isotope analyses, has shed light on population movements and kinship structures in this region, not only during the Late Neolithic, but also during the Early Bronze Age (Andrades Valtueña 2017; Massy *et al.* 2017, 242; Knipper *et al.* 2017; Stockhammer *et al.* 2015, 3). While I have also accessed these recent publications, the main source of the data of this region is mainly the catalogue by Heyd (2000), which contains not only burials, but also settlement data and single finds. This case study has also been the topic of an earlier paper, for the course Research Seminar: Landscape and Identity, in which I also took the Bell Beaker and Early Bronze Age sites into account. For the present study, only the CW sites are included, and a different methodology is taken.

The last case study is the region of Southern Jutland, Denmark. This region is considered the 'core' area of the Single Grave culture in Southern Scandinavia (pers. comm. N. Johannsen 2018); Northeast Jutland as well as the Danish Isles are more 'marginal', even though there is better preservation of skeletal remains here, and Iversen (2016) even questions whether there really was Single Grave culture in this region. Due to the goal of this thesis of gaining a better understanding of gender in the CWC, I have chosen to only include the core Single Grave are in Jutland. Two exhaustive catalogues have been published for this region: Hübner (2005) has published an overview of Single Grave burials on the whole of Jutland, and Siemen (2009) has recorded all Late Neolithic finds in Southern Jutland only, yet including depositions and some flat-graves and reused megalithic graves that Hübner (2005) has excluded.

1.7 Outline of thesis

This thesis is structured in three parts. The first part is theoretical and methodological, in which I aim to develop a multi-contextual approach informed by gender archaeology. The first chapter is my theoretical framework, in which the main theoretical concepts are defined and the current discourse in gender archaeology is described (Chapter 2). The next chapter is a description of the currents state of

knowledge about the CWC, including its research history and an overview of our current understanding of CW gender (Chapter 3). The last chapter is my practical methodology, in which I explicate my choices and assess the potential and limitations of my method (Chapter 4).

The second part consists of the results of the present study. The results are structured in a chapter per case study (Chapter 5-6).

The third and last part is the discussion and conclusion. In the discussion (Chapter 7), I will compare my findings with each other, and with other current research into the CWC. This thesis ends with a conclusion (Chapter 8), including an evaluation of my research and suggestions for future study.

2 In search of an applied gender archaeology: theoretical framework

Numerous scholars from a variety of disciplines, such as anthropology, psychology, philosophy, cognitive science, and archaeology, have written extensively about the concept of gender and its relationship with sex, sexuality, and body (e.g. Butler 1990, 1993; De Beauvoir 1949; Strathern 1988; Sørensen 2000; Harris and Robb 2013). Therefore, an elaborate examination of these concepts would not only be repetitious, but also – most likely – inadequate. A brief consideration of these concepts will have to suffice in the following sections, limiting to that what is relevant to the present thesis. As gender is anything but a neutral term, I will first have to contextualize the research history of this concept in archaeology (**2.1**), albeit briefly; for a more extensive overview of the research history of gender in archaeology, I can recommend Diaz-Andreu and Sørensen's *Excavating Women* (1998) and Sørensen's *Gender Archaeology* (2000). Then, I will discuss my understanding of the complex concepts of gender, sex and body (**2.2**) and the relationship between gender and other forms of identity, as the identity of persons comes about in intersection (**2.3**). The next sections (**2.4, 2.5, 2.6**) theorize on how these concepts can be researched in archaeology, in spite of the limitations of our field and our data.

2.1 Gender and archaeology: a history of thought

From the 1970s, archaeology has been influenced by the women movement-inspired discipline of gender studies, prompting discussions about the visibility of women in the male-dominant archaeological field (Sørensen 2000, 17-8). Yet it was Conkey and Spector (1984) who properly introduced the concept of gender into archaeology, when they pointed out that not only the discipline of archaeology was androcentric, but also the interpretations of the past. This early gender archaeology was aimed at making women visible in the past and bringing diversity to the field, and was thus a marginal, feminist sub-discipline (Sørensen 2000, 3-10). Over the course of the 1990s until the present, gender archaeology has matured and become a part of mainstream archaeology (Robb and Harris 2018, 129), studying not only femininity, but also

masculinity (e.g. Treherne 1995; Knapp *et al.* 1998) and variations in gender relations (Sørensen 2000, 7-10).

The development and demarginalization of gender archaeology is largely related to the paradigm of post-processual or contextual archaeology. Post-processual archaeologists of the 1980s and 1990s aimed to 'people the past', while dismissing the culture-historian idea of stable, bounded identities (cultures, ethnic groups and races), and the determinist and instrumentalist approach to identity in processualist archaeology (identity as a strategic 'us' vs. 'them') (Fowler 2004; Jones 2007, 45-8). Instead, post-processualists emphasized identity as negotiated through practice, in social, political and symbolic interactions, and as historically and contextually specific (Fowler 2004; Hodder 1982; Shanks and Tilley 1987, 57-8). Although this was a more critical and self-reflective approach, Western ideas about what a 'person' entails (Fowler 2004), as well as 'normative' narratives about gender and sexuality (Dowson 2000, 162-3), were still underlying interpretations of past people. Thus, more recently, the study of gender in archaeology has come to include non-binary gender identities, emphasizing fluid identities and incorporating queer theory, which entails studying the 'atypical' or 'deviant' (Back Danielsson and Thedeen 2012, 9-10; Dowson, 2000; Turek 2016). Yet even now, archaeologists must be wary of projecting current ideas about identity onto the past; while gender archaeology has moved away from its feminist origins, archaeological narratives about past identities have often been and still can be politicized (cf. Insoll 2007, 7-11; Shanks and Tilley 1987, 186-208). This also includes current societal debates about the inclusion of non-binary, transgender, and queer identities (Insoll 2007, 4; Price *et al.* 2019, 191-2).

2.2 Defining gender I: gender and sex

The human body is always situated in a particular cultural, social, and material context; the meanings attributed to the human body differs and changes through time and space (Harris and Robb 2013b, 4-5). Gender is one of these highly variable meanings; gender is often defined as the cultural manifestation of the sexual differences between human bodies, through which people understand themselves and relate to others (Sofaer and Sørensen 2013; Sørensen 2000; Turek 2016). As Sørensen (2000) writes:

> "Gender is best understood as a *set of values* that assign gendered meaning to behaviour and affect that behaviour. Through such meaning, culturally specific notions of femininity and masculinity, of what it means to be a woman or a man, and variations on these themes are constructed. Such meanings are created through rules, in particular those concerned with exclusions, notions of normality and values, and they are articulated and maintained through objects as well as through discursive, especially ritualized, and non-discursive practices. It is also a characteristic of gender that it is the subject of subversion and provides a focus for 'deviations'. Gender, therefore, is *not static*; it needs to be continuously renegotiated, confirmed and maintained. (...) Gender is then a basic aspect of how societies organize themselves and of how individuals understand themselves." (Sørensen 2000, 52-3, my emphasis).

Gender is thus an essential part of human societies, and it is normative, performative, and dynamic. It is in this emphasis on cultural meaning, social norms and variability, where we encounter the main issue regarding gender: its ambiguous relationship with biological sex.

An oft-heard issue is that equating gender with sex disregards variabilities in gender arrangements; indeed, such variability has been recognized in the existence of multiple gender identities and gender "switches" in ethnography. Examples are the Mohave people from the American Southwest, who recognize four genders: man, woman-man (*Alyha*), man-woman (*Hwame*), and woman (Lang 1996). In Inuit culture, there is both perinatal transsexualism, which means that infants can change sex, as well as a symbolic 'transgendering'. The latter happens in the case of an 'imbalance' in the atom family (e.g. children of the same sex); a daughter or son will be cross-dressed and given male, respectively female, tasks, until the girl had her first menstruation, or the boy made his first kill during a hunt, after which they would change their gender back again, although they would always be influenced by this transgendering, as a type of 'third gender' (D'Anglure 2012).

Yet the reverse – a dichotomous relationship between biological sex and cultural gender – is equally problematic, as it builds upon Western Enlightenment thinking, in which there is a distinction between mind and body, and nature and culture (Robb and Harris 2018, 129; Sørensen 2000, 42-5; nature-culture dichotomy: see e.g. Brück 2019; Fontijn 2019, 137). Instead, it is becoming increasingly clear that both gender and sex are cultural constructions; sex is recognized and experienced, social

conceptions of sex can differ, and societies commonly regulate sex and sexuality (Sørensen 2000, 42-49). Queer theory has contributed to the realisation that sex is not only reproductive (Sofaer and Sørensen 2013, 530). Moreover, even in terms of biology, sex is not straightforwardly binary, as indicated by the occurrence of intersexuality and hermaphroditism, of up to 2% in a population (Morland 2014; Stratton 2016, 861). Yet even though they are interrelated and both socially constructed, it must be kept in mind that sex and gender are not necessarily the same; while bodies are sexed, often in variations of 'male' and 'female', and gender is attached to a sexed body, gender goes further than sex, in that it is about social relationships, negotiation and performance (Sørensen 2000, 49-53).

2.3 Defining gender II: age and personhood

Another complicating factor is that gender is closely intertwined with other forms of identity, and arguably the most important of these is age; gender – dynamic as it is – changes throughout the life cycle, just as the body's sexual characteristics and sexuality (Sofaer and Sørensen 2013, 530). As humans age, not only does the body change, but also the perception of self and of others, as well as what constitutes appropriate gendered behaviour (Sofaer Derevenski 1997b, 485). Moreover, like gender, age is both a biological and cultural concept; while bodies age in years ('chronological age') and by physical ageing ('physiological age'), age categories are defined by cultural and social norms ('social age') (Sofaer Derevenski 1997b, 486). The chronological age at which a person transitions from one social age (for example 'child') into another ('adult'), differs per society, and this takes place through gradual 'growing up', particular (gendered) rites of passage, or other forms of 'gender learning' (Sofaer Derevenski 1997a, 198; Sofaer Derevenski 1997b, 487-8). Indeed, throughout a person's life, they continue to learn about gender categories and appropriate gendered behaviours, in a process Sofaer Derevenski (1997b) calls 'engendering'; gender is thus constantly renegotiated as a person's life progresses and social situations change (Sofaer Derevenski 1997b, 487). Yet the exact relationship between age and gender depends per individual, community, and period (Sofaer Derevenski 1997b, 491).

Gender, and other forms of identity, such as age, are fundamental for what constitutes a 'person'. Personhood is the social significance of a human being, and thus

is the societal conceptualization of an individual's identity along the lines of defined roles and categories (La Fontaine 1996). While in Western society, a person is seen as a unique 'individual' with a fixed, self-defined identity, more relational forms of personhood are known ethnographically and are likely to even apply to Western individuals; for example, a person can change through a particular activity or event, and in particular situations (Fowler 2004). Due to the particular historical trajectory of the Western individual, we cannot assume that past people had a similar concept of personhood (Brück and Fontijn 2013). An oft-heard counterexample of Western individuality, is the Melanesian 'dividual personhood', in which a person consists of multiple elements, which emerge through social relations and can be owned be others (Fowler 2004); we must however also be wary of simply applying ethnographical concepts unto the European past, in effect creating a 'Melanesian European past' (Spriggs 2008).

Fowler (2004) first argued that persons are constructed from the tension between 'individual' and dividual features; variations within this dialectic would have created different personhoods, in conception and in practice, throughout time and space. However, later he wrote that the conception of personhood as on a spectrum between individual and dividual, is too simplistic, as all personhood is relational (Fowler 2016). Brück and Fontijn (2012) similarly argue for regarding past people as having relational identities, which come about through interpersonal relationships, expressed through objects. Through the association of a human body with a specific set of material culture, a particular (gendered) person is constructed, which changes throughout their life course and signifies a particular social role (Brück and Fontijn 2012; Fontijn 2002; La Fontaine 1996; Sørensen 2000, 9; pers. comm. D. Fontijn 2019).

Yet, as has been emphasised throughout these two theorizing sections, throughout human (pre)history, gender, sex, and age categories as well as personhood in general, have been constructed differently. How we then can approach these different human bodies in the past, and particularly their gender, is the topic of the next sections.

2.4 Studying gender I: mortuary archaeology and intersectionality

Now we have roughly determined what gender entails, and discussed (some of) the problems surrounding this type of identity, another issue about this complex issue

comes up: how can we study gender, and is this even possible? Due to the qualitative and performative nature of gender, we cannot study the experience gender itself; it must always be inferred (Sørensen 2000, 53-4). We need to be aware of how we make these inferences, because, as we have seen in the above sections, we tend to implicitly project our own Western assumptions onto the past. There are two main sources through which archaeologists can attempt to approach gender in past societies: the human bodies themselves, which were both sexed and gendered, and artefacts, which may have been embedded with gendered meanings. In this section, I will elaborate upon the possibilities and limitations of the first method: mortuary archaeology.

Arguably, mortuary archaeology is the best way to access a past person themselves; a well-preserved burial hopefully contains the remains of a deceased person, as well as traces of how they lived (e.g. health, diet, activities) and indications of how they were treated after death (e.g. treatment of the body, accompanying grave goods, the grave itself, revisiting of the grave after burial) (Charles 2005; Fahlander 2012; Nilsson Stutz 2014; Larsson 2009, 295-8). Because the burial rite, during which the living person completes their transition to becoming a dead person, results in a renegotiation of personhood and the relationships between the mourners and the deceased, burials strongly reflect gender (Fowler 2004; Sofaer and Sørensen 2013, 527-9, 531; Sørensen 2000, 92-3). In current mortuary archaeology, the practice of mortuary rites is emphasized; burials are not seen to directly represent the social status and identity of the deceased, but mortuary rituals construct and negotiate social relationships and identities through transformative practices (Chesson 2001, 2; Ekengren 2013, 174-80, Fogelin 2007, 64). It is indeed in such practices that gender is often articulated: the placement of objects, the treatment of the body, and the burial rituals themselves (Sofaer and Sørensen 2013, 535). This illustrates the inherent potential that burials have, in informing us about gender.

2.4.1 The limitations of mortuary archaeology for studying gender

However, identifying gender in burials is anything but straightforward. As we have seen in **2.3**, gender changes over a life-course, which includes death; even if we can recognize gender in a burial, this therefore does not need to be the gender of the deceased person in life, but it can be a different gender. An ethnographic example of a person having a different status in death than in life, is the 'weddings of the dead' in

20th century Transylvania; deceased unmarried people, of marriageable age, had to be married in death during their burial (Kligman 1988).

Alternatively, the gender we see is not even related to the deceased person at all, since the "dead do not bury themselves" (Parker Pearson 1999, 3), but is that of the mourners, or indicates the relationship between the mourners and the deceased (Brück and Fontijn 2013, 206-7; Sofaer and Sørensen 2013, 532; Turek 2016, 344). Indeed, an example from Victorian English, prominent cemeteries with stone grave monuments, is that male graves were more 'fashionable' than female graves, not because the women were of lesser status, but because widows or female family members made more fashionable choices than widowers or male family members (Cannon 2005, 43-51). Lastly, the gender reflected in a burial, may be idealized rather than a lived experience, or even a challenge to social norms, rather than reinforcing these norms (Stratton 2016, 856).

Yet most issues reside in recognizing gender from burials at all. Traditionally, grave goods were taken to indicate gender: weapons for men, and jewellery for women. This has however shown to be problematic; this simple equation is rooted in the andro- and ethnocentric assumptions of early archaeologists, and has often been proven wrong (Hjørungdal 1994; Sofaer and Sørensen 2013, 530-1; Sørensen 2000, 27). A recent example of this is the Viking warrior grave from Birka, which had been interpreted as male because of the numerous weapons accompanying the deceased, until aDNA analysis showed the remains were of a female (Price *et al.* 2019).[1]

Because it is now common knowledge that grave goods do not equate gender, the biological sex of the skeletal remains are now emphasized (Sofaer and Sørensen 2013, 531-2). This emphasis on biological sex however brings us back to the discussion above, that sex does not equate gender. Moreover, the osteological sexing of skeletal remains is not without problems either; sex determination is based on the assumptions that modern humans are sexually dimorph, that this sexual dimorphism is observable in the skeleton, and that past humans were sexually dimorph in the same manner to modern humans (Sørensen 2000, 45-6). Sexual dimorphism can also change as the body ages, thus even obscuring the sexing of modern human remains,

[1] The female Viking warrior from Birka also exemplifies the potential politicization of archaeology, when topics such as gender are touched upon; there was such a backlash in social media after the initial publication of the aDNA results (Hedenstierna-Jonson *et al.* 2017), that the authors were forced to republish their findings (Price *et al.* 2019).

and can be population-specific (Krogman and Iscan 2013, 143-6). Similarly, determining the age at death of skeletal remains is also based on studies with modern skeletal remains and thus modern traits, and the precision and accuracy of the age estimation varies; while the osteological aging attempts to estimate the chronological age of the skeletal remains, this is never exact (Krogman and Iscan 2013, 59-60; see Sofaer 2011 for a further discussion of the methodological problems behind osteological age determinations).

Thus even with osteologically analysed skeletal remains, we have a methodological problem, since we are using predetermined sex and age categories rather than the gender categories and social age that would have been experienced by the burial community. Another problem with emphasizing the biological sex of the skeletal remains, is that this source is exactly that: the remains of a once living body, which is more than its corporeality (Fahlander 2012, 138).

2.4.2 The potentials of mortuary archaeology for studying gender

There is perhaps a solution to these problems; taking these limitations into account, we can still analyse the different treatments of the deceased body between the sex and age categories that are osteologically determined, instead of looking for oppositional categories (e.g. 'man' vs. 'woman', 'young' vs. 'old') (Haughton 2018, 3). The limitations can perhaps be taken into account by emphasizing the life-course of the buried person, thus regarding gender and age as a process and not as a concrete category or unit of analysis (Sofaer Derevenski 1997b, 489). Another solution would be to study 'intersectionality', which emphasizes multiple dimensions of identity rather than focusing on gender and includes a variety of bodily characteristics rather than only sex and age (Arnold 2016; Fahlander 2012; Stratton 2016, 862).

If, then, there is a differentiation according to sex, age, and/or other bodily characteristics, it is perhaps possible to recognize the underlying norms which determined how a deceased person with a particular gender and social age should be buried; through this treatment of the body, the deceased is socially constructed (Brück and Fontijn 2012, 207). Following the same logic, it might be possible to distinguish 'deviant' – or, more neutrally, 'non-normative' (see Aspöck 2008) – burials from 'normative' burials in order to find 'queer' identities.

Yet again, such an approach is not without problems. Firstly, every burial is unique by definition; every burial is of a unique person (or multiple, unique persons), who have had unique roles in and relationships with the burial community throughout their life and, through the performance of the – possibly in some ways unique – burial ritual, in their death (e.g. Aspöck 2008, 35-6; Haughton 2018, 2; Sofaer and Sørensen 2013, 528). Secondly, establishing norms and recognizing 'deviant' or 'atypical' burials requires looking at large datasets of burials, in order to be statistically significant. Creating such a dataset is however a generalization of unique burial rites and relationships, and it incorporates large spatial and temporal resolutions (Arnold 2016, 836; Haughton 2018, 4). Therefore, the found norms and idiosyncrasies may very well be a projection of our own methodology rather than an experienced reality of the burial community – or, more likely with large datasets, burial communities – under study. This is amplified by the problem recognized above, that we are employing predetermined sex and age categories from osteological classifications (see Stratton 2016). Simultaneously, 'deviant' burials are often excluded or seen as anomalies, simply because they do not fit the expectation (Stratton 2016) or because they appear strange in comparison to our own, Western ideas about burial (Aspöck 2008, 37). Lastly, even if we can be certain about the mortuary norms in a dataset, because of the fragmentary nature of archaeological data, we may not be sure whether an 'atypical' burial indeed was deviant from the norm, or whether we simply have yet to find more of these types of burials. In some cases, such 'deviant' burials may simply reflect minority burial practices, which were less commonly used, but still part of the norm (Murphy 2008).

I will momentarily depart from this discussion of the issues with studying gender from mortuary archaeology, in order to consider the second proxy for studying gender in archaeology, already touched upon in this section through grave goods: material culture. As written in **2.3**, personhood is constituted by objects; studying these objects, thus has the potential of understanding the *personae* that they construct.

2.5 Studying gender II: material culture and selective deposition

Sørensen (2000) argues that archaeology has the potential to contribute to gender studies, through its unique time depth and by the study and understanding of gender

expressed through material culture (Sørensen 2000, 8-9). Material culture not only reflects gender relations in a symbolic way, but objects also actively inform and construct gender (Sørensen 2000, 75-6).

2.5.1 The limitations of material culture for studying gender

As mentioned above, the gendered interpretation of artefacts is often based on the ethno- and androcentric assumptions of the white male archaeologists of the 19th century, who included gendered interpretations of objects in their typologies, which are still the basis of contemporary classifications of artefacts (Hjørungdal 1994; Sørensen 2000, 27). Moreover, material culture is not inherently gendered; objects only become engendered in specific contexts and events, and as such, objects are not necessarily similarly gendered in all contexts (Sørensen 2000, 91).

As is the case with identifying gender in burials, interpreting a gendered meaning in material culture is not straightforward; for example, in the case of grave goods, identifying the gender of an object through their association with a sexed body again equates gender and sex (Sofaer and Sørensen 2013, 531) and does not take into account that, just as is the case with a deceased person, accompanying grave goods are transformed through the burial rite, thus implying that the meaning of an object in a burial does not necessarily correspond to its meaning during its life (Arnold 2016, 848). More generally, it is difficult to interpret the meaning of an object, because the meanings of objects are ambiguous and have multiple layers, and may be interpreted in divergent ways by different people (Fowler 2004). A last issue is another Western assumption that can underlie our interpretations: the supposed dichotomy between humans and objects, whereas personhood can also be given to objects (Brück and Fontijn 2012; Fowler 2004; Sofaer and Sørensen 2013, 532). Therefore, in recent scholarship, the interaction between people and objects is emphasized (Sofaer and Sørensen 2013, 532), through biographical and contextual approaches to material culture (e.g. Fontijn 2002; Fowler 2004; Kopytoff 1986), the recognition of material agency and human-thing entanglements (e.g. Hodder 2011), and even through regarding the human body as material culture (e.g. Sofaer 2006).

2.5.2 The potentials of material culture for studying gender

In my opinion, the potential for studying gender through artefacts is highest in a biographical and contextual approach. Identity, including gender, is constituted by interactions between humans and objects, and objects given to people at a particular point in life, help in constructing the person; thus the biography of an object, i.e. its creation, use-life, and eventual discard, is intertwined with the biography and identity of a person (Brǜck and Fontijn 2013, 203; Fowler 2004). Through the treatment of an object, in life as well as in death, identity is expressed, and this can vary in different contexts.

A concept that relates to this, is that of selective deposition, a phenomenon encountered throughout prehistoric Europe (Fontijn 2019). At the end of a particular object's life, this object is disposed of in a proper way and at a proper place, according to rules about how such an object should be treated. Thus, particular types of objects are structurally and exclusively deposited in specific contexts, such as, for example, rivers, and not in other contexts, such as, for example, burials. Which objects were deposited in which contexts, differs per region and period, and studying these depositional practices potentially aids in understanding the cultural biography of the deposited objects and uncovering the meaning of these objects and contexts (Brǜck and Fontijn 2013; Fontijn 2002; Fontijn 2019). Therefore, I argue that by looking at selective deposition, we can approach gender; due to the performative and normative – as well as potentially contra-normative – nature of gender, and the engendering of objects through their cultural biographies and through association with particular events and contexts, studying depositional conventions (and convention-breaking depositions, cf. Fontijn 2019) may inform us about gender identities in prehistory. In such a multi-contextual approach, the deposition of objects in burials must also be taken into account; some objects may only be deposited in contexts other than burials, whereas other objects may articulate a certain gender in burials, and simultaneously be deposited in other contexts. As we cannot assume a dichotomy between objects and humans, it is also important to take the treatment of human bodies into account; indeed, in burials, gender is often expressed through the placement and treatment of particular objects and the deceased body, and through the rituals surrounding the burial (Sofaer and Sørensen 2013, 534). I would argue that this also applies to the deposition of engendered artefacts in contexts other than burials.

2.6 Studying gender III: scales of gender

In arguing for a multi-contextual approach to studying gender in archaeology, I need to address one last issue: differing scales in which gender operates and is expressed. Sørensen (2000) distinguishes between 'gender ideology', which are the societal norms about gendered behaviour, and 'gender identities', which is the self-identification with a gender (Sørensen 2000, 7-8). Thus, in the light of the discussion in **2.2** and **2.3**, 'gender ideology' can be described as the top-down, normative part of gender, and 'gender identities' as the performative, daily operation of gender, which works bottom-up, and either in agreement with or in opposition to the prevalent gender ideologies. In this respect, we would expect that studying gender ideology or gender identities requires a different type of analysis: either large-scale and top-down, or small-scale and bottom-up, respectively. Some of the problems with a large-scale, top-down study have already been discussed in **2.4**, while a bottom-up approach is not possible without some knowledge about the larger scale; these two approaches are not in exact opposition, and the best application depends on the topic of study (Fahlander 2016). I would argue that it is most fruitful for our understanding of prehistoric gender to use a combination of large-scale and small-scale approaches, in order to recognize large-scale and *longue-durée* shifts in gender ideology, but simultaneously remain critical about temporal and geographic variability in gender identities (cf. Arnold 2016, 835-6; Haughton 2018, 10).

In sum, in order to study gender in archaeology, I am arguing for a biographical and multi-contextual approach, in which gender is expressed differently throughout the life-course of a person (and/or object) and in different contexts, while combining a large scale study with analyses on a smaller scale. The translation of such a theoretical approach into a methodology for this thesis, is the topic of Chapter 4.

3 Gender in the Corded Ware culture

In European prehistory, the Corded Ware culture (c. 2900-2450 BCE; North-Western Europe: Late Neolithic; Mediterranean and Central Europe: Chalcolithic) has recently gained enormous attention within – and beyond – the academic community; while this archaeological phenomenon has been known since the excavations of burial mounds in the late nineteenth and early twentieth centuries throughout Europe, the current interest is enhanced by the exciting new development of ancient DNA (aDNA) analysis on prehistoric skeletal remains. This enables a better understanding of large-scale population movements in the distant past as well as kinship structures on the smaller scale (Kristiansen 2014, 20-5). In this Chapter, I will discuss our current stance of knowledge about the prehistoric phenomenon of the Corded Ware culture (CWC), in order to critically assess what further investigation is still required. The first section (**3.1**) describes what the CWC was, and its research history. This is followed by a discussion of the current consensus about CW gender (**3.2**) and of a particular object that has inspired this narrative: the battle-axe (**3.3**). Lastly, I will bring a different perspective into the discussion, with selective deposition in the CWC (**3.4**).

3.1 Introduction: the Corded Ware culture and its research history

3.1.1 The discovery of the Corded Ware culture

In the late nineteenth and early twentieth centuries, a particular archaeological phenomenon was encountered throughout Europe, through the investigations of early archaeologists excavating burial mounds (Beckerman 2015, 13). The mortuary practices that they found included the burial of a single individual under a mound, in a crouched flexed position, with a standard set of grave goods, seemingly gendered: a beaker with cord impressions, a flint axe, a stone axe for a male (buried on his right side) and amber jewellery for a female (on her left side) (see **Fig. 1.1**) (Beckerman 2015, 13, 23-4; Ebbesen 2006, 153-4). These practices were remarkably different from the communal megalithic graves of the preceding period (Bourgeois 2013, 5).

Archaeologists at the time thought that such a material assemblage identified a particular, ethnic group of people, or 'culture' (cf. Childe 1929). Accordingly, this

phenomenon was regionally called 'Single Grave culture' (Danish: '*Enkeltgravskultur*'; German: '*Einzelgrabkultur*'; Dutch: '*Enkelgraf-cultuur*'), after the single burial in the grave, the 'Protruding Foot Beaker culture' (Dutch: '*Standvoetbekercultuur*') or 'Corded Ware culture' (German: '*Schnurkeramik-kultur*'), after the type of ceramics in the grave, and the 'Battle/Boat Axe culture' (Danish: '*Bådøksekultur*'; Swedish: '*Stridsyxekultur / Båtyxkultur*'), after the shape of the stone axe in the grave (Beckerman 2015, 14; Larsson 2009, 59).

An important research agenda was the development of typochronologies of this material culture; the first was developed by Sophus Müller (1898), who divided the Danish Single Grave Period into three periods, based on the positions of the graves in the burial mounds of Jutland: the Underground Grave, the Ground Grave and the Overground Grave Periods. Later, Peter Vilhelm Glob (1945) expanded this typochronology by including battle axes and pottery (Ebbesen 2006, 149).

Due to the idea of the CWC as a bounded, uniform phenomenon, Glob's typochronology became the basis for many other regional typochronologies, which all started with Glob's early 'A-type' beaker and battle-axe, as well as the Strichbündel amphora; thus, an early, uniform 'A-horizon' was identified throughout all regions (Beckerman 2015, 17; Furholt 2014, 70-1; Schier 2014, 114). This was intertwined with the culture-historian mindset of these early archaeologists, by which the appearance of a new, widespread archaeological culture, recognizable by this 'A-horizon', was seen as 'revolutionary' and sudden, and thus as indicative of a new migrating group: the Indo-Europeans (Beckerman 2015, 13; Schier 2014, 114). These migrants were seen as militarist, pastoralist nomads, who brought the mother-language of all later Indo-European languages, and the horse and wheel, into Europe (e.g. Anthony 2007; Childe 1929; Gimbutas 1956). The origin area of these migrants was strongly debated; the supporters of the A-horizon regarded Eastern Europe as origin area, whereas others suggested Scandinavia or Central Germany as origin (Beckerman 2015, 17; Schier 2014, 114).

3.1.2 Revised CW chronologies

The explanation of cultural change by migration was heavily criticized by the proponents of New Archaeology in the 1960s and 1970s (e.g. Binford 1962, 218; Clarke 1973, 10); the appearance of the CWC was instead explained through

acculturation, thus by internal cultural change and the diffusion of cultural traits, and, hence, a development from older cultures (Beckerman 2015, 16; e.g. Lanting and Van der Waals 1976). In this period, research was thus focused on supra-regional aspects of the CWC while the idea of an A-horizon was rejected, because these objects rarely co-occurred throughout the whole CW area (Beckerman 2015, 16-7; e.g. Malmer 1962). Yet others remained in favour of the migration hypothesis, albeit a more nuanced version with different forms of mobility, and now interpreted the spread of the CWC in the light of climate change (Beckerman 2015, 19; Furholt 2014, 71; e.g. Glob 1969; Kristiansen 1989).

Despite the change in paradigm, chronology continued to be an important research agenda; yet the emphasis was now placed on absolute dating methods, due to the development of radiocarbon dating (Beckerman 2015, 13-4, 19). While the older typochronologies were revised in The Netherlands (Lanting and Van der Waals 1976, see Drenth 2005, 347-9; Drenth and Lanting 1991, 42-6) and central Germany (Fischer 1958; Furholt 2014, 71), this however did not happen in other regional typochronologies; these could thus be in opposition, with different start and end dates in different regions, and most typochronologies still embedded the old migrationist hypothesis (Furholt 2014, 70-1).

Moreover, the absolute dating methods are – still – not without problems for the CW period; this period coincides with broad 'wiggles' and plateaus in the radiocarbon calibration curve, particularly those of 2880-2580 cal BCE and 2460-2200 cal BCE. These plateaus correspond exactly to the presumed begin and end dates of the CWC (Furholt 2003, 15-6). Other problems are the precision of the radiocarbon date, which is determined by the standard deviation of the date, as well as other technical problems with the sample, and theoretical problems such as the 'reservoir effect' in individuals with a diet consisting of (shell)fish, an uncertainty of association between the date and the archaeological material, and the use of old wood (Beckerman 2015, 154-5; Bourgeois 2013, 26-8). Further refinement through dendrochronology has only been applied in Switzerland; for other regions, there is a lack of dendrochronological dates (Beckerman 2015, 14, 19). Thus, relative chronology is often still used and sometimes even supersedes absolute dates (Bourgeois 2013, 25).

3.1.3 The nature of the CW society

From the 1980s onwards, scholars argued that both migration and diffusion led to the spread of the CWC (Beckerman 2015, 16; e.g. Kristiansen 1989; Shennan 1986). In these interpretations, the appearance of the CWC is explained by an increase in mobility, driven by marital necessities, leading to social and material culture change. Such an increase in mobility has been supported by the stable isotope studies of the 2000s and 2010s, revealing that mobility of individuals or small groups were common in this period, as well as in prehistory as a whole (Beckerman 2015, 16; e.g. Haak *et al.* 2008).

Some archaeologists continued to emphasize the migrationist stance and thus the revolutionary nature of the CWC, in which material culture, economy and social organisation changed radically through the rise of elites and martiality (Anthony and Ringe 2015; Beckerman 2015, 14, 24-5; Kristiansen 1989). A famous example is the feminist model posed by Marija Gimbutas in the 1980s and 1990s: patriarchal, militaristic 'Kurgan' pastoralists from the Russian steppes invading into and conquering a formerly peaceful, matriarchal 'Neolithic Old Europe', in three waves of migrations (Chapman 1994; Kästner *et al.* 1994, 279-80; Ruether 2005, 25-9).

More nuanced interpretations emphasized ideology and the development of a new type of personhood; the burial of single individuals under monumental barrows is thus considered as the development of the individual and social inequality, in contrast to the preceding communal tombs with fragmented bodies (see **3.2**; Beckerman 2015, 24; Bourgeois 2013, 12; Brück 2019; Harris *et al.* 2013; Robb and Harris 2018; Vandkilde 2007). Additionally, from the second half of the 20th century onwards, there was more interest in the nature of CW society and thus an increase in settlement research (see **3.1.5**; Beckerman 2015, 13-4; Nobles 2016, 17).

Yet other archaeologists criticized the migrationist stance as well as the uniform nature of the CWC. Indeed, even the term 'culture' was often replaced by 'complex' or 'phenomenon', and it was debated what the material culture of the CWC actually represented: an ethnic or linguistic group, an ideology, etc. (Beckerman 2015, 14; Furholt 2014, 68-9; Schier 2014, 114). Instead of cultural uniformity, and specifically the A-horizon, the regional variability of the CWC was emphasized, regarding the CWC not as one homogenous 'culture' or 'ethnicity', but as a 'mosaic' of particular novel elements that were adopted differently across different regions and that originated

from different regions, spread through supra-regional networks. In such a view, the CWC represented both shared traits and specifically regional local traits, and local experimentations were possible (Beckerman 2015, 27-8; Furholt 2014; Harris *et al.* 2013, 83-6, 91; Iversen 2014, 181-95; Iversen 2016; Larsson 2009, 60).

3.1.4 Recent trends in CW research: scientific methods

The post-processual, relativist perspective shifted again in 2015, when two notable papers were published in *Nature*; new findings from ancient DNA (aDNA) showed that large-scale migrations had taken place in the third millennium BCE, causing an extensive genetic turnover, from the Pontic Caspian steppe into Europe and Asia (Allentoft *et al.* 2015; Haak *et al.* 2015). Later aDNA studies added that these migrants were mostly male (Goldberg *et al.* 2017), and that they may have carried the plague with them (Andrades Valtueña *et al.* 2017; Rasmussen *et al.* 2015) as well as that they may have been violent (Schroeder *et al.* 2019), which could have facilitated the ultimately genetic dominance of this incoming DNA. Reich (2018) adds to this narrative that the genetic evidence reflects the reproductive success of just a few (elite) men, whose descendants were similarly successful (Reich 2018, 237-41).

This genetic turnover has been associated linguistically with the spread of Indo European languages, and archaeologically with the 'Yamnaya' culture as the origin of the migrants, and the CWC as the result of the interaction between these migrants and the native population of Europe, with a homogenous Middle Bronze Age as the ultimate end-result (**Fig. 3.1**; Anthony and Ringe 2015; Iversen and Kroonen 2017; Kristiansen *et al.* 2017). Moreover, stable isotope studies indicated that there may have been a system of female exogamy (see **3.2**; Knipper *et al.* 2017; Sjögren *et al.* 2017). All these recent findings have led to a grand narrative of male Indo-European youth warrior bands, coming into Europe and taking the native women as their wives, and establishing a male-dominant CWC (Kristiansen *et al.* 2017, 342).

Thus, the migrationist stance is clearly resuscitated and part of the consensus of the third millennium BCE (see also Olalde *et al.* 2018: later migrations associated with the Bell Beaker culture), although not without criticism; the current interpretations make use of the same kind of logic and terminology as during the cultural-historical paradigm, the genetic and linguistic evidence is flawed and the archaeological record shows more variability and continuity with preceding periods than this uniformist

narrative (Burmeister 2016; Heyd 2017; Furholt 2018; Iversen 2014; Klejn *et al.* 2017; Vander Linde 2016; see **1.2.1** for an overview of my own criticism). Considering that this topic is highly debated, and that aDNA research is being conducted more and more often and even on a smaller scale (i.e. kinship within cemeteries), it is expected that the current narrative will become more nuanced as the genetic data becomes better integrated with the variability in the archaeological record (**Fig. 3.2;** Burmeister 2016; Heyd 2017; Johannsen *et al.* 2017; Furholt 2018; Klejn *et al.* 2017; Vander Linde 2016).

Other recent studies about the CWC include the network- and similarity analysis of Bourgeois and Kroon (2017), who were able to differentiate between a supra-regional identity and regional identities in a large amount of CW burials throughout Europe (see **3.2**).

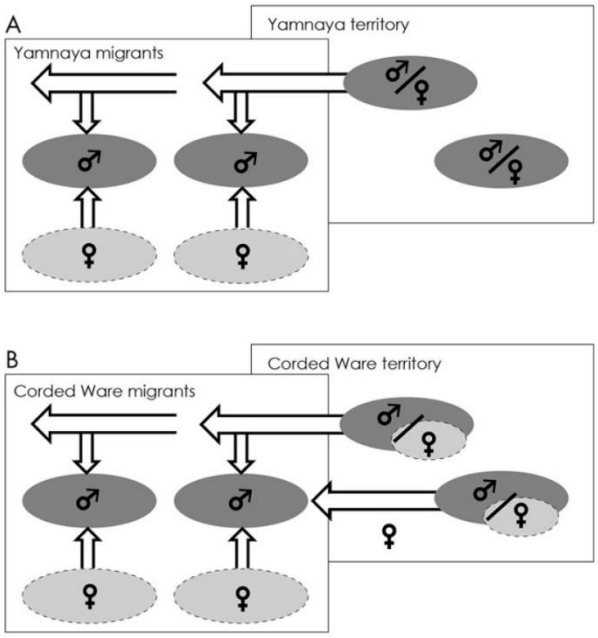

Figure 3.1 – The model posed by Kristiansen *et al.* (2017), in which incoming male Yamnaya migrants practice exogamy with the 'native' women in Europe, thus creating a heterogeneous Corded Ware culture, which still is characterized by female exogamy (Kristiansen *et al.* 2017, 341, fig. 1).

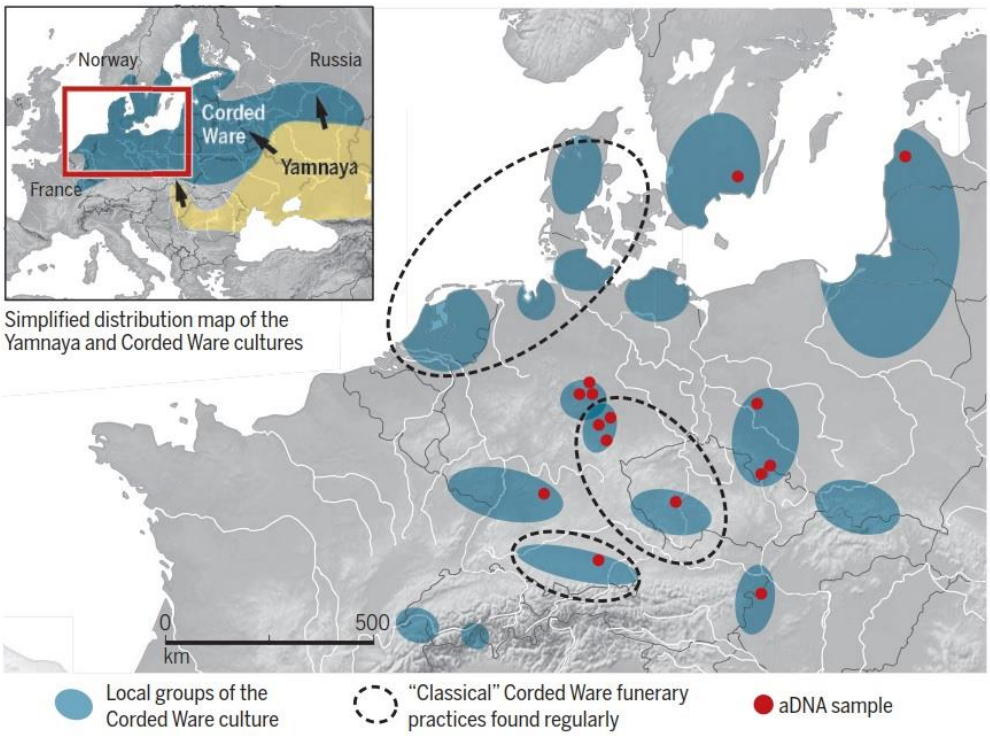

Figure 3.2 – The current stance of aDNA research into the CWC, mapped together with the CW distribution area (Johannsen *et al.* 2017, 1120). Here, the CWC is seen as both a supra-regional archaeological phenomenon with genetic affinity to the Yamnaya culture (small map), and as the regional expression of local groups (large map, blue ovals). The map also shows the location of the (actually rather few) sampled burials for aDNA (red points; as of the time of publication), as well as the areas with the more typical CWC mortuary practices (dotted ovals).

3.1.5 Lacunae in CW research: settlements

As becomes apparent from the above overview of the CW research history, an issue with research into the CWC is that inferences are made about CW society and ideology from mainly the funerary context, even though burials cannot give a full picture of the daily life of people (Beckerman 2015, 20; Nobles 2016, 16-7). Indeed, CW settlements are largely unknown; settlement sites have only been preserved and excavated in parts of Switzerland, The Netherlands, Germany, Bohemia, North-Poland, Denmark and Finland (Beckerman 2015, 22; Turek 1997; Schultrich 2018, 53). The best-preserved settlements are thus from the 'periphery' of the CW area: Swiss lake-side post-dwellings and thick cultural layers from the Dutch wetlands and Jutland (Nobles 2016, 17; Schultrich 2018, 53-4).

Meanwhile, in Central Europe and regions with sandy soils and thus poor preservation (e.g. eastern The Netherlands), the few known settlements are characterized by few subterranean features and a lack of postholes; often, these

settlements are recognized as surface finds of 'settlement ceramics', i.e. storage vessels (Arnoldussen and Scheele 2012, 159; Turek 1997). More recently, single finds of battle-axes, which in the past have often been taken as indicating disturbed burials, are also taken into account, as the lake-side settlement Yverdon in Switzerland has yielded over 250 battle-axes in different stages of manufacture (Turek 2011, 392).

Despite the existence of well-preserved settlement sites, the lack of clear dwelling structures or even complete absence of settlements in the 'core' CW area is often taken as indicative for CW society (Nobles 2016, 17). This has prompted the interpretation that the CWC entailed a different way of living as opposed to previous periods: a decrease in settlement size and social groups (e.g. nuclear families living in hamlets or farmsteads), and short-lived occupation, related to pastoral nomadism and use of the wagon, thus explaining the 'poor construction methods' (Beckerman 2015, 22; Nobles 2016, 17; Turek 1997, 233). Nobles (2016) however argues that both the size of a settlement and the sturdiness of structures does not directly reflect permanence (Nobles 2016, 306). Turek (2011) suggests that the reason for the lack of subterranean features may be related to ideology rather than economy; perhaps there were social norms discouraging digging into the ground other than for burials (Turek 2011, 392).

Unfortunately, the well-preserved settlement sites are not abundant enough in order to shed more light upon the supra-regional CW society, and have interpretative problems of their own. Indeed, settlements from different regions – not surprisingly – show subsistence strategies specific to the regional environment, and the well-preserved Swiss post-dwellings in particular seem very specific and show little difference from the preceding periods (Beckerman 2015, 22). Moreover, in Switzerland there are no known CW burials, which prompts the question whether these lakeside settlements are purely a habitual use of CW material culture (Furholt 2014, 81).

The coastal settlements from The Netherlands, Denmark and Northern Germany also remain difficult to interpret; these settlements are dispersedly spread throughout the landscape and characterized by palimpsest cultural layers and a plethora of posts, from which it is difficult to reconstruct house plans and other domestic structures (Nobles 2016, 302-4; Schultrich 2018, 53-4). While spatial analysis yields information about the activities taking place on the micro-scale level

of the settlement itself, there is still a lack of comparability between the three Dutch coastal sites analysed by Nobles (2016), let alone compared to settlements from other regions (Nobles 2016, 306-9).

In sum, the settlement context is widely underrepresented in CW research, due to the highly variable and often ambiguous archaeological record. The funerary context is thus more typically used to infer CW society and ideology, despite its own problems; scholars differ in opinion about how daily life can be inferred from burials (see **2.4**; Beckerman 2015, 23). Except for the ideas about the CWC reflecting the development of a stratified society with individuality, binary gender and martial values, much is still unknown about the CW social organisation, subsistence, economy, technology, and ideology, due in part to the underrepresentation of settlements (Beckerman 2015, 14, 20-5). This revives the question posed in **3.1.3**, about what the CWC actually represents: was the CWC in fact simply a 'mortuary package', i.e. a way of burying the dead?

3.2 Binary gender symbolism and male dominance?

Despite the shifts in paradigms in the research history of the CWC, as described in the sections of **3.1**, one particular interpretation has remained constant throughout the century of research into this period: the idea of a strict binary gender division. In fact, the third millennium BCE is considered to be a transition period, after which a binary gender system, directly related to biological sex, was established during the European Bronze Age (c. 2000-1200 BCE) (Robb and Harris 2018). The single burials of the third millennium BCE are considered to be the first to emphasize the personal identity of the deceased, through a consistent treatment of the body and a standard set of grave goods: drinking vessels, ornaments, and weapons. This is seen as a marked change from the Neolithic, in which bodies were represented in highly variable ways across different contexts (e.g. burials, imagery), thus implying a more 'contextual' gender (Robb and Harris 2018). This construction of a personal identity of the deceased continued during the Bronze Age, amplified by the social and political changes accompanying the so-called 'Bronzization', and is considered to be related to the emergence of the individual, a binary gender system, and social inequality (Harris *et al.* 2013, 70-1, 78, 93; Vandkilde 2016).

3.2.1 The reasoning behind a CW binary gender symbolism

The notion of binary gender in the CWC is based on the apparent dichotomy between right-lying burials and left-lying burials and their accompanying grave goods, in particular the 'battle-axe', which typically occurs in right-lying burials and is interpreted as a symbol of masculinity and warriorhood (see **3.3**; Bourgeois and Kroon 2017). Thus, right-lying burials are considered to be 'male', and left-lying burials are considered to be 'female', even in the absence of skeletal remains or if these remains are not preserved well enough for an osteological (or genetic) sex determination; the sex is simply assumed by the position, and/or the presence of a certain grave good (a battle-axe, or jewellery), even though there are known exceptions to the rule (Larsson 2009, 61). Other objects do not have a gendered meaning: the typical beakers with cord decorations occur in both male and female burials (Beckerman 2015, 23-4), and flint flakes and scrapers may have been used as part of the mortuary rites (cf. Brück 2019, for the BBC). An overrepresentation of 'male' burials (or, perhaps more accurately, battle-axes) is then taken as an indication for a male-dominant society (e.g. Kristiansen *et al*. 2017).

It is however crucial to realize that such an inference from burial evidence is rather outdated; in earlier archaeological theory, burials were seen as a direct reflection of the social status and identity of the deceased. Current, practice-based approaches emphasise the mortuary rituals behind a burial, and particularly how these construct and negotiate social relationships and identities (see also **2.4**; Chesson 2001, 2, Ekengren 2013, 174-80, Fogelin 2007, 64). Yet CW burials are still commonly interpreted as a direct representation of the deceased, and specifically in terms of power, ideology, and binary gender; a select, powerful few had the privilege of being buried beneath a barrow, which was constructed as an important and visible monument in the landscape (see Bourgeois 2013), and these were mostly men, who were buried according to an ideal warrior identity (see Kristiansen *et al.* 2017). As stated above, the latter interpretation is based on the presence of a battle-axe in 'male' graves (even in the absence of skeletal remains; see Larsson 2009, 61), which assumes that weapons equate male burials. This paradigmatic identification of weapons (and jewellery) with gender directly reflects the androcentric (and ethnocentric) assumptions of the early archaeologists of the nineteenth century (see also **2.4.1**; Hjørungdal 1994; Sørensen 2000, 27). The warrior identity narrative is

also constructed by analogy with later periods: the warrior narrative of the European Bronze Age (Robb and Harris 2018, 130-3), which is not without its problems either (see Brück and Fontijn 2013; see **3.3**), and Indo-European mythology, i.e. a reconstruction from later texts (Anthony and Ringe 2015, 213).

3.2.2 Recent studies about CW gender

Unfortunately, the narrative of uniformity, ideology, and power has rarely undergone critical review in the light of new data or current interpretative frameworks. Examples of the former, by which this critical review could take place, are the variability of the CW mortuary rites throughout the regions (see Furholt 2014), the occurrence of battle-axes in other contexts in addition to burials (see Iversen 2016, 164), and exceptions to the binary pattern (e.g. Falvey 2011). Yet while literature about these subjects exists, this data has not been taken as a critical review of the binary gender narrative.

Intriguingly, current archaeological theories that emphasize contextual, fluid, and/or practice-based interpretations, have been applied to other periods in European late prehistory, most notably the Bronze Age, but not for the CW period, and even rarely to the Neolithic as a whole. According to Robb and Harris (2018), this is related to the fact that we recognize our own binary gender system in the Bronze Age, whereas Neolithic gender is fundamentally different; gendered distinctions vary across different contexts and in different Neolithic societies. This 'contextual gender' was gradually replaced by a straightforward, binary gender symbolism during the transitional period of the third millennium BCE (Robb and Harris 2018, 132-3, 138). While Robb and Harris give an interesting reinterpretation of Neolithic gender, they do not do so for the CWC. In other scholarship, it is apparently deemed sufficient to give a critical side-note, stating for example that there are exceptions and that skeletal remains are often not preserved well enough for a biological sex determination in this period, before regressing to the same consensus (e.g. Bourgeois and Kroon 2017; Larsson 2009, 61; Vandkilde 2007, 70-1).

One example, however, of a critical review of CWC gender, is the paper by Turek (2017). Taking the ethnographic example of the Mohave as an example (see **2.2**), Turek (2017) warns about projecting our modern Western ideas about gender, based on biological sex and rooted in Christianity, onto the past (Turek 2017, 353-6). Yet

Turek does maintain the binary narrative for the CWC (as well as the later Bell Beaker culture, in which the gendered positions are exactly mirrored) regarding gendered positions and artefacts; the only side-note being that gendered artefacts may relate to the mourners, and not the deceased, and that elderly men may have switched their gender to a 'female' gender (Turek 2017, 343-4, 352-3).

Lastly, a noteworthy recent study that will be referred to throughout the remainder of this thesis, is the large-scale network-based similarity analysis on 1161 CW burials throughout Europe (Bourgeois and Kroon 2017). With this analysis, Bourgeois and Kroon (2017) confirmed that CW communities not only had shared norms about which objects should accompany a deceased person, but also about how these objects should be positioned in relation to the body. Indeed, right-flexed ('male') burials typically contained battle-axes and were more supra-regionally uniform, whereas left-flexed ('female') burials showed more regional variability. This suggests that right-flexed ('male') burials were buried in a supra-regional style and that left-flexed ('female') burials were buried in regional style. Regardless of whether right-flexed burials indeed had a 'male' gender identity and left-flexed burials had a 'female' gender identity, this analysis does verify that there were at least two, and possibly even three different social identities portrayed in the treatment of the dead; there may have been two distinct (supra-regional) ways in which a right-flexed deceased was buried, as the analysis found that pottery and battle-axes rarely co-occurred (Bourgeois and Kroon 2017, 6).

Throughout the article, Bourgeois and Kroon consistently refer to 'right-flexed' and 'left-flexed' burials, but in the conclusion their findings are given a gendered interpretation that conforms to the grand narrative. An interesting new perspective is however that information about 'male' burial rites seem to have been shared supra-regionally, between different CW communities, whereas 'female' burial rituals emphasise a more regional exchange of ideas (Bourgeois and Kroon 2017, 13-4). This however contradicts the findings from recent stable isotope analyses of burials Southern Germany, showing that CW women were more mobile than men and that there may have been a system of female exogamy and patrilocality, i.e. women moving to their 'husbands' families (Bourgeois 2017, 15; Knipper *et al.* 2017; Sjögren *et al.* 2017). While the grand narrative has incorporated this as a good tactic for migrating men to maintain their lineage (Kristiansen *et al.* 2017, 339; Sjögren *et al.* 2017, 27),

the origin area of these women could not be determined; there is still the possibility that the women originated from the Pontic-Caspian steppe (Sjögren *et al.* 2017, 20-1). Women may thus have played a larger role in the cultural transmission of the CWC than suggested in the grand narrative. Moreover, in analogy with the Victorian English example in **2.4.1**, I would like to pose a suggestion: perhaps the CW male graves were more 'fashionable' and according to supra-regional social norms than female graves, because of the female agents deciding about the burial of their deceased partner or father (cf. Cannon 2005, 43-51); due to the higher mobility of these women, they may have been more aware of supra-regional norms than their male counterparts.

Indeed, as stated before, the idea of 'male dominance' in the grand narrative seems to be largely based on modern, androcentric ideas about 'male' 'warriorhood', loosely rooted in historical/mythological (i.e. the 'Indo-European warrior youth band') and archaeological evidence. Yet the above alternative interpretation of the same archaeological evidence is similarly rooted in modern ideas, except now from a feminist perspective and in analogy with another particular historical period. As argued in Chapter 2, we must be careful about projecting our own ideas about gender, onto the CWC. In conclusion, more research is necessary in order to determine how these supra-regional and regional identities relate to gender and how these identities were influenced by both incoming cultural ideas and a continuation of earlier cultural practices.

Figure 3.3 – Battle-axes from the National Museum of Denmark, of Glob type A, B, C, G, I, K and L (Iversen 2014, 55, fig. 4.18).

3.3 The battle-axe as a symbol of masculinity

An essential element of the narrative about CW gender revolves around one particular aspect of CW material culture: the battle-axe (**Fig. 3.3**). As explained before, this object is a stone axe, generally considered to be a weapon, which occurs in ('male') burials throughout the CW area.

While the battle-axe is taken to be typical for the CWC, this object must be seen in the light of general developments during the European Prehistory. The earliest 'battle-axes', made of stone or antler, appeared in the fifth millennium BCE, in the context of the '*Linear Bandkeramik*' (LBK) culture in Central Europe and Hungary. These were partly used as tools, but also appeared in male graves, thus implying that these objects were used similarly to the later battle-axes of the CWC (Edenmo 2008, 23-4). From the fourth millennium BCE onwards, copper battle-axes were made in Southern Europe, which have a strikingly similar appearance to the later CW battle-axes, and stone battle-axes were made in Central and Northern Europe, which were

typically polygonal or 'many-sided' and later double-edged (Edenmo 2008, 24-5; Iversen 2015, 54). These TRB battle-axes were typically deposited in wetlands, and later in megalithic graves (Iversen 2015, 54). During the CW period, the number of battle-axes however increase substantially (Edenmo 2008, 18-9), and this object becomes part of the typical CW grave set. Accordingly, the CW battle-axe is interpreted differently than the TRB double-edged axe; the earlier axes are regarded as ceremonial objects rather than weapons, befitting the values of an agricultural society, whereas the impression of the CW battle-axes is that of a revolutionary object, interpreted in terms of martiality, masculinity and a stratified society (pers. comm. N. Johannsen 2018; exhibitions of Moesgård Museum, Aarhus, and the National Museum of Denmark, Copenhagen).

3.3.1 Function and symbolism of battle-axes

The first typology of CW battle-axes was developed in Denmark; Sophus Müller (1898), and later Glob (1945), established a typochronology of battle-axes based on the logic that simple forms must have been older than elaborate forms, and this typochronology would be the basis for later typologies of battle-axes in other regions (e.g. Drenth 2005, 348; Furholt 2014, 71-2).

The shape of the object, and association with ('male') burials, has prompted the interpretation that the 'battle-axe' is a weapon, thus explaining its name. Scholars however disagree whether the object was an actual weapon (e.g. Ebbesen 2006; Schultrich 2018), or a symbolic weapon (e.g. Hübner 2005; Vandkilde 2007, 65-90). Numerous burials with skull fractures (e.g. Eulau) have been found, which could indeed indicate the use of battle-axes as weapons (Meyer *et al.* 2009; Schultrich 2018, 196-7). Yet the main arguments for the battle-axe as a symbolic object are that there are some very elaborate shapes and decorated objects (e.g. a copper example from Lužice), that the shaft hole is often very small, and that some battle-axes are made of soft rock (Edenmo 2008, 19-20; Malmer 2002, 155; Turek 2011, 391-2). Whether it was a weapon or a symbol, or both, the consensus is that the battle-axe was associated with CW men; either as the property of men, as head of the family (Ebbesen 2006; Hübner 2015; Schultrich 2018), or as a symbol of masculinity (Harris *et al.* 2013) or warriorhood (Vandkilde 2007, 65-90). While some associate battle-axes with prestige and elite competition (Edenmo 2008; Vandkilde 2007, 65-90), others argues that

these objects were trivialized, and everyman's property ('*hverdsmandseje*') (Andresen 2015, 215).

The main aspect of weaponry as masculine and martial symbols is considered to be the actual wearing of the weapons, as a type of bodily ornament related directly to the personal life course of a man as well as the cultural biographies of the objects themselves (**Fig. 3.4**). Being a type of male 'jewellery', these weapons are highly symbolic, expressing readiness to fight in certain social settings; any actual fighting would most likely have been close-range (as also indicated by the dagger and the later development of short swords) and thus ceremonial: i.e. only appropriate in certain, highly structured settings, and meant as a display of courage (Harris *et al.* 2013, 77; Turek 2011, 391-4).

While many studies discuss what the battle-axe signified, most of these are concerned with typology and not as much with use-wear (e.g. Ebbesen 2006; Edenmo 2008; Hübner 2005; Schultrich 2018). Fortunately, a recent study on the life course of Beaker grave goods, thus including the CW battle-axe, has been conducted (Wentink *in press*). This study entailed use-wear analysis of battle-axes from The Netherlands as well as experimental research; most Dutch battle-axes are heavily worn, particularly the cutting edges and shaft holes, and have often been resharpened multiple times; the use-wear is very distinct and indicates that these objects had been used in a chopping motion (Wentink *in press*., 115-6). These traces of wear have also been found on Danish battle-axes (Ebbesen 2006; Hübner 2005), and on TRB battle-axes (Wentink *in press*., 115-7). The experiments with replica battle-axes resulted in a better understanding of the use of the object as well as the typical wear on the cutting edge; while battle-axes would have been an effective and lethal weapon, this would not be more so than other stone or flint axes, and the wear traces did not match the archaeological objects (Wentink *in press*, 120-1). The battle-axe turned out to be very unsuited for chopping and splitting wood (contra Ebbesen 2006, 49). Instead, the design and shafting of the battle-axe suited the task of uprooting trees perfectly, and the resulting wear traces matched the archaeological objects (Wentink *in press*, 121-5).

While this is quite a different interpretation than the consensus about the battle-axe, a purely functional or economic reading of the object would not be correct either. Wentink places this function of the object in the context of the opening of the

landscape in the 3rd millennium BCE, which has been well-documented through pollen analyses of barrow landscapes (Doorenbosch 2013), and which would have been economic (agricultural fields) as well as social-ideological (wheeled transport increasing the mobility of people and exchange of objects) (Wentink *in press*, 125-6). Thus, while the use of the battle-axe as a (symbolic) weapon cannot be fully excluded, the core value of this object as part of the larger CW grave set may have been social connectivity within and beyond the community, rather than martiality (Wentink *in press*, 125-6, 229-32).

The same holds true for another 'male' object, which is a later development in the CWC: the Grand Pressigny flint dagger, which is also considered to be a weapon (Harris *et al.* 2013, 73). However, this 'dagger' would have been too fragile for stabbing people, and use-wear analysis has shown that these objects were used as agricultural harvesting tools in France (their origin area) and Switzerland. In other regions, these objects likely were items of display, as the wear traces on Dutch examples indicated the repeated pulling in and out of a sheath, but no use of the objects (Van Gijn 2010, 147-8; Wentink *in press*., 94-101).

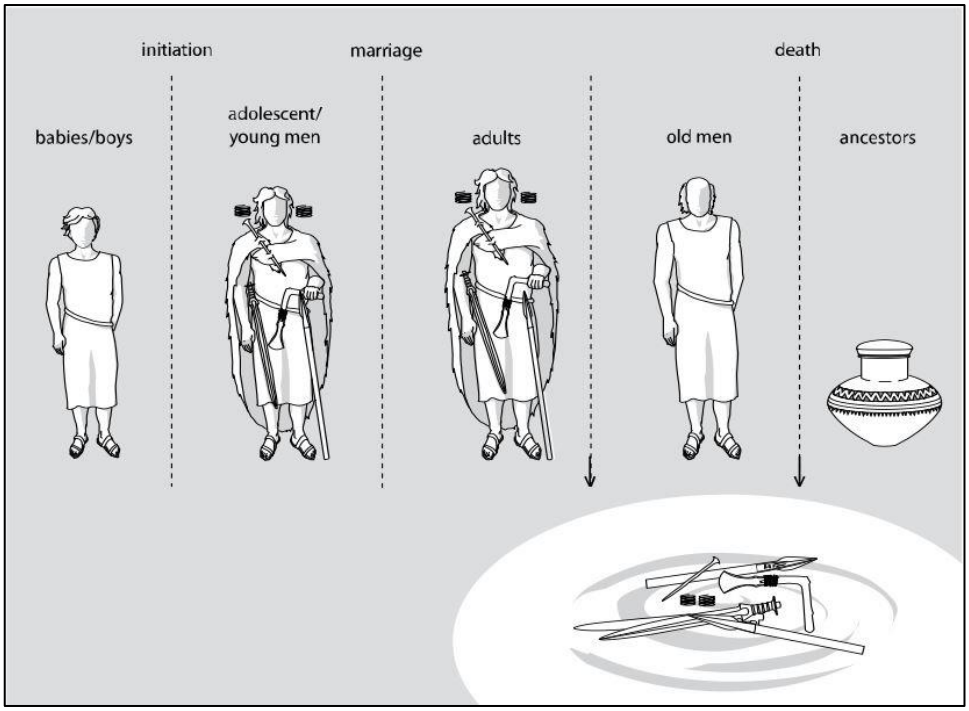

Figure 3.4 – The (hypothetical) life-course of a Bronze Age man, in which weapons and body adornments were used to display a certain stage in life (Fontijn 2002, 231, Fig. 11.3); at the transition to a new stage of personhood (e.g. becoming an old man, death), these objects had to be treated in a particular way (e.g. deposited in wetlands).

3.3.2 Symbols of femininity

Despite much speculation about battle-axes and Grand Pressigny daggers as symbols of masculinity, there is less mention of CW symbols of femininity. The main assumption is that bodily ornaments are female, and even that weapons are 'male jewellery' (Harris *et al.* 2013, 77). Grave goods commonly considered to be 'female' are certain types of pottery (jugs, ovoid pottery), as well as ornaments: necklaces and hair ornaments of amber beads, shells, animal teeth, and copper spirals (Beckerman 2015, 23; Ebbesen 2006, 223; Turek and Černý 2001, 605; Vandkilde 2007, 67). Only one category of ornaments is typically associated with men: pairs of amber discs (Beckerman 2015, 23; Ebbesen 2006, 223).

The typical CW beakers occur with burials of both sexes and are thus not considered to be a symbol of gender, perhaps even uniting different ranks through a symbol of shared identity (Beckerman 2015, 23). Moreover, beakers, particularly those of the BBC, may have been associated with alcohol consumption and thus social gathering and cohesion (Beckerman 2015, 26; Wentink *in press*, 78-83). Wentink (*in press*) even proposes that beakers were part of a supra-regionally recognized system of hospitality, befitting a society with an increase in mobility (Wentink *in press*, 239-47).

3.4 Selective deposition in the Corded Ware culture

Compared to the preceding periods, depositing valuables in the landscape, decreases significantly during the first half of the third millennium BCE (Fontijn 2019, 76-8). This particularly holds true for the copper artefacts that are well-known during the TRB period; there seems to have been a break in metal supply in this period, but also a change in depositional practices related to a stronger emphasis on burials (Klassen 2004; Visser *forthcoming*). It must be kept in mind that the standardized set of grave goods indicates that only a particular set of valuable objects was considered to be appropriate for constructing a *persona* in the grave; this also means that other objects were excluded (Fontijn 2019, 78).

Moreover, there are some examples of copper axes deposited in hoards, and of battle-axes in rivers, particularly the Main and the Rhine (Hansen 2012, 32-6). Generally few battle-axe hoards are known, but some single finds from wetlands may

perhaps be classified as intentionally deposited (Schultrich 2018, 43, 52). This seems to be the case particularly on the Danish isles, where battle-axes are more common as single depositions in wetlands and in megalithic graves, rather than in the typical CW single graves; Iversen (2016) argues that TRB depositional and burial practices continued here, but now also with CW artefacts (Iversen 2016).

On the other hand, flint axes often occur as hoards from wetlands, particularly in The Netherlands, Northern Germany and Denmark, and increasingly toward the end of the CW period. Intriguingly, these axes differ from those in burials; in The Netherlands, the axes show intensive traces of use and are made of local flint, whereas burials can also contain unused, exotic axes, while in Denmark deposited axes are larger than those in burials, and often unpolished (Visser *forthcoming*; Wentink *et al.* 2011, 404-6). Preforms for axes and chisels, and sometimes also for battle-axes, are also known from hoards, as well as hoards of flint flakes and blades (Ebbesen 2006, 232; Schultrich 2018, 51).

Lastly, in Jutland, Schleswig-Holstein and the Danish Isles, there are only a few known CW depositions of amber (beads and discs) and of pottery (Ebbesen 2006, 231-2; Schultrich 2018, 51-2). In sum, this seems to indicate that there were prevailing rules of selective deposition, particularly regarding which objects were allowed to be deposited in graves, but also, perhaps on a more regional level, which should be deposited in wetlands.

4 Practical methodology

After discussing the theoretical foundation of this thesis, I will now elaborate how I aim to bring these concepts into practice. As stated in Chapter 1, this research entails a database study of CW finds from different regions. The goal of this study is to test whether the CW mortuary rites indeed indicate a binary gender symbolism, and to discover whether and how gender is expressed through the selective deposition of 'gendered artefacts'. Therefore, a main concern is to include different contexts in this database analysis: not just graves under a barrow, but also flat-graves and reused megalithic graves, and not just the funerary context, but also depositional contexts. Moreover, even within the funerary context, it is important to not only include biologically sexed burials, but also emphasize age, and to take burials into account that have not or cannot be sexed. Lastly, not only burials with grave goods should be taken into account; also so-called 'empty' graves can perhaps further add to our understanding of CW gender.

4.1 Approaches

The theoretical concepts written about in Chapters 2 and 3 have been translated into practical approaches that can be employed through a database study. Following the limitations and potentials of an applied gender archaeology, as described extensively in Chapter 2, the two main theoretical yet applicable approaches in this thesis are intersectionality and practice-based mortuary archaeology, and material culture and selective deposition. Herein, I would like to place a qualitative and interpretative emphasis, rather than a purely quantitative and statistical analysis, even though there necessarily has to be some quantification in order to find patterns. These foci have been chosen specifically because gender is experiential and performative, personal and related to a person's life course, yet simultaneously structural and ingrained in all of society, and maintained and constantly renegotiated through practices and through material culture (Sofaer Derevenski 1997; Sofaer and Sørensen 2013; Sørensen 2000).

In the following paragraphs, I will describe these approaches further, referring to the theoretical discussion in Chapter 2. The exact application of these concepts, in a workable database, will be elaborated below (see **4.2**).

4.1.1 Mortuary archaeology, practice theory and intersectionality

The emphasis on practice and hermeneutics means that the whole burial structure and arrangements within and outside of the grave, have to be taken into account; the mortuary ritual is not simply the end-result, i.e. the burial that archaeologists excavate. Indeed, through a practice-based approach, the sequence of the mortuary ritual as well as the spatial arrangement of the burial and grave goods are emphasized, which can aid in finding normative practices and symbolic meaning (Berggren and Nilsson Stutz 2010; Ekengren 2013).

Due to the described problems with equating biological sex with gender, this thesis aims to emphasize the life course, throughout which gender can fluctuate. Thus, sex is not the only variable, but age is an important factor. Ideally, in the light of intersectionality, other variables are taken into account as well, such as social status and ethnicity. These two types are identity are however more difficult to extract from the archaeological record. The idea that a higher amount of grave goods equals a higher social status is highly biased from a capitalist point of view (Brück and Fontijn 2013). Meanwhile, it can perhaps be argued that all burials under barrows must have been of persons of high social status (Bourgeois 2013, 11). This however does not mean that burials in flat-graves (or reused megalithic graves) were of lesser social status (Bourgeois 2013, 11; Fontijn 2007). Ethnicity is a problematic concept in itself (see e.g. Curta 2014; Lucy 2005; Popa and Stoddart 2014); even though a person's origins can be traced through aDNA, cultural identity is not necessarily the same as genetic identity (Ion 2017, 188-9). Instead, kinship, which can also be traced through aDNA (e.g. Knipper *et al.* 2017), and provenance, which – although not unproblematically (e.g Thomsen and Andreasen 2019) – be traced through stable isotope analyses (e.g. Frei *et al.* 2017), would be a more nuanced way of looking into this type of identity. Moreover, in this study, sex and age, and if possible, other types of identity, are regarded in the light of the treatment of the deceased body in different funerary contexts, and not taken as separate, analytical entities.

4.1.2 The qualities of material culture

The described problems with equating grave goods with gender, and the *a priori* Western gendered interpretation of objects, have led to the current approach of not just taking the – what I call – 'engenderment' of objects into account, but also the 'embodiment' of objects: how do these objects relate to the human body? Moreover, this study places less emphasis on the typology and typochronology of objects, as this is a product of modern categorization (and, in particular, of culture-historian archaeologists) and accentuates evolutionary development rather than other reasons for stylistic variation (e.g. Hjørungdal 1994; Furholt 2014, 71). Instead, this thesis calls attention to the experience of the objects, insofar that we can approximate this experience: the colour and shine of an object, its provenance, its size, and its biography (manufacture, use, and discard). Lastly, as described above for burials, the treatment and arrangement of the object, and co-occurrence with other objects, in different contexts, is essential to this thesis.

4.1.3 Selective deposition and supra-regional comparison

As described throughout these paragraphs, the main focus of this thesis is the inclusion of different contexts, in order to find patterns in how CW gender was expressed: not just different funerary contexts, but also depositional contexts. Ideally, settlement data would be included in this as well; unfortunately, CW settlements are largely unknown, as described in **Chapter 3**. Moreover, the aim is to analyse the expression of gender in different regional CW cultures.

Thus, the core of this thesis lies within a multi-contextual and supra-regional perspective. In addition to – and admittedly, despite – the more qualitative perspectives described above, this requires a comparative approach; while gender is contextualised and qualitative, the idea is that it is expressed in patterned behaviour that (partly) can be traced archaeologically. An obstacle remains that the archaeological evidence differs enormously; due to the fragmentary nature of the archaeological record, as well as the often differing quality of the documentation of the evidence, reliable archaeological sources will be compared to less reliable ones. Regardless of preservation and documentation, there will also be 'normative' and non-normative, idiosyncratic sites. Therefore, to overcome these discrepancies, I have

included an evaluation of the reliability and uniqueness of the data, already during the collection phase of the research.

4.2 Database and data collection

In order to integrate all the above approaches in a workable analysis of archaeological data, I have created a database for this thesis in Microsoft Access (although inspired by earlier databases – see **Acknowledgements**).

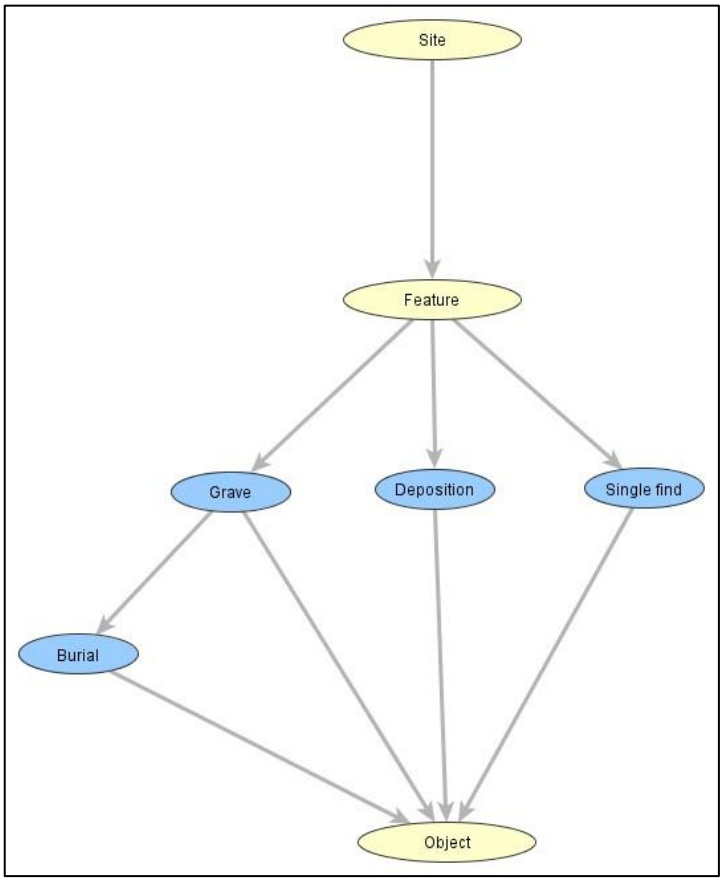

Figure 4.1 – Flow-chart of the database structure.

4.2.1 Database structure, variables and metadata

The database builds upon three 'levels' of interlinked tables (**Fig. 4.1**):

1. *Site*: this table contains information about the location of a site, including coordinates (as precise as possible, yet often at the level of municipality), possibly an image, and the consulted catalogue;

2. *Feature*: this table stores the contextual data of the site, including the find circumstances and arrangement with other sites. Depending on what type of feature the site is, further information is stored in one (or two) out of four next tables:
    2.1.1 *Grave*: if the feature is a grave, this table is filled out. Important variables are the grave type, reliability, preservation, and a variety of structural variables, and the reference of the source. There is room for an image of the grave, if this is available. Information about the date of the grave is stored in this table as well. Lastly, this table also includes the (minimum) number of burials, where a 'burial' is defined in terms of (traces of) skeletal remains of an individual, and (minimum) number of finds. If one or more burials are associated with this grave, the next table is filled out. If there are associated finds, table 3 is filled out;
    2.1.2 *Burial*: this table is directly related to the above table, and is only filled out in the case that (traces of) a deceased body has been found in the grave. An important variable is the preservation: a complete skeleton, skeletal remains, or a 'soil silhouette', i.e. a discolouration in the soil in the shape of a body or skeletal element. Other variables regard the arrangement of the burial, such as, most importantly, the body position (**Fig. 4.2**), which analyses have been conducted on the burial (e.g. physical anthropology, etc.), and their results (sex, age, etc.);
    2.2 *Deposition*: if the feature is a deposition (i.e. a buried object without a body or grave structure), this table is filled out. This table is very similar to that for graves (2.1). Particular variables for graves (e.g. barrow material, etc.) are left out, and a new variable is added: intentionality of human action;
    2.3 *Single find*: if the feature is a single find, this table is filled out. This table is exactly like the table for depositions (2.3), but excluding the variable "intentional", as intentionality is not presumed to be determinable for single finds;

3. *Object*: this table is specifically designed for storing information about the object(s) found at a feature, and is thus slightly larger than the other tables. Important variables are the object category, material, and variables regarding the condition of the object(s). Additional information is stored through spatial variables, such as the position of the object, and qualitative variables (e.g. embodiment) are included. Lastly, there is room for an image, the reference of the source must be included, as well as information about the current whereabouts of the object (e.g. in a museum, including inventory number).

These different tables are linked with each other, by unique identifiers: Site ID (created automatically in *1. Site*), Feat. ID (created automatically in *2. Feature*), Grave ID (*2.1.1 Grave*), Burial ID (*2.1.2 Burial*), Dep. ID (*2.2 Deposition*), SF ID (*2.3 Single find*) and Obj. ID (*3. Object*). While this seems complex, Site ID and Feat. ID are in fact the core IDs which underly the whole structure of the database; the other IDs only occur when relevant. The relationships between the tables are one-to-many; one site can have several features, and a feature can have several objects.

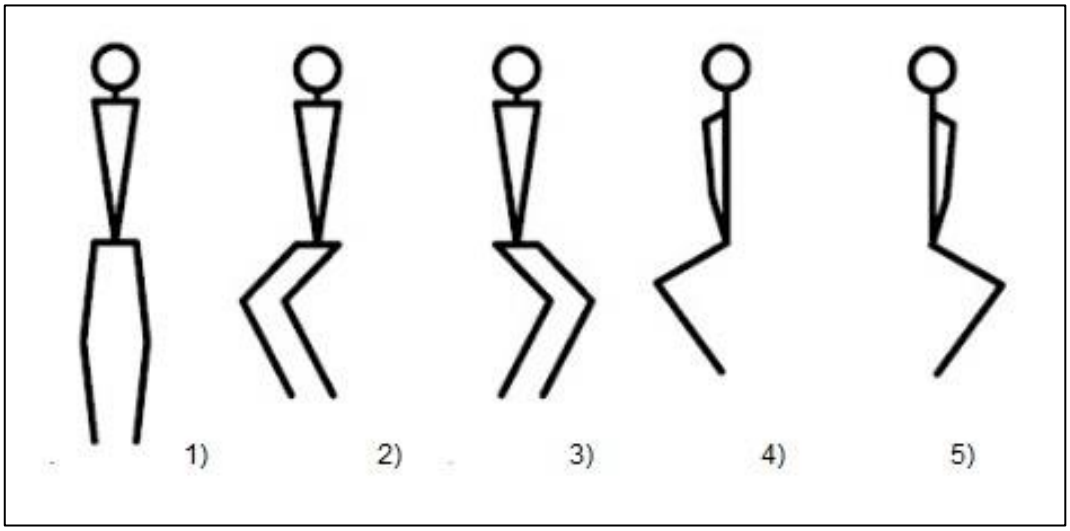

Figure 4.2 – The different body positions occurring in this thesis: 1) supine stretched ('*Rückenstrecker*'); 2) supine left-flexed ('*Rückenhocker*'); 3) supine right-flexed; 4) crouched left-flexed ('*Seitenhocker*'); and 5) crouched right-flexed (after Sternitzke 2017, 376, Abb. 14.08).

4.2.2 Data entry and source material

The data entry into the database proceeds through forms, which have a clear and straightforward lay-out (see **Fig. 4.3-7**). For most variables, pull-down menus have

been made, linked to 32 different reference tables which can be added to throughout the process of data entry (e.g. if a new type of object category is encountered).

The sources of the data consists of excavated sites that have already been analysed and published in catalogues; thus, I have not conducted any osteological determinations or material analyses themselves. Therefore, the inclusion of a reference is essential, as well as listing the consulted catalogues in the table *Bibliography*. During the entry of the data, as little as possible interpretation other than that of the original publication is included. The only exceptions are the variables "reliability", "exceptional", "gender of position", "embodiment" and "engenderment", which are explicitly my own interpretations. These categories, particularly regarding gender, are intended as a practical way of including a check in the database, and **not** as a conclusive and irrefutable category. All tables contain the field "notes" for additional information; if I find something unclear or disagree with the original publication, it is described here.

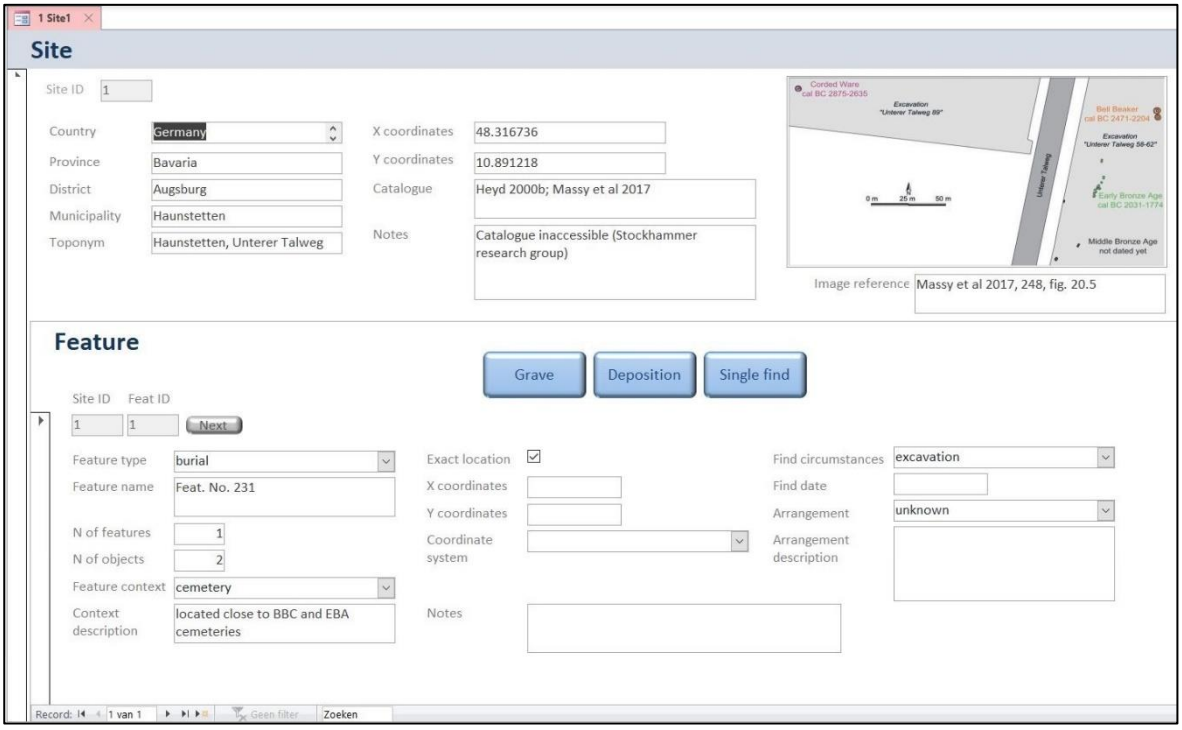

Figure 4.3 – An example record in the combined form of tables *1. Site* and *2. Feature*.

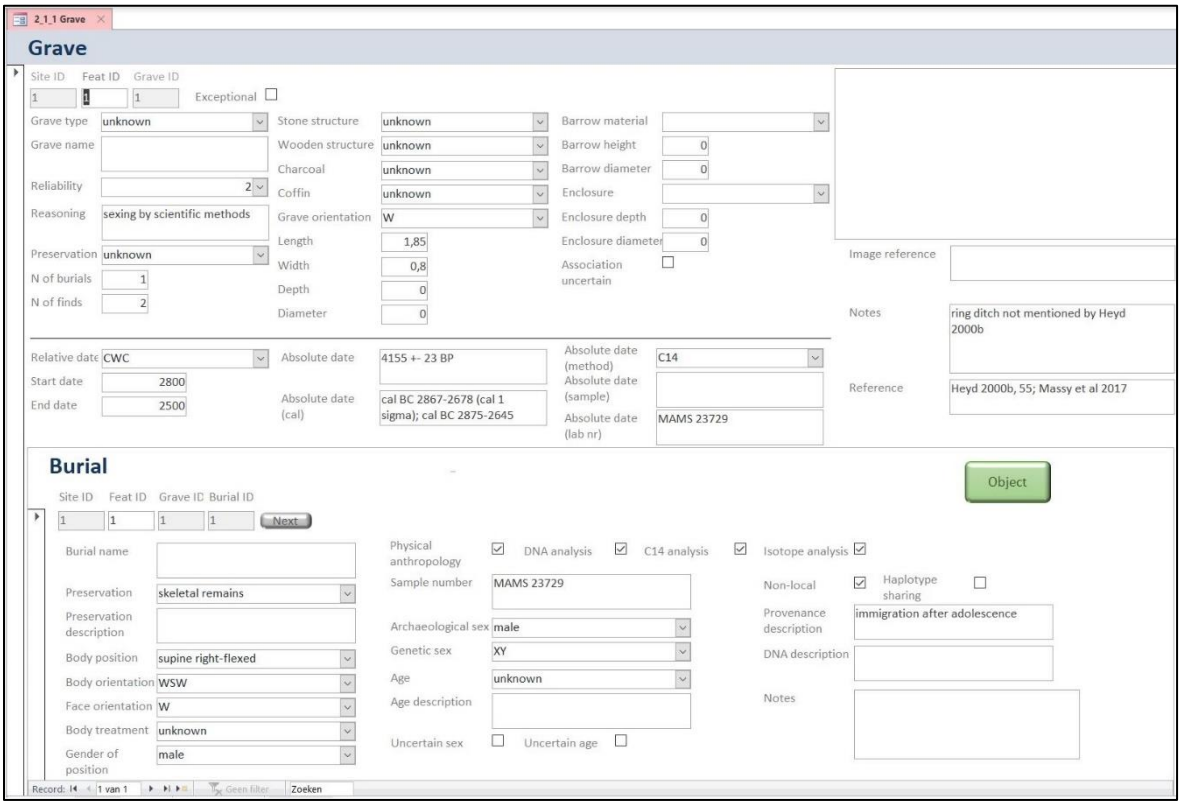

Figure 4.5 – An example record in the combined form of tables *2.1.1 Grave* and *2.1.2 Burial*.

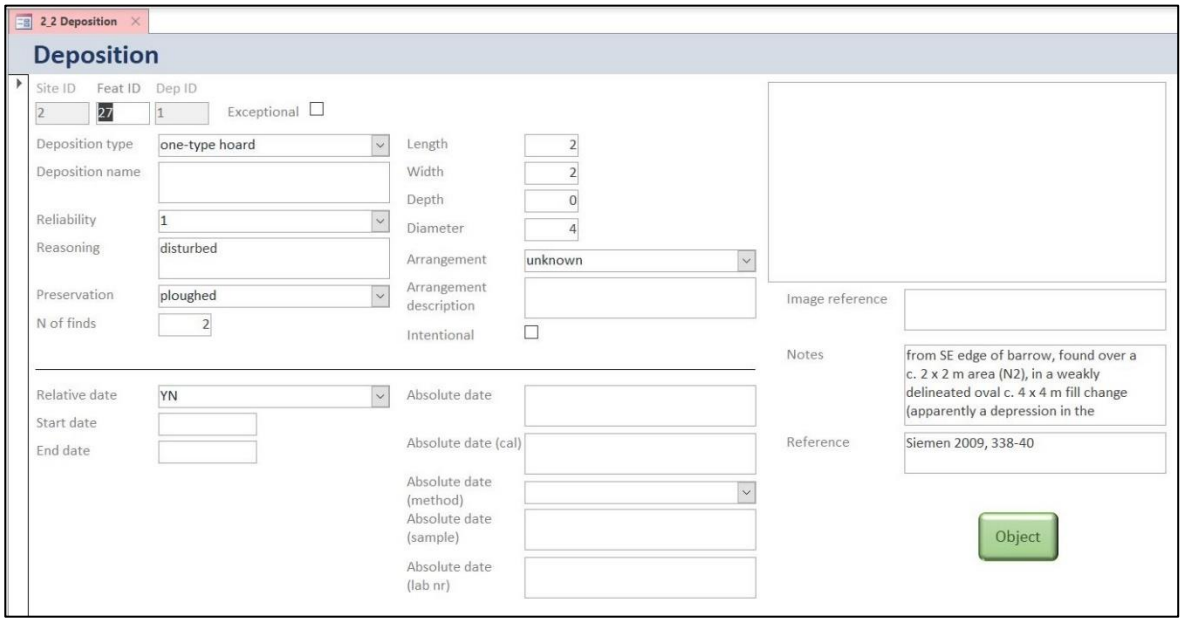

Figure 4.4 – An example record in the form of table *2.2 Deposition*.

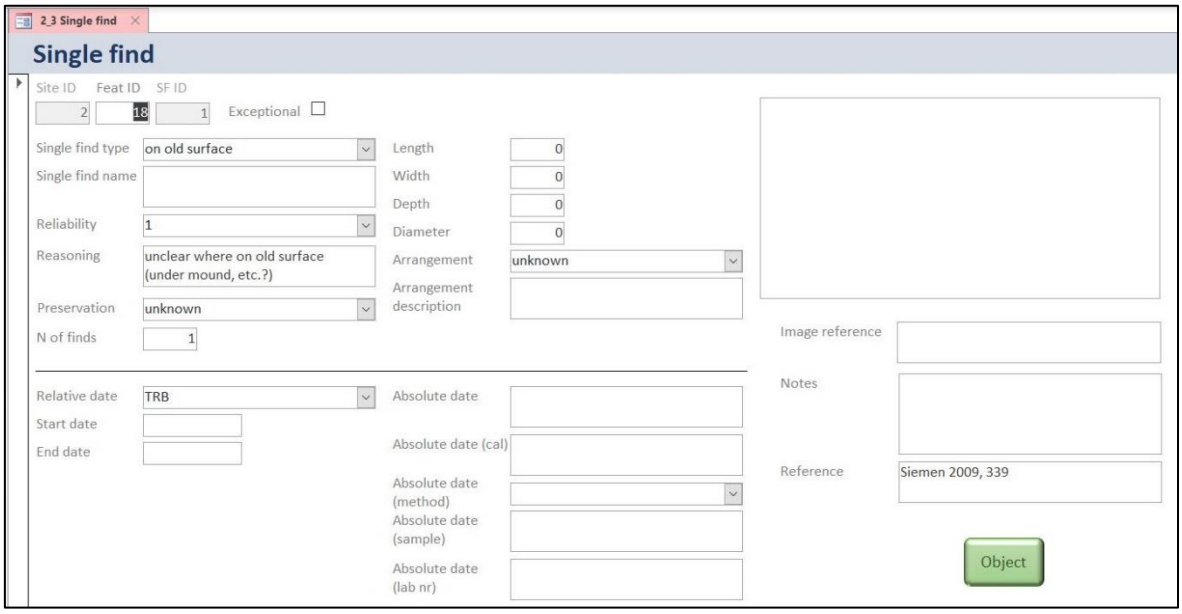

Figure 4.6 – An example record in the form of table *2.3 Single find*.

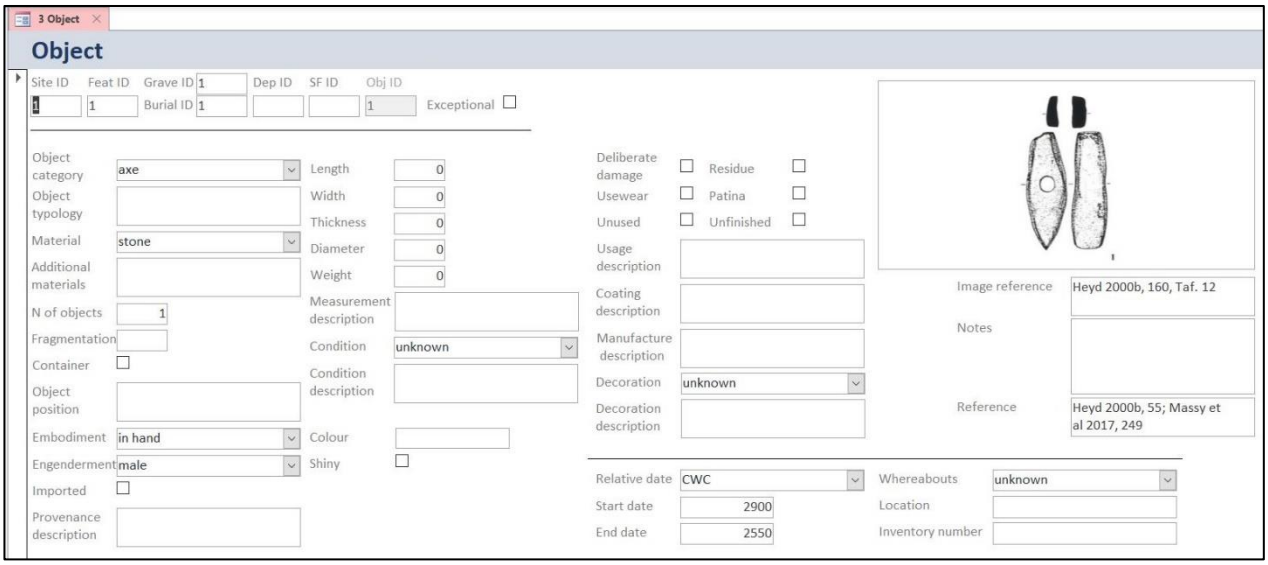

Figure 4.7 – An example record in the form of table *3. Object*.

4.3 Analytical tools

After the collection of the data, the next step in the research of this thesis is the application of two analytical tools; as stated in **4.1.3**, the goal of this analysis is to find patterns in how CW gender was expressed in different contexts and in different regions.

A first analytical tool is finding patterns by querying the database and making visualizations (pie charts, graphs). This is a very basic analytical tool, in which the

sites, features, contexts, number of finds, and corresponding variables are quantified and contrasted to each other, in terms of frequencies and percentages. The visualization is not only a suited way of presenting otherwise dry data, but also help with finding patterns. The used software for querying the database is Microsoft Access (frequency tables, pivot tables), and for visualizing the data, Microsoft Excel (pie charts, graphs). Maps of the sites are created with QGIS, using the Natural Earth dataset (naturalearthdata.com) as a background map.

The second analytical tool is aimed at finding correspondences between different types of data, such as objects which co-occur in a particular context. The used software is Visone, a programme which creates networks. In order to make such a network, the data has to be in a particular format: a 'two-mode' adjacency matrix, with the object categories as the headers, and the site numbers as the row labels, and where the presence of an object is signified by a 1 and the absence of that object by a 0. Multiple numbers of that object are thus ignored. This matrix is created in Microsoft Access and Excel. After importing the data into Visone, links between all co-occurring object categories and sites, which are visualized as nodes, are created. Several tools in the programme are used to create an understandable graph, such as dividing the graph into two (one for object categories, and one for sites), giving different link strengths different colours (for sites) or sizing the nodes according to amount of co-occurrences (for objects).

Lastly, further contextual information is added into Visone, through importing another table, created from in Microsoft Access. For graves, the grave type, body position, sex and age are most important contextual information; for the other feature types, only the type and context have been added. This contextual information can then be included in the visualization. Again, such a visualization simultaneously is a neat way of presenting the data and helps with finding patterns.

These analyses are conducted per region, and thus reported in each individual results chapter (Chapters 5-7); the supra-regional comparison is the topic of the discussion (Chapter 8). Moreover, the results per region will be also compared to the large-scale network analysis conducted by Bourgeois and Kroon (2017) in the discussion.

To recapitulate the research questions of this thesis: these analytical tools are aimed at finding patterns in how biologically male and female bodies of different ages

are buried and with which objects (*sub-question 1*), and in which other contexts these objects (co-)occur (*sub-question 2*), as well as finding which patterns are typically (supra-)regional (*sub-question 3*). These patterns are expected to result in a better understanding of the prevailing, (supra-)regional norms of CW gender.

4.4 Limitations of methodology

A limitation of this methodology is the contrast between qualitative variables (particularly those which rely on interpretation, such as "embodiment" and "engenderment") and quantitative analysis. This limitation has also been touched upon in **2.4.2**, and is arguably a problem in archaeological methodology in general; there is a discrepancy between our etic interpretations based on modern preconceived notions as well as quantitative methodology, generalizing categories, and large spatial and temporal resolutions, and the emic reality of the prehistoric peoples who experienced life, death, personhood, social norms, and material culture on a day-to-day basis. Particularly the subject of gender is prone to this problem, as has become apparent in **Chapter 2**. However, this is a problem that I cannot solve in this thesis – if it can be solved at all; instead, I aim to be explicit in my choices and interpretations throughout these chapters. Further limitations of my methodology will become apparent in **Part III**.

Part II – Results

5 The Corded Ware culture in Bavaria

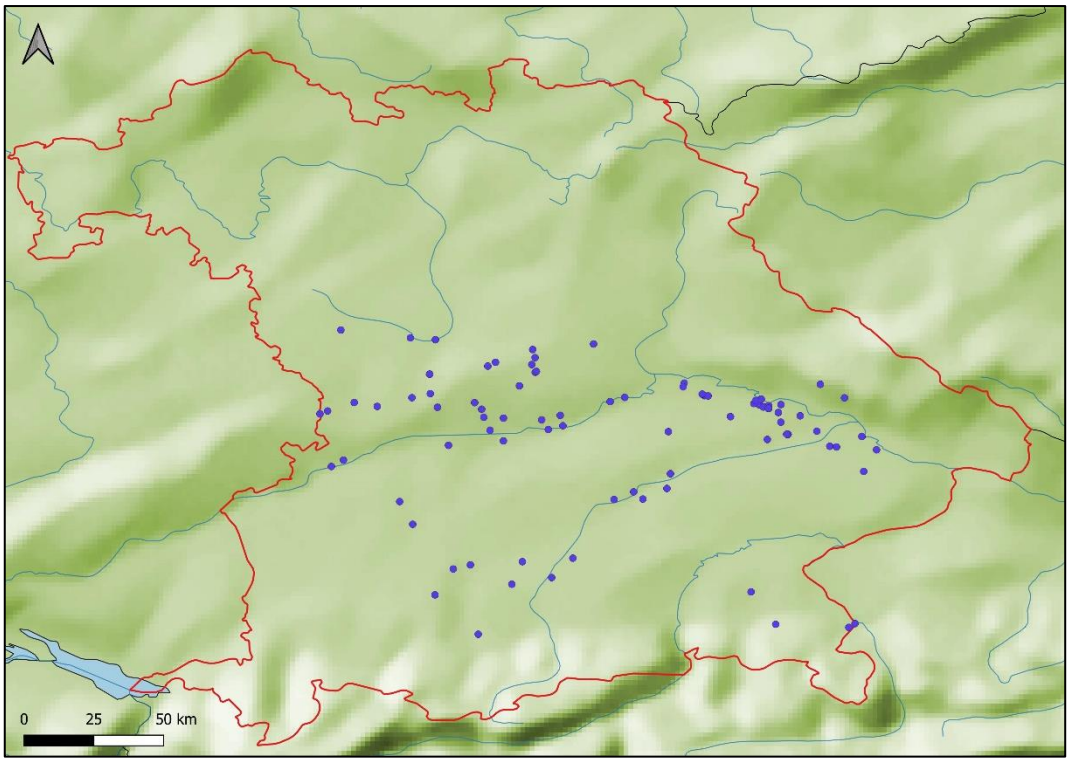

Figure 5.1 – The location of Bavaria (red outline), and the sites (n=94) included in the case study (purple dots).

The Free State of Bavaria (**Fig. 5.1**) is located in the hilly south-eastern corner of Germany, directly north of the Alps and roughly between the river Main in the west and the Bavarian/Bohemian Forest in the east. One of Europe's most important rivers, the Danube (Donau), flows through the middle of Bavaria, as well as several of its tributaries.

This location and geography makes the region interesting for archaeological research; just north of the Alps, sources for raw materials are in close proximity, and the Danube would have facilitated the mobility of people and the exchange of raw materials, objects, and ideas. Indeed, "*Plattensilex*" (banded tabular chert) from the Neolithic flint mine in Abensberg-Arnhofen, Bavaria, has been found as far as West Hungary and Slovakia (Leopold and Völkel 2004; Mateiciucová and Trnka 2015, 13). Yet exchange and mobility was not limited to the flow of the Danube; it has become increasingly clear that the Alps were not a north-south barrier in prehistoric times.

From the sixth millennium BCE onwards, the transalpine passage across the Inn-Eisack-Adige valleys (the Brenner Pass) connected Bavaria with Venetia in Italy, providing Bavaria with copper (Metzner-Nebelsick *et al.* 2017; Perucchetti *et al.* 2015). Moreover, the Alpine copper mines of Mitterberg and salt mine of Hallstatt are relatively close to the region (Breitenlechner *et al.* 2014; Grabner *et al.* 2007).

Archaeological research has shown that Bavaria, and particularly the Lech valley, was densely populated in the third and second millennia BCE (the Late or Final Neolithic and the Bronze Age); excavations from the 1980s have yielded cemeteries as well as hamlets (Massy *et al.* 2017, 242; Stockhammer *et al.* 2015, 3). The burials from the Lech valley have recently been included in several recent studies using scientific methodology; new radiocarbon dates have revised the (Bronze Age) chronology of the area (Stockhammer *et al.* 2015), while aDNA and stable isotope analyses have shed light on kinship relations and mobility on the microscale of a cemetery (Massy *et al.* 2017) as well as that female exogamy took place on a large scale, from the CW period until the Early Bronze Age (Knipper *et al.* 2017). Surprisingly, it was discovered that two burials from Augsburg had the plague (Andrades Valtueña 2017). While these studies focus on the Bronze Age, they make clear that this region is interesting to include in the present research. Most striking is that the burials from the Lech valley show a high degree of continuity throughout the third and early second millennia BCE, suggesting that the changes that took place in this period were continuous and gradual, rather than immediate (Massy *et al.* 2017, 242).

5.1 Source criticism

This case study mainly makes use of the publication by Heyd, *Die Spätkupferzeit in Süddeutschland* (2000), which is a bipartite work (text and catalogue) aimed at arguing for a Copper Age in Southern Germany. Heyd gives an overview of the archaeology, including not only burials, but also settlements, depositions, and single finds, of the Late Neolithic to the beginning of the Early Bronze Age (EBA). He primarily studies the Danube catchment area, and secondarily the Main, Neckar and Oberrhein/Hochrhein catchment areas, as well as some sites in Switzerland and Austria; in order to limit the case study I have only included the Bavarian sites from the Danube catchment area, dated to the CW period ("*Schnurkeramik*").

The recent studies on the Lech valley have only been included in part, due to the fact that most data included is on the Early Bronze Age; only one CW burial has been published fully (Massy *et al.* 2017), even though other CW burials have been included (see also Knipper *et al.* 2017). Thus, the data in this case study generally reflects the state of knowledge from the twentieth century.

While a strength of Heyd's catalogue is the inclusion of different site types, a limitation is that further context information is often lacking; this is particularly the case for the single finds, for which it is often unclear what these finds reflect: disturbed graves, depositions or settlements? Additionally, Heyd excludes the single finds of axes, daggers, and flint objects, thus leading to a research bias in which ceramics are overrepresented.

Not only the single finds present a lack of context; of the burials in Heyd's catalogue, it is often not specified whether the burial is from a barrow, or a flat-grave. Another issue is that Heyd does not always mention the preservation of skeletal remains explicitly; he often refers to "*Hockerbestattung*", which unfortunately can be observed in soil silhouettes in addition to whole or partial skeletons. Fortunately, many of these are included in the tables with the physical anthropological results (Heyd 2000b, 168-9, Taf. 20-1), thus implying the preservation of skeletal remains.

Less problematic aspects for the analysis are that the find circumstances and preservation of the site are not mentioned for all sites, that find numbers are not always given, and that some descriptions are vague or ambiguous (e.g. "*Silices*"; perhaps this also due to a language barrier). In all, however, my database contains a considerable number of 'unknowns'; I attempt to solve this problem by including a reliability factor, as described in **Chapter 4**. This enables me to include more burials, rather than only the sexed burials, than when I studied this case study in the light of the course Research Seminar: Landscape and Identity. Having learnt from this earlier paper, I have also included age as an important variable. This thesis also takes on new methodology compared to the earlier paper, by including a network analysis.

5.2 General results

94 CW sites from Bavaria are included in the database (see **Fig. 5.1**). At these sites, 125 features have been documented, which consist of 90 burials, 3 depositions and 32 single finds. Most of the features are from unknown contexts (**Fig. 5.2**) and have

an unknown preservation (**Fig. 5.3**), due to the limitations of the source as described above; this leads to an overall low reliability of the dataset (**Fig. 5.4**). Only burials have a reliability of 2 (reliable) or – in just 3 cases – of 3 (superb). A total of 290 objects have been included in the database, of which 74% are from burial contexts, 24% are from single finds, and a mere 2% are from depositions (**Fig. 5.5**). Thus, the dataset is unfortunately heavily biased in favour of the funerary context.

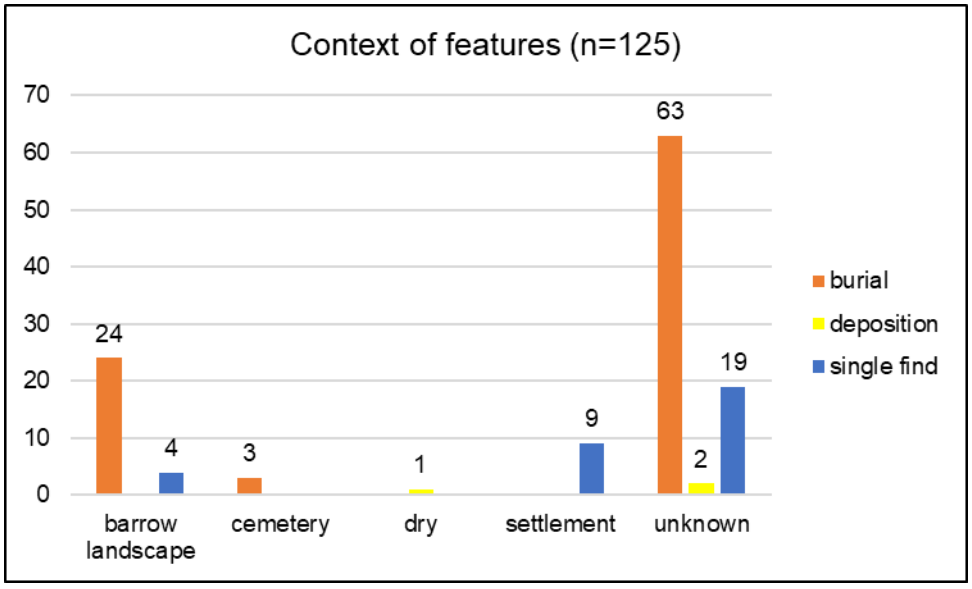

Figure 5.2 – The contexts of the features in the Bavarian dataset (n=125).

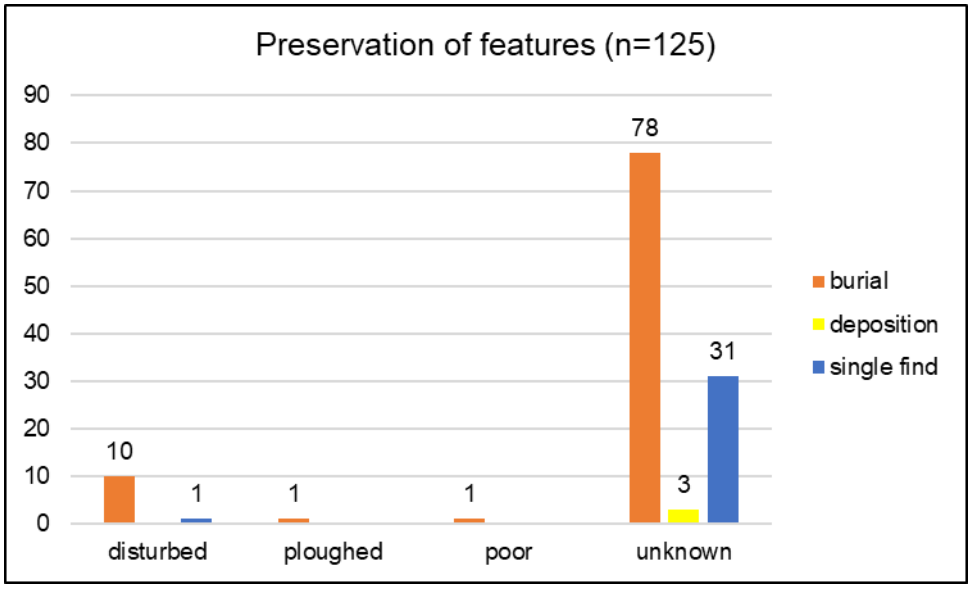

Figure 5.3 – The preservation of the features in the Bavarian dataset (n=125).

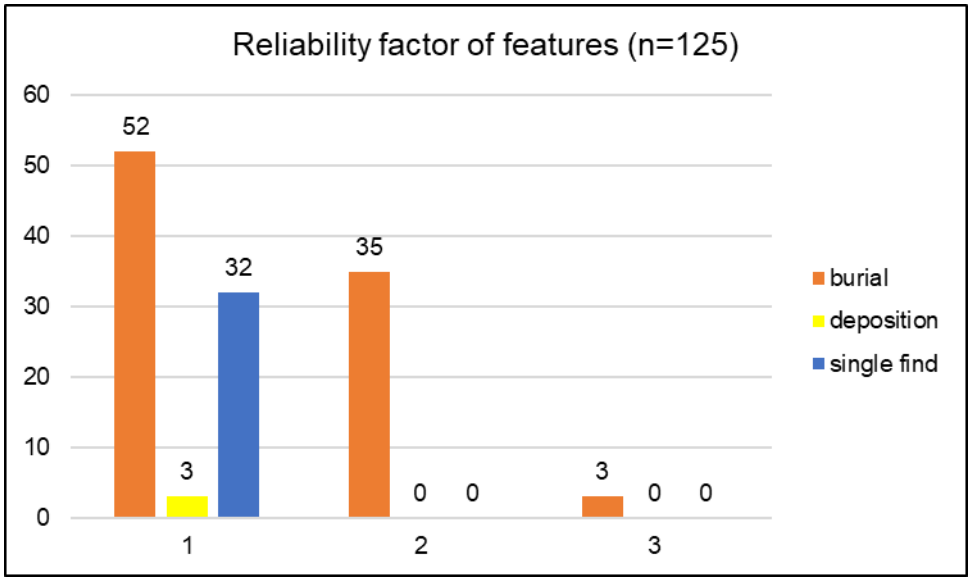

Figure 5.4 – The reliability of the information about the features in the Bavarian dataset (n=125), on a scale of 1-3, in which 1 is a low reliability, and 3 a high reliability.

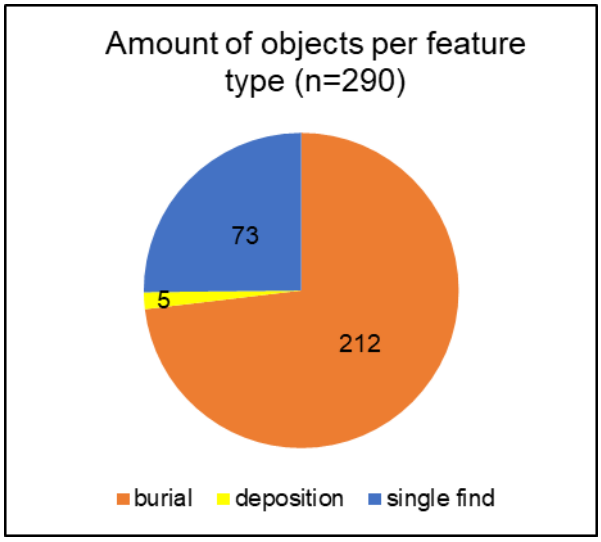

Figure 5.5 – The amount of objects that have been found per feature type in the Bavarian dataset (n=290).

5.3 Results I: the funerary context

Most graves in the Bavarian dataset are flat-graves (46%); only 18 graves are explicitly primary graves in barrows, and 1 grave is a secondary grave in a barrow (in total 21%) (**Fig. 5.6**). A large amount of graves (33%) are however of unknown type, including (uncertain) graves in barrows. The (main) orientations of the graves are

also mostly unknown (40%), and otherwise E-W (36%), although variations are quite common (**Fig. 5.7**).

Of the 90 graves, there are indications for the presence of 72 bodies, in 60 graves: either Heyd has mentioned explicitly that skeletal remains have been found (61 burials), and/or the position in which the body was in (56 burials), and/or their age (34 burials) or sex (24 burials) (**Fig. 5.8-5.11**). A majority of these are from flat-graves (67%), while only 12% are from barrow graves (**Fig. 5.8**).

The crouched flexed position is the most common position in which the deceased body is lain, with 51% (**Fig. 5.9**). It is however surprising that the supine crouched position (German: *Rückenhocker*) is also common (24%), yet only for flat-graves. A mere 3% of the bodies is placed in a supine stretched position, which thus seems to be an irregularity. These again only occur in flat-graves.

The sexed burials, all from flat-graves, are mainly (probably) male (23%), while only 11% of the bodies are (probably) female (**Fig. 5.10**); this means that male burials are probably overrepresented in the data. This is uncertain due to the high percentage of unknown sex (67%). The same holds true for the age: most are of unknown age (53%) (**Fig. 5.11**). However, all age categories seem to be represented, with 19% of adult age, 7% of mature age, and in total 21% of subadult age. The correspondence between body position, sex and age will be elaborated in **5.3.1** (**Tab. 5.4**).

The remaining 30 graves with no indications for a body, of which 11 are from barrows, and only 4 are from flat-graves, are not necessarily cenotaphs (i.e. empty graves); the skeletal remains may not have been preserved, or Heyd did not mention the skeletal remains (e.g. because they were not included in the physical anthropological analysis). Indeed, it is not always clear whether the described position of a burial implies that skeletal remains were preserved, and whether the determination of sex or age has been made through physical anthropology: 51 out of 72 bodies have explicitly been analysed through physical anthropology, and, yet, for some of these (Burial ID 65-7, 69, 78-81, 84, 94) the description in the catalogue does not match the tables for sex and age determinations completely (Heyd 2000b, 168-9, Taf. 20-1). The result is that the sexed or aged burials without this explicit mention, and those with very contrasting descriptions, have received a lower reliability factor; perhaps this sex or age is based on the presence or absence of grave goods. The burials with an unreliable sex or age are marked red in **Tab. 5.4**. Most notable are the three

subadults that have been 'sexed'; this is not possible (pers. comm. R. Schats 2019), which means the sex may be based on the body position and/or grave goods.

Tab. 5.1 lists the multiple burials in the dataset: 7 graves with 19 bodies. The most common multiple burials are double burials, but the dataset includes one triple burial and two quadruple burials. Four additional burials have been classified as exceptional (**Tab. 5.2**). Two of these are the only burials with a grave structure (stone packing, and stone paving, respectively), and the other two are, according to Heyd, 'probable' CW cremation graves. Unfortunately, however, these two burials have not been dated by absolute dating methods, nor is the relative date certain; these thus have a low reliability.

Indeed, only 6 of the burials have been dated by radiocarbon dating (**Tab. 5.3**). Only 3 burials (Grave ID 1, 167, 168) have been included in recent aDNA (only Grave ID 1) and stable isotope analyses (Massy *et al.* 2017; Sjögren *et al.* 2016). Grave ID 1 and appeared to be a non-local, genetic male, and Grave ID 167, an adult female, changed her diet during her life.

Lastly, 212 objects have been found in 79 graves, of which 139 objects can be associated to 47 bodies. There are thus 11 'empty' graves, although most of these (7) are of low reliability, and it is unclear to which extent these graves really were intended as lacking grave goods (e.g. perhaps grave goods were perishable). The correspondence between (amount of) grave goods, body position, sex and age will be elaborated in **5.3.2**.

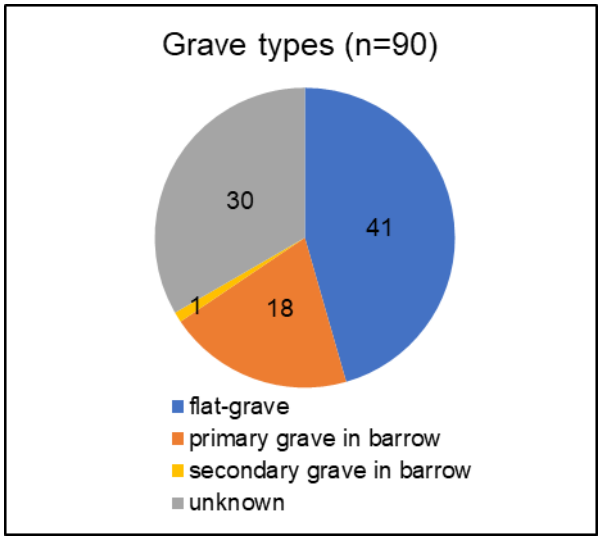

Figure 5.6 - The grave types in the Bavarian dataset (n=90).

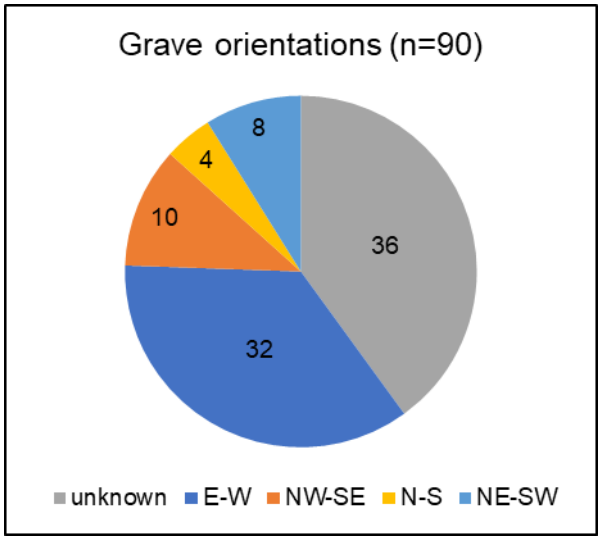

Figure 5.7 – The (main) orientations of the graves in the Bavarian dataset (n=90).

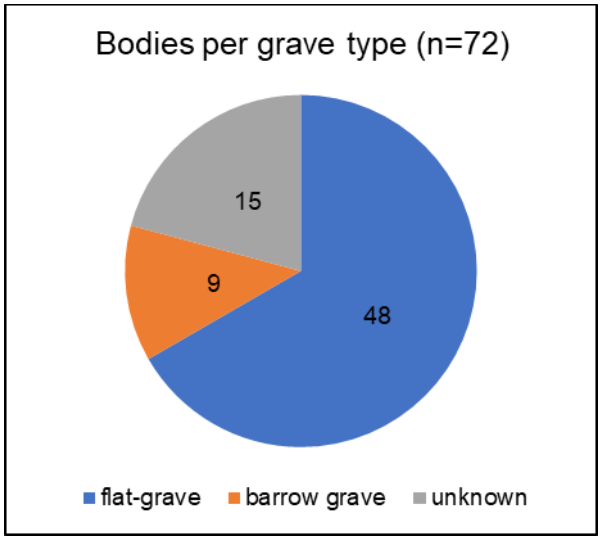

Figure 5.8 – The bodies occurring in the Bavarian graves (n=72), shown per grave type.

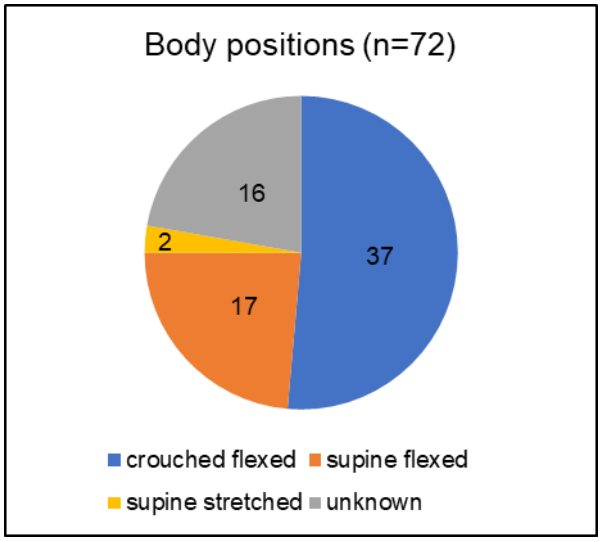

Figure 5.9 – The main body positions in the Bavarian graves (n=72).

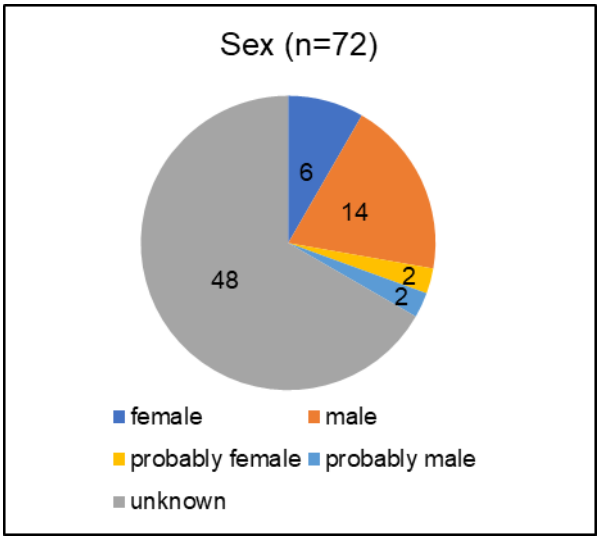

Figure 5.10 – The sex of the bodies in the Bavarian graves (n=72).

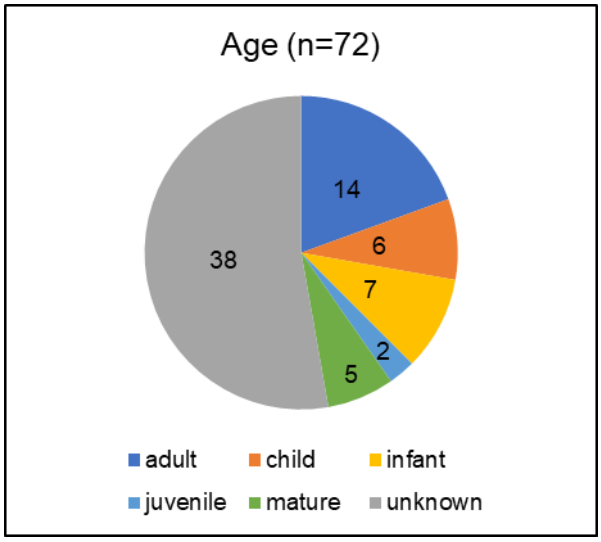

Figure 5.11 – The ages of the bodies in the Bavarian graves (n=72).

Table 5.1 – The multiple burials in the Bavarian dataset (n=21).

Grave ID	Toponym	Grave type	Burial type	Burial ID: sex, age, body position
158	Geiselhöring	flat-grave	triple burial	65: adult male, supine right-flexed; 66: child, crouched right-flexed; 67: juvenile, unknown
162	Großmehring (Flur Straßgwender)	unknown	double burial	70: probably female adult, crouched left-flexed, and foetus
171	Kösching	flat-grave	quadruple burial	78: adult male, supine left-flexed; 79: adult male, supine left-flexed; 80: adult female, supine right-flexed; 81: infant, crouched right-flexed
174	Künzing (-Ost, Käserfeld)	flat-grave	double burial	84: mature female, supine left-flexed; 85: infant, unknown
182	Ludwigsried (Riederfeld)	primary grave in barrow	double burial	90: unknown, crouched left-flexed; 91: unknown, crouched right-flexed
198	Öberau ("Öberau-West")	flat-grave	double burial	97: unknown, crouched left-flexed; 98: unknown
204	Ringkam	flat-grave	double burial	101: adult female, supine flexed; 102: child, supine stretched
221	Wallmühle (Alburgermoos)	flat-grave	quadruple burial	117: unknown, crouched right-flexed; 118: unknown, crouched right-flexed; 119: unknown, supine right-flexed; 120: unknown, supine left-flexed

Table 5.2 – The exceptional burials in the Bavarian graves (n=4), excluding the multiple burials.

Grave ID	Toponym	Reasoning	Burial ID: sex, age, body position
145	Aue (Burschäl)	stone structure	59: unknown, crouched flexed
190	Mühlthal (Herrgottsruh)	'probable' primary cremation grave?	93: unknown
225	Weißenburg (Zwergmahd)	‘probable' primary cremation grave?	124: unknown
226	Weißenburg (Eichelberg)	stone structure	125: unknown

Table 5.3 – The radiocarbon dates of the Bavarian graves (n=6).

Grave ID	Toponym	Absolute date	Absolute date (cal)
1	Haunstetten, Unterer Talweg 89	4155 +- 23 BP	2867-2678 (cal 1 sigma); cal BC 2875-2645 (cal 2 sigma)
167	Kelheim (Bauersiedlung)	4175 +- 70 BP	2896-2620 or 2860-2654 (cal 1 sigma)
168	Kelheim (Bauersiedlung)	3960 +- 60 BP	
169	Kelheim (Bauersiedlung)	3740 +-45 BP	
189	Moosham	4300 +- 100 BP	3030-2782 or 3037-2713 (cal 1 sigma)
216	Trieching	3715 +- 40 BP	

Table 5.4 – The burials in the Bavarian dataset with a known body position, sex and/or age (n=72). The red coloured numbers are burials with a low or unsure reliability (1); the black coloured numbers are reliable or even superb; the blue coloured numbers are from multiple burials. Numbers separated with a slash must thus be added up for the total number of burials with that position, sex and age.

Sex/age / Body position	F			*Subtotal F*	M				*Subtotal M*	probably F		*Subtotal probably F*	probably M		*Subtotal probably M*	unknown					*Subtotal unknown*	**TOTAL**
	adult	**mature**	**unknown**		**adult**	**juvenile**	**mature**	**unknown**		**adult**	**child**		**infant**	**unknown**		**child**	**infant**	**juvenile**	**mature**	**unknown**		
crouched flexed				*0*					*0*			*0*		1	*1*		1			5	*6*	**7**
crouched left-flexed	2			*2*					*0*	1	1	*2*			*0*	1	2			1/2/2	*8*	**12**
crouched right-flexed				*0*	2		1		*3*			*0*	1		*1*	1	1/1		1	2/1/7	*14*	**18**
Subtotal crouched flexed	*2*	*0*	*0*	***2***	*2*	*0*	*1*	*0*	***3***	*1*	*1*	***2***	*1*	*1*	***2***	*2*	*5*	*0*	*1*	*20*	***28***	***37***
supine flexed				*0*	1				*1*			*0*			*0*					1	*1*	**2**
supine left-flexed	1	1		*2*	2/2				*4*			*0*			*0*					1/1	*2*	**8**
supine right-flexed	1			*1*	1	1	1	1	*4*			*0*			*0*					1/1	*2*	**7**
Subtotal supine flexed	*2*	*1*	*0*	***3***	*6*	*1*	*1*	*1*	***9***	*0*	*0*	***0***	*0*	*0*	***0***	*0*	*0*	*0*	*0*	*5*	***5***	***17***
supine stretched				*0*					*0*			*0*			*0*	1/1					*2*	**2**
unknown			1	*1*	1		1		*2*			*0*			*0*	1	1	1		2/1/7	*13*	**16**
TOTAL	**4**	**1**	**1**	***6***	**9**	**1**	**3**	**1**	***14***	**1**	**1**	***2***	**1**	**1**	***2***	**5**	**6**	**1**	**1**	**35**	***48***	**72**

5.3.1 Body positions, sex and age

Numerous observations can be made from a comparison between these positions with sex and age (**Tab. 5.4**). Firstly, only children are buried in the irregular supine stretched position: one from a double burial, and the other by itself (yet this grave has a low reliability). The other children and infants in the dataset are all buried in a crouched flexed position (9 bodies, disregarding the 2 in an unknown position).

Secondly, the crouched flexed position is common for all sexes and ages. The difference between the left and right position may be related to sex, following the consensus for the CWC: 2 females and 1 probable female are in a crouched left-flexed position, and 3 males are in a crouched right-flexed position. Yet unfortunately most of the burials in either a left-flexed (8 burials) or right-flexed position (15 burials, including the 'probably male' infant) have an unknown sex. Children, who cannot be sexed, can be placed in either a left or right position. A correlation between the left or right side and sex thus cannot be substantiated.

Lastly, where there may be a slight correlation for the crouched flexed position, this is completely absent in the supine flexed position: both male and female burials can be buried on either the left side (2 female, 4 males) or on the right side (1 female, 3 males, excluding the juvenile 'male'). Intriguingly, approximately half of the burials in a supine flexed position are from multiple burials (8 burials). While there are no known children in this position, there are many of unknown age and sex (5 burials), and there is one juvenile in this position. Thus, while this position seems quite common in the dataset, it may pose an irregularity after all.

These found patterns unfortunately have little statistical significance due to the high number of 'unknowns': 48 out of 72 burials have at least one unknown element (position, sex, and/or age). The analysis of the accompanying grave goods may shed more light on the burial norms surrounding the body positions, sex and age of the CW burials in Bavaria.

5.3.2 Grave goods

Most burials in the Bavarian dataset have one or more accompanying grave goods (**Fig. 5.12**). It is most common to be buried with either one (32%) or two (27%) grave goods, or none at all (12%). Burials with three (8%) or four (9%) grave goods are prevalent but less common, and burials with more than five grave goods occur in low

numbers (< 5%). Three of the latter burials are multiple burials: Kösching (15 objects) Geiselhöring (7) and Künzing (7) (see below). Moreover, other burials in this group are the two unreliable cremation graves (5 grave goods each), a crouched left-flexed infant (7 grave goods), and two adult male burials in unknown or crouched right-flexed, as well as another crouched right-flexed burial with unknown sex (10, 9, and 7 grave goods respectively). There does not appear to be a difference in grave type; both flat-graves and barrow graves have either few and many grave goods.

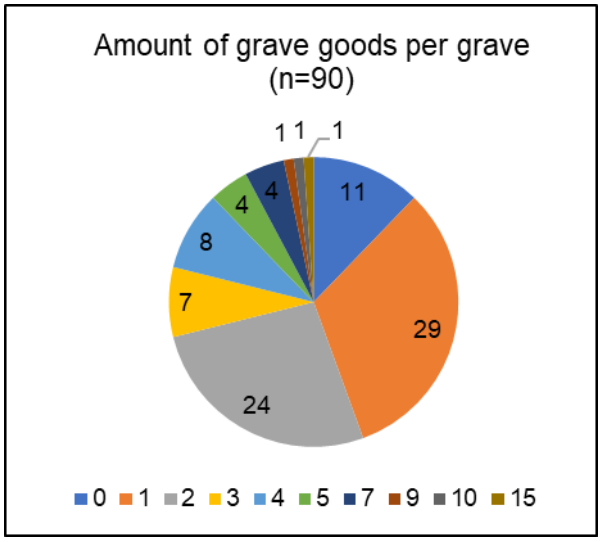

Figure 5.12 – The amount of grave goods that occur in the Bavarian burials (n=90); the pie chart indicates the number of burials with that amount of grave goods.

Typical grave goods

Fig. 5.13 shows that 27 different types of objects have been found in the Bavarian graves. The most typical objects that occur, are stone axes, beakers, flint blades, pottery sherds, and flint daggers. Flint arrowheads, battle-axes, animal bones, flint flakes, and perforated animal teeth are also common. All other object categories occur only in small numbers.

When only regarding the 139 objects associated with a body (**Fig. 5.14** and **Fig. 5.15**), it becomes apparent that the five most typical grave goods can occur in burials with all body positions and all sexes and ages. Yet at closer inspection, there is some patterning. Axes most often occur in crouched right-flexed burials and in adult male burials; no female burials are given an axe. Beakers are common for all positions, sexes and ages, except the supine right-flexed position and a mature age. Flint blades

mostly occur in crouched right-flexed burials and in male burials, but all ages are represented, and they are excluded from supine stretched burials. Lastly, daggers do not occur in supine right-flexed and crouched left-flexed burials, nor in those with a mature age, and mostly accompany adult males. For all of these object categories, however, these patterns are clouded by the high number of burials with an unknown position, sex and/or age. This is particularly the case for pottery sherds. It is perhaps best to regard these five object categories as typical for all positions, sexes and ages.

The other common grave goods also show interesting patterns at closer inspection, although the problem with the many 'unknowns' holds still holds true. The arrowheads mostly occur in adult male burials, but also appears in one infant burial, and these burials are mostly lain in supine left-flexed position, or otherwise crouched right-flexed. The battle-axe does not occur in left-flexed positions nor the supine stretched position, and appears in an adult male and an infant burial. Animal bones again do not occur in crouched left-flexed nor supine stretched positions, and seems to mostly accompany adult male burials. Lastly, the perforated teeth occur only in crouched left-flexed burials, with an adult female and an infant.

Exclusive grave goods

There are only few objects that have 'exclusive' occurrences: a bowl and a jug (from the same burial: crouched left-flexed, infant), cups (crouched right-flexed), a strike-a-light (quadruple burial Kösching), and a whetstone (adult male). An issue is that these objects occur in very low numbers and only in either one or two burials; this pattern is thus very unreliable and may simply indicate idiosyncratic burials.

Looking at the ages and sexes specifically, it becomes apparent that male burials have the largest variability in accompanying grave goods: 17 out of 27 object categories (all except bowl, cup, jug, knife, unknown, and unspecified). Female burials, on the other hand, have a much lower variability, with only 5 different object categories (excluding the 2 objects from the 'probably female' child): beaker, blade, disc, pin/needle, and tooth. Subadults are given a large variability of objects (11 categories): arrowhead, axe, battle-axe, beaker, blade, bowl, dagger, flake, jug, pot/vessel, and tooth. Burials of mature age have the lowest variability of grave goods (4 object categories): axe, blade, pin/needle, pot/vessel. Lastly, the crouched flexed position appears to have a larger variability in object categories (21 categories) than

the supine flexed position (12); the belt hook, bowl, cup, disc, flake, jug, pin/needle, pot/vessel, tooth, unknown, and unspecified categories only occur in crouched flexed burials, whereas only the categories of grindstone and strike-a-light occur exclusively in supine flexed burials.

Taking the embodiment of these objects into account (**Fig. 5.16-5.18**), it becomes apparent that 'in hand' categories (e.g. tools) are most common (54%) and that these objects mostly accompany right-flexed, supine left-flexed, and (adult) male burials. These burials, except for the supine right-flexed position, are also given objects with a different embodiment, albeit in lesser extent. 'On body' objects (e.g. ornaments; 12%) are mostly given to crouched left-flexed burials, but, again, other embodiments occur. Burials in a supine stretched position have no 'on body' categories. The other positions, sexes and ages show no patterning, and the 'non-body' category (e.g. ceramics; 26%) occurs in burials of all positions (except the supine right-flexed position), sexes and ages. Yet again, there are a lot of 'unknowns' that skew the pattern.

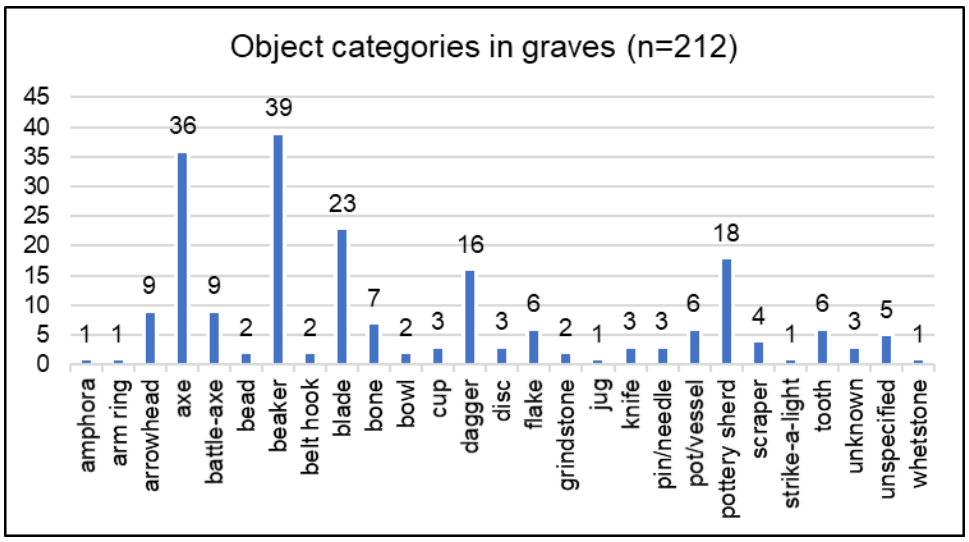

Figure 5.13 – The objects that occur in the 79 non-empty Bavarian graves and their numbers (n=212).

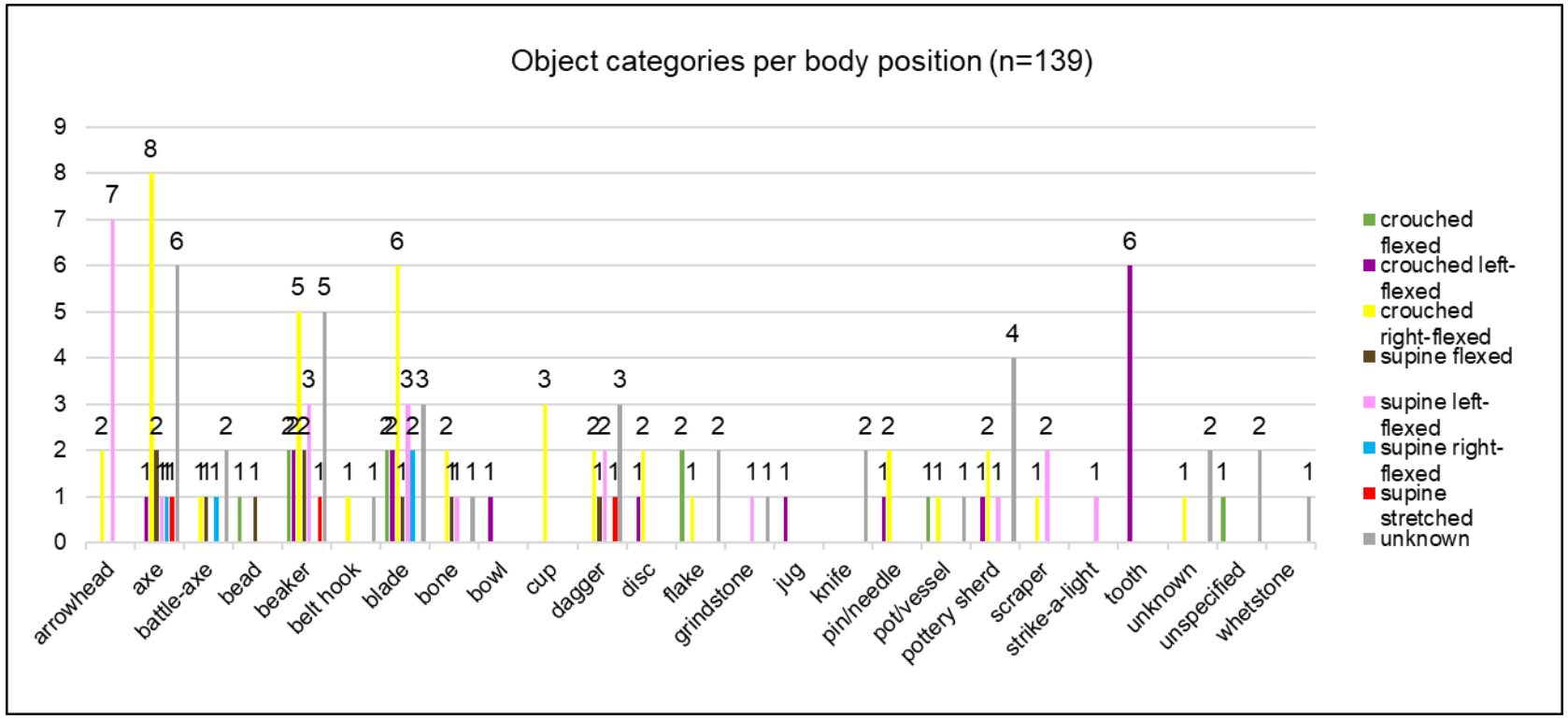

Figure 5.14 – The objects in the Bavarian graves with indications for a body (n=139), shown per body position.

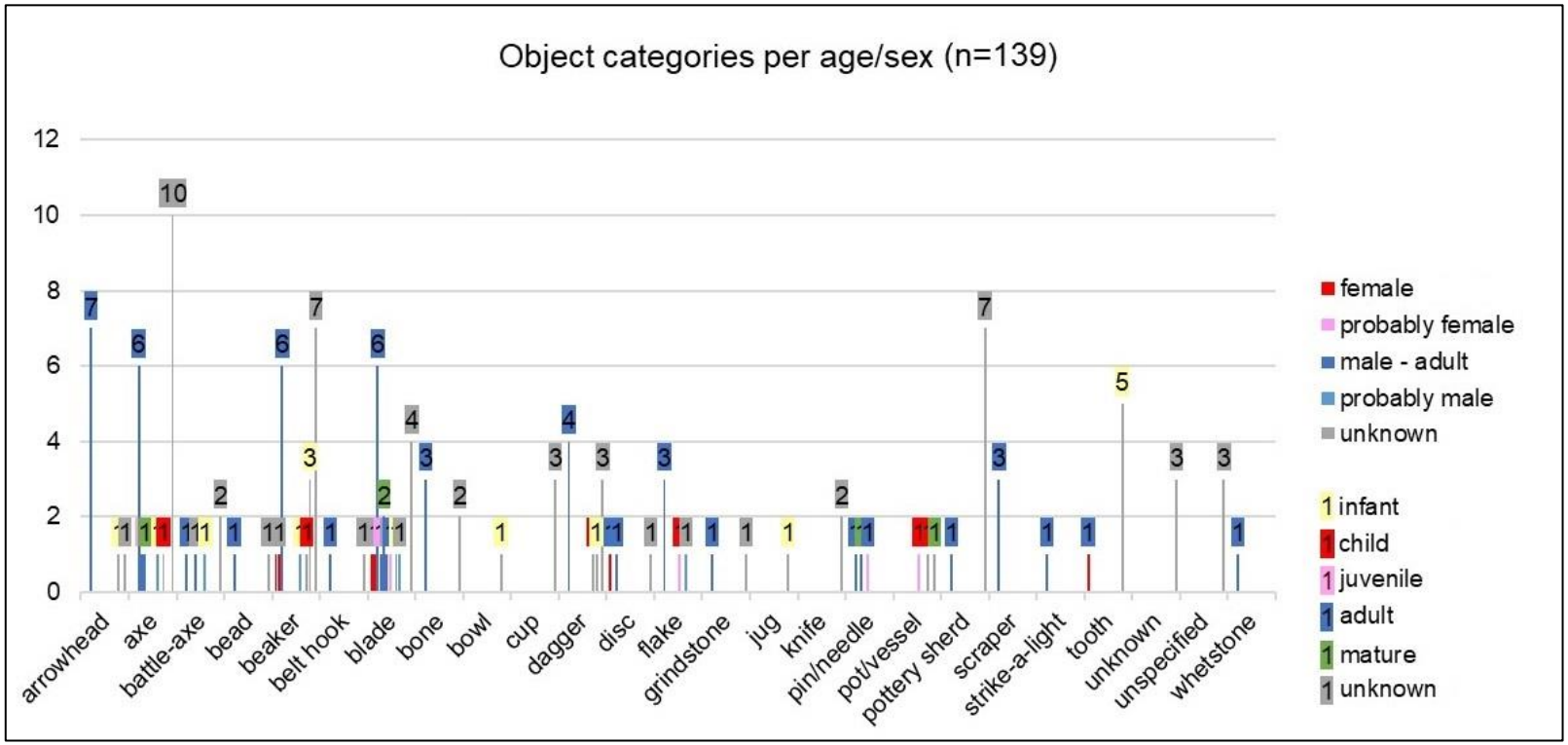

Figure 5.15 – The objects in the Bavarian graves with indications for a body (n=139), shown per sex (columns) and age (labels).

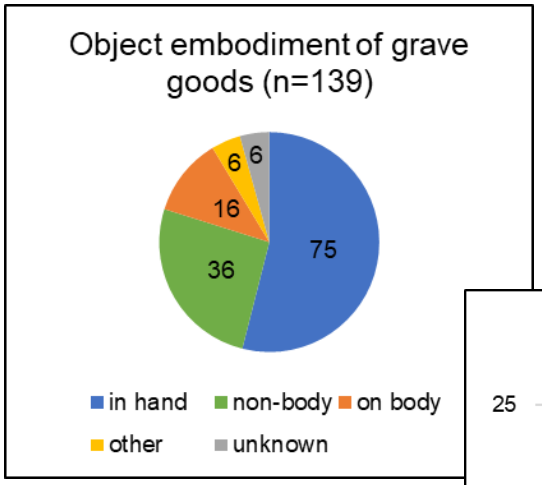

Figure 5.16 – The embodiment of the objects in the Bavarian graves with indications for a body (n=139).

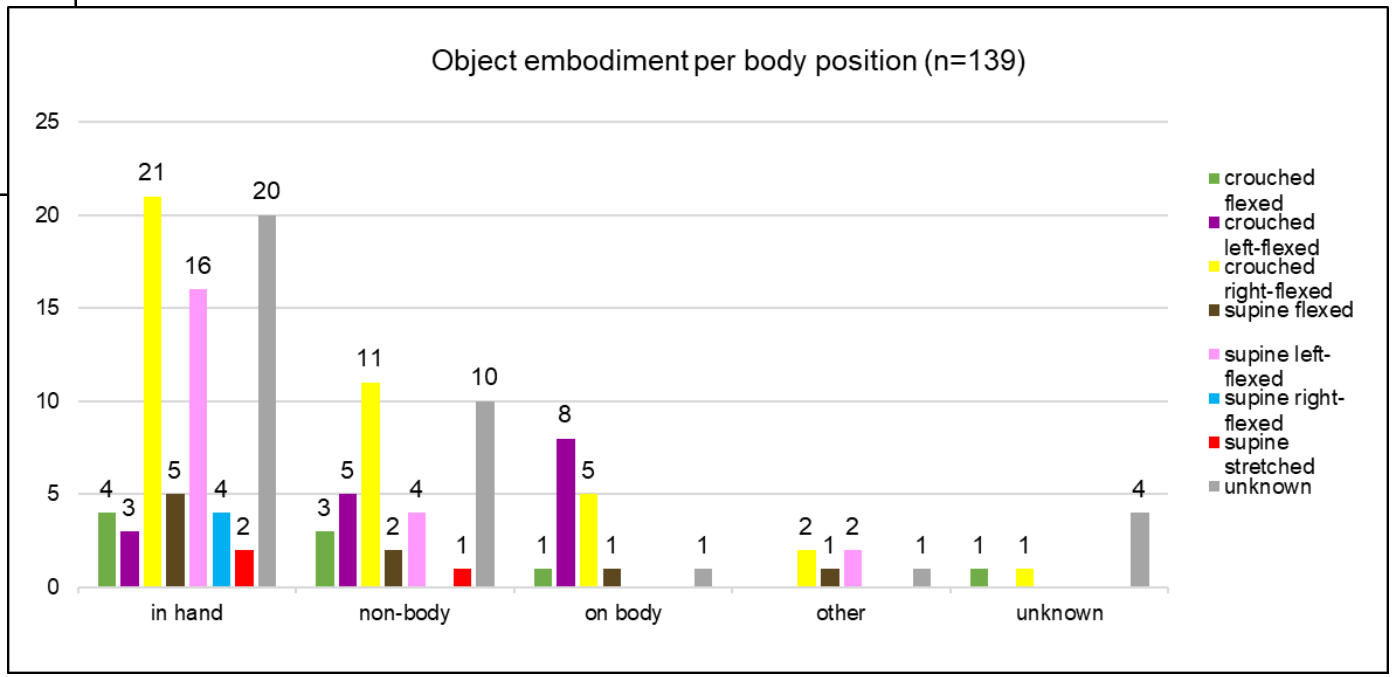

Figure 5.17 – The embodiment of the objects in the Bavarian graves with indications for a body (n=139), shown per body position.

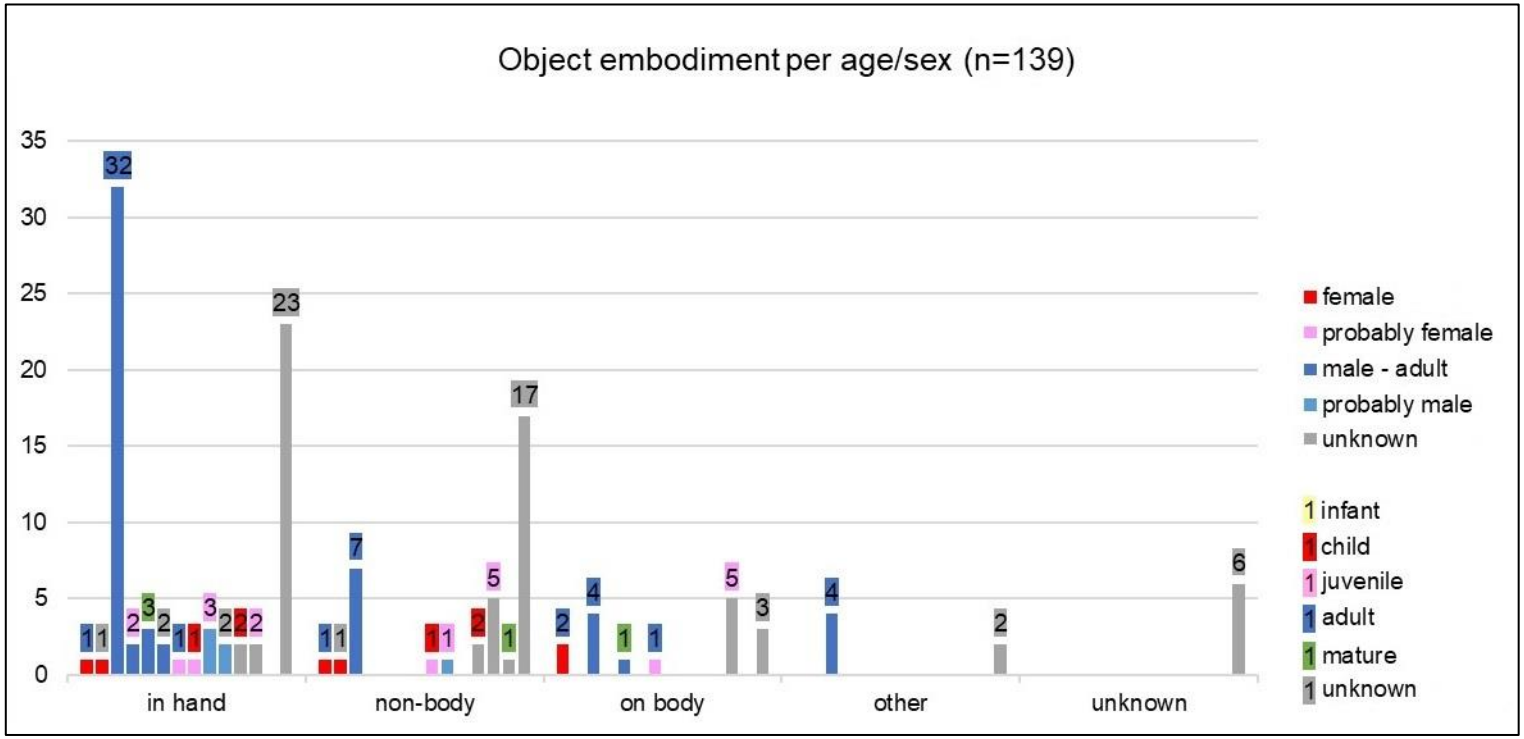

Figure 5.18 – The embodiment of the objects in the Bavarian graves with indications for a body (n=139), shown per sex (columns) and age (labels).

Table 5.5 – The objects occurring in the multiple burials (n=36)

Grave ID	Toponym	Burial ID: age, sex, body position	Burial ID: objects	Embodiment
158	Geiselhöring	65: adult male, supine right-flexed; 66: child, crouched right-flexed; 67: juvenile, unknown	stone axe, 3 beakers, dagger, pot/vessel, pottery sherd	in hand, non-body
162	Großmehring (Flur Straßgwender)	70: adult probably female, crouched left-flexed, and foetus	flint blade, pin/needle	in hand
171	Kösching	78: adult male, supine left-flexed; 79: adult male, supine left-flexed; 80: adult female, supine right-flexed; 81: infant, crouched right-flexed	78: flint dagger, stone axe, 6 flint arrowheads, beaker, blade, scraper, flint and marcasite strike-a-light; 79: copper blade	other
174	Künzing (-Ost, Käserfeld)	84: mature female, supine left-flexed; 85: infant, unknown	copper arm ring, 2 stone axes, 2 beakers, flint blade, flint scraper	on body, in hand, non-body
182	Ludwigsried (Riederfeld)	90: unknown, crouched left-flexed; 91: unknown, crouched right-flexed	stone axe, pot/vessel	in hand, non-body
198	Öberau ("Öberau-West")	97: unknown, crouched left-flexed; 98: unknown	beaker, flint blade, animal bone, flint flake	in hand, non-body, other
204	Ringkam	101: adult female, supine left-flexed; 102: child, supine stretched	beaker, animal bone, flint dagger	in hand, non-body, other
221	Wallmühle (Alburgermoos)	117: unknown, crouched right-flexed; 118: unknown, crouched right-flexed; 119: unknown, supine right-flexed; 120: unknown, supine left-flexed	cup, flint arrowhead, sandstone grindstone	in hand, non-body

Table 5.6 – The exceptional objects in the Bavarian graves (n=9).

Obj ID	Toponym	Object category	Object description	Material	Embodiment	N of objects	Burial ID: sex, age, body position
435	Grafrath-Schöngeising (Unterer Birkeneinfang)	battle-axe	facetted	stone	in hand	1	none, unsure grave in mound
437	Großmehring (Flur Straßgwender)	bead	spiral	copper	on body	1	69: adult male, supine left-flexed
469	Kösching	blade	rectangular, sickle-like, inserted in a pig's rib	copper, bone	other	1	79: adult male, supine left-flexed; quadruple burial
476	Künzing (-Ost, Käserfeld)	arm ring	with spiral, 1 2/3 loop	copper	on body	1	double burial (Grave ID 174)
480	“	battle-axe	miniature, A-type	stone	in hand	1	86: infant, crouched right-flexed
532	Öberau ("Öberau-Süd")	unknown	corroded	copper	unknown	1	95: unknown, crouched right-flexed
558	Schretzheim	dagger	lancet-shaped, imported (Nordic flint?)	flint	in hand	1	104: child, supine stretched
563	Sengkofen	tooth	chain/necklace of 26 perforated marten teeth and 4 perforated pig teeth	bone	on body	1	105: infant, crouched left-flexed
576	Straubing-Landshuterstraße (Ziegelei Jungmeier)	dagger	rhomboid, imported (Grand Pressigny or Italian flint)	flint	in hand	1	110: unknown, crouched right-flexed
578	“	belt hook	boar tooth, with 3 holes	bone	on body	1	“
579	“	bone	half of a beaver jaw	bone	other	1	“
580	“	bone	animal rib	bone	other	1	“
623	Wörglham	battle-axe	facetted	stone	in hand	1	none, unsure grave

Multiple burials and exceptional grave goods

Due to fact that the accompanying objects cannot always be associated with a particular body in a multiple burial, these burials are briefly considered separately here (**Tab. 5.5**); those objects that could be associated with a body, have already been included in the above sections. Beakers, flint blades, flint arrowheads (mainly from Kösching) and stone axes are the most common grave goods. In two cases, there are as many beakers as bodies (Geiselhöring and Künzing). Otherwise, the multiple burials do not appear to be very standardized.

Yet it is clear that the patterns described above have to be further nuanced due to these multiple burials: at Künzing, a stone axe and a beaker do occur with a mature female, at Geiselhöring, a beaker and a flint dagger occur with a supine right-flexed position, animal bones occur with a crouched left-flexed burial from Öberau and a supine stretched burial from Ringkam, and a dagger is given to a female at Ringkam. It must however be kept in mind that these objects are not directly associated to these bodies; for example, the dagger from Ringkam could be given to the deceased infant.

Apart from the exceptional multiple burials, there are 13 exceptional objects that occur in 9 of the Bavarian graves (**Tab. 5.6**). I have categorized these as exceptional because of the material (copper), provenance (imported flint) and/or because they are unique in the dataset. Facetted battle-axes are also included, as they are supra-regional, according to Heyd (2000a, 72), even though these are unfortunately from uncertain burial contexts. Particularly noteworthy are the copper blade, inserted into a pig's rib (from the quadruple burial Kösching), the miniature battle-axe from an infant burial, and the four exceptional objects from one crouched right-flexed burial from Straubing-Landshuterstraße (Ziegelei Jungmeier). Intriguingly, these exceptional objects occur in burials of all body positions, and of both adult and subadult age.

Co-occurrence of grave goods

Lastly, **Fig. 5.19** sheds light on which objects typically co-occur with each other; interestingly, the most typical grave goods have most correspondences, and generally occur together. Particularly beakers and axes, and axes and blades co-occur. Daggers and blades however rarely co-occur. The other common grave goods also co-occur with the most typical objects, although in lesser extent.

When looking at the co-occurrence of these artefacts on the level of the graves themselves (**Fig. 5.20** and **Fig. 5.21**) it becomes clear that all graves with grave goods in the Bavarian dataset have a connection with each other. For most of these graves, this connection is very weak, because most graves have only 1 or 2 object categories as grave goods. This, however, means that they can have a high similarity; for example, the cluster at the top left are all graves with one beaker (the lay-out of the graph follows **Fig. 5.19**). These clusters with few types grave goods do not show any clear patterns regarding body position, age and/or sex.

The graves with a stronger connection (i.e. more co-occurring grave goods) are located in roughly the middle of the graph, thus generally containing combinations of the most typical objects. Those with a known body position, sex and/or age, appear to be mostly burials in a crouched right-flexed position and mostly adult males. This corresponds with the higher variability in object categories for this position, sex and age, as seen above. The supine flexed (both left-lying and right-lying) and supine stretched positions however also occur in this group, as well as subadults, a mature burial and a female burial. While the crouched left-flexed position has some stronger connections, these are with less graves than the graves clustered in the middle of the graphs. Yet again, this pattern is meagre due to the high number of 'unknowns'.

Most of the multiple burials are also located in the cluster of graves with stronger connections; as described above, several multiple burials have a high number of grave goods (3 or more), thus creating more connections in this analysis. Yet the quadruple burial of Wallmühle (Grave ID 221) stands out from the others, and indeed has several less typical grave goods: an arrowhead, two cups, and a grindstone.

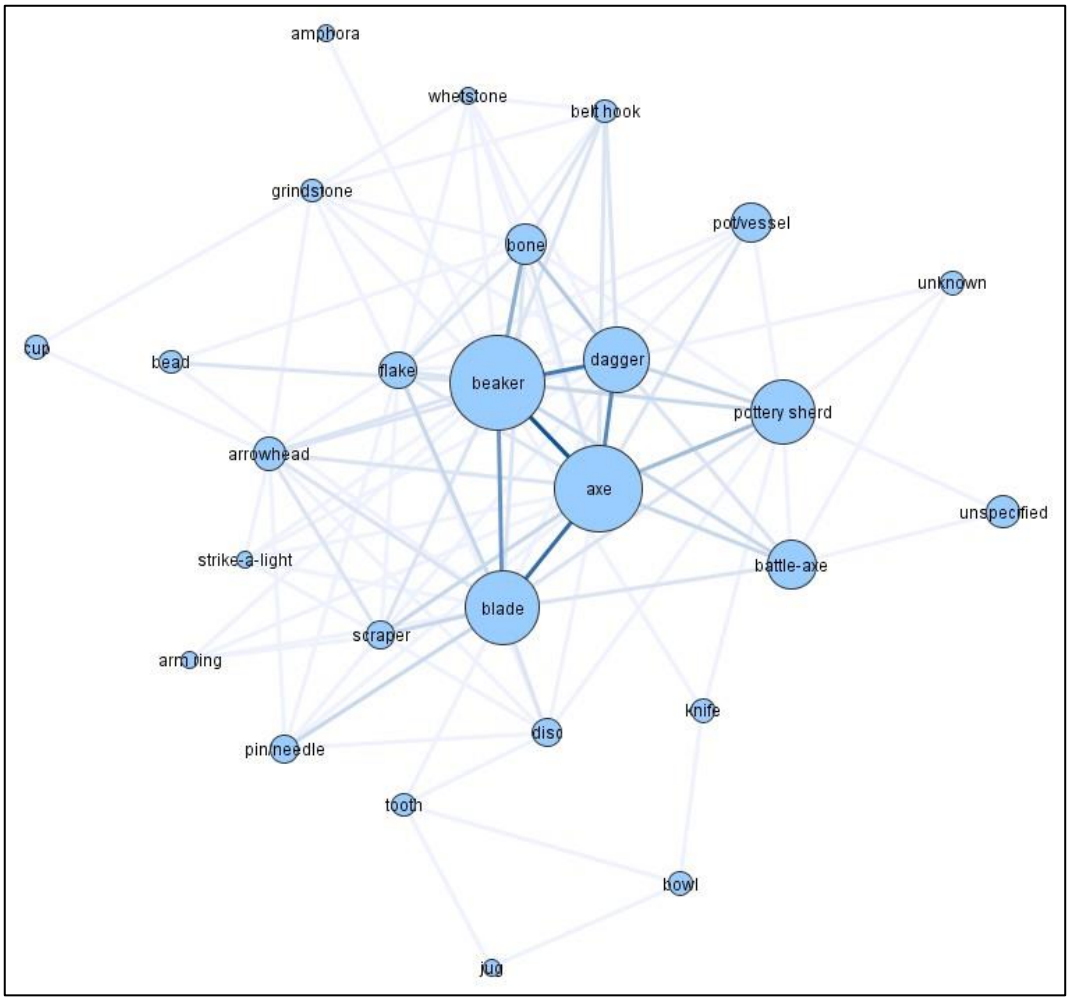

Figure 5.19 – The objects that most typically co-occur in the Bavarian graves with grave goods (n=79). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak) and the size of the nodes indicates how often this object co-occurs with another object (larger nodes imply more connections).

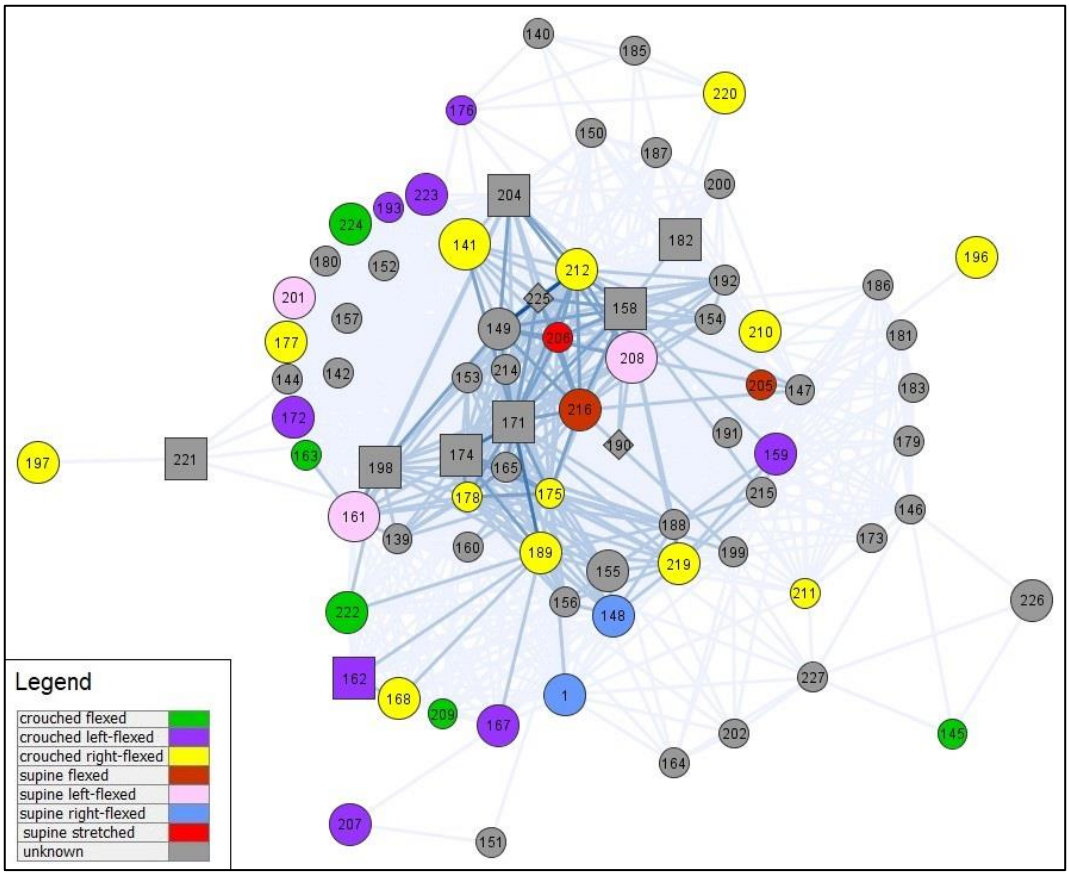

Figure 5.20 – The co-occurrence between the graves with grave goods in the Bavarian dataset (n=79). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the graves (larger nodes imply higher reliability), the shape of the node indicates exceptional graves (diamond) and multiple burials (square), and the colour of the nodes indicates the body position of the burial (multiple burials only included if all bodies have the same body position). The labels contain the Grave IDs of the burials.

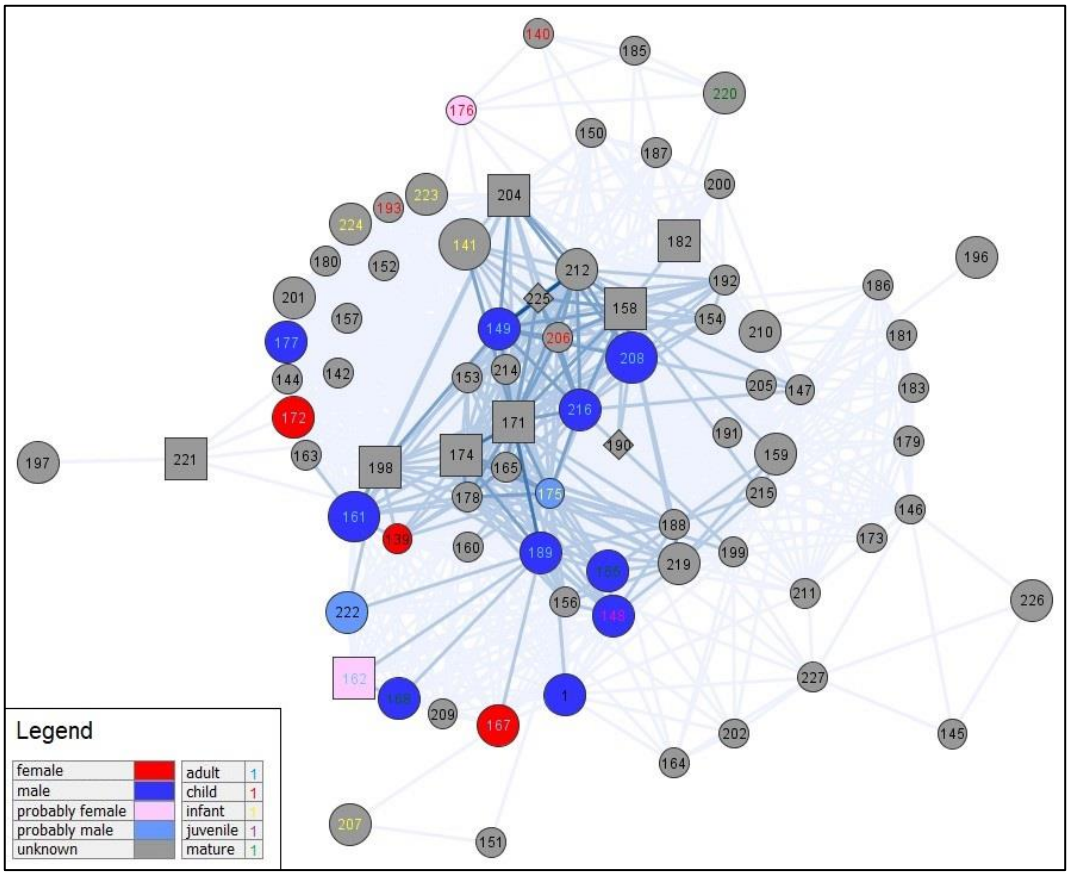

Figure 5.21 – The co-occurrence between the graves with grave goods in the Bavarian dataset (n=79). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the graves (larger nodes imply higher reliability), the shape of the node indicates exceptional graves (diamond) and multiple burials (square), the colour of the nodes indicates the sex of the burial and the colour of the label indicates the age (multiple burials only included if all bodies have the same sex/age). The labels contain the Grave IDs of the burials.

5.3.3 Gendered positions, gendered artefacts?

The above sections indicate that it is difficult to discern particular treatments of sexed and aged bodies; there are high numbers of 'unknowns', which skew all patterns in the dataset. Nevertheless, there are a few remarkable observations.

Firstly, sub-adults do not seem to be treated in a different way than adults: they are buried in the same positions, and with mostly the same artefacts. This indicates that children were considered to be part of the (burial) community, just as much as (mature) adults. In fact, some of the most exceptional burials, with exotic grave goods, are of children and infants.

Secondly, while there are too few sexed burials with exact information about their position, there seems to be a slight pattern in the dataset, confirming that the crouched right-flexed position is typical for males, and the crouched left-flexed position for females. However, in flat-graves, both males and females can also be placed in a supine flexed position, and either on the right or left side. This may perhaps indicate three distinct (gendered?) ways of burying the dead: crouched right-flexed ('male'?), crouched left-flexed ('female'?), and supine flexed ('male' and 'female'?). Intriguingly, subadults can also be placed on either their right or left side, and also in crouched or supine flexed position, which may indicate that, if these positions indeed relate to gender, even young children were gendered along similar lines as adults. The supine flexed position may however be a particularity, considering the many multiple burials (with all sexes and ages) in this position, and the lesser variability of grave goods accompanying these burials, rather than those in a crouched flexed position. A certain irregularity in the dataset is the supine stretched position, which seems to be reserved for children; it cannot be determined whether this indicates a (gendered?) norm.

Lastly, the beaker, a 'non-body' object category, and the 'in hand' flint blade occur in burials of all positions, ages and sexes. This confirms that these two types of object are 'non-gendered' and typical for all CW burials. Other object categories do indicate a differentiation; male burials are given a much larger variability of accompanying grave goods than female burials. It is however unclear to what extent this relates to a possible overrepresentation of male burials in the dataset. Thus, it is difficult to determine which object categories are 'gendered'. Nevertheless, arrowheads, axes, battle-axes and daggers may indeed be typical for male burials, which would possibly confirm the consensus. Still, most of the object categories occur in only few sexed burials, and two of the 'male' objects accompany a female in a multiple burial (stone axe, flint dagger). The only possibly exclusive 'female' grave good, the perforated tooth, occurs in only one female grave and thus cannot be said to be gendered with any certainty.

5.3 Results II: selective deposition

Momentarily moving away from the funerary context, I will now take into account the 3 depositions and 32 single finds (5 and 73 objects respectively) in the Bavarian dataset. All of these sites have a low reliability, as seen in **Fig. 5.2**.

5.3.1 Depositions

Unfortunately, the context of depositions (i.e. buried objects without a body) is severely underrepresented in this case study. **Tab. 5.7** shows the 3 depositions and their 5 objects. One of these objects is exceptional: a facetted battle-axe. The few numbers make generalization impossible without comparing them to the other contexts in the dataset; these sites will be taken into account in 5**.3.3**.

Table 5.7 – The depositions in the Bavarian case study (n=3).

Dep ID	Toponym	Context	Object category	Object typology	Material	Embod-iment	N of objects	Additional information
17	Wechingen (Großes Graughaufeld)	unknown	cup	with handle	ceramics	non-body	2	unsure deposition
18	Kelheim (Mittelnische am Fuß des Räuberfelsens)	dry	pottery sherd		ceramics	non-body	1	unsure deposition, from a rock shelter
19	Hauptmannsgrub (Vogelsang)	unknown	axe		stone	in hand	1	"amongst other things", at the foot of a spring
"	"	"	battle-axe	facetted, wide cutting-edge	stone	in hand	1	" ; exceptional

5.3.2 Single finds

A large majority of the single finds in the Bavarian dataset are of unknown type (81%), while those with more precise types occur in low numbers only; taking the feature context into account, thus enlightens many of these finds (**Fig. 5.22**). Indeed, 28% of the single finds are from settlement contexts. Thus, for the remainder of the analysis, the unknown types from settlement contexts are specified separately from those from unknown contexts. Note, however, that these unknown settlement contexts do not

necessarily indicate CW settlements; many of these settlements have a later date (BBC or EBA).

Despite the few numbers of single finds from barrow landscapes, finds from the fill of a barrow entail 26% of the objects (**Fig. 5.23**). 34% of the objects are from settlement contexts (including from a pit), while only 5% are (certain) surface finds.

14 object categories occur as single finds (**Fig. 5.24**). The most common finds are pottery sherds, flint blades, and beakers, which most commonly are found in settlement contexts, barrows, and unknown contexts respectively. Single finds from settlement contexts have most variability (9 out of 14 object categories), including 6 object categories that do not (with certainty) occur in the fill of barrows (5 object categories): an arrowhead, an axe, animal bones, a dagger, flint flakes, and an unspecified object. The only grindstone found as a surface find, however does originate from a mound. Surface finds have the least variability in object categories (3): an animal bone, a dagger, and pottery sherds.

Most objects found as single finds have a 'non-body' embodiment (57%, mostly from settlement contexts) or an 'in hand' embodiment (36%, mostly from barrow contexts); there are no 'on body' object categories (**Fig. 5.25** and **Fig. 5.26**).

One 'single find' can entail numerous objects, mostly because these objects have been grouped together, and not necessarily because they were found together. An example is the single find with possibly 14 objects (or more; 11 blades and 1 pottery sherd "possibly belong", "among others"), from the fill of a probably Bronze Age rampart (SF ID 63). The uncertainty of this correspondence is clear. Therefore, analysing co-occurring object categories would have no meaning for this context.

Lastly, although there thus are some patterns in the Bavarian single finds, it is not clear what these patterns mean; the single finds are very unreliable, as it is not clear what they represent, even those from barrow landscapes (destroyed grave, or deposition, etc.?) and settlement contexts (i.e. stray find from a later settlement).

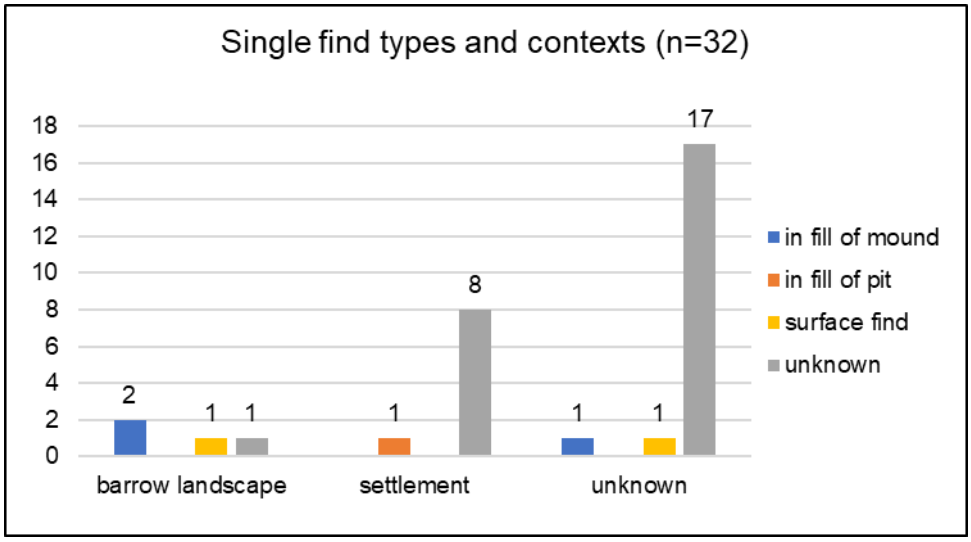

Figure 5.22 – The single find types and contexts in the Bavarian dataset (n=32).

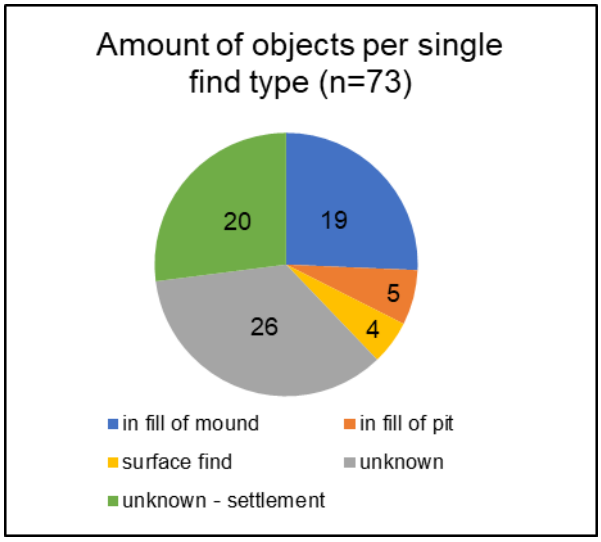

Figure 5.23 – The amount of objects found as single finds in the Bavarian dataset (n=73), categorized per type of single find.

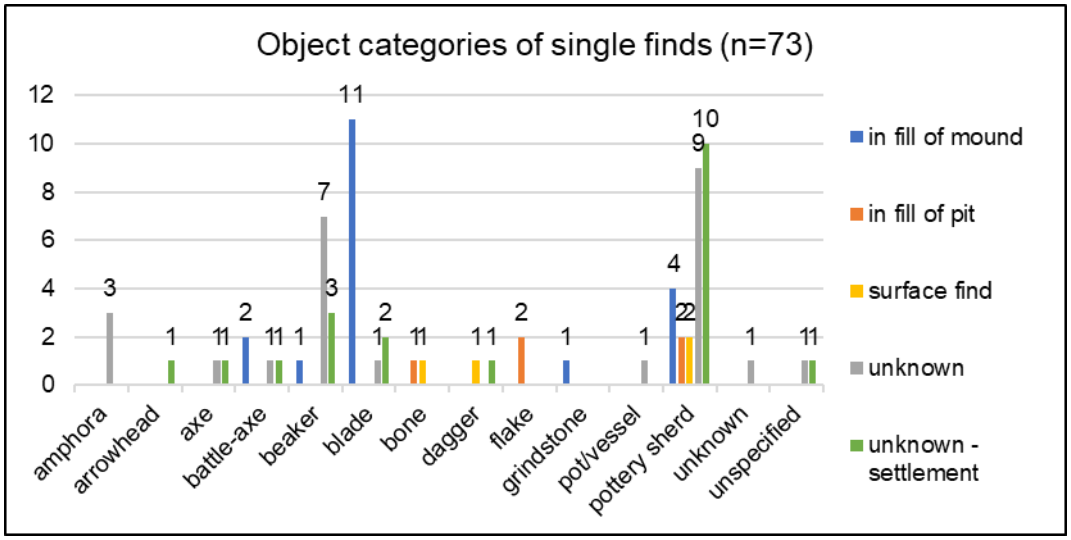

Figure 5.24 – The object categories found as single finds in the Bavarian dataset (n=73), categorized per type of single find.

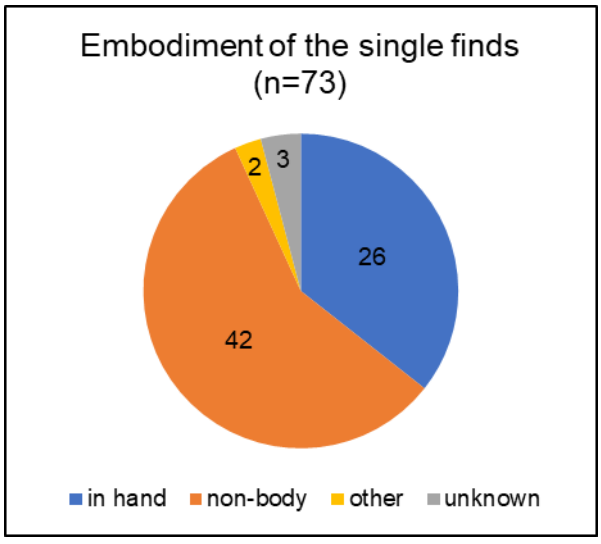

Figure 5.25 – The embodiment of the objects found as single finds in the Bavarian dataset (n=73).

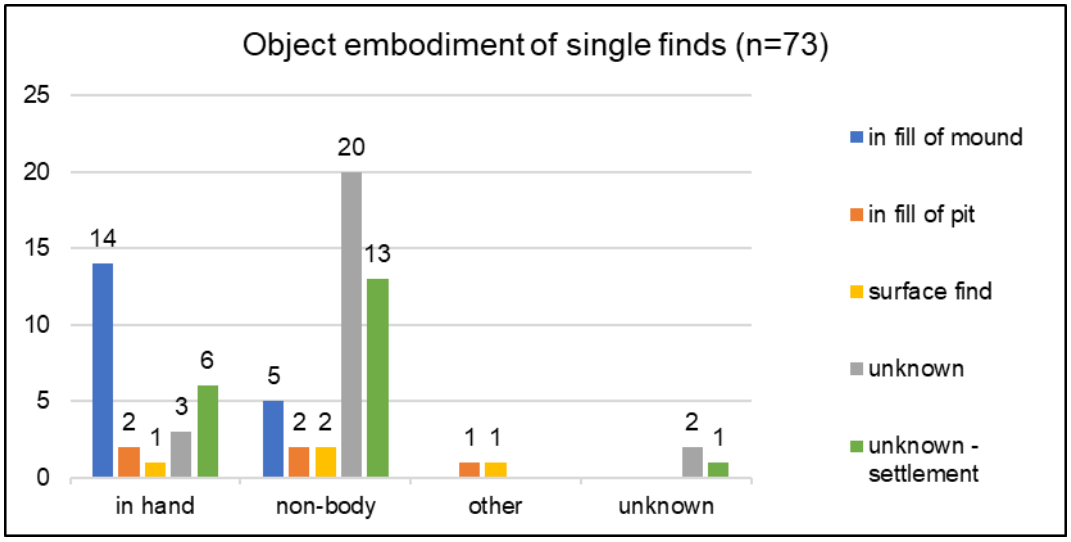

Figure 5.26 – The embodiment of the objects found as single finds in the Bavarian dataset (n=73), categorized per type of single find.

5.3.3 Gendered selective deposition?

Fig. 5.27 and **Fig. 5.28** give an overview of the object categories deposited in the different contexts of the Bavarian dataset. In accordance with the overrepresentation of burials in the case study, most object are found in burials, and burials thus have the largest variability. Indeed, 13 out of 27 object categories occur exclusively in burials, while no object categories occur exclusively in depositions or as single finds. However, as discussed in **5.3.2**, these 'exclusive' objects occur only in few numbers (or, in the case of the perforated teeth, in few burials); no clear (gendered) patterning can be inferred from these 'exclusive' occurrences. The only notable observation is that the only possibly 'female' object, the perforated tooth, belongs in this 'exclusive' group.

The most typical grave goods (stone axes, beakers, flint blades, pottery sherds, and flint daggers) and the common grave goods (flint arrowheads, battle-axes, animal bones, and flint flakes) simultaneously occur in other contexts as well. This thus includes the 'non-gendered' (beakers, blades) and the possibly 'male' artefacts (stone axes, flint daggers, flint arrowheads, and battle-axes). As it is difficult to interpret the single finds, because, as stated in **5.3.2**, it is not clear what these finds represent, the objects that occur in both graves and single finds will not be discussed further; they might represent destroyed graves or depositions. Particularly noteworthy are however those object categories that occur in depositions: a battle-axe and axe (both

possibly ‘male’), and, more uncertainly, pottery sherds (‘non-gendered’) and cups (a non-typical grave good).

Taking the co-occurrences of the object categories across the different features into account (**Fig. 5.29**), it becomes clear that single finds and depositions are generally not located in the middle cluster (commonly co-occurring objects) and are more in the periphery of the graph; they typically contain only 1 object category. There are however some exceptions, such as the deposition of the battle-axe and stone axe (Hauptmannsgrub, Dep ID 19). Thus, mostly graves are connected with other graves. The single finds and depositions are however not completely distinct from the graves, which again emphasizes their unsure contexts: perhaps these are destroyed graves.

Most objects in the Bavarian dataset either have an ‘in hand’ (48%) or a ‘non-body’ embodiment (40%) (**Fig. 5.30**), while ‘on body’ categories are uncommon (6%). Unsurprisingly, all object embodiments mostly occur in burials, although ‘in hand’ categories are most common (**Fig. 5.31**). In single finds, however, ‘non-body’ categories are more common. Depositions are only of ‘in hand’ or ‘non-body’ type, although these numbers are so low, that this is not significant. Intriguingly, there are no depositions nor single finds (i.e. potential depositions) with ‘on body’ objects.

In sum, particular (gendered) rules of selective deposition cannot be inferred from the Bavarian dataset with certainty. The only observations that might be related to selective deposition, are that possibly ‘male’ objects can be deposited in both graves and depositions, and that objects with an ‘on body’ embodiment seem to be restricted to the funerary context. Both patterns however cannot be substantiated, due to the low numbers of depositions, the unsure ‘gendering’ of these objects, and a general underrepresentation of ‘on body’ objects in the dataset.

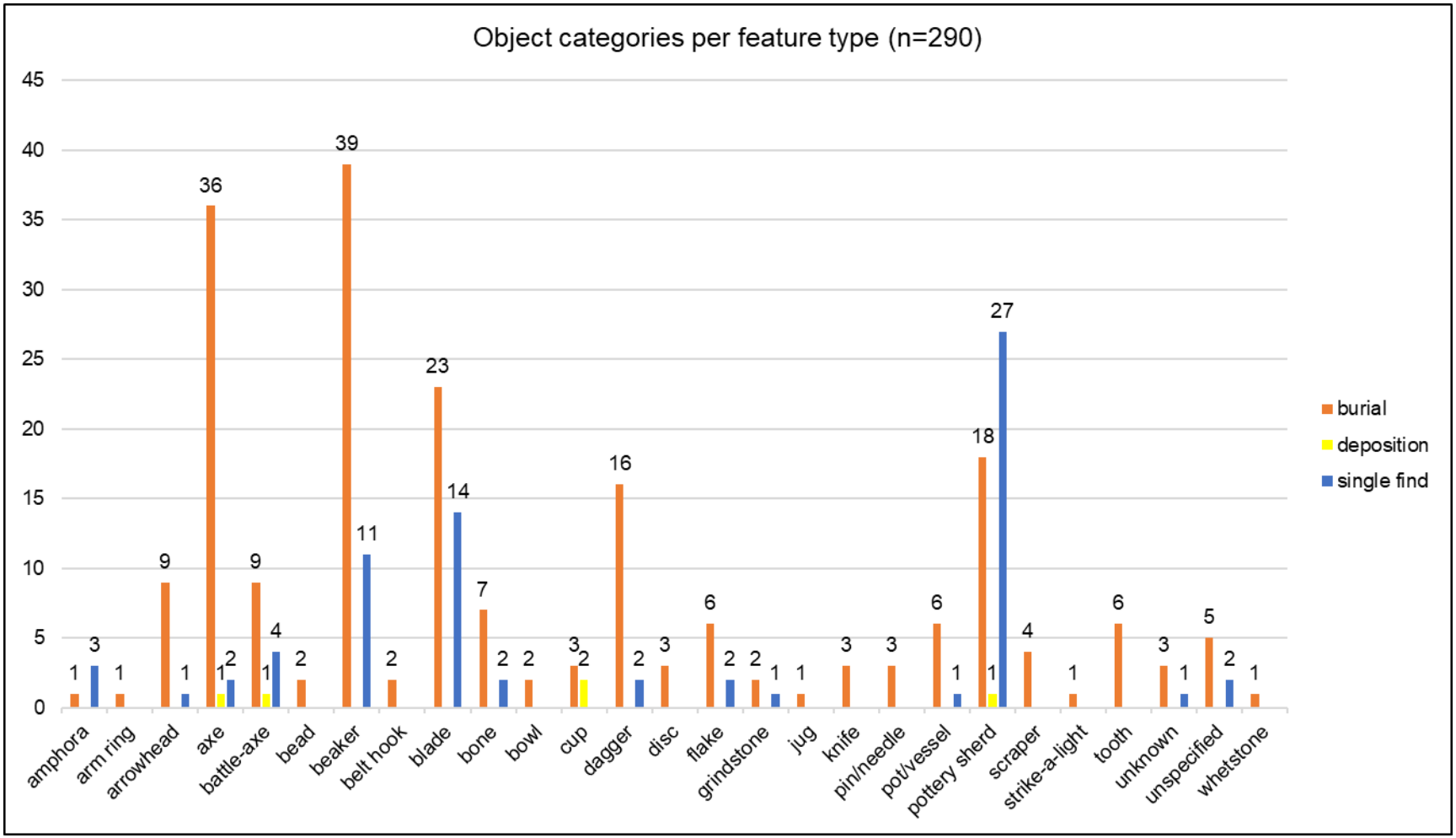

Figure 5.27 – The objects in the Bavarian dataset (n=290), shown per feature type.

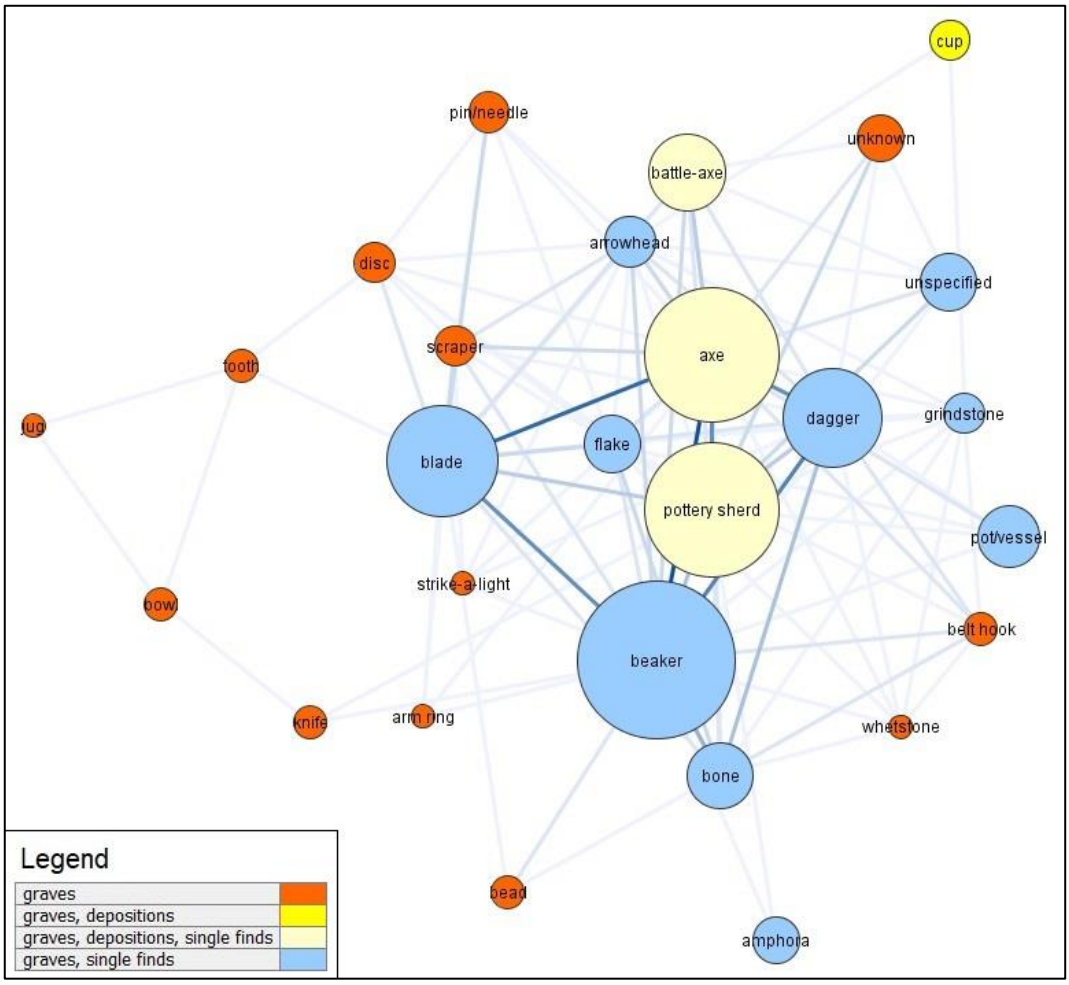

Figure 5.28 – The co-occurrences of all objects in the Bavarian dataset (n=290). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates how often this object co-occurs with another object (larger nodes imply more connections), and the colour of the nodes indicates the feature types in which the object occurs.

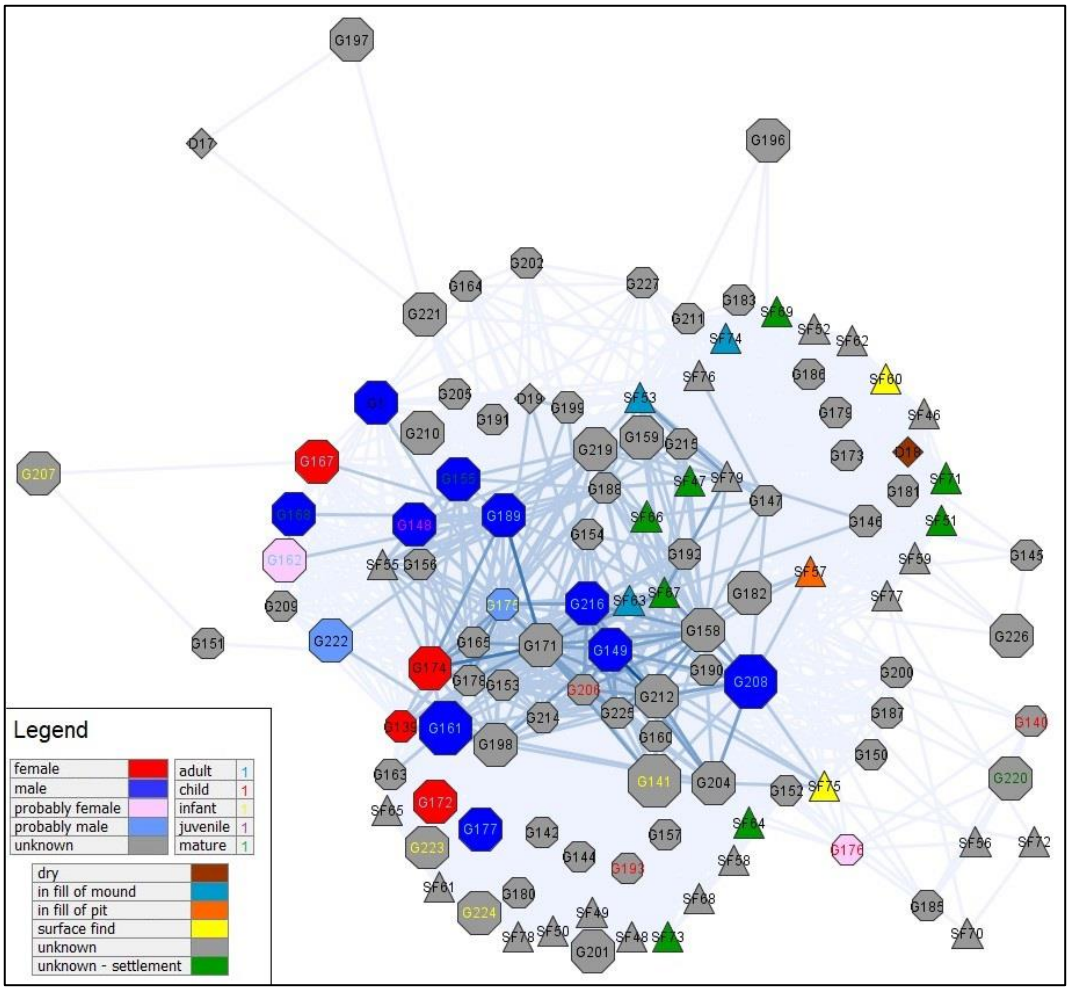

Figure 5.29 – The co-occurrence between all features in the Bavarian dataset (n=125). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the features (larger nodes imply higher reliability), the shape of the node indicates the feature context (octagon: grave; diamond: deposition; triangle: single find), the colour of the nodes indicates the sex of the graves and the context of the single finds and depositions, and the colour of the label indicates the age (multiple burials excluded). The labels indicate the IDs.

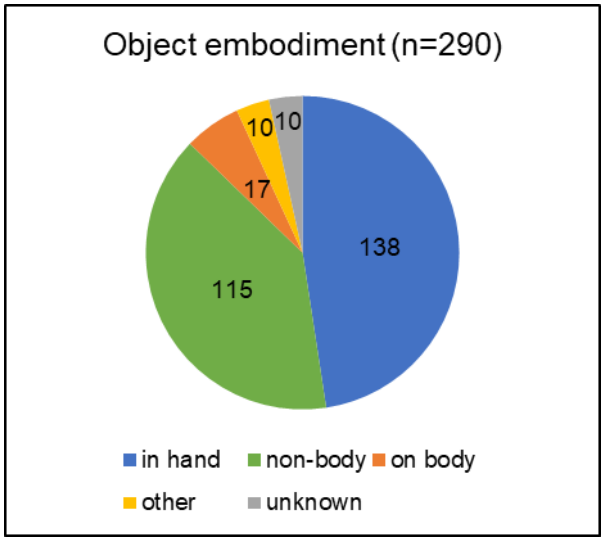

Figure 5.30 – The embodiment of all objects in the Bavarian dataset (n=290).

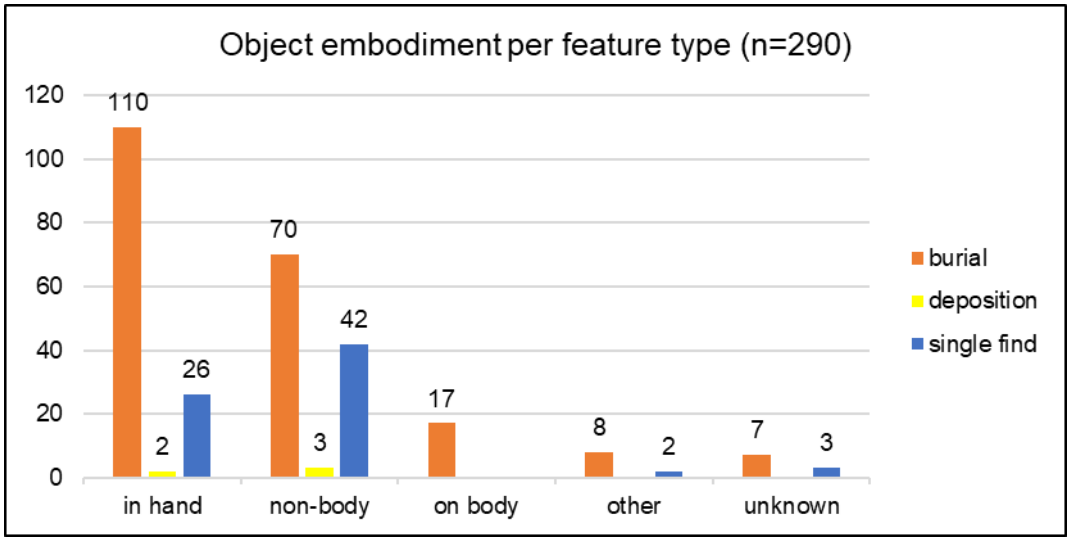

Figure 5.31 – The embodiment of all objects in the Bavarian dataset (n=290), shown per feature type.

5.4 Preliminary conclusion: gendered practices in the Bavarian CWC?

This case study has been an attempt at investigating the multi-contextual expression of gender identities in Bavaria. As we have seen, however, the funerary context was overrepresented in the dataset. Another problem, that has become apparent in all sections of this chapter, is the large number of 'unknowns': unknown feature types (mostly of single finds), unknown body positions, sex and age, and, although to a lesser extent, unknown or unspecified objects. Therefore, all patterns that have been

found in the dataset, must be considered statistically insignificant. Nevertheless, the Bavarian dataset does give some insight in the gendered practices that would have been part of CW society here.

5.4.1 How has gender been expressed in funerary contexts?

The consensus about CW gender is that male burials were lain in crouched right-flexed positions, and female burials in crouched left-flexed positions. The few sexed burials in crouched flexed positions (3 females and 3 males) in the Bavarian dataset indeed seem to confirm this pattern. This pattern however becomes more complex, as both males and females appear to have been buried in supine flexed positions, either on their right or left side. A careful suggestion could be that there were three distinct, possibly gendered, ways of burying the deceased, rather than just two: in a crouched right-flexed ('male'?), crouched left-flexed ('female'?), or supine flexed ('male' *and* 'female'?) position. It is however also possible that the supine flexed position was a particularity; many multiple burials (of all sexes and ages) are lain in this position.

Taking age into account, in order to consider gender as a changing identity through the life course, it becomes clear that subadults were not treated in a different way than adults: children and even infants were also placed in crouched or supine flexed positions on their left or right side. Mature bodies were also placed in these positions. However, two children were placed in a supine stretched position, thus suggesting that certain children were buried in a different way than adults. Due to their low numbers, it is not possible to determine whether this indeed was a common burial norm.

Grave goods are to a large extent 'standardized': beakers, stone axes, flint blades, pottery sherds, and flint daggers commonly accompanied bodies in all positions and of all ages and sexes. Particularly the beaker and the flint blade appear to be 'non-gendered', whereas stone axes and flint daggers might be 'male' categories (note: one of each do occur with a female, in the context of a multiple burial with a subadult). Flint arrowheads and battle-axes may be more convincingly 'male', as they do not occur with any female burials. The only possibly 'female' object category could be the perforated tooth, but this object only occurs in one female burial. It must be kept in

mind that of the sexed burials, most are male; it is thus unclear to what extent these careful classifications may be related to an overrepresentation of male graves.

Most remarkable is that all possibly 'male' objects and the one uncertain 'female' object also commonly occur in children's graves. Moreover, several less common, and even a few exceptional, object types often accompany multiple burials of all ages and sexes, but also often in particular children. This seems to suggest that children were considered to be part of the (burial) community, and perhaps 'gendered' in a similar to adults; they were buried in the same positions and with the same grave goods.

5.4.2 How has gender been expressed through selective deposition?

Due to the many 'unknowns' in the dataset, the uncertainty of single finds, and the small number of depositions in the case study, no particular (gendered) rules of selective deposition have become apparent. The only two possible patterns in the dataset are that the possibly 'male' objects occur in both graves and depositions, and that objects with an 'on body' embodiment could be exclusively deposited in graves.

6 The Corded Ware culture in Southern Jutland

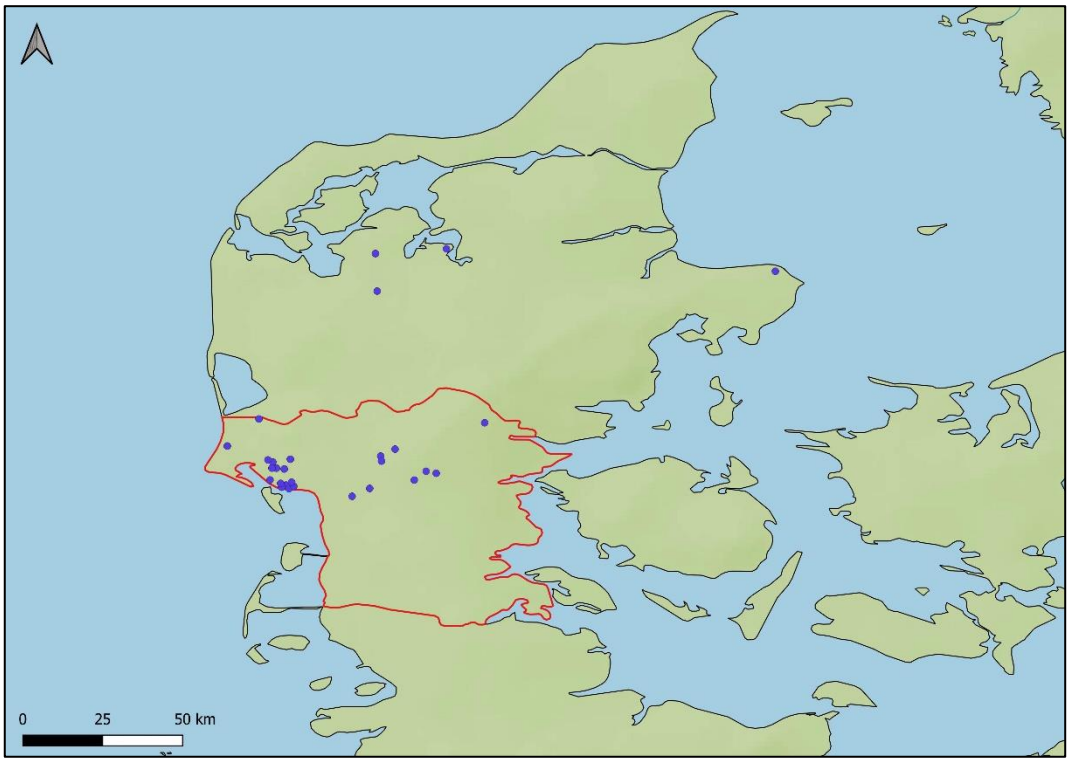

Figure 6.1 – The location of Southern Jutland (red outline), and the sites (n=29) included in the case study (purple dots), some thus from outside the region.

The peninsula of Jutland consists of the mainland of Denmark and a part of Northern Germany (Schleswig-Holstein), and is surrounded by the North Sea in the west, the Skagerrak in the north, and the Kattegat and the Baltic Sea in the east. During the Younger Neoltihic (2850-2250 BCE), the shoreline in the south was lower than today, but higher in the north (Ebbesen 2006, 217). This case study will only comprise the administrative region of Southern Jutland (**Fig. 6.1**) in Denmark, although four additional sites from Northern Jutland have been included (see **6.1**).

The region of Mid- and West-Jutland (i.e. in the administrative region of Southern Jutland) is considered to be the 'core' Single Grave area, where typical burial practices and CW objects occur (Ebbesen 2006, 151). The landscape of this region is – still today – dominated by prehistoric barrows, which have a very long research history and thus play an important role in the grand narrative of the CWC (see **3.1**; Hübner 2005, 11, 26). On the other hand, settlements are more difficult to recognize in this region, and

are more typically found along the north-eastern coast of Jutland, where the archaeology shows little distinction from the preceding Pitted Ware culture (Ebbesen 2006, 164-6, 223-4; Hübner 2005, 705). A similar situation occurs on the Danish Isles, where there is a remarkable continuity with the Funnel Beaker culture (TRB), with use of CW material culture (Iversen 2016). The 'core' role of Southern Jutland in the narrative about the CWC makes this region an interesting case study to include in the present research.

6.1 Source criticism

The main sources for this case study are the particularly exhaustive catalogue by Hübner (2005), which is an overview of all Single Grave burials on the whole of Jutland, and the catalogue by Siemen (2009), which is an overview of all Younger Neolithic sites, yet in Southern Jutland only; the latter includes depositions, single finds, flat-graves, and reused megalithic graves, while the former mostly encompasses barrow graves. For one reused megalithic grave (Børsmose; Siemen 2009), I have requested additional information at the Varde Museum, and received the excavation report as well as an article; hence, these have also been used as a source (Andresen 2015a; Andresen 2015b).

Both catalogues are so extensive, that in order to limit this case study, I had to make a selection. After collecting the data of one complete barrow landscape (Torrupsgaard), for which I also included Ebbesen (2006), as a test for the database, I consulted the database of Bourgeois and Kroon (2017), which contains 425 Danish graves, and decided upon a selection; I have deliberately chosen burials and contexts that were not included in their extensive study, so that the results of this small case study should be compared and contrasted to their results (see **Chapter 7**). Thus, from Siemen (2009), this case study includes megalithic graves, flat-graves, depositions, and single finds, as well as an occasional barrow in the proximity of the above features. From Hübner (2005), only the burials marked as exceptional in Bourgeois and Kroon (2017)'s database have been selected, as well as a few sites that had been selected from Siemen (2009) but were not available to me anymore.[2] It is thus

[2] The catalogue by Siemen (2009) was only available to me during my Erasmus+ study abroad programme at Aarhus University.

important to keep in mind that this case study is *not* an extensive overview of all CW sites in Southwest Jutland and merely a selection.

The strength of both catalogues lie in their highly detailed descriptions, including images of objects, measurements, and maps of the location of the sites. Yet there are also limitations. A main issue is the generally bad preservation of the archaeology; barrows are often ploughed and/or disturbed, and skeletal remains are not preserved in the sandy soils of Jutland. Furthermore, not all barrows and graves are pictured, but the precise descriptions in the catalogues ensures that enough information is available about these features. However, Siemen (2009) does not always specify the arrangements of depositions, and single finds often only are descriptions of the found objects (e.g. because they are owned by the farmers who ploughed the objects up); these two features are thus not always as reliable.

Due to the issue of preservation, some sites from Northern Jutland are included in the database (see **Fig. 6.1**). These consist of megalithic graves with skeletal remains from the CWC. One of these sites, Gjerrild, the most eastern site in the dataset, has been analysed in a recent stable isotopes study (Frei *et al.* 2019) and has therefore been included in this case study.

6.2 General results

29 CW sites from Jutland are included in the case study (see **Fig. 6.1**). A total of 193 features have been found at these sites, but not all of these will be included, as these consist of secondary graves of later dates (Bronze Age and Iron Age) as well as depositions and single finds of both earlier (TRB), later, and unknown dates. Thus, this case study comprises 145 features: 103 burials, 13 depositions, and 29 single finds (**Fig. 6.2**). A large majority of the features are from barrow landscapes, even the depositions and single finds; the five 'dry/wet' depositions are from one site (Hygum), located on the sandy hills alongside the meadows and moors of a brook, and the two wet depositions are from bogs (Vejen mose and Lydumgård). Fortunately, only 12% of the features have an unknown context.

The preservation of the features is generally, as expected, bad (**Fig. 6.3**); most of the features are ploughed and/or disturbed (59%, including 'looted' and 'other'). Only 4 burials have a good preservation (3%). Unfortunately, the preservation of a large amount of features, including most of the depositions, is unknown (38%). Largely due

to these bad or unknown preservations, the reliability of the features is generally low (73%) (**Fig. 6.4**). Reliable features (reliability factor of 2; 26%) are mostly burials (3 even have a superb reliability: reliability factor 3) but also a few depositions and one single find.

A total of 1637 objects are stored in the database; this number is however skewed by the 1339 beads that have been found in 33 graves and as 1 single find. Therefore, the number of graves in which these beads occur (per material category of beads: 34 in graves; the single find with 3 beads is not corrected), are taken instead of the actual number of beads, for the remainder of the chapter; **6.3.2** contains a separate section on the beads in which the actual numbers will be analysed. After this correction, the Danish dataset thus contains a total of 334 objects (**Fig. 6.5**): 70% of the objects are from burials, 18% are single finds, and 12% are from depositions. It is clear that the funerary context is overrepresented in the dataset.

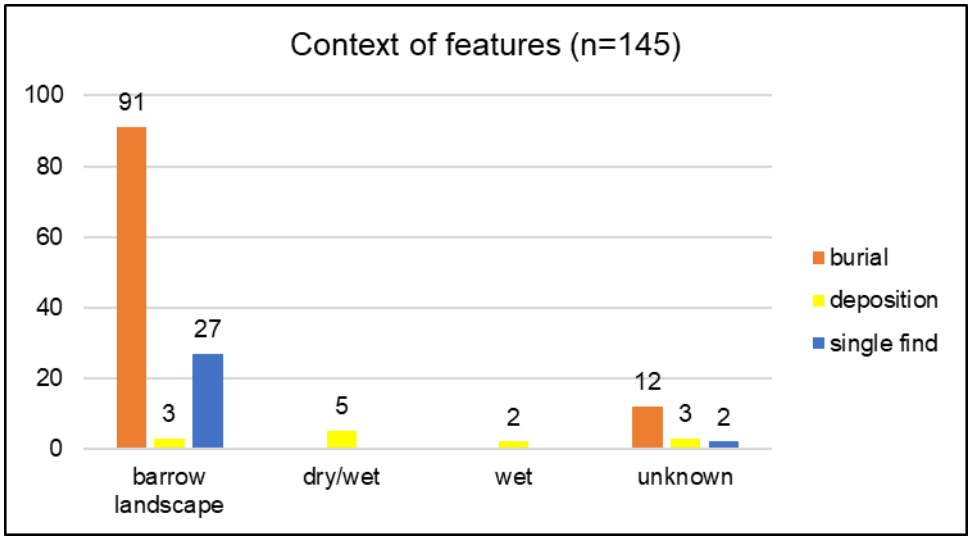

Figure 6.2 – The contexts of the features in the Danish dataset (n=145)

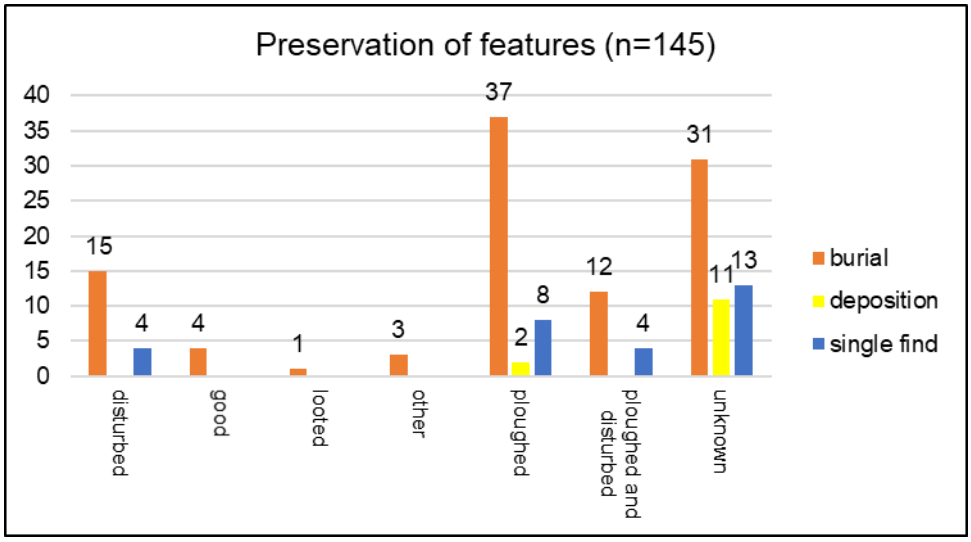

Figure 6.3 – The preservation of the features in the Danish dataset (n=145).

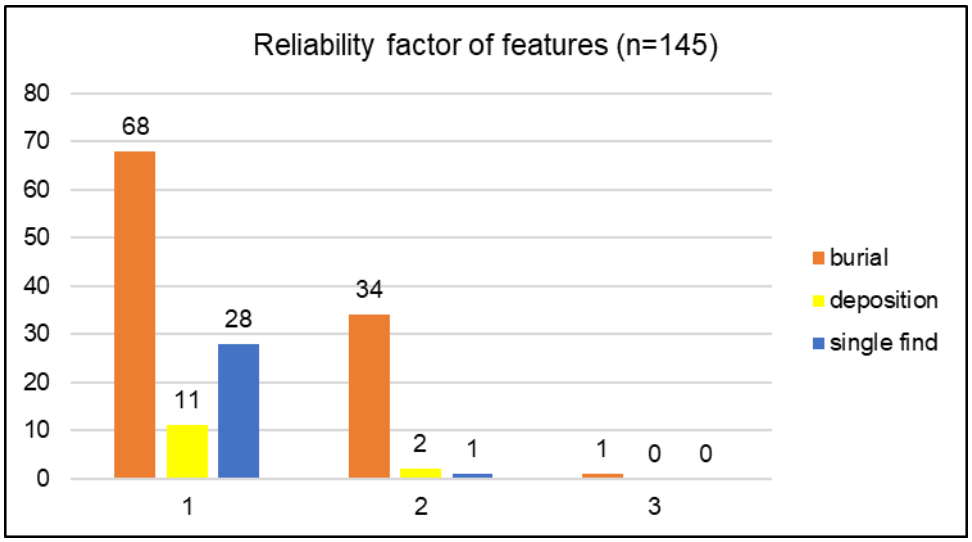

Figure 6.4 - The reliability of the information about the features in the Danish dataset (n=145), on a scale of 1-3, in which 1 is a low reliability, and 3 a high reliability.

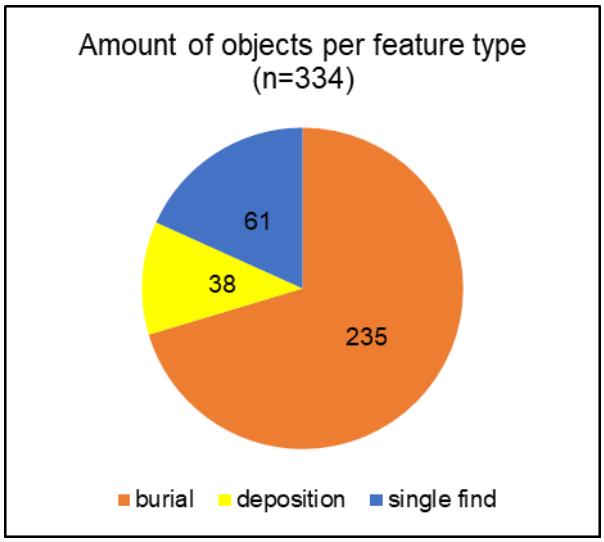

Figure 6.5 – The amount of objects that have been found per feature type in the Danish dataset (n=334).

6.3 Results I: the funerary context

The most common grave types in the Danish dataset are barrows: primary graves (44%) and secondary graves (33%) in barrows (**Fig. 6.6**). Nevertheless, 10% of the graves are reused megalithic graves, and 9% of the graves are flat-graves. The (main) grave orientations are typically E-W (39%), while N-S orientations are not as common

(7%) (**Fig. 6.7**). Variations (i.e. NW-SE, NE-SW) are common (21%) as well, and many are unknown (33%).

Grave structures are very common for the Danish graves: 56 of the graves have a stone structure, 17 (also) have a wooden structure, 17 (also) contain charred material, and 26 graves (also) have a wooden coffin (**Fig. 6.8**). The 75 graves with structures are naturally mostly barrow graves, but it is noteworthy that nearly all flat-graves (8 out of 9) also have a grave structure (**Fig. 6.9**). These are generally stone frames and wooden coffins, often co-occurring. The co-occurrences of the grave structures are visualized in **Fig. 6.10**. Unsurprisingly, 'unknown' structures mostly co-occur, just as no structures. More interesting is that wooden and stone structures do not exclude each other; for example wooden coffins can co-occur with stone frames, packings, and pavings or other stone constructions, although the latter two structures mainly occur without a wooden structure or with a wooden chamber. Stone chambers and megaliths however do not co-occur with wooden structures. The presence of charcoal seems to co-occur with all structures.

Enclosures surrounding the graves are much less common than grave structures (**Fig. 6.11**) and mostly involve a ring ditch, either with posts and/or stones (13% in total). Yet only posts can also surround the grave (3%), and one site (with 4 graves) has a unique enclosure (a stone circle and a double row of posts).

Of most graves in the Danish dataset (including those of which it is not known whether they are barrows), the material of the barrows is unknown (51%) (**Fig. 6.12**). For those known barrows, at least 5 different materials have been used to construct the mound; sand is the most common 16% of the graves. One megalithic grave (Grave ID 133) has been constructed with four different layers, of shells (two layers), a sandy humus fill, and sods.

Of the 103 graves, there are indications for the presence of 46 bodies, in 40 graves. Yet skeletal remains have only been found for 12 of these (**Fig. 6.13**); for the remainder, soil silhouettes, i.e. a discolouration of the soil in the shape of the body, have been documented (31 bodies), and in 3 cases, the body position was described without mention of the preservation. It can be assumed that the remaining 63 graves had such poor preservation that not even a soil silhouette has been documented; these 'empty' graves were thus not necessarily cenotaphs.

Yet even with soil silhouettes, the body position of the deceased can often be discerned (**Fig. 6.14**): the crouched right-flexed position is most common (41%; flat-graves and barrow graves). Less common, but prevalent body positions are the crouched left-flexed position (11%; barrow graves) and the supine stretched position (13%; megalithic graves and barrow graves). Nonetheless, for a large amount of bodies, the position is not known (28%) or the side on which the crouched flexed burial was lain (5%; megalithic grave, barrow grave).

The sex (**Fig. 6.15**) and age (**Fig. 6.16**) of the burials is mostly unknown (87% and 80% respectively); only 6 burials have been analysed through physical anthropology, and an additional 3 children could be 'aged' on the basis of the size of their soil silhouettes. Despite the few numbers of burials with a known sex and age, both sexes and all ages are represented. The correspondence between grave type, body position, sex and age will be elaborated in **6.3.1**.

Several of the bodies in the Danish graves were buried together (**Tab. 6.1**): 3 graves certainly contained 11 bodies, and an additional grave is (dubiously) considered to be a double burial on the basis of double grave goods. The bodies in multiple burials are mostly soil silhouettes indicating a crouched right-flexed position, and the burials are mostly in pairs. Th megalithic grave of Gjerrild, however, contains the best preserved skeletal remains from the CWC in Denmark, from a communal burial of at least 10 individuals. The complete skeletons and one disarticulated mandible (dating to the EBA) have been analysed osteologically and included in a recent stable isotope analysis (Frei *et al.* 2019; see below). 5 additional graves are considered to be exceptional (**Tab. 6.2**), mainly on the basis of their unique grave structures. Yet one exceptional grave is the burial of a Spitz dog (Esbjerg, Forsøgsgården), lying on its left side, and accompanied by 5 grave goods.

Only 5 burials in the Danish dataset have been dated by radiocarbon dating (**Tab. 6.3**). Nearly all of these are from Gjerrild; three yielded a Middle Neolithic B date (following the Southern Scandinavian periodization; i.e. the Danish Single Grave Culture), while one is somewhat later (Southern Scandinavian Late Neolithic). The stable isotope analysis of these burials has revealed that the adult female (Burial ID 44) might have been non-local, while the mature male (Burial ID 47) would have been local (Frei *et al.* 2019). Furthermore, the adult male (Burial ID 46) was found with an

arrowhead lodged into his chest bone, and the mature male had a healed trepanation in his skull and periostitis in his lower legs.

Lastly, 235 objects (or without correcting the amount of beads: 1539) have been found in 88 graves, thus leaving 15 graves 'empty'. All but one 'empty' graves are however of low reliability; it is thus unclear to what extent these graves are empty due to bad preservation (e.g. disturbed graves, perishable grave goods), or because of intentional burial without grave goods. 98 objects (or with the actual amount of beads: 850) can be associated with 39 bodies; these will be discussed further in **6.3.2**.

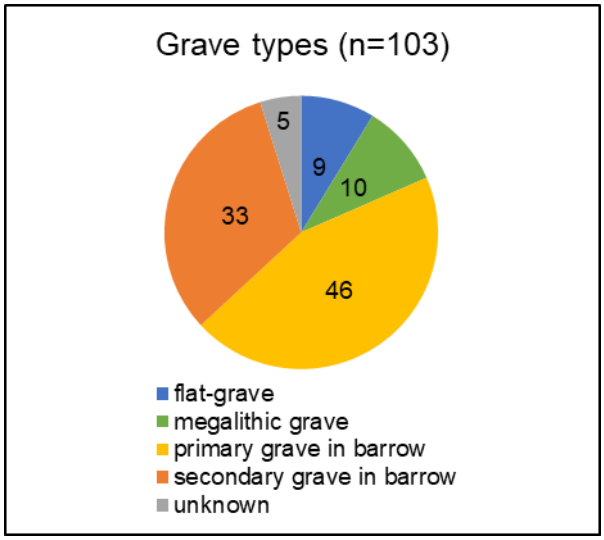

Figure 6.6 – The grave types in the Danish dataset (n=103).

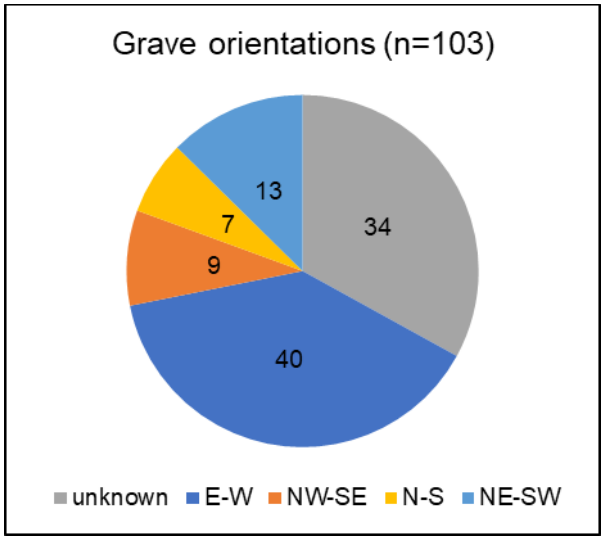

Figure 6.7 – The (main) orientations of the graves in the Danish dataset (n=103).

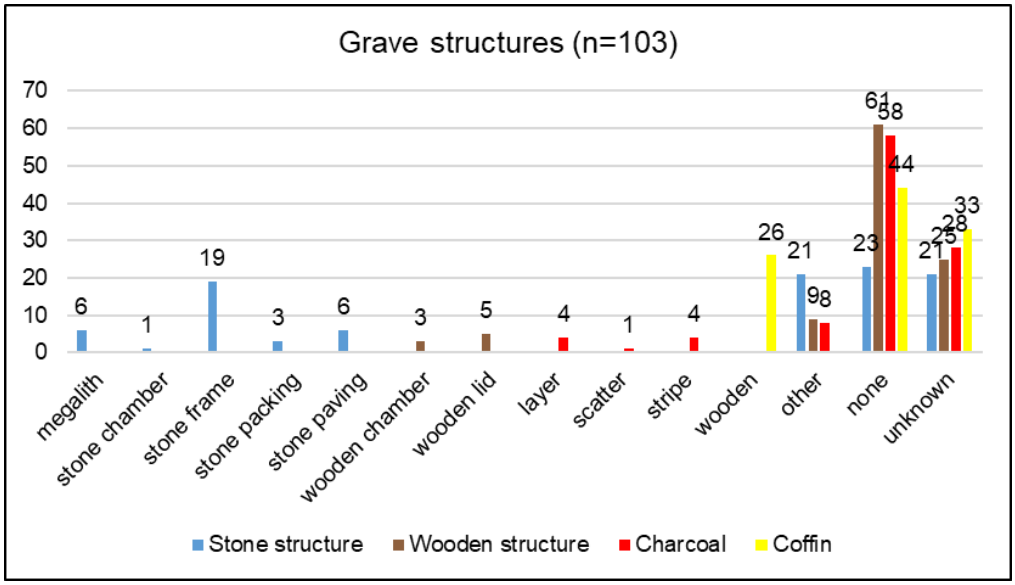

Figure 6.8 – The grave structures which occur in the Danish graves (n=103).

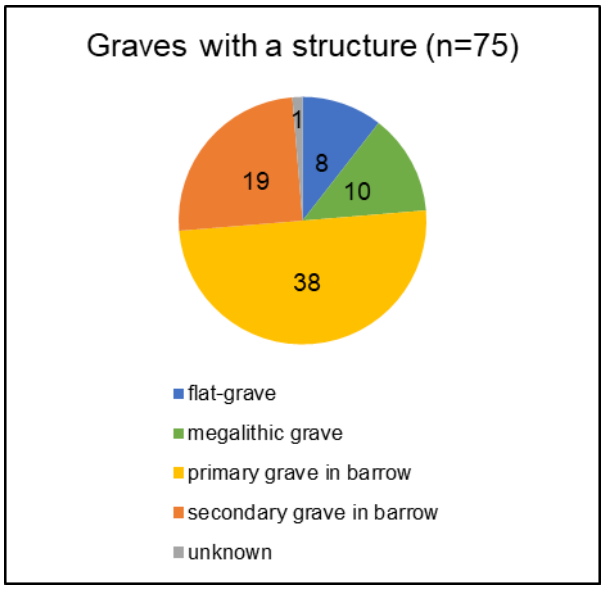

Figure 6.9 – The grave structures in the Danish dataset (n=75), shown per grave type.

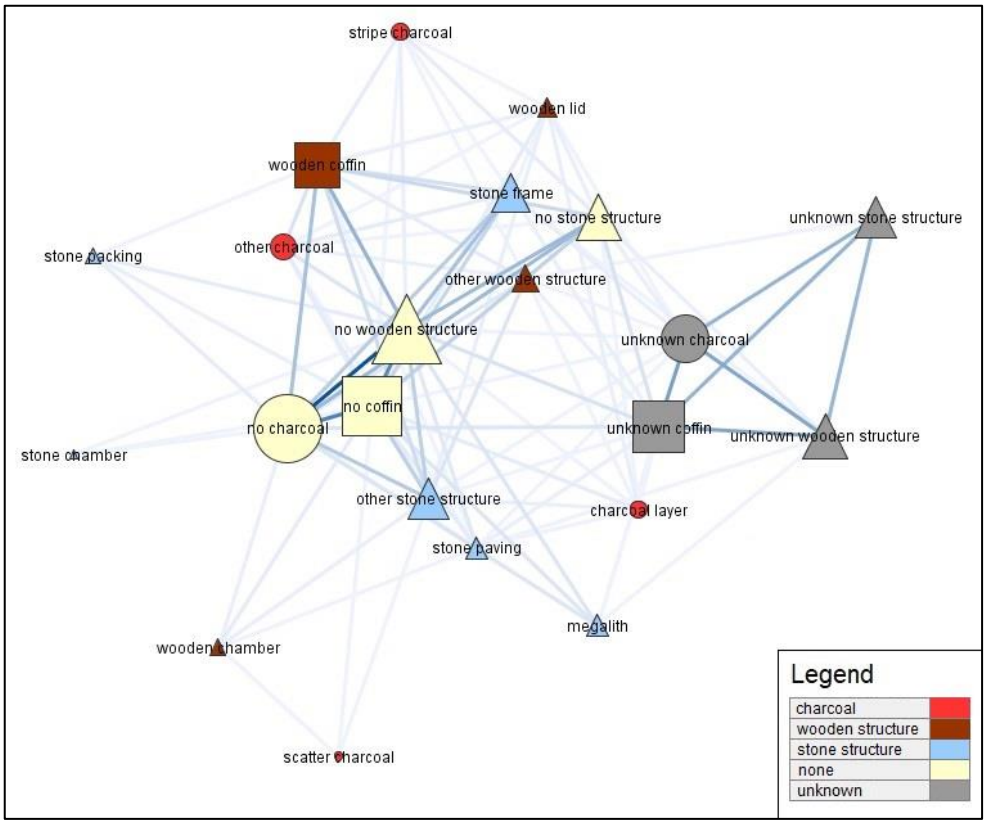

Figure 6.10 – The grave structures that most typically co-occur in the Danish graves (n=103). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates how often this grave structure co-occurs with another grave structure (larger nodes imply more connections), and the shape of the nodes indicate the type of structure (triangle: structure; square: coffin; circle: charcoal).

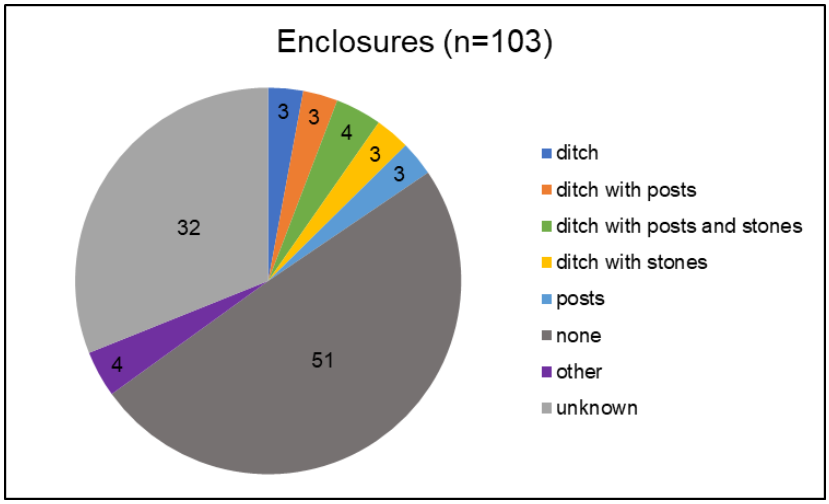

Figure 6.11 – The enclosures surrounding the Danish graves (n=103).

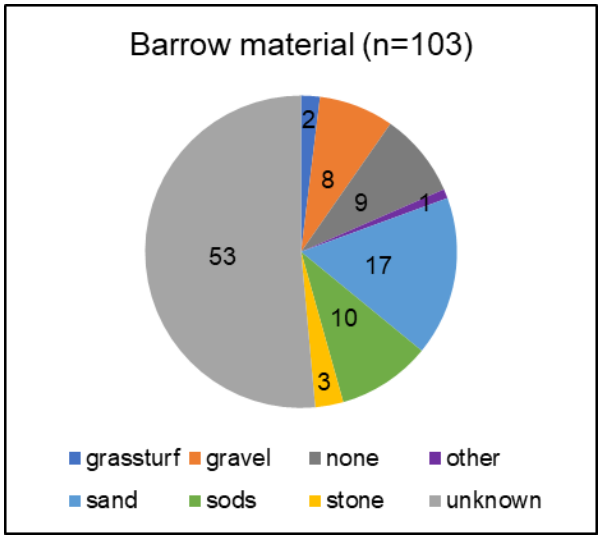

Figure 6.12 – The barrow materials of the Danish graves (n=103).

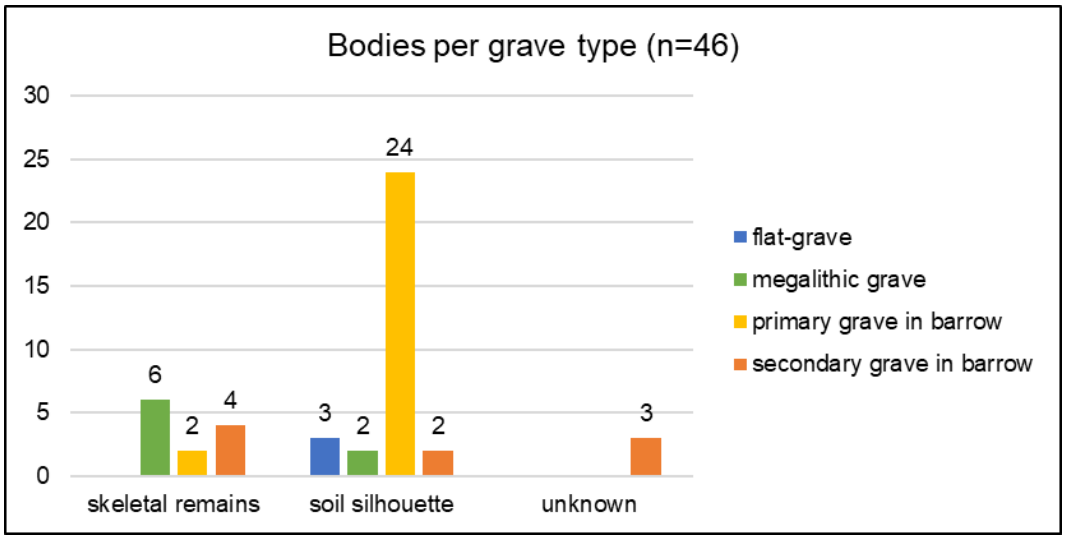

Figure 6.13 – The bodies occurring in the Danish graves (n=46), shown per grave type and preservation.

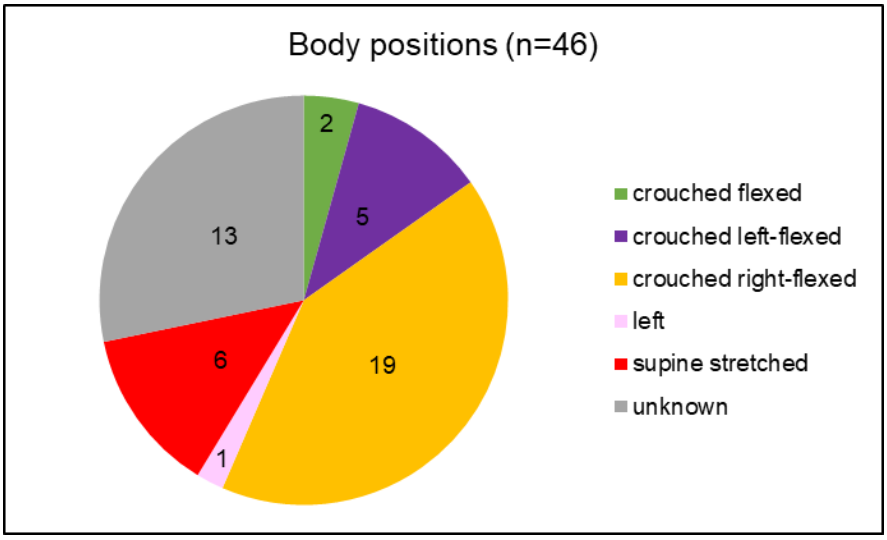

Figure 6.14 – The body positions in the Danish graves (n=46).

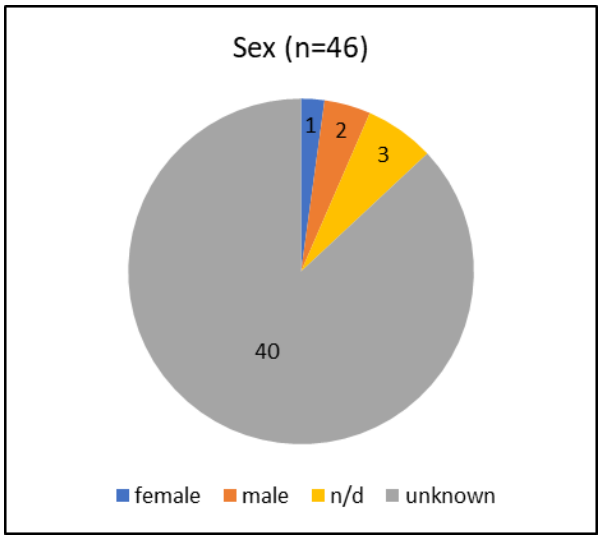

Figure 6.15 – The sex of the bodies in the Danish graves (n=46).

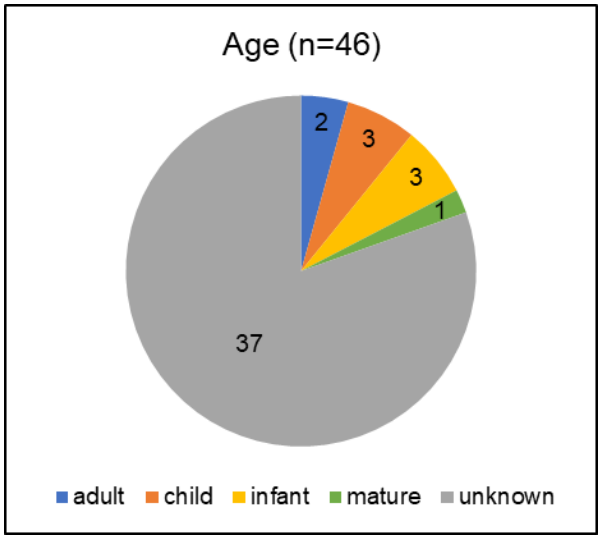

Figure 6.16 – The age of the bodies in the Danish graves (n=46).

Table 6.1 – The multiple burials in the Danish dataset (n=11)

Grave ID	Toponym	Grave type	Burial type	Burial ID: age, sex, body position
27	Torrups-gaard	primary grave in barrow	unsure double burial	11: unknown, crouched right-flexed; (12: none)
71	Veldbæk	primary grave in barrow	double burial	22: unknown, crouched right-flexed; 23: unknown, crouched right-flexed
132	Gjerrild (NE-Jutland)	megalithic grave	communal, MNI 10 (dated MN-EBA)	44: adult female, crouched flexed; 45: infant, unknown (dated LN); 46: adult male, supine stretched; 47: mature male, supine stretched; 48: infant, unknown
133	Bøstrup (N-Jutland)	megalithic grave	double burial	49: unknown 50: unknown

Table 6.2 – The exceptional graves in the Danish dataset (n=5), excluding the multiple burials.

Grave ID	Toponym	Grave type	Reasoning	Burial ID: age, sex, body position
4	Brøndum (N-Jutland)	primary grave in barrow	burnt sand under grave	14: unknown, crouched right-flexed
42/122	Børsmose	megalithic grave	reused megalith with new structure	15: unknown
99	Esbjerg, Forsøgs-gården	secondary grave in barrow	burial of a dog	31: left
112	Forum By	primary grave in barrow	ditch with stones and burnt patches	none
115	Forum By	primary grave in barrow	burnt wooden structure	36: unknown, crouched right-flexed

Table 6.3 – The radiocarbon dates of the Danish graves (n=5).

Grave ID	Toponym	Grave type	Absolute date	Absolute date (cal)	Sampled material
80	Veldbæk	primary grave in barrow	4150 ± 100 BP	2860-2700 calBC	charcoal
132	Gjerrild (NE-Jutland)	megalithic grave	4007 ± 36 BP	2620-2460 calBC	Burial ID 48
"	"	"	3950 ± 31 BP	2570-2340 calBC	Burial ID 44
"	"	"	3906 ± 28 BP / 3843 ± 30 BP	2480-2290 calBC / 2460-2200 calBC	Burial ID 47
"	"		3790 ± 34 BP	2350-2060 calBC	Burial ID 45

6.3.1 Body positions, sex and age

Unfortunately, very few bodies in the Danish dataset have been sexed and/or aged, rendering a comparison with their body position possible, but rather insignificant (**Tab. 6.4**). Unfortunately, of the only female burial in the dataset, from Gjerrild, the side on which they were buried is unknown. The only two male burials, also from Gjerrild, were buried in a supine stretched position, which is not a very common body position in the dataset. Lastly, half of the subadults (1 infant, 2 children) were buried in a crouched right-flexed position; of the other half, this is unknown (2 infants, 1 child). In sum, the hypothesis that males were buried on their right side, and females on their left side, cannot be tested for this case study.

6.3.2 Grave structures

Comparing the prevailing body positions to the grave structures with which they occur, is expected to yield more results than the above comparison. **Fig. 6.17** shows the co-occurrence between the bodies in the Danish graves and the grave structures.

A first observation is that the crouched right-flexed graves are mostly clustered around the wooden coffin and the stone frame, while the crouched left-flexed and supine stretched burials are less often associated with these structures. In fact, only crouched right-flexed burials are associated with stone frames. Charcoal in the grave is also mostly associated to the crouched right-flexed position. Other structures such as stone pavings, a wooden chamber, and 'other' stone or wooden structures, also occur, but in lesser extent.

The crouched left-flexed position is rather spread out over the graph, indicating less common co-occurrences; only the 'other' stone structure occurs twice with crouched left-flexed burials (one also with a wooden coffin, and the other with an 'other' wooden structure). This seemingly high variability can most likely be explained by the low numbers of crouched left-flexed burials in the dataset. The same holds true for the supine stretched position, although it is interesting that this position is less associated with structures in general; one has a wooden coffin and charcoal, and another only has an 'other' stone structure.

Lastly, two of the multiple burials in the dataset are associated with megaliths and otherwise no (or unknown) structures; these have mixed or unknown body positions.

Table 6.4 – The burials in the Danish dataset with a known body position, sex and/or age (n=46). The red coloured numbers are burials with a low or unsure reliability (1); the black coloured numbers are reliable or even superb; the blue coloured numbers are from multiple burials. Numbers separated with a slash must thus be added up for the total number of burials with that position, sex and age. *: dog burials.

Sex/age / **Body position**	F		M			n/d		unknown			
	adult	*Subtotal F*	**adult**	**mature**	*Subtotal M*	**infant**	*Subtotal n/d*	**child**	**unknown**	*Subtotal unknown*	**TOTAL**
crouched flexed	**1**	*1*			*0*		*0*		1	*1*	**2**
crouched left-flexed		*0*			*0*		*0*		**1**/4	*5*	**5**
crouched right-flexed		*0*			*0*	1	*1*	2	**2**/**1**/13	*18*	**19**
Subtotal	*1*	***1***	*0*	*0*	*0*	*1*	***1***	*2*	*22*	***24***	***26***
left		*0*			*0*		*0*		1*	*1*	**1**
supine stretched		*0*	**1**	**1**	*2*		*0*		4	*4*	**6**
unknown		*0*			*0*	**2**	*2*	**1**	**2**/**6**/4	*11*	**13**
TOTAL	**1**	**1**	**1**	**1**	**2**	**3**	**3**	**3**	**37**	**40**	**46**

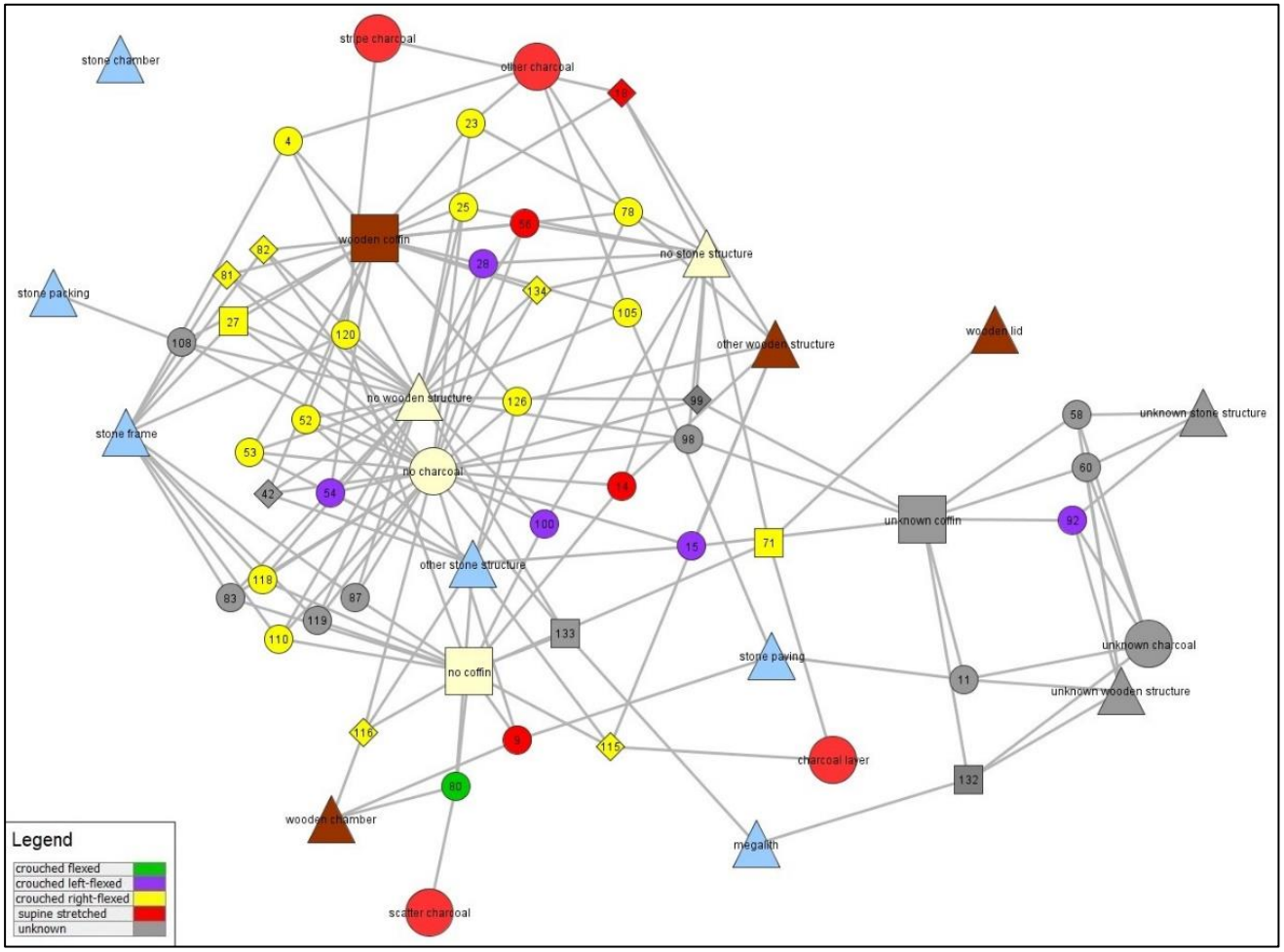

Figure 6.17 – The co-occurrence between the grave structures and the bodies in the Danish dataset (n=46). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the graves (larger nodes imply higher reliability), the shape of the node indicates exceptional graves (diamond) and multiple burials (square), and the colour of the nodes indicates the body position of the burial (multiple burials excluded). The labels contain the Grave IDs of the burials.

Of the two double burials with only crouched right-flexed burials, one has a wooden lid and a charcoal layer, and the other a wooden coffin and a stone frame.

Summing up, crouched right-flexed burials may have been buried in a more standardized way than bodies in a crouched left-flexed and supine stretched position; typically, these burials are buried in a wooden coffin and/or surrounded by a stone frame. While crouched left-flexed and supine stretched bodies can be buried in a wooden coffin, they are not associated with stone frames. However, there are numerous bodies associated with stone frames with an unknown body position, which could thus technically be left-flexed or stretched burials. Another issue is the low amount of (known) crouched left-flexed and supine stretched positions, which makes it seem that these positions have very variable associations with grave structures.

6.3.3 Grave goods

88 of the Danish graves contained one or more grave goods (**Fig. 6.18**). Clearly the most common amount of grave goods are either one (23%), two (14%), three (10%), or none at all (14%). Burials with four to ten (less than 10% per category; 23% in total) grave goods are also prevalent, but less common. Burials with more than 10 grave goods (16% in total) are also prevalent, but it must be kept in mind that these are burials with large numbers of beads; these may thus have actually been part of one body ornament. The beads will be further discussed below.

No patterns can be observed in the amounts of graves, in relation to grave types; flat-graves and megalithic graves can have small or large numbers of grave goods, just like barrow graves. More can be said when looking at the body positions. Bodies in a supine stretched position are only given one to three grave goods, while bodies in crouched flexed positions (either left or right) can be accompanied by higher numbers of grave goods. However, those burials with more than 10 grave goods with a known body position, are only lying in crouched left-flexed positions (3 burials). The multiple burials are accompanied by 15 (Torrupsgaard), 8 (Gjerrild, Bøstrup), or 4 (Veldbæk) grave goods.

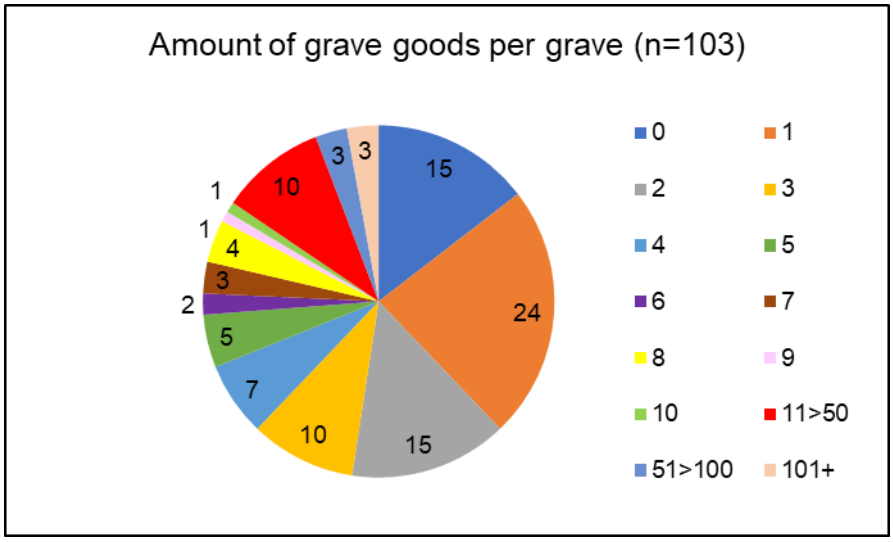

Figure 6.18 – The amount of grave goods that occur in the Danish graves (n=103); the pie chart indicates the number of burials with that amount of grave goods. Large amounts of grave goods (10+) have been grouped together in categories.

Typical and exclusive grave goods

22 categories of objects have been found in the Danish graves (**Fig. 6.19**). The most typical object categories are battle-axes and amber beads (corrected amount in table; see below), which occur in all grave types. Other very common objects are flint blades, flint flakes, beakers, axes, amber discs, and pottery sherds. Flint arrowheads, animal bones, flint chisels, and pots/vessels are also quite common; all other categories, including the quernstones, occur in small numbers and/or in few graves only.

Intriguingly, beakers do not occur in flat-graves. Beakers do occur in megalithic graves, but flint blades, flint flakes, and amber discs do not. Arrowheads appear to be exclusive for megalithic graves. Animal bones, flint chisels, and most of the uncommon objects seem to be exclusive for barrow graves.

When focussing on the objects associated with a body (**Fig. 6.20** and **Fig. 6.21**), unfortunately only 14 object categories remain. It becomes apparent immediately that the majority of the objects (10 object categories) occur with crouched right-flexed burials; these are mostly battle-axes, flint blades, amber discs, and axes. Flint flakes (and unknown objects) appear to be exclusive for the crouched right-flexed position. Beakers, arrowheads, animal bones and unspecified objects however do not seem to occur in crouched right-flexed burial (with certainty).

Only 2 object categories occur with certainty in crouched left-flexed burials: amber beads and a flint blade. Neither of these object categories are however exclusive to this position. Supine stretched burials are accompanied by 6 object categories: arrowheads, battle-axes, amber beads, beakers, a flint blade, and a flint knife. Arrowheads appear to be exclusive for the supine stretched position.

Unfortunately the only female burial in the dataset does not have objects particularly associated with her, and is thus not included in **Fig. 6.21**. The objects found with her, in the communal burial as a whole, will be discussed below. The other sexed and aged bodies are so few that only general remarks can be made about their accompanying grave goods: the two supine stretched males is the dataset are both 'accompanied' by an arrowhead (one is physically connected to the body: lodged into the chest bone), and while the adult male is given a beaker, the mature male is given an amber bead. One crouched right-flexed infant is given amber beads. Two children are accompanied by battle-axes and amber discs, and one of them additionally by a flint flake.

The majority of the objects have an 'in hand' embodiment (e.g. tools) (60%), which occur with all body positions but are mostly associated to crouched right-flexed burials (**Fig. 6.22-6.24**). Supine stretched positions also mostly have 'in hand' objects. 'On body' (i.e. ornaments) are also common in the Danish graves (26%), for all body positions, but particularly for crouched left-flexed. 'Non-body' objects (e.g. pottery) are less common (9%) and do not occur in crouched left-flexed burials with certainty.

Beads

33 graves in the Danish dataset have been buried with 1338 amber beads, and one with additionally a flint bead (**Fig. 6.25**). The average number of beads in a grave is 40, but half of the graves have 6 beads or less. 3 graves have very large amounts of beads: one crouched right-flexed burial has 137 beads, a crouched left-flexed burial was accompanied by 200 beads, and another crouched left-flexed burial had 518 beads in two concentrations (300 and 218 each). 765 of the beads are associated with 12 bodies, most of which were lain in crouched left-flexed positions (**Fig. 6.26**). The only burials with beads that have been sexed or aged are a crouched right-flexed infant (6 beads) and a supine stretched mature male (2 beads) from the megalithic grave of Gjerrild.

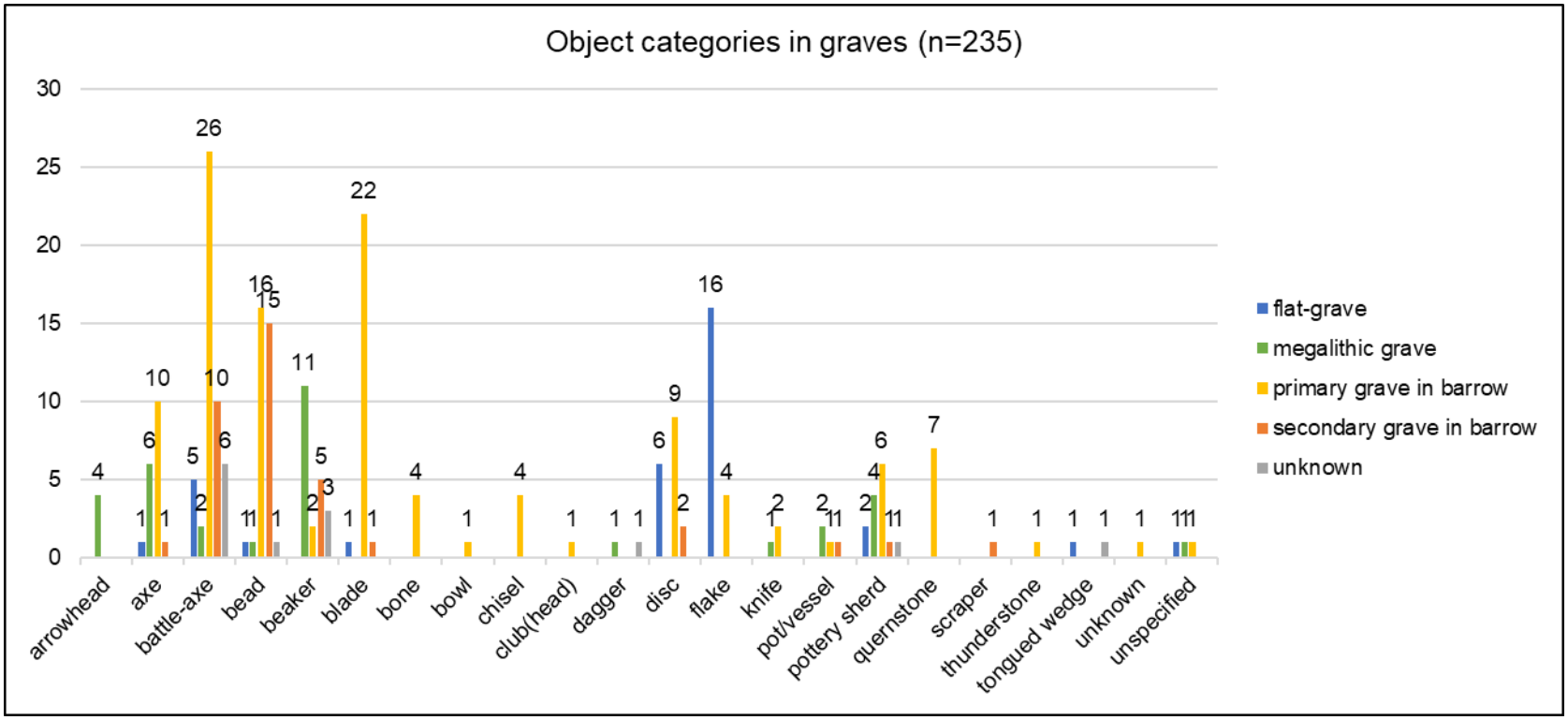

Figure 6.19 – The objects that occur in the 88 non-empty Danish graves and their numbers (n=235).

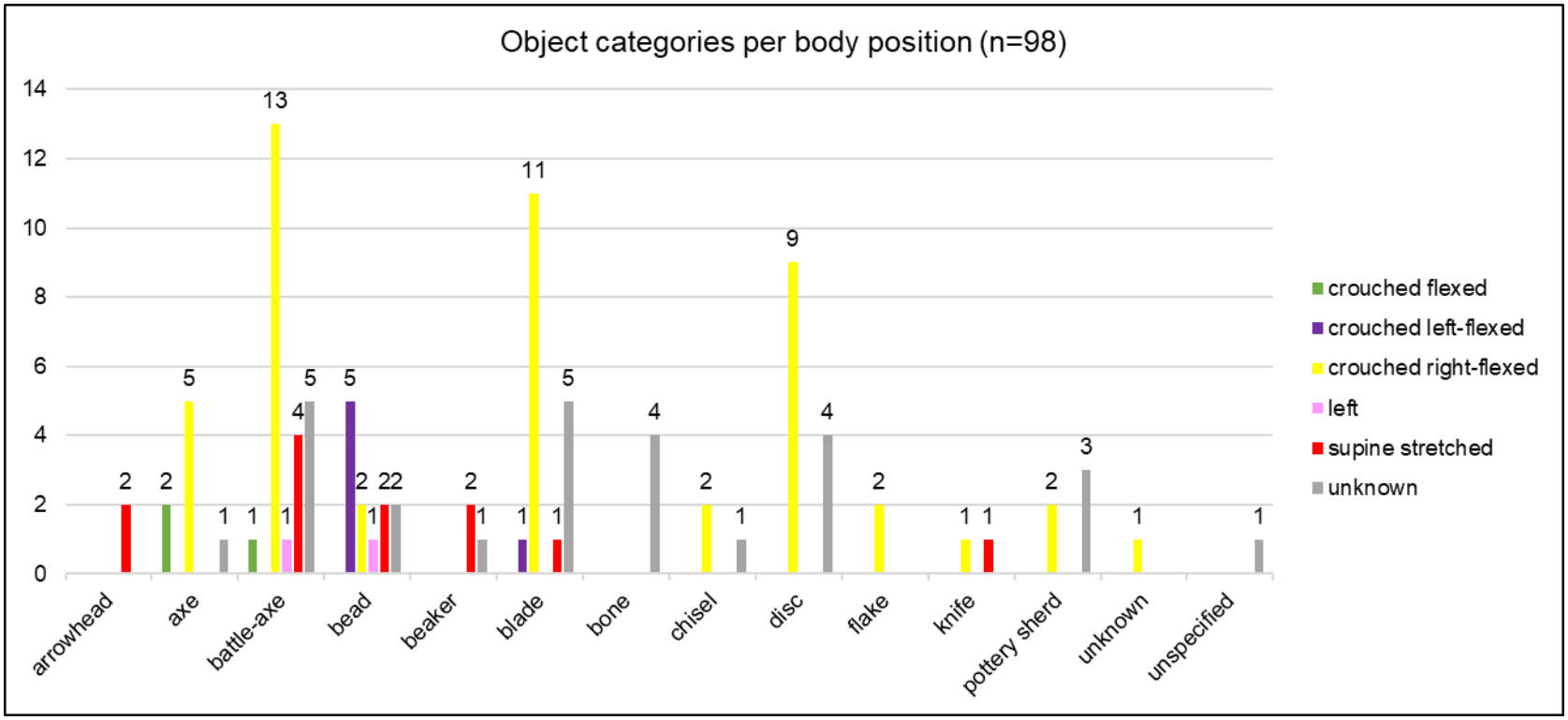

Figure 6.20 – The objects in the Danish graves with indications for a body (n=98), shown per body position.

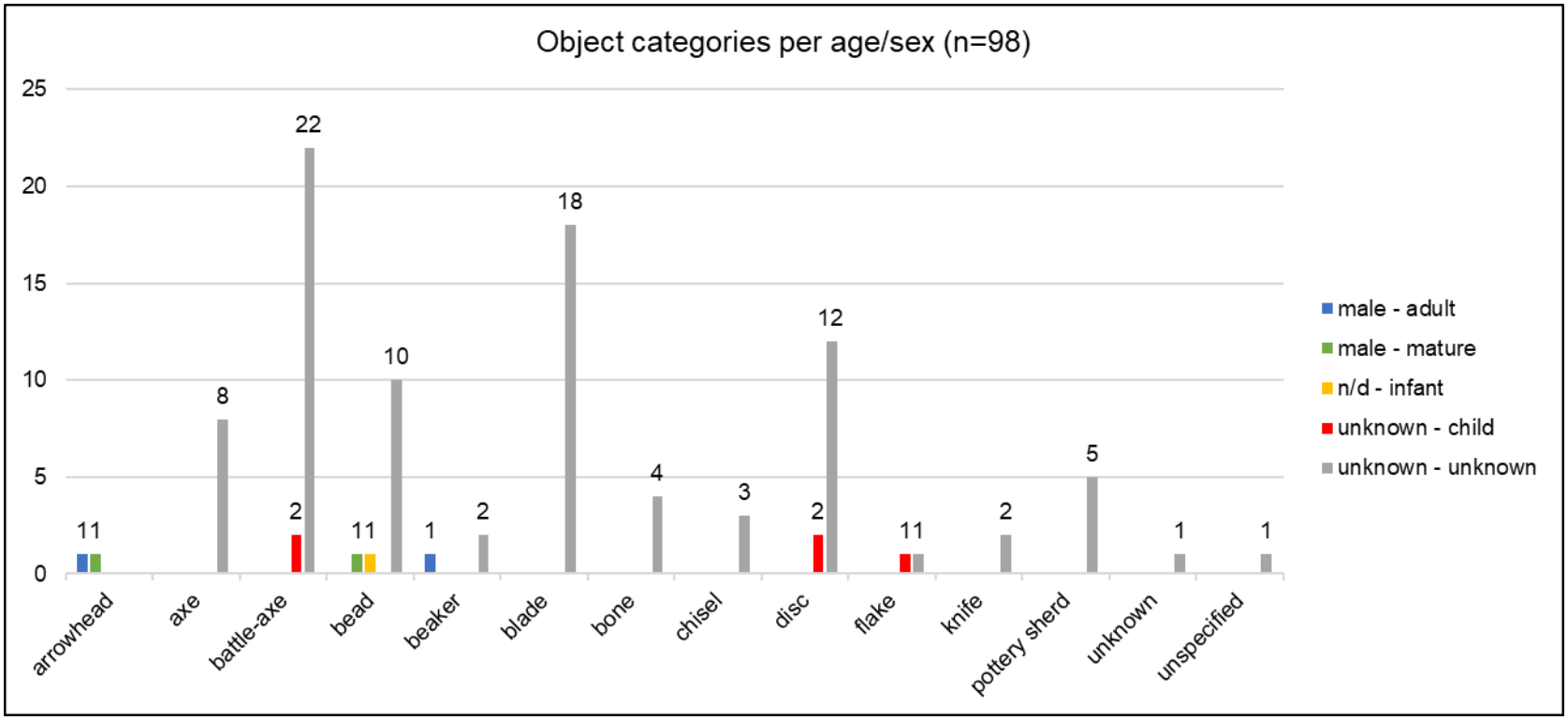

Figure 6.21 – The objects in the Danish graves with indications for a body (n=98), shown per sex and age.

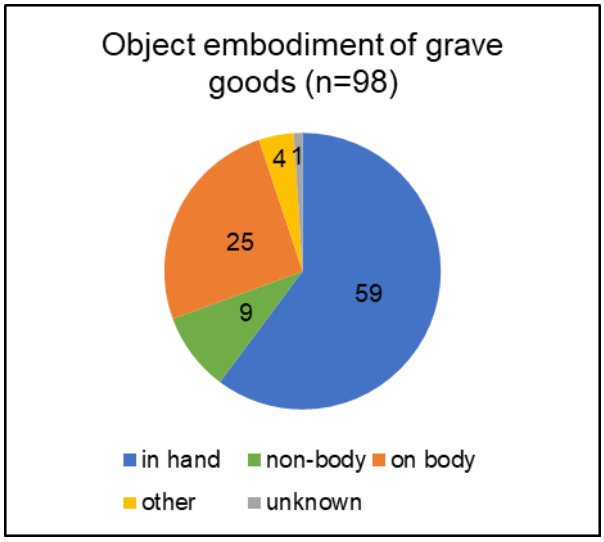

Figure 6.22 – The embodiment of the objects in the Danish graves with indications for a body (n=98).

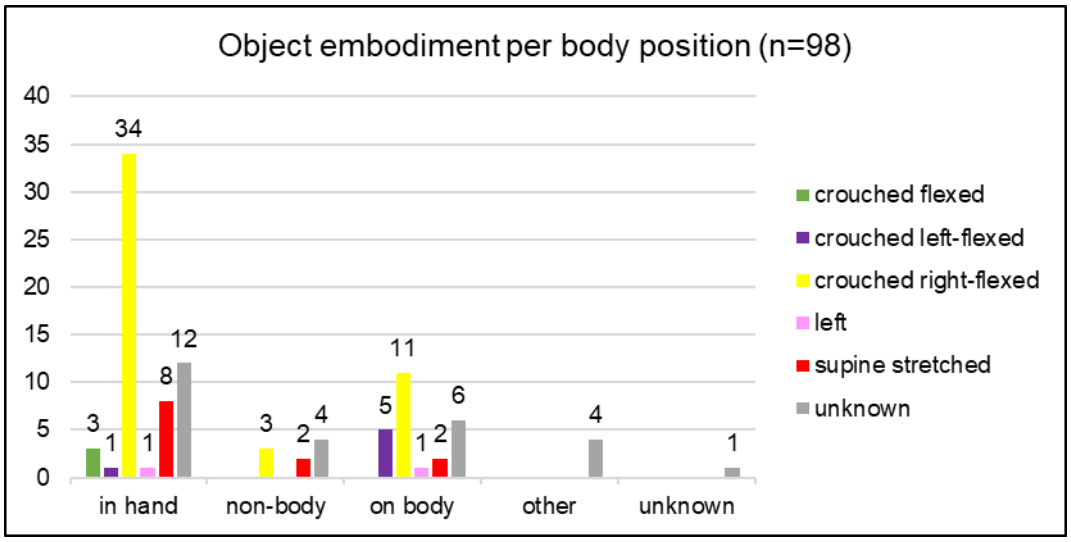

Figure 6.23 – The embodiment of the objects in the Danish graves with indications for a body (n=98), shown per body position.

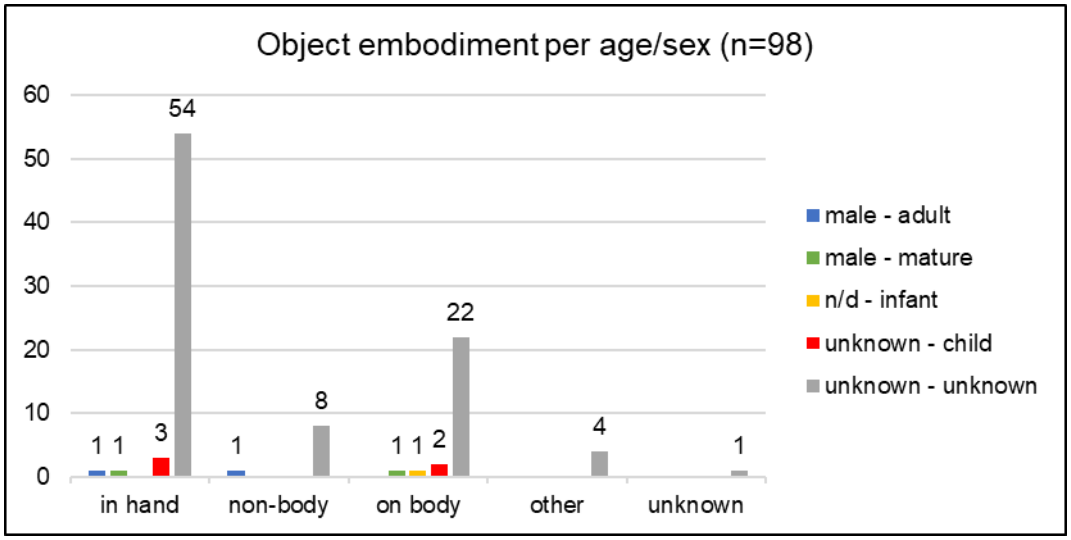

Figure 6.24 – The embodiment of the objects in the Danish graves with indications for a body (n=98), shown per sex and age.

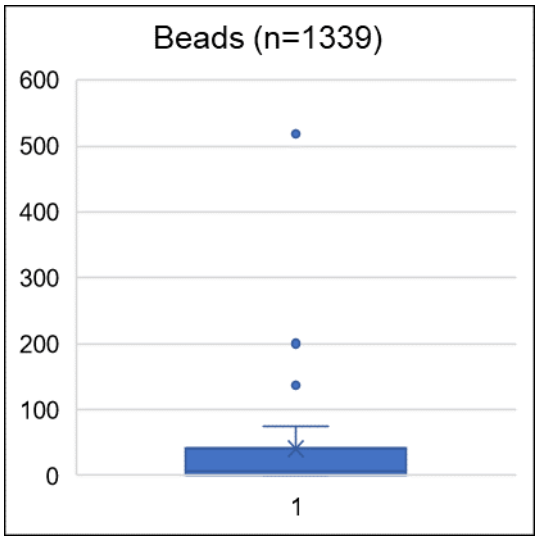

Figure 6.25 – Box-and-whisker plot of the amount of beads in the Danish graves (n=1339), which visualizes how many beads commonly occur per grave.

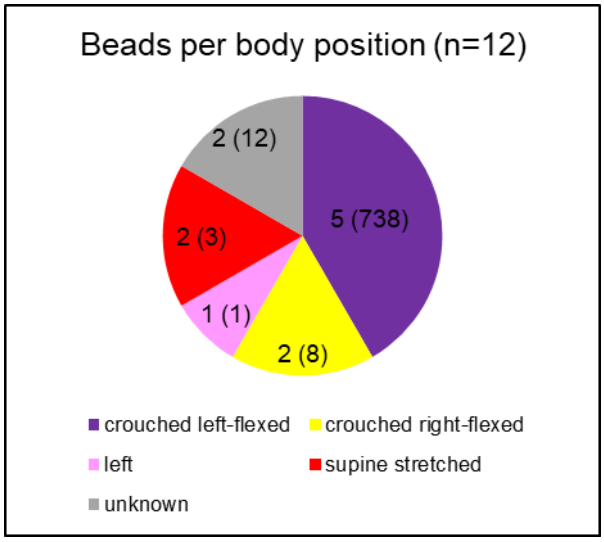

Figure 6.26 – The beads associated with bodies in the Danish graves (n=12) and their numbers in brackets (n=765).

Multiple burials and exceptional grave goods

Not all the accompanying objects in a multiple burial can be associated with a particular body, as we have seen for the only female burial in the dataset. Hence, these objects are briefly considered separately here (**Tab. 6.5**). Flint blades and battle-axes are the most common grave good for the two barrow graves, and are associated with respectively at least three bodies (crouched right-flexed). These however do not occur in the two megalithic graves; here, beakers are most common, occurring with at least one body (adult male, supine stretched). Yet all of the multiple burials each contain unique objects. At Torrupsgaard, amber discs are present (possibly one per body), as well as quernstones used in the stone frame. At Veldbæk, one of the crouched right-flexed has an exceptional imprint of a round, organic object (possibly a beaker). Gjerrild, where the adult female was buried together with two males and two infants, contained mainly flint arrowheads, one of which was lodged into the chest of the adult male, but also amber beads. Whether any objects could be associated to the female and the infants, was not mentioned, but it is interesting that the remaining objects in this grave are an arrowhead and a flint axe (both commonly considered to be 'male'), as well as a beaker and a bead. Lastly, the burials at Bøstrup were accompanied by a deer antler.

Tab. 6.6 lists the 10 exceptional objects in the Danish graves; all of these objects are unique in the dataset. Three of the objects have already been discussed above, in

relation to the multiple burials. There are numerous battle-axes marked as exceptional; two because they are made out of sandstone (possibly soft?; from Torrupsgaard), one because this was described as exceptional in the source (from Børsmose), and a last one because the traces of the shaft had been found with the battle-axe, which was positioned as if the deceased was holding it (Tohøje, Herrup).

Co-occurrence of grave goods

Lastly, **Fig. 6.27** indicates which objects typically co-occur with each other; unsurprisingly, the battle-axe has most co-occurrences with other objects, as it is the most common grave good. Battle-axes are particularly associated with flint blades and amber beads. Most other co-occurrences are also between the common grave goods. One notable exception is the beaker and the amber disc; these rarely co-occur. The objects at the fringes of the graph are more uncommon, thus explaining the lesser connections.

Taking the co-occurrence of these objects into account on the level of the graves (**Fig. 6.28**), a remarkable dichotomy can be observed; almost all crouched right-flexed burials are grouped together on the central left side of the graph, whereas nearly all crouched left-flexed burials are located on the fringe in the right.

This dichotomy can be easily explained; the cluster on the left are all burials associated with battle-axes, which are never crouched left-flexed, and the fringe on the right are all burials with only beads (i.e. mostly crouched left-flexed). As we have just seen, battle-axes have most co-occurrences, with a large variety of objects, explaining the clustering. A cluster of 7 burials is located between these two groups; unsurprisingly, these contain both battle-axes and beads.

The multiple burials, and the supine stretched burials, are rather spread out throughout the graph, thus confirming that these are quite variable. The only grave with sexed burials and infants (Gjerrild; 132) is located near the right fringe, as this grave indeed contained beads, and no battle-axes, but instead arrowheads and beakers.

While only in few numbers, the two crouched right-flexed children with grave goods interestingly are located in the cluster with other right-flexed burials. However, one crouched right-flexed infant only has amber beads, and is thus between the crouched left-flexed burials.

Lastly, **Fig. 6.29** is the same graph, yet with the grave types visualized. It is notable that the two main clusters are nearly all barrow graves; the flat-graves and megalithic graves are more spread out and on the fringes, indicating less commonly co-occuring grave goods, and thus perhaps less standardization.

Table 6.5 – The objects occurring in the multiple burials (n=35)

Grave ID	Toponym	Burial ID: age, sex, body position	Burial ID: object	Embod-iment
27	Torrups-gaard	11: unknown, crouched right-flexed; 12: none; unsure double burial	11: sandstone battle-axe, flint blade, amber disc; 12: sandstone battle-axe, flint blade, amber disc; 7 granite quernstones (from stone frame)	in hand, on body, non-body
71	Veldbæk	22: unknown, crouched right-flexed; 23: unknown, crouched right-flexed	22: battle-axe, flint blade; 23: flint blade, imprint of organic object (possible beaker)	in hand, on body, non-body
132	Gjerrild (NE-Jutland)	44: adult female, crouched flexed; 45: infant, unknown; 46: adult male, supine stretched; 47: mature male, supine stretched; 48: infant, unknown	flint arrowhead, flint axe, amber bead, beaker; 46: flint arrowhead (lodged in chest), beaker; 47: flint arrowhead, bead	in hand, on body, non-body
133	Bøstrup (N-Jutland)	49: unknown; 50: unknown	7 beakers, deer antler	non body, unknown

Table 6.6 – The exceptional objects in the Bavarian graves (n=10).

Obj ID	Toponym	Grave type	Object category	Object description	Material	Embodiment	N of objects	Burial ID
57	Torrupsgaard	primary grave in barrow	battle-axe	Glob B4b	sandstone	in hand	1	11: unknown, crouched right-flexed
60	“	primary grave in barrow	battle-axe	Glob B3b	sandstone	in hand	1	12: none
69	Brøndum (N-Jutland)	primary grave in barrow	thunderstone		belemnite	unknown	1	none
151	Tovrup	megalithic grave	axe	miniature axe, thick-butted, polished	flint	in hand	1	none
157	Børsmose	megalithic grave	battle-axe	like Glob K	stone	in hand	1	15: unknown
170	Nebel	unknown	tongued wedge		stone	in hand	1	none
211	Veldbæk	primary grave in barrow	unknown	imprint of round, organic object (possible beaker)	unknown	non-body	1	23: unknown, crouched right-flexed
341	Gjerrild (NE-Jutland)	megalithic grave	arrowhead	D-type, lodged in chest	flint	in hand	1	46: adult male, supine stretched
351	Bøstrup (N-Jutland)	megalithic grave	unspecified	deer antler	antler	unknown	1	double burial (Grave ID 133)
352	Tohøje, Herrup (N-Jutland)	primary grave in barrow	battle-axe	with traces of shaft	stone	in hand	1	51: unknown, crouched right-flexed

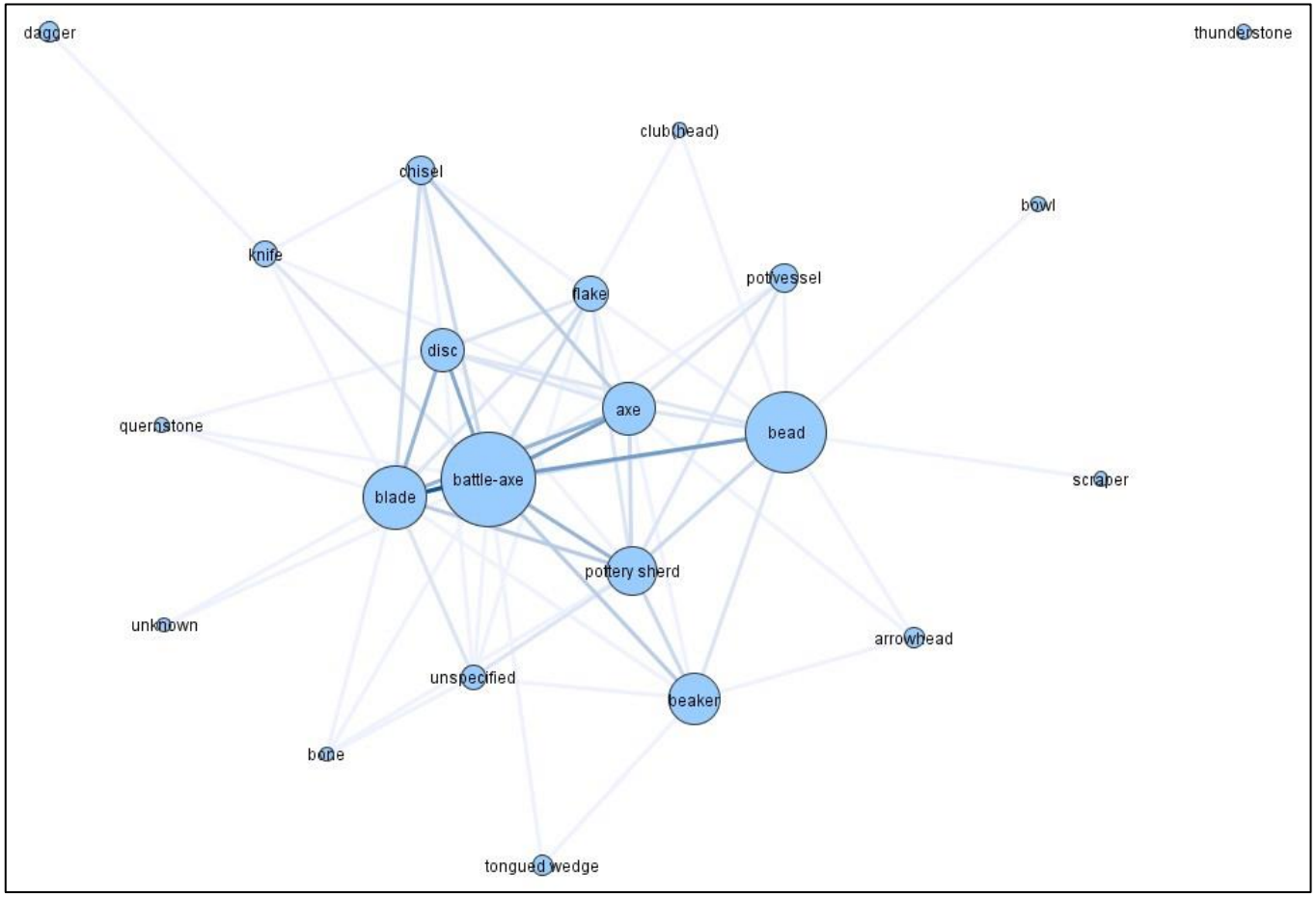

Figure 6.27 – The objects that most typically co-occur in the Danish graves with grave goods (n=98). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak) and the size of the nodes indicates how often this object co-occurs with another object (larger nodes imply more connections).

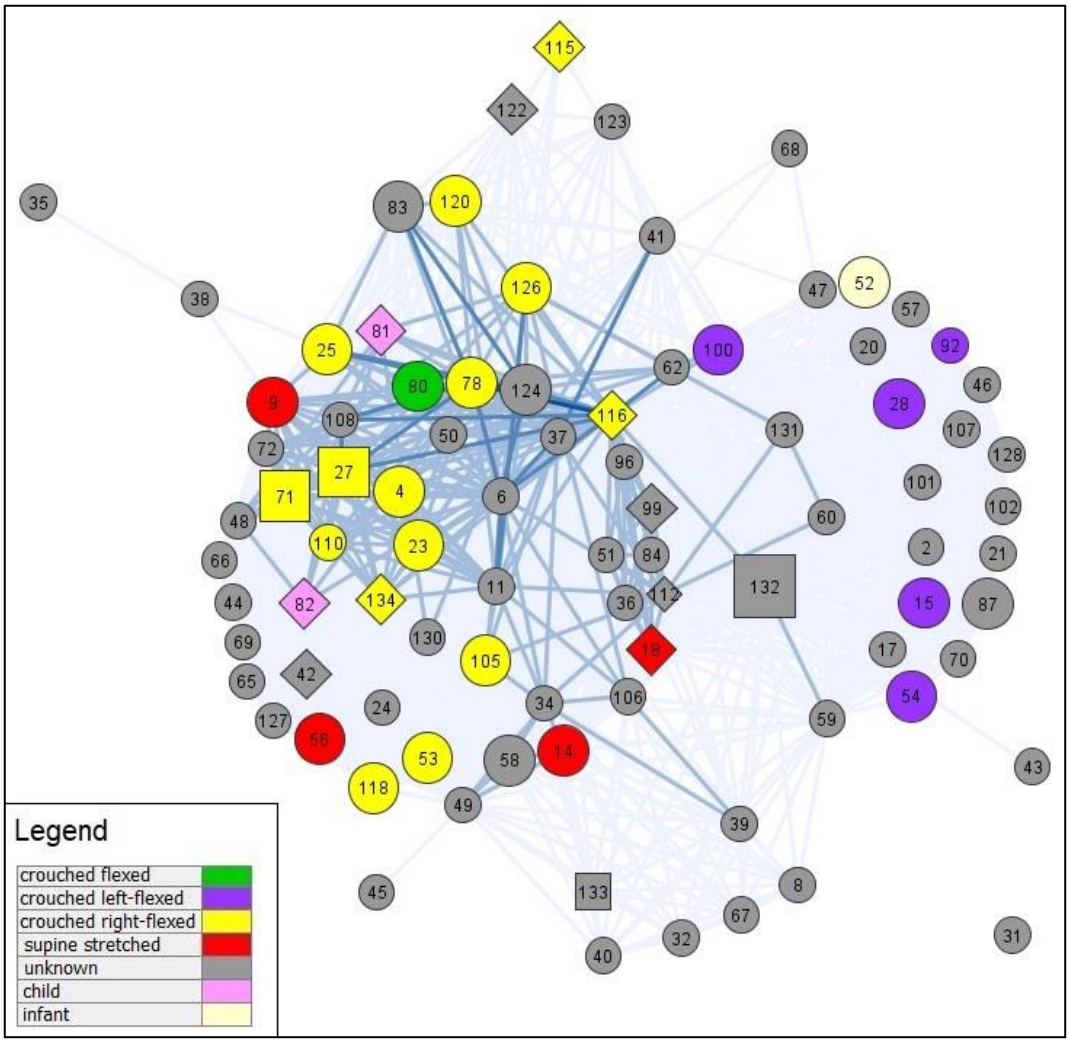

Figure 6.28 – The co-occurrence between the graves with grave goods in the Danish dataset (n=88). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the graves (larger nodes imply higher reliability), the shape of the node indicates exceptional graves (diamond) and multiple burials (square), and the colour of the nodes indicates the body position (and – if known – the age) of the burial (multiple burials only included if all bodies have the same body position). The labels contain the Grave IDs of the burials.

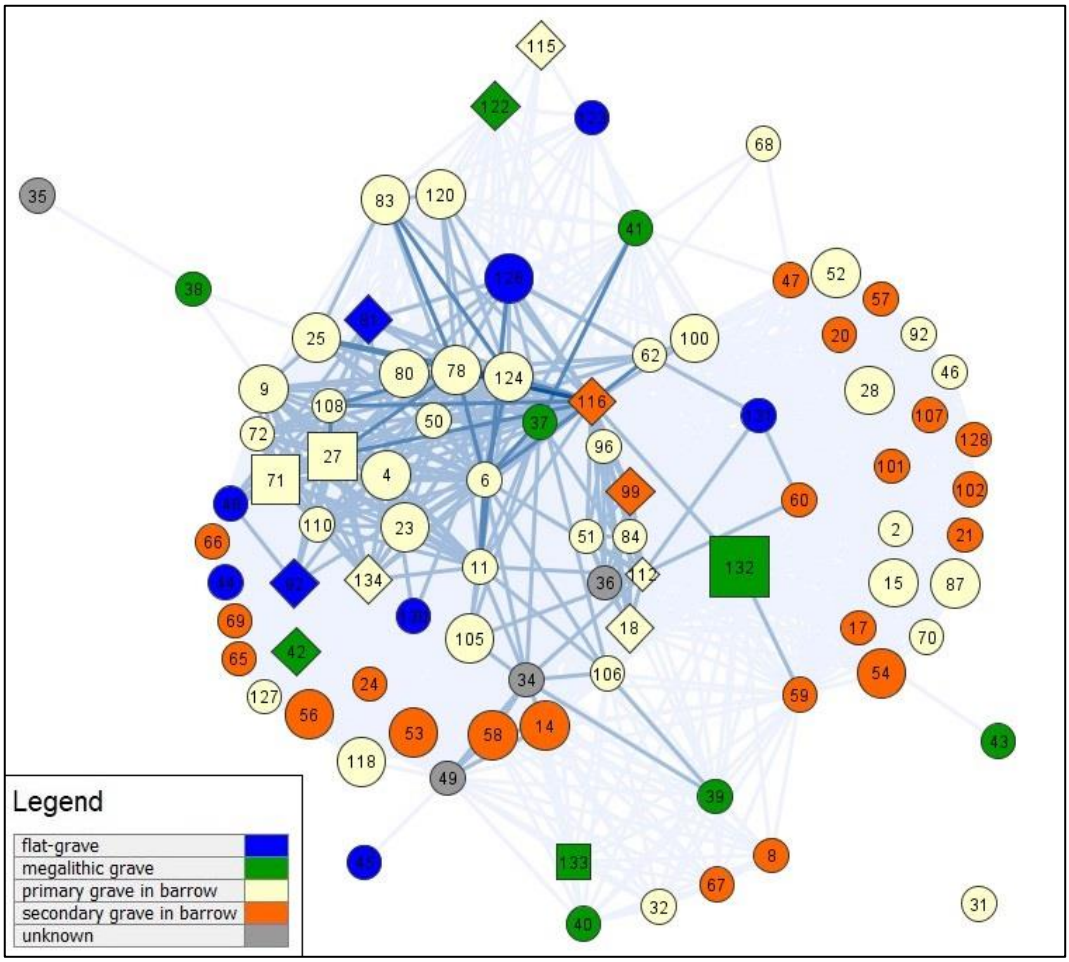

Figure 6.29 – The co-occurrence between the graves with grave goods in the Danish dataset (n=88). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the graves (larger nodes imply higher reliability), the shape of the node indicates exceptional graves (diamond) and multiple burials (square), and the colour of the nodes indicates the grave type of the burial. The labels contain the Grave IDs of the burials.

6.3.1 Gendered positions, gendered artefacts?

While there is a lack of sexed and aged burials in the Danish dataset, due to bad preservation, we might still be able to infer gendered practices from the funerary data. Indeed, there is a striking distinction between the crouched right-flexed and crouched left-flexed position, on two accounts. Even though these positions cannot be correlated to sex, this could indeed indicate a binary (gendered?) distinction.

Firstly, crouched right-flexed burials are typically placed in a grave with a wooden coffin and/or a stone frame, and are typically associated with the presence of charcoal, which might indicate that fire was somehow part of the burial ritual (two of

the exceptional graves with burnt material were also crouched right-flexed). Stone frames do not occur with crouched left-flexed burials, nor charcoal.

Secondly, both crouched right- and left-flexed burial have rather standardized grave sets, although the right-flexed position allows for more variation than the left-flexed position. Crouched left-flexed burials typically contain amber beads, in one case together with a flint blade, while crouched right-flexed burials typically contain a battle-axe in combination with a flint blade, and often with other objects as well, including amber beads. Interestingly, neither the crouched right- nor left-flexed burials are accompanied by beakers – as far as we can tell; most beakers in the dataset are unfortunately not associated with bodies.

The only subadults in the dataset with associated grave goods however bring some nuance to the dichotomy between the crouched right- and left-flexed positions. Two children in crouched right-flexed positions are treated in a typical way: these were both buried in wooden coffins, surrounded by a stone frame, in flat-graves, and they were both given a battle-axe and an amber disc. One crouched right-flexed infant, however, was not given a battle-axe, nor any other possibly 'male' objects, and instead was given 6 amber beads. This could be an indication that very young children were treated differently than adults, while after a certain age, they were perhaps 'gendered' as adults. Unfortunately, the other two infants in the dataset are not associated directly to grave goods, nor are their positions known, and there are no subadults in crouched left-flexed positions. This is thus a very uncertain interpretation.

The supine stretched position further complicates the dichotomous relationship between the crouched right- and left-flexed burials. This position does not typically correlate with any grave structures, similarly to the crouched left-flexed position, and these bodies can be associated with objects of both sets; these burials seem to have elements of both positions. On the other hand, the two only sexed males in the dataset were placed in this position, and all supine stretched burials correlate with possibly 'male' objects: arrowheads (which is particular for this position), but also battle-axes. While the supine stretched position is severely underrepresented in comparison to the crouched right-flexed position, there is a possibility that these two positions correspond to two ways in which males could be buried. Perhaps the crouched right-flexed position was the 'standardized' way, and the supine stretched position was

more idiosyncratic, related to another form of identity that is unfortunately lost on us today.

Lastly, it must be noted that there are numerous graves in the dataset with unknown positions; therefore, we cannot know how these graves would conform to – or change – the above patterns, if the position was known.

6.4 Results II: selective deposition

In order to find patterns of selective deposition in the Danish dataset, I will first discuss the two other contexts in the case study: the 13 depositions (38 objects) and 29 single finds (61 objects). Unfortunately, almost all of these features are of low reliability, as described in **6.2**.

6.4.1 Depositions

Most depositions (i.e. objects buried without a body) in the Danish dataset are single objects (39%), but there are also a few one-type hoards (23%), and several of unknown type (38%) (**Fig. 6.30**). The contexts in which these depositions occur vary; one-type hoards have been found in a barrow landscape, dry/wet area (i.e. sandy hills along the marshes of a brook: Hygum), and in an unknown context, whereas single objects have mostly been found on the same sandy hills, and an unknown context. The unknown type depositions have been found in bogs, but also in barrow landscapes, and an unknown context. The two most reliable (reliability factor of 2) depositions in the dataset are a one-type hoard with an unknown context, and an unknown deposition type in a barrow landscape (at the exceptional megalithic grave of Børsmose; see below).

The majority of the objects (71%) have unfortunately been found in unknown depositions; only 16% and 13% of the objects have been found in one-type hoards and as single objects, respectively (**Fig. 6.31**). While 9 different object categories have been found in these depositions, the (flint) axe is the predominant for all deposition types and contexts, with no other object category even coming close and only occurring in low numbers (up to 3) (**Fig. 6.32** and **Fig. 6.33**). Beakers, and a pottery sherd occur exclusively in one-type hoards, while those objects found as single objects (axe, dagger, pot/vessel) also occur in one-type hoards and unknown deposition

types. The arrowhead, beakers and sickles are exclusively from barrow landscapes, while only axes and daggers can occur in (dry/)wet contexts.

Intriguingly, no depositions contain any objects with an 'on body' embodiment (**Fig. 6.34**); the majority of the objects are 'in hand' (i.e. the axes; 87%), while only 13% of the objects are categorized as 'non-body'. Both object embodiments occur in all deposition types (**Fig. 6.35**), but not in all contexts; 'non-body' objects do not occur in (dry/)wet contexts (**Fig. 6.36**).

Three depositions in the Danish dataset have been marked as exceptional, from one site: Børsmose. One of the depositions was a whole area ('*Offerområde*') just south of the CW structure erected next to an earlier megalithic grave, and included TRB pottery sherds and a TRB sickle (not included in analysis), a CW axe, dagger and arrowhead, as well as BA pottery sherds and cremation remains (not included in analysis) and a lot of stones. I classified this deposition as of unknown type, considering that the finds indicate a large time-depth; the TRB finds may have been cleared out of the megalithic structure, while the BA objects suggest that people continued to return to this site. The other depositions are a TRB beaker, possibly at the former entrance of the megalith and 2 sickles dated to the EBA, from the top of the mound covering both structures (both not included in the analysis).

Lastly, the co-occurrence of the deposited objects is visualized in **Fig. 6.37**. There appear to be 4 different kinds of depositions, that do not interact: the first, more common kind, revolves around the axe, while the other three types occur only once or twice, and are a combination of pot/vessel and/or pottery sherds, and, separately, beakers and sickles. Intriguingly, within the first kind of depositions, two exclusive groups can be discerned, that can only be understood by taking the sites themselves into account (**Fig. 6.38**); it appears that the Børsmose '*Offerområde*' (barrow context) connects these two groups (mostly (dry/)wet contexts), of depositions with only axes (cluster on the left) and one with a battle-axe and chisels (unreliable Dep ID 5), and those with only a dagger (cluster on the right). Thus, daggers and axes do not typically co-occur in (dry/wet) depositions.

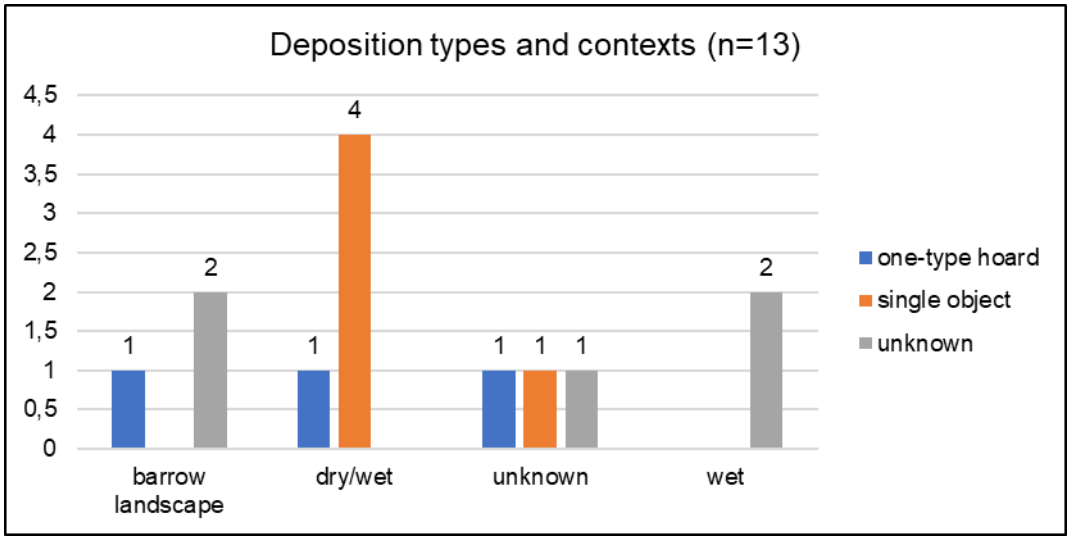

Figure 6.30 – The deposition types and contexts in the Danish dataset (n=13).

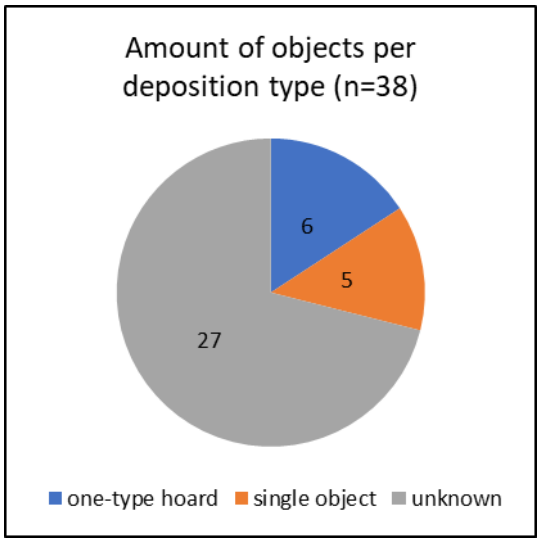

Figure 6.31 – The amount of objects in the Danish depositions (n=38), per deposition type.

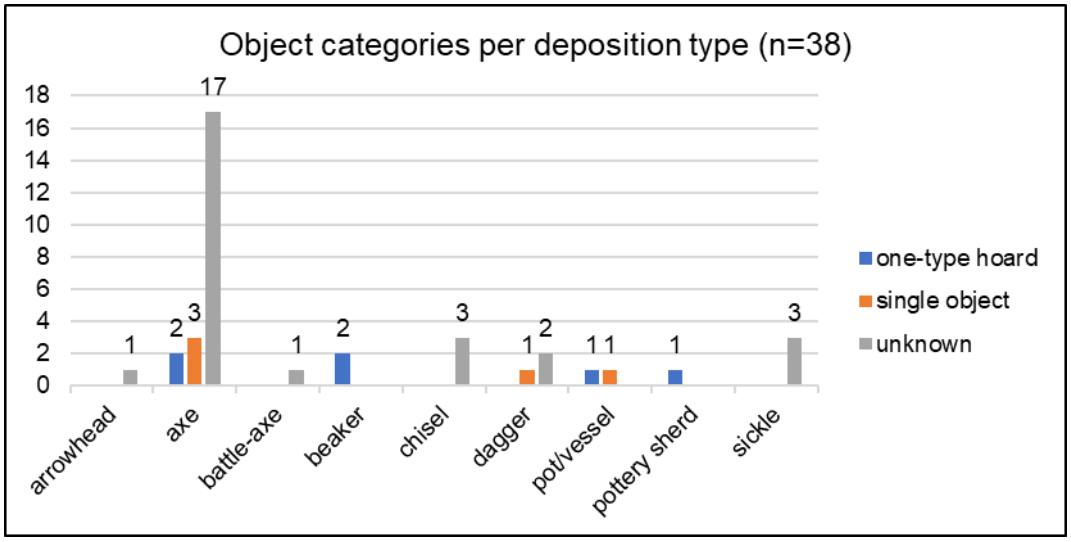

Figure 6.32 – The objects categories in the Danish depositions (n=38), categorized by deposition type.

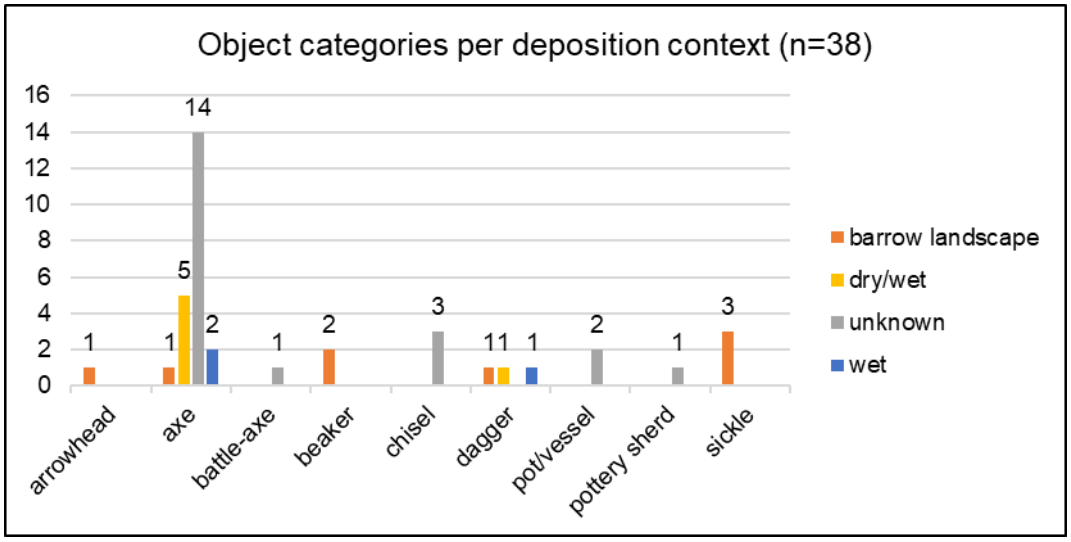

Figure 6.33 – The objects categories in the Danish depositions (n=38), categorized by context.

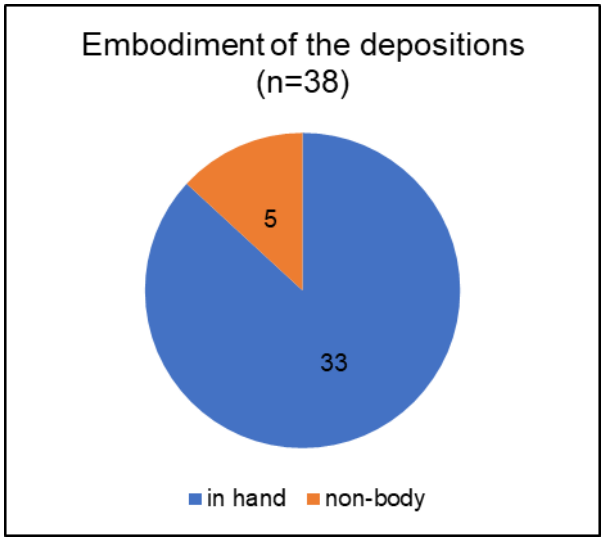

Figure 6.34 – The embodiment of the objects in the Danish depositions (n=38).

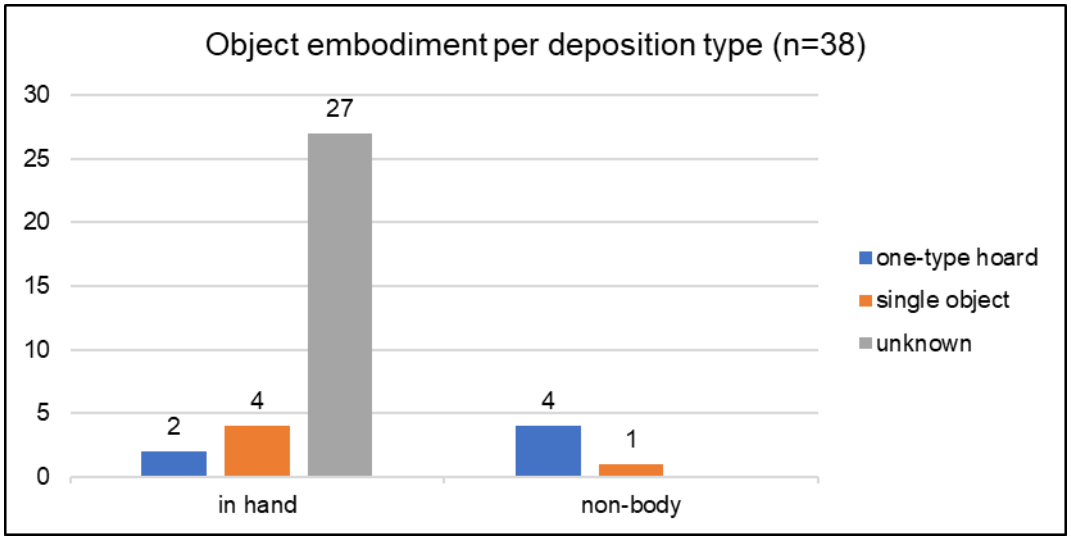

Figure 6.35 – The embodiment of the objects in the Danish depositions (n=38), shown per deposition type.

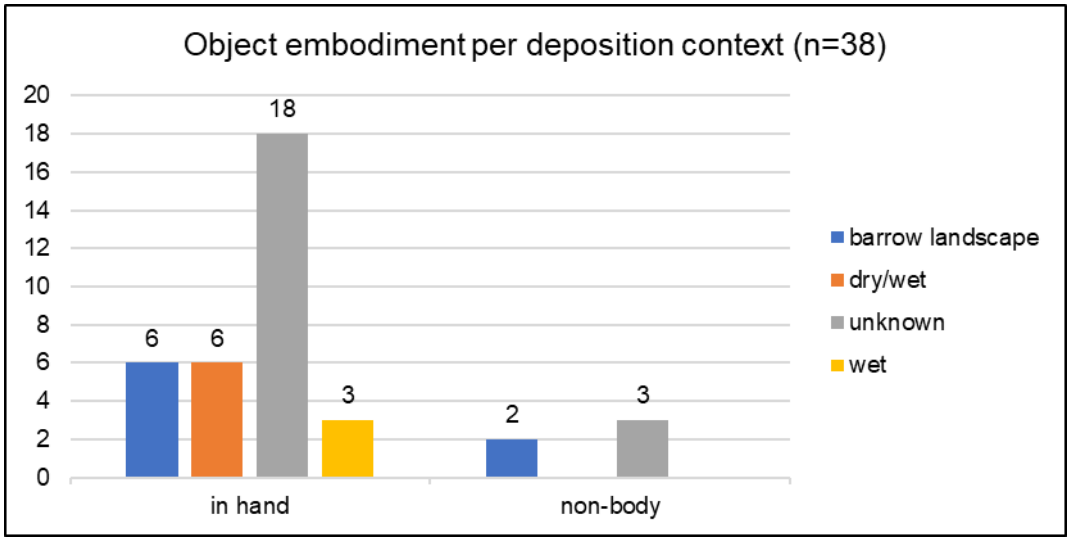

Figure 6.36 – The embodiment of the objects in the Danish depositions (n=38), shown per context.

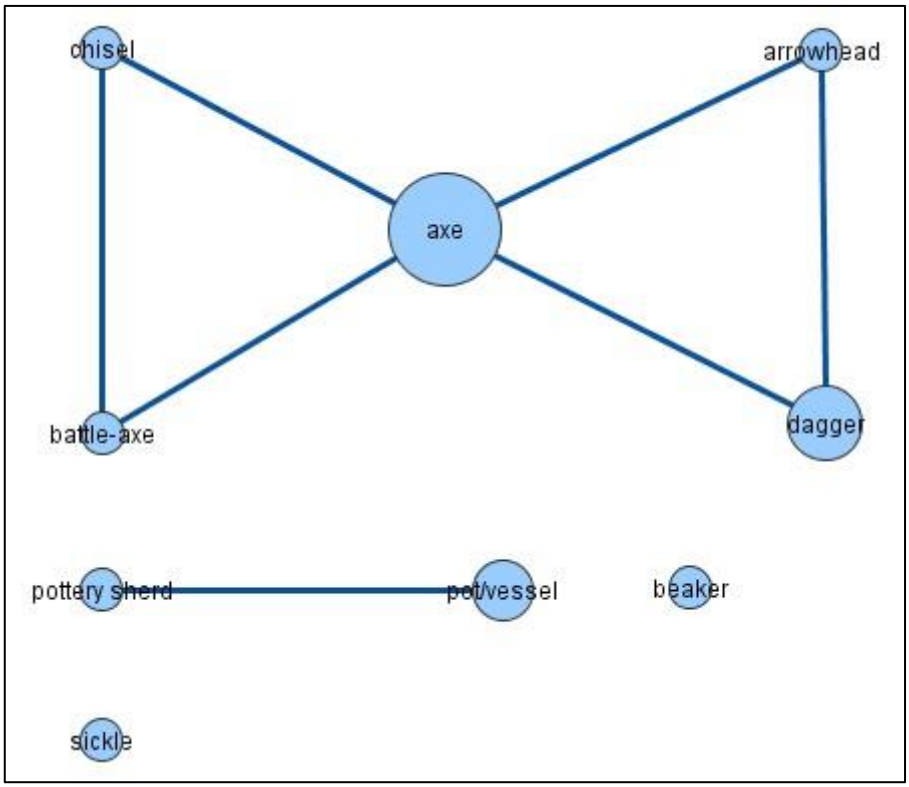

Figure 6.37 – The co-occurrence between the objects in the Danish depositions (n=38). The size of the nodes indicates how often this object co-occurs with another object (larger nodes imply more connections).

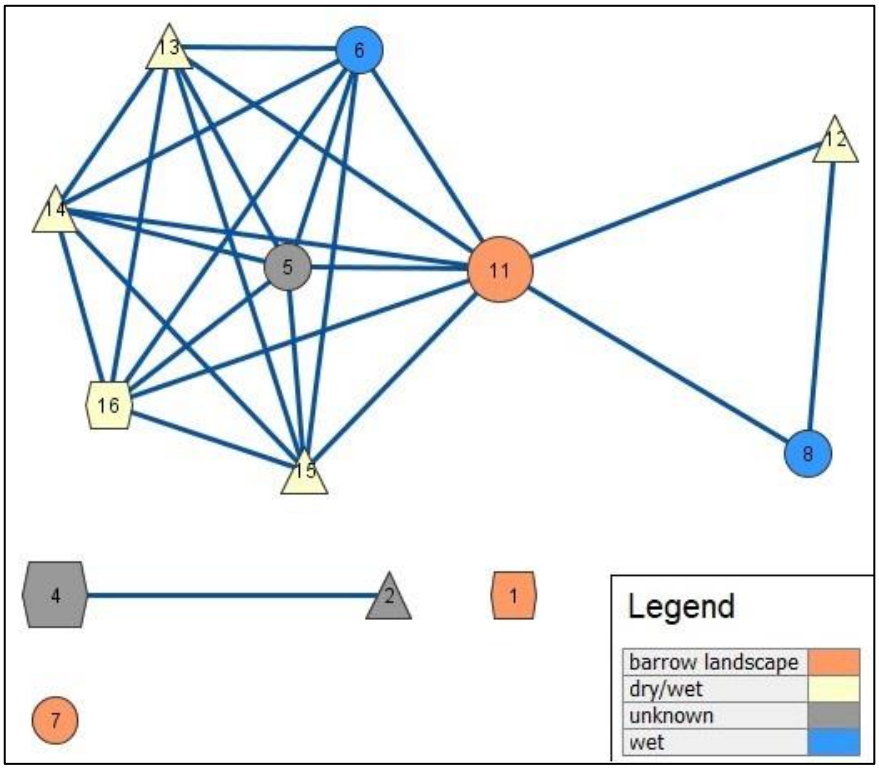

Figure 6.38 – The co-occurrence between the objects in the Danish depositions (n=38). The shape of the node indicates the deposition type (hexagon: one-type hoard; triangle: single object; circle: unknown), and the colour of the nodes indicates the context of the deposition. The labels contain the Dep IDs.

6.4.2 Single finds

The single finds in the Danish dataset are predominantly from barrow landscapes (93%) and were found in the fill of a mound (72%; 2 from an unknown context); only one single find is from the old surface under a barrow, all others are of unknown type (24%) (**Fig. 6.39**). Accordingly, most finds are from either the fill of a mound (54%) or an unknown single find type (43%) (**Fig. 6.40**). 16 object categories occur as single finds (**Fig. 6.41**); these are mostly axes and battle-axes, but pottery sherds and daggers are also common single finds. The only patterns related to single find type is that finds from the old surface are only a pottery sherd and an unspecified piece of flint (both from the same site), and that club(head)s, sickles, and unspecified objects do not (with certainty) occur in the fill of the mound,

All object embodiments occur in the single finds (**Fig. 6.42**), but 'in hand' objects are most common (64%), followed by 'non-body' objects (23%); there are only few single finds with an 'on body' (6%) and 'other' (1 object) embodiment. Comparing the

object embodiments to the single find types has little use (**Fig. 6.43**); the only 'pattern' is that the one single find from the old surface has no objects with an 'in hand' nor 'on body' categorization, but it is impossible to tell whether this is significant.

Two objects found as single finds have been marked as exceptional (**Tab. 6.7**): a fragmented sandstone battle-axe, because of its material (soft?) and fragmentation (intentional?), and a miniature flint axe.

Lastly, even though most single finds are associated with barrows, it is not clear what these finds represent: destroyed graves or depositions, or simply stray finds? Moreover, one 'single' find can entail numerous objects that have been grouped together, but which were not necessarily found together. Thus, it has no use to determine which objects typically co-occur with each other.

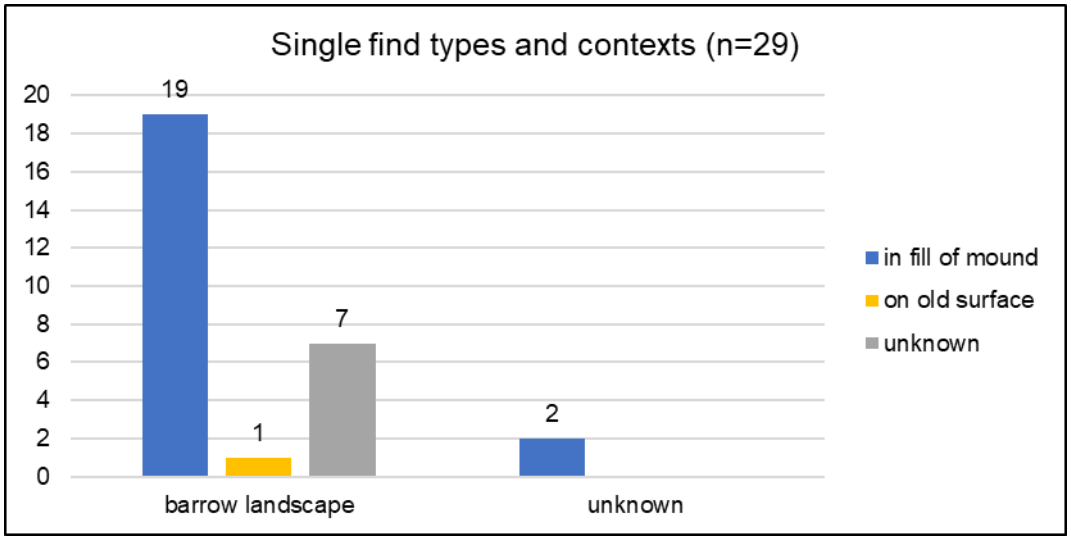

Figure 6.39 – The single find types and contexts in the Danish dataset (n=29).

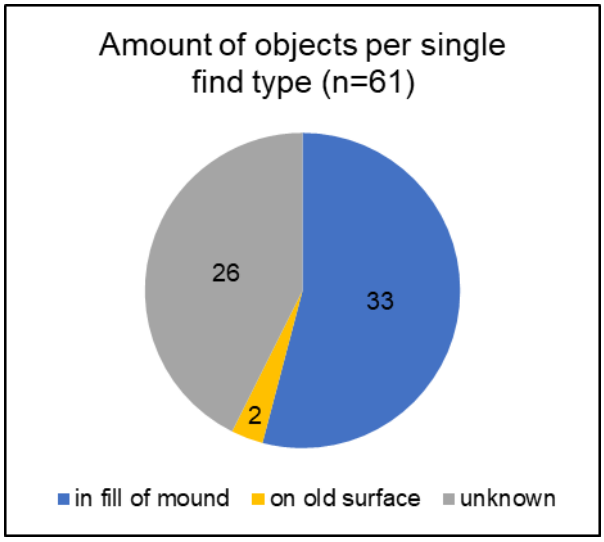

Figure 6.40 – The amount of objects found as single finds in the Danish dataset (n=61), categorized per type of single find.

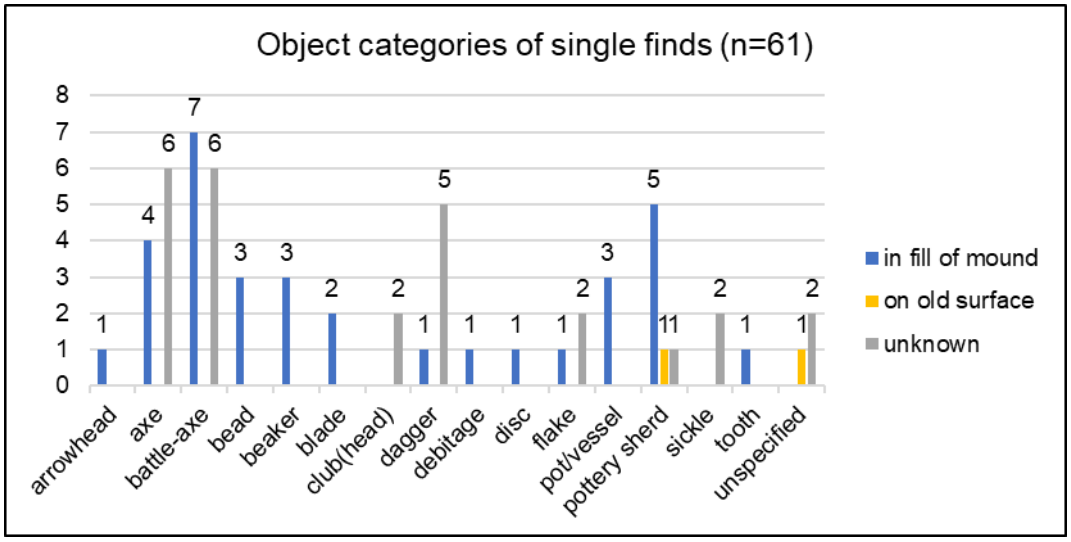

Figure 6.41 – The object categories found as single finds in the Danish dataset (n=61), categorized per type of single find.

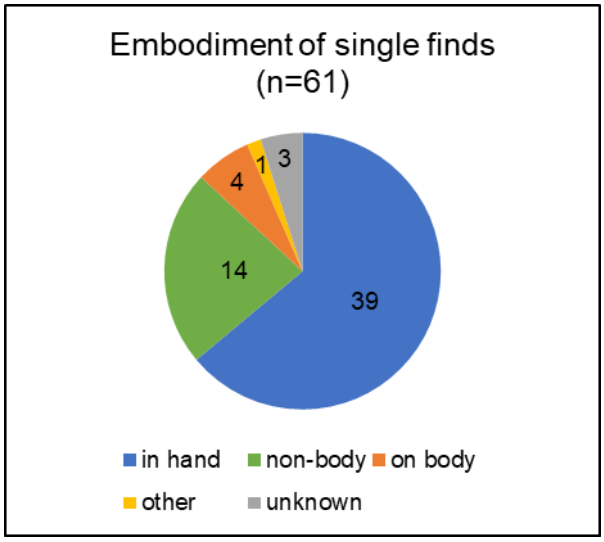

Figure 6.42 – The embodiment of the objects found as single finds in the Danish dataset (n=61).

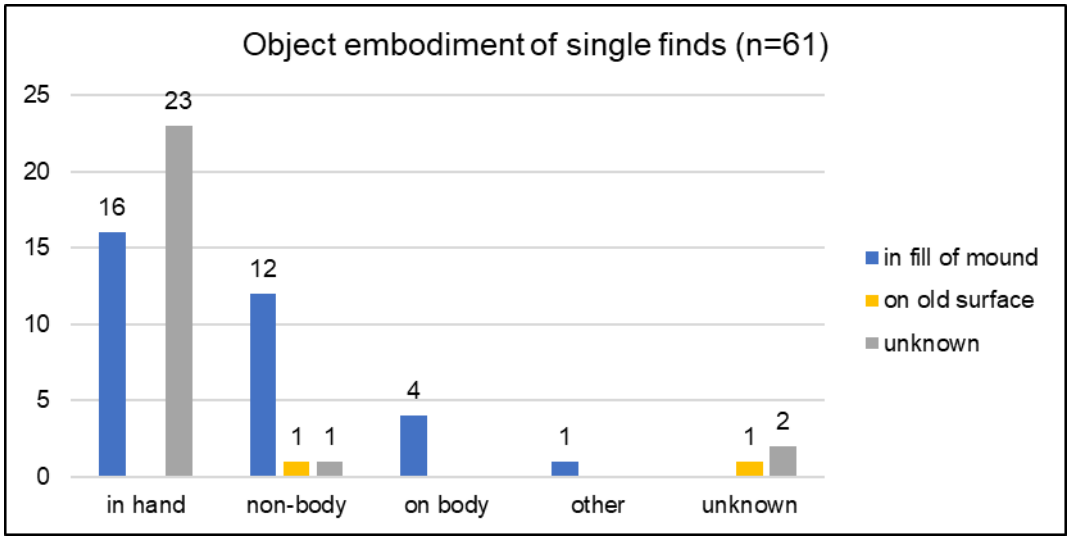

Figure 6.43 – The embodiment of the objects found as single finds in the Danish dataset (n=61), categorized per type of single find.

Table 6.7 – The exceptional objects found as single finds in the Danish dataset (n=2).

Obj ID	Toponym	Object category	Object description	Material	Embod -iment	N of objects	SF ID: additional information
46	Torrup-sgaard	battle-axe	fragmented	sandstone	in hand	1	7: fill of mound, ploughed
153	Tovrup	axe	miniature, thin-bladed	flint	in hand	1	21: unknown

6.4.3 Gendered selective deposition?

In this last part of the analysis, the above patterns will be contrasted with the patterns from the funerary context, in order to investigate whether there were prevailing (gendered) rules of selective deposition.

Fig. 6.44 shows the 25 object categories that occur in the Danish dataset. Unsurprisingly, considering the overrepresentation of this feature type, most variability of object categories occurs in the funerary context (22 object categories). 6 object categories are exclusive for burials: animal bones, a bowl, a scraper, a thunderstone, and an unknown object. Nearly all other objects that occur in graves, occur as single finds as well; exceptions are flint debitage and an animal tooth, which have only been found as single finds, and the chisels, which have only been found in burials and depositions. There are no object categories exclusive for depositions, but it must be mentioned that sickles – which also occur as single finds – may be typical for depositions, due to their absence in graves. Particularly striking, however, are the object categories, which are very common in graves but are excluded from depositions: beads, flint blades, flint flakes, and amber discs. On the other hand, axes appear to be more common in depositions than in graves.

The co-occurrence of the objects (**Fig. 6.45**) mirrors the co-occurrences in graves; the battle-axe is centrally linked to all of the common objects in the dataset, but in particular to axes and flint blades. The exclusive object categories have less occurrences with other objects, but most of them are still linked to battle-axes; the bowl and scraper are instead linked to the beads, and the thunderstone and tooth do not occur with any other objects.

When linking these co-occurring object categories to the features in which they occur(**Fig. 6.46**), it becomes apparent that the two main clusters which were seen in the graves, are still present, and that only few single finds and depositions are located within these groups; mainly the fringes of the graph are expanded. Indeed, the large cluster in the middle are all features with battle-axes co-occurring with the main objects. This cluster has expanded to the bottom right of the graph, with single finds and depositions of pottery sherds and pots/vessels. The original fringe on the right has not changed apart from the inclusion of one single find: these are the features with only amber beads. The fringe at the top right are graves, one single find and one deposition with beakers. The top middle are mainly depositions and single finds, and

two graves, with only axes. At the top left, are depositions, graves, and one single find, with daggers. The remaining, outlying clusters are the less common object categories.

Strikingly, apart from the aforementioned clusters and fringes, there seems to be a division in the graph, roughly through the middle; most of the depositions and megalithic graves are located in the top half of the graph, while most of the single finds and flat-graves are located in the bottom half of the graph, associated with the main cluster of battle-axes. Barrow are mainly distributed in the middle of the graph, in the two main clusters related to the crouched right-flexed and left-flexed positions. This seems to suggest that objects were indeed treated differently, according to context, although we must keep in mind that the single finds are uncertain contexts which may have been destroyed graves or depositions.

The object embodiments may shed more light on this differential treatment of objects in different contexts. The majority of the objects in the Danish dataset have an 'in hand' embodiment (60%), while 'on body' (16%) and 'non-body' (20%) objects are also common (**Fig. 6.47**). All three feature types mostly have 'in hand' objects (**Fig. 6.48**). However, there is a marked difference between the graves and depositions; depositions have no 'on body' categories, while 'on body' objects are prevalent in graves.

In sum, the Danish data suggests that there were (gendered?) rules of selective deposition. Particularly 'on body' objects are notoriously absent from the Danish depositions, while these objects frequently occur in graves: the possibly 'female' beads, and possibly 'male' discs. Yet other possibly 'male' objects are prevalent in the depositions: arrowheads, battle-axes, daggers, and mostly, axes. In fact, more axes (and daggers) have been associated with depositions rather than graves. Lastly, objects deposited in/with megalithic graves (also those together with human bodies) seem to connect the different treatments of objects and bodies with each other; particularly Børsmose (Grave ID 42/122) ('*Offerområde*'; Dep ID 11) and Gjerrild (Grave ID 132), the only site with sexed bodies (both male and female), bridge the gaps between depositions, and between barrow graves, respectively.

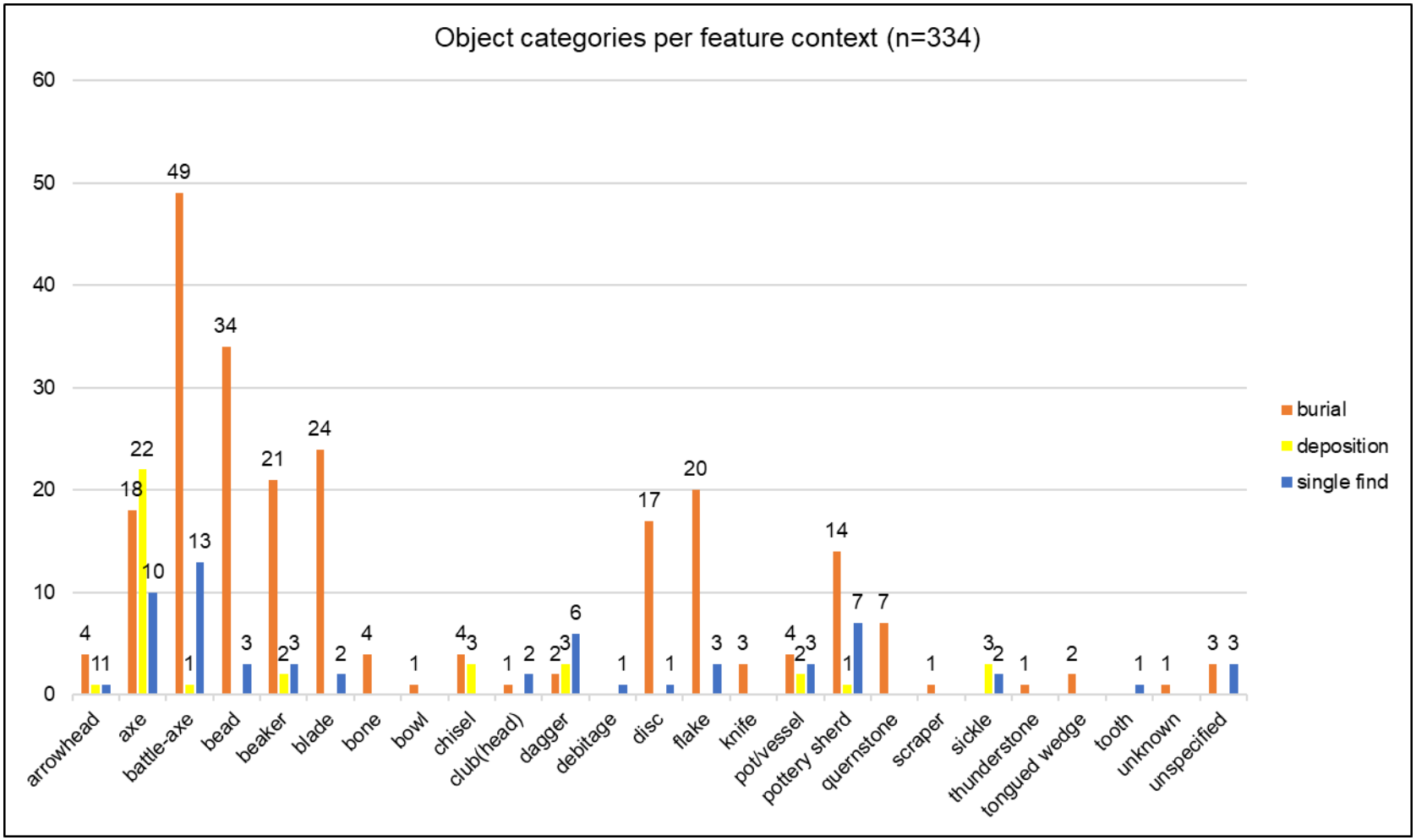

Figure 6.44 – The objects in the Danish dataset (n=334), shown per feature type.

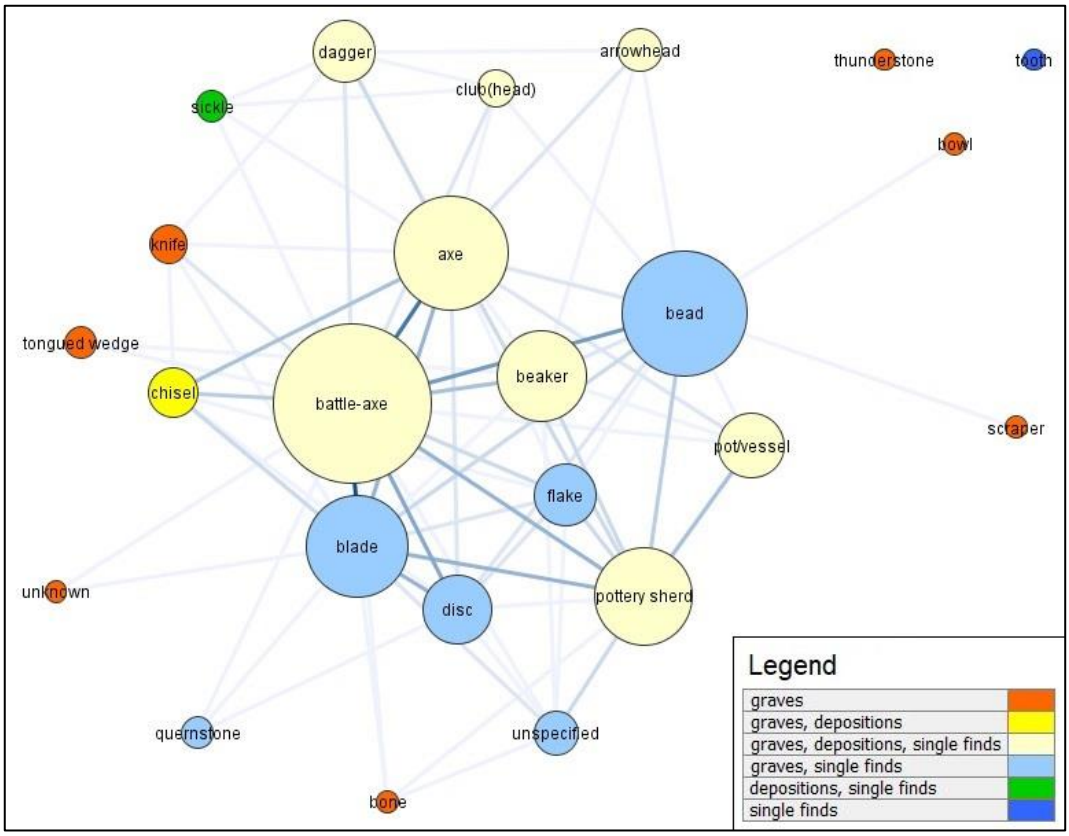

Figure 6.45 – The co-occurrences of all objects in the Danish dataset (n=334). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates how often this object co-occurs with another object (larger nodes imply more connections), and the colour of the nodes indicates the feature types in which the object occurs.

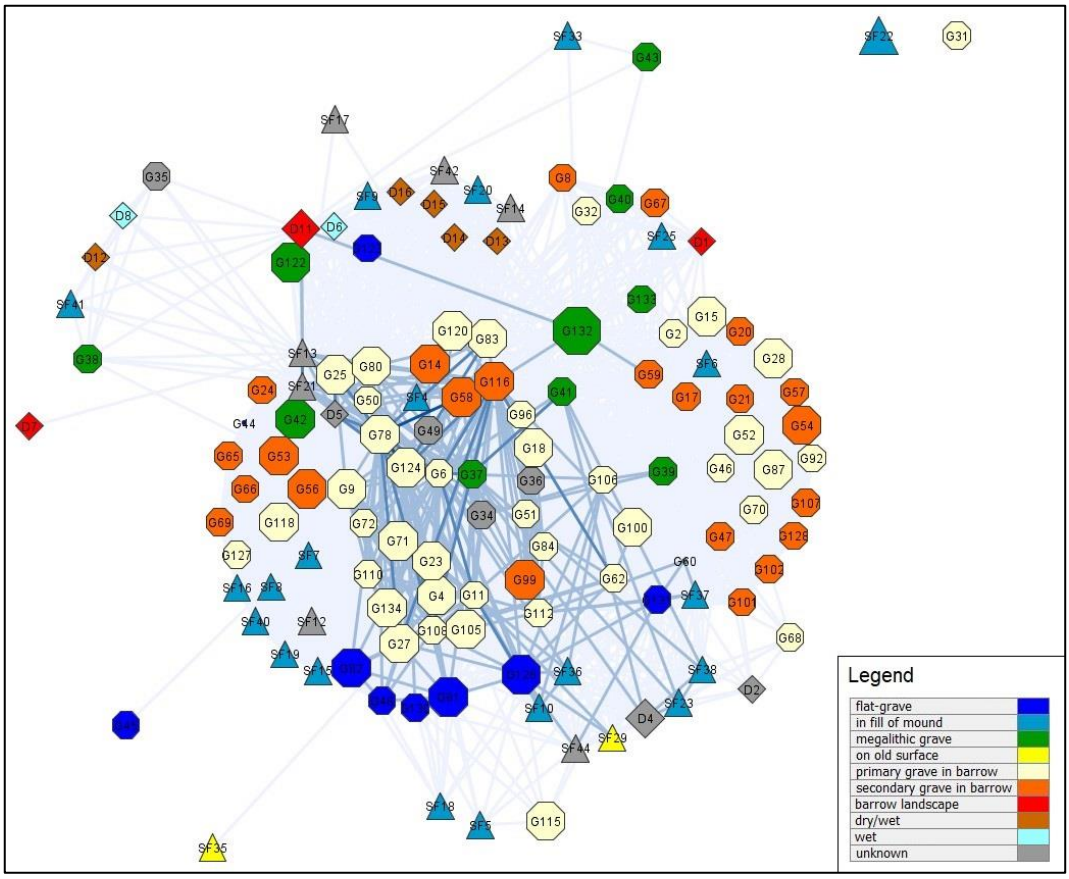

Figure 6.46 – The co-occurrence between all features in the Danish dataset (n=145). The colour of the links indicates the strength of the correlation (dark blue = strong, light blue = weak), the size of the nodes indicates the reliability of the features (larger nodes imply higher reliability), the shape of the node indicates the feature type (octagon: grave; diamond: deposition; triangle: single find), the colour of the nodes indicates the context of the features. The labels indicate the IDs.

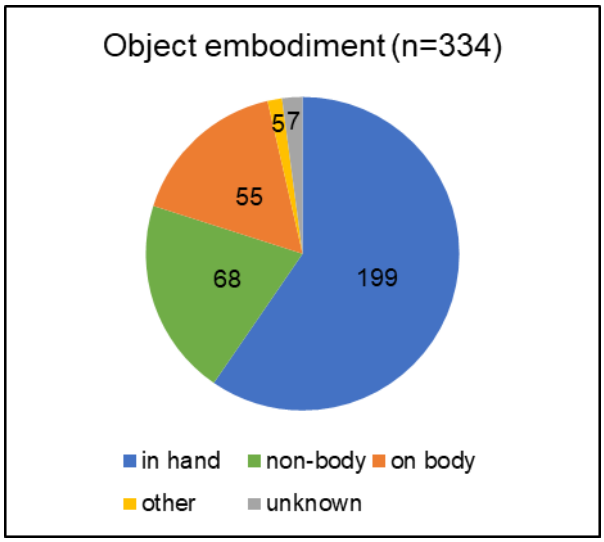

Figure 6.47 – The embodiment of all objects in the Danish dataset (n=334).

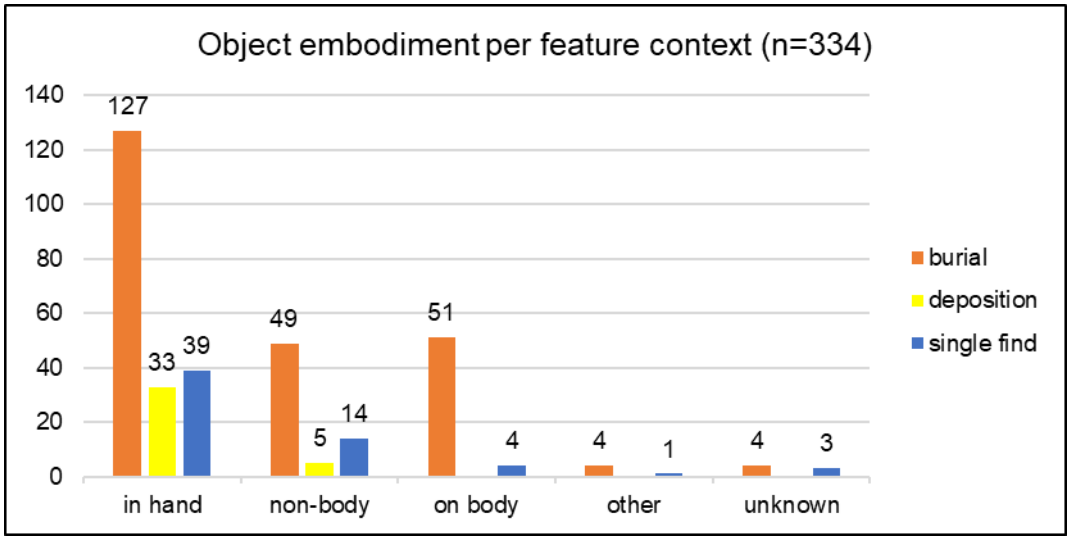

Figure 6.48 – The embodiment of all objects in the Danish dataset (n=334), shown per feature type.

6.6 Preliminary conclusion: gendered practices in the CWC of Jutland?

The case study of Jutland has two main issues: particularly the bad preservation of human remains, but also an overrepresentation of graves. These issues complicate the goal of the study, which is to investigate the multi-contextual expression of gender identities. Nevertheless, the analysis has led to the recognition of a differential treatment within and across contexts. The relationship between these treatments and gender and age, unfortunately cannot be determined with certainty, due to a severe lack of sexed and age bodies.

6.6.1 How has gender been expressed in funerary contexts?

As written about in **Chapter 3**, the grand narrative about CW gender includes a binary distinction between men and women, through grave goods and their positions in burials: the crouched right-flexed position for men and the crouched left-flexed position for women. Although these positions cannot be correlated to sex in the Danish dataset, a binary distinction between the crouched right-flexed and left-flexed positions can be confirmed. These positions are given differential treatment in terms of grave structures and grave goods; crouched right-flexed bodies are often buried in a wooden coffin surrounded by a stone frame and with charred material, and are accompanied by a variety of grave goods, but typically a battle-axe and a flint blade.

Crouched left-flexed bodies, on the other hand, are not buried with a stone frame or charcoal, and are typically given amber beads, sometimes in very large numbers.

While a binary (gendered?) distinction thus seems to confirmed, three further patterns aspects complicate the interpretation. Firstly, the crouched left-flexed burials are probably underrepresented in the dataset; the large amount of bodies with unknown positions, however might include some crouched left-flexed burials. It is entirely possible that the inclusion of more left-flexed burials would change this dichotomous pattern.

Secondly, the three known subadults in the dataset with associated grave goods, despite their low numbers, indicate that age may have played a role; two children were buried in a typical crouched right-flexed way, with battle-axes, but one crouched right-flexed infant was buried with amber beads only. The inclusion of more burials of different ages is necessary in order to investigate which role age played in the dichotomous distinction between burials.

Lastly, the Danish dataset might include a second way in which 'males' were buried: in a supine stretched position, without particularly typical grave structures or grave goods (although often with a battle-axe and arrowheads). A careful interpretation could be that the crouched right-flexed position was the 'standardized', possibly 'male', way of burying, while the supine stretched position more idiosyncratic. Again, more supine stretched burials are necessary in order to further investigate this pattern.

6.6.2 How has gender been expressed through selective deposition?

Despite the generally low reliability of the depositions, and uncertain context of single finds, the Danish dataset suggests that there were prevailing rules of selective deposition, which may have been gendered.

Firstly, as we have seen above, the funerary context is highly standardized in the dataset, containing a select set of objects in particular combinations. While battle-axes, axes, beakers, and pots/vessels also occur in depositions without bodies, four typical grave goods are *excluded* from the depositions: amber beads, flint blades, flint flakes, and amber discs. These thus include the only two object categories that appear to be considered appropriate for crouched left-flexed (possibly 'female'?) burials.

Secondly, the 'non-gendered' categories of beakers, pot/vessels and sickles ('unknown' gendered in the database) do occur in depositions, but these are not as common as, and do not co-occur with the possibly 'male' artefacts: axes, battle-axes, daggers, and arrowheads.

Thirdly, also depositions with 'male' artefacts suggest differential treatments; axes (most commonly deposited) do not typically co-occur with daggers. Only one deposition contains both types of objects.

This brings me to the last pattern observed in the multi-contextual analysis. One deposition at and a communal burial in two megalithic graves (Børsmose and Gjerrild) appear to connect the different treatments of objects and bodies. Perhaps megalithic graves were a special context in which the prevailing conventions were allowed to be broken.

Part III – Discussion & Conclusion

7 Discussion: binary gender symbolism in the CWC?

Contextualization of the case studies is necessary in order to investigate the (supra-) regional CW understanding of gender identities. This chapter aims to compare the results of the two case studies with each other (**7.1**) and with other CW regions (**7.2**), in order to determine whether the found patterns in the preceding chapters indeed tell us about CW gender. The last section (**7.3**) contrasts the found patterns to the present 'grand narrative' of the third millennium BCE.

7.1 Comparing the case studies: Bavaria vs. Jutland

The two case studies included in this thesis show remarkable differences. Firstly, there is an obvious difference in preservation. In Bavaria, skeletal remains are generally well-preserved, enabling osteological analysis of skeletal remains. With the sexed and aged burials, a rather good representation of the population is achieved, although there are still numerous burials with an unknown sex and age, and males may be slightly overrepresented. Jutland, on the other hand, is characterized by bad preservation circumstances. Consequently, only a few skeletal remains have been analysed through physical anthropology; the representation of the population in the Danish data is unknown. Yet if the 'grand narrative' is correct about the two gendered positions, 'male' burials in the crouched right-flexed position are probably overrepresented in the Danish dataset.

Secondly, barrow graves are typical for Jutland, while flat-graves are more common in Bavaria. Moreover, while the Danish dataset includes reused megalithic graves, these are not included in Bavaria; it is unclear to me whether any megalithic graves were reused here. Grave structures (stone and wooden structures, coffins, charcoal) are very common in Jutland, whereas only two graves had a stone structure in Bavaria. Multiple burials are however more common in Bavaria than in Jutland. Finally, a unique dog burial was found in Jutland, whereas two unsure cremation graves were found in Bavaria.

Thirdly, while both regions have typical CW material culture, there are clearly regional differences. In Bavaria, the beaker is the most common artefact, whereas in Jutland, battle-axes are most common. The Danish dataset involves a lot of bodily ornaments, while these are uncommon in Bavaria. In Bavaria, there are some copper

objects, but no amber objects, while the former are absent in Jutland, and the latter are very prevalent. Animal bones and teeth are more common in Bavaria than in Jutland. Lastly, two objects in Bavaria are imported from faraway regions: one dagger of Nordic flint, and one of Grand Pressigny or Italian flint. In Jutland, the objects are typically made of local materials, and the only 'non-local' material is flint from the Danish Isles.

Fourthly, in comparison to the Danish graves, the Bavarian graves do not show a very standardized way of burying. There are several typical grave goods (mostly axes and beakers), and, even though male burials have more variability in which objects can accompany them in the grave, female burials also are given different combinations of objects. Moreover, there seem to have been three, possibly gendered, positions: the crouched right-flexed (possibly 'male'), crouched left-flexed (possibly 'female'), and the supine flexed position (possibly 'male and female'). Subadults, even young children, were treated in the same way as adults. This implies that they were considered to be part of the (burial) community and that that they may have even been gendered in similar ways to adults.

The Danish graves, on the other hand, show a very high degree of standardization. Almost all crouched right-flexed burials were given a battle-axe, in combination with other grave goods. Crouched left-flexed burials, on the other hand, were all given amber beads, and only one burial was also given a flint blade. Unfortunately, these two positions cannot be correlated with sex, but as the consensus would have it, this pattern would indicate a strict, binary gendered distinction between men and women. A third way of burying however complicates this interpretation: the supine stretched position. Burials in this position are less standardized than the crouched flexed positions, and might indicate an additional 'male' way of burying, considering that the two only male sexed burials were placed in this position, and that these burials are mostly accompanied by possibly 'male' objects. While there are not enough (known) subadults in the dataset, it is possible that subadults were treated in the same way as adults, but only from a certain age onwards.

Lastly, there are only few depositions (i.e. objects deposited in the ground without a body) in the Bavarian dataset, while there are more in the Danish dataset – although these are still underrepresented in comparison to the funerary context. Hence, only the Danish dataset allows for a proper analysis of selective deposition.

In Jutland, there are clear rules of selective deposition, which may have been gendered. In the funerary context, ('male'?) objects typical for crouched right-flexed and supine stretched burials are consistently excluded from crouched left-flexed burials ('female'?). Yet possibly 'male' and 'non-gendered' objects also occur in (wetland) depositions; in fact, most axes in the dataset are from depositions rather than graves. Depositions with axes are distinct from depositions with daggers, and depositions with beakers and with sickles appear to be separate, less prevalent categories. While sickles are consistently excluded from burials, 'on body' objects, prevalent for burials, never occur in depositions. Finally, megalithic graves are possibly 'convention-breakers' (cf. Fontijn 2019, 35), where the differential treatments of objects and bodies come together.

While an analysis of selective deposition was not feasible for the Bavarian dataset, strikingly, some of the above rules in Jutland appear to apply in Bavaria as well. Indeed, the only hopeful patterns that might be discerned from the Bavarian dataset, are that possibly 'male' objects can occur in both graves and depositions, and that objects with an 'on body' embodiment are exclusively deposited in graves.

In sum, even though the comparison between the Bavarian and Danish case studies yields numerous regional differences, both case studies possibly indicate a more complex system in which gendered bodies could be buried (**Tab. 7.1**): 'male', 'female', and 'male and female' positions in Bavaria, and two 'male' positions and one 'female' position, and two standardized grave sets ('male' and 'female'), in Jutland. Another, surprising similarity is that the same rules of (gendered?) selective deposition may apply in both regions, although there is much less evidence for these rules in Bavaria (**Tab. 7.2**). It would be worthwhile to investigate whether these rules apply in other CW regions.

Table 7.1 – Summary of the possibly gendered body positions in Jutland and Bavaria.

Gender of body position	Bavaria	Jutland
'Male'?	Crouched right-flexed	Crouched right-flexed Supine stretched
'Female'?	Crouched left-flexed	Crouched left-flexed
'Male and female?'	Supine (left-/right-)flexed	
?	Supine stretched	

Table 7.2 – Summary of the typical, possibly gendered, object categories and their embodiments, from Jutland and Bavaria (regional differences shown in brackets), listed according to context.

Funerary context	Depositions (wetlands, barrow landscapes)
'Male' objects: - In hand: axes, battle-axes, daggers, arrowheads - On body: amber discs (Jutland) - Other: animal bones (Bavaria)	'Male' objects: - In hand: axes, battle-axes - In hand: daggers, arrowheads (Jutland) - On body: *none* - Other: *none*
'Female' objects: - On body: amber beads (Jutland), perforated teeth (Bavaria)	'Female' objects: - On body: *none*
'Non-gendered' objects: - In hand: flint blades - Non-body: beakers, other ceramics	'Non-/unknown gendered' objects: - In hand: sickles (Jutland) - Non-body: beakers, other ceramics

7.2 Supra-regional comparison

The described patterns above need further contextualizing with other CW regions. I will start with discussing a region closes to Bavaria, in order to determine whether the same patterns occur here as well: the Taubertal. The Danish dataset is well represented in Bourgeois and Kroon (2017) and will thus be contextualized through this study.

7.2.1 Bavaria and the Taubertal

The Taubertal is located just to the north of the studied sites in Bavaria: the Main-Tauber catchment area. The CWC here has clear similarities with the CWC in the Danube catchment area (Heyd 2000a, 103). Dresely (2004) has published an extensive catalogue of the CW graves in the Taubertal, which includes numerous flat-grave cemeteries.[3] Several of these burials have been included in a recent stable isotopes analysis, which indicated a high degree of mobility, of particularly females, across generations (Sjögren *et al.* 2017).

Strikingly, the graves in Taubertal show numerous differences from the CW consensus (e.g. many multiple burials), but most importantly that the body position varies per site, and cannot be correlated to sex; both men and women were mostly

[3] Unfortunately this catalogue was not available to me during the most part of this research; I would have included these cemeteries otherwise.

buried on their left side (Dresely 2004, 242-3). More so than in the Bavarian case study, the supine flexed position is very common in the Taubertal, although Dresely warns that there is a difference between 'primary' and 'secondary' supine flexed positions, i.e. intentionally placed or related to taphonomy, due to the complex placement of arms (Dresely 2004, 102-3). This has not been accounted for in this thesis, nor was the placement of the arms explicitly mentioned by Heyd (2000).

Despite the lack of a correlation between sex and body position, Dresely could identify gendered differences between men and women in Taubertal; women were more often placed in multiple burials (with children), female burials were never the primary grave in a tomb, and, in contrast to male burials, were frequently buried without grave goods (Dresely 2004, 243). 'Non-gendered' objects are ceramics, flint tools, and, interestingly, animal bones and perforated teeth ('male' and 'female' in the Bavarian case study respectively). 'Male' objects are stone and bone tools, while the only 'female' objects are decorated mussel discs (Dresely 2004, 243-4). Unfortunately, Dresely has not analysed which grave goods occur with which body positions; thus, my suggestion that the supine flexed position could be a third, gendered position, cannot be reviewed without analysing the Taubertal graves myself.

Age differences can be discerned in the grave goods, but, like in the Bavarian dataset, there are not enough individuals in order to establish a norm: while stone tools are common for males of all ages, these are mostly fragmented in the burials of subadults, bone tools do not occur in subadult burials, and ceramics do not occur in mature burials (Dresely 2004, 244). At least the latter pattern applies to the Bavarian graves as well, as we have seen.

Dresely suggests that these idiosyncratic burial practices are unique for the region, and that the more strictly gendered practices are from a somewhat date during the CWC (Dresley 2004, 244). Considering that typochronology was not part of the analysis, it is unclear to what extent the Bavarian patterns are related to chronology.

Lastly, Heyd (2000) mentions that there are depositions in the Taubertal (Heyd 2000a, 104), but does not include an overview of which objects are found; only ceramic single finds are listed. My hypothesis about CW selective deposition thus cannot be tested with the Taubertal data here.

7.2.2 Comparison to Bourgeois and Kroon (2017)

The database by Bourgeois and Kroon (2017) consists of 1161 burials, from 802 sites, most of which are from Jutland (425, including Schleswig-Holstein), but also from Central Germany (283 sites) and Czechia (17 sites), and The Netherlands (77 sites). In their network analysis, the authors focused on the occurrence and positions of grave goods, in relation to the position of the body. As described in **3.2**, the analysis revealed not only that throughout these CW regions, the typical grave goods were placed in very specific arrangements, but also that the right-flexed burials were more standardized than the left-flexed burials.

In the present thesis, this has been recognized in the case study of Jutland, unsurprisingly, although the left-flexed burials also showed standardization, in their own way (exclusion of certain grave goods). Yet for the Bavarian case study in particular, and in the Danish data to a lesser degree, there appears to be more variability than a simple dichotomous relationship between left and right. Indeed, Bourgeois and Kroon (2017) did not distinguish between a crouched flexed and supine flexed position, nor did they include supine stretched burials and megalithic graves in their analysis. Considering that the Danish dataset did not contain any supine flexed burials, perhaps this distinction is thus not possible, but for the other regions in the supra-regional analysis this position, particularly the German sites, may have been present. A possibility is however that these positions indicate chronological differences; in Denmark, the supine stretched position is considered to increase towards the end of the Danish Younger Neolithic, thus on the transition between the CW period and the 'Dagger period'. The same holds true for the reuse of wooden chambers and megalithic graves (Hübner 2005, 747). The supine flexed position, on the other hand, might be closely related to the burial traditions of the Yamnaya culture (pers. comm. Q. Bourgeios 2019).

Bourgeois and Kroon (2017) found a striking distinction between a supra-regional burial style and local burial styles. This indicates that the crouched right-flexed position is typically the expression of shared cultural norms regarding the proper treatment of the deceased and of certain grave goods: the possibly 'male' battle-axe, flint axe, and flint dagger, as well as 'non-gendered' beakers and amphorae. The crouched left-flexed position, on the other hand, is typically the expression of more local norms.

Both case studies in this thesis, confirm such a difference; the objects signifying a supra-regional identity occur mostly in crouched right-flexed burials in both regions, while the objects typical for crouched left-flexed burials differ between the two case studies: amber beads and flint blades in Jutland, and beakers, flint blades, bone discs, pins/needles, and perforated teeth in Bavaria. This would thus suggest that local choices are made in these burials. Interesting, however, is that flint blades (and additionally beakers, in Bavaria) are also very common for the supra-regional crouched right-flexed position, and that there are also crouched right-flexed burials with amber beads (and discs) in Jutland, and bone discs and pins/needles in Bavaria (as well as male burials with perforated teeth in the Taubertal). Moreover, Bourgeois and Kroon (2017) found that there may have been two distinct styles for burying a crouched right-flexed burial; either with ceramics, or with an axe. While this may hold true for Jutland (no beakers are associated with a body), this is uncertain for the Bavarian data; here, beakers are much more prevalent than battle-axes, and beakers and axes can co-occur.

While Bourgeois and Kroon (2017) do not include any other contexts than graves, it is interesting to compare this pattern with the hypothetical rules of selective deposition found in this thesis (**Tab. 8.3**). Supra-regional, 'in hand' objects, which are typically associated with CW men, as well as supra-regionally 'non-gendered' objects, occur in both funerary contexts and wetland depositions. On the other hand, bodily adornments, which are more typically associated with crouched left-flexed ('female'?) bodies, and thus local identities, only occur in funerary contexts. Following Wentink's suggestion that standardized grave set means that these objects are not meant to signify a particular status or identity, but instead an 'archetypical', idealized ancestor (Wentink *in press*, 14), I would like to suggest that the supra-regional burial style does not necessarily aim to convey a 'male' gender identity, but instead emphasizes the CW community as an important value. The deposition of these objects in wetlands might confirm such a value; these objects were less attached to a particular person, and more of a signal for the community (cf. Fontijn *forthcoming*; Wentink *in press*, 229-32). Indeed, these 'in hand' objects would have been part of the daily life of an agricultural community with faraway contacts, for clearing the land in order to plough and enable wheeled transport, and thus would have played an important economic and ideological role; already from the Early Neolithic onwards, axes were part of

supra-regional exchange and deposited as valuables (Fontijn 2002, 248; Wentink *in press*, 125-6).

The 'non-gendered' beaker may have been essential in maintaining social contact with other CW communities, as a part of guest-host relationships (Wentink *in press*, 239-47). Considering that beakers also accompany female and/or crouched left-flexed burials in the two case studies, it seems that this object was chosen, and not an 'in hand' object category, if a supra-regional burial style was chosen for a deceased female. This implies that there was a gendered distinction in which objects were chosen to signal the supra-regional CW community, perhaps explaining why, even in crouched right-flexed burials, beakers and axes do not typically co-occur.

The bodily adornments, on the other hand, appear to have been related to a personal ('on body' objects), and local identity. These objects were not typically deposited in contexts other than burials (although at least one hoard with amber beads is known from Jutland; Ebbesen 2006, 231), and within this context, these objects most often occur in crouched left-flexed burials (i.e. the local burial style). Furthermore, the type of bodily adornment differs between the two case studies. For Bronze Age ornaments, Fontijn (2002) suggests that when these objects occur in graves, they are meant for the *construction* of local identities, whereas ornaments in hoards signal the *deconstruction* of identities (Fontijn 2002, 244). Apparently, these local identities were not meant to be deconstructed during the CWC. Thus, I would again suggest that the local burial style does not primarily convey a 'female' gender identity; instead, local values are emphasized. Indeed, the case studies include male and/or crouched right-flexed burials with the same local objects as the females, although always combined with a supra-regional symbol.

Lastly, the case study of Jutland indicates that there was an additional context, in which these supra-regional and local identities could come together: reused megalithic graves. The burials, grave goods, and depositions in this context suggest that this depositional context was 'convention-breaking' (cf. Fontijn 2019, 35); here, the different rules for treating gendered bodies and supra-regional and local symbols, were allowed to be broken.

Table 7.3 – Summary of the hypothetically prevailing rules of gendered selective deposition, following from the two case studies of Jutland and Bavaria, in comparison to Bourgeois and Kroon (2017).

Identity	Object	Selective deposition
Supra-regional	'Male' objects: - In hand: axes, battle axes, daggers, arrowheads 'Non-gendered' objects: - In hand: flint blades - Non-body: beakers, other pottery	'Male' objects: - In hand: 'male' burials, crouched right-flexed position, wetland depositions, megalithic graves (Jutland) 'Non-gendered' objects: - In hand: 'male' and 'female' burials, all body positions, wetland depositions - Non-body: 'male' and 'female' burials, all body positions, barrow landscape depositions, megalithic graves (Jutland)
Local	'Male' objects: - On body: amber discs (Jutland) 'Female' objects: - On body: amber beads (Jutland), perforated teeth (Bavaria)	'Male' objects: - On body: crouched right-flexed burials 'Female' objects: - On body: 'male' and 'female' burials, all positions, megalithic graves (Jutland)

7.3 CW gender: binary and patriarchal?

In sum, while there seems to have been a binary distinction in CW burial and depositional practices, the main value here does not seem to be gender, but instead supra-regional and local identities, even though there appear to be clear ideas about masculinity and femininity in relation to these identities; either (battle-)axes or beakers were appropriate for men buried in a supra-regional style, while female graves conveying supra-regional values were only given beakers. Meanwhile, local identities were mainly expressed in female burials, and when a man was buried with a local symbol, this was always accompanied by a supra-regional symbol. Moreover, the 'male' supra-regional objects could also be deposited in wetland contexts, while this was less common for the 'non-gendered' beaker, and the local symbols were excluded from this context.

This gendered interpretation is however problematized by the many unsexed bodies in both this thesis and the dataset of Bourgeois and Kroon (2017). As we have seen, the crouched right-flexed and left-flexed cannot be correlated to sex with certainty. Furthermore, both case studies – even the highly standardized burials of Jutland – display more variability than this binary distinction; in Bavaria, there appears to have been a position for both men and women (supine flexed), while, in Jutland, there may have been two 'male' positions (crouched right-flexed and supine stretched). While it is unclear how these positions relate to chronological changes and other types of identity, this at least complicates the idea of a strict binary gender division, as suggested by the grand narrative of the CWC. Additionally, the idea of a uniform CWC is also nuanced here; norms for burying gendered bodies may have varied throughout the CW area, although these practices would have interacted with the prevailing supra-regional and local depositional norms.

Another complicating factor is that of age; unfortunately, there are not enough aged bodies in this thesis, in order to discern gendered norms related to the life cycle of a CW person. Age was not a variable taken into account by Bourgeois and Kroon (2017) either. Yet the few subadults in the case studies suggest that they were treated in the same way as adults, and thus possibly gendered in a similar way as well, at least from a certain (quite young) age. This is confirmed by Turek (2017), who analysed multiple children's graves from the CWC in Czechia, which seem to occur mainly from the age of 2 years old and do not indicate a preferential treatment of 'girls' or 'boys' (Turek 2017, 345-6). On the other hand, aDNA analysis on children's graves dated to the BBC showed a surprising discrepancy between the genetic sex of the children and the treatment they received in the burial, perhaps indicating that some "girls were supposed to be brought up as boys" (?) and/or that some boys were considered as girls, perhaps until transitioning to the next life stage (Turek 2017, 348-50). Clearly, age would have played a role in the gendered interpretation of a CW body, and I have not been able to fully investigate this in the present thesis.

Lastly, some may interpret the indications that more men were buried in a supra-regional burial style than women, and that men were given a larger variety of objects, as evidence for a 'male-dominant' and martial society. In my opinion, this cannot be confirmed, not in the least because the battle-axe seems to be more of a symbol of the community rather than of martiality. While a person buried according to a supra-

regional, idealized symbolism, thus signifying the whole community, may indicate that this was an important person, on the other hand, the deceased has lost their own personal – and local – identity in the grave. In contrast, women, and some men, display symbols of more personal significance, related to the body and to the local community.

Stable isotope studies (e.g Knipper *et al.* 2017, Sjögren *et al.* 2017) have shown that CW women were more mobile than men, indicating a system of female exogamy. This does not mean that women were passive exchange goods. These women would have brought with them knowledge about other CW communities and perhaps also material culture from their region of origin. Rather than being 'dominated by men', these women may have had their own supra-regional networks, maintaining the system of female exogamy for next generations, and thus exerting power in their own right.

8 Conclusion

Western assumptions often – implicitly – underly our narratives about the past. For the Corded Ware culture (c. 2900-2450 BCE), a binary gender distinction is often presumed. This thesis had the objective to investigate to what extent this distinction is based on our own biases, and to develop a methodology for studying prehistoric gender despite the limitations of the archaeological record. The main research question was:

> *What did Corded Ware gender entail and how was this expressed in burial and depositional practices in different regions?*

The main approach was thus multi-contextual, and the research question can be divided into two main topics: gendered burials and the selective deposition of gendered artefacts.

Through the supra-regional comparison between the two case studies in the thesis, Bavaria and Jutland, as well as with the extensive network analysis of Bourgeois and Kroon (2017), I have come to a – hypothetical – answer of the above research question. Corded Ware gender appears to have entailed the construction of masculinity and femininity, through an interplay of supra-regional versus local norms. These norms consisted of particular ways in which a gendered body could be buried, as well as how supra-regional and local objects had to be treated appropriately.

Male bodies were more often displayed as an idealized ancestor, following the supra-regional burial style, and using objects that could also be deposited in wetlands, if their life biographies allowed them that. These objects signified the community and social contacts within the larger CW area (cf. Wentink *in press*). Female bodies, on the other hand, were more often buried in a way that emphasized more personal, local identities. The objects used were mostly bodily ornaments and had significant local value, and these were not typically deposited in contexts other than graves.

This however does not necessarily mean that there was a strict binary gender division during the CWC, nor that CW society was 'male-dominant'. Indeed, as we have seen, such an inference assumes the equation between sex and gender, which is a Western bias that, even in our own society, is currently being more and more deconstructed. In the CWC, the correlation between body position and sex cannot

always be confirmed, and there are known exceptions. It seems that local expressions of gender may have differed throughout the regions. In Bavaria, we have seen a possibly third, 'male and female' way of treating a deceased body. In Jutland, there may have been an additional 'male' way of burying, which was more idiosyncratic rather than following the strictly standardized supra-regional norms. Age appears to have played a role as well, but there were not enough subadult and mature bodies in the dataset in order to discern a clear pattern. Lastly, in Jutland, both supra-regional and local identities, as well as symbols of masculinity and femininity, come together in the reuse of megalithic graves, thus perhaps posing 'convention-breakers' (cf. Fontijn 2019).

While further research is necessary to determine whether these found rules of selective deposition apply to other CW regions, and to further investigate the local expression of gender, the above interpretation indicates that the 'grand narrative' of the third millennium BCE has to be nuanced; there was more variability rather than simply supra-regionally uniform practices, perhaps as a continuity from preceding periods, and gender symbolism seems to have been more complex rather than a simple binary dichotomy.

8.1 Evaluation of methodology

The methodology of the present thesis emphasized a multi-contextual approach, in which different contexts were compared to each other and co-occurrence between objects, context, and body positions, age and sex, were sought. The methodology was successful in finding (hypothetical) rules of selective deposition, even though the funerary context was overrepresented; due to the latter issue, these possible rules need to be investigated further.

A limitation of the methodology was that typochronology was not taken into account, due to the known issues with CW chronology. A result is that some of the observed patterns – particularly those related to more local and idiosyncratic expressions of gender – may be related to changing practices throughout the CW period, and particularly in the transition into the Bell Beaker culture.

Other limitation has been the highly variable reliability of the archaeological data. I have attempted to overcome this problem by including a reliability factor, but in practice there were still many 'unknowns' skewing the patterns.

Lastly, a more general limitation of studying gender through archaeology is that there is a discrepancy between our quantitative methods and the qualitative reality of the prehistoric peoples who actually experienced gender in life and death. I am not sure if this problem can ever be overcome – all we can do is make the underlying inferences by which we construct our narratives about the past very explicit.

8.2 Suggestions for future research

In order to verify and understand the found patterns in this thesis, further research is necessary. In the first place, considering the aforementioned limitations of the used methodology, I would suggest a more diachronic approach, in which typochronology *is* taken into account, but also a comparison between the preceding Funnel Beaker culture and succeeding Bell Beaker culture and Early Bronze Age. The prevailing rules of selective deposition, as well as local expressions of gender identities, are expected to be better understood when considered as a larger temporal process in which the perception of the human body changes (cf. Robb and Harris 2018).

Other suggestions for future research mainly entail which additional data to include; due to time constraints I was not able to include everything in the present thesis. An analysis of the Taubertal is expected to give more insight into idiosyncratic, gendered burial practices. More differently aged burials, and in particular those of children, need to be analysed in order to investigate in what way age played a role in gendering CW bodies. Furthermore, the inclusion of more CW hoards and more reused megalithic graves is likely to further our understanding of the prevailing rules of (gendered) selective deposition.

Finally, the present research did not include data from settlements. Gender is however deeply ingrained in all aspects of daily life. Finding a way to incorporate the difficult settlement data of the CWC, for example by utilizing spatial analysis on the micro-scale of the settlement itself (cf. Nobles 2016), might result in a completely changed perspective of gender in this period.

Abstract

The Corded Ware culture (c. 2900-2450 BCE) was a prehistoric phenomenon encountered throughout Europe, characterized by standardized material culture and burial practices. Recent studies incorporating new scientific methods such as ancient DNA and stable isotopes suggest that this phenomenon was the result of mass migrations from the Pontic Caspian steppe, thus confirming traditional hypotheses regarding the origin and fast spread of this archaeological culture. Moreover, the grand narrative of this period includes a notion of a strict binary gender symbolism and even of a 'male-dominant', patriarchal society.

Such an interpretation of CW gender is however largely rooted in andro- and ethnocentric, Western assumptions, in which biological sex is equated with gender, and weapons (i.e. the CW 'battle-axe') are associated with masculinity. This thesis aims to investigate to which extent the CWC indeed had a notion of binary gender, and to better understand how CW gender was expressed through material culture and its selective deposition in different contexts.

A practical methodology with a comparative and multi-contextual approach was developed in order to study CW gender. Two case studies have been selected: the Danish administrative region of Southern Jutland, known for its very typical Single Grave practices, and the state of Bavaria in Germany, which is expected to be a focal point in the mobility of people and the exchange of raw materials.

Emphasis was placed on the co-occurrences between different object categories and their 'embodiment', and different depositional contexts. For the funerary context, the latter included different grave types (including reused megalithic graves), and the position, and, if available, sex and age, of the buried body. While the funerary context is overrepresented in both case studies, several depositions (i.e. buried objects without a body), particularly from Jutland, as well as single finds, have been included. The found patterns in both regions were then contextualized by comparing the two regions with each other and with the extensive network analysis by Bourgeois and Kroon (2017).

Strikingly, CW gender appears to have been constructed through an interplay of supra-regional and local burial styles and artefacts. The binary dichotomy seen in the funerary context is more likely the result of normative ideas regarding a supra-

regional CW identity and – more idiosyncratic – local identities, although gender clearly played a role in these norms. Men appear to be more typically buried in a supra-regional style, accompanied by objects with an 'in hand' embodiment that would have played an important role in daily life and which could also be deposited in wetlands; the core value here may have been the community. Women, on the other hand, were more often buried in a local style, with locally specific bodily adornments, which were thus directly related to the body and a local personhood, and which could only end their life cycle in burials with human bodies.

It must be emphasized that this pattern does not necessarily imply a binary gender distinction; there are men buried with local ornaments, and women buried with 'non-gendered' yet supra-regional objects (i.e. beakers and flint blades). Moreover, both case studies appear to show more variability in what was considered appropriate burial positions of gendered bodies. Unfortunately, the role of age could not be properly investigated in this thesis, but it is likely that this was an essential element of CW gendered bodies. Lastly, megalithic graves in Jutland seem to connect the otherwise strictly separated norms of selective deposition with each other. In conclusion, the prehistoric reality of CW gender may have been more locally variable than the grand narrative would suggest.

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