A COMPLETELY NORMAL PRACTICE

The emergence of selective metalwork deposition in Denmark, north-west Germany, and the Netherlands between 2350-1500 BC

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Part I

Introduction and Methodology

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Introduction

1.1 Introduction: the Torsted hoard

In June of 1963, during an excavation of Middle Neolithic stone-packing graves at Torsted in north-western Jutland, archaeologists chanced upon an Early Bronze Age hoard that would become one of the most spectacular finds from this region and time period (Becker 1964:115-133). The hoard, consisting of seven bronze axes and a staggering 40 bronze spearheads, all in very good condition, had been placed inside a small uncovered stone setting in the ground (Becker 1964:116-117, see Figure 1.1 and Figure 5.9). The axes and spearheads had been laid inside a basket made of oak wood and lime tree bark, of which traces were found inside the stone setting (Becker 1964:116). They were positioned in several layers, with the axes and four of the spearheads lying at the bottom and the rest of the spearheads lying on top, the sockets and tips alternatingly oriented north-west (Becker 1964:118). Clearly, people had deliberately and carefully buried this remarkable collection of bronze objects in the ground, and never retrieved it.

Since Denmark is a non-metalliferous region, far removed from the nearest sources of metal – which are located in Central Europe and the British Isles (Hänsel 2009:108-109, fig. 113) – all of the metal in the Torsted hoard had to be imported from afar. Metal was thus a foreign material, and such a large collection of objects obviously represents a large amount of metal. Yet despite their value, these axes and spearheads were apparently intentionally buried together in the earth, never to be retrieved. Why did people in the Bronze Age do such a strange and puzzling thing? What were the motives and ideas behind this act?

1.2 The Torsted hoard: not an isolated case

Although the Danish Torsted hoard is a spectacular find, it is not an isolated case. All over Europe people intentionally placed valuable bronze objects in bogs, rivers, or dry land, like the Torsted hoard, and never retrieved them. Yet nowhere in Europe was metalwork deposited on such an excessive scale as in Denmark, even though the region is far removed from metal sources. In fact, southern Scandinavia, comprising Denmark and the southern part of Sweden, is probably the region with the largest quantity of Bronze Age metalwork in Europe (Thrane 2013:748). Apart from the astonishing metal quantities, this region also had its own character and quality in the Bronze Age (Vandkilde 2014ab), making it stand out from the rest of Europe. Some of the most spectacular and famous Bronze Age finds have been discovered in Denmark, such as the Trundholm sun chariot (see Figure 1.2),

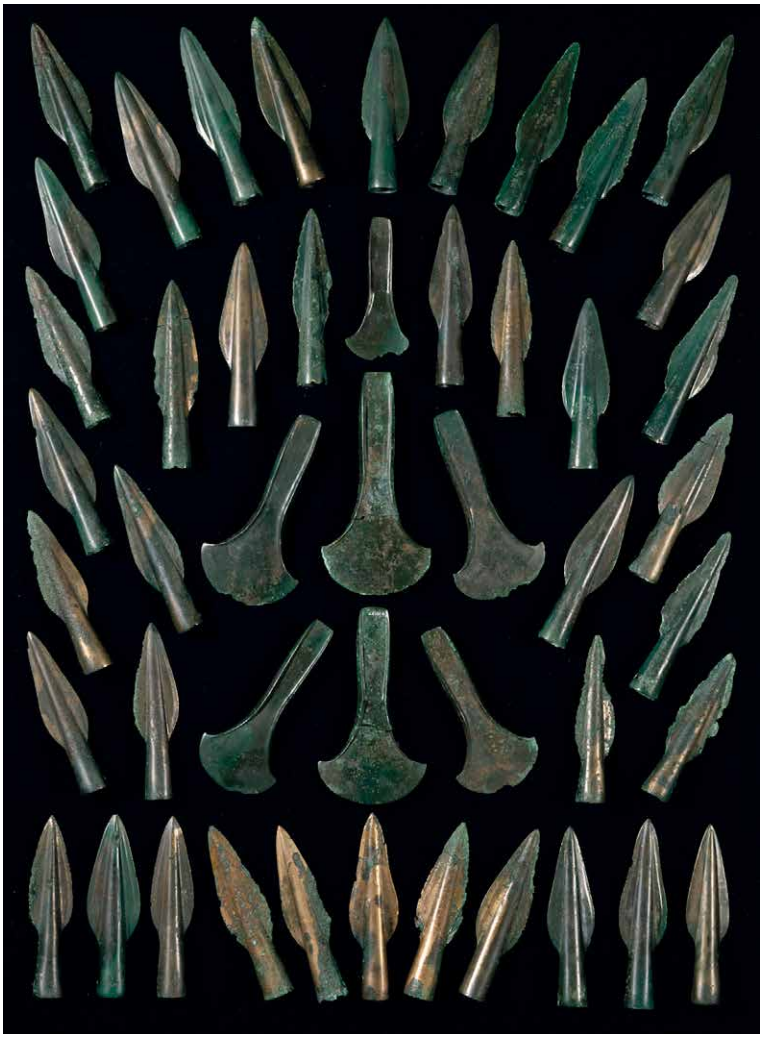

Figure 1.1. The Torsted hoard (axes: 12-18 cm). Photo: National Museum of Denmark, Lennart Larsen, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/2014.

bronze lures, and bronze figurines, as well as extremely rich burials. For this reason, this regional phenomenon has received its own name: the Nordic Bronze Age. Denmark and southern Sweden constituted the centre of this blooming regional tradition, which was nevertheless closely connected with the continental Bronze Age network (Thrane 2013:748, Kristiansen 1998:277).

1.3 Conventional interpretation models of hoards

Why did people deliberately deposit valuable bronze objects in the landscape, like the assemblage of axes and spearheads at Torsted? Over the years, many attempts have been made to answer this puzzling question, and to find the motive behind this puzzling behaviour. The interpretation of Bronze Age depositions has been a topic for research and discussion since the early days of archaeology in the 19th century. Over the years,

Figure 1.2. The famous Trundholm sun chariot found in a bog in Zealand, Denmark. Photo: National Museum of Denmark, Lennart Larsen, cropped, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/755.

various models have been constructed with the aim of explaining metalwork depositions. As an example of such an interpretative model, we can take the model devised by Levy (1982), in which she classifies and interprets Bronze Age hoards in Denmark. Based on criteria concerning the hoards' context, content, find association, and arrangement, she distinguishes between ritual and non-ritual, *i.e.* profane, hoards. The ritual and the profane thus form a clear dichotomy in her model.

However, if we by way of experiment apply Levy's model to the Torsted hoard in order to attempt to explain why it was deposited, it becomes clear that such a rigid interpretative model does not correspond to the reality presented by the archaeological record. Following Levy's model, the hoard could be interpreted as non-ritual based on its find context: the axes and spearheads were found on dry land, at a shallow depth, and surrounded by stones which perhaps marked the location of the hoard. However, when the contents of the hoard are considered, its interpretation becomes problematic: according to Levy's model, these would rather suggest a ritual deposition. A ritual interpretation is also suggested by the careful arrangement of the axes and spearheads in the ground. The Torsted hoard cannot be explained simply by applying this interpretative model.

However, Levy does admit that a considerable number of hoards do not exactly fit her categories. To deal with this problem, she divides her dataset of hoards into six classes in which combinations of criteria occur, four of which are interpreted as ritual hoards and two are interpreted as non-ritual hoards (see Levy 1982:25,44). But even when we follow these broader definitions, it remains problematic to interpret the Torsted hoard.

Classifications and criteria like those in Levy's model can be found in numerous other archaeological studies. Her model exemplifies a way of thinking that has essentially existed since the 19th century. An example of one of the earliest interpretative models of Bronze Age depositions is the model constructed by well-known early Danish archaeologist Sophus Müller (1897). Based on the contents of Bronze Age hoards, but also considering their find context, he distinguished between profane finds (*Depotfund*), subdividing these into a number of utilitarian categories, and offering or votive finds (*Offer- eller Votivfund*). Again, we can observe a dichotomy between ritual and profane depositions. Levy's model clearly resembles Müller's model, demonstrating the continuity that exists between the 19th century tradition of interpretation – of which Worsaae is another example (*e.g.* 1866), as is discussed below – and more modern interpretative theories, which for example include Swedish archaeologist Baudou's study of Late Bronze Age objects from northern Europe (1960).

But although these interpretative models represent a similar way of thinking, they are not *exactly* the same. Different authors can take one and the same criterion as an indication of a different interpretation. We can take the presence of fragmented objects in a hoard as an example: this is taken as an argument for a votive interpretation by Worsaae, but regarded as a characteristic of profane hoards by Müller and Baudou (Worsaae 1866, Müller 1897, Baudou 1960; see also Fontijn 2002:15-17; see also Section 1.7). There is thus no consensus between the various models, and the interpretation of a hoard depends on the model that is used.

These examples illustrate the continuity and repetitiveness existing in research on Bronze Age hoards from the 19th century until today. Even though the problematics of this way of thinking have been reviewed and discussed before (see *e.g.* Bradley 1990, 2013), they need to be addressed again in order to emphasise the necessity of a different approach. It is evident that forcing the archaeological data into an interpretative model by simply 'ticking the boxes' does not work. Clearly, research on metalwork depositions is not moving forward by applying these conventional theories. Instead, a different approach to metalwork depositions is required. It should be noted that these conventional models mostly deal with hoards, *i.e.* depositions of multiple objects simultaneously. Depositions of single objects are often not studied in these models. This will be addressed in more detail in Section 1.8.

In the following sections, the Scandinavian research tradition on Bronze Age depositions and its emergence are examined in more detail, in order to identify its influence on current research on depositions, as well as its problems and challenges.

1.4 Ritual interpretations of Bronze Age depositions and the Scandinavian research tradition

Denmark has played an important role in European research on the Bronze Age. Compared to other countries, prehistoric archaeology developed remarkably early and fast in this region, and archaeological finds were interpreted from a specific local point of view already at an early stage. In his well-known book *The Passage of Arms* (1990), Richard Bradley describes different interpretative traditions of Bronze Age depositions in different parts of Europe. He characterises the Scandinavian tradition as a long-running tradition of votive offerings, associated with an interest in the supernatural and influenced by Nordic sagas, mythology, and rock art (Bradley 1990:15-16). The Danish

archaeologist J.J.A. Worsaae (1821-1885), who has been particularly influential in the development of prehistoric archaeology in Denmark, was an early representative of this tradition of ritual interpretations: he was the first to suggest a religious interpretation of Bronze Age depositions (Worsaae 1866). This would transpire to be the start of a long and currently still existing interpretative tradition. This section takes a closer look at the emergence and development of this tradition.

1.4.1 Ritual interpretations in the Scandinavian research tradition

In the 19th century, numerous bronze objects were found in bogs in Denmark and stored at the Museum of Nordic Antiquities in Copenhagen. They were commonly believed to be either accidentally lost or deliberately hidden by thieves or by people who wanted to protect their valuables in times of unrest, but were for some reason unable to retrieve them later (Worsaae 1866:313). Prehistoric objects and monuments were thus predominantly interpreted in a pragmatic light (Worsaae 1866:326). But soon, this explanation was no longer deemed satisfactory, even though it could perhaps explain some of the finds (Worsaae 1866:313). In 1866, Worsaae suggested that Bronze Age depositions should be interpreted as *votive offerings* (Worsaae 1866).

This idea was at first received with hesitation. Yet after a while, this interpretation became widely supported. From the early 20th century on, religious interpretations of Bronze Age finds became increasingly popular in Scandinavia (Kaul 2004:68). At this time, precursors of the later Viking Age gods were thought to be 'recognisable' in Bronze Age cosmology (Kaul 2004:40-41). In the 1970s and '80s, the popularity of ritual interpretations experienced a small decline, but in the '90s and from the millennium change on, a renewed interest in ritual interpretations emerged in research on Bronze Age burials, depositions, rock art, and iconography.[1] Viking Age gods, however, no longer play an important role in these modern interpretations; instead, these interpretations are now made in the context of an independent Bronze Age religion (Kaul 2004:61,67). In modern research from the region, ritual interpretations still predominate. Spectacular finds such as the Trundholm sun chariot, lures, display axes, bronze figurines, and rock art have all been associated with Bronze Age cosmology and the performance of rituals (Kaul 2004:9).

Profane interpretations have played and still play a role in the debate in Scandinavia. Yet they mostly exist as an additional category alongside ritual interpretations, as discussed above (see Section 1.3, see also Fontijn 2002:15-17). Such profane interpretations are in fact predominant in other research traditions in Europe, which is discussed in more detail below (Bradley 1990:15-17, see Section 1.8). But first, the observations that led to the emergence of religious interpretations are examined in more detail in the next section.

1.4.2 The emergence of religious interpretations in Denmark: the observations of Engelhardt and Worsaae

The first archaeological finds from Denmark that were interpreted in a religious light were Iron Age bog finds. Danish archaeologist Conrad Engelhardt was the first to notice a certain pattern in Iron Age bog finds in terms of their find context, contents, condition, and arrangement, but he could not give an explanation (Engelhardt 1863, 1865, 1866). Worsaae

1 E.g. Willroth 1985, Johansen 1993, Vandkilde 1996, Kaliff 1998, Burenhult 1999, Larsson 1999, Carlsson 2001, Kaul 2004, Goldhahn & Østigård 2007, Frost 2008, Melheim 2008, Goldhahn 2013, Rundkvist 2015.

also noticed a pattern in these Iron Age bog finds from different parts of Denmark, which led him to believe that these objects could not have been accidentally lost. He formulated the theory that these objects were placed in bogs as part of a religious practice. He suggested that perhaps the victorious party after a battle sacrificed captured animals and parts of the loot to the gods by placing them in sacred lakes (Worsaae 1865:57). As supporting evidence he pointed out finds of animal bones in association with the objects, traces of fire and violence on weapons, the fact that the objects were never retrieved, the works of classical writers such as Caesar and Strabo, and folklore in Scandinavia telling stories about people offering to the gods and placing objects in springs. In a footnote, he remarked that this explanation could possibly also account for Bronze Age bog finds (Worsaae 1865:59). This was the first time a religious interpretation of Bronze Age depositions was suggested. A year later, Worsaae published a paper on Bronze Age bog finds, interpreting them as religious offerings (Worsaae 1866). His observations on Iron Age bog finds, his studies of a large number of Bronze Age finds from bogs, and his work at the Museum of Nordic Antiquities convinced him of this interpretation.

How did Engelhardt react to Worsaae's theories on these finds? A year after Worsaae's 1866 paper, he discussed Worsaae's interpretation in another publication about Iron Age bog finds, judging it as highly probable; however, in his opinion, this explanation did not account for the deliberately broken state of many objects (Engelhardt 1867). Nevertheless, two years later, Engelhardt fully accepted Worsaae's theories (Engelhardt 1869). According to him, it was the only interpretation that fitted all archaeological observations, and was furthermore also supported by the works of classical writers (Engelhardt 1869:5).

1.4.3 Worsaae's observations and Kopytoff's biographies

At the Museum of Nordic Antiquities, Worsaae compiled and rearranged the Bronze Age objects in the collections which had been found in bogs, graves, and on dry land, often under large stones, and he observed patterns in these finds. His observations are remarkably 'modern': in current research on metalwork depositions, similar observations are still highly relevant. Therefore, it is worth examining Worsaae's observations in detail.

Worsaae recognised that the deposited bronze objects were of a shared character, which, he argued, could logically be explained by a shared motive behind their deposition. Objects were often deposited in pairs, and he noted that newly made or even unfinished objects often occurred, as well as objects without any practical value. In addition, he observed that many objects appeared to have been deliberately destroyed or broken already in prehistory; this practice of deliberately destructing bronzes also appeared to exist in other parts of Scandinavia and Europe. Iron Age bog finds showed similar signs of destruction, which could indicate that these Iron Age practices dated back to older times (Worsaae 1866). He also considered the find context of the objects, comparing dry land and bog finds with burial finds, and discussing differences between these two contexts (Worsaae 1866:319-321). The occurrence in hoards of newly made or unfinished objects, objects without any practical value, and deliberately destructed objects, as well as their find contexts, are today still highly relevant elements in research on Bronze Age depositions.

In other words, Worsaae observed that people had *treated* the bronze objects he studied in specific ways in prehistory: they had not been used practically, or they had been deliberately broken, and in the end, they were deliberately deposited in specific places in the landscape. Worsaae noted that people *did* specific things with these objects, starting with the moment of manufacture, and ending with deposition. This is a notion of vital

importance for this study. The much later developed concept of *cultural biographies of objects* revolves in essence around the same ideas. This concept was developed by Kopytoff more than 100 years after Worsaae made his observations. Central in this concept is the idea that objects have biographies, starting with where an object came from and who made it, and ending with the end of the object's 'life' (Kopytoff 1986:66-67). When we apply this idea to metalwork deposition, we can observe – just like Worsaae did – that people chose to deposit specific objects, which had gone through specific treatment, in specific places in the landscape (Fontijn 2002:273). I return to this essential observation later on in this chapter. First, the next section focuses on the Scandinavian school of archaeology.

1.5 The Scandinavian school of archaeology: emergence and characteristics

Southern Scandinavia has an exceptional position within European archaeology, both in terms of its archaeological record and its archaeological research, as we have seen above. Apart from a strong emphasis on ritual interpretations, the Scandinavian research history is characterised by a number of other factors that have contributed to the development of this local interpretative tradition and Scandinavia's special position within European archaeology. In European research on the Bronze Age in general and on depositions in particular, southern Scandinavia has been highly influential. On a broader level, Denmark and Sweden have also played a highly important role in the development of prehistoric archaeology in Europe, with significant contributions by archaeologists such as Thomsen, Montelius, Worsaae, Müller, and Hildebrand including the three-age system and the typological method. In this region, prehistoric archaeology developed early and fast in comparison to other areas in Europe. Worsaae himself wrote down his thoughts on this matter:

> "*In Scandinavia, historical written sources go back only about one thousand years. This is why it is natural that it was in northern Europe, where the urge to find information through other ways was twice as strong, the cradle of prehistoric archaeology stood.*" (Worsaae 1872:311, my translation, not exactly literal).

Three factors can be argued to have strongly influenced the Scandinavian school of prehistoric archaeology. They include nationalism, the local literary historical tradition, and the *ex oriente lux* school. Some of these elements can still be discerned today in modern research from the area. These three factors are considered in the following sections, starting with national archaeology.

1.5.1 National archaeology

A factor that has been important in Scandinavia's special position within the development of prehistoric archaeology is *nationalism*. The general interest in history and archaeology became widespread with the arrival of nationalism and associated patriotism in the 19th century, caused by several political conflicts. Political conflicts between Denmark and Sweden played an important role in archaeological research, with both countries trying to prove that they had the most ancient roots (Baudou 2004:71, Trigger 2006:86). Moreover, the absence of Roman monuments in the region and the subsequent interest in prehistory was an important factor in the fast development of a national archaeology in Denmark, as Worsaae himself suggested (Gräslund 1987:15). Since there had not been a Roman period in Scandinavia, a continuity

existed between prehistory and historical times (Bradley 1990:15-16), allowing a deeply rooted cultural identity to be developed as well as a sense of pride (Trigger 2006:214). As part of this movement, centrally organised museums with extensive archaeological collections were organised early in Denmark and Sweden, a fact that has contributed to Scandinavia's central position in archaeological research (Gräslund 1987:13-16). This was a great advantage to Scandinavian archaeologists studying prehistory, as Worsaae and Hildebrand already noted in the late 19th century (Gräslund 1987:15-16).

1.5.2 Literary historical tradition

Another factor that characterises the Scandinavian research tradition is the literary historical tradition associated with Viking Age sagas and mythology. In the Renaissance, historians and antiquarians in Denmark and Sweden, encouraged by their respective kings, wrote histories about their respective countries, emphasising their greatness based on historical records, folklore and, later, archaeological monuments such as rune stones (Trigger 2006:86, Baudou 2004:55-56). Their goal was to claim their respective country's ancient ancestry, glory, and rights as well as to increase patriotic feelings (Baudou 2004:56). Ideas about prehistory were based on historical sources at this time and the focus in archaeological research was on rune stones (Baudou 2004:55,60-70). In the early 19th century, archaeological monuments were still interpreted in light of the literary tradition, as archaeologists did not yet have a clear idea about the duration of prehistory, which made it logical to refer to the Viking Age and its literature (Kaul 2004:67). Only in the late 19th century were archaeological interpretations detached from historical literature, and archaeological methods such as typology and chronology emerged (Kaul 2004:67).

1.5.3 Ex oriente lux school

Lastly, a third characteristic feature of the Scandinavian research tradition is the interest in and focus on the Middle East and diffusionist theories. Montelius in particular became one of the most well-known representatives of the *ex oriente lux* ('light from the east') school in which the cultural centre was believed to be located in the Middle East, from where cultural innovation diffused in waves to the peripheries in Europe (Trigger 2006:227-230). In *Orienten och Europa* (*The Orient and Europe*, 1905), Montelius discusses the influence of the Middle East on Europe up to the middle of the first millennium BC. There was little critique among archaeologists of Montelius' interpretation; the *ex oriente lux* interpretation was supported by many, following contemporary political, sociological, and religious developments (see Trigger 2006:228-229). According to Trigger, Montelius came from a geographically peripheral country in which influences from Germany in particular played an important role, which could have influenced his views on diffusion (Trigger 2006:230). Gordon Childe established a diffusionist view on Europe's prehistory, which survived until the 1960s, partly based on Montelius' work (Olsen 2003:32). Less known, however, is that Worsaae was already of the same opinion before Montelius. According to Worsaae (1872), Bronze Age culture spread from the Orient to southern Europe and then to Scandinavia. Both Montelius and Müller developed these ideas further (Klindt-Jensen 1975:135).

Elements of the *ex oriente lux* tradition can be found in modern research from Scandinavia as well. Kristiansen, for example, recognised influences from Egyptian and

Mycenaean mythology in Nordic Bronze Age mythology; according to him, the Nordic mythology consisted of a mixture of foreign elements, including warrior gods and the sun chariot, and local elements (Kristiansen 1987:126-127). Larsson, too, describes Nordic Bronze Age cosmology as a mixture of local elements and foreign elements from the Mediterranean and the Middle East, which reached Scandinavia through contacts and exchange networks (Larsson 1999). These contacts influenced Nordic material culture, cosmology, iconography, and societal structures. However, Larsson does not support a simple diffusionist theory. Instead, he argues that the spread of material culture and symbols from the south-east to Scandinavia was closely connected to the development of elites in Scandinavia, these objects and symbols being associated with the institute of the leading elite in the Mediterranean area whose status and authority was maintained through the performance of religious rituals (Larsson 1999). In the next section, this economic and social approach to rituals is discussed in more detail.

1.6 An economic approach to ritual depositions: ritual consumption of metalwork

In modern archaeological research, depositions of metalwork have frequently been explained in economic and social terms, based on the notion that metal was scarce and thus valuable in areas far removed from metal sources, making metal objects *prestige goods*. Influences from Marxist theories can be recognised in this field of study.

In this field of study, Kristiansen's work has been highly influential (*e.g.* Kristiansen 1978, 1981, 1987). In his view, by ritually depositing scarce and valuable metalwork in hoards and graves, thus removing the objects from circulation, their value could be controlled and regulated. Simultaneously, religious order and political control was maintained and the production and exchange of bronzes was stimulated (Kristiansen 1981:245-246). The exchange of bronzes, *i.e.* prestige goods, was controlled by the *elite*, which provided them with religious and military power (Kristiansen 1987:130). Hence, the frequency of depositions in an area is thought to indicate the economic and social dynamics of that area (Kristiansen 1981:246). The performance of rituals and other elements of Nordic Bronze Age mythology are thought to be observable in Scandinavian rock art. Kristiansen states that communal rituals were performed by warrior aristocracies to maintain and demonstrate their position and privileges (Kristiansen 1987:127-128). Larsson is another representative of this field of study (*e.g.* 1986).

In her extensive study of the early metalwork from Denmark, Vandkilde investigates social, political, and economic developments in the area based on the archaeological record (Vandkilde 1996). She too views metalwork depositions as ritual, interpreting them as gifts to the gods. According to her, these sacrificial ceremonies may have symbolised rites of passage, as well as constituting a means for the elite to demonstrate their wealth and social position, obtain prestige, and establish political connections (Vandkilde 1996:38,275).

However, this socio-economic approach to depositions appears to be very much influenced by modern economic, rationalistic thinking, which does not necessarily account for the prehistoric human act of depositing metalwork and the world view and rationality it was part of (see also Fontijn 2002:18-19). In the next section, modern concepts that are applied to human behaviour in prehistory are discussed in more detail.

1.7 Ritual interpretations: problems and challenges

Explaining (parts of) the archaeological record as ritual has proved to be a persistent and deep-rooted element in research on Bronze Age depositions, especially in the Scandinavian school of archaeology. However, there is a danger in explaining (parts of) the archaeological record as religious. Worsaae already wrote in 1866 that in the earliest stage of archaeological research, religious practices were used as an 'explanation' for all new and unknown phenomena (Worsaae 1866:326). Nevertheless, he was clearly not opposed to a religious interpretation of archaeological finds. But roughly 25 years after Worsaae had presented his theories, Danish archaeologist Henry Petersen expressed his hesitation towards religious interpretations of archaeological finds (1890). He saw a danger in interpreting archaeological finds as religious:

> "*Exactly because the religious explanation, which is so aesthetically appealing in its mysticism, so easily can solve all difficulties and make all further testing research unnecessary, should archaeology as the last option use it and make it apply as an absolute result*." (Petersen 1890:211, my translation).

Petersen systematically and critically reviewed Worsaae's argumentation and discussed the finds in question, and came to the opinion that bog finds were all profane hidden treasures, meant to be recovered for personal use, either in this life or the next (Petersen 1890).

The risk noted by Petersen has been recognised by many archaeologists after him (see *e.g.* Brück 1999). Indeed, explaining all prehistoric phenomena and artefacts that we do not or cannot fully understand as ritual, without any solid argumentation, reflection, or discussion, does not take archaeological research any further and prevents further inquiries into the motives behind prehistoric depositions from being carried out. The terms 'ritual' and 'religion' are often used without any thorough definition, discussion or reflection, which leads to many unanswerable questions. What is 'ritual' and what is 'religion'? What was the nature of this Bronze Age religion, and how, when, and why were these rituals performed?

The term 'religion' itself is already debated, scholars have been trying for decades to formulate a satisfactory definition of the term (see *e.g.* Nongbri 2013). As Nongbri shows (2013), the term 'religion' has had many different meanings and connotations since its emergence in Latin and during its development in English through time, which makes using the term without any reflection problematic. Furthermore, the debate on the interpretation of depositions has largely revolved around the dichotomy ritual-profane, as was illustrated above by Levy's model (1982) and Müller's older model (1897). However, the relevance of the dichotomy ritual-profane in interpretations of prehistoric practices has been questioned, as well as whether such a dichotomy actually was experienced in daily life in prehistory (see Brück 1999, Fontijn 2002:20-21, Rundkvist 2015:15-20). This dichotomy was created during the Renaissance and the Reformation in Europe, influenced by contemporary religious, political, and social developments (Nongbri 2013:85-105). It is a "product of post-Enlightenment rationalism", in which a scientific logic based on logic positivism and laws of cause and effect plays a central role (Brück 1999:317-322). A categorisation of the world into a religious and a profane domain, as we have seen in various interpretative models, is thus a product of modern thinking, and the archaeological data do not fit this categorisation (see Brück 1999).

Similarly, 'ritual' is also a problematic term. In archaeological as well as in anthropological research, any non-functional action – not meeting our modern criteria for

practicality – is often defined as 'ritual', following post-Enlightenment rationalism (Brück 1999:316-319). Ritual acts are often viewed as symbolic, which extends the dichotomy ritual-profane to an opposition between the symbolic and the practical (Brück 1999:318). According to Brück, however, the practical and the symbolic should not be considered distinct from each other. Contrary to a modern point of view, rituals may have been highly rational in prehistory (Brück 1999, see also Rundkvist 2015:18-20). Brück argues that acts carried out in prehistory may seem highly irrational to us, but were part of the way in which people understood and dealt with the world around them; hence they were completely logical and practical to them (Brück 1999). It is difficult for us to imagine that other ways of understanding the world than ours exist (see Brück 1999 for a number of anthropological and archaeological examples).

Both the modern concepts 'religion' and 'ritual' are thus problematic when applied to prehistoric material. By repeatedly and without a thorough reflection applying these terms and a religious-profane or symbolic-practical categorisation of human action in archaeological research, modern connotations and concepts associated with them are transferred onto the archaeological material, where they are completely out of place.

However, interpreting archaeological material as religious does not necessarily *have* to be problematic. Levy – who studied hoards from Scandinavia without being part of the Scandinavian school, since she is American – views religion in her study of Bronze Age hoards from Denmark:

> " […] *primarily as a kind of behavior rather than as a set of ideas* […]. *As such, patterned religious behavior, like any other, leaves patterned material remains which can be analyzed by an archaeologist. Further, religious activity is, of necessity, related to other kinds of behavior; thus, its remains provide information about social and economic activities as well as ritual ones*" (Levy 1982:5).

By viewing religion as a kind of behaviour that leaves patterns in the archaeological record and that is related to other kinds of human behaviour, it forms a useful concept for archaeologists. It is exactly the *patterns* in the archaeological record that we as archaeologists can study, which was already demonstrated by Worsaae's observations (1866) discussed above. As Rundkvist notes, a ritual is highly structured and performed following strict rules, so that it is recognised and accepted as traditional by both the participants and the audience, which is why the concept can be of use to archaeologists (2015:19). These structured acts and rules can be searched for in the archaeological record. Petersen, who expressed his hesitation towards ritual interpretations, also recognised the relevance of the concept: in his view, it is important to be open towards religious influences in the archaeological record, since religion no doubt played a role that must have left traces in material culture (Petersen 1890:211).

Brück argues that we should not focus on identifying ritual action in the archaeological record, but rather on prehistoric rationality and on the "set of culturally-specific values, aims and rationales" that constituted the logic by which prehistoric people understood and dealt with the world around them (Brück 1999:327). People *did* certain things because they made sense in their understanding of, and dealing with, the world around them, and these actions left traces and patterns in the archaeological record which we can search for and examine. Identifying ritual in the archaeological record should thus not be the aim

of research on depositions, following Brück's argument (1999); the focus should rather be on acquiring an understanding of prehistoric people's way of thinking, their motives, and their values, as reflected in their practices.

1.8 Interpreting Bronze Age depositions: the European debate

So far, the tradition of interpretation in Scandinavia – and especially Denmark – has been discussed. However, Bronze Age metalwork depositions and their interpretation have been highly debated in the rest of Europe as well, although different approaches are used. While the Scandinavian debate emphasises religious interpretations, profane interpretations are predominant in other European traditions. This section takes a closer look at these.

Richard Bradley describes different research traditions in Europe and the historical and cultural factors that have played a role in their development (1990:15-17). In archaeological research in Central Europe, the influence of invading hostile groups has been emphasised, which could be associated with the long history of political unrest, invasion, and opposed ethnic groups of the region up until recent times (Bradley 1990:15). In western Europe, contrary to the situation in Scandinavia, there is a break in continuity between prehistory and historical times because of the Roman Empire, as well as the industrial revolution and associated rapid economic growth. This break has influenced archaeological research which has focused on utilitarian interpretations; a pragmatic approach has been used in which ritual explanations do not play an important role (Bradley 1990:16-17).

This utilitarian and pragmatic approach is reflected, for example, in the work of Jay Butler, a leading figure in the development of research on Bronze Age depositions in the Netherlands. He was a student of Gordon Childe (Theunissen 1999) and in his work he focused on the trade and connections between the Low Countries and other parts of the North Sea region. In the next section, these utilitarian approaches to hoards are examined more closely.

1.8.1 Utilitarian approaches to hoards

In western European research especially, hoards are often interpreted using a utilitarian, pragmatic approach. A 'hoard' is in this context usually defined as a deposition containing more than one object; according to the Oxford English Dictionary, the English term 'hoard' means "a stock or store of money or valued objects, typically one that is secret or carefully guarded". A utilitarian, *i.e.* profane approach is thus already implied by the term *itself*.

An example of a utilitarian approach to hoards which is often encountered in Western European literature, and which has been influenced by Gordon Childe's work (1930), focuses on the contents of hoards and associates these with *smith activities*. Hoards containing different object types, often fragmented, as well as casting debris associated with metal recycling are thought to be 'founders' hoards', meant to be recycled into new objects, while hoards containing only one object type as well as unfinished or unused objects are thought to be 'merchants' hoards', awaiting further distribution (Bradley 1990:12, 2013:123-124). Again, it can be observed that specific criteria and classifications are used, although as part of a different interpretative framework than discussed in Section 1.3.

However, these explanations and categorisations can be problematic, as demonstrated by the case of the well-known Dutch Voorhout hoard (see Fontijn 2008). Likewise, the presence of metal debris and fragmented objects in hoards is not undisputed. Especially

the occurrence of heavily fragmented objects has been used as an argument for a range of different interpretations. Through time, fragmented objects, for example, have been thought to be intended for remelting; they have been taken as indicating religious practices; they have been thought to indicate that the hoard was *not* merchants' stock; and they have been interpreted as a method of payment.[2] As seen before, rigid classifications and categorisations based on specific criteria are applied that do not actually fit the archaeological data.

Another example of a utilitarian approach based on rigid categorisations focuses on the contents of hoards and associates these with the *person(s)* who deposited them: male-associated objects are thought to have been men's property, while female-associated objects are thought to have been deposited by women ('personal hoards'); similarly, tools would indicate deposition by craftsmen ('craftsmen's hoards') (see for a discussion Bradley 1990:12, 2013:123-124). Examples of this approach can be found with such contrasting authors as Butler (1992) and Worsaae (1866). In his catalogue of Early and Middle Bronze Age finds from the Netherlands, Butler describes the well-known Early Bronze Age Wageningen hoard, which is examined in detail in Chapter 4. The hoard contains a number of weapons, which Butler interprets as a set of male personal equipment, but it also contains tools, which he interprets as metalworker's equipment (Butler 1990:68).

Worsaae suggested a similar approach, even though it is part of his votive interpretation: he suggested that metalworkers offered a part of their stock to the gods, just as warriors offered weapons, farmers offered tools, and women offered ornaments (Worsaae 1866:223). In these two interpretations, separated both in time and space as well as in terms of interpretative framework, a similar approach to depositions can be discerned. These examples show that this approach is not tenable.

As noted in Section 1.3 and demonstrated in this section, research on metalwork depositions has often focused on hoards, while depositions of single objects are left out (Autenrieth & Visser 2019). However, some authors have included single object depositions in their analysis of metalwork deposition (*e.g.* Fontijn 2002, Vandkilde 1996). This problem will be addressed further in Section 1.9.1.

1.8.2 Wet versus dry contexts

Within the European debate on depositions, which revolves around the ritual-profane dichotomy, the find contexts of metalwork depositions have played an essential role. Depositions in wet environments have been regarded as irretrievable, which has led to their interpretation as ritual, whereas objects deposited in dry environments were retrievable, for which reason they have been interpreted as utilitarian, *i.e.* profane (see also Bradley 1990). Especially wet contexts have received considerable attention in research on Bronze Age depositions. Wet contexts appear to have played a special role in metalwork deposition practices, and the significance and meaning of wet contexts like bogs and rivers has frequently been discussed. An interpretation that has often been offered with ethnographical evidence as support is that deposition practices are associated with 'water symbolism'. However, since water is present everywhere in Denmark, this term appears rather meaningless there (Kaul 2004:84). The same point can be made for the Netherlands.

2 See e.g. Engelhardt 1863, 1866, 1867, 1869; Worsaae 1866; Müller 1897; Levy 1982; Bradley 1990, 2013.

Wet and dry contexts are often treated as two absolute, separate categories, corresponding to the religious-profane dichotomy. However, it has been argued that this distinction, too, is a problematic one. Exactly which kinds of environment belong to the category wet contexts and which environments belong to the category dry contexts? Wetland locations and dry land locations can be extremely diverse, and local and regional patterns can be distinguished within deposition practices in wet and dry contexts (Bradley 2013:125-126). The high degree of variety in wet and dry contexts has also been demonstrated by Fontijn, who discusses a number of cases from the Low Countries where clear environmental boundaries did not appear to matter to people when depositing metalwork in the landscape (Fontijn 2012). The wet-dry division is therefore not as uncomplicated as often assumed in terms of interpretation of metalwork depositions. Again, a classification is used which does not correspond to the archaeological data.

1.9 Approach: patterns and practices

In the preceding sections, various approaches and interpretations in research on metalwork depositions – used in Europe in general and in Scandinavia and Denmark in particular – are discussed. It was demonstrated time and again that rigid categorisations and modern concepts are used to understand prehistoric human behaviour. But can human behaviour be captured in rigid categories? Apart from this problem, it is evident that the categorisations that are used do not actually fit the archaeological data. The models simply do not correspond with the empirical evidence. They are products of our modern way of thinking which is superimposed on prehistoric events in an attempt to explain them. So far, no model or categorisation has been constructed that fits the archaeological data satisfactorily. Using these conventional approaches is not progressing research on depositions and a different approach is required. How should this problem be dealt with?

Instead of forcing the archaeological data into interpretative models that are products of a modern way of thinking, we should turn this approach around: we should let the *archaeological data* and the *patterns* arising from them speak for themselves. An empirical approach should be the point of departure in research on deposition practices. What does the *archaeological evidence* actually tell us? Patterns in the archaeological record reflect human actions, what people repeatedly *did*, which in turn reflects their ideas, values, and motives. Since metalwork was deposited all over Europe, there appears to be a supra-regional, shared logic behind this practice, as was already noted by Worsaae (1866). By studying metalwork depositions from a specific region and time period, and carrying out a detailed analysis of the data from this region and the patterns arising from them, a greater understanding of the practice of metalwork deposition can be obtained. This empirical approach is explained in more detail in the following section.

1.9.1 The 'right' region, time period, and dataset

After this introduction, it should be obvious that Denmark is the right region to study Bronze Age metalwork depositions. Since Denmark is unique on a European scale in terms of the amount of metalwork that was deposited, despite the absence of metal sources, there is a wealth of data available. The metalwork is often well-preserved compared to other areas in Europe (Bradley 1990:28), and this wealth of data comes from a variety of contexts: a large amount of bronzes is available from graves, wetland contexts, and dry

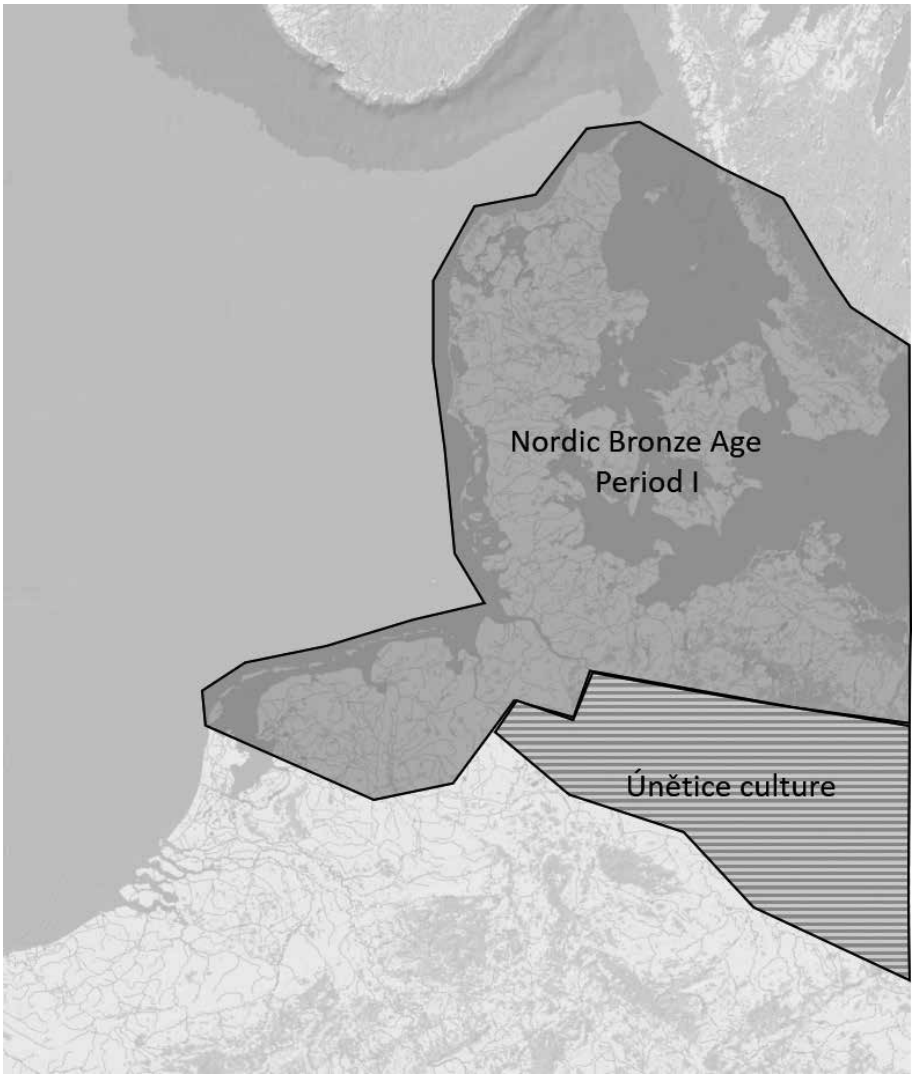

Figure 1.3. Distribution of regional groups in the research area in the Early Bronze Age (based on Hänsel 2009:114, fig. 119).

land contexts. Since prehistoric archaeology developed early in this region, this wealth of data has been thoroughly researched and well-documented over the years.

Furthermore, as we have seen in this introduction, many of the theories on the interpretation of depositions emerged in Denmark, and early Danish archaeologists like Worsaae and Müller have been highly influential. Their ideas are still discernible in modern research. This makes it natural to study depositions precisely in Denmark. The archaeological record from Denmark dating to this period is spectacular and remarkable, and it should be studied with an appropriate approach that fits these data.

In this introduction, the emphasis has been on the Nordic Bronze Age. The European Bronze Age has been divided into several regional traditions (Hänsel 2009:114, fig. 119, and see Figure 1.3), and the Nordic Bronze Age is one of them. The Nordic Bronze

Figure 1.4. The research area, comprising Denmark, parts of Schleswig-Holstein and Niedersachsen, and the Netherlands north of the main river delta. The research area is described in more detail in Chapter 2.

Age comprises the area outlined in Figure 1.3 and further to the east to what is now Gdánsk in northern Poland, but the distribution of Nordic bronzes is not limited to this area. They were exchanged within the European Bronze Age network and reached areas outside the Nordic region. An example of an area that was part of the Nordic exchange network is the northern part of the Netherlands. The area north and east of the Rhine, Meuse, and IJssel river delta in the Netherlands, which constitutes a border zone between several European Bronze Age traditions, is part of the Nordic exchange network (Fokkens & Fontijn 2013:551). This area, like Denmark, is non-metalliferous, which means that all metal needed to be acquired through exchange. Visible similarities exist between the archaeological record in this area and in Denmark; especially between southern and western Denmark and this part of the Netherlands, as well as the adjacent part of northern Germany, distinct similarities exist. An example are the Sögel-Wohlde burials dating to 1600-1500 BC containing specific bronze objects, which occur in south-west Denmark, north-west Germany, and in the northern part of the Netherlands (see

Vandkilde 1996:250-252, Butler 1992:71-73). These burials are discussed in more detail in the following chapters.

However, even though the archaeological record in Denmark and the Netherlands shows distinct similarities, these finds are traditionally interpreted as ritual in Denmark, while a utilitarian approach is applied in the Netherlands, as we have already seen above. This is a puzzling situation. Apparently, similarities in the data do not necessarily lead to similarities in their interpretation. Evidently, these different interpretations are not supported by archaeological evidence, but are caused by regional social, political, and historical developments. These different interpretations obscure the similarities in the archaeological record that actually exist across regions, testifying to the existence of shared ideas and practices in prehistory.

Examining maps of the geographical distribution of regional groups in Early Bronze Age Europe, it is curious that considerable areas of Europe were apparently not part of a Bronze Age tradition (see *e.g.* Hänsel 2009:114, fig. 119). Returning to Figure 1.3, apparently a large part of the Netherlands, Germany, and Belgium was not part of any Bronze Age tradition at all, according to archaeologists. Research on metalwork depositions is often confined to national borders, which is understandable for various reasons, including practical ones. However, the archaeological record does not support such limitations, as was already argued above. Furthermore, these national approaches conceal the similarities and patterns that exist across regions, and suggest the existence of isolated regional cultural traditions. The map in Figure 1.3 demonstrates that the conventional approach is problematic and that a different approach is required. This study therefore is not confined to national borders; instead, this research investigates metalwork deposition from a supra-regional point of view in which interregional connections are studied. Metalwork depositions are investigated in the region comprising Denmark, the Netherlands north of the main river area, and the adjacent part of north Germany (Niedersachsen and Schleswig-Holstein). This is the first time that this area, which is outlined in Figure 1.4, is investigated as a whole, which provides new insights in deposition practices in the region.

In this study, deposited bronze objects from *all* types of contexts, including burials and all landscape contexts, are investigated, in order to examine patterns arising from these finds. This study does thus not merely focus on hoards (see also Chapter 2). These data have been collected in a database which was built especially for this purpose. The methods used to select, collect, and analyse the data are discussed in more detail in Chapter 2. This study focuses on the earliest phase of Bronze Age metalwork deposition in the region, from the Late Neolithic to period IB of the Nordic Bronze Age (ca. 2350-1500 BC). In this early period, the practice of metalwork deposition emerged and started to develop. By studying this early period, its development and the emerging patterns can be reconstructed. Before moving on to formulating this study's aim and research questions, the current 'state of affairs' is summarised.

1.10 State of affairs

Before turning to this study's aim and research questions, it is time to stand back for a moment and take a look at the facts we are dealing with.

In the Bronze Age, a huge amount of valuable metalwork was buried in the ground and never retrieved. Patterns in these finds demonstrate that this was a deliberate practice: people chose to deposit specific objects in specific places in the landscape,

and this happened all over Europe, testifying to the existence of shared ideas behind this practice. This study focuses on metalwork depositions in Denmark, north-west Germany, and the Netherlands, a region without sources of copper and tin, which means that all metal needed to be imported from elsewhere in Europe. Metal was thus a foreign material in the communities we are studying, and people did specific things with it. The archaeological record in this region presents clear similarities, for example in terms of the occurrence of specific objects and the equipment of burials. But there are also differences, which is only natural in an area that measures more than 750 km across. Whereas Denmark has yielded a number of spectacular and famous finds, as well as an enormous quantity of metalwork, the northern Netherlands have yielded a much more modest amount of bronze finds, and burials with metalwork are overall scarce in this region and time period (Bourgeois 2013:75,164-165). In addition to differences in the archaeological record, there are also differences in research traditions between these regions.

The finds from this period present clearly observable *patterns*, which was already noted by Worsaae in the 19th century. Metal objects appear to have been treated in specific ways: they had specific *biographies*, which for example is expressed in how they were used or where they were manufactured (cf. Kopytoff 1986). Metal objects were deposited following specific *conventions*; apparently, they were *supposed* to be deposited in a specific way (see Fontijn 2002, 2019, Vandkilde 1996). Finds from all over Europe show that metalwork depositions were highly selective, specific objects occurring in certain contexts but rarely or not at all in others, or only in specific object combinations. People selected specific objects and specific places in the landscape for depositions, for which reason the practice is called *selective deposition* (Needham 1988).

However, differences between regions do exist in terms of these conventions. Certain objects that frequently occur in burials in Denmark are rarely found in burials in the Netherlands, and vice versa (see Fontijn 2002, Vandkilde 1996). This suggests that there were differences between regions in terms of the ideas on how metalwork was supposed to be deposited. Although these depositions do seem to reflect a *shared logic*, there appears to have been variation on a *regional scale* in terms of the conventions behind them. By studying finds from a supra-regional perspective, we can get an insight in both this supra-regionally shared logic and these regional patterns.

1.11 Aim and research questions

The aim of this study, which is part of the NWO VICI project 'Economies of Destruction' (NWO project number 277-60-001), is to reconstruct selective metalwork deposition practices in Denmark, north-west Germany, and the Netherlands during the Late Neolithic and the Early Bronze Age (2350-1500 BC). Although these practices may seem strange and puzzling to us, the existence of shared conventions demonstrates that this was not simply a matter of irrational human behaviour. Instead, it was a structured, supra-regionally shared practice behind which there was a certain *logic*. By examining *how* people deposited valuable metalwork, *i.e.* by examining the conventions that existed, I attempt to arrive at an understanding of this practice.

Three broad research questions have been formulated:

1. How did the practice of selective metalwork deposition emerge and develop during the investigated time period?
2. What relationship do burials and hoards have over time in terms of metalwork and what does this relationship signify?
3. What were the conventions behind selective metalwork deposition? Which objects, with which biographies, and which places did people select for depositions? Which differences and similarities can be observed in different parts of the research area, and what do they signify?

By answering these questions, it is possible to identify the *ideas* behind this puzzling practice. For decades, metalwork deposition has been considered 'ritual', an approach that does not bring us any further. Instead, studying exactly *what* people did and *how* will lead to an understanding of this puzzling practice. The next chapter considers the dataset that forms the heart of this study further, and explains how the data were selected, collected, and analysed.

2

Methodology and data

2.1 Introduction

The previous chapter presented this study's aim and approach against the background of more than 150 years of research on Bronze Age depositions, including its problems and challenges. In this chapter, this approach is explained in more detail, describing the methodology that has been used. As was argued in the previous chapter, the archaeological data and the patterns arising from them are point of departure in this study, which aims to reconstruct selective metalwork deposition practices in the research area. An extensive data set therefore lies at the heart of this research. In the following sections, the process of building this data set and the subsequent analysis are explained step by step. But first, the theoretical framework is outlined in Section 2.2.

2.2 Theoretical framework

In Chapter 1, it was shown how the interpretation of deposited metalwork is an intellectual deadlock. Following Brück (1999) and Fontijn (2002:18-20), modern ideas and assumptions on what is supposed to be rational economic behaviour lead to the interpretation of odd, 'irrational' actions as 'ritual'. As discussed in the introduction, such ideas originate in post-Enlightenment rationalist thinking, in which dichotomies such as religious and profane equal irrational and rational (Brück 1999:317-322). Furthermore, the concept 'religion' itself is a modern concept: according to Nongbri (2013), it is very unlikely that people from a remote past, such as the communities under study, had an idea of religion that was comparable to ours. Following the original work of Marcel Mauss on gift exchange and sacrifice (1993), such 'irrational' acts are inseparable from the social and the economic. So, trying to distinguish 'ritual' when trying to understand metalwork deposition in the Bronze Age may well be an anachronistic exercise.

Instead of inventing new definitions of 'ritual' or 'religious', which will most likely not improve our understanding of Bronze Age depositions, I use a different approach in order to understand this practice: the meaning of the human actions central to this study for a large part derives from the practice *itself*. An illuminating example is Banksy's self-destructing painting, to which I return in Chapter 8. After it was destroyed, the value of the painting actually *increased*. The artwork's meaning and value thus does not lie in its shape or quality, but in its performance: the fact that it destroyed itself at the moment it was first shown to the public. This concept of the centrality of practice and performance has become a cornerstone of the interpretative approach of the entire 'Economies of Destruction' project, of which this thesis is a part (see Fontijn 2019).

The objects that were deposited in the Bronze Age were often ordinary tools, such as axes. Yet the act of depositing them in a peat bog is not an ordinary act, since we may expect that these tools normally would end their 'lives' by being recycled into new objects (see Chapter 8). This is already an indication that the act of deposition itself may have been important. Sometimes this can become clear because objects were placed in a particular position, or received a special treatment. The Torsted 'spears' discussed in the previous chapter, for example, were not really spears when they were deposited, because they were no longer attached to a wooden shaft (which made them useless as spear, see also Chapter 5). Furthermore, they were carefully deposited inside a stone structure. This indicates that when studying depositions, the act of deposition *itself* may have been important in the process of giving the objects significance.

To conclude, if the reason for and meaning of metalwork deposition is in the act of deposition *itself*, this means that an elaborate data recording methodology is needed to capture as much detail of the practices as possible. This method is described in the next section.

2.3 Data selection and collection

As seen in the previous chapter, there is a wealth of data available from the research area and investigated time period. The finds from this region are well-documented since Bronze Age depositions have fascinated archaeologists for centuries. However, the research area has never been studied as a whole before; the finds from the three different countries that are included in the research area – Denmark, north-west Germany, and the Netherlands – have never been combined and compared in a supra-regional analysis. Instead, they have predominantly been examined in studies confined to national borders. So even though there is a wealth of data available, this information is fragmented in a range of different publications in different languages. This research therefore focuses on finds that have already been published in the three countries, and combines these in a supra-regional analysis.

The information collected from this wide range of publications was entered into an Access database that was built especially for this purpose. The structure of this database and the variables used are explained in detail below. The aim of the process of collecting data was *not* to build a complete database containing *all* objects from the investigated region and time period, but rather to build a *representative* data set, large enough to study patterns in the data. In terms of the selection of data, the selection criteria were fairly straight-forward: all metal objects from the research area and investigated time period were suitable for inclusion in the database. In those cases where the objects were associated with other objects that were not made of metal in the same assemblage, such as flint strike-a-lights or amber beads, these non-metal objects were also included; however, non-metal objects that were *not* associated with metalwork were not included in this study. The full dataset is available at https://doi.org/10.17026/dans-zk9-cy6c.

A number of publications were of vital importance in the process of collecting data.[3] For Denmark, the main sources were Vandkilde's *From Stone to Bronze* (1996) and the various volumes of Aner and Kersten's catalogue *Die Funde der älteren Bronzezeit des nordischen Kreises in Dänemark, Schleswig-Holstein und Niedersachsen* (1973-present). The Aner and Kersten catalogue is abbreviated to A&K in the references and in the database. These main

3 Literature published after September 2019 was not included in this study.

sources were supplemented by other catalogues, including those published by Hachmann (1957) and Jacob-Friesen (1967), which also deal with finds from northern Germany and the Netherlands. For Schleswig-Holstein, the Aner and Kersten volumes were also of great importance, although parts of this region have not been published in the series yet, which is unfortunately reflected in the quality of the data set (see Section 2.3). However, more volumes are due to appear in the near future.

For Niedersachsen, a number of catalogues published by Laux as part of the series *Prähistorische Bronzefunde* formed the main source of information, including *Die Schwerter in Niedersachsen* (2009) and *Die Äxte und Beilen in Niedersachsen I* (2000). For northern Germany, the catalogues of Bergmann (1970) and Sudholz (1964) were also important, particularly for the later part of the investigated time period. Lastly, for the Netherlands, two volumes of Butler's catalogue *Bronze Age metal and amber in the Netherlands* (1990, 1995/96) as well as Butler & Van der Waals' *Bell Beakers and Early Metalworking in the Netherlands* (1966/67) were the main source. In addition to these main sources, a large number of additional publications were used, which can be found in the bibliography and the database.

In addition to collecting data from the literature, a selection of museums was visited in order to collect data on their collections. The museums that kindly allowed access to their collections include the National Museum of Antiquities in Leiden, the Netherlands (RMO); Moesgaard Museum in Aarhus, Denmark (MM or ÅM); and the Drents Museum in Assen, the Netherlands (DM). A selection of objects was photographed and studied macroscopically in these museums.

Lastly, the finds that were entered in the database have been plotted on maps using ArcGIS in order to study and visualise patterns in the distribution of the finds in the research area.

2.4 Quality of the data

As mentioned above, the aim of the data collection phase was to build a data set that was representative of the archaeological record from the entire research area. In total, the database contains 2545 objects – of which 2014 are made of copper, bronze, or gold – from 1445 sites. The exact numbers of objects and sites are shown in Table 2.1 for each region in the research area. This total number includes a few finds from Sweden and Norway which were entered for comparative reasons, but which are not included in the analysis; and a few finds from northern Germany which cannot be attributed to a *Bundesland*, for which reason they are not included in the analysis either (the research area is explained in detail in Section 2.6). Apart from the number of finds, there are differences within the research area in terms of the *quality* of the data, which is considered below.

The data from Denmark are of the highest quality. They are well-published, and especially the work done by Vandkilde (1996) has resulted in reliable datings and typological classifications. Overall, the various volumes of the Aner and Kersten catalogue, which so far cover almost all of Denmark and parts of Schleswig-Holstein, are also a reliable source, especially when it comes to find context information. However, detailed chronological and typological information is often not included in these volumes.

Compared to the Danish data, the data from northern Germany are patchier. The data from Schleswig-Holstein are most likely underrepresented in this study (see Table 2.1),

	N of sites in the database	N of objects in the database	
		All materials	*Metal*
Denmark	839	1190	1107
Schleswig-Holstein + Hamburg	158	387	266
Niedersachsen	266	539	371
The Netherlands	156	405	246
Total	**1419**	**2521**	**1990**

Table 2.1. Total number of objects and sites in the database for each region. This includes objects without find context information and objects without precise dating. The latter objects are not included in the following chapters. A few finds from Norway and Sweden and from an unknown *Bundesland* in Germany are not included in the table. The research area is explained in more detail in Section 2.6.

particularly for the earlier time periods, as several volumes of Aner and Kersten's catalogue are not yet published for this region. For the finds from Niedersachsen, which have mainly been published in various volumes of the *Prähistorische Bronzefunde*, a rather isolated chronological and typological system is used, which makes it difficult to compare them to other regions in the research area. Find context information is not always included in these volumes, as typological classifications were their main aim.

Lastly, Butler's catalogues are an important source for the Dutch metalwork. They are particularly helpful in terms of chronological and typological information, since Butler focused on interregional connections as reflected in the distribution of bronze objects. However, information on the finds' landscape contexts is not always very detailed, since this was not the main focus of these catalogues.

The number of metal objects in the database from each region is listed in Table 2.1, and shows that the metalwork is not distributed equally across the research area. A large proportion of the metalwork comes from Denmark. A factor that should be taken into account here is the early interest in and development of prehistoric archaeology in Denmark, as discussed in Chapter 1. Because of this early interest, archaeological finds were collected and studied in archaeological museums already very early on, whereas this interest emerged later in the rest of the region. The data from Schleswig-Holstein are most likely underrepresented, as discussed above. However, the data from the Netherlands are probably representative, showing that apparently, much less metalwork was deposited here than in Denmark. This interesting observation is discussed in more detail in the following chapters, in which the patterns in the data are examined and discussed. Of course, the size of the countries should also be taken into account, but they do not differ very much. Since the data from Denmark are the most well-documented and the metalwork from this region is the most abundant compared to the other regions, this region influences the patterns discussed in the following chapters to a great extent.

2.5 Database structure and variables

The data that was collected from the literature and from a number of museum collections was entered into an Access database consisting of three hierarchical levels, each with its own variables (see Figure 2.1). These variables were discussed and revised frequently over the course of this study. This section takes a closer look at these three levels and the variables that were used.

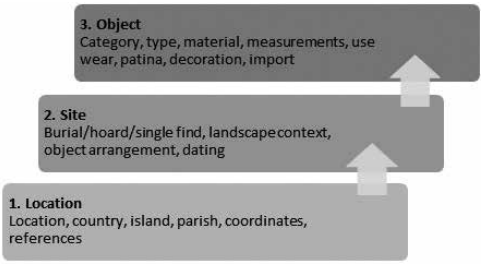

Figure 2.1. Simplified representation of the structure of the Access database and the main variables used.

The lowest level of the database contains geographical information: location name, country, island, county, municipality, district, parish, coordinates, as well as bibliographical information. Coordinates were collected using the website www.latlong.com. The intermediate level contains information on the context of the finds: site type (*e.g.* burial, hoard), general landscape context (*e.g.* wet or dry), the more precise landscape setting (*e.g.* bog, river, heath), as well as information on object arrangement and dating. The highest level contains information on the metal objects themselves: object type, material, measurements, use wear, condition, patina, import, and decoration.

A simplified overview of the structure of the database and the main variables used in each level is shown in Figure 2.1. For all these variables, the information was taken from the literature. While the information on the lowest level is straight-forward, a number of choices had to be made on the upper two levels in terms of categorisations and classifications. These are explained in more detail below.

2.5.1 Landscape context

Information about the landscape context was entered on the second level in the database, *i.e.* site level. The variables were chosen in order to answer part of the third research question presented in the previous chapter: which places in the landscape did people choose for metalwork deposition? A number of choices had to be made when entering data on this level.

Firstly, the site type was entered. The categories used are burial find, hoard, single find, unknown, and without provenance. Although hoards and single finds are problematic categories that are highly debated and dealt with in different ways in research on depositions (see Autenrieth & Visser 2019 for an overview), these categories are in fact employed in this study. Chapter 10 addresses the problematics of these two find categories and what they entail further. The difference between the categories unknown and without provenance is that for finds without provenance it is completely unknown where they were found, while finds in the category unknown are from a known parish or location, but it is unknown whether they are a burial find, hoard, or single find. Finds in the category unknown are thus included in the distribution maps in the following chapters, while finds without provenance are not. In the discussion on find contexts in the following chapters, these two categories have been merged. In addition to these categories, categories like 'burial?' and 'hoard?' were also used in the database, but in the analysis and in the chapters, these were merged with their counterparts without question mark in order to use as much of the available information as possible. Again, all of this information was taken from the literature.

Context1: general	Wet	Wet/dry	Dry	Dry/structural association
Context2: landscape setting	Bog/peat	Close to/below a stone	Heath	Alignment
	Found during drainage	Field	Sand dune	At/in/close to burial mound
	In humid depression	Gravel/sand	Unspecified/unknown	Settlement
	Meadow			Stone setting
	Open water/shore			
	Place name indicating wet environment			
	River			
	Stream			
	Stream valley			
	Unspecified/unknown			

Table 2.2. The categories used for the landscape context of the finds entered in the database, based on the system set up by Vandkilde (1996:34-35).

Secondly, the context of each find was further specified. Conceptually, the site type can be divided into burial finds and 'non-burial finds' (metalwork not used as burial gifts, *i.e.* hoards or single finds). For the latter category the term 'deposit' is used in the following chapters. This term thus excludes burial gifts of metalwork and is only used for metalwork depositions without the association of a dead body. This a priori division between burial finds and deposits and what it entails conceptually is discussed at length in Chapter 9. Here, it suffices to focus on the practical categorisations. Although burial finds were further specified, *e.g.* as 'barrow' (the vast majority of the burial finds) or 'flat grave', these subcategories have not been used to a great extent. For this research, the fact that an object was used as a burial gift is the most important piece of information; the exact type of burial is of less importance. However, for hoards and single finds it was naturally of great importance to know in what kind of landscape context people chose to deposit them as this is one of the main research questions of this study. Therefore, this information was entered using a number of categories on two levels (see Table 2.2).

The general landscape context category was entered first (Context1 in the database) after which the precise landscape setting was entered (Context2 in the database). For these categories, the system set up and applied by Vandkilde (1996:34-35 with figures) was followed and expanded where necessary. The category 'dry/structural association' was added to be able to easily distinguish depositions in or near man-made structures. The categories 'wet' and 'dry' both comprise depositions in natural contexts without – as far as we know – any man-made structures in the vicinity. Finds from 'wet/dry' contexts are from contexts that may have been either wet or dry at the moment of deposition; field finds – mostly objects found during agricultural activities – are the main find group in this category. Inevitably, some hoards and a considerable portion of the single finds come from unknown landscape contexts.

However, as was argued in Chapter 1, using categories like 'wet' and 'dry' are problematic when studying depositions. It is difficult to describe the enormous variation observable in the landscape by using a number of clearly defined categories (cf. Fontijn 2019:140). These

conventional categories have been used in research on depositions for decades. Yet this is exactly the problem: when collecting information on deposited metalwork from the various catalogues, this is often precisely the information that is available. An object is for example described as a 'bog deposition', or a 'dry land find'. And many of the objects come from completely unknown contexts. Therefore, the information that an object is a bog find, is, in fact, very valuable. For this reason, and because the structure of the Access database requires the use of categories and classifications, landscape categories like 'wet' and 'dry' and 'bog' and 'river' are in fact used. In the following chapters, the landscape contexts of depositions are discussed in more detail, and Chapter 9 focuses especially on the role that the landscape plays in metalwork deposition, thereby looking beyond these fixed categories.

2.5.2 Objects

On the third and highest level, information on the objects themselves was entered. This level contains the highest number of variables, all of which were chosen to answer the question: which objects did people select for depositions? Some information was fairly uncomplicated, such as measurements (even though these are not always given in the various catalogues; these were recorded for the objects studied in museum collections). However, other variables need some further explanation, since choices had to be made in terms of categorisations and classifications. These variables are discussed below.

Categorisations

Because of how Access databases are designed and structured, it is necessary to create categories and classifications, as already argued above. The objects were therefore entered using a number of hierarchical categories. First, they were divided into six main categories: appearance, axe, blade, point, pot, and tool (not axe). Then, they were further divided into different types, for which the information in the literature was followed.

"Appearance" is a term used by Treherne (1995:114) and is used here to denote ornaments that were worn on the body, such as (arm) rings, spirals, pins and beads, and other objects that pertain to a person's appearance, such as razors and tweezers. Treherne uses this term specifically in the context of the so-called Bronze Age 'warrior ideal' (Treherne 1995), but it has been applied in a more general sense here. Axes are further divided into double axes, flat axes, flanged axes, palstaves, shaft hole axes, and stopridge axes, after which the typologies used in the literature are followed. 'Blade' is used as an overarching term for daggers, swords, knives, and halberds, which are further divided into the various types used in the literature. 'Points' are divided into arrowheads and spearheads, and again, the typologies used in the literature are applied here. 'Pot' mostly includes ceramic pots, but a small number of wooden or bronze containers also occurs. 'Tool (not axe)' includes awls, chisels, scrapers, strike-a-lights, whetstones, wrist guards, and other tools. Lastly, there is a seventh category 'Misc.', mostly containing fragments of various materials that cannot be identified any further; these are not discussed in any detail in the following chapters, since they do not contribute to the discussion.

Based on these six object categories, the conventions behind selective metalwork deposition are systematically examined in the following four chapters. In these chapters, they are merged into five main object categories: daggers/swords, halberds, axes,

spearheads, and ornaments. These chapters follow a chronological approach: for each of the four sub periods (see below), the conventions behind depositions of the main object categories are examined. However, it should be noted that not every object category occurs in all four time periods. The structure of the thesis is outlined in more detail in Section 2.8.

Typologies

As mentioned above, the typologies used in the literature are as a rule followed in this research. However, as this research deals with finds from three different countries, this is not always unproblematic. Some regions have their own typological system. In some fortunate cases, the classifications from different regions correspond, but in other cases, the same object can have different typological classifications in different regions, thus concealing similarities that actually exist in the archaeological record. One example of such a concealing classification are the high-flanged axes of Vandkilde's type Hüsby and Butler's type Fussgönheim: they are one and the same type, as both authors refer to the same burials containing such axes (Vandkilde 1996:117, Butler 1995/96:198).

Another challenge was the typology set up by Laux (2000) for the axes from Niedersachsen, which is largely isolated from other north-west European typologies, and which can be difficult to navigate. In this typological labyrinth, the typology set up by Vandkilde (1996) has been the main guide. However, it should be noted that typological classifications were not the main aim of this study. They were used as a tool to enter objects in the database and to describe them in the following chapters, and to make it possible to embed this research in the wider context of research on Bronze Age metalwork in Europe. But more importantly, the typological classifications were used to discover and expose similarities in the material which were previously obscured.

Decoration

The presence or absence of decoration on an object was recorded, since it was a conscious choice of the Bronze Age smith whether to decorate an object. In some cases, the decoration was part of the casting process (*cire perdue* technique); in other cases, it was applied after casting. But in both cases, it was a conscious decision to decorate the object, just as it was an equally conscious decision to *not* decorate an object. Decoration therefore plays a role in the question of which objects people chose for depositions.

Patina

Patina was recorded based on information in the literature, since patina can shed light on an object's landscape context (Vandkilde 1996:33). In this sense, this variable on the database's object level is connected with the landscape context information on site level. However, patina is not always a reliable source of information on the find context, as demonstrated by Fontijn (2002:41). Therefore, patina is used with some caution to determine the find context of finds without context information.

Use wear and deliberate breaking

Furthermore, use wear is also recorded in the database. As we have seen in the introduction, Worsaae already noted that objects in Bronze Age hoards often appear to be unused or even unfinished (Worsaae 1866). Kopytoff's concept of object biographies (1986) is of vital importance here: whether and how objects were used are important elements in their

Figure 2.2. High-flanged axe of Oldendorf type from Ruinen, Drenthe, the Netherlands (Drents Museum 1888/XI.2, 8.1 cm). The axe has been resharpened by hammering and grinding (Butler 1995/96 no. 94). The axe is straight-ground, which is recognisable by the "cutting edge plane which encroaches on the lower ends of the flanges" (Butler 1995/96:204), clearly visible on the flanges of this particular axe. Photo: Marieke Visser. Scale 1:1.

biographies. This idea and what it conceptually entails is discussed in detail in Chapter 8. Here, the focus is on the practical use of this variable in the database.

The information on use wear that was collected in the database is completely based on the information that was available in the literature. Unfortunately, this information varies in quality and quantity. Vandkilde (1996) has carried out a thorough and complete use wear analysis of the copper and bronze axes from Denmark dating to 2350-1500 BC, and the results are gratefully included in this research. Horn has carried out use wear analyses on a number of halberds, swords, and spearheads from the research area, the results of which have been published in various publications (2013, 2014, 2017), and these are also incorporated in this research. However, in many other catalogues no systematic information on use wear is given, or no information at all, which means that this information is lacking in the database. However, in his catalogues of the Dutch metalwork, Butler provides some clear indications on how to recognise use wear specifically on high-flanged axes of Oldendorf type, which are thought to have been heavy duty work axes (Butler 1995/96:204, see Figure 2.2). These axes are therefore the only exception: where drawings or photos were available, and when these axes were studied in museum collections, use wear on Oldendorf axes has been recorded.

As also discussed in the introduction, objects in hoards were frequently deliberately broken or destructed in prehistory before they were deposited, which was also already noted by Worsaae (1866). This observation has led to a range of different interpretations of such depositions (see Section 1.8.1). Therefore, this information is also recorded in this study. This information is only collected from the literature. It is difficult to judge whether a broken object was actually deliberately broken, or damaged by other causes. Judging from the literature, very few cases of deliberate destruction are known from this period in the research area. This appears to have been a more common practice later on in the Bronze Age and in the Iron Age, as discussed in Chapter 1.

Import

Lastly, for each object it was recorded whether it is considered to be locally made or imported from afar as a finished object. In the first case, it was naturally made of imported metal, as there are no metal sources in the research area. Information on the origin of the objects is, again, based on the literature. 'Locally made' is here defined as at least made in the country where it was found, or if the information is available, in the local area where it was found. An example of the latter are the axes of Butler's type Oldendorf variant Ekehaar, which are thought to have been manufactured specifically in the northern part of the Netherlands (Butler 1995/96:204, see Chapter 6). It should be noted that it is not unproblematic to distinguish between local and foreign objects; these problematics are discussed in detail in Chapter 8. In the next chapters, the information from the literature is followed.

2.6 Network science

The data collected in the database were analysed using network science. Network science is essentially a tool to *visualise* data: each aspect of the deposition practices that are the focus of this study can be visualised simply and clearly in one network, instead of using a large number of tables. The connections between any variable can be shown instead of a priori choosing and emphasising a specific variable to visualise. These networks of practice are visualised as links between nodes, expressing for example the co-occurrence of objects in depositions or burials, or the similarities between sites. Network science is thus a useful tool to explore patterns in the data and to reconstruct the deliberate choices that people made. For each of the four sub periods (see below in Section 2.7), a number of networks were created, which visualise the patterns in metalwork depositions from that sub period. These networks are explained in more detail in the relevant chapters.

2.7 Research area

The research area comprises Denmark, Schleswig-Holstein, the north-western part of Niedersachsen, and the Netherlands north of the main river area. Why this particular research area was chosen is explained in Chapter 1. In this section, the practical aspects of working with this research area are discussed, including the practical problems and choices that were encountered during the data collection process.

All dateable finds that have been entered in the database are plotted in Figure 2.3. It is clear that the finds are not evenly distributed throughout the research area. This uneven distribution is partly due to regional depositional practices; these regional differences are examined and discussed in the following chapters. However, the quality of the data from the various regions in the research area also plays a role, as seen in Section 2.3. Furthermore, some parts of the region shown in Figure 2.3 have not been mapped completely, which is explained below.

Denmark is included in its entirety in this study, and as discussed previously, the data from this region are well-published. This made this region fairly uncomplicated in terms of data collection. Finds from the entire country were systematically collected, and the province (*amt*), district (*herred*), and parish (*sogn*) were recorded for each find, as well as the island on which the find was discovered. Recording the island made it possible to investigate regional patterns and differences between the islands, which are known to have existed (Vandkilde 1996).

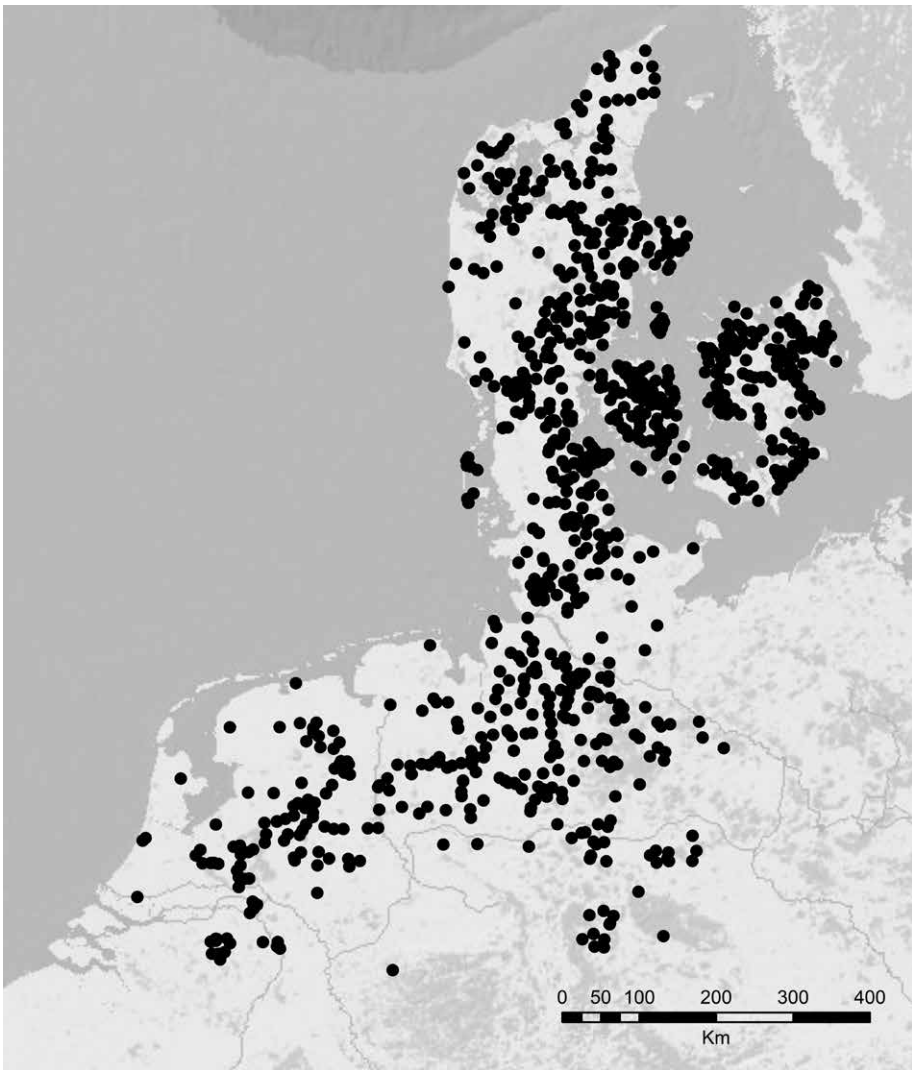

Figure 2.3. All dateable finds from the research area and investigated time period.

Schleswig-Holstein was also studied in its entirety. For finds from this *Bundesland*, the district (*Landkreis*) and municipality (*Gemeinde*) were recorded, as well as the island, since a small number of finds was discovered on the islands Sylt and Nebel.

Niedersachsen was initially included in its entirety, but during the process of collecting data, it was decided to limit the research area to north-western Niedersachsen. This means that some data was collected for south-western Niedersachsen, but that this part of the *Bundesland* was not covered and mapped completely. The data from the south-western part, however, are included in the following chapters and in the distribution maps. For the finds from Niedersachsen, the district (*Landkreis*) and municipality (*Gemeinde*) were recorded.

For the Netherlands, data from all provinces except Noord-Brabant, Limburg, and Zeeland were systematically collected. Nevertheless, some finds from the southern part of the Netherlands (the provinces Noord-Brabant and Limburg) were included, especially

the finds that are well-known from this period, such as the Overloon hoard, which is discussed in Chapter 6. These are included in the maps and the following chapters, but these southern provinces are not systematically studied and mapped. For metalwork depositions in the southern part of the Netherlands, the works by Fontijn (2002) and Autenrieth (forthcoming) are referred to.

In the following chapters, the patterns in the data are examined systematically for Denmark, Schleswig-Holstein, Niedersachsen, and the Netherlands (consistently in that order). Both in the analysis and in the text, Niedersachsen and Schleswig-Holstein are dealt with as separate regions, rather than treating the German part of the research area as a whole. In contrast, Denmark and the Dutch part of the research area have not been split up into provinces. This choice was made in order to study similarities and differences within the research area. Schleswig-Holstein is traditionally often considered to be similar to Denmark in terms of Bronze Age metalwork and metalwork depositions; it is often referred to and included in research on Bronze Age metalwork in Denmark (*e.g.* Vandkilde 1996, see Figure 1.3). However, this does not apply to Niedersachsen. Quite the opposite; Niedersachsen is considered by some authors to be linked more with the Netherlands, for example during the Bell Beaker period, when Niedersachsen and the north-eastern part of the Netherlands are considered as one regional group by Lanting (2007/2008:84, fig. 23). Therefore, these two *Bundesländer* were investigated individually in order to examine regional patterns. Hamburg, which is not part of any *Bundesland*, was merged with Schleswig-Holstein for practical reasons.

2.8 Chronology

This study investigates metalwork depositions over a time span of 850 years, during the period 2350-1500 BC. In different parts of the research area, different chronological systems are used to designate the time period studied in this research. The Scandinavian system for the Nordic Bronze Age was designed by Montelius in the 19th century, and is in largely still used today. The chronology for the Late Neolithic in southern Scandinavia was set up based on flint daggers by Lomborg (1973). In this study, Vandkilde's revision of the chronology, supported by C14 dates, is the main chronological framework (1996, fig. 134, see Table 2.3). The Scandinavian system also applies to Schleswig-Holstein; it is also used in the Aner and Kersten catalogue.

For Niedersachsen, Laux has set up a number of Zeitstufe and Horizonte (Laux 2000, 2009, see Table 2.3), which are not always easy to link to other chronologies, and which in some cases include finds that are dated to other periods in other regions. He, for example, dates the Danish Virring hoard and the north German Tinsdahl hoard to the same period (or *Zeitstufe*) as the Sögel-Wohlde burials (Laux 2000:8-9), while most authors agree on an earlier dating of the Virring and Tinsdahl hoards (*e.g.* Vandkilde 1996, fig. 135). Another example are the low-flanged axes of Emmen type, which are generally thought to date to the Dutch Early Bronze Age (EBA), or the Danish Late Neolithic II (LN II, Vandkilde 1996:191, Butler 1995/96:191). However, Laux dates these axes to his *Zeitstufe* Marwedel (Laux 2000:51), which roughly corresponds to period IA in Denmark! In such cases, the generally accepted chronologies are followed. Fortunately, the last part of the investigated time period is almost unanimously referred to as the Sögel-Wohlde period in the entire research area (Butler 1995/1996, Laux 2000, Laux 2009, Sprockhoff 1927, Vandkilde 1996).

Chapter and sub period	Denmark/ Schleswig-Holstein	Niedersachsen	The northern Netherlands
Chapter 3: LN I	LN I (2350-1950 BC)		LN B (2500-2000 BC)
Chapter 4: LN II	LN II (1950-1700 BC)	*Zeitstufe* Veltheim	EBA (2000-1800 BC)
Chapter 5: IA	IA (1700-1600 BC)	*Zeitstufe* Marwedel-Falkenwalde	MBA A (1800-1500 BC)
Chapter 6: IB	IB (1600-1500 BC)	*Zeitstufe* Wildeshausen-Tinsdahl/ Sögel-Wohlde	MBA A (1800-1500 BC)

Table 2.3. The conventional chronological systems used in Denmark, Schleswig-Holstein, Niedersachsen, and the northern Netherlands for the investigated time period. These are linked and merged into four sub periods which are discussed in four chapters. Denmark and Schleswig-Holstein: Vandkilde 1996, fig. 134; Niedersachsen: Laux 2000; the Netherlands: Van den Broeke et al. 2005, fig. 1.10.

For the Late Neolithic and the Bronze Age in the Netherlands, a different chronological system from the Scandinavian system is used (see Table 2.3) which is more closely linked to the continental system. Butler links many of the Dutch finds to finds from other regions in Europe, referring to other chronological systems, which makes it easy to compare the different chronologies (Butler 1990, 1995/96).

These different systems were linked in order to study and compare the finds from the research area as a whole (see Table 2.3). Based on the Danish chronology, the investigated time period of 2350-1500 BC is divided into four sub periods in order to study developments through time. The patterns in these four sub periods are discussed individually in four chapters. The structure of the thesis is outlined in more detail in the next section. Here, it is important to note that this chronological approach meant that a number of dating issues had to be solved. Choices had to be made concerning in which chapter – and thus for which sub period – objects were to be discussed. In those cases when chronological difficulties arose, these choices are explained in the chapter dealing with the sub period in question.

2.9 Structure of the thesis

In this last section, the structure of the thesis is outlined briefly. The thesis is divided into three parts. Part I consists of the introduction, which discusses the research history on Bronze Age depositions and presents the approach used in this study, and the current methodology chapter, which explains the methodology that has been used in detail. Chapter 3 forms a bridge between Part I and Part II: this chapter focuses specifically on the *emergence* of selective deposition practices. In order to investigate this topic, earlier deposition practices are examined based on patterns identified in the literature, and compared with the earliest patterns – dating to LN I – in the dataset.

In Part II, the patterns in the dataset are examined and discussed in detail for each of the three subsequent sub periods (see Table 2.3). For Late Neolithic II (Chapter 4), period IA (Chapter 5), and period IB (Chapter 6), the conventions behind depositions of the main object categories are examined systematically in the four regions in the research area.

The patterns identified in these data-based chapters are subsequently discussed from a broader and more theoretical angle in four concluding chapters in Part III, each of which focuses on a specific theme: the *emergence and development* of the practice of selective metalwork deposition through the ages (Chapter 7); the selection of *objects* for

depositions and what these choices entail (Chapter 8); the role that metalwork played in *burials* (Chapter 9); and lastly, the *landscape contexts* that people selected and the role that the landscape played deposition practices (Chapter 10).

After outlining the methods and approach used in this study, it is now time to move on to examine the data. In the next chapter, the emergence of selective metalwork deposition at the beginning of the investigated time period is examined.

Part II

Data and Patterns

3

Selective deposition before 2000 BC

3.1. Introduction

In the Bronze Age, valuable metal objects were deliberately deposited in the landscape and never retrieved on a massive scale, as discussed in the introductory chapter. However, depositions were actually not a phenomenon unique to the Bronze Age; hoards were not a Bronze Age invention (Hansen 2012:29). Deliberate depositions of objects in the landscape took place already long before this period. In fact, 1700 years before the start of the time period under investigation, around 4000 BC, people already intentionally deposited objects in the landscape, and never retrieved them. Depositions are known to have occurred in the Early and Middle Neolithic (EN and MN), in the Funnelbeaker Culture (TRB) and the Single Grave Culture (SGC, Wentink et al. 2011, Fontijn 2002:59, Fontijn 2019:63-85, see Table 3.1). Even metalwork was already deliberately deposited in parts of the research area as early as the Early Neolithic (EN, Klassen 2000). How do these early metalwork depositions then relate to the much later Bronze Age depositions that are the focus of this study?

Both in the TRB and the Bronze Age, valuable metalwork imported from afar was thus deliberately buried in the ground and never retrieved. However, a specific characteristic of Bronze Age selective deposition is its "double-exclusive-logic": people deposited specific objects in specifically selected places in the landscape, thereby avoiding other objects and other places (Fontijn 2019:29-33). There were thus specific *conventions* behind these depositions: people did not just deposit any object in any location, as already observed in the introduction. These conventions were probably the result of many individual depositional events: there was likely a "general understanding of how to act" when it came to depositions, which was not necessarily communicated between different regions, but rather self-evident across regions (Fontijn 2019:29-33). What were then the conventions behind Neolithic depositions? Can the practice of "double exclusivity" (Fontijn 2019:29-33) which is observable in Bronze Age depositions already be recognised in Neolithic depositions? If so, were Bronze Age depositions then simply a continuation of these earlier practices? Or was selective deposition in the Bronze Age a new practice, with new, different conventions? These questions are the main focus of this chapter.

Going back even further in time, certain finds from the research area dating to the Late Mesolithic may have been intentionally deposited in the landscape (Bradley 1998:27-28, Louwe Kooijmans 2001:112-113, Karsten 1994:166ff, Wentink 2006:42,

Denmark	The northern Netherlands
	Early Neolithic 4900-4200 BC (EN)
Early Neolithic 3950-3350 BC (EN, TRB)	Middle Neolithic A 4200-3400 BC (MN A)
Middle Neolithic A 3350-2850 BC (MN A, TRB)	Middle Neolithic B 3400-2900 BC (MN B, TRB)
Middle Neolithic B 2850-2350 BC (MN B, SGC)	Late Neolithic A 2900-2500 BC (LN A, SGC)
Late Neolithic I 2350-1950 BC (LN I, Bell Beaker)	Late Neolithic B 2500-2000 BC (LN B, BB)
Late Neolithic II 1950-1700 BC (LN II)	Early Bronze Age 2000-1800 BC (EBA)

Table 3.1. Conventional chronology for the early periods discussed in this chapter (after Vandkilde 1996, fig. 134, Klassen 2000, fig. 24, Iversen 2014, fig. 3.4, Van den Broeke et al. 2005, fig. 1.10). See Section 2.7 for a detailed explanation of the chronologies used. TRB: Funnelbeaker Culture; SGC: Single Grave Culture.

Fontijn 2011:433-434, Fontijn 2019:63-85). However, there is a "lack of patterning" in these Late Mesolithic finds (Wentink 2006:42). It was not until the TRB that depositions became more structured in the research area (Wentink & Van Gijn 2008:29, Fontijn 2002:59). Indeed, there seems to have been a clear system behind Neolithic depositions (Ebbesen 1993:122). Furthermore, Late Mesolithic depositions seem to concern local and everyday objects, whereas from the Neolithic onwards, depositions involve non-local objects acquired through exchange, *i.e.* objects with a very different *biography* (Fontijn 2011:435). To sum up, depositions in the research area during the Late Mesolithic may have been intentional, but they are anecdotal and lack any patterning. They are therefore not discussed here. This chapter thus does not go further back in time than the TRB, *i.e.* the south Scandinavian Early Neolithic (3950-3350 BC, see Table 3.1).

Even though these Early and Middle Neolithic deposition practices are not this study's main focus, they shed light on the central theme of the *emergence* of selective metalwork deposition in the Early Bronze Age. By systematically examining the patterns in selective deposition in the Neolithic, we can investigate the conventions behind these early deposition practices, and study their development over time.

This chapter has a somewhat different structure than the following data-based chapters. It is divided into two parts: Sections 3.3 and 3.4 consist of a systematic and chronological overview of the conventions behind selective deposition practices in the research area in the TRB and the SGC, based on patterns identified in the literature. Section 3.5 deals with the earliest patterns in the data from the investigated time period, examining the conventions behind selective deposition in the Bell Beaker period (Late Neolithic I/Late Neolithic B) in greater detail, and comparing them to TRB and SGC depositions. The conventional chronology concerning the periods in question is shown in Table 3.1. The main object categories that are used to examine patterns in Bronze Age depositions – as explained in Chapter 2 – are also applied in this chapter: the categories that occur in these early periods are daggers, axes, and ornaments. These are investigated with a particular focus on metal as well as on other foreign materials and imports.

3.2. The introduction, disappearance, and reappearance of metal: a thousand-year gap?

Before turning to the conventions behind selective deposition practices in the Neolithic, the introduction of metal and metalworking in the research area needs to be addressed. Metal (copper and gold) was introduced to the research area during the Late Neolithic, an introduction that is traditionally associated with the Bell Beaker period (Van der Waals & Glasbergen 1959:110, Butler & Van der Waals 1966/67:42, Vandkilde 1996:263, Willroth 1996:18, see Section 3.5). Finds of metalworking tools, such as cushion stones, in Bell Beaker burials in the Netherlands indicate that not only the material metal, but also the craft of metalworking was introduced to the research area (Butler & Van der Waals 1966/67:69-70, 77).

However, the introduction of metal in the Bell Beaker period was not the first time the research area came into contact with metal. Copper artefacts – mainly flat axes and ornaments – already reached Denmark and northern Germany, as well as southern Sweden, in the TRB, in the south Scandinavian Early Neolithic (3950-3350 BC), in fact in surprisingly large numbers (Klassen 2000:13, 239, Vandkilde 1996:178-179, Laux 2000:198). The oldest metal in southern Scandinavia is based on metal analyses and typochronological grounds thought to date to the second half of the fifth millennium BC (Klassen 2000:235-236). The copper was probably imported from the Balkans, Slovakia, and the Erzgebirge in the earliest phase, and later on primarily from the Alpine region (Klassen 2000:235). Already at this early stage, a local manufacture of metalwork in Denmark is thought to have existed (Klassen 2000:308).

In contrast, there was apparently no metal in the Netherlands prior to the Bell Beaker period, although a few copper scraps and ornaments have been found in megalithic tombs in Drenthe, in the north-eastern part of the country (Butler & Van der Waals 1966/67:76-77). Their dating, however, is highly uncertain, so they cannot shed any light on whether there was metal in the Netherlands during the TRB (Butler & Van der Waals 1966/67:76-77). But even if there was metal, it must have been very rare in this region (Butler & Van der Waals 1966/67:77). These scraps and ornaments are therefore not included in the discussion in the following sections.

At the end of the Early Neolithic, around 3300 BC, metalwork appears to disappear from the archaeological record in Denmark and northern Germany. Compared to the wealth of copper in the TRB, the subsequent SGC has yielded very little metalwork (Klassen 2000:238, Laux 2000:198-199, Vandkilde 1996:180). This break is thought to be linked with an almost complete collapse in metal production in the Alpine region at this time (Klassen 2000:238). Metal was then reintroduced roughly a thousand years later, in the Bell Beaker period, around the same time as what is thought to be the first introduction in the Netherlands. There thus appears to be a thousand-year gap in southern Scandinavia and northern Germany, in which not only metalwork seems to have disappeared, but also the practice of metalworking itself. With the benefit of hindsight, this is a puzzling situation.

However, it should be noted that it is highly problematic to date copper flat axes, which are the main type of metalwork in these early periods (Vandkilde 1996:177, Willroth 1996:17, Laux 2000:21-29, 198-199). They occur in the Early and Late Neolithic, *i.e.* during a vast time span. Because of their rather simple shape it is often difficult to make morphological distinctions. Although metal analyses may shed some light on these chronological issues, this method is not unproblematic either (Vandkilde 1996:177).

A small number of copper flat axes from the Netherlands illustrate this problem: they are similar in shape to the south Scandinavian TRB axes, but metal analyses do not indicate a dating earlier than the Bell Beaker period (Butler & Van der Waals 1966/67:76-77). The copper flat axes from Niedersachsen also present chronological problems. They are tentatively dated by Laux to the Early Neolithic (Laux 2000:21-29, 198), which would suggest that none of the flat axes date to the Late Neolithic, but based on the adjacent areas, at least an *occasional* occurrence of copper flat axes in Niedersachsen during the Late Neolithic is to be expected. This thousand-year gap may thus in part be created by the typochronological methods employed by archaeologists.

The thousand-year gap in terms of metalwork in southern Scandinavia and northern Germany may thus only be a virtual one: there is a possibility that there was in fact more metalwork in this 'gap' than we think. Finds of copper ornaments in Single Graves in Moravia and eastern Germany (Bourgeois & Kroon 2017 and references therein) and depositions of double axes of Eschollbrücken type, attributed to the SGC, in western Central Europe indeed suggest that metal could occur in SGC assemblages (Laux 2000:190-191, Hansen 2012:32, Willroth 1996:17). The same applies to the lack of metal finds in the Netherlands prior to the Bell Beaker period: there may possibly be earlier metalwork, but this may be obscured by chronological issues.

Nevertheless, it is a fact that a number of assemblages with metalwork can be dated to the TRB with some certainty, based on typological comparisons and find associations (Klassen 2000:79-90). The best example is the famous Bygholm hoard, which was found inside a Funnelbeaker (see Section 3.3.3). Such finds are lacking for the SGC in the research area (cf. Vandkilde 1996:177). An actual scarcity of metal appears thus to exist in the research area in the SCG, compared to earlier and later periods.

In the following sections, the conventions behind selective deposition in the Neolithic are discussed, starting with the TRB.

3.3. Selective deposition in the Funnelbeaker Culture: an overview

The Funnelbeaker Culture (TRB) is divided into a number of regional groups, two of which are relevant for the research area: the TRB West Group, comprising the Netherlands and north-west Germany, and the TRB North Group, comprising southern Scandinavia (Bakker 1979:11, fig. 1, Klassen 2000:13). The conventional chronologies for these groups are shown in Table 3.1. The TRB is known for its communal burial tradition in megalithic tombs, which occur in the entire research area. Another well-known phenomenon of the TRB are large-scale flint axe depositions in wetlands (Achterop 1960, Nielsen 1977, Rech 1979, Karsten 1994, Wentink et al. 2011). But in addition to these flint axes, axes made of copper and Alpine jade were also deposited in parts of the research area (Klassen 2000, Klassen 2004, Pétrequin 2012). Evidently, the axe played a significant role in deposition practices in this period. Axes of Alpine jade were a western European phenomenon, whereas copper axes are mostly found in south-eastern Europe (Klassen 2004, fig. 145). Southern Scandinavia is in fact the only region in Europe where they occur together (Klassen 2004, fig. 145), making Denmark an interesting case study to investigate selective deposition practices in the TRB. In addition to axes, copper ornaments were also deposited, and one copper dagger has been found in the research area.

The following sections first focus on the conventions behind depositions of axes made of various materials, and then on depositions of other metal objects. [4]

3.3.1. Flint, Alpine jade, and copper axes

Axes made of flint, Alpine jade, and copper played an important role in selective deposition practices in the TRB. Starting with flint axes (thin- and thick-butted axes with rectangular cross-section), these occur in massive numbers[5] both in burials and in hoards during this period. However, they have different biographies in these different contexts, as shown by studies of TRB flint axes from the Netherlands (Wentink et al. 2011), and the patterns in flint axe depositions in southern Scandinavia are strikingly similar (cf. Nielsen 1977, Rech 1979, Karsten 1994). These patterns are shown in Figure 3.2. Flint axes in burials, on the one hand, are small, polished, heavily used, and locally produced. Flint axes in hoards, on the other hand, are oversized, often unpolished, and show no traces of functional use. Instead, these axes are thought to be ceremonial (Wentink et al. 2011). They were deposited in wet landscape settings, often at the edge of bogs, and they were often carefully arranged in hoards. The two flint axe groups were strictly separated; the deposition of flint axes was highly *selective* (Wentink 2006, Fontijn 2002:59). Flint axes were not combined with axes made of other materials in depositions. Flint was a local resource in Denmark and northern Germany. The oversized, ceremonial axes in the Netherlands are thought to be imported from that region (Wentink et al. 2011:400), *i.e.* from *within* the TRB area. Flint axes were thus culturally associated specifically with the TRB domain.

Moving on to axes made of Alpine jade, they were deposited all over western Europe (Pétrequin 2012, figs. 3 and 4) and occur in modest numbers in southern Scandinavia and in the Netherlands (Klassen 2012:86, Schut 2016:238). Unfortunately, the available information on Alpine jade axes in the research area is limited. They were imported from present-day northern Italy, from the mountains Monte Viso and Monte Beigua (Klassen 2012:86), *i.e.* from *outside* the TRB area. They were manufactured in that region between the end of the sixth and the first half of the third millennium BC (Klassen 2012:86), so they may in fact be older than the Early Neolithic in the research area. Unfortunately, many of the European finds are from unknown find contexts (Pétrequin 2012:17, Klassen 2012:86). Nevertheless, it is clear that these axes were generally not used as burial finds (Klassen 2012:86, see Figure 3.2). Instead, they were deposited singly or in hoards. Elsewhere in Europe, a careful arrangement of axes in hoards is known to have occurred (Hansen 2012:30-31). Oversized jade axes are thought to have been objects of power with ritual significance (Klassen 2012:88-89), while smaller axes are thought to have been tools (Schut 2016:239). Finds from the research area and elsewhere in Europe have demonstrated that these axes often have very long and complicated biographies (Klassen 2010:41-42, Hansen 2012:30). To conclude, Alpine jade axes can be argued to be "transcultural objects" (Vandkilde 2014b, Fontijn 2019:68-70): they were not only widely distributed, but also deposited in similar ways across western Europe (Fontijn 2019:68-70).

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4 It should be noted that other objects and materials were also involved in TRB selective deposition practices. These include amber, ceramics, human and animal bones, various wooden objects (e.g. posts, canoes), arrows, and bone tools (Randsborg 1978, Rech 1979, Koch 1998). However, as these objects and materials are not the main focus of this chapter, they are not included in this discussion.

5 According to Ebbesen, Neolithic flint axe depositions in Denmark are "practically innumerable, and any attempt at counting them is pointless" (Ebbesen 1993:123-124).

Figure 3.1. Copper flat axe displayed in Moesgaard Museum, dating to 3500-3300 BC (Klassen 2000, catalogue no. 113). Photo: Rogvi N. Johansen, Photo- and Media-dept., Moesgaard Museum.

Lastly, copper flat axes (see Figure 3.1 and Figure 3.3) dating to the Early Neolithic have been found in Denmark and northern Germany, but not in the Netherlands (Vandkilde 1996, Klassen 2000, Laux 2000, Butler & Van der Waals 1966/67). They occur in surprisingly large numbers (cf. Klassen 2000:13), considering that these are the very first metal axes in the research area, and that all this metal had to be imported from afar. Yet compared to the Late Neolithic and Bronze Age, copper axes occur in small numbers in the research area. The copper was imported from *outside* the TRB area, from south-east and Central Europe (Klassen 2000:235). A local production of metalwork probably already existed in Denmark at this early stage (Klassen 2000:308), as discussed in Section 3.2. The import of axes of Alpine jade and copper happened in the same time period (Klassen 2004:101), and some of the copper axes have been suggested to be copies of Alpine jade axes (Klassen 2010:41-42).

Turning to the conventions behind copper axe depositions, many of the early copper flat axes from southern Scandinavia and north-west Germany unfortunately come from unknown find contexts (Randsborg 1978:310, Klassen 2000:255, 268 and catalogue, Laux 2000:21-29, Vandkilde 1996:179). Nevertheless, although the number of axes is small, some significant patterns can be observed (see Figure 3.2). It is clear that copper axes were generally not used as burial gifts. Instead, they were relatively often deposited in dry land settings, particularly in or close to burial mounds, while wetland finds are relatively uncommon (Vandkilde 1996:179, fig. 168). Most axes have been found singly, but they were occasionally deposited in hoards in the research area: four hoards contain copper flat axes, and three of them also contain copper ornaments, including the Bygholm hoard, which in addition also contains a copper dagger (see Section 3.3.3 and Figure 3.3). Copper axes were thus usually not combined with other materials.

Some of the copper axes are thought to be deliberately destroyed in prehistory (Klassen 2000:278-280). It is thought that many of these early copper axes were not intended for functional use, since they are oversized or remarkably shaped, or because they carry decorations that would be invisible if the axes were hafted (Klassen 2000:278-283). Furthermore, many axes carry casting seams or casting remnants, some even on the cutting edge (Klassen 2000, catalogue, see Figure 3.1), suggesting that these axes were not functional tools. These early copper axes are therefore thought to be

Axes TRB	Flint axes		Alpine jade axes		Copper axes	
n	South Scandinavia: ? The Netherlands: ±130		South Scandinavia: ±30 The Netherlands: ±70		South Scandinavia: ±70 (Niedersachsen: ±30)	
	BURIALS	DEPOSITS	BURIALS	DEPOSITS	BURIALS	DEPOSITS
Landscape context		Bog		?		Dry
Used						
Unused						
Small						
Oversized						
Polished/finished				?		
Unpolished/unfinished				?		
Local						
Foreign/import						

Figure 3.2. The main patterns in the selective deposition of flint, Alpine jade and copper axes, based on patterns identified in the literature. Flint axes: Nielsen 1977, Rech 1979, Karsten 1994, Wentink 2006, Wentink & Van Gijn 2008, Wentink et al. 2011. Alpine jade axes: Klassen 2004, Klassen 2012, Schut 2016. Copper axes: Klassen 2000, Laux 2000.

prestige or cult objects rather than utilitarian axes (Klassen 2000:278-283). Klassen actually argues that these objects should perhaps not be called 'axes', as they were not axes in the modern sense of the word, but rather copper images *representing* axes (Klassen 2000:281).

Summing up, flint, Alpine jade, and copper axes were each deposited in specific ways, in specific contexts, and with specific biographies. Copper and Alpine jade axes, both being foreign objects from *outside* the TRB domain, were treated and deposited in similar ways: they were not used as burial gifts. Copper axes were probably not intended to be functional tools.

3.3.2. Copper ornaments

Copper ornaments dating to the TRB have been found in small numbers in Denmark and northern Germany (Klassen 2000, Schlicht 1973). They occur in burials, where they occur together with flint axes, amber beads and/or ceramics; and in hoards, where they occur, sometimes in large numbers, in combination with copper flat axes, amber beads and/or ceramics (see Figure 3.3). Copper ornaments obviously belonged to a different conceptual category than copper axes: copper ornaments are found both in burials and in hoards, whereas copper axes were never used as burial gifts; and copper ornaments were frequently associated with other objects and materials, in contrast to copper axes. Apparently, it was not only the material copper *itself* that steered selective deposition practices.

3.3.3. The Bygholm hoard

An extraordinary find from this period that warrants being highlighted is the famous Bygholm hoard, dating to ca. 3500-3300 BC (Klassen 2000:80-81, see Figure 3.3). The hoard was deposited in a sandy stretch of land bordered by the Bygholm Å (river) in Jutland, Denmark (Klassen 2000:351, no. 94). It is the largest metal find from this period: it consists

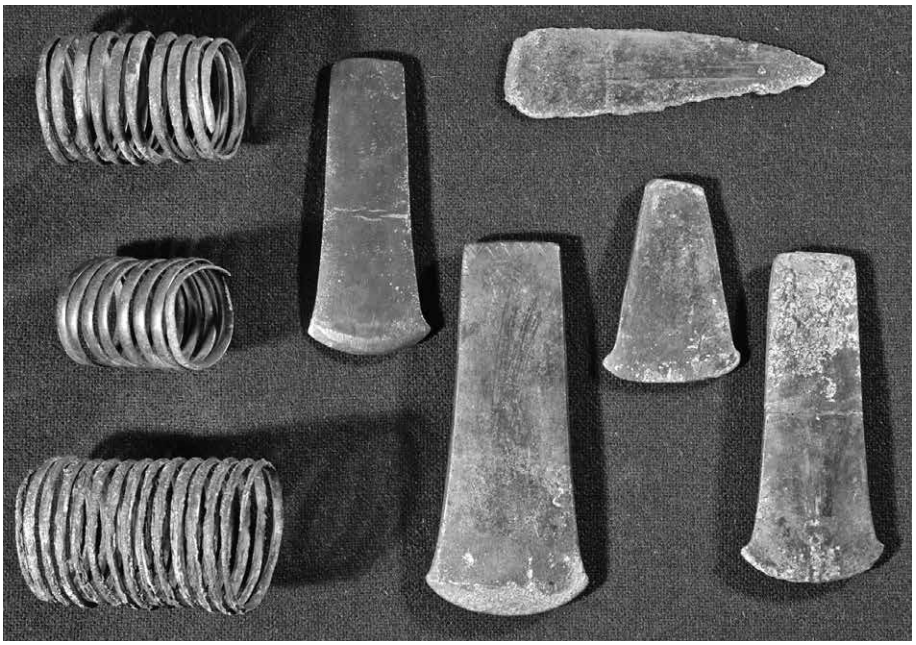


Figure 3.3. The Bygholm hoard containing four copper flat axes, a copper dagger, and three copper arm spirals, which were deposited inside a Funnelbeaker (not depicted). Photo: National Museum of Denmark, Lennart Larsen, cropped and adjusted to greyscale, used under licence CC-BY-SA, http://samlinger.natmus.dk/DO/asset/2001.

of four copper flat axes, three copper arm spirals, and a copper dagger, all placed inside a Funnelbeaker (Randsborg 1978:303, Klassen 2000:19 and fig. 2). Amber beads were often deposited in pots in the TRB (Randsborg 1978:311, Rech 1979:41), so at first glance, this seems to be a 'normal' depositional act. However, amber is a local material, whereas in the case of the Bygholm hoard, foreign metalwork was deposited inside a pot. Furthermore, the hoard was deposited in a dry context, while amber beads were often deposited in bogs (Randsborg 1978:311, Rech 1979:40). No parallels to the Bygholm hoard are known from the research area, making it a unique hoard and a remarkable depositional act.

Zooming in on the objects themselves, the dagger is the earliest copper dagger in Denmark, and a unique find this far north (Müller 2013:444, fig. 1). It is thought not to be meant for practical use, but rather interpreted as a symbolic or cult object (Klassen 2000:282-283). Since the objects were deposited inside a Funnelbeaker, it can be assumed that the axes were deposited unhafted, which means that they were unusable at the moment of deposition. In addition, one axe is deliberately destroyed, and another was possibly not meant to be hafted (Klassen 2000:280, 351). The dynamics between the local or 'usual' (the Funnelbeaker itself and the act of depositing objects in pots) and the foreign or 'unusual' (the metalwork, the combination of objects, and the deposition in a dry landscape context) in the Bygholm hoard are intriguing, and so are its unique contents. Depositing such a special and unusual hoard must have been a special event that stood out. This observation is returned to in the following chapters. It is worth noting that three different metal object categories – axes, a dagger, and ornaments – occur all together in one assemblage; these apparently did not have to be separated. This convention changed later on in the Bell Beaker period, which is discussed below.

3.3.4. Conclusion

After examining the conventions behind selective deposition of axes and other valuables in the TRB, a number of conclusions can be drawn.

Firstly, although axes played an important role in these deposition practices, they were not all deposited in the same way. Instead, flint, Alpine jade, and copper axes were all deposited in specific ways, in the 'right' place and with the 'right' biography. Foreign Alpine jade axes, which were imported from outside the TRB region, and copper axes, which were also made of an exotic, valuable material that came from outside the TRB domain, were both never used as burial gifts. Instead, copper axes were frequently deposited singly in dry land contexts, and they were probably not intended for functional use.

Secondly, copper ornaments follow different conventions than copper axes: they occur both in burials and hoards, and they were frequently combined with other objects and materials. The material copper itself was thus not treated in uniform ways in selective deposition.

Finally, the Bygholm hoard represents a remarkable depositional event, consisting of a unique combination of three different object categories, including the only copper dagger from this period, and connecting a number of different local and foreign objects and depositional acts.

In the following sections, selective deposition practices in the subsequent SGC are examined. How did the conventions behind selective deposition develop during this period?

3.4. Selective deposition in the Single Grave Culture: an overview

The Funnelbeaker Culture (TRB) was succeeded by the Single Grave Culture (SGC) in the research area (see Table 3.1). The SGC is thought to be part of the Corded Ware complex, which was widely distributed across Europe. The Corded Ware complex is highly discussed: its widespread uniformity as well as its regional manifestations have been frequently debated (see Furholt 2014). This debate, however, is left aside here. Instead, the focus is on selective deposition in this period. As already discussed in this chapter's introduction, there appears to be a break in selective metalwork deposition in the SGC. Interestingly, the results of genetic analyses also suggest that there was a break in this period: around 2800 BC, the SGC is thought to have emerged in the research area as a result of a migration from the Eurasian steppe, replacing the local Neolithic farmers (Allentoft et al. 2015, Haak et al. 2015). In this period, Corded Ware groups emerged all over Europe. In light of this migration, the break in selective metalwork deposition becomes highly significant. In Denmark, the situation has a particular local character: the TRB lasted longer on the islands than in Jutland, resulting in a coexistence of the SGC in Jutland and the TRB on the islands (Iversen 2014:222). The SGC has a limited distribution in Denmark, Single Graves only occurring in Jutland (Iversen 2013:24, fig. 3).

In the SGC, a new, supra-regionally shared burial ritual was introduced. Particularly male burials are very similar across regions, whereas female burials are distinctly local (Bourgeois & Kroon 2017:13). The dead were now buried in individual graves with a standardised burial equipment, expressing a focus on personal display and a new idea of personhood (Fontijn 2002:59, Treherne 1995:106-113). This concept is discussed in detail in Chapter 9. Which objects did people choose to include in this male burial package? And what relationship does this burial package have with depositions outside burials?

In the following sections, the SGC burial package is discussed first, after which the focus is on depositions of axes and ornaments.[6]

3.4.1. The Single Grave burial package

In this period, a new burial ritual was introduced, in which particularly male burials were equipped with a standardised and supra-regionally shared SGC burial equipment (Bourgeois & Kroon 2017, see Figure 3.4). Stone battle axes were now the main status symbol in these male burials (Iversen 2014:211). Battle axes have been found all over the research area (see *e.g.* Glob 1945, Iversen 2013:24, fig. 3, Kühn 1979, Struve 1955, Butler & Fokkens 2005:395, Figure 3.4). They were also deposited in wetlands (Iversen 2014:104). However, flint axes were still used as burial gifts in Single Graves in the Netherlands: both locally made, used flint axes and imported, unused flint axes are found in burials (Wentink et al. 2011:506).

Flint blades/daggers are also a common element in the male burial package (Bourgeois & Kroon 2017, Wentink 2020:86). In Single Graves in the Netherlands, imported daggers made of northern flint (from southern Scandinavia or northern Germany) and French Grand Pressigny flint were used as burial gifts (Wentink 2020:94). These imported flint daggers in Single Graves do not show any traces of use (Van Gijn 2010:142-147, Wentink 2020:97). Because of this lack of use wear, they are thought to have been display items (Van Gijn 2010:145-147, Wentink 2020:100). Grand Pressigny daggers have also been found in burials in Niedersachsen, but not in in Denmark and Schleswig-Holstein (Kühn 1979:35-36, cf. Lomborg 1973:88-90). No finds of Grand Pressigny daggers are known from hoards: these daggers were specifically associated with (male) burials. Lastly, the male burial package also commonly included Corded Ware (Bourgeois & Kroon 2017, see Figure 3.4). To conclude, display items and imported objects were now used as burial gifts in Single Graves, in contrast to the TRB, when such items were deposited in wetlands.

3.4.2. Flint and copper axes

This section focuses on the conventions behind axe depositions. Starting with flint axes, there are both similarities and differences between flint axe depositions in the SGC and the TRB (Ebbesen 1983, Wentink et al. 2011). In the SGC, depositions of flint axes are far less abundant than in the TRB. Furthermore, the conventions in terms of the axes' biographies were different than in the TRB, and burials and hoards were not strictly separated (Wentink et al. 2011). In burials in the Netherlands, both locally made, used flint axes, and imported, unused flint axes are found (Wentink et al. 2011:506). As discussed above, imported objects could now be used as burial gifts, in contrast to the TRB, when such objects were deposited in wetlands. SGC flint axe deposits occur in landscape contexts similar to TRB deposits, and a careful arrangement of axes in hoards is also observable (Ebbesen 1983:158, Wentink et al. 2011:404). However, in terms of their biographies, the Dutch axes in deposits are similar to TRB axes found in burials: they are small, heavily used, and made of local flint (Wentink et al. 2011:406). In Jutland, on the other hand, flint

6 Objects made of organic materials were also deposited in this period. Typical for the Netherlands are the wooden disc wheels that were deposited singly or in pairs in the peat in the northern part of the country during a short phase in the late SGC (Butler & Fokkens 2005:390, Van der Waals 1964). Similar finds are known from Denmark (Van der Waals 1964). As these are not the main focus of this discussion, they are not discussed further here.

Figure 3.4. Inventory of a male SGC burial near Eext, Drenthe, the Netherlands. Photo: JAV Studios, Drents Museum.

axes in deposits show similarities to flint axes in TRB deposits, *i.e.* they are mostly large and unused (Ebbesen 1983). Although in broad terms a continuity in flint axe deposition may be observed, a shift in terms of the conventions behind flint axe depositions evidently happened, and these were apparently not uniform across regions.

Moving on to copper axes, very few copper flat axes from the research area can be dated with certainty to this time period, as discussed in Section 3.2. In large parts of Europe, the practice of depositing metal axes appears not to have played a significant role in this period (Hansen 2012:32). Nevertheless, the practice *did* exist: metal axes were actually frequently deposited in south-eastern Europe in this period (Hansen 2012:32). Closer to the research area, copper hammer axes of type Eschollbrücken were deposited in western Central Europe, and these depositions are attributed to the SGC based on typochronological grounds and metal analyses (Kibbert 1982:23-35, Laux 2000:190-191, Hansen 2012:32). Metal axe deposits thus did occasionally occur in the SGC, but they do not seem to have played an important role in the research area. It is important to note that copper axes have not been found in Single Graves: just like in the previous TRB, they were not used as burial gifts. Even though imported valuables were

part of the SGC burial package, this did not apply to copper axes. Bearing in mind that the SGC and the TRB co-existed in Denmark (Iversen 2014:222), it is worth noting that TRB copper axe finds are lacking in northernmost Jutland as well as western Jutland (Klassen 2000, figs. 112-114, cf. Randsborg 1978:307, figs. 2-4), which is SGC territory (Iversen 2013:24, fig. 3). This supports the notion that copper axe depositions did not happen frequently in the SGC.

3.4.3. Copper ornaments

In line with the overall scarcity of metalwork in the research area, copper ornaments are not abundant in this time period. Occasional finds from burial contexts are known from the research area, but their dating is debated (Klassen 2000:209, 238, 357-358, Willroth 1996:17). Elsewhere in Europe, copper ornaments occasionally occur in SGC burials, *e.g.* in Moravia and eastern Germany (Bourgeois & Kroon 2017). Even though the evidence is limited, it is clear that copper ornaments could be used as burial gifts, just like in the preceding TRB.

3.4.4. Conclusion

Comparing selective deposition practices in the SGC and the TRB, it is evident that a shift happened between these two periods. This shift can be interpreted in light of the migration that is thought to have occurred in this period. A number of conclusions can be drawn.

First of all, depositions outside burials happened much less frequently than before. Flint axe depositions are less numerous than in the TRB, and copper axes were not deposited in the research area.

Secondly, the conventions behind flint axe depositions were different: foreign imports of flint axes could now be used as burial gifts, while small, utilitarian axes were deposited in bogs, which is the exact opposite of the conventions behind TRB flint axe depositions.

Thirdly, while there was a wealth of copper in the TRB in southern Scandinavia, copper did not play an important role in the SGC period. Copper ornaments occasionally occur in Single Graves elsewhere in Europe, but copper axes have not been found in burials, and copper axe deposits were also rare. Metal was not part of the new burial package.

Lastly, the SGC burial package included display items and imported objects; objects that would have been deposited in bogs in the TRB.

In the following sections, the conventions behind selective deposition in the Bell Beaker period are examined, which corresponds to the first part of the investigated time period. These are thus the earliest patterns in the data collected in the database and examined in this study. How did SGC selective deposition practices develop in the following period?

3.5. Patterns in selective deposition in the Bell Beaker period

The Bell Beaker period corresponds to Late Neolithic I (LN I) in Denmark, and to Late Neolithic B (LN B) in the Netherlands (ca. 2350-2000 BC, Sarauw 2007b:36-37, Fontijn 2002:56, see Table 3.1), *i.e.* to the first part of the investigated time period. The patterns in selective deposition in this period are thus the earliest patterns in the data investigated in this research. The Bell Beaker period is traditionally closely linked with the introduction of metal in the research area: from ca. 2350 BC metal reached the research area in greater quantities once more, now including both copper and gold (Butler & Van

der Waals 1966/67, Vandkilde 1996:177, Willroth 1996:18). Different regions within the research area were connected through Bell Beaker routes, and metal is thought to have circulated through these routes (Vandkilde 2005a:30, Vandkilde 1996:295). Furthermore, the research area was part of the pan-European Bell Beaker region, which reached from the Iberian Peninsula to the British Isles and southern Germany (Müller 2009:77, fig. 79).

As discussed in Section 3.2, metalworking was also introduced, which is demonstrated by finds of metalworking tools in Bell Beaker burials in the Netherlands (Butler & Van der Waals 1966/67:69-70, 77). A local production of metalwork is thus thought to have existed in the Netherlands in this period (Butler & Van der Waals 1966/67:98), and probably existed in Denmark as well (Vandkilde 1996:190). A specific type of copper alloy is typical for Bell Beaker metalwork in the Netherlands, for which reason it has been named "Dutch Bell Beaker metal" (Butler & Van der Waals 1966/67:96). This type of metal has also been found elsewhere in north-west Europe, including in LN I metalwork in Denmark (Vandkilde 1996:178-179, Fontijn 2002:61). Imported finished objects in Denmark mainly originate in the western European Bell Beaker region, but a few imports from Central Europe also occur (Vandkilde 1996:190).

The Bell Beaker period is characterised by a shared material culture, containing the eponymous Bell Beakers and gold and copper objects, among other items; and by a specific burial package. The dead were buried in individual burials with a standardised set of burial equipment. For the first time, this burial equipment also contained metal, an important development that is discussed in detail in the following sections. This shared material culture and burial package can be recognised across large parts of Europe. In the research area, they are primarily found in the Netherlands (Butler & Van der Waals 1966/67), and in Niedersachsen (Lanting 2007/2008:84, fig. 23; Willroth 1996:18). Bell Beaker influences in Denmark are limited to northern and central Jutland (Sarauw 2007b:29 and fig. 18), and of a local character (Vandkilde 2005a:2). The southern part of Jutland is noticeably empty of Bell Beaker finds, and this also applies to the Danish islands (Sarauw 2007b:29 and fig. 18). Nevertheless, the distribution of LN I metalwork in Denmark is not limited to the Bell Beaker region (see Vandkilde 1996, fig. 184, and see Figure 3.6).

The majority of the metal objects recorded from this period are found in Denmark, and a considerable number of metal objects has also been found in the Netherlands (see Figure 3.5 and Figure 3.6). In contrast, northern Germany shows a striking lack of metal in this period (see Figure 3.5 and Figure 3.6). Bell Beaker burials in Niedersachsen rarely contain metalwork (Lanting 2007/2008:88, Willroth 1996:18). Overall, metal was still rare in this early period compared to the Bronze Age. Flint objects were still frequently deposited, particularly in Denmark. In this region, it was only from the start of LN II that metalwork was deposited more frequently than flint (Vandkilde 2005a:13, see Chapter 4). In contrast, flint deposits were rare in the Netherlands in this period (Wentink et al. 2011:407).

What were the conventions behind selective deposition in this period now that metal circulated in greater quantities? Which (metal) objects did people choose to include in the burial package, and what relationship does this burial package have with depositions outside burials? The following sections first focus on the Bell Beaker burial package, and then on depositions of daggers, axes, and ornaments.

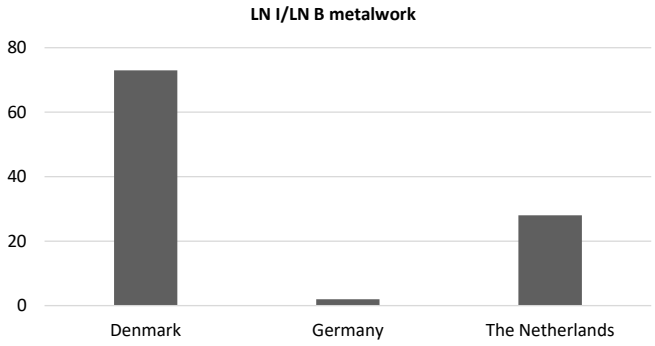


Figure 3.5. The number of metal objects in the database dating to LN I/LN B.

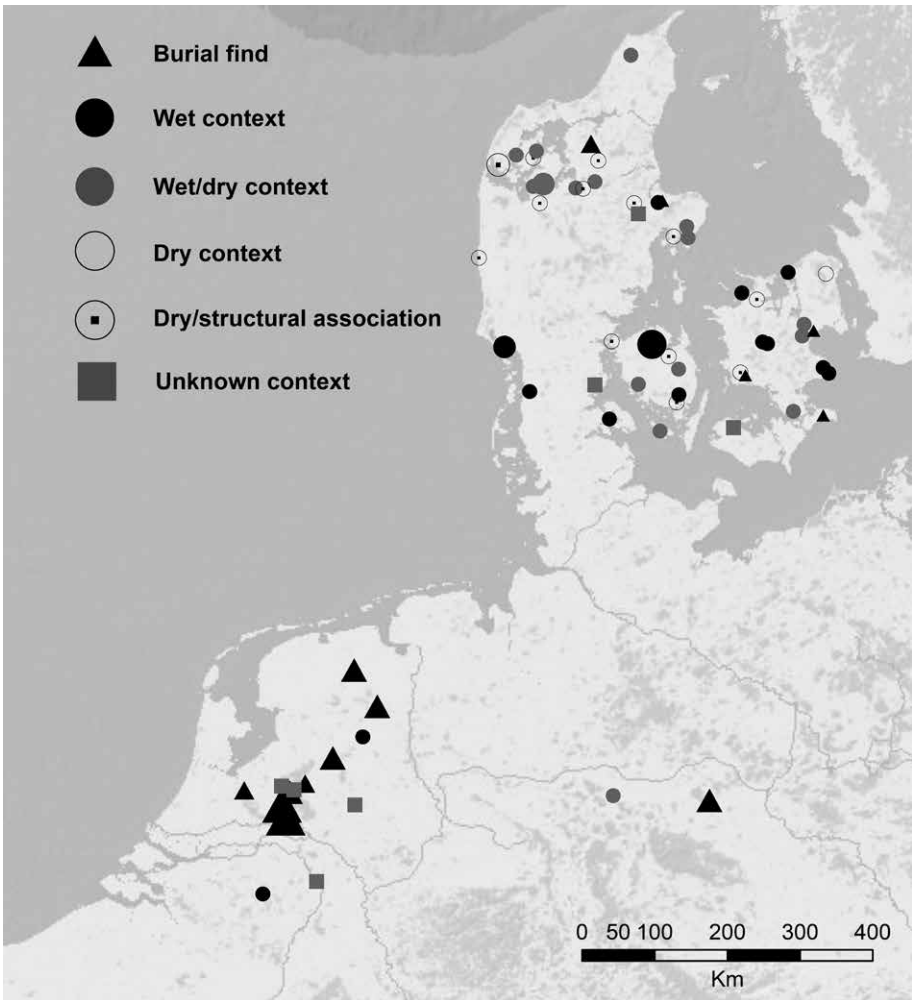


Figure 3.6. The geographical distribution of LN I/LN B metalwork in the research area. The size of the symbols indicates the number of objects found (largest symbol: 18 objects).

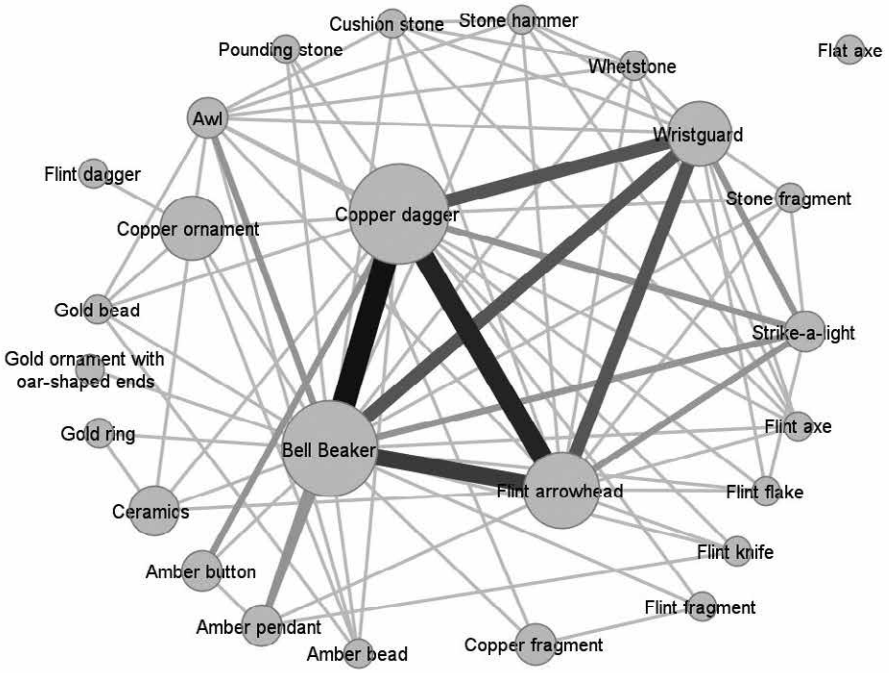


Figure 3.7. Network showing all objects and the associations between them in LN I/LN B burials recorded in the database. The size of the nodes indicates the number of objects (value largest node: 12), the size and colour of the links indicate how often objects occur together (value largest link: 7).

3.5.1. The Bell Beaker burial package

In the Bell Beaker period, the dead were buried in single burials with a standardised set of burial equipment, expressing ideas of personhood (Fontijn 2002:59, Treherne 1995:106-113). This burial package resembles the SGC burial package discussed in Section 3.4.1. The Bell Beaker burial package typically contained a copper flat tanged dagger, V-perforated amber buttons, flint arrowheads, wrist guards, and Bell Beakers (Sarauw 2007a:65-66, see Figure 3.8). These Bell Beaker burials are usually interpreted as male archery burials (Sarauw 2007a:65-66). However, it rarely happens that all these objects are found together in the same burial, and in Jutland, Bell Beaker burials typically contain a flint dagger instead of a copper dagger (Sarauw 2007a:66, 71-72). The dagger evidently played an important role in burials in this period, an association that also occurs in later periods, and that is discussed in more detail in Chapter 9. In the Netherlands, a number of Bell Beaker burials also include gold ornaments, which are related to gold ornaments in Bell Beaker assemblages in England and Brittany (Butler & Van der Waals 1966/67:62-63). In contrast, metal is scarce in Bell Beaker burials in north-western Germany (Lanting 2007/2008:88). The Bell Beaker burial package thus contained metalwork, among other objects, yet only *specific* metal objects were included in the burial package. This is an important notion that is discussed in detail below. This was the first time in the research area that *metal* objects were used as burial gifts in single burials to express ideas of personhood, which was another important development. This development is discussed in detail in Chapter 9.

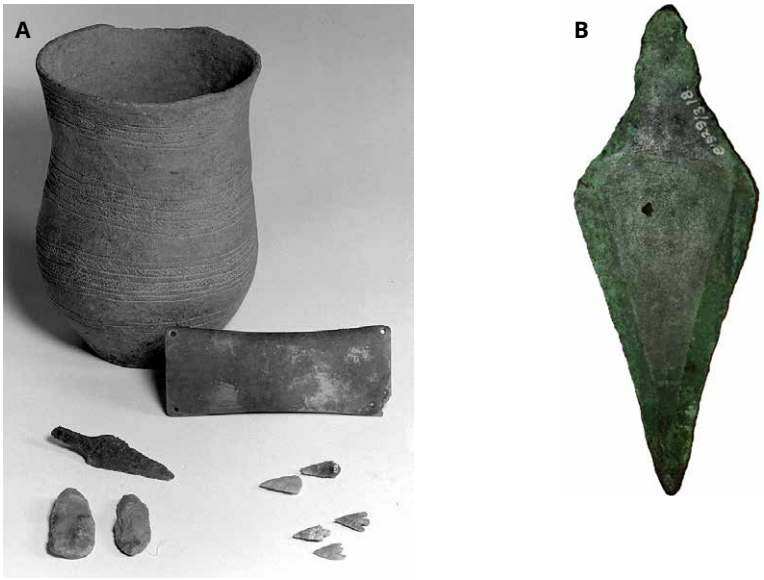


Figure 3.8. A: Inventory of a Bell Beaker burial from Ginkelse Heide, Ede, the Netherlands, containing a copper tanged dagger, flint arrowheads, a wrist guard, a strike-a-light, and a Bell Beaker. Photo: National Museum of Antiquities, Leiden, used under licence CC-BY 3.0 NL, https://hdl.handle.net/21.12126/155414. B: Copper dagger (RMO e1929/3.18, 13 cm) from a Bell Beaker burial in Stroeërzand, the Netherlands, found together with a wrist guard. Photo: Marieke Visser. Scale 1:2.

Network analysis was applied to the finds from LN I/LN B burials with metalwork recorded in the database to examine and visualise the Bell Beaker burial package. These objects and the associations between them are shown in the network in Figure 3.7. Even though there is a degree of variation in these burials, it is clear that people often made specific choices in terms of the objects that they selected. A burial package is clearly observable: copper daggers, wrist guards, flint arrowheads, and Bell Beakers are the main ingredients; the association between copper daggers and Bell Beakers is the strongest. In addition, a number of other objects made of flint, stone, amber, and gold also occur. Although not all burials are composed in exactly the same way, we can indeed speak of a 'burial package', and zooming out, all burials contain a selection of objects from a specific Bell Beaker burial repertoire. To conclude, a specific burial package existed in this period, in which *specific* metal objects played an important role.

3.5.2. Flint and copper daggers

After examining the Bell Beaker burial package, this section focuses especially on flint and copper daggers. Both flint and copper daggers were deposited in the research area in this period. Lanceolate flint daggers of type I and II, dating to LN I (Iversen 2014:34-35), have been suggested to be inspired by Bell Beaker copper daggers (Vandkilde 1996:295, Sarauw 2007a:66). If flint and copper daggers were indeed conceptually so closely connected, did this have implications for how they were deposited?

Starting with lanceolate flint daggers (see Figure 3.9), they occur in the entire research area, but they were not deposited in similar ways. In Denmark, where they

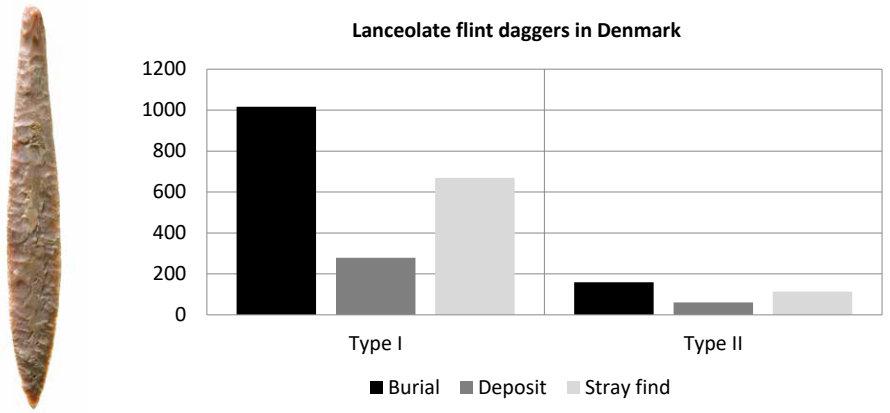


Figure 3.9. Lanceolate flint dagger from Thy, Denmark. Photo: National Museum of Denmark, Roberto Fortuna and Kira Ursem, used under licence CC-BY-SA, https://samlinger.natmus.dk/do/asset/3844.
Figure 3.10. Flint daggers of types I and II in Denmark per site type (based on data in Lomborg 1973:64, fig. 42).

were manufactured locally (Vandkilde 2005a:15), the majority of type I and II daggers are burial finds (Lomborg 1973:64, fig. 42, see Figure 3.10). The majority of type I daggers from all contexts shows traces of use, resharpening and reworking (Lomborg 1973:34-35). These daggers were thus (heavily) used. Only a smaller proportion of type I and II flint daggers in Denmark come from deposits (Lomborg 1973:64, fig. 42, see Figure 3.10). Unfortunately, no information is available on the landscape contexts of these deposits.

In Schleswig-Holstein, the patterns are similar: flint daggers were also locally manufactured here (Kühn 1979, map 2), and they have also predominantly been found in burials (all types, Kühn 1979:14). Approximately 50% of the daggers had been used before they were placed in burials (Kühn 1979:40-41). It has been suggested that the dead were buried with a useful, but not necessarily new, flint dagger, probably the dagger that belonged to their personal equipment (Kühn 1979:40-41). Just like in Denmark, only a small number of flint daggers from deposits is known from Schleswig-Holstein; they were predominantly unused, in contrast to the burial finds (all types, Kühn 1979:14, 25, 41).

Although the data from Niedersachsen are fragmented, the patterns in flint dagger deposition appear to be different here (Siemann 2003, Siemann 2005). It appears as if deposits in wet landscape settings were relatively common in this region (Siemann 2003:198-199) and that these daggers were hardly used prior to deposition (Siemann 2005:105). A similar, even stronger pattern can be observed in the Netherlands. In this region, flint daggers were mainly deposited in wet contexts, while burial finds are very rare (Van Gijn 2010:191-192, Bloemers 1968, catalogue). They were imported from Denmark and Schleswig-Holstein (Beuker & Drenth 2006:289). Flint daggers from the Netherlands are thought to have been display objects without practical function, in a similar fashion to the earlier daggers in Single Graves (Van Gijn 2010:189-191).

Summing up, there is thus a division in terms of flint dagger use and deposition between Denmark and Schleswig-Holstein on the one hand, and Niedersachsen and

especially the Netherlands on the other. In Denmark and Schleswig-Holstein, lanceolate flint daggers were locally made, they had a practical function, and they were primarily used as burial gifts. But in the Netherlands, these daggers were foreign imports, they were display items, and they were deposited in wetlands. Imported objects were thus treated and deposited differently from locally made objects, an observation that is discussed in more detail in this chapter's conclusion, and elaborated on in Chapter 8.

Moving on to the copper flat tanged dagger (see Figure 3.8), this is seen as a typical Bell Beaker artefact and an important element in the Bell Beaker burial package, as discussed above. These daggers occur in modest numbers in the research area (see Table 3.2). Eleven copper tanged daggers are known from the Netherlands, of which ten are from the central part of the country, and they were all found in Bell Beaker burials (Butler & Van der Waals 1966/67:58-59, Bloemers, Louwe Kooijmans & Sarfatij 1981:49). A twelfth dagger from the Netherlands is also thought to date to this period, but this dagger is riveted rather than tanged, and it comes from an unknown find context (Drie; Butler & Van der Waals 1966/67:87, 109). These copper daggers are the first metal daggers in this part of the research area. A copper tanged dagger has also been found in a Bell Beaker burial in Germany, actually at the border of the research area (Esbeck; Willroth 1996:18-19, Thieme 1985:134-136), but overall, metal objects in general, and tanged daggers in particular, are rare in Bell Beaker burials in north-western Germany (Lanting 2007/2008:88, Thieme 1985:135, Willroth 1996:18).

Copper daggers were specifically associated with the burial package; they were in fact the first metal object with this particular association in the research area. These daggers were *not* deposited singly or in hoards outside burials. Indeed, this is the first time selective *metalwork* deposition can be observed in the research area, which is discussed in detail in Section 3.6. However, there is one exception to this pattern: one copper dagger from Denmark dates to this period, and it was a single object deposit, not a burial gift. It was found beneath a stone close to a barrow in northern Jutland (Vandkilde 2005a:26). Depositing metalwork near barrows was actually a relatively common practice in Denmark in this period, as can be seen in Section 3.5.3 on axe depositions and in Section 3.5.4 on ornaments. Bell Beaker burials in northern and central Jutland typically contain a locally made flint dagger of type I or II instead of a copper dagger (Sarauw 2007a:66). The fact that flint daggers seem to have taken over the role of copper daggers in Bell Beaker burials in Denmark may be an explanation for the divergent deposition of the single Danish copper dagger.

The Dutch copper daggers vary in size, but overall, they are quite small; several are shorter than 10 cm, although one dagger measures 21 cm (Butler & Van der Waals 1966/67:58, cf. Fontijn 2002:67). Although little is known about their use and function, they may not necessarily have been used as weapons, but rather as 'all-purpose blades' (Wentink 2020:181, cf. Fontijn 2002:67, 221). The Danish dagger is of a different shape, being remarkably long (30 cm), and riveted; it is thought to be an import from Brittany (Vandkilde 2005a:26). In contrast, several of the Dutch daggers may have been locally produced of imported copper (Butler & Van der Waals 1966/67:59, Fontijn 2002:67). The Danish dagger thus forms an exception to the pattern in several ways.

Summing up, copper flat tanged daggers were specifically associated with burials in the research area, and not deposited outside burials, with one exception. They may have been used as 'all-purpose blades'.

Copper daggers LN I	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**1**	**-**	**1**	**12**	**14**
Burial find	-		1	11	**12**
Single find	1		-	-	**1**
Wet	-			-	**-**
Dry	-			-	**-**
Settlement	-			-	**-**
At/in burial mound	*1*			-	***1***
Gravel/sand	-			-	**-**
Field	-			-	**-**
Unknown	-			-	**-**
Hoard	-		-	-	**-**
Wet					
Settlement					
At/in burial mound					
Gravel/sand					
Unknown					
Unknown	-		-	1	**1**
Details					
Decorated	-		-	-	-
Undecorated	1		1	12	14
No information	-		.	-	-
Import	1		-	-	1
Local	-		-	-	-
Import or local	-		-	11	11
Origin unknown	-		1	1	2
Used	-		-	-	-
Possibly	-		-	-	-
Unused	-		-	-	-
Use unknown	1		1	12	14

Table 3.2. Selective deposition of copper daggers in the research area in LN I/LN B. Mainly based on data in: Butler & Van der Waals 1966/67, Vandkilde 1996, Willroth 1996.

Comparing the selective deposition of flint and copper daggers, a number of observations can be made. Flint daggers were used as burial gifts in the regions where they were manufactured, *i.e.* Denmark and northern Germany. They were imported from these regions in the Netherlands, where they were deposited in wetlands, and not used as burial gifts. In the Netherlands, copper daggers were used as burial gifts, as part of the Bell Beaker burial package. There is thus a division in the research area in terms of flint and copper dagger deposition.

3.5.3. Copper axes

Copper flat axes (see Figure 3.11) occur once more in larger numbers in the research area in this period (see Table 3.3). As already discussed in Section 3.2, copper flat axes present chronological difficulties, for which reason the exact number of copper axes from the different regions in the research area in this time period is difficult to grasp. Furthermore, many of these axes are without provenance, *e.g.* in the Netherlands (Butler 1995/96:162-167), so it is difficult to draw any conclusions in terms of their selective deposition. There are, for example, two axes from the Netherlands which were allegedly

Figure 3.11. Copper flat axe from Ølst, Jutland, Denmark (ÅM 8105, 10.6 cm), dating to LN I (Vandkilde 1996, no. 35). Photo: Marieke Visser. Scale 1:2.

found together on the Veluwe, *i.e.* they are supposed to be a hoard, but this information is uncertain and cannot be confirmed (Butler 1995/96:163).

Nevertheless, based on the LN I copper flat axes from Denmark, a number of observations can be made (see Table 3.3), and these are the main focus of this section. The most important observation is that these Danish axes were not used as burial gifts. Even though there was a specific burial package containing metal in the Bell Beaker period, it did *not* include copper axes. The much earlier TRB copper axes were not used as burial gifts either, which is remarkable considering the chronological distance between them. Most of the axes are single finds, but one hoard is known from Denmark (Gerdrup Ravnemark; Vandkilde 1996, catalogue no. 38). Copper axes were more frequently deposited in wet locations in the landscape than their TRB counterparts, although depositions in dry contexts near man-made structures, such as settlements and barrows, were still relatively common compared to later periods (Vandkilde 1996:179-180, see Table 3.3). Depositing metalwork in dry contexts near man-made structures appears to be a common practice in Denmark in this early period, while depositions in wetlands become more common in later periods (see chapters 4, 5, and 6).

In terms of the axe biographies, many of the Danish axes appear to have been used, although they may not necessarily have been very effective as tools (Vandkilde 1996:268). This is in contrast to TRB copper axes, which appear to be non-functional, as discussed in Section 3.3.1. It is unknown whether the Danish axes are locally made or imported, but since a local production of metalwork is thought to have emerged, the axes may be local products (Vandkilde 1996:190, 295).

In addition to copper flat axes, a small number of double axes of type Zabitz were deposited at the border of the research area in this period, in eastern Niedersachsen and the southern part of the Netherlands (Willroth 1996:17-18, Butler 1995-1996:169-170, Laux 2000:189, Fontijn 2002:65-66). They were deposited singly outside burials, following the same general pattern as flat axe depositions. Lastly, the very first flanged axes possibly appeared in Denmark in LN I (Vandkilde 1996:189). They have not been found in burials, thus apparently following the same pattern as flat axe depositions.

Summing up, LN I copper axes in Denmark were mainly deposited singly, and increasingly often in wet contexts compared to earlier copper axe depositions in the TRB, but still relatively often in dry contexts. They appear to have been functional, and they may have been locally made.

Copper flat axes LN I	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**31**	**?**	**?**	**6**	**37**
Burial find	1			-	**1**
Single find	22			1	**23**
Wet	*7*			*1*	***8***
Dry	-			-	**-**
Settlement	*1*			-	***1***
At/in burial mound	*3*			-	***3***
Gravel/sand	-			-	**-**
Field	*7*			-	***7***
Unknown	*4*			-	***4***
Hoard	1 hoard, 2 axes			1 hoard 2 axes	**2 hoards 4 axes**
Wet	-			-	**-**
Settlement	*2*			-	***2***
At/in burial mound	-			-	**-**
Gravel/sand	-			-	**-**
Unknown	-			*2*	***2***
Unknown	6			3	**9**
Details					
Decorated	-			-	**-**
Undecorated	31			6	**37**
No information	-			-	**-**
Import	-			6	**6**
Local	-			-	**-**
Import or local	31			-	**31**
Origin unknown	-			-	**-**
Used	7			-	**7**
Possibly	11			-	**11**
Unused	10			-	**10**
Use unknown	3			6	**9**

Table 3.3. The selective deposition of copper flat axes in LN B/LN I. Mainly based on data in: Butler 1995/96, Vandkilde 1996.

3.5.4. Copper and gold ornaments

Both copper and gold ornaments occur in assemblages from this period. Starting with copper ornaments, they have been found in a small number of burials in the research area. In four burials in Denmark, (fragments of) copper ornaments, including arm rings, a spiral ring, and a rolled racket pin, have been found; in some cases, they were associated with one or more flint daggers, and in one case with ceramics (Vandkilde 1996:181-182). They were thus not combined with other types of metalwork. These burials are not restricted to the Bell Beaker region in northern and central Jutland. In the Netherlands, the rich Exloo/Odoorn Bell Beaker burial assemblage contained – apart from a copper tanged dagger, two gold ornaments, two amber beads and a Bell Beaker – a copper spiral bracelet, and also a copper awl (Butler & Van der Waals 1966/67:49 and fig. 5). Copper ornaments thus follow a different pattern from copper axes, since the latter were never found in burials. Apparently, it was not the material *copper* itself that steered how these objects were deposited.

Figure 3.12. Two gold 'basket ornaments' from the Bell Beaker burial in Eelde-Grote Veen, Drenthe, the Netherlands. Photo: Karsten Wentink.

Gold ornaments are a new element in selective deposition practices in this time period, occurring in relatively large numbers in the research area, particularly in Denmark. They may have been manufactured locally in the research area out of imported gold (Vandkilde 2005a:27, Fontijn 2002:67), but some ornaments may be imports, *e.g.* from Brittanny (Butler & Van der Waals 1966/67:62). These ornaments are made of sheet gold, and consist of 'basket ornaments', which were probably worn as hair or ear rings (see Figure 3.12), ornaments with oar-shaped ends, and lunulae. They are related to basket ornaments and lunulae in the Anglo-Irish region (Butler & Van der Waals 1966/67:62-63, Vandkilde 1996:182-184), and the decoration on some of the ornaments is of an 'international Bell Beaker style' (Fontijn 2002:66-67). These gold ornaments are thus part of the supra-regionally shared Bell Beaker material culture. Yet despite their 'international style', these gold ornaments were not deposited the same way across regions (Table 3.4).

In Denmark, all gold ornaments were deposits. They were relatively often deposited in dry contexts, just like the copper flat axes and the copper dagger discussed above. This appears indeed to be a general pattern for Denmark in LN I. Some were deposited singly, like the three gold lunulae, and this also applies to the singly found gold lunula from northern Germany. In contrast, hoards with lunulae occur elsewhere in Europe, for instance in Brittany (Briard 1965:319 and fig. 20). Another difference concerns how they were treated prior to deposition: in Brittany and the Anglo-Irish region, lunulae are sometimes found folded or rolled up (Briard 1965:319 and fig. 20, Taylor 1980, plates 16, 18, 19), while the three lunulae in Denmark were all found intact. Ornaments with oar-shaped ends were also sometimes deposited singly in Denmark, but they were more often deposited in pairs or in larger hoards. They are the most common type of gold object in Denmark in this period (n=23). The Søndersø Holm hoard consists of four large gold ornaments with oar-shaped ends, bundled together with a piece of sheet copper and deposited in a bog (Vandkilde 1996, no. 100). These ornaments are thought to have been worn as finger or ear rings, or neck or arm rings, depending on their size (Vandkilde 1996:184).

In marked contrast to the Danish practices, gold ornaments have only been found in Bell Beaker burials in the Netherlands (Butler & Van der Waals 1966/67:62-63). Four sheet gold ornaments have been found in two Dutch Bell Beaker burials (Exloo/Odoorn, Butler & Van der Waals 1966/67; and Eelde-Grote Veen, Drenth et al. in Kegler et al. 2013:235, see Figure 3.12). The Exloo/Odoorn burial also contained additional metalwork. Furthermore,

Gold ornaments LN I	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**29**	**-**	**1**	**5**	**35**
Burial find	-		-	5	**5**
Single find	13		1	-	**14**
Wet	*3*		-		***3***
Dry	*1*		-		***1***
Settlement	-		-		**-**
At/in burial mound	*4*		-		***4***
Field	*3*		*1*		***4***
Gravel/sand	*2*		-		***2***
Unknown	-		-		**-**
Hoard	7 hoards 16 ornaments		-	-	**7 hoards 16 ornaments**
Wet	*8*				***8***
Settlement	-				**-**
At/in burial mound	*6*				***6***
Gravel/sand	*2*				***2***
Unknown	-				**-**
Unknown	-		-	-	**-**
Details					
Decorated	13		1	3	**17**
Undecorated	6		-	2	**8**
No information	10		-	-	**10**
Import	-		1	3	**4**
Local	26		-	-	**26**
Import or local	-		-	-	**-**
Origin unknown	3		-	2	**5**

Table 3.4. Selective deposition of gold ornaments in the research area. Based on: Vandkilde 1996, Butler & Van der Waals 1966/67, Drenth et al. in Kegler et al. 2013.

an ornament with oar-shaped ends from Bennekom, found together with a Bell Beaker (Butler & Van der Waals 1966/67:62), probably constitutes a third Bell Beaker burial (Glasbergen & Butler 1959). A fourth assemblage, probably a burial, containing gold ornaments was found just south of the research area in the Netherlands (Beers-Gassel, Noord-Brabant, Fontijn 2002:67).

It should be noted that the distribution of gold ornaments in Denmark is not limited to the Bell Beaker area in northern and central Jutland (Vandkilde 1996, fig. 184). This may explain the differing treatment of gold ornaments in depositions: in the Netherlands, they were conceptually part of the Bell Beaker burial package, and thus used as burial gifts, whereas the Bell Beaker package had a different, local character and limited distribution in Denmark, and hence gold ornaments were deposited in dry contexts following local practices. There are, in short, two depositional practices involving gold ornaments that can be observed in the research area.

3.5.5. Conclusion

After examining selective deposition practices in the Bell Beaker period, during which metalwork was deposited in larger numbers once more, a number of conclusions can be drawn.

Firstly, the most important development in this period is the separation between different contexts in terms of the selection of metalwork. People selected specific metal objects to be used as burial gifts, and others to deposit outside burials. Copper flat axes were never used as burial gifts, but mostly deposited singly in specific places in the landscape: this happened more often in wet contexts compared to the TRB, but compared to later periods still relatively frequently in dry contexts near man-made structures. In contrast, copper daggers were specifically part of the Bell Beaker burial package, and hence not deposited outside burials.

Secondly, a number of local practices can be observed. In burials in Denmark, copper daggers were substituted with locally made, used flint daggers. However, south Scandinavian flint daggers were deposited in bogs in the Netherlands, where they were probably used as display objects. Imported objects were thus treated differently from local objects, an important observation that is discussed in more detail below.

Lastly, gold ornaments, which are a typical element of the 'international Bell Beaker style', only occur in Bell Beaker burials in the Netherlands; yet in Denmark, they were never used as burial gifts, but usually deposited in dry landscape settings, reflecting local practices in Denmark, where Bell Beaker influences were limited and of a local character.

3.6. Discussion

The main aim of this chapter was to investigate the *emergence* of selective metalwork deposition. The patterns in selective deposition in the Funnelbeaker Culture (TRB), Single Grave Culture (SGC), and Bell Beaker period were examined – focusing especially on depositions of metalwork and other imported valuables, and on axes, daggers, and ornaments – in order to investigate the conventions behind these depositions. Can the practice of "double exclusivity" (Fontijn 2019:29-33), which is observable in depositions in the Bronze Age, already be recognised in Neolithic deposition practices? Or was selective deposition in the Bronze Age a new practice, with new, different conventions?

The practice of selective deposition fluctuates throughout the 2000 years investigated in this chapter, with peaks and dips in the frequency of depositions in general and of metalwork in particular, and with shifts in the conventions governing this practice. The relationship between burials and deposits in terms of metalwork deposition changes, too. These fluctuations and changes may be seen in light of cultural and social changes. In the following sections, these developments are discussed focusing on three main themes: firstly, a brief overview of how the practice of selective deposition developed over time is given; secondly, the focus is on how local and foreign objects were deposited; and lastly, a discussion on the emergence of selective metalwork deposition concludes these sections.

3.6.1. Selective deposition: developments over time

Starting this chronological overview with the TRB, depositions happened on a huge scale in this early period. Axes played an important role in these depositions, but there was no general 'axe deposition convention': axes made of flint, Alpine jade, and copper were not deposited similarly. Instead, they were all deposited in specific ways, in the 'right' context and with the 'right' biography. There was a well-established TRB flint axe deposition system in which two groups of axes were kept separate: axes in burials and in bogs were strictly separated in terms of their biographies. But copper and Alpine jade axes do not fit in the flint axe system. Instead, copper and Alpine jade axes, both made of imported

materials and both coming from *outside* the TRB domain, were treated similarly: they were not used as burial gifts. Copper axes were often deposited in dry landscape settings, often near barrows. The fact that copper and Alpine jade axes were both exotic valuables was of vital importance for how they were treated in depositions. This is discussed in more detail in the next section. Copper ornaments did not follow the same conventions as copper axes: they were both deposited in hoards and used as burial gifts, frequently in association with other objects and materials. They are in fact the only copper items occurring in burials in this time period.

Moving on to the SGC, a shift in deposition practices is clearly observable compared to the earlier TRB. Overall, a dip in depositions appears to have occurred in this period: flint axe depositions were less numerous than in the TRB, and copper axes were not deposited in the landscape anymore in the research area, although this did happen elsewhere in Europe. Furthermore, the conventions behind depositions were different from those in earlier TRB practices, which is exemplified by flint axe deposition: foreign imports of flint axes could now be used as burial gifts, while small, utilitarian axes were deposited in bogs. This is the exact opposite of what happened in the TRB. A new development is that the dead were now buried individually with a standardised burial equipment, including stone battle axes and imported flint daggers, expressing new ideas of personhood. Copper ornaments are occasionally found in Single Graves, but copper axes were never used as burial gifts; copper apparently did not play an important role in the SGC package.

Lastly, metal was deposited in larger numbers once again in the Bell Beaker period, after it had been scarce in the research area for about 1000 years. The most significant development in this period, of fundamental importance for the practice of selective metalwork deposition in the Bronze Age, is that for the first time, *metalwork* in burials and in deposits was separated: copper daggers were included in the burial package, and not deposited outside burials, whereas copper flat axes were deposited in specific places in the landscape, and not used as burial gifts. These two object types did not occur together, in contrast to the TRB Bygholm hoard, in which axes, ornaments and a dagger were deposited together. For the first time, the material copper *itself* was thus differentiated: it became associated with different domains, and therefore separated in depositions. Axes, on the one hand, are thought to have been associated with the communal domain of deposits (Vandkilde 1996:267). Daggers, on the other hand, were used as an expression of personhood in individual burials. This concept is expanded on in Chapter 9. The idea of the dagger being associated with individual burials was introduced to the research area in the SGC, but it was in the Bell Beaker period that *copper* daggers for the first time were used as an expression of personhood in burials. The *object association* was thus not new, but the *material association* was. The material copper acquired a whole new meaning in this period.

Alongside axes and daggers, ornaments follow a pattern of their own in the Bell Beaker period. Copper ornaments occur in burials, and gold ornaments were also part of the Bell Beaker burial package in the Netherlands, while in Denmark, where Bell Beaker influences are limited, they were deposited following local conventions. In Denmark, LN I metalwork was frequently deposited in dry contexts near man-made structures. However, depositions in wet contexts start to become more frequent, especially copper axe depositions, and this development continued in the subsequent LN II and Early Bronze Age (Vandkilde 1996:39, 243).

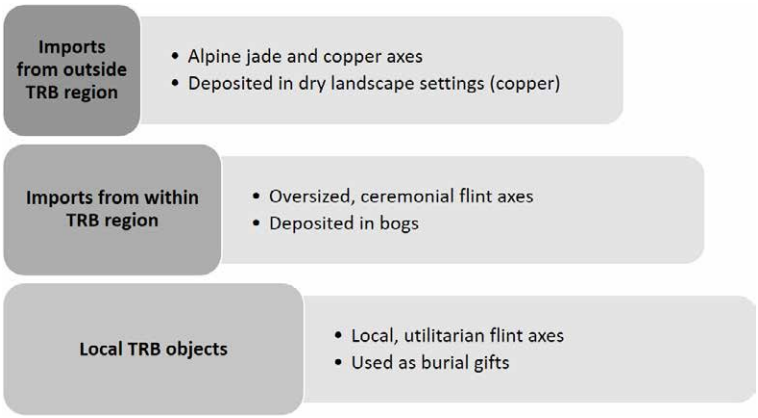


Figure 3.13. The three levels in terms of the origins of deposited objects in the TRB (cf. Wentink et al. 2011:404).

This situation forms the starting point for selective deposition in the following period, LN II/EBA, in which the frequency of metalwork deposition intensified. The conventions behind selective metalwork deposition in this period is discussed in the next chapter.

3.6.2. Local vs. foreign objects

Throughout the entire time period examined in this chapter, both foreign objects (imported finished objects and objects made of imported materials) and local objects (objects locally manufactured out of local resources) were deposited. It has become evident that foreign objects were consistently treated in special ways in depositions, yet they were not treated similarly throughout the entire time period. This section discusses how conventions behind depositions of foreign objects and local objects changed.

In the TRB, foreign objects were deposited outside burials, while local objects were used as burial gifts. The origins of objects were thus of vital importance for how they were deposited: foreign objects were consistently treated differently from local objects, exactly *because of* their foreign origins. Among the foreign objects, a distinction can be made between objects imported from *within* the TRB region, and objects imported from *outside* the TRB region. In terms of origins, three levels can thus be discerned (cf. Wentink et al. 2011:404): local objects, which were locally manufactured of local materials; objects imported from within the TRB region, which were part of the TRB domain; and foreign objects imported from distant regions, which were not part of the TRB domain (see Figure 3.13). Examples of the first level are flint axes in burials, which are made of local flint. To the second level belong flint axes deposited in bogs, which were made of imported south Scandinavian flint in the Netherlands. Lastly, copper and Alpine jade axes belong to the third level: they were imported from outside the TRB region, and they were never used as burial gifts; copper axes were frequently deposited in dry contexts near barrows. Depending on the level objects belonged to, they were deposited in a specific, 'appropriate' way.

In the subsequent SGC, the conventions behind deposition of foreign and local objects were completely reversed: foreign imports could now be used as burial gifts, while local objects were deposited in bogs. Imported flint daggers were included in the SGC burial package; imports were thus now 'allowed' in burials, where they were used in the

construction of personhood. This was a completely new development and explored in more detail in Chapter 9; such objects would have been deposited in bogs in the TRB.

Lastly, in the Bell Beaker period, foreign objects ended up both in burials and in deposits, but these contexts were separated in terms of the selection of objects, as already discussed above. Copper was thus not simply an exotic material anymore, coming from afar, and deposited accordingly, like in the TRB. Instead, the material copper *itself* became differentiated and associated with different domains, and therefore separated in depositions. Another example of foreign imports in this period are the south Scandinavian flint daggers, which were used as burial gifts in the regions where they were manufactured, *i.e.* Denmark and northern Germany, but deposited in bogs in the Netherlands.

Summing up, how foreign objects were treated changed over the course of time, from being specifically associated with deposits, to becoming associated with the individual in burials, to becoming differentiated and separated between burials and deposits.

3.6.3. The emergence of selective metalwork deposition

Lastly, this section discusses the *emergence* of selective metalwork deposition, which was the main focus of this chapter. The main question around which this chapter revolves is whether the practice of "double exclusivity" (Fontijn 2019:29-33) which is observable in Bronze Age depositions can already be recognised in Neolithic depositions. There were specific conventions behind Bronze Age depositions: people deposited specific objects in specifically selected places in the landscape, thereby avoiding other objects and other places, as discussed in this chapter's introduction (Fontijn 2019:29-33). Was this practice simply a continuation of earlier Neolithic deposition practices? Or was it a new practice, with new conventions? After examining the conventions behind depositions in the TRB, SGC, and Bell Beaker period, I attempt to answer this question in this chapter's last section.

Starting with the TRB, a "double exclusivity" (Fontijn 2019:29-33) can in fact already be observed in this early period: people chose to deposit copper axes in dry landscape settings, or to deposit oversized, imported flint axes in bogs, and not use them as burial gifts. They chose specific objects and places, and avoided other objects and places. However, it should be noted that copper and Alpine jade axes were deposited in similar ways because they were foreign imports; the material copper does not appear to have a special significance beyond its foreign origin. Furthermore, these axes were not intended to be functional tools, suggesting that the material copper was treated in an abstract way as an exotic material. This is further supported by the Bygholm hoard, in which copper axes, ornaments, and a dagger were all combined. The material copper apparently did not have any other significance beyond being an exotic material. This observation is discussed further in Chapter 7.

Moving on to the SGC, people chose to include specific objects in the burial package and not deposit them outside burials, such as imported flint daggers. This is, again, an example of "double exclusivity" (Fontijn 2019:29-33). However, the conventions behind depositions in this period were very different from those in the TRB. Furthermore, the material copper did not play a significant role in depositions in the research area, in contrast to the preceding period. Although a "double exclusivity" (Fontijn 2019:29-33) can still be observed, it is of a different type, governed by different conventions.

Lastly, in the Bell Beaker period, depositions again demonstrate a "double exclusivity" (Fontijn 2019:29-33): daggers were used as burial gifts, while axes were deposited outside

burials. However, this is the first time that *metal* became differentiated: before the Bell Beaker period, a separation between metalwork in different contexts is not observable. In contrast to the TRB, when the material copper was regarded as an exotic material in an abstract way, the material metal now acquired a completely new significance. This is further supported by the fact that the copper axes from this period were most likely intended as functional tools. Depositing a hoard like the Bygholm hoard would thus not be possible according to this period's conventions. The fact that copper axes were deposited in dry landscape settings is in itself even *more* significant knowing that copper daggers were *not* deposited in such places, but used as burial gifts. I return to his conclusion in Chapter 7.

It should be noted that copper ornaments do not appear to fit in the picture outlined above. They occur in burials and hoards in the TRB, in burials in the SCG, and in burials in the Bell Beaker period. From the first introduction of copper onwards, ornaments were used as burial gifts, clearly following a different pattern from copper axes.

In conclusion, even though selective (metalwork) deposition existed throughout the entire 2000 years discussed in this chapter, the Bell Beaker period can be argued to be the beginning of a new practice. Only then did the material copper itself become associated with different domains and consequently deposited in separate contexts. Even though a "double-exclusive-logic" (Fontijn 2019:29-33) can be observed in depositions throughout the Neolithic, it is only from the onset of LN I/the Bell Beaker period that this logic specifically concerns *metalwork*.

By examining earlier deposition practices, an understanding of the nature of the Bronze Age deposition practices that are the focus of this study has been acquired, and it can be concluded that they emerged in the Bell Beaker period. In this sense, this chapter forms a bridge between the introductory chapter and the following three data-based chapters; the point of departure in terms of metalwork deposition for the subsequent discussion we have now formulated in detail. In the following three chapters, the conventions behind selective deposition in the subsequent three sub periods are examined in detail in the same way as Bell Beaker depositions were examined in Section 3.5. Chapter 4 starts by considering patterns in selective deposition in LN II/EBA. How did the practice of selective deposition develop after the crucial developments in the Bell Beaker period?

4

Patterns in selective metalwork deposition in LN II

4.1. Introduction

In the earliest part of the investigated time period, *i.e.* in the Bell Beaker period, a completely new deposition practice, different from deposition practices in earlier periods, emerged, as argued in the previous chapter. For the first time in prehistory, the material metal became associated with different domains, and therefore deposited in different, separate contexts: copper daggers were used as burial gifts in single burials, since they were associated with ideas of personhood; copper axes were deposited in specific places in the landscape, in a communal domain of deposits. The practice of *selective metalwork deposition* – its "double-exclusive-logic" (Fontijn 2019:29-33) specifically concerning metalwork – was born.

This is the starting point for the current chapter, which focuses on selective metalwork deposition in the subsequent time period, starting from ca. 2000 BC. This period roughly corresponds to the Late Neolithic II (LN II) in the south Scandinavian chronology (ca. 1950-1700 BC, Vandkilde 1996, fig. 134), the Early Bronze Age (EBA) in the Dutch chronology (ca. 2000-1800 BC, Van den Broeke et al 2005, fig. 1.10), and to Laux's *Zeitstufe* Veltheim for Niedersachsen (Laux 2000:4-5). From this point on, this period is called LN II. The patterns in selective metalwork deposition in this period are examined in detail in this chapter. How did the practice of selective metalwork deposition develop after its emergence in the Bell Beaker period? What were the conventions behind selective metalwork deposition in LN II? Before these questions are examined in detail, the metalwork from this period is first introduced and discussed in the broader context of the European Early Bronze Age, in which the Central European Únětice region played an important role.

4.1.1. Únětice metalwork

In this period, the culture traditionally known as the Únětice culture flourished in Central Europe (see Figure 4.1). The so-called Únětice culture is known for its huge quantities of metal and its typical style of metalwork, the metal-hilted triangular dagger being one of the key items (see *e.g.* Von Brunn 1959, Lorenz 2013). Metal deposition played an important role in the Únětice region: extremely large hoards with metalwork were deposited, for example the Dieskau 2 hoard, which consists of 14 halberds, ten *Ösenhalsringe*, ten heavy rings, seven smaller arm rings, two arm spirals, two double axes, one flanged axe,

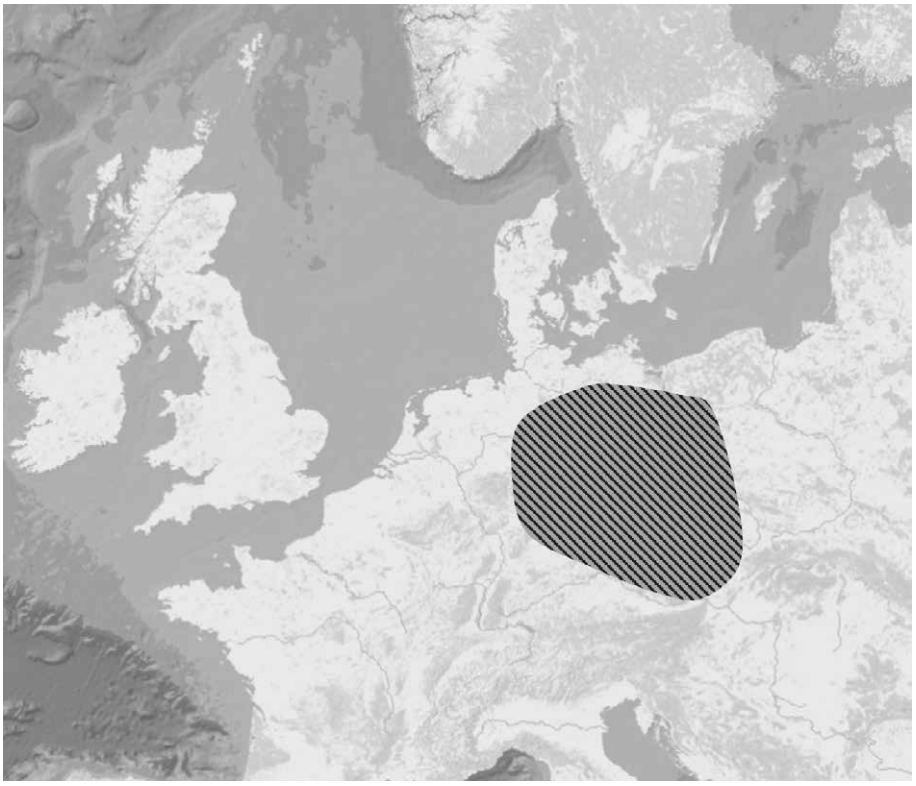


Figure 4.1. The Únětice region (based on Sherratt 2001:246).

23 spirals, and 106 amber beads (Von Brunn 1959:55-56). In addition, so-called princely burials with large quantities of gold and bronze date to this period, such as Łęki Małe and Leubingen (Lorenz 2013:242, 244). But despite these excessive metalwork depositions, there was no local exploitation of metal in the Únětice region. Instead, it is thought that the region was a central point from where imported metal was distributed further along the exchange routes connecting the north and the south. This situation has been interpreted in political terms: because of this 'control' of the exchange routes, the Únětice "rulers" are thought to have acquired a powerful position (Meller 2013:522-523, Risch & Meller 2015:254). Leaving this political debate aside, the Únětice region is indeed thought to have been the main source of metal for southern Scandinavia and northern Germany in this period, which is considered further to below.

Although the so-called Únětice culture covers a vast time span – in fact almost the entire time period investigated in this research (Lorenz 2013:242-245) – its influence on the research area was particularly strong during LN II, which corresponds to the Classic Únětice Phase (Lorenz 2013, Vandkilde 1996, fig. 134, Vandkilde 2017:118-119). The strong Únětice influence in the research area is most clearly visible in LN II metalwork in Denmark: the majority of the imported LN II metalwork came from the Únětice area or its Baltic periphery, and the metal imported for the local production of metalwork probably also came from this region (Vandkilde 1996:207-209). Únětice influences have also been argued for northern

Germany, as for example demonstrated by low-flanged axes in Niedersachsen which are thought to be imports from the Únětice region (Laux 2000:30-35).

In contrast, Únětice influences are not very strong in the Dutch material (Butler & Van der Waals 1966/67:86-87, Butler 1995/96:174-176, 179-180). Instead, south German Singen and Singen-related metals are more common in this area (Butler & Van der Waals 1966/67:89-96). Traditionally, it was thought that there was a strong Irish influence in the Dutch metalwork from this period (cf. Butler & Van der Waals 1966/67:78-79, 82-85), but these traditional ideas have more recently been contested (Fontijn 2009). Nevertheless, some Irish influences can be observed in the LN II metalwork from Denmark (Vandkilde 1996:207-209) and northern Germany (Vandkilde 1996:89, Laux 2000:50).

To sum up, the Únětice region was of great importance in terms of metalwork for (most of) the research area in this time period. Valuable metalwork was imported across a long distance from this particular region. How were these valuable imports of metalwork treated in selective deposition practices? Before moving on to examine the conventions behind these metalwork depositions, the metalwork from this period is discussed.

4.1.2. LN II metalwork: introduction

For the first time in the investigated time period, larger numbers of metal objects appear in the archaeological record in the entire research area, and particularly in Denmark (see Figure 4.2 and Figure 4.3.) It was also the first time that metalwork dominated in depositions in the whole research area. Before LN II, flint was deposited more frequently than metal in Denmark (Vandkilde 2005a:13), but from LN II onwards, metal became the predominant ingredient in depositions. In the Netherlands, there was already a predominance of metal in depositions during the Bell Beaker period (see Chapter 3).

Another new development is that the first classic tin bronzes (90% copper, 10% tin) occurred in the research area during this period. The British Isles were the first area where alloys of copper with tin were adopted; this happened already before 2000 BC (Pare 2000:27). In southern Scandinavia, tin bronze came in use between 2000-1750 BC (Pare 2000:27). 34% of LN II metalwork in Denmark can be classified as tin bronze (Vandkilde 1996:263). LN II metalwork includes new object types such as halberds, the earliest nick-flanged chisels, and *Noppenringe*. Furthermore, flat axes were replaced by low-flanged axes in this period. How were these new object types treated in selective deposition practices?

A local production of metalwork already existed in Denmark in LN I, and continued to exist in LN II. Also in the Netherlands, a local production of metalwork is thought to have emerged: low-flanged axes of Emmen type (see Figure 4.8) are thought to have been manufactured in Drenthe, in the north-eastern part of the Netherlands, constituting the first local production of metalwork in the area (Fontijn 2002:68, Butler & Van der Waals 1966/67:86, Butler 1995/96:188-191). Emmen axes occur in Denmark as well, and these may be imports from Drenthe, but they may also be locally manufactured (Vandkilde 1996:69). Emmen axes have also been found in Niedersachsen, although Laux gives them a later dating (Laux 2000:51), which has been adjusted in the present study based on studies from the rest of the research area. This situation illustrates the difficulties in distinguishing locally made from imported metal objects, a problem that is discussed in more detail in Chapter 8. In this and the following two data-based chapters, the information in the literature on local and foreign objects is followed. What is interesting to note here, is that low-flanged axes were clearly remarkably similar across regions in this time period.

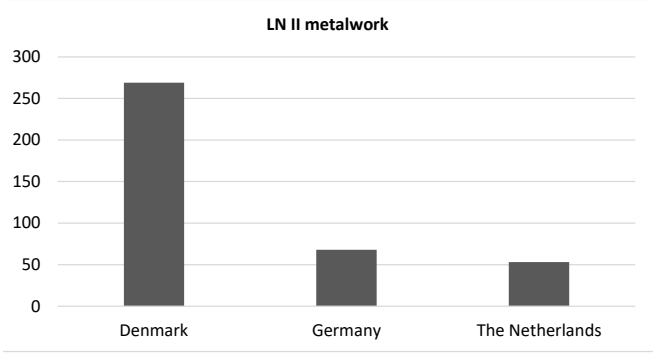


Figure 4.2. The total number of metal objects in the database dating to LN II.

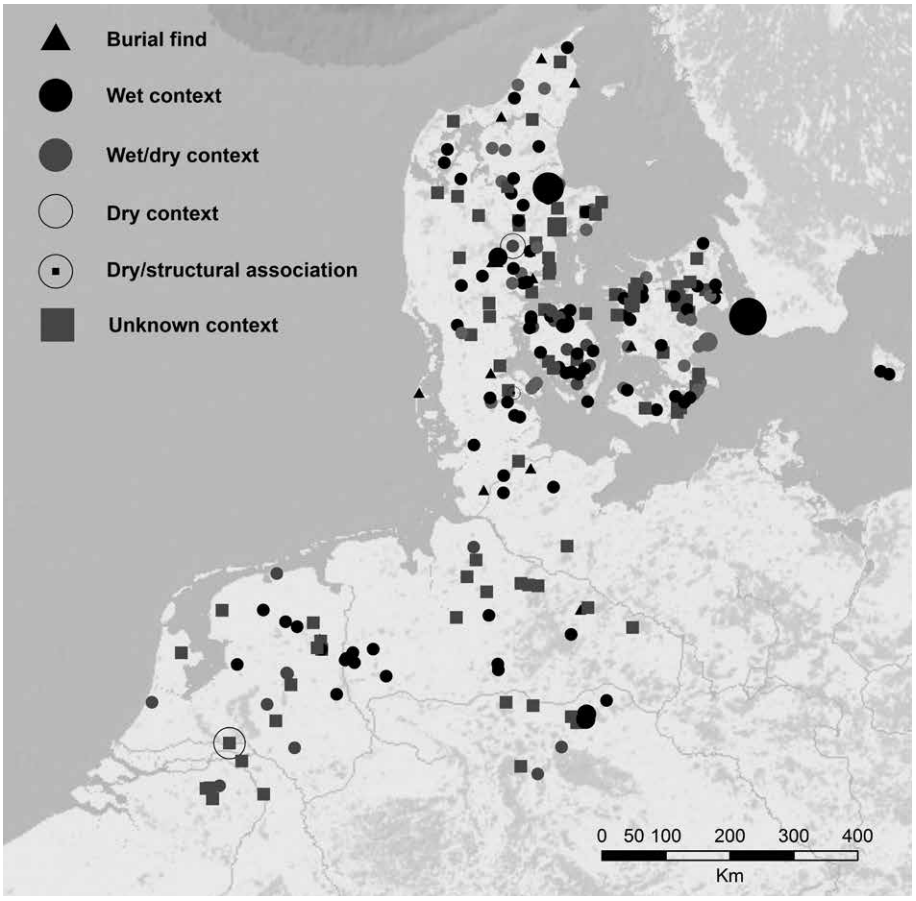


Figure 4.3. The geographical distribution of LN II metalwork in the research area, including the Pile hoard in southern Sweden. The size of the symbols indicates the number of objects found (largest symbol: 30 objects).

There seems to have been a "common western European flanged axe tradition" (Vandkilde 1996:69), *i.e.* an *international style*. Were low-flanged axes then also *deposited* in similar ways across regions?

In the following sections, patterns in selective deposition of the main object categories daggers, halberds, axes, and ornaments are systematically examined in order to study the conventions behind selective metalwork deposition in LN II.

4.2. Flint and metal daggers

Both flint and metal daggers were deposited in the research area in LN II. Typical for this period is the metal-hilted dagger, usually with a triangular blade. These daggers were a widespread phenomenon in the EBA, occurring all over Europe in various cultural associations (Schwenzer 2004:1, 14-15, fig. 4, 210), but they were specifically a product of the Únětice region (Vandkilde 1996:192, Von Brunn 1959). Most of the metal-hilted daggers in the research area are thought to be Únětice imports (Vandkilde 1996:192, Laux 2009:15-17). Flint daggers dating to LN II, belonging to types IV and V in the south Scandinavian flint dagger typochronology, are traditionally thought to be copies or *skeuomorphs*[7] of such Únětice metal-hilted triangular daggers (Müller 1902:132, Kühn 1979:62, Van Gijn 2010:191, Iversen 2014:122). These flint daggers of types IV and V are also called *fishtail daggers* because of the shape of their hilt, and they are often masterpieces of flint knapping, as demonstrated by the famous Hindsgavl dagger (see Figure 4.4). Fishtail daggers and Únětice metal-hilted daggers were contemporary in the research area (Lomborg 1973:19), and fishtail flint daggers have also been found in small numbers in the Únětice area (Apel 2001:305), testifying to the exchange networks between southern Scandinavia and the Únětice region in this period. If flint and metal daggers were so closely connected, did this have implications for how they were deposited? In the following section, flint dagger depositions are examined first, followed by discussion of depositions of metal daggers.

Starting with Niedersachsen and the Netherlands, finds of fishtail flint daggers are rare in these regions compared to lanceolate flint daggers (types I and II), and they mostly come from unknown contexts (Siemann 2003, 2005, Bloemers 1968, Beuker & Drenth 1999). It has been noted before that the majority of the flint daggers found outside southern Scandinavia belong to types I and II, dating to LN I (Frieman 2012:447). Apparently, fishtail daggers were rarely deposited in these regions, but as the data are so limited, it is difficult to draw any detailed conclusions. The patterns for flint daggers from Schleswig-Holstein are not differentiated for the individual dagger types (Kühn 1979), so they cannot shed any light on how people chose to deposit flint daggers during this particular period. However, the Danish daggers do present a number of patterns (see Figure 4.5), even though fishtail daggers are less abundant in Denmark than lanceolate daggers.

In Denmark, the vast majority of the fishtail flint daggers were used as burial gifts (apart from finds without context information). They were even more uncommon in deposits outside burials than lanceolate flint daggers (Lomborg 1973:64, 66, see Figure 4.5). They obviously had a very strong association with the burial sphere, even stronger than flint daggers in the preceding time period (cf. Frieman 2012:447). The landscape contexts of the rare dagger deposits are, unfortunately, unknown. A use wear analysis of fishtail daggers

7 For an overview of the use and meaning of the term *skeuomorph* in archaeology, see Frieman 2010, chapter 2. Here, her definition is used: "[…] the intentional and meaningful imitation of features – both morphological and technological – in objects made in one material that are typical of objects made in another." (Frieman 2010:40).

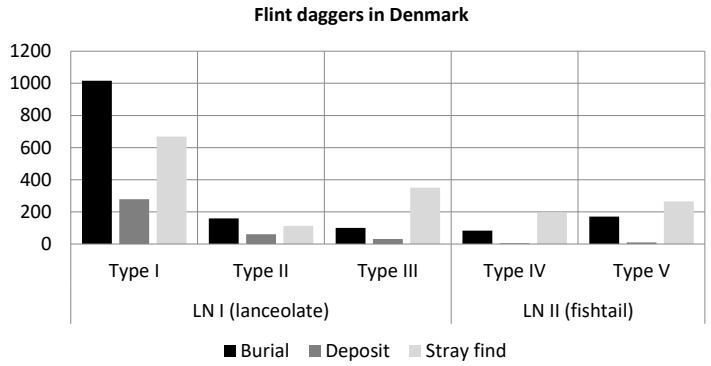


Figure 4.4. The famous fishtail flint dagger (type IV) from Hindsgavl (30 cm). Photo: National Museum of Denmark, Arnold Mikkelsen, used under licence CC-BY-SA, http://samlinger.natmus.dk/DO/asset/9586.

Figure 4.5. Flint daggers of types I-V in Denmark for each context type (based on data in Lomborg 1973:64, fig. 42).

from Jutland has suggested that over 50% were definitely or possibly resharpened, and this was often done with great care in order to preserve a dagger's shape and pointed tip (Frieman 2012:445). Many of the daggers show traces of use on the hilt, but the exact use and function of these daggers is unclear (Frieman 2012:445-446).

Summing up, fishtail daggers were predominantly used as burial gifts in Denmark, and many of them seem to have been used before they were placed in burials. They were apparently rarely deposited in Niedersachsen and the Netherlands.

Moving on to metal daggers, metal-hilted triangular daggers with Únětice influences occur in modest numbers in the research area (Vandkilde 1996:192-193, Laux 2009:15-17, see Table 4.1) and in Sweden (Oldeberg 1974, Vandkilde 2017). In addition to metal-hilted daggers, a small number of triangular metal dagger blades without metal hilt have also been found in Denmark and Schleswig-Holstein (Vandkilde 1996, Lomborg 1969), and they are also considered to be Únětice/Central European imports (Lomborg 1969:229). However, the dating of these daggers is often uncertain (Vandkilde 1996:192-193, Lomborg 1969:230); such flat dagger blades have a long dating range in Central Europe (Vandkilde 1996:193). A triangular dagger blade is also part of the Dutch Wageningen hoard; it is thought to be related to Singen metals from southern Germany (Butler 1990:70). The Wageningen hoard is discussed in detail in Section 4.6.5). As most of the triangular dagger blades come from uncertain or unknown find contexts and their dating is uncertain, they are not discussed any further here, and they are not included in Table 4.1. Instead, this section focuses specifically on the selective deposition of *metal-hilted* daggers, since these do present a number of patterns in terms of selective deposition, and they can be compared to the patterns for flint daggers discussed above. In addition, the Dutch Bargeroosterveld dagger, found with a preserved horn hilt, is also included in this discussion.

Turning to the conventions behind depositions of metal-hilted daggers, they occur in hoards and as single finds, but they were not used as burial gifts in the research area (see Table 4.1). Almost all of them come from wet contexts. Two hoards with metal-hilted daggers have been found in the research area: the Vigerslev hoard (Denmark, Vandkilde

1990, this hoard is discussed in more detail in Section 4.6.4), found in a wetland and containing a metal-hilted dagger and a low-flanged axe of Værslev type; and the Dettum hoard (Niedersachsen, Laux 2009 no. 3), according to Laux perhaps a bog find (Laux 2009 no. 3), containing three very large, triangular metal daggers. Although only one was found with a metal hilt, it is thought that the other two Dettum daggers originally were metal-hilted as well (Laux 2009:16). The famous south Swedish Pile hoard should also be mentioned here, as it fits in the pattern: it was deposited in a wetland (Vandkilde 2017:38) and it contains, among other items, two metal-hilted daggers and three fragments of dagger blades, thought to be Únětice imports (Vandkilde 2017:81-90, 156; see Section 4.6.1, and Figure 4.11). The majority of LN II metalwork depositions in Denmark happened in wet contexts, so the Danish metal-hilted daggers were deposited following the general LN II pattern in Denmark (Vandkilde 1996:207). Zooming out, all of these depositions also fit in the wider EBA picture of metal-hilted dagger depositions: many of them come from wet contexts, and the majority comes from hoards, while burial finds are relatively rare (Schwenzer 2004:15-19). On a European scale metal-hilted daggers were thus predominantly *not* used as burial gifts in this period.

In terms of biographies, all of the metal-hilted daggers from the research area are thought to be imports (Lomborg 1969:220-222, Vandkilde 1996:192, Laux 2009:15-17) except for the Danish Emb dagger, which is thought to be locally manufactured due to its casting quality, style, and morphological peculiarities (Lomborg 1969:224-226). The dagger appears to combine features of different metal dagger types rather than being an imitation of a specific dagger (type) with a specific set of features (Lomborg 1969:226). Despite the fact that it is thought to be locally made, it was treated similarly to the two imported daggers.

All three Danish daggers are missing their tips (Lomborg 1969:220, 222; Vandkilde 1990:103). The Vigerslev dagger is thought to have been deposited in this condition based on the patina on the break (Vandkilde 1990:103), but it does not appear to have been in use (Vandkilde 1990:103-104). Of only one of the three Dettum daggers, the tip is preserved, but it is rounded rather than pointed; this, and the fact that the Dettum daggers are very thin, suggests that they were not meant to be used as weapons (Steinmetz 1996:375). The exaggerated size of the daggers further supports this interpretation. All in all, the evidence suggests that the metal-hilted daggers from the research area were perhaps not intended as functional daggers, which is in contrast to the flint daggers discussed above, which frequently show traces of use. Instead, they may have referred to a 'dagger idea', rather than being daggers in the utilitarian sense.

Lastly, the Dutch Bargeroosterveld dagger (see Figure 4.6) deserves to be highlighted here, as it is a unique find, providing a fascinating insight into EBA dagger depositions as well as the networks connecting distant regions in Europe in this period. It was found in a peat layer during peat cutting activities, and it consists of a triangular bronze blade attached with rivets to a well-preserved horn hilt decorated with tin nails (Glasbergen 1956:192-193, Butler & Van der Waals 1966/67:87). The dagger was possibly resharpened, and the cutting edges were probably sharp at the moment of deposition (Glasbergen 1956:193-194), suggesting that it may have been a functional dagger. The blade is thought to be an Únětice import, dating to the EBA (Glasbergen 1960:195, Butler & Van der Waals 1966/67:87). The dagger embodies a remarkable combination of materials and biographies: the bronze blade came from Central Europe, the tin likely came from the

Figure 4.6. The Bargeroosterveld dagger from Drenthe, the Netherlands (Drents Museum 1955/VIII, 15.6 cm). Photo: Marieke Visser. Scale 1:2.

Metal-hilted daggers LN II	**Denmark**	**Schleswig-Holstein**	**Niedersachsen**	**The Netherlands**	**Total**
Context	**3**	**-**	**5**	**1**	**9**
Burial find	-		-	-	**-**
Single find	2		1	1	**4**
Wet	*2*		-	*1*	***3***
Settlement	-		-	-	**-**
At/in burial mound	-		-	-	**-**
Gravel/sand	-		*1*	-	***1***
Field	-		-	-	**-**
Unknown	-		-	-	**-**
Hoard	1 dagger 1 hoard		3 daggers 1 hoard	-	**4 daggers 2 hoards**
Wet	*1*		*3*		***4***
Settlement	-		-		**-**
Close to/below stone	-		-		**-**
Gravel/sand	-		-		**-**
Field	-		-		**-**
Heath	-		-		**-**
Unknown	-		-		**-**
Unknown	-		1	-	**1**
Details					
Decorated	1		5	1	**7**
Undecorated	2		-	-	**2**
No information	-		-	-	**-**
Import	2		5	1	**8**
Local	1		-	-	**1**
Import or local	-		-	-	**-**
Origin unknown	-		-	-	**-**
Used	-		-	-	**-**
Possibly	-		-	1	**1**
Unused	1		3?	-	**4**
Use unknown	2		2	-	**4**

Table 4.1. Selective deposition of Únětice-influenced metal-hilted daggers in the research area (including the Bargeroosterveld dagger). Mainly based on data in: Glasbergen 1956, 1960; Laux 2009; Vandkilde 1990, 1996.

British Isles, similar examples of the decoration style on the hilt are known from Denmark and the British Isles, and it is very unusual to find the organic hilt preserved (Glasbergen 1960:197). It might be speculated that the tin nail decoration on the hilt is morphologically linked to the decoration on the hilts of some metal-hilted daggers (cf. Glasbergen 1960:195, cf. Schwenzer 2004:104). This might mean that the dagger should actually be considered to be 'metal-hilted', even though the hilt is made of horn. While this cannot be proved or disproved, it is certain that the dagger follows the shared conventions for depositions of metal-hilted daggers, as it was deposited singly in a wet context.

Summing up, metal-hilted daggers were predominantly deposited in wetland contexts, either singly or in hoards, but not used as burial gifts. They were deposited following shared European conventions. It appears that they were not intended as functional weapons.

In conclusion, comparing the selective deposition of fishtail daggers and Únětice metal-hilted daggers, it is clear that fishtail daggers and metal-hilted daggers were deposited in completely different ways. Fishtail daggers were mainly used as burial gifts, while metal-hilted daggers were predominantly deposited in wet contexts, and they were never combined. There seem to have been shared conventions governing metal-hilted dagger depositions across Europe, and the finds from the research area fit in this picture. In contrast, fishtail flint daggers were a distinctly local phenomenon in south Scandinavia.

In terms of biographies, metal-hilted daggers were apparently not used practically, while many fishtail daggers appear to have been used and resharpened. Flint daggers appear to have been functional objects, while metal-hilted daggers perhaps referred to a 'dagger idea' rather than representing functional weapons. So even though fishtail flint daggers are traditionally argued to be copies of metal-hilted daggers, they were not used, treated, and deposited in the same way. It seems as though it was not the dagger shape *itself* that governed selective dagger deposition (cf. Frieman 2012:452).

4.3. Halberds

Halberds (see Figure 4.7) are a new object type occurring in this time period, without predecessors or successors (Fontijn 2002:71, O'Flaherty 2002:403-405). They are abundant and widespread, occurring all over Europe (Horn 2014, Taf. 114), and they are also depicted in rock art in various regions in Europe. They have been found in the entire research area, but they are not evenly distributed: Denmark shows a noticeable density (see Table 4.2). Many of the Danish halberds are thought to be imports from the Únětice region, but imports from Ireland are thought to occur as well (Vandkilde 1996:197-199, Butler 1963:12-15). It is also possible that a local production of halberds existed in Denmark (Vandkilde 1996:197). The Dutch halberds are thought to be imports from southern Germany based on metal analyses and typological comparisons (Butler & Van der Waals 1966/67:84, Fontijn 2002:72).

Before we will turn to the conventions behind halberd depositions, their dating needs to be discussed briefly. According to Vandkilde, the Danish halberds predominantly date to LN II, but the first halberds may already have appeared in Denmark late in LN I (Vandkilde 1996:193-199). Horn also states that the Danish halberds may already date to LN I (Horn 2014:123). The Dutch Wageningen hoard, containing a halberd, is also thought to have an early date: around 2000 BC, succeeding the Bell Beaker phase in the Veluwe region, but preceding the Emmen type low-flanged axes (Butler 1990:71), or in Danish terms, to the transition LN I-LN II (Vandkilde 1996:197, see also Section 4.6.5. on the Wageningen hoard). Halberds thus likely have an early date in the period under discussion. It should be noted that halberds occur much earlier elsewhere in

Figure 4.7. Halberd of Únětice type from Sønder-Aldum, Jutland, Denmark (ÅM 1081, 30.5 cm). Photo: Marieke Visser. Scale 1:3.

Europe, *e.g.* in what is now the Czech Republic, where a hoard with a halberd is thought to date to the mid-fourth millennium BC on typological grounds (Horn 2014:172).

Focusing on the conventions behind halberd depositions, the rich Danish material presents the best data. The majority of the Danish halberds are single finds from wet contexts, mostly from bogs (see Table 4.2). No hoards with halberds are known from Denmark, and only one halberd was reportedly a burial find. The five halberds from northern Germany present similar patterns. Two of them are reportedly burial finds, without associated objects (see Table 4.2), but this information is uncertain (Horn 2014:349). The three remaining halberds are probably single finds from wet contexts. The convention clearly was to deposit halberds singly in wet contexts, and remarkably, this was also the case in other regions in north-western Europe. In Britain halberds were predominantly deposited in wet contexts, either singly or in hoards with only halberds (Needham 1988), and in the southern Low Countries, halberds were also deposited singly in wet contexts (Fontijn 2002:72). Halberds were thus rarely combined with other objects in depositions.

However, the halberd from the Netherlands is a remarkable exception: it is part of the well-known Wageningen hoard, also containing two halberd rivets that do not belong to the halberd (the hoard is discussed in more detail in Section 4.6.5). This is the only halberd from the research area that is part of a hoard, but there are parallels in northern and north-western Europe: in southern Sweden a hoard with a halberd was reportedly found in a bog (Horn 2014:122), and hoards containing halberds are also known from Germany (Horn 2014:128) and Britain (Needham 1988). In southern Spain, Italy and occasionally in the Únětice region, halberds were used as burial gifts (Horn 2011, figs. 14-15).

The function of halberds has been debated: they are by some interpreted as ceremonial or display objects, unsuitable for fighting (*e.g.* Butler 1963:11, Fontijn 2002:71), while others argue that halberds were in fact used in combat as weapons (*e.g.* Horn 2014, 2017). Based on use wear analyses of halberds from Denmark, Horn states that they were repeatedly used in combat (Horn 2017:529). Furthermore, he argues that many halberds, including halberds from the research area, were deliberately destroyed prior to deposition (Horn 2011, 2017). By removing the handle forcefully, thus breaking the rivet holes, halberds were deliberately destroyed and subsequently deposited unhafted (Horn 2011:60, figs. 10-11). In other words, they were apparently made unusable prior to deposition.

To sum up, the general convention was to deposit halberds singly in wet contexts. In the research area, this pattern is particularly distinct in Denmark, but it seems to be the convention elsewhere in north-western Europe, too. Halberds were usually not combined

Halberds LN II	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**24**	**3**	**2**	**1**	**30**
Burial find	1	2?	-	-	**3**
Single find	18	1?	2	-	**21**
Wet	*13*	*1?*	*2*		***16***
Settlement	-	-	-		**-**
At/in burial mound	-	-	-		**-**
Gravel/sand	-	-	-		**-**
Field	*1*	-	-		***1***
Unknown	*4*	-	-		***4***
Hoard	-	-	-	1 halberd 1 hoard	**1 halberd** **1 hoard**
Wet				-	**-**
Settlement				-	**-**
Close to/below stone				-	**-**
Gravel/sand				-	**-**
Field				-	**-**
Heath				*1*	***1***
Unknown				-	**-**
Unknown	5	-	-	-	**5**
Details					
Decorated	2	-	-	-	**2**
Undecorated	22	3	2	1	**28**
No information	-	-	-	-	**-**
Import	11	-	2	1	**14**
Local	-	-	-	-	**-**
Import or local	-	-	-	-	**-**
Origin unknown	13	3	-	-	**16**
Used	11	1	-	-	**12**
Possibly	2	-	1	1	**4**
Unused	-	-	-	-	**-**
Use unknown	11	2	1	-	**14**

Table 4.2. Selective deposition of halberds in the research area. Mainly based on data in: Butler & Van der Waals 1966/67, Horn 2014, Laux 2009, Vandkilde 1996.

with other objects, with the Wageningen hoard as the only exception in the research area. Many of them were apparently unusable at the moment of deposition.

4.4. Axes and chisels

4.4.1. Axes

The flat axes of LN I were replaced by low-flanged axes in LN II, although the very first low-flanged axes may already have reached Denmark in LN I (Vandkilde 1996: 189, see Chapter 3). Furthermore, four flat axes from Denmark are thought to date to LN II based on their metal composition (Vandkilde 1996:191), and six developed flat axes from the Netherlands are thought to date to this period, although their dating is debated (Butler 1995/96:174). This section, however, focuses specifically on low-flanged axes. Flanged axes were a completely new form: while some of the earlier copper flat axes were morphologically closely related to contemporary stone axes, the new flanged axes were

Figure 4.8. Selection of axe types from the research area dating to LN II. A: Emmen axe from 's Heerenberg, Gelderland, the Netherlands (RMO e99/6.1, 10.3 cm). Photo: Marieke Visser. B: Decorated Anglo-Irish axe from Ulstrup, Jutland, Denmark (FHM 140B, 27.5 cm). Photo: National Museum of Denmark, Jesper Weng, used under licence CC-BY-NC-ND, https://samlinger.natmus.dk/do/asset/1461. Scale 1:3.

of a completely different, new shape (Fontijn 2002: 68). How were these new axes treated in selective deposition practices? Low-flanged axes were deposited in the entire research area, but with a high concentration in Denmark (see Table 4.3). It should be noted that the number of axes from Schleswig-Holstein is strikingly low compared to the rest of the research area; some data is most likely missing, as is discussed in Chapter 2.

Despite the fact that low-flanged axes are divided into a multitude of different types by various authors (for the research area, see *e.g.* Vandkilde 1996, Butler 1995/96, Laux 2000), many of the European low-flanged axes are remarkably similar (cf. Butler 1995/96:189, Vandkilde 1996:69). This is for example illustrated by Emmen axes (see Figure 4.8), which occur in the entire research area and beyond (Vandkilde 1996, Butler 1995/96, Laux 2000). However, as low-flanged axes were so similar across regions in this period, it can be difficult to determine their origin, a problem that was already addressed in this chapter's introduction, and that is exemplified by Emmen axes. This problem is addressed in more detail in Chapter 8.

Nevertheless, most of the Danish axes are thought to be locally made in this period (Vandkilde 1996, fig. 185, see Table 4.3). The local metalwork production in LN II in Denmark consisted in fact almost exclusively of axes (Vandkilde 1996:207). Imports of Únětice axes occur in small numbers in Denmark (Vandkilde 1996:192) and Schleswig-Holstein (Vandkilde 1996:83), and more frequently in Niedersachsen (Laux 2000:4, 30-33), testifying to the Únětice influences in the research area in LN II. However, Anglo-Irish imports occur as well, both in Denmark (Vandkilde 1996:192, see Figure 4.8), Schleswig-Holstein (A&K no. 2178), and Niedersachsen (Laux 2000:50). Some of these Anglo-Irish axes are visually very different from the majority of LN II low-flanged axes (see Figure 4.8). Were they also treated differently in depositions?

Low-flanged axes LN II	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**198**	**10**	**35**	**29**	**272**
Burial find	7	1	1	1	**10**
Single find	125	7	14?	15	**161**
Wet	*38*	*6*	*10?*	*3*	***57***
Settlement	-	-	-	-	**-**
At/in burial mound	-	-	-	-	**-**
Gravel/sand	*6*	-	-	*1*	***7***
Field	*33*	-	*3*	*4*	***40***
Unknown	*48*	*1*	*1*	*7*	***57***
Hoard	40 axes 14 hoards	2 axes 2 hoards	7 axes? 3 hoards?	-	**49 axes** **19 hoards**
Wet	*21*	-	*5*		***26***
Settlement	*2?*	-	-		***2***
Close to/below stone	*4*	-	-		***4***
Gravel/sand	*4*	-	-		***4***
Heath	-	-	-		**-**
Field	*3*	-	-		***3***
Unknown	*6*	*2*	*2*		***10***
Unknown	26	-	13	13	**52**
Details					
Decorated	80	1	3	4	**88**
Undecorated	118	6	31	23	**178**
No information	-	3	1	2	**5**
Import	12	2	26	-	**40**
Local	153	-	-	12	**165**
Import or local	20	1	5	-	**26**
Origin unknown	13	7	4	17	**41**
Used	41	-	1	4	**46**
Possibly	96	-	1	2	**99**
Unused	59	-	1	-	**60**
Use unknown	2	10	32	23	**67**

Table 4.3. Selective deposition of low-flanged axes in the research area. Mainly based on data in: A&K, Butler 1995/96, Laux 2000, Vandkilde 1996.

Turning to the conventions behind depositions of low-flanged axes, it is evident that the majority of them are single finds from wet contexts, and this applies to the entire research area (see Table 4.3). Burial finds are rare; low-flanged axes were evidently primarily *not* used as burial gifts. Hoards with axes also occur, although they are clearly outnumbered by single finds, and they were also predominantly deposited in wet contexts. Almost all of the LN II hoards in the research area contain axes: they are the most common 'ingredient' in LN II hoards. No depositions in or close to burial mounds are known from this time period, which was a relatively common pattern for copper flat axes in earlier periods, especially for flat axes dating to the TRB (see Chapter 3). There seems to be a shift in the selective deposition of flat axes and flanged axes: axe depositions in wet contexts are now predominant, and axe hoards in wet contexts are a new phenomenon. Depositions of visually different Anglo-Irish axes roughly follow the same general pattern, being predominantly deposited in wet contexts, but with one difference: they were relatively often deposited in hoards (Vandkilde 1996:87).

In terms of the axes' biographies, only the Danish axes have been subjected toa thorough use wear analysis, which suggested that the majority appears to have been used: 32% of the axes is measurably shortened due to resharpening, and 71% of the axes shows damage on the cutting edge associated with practical use (Vandkilde 1996, figs. 42-43). Furthermore, the axes are cold worked on the cutting edge, increasing their hardness and thus their functionality as tools (Vandkilde 1996:268). LN II axes were thus apparently primarily functional tools. Both decorated and undecorated axes show similar degrees of resharpening and cutting edge damage, suggesting that there was no division between functional and display axes at this point; most axes likely had both functions (Vandkilde 1996:268-269). All in all, 40.4% of the Danish axes are decorated, and 59.6% are undecorated. Decorated axes appear to be more common in hoards than as single finds. Two Danish axes may have been deliberately destroyed prior to deposition (A&K nos. 1318 and 311), thus making them unusable. This is a very low number.

Summing up, the general convention was to deposit low-flanged axes in wet contexts, predominantly singly, but also in hoards. They were not used as burial gifts. This applies both to locally made axes, which constitute the majority, and to imported axes. Anglo-Irish axes, which look completely different from the bulk of the LN II axes, were deposited in hoards more frequently. LN II axes are predominantly thought to have been functional, utilitarian axes.

4.4.2. Chisels

A small number of chisels from the research area date to LN II. These are all small, nick-flanged chisels, two of which have been found in Denmark (Vandkilde 1996:192), and one in Niedersachsen (Laux 2000:67). Two additional chisels without provenance may date to this period, but this dating is uncertain, and they are from unknown find contexts (Vandkilde 1996:192). They are therefore not included in the present discussion. All three chisels are probably Únětice products (Vandkilde 1996:192, Laux 2000:67). One chisel is a single find from a bog; another chisel is part of the Skeldal hoard, deposited in a dry context and consisting of a remarkable combination of objects (see Section 4.6.3 and Figure 4.13); and a third chisel is part of the Veltheim hoard, found in a meadow by the river Ohe. Apart from the chisel, the Veltheim hoard consists of four early low-flanged axes, typologically dated by Laux to his *Zeitstufe* Veltheim (2000:4, 67). The two Danish chisels do not appear to be heavily used (Vandkilde 1996, catalogue).

Based on such limited data, it is difficult to draw any conclusions. Nevertheless, it is clear that all three Únětice nick-flanged chisels were not used as burial gifts. Instead, they were deposits, either singly or in hoards.

4.5. Ornaments

Metal ornaments in the research area dating to EBA/LN II mainly consist of various types of rings, including *Noppenringe* and solid rings such as oval open rings, *Blutegelringe*, and *Thüringer* rings. Ösenringe, which have a rather long life-span during the EBA, are discussed in the next chapter, as they occur in period IA assemblages in the research area. In addition, a pin, probably a *Schleifennadel*, was found in a barrow in the Netherlands (Butler & Van der Waals 1966/67:86-87). LN II metal ornaments occur in the entire research area, but with the highest concentration in Denmark (see Table 4.4). Due to dating and preservation problems, this number is probably too low (Vandkilde 1996:203), which should be kept in mind for the rest of the research area as well.

Figure 4.9. Gold *Noppenring* from the Skeldal hoard on display in the National Museum of Denmark, Copenhagen (3.9 cm). Photo: Marieke Visser.

Most of these ornaments are made of copper or bronze, but eight gold *Noppenringe* have been found in Denmark (see Figure 4.9). It should be noted that almost all of these gold *Noppenringe* were found in a small area in central Jutland (Silkeborg, Vandkilde 1996:200). *Blutegelringe*, *Thüringer* rings, open oval rings and bronze/copper *Noppenringe* are all thought to be imports from the Únětice region (Vandkilde 1996:203-205), and the same applies to the Dutch *Schleifennadel* (Butler & Van der Waals 1966/67:87); gold *Noppenringe* are thought to come from Central Europe (Vandkilde 1996:199).

Turning to the conventions behind selective deposition of metal ornaments, they occur both in burials, hoards, and as single finds, with single finds being the least common and hoard finds being the most common (see Table 4.4). This also applies to gold *Noppenringe*. This is in contrast to the patterns discussed above for halberds and axes, which occur most frequently as single finds. Metal ornaments were thus frequently deposited in hoards, and they always occur in multiples in hoards. Some hoards in the database exclusively consist of metal ornaments (Boest Mose, Lyngby), while others consist of a combination of metal ornaments and other types of metalwork (Skeldal, Gallemose, Grönwohld, Ohlenburg, Wageningen).

In terms of landscape contexts, it is difficult to draw any conclusions, as a number of hoards come from unknown contexts. Nevertheless, several hoards come from wet contexts in the landscape. When we zoom in on the individual ornament types, an interesting observation can be made: *Noppenringe* are the only metal ornaments that occur in burials (except for an arm ring in the Tensbüttel burial in Schleswig-Holstein, and the Dutch *Schleifennadel* mentioned above). Apparently, *Noppenringe* had a specific association with the burial sphere, although they also occur in hoards. Furthermore, it is notable that the six copper/bronze *Noppenringe* in Denmark constitute three pairs (Vandkilde 1996: 203), and that *Noppenringe* in almost all cases occur in multiples.

Metal ornaments LN II	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**32 (8 gold)**	**12**	**-**	**5**	**49**
Burial find	6 (2 gold) ornaments 3 burials	1 ornament 1 burial		1	**7 ornaments** **4 burials**
Single find	3 (1 gold)	-		-	**3**
Wet	*1*				***1***
Settlement	-				**-**
At/in burial mound	-				**-**
Gravel/sand	-				**-**
Field	*2 (1 gold)*				***2***
Unknown	-				**-**
Hoard	21 ornaments (5 gold) 4 hoards	11 ornaments 2 hoards		4 ornaments 1 hoard	**36** **7 hoards**
Wet	*14 (3 gold)*	-		-	***14***
Settlement	-	-		-	**-**
Close to/below stone	-	-		-	**-**
Gravel/sand	*7 (3 gold)*	-		-	***7***
Field	-	-		-	**-**
Heath	-	-		*4*	***4***
Unknown	-	*11*		-	***11***
Unknown	2	-		-	**2**
Details					
Decorated	6	-		-	**6**
Undecorated	26	12		5	**43**
No information	-	-		-	**-**
Import	32	10		1	**43**
Local	-	-		-	**-**
Import or local	-	-		-	**-**
Origin unknown	-	2		4	**6**
Used	-	-		-	**-**
Possibly	-	-		-	**-**
Unused	2	-		-	**2**
Use unknown	30	12		5	**47**

Table 4.4. Selective deposition of metal ornaments. Mainly based on data in: A&K, Butler & Van der Waals 1966/67, Hachmann 1957, Vandkilde 1996.

To sum up, LN II metal ornaments occur in a variety of contexts, but most often in hoards. They rarely occur alone: they are usually combined with other metal ornaments and often with other types of metalwork. *Noppenringe* were specifically used as burial gifts. Most of the LN II metal ornaments are thought to be imported from Central Europe/the Únětice region.

4.6. Unconventional hoards – unconventional events

So far, the patterns in the selective deposition in Late Neolithic II (LN II) of the main object categories daggers, halberds, axes, and ornaments have been discussed. These patterns are strikingly similar: daggers, halberds, axes, and ornaments were all deposited in remarkably similar ways. People primarily deposited them singly in wet landscape contexts, and this was a supra-regionally shared convention. From the Netherlands in the west to Zealand in the east – a distance of more than 700 km across – and even

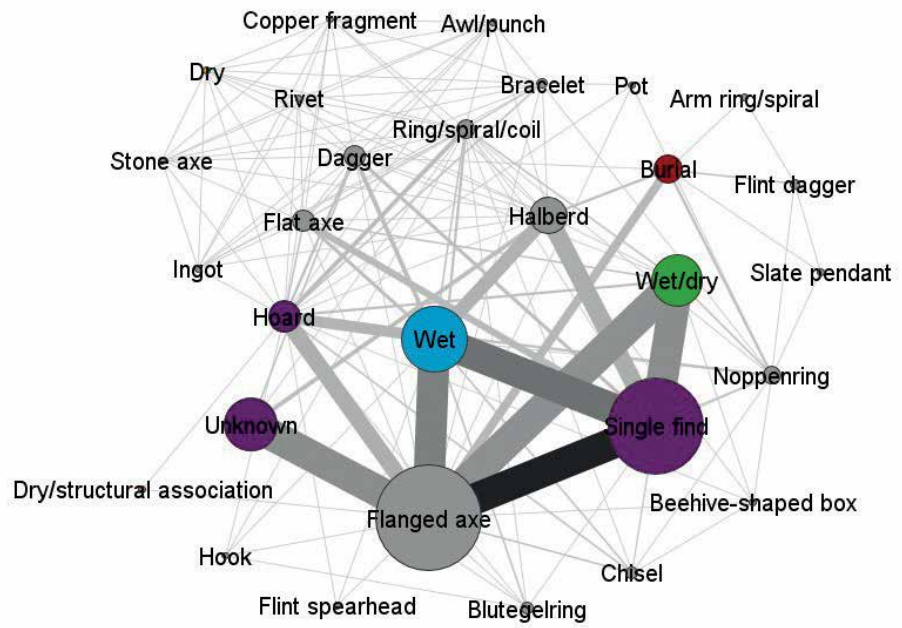


Figure 4.10. Network visualising the patterns in selective deposition in LN II. The size of the nodes indicates the number of objects (value largest node: 243). The colour of the nodes clarifies the type of variable (grey: object category, purple: site type, red: burial, blue: wet landscape context, green: wet/dry landscape context, yellow: dry landscape context, orange: dry/structural association). The size and colour of the links indicate how frequently those variables are associated (value largest link: 161).

beyond this region, people did similar things, over and over again, as seen in the previous sections and in Figure 4.3. These conventions were probably not communicated between these regions, as discussed in the previous chapter, but probably self-evident across the entire region (Fontijn 2019:29-33). This was clearly how metal objects were *supposed* to be deposited in this period; this was the 'right way' to deposit metalwork, and the communities in the entire region under study were aware of this.

All these depositional acts that were repeatedly carried out during the 200 years discussed in this chapter create the patterns visualised in the network in Figure 4.10. This network shows the patterns in selective metalwork deposition in LN II, the nodes indicating the number of objects, and the links indicating the affiliations between objects and contexts. The triangle flanged axes-single finds-wet contexts clearly dominates the network, while depositions near man-made structures (dry/structural association) and burials with metalwork are rare. The practice of selective metalwork deposition – and the conventions behind it – were remarkably uniform across regions in this period.

However, not all objects were deposited singly. On some occasions, people chose to deposit a selection of objects together in hoards. Because hoards are much less numerous than single deposits, they stand out. Nevertheless, most of them still follow the same pattern as single deposits. This is illustrated by eleven LN II hoards from Denmark: they only contain axes, and most of them are from wet contexts. When people deposited these hoards, they seem to have followed the same conventions as when they deposited single axes. It is only

the number of objects that differs; these axe hoards are essentially a multiplication of single axe deposits. In other words, depositing one axe and depositing multiple axes together appears to have been the same type of depositional act: people selected the same places in the landscape and deposited the same type of objects. The Dettum hoard from Niedersachsen (discussed in Section 4.2) is another example of this type of deposition: the hoard consists of three similar metal-hilted daggers deposited together, possibly in a bog. Again, there is a multiplication of a single element, following the conventions for single dagger deposits. Even though these hoards are less numerous than single deposits, and the number of objects by definition differs from single deposits, they can be considered *conventional*: they follow the general conventions for metalwork deposition in this period.

However, there is a small group of hoards from this period that completely breaks with these conventions. These hoards are not simply a multiplication of single object deposits, like the axe and dagger hoards discussed above. Instead, they combine objects that otherwise never occur together. Depositing such an 'unconventional' hoard – not following the conventions identified in this chapter – may have been a very powerful and significant act in social terms. People deliberately chose to deviate from the general practice, to break their own conventions, which must have made these depositions memorable social events, events that stood out. Which choices did people make at these exceptional events? Which objects did they select, and where in the landscape did they deposit these hoards? How exactly do they break the conventions identified above?

This small group of unconventional hoards consists of the Danish Gallemose, Skeldal, and Vigerslev hoards, and the Dutch Wageningen hoard. The south Swedish Pile hoard, found just outside the research area, also belongs to this group. As it is one of the most well-known hoards from south Scandinavia in this period, it is included in this discussion. In the following sections, these hoards and how exactly they break the conventions is discussed in detail, starting with the Pile hoard. Conventional hoards, such as the Danish axe hoards discussed above, are not discussed any further, since they follow the patterns identified above.

4.6.1. The Pile hoard

The Pile hoard from Skåne, southern Sweden, has recently been thoroughly investigated and discussed (Vandkilde 2017, see Figure 4.11). The hoard is dated to ca. 2000 BC, *i.e.* it dates early in the period discussed in this chapter (Vandkilde 2017:113-115 and fig. 66a). The hoard was deposited in a wet context, close to the coast and to two rivers (Vandkilde 2017:38), with settlements in the vicinity at the time of deposition (Vandkilde 2017:38) as well as Late Neolithic burials and megalithic tombs (Vandkilde 2017, figs. 26, 27). The flat coastal area surrounding Pile would have provided a high visibility, so the deposition of the hoard may have been a public act (Vandkilde 2017:165).

The Pile hoard is a large hoard, consisting of a combination of various object categories: axes, daggers, ornaments, scrap metal, and a remarkable piece of silver wire. Silver objects are actually very rare in the Bronze Age (Vandkilde 2017:104). The objects are thought to be Únětice/Central European imports, except for the axes: one axe is thought to be an Anglo-Irish import, and the remaining twelve axes are thought to be locally made (Vandkilde 2017:156). The Únětice element is thus strong in the Pile hoard, and the composition of the hoard itself is very similar to hoards in the Únětice area, except for the fact that the Pile hoard contains locally made axes instead of Únětice axes (Vandkilde 1990:132). The

Figure 4.11. The Pile hoard, without the piece of silver wire, which is now lost. Photo: The Swedish History Museum, used under licence CC BY 2.0, http://kulturarvsdata.se/shm/site/html/4405.

axes appear to have been used practically prior to deposition (Vandkilde 2017:124-125). Many of the objects are very fragmented, apparently deliberately broken and/or bent (Vandkilde 2017:129-130). It is likely that this fragmentation should be interpreted in terms of metalworking activities (Vandkilde 2017:130).

The Pile hoard demonstrates the networks connecting distant European regions in this time period: the objects are made in south Scandinavia, the British Isles, and the Únětice region (Vandkilde 2017:143). The hoard's location near the sea fits very well in this picture of connectivity. Pile has been interpreted as a "landing place" where metalwork supplies arrived from elsewhere and where metalworking was carried out (Vandkilde 2017:157). The location seems to have been an important hub in the metalwork network (Vandkilde 2017:157, 167).

Summing up, the Pile hoard breaks the conventions for single deposits identified above. It combines various object categories that were usually never combined (axes, daggers, ornaments), some of which were rare in the region, and it contains a unique object (the silver wire). It further combines locally manufactured axes with Únětice imports and an Anglo-Irish axe, and fragmented objects with complete objects. The hoard was deposited in a wetland location that appears to have been a hub in the metalwork network, which is reflected by the contents of the hoard.

4.6.2. The Gallemose hoard

Moving on to the Danish Gallemose hoard, this hoard was regarded as a parallel to the Pile hoard already very early on (Forssander 1936:174, see Figure 4.12). Gallemose is dated somewhat later than Pile, ca. 1900 BC (Vandkilde 2017:113). The hoard was found in north-eastern Jutland in a peat bog (A&K unpubl., no. 5492). There are several burial mounds visible from the location, and it is assumed that there were settlements in the area (Randsborg 1991:110-111).

Figure 4.12. The Gallemose hoard. Photo: National Museum of Denmark, Roberto Fortuna and Kira Ursem, used under licence CC-BY-SA, http://beta.samlinger.natmus.dk/DO/asset/4660.

The Gallemose hoard contains an enormous amount of metal compared to other LN II deposits: in total, it weighs 11.735 kg (Randsborg 1991:112). It combines axes, ornaments, and three mysterious heavy bronze hooks or rods. The latter are unparalleled in Europe, and they have been interpreted as chariot yokes (Randsborg 1991:118-121). All of the ornaments (heavy, solid rings) are probably Únětice imports (Vandkilde 1996:205), and this perhaps applies to the puzzling hooks as well (Vandkilde 1996:206). However, the axes are thought to be locally made, except for one Anglo-Irish axe (Vandkilde 1996:89-91). Just like the Pile hoard, the Gallemose hoard thus combines Únětice ornaments with local axes and an Anglo-Irish axe. And just like the Pile hoard, the Gallemose hoard's composition is similar to Únětice hoards, apart from the fact that the hoard contains local axes instead of Únětice axes (Vandkilde 1990:132).

In contrast to the Pile hoard, the objects are all complete, except for one axe (Vandkilde 2017:127). However, all objects are poorly cast: there are casting errors visible in the metal (Randsborg 1991:118). Almost all of the axes in the hoard appear to have been used prior to deposition, except for the Anglo-Irish axe and one of the local axes (Vandkilde 1996, catalogue). Most of the axes are thus locally made and utilitarian, and they are common in southern Scandinavia in this period, but one of them stands out due to its size: it is extremely large, more than 30 cm. It is an oversized version of a 'normal' axe.

Summing up, the Gallemose hoard breaks the conventions for single deposits identified in this chapter in similar ways as the Pile hoard. It combines various object categories that were usually not combined in depositions (axes, ornaments) and it contains unique objects (the three puzzling hooks, and an oversized version of a common axe). Furthermore, it combines local axes with an Anglo-Irish axe and Únětice ornaments. The hoard combines the local with the foreign and the common with the extraordinary (cf. Vandkilde 2017:129). It was deposited in a wet context, following the general LN II pattern in Denmark.

4.6.3. The Skeldal hoard

Thirdly, the Danish Skeldal hoard (see Figure 4.13) is dated somewhat later than the Pile hoard, to ca. 1900 BC, so it is contemporaneous with the Gallemose hoard (Vandkilde 2017:113-115). It was found by a metal detectorist in a sandy stretch of land in east central Jutland (Vandkilde 1990:115). There are no burial mounds known in the vicinity. It was thus found in a dry context, and stands out from other LN II depositions in Denmark, which are mostly found in wet contexts (Vandkilde 1990:131). The objects had been very carefully positioned in a pit in the ground, or possibly inside a box or other container (Vandkilde 1990:116).

The hoard consists of axes, a chisel, bronze and gold ornaments, and a bronze beehive-shaped box with a lid. The latter is unique in the research area. The two gold ornaments (*Noppenringe*) were found inside the beehive-shaped box, testifying the hoard's careful deposition. The axes are thought to be locally made, while the nick-flanged chisel, the bronze ornaments and the beehive-shaped box are probably Únětice imports (Vandkilde 1990, 1996). The two gold *Noppenringe* are thought to come from lower Bavaria, south Moravia/lower Austria or north Bohemia (Vandkilde 1990:122). Gold ornaments are not common in this period (see Section 4.5). So just like the Pile and Gallemose hoards, the Skeldal hoard combines local axes and Únětice ornaments. Parallels to the composition of the hoard can be found in a group of north Únětice hoards (Vandkilde 1990:132).

One of the axes is fragmented, only the butt being preserved; its only value seems to lie in the metal it is made of (Vandkilde 1990:131). It might originally have formed a whole axe together with the small axe with notched butt; after the break, the butt part was apparently preserved, and the cutting edge part was used practically (Vandkilde 2017:128-129). Another axe was probably also used (Vandkilde 1996, catalogue), and the beehive-shaped box is thought to have been worn (Vandkilde 1990:118). However, some of the axes and ornaments are apparently unused (Vandkilde 1990, 1996).

To sum up, the Skeldal hoard is unconventional since it combines object categories that were otherwise never combined (axes, ornaments) and contains a unique object (the beehive-shaped box). Gold ornaments are also rare in this period. Just like the Pile and Gallemose hoards, it combines local axes with Únětice ornaments. It also combines new with used objects, and complete with fragmented objects (cf. Vandkilde 1990:131).

Figure 4.13. The Skeldal hoard. Photo: National Museum of Denmark, Lennart Larsen, used under licence CC-BY-SA, http://beta.samlinger.natmus.dk/DO/asset/10052.

Interestingly, it was deposited in a dry context, thus deviating from the general LN II pattern in Denmark.

4.6.4. The Vigerslev hoard

Moving on to the Vigerslev hoard from eastern Zealand, Denmark, this hoard is typologically dated to LN II (Vandkilde 1990: 107-108). It is also briefly discussed in Section 4.2. The hoard is thought to be a wetland deposition.

The Vigerslev hoard consists of a Værslev type low-flanged axe and a metal-hilted dagger. The axe is thought to be locally made, whereas the dagger is thought to be an Únětice product (Vandkilde 1990:107-108). The axe type is common in this period, whereas metal-hilted daggers were rare in this region. Even though the hoard contains a smaller number of items than the other hoards discussed in this section, it follows the same general pattern: it combines an Únětice import with a local axe, just like the Pile, Gallemose and Skeldal hoards (cf. Vandkilde 1990:108). The dagger is missing its tip, and based on the patina on the break it is thought to have been

Figure 4.14. The Wageningen hoard. Photo: National Museum of Antiquities, Leiden, used under licence CC-BY 3.0 NL, https://hdl.handle.net/21.12126/158151.

deposited in this state (Vandkilde 1990:103), as we have seen in Section 4.2. In contrast, the axe is complete (Vandkilde 1990, fig. 4). Both the dagger and the axe have probably not been used (Vandkilde 1990:103-07). Both the dagger and the flanged axe are decorated.

To sum up, the Vigerslev hoard breaks the conventions by combining a metal-hilted dagger and a low-flanged axe, two objects that were usually not combined in depositions. Just like the other south Scandinavian hoards discussed in this section, it combines a locally made axe with an Únětice import, *i.e.* an ordinary object with a rare object. It also combines a fragmented with a complete object. It was deposited in a wetland, following the general LN II pattern for Denmark.

4.6.5. The Wageningen hoard

Lastly, the Wageningen hoard (see Figure 4.14) is a famous and unique hoard from the east central part of the Netherlands. Its dating is debated: traditionally, it is dated to the EBA, but some scholars date the hoard earlier, to the last part of LN B or to the transition LN B-EBA (see Butler 1990:71, Fontijn 2002:68, Vandkilde 1996:197). Nevertheless, the hoard is discussed in the current chapter, as it fits well in the group of unconventional hoards. The Wageningen hoard is in fact the only hoard in the Netherlands from this time period. Although the hoard's exact find location is unknown, it is known that it was found in a heath field, on a gentle slope overlooking the Gelderse Valley, 2 km north of the Rhine (Butler 1990:68), *i.e.* in a dry context. There are Late Neolithic barrows in the area; the deposition of the hoard may have some connection to this barrow landscape (Fontijn 2002:73).

The hoard consists of a halberd, a dagger, a flat axe, an awl, scrap metal, and a polished stone axe. Interestingly, halberds, daggers and axes were usually separated in depositions, as demonstrated above (and see Fontijn 2002:72). The objects are in fact rare in this region in the first place. The halberd, the dagger and the axe are probably imports, although metal analyses have given puzzling results: (some of) the objects are made of south German Singen or related metal, while the shape of the flat axe of Migdale type points towards the British Isles, and yet it is also made of Singen-related metal (Butler 1990:68-71). The

stone axe is a puzzling element, and it might be older than the rest of the objects. Based on the presence of scrap metal, an awl, and finished metal objects, the hoard has been interpreted in terms of metalworking activities or the property of a smith (Butler & Van der Waals 1966/67:81, Butler 1990:71).

To sum up, the Wageningen hoard is unconventional as it combines objects that were otherwise never combined (see also Fontijn 2002:72), objects that were rare in the region in the first place. It combines south German Singen with British elements, and finished objects with scrap metal. The hoard was deposited in a dry context in a barrow landscape.

4.6.6. Conclusion

After examining these five unconventional hoards in detail, it is striking how people deliberately chose to break with their own – otherwise quite rigid – conventions, both in terms of the objects and in terms of the places they selected. Because of these unconventional choices, these hoards stand out from the rest of the depositions in this period, which were quite uniform. Zooming out, a number of patterns can be observed in terms of the choices that people made at these unconventional events.

In terms of the selection of objects, all hoards contain imported objects from various regions. The four south Scandinavian hoards combine Únětice imports with local axes. Two of them (Pile and Gallemose) also contain an Anglo-Irish axe. These hoards thus connect Únětice, Anglo-Irish, and local elements with each other. They seem to represent the exchange routes that existed in this period, supplying the region with metal (cf. Vandkilde 2017:143). When comparing this observation to the Wageningen hoard, a very similar picture emerges: the hoard contains British and south German Singen elements, as well as scrap metal which is thought to be meant for local recycling. In Butler's words, it can be described as a "contact find" (Butler 1990:71). All hoards thus embody the links between the local area and distant regions. They display a picture of great connectivity, embodying the exchange networks connecting various regions in this period. These hoards appear to represent a "map of the world", connecting the local with the foreign, for which reason they can be called "*Mappa Mundi* hoards" (Fontijn 2019:37). In these hoards, people chose to include elements from the various regions that were important to them, and combined these with local elements, which were equally important.

In addition to elements from various regions, these hoards also contain a number of strange, unique items. The Pile hoard contains a piece of silver wire, while silver was very rare in this period; the Skeldal hoard contains a bronze beehive-shaped box, without parallels in the research area; the Gallemose hoard contains three heavy bronze hooks, the function of which is unknown; and the Wageningen hoard contains a puzzling stone axe. These hoards do not only contain 'normal' objects, but also extraordinary objects that must have made an exotic, strange impression, since they are so different from the 'normal' object categories.

Furthermore, several of the hoards seem to emphasise metalworking activities. They appear to connect various stages in the metalworking process with each other. The Pile hoard contains both highly fragmented objects, probably meant for local recycling, and finished, locally made axes. It is thought that metalworking was carried out locally at Pile, after which locally made axes were distributed to other places in southern Scandinavia (Vandkilde 2017:157). Both these stages are represented in the Pile hoard. The same applies to the Wageningen hoard: it contains scrap metal and an awl, pointing

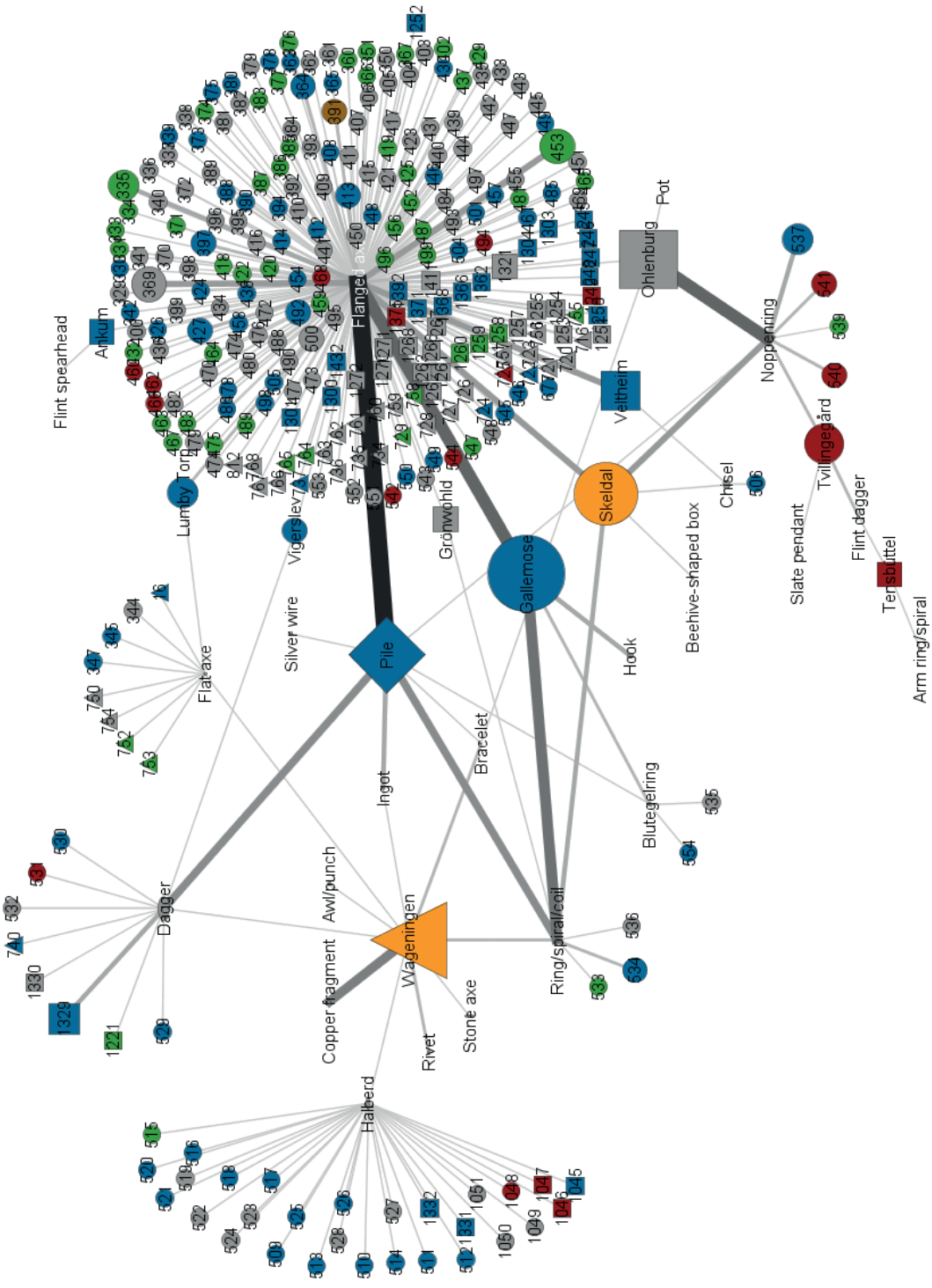
to metalworking activities (Butler & Van der Waals 1966/67:81, Butler 1990:71), while the finished metal objects in the hoard may have been awaiting further distribution (Fontijn 2002:73). Both the Pile and the Wageningen hoards thus represent or connect the 'before and after' of the metalworking process, *i.e.* the raw material and the products. In this regard, it is interesting that the Skeldal hoard contains an axe fragment without any apparent functional use, suggesting it was included for its metal value (Vandkilde 1990:131) and perhaps meant to be recycled. It seems like a certain *metal value* was emphasised in these hoards, both in terms of future metalworking activities, and finished objects ready to be exchanged. Overall, they contain an enormous amount of metal compared to the numerous single finds from this period.

Moving on to the landscape settings that people chose for these hoards, these seem to be in line with their contents in terms of the 'connectivity' they display. The Pile hoard was deposited in a "landing place" where metal supplies arrived, in a location with high visibility and settlements and burials in the vicinity (Vandkilde 2017:157); *i.e.* in a hub in the landscape, connecting various activities. The Wageningen hoard was also deposited in a location with high visibility and burials in the vicinity: on a slope overlooking the nearby valley, with barrows nearby. Barrows were also visible from the place where the Gallemose hoard was deposited, and there were probably also settlements in the area. There are to no barrows known near the location of the Skeldal hoard. Nevertheless, it is remarkable that three of these hoards were not deposited in unmarked natural places far removed from human activities. Quite the contrary: they were deposited in landscapes with man-made features all around.

Because of the settlements and burials nearby and the high visibility at the site, the depositional act of the Pile hoard may have been a public event (Vandkilde 2017:165). Perhaps this applies to (some of) the other hoards, too. The fact that these hoards are so different from other contemporary depositions, their contents being so extraordinary, would certainly have made these depositional acts memorable events which must have had a great social significance. In that sense, the deposition of these hoards not only connected regions with each other, but also people and communities.

Lastly, the word 'connectivity' has been used several times to describe these unconventional hoards. Both their contents and their landscape settings reflect a high connectivity. This word again becomes highly relevant when looking in detail at the network displaying the finds from LN II (see Figure 4.15). The five hoards discussed in this chapter clearly come to the fore as 'connector hoards': halberds, metal-hilted daggers, and low-flanged axes are all separated from each other in isolated groups; they were usually kept separate in depositions, and deposited singly, as discussed in the previous sections. It is only in these unconventional hoards that these separate object categories were combined; these hoards *connect* these three object categories with each other.

Summing up, on a local level these hoards may seem "isolated incidents", as has been argued for the Wageningen hoard (Butler 1990:71), but zooming out, there are similarities between them, despite the geographical distances between these depositional events. Even though they do not contain exactly the same combinations of objects, they all contain rare, unique items. Their contents reflect the exchange routes connecting various distant regions with each other, connecting the local with the foreign. They were deposited in unconventional locations, and these depositional events may have served to connect


Flint spearhead
Ankum
Flange
Ohlenburg
Pot
Veitheim
Noppenring
Lumby Torp
Vigersley
Grönwohld
Skeldal
Gallemose
Chisel
Slate pendant
Tvillingegård
Flint dagger
Tensbüttel
Arm ring/spiral
Beehive-shaped box
Hook
Silver wire
Pile
Flat axe
Ingot
Bracelet
Blutegelring
Dagger
Awl/punch
Wageningen
Copper fragment
Rivet
Stone axe
Ring/spiral/coil
Halberd

people and communities. Lastly, they also serve as connectors in terms of the depositional patterns in this period, connecting the various object categories that were otherwise isolated in depositions. These 'connector hoards' are truly a class of their own.

4.7. Discussion

The aim of this chapter was to study the conventions behind selective metalwork deposition in Late Neolithic II (LN II). After examining the data from this period in detail, it is striking how similar the emerging patterns are in the entire research area, demonstrating the existence of shared conventions. From the Dutch coast to eastern Zealand, which is a distance of more than 700 km as the crow flies, people predominantly deposited metal daggers, halberds, and axes singly in wet contexts. Apparently, this was how metalwork was *supposed* to be deposited in this period. Both in terms of objects and in terms of landscape settings, people made similar choices across regions. In the following section, this situation is compared with the previous period, in order to investigate how the practice selective metalwork deposition developed.

When comparing these supra-regional conventions to the preceding Bell Beaker period, it is clear that a shift took place. In the Bell Beaker period, specific metal objects were part of the burial package, while other metal objects were deposited in specific landscape settings. Metalwork became separated in depositions as different metal objects became associated with different domains. But this changed completely in LN II: almost all metalwork was deposited in wet contexts, while metal objects did not play a significant role in burials anymore. Metal was no longer used on a structural basis to express ideas of personhood and individual display, like in Bell Beaker burials (see Chapter 3). Instead, almost all metalwork was deposited in wet places in the landscape, in a domain that is thought to be *communal* rather than *individual* (Vandkilde 1996:267, Needham 1988:246). This shift is expanded on in Chapters 9 and 10. Furthermore, there was also a shift specifically in axe deposition between LN I and LN II. While LN I flat axes were often deposited in dry contexts, relatively often in or close to burial mounds, LN II low-flanged axes were predominantly deposited in wet contexts. People still chose to deposit specific objects in specific landscape settings, avoiding other objects and places; there was a still a "double-exclusive-logic" (Fontijn 2019:29-33) in this selective deposition practice. However, the choices that people made, *i.e.* the conventions behind this practice, were different.

Another difference with the preceding period is that *much more* metalwork was deposited. While metalwork depositions were scarce and scattered in the Bell Beaker period (see Figure 3.6), metalwork was now deposited on a much larger scale than before, and across the entire research area (Figure 4.3). Evidently, it was now an established practice to regularly deposit metalwork in the landscape at specific events. This of course

Figure 4.15 (left). Network displaying the sites and finds from LN II. The Pile, Gallemose, Skeldal, Vigerslev, and Wageningen hoards connect the main object categories (axe, halberd, dagger), which are otherwise separated in depositions. The size of the nodes indicates the number of objects (value largest node: 30). The colour of the nodes indicates the landscape context (yellow: dry, blue: wet, green: wet/dry, red: burial, grey: unknown). The shape of the nodes indicates the country (round: Denmark, square: Germany, triangle: the Netherlands, diamond: Sweden). The size and colour of the links indicate how often objects occur together (value largest link: 13).

does not necessarily mean that there was more metal in circulation. Nevertheless, based on the archaeological evidence discussed in this chapter, it is thought that the local production of metalwork did increase in this period. This was particularly the case in Denmark: almost all LN II axes from Denmark are thought to be locally made, and this is a considerable number, especially compared to the preceding period.

All in all, low-flanged axes are by far the most abundant object type in the LN II material. With all the possibilities that the process of metalworking offers in terms of shape and decoration, it is remarkable that the majority of these axes look very similar. Even though they could be given any shape or decoration when they were locally manufactured in the research area, people deliberately chose to make them look similar. This is even more striking when we consider the fact that axes with a very different appearance were in fact known in the region: a small number of imported Anglo-Irish axes has been found in Denmark and northern Germany, and they have a very different shape and decoration (see Figure 4.8). And yet people did not copy these axes in the research area; they deliberately chose to manufacture 'plain' axes. These axes were not 'individualised' by giving them a specific shape or decoration. Apparently, this was what axes were supposed to look like. This idea on what objects were supposed to look like is discussed in more detail in Chapter 8.

Both in terms of axe shape and axe deposition, the conventions were thus quite uniform across the research area. The majority of LN II axes *looked* similar, and they were *deposited* in similar ways. Imported, visually different Anglo-Irish axes also ended up in similar landscape settings, although they were somewhat more often deposited in hoards than singly. There seems to have been a general 'axe deposition rule' in LN II, applying both to locally made and imported axes. Overall, imported objects and locally made objects were deposited in similar ways: the conventions applied to all metalwork in this period.

The uniformity of metalwork depositions in this period raises the question: how did people deposit objects made of other materials? There is one significant example that can shed light on depositions of other materials. Flint daggers, which were locally made of a locally available resource in Denmark and Schleswig-Holstein, were predominantly used as burial gifts in that region. They were associated with the burial sphere, expressing ideas of personhood and individual status. This association is discussed in more detail in Chapter 9. However, metal-hilted daggers, of which these flint daggers are traditionally thought to be copies, were imports from afar, and they were deposited in wet contexts. They were not associated with individual display, but with unmarked natural places, like bogs. This particular association appears to apply to all LN II metalwork, except for ornaments, which occur both in burials and wetland deposits. Metalwork was thus *not* associated with the domain of individual display in LN II, while flint *could* be used for this purpose. Different materials with their specific origins and associations were thus treated differently in depositions.

Lastly, at a few unconventional events, people chose to break their own conventions in terms of the objects and landscape settings they selected. They deposited assemblages of objects that were otherwise never combined, including rare objects from faraway places, as seen in the previous sections. These hoards embody the exchange networks existing in this period, connecting the research area with distant regions such as the Únětice region, the British Isles, and southern Germany. In these "*Mappa Mundi* hoards" (Fontijn 2019:37), people included elements from various regions that were important to them, and combined them with local elements. These hoards contain a surprising amount of

metal compared to the numerous single deposits, and they seem to emphasise and connect various stages in the metalworking process. To deposit such an unconventional hoard must have been a memorable event, as it was so different from other, conventional, depositions. These depositional acts may have been public events (cf. Vandkilde 2017:165), perhaps known to the whole community (Needham 1988:246), some of them taking place in central locations in the landscape with man-made features all around. These hoards connected people and communities, both local and foreign. They may have been deposited for the benefit of the community, and so they may be characterised as "community deposits", following Needham's terminology (Needham 1988:246). This idea is discussed in more detail in Chapter 10.

In conclusion, metalwork deposition occurred on a much larger scale in LN II than before. It was now an established practice to regularly deposit metalwork in wet locations in the landscape. Metal objects were not used as burial gifts, but instead deposited in wetland contexts, in a communal domain. How did the practice of selective metalwork deposition develop in the subsequent period? The next chapter examines patterns in selective metalwork deposition in period IA (1700-1600 BC), which forms the beginning of the Nordic Bronze Age in the Scandinavian chronology, and corresponds to the start of the Dutch Middle Bronze Age.

5

Patterns in selective metalwork deposition in period IA

5.1 Introduction

Late Neolithic II (LN II) was the first period in which metalwork was deposited on a large scale in the entire research area: as argued in the previous chapter, it had evidently become an established practice to regularly deposit metalwork in the landscape. This practice was remarkably similar across the research area in terms of the selection of objects and places, demonstrating the existence of supra-regionally shared conventions. Metal daggers, halberds, and axes were predominantly deposited singly in wet landscape contexts, in a domain that is thought to be communal (Vandkilde 1996:267, Needham 1988:246). However, at a small number of unconventional events, people chose to break with these conventions by depositing large metalwork hoards that combined local objects and foreign, unique items; objects that were otherwise never combined. These hoards connected regions, communities, and people with each other, serving as "*Mappa Mundi* hoards" (Fontijn 2019:37) or "community deposits" (Needham 1988:246).

This chapter focuses on selective metalwork deposition in the subsequent period IA of the Nordic Bronze Age (1700-1600 BC, Vandkilde 1996, fig. 134), which roughly corresponds to the first part of the MBA in the Dutch chronology (1800-1500 BC, Van den Broeke et al. 2005, fig. 1.10) and Laux's *Zeitstufe* Marwedel-Falkenwalde for Niedersachsen (Laux 2000:5-8). From here on, this period referred to as period IA. The patterns in selective metalwork deposition in this period are examined in detail in this chapter. How did the practice develop in this period? What were the conventions in terms of the selection of objects and places? Before these conventions are examined for each of the main object categories, the metalwork from period IA is first introduced and discussed in a broader European context.

5.1.1 European background

The Central European Únětice region, which was famous for its large quantities of metalwork, was of great importance for the research area in LN II (see Chapter 4). The Únětice region is thought to have been in control of the exchange routes between the north and the south along which metal was distributed, including to southern Scandinavia and northern Germany (Meller 2013:522-523, Risch & Meller 2015:254). The majority of the metal in the research area in LN II is thought to have been imported from this region, as discussed in Chapter 4. However, the powerful position

of the Únětice region appears to decline from 1700 BC and is thought to have collapsed around 1600 BC (Meller 2013:522-523, Risch & Meller 2015:254-255). The debate on what caused this decline and collapse is left aside here. Of interest for the research area is that with this decline and – eventually – collapse, the established exchange networks and metal supply routes opened up, and new possibilities in terms of exchange arose (Vandkilde 2017:164). Precisely in this period, a link between southern Scandinavia and the Carpathian Basin starts to become visible in the archaeological record in the research area, a link that becomes much stronger in the subsequent period IB (Vandkilde 2014:609).

The metalwork from this period indeed shows a decline in Únětice influences. In Denmark, metalwork was still imported from Central Europe in period IA, but not exclusively from the Únětice region anymore (Vandkilde 1996:220-222), and a link with the Carpathian basin also starts to become established (Vandkilde 2014b:609). Almost all of the finished imported metal objects in Denmark in this period are thought to originate from Central Europe (Vandkilde 1996:220). The metal used for the local production of metalwork in Denmark is also thought to come from this region (Vandkilde 1996:222). Most of the IA metalwork is in fact thought to be locally manufactured: 87% consists of locally made objects, compared to 75% of all LN II metalwork (Vandkilde 1996 figs. 212, 233, 266). Locally manufactured metalwork thus became increasingly common in depositions, a trend that continues in the subsequent period IB (Vandkilde 1996, fig. 266, see Chapter 6). In Niedersachsen, Únětice imports are still common in Laux's *Zeitstufe* Marwedel, but locally made axes also occur (*e.g.* Laux 2000:39). Metalwork from this period is very rare in the Netherlands. The few objects from this region that *do* possibly date to period IA are all thought to be imports, while a local production of metalwork did exist previously. This puzzling situation is discussed further later on in this chapter. The issues with determining whether a metal object is locally made or imported are addressed in the previous chapter, and are discussed at length in Chapter 8; in this data-based chapter, the information given in the literature is followed.

To sum up, it is evident that a shift in exchange networks as well as in metalworking practices took place in this period. Are these changes reflected in the conventions behind metalwork depositions?

5.1.2 Period IA metalwork: introduction

Although LN II was the first period with larger quantities of metalwork in the entire research area, the amount of metalwork in the archaeological record in period IA varies greatly in different parts of the research area (see Figure 5.1, Figure 5.2). In Denmark, the amount of metalwork increases, keeping in mind that LN II and period IA are not of equal length (cf. Vandkilde 1996:222). There is also an increase in northern Germany. However, very few metal objects in the Netherlands can be dated to this period.

In terms of metal composition, all metalwork in southern Scandinavia was made of tin bronze from the start of period IA (Vandkilde 1996, fig. 46). The first tin bronzes had emerged in Denmark in LN II (Vandkilde 1996:263, Pare 2000:27). This fits in the bigger European picture: IA is the first period in which full tin bronzes were used all over Europe (Pare 2000, fig. 1.14, Vandkilde 2017:135).

The bronzes dating to period IA include both familiar and new object types. Low-flanged axes, nick-flanged chisels, metal daggers, and various types of metal

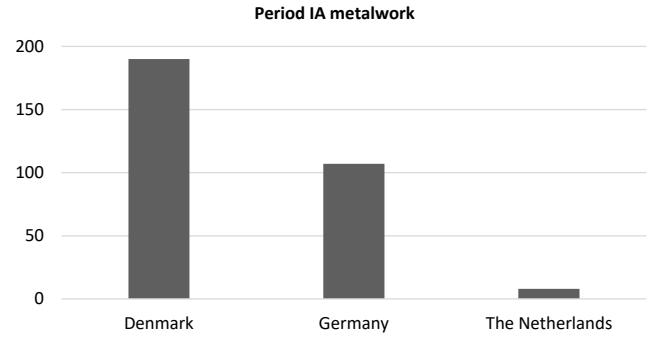


Figure 5.1. The total number of metal objects in the database dating to period IA.

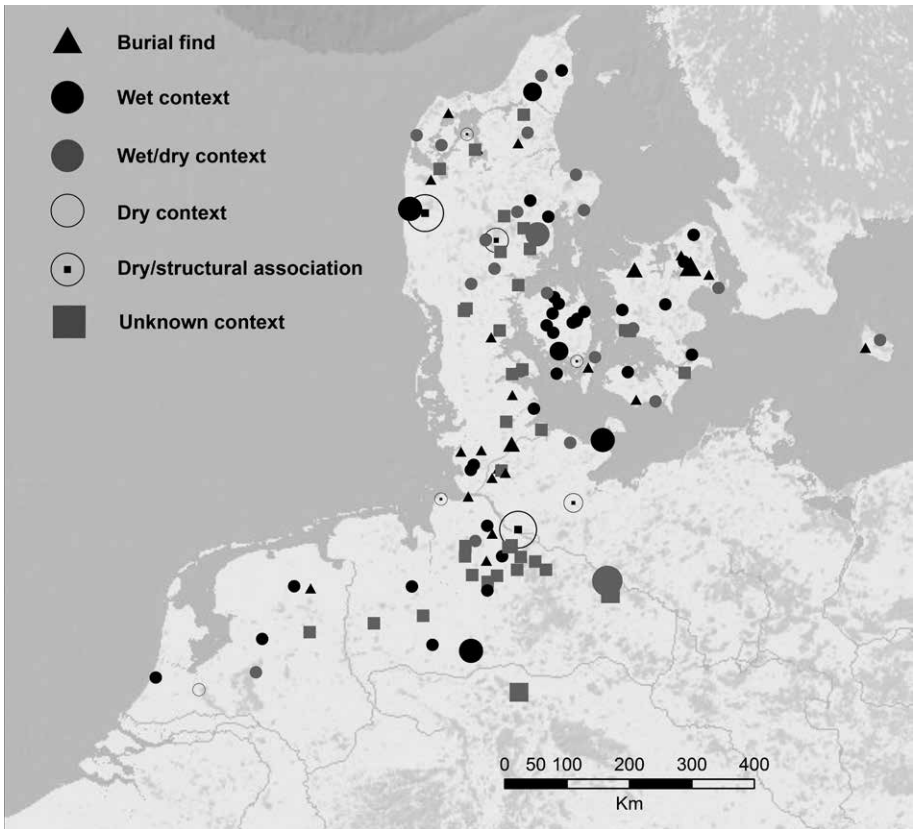


Figure 5.2. The geographical distribution of period IA metalwork in the research area. The size of the symbols indicates the number of objects found (largest symbol: 47 objects).

ornaments still occur, although in different shapes than before. Halberds, however, are no longer in circulation. A completely new object type in this period is the socketed bronze spearhead (Vandkilde 1996:212). Spearheads may have reached Central Europe, and from there southern Scandinavia, from the Carpathian Basin (Vandkilde 2014b:609), and they very rapidly became very common in Denmark (see Section 5.4). They were an innovation and represent a new technique: they are

the first socketed metal object in the research area (cf. Vandkilde 2014b:617). Does this have implications for how they were deposited? How were these 'new' objects deposited compared to objects that had a deep-rooted local tradition, like axes? This question is discussed in the following sections.

To sum up, not only did a shift in exchange networks and metalworking practices take place in this period, but completely new object types also emerged, and the amount of metalwork varies greatly in different regions. Period IA clearly was a period of change. In the following sections, the patterns in selective deposition of the main object categories daggers, axes, spearheads, and ornaments are systematically examined in order to investigate the conventions behind selective metalwork deposition in period IA.

5.2 Flint and metal daggers

Both flint and metal daggers were deposited in period IA, just like in the preceding LN II. However, the metal daggers of period IA are of a different type than the earlier LN II daggers: most of them are not metal-hilted, in contrast to the metal-hilted daggers that were typical for LN II. Flint daggers occur in two types in period IA: fishtail flint daggers and type VI daggers. The former predominantly date to LN II, but may have continued into period IA (type V, Vandkilde 1996:13-14). The selective deposition of fishtail flint daggers (types IV and V) is discussed in Chapter 4. This section focuses on the selective deposition of flint daggers of type VI, the youngest type in the south Scandinavian flint dagger typochronology, dating to period I and II of the Nordic Bronze Age (Lomborg 1973:70). These daggers do not have the typical fishtail-shaped hilt of type IV and V daggers, but vary in shape (Lomborg 1973:61-62, see Figure 6.4). How were flint daggers and metal daggers deposited in period IA? We will start by examining patterns in flint dagger depositions.

For type VI flint daggers, the data from the Netherlands and northern Germany are patchy. VI flint daggers are extremely rare in the Netherlands (Bloemers 1968:91-92, Beuker & Drenth 1999). Apparently, they were rarely deposited there, just like the earlier fishtail flint daggers (see Chapter 4). They are more numerous in Niedersachsen, but still much less common than LN I lanceolate flint daggers, and most of them come from unknown contexts (Siemann 2003, 2005). Nevertheless, a number of possible or certain burial finds is known from Niedersachsen, while hoards with flint daggers are unknown (Siemann 2003, 2005). In Schleswig-Holstein, type V and VI daggers are the most common dagger types in burials (Kühn 1979:15). The available evidence thus suggests that flint daggers were mostly used as burial gifts in northern Germany in period IA. Furthermore, it is striking that type VI is the most numerous dagger type in Schleswig-Holstein (Kühn 1979, fig. 13), while type I daggers are most numerous in Denmark (Lomborg 1973:64, fig. 42). It should be noted that one burial in Schleswig-Holstein (Deutsch-Nienhof) contains both a VI flint dagger and a metal dagger of Virring type (see below), and also a flint blade. This assemblage might suggest that metal and flint daggers did not exclude each other in burials, but based on only one burial, this cannot be concluded.

In Denmark, type VI daggers follow a pattern similar to LN II fishtail daggers: they are less abundant than lanceolate daggers of type I, and they are predominantly used as burial gifts (see Figure 5.3). Deposits are rare, and it is unknown from which landscape contexts these dagger deposits come. A small number of VI flint daggers

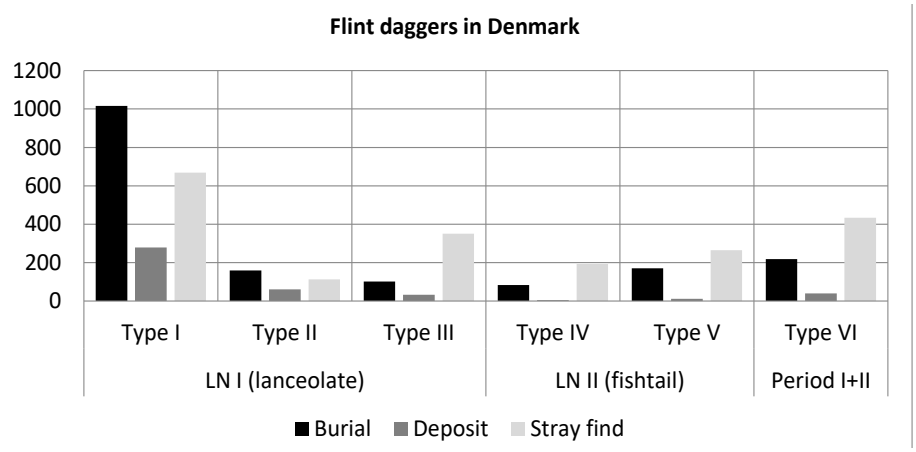


Figure 5.3. Flint daggers of types I-VI in Denmark for each context type (based on data in Lomborg 1973:64, fig. 42).

have been found together with metal objects in Denmark, and therefore they are included in the dataset. These are all burial finds: three period IA burials contain a VI dagger as well as metalwork. The contents of these burials are quite varied: apart from a VI flint dagger, they contain one or more bronze ornaments (*e.g.* a *Kugelkopfnadel* or *Noppenring*), a bronze spearhead, and/or other flint items. None of them contains a metal dagger or sword, which might indicate that metal and flint daggers excluded each other in burials. However, based on only three burials, this cannot be concluded. Metal daggers/swords were not yet an established element in period IA burials in Denmark, but this changes in the subsequent period IB, when they become abundant in burials (see Chapter 6).

Summing up, type VI flint daggers were predominantly used as burial gifts in Denmark, and probably also in northern Germany. They were apparently rarely deposited in the Netherlands. VI flint daggers were rarely combined with metalwork; occasionally, they were combined with metal objects in burials, in one case with a metal dagger.

Moving on to metal daggers, metal daggers of Virring type, called after the eponymous Virring hoard from Denmark, are typologically dated to period IA by Vandkilde (1996:214, see Figure 5.10). This type name is specifically used in south Scandinavian literature; internationally these daggers are called "grooved ogival daggers" (Vandkilde 1996:214; Butler, Lanting & Van der Waals 1972:236). Such grooved ogival daggers have been found in the entire research area, and they are called type Virring here. Two Virring daggers have been found in Denmark, four in northern Germany, and two in the Netherlands (see Figure 5.4). Similar daggers occur in the same time period in England, Brittany, Austria, and Switzerland (Vandkilde 1996:214-215; Butler, Lanting & Van der Waals 1972:236). The Virring daggers in the research area are thought to be imports from western or Central Europe (Vandkilde 1996:214). Virring daggers are a new dagger form: they look different from the LN II metal-hilted daggers. How were these new daggers then deposited? It should be noted that it can be difficult to distinguish Virring daggers from other similar daggers, *e.g.* Tréboul-St. Brandan blades, which have a somewhat later dating and are therefore discussed in Chapter 6.

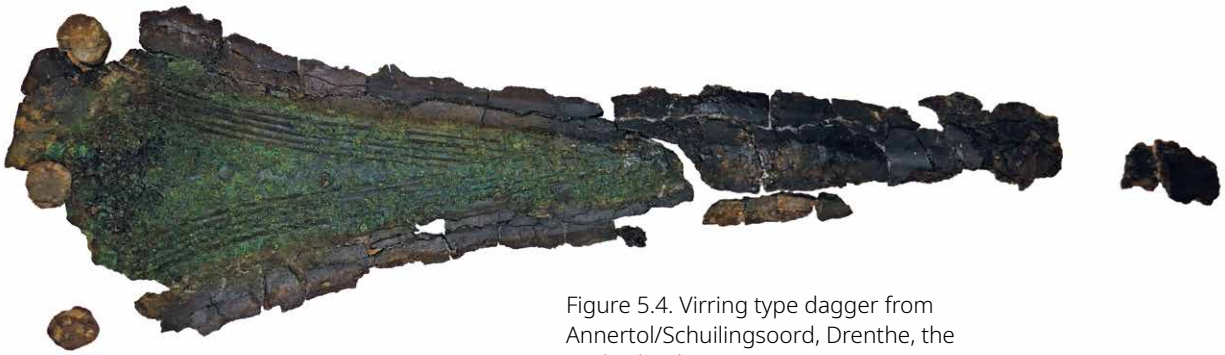


Figure 5.4. Virring type dagger from Annertol/Schuilingsoord, Drenthe, the Netherlands (Drents Museum 1921/VII.12, preserved length 16.1 cm). Photo: Marieke Visser. Scale 1:1.

In addition to Virring daggers, a number of other daggers without metal hilt have been found in Denmark and northern Germany. Some of them are difficult to assign to a type, since their shape and appearance is not very distinct; their dating is therefore not always certain (Vandkilde 1996:214-215). Lastly, one metal-hilted dagger from Denmark is typologically dated to period IA (Vandkilde 1996:216). These daggers are thought to be imports from western or Central Europe (Vandkilde 1996:214-216). It should be noted that Hajdúsámson-Apa swords, which have an early dating in 'sword terms', are not discussed in this chapter, but in Chapter 6, since they are dated to the beginning of period IB by Vandkilde (1996:224-225).

Turning to the conventions behind metal dagger depositions in period IA, it is difficult to discern any clear patterns, as daggers were deposited in a variety of contexts in period IA (see Table 5.1). The two Virring daggers from Denmark unfortunately both have limited find context information. One is a single find, and the other is part of the Virring hoard, as mentioned above. Three Virring daggers from northern Germany are burial finds, and this also applies to one of the two daggers from the Netherlands. In addition, two unclassified dagger blades from Denmark are burial finds. Evidently, metal daggers could now be used as burial gifts, in contrast to LN II, when metal daggers were deposited in wet contexts. This association between metal daggers and burials becomes much stronger in period IB (see Chapter 6). However, daggers were also deposited in wet contexts in period IA, both singly and in hoards. The selection of places for dagger deposition was apparently not very rigid in this period, in contrast to LN II. Two north German hoards, Klein-Wesenberg and Neuratjensdorf, contain a dagger blade each (not of Virring type); these hoards, as well as the Virring hoard, are discussed in more detail in Section 5.7.

In terms of the daggers' biographies, only some general observations can be made. The daggers in Denmark and the Netherlands are thought to be imports (Butler, Lanting & Van der Waals 1972:236-238, Vandkilde 1996:214-216, Van der Sanden 2014:30), and by analogy, this probably also applies to the north German finds. A thorough use wear analysis has not been carried out on all daggers, but a number of them is thought to have been used (Horn 2013, table 1). Most of them are decorated.

To sum up, period IA metal daggers are a heterogeneous group. Some are assigned to the Virring type, but others do not have a very distinct shape and appearance. Apparently, the shape of metal daggers was not of great importance in this period. Overall, they do look very different from LN II metal-hilted daggers. They are all thought to be imports. They occur in

Bronze daggers IA	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**6**	**6**	**-**	**2**	**14**
Burial find	2	3		1	**6**
Single find	2	1		1	**4**
Wet	*1*	-		*1*	***2***
Dry	-	-		-	**-**
Settlement	-	-		-	**-**
At/in burial mound	-	-		-	**-**
Close to/below stone	-	-		-	**-**
Gravel/sand	-	-		-	**-**
Field	-	-		-	**-**
Unknown	*1*	*1*		-	***2***
Hoard	1 dagger 1 hoard	2 daggers 2 hoards		-	**3 daggers 3 hoards**
Wet	-	*1*			***1***
Dry	-	-			**-**
Settlement	-	-			**-**
Stone setting	-	-			**-**
At/in burial mound	-	*1*			***1***
Alignment	-	-			**-**
Gravel/sand	-	-			**-**
Field	*1*	-			***1***
Unknown	-	-			**-**
Unknown	1	-		-	**1**
Details					
Decorated	4	4		2	**10**
Undecorated	2	1		-	**3**
No information	-	1		-	**1**
Import	4	1		2	**7**
Local	-	-		-	**-**
Import or local	-	-		-	**-**
Origin unknown	2	5		-	**7**
Used	3	1		-	**4**
Possibly	-	-		-	**-**
Unused	-	1		-	**1**
Use unknown	3	4		2	**9**

Table 5.1. Selective deposition of metal daggers in IA. Mainly based on data in A&K, Butler, Lanting & Van der Waals 1972, Laux 2009, Van der Sanden 2014, Vandkilde 1996.

burials and in wet contexts, both in hoards and as single finds; the selection of places was not very rigid, in contrast to LN II, when metal daggers were almost exclusively deposited in wet contexts. Metal daggers could now be used as burial gifts, while this never happened in LN II.

To conclude, comparing the selective deposition of flint daggers and metal daggers in period IA, a strict separation between the two dagger categories like in LN II (see Chapter 4) is not observable in this period. Flint daggers were still predominantly used as burial gifts in period IA, but metal daggers were also often buried with the dead. Flint and metal daggers, however, were usually not combined in burials. But metal daggers were also deposited in wet contexts; they are not limited to a specific context type. There seems to have been a shift in the conventions behind dagger depositions between LN II and period IA. The inclusion of metal daggers in burial assemblages is a new development compared to the previous period; this becomes common practice in the following period IB.

5.3 Axes and chisels

5.3.1 Axes

Axes continue to be the most common object category in period IA. The bronze axes from period IA are low-flanged, although the very first high-flanged axes may have appeared in western Europe in this period (Butler 1995/96, types Arreton and Fussgönheim). They are particularly abundant in Denmark, while some data from Schleswig-Holstein is probably missing, just like for LN II, as discussed in Chapter 2 (see Table 5.2). Period IA axes are surprisingly rare in the Netherlands (see Table 5.2).

This lack of axes in the Netherlands warrants examining in more detail. All of the Dutch low-flanged axes are thought to date to the EBA (Butler 1995/96:174-192), while the high-flanged axes date to period IB in south Scandinavian terms (Butler 1995/96). This leaves only a few axes which may date to period IA, including axes of types Fussgönheim and Arreton, which are both thought to be imports (Butler 1995/96 no. 59-60, 69-71). These may, however, also date to period IB (Butler 1995/96:193, Fontijn 2002:93). This lack of axes is surprising, as this period sees an increase in metalwork both in Denmark and in northern Germany. Furthermore, it is thought that there was a local production of metalwork in the Netherlands in the preceding EBA (Emmen axes, see Chapter 4), and in the subsequent period IB (Butler 1995/96:220, see Chapter 6). It is surprising that there was apparently no axe tradition 'in between'. This remarkable lack of axes has also been observed for the southern Netherlands (Fontijn 2002:97). Were there actually very few metal axes in circulation, or were axe *depositions* rare in this period? It is unlikely that there were no bronze axes in circulation in these fully agrarian communities (Fontijn 2002:97). Even though typochronological problems may play a role here too (Fontijn 2002:97, 110), a dip in metalwork deposition in this period seems to be a likely scenario.

While LN II low-flanged axes were remarkably similar-looking, with imported Anglo-Irish axes as an exception, there is a somewhat greater variety in axe shapes and sizes in period IA (see Figure 5.5). Axes of 'normal' shape and size are common, and these are mostly locally made, such as Virring and Torsted-Tinsdahl axes in Denmark, which are overall quite similar-looking (Vandkilde 1996:100-101, see Figure 5.5). A small number of imported axes also occurs in the research area, including axes of types Langquaid, Langenfeld, and Kläden. They look very different from local axes: these axes are long, slender, and long-butted (see Figure 5.5). These are thought to be imported from Central Europe (Vandkilde 1996:103, 106; Laux 2000:38-39, 55). However, elongated, oversized versions of normally shorter and smaller axes also occur in the research area, like the *Prunkbeil* from Hilversum (the Netherlands, Butler et al. 2014), the oversized axes from Boest (Denmark, Rassmann et al. 2015), and the oversized axe from Schwinge (northern Germany, Laux 2000 no. 105). Elongated, oversized axes appear to be a specific phenomenon for this period, not only in the research area, but also in Central Europe (Butler et al. 2014:25, Kibbert 1980:120-122). These oversized axes obviously stand out visually from the bulk of the axes that have a 'normal' size and shape. How were these visually different axes treated in selective deposition practices?

Turning to the conventions behind axe depositions in period IA, it is clear that axes were predominantly not used as burial gifts, and this applies to the entire research area (see Table 5.2). Most of the axes are single finds, and most of these single finds come from wet contexts. However, wetland finds do not dominate as strongly as in the preceding

Figure 5.5. Selection of axe types dating to period IA. A: Virring axe from the Torsted hoard (18.5 cm). Photo: National Museum of Denmark, Lennart Larsen, cropped, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/2014. B: Langquaid type axe from southern Germany. Photo: Landesmuseum Württemberg, Stuttgart / P. Frankenstein; H. Zwietasch, used under licence CC-BY-SA, https://bawue.museum-digital.de/index.php?t=objekt&oges=1093. Scale 1:3.

Bronze axes IA	**Denmark**	**Schleswig-Holstein**	**Niedersachsen**	**The Netherlands**	**Total**
Context	**96**	**12**	**38**	**3**	**149**
Burial find	5	2	1	-	**8**
Single find	55	7	6	3	**71**
Wet	*16*	*4*	*5*	*1*	***26***
Dry	-	-	-	*1*	***1***
Settlement	*1*	-	-	-	***1***
At/in burial mound	*1*	-	-	-	***1***
Close to/below stone	*1*	-	-	-	***1***
Gravel/sand	*5*	-	-	*1*	***6***
Field	*9*	*1*	*1*	-	***11***
Unknown	*22*	*2*	-	-	***24***
Hoard	24 axes 7 hoards	3 axes 3 hoards	19 axes 5 hoards	- -	**46 axes** **15 hoards**
Wet	*1*	*1*	*8*		***10***
Dry	*6*	-	-		***6***
Settlement	-	-	-		**-**
Stone setting	*7*	*1*	-		***8***
At/in burial mound	-	*1*	-		***1***
Alignment	*7*	-	-		***7***
Gravel/sand	-	-	-		**-**
Field	*3*	-	*7*		***10***
Unknown	-	-	*4*		***4***
Unknown	12	-	12	-	**24**
Details					
Decorated	10	-	7	1	**18**
Undecorated	86	11	25	2	**124**
No information	-	1	6	-	**7**
Import	4	2	16	3	**25**
Local	92	1	6	-	**99**
Import or local	-	-	-	-	**-**
Origin unknown	-	9	16	-	**25**
Used	22	2	-	-	**24**
Possibly	36	-	1	1	**38**
Unused	35	-	-	1	**36**
Use unknown	3	10	37	1	**51**

Table 5.2. The selective deposition of period IA bronze axes in the research area. Mainly based on data in: A&K, Butler 1995/96, Laux 2000, Vandkilde 1996.

LN II (see Chapter 4). Axes are also common in period IA hoards: 13 of the 15 hoards from this period contain axes. Interestingly, hoards with axes were generally deposited in different types of landscape settings than single axes: hoards with axes were relatively often deposited in dry contexts and in association with man-made structures such as stone settings, barrows, or the palisade at Boest. This pattern is particularly strong in Denmark, but it is also observable in Schleswig-Holstein, while wetland finds of hoards with axes are more common in Niedersachsen. I return to this observation in Section 5.7. Depositions of long, slender, imported axes seem to follow the same general pattern as locally made axes; they were not structurally treated differently. However, the five oversized axes deposited together inside the palisade at Boest should be mentioned here. This is a unique find from a unique context, and is discussed in further detail in Section 5.7.1.

In terms of the axes' biographies, only the Danish axes have been analysed thoroughly for use wear. Most of the axes appear to have been functional: 20% of the axes are measurably shortened due to resharpening, and 72% of the axes show damage on the cutting edge associated with practical use (Vandkilde 1996, figs. 42-43). Furthermore, the axes are cold worked on the cutting edge, which increased their hardness (Vandkilde 1996:269). Just like in LN II, there was apparently no division between functional and display axes, as decorated and undecorated axes show similar degrees of resharpening and cutting edge damage; most axes likely had both functions (Vandkilde 1996:269-270). Most of the IA axes are undecorated, but the majority of the decorated axes come from hoards. This applies to the entire research area.

Summing up, period IA low-flanged axes were mostly deposited singly in wet contexts. However, the predominance of wetland depositions is not as strong as in LN II. Axes are also common in hoards, and these were often deposited in dry contexts in association with man-made structures, particularly in Denmark. IA axes were predominantly not used as burial gifts. Elongated, oversized, imported axes were generally not deposited differently from local, 'normal'-shaped axes. The IA axes appear to have been functional, utilitarian axes. In the Netherlands, there was a dip in axe deposition.

5.3.2 Chisels

A modest number of chisels date to this period. These are all nick-flanged, except for one chisel of unknown type. Seven of them have been found in Denmark (Vandkilde 1996, catalogue) and six in Niedersachsen (Laux 2000:68-69). Unfortunately, many of these chisels come from unknown contexts. A few single finds are known, as well as a number of possible burial finds. One chisel was found with associated objects. In terms of origin, two of the Danish chisels are thought to date early in this period and they are probably Únětice imports, while the other Danish chisels might be locally made, or perhaps imports from Central Europe (Vandkilde 1996:136). The origin of the German chisels is unclear. Two of the Danish chisels show cutting edge damage associated with practical use (Vandkilde 1996 nos. 564, 566), while it is unknown whether the German chisels are used. Based on such limited data, it is difficult to draw any conclusions.

5.4 Spearheads

Bronze spearheads are a completely new object type emerging in Central Europe and in the research area in this period, as discussed in this chapter's introduction (Jacob-Friesen 1967:105-106, Vandkilde 1996:212, Lorenz 2013:245). They may have reached Central

Europe from the Carpathian Basin (Vandkilde 2014b:609). Period IA spearheads are particularly abundant in Denmark (67 spearheads). It should be noted that 40 of them are part of the famous Torsted hoard, which is discussed in more detail in Section 5.7.1. They only occur in very modest numbers in northern Germany and the Netherlands (see Table 5.3). It has been noted before that early spearheads are rare in Niedersachsen (Jacob-Friesen 1963:224).

It is not easy to typologically date bronze spearheads, especially plain, undecorated spearheads, since they have a long dating range (Fontijn 2002:99). Nevertheless, in the current and the next chapter, the established typological classifications are used (see Jacob-Friesen 1967, Vandkilde 1996). The vast majority of the Danish spearheads (64 out of 67) are assigned to type Bagterp, variant Torsted (see Figure 5.6), which is typologically dated to period IA by Vandkilde (1996:212-213), in contrast to the Bagterp type itself, which is dated to period IB (Vandkilde 1996:212-213). The latter is therefore discussed in Chapter 6, which deals with metalwork depositions in period IB. The Bagterp type, variant Torsted is called type Bagterp-Torsted here.

Bagterp-Torsted spearheads are thought to be locally made in Denmark, with influences from Central Europe (Vandkilde 1996:212-213). They all look rather similar (Vandkilde 1996:213). Despite the fact that spearheads are a novelty, the local production of spearheads in Denmark appears thus to have taken flight very quickly, with spearheads having a standardised shape already from very early on. Three imported spearheads from Central Europe also occur in Denmark (Vandkilde 1996:212), and one in northern Germany (Vandkilde 1996:212). The two Dutch spearheads are thought to be imports from Switzerland, and both spearheads may have reached the Netherlands via the Rhine (Butler 1963:245).

Spearheads embody a completely new technique; they were the first socketed object in the research area. They are thought to have been used in a very specific way: they seem primarily to have been used as weapons (Horn 2013:18, 21-23, and catalogue). They had thus a specific function, in contrast to axes, which were used for a variety of purposes (see Chapter 8). Does this specific function and use have implications for how spearheads were deposited? How was this new object type treated in selective deposition practices?

Turning to the conventions behind selective deposition of bronze spearheads, it is evident that spearheads were predominantly deposited in hoards (see Table 5.3). Burial finds and single finds are rare. The Torsted hoard of course influences these numbers: 60% of the Danish spearheads come from this huge hoard. Nevertheless, six of the eight period IA hoards from Denmark contain spearheads, so they were in fact an important element in hoards in this period. These hoards were deposited in a variety of contexts, including wet and dry contexts. As discussed in Chapter 1, the Torsted hoard was deposited inside a man-made stone structure, and the same applies to the north German Tinsdahl hoard. Interestingly, all of these Danish hoards contain more than one spearhead; some exclusively consist of spearheads, while others combine spearheads with low-flanged axes. Spearheads do thus usually not occur alone in depositions. These hoards are examined in more detail in Section 5.7.

In terms of the spearheads' biographies, some have been subject of a use wear analysis carried out by Horn (2013). He argues that the majority of the analysed spearheads was used in hand-to-hand combat in a fencing-like type of fighting, in a similar way to swords (Horn 2013:18, 21-23, and catalogue). Most of the spearheads are undecorated, but decorated spearheads do occur; in the Torsted hoard, at least

Figure 5.6. Three spearheads of type Bagterp-Torsted from the Torsted hoard, dating to period IA (14-15.3 cm). Photo: National Museum of Denmark, Lennart Larsen, cropped, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/2014. Scale 1:3.

Bronze spearheads IA	**Denmark**	**Schleswig-Holstein**	**Niedersachsen**	**The Netherlands**	**Total**
Context	**67**	**1**	**-**	**2**	**70**
Burial find	3	-		-	**3**
Single find	4	-		1	**5**
Wet	*1*			*1*	***1***
Dry	-			-	**-**
Settlement	-			-	**-**
At/in burial mound	-			-	**-**
Close to/below stone	-			-	**-**
Gravel/sand	-			-	**-**
Field	*3*			-	***3***
Unknown	-			-	**-**
Hoard	59 spearheads 6 hoards	1 spearhead 1 hoard		-	**60 spearheads 7 hoards**
Wet	*13*	-			***13***
Dry	-	-			**-**
Settlement	-	-			**-**
Stone setting	*40 (Torsted)*	*1*			***41***
At/in burial mound	-	-			**-**
Alignment	*2*	-			***2***
Gravel/sand	-	-			**-**
Field	*4*	-			***4***
Unknown	-	-			**-**
Unknown	1	-		1	**2**
Details					
Decorated	9	-		2	**11**
Undecorated	58	1		-	**59**
No information	-	-		-	**-**
Import	3	1		2	**6**
Local	64	-		-	**64**
Import or local	-	-		-	**-**
Origin unknown	-	-		-	**-**
Used	35	1		-	**36**
Possibly	-	-		1	**1**
Unused	7	-		-	**7**
Use unknown	25	-		1	**26**

Table 5.3. The selective deposition of spearheads in period IA. Mainly based on data in A&K, Butler 1963, Jacob-Friesen 1967, Vandkilde 1996.

three spearheads are decorated (Jacob-Friesen 1967:107, Becker 1964:133). Some spearheads were deposited without shaft, for instance in the Torsted hoard (Horn 2013:22). Furthermore, a number of spearheads in the Torsted hoard is thought to have been deliberately broken (Horn 2013:21-22). Although the spearheads seem thus generally to have been used, they were made unusable prior to the moment of deposition in several cases.

To sum up, the new bronze spearheads were abundant in Denmark, where a local production appears to have become established very quickly. It is striking that spearheads were in comparison rarely deposited in northern Germany and the Netherlands. In Denmark, they were predominantly deposited in hoards. They were not used as burial gifts, and single finds are also rare. They rarely occur alone: they were usually combined with other spearheads, and often with low-flanged axes. These hoards were deposited in a variety of contexts, including man-made structures. Spearheads appear to have been used in combat, and some were unusable at the moment of deposition due to deliberate breaking and/or the removal of their shafts.

5.5 Ornaments

Metal ornaments dating to period IA consist of various types of rings, such as *Noppenringe* and arm rings, *Kugelkopfnadeln* (*i.e.* pins with obliquely perforated spherical head), sheet frontlets, and *Schmuckschilde*. In the following sections, the patterns in the selective deposition of these metal ornaments are examined. Ösenringe, which originally had a function as neck rings, are discussed separately in the next section because of their probable role as currency.

The various types of metal ornaments from Denmark and northern Germany from this period are all thought to come from Central Europe (Vandkilde 1996:216-218, Wegner et al. 1996:377, Laux 2015:3). Apparently, ornaments were not manufactured locally in period IA, which is surprising since other types of metalwork *were* manufactured locally on a large scale, like axes and spearheads. Almost all of these metal ornaments are made of bronze; only two gold rings are known from this period, one from Denmark and one from northern Germany. This is in contrast to the preceding LN II, when gold *Noppenringe* were more numerous. How were these Central European ornaments deposited in the research area?

One ornament from the Netherlands should be mentioned specifically here: the composite necklace from Exloërmond, Drenthe, consisting of 14 amber, 25 tin, and four faience beads, as well as one bronze bead, perhaps a clasp (Butler 1990:54-65). Apart from this remarkable find, no metal ornaments from this period have been found in the Netherlands, which fits in the overall picture of a lack of metalwork in the Netherlands in period IA. The tin and faience beads in the necklace have parallels in the Wessex Culture, and the amber might originate in the Baltic region (Butler 1990:54-56), for which reason it is considered an import.

Turning to the conventions behind deposition of metal ornaments, remarkable differences can be observed between different parts of the research area (see Table 5.4). In Denmark, metal ornaments were predominantly used as burial gifts, a practice that became even more common in period IB. But in northern Germany, ornaments are an important element in hoards. All three period IA hoards from northern Germany contain metal ornaments. Two of them were deposited inside a man-made structure

Metal ornaments IA	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**9**	**19**	**10**	**1**	**39**
Burial find	8	2	-	-	**10**
Single find	1	-	-	1	**2**
Wet	*1*			*1*	***2***
Dry	-			-	**-**
Settlement	-			-	**-**
At/in burial mound	-			-	**-**
Close to/below stone	-			-	**-**
Gravel/sand	-			-	**-**
Field	-			-	**-**
Unknown	-			-	**-**
Hoard	-	17 ornaments 3 hoards	10 ornaments 1 hoard	-	**27 ornaments 4 hoards**
Wet		*2*	-		***2***
Dry		-	-		**-**
Settlement		-	-		**-**
Stone setting		*12*	-		***12***
At/in burial mound		*3*	-		***3***
Alignment		-	-		**-**
Gravel/sand		-	-		**-**
Field		-	*10*		***10***
Unknown		-	-		**-**
Unknown	-	-	-	-	**-**
Details					
Decorated	1	7	4	-	**12**
Undecorated	8	12	6	1	**27**
No information	-	-	-	-	**-**
Import	5	4	4	1	**14**
Local	-	-	-	-	**-**
Import or local	-	-	-	-	**-**
Origin unknown	4	15	6	-	**25**
Used	-	-	-	-	**-**
Possibly	-	-	-	-	**-**
Unused	-	-	-	-	**-**
Use unknown	9	19	10	1	**39**

Table 5.4. Selective deposition of metal ornaments in the research area (excluding Ösenringe). The necklace from the Netherlands has been counted as one ornament. Mainly based on data in: A&K, Laux 2015, Vandkilde 1996.

(Klein-Wesenberg and Tinsdahl; these hoards discussed in more detail in Section 5.7.2). It is remarkable that ornaments were not included in hoards in Denmark, as ornaments were deposited in hoards in the previous period, and rich hoards do exist in the current period. Lastly, the necklace from Drenthe was found in a peat bog.

To sum up, despite their shared origin in Central Europe, metal ornaments were treated in different ways in different parts of the research area in period IA. In Denmark, they were primarily used as burial gifts, while they were mostly deposited in hoards in northern Germany. Apparently, metal ornaments were not manufactured in the research area in this period, which is remarkable, since axes and spearheads were produced locally in high quantities. Gold ornaments were rarely deposited in period IA. The necklace from Drenthe is a spectacular find which sheds light on the exchange routes that existed in this period.

5.6 *Ösenringe*

Ösenringe, which are neck rings with flat, rolled up ends (see Figure 5.7), are thought to have functioned as a type of currency because of their standardised weight (Lenerz-de Wilde 1995, Kuijpers & Popa 2021). They are thought to have gone through a development from neck rings with an ornamental function into currency (Lenerz-de Wilde 1995:319). Most of them are made of a specific copper type, Ösenring copper, which is thought to originate in the eastern Alpine region (Krause & Pernicka 1998:199, fig. 7, Butler 2002:236). They are thought to have been manufactured in the Danube region (Vandkilde 2005b:270). They are abundant in Central Europe (Lenerz-de Wilde 1995 maps 2 and 3), and they have a long dating range (Lorenz 2013 figs. 5, 6, 7, Von Brunn 1959:35, Lenerz-de Wilde 1995:288-289). Hoards with massive numbers of Ösenringe have been found in for example Bavaria and Austria (Lenerz-de Wilde 1995). In southern Scandinavia and northern Germany, however, they only occur in modest numbers. Ösenringe have not been found in the Netherlands.

However, it should be noted that a few objects made of Ösenring copper do occur in the Netherlands (Butler & Van der Waals 1966/67:77, 97; Butler 1995/96:166). These objects, including the LN II Bargeroosterveld dagger and a flat axe, are thought to be imports from Central Europe (Butler & Van der Waals 1966/67:87, Butler 1995/96:167). Objects made of Ösenring copper also occur in Scandinavia in LN II, *e.g.* in the Pile hoard (Vandkilde 2005b:276, 2017:132). The entire research area was thus linked up with the European Ösenring copper network.

Turning to the conventions behind Ösenring depositions, there are differences between different parts of the research area (see Table 5.5). In northern Germany, they were mostly deposited in hoards (Tinsdahl, Neuratjensdorf, Marwedel), usually in multiples. These hoards combine Ösenringe with other objects such as axes and ornaments (see Section 5.7). They were deposited in a variety of contexts. In contrast, one single find from a bog is known from northern Germany, and from Denmark, a neck ring collar consisting of four Ösenringe which are riveted together was found in a bog (Vandkilde 1996:216, Hachmann 1957 no. 77). These four Ösenringe together thus form a set, and the Ösenringe in the Tinsdahl and Neuratjensdorf hoards are also thought to be sets (Hachmann 1957, nos. 208 and 236), although they are not riveted together. Such neck ring collars are thought to come from Bavaria, where parallels are known (David 2015:99, fig. 8; Vandkilde 1996:216). In northern Germany, Ösenringe were thus an ingredient in mixed hoards, while further to the north, Ösenringe were usually deposited in wet contexts without associated objects.

Unfortunately, it is unknown whether and how the Ösenringe in the research area were used; whether they were actually worn as neck rings. It is thus unknown whether they were deposited in their capacity as ornaments or as currency. Nevertheless, the neck ring collar from Denmark clearly gives the impression that it should be worn as an ornament. However, while metal ornaments were predominantly used as burial gifts in Denmark, as discussed in the previous section, none of the Ösenringe have been found in burials in the research area. They were thus not deposited following the conventions for metal ornaments in Denmark. This might suggest that they were not considered or used as ornaments there. In contrast, metal ornaments were mostly deposited in hoards in northern Germany, and this also applies to Ösenringe. They therefore do follow the pattern for metal ornament deposition in northern Germany.

On a European scale, three zones in terms of Ösenring deposition can be identified (Vandkilde 2005b). The finds from the research area fit in this picture. In the production

area in the Danubian region, Ösenringe were deposited in massive numbers in hoards exclusively consisting of Ösenringe, and also buried with the dead. Further to the north, in the Central German Únětice area, Ösenringe are fewer in number, and they were deposited in multi-type hoards, usually containing between one and ten Ösenringe, and also used as burial gifts in rich burials. The north German hoards from the research area belong to this zone. Lastly, in south Scandinavia, the zone that is the furthest removed from the production area, Ösenring depositions are rare, and they were usually deposited singly in wet contexts (Vandkilde 2005b). There is, however, some overlap between these zones.

To sum up, Ösenringe were manufactured in the Danube region and abundant in Central Europe. They were deposited in modest numbers in the research area. Nevertheless, metalwork made of Ösenring copper occurs in the entire research area, demonstrating that the region was part of the European Ösenring network. In northern Germany, they were deposited in mixed hoards, just like metal ornaments, which might suggest that they were considered ornaments there. In contrast, they were deposited in wet contexts without other objects in southern Scandinavia, while metal ornaments were mostly used as burial gifts there. Ösenringe were thus perhaps not considered or used as ornaments in southern Scandinavia.

5.7 Hoards: unconventional events

The previous sections examined how the main object categories were deposited. We have seen that they were not deposited in the same way: axes were for example mostly deposited singly, while spearheads were mostly deposited in hoards. Unlike in Late Neolithic II (LN II), when essentially all metalwork was deposited in similar ways, the conventions behind selective metalwork deposition in period IA of the Nordic Bronze Age were heterogeneous, or perhaps we should say *object-specific*: they varied for each object category. Each object category was deposited in its own, 'appropriate' way, and for some object categories, this meant single depositions, while for others, this meant deposition in hoards.

However, hoards were deposited much less frequently than single objects in period IA. Single object deposits were the most common type of depositional event, just like in LN II. Hoards are thus by definition an exception: they were only deposited on rare occasions. Depositing a hoard therefore must have been an event that stood out. People deliberately chose to deviate from the common practice of single object deposits by depositing multiple objects together in hoards, making these depositional events special and memorable. For this reason, the hoards from this period are examined in further detail in this section.

Fifteen hoards date to period IA (see Figure 5.8). Taking a closer look at these hoards, combining and comparing the finds from different parts of the research area, reveals regional patterns and practices. Instead of shared patterns across the research area, which was a specific trait for LN II, we see regional practices at work in Denmark, northern Germany, and the Netherlands. The hoarding practices in these regions are therefore discussed separately for each of these three regions, starting with the hoards from Denmark. What choices did people make on the rare occasions that they deposited a hoard? Which objects did they select for these hoards, and in what kind of landscape settings did they deposit them?

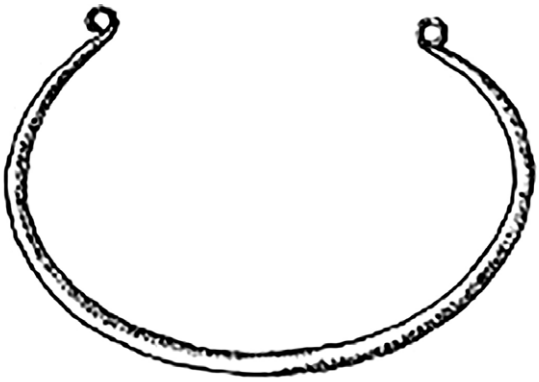


Figure 5.7. *Ösenring* from the Tinsdahl hoard, northern Germany (after Schindler 1960, Taf. 48, diameter ca. 13 cm).

Ösenringe IA	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**4**	**13**	**1**	**-**	**18**
Burial find	-	-	-	-	**-**
Single find	4	1	-	-	**5**
Wet	*4*	*1*			***5***
Dry	-	-			**-**
Settlement	-	-			**-**
At/in burial mound	-	-			**-**
Close to/below stone	-	-			**-**
Gravel/sand	-	-			**-**
Field	-	-			**-**
Unknown	-	-			**-**
Hoard	-	12 Ösenringe 2 hoards	1	-	**13**
Wet		*5*	-		***5***
Dry		-	-		**-**
Settlement		-	-		**-**
Stone setting		*7*	-		***7***
At/in burial mound		-	-		**-**
Alignment		-	-		**-**
Gravel/sand		-	-		**-**
Field		-	*1*		***1***
Unknown		-	-		**-**
Unknown	-	-	-	-	**-**
Details					
Decorated	-	-	-		**-**
Undecorated	4	13	1		**18**
No information	-	-	-		**-**
Import	4	13	1		**18**
Local	-	-	-		**-**
Import or local	-	-	-		**-**
Origin unknown	-	-	-		**-**
Used	-	-	-		**-**
Possibly	-	-	-		**-**
Unused	-	-	-		**-**
Use unknown	4	13	1		**18**

Table 5.5. Selective deposition of Ösenringe in the research area. Mainly based on data in A&K, Hachmann 1957, Laux 2015, Vandkilde 1996.

5.7.1 Hoards in Denmark

From Denmark, eight hoards are typologically dated to period IA (see Figure 5.8). The landscape settings of these hoards are examined first, after which the focus will be in on their contents.

Four of the Danish hoards were deposited in association with man-made structures. This is in contrast to single finds, which were rarely deposited in or near man-made structures in this period, as seen in the previous sections. The hoards deposited in the Boest area are the most spectacular example of this pattern. They were deposited in association with a palisade consisting of five parallel rows of posts, and pointing from what is now a lake, to a hill on which there allegedly used to be a barrow (Rassmann et al. 2015:30, 37). One hoard containing five magnificent oversized axes was actually deposited inside the palisade, next to the posts. A second hoard, containing two axes, was deposited somewhere near the palisade. A third hoard, consisting of six axes and two spearheads, was deposited ca. 100 m north-east of where the palisade is located, in a dry context. These three hoards are dated to period IA (Rassmann et al. 2015:37). Another hoard, containing gold rings and flint objects, was found inside the palisade; its dating is uncertain (Rassmann et al. 2015:37). Barrows and LN II hoards have also been found in the vicinity (Rassmann et al. 2015:28, Vandkilde 1996, catalogue). Boest obviously was an important area where human activities were concentrated over a long period of time. There are no parallels of similar landscapes with a palisade, barrows and associated hoards in Denmark (Rassmann et al. 2015:39). However, it is striking that people chose to deposit these hoards in this 'man-made landscape', instead of unmarked, natural places.

The Danish Torsted hoard (see Figure 1.1 and Figure 5.9), which was described in this thesis' introduction and which has already been mentioned frequently in this chapter, was also deposited near man-made structures. Interestingly, the north German Tinsdahl hoard (Figure 5.11) shows remarkable similarities to the Torsted hoard in terms of the depositional acts that were carried out. Both hoards were deposited in a landscape with Neolithic and Bronze Age barrows and flat graves (Schindler 1960:221-224, Becker 1964:115-116). Both were found inside a man-made stone structure: the Torsted hoard inside a stone setting, as discussed in Chapter 1 (Becker 1964:116-117, see Figure 5.9); the Tinsdahl hoard inside a stone packing (Schindler 1960:225). Lastly, both hoards were deposited inside a container: the Torsted hoard in a wooden basket (Becker 1964:116-117), the Tinsdahl hoard inside a pot (Schindler 1960:225). Despite the fact that the two hoards are separated by over 300 km, they appear to reflect the same idea.

However, not all Danish hoards were deposited in association with man-made structures. The Åbjerg hoard was found in a wet meadow close to a lake, and no barrows are known in the vicinity (A&K no. 4763). The Åstrup and Kappendrup hoards were also found in wet contexts (Vandkilde 1996 nos. 625, 628). Lastly, the Virring hoard was found in a field during ploughing, and unfortunately no further information is known about its context (A&K no. 5537, unpublished). Three hoards were thus deposited in unmarked, natural, wet places, and not in the vicinity of man-made structures.

In terms of their contents, axes and spearheads are the most important ingredients in these Danish hoards (see Figure 1.1, Figure 5.9, Figure 5.10). All of the Danish hoards contain multiple axes and/or spearheads, often combined with each other, with the Torsted hoard as the most extreme example. The Torsted hoard has been interpreted as having belonged to an army, *i.e.* a group (*e.g.* Melheim & Horn 2014:17). This interpretation is discussed in more detail in Chapter 10. These Danish hoards thus contain 'normal' object categories, but in repeated, exaggerated numbers. Such Überausstattungen ('over-equipments') are found in

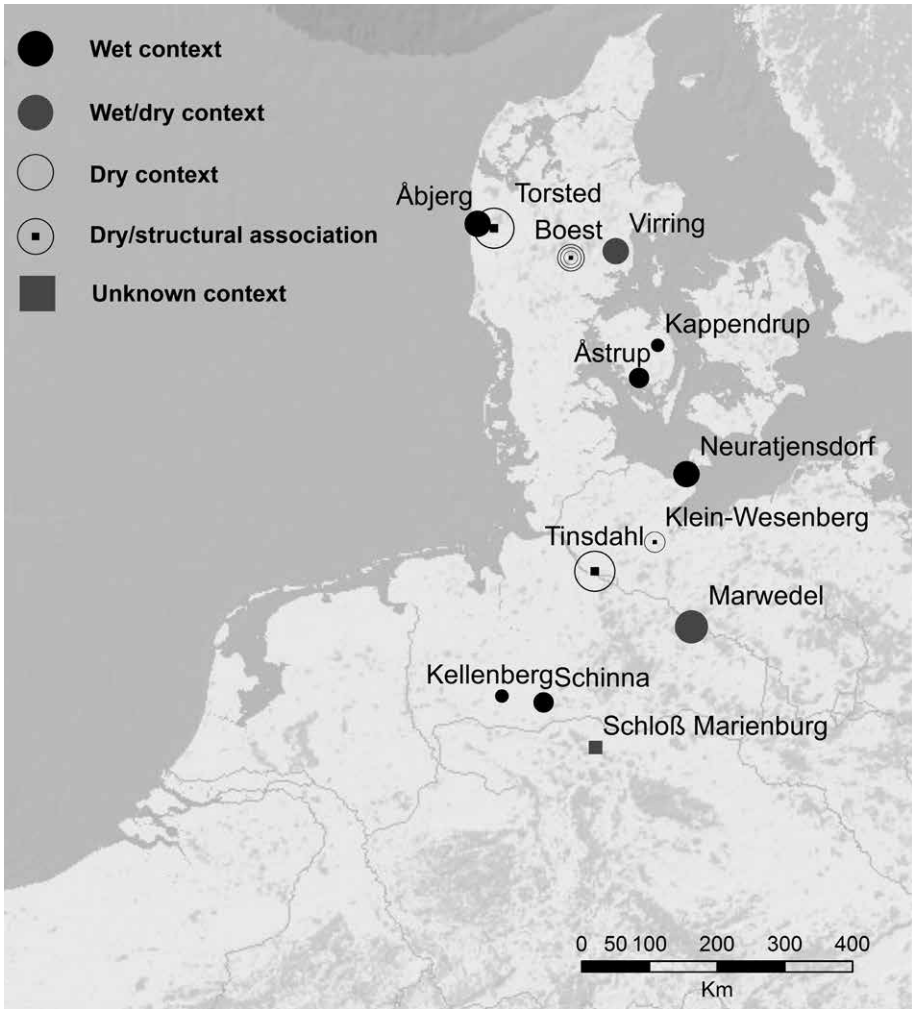


Figure 5.8. The geographical distribution of period IA hoards in the research area. Three hoards were deposited around Boest. The size of the symbols indicates the number of objects found (largest symbol: 47 objects).

burials in some regions, and in hoards in other; these two ways of accumulating metal usually do not overlap geographically (Hansen 2001:160). Indeed, no rich burials containing such object combinations occur in Denmark. The Virring hoard consists of a unique combination: it combines a Virring dagger with four spearheads and two axes. The Virring dagger was probably an unusual and uncommon object in Denmark at the time (Vandkilde 1996:219). The Boest hoard with five oversized axes contains 'normal' objects, but of exaggerated size.

All these hoards are thus excessive in some way: in terms of the number of objects, the size of the objects, or the objects themselves. The Tinsdahl hoard should, again, also be mentioned here: besides an axe and a spearhead, it contains repetitions of ornaments (see Figure 5.11). Ornaments are an important ingredient in hoards in northern Germany, as discussed in Section 5.5, so the Tinsdahl hoard fits in this pattern. Yet the spearhead and the axe fit in the Danish pattern; the Tinsdahl hoard appears to combine the two practices (see also below).

Figure 5.9. The Torsted hoard *in situ* inside the stone setting. Photo: Becker 1964:116, fig. 1.

Zooming in on the objects themselves, all of the axes in the Danish hoards are thought to be local (types Virring and Torsted-Tinsdahl, Vandkilde 1996:100-101). The five aggrandised axes from Boest are oversized versions of 'normal', local axes (Virring type, Rassmann et al. 2015:31-32). Almost all of the spearheads are also thought to be locally made (type Bagterp-Torsted, Vandkilde 1996: 212-213). The only exceptions are one spearhead in the Virring hoard, one spearhead in the Åbjerg hoard, and the Tinsdahl spearhead: these are thought to be Central European imports (Vandkilde 1996:214). Some of the ornaments in the Tinsdahl hoard are also thought to be imports from Central Europe (cf. Vandkilde 1996:216-218). Lastly, the Virring dagger is thought to be a western European import (Vandkilde 1996:214). The Virring hoard thus combines elements from western and Central Europe with local elements, while the Torsted hoard is the complete opposite in this respect: all 40 spearheads and seven axes are thought to be locally made. Locally made objects are clearly an important element in these hoards.

Taking a closer look at the objects' biographies, many of the axes are thought to have been used (Vandkilde 1996:100-101, and catalogue); these axes were probably utilitarian, every-day axes. However, the five oversized axes from Boest stand out, not only because of their size, but also because two of them are decorated, which is unusual for this axe type (Rassmann et al. 2015:32). The Bagterp-Torsted spearheads are also thought to have been used, as discussed in Section 5.4 (Becker 1964:147, Horn 2013, catalogue). According to Horn, they were used in hand-to-hand combat (Horn 2013:18, 21-23). The majority of the axes and spearheads were

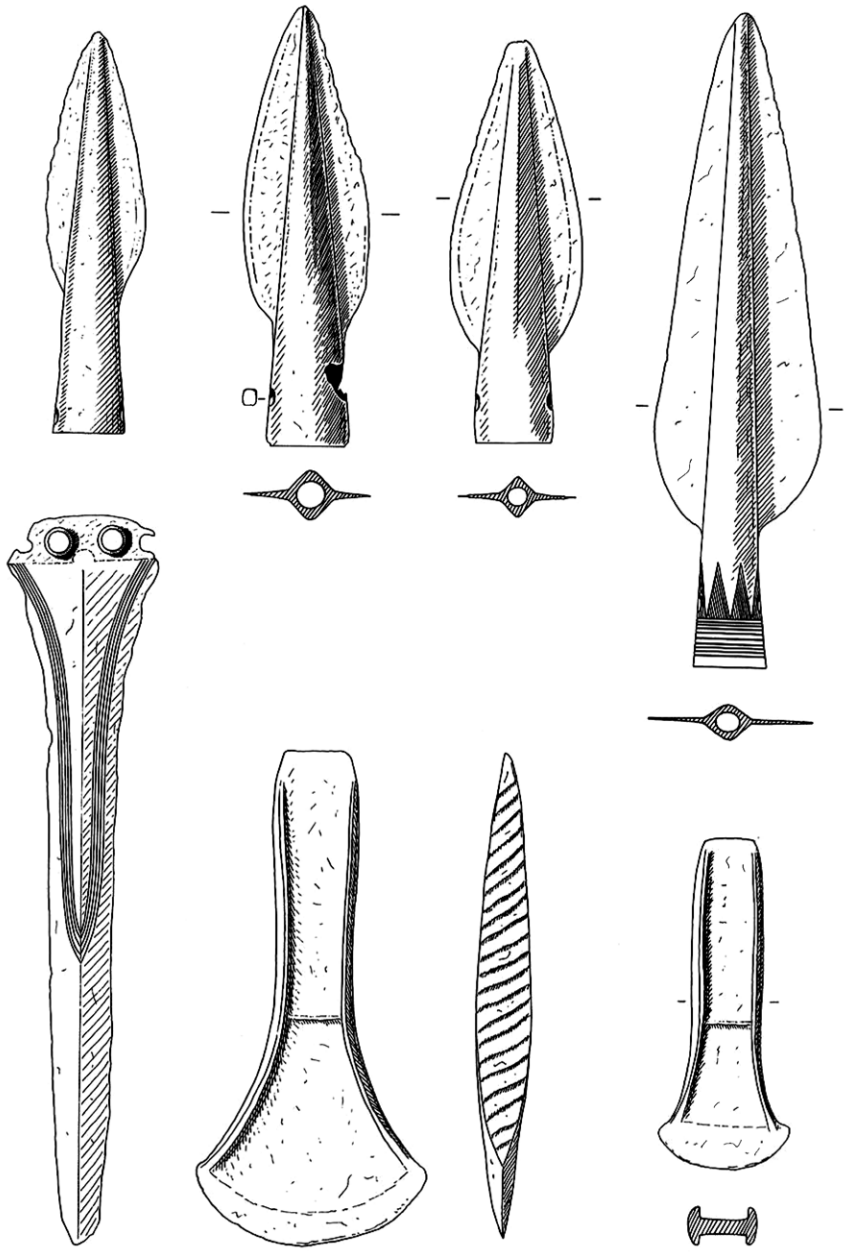


Figure 5.10. The Virring hoard (after Jacob-Friesen 1967, Taf. 12, dagger: 25.5 cm).

thus probably common, utilitarian, local objects in Denmark. Particularly in the Torsted hoard, the similarities in the biographies of the axes and the spearheads are striking: they were probably all locally made; they are all thought to have been used (Horn 2013, catalogue, Vandkilde 1996, catalogue); and some of the spearheads and axes may have been deliberately destroyed prior to deposition (A&K no. 4761, Horn 2013:21-22 and table 1). Yet the spearheads are a new object type in this period, without any predecessors, and they probably had a specific function: they were used as weapons. In contrast, axes are part of a deep-rooted local tradition of axe production and deposition, and they were used for a variety of purposes.

The spearheads and the axes in the Torsted hoard were deposited without shafts (cf. Horn 2013:22, see Figure 5.9). This, and the fact that some of them were probably deliberately destroyed, means that they were not usable at the moment of deposition. The small stone setting in which they were deposited resembles a grave; indeed, the deposition of the hoard resembles a burial in a stone cist, especially since the spearheads and axes appear to be "symbolically killed" (Melheim & Horn 2014:10). As a parallel, the axe and the spearhead in the Tinsdahl hoard must also have been deposited without shaft, making them unusable at the moment of deposition, and the hoard was also deposited inside a stone packing. These depositions are thus 'burial-like', yet these objects are seldom found as burial gifts.

In conclusion, the Danish period IA hoards were remarkably often deposited in association with man-made structures, often in burial landscapes, and in some cases even inside a burial-like structure. This also applies to the north German Tinsdahl hoard. This pattern only applies to hoards: single finds were not deposited in such contexts. The hoards are excessive in terms of the number of objects and/or the size of the objects, and sometimes in terms of the objects themselves. They all contain repetitions of the same object category, mostly spearheads and axes. Most of the spearheads and axes are common, local, utilitarian objects, but they are extraordinary in terms of the exaggerated numbers in which they occur. Such Überausstattungen are not found in burials in the region. In at least some of the hoards, the objects were made unusable prior to deposition.

5.7.2 Hoards in northern Germany

Seven hoards from Germany are typologically dated to this period. Some of them are actually found at the border of the research area (see Figure 5.8). The Neuratjensdorf hoard dates early in this period (Vandkilde 1996:148-152), and this might also apply to the Klein-Wesenberg hoard, based on its similar composition (see below).

In terms of landscape settings, the hoards were found in a variety of contexts. The Neuratjensdorf hoard was found during drainage activities (Endrigkeit 2010, no. 119), *i.e.* in a wet context. The Schinna and Kellenberg hoards both come from wet contexts, too (Laux 2000 nos. 164-165, 167-168). In contrast, the Klein-Wesenberg assemblage is thought to be a hoard deposited inside a burial mound, although this interpretation is debated (see Hachmann 1957 no. 194). Remains of textile and leather were allegedly found with the hoard, which according to Hachmann does not need to contradict this interpretation (Hachmann 1957 no. 194). The Tinsdahl hoard, which was compared to the Danish hoards discussed in the previous section, was deposited in a pot inside a stone packing in the vicinity of burials (Schindler 1960:221-224). The Marwedel hoard was found in a field on a hill during ploughing (Wegener 1996:376). Lastly, the find context of the Schloß Marienburg hoard is unclear. It is thus difficult to draw any conclusions in terms of the hoards' landscape contexts.

However, in terms of their composition, the hoards do resemble each other (see Figure 5.11). The Neuratjensdorf and Klein-Wesenberg hoards both contain a triangular dagger blade (the dagger in the Klein-Wesenberg hoard has unfortunately disappeared, and no image is known), an axe, and a number of ornaments: the Neuratjensdorf hoard contains arm rings as well as a neck ring set of Ösenringe, and the Klein-Wesenberg hoard contains *Schmuckschilde*. All these objects are thought to be imports from Central Europe (Vandkilde 1996:103, 216), with the arm rings and *Schmuckschilde* probably specifically being Únětice products (Wegner et al. 1996:377,

Vandkilde 1996:206). Both hoards thus contain a combination of a triangular dagger blade, an axe, and Únětice ornaments.

The only other find in the research area containing *Schmuckschilde* is the rich Marwedel hoard (see Figure 5.12). This hoard consists of seven axes, various ornaments, including solid heavy rings and *Schmuckschilde*, and an Ösenring. The *Schmuckschilde*, the Ösenring, and some of the axes and rings are thought to be Únětice products (Wegner et al. 1996:377, Laux 2000:35, 42, Laux 2015:3). In contrast, some of the axes might be locally made (Laux 2000:49). Ösenringe, metal ornaments and an axe are also found in the Tinsdahl hoard (Figure 5.11). However, the Tinsdahl hoard also contains a spearhead, which is more in line with the Danish practice of depositing spearheads in hoards. The Schinna, Kellenberg, and Schloß Marienburg hoards all exclusively consist of axes, most of which are thought to be imports, but not from the Únětice region (Laux 2000). They are thus of a different composition than the other north German hoards which combine various object categories, and clearly show Únětice influences.

Zooming in further on the objects in the hoards, the Marwedel hoard provides a number of interesting insights. Some of the objects in the Marwedel hoard still have casting seams or are raw castings; they are obviously new and unused (Jacob-Friesen 1963:236). Other objects are fragmented, like some of the axes and rings, and some fragments of smaller rings are deliberately bent (see Figure 5.12). Based on this combination of new objects, scrap metal, and currency (the Ösenring), the hoard has been interpreted as a trader's hoard (Jacob-Friesen 1963:236). In this regard, it reminds us of the earlier Pile and Wageningen hoards, which also consist of a combination of new, unused objects and scrap metal. None of the other north German hoards contain scrap metal, but several of them do contain Ösenringe.

Three of the German hoards contain Ösenringe as well as other objects. They fit in the intermediate zone in terms of Ösenring deposition, *i.e.* the Únětice area, as outlined by Vandkilde (2005) and discussed in Section 5.6. In this zone, hoards typically contain one to ten Ösenringe together with other objects such as daggers, axes, or solid heavy rings (Vandkilde 2005b:273). Also characteristic for the Únětice area are hoards with many tools (Jacob-Friesen 1963:234) and the combination of flanged axes and ornaments (Laux 2015:3). The latter combination is found in the Neuratjensdorf, Klein-Wesenberg, Marwedel, and Tinsdahl hoards. The Marwedel hoard is indeed classified as an Únětice hoard (Laux 2015:3, Jacob-Friesen 1963:234). Parallels in terms of composition can be found in the regions of Sachsen and Sachsen-Anhalt (Von Brunn 1959). Furthermore, hoards were frequently deposited inside pots or containers made of organic materials and/or in stone packings in the Únětice region (Von Brunn 1959:7-9). This is precisely how the Tinsdahl hoard was deposited, and the leather and textile remains found with the Klein-Wesenberg hoard perhaps also indicate deposition inside a container. These north German hoards are thus deposited following Únětice practices. Some of them are from south-eastern Niedersachsen, an area that bordered the Únětice region and was heavily influenced by it (Jacob-Friesen 1963:233). In contrast, the three hoards exclusively consisting of axes are of a different structure. They recall the spearhead hoards from Denmark, consisting of one, common, object category.

The Tinsdahl hoard is of a special character: it appears to be a combination of two practices. Its composition, combining ornaments, Ösenringe and an axe, is in line with Únětice practices. Yet the combination of a spearhead and an axe is more in line with Danish practices, although the hoard does not contain repetitions of this object category.

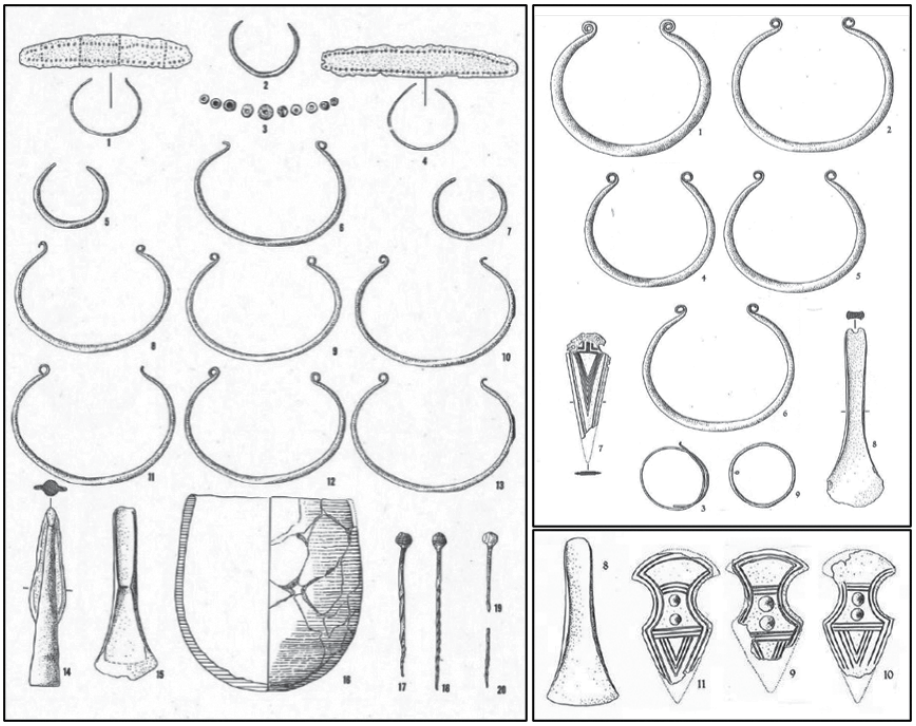


Figure 5.11. Left: the Tinsdahl hoard (after Schindler 1960, Taf. 48, pot 1:6, objects 1:3; spearhead: 15 cm). Top right: the Neuratjensdorf hoard (after Hachmann 1957, Taf. 32, axe: 19 cm). Bottom right: the Klein-Wesenberg hoard (the triangular dagger blade is missing; after Hachmann 1957, Taf 30, axe: 13.3 cm).

It does contain repetitions of ornaments, which fits in the north German pattern. Its deposition in a pot, inside a stone packing, and in a dry context, is in line with Únětice practices, although several of the Danish hoards were also deposited in dry contexts. In terms of depositional acts, it is very similar to the Danish Torsted hoard. It appears as if two regional practices meet in the Tinsdahl hoard, which was indeed found on the border between the two regions.

These north German hoards are all rich hoards when we consider them in the framework of the archaeological record in the research area from this period. They contain large numbers of objects, and they contain a bit of everything that was valuable in these communities: metal daggers, axes, and ornaments, including rare objects such as *Schmuckschilde*. Both quantitatively and qualitatively, these hoards are rich. They also contain repetitions of the same object category. Just like the Danish hoards, these north German hoards contain Überausstattungen in Hansen's terms (2001), but in the form of different objects. Such Überausstattungen are not found in burials in the region. Instead, valuables were deposited in hoards that were excessive in terms of the number of objects and the combination of objects, and heavily influenced by Únětice practices.

Summing up, the German hoards were deposited in a variety of contexts. Some of them were deposited following Únětice practices, combining axes, ornaments, and Ösenringe; a bit of everything that was valuable. They often contain repetitions of these

Figure 5.12. The Marwedel hoard. Photo: Niedersächsisches Landesmuseum (after Wegener et al. 1996:377, *Schmuckschilde* and complete axes: ca. 13 cm).

object categories. These objects usually do not occur in burials in the region. Instead, such Überausstattungen are only found in hoards. In the Tinsdahl hoard, where Danish and Únětice hoarding practices meet.

5.7.3 Hoards in the Netherlands

No hoards from the Netherlands date to this period, as shown on the map (see Figure 5.8). This remarkable lack of metalwork in the archaeological record is discussed above. Not only hoards are lacking; metalwork has not been found in burials either, and single finds are rare. As discussed above, it is highly unlikely that there was no metalwork in circulation in this period. This period saw mixed farming societies which left a visible impact on the landscape (Fokkens 2005:357-369). It is highly unlikely that these completely agrarian communities would not have used bronze axes (Fontijn 2002:97). Instead, there was apparently a dip in deposition. Even though metalwork must have been in circulation and used in daily life, it was apparently not supposed to be deposited in the landscape at this time. No alternative depositional tradition involving materials other than metal is known from this period, either. Evidently, the practice of deliberately depositing objects in the landscape was not of importance at this time, in contrast to adjacent regions. I return to this puzzling observation in the concluding chapters.

5.7.4 Conclusion

After examining the hoards from period IA, three regional practices can be observed. In Denmark, hoards generally contain repetitions of spearheads and axes, and they were often deposited in dry contexts in association with man-made structures. Most of these spearheads and axes were locally made and used. In northern Germany, hoards were deposited following Únětice practices, containing combinations of axes, daggers, and repetitions of ornaments and/or Ösenringe, sometimes deposited inside containers in stone packings. These two regional practices meet in the Tinsdahl hoard, which was deposited on the border between the two regions. In both regions, hoards contain Überausstattungen ('over-equipments', Hansen 2001): repetitions of the same object

category that do not occur in burials. In the Netherlands, hoards were not deposited at all in this period, even though metal must have been in circulation.

5.8 Discussion

The aim of this chapter was to study the conventions behind selective metalwork deposition in period IA of the Nordic Bronze Age. While the conventions were quite uniform in LN II, an emerging heterogenisation of the conventions can be observed in period IA. This heterogenisation is observable in the selection of objects and the selection of places, as well as in regional patterns and practices. This heterogenisation is examined further below.

The conventions behind metalwork deposition were object-specific in period IA: each object category was deposited in its own way. Axes were mostly deposited singly, while spearheads were mostly deposited in hoards. Daggers start to be included more frequently in burials, a practice that became much more common in the subsequent period IB, and metal ornaments were treated following regional practices: they were mostly used as burial gifts in Denmark, but deposited in hoards in northern Germany. Metalwork was thus not deposited following all-encompassing conventions, like in LN II.

Furthermore, metal objects were deposited in a variety of landscape settings. They were still deposited in wet contexts, just like in LN II, but also in other types of landscape settings. There is a striking difference between hoards and single finds in terms of the selection of places: hoards were deposited relatively frequently in dry contexts in association with man-made structures, such as burials, while single finds were predominantly deposited in wet contexts. This pattern is particularly strong in Denmark. The fact that hoards often were deposited in different contexts than single finds shows that they were an independent depositional category of their own, and not simply a multiplication of single object deposits. This observation is expanded on in Chapter 10.

This period also sees the emergence of a burial assemblage containing metalwork. This is in contrast to LN II, when metal on the whole was rare in burials. However, burials with metalwork still occur in modest numbers in period IA compared to period IB, when burials with metalwork became extremely abundant (see Chapter 6). Period IA thus forms the prelude to this burial practice. Especially metal daggers are found in burials in period IA, and in Denmark this also applies to ornaments. Axes and spearheads are rarely found in burials in the entire research area, so people clearly chose specific metal objects to use as burial gifts. In the Netherlands, no metalwork has been found in burials from this period.

When examining the object categories that occur in depositions, axes are still the most numerous find category in period IA, just like in LN II, and most of them are thought to be locally made, at least in Denmark and Schleswig-Holstein. Imported axes also occur, and some of them look very different from the majority of the local axes. They are often long, slender, and long-butted, like Langquaid axes from Central Europe. Despite their different visual appearance, they were not deposited differently from local axes. This also applies to elongated, oversized versions of 'normal', local axes, which also occur in this period. Oversized, elongated axes appear indeed to be a specific phenomenon for period IA, not only in the research area, but also elsewhere in Europe.

New object types also occur in this period, in particular the bronze spearhead. Spearheads represent a new technique, being the first socketed object, and they

probably had a very specific function: they were used as weapons. Despite the fact that spearheads did not have any predecessors, they occur abundantly in Denmark in period IA, and the vast majority are thought to be locally made. Clearly, spearheads very quickly became very common. In contrast, they are rare in northern Germany and the Netherlands. In Denmark, they were often deposited in hoards together with axes, and always in multiples. Such Überausstattungen (Hansen 2001) are not found in burials in the region, but only in hoards. Spearheads and axes are the most important ingredient in hoards in Denmark, with the Torsted hoard as an extreme example: 40 spearheads and seven axes were deposited together in a wooden box inside a stone setting. Yet while these spearheads are a novelty, the axes are part of a deep-rooted local tradition of axe production and deposition.

In northern Germany, hoards also contain Überausstattungen, but not in the shape of spearheads and axes. Instead, hoards in this region contain repetitions of ornaments and/or Ösenringe, as well as daggers and axes. They contain a bit of everything that was valuable in terms of metalwork. Such Überausstattungen are not found in burials. These hoards were deposited following Únětice practices, which is in line with their location at the border of the Únětice region. The north German Tinsdahl hoard seems to combine both Danish and Únětice deposition practices, both in terms of its contents and the depositional acts that the hoard reflects.

In contrast to Denmark and northern Germany, there appears to have been a dip in metalwork deposition in the Netherlands. Even though a local production of metalwork is thought to have existed in the EBA and period IB in south Scandinavian terms, no metalwork tradition can be identified in between these periods. It, however, is unlikely that metalwork was not used. Instead, the practice of deliberate metalwork deposition was apparently not of any importance in this period. This puzzling situation is examined in more detail in the concluding chapters. However, the necklace made of amber, tin, and faience beads found in the peat in the northern part of the Netherlands provides a fascinating insight in the exchange routes that existed in this period.

Summing up, changes in terms of exchange networks and metalworking practices were identified in this chapter's introduction. Metal was now imported from different regions than before, new object types emerged, and the number of recorded metal objects varies greatly in each region. And indeed, after examining the conventions in this period, it is clear that there are also shifts in depositional practices. Instead of all-encompassing conventions like those in LN II, a heterogenisation of the conventions is observable, and regional practices emerge. Furthermore, metalwork could now be included in burials, which will become a common practice in the subsequent period IB (1600-1500 BC), *i.e.* the last part of the investigated time period.

How did the practice of selective metalwork deposition evolve in period IB? The amount of metalwork in deposits and burials increased rapidly in the entire research area in this time period, which is argued to be the true breakthrough of the Nordic Bronze Age in southern Scandinavia (Vandkilde 2014ab). The conventions behind selective metalwork deposition in period IB are examined in the next and last data-based chapter.

6

Patterns in selective metalwork deposition in period IB

6.1 Introduction

The conventions behind selective metalwork deposition, which had been quite uniform in Late Neolithic II (LN II), went through a heterogenisation in period IA of the Nordic Bronze Age, as argued in Chapter 5. Instead of following uniform conventions, each object category was deposited in its own specific way, and regional practices emerged. In Denmark, hoards followed a local pattern, containing spearheads and axes, while hoards in northern Germany were deposited following Únětice practices. In contrast, there was a noticeable dip in metalwork deposition in the Netherlands. Furthermore, metal objects could now be used as burial gifts: a modest number of burials contained metalwork. Nevertheless, most of the metalwork was deposited in the landscape singly; hoards were only deposited on rare occasions. Yet these hoards form a depositional category of their own. They were deposited in different landscape settings than single object deposits, often in association with man-made structures, and they are excessive in terms of the numbers of objects, size of the objects, and/or the objects themselves. Such Überausstattungen in Hansen's terms (2001) are not found in burials in the region.

How did the practice of selective metalwork deposition develop in the subsequent period IB? This chapter focuses on the conventions behind selective metalwork deposition in period IB of the Nordic Bronze Age (1600-1500 BC, Vandkilde 1996, fig. 134), the last part of the time period investigated in this study. Period IB corresponds to the last part of the Dutch Middle Bronze Age A (MBA A, 1800-1500 BC, Van den Broeke et al. 2005, fig. 1.10) and to the Sögel-Wohlde phase in north-western Germany (Laux 2009:3-7). This period is referred to as period IB from here on. Although period IA is the first period of the Nordic Bronze Age, it has been argued that the Nordic Bronze Age truly began at the start of period IB (Vandkilde 2014ab). This was a turning point in terms of the quality and quantity of metalwork in southern Scandinavia, which peaked later on in period II (Vandkilde 2014b:608). The patterns in selective metalwork deposition in period IB are examined in detail in this chapter. But before examining these conventions for each of the main object categories, the metalwork from period IB is first introduced and discussed within a broader European and regional context.

6.1.1 European and regional background

Around 1600 BC, at the start of the period under discussion, the Únětice region lost its powerful position in terms of the control of metal supplies (Meller 2013:522-523, Risch & Meller 2015:254-255), as discussed in the previous chapter. The Únětice region was thus not of any importance for the research area in this period. Instead, influences of a number of regional groups in Europe can be recognised in the metalwork in the research area. Among these are the earliest Central European Tumulus Culture and various groups in the Carpathian Basin (Vandkilde 1996:245, Vandkilde 2014b:613). Particularly the Carpathian Basin was of importance in this period: this region has been described as a "cultural crucible" where several networks converged, including the network linking up northern Europe with the south (Vandkilde 2014b:617-618). A link between the Carpathian Basin and Denmark had already emerged in period IA, and became indeed much stronger in period IB (Vandkilde 2014b:603). Period IB corresponds to the Koszider period in the Carpathian Basin, to which well-known hoards such as Hajdúsámson and Apa belong (Vandkilde 2014b:605, 609, see Section 6.2.2). These Carpathian hoards are discussed later in this chapter.

A new development in this period, which possibly reached the research area from the Carpathian Basin (Vandkilde 2014b:613, cf. Treherne 1995:109), is the emergence of burials and hoards with *weapons*, especially swords, which are interpreted as warrior equipment (Treherne 1995, Vandkilde 2014b). They are interpreted in terms of a warrior ideal that emerged in this period, revolving around the warrior and his personal equipment, which included a sword and objects associated with his personal appearance, such as ornaments, razors and tweezers (Treherne 1995). Such weapon assemblages are traditionally interpreted as belonging to male individuals (*e.g.* Hachmann 1957:30, Kristiansen 1987, Treherne 1995, Vandkilde 1996:17). This warrior ideal is thought to go back to earlier developments in the Neolithic, and exists throughout the Bronze Age (Treherne 1995). These warrior burials are thought to have been elite burials, belonging to a warrior aristocracy that emerged in this period (Kristiansen 1987, Treherne 1995, Vandkilde 1996:294). Such assemblages with swords are found in the entire research area, both in burials and in hoards. Which choices did people make when they deposited them?

A specific group of 'warrior assemblages' needs to be highlighted in more detail here. In period IB, a regional group of 'warrior assemblages', of importance on a European scale, emerged in the research area: the Sögel-Wohlde group in north-western Germany. The Sögel-Wohlde region, or the *Sögeler Kreis*, was first identified by Sprockhoff (1927) based on a group of burials with a burial package typically containing a Sögel sword and associated items (Sprockhoff 1927:133). Wohlde swords are typologically, chronologically, and geographically closely related to Sögel swords, which is why they are discussed together in this chapter. Sögel-Wohlde assemblages – both burials and hoards – occur in the entire research area (Butler 1995/1996, Laux 2000, Laux 2009, Sprockhoff 1927, Vandkilde 1996). There is some debate on whether Niedersachsen or Schleswig-Holstein was the group's heartland (Bergerbrant 2007:41, Hachmann 1957:30, Sprockhoff 1927:132-133). Nevertheless, it seems evident that the centre of this phenomenon was located in north-western Germany. Sögel-Wohlde swords have even been found as far north as Sweden and Norway and as far south as southern Germany (Sprockhoff 1927:132, 136). Sögel-Wohlde weapon burials are traditionally interpreted as male burials (Hachmann 1957:30, Vandkilde 1996:17) and the objects as warrior equipment, as discussed above.

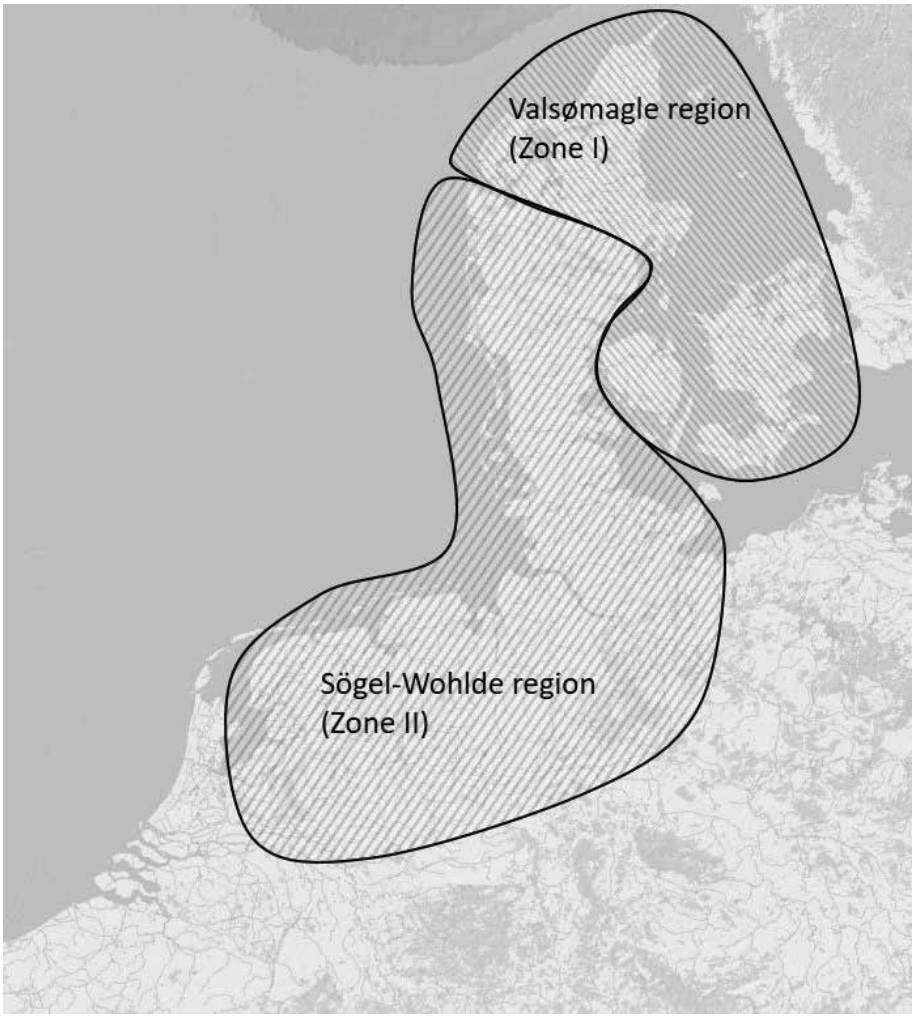


Figure 6.1. Regional division in the research area as visible in the distribution of bronze swords in burials in period IB. In Zone I, burials contain a metal-hilted Valsømagle sword or dagger and associated items; in Zone II, burials contain an organic-hilted Sögel-Wohlde sword or dagger and associated items. Based on finds in the database and Vandkilde 1996:250-252.

Zooming in even further on the research area, a regional division emerged in Denmark in period IB, as visible in the distribution of metalwork (see Figure 6.1). This division was proposed by Kersten (1935) and has since then been confirmed and refined by various authors (*e.g.* Hachmann 1957:40-43, 159, Vandkilde 1996:250-252). The south-western part of Jutland was connected with the *Sögeler Kreis*, which was characterised by Sögel-Wohlde artefacts, as discussed above. This region is traditionally called Zone II. At the same time, the north-eastern part of Jutland and the Danish islands were part of another regional tradition: the Valsømagle region, characterised by Valsømagle artefacts (Vandkilde 1996:250-251). This region is traditionally called Zone I. This division is only observable when the distribution of swords and daggers in burials is mapped; it is not visible in terms of single finds or hoards (Vandkilde 1996:250-251, 290). Since the research area comprises the entire Sögel-

Wohlde and Valsømagle regions, it provides an excellent opportunity to examine and compare selective deposition practices in these regions. What were the conventions behind metalwork depositions in the Valsømagle and Sögel-Wohlde regions?

6.1.2 Period IB metalwork: introduction

Compared to the previous investigated time periods, the amount of metalwork deposited in period IB increases remarkably. In the entire research area, metalwork is abundant in the archaeological record (see Figure 6.2, Figure 6.3). This also applies to the Netherlands, where a dip in metalwork deposition existed in the preceding period IA (see Chapter 5). The map in Figure 6.3 shows that metalwork was deposited on a large scale in this period.

Where was this abundance of metalwork manufactured? A local production of Sögel-Wohlde metalwork, including swords, is thought to have existed in the Sögel-Wohlde region in north-western Germany (Butler 1995/96:220, Laux 2009:146, Sprockhoff 1927:137, Vandkilde 1996:243). This Sögel-Wohlde metalwork occurs in the entire research area. In eastern Denmark and the Netherlands, it is thought to have been imported from the Sögel-Wohlde region. Apart from Sögel-Wohlde imports, finished imports from the Tumulus Culture in Central Europe and the Carpathian Basin occur in Denmark (Vandkilde 1996:245). In Denmark, influences from the Carpathian Basin in terms of metalwork decoration and style are also observable on locally made metalwork (Vandkilde 2014b:610, fig. 3). Nevertheless, the vast majority of the period IB metalwork in Denmark is locally manufactured (Vandkilde 1996, fig. 266, Vandkilde 2014b:620). This trend of imported finished metal objects becoming increasingly rare in depositions had already started in period IA (Vandkilde 1996 figs. 233, 266, see Chapter 5). The metal used for the local production of metalwork in Denmark is thought to come from Central Europe (Vandkilde 1996:243-246). In the Netherlands, a local production of metalwork is also thought to have existed (Butler 1995/96:220). Finished items in the Netherlands were, apart from the Sögel-Wohlde region, imported from Switzerland and the Tumulus Culture in Central Europe (Butler 1995/96:195-222).

How were these few imports deposited compared to the much more numerous locally made objects? This question is examined in the following sections. It should be noted that there are problems with determining whether a metal object is locally made or imported; these issues were already addressed in the previous data-based chapters, and are discussed in detail in Chapter 8. In this last data-based chapter, the information given in the literature is followed.

Not only the *amount* of metalwork that was deposited, but also the *variety* of object types and shapes increases in period IB, compared to the previous time periods. The main object categories discussed in the previous chapter still occur. Axes are still abundant, but they now include high-flanged, nick-flanged, and shaft hole axes, which are new in the archaeological record. Swords are also a novelty in this period. Spearheads still occur in the entire research area, as well as various types of metal ornaments. But in addition to these main object categories, a range of unusual or even unique objects occurs in small numbers, such as bronze fish hooks, belt hooks, pointed weapons, scimitars, and a mace head. Which implications does this greater variety have for selective metalwork deposition? How were these new and unusual objects deposited compared to 'normal' objects such as flanged axes?

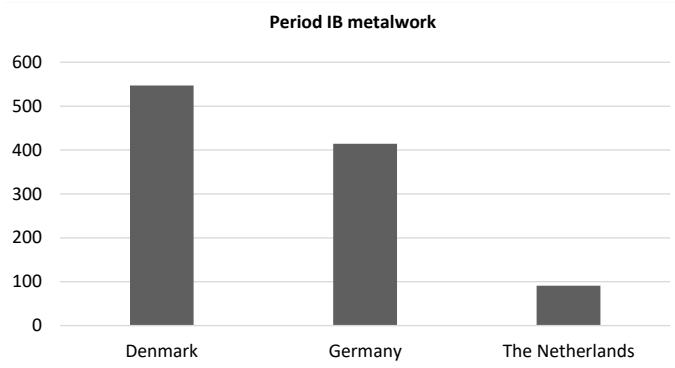


Figure 6.2. The number of metal objects in the database dating to period IB.

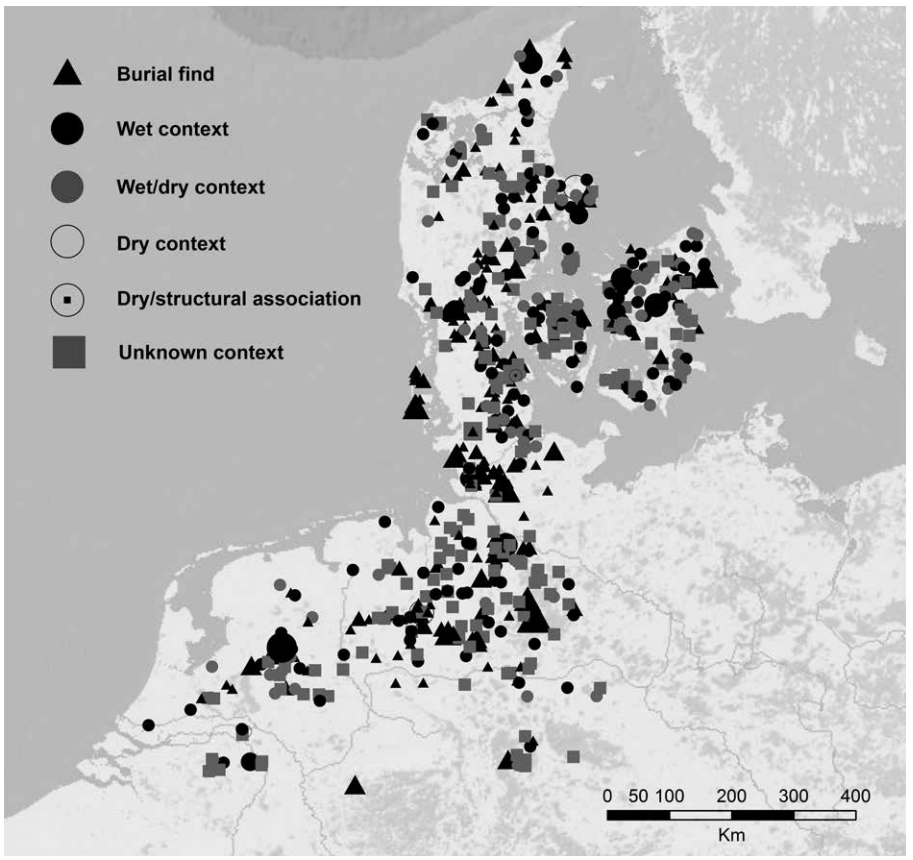


Figure 6.3. The geographical distribution of period IB metalwork in the research area. The size of the symbols indicates the number of objects found (largest symbol: 24 objects).

Summing up, period IB is a period of change in terms of exchange networks, metalworking practices, metalwork shapes and types, and regional developments. The research area became increasingly important in terms of metalwork. Does this have implications for the conventions behind selective metalwork deposition? These conventions are examined in detail below for the main object categories.

6.2 Flint and metal daggers and swords

Both flint and bronze daggers were deposited in period IB, just like in the previous periods. However, in period IB, the situation becomes a bit more complex. In addition to bronze daggers, bronze swords also emerge; they are a novelty in this period. Correspondingly, some of the flint daggers from this period should actually be called flint swords, as they appear to be copies of bronze swords. Furthermore, in some cases, flint strike-a-lights were made to look like miniature flint daggers, for which reason they also play a role in this discussion. This complicated flint-bronze-dagger-sword situation, which in itself demonstrates that daggers and swords played an important role in this period, is examined and unravelled in the following sections. What were the conventions behind the selective deposition of daggers and swords made of flint and bronze? Patterns in flint dagger depositions are examined first.

6.2.1 Flint daggers, flint swords, and dagger-shaped strike-a-lights

The flint daggers of period IB belong to type VI, which date to period IA, IB, and II (Lomborg 1973:70). The patterns in the selective deposition of these flint daggers were already discussed in Section 5.2. To summarise them very briefly: in Denmark, type VI daggers were predominantly used as burial gifts, and this probably also applies to northern Germany. They were occasionally combined with metalwork in period IA burials in Denmark and northern Germany. They were rarely deposited in the Netherlands.

Returning to period IB, VI flint daggers also occur together with metalwork in a number of assemblages, all of them burials: five in Denmark and ten in northern Germany. In one of these Danish burials and seven of these German burials, a VI flint dagger was combined with a bronze sword/dagger, in almost all cases a Sögel-Wohlde sword/dagger, and sometimes also other metal, flint and/or amber items. This combination is thus more common in northern Germany than in Denmark. It suggests that flint and metal daggers did not necessarily exclude each other in burials, at least not in northern Germany. The contents of the burials without bronze sword/dagger vary; apart from a VI flint dagger, they can contain a bronze spearhead, nick-flanged axe, bronze and/or amber ornaments, and in two cases gold ornaments. Remarkably, the five Danish burials combining a flint dagger and metalwork are all located in Jutland; this combination could apparently only occur in Jutland, *i.e.* in Zone II, a fact that has been noted before (Lomborg 1959:156-158). The combination of a type VI flint dagger and metalwork, including Sögel-Wohlde swords/daggers, was apparently only 'possible' in the Sögel-Wohlde region, and not in the Valsømagle region.

Type VI flint daggers were often used as strike-a-lights, as demonstrated by use wear on their hilt (Lomborg 1973:27-28). Therefore, it appears logical that flint strike-a-lights were sometimes made in the shape of miniature VI flint daggers (Lomborg 1959:161). It can sometimes actually be difficult to distinguish between VI flint daggers and dagger-shaped strike-a-lights (Lomborg 1973:27-28). These two object types were clearly closely connected. Of interest for this study is how these dagger-shaped strike-a-lights were deposited. Five burials in Denmark contain a dagger-shaped strike-a-light and metalwork (Lomborg 1959:172-173). These burials are not limited to a specific region: they occur both in Zone I and Zone II. Four of these burials contain a bronze dagger or sword; some of them contain additional bronze weapons, and two of the burials are among the richest in Denmark from this period (Dyssegård and Strandtved).

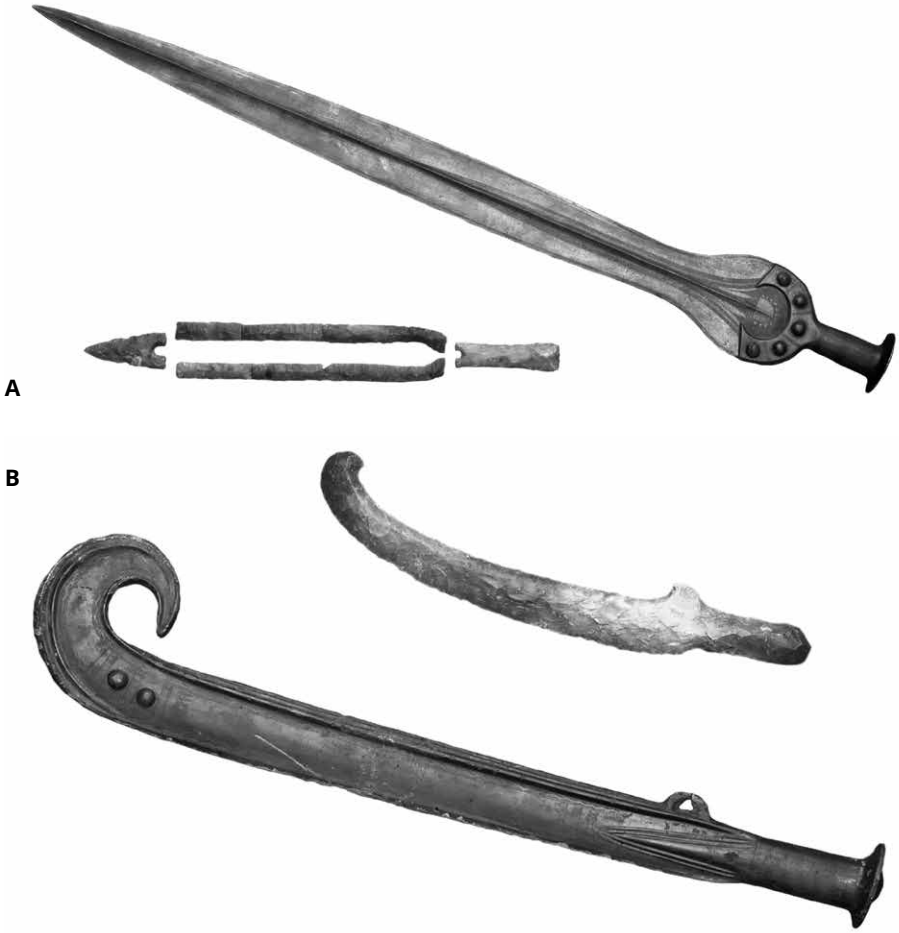


Figure 6.4. Flint swords from Denmark. A: Flint-edged sword from Åtte and bronze Hajdúsámson-Apa sword from Torupgårde. Photo: National Museum of Denmark, Lennart Larsen, cropped and adjusted to greyscale, used under licence CC-BY-SA, https://samlinger.natmus.dk/do/asset/649. B: Flint scimitar from Favrskov (31.3 cm) and one of the bronze scimitars from Rørby (60 cm). Photo: National Museum of Denmark, Lennart Larsen, cropped and adjusted to greyscale, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/746.

A small number of flint daggers from this period stand out because of their shape: they are thought to be flint copies of bronze swords (Lomborg 1959:154, 1973:63). They should in fact be called flint *swords*. If they are indeed flint copies of bronze swords, does this have implications for how they were deposited? Both in Denmark and northern Germany, so-called composite flint swords, also called flint-edged swords, have been found (Lomborg 1959:146-156, Lessig in Wegner et al. 1996:257-258). The find contexts are known of three of the flint-edged swords: they all come from burials. No assemblages are known in which they were combined with metalwork. The complete sword from Åtte is the most well-known find (Figure 6.4). The number of flint-edged swords that have been found is unknown; they may actually have been more common than we think (Lomborg 1973:63). They are around 50 cm long, too long to make out of flint in one piece; they were therefore assembled out of several pieces, constituting

the sword's point, edges, and hilt, which were probably attached to a wooden core (Lomborg 1959:146, Lessig in Wegner et al. 1996:258). Because both the blade and the hilt are made of flint, they might be modelled after metal-hilted Hajdúsámson-Apa swords, but organic-hilted Sögel-Wohlde swords/daggers have also been suggested as the inspiration (Lomborg 1959:154). Hajdúsámson-Apa swords were predominantly deposited singly in wet contexts, while Sögel-Wohlde swords/daggers were mainly used as burial gifts (see Section 6.2.2). The deposition of these flint-edged swords thus supports the interpretation as copies of Sögel-Wohlde swords.

Lastly, one flint scimitar, or curved sword, has been found in the research area. It was found in a bog in northern Funen (A&K 1773I, see Figure 6.4). It is 31.3 cm long (T. F. Sørensen 2012:53) and it is actually made out of a single piece of flint, an astonishing piece of craftsmanship. It is a unique artefact, without any known parallels in flint. It is thought to be a copy of bronze scimitars such as those from Rørby, western Zealand (Lomborg 1959:157, Lomborg 1973:74, Vandkilde 1996:232, see Figure 6.4), which were also found in a bog. These bronze scimitars are discussed in Section 6.2.2.

Summing up, type VI flint daggers were predominantly used as burial gifts in Denmark, and probably also in Germany. They were sometimes combined with metalwork in burials, but this combination only occurs in the Sögel-Wohlde region (Zone II) and never in the Valsømagle region (Zone I). Type VI flint daggers could thus be included in the Sögel-Wohlde burial package, but not in the Valsømagle burial package. In northern Germany, type VI flint daggers were sometimes combined with bronze swords/daggers, but this rarely happened in Denmark. In addition to type VI flint daggers, dagger-shaped strike-a-lights occur in Denmark, and they occasionally occur in burials with metalwork both in Zone I and Zone II, often with bronze swords/daggers. Lastly, flint swords also occur, and they appear to have been deposited in the same way as the bronze swords they are thought to be copies of, which supports their interpretation as copies. Overall, flint daggers and swords were thus primarily used as burial gifts, and when they were combined with metalwork, this only happened in burials. However, this did not happen very frequently.

6.2.2 Bronze daggers and swords

Period IB is the first period in which swords occurred in the research area, and consequently also the first period in which bronze daggers and swords both circulated. Before moving on to examine bronze dagger and sword depositions, the following question needs to be considered: what is actually the difference between a sword and a dagger?

The terminology used in the literature is frequently confusing. The same blade can be considered a sword in one catalogue and a dagger in another, and other terms such as dirk, long dagger, rapier and *Kurzschwert* are also used. Usually, swords and daggers are distinguished from each other based on their length. Some authors take 30 cm as the upper limit of daggers (*e.g.* Vandkilde 1996:239), but the definition used is often not stated. In the preceding period IA, the Virring dagger from the eponymous Virring hoard is, to our knowledge, the longest dagger, measuring 25.5 cm, and staying well under the upper limit of 30 cm. In contrast, swords of up to 60 cm occur in period IB. However, it should be noted that the so-called metal-hilted daggers from the LN II Dettum hoard (Niedersachsen, see Chapter 4) measure more than 40 cm; they should thus perhaps in fact be considered swords, which would mean that swords already

Figure 6.5. Various bronze sword and dagger types from period IB. A: Valsømagle sword, from Valsømagle I hoard, Zealand, Denmark (81.4 cm). Photo: National Museum of Denmark, Arnold Mikkelsen, cropped, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/13921. B: Hajdúsámson-Apa sword, single find from Stensgård, Lolland, Denmark (67 cm). Photo: National Museum of Denmark, John Lee, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/6663. C: Scimitar from the Rørby hoard, Zealand, Denmark (60 cm). Photo: National Museum of Denmark, John Lee, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/6663. D: Wohlde dagger, single find from Buinerveen, Drenthe, the Netherlands (Drents Museum 1992/VII.1, 15.4 cm). Photo: Marieke Visser.

existed long before period IB! This again shows that the terminology and definitions used are problematic. A further complicating factor is that many swords and daggers are damaged, so it is often impossible to reconstruct their original length.

Nevertheless, in the present study, the classifications 'dagger' or 'sword' in the various catalogues have mostly been followed, with one exception: Sögel and Wohlde swords and daggers (see Figure 6.5). Their classifications as 'sword' or 'dagger' in the various catalogues are particularly often contradictory, because they often take an intermediate position between daggers and swords in terms of their length. Indeed, they are often referred to as 'long daggers' or *Kurzschwerter*. Therefore, they have been merged into 'swords/daggers' in the database as well as in this chapter.

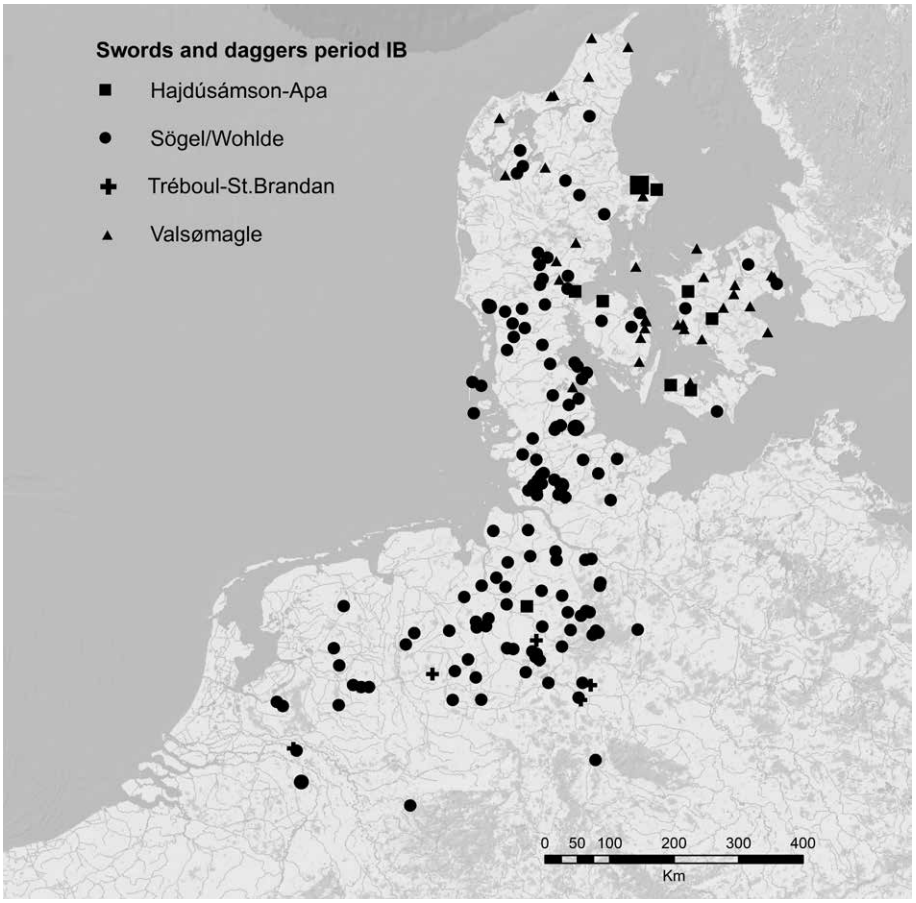


Figure 6.6. The distribution of bronze daggers and swords dating to period IB. The size of the symbols indicates the number of swords or daggers found at a site (largest symbol: 8 objects).

Bronze swords are thus a novelty in this period. Hajdúsámson-Apa swords are in fact the earliest swords in the research area: they are thought to date to the beginning of period IB (Vandkilde 1996:225, see Figure 6.5). Does the fact that they are the first swords have implications for how these particular swords were deposited? And how was this innovation treated in selective deposition practices? Swords are thought to have been made for a specific purpose: they were specifically made to be used as weapons. Does this specific function have implications for how they were deposited?

Bronze daggers and swords are found all over the research area in this period (see Figure 6.6). Table 6.1 shows the patterns in the selective deposition of all bronze swords and daggers in period IB. They have been divided into a number of types, of which the main are Hajdúsámson-Apa, Valsømagle, Sögel-Wohlde, and Tréboul-St. Brandan (see Figure 6.5). Some of them are metal-hilted (Hajdúsámson-Apa and Valsømagle) while others had organic hilts (Sögel-Wohlde and Tréboul-St. Brandan). In addition, two bronze scimitars have been found in Denmark. The swords of this period are thus of varying shapes (see Figure 6.5). In the following sections, the conventions are discussed separately for each of these types in order to investigate whether they were deposited in similar ways.

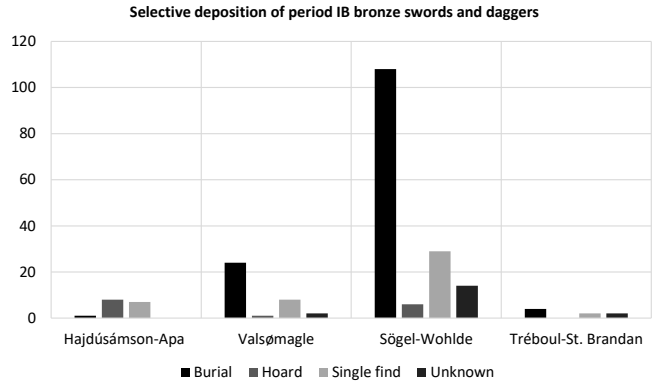


Figure 6.7. Selective deposition of Hajdúsámson-Apa, Valsømagle, Sögel-Wohlde, and Tréboul-St. Brandan swords and daggers in the research area in period IB (number of swords and daggers).

Bronze daggers and swords IB	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**101**	**60**	**71**	**16**	**248**
Burial find	60	52	47	8	**167**
Single find	25	2	13	5	**45**
Wet	*10*	*1*	*10*	*4*	***25***
Dry	-	-	*1*	*1*	***2***
Settlement	-	-	-	-	**-**
At/in burial mound	-	-	-	-	**-**
Close to/below stone	-	-	-	-	**-**
Gravel/sand	-	-	-	-	**-**
Field	*5*	-	-	-	***5***
Unknown	*10*	*1*	*2*	-	***13***
Hoard	14 swords 5 hoards	1 sword 1 hoard	1 sword 1 hoard	2 swords 1 hoard	**18 swords** **8**
Wet	*4*	-	*1*	2	***7***
Dry	*8*	-	-	-	***8***
Stone setting	-	-	-	-	**-**
At/in burial mound	-	-	-	-	**-**
Gravel/sand	-	-	-	-	**-**
Field	*2*	-	-	-	***2***
Unknown	-	*1*	-	-	***1***
Unknown	2	5	10	1	**18**
Details					
Decorated	43	19	21	5	**88**
Undecorated	34	31	43	7	**115**
No information	24	10	7	4	**45**
Import	8	-	1	16	**25**
Local	48	43	62	-	**153**
Import or local	35	-	-	-	**35**
Origin unknown	10	17	8	-	**35**
Used	19	18	1	-	**38**
Possibly		-	2	-	**2**
Unused	1	1	-	1	**3**
Use unknown	81	41	68	15	**205**

Table 6.1. Selective deposition of all bronze daggers and swords from period IB. Mainly based on data in: A&K, Butler 1990, Hachmann 1957, Laux 2009, Vandkilde 1996.

Hajdúsámson-Apa swords

Hajdúsámson-Apa swords (see Figure 6.4 and Figure 6.5) originate in the Carpathian Basin; they are named after the well-known hoards from Hajdúsámson and Apa in present-day Hungary and Romania. They occur in small numbers in Zone I in Denmark (Vandkilde 1996:250-251), and one sword has been found in northern Germany. Based on shape, decoration and casting technique, two of them are thought to be imports from the Carpathian Basin, while the rest are thought to be locally made in Denmark after Carpathian models (Vandkilde 1996:224-225, T. F. Sørensen 2012:47-48 with refs).

Hajdúsámson-Apa swords were, as a rule, deposited singly in wet contexts in the research area (see Figure 6.7). This also applies to the few finds from Norway and Sweden (Engedal 2005, Hachmann 1957, Melheim & Horn 2014). However, there are two exceptions: one sword was found in a flat grave without other objects on Funen (Guldbjerg), and a hoard spectacularly containing eight Hajdúsámson-Apa swords was found in north-eastern Jutland in a dry context close to a large stone (Dystrup). Hajdúsámson-Apa swords were thus never combined with other types of objects. This is in contrast to the finds from the Carpathian Basin: both the Hajdúsámson and Apa hoards combine swords with axes, and the Apa hoard also contains a hand spiral (Mozsolics 1967:128,139). Both of these hoards were deposited in dry contexts (Mozsolics 1967:128,139), which is in fact in line with the Dystrup hoard (cf. Melheim & Horn 2014:12). The singly deposited swords in wet contexts in southern Scandinavia thus clearly deviate from Carpathian deposition practices; this appears to be a local practice.

The eight Dystrup swords have been analysed for use wear. Seven of them show damage of anthropogenic origin: they are thought to have been intentionally destroyed and/or used in fighting (Melheim & Horn 2014:12-14). However, the eighth sword deviates completely: in contrast to the other seven swords, it is undecorated, unused, and possibly unfinished (Melheim & Horn 2014:12-14). Based on its metal composition, it may have been unsuitable for fighting (Melheim & Horn 2014:12). However, it has also been suggested that this sword was deliberately made without decoration, and hence should not be considered unfinished (Rasmussen & Boas 2006:97). The Dystrup hoard is discussed in more detail in Section 6.6.1.

Valsømagle swords and daggers

Valsømagle swords and daggers (see Figure 6.5) are morphologically and typologically related to swords from Central Europe and the Carpathian Basin, including Hajdúsámson-Apa swords. They are widespread in Denmark, but they are rare in western Jutland. They are thought to be locally made in Denmark (Vandkilde 1996:225, 236-237, 243).

The majority of the Valsømagle swords and daggers are burial finds (69%, see Figure 6.7). Single finds also occur (23%), and none of them come from dry contexts. Only one hoard with a Valsømagle sword is known: the well-known Valsømagle II hoard from a wet context on central Zealand, also containing a shaft hole axe, a palstave, and two spearheads. This hoard is discussed in detail in Section 6.6.1. In slightly less than half of the burials (46%), a Valsømagle sword or dagger was combined with other items, but there is never more than one Valsømagle sword or dagger in the same burial. These burials are discussed in Section 6.6.2. Within Denmark a regional variation can

be observed: Valsømagle swords and daggers are characteristic of Zone I, where they mostly occur in burials but also as single finds; outside Zone I, they are rare, and they mainly occur as single finds (Vandkilde 1996:251). No systematic use wear analysis has been carried out on Valsømagle swords and daggers.

Sögel and Wohlde swords/daggers

Sögel and Wohlde swords/daggers (see Figure 6.5), called after the eponymous burials in Niedersachsen, are thought to be locally manufactured in the *Sögeler Kreis* (Sprockhoff 1927:137) and southern Jutland (Vandkilde 1996:240-241). In the rest of the research area, they were probably imported from there (cf. Fontijn 2002:101). Sögel and Wohlde swords/daggers are typologically, geographically and chronologically closely connected, so they are merged and discussed together here. It should be noted that in the past, Sögel swords were considered earlier than Wohlde swords (*e.g.* Hachmann 1957:35-40), but more recent research has suggested that they were contemporary, both dating to period IB (Vandkilde 1996:152-156, 239).

The majority of the Sögel-Wohlde swords/daggers are burial finds (69%, see Figure 6.7). This applies to the research area as a whole. Single finds are the second most common category (18%, see Figure 6.7), and most of these come from wet contexts (59% of all single finds). Sögel-Wohlde swords/daggers are rare in hoards: two hoards contain a single Sögel-Wohlde sword/dagger (Oldersbek and Ostervesede), and two hoards contain two swords/daggers (Overloon and Lisbjerg), among other items. Two of these hoards come from wet contexts, the other two from unspecified or unknown contexts. These hoards are discussed in more detail in Section 6.6.1. In 55% of the burials, a Sögel-Wohlde sword/dagger was combined with other items. These burials are discussed in Section 6.6.2. One burial contains two Sögel-Wohlde swords. Within Denmark, there is regional variation: in Zone I, Sögel-Wohlde swords/daggers are rare, and they were only deposited singly, and not used as burial gifts; in Zone II, they are abundant, and predominantly used as burial gifts, and occasionally deposited singly in wet contexts (Vandkilde 1996:252). In northern Germany and the Netherlands, with which Zone II is connected, Sögel-Wohlde swords/daggers were deposited in the same way.

A number of Sögel-Wohlde swords/daggers have been analysed for use wear (Horn 2013, table 1). Most of them, especially in Denmark and Schleswig-Holstein, appear to have been used. According to Horn, these swords/daggers were functional weapons, used in combat (Horn 2013:21-23).

Tréboul-St. Brandan swords

Tréboul-St. Brandan swords are of west European origin: they originate in the Atlantic region (Butler 1990:91, Laux 2009:36).[8] They are abundant in north-western France (Fontijn 2002:104). In the research area, they only occur in small numbers in northern Germany and the Netherlands, although Danish Virring daggers from period IA are

8 It should be noted that Plougrescant-Ommerschans swords, two of which have been found in the Netherlands, are thought to be derived from Tréboul-St. Brandan swords (Butler 1990:87, Fontijn 2002:104). However, although their dating is debated, they most likely date to the 15th century BC (Fontijn pers. comm.). Therefore, they are not included in this study.

related (Vandkilde 1996:214). Most of the Tréboul-St. Brandan swords with find context information are burial finds (50%, see Figure 6.7). They are usually combined with other objects in burials, but not with metalwork; they have been found with amber beads, a strike-a-light, a flint arrowhead and/or a pot. Occasionally, they were also deposited singly in rivers (25%). No hoards are known with Tréboul-St. Brandan swords.

Two Tréboul-St. Brandan swords have been analysed for use wear and both are thought to have been used in combat (Horn 2013: 21-23 and table 1).

Scimitars

Lastly, two bronze scimitars or curved swords have been found in Rørby, Zealand (Denmark, see Figure 6.4 and Figure 6.5). Even though they were not found simultaneously, they are widely accepted as a hoard (Vandkilde 1996:231). Three additional bronze scimitars are known from southern Sweden; these were all single finds (Gräslund 1964, Jacobsson 1986). Lastly, the flint scimitar from Favrskov discussed above should also be included in this group (see Figure 6.4).

All of the scimitars come from wet landscape contexts. They are thought to have been made in southern Scandinavia, as they do not occur anywhere else (Vandkilde 1996:232). Their peculiar shape has led to a great deal of discussion in terms of their interpretation and origin (see Gräslund 1964 for an overview). Gräslund has interpreted these scimitars as Nordic copies of swords in curved sheaths from the Near East, *i.e.* as a combination of a sword hilt and sheath, not meant for practical use as weapon (Gräslund 1964). The two Rørby swords are very similar, but not identical; their decoration is slightly different, which means that they are not exact copies, and that they were not made in the same mould (T. F. Sørensen 2012:52). A noticeable difference is that one of them bears decoration in the form of a ship in the style also found in rock art (Gräslund 1964:301). To conclude, these scimitars were a specifically Nordic product. They were not used as burial gifts, but deposited in wet landscape settings. They were not meant as functional weapons.

Swords: conclusion

Summing up, after examining the patterns in depositions of various sword types, a number of conclusions can be drawn.

The majority of the Sögel-Wohlde, Valsømagle, and Tréboul-St. Brandan swords and daggers were used as burial gifts, often in association with other objects. They were thus an established element of the period IB burial package. In contrast, Hajdúsámson-Apa swords, which were the first swords in the research area, were predominantly deposited singly in wet contexts. This observation is expanded on in Chapter 8. The puzzling scimitars were also only deposited in wet contexts.

Regional variation can be observed: metal-hilted Hajdúsámson-Apa and Valsømagle swords and daggers mostly occur in Zone I in Denmark, while organic-hilted Sögel-Wohlde and Tréboul-St. Brandan swords mostly occur in the Sögel-Wohlde region. Outside their main respective regions, Sögel-Wohlde and Valsømagle swords and daggers are rare in burials, but they were occasionally deposited singly in wet contexts.

Most of the swords and daggers of this period were probably made in the research area, although some were exchanged within the research area. They mostly appear to have been functional weapons. Some of them were apparently deliberately destroyed prior to deposition.

Figure 6.8. Four examples of axe types typical for period IB. A: Shaft hole axe of Fårdrup type from Vorup Kær, Jutland, Denmark (ÅM 6156, 19 cm). B: High-flanged axe of Mägerkingen-Valsømagle type from Odoorn/Exloo, Drenthe, the Netherlands (Drents Museum 1909/III.3, 18.2 cm). C: Nick-flanged axe of Fritzlar type from Lejrskov, Jutland, Denmark (ÅM 5147, 12.5 cm). D: High-flanged axe of Oldendorf type from Ruinen, Drenthe, the Netherlands (Drents Museum 1888/XI.2, 8.1 cm). All photos: Marieke Visser.

6.3 Axes and chisels

6.3.1 Axes

Just like in all of the periods discussed so far, axes are the most common object category in period IB. They are in fact even more numerous than in the preceding periods. They occur in the entire research area, including in the Netherlands, where a dip in axe deposition existed in the preceding period IA (see Chapter 5). Nevertheless, they are still most numerous in Denmark. Table 6.2 shows the patterns in the selective deposition of all axes in period IB.

While the axes of the preceding periods were all of a rather similar basic shape – either flat or low-flanged – a greater variety in shapes and forms existed in period IB. Most of the axes from this period are high-flanged, but nick-flanged axes and shaft hole axes are also relatively common (see Figure 6.8). In addition, the very first palstaves emerge in north-western Europe in this period. They only occur in small numbers, becoming abundant in the subsequent period. For this reason, the palstaves from this period are not discussed extensively here, but they are included in Table 6.2. Do these different basic axe shapes

Bronze axes IB	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**275**	**38**	**129**	**54**	**496**
Burial find	22	11	25	2	**60**
Single find	189	24	36	29	**278**
Wet	*59*	*8*	*23*	*13*	***103***
Dry	-	-	-	*1*	***1***
Settlement	-	-	-	-	**-**
At/in burial mound	*1*	-	-	-	***1***
Close to/below stone	*1*	-	-	-	***1***
Gravel/sand	*7*	-	-	*3*	***10***
Field	*42*	*6*	*8*	*8*	***64***
Unknown	*79*	*10*	*5*	*4*	***98***
Hoard	33 axes hoards	3 axes hoards	16 axes hoards	1 axe 1 hoard	**53 axes hoards**
Wet	*27*	*1*	*12*	1	***41***
Dry	-	-	*4*	-	***4***
Stone setting	-	-	-	-	**-**
At/in burial mound	-	-	-	-	**-**
Gravel/sand	-	-	-	-	**-**
Field	*6*	-	-	-	***6***
Unknown	-	*2*	-	-	***2***
Unknown	31	-	52	22	**105**
Details					
Decorated	83	14	46	12	**155**
Undecorated	8	23	80	42	**153**
No information	184	1	3	-	**188**
Import	11	2	10	12	**35**
Local	255	11	22	11	**299**
Import or local	-	-	-	-	**-**
Origin unknown	9	25	97	31	**162**
Used	28	7	16	37	**88**
Possibly	109	3	32	-	**144**
Unused	52	-	3	-	**55**
Use unknown	86	28	78	17	**209**

Table 6. 2. Selective deposition of bronze axes in period IB (all shapes). Mainly based on data in A&K, Butler 1995/96, Laux 2000, Vandkilde 1996.

have implications for how they were deposited? The different axe shapes are discussed separately below in order to investigate this question, starting with high-flanged axes.

High-flanged axes

High-flanged axes are the most numerous in this period (see Figure 6.9). They occur in the entire research area, and they have been divided into a number of different types (Butler 1995/96, Laux 2000, Vandkilde 1996). The vast majority of them are thought to be locally made. A locally made axe type typical for this region and this period is the Oldendorf axe (also called *Norddeutsche Randleistenbeile* in the German literature) which is abundant all over the research area (Butler 1995/96:203-220, Laux 2000:72-79, Vandkilde 1996:117-121, see Figure 6.8). Oldendorf axes might have originated in north-western Germany, in the Sögel-Wohlde region (Butler 1995/96:219-220), but it is very likely that they were manufactured locally in the northern Netherlands and Denmark as well

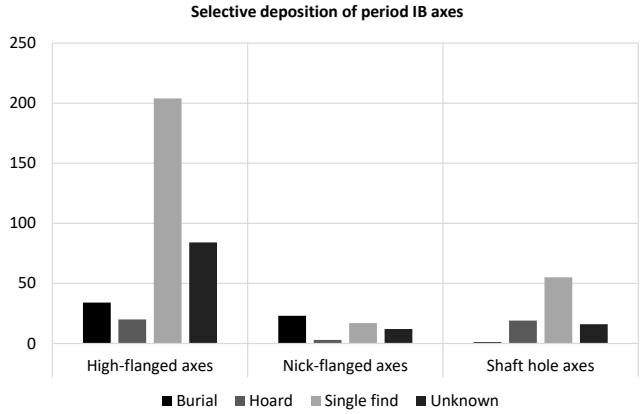


Figure 6.9. Selective deposition of high-flanged, nick-flanged, and shaft hole axes in the research area in period IB (number of axes).

(Butler 1995/96:220, Vandkilde 1996:119). Some axe shapes are widespread across Europe in this period, which is for example demonstrated by long, slender high-flanged axes of Mägerkingen type. In the Netherlands, these are thought to be imports from the Tumulus Culture in Central Europe (Butler 1995/96:221, see Figure 6.8) where they were common in this period (Kibbert 1980:155-156). But in Denmark, a local, decorated variety of this axe type occurs, which is thought to be locally made; it is called type Mägerkingen-Valsømagle there (Vandkilde 1996:124).

Turning to the conventions behind selective deposition of high-flanged axes, most of them are single finds (60%, see Figure 6.9). Of the single finds with known find context, the majority comes from wet contexts (59%). High-flanged axes are not very common in hoards (6% of the axes), but most of them also come from wet contexts. This is in contrast to the previous period, when hoards with axes were often deposited in dry contexts near man-made structures. Another contrast with the previous period is that axes are now more common in burials, actually more common than in hoards (13%, see Figure 6.9). However, zooming in on the individual axe types, not all axe types were used as burial gifts. Axes of types Mägerkingen-Valsømagle, Hüsby (called Fussgönheim in Butler's catalogue, Butler 1995/96:198), and Helmste were used as burial gifts relatively often, while Oldendorf and Underåre type axes were mostly deposited singly or in hoards. The axes that were used as burial gifts have a different shape: they are long and slender (type Mägerkingen-Valsømagle, see Figure 6.8, and type Helmste), and/or they have an extremely rounded cutting edge (type Hüsby), and many of them are decorated. Compared to these, Oldendorf and Underåre axes are small and plain (see Figure 6.8). There is never more than one axe in these burials, but the axes are usually combined with other metalwork.

A complete use wear analysis has only been carried out on the Danish axes (Vandkilde 1996). The majority of them are thought to have been used: 12% of the axes are measurably shortened due to resharpening, and 83% show cutting edge damage associated with practical use (Vandkilde 1996, figs. 42-43). However, when we zoom in, there are, again, differences between the individual axe types. Hüsby and Mägerkingen-Valsømagle axes appear not to have been used practically; they are thought to have been display weapons (Vandkilde 1996:114-117, 124-125). This also applies to the Hüsby axes in Schleswig-Holstein (Vandkilde 1996:117). In contrast, Oldendorf axes appear to have been heavily used; these were apparently utilitarian axes (Vandkilde 1996:119-120). This also applies to the Oldendorf axes from the Netherlands: they are thought to have been heavy duty

work axes (Butler 1995/96:204). The Oldendorf axes from northern Germany show similar traces of use wear. There is thus a separation between utilitarian axes on the one hand and display axes on the other in period IB (Vandkilde 1996:270), which is visible in the entire research area.

It should be noted that in a barrow in Zealand, a Mägerkingen-Valsømagle axe made of red deer bone was found together with resin and two small bronze fragments (A&K 343, Vandkilde 1996:126). The axe is decorated in the style of bronze axes (Müller 1907:115). Both in terms of its appearance and its deposition, it is very similar to its bronze counterparts.

Summing up, as a group, period IB high-flanged axes were predominantly deposited in wet contexts, mostly singly. However, they are more common in burials than in the preceding periods. There was a separation between display axes used as burial gifts, and utilitarian axes deposited in wet contexts. Overall, most of the axes are locally made, and some axe types were widespread in the research area or even beyond.

Nick-flanged axes

All nick-flanged axes in the research area belong to the Fritzlar type (see Figure 6.8). They are much less numerous than high-flanged axes (see Figure 6.9). They are most abundant in Niedersachsen, but they have been found in the entire research area, although in Denmark only in Zone II. They were indeed a typical element of the Sögel-Wohlde package, and they were most likely manufactured in north-western Germany (Butler 1995/96:203, Vandkilde 1996:131). In Jutland and the Netherlands, they were probably imported from there.

Moving on to the conventions behind Fritzlar axe depositions, most of the axes are burial finds (42%, see Figure 6.9). They are thus part of the Sögel-Wohlde burial package. They also occur as single finds (31%), but many of them are from unknown find contexts, so unfortunately no conclusions can be drawn in terms of landscape contexts. They also occur in two hoards (Wildeshausen and Overloon). Nevertheless, it is evident that Fritzlar axes were primarily associated with burials, in contrast to high-flanged axes. In some cases, they were combined with other metalwork in burials, in Niedersachsen relatively often with a Sögel-Wohlde sword/dagger. There are never multiple Fritzlar axes in the same burial. However, one hoard contains two Fritzlar axes: the Wildeshausen hoard from Niedersachsen, found in dune sand, also containing a spearhead, two high-flanged axes, ornaments, and a chisel awl. This hoard is discussed in more detail in Section 6.1.1.

Only the Danish Fritzlar axes have been analysed for use wear (Vandkilde 1996). In general, they do not appear to have been heavily used (Vandkilde 1996:131). Instead, they might have had a display function (Vandkilde 1996:131).

Summing up, Fritzlar axes are typical for the Sögel-Wohlde region, and they were mostly used as burial gifts, either alone or with other metalwork. They were probably not utilitarian axes, but rather used as display objects.

Shaft hole axes

Lastly, shaft hole axes are more numerous than nick-flanged axes. They are large, heavy axes, and they occur primarily in southern Scandinavia. They are divided into two types: Fårdrup and Valsømagle axes. Fårdrup axes (see Figure 6.8) are abundant in Denmark, both in Zone I and Zone II, as well as southern Sweden, and they also

occur in smaller numbers in northern Germany (A&K, Laux 2000, Vandkilde 1996:227). They are thought to be manufactured in Denmark (Malmer 1989, Vandkilde 1996:227). Valsømagle axes occur in smaller numbers on Zealand in Denmark, *i.e.* in Zone I, and one has been found in Niedersachsen. It is unclear whether these axes were made locally in Denmark or imported from elsewhere, as they also occur in Mecklenburg (Vandkilde 1996:238).

Turning to the conventions behind selective deposition of shaft hole axes, they were not used as burial gifts (see Figure 6.9). Most of the axes are single finds (60%), and of the finds with find context information, the majority are from wet contexts. They were deposited in hoards relatively often: seven hoards contain in total 19 shaft hole axes (21% of the axes). They often occur in multiples in hoards. Interestingly, all hoards with Fårdrup axes only consist of axes, *e.g.* the Rumperup hoard containing nine Fårdrup axes, or the Egelund hoard containing a Fårdrup axe and a high-flanged axe. The eponymous Fårdrup hoard should also be mentioned here: it contains two Fårdrup axes and a remarkable bronze mace head. The mace head is a unique object in the research area, but it appears to belong to the Fårdrup object group, as it is decorated in the same style and found together with two Fårdrup axes (Vandkilde 1996:227). In contrast, Valsømagle axes could also be combined with other objects, notably in the two Valsømagle hoards (see Figure 6.13).

In terms of biographies, it is unknown how Valsømagle axes were used. However, the Fårdrup axes are thought to have had a specific function. Based on their remarkable weight – the large axe in the eponymous Fårdrup hoard weighs over 3 kg, the small axe in the hoard around 1.5 kg (Malmer 1989:22, table 1) – they must have been unsuitable for practical use (Malmer 1989:22). It has been suggested that it was their *weight* that was of importance, not their function as axes; they are thought to represent a specific value in metal (Malmer 1989:22). This is in line with the fact that they seem to have been cast in open moulds: that way it was probably easier to collect and melt metal with a certain weight (Malmer 1989:22). Malmer has suggested that the Fårdrup axes were made following a certain weight system (Malmer 1989, 1992).

It should be noted that stone shaft hole axes similar to bronze Fårdrup axes occur in Denmark and northern Germany (*e.g.* A&K 2299A; Lomborg 1959:151-152; Vandkilde 1996:153, fig. 137, 226). They are usually interpreted as stone copies of Fårdrup axes (*e.g.* Vandkilde 1996:226), but Lomborg states that Fårdrup axes might actually be copies of these stone shaft hole axes (Lomborg 1959:152). These stone axes have not been systematically collected in the database, but the assemblages that are known, including one that also contains metalwork (Rastorf, Schleswig-Holstein, Vandkilde 1996:226), are all burial finds (*e.g.* Lomborg 1959:151-152). This is surprising, as bronze Fårdrup axes were not used as burial gifts. The deposition of stone shaft hole axes does thus not support their interpretation as copies of bronze shaft hole axes.

Summing up, Fårdrup axes and Valsømagle axes are similar in shape, and they were deposited in similar ways. They were not used as burial gifts. Most were deposited singly, but they also occur in hoards, predominantly in wet contexts. In hoards, they usually occur in multiples, and Fårdrup axes only occur in hoards with axes, while Valsømagle axes were also combined with other objects. Fårdrup axes probably did not have a utilitarian function; instead, it may have been their weight, *i.e.* their value in metal, that was of importance.

Axes: conclusion

Summing up, after comparing patterns in depositions of various axe shapes, a number of conclusions can be drawn. High-flanged axes were primarily deposited in wet contexts, mostly singly but occasionally in hoards. However, there was a separation between display axes used as burial gifts, and utilitarian axes deposited in wet contexts. Nick-flanged axes, in contrast, were predominantly used as burial gifts in the Sögel-Wohlde region. They were probably not used practically. Shaft hole axes, lastly, were not used as burial gifts, but predominantly deposited in wet landscape settings, either singly or in in hoards. They often occur in multiples in hoards. Fårdrup axes may have represented a certain value in metal. Each axe shape was thus deposited in its own way in period IB.

6.3.2 Chisels

A modest number of bronze chisels date to period IB. Almost all of them are nick-flanged, except for one socketed chisel from Denmark. They have been found in Denmark and northern Germany, but not in the Netherlands. These nick-flanged chisels are possibly locally made in Denmark, although they are a common object in this period, originating in Central Europe (Vandkilde 1996:136). They are also relatively common in the Sögel-Wohlde area (Vandkilde 1996:136). Based on this, they can be assumed to be locally made in northern Germany, too.

Turning to the conventions behind bronze chisel depositions, they were found in a variety of contexts, but the majority are burial finds (48%, see Table 6.3). In some burials, they are the only object, while they were associated with other metal objects in other burials. In northern Germany, they are frequently associated with a bronze sword/dagger. One burial, Lehmke (Niedersachsen), contains two nick-flanged chisels in addition to other metal objects. Only one period IB hoard contains a nick-flanged chisel: the Underåre hoard (Jutland, Denmark), a field find, consisting of two high-flanged axes of Underåre type and one nick-flanged chisel. In Denmark, chisels occur in burials both in Zone I and in Zone II; there is no regional variation.

Only the Danish chisels have been analysed for use wear (Vandkilde 1996). The majority of them show cutting edge damage associated with practical use (Vandkilde 1996:136). They appear to have been functional tools.

Summing up, nick-flanged chisels dating to period IB are predominantly found in burials in Denmark and northern Germany. A smaller number occurs in hoards and as single finds. No chisels have been found in the Netherlands. They were probably locally made, and they appear to have been functional tools.

6.4 Spearheads

Spearheads were an innovation that emerged in the preceding period IA. They quickly became common and incorporated into the local production of metalwork in Denmark. In period IB, they are again abundant in Denmark, while they are only found in modest numbers in northern Germany and the Netherlands.

As discussed in Chapter 5, it can be difficult to typologically date spearheads, especially undecorated ones (Fontijn 2002:99). Nevertheless, in this chapter, the established typological classifications are used (Jacob-Friesen 1967, Vandkilde 1996). Two spearhead types are dated to period IB: Bagterp (see Figure 6.10) and Valsømagle spearheads. They have different shapes: Bagterp spearheads are rather short and small (Jacob-Friesen

Bronze chisels IB	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**14**	**6**	**7**	**0**	**27**
Burial find	4	6	3	-	**13**
Single find	5	-	2	-	**7**
Wet	*1*		*2*		***3***
Dry	-		-		**-**
Settlement	-		-		**-**
At/in burial mound	-		-		**-**
Close to/below stone	-		-		**-**
Gravel/sand	-		-		**-**
Field	-		-		**-**
Unknown	*4*		-		***4***
Hoard	1 chisel 1 hoard	-	-	-	**1 chisel** **1 hoard**
Wet	-	-	-	-	-
Dry	-	-	-	-	-
Stone setting	-	-	-	-	-
At/in burial mound	-	-	-	-	-
Gravel/sand	-	-	-	-	-
Field	*1*	-	-	-	*1*
Unknown	-	-	-	-	-
Unknown	4	-	2	-	**6**
Details					
Decorated	1	1	-	-	**2**
Undecorated	13	4	7	-	**24**
No information	-	1	-	-	**1**
Import	-	-	-	-	**-**
Local	14	2	-	-	**16**
Import or local	-	-	-	-	**-**
Origin unknown	-	4	7	-	**11**
Used	9	-	-	-	**9**
Possibly	-	1	-	-	**1**
Unused	1	-	-	-	**1**
Unknown	4	5	7	-	**16**

Table 6.3. Selective deposition of bronze chisels (one socketed and the remaining nick-flanged chisels) in period IB. Mainly based on data in: A&K, Laux 2000, Vandkilde 1996.

1967:90), while Valsømagle spearheads are long and slender (Jacob-Friesen 1967:119). Bagterp spearheads are more numerous (77) in the research area than Valsømagle spearheads (34).

Bagterp spearheads were probably locally made in Denmark (Vandkilde 1996:230-231, 243). In Denmark, they are often decorated, which appears to be a specific south Scandinavian practice; in northern Germany, undecorated Bagterp spearheads occur (Vandkilde 1996:230). As Bagterp spearheads are part of the Sögel-Wohlde burial package (Vandkilde 1996:231), they might be assumed to be locally made in the Sögel-Wohlde region. In the Netherlands, the two Bagterp spearheads are indeed thought to be imports from the Sögel-Wohlde region (Butler 1990:76). Valsømagle spearheads are a specific phenomenon for eastern Denmark; they are thought to be locally made in the Valsømagle region (Vandkilde 1996:235, 243). They occur in northern Germany in smaller numbers, but they can be assumed to be imports there.

Figure 6.10. Undecorated Bagterp spearhead from Funder, Jutland, Denmark (ÅM 3646, 13 cm). Photo: Marieke Visser. Scale 1:1.

Turning to the conventions behind spearhead depositions in period IB, they occur in a variety of contexts (see Table 6.4). Most of them are single finds (38%), while they are relatively rare in hoards (20%). Burials take an intermediate position (28%). This is in strong contrast to the preceding period IA, when the majority of spearheads were deposited in hoards, and burial and single finds were rare. This observation is expanded on in Chapter 8. Spearheads could thus now be used as burial gifts, but they never occur in multiples in the same burial, in contrast to hoards, where spearheads always occur in multiples. Most of the singly found spearheads come from wet contexts, and this also applies to hoards. Again, this is in contrast to period IA, when hoards with spearheads were deposited relatively frequently in dry contexts in association with man-made structures in Denmark.

In terms of regional patterns, Valsømagle spearheads are found primarily in Denmark in Zone I; they are an eastern Danish phenomenon. They are mostly used as burial gifts together with other Valsømagle metalwork; they are part of the Valsømagle burial package (Vandkilde 1996:234-235). They have been found in small numbers in northern Germany, where they occur in burials and as single finds (Jacob-Friesen 1967, catalogue). Bagterp spearheads occur all over Denmark, but not in Zealand where Valsømagle spearheads occur (Vandkilde 1996:230 and fig. 244). They occur as single finds all over Denmark, but they only occur in burials in Zone II (Vandkilde 1996:230). In northern Germany, Bagterp spearheads occur in burials, hoards and as single finds (A&K, Jacob-Friesen 1967, catalogue).

In terms of biographies, a number of Bagterp and Valsømagle spearheads have been subjected to a use wear analysis carried out by Horn (2013). Almost all of them are thought to be used (Horn 2013, table 1). According to Horn, they were used in combat, just like the spearheads dating to period IA (Horn 2013:18, 21-23, and catalogue). These spearheads were thus utilitarian weapons, specifically used for fighting. There is no evidence of deliberately broken spearheads.

Summing up, bronze spearheads are most abundant in Denmark. They were used as burial gifts relatively often compared to the previous period. They never occur in multiples in burials, but they are usually combined with other types of metalwork. In Zone I, the Valsømagle spearhead is combined with other Valsømagle metalwork, and in Zone II, the Bagterp spearhead is combined with Sögel-Wohlde metalwork in burials. Bagterp spearheads occur as single finds all over Denmark as well. Hoards with spearheads are relatively rare in this period, but spearheads always occur in multiples in hoards. Both single finds and hoards with spearheads usually occur in wet contexts. The period IB spearheads appear to have been used in combat.

Bronze spearheads IB	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**97**	**9**	**16**	**3**	**125**
Burial find	21	5	8	1	**35**
Single find	44	1	2	-	**47**
Wet	*17*	-	*2*		***19***
Dry	-	-	-		**-**
Settlement	-	-	-		**-**
At/in burial mound	-	-	-		**-**
Close to/below stone	-	-	-		**-**
Gravel/sand	*4*	*1*	-		***5***
Field	*7*	-	-		***7***
Unknown	*16*	-	-		***16***
Hoard	20 spearheads 8 hoards	2 spearheads 1 hoard	1 spearhead 1 hoard	2 spearheads 1 hoard	**25 spearheads 11 hoards**
Wet	*14*	-	-	2	***16***
Dry	-	-	*1*	-	***1***
Stone setting	-	-	-	-	**-**
At/in burial mound	-	-	-	-	**-**
Gravel/sand	-	-	-	-	**-**
Field	-	-	-	-	**-**
Unknown	*6*	*2*	-	-	***8***
Unknown	12	1	5	-	**18**
Details					
Decorated	42	4	1	1	**48**
Undecorated	51	5	12	2	**70**
No information	4	-	3	-	
Import	-	-	1	2	**3**
Local	95	-	-	-	**95**
Import or local	-	-	-	-	**-**
Origin unknown	2	9	15	1	**27**
Used	26	5	-	-	**31**
Possibly	-	-	-	-	**-**
Unused	2	-	-	-	**2**
Use unknown	69	4	16	3	**92**

Table 6.4. The selective deposition of bronze spearheads in period IB. Mainly based on data in A&K, Butler 1990, Jacob-Friesen 1967, Vandkilde 1996.

6.5 Ornaments

Metal ornaments dating to period IB mainly consist of various (arm) rings and dress pins; these occur in the entire research area. In Denmark, another category of ornaments is also relatively common: belt hooks. They also occur in small numbers in northern Germany. Other types of metal ornaments that only occur in smaller numbers include buttons, bosses, sheet bands, and fibulae. Most of these ornaments are made of bronze, but 23 gold ornaments date to this period, and they have been found in all regions in the research area. In fact, all gold objects from period IB are ornaments.

Some of the metal ornaments are probably imports, whereas some might be locally made. At least some of the dress pins are thought to be imports from the Tumulus Culture in Central Europe; this includes *Lochhalsnadeln* and wheel-headed pins (Vandkilde 1996:152, 241; Hachmann 1957:145). The first occur in Denmark and northern Germany,

Metal ornaments IB	Denmark	Schleswig-Holstein	Niedersachsen	The Netherlands	Total
Context	**39**	**38**	**21**	**7**	**105**
Burial find	34	38	19	6	**97**
Single find	4	-	-	-	**4**
Wet	*1*				***1***
Dry	-				**-**
Settlement	-				**-**
At/in burial mound	-				**-**
Close to/below stone	-				**-**
Gravel/sand	-				**-**
Field	*1*				***1***
Unknown	*2*				***2***
Hoard	-	-	2 ornaments 1 hoard	1 ornament 1 hoard	**3 ornaments 2 hoards**
Wet			-	1	***1***
Dry			*2*	-	***2***
Stone setting			-	-	**-**
At/in burial mound			-	-	**-**
Gravel/sand			-	-	**-**
Field			-	-	**-**
Unknown			-	-	**-**
Unknown	1	-	-	-	**1**
Details					
Decorated	16	5	3	-	**24**
Undecorated	10	29	6	7	**52**
No information	13	4	12	-	**29**
Import	13	2	5	7	**27**
Local	19	-	1	-	**20**
Import or local	-	-	-	-	**-**
Origin unknown	7	36	15	-	**58**
Used	-	-	1	-	**1**
Possibly	-	-	-	-	**-**
Unused	-	-	-	-	**-**
Use unknown	39	38	20	7	**104**

Table 6.5. Selective deposition of metal ornaments in period IB. Mainly based on data in: A&K, Butler 1990, Laux 2009, Laux 2015, Vandkilde 1996.

the latter have only been found in northern Germany. Other types of dress pins in northern Germany include *Rollennadeln* and *Kugelkopfnadeln* (pins with obliquely perforated spherical head). These types are widespread in Europe (Hachmann 1957:57, 113, 145, 121), so it is unclear where they were manufactured. Furthermore, all gold ornaments in Denmark are thought to be imports (Vandkilde 1996:242). All of the bronze and the gold ornaments in the Netherlands are probably also imported (Butler 1990). However, some of the bronze ornaments in Denmark may be locally manufactured, such as the belt hooks (Vandkilde 1996:241-243).

Moving on to the conventions behind selective deposition of metal ornaments, it is clear that the vast majority of them were used as burial gifts (92%, see Table 6.5). This applies to the entire research area. Only seven ornaments were not found in burials, and these were found in a variety of contexts. Evidently, metal ornaments were primarily associated with burials, a development that had started in the preceding period IA.

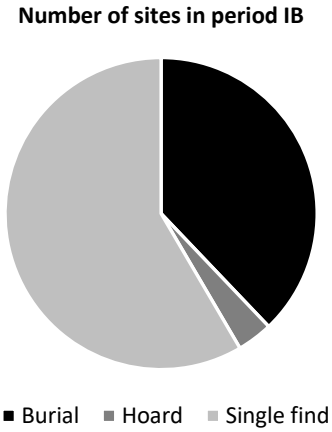


Figure 6.11. Number of sites in period IB (excluding finds without provenance).

There is no regional variation in Denmark, as was observed for some other object types above: both in Zone I and Zone II, all ornaments were mainly used as burial gifts.

Summing up, both bronze and gold ornaments occur in period IB, and by far the majority of them were used as burial gifts. Some of them may have been locally made, while others were probably imported from Central Europe.

6.6 Hoards and burials

The previous sections examined the conventions behind selective deposition of each of the main object categories. Overall, single object deposits are the most common type of depositional event in this period, just like in the preceding three periods (see Figure 6.11). Depositing a single bronze object in specific places in the landscape was thus overall the most common type of depositional event. However, on a few occasions, people chose to deviate from this practice. They deliberately chose to deposit objects together in a hoard instead of depositing them singly. But hoards are rare in period IB of the Nordic Bronze Age, even more so when we consider the increase in metalwork deposition in this period. Depositing a hoard was thus a special event that deviated from the norm. For this reason, the hoards from period IB are examined in this section. Which choices did people make at these special events? Which objects did they include in hoards and where in the landscape did they deposit them?

In addition to single object deposits and hoards, a third type of depositional event became of great significance in period IB: burials with metalwork became abundant. They are actually much more common than hoards (see Figure 6.11). This is the first period in which this happened. Placing metalwork in a burial thus became a common type of depositional event in this period. For this reason, these burials are examined below as well. Which metal objects did people use as burial gifts? And what is the relationship between hoards and burials in terms of the selection of metalwork? I start by examining the hoards from this period.

6.6.1 Hoards

In total, 24 hoards from the research area date to period IB. These are not evenly spread throughout the region: only one hoard was found in the Netherlands[9], actually just south of the research area; three were found in Niedersachsen; two in Schleswig-Holstein; and the remaining 18 hoards are from Denmark. The following sections first examine the landscape settings and then the objects that were selected for these hoards.

Selection of landscape settings

When it comes to the selection of landscape settings for depositions of hoards, the patterns are clear: essentially all hoards with find context information come from wet landscape settings, mostly from bogs. As demonstrated in the sections above, this also applies to single object deposits. Overall, metalwork deposits thus predominantly took place in wet contexts in period IB, irrespective of how many objects people deposited. This is in contrast to period IA, when hoards were deposited relatively frequently in dry contexts near man-made structures, while single objects were deposited in wet landscape contexts. In period IB, there is a shift towards a predominance of wetland depositions.

The only exception to this pattern is the Dystrup hoard from north-eastern Jutland, containing eight Hajdúsámson-Apa swords. The hoard was deposited in a dry context close to a large stone (Rasmussen & Boas 2006:103-104). It has been suggested that the association between the hoard and the stone is not accidental (Rasmussen & Boas 2006:104). People apparently chose to deviate from the general practice of wetland depositions when they deposited the Dystrup hoard.

Selection of objects

When examining the hoards from this period as a group, three object categories constitute the main ingredients: axes, spearheads, and swords (see Figure 6.12). However, they were not combined in the same way in each hoard. In terms of composition, two main groups of hoards can be distinguished: one-type hoards and mixed hoards.

One-type hoards contain multiple objects of the same category; a multiplication of the same element. Such hoards occur predominantly in Denmark, and most of the Danish period IB hoards belong to this group. In addition, a single one-type hoard is known from northern Germany (Ilsmoor). Most of the one-type hoards contain axes of various shapes, including high-flanged axes, nick-flanged axes, and shaft hole axes, or spearheads of either Bagterp or Valsømagle type. Those two spearhead types were never combined, as they belong to two different regional groups. The Danish Bagterp hoard combines axes and spearheads. These hoards with multiple axes and/or spearheads bring to mind the Danish period IA hoards, in which axes and/or spearheads were also the main ingredients (see Chapter 5). This appears to be a persistent Danish pattern that emerged in period IA. Furthermore, the Fårdrup hoard can also be argued to belong to this group of hoards, as it contains two Fårdrup axes and a mace head with the same decoration style. The same can perhaps be argued to apply to the Underåre hoard, containing two axes and a chisel.

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9 The two well-known Dutch hoards from Voorhout and Hoogeloon are not included in this study. They are thought to date to the late 16th to 14th century BC (Fontijn pers. comm.), so they most likely fall outside the scope of this study.

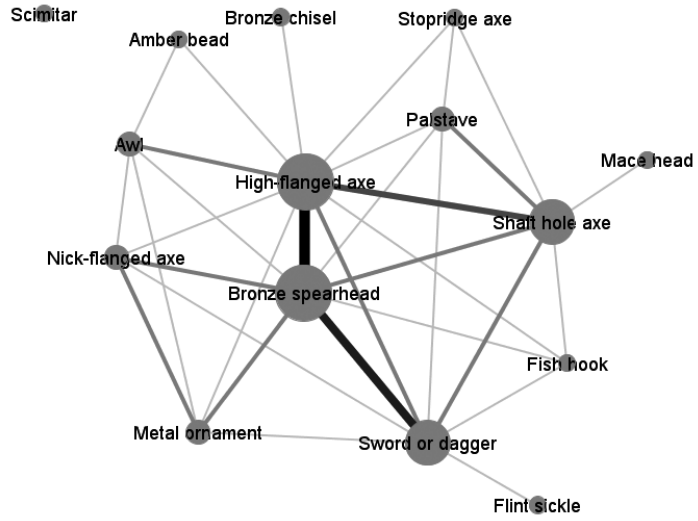


Figure 6.12. Network showing the objects in period IB hoards and the associations between them. This network shows the links between different object categories, *i.e.* the links in mixed hoards. One-type hoards, consisting of either multiple axes, spearheads or swords, are not shown by the links, but they are represented in the number of objects. The scimitar node is not linked up with the other objects, since the only two scimitars occur together in one hoard without any other objects. The size of the nodes indicates the number of objects (value largest node: 11), the size and colour of the links indicate how often objects occur together (value largest link: 5).

In addition, three Danish one-type hoards contain swords: the Rørby hoard, containing two scimitars (see also Sections 6.2.1 and 6.2.2); the Dystrup hoard, containing eight Hajdúsámson-Apa swords (see also Section 6.2.2); and the Lisbjerg hoard, containing two Sögel-Wohlde swords/daggers. However, these hoards are of a different quality than the other one-type hoards, which mainly include axes: the two Rørby scimitars are the only scimitars from the research area; the Dystrup hoard is the only hoard with Hajdúsámson-Apa swords, which are rare in the first place (see Section 6.2.2); and Sögel-Wohlde swords/daggers were rarely deposited in hoards (see Section 6.2.2).

In terms of biographies, the axes, spearheads, and swords in these one-type hoards are all thought to be locally made, as discussed in the sections above. The high-flanged axes occurring in these hoards are predominantly utilitarian work axes of Underåre and Oldendorf type, while display axes are mostly avoided in hoards (see also Section 6.3.1). The spearheads in hoards are generally thought to have been used in combat, and the Hajdúsámson-Apa swords were probably also used in combat. In contrast, the two scimitars were probably not intended for functional use (see Sections 6.2.2, 6.3.1, and 6.4).

However, in a small number of hoards, axes, spearheads and swords were *combined*. These mixed hoards have been found in all regions in the research area. They are exceptionally rich, even within the group of hoards. These hoards include the Valsømagle I and II hoards in Denmark, the Oldersbek hoard in northern Germany, and the Overloon hoard in the southern part of the Netherlands. These four hoards actually show remarkable similarities in terms of their composition. They all combine axes, spearheads, and swords, although in varying quantities and of varying shapes

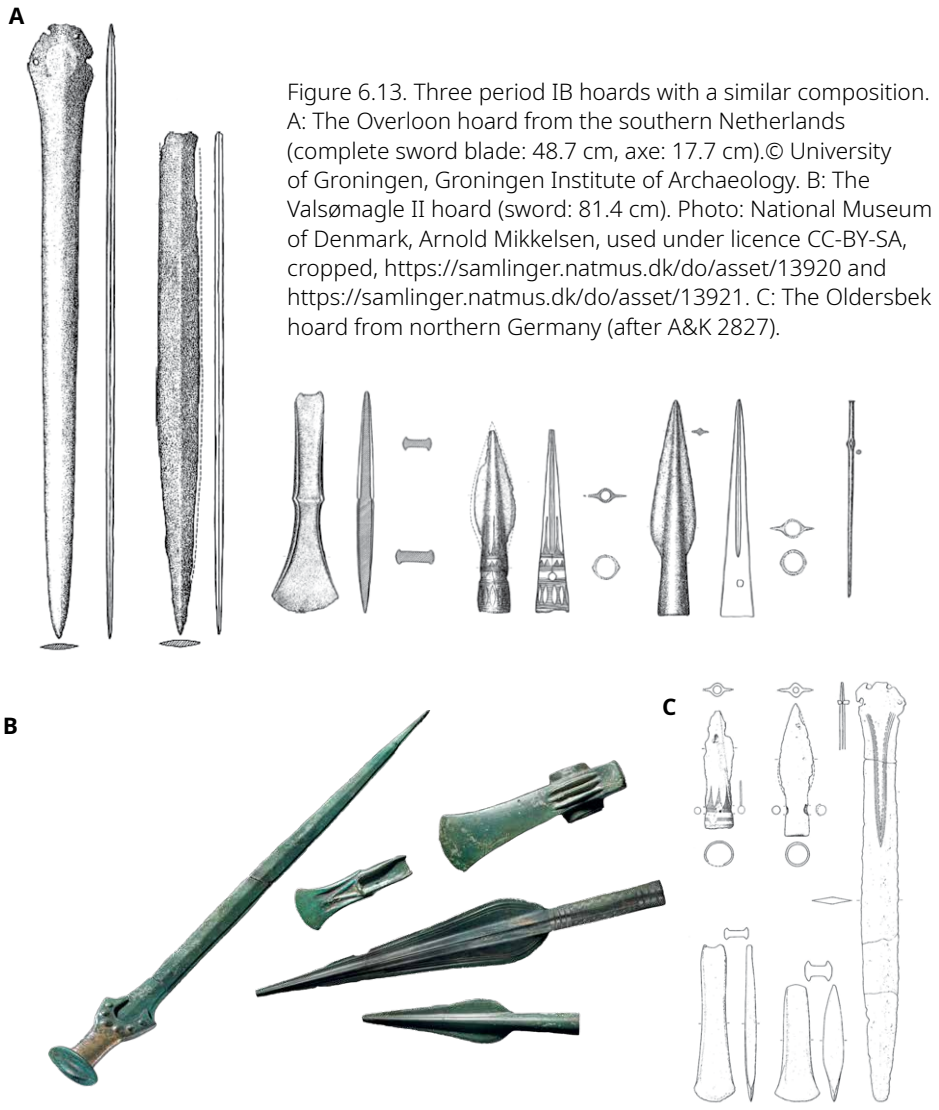


Figure 6.13. Three period IB hoards with a similar composition. A: The Overloon hoard from the southern Netherlands (complete sword blade: 48.7 cm, axe: 17.7 cm).© University of Groningen, Groningen Institute of Archaeology. B: The Valsømagle II hoard (sword: 81.4 cm). Photo: National Museum of Denmark, Arnold Mikkelsen, used under licence CC-BY-SA, cropped, https://samlinger.natmus.dk/do/asset/13920 and https://samlinger.natmus.dk/do/asset/13921. C: The Oldersbek hoard from northern Germany (after A&K 2827).

and types. Remarkably, all of them contain two spearheads, one of which is decorated and one undecorated (see Figure 6.13). The Valsømagle I hoard adds a fish hook to this combination, and the Overloon hoard a dress pin.

These four mixed hoards are part of two different regional traditions: the two Valsømagle hoards belong to the Valsømagle group, while the Overloon and Oldersbek hoards belong to the Sögel-Wohlde group. The objects are probably all locally made within their respective region, as discussed above for the individual object categories. The objects in the Overloon hoard were probably imported from northern Germany (Butler 1990:76). Yet while these hoards are from different regions with different regional traditions, their composition is in essence the same. This is remarkable, as the Overloon and Valsømagle hoards were deposited at a distance of roughly 600 km from each other! Although there are minor variations in composition, these hoards clearly reflect a shared idea, which was expressed in regional material terms. These hoards are discussed in more detail in Chapter 10.

Moving on to the landscape contexts of these mixed hoards, the Overloon hoard was found in a stream valley (Fontijn 2002:103), which fits in the pattern of wetland depositions in this period. Unfortunately, the Oldersbek hoard comes from an unknown find context (A&K 2827). The two Valsømagle hoards were deposited close to each other, ca. 80 m apart (A&K 1098). This is remarkable, as their contents are similar, and they date to the same period. It is impossible to determine whether the hoards were deposited simultaneously or one after another, but it seems inevitable that if they were deposited separately, people were aware of the first hoard already being deposited there. In that regard, it is interesting that the Valsømagle II hoard was found 15 cm from a large stone that was probably visible at the moment of deposition (Müller 1909:34). Perhaps this stone served as a marker of the location, which has also been suggested for the stone associated with the Dystrup hoard (Rasmussen & Boas 2006:104). The two Valsømagle hoards are usually reported as bog finds in the modern literature (*e.g.* Vandkilde 1996, catalogue). However, in a 19th century publication of the first hoard, the hoard is reported to be found in a garden (Neergaard 1897:69). The objects in both of the hoards do not show bog patina (A&K 1097, 1098; Vandkilde 1996, catalogue). Nevertheless, keeping this reservation in mind, the two Valsømagle hoards are considered bog finds here.

Lastly, two mixed hoards from this period are of a different composition from the other hoards. These are the north German Wildeshausen and Windbergen hoards. The Wildeshausen hoard contains two Fritzlar axes, two Oldendorf axes, an undecorated Bagterp spearhead, a chisel awl, a decorated arm ring, and a wheel-headed pin. The combination of pairs of axes and a spearhead reminds us of the Danish hoards discussed above, but the combination with ornaments is uncommon in this period, as shown in Figure 6.12. The hoard was found during sand extraction (Both in Wegner 1996:379). Elements from various regions are combined in it: the arm ring is from eastern Germany and the wheel-headed pin probably from southern Germany (Hachmann 1957:71, 145), while the Oldendorf and Fritzlar axes are probably locally made, as discussed in Section 6.3.1. The Windbergen hoard, found in a bog, contains an Underåre axe, two chisel awls, an amber bead (but this association is uncertain) and a piece of rough amber. Unfortunately, little information is available for this hoard, but it is a puzzling find that does not seem to fit in the patterns from this period. Both of these hoards thus contain one or two utilitarian axes, one or two chisel awls, and bronze or amber ornaments. The Wildeshausen hoard adds nick-flanged axes and a spearhead to this combination.

Summing up

Summing up, the main ingredients in period IB hoards are axes, spearheads, and swords. These are mostly locally made, utilitarian objects. They were usually deposited in one-type hoards, which are relatively common in Denmark, but occasionally they were combined in mixed hoards. Both types of hoards were almost exclusively deposited in wet landscape contexts. The mixed hoards occur in all regions in the research area, and although there are minor differences between them in terms of composition, there was clearly a shared idea behind them, which was expressed in regional terms (Valsømagle and Sögel-Wohlde). Two north German hoards, Wildeshausen and Windbergen, are of a different composition, not containing swords, but instead combining axes with metal or amber ornaments.

6.6.2 Burials

In total, 247 burials with metalwork date to period IB. Although they have been found in all regions in the research area, they are not evenly distributed: 98 burials are located in Denmark, 74 in Schleswig-Holstein, 65 in Niedersachsen and ten in the Netherlands. In total, 410 metal objects have been found in these burials. Most of these objects are made of bronze, but a few gold objects occur; these gold objects are all ornaments, as discussed in Section 6.5. In fact, all gold objects from this period have been found in burials.

The network in Figure 6.14 shows the objects found in period IB burials and the associations between them. Examining all of these burials together as a group, it is evident that the range of object types is much larger in burials than in hoards (compare Figure 6.12 and Figure 6.14). All five main object categories discussed above occur in burials, although with varying frequencies; bronze swords and daggers are clearly the most common object in these burials. This is in strong contrast to earlier time periods, when only specific object categories could occur in burials, and this happened infrequently.

Nevertheless, zooming in from the main object categories to the individual object types, there is a number of patterns in terms of selectivity. People selected *certain types* of swords and axes to include in burials, and these were mostly avoided in hoards. Hajdúsámson-Apa swords were rarely used as burial gifts, while Sögel-Wohlde, Valsømagle and Tréboul-St. Brandan swords and daggers were predominantly used as burial gifts. Plain work axes like high-flanged Oldendorf axes were predominantly deposited in bogs, while display axes like Mägerkingen-Valsømagle and Hüsby axes were mainly used as burial gifts.

In addition to the five main object categories, a range of more unusual or even unique bronze items is also found in burials, sometimes only in one burial. These include razors, tweezers, fish hooks, a saw, awls, bronze arrowheads, and two puzzling pointed weapons. Furthermore, the range of materials is also much larger in burials. Especially flint objects such as flint daggers, arrowheads, and strike-a-lights occur frequently, but objects made of amber, ceramics, and stone are also found in burials. This is in contrast to hoards, which almost exclusively contain bronze objects. In short, it is clear that hoards and burials with metalwork are of a fundamentally different composition. Hoards display a much more rigid selectivity in terms of objects and materials.

Comparing finds from different parts of the research area, regional patterns become observable. As discussed in this chapter's introduction, there is a division between the Sögel-Wohlde and the Valsømagle regions, which are distinguished by burials with a region-specific sword and associated items. In order to examine this regional division, the burial finds from these two regions are shown in the networks in Figure 6.15. These weapon burials, with the sword as the main item, are traditionally interpreted as male warrior burials (Hachmann 1957:30, Kristiansen 1987, Treherne 1995, Vandkilde 1996:17, Vandkilde 2014b), as discussed in this chapter's introduction.

In the Valsømagle region, *i.e.* Zone I, burials are equipped with a metal-hilted Valsømagle sword or dagger, which in 46% of the burials was combined with other items. These associations are visualised in Figure 6.15. Associations with a belt hook, metal ornament and/or Valsømagle spearhead occur most frequently, but a range of other items also occurs, including rare objects such as a saw and two puzzling pointed weapons. Belt hooks are very clearly a typical Valsømagle feature; they do not occur in Sögel-Wohlde burials (see Figure 6.15).

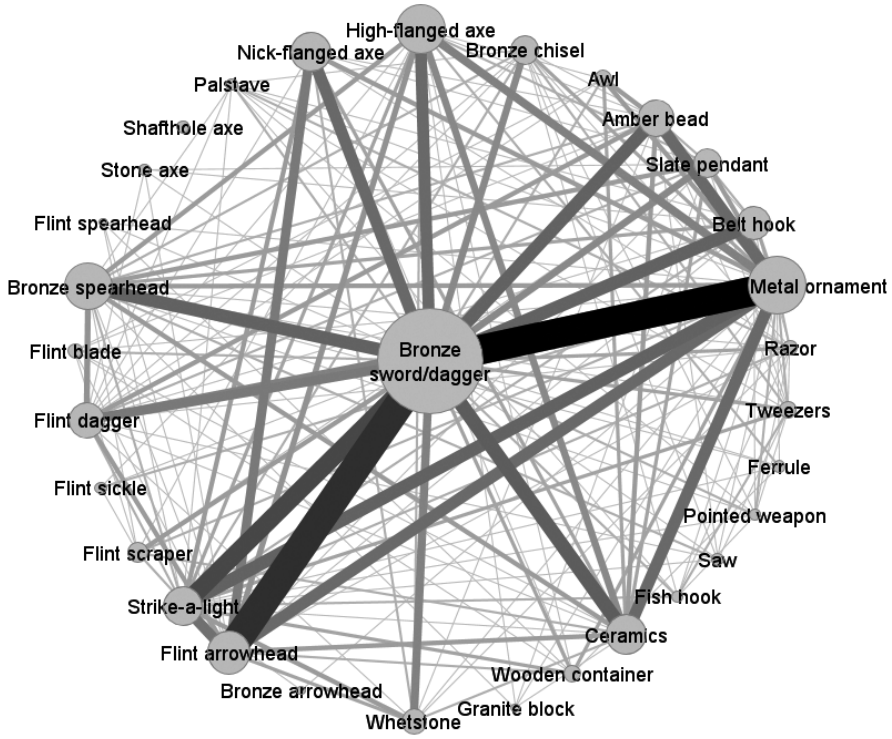
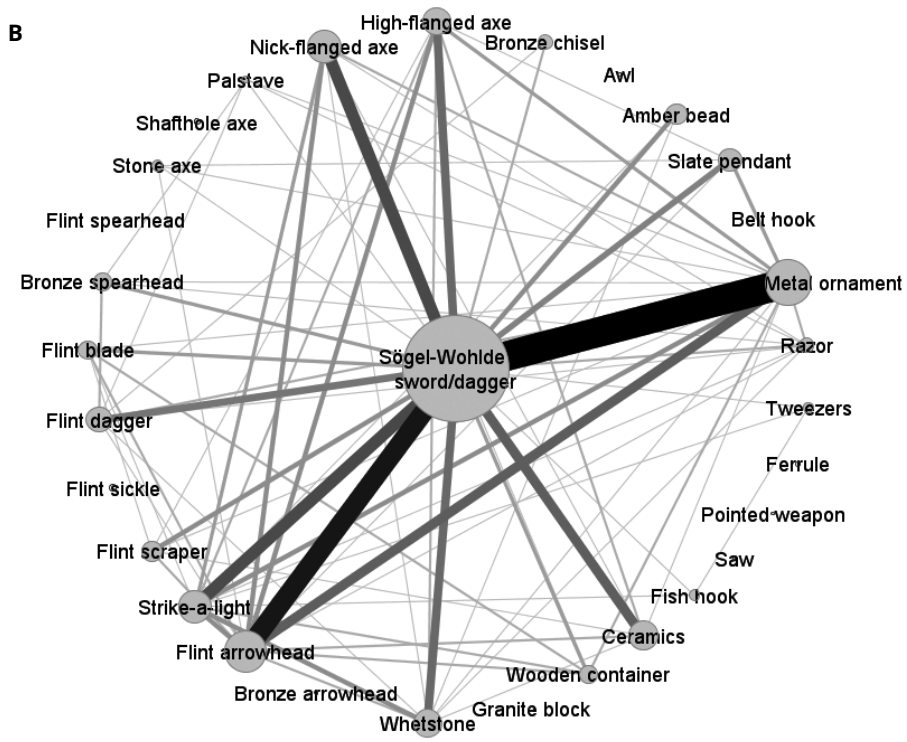


Figure 6.14. Network showing all objects in period IB burials and the associations between them. Bronze sword/daggers have been placed in the middle, since they are the most frequent object category in period IB burials. The size of the nodes indicates the number of objects, the thickness and colour of the link indicate how often objects occur together. The size of the nodes indicates the number of objects (value largest node: 162), the size and colour of the links indicate how often objects occur together (value largest link: 30).

In the Sögel-Wohlde region, burials are equipped with an organic-hilted Sögel-Wohlde sword/dagger, which in 55% of the burials was combined with other items. The Sögel-Wohlde burial package was already identified by Sprockhoff in the 1920s, based on finds from burials in northern Germany (1927:133). He defined the package as typically consisting of a Sögel sword, an axe, a whetstone and a flint weapon (Sprockhoff 1927:133). The object associations in Sögel-Wohlde burials are shown in Figure 6.15. Most frequently, associations with metal ornaments and flint arrowheads occur, but also nick- or high-flanged axes, strike-a-lights, whetstones, and ceramics are often found in Sögel-Wohlde burials. Slate pendants and nick-flanged axes only occur in Sögel-Wohlde burials, never in Valsømagle burials, and flint objects are strikingly common in Sögel-Wohlde burials. Compared to Valsømagle burials, the variation in these burials is noteworthy: the range of object types and materials is much larger in Sögel-Wohlde burials. It is telling that even at the eponymous site of Sögel in Niedersachsen, the various burials do not contain the exact same set of objects (see Sprockhoff 1927, Abb. 1 and 2). It can thus be debated whether we can actually speak of a Sögel-Wohlde 'burial package', since the variation in these burials is so high. However, there clearly are differences between Valsømagle and Sögel-Wohlde


A
High-flanged axe
Nick-flanged axe
Bronze chisel
Palstave
Awl
Shaft hole axe
Amber bead
Stone axe
Slate pendant
Flint spearhead
Belt hook
Bronze spearhead
Metal ornament
Flint blade
Razor
Tweezers
Flint dagger
Ferrule
Flint sickle
Pointed weapon
Flint scraper
Saw
Strike-a-light
Fish hook
Ceramics
Flint arrowhead
Wooden container
Bronze arrowhead
Granite block
Whetstone


B
High-flanged axe
Nick-flanged axe
Bronze chisel
Palstave
Awl
Shafthole axe
Amber bead
Stone axe
Slate pendant
Flint spearhead
Belt hook
Bronze spearhead
Metal ornament
Flint blade
Razor
Tweezers
Flint dagger
Ferrule
Flint sickle
Pointed weapon
Flint scraper
Saw
Strike-a-light
Fish hook
Ceramics
Flint arrowhead
Wooden container
Bronze arrowhead
Granite block
Whetstone

burials; the regional division between the two groups, which has been proposed and discussed since the 1930s, is confirmed by the network analysis.

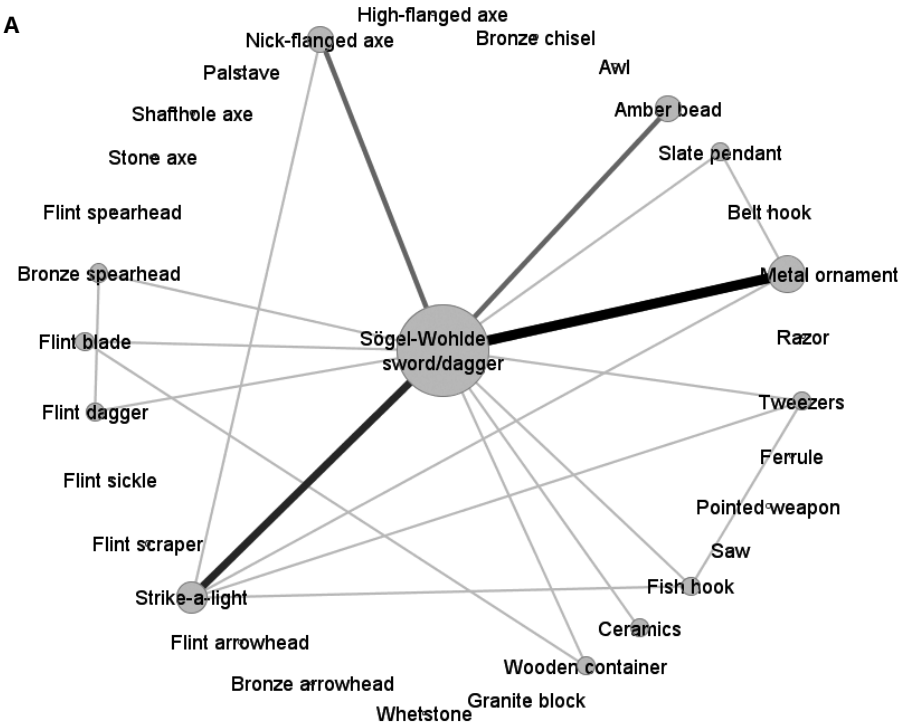
The so-called Sögel-Wohlde 'burial package' thus appears to be a problematic term. But when we take a closer look at Sögel-Wohlde burials in different regions, this term should perhaps be dismantled even further. For Sögel-Wohlde burials are not of the same composition in different regions. The burial finds from Jutland, northern Germany, and the Netherlands are shown in three separate networks in Figure 6.16. The most striking difference is the inclusion of flint objects: they are abundant in German burials, but much rarer in Danish and Dutch burials. This was already addressed for flint daggers in Section 6.2.1, but the occurrence of flint arrowheads is particularly noticeable: they are among the most numerous items in German burials, but they lack completely in the Danish burials. This is a puzzling difference, as flint was certainly readily available in Jutland, and objects made of flint were in fact common there, such as flint daggers. Yet they were apparently not frequently used as burial gifts together with metalwork in Jutland.

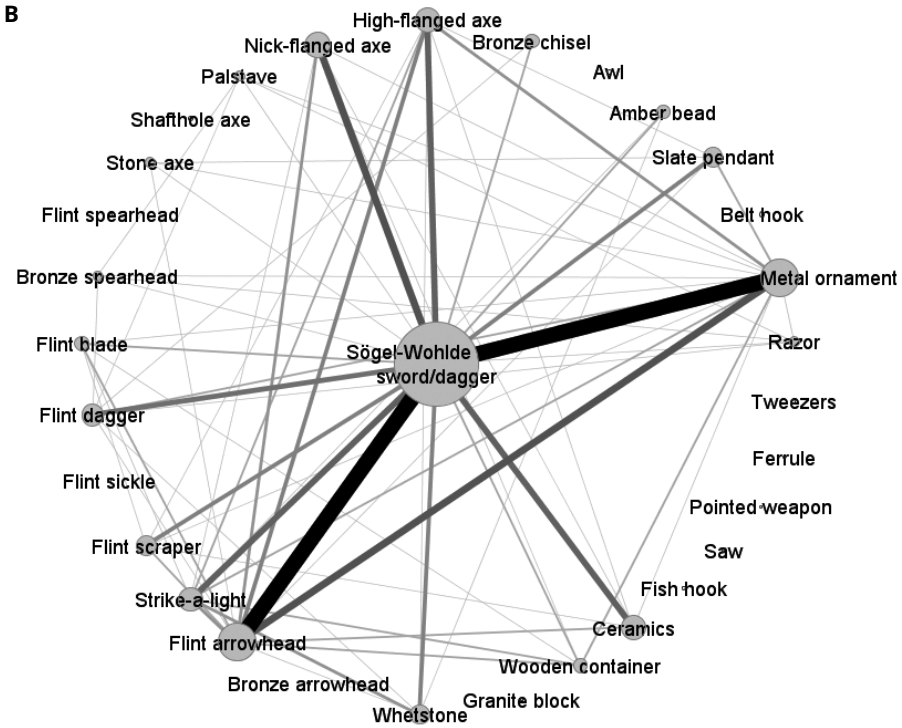
A few other differences can be observed. Fish hooks only occur in Danish burials, although only in a few cases. No fish hooks have been found in German and Dutch burials. Another difference is that high-flanged axes are lacking in Danish Sögel-Wohlde burials, in contrast to the two other regions. Overall, the north German burials show a greater variation; actually, most of the variation observed in Figure 6.15 is down to these north German Sögel-Wohlde burials. The Danish Sögel-Wohlde burials contain a much smaller range of items, and this applies even more to the Dutch burials. However, it should be noted that the Dutch burials with a Sögel-Wohlde sword/dagger are few (n=6). In short, the only truly constant in the so-called 'Sögel-Wohlde burial package' appears to be the Sögel-Wohlde sword/dagger *itself*.

As discussed above, some burials 'only' contain a sword/dagger, while others contain a sword/dagger as well as other items. Some burials do not contain a sword/dagger at all, but other types of metal objects, in varying quantities. So overall, the richness in period IB burials varies. Some burials are extremely rich, such as the Strandtved and Dyssegård burials in the Valsømagle region, while *e.g.* the Katrinedal burial in the Valsømagle region only contains a high-flanged axe. It is striking that the Dutch Drouwen burial is actually one of the richest Sögel-Wohlde burials, containing a Sögel-Wohlde sword/dagger, a Fritzlar axe, two gold rings, a razor, nine arrowheads, a strike-a-light, and a whetstone, while it is located at the periphery of the Sögel-Wohlde region. In contrast, 45% of the burials with a Sögel-Wohlde sword/dagger do not contain any associated objects. This varying 'richness' of burials with metalwork is examined in more detail in Chapter 9.

Lastly, it should be noted that the definition of the regional division in Denmark traditionally used in the literature has been followed here: Valsømagle and Sögel-Wohlde burials are distinguished by the presence of a region-specific bronze sword or

Figure 6.15 (left). Networks showing the burial packages in the Valsømagle region, *i.e.* Zone I (A) and the Sögel-Wohlde region, *i.e.* Zone II (B). They are mapped around a region-specific bronze sword or dagger, which is the defining component of these regional burial packages. The size of the nodes indicates the number of objects (value largest node: Sögel-Wohlde 106, Valsømagle 24), the size and colour of the links indicate how often objects occur together (value largest link: Sögel-Wohlde 20, Valsømagle 6).


A
High-flanged axe
Nick-flanged axe
Bronze chisel
Awl
Palstave
Amber bead
Shafthole axe
Slate pendant
Stone axe
Belt hook
Flint spearhead
Metal ornament
Bronze spearhead
Razor
Flint blade
Sögel-Wohlde sword/dagger
Tweezers
Flint dagger
Ferrule
Flint sickle
Pointed weapon
Saw
Flint scraper
Fish hook
Strike-a-light
Ceramics
Flint arrowhead
Wooden container
Bronze arrowhead
Granite block
Whetstone


B
High-flanged axe
Nick-flanged axe
Bronze chisel
Awl
Palstave
Amber bead
Shafthole axe
Slate pendant
Stone axe
Belt hook
Flint spearhead
Metal ornament
Bronze spearhead
Razor
Flint blade
Sögel-Wohlde sword/dagger
Tweezers
Flint dagger
Ferrule
Flint sickle
Pointed weapon
Saw
Flint scraper
Fish hook
Strike-a-light
Ceramics
Flint arrowhead
Wooden container
Bronze arrowhead
Granite block
Whetstone

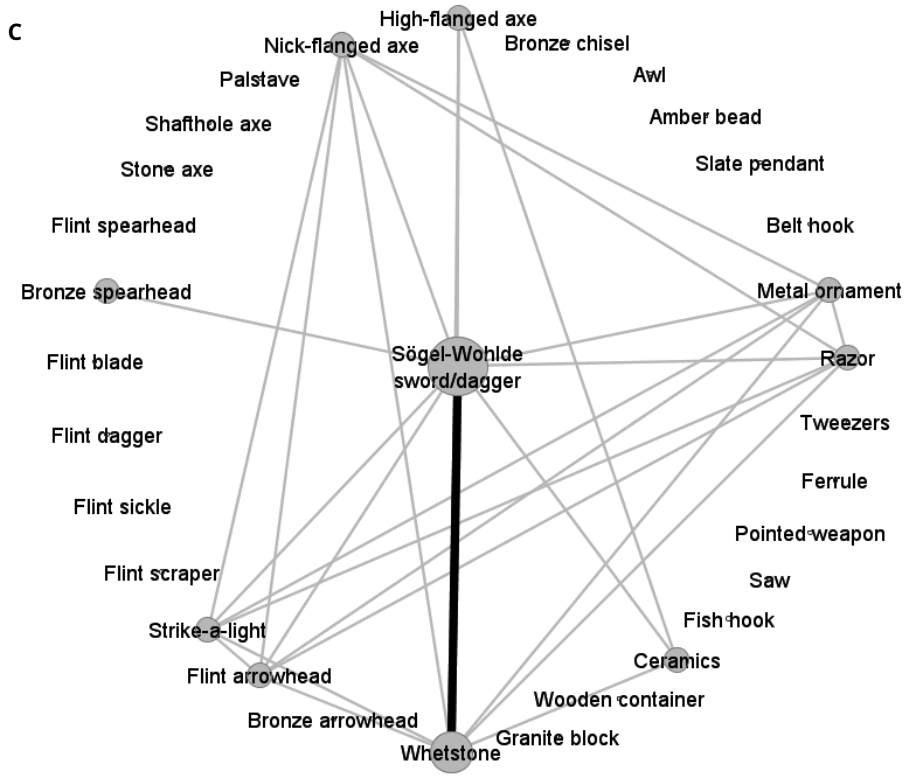


Figure 6.16. The objects and the associations between them in Sögel-Wohlde burials in A) Denmark (Zone II), B) northern Germany and C) the Netherlands. The objects are mapped around a Sögel-Wohlde sword/dagger, which is the defining component in these burials. The size of the nodes indicates the number of objects (value largest node: Denmark 26, Germany 74, the Netherlands 6), the size and colour of the links indicate how often objects occur together (value largest link: Denmark 4, Germany 15, the Netherlands 3).

dagger, as discussed in this chapter's introduction. However, it can be debated whether these regional burials could be defined by another characteristic object. Is the presence of a sword/dagger the only way to assign a burial to a regional group? An example illustrating this problem is the Høgshøj burial from south-western Jutland, containing a nick-flanged axe, a dress pin, a gold ring, a flint dagger, a slate pendant, five amber beads, and a flint fragment. All these objects occur in Sögel-Wohlde burials, as shown in the networks in Figure 6.15 and Figure 6.16, and the burial is located within the Sögel-Wohlde region. Yet since there is no Sögel-Wohlde sword/dagger present in the burial, it is not included in the discussion and the networks in this section. Another example is the primary grave in the Sleenerzand barrow in the Netherlands (Drenthe), which only contained a whetstone (Butler 1990:86), an object that occurs in Sögel-Wohlde burials, as discussed above. How should these burials be dealt with? The choices that people made in terms of the objects they selected to bury with the dead and what these choices signify is discussed further in Chapter 9.

To sum up, burials contain a wide range of object categories and materials. All object categories occurring in this period have been found in burials, in contrast to

earlier periods, when only specific object categories could be used as burial gifts. Bronze swords and daggers are the most abundant object category. However, some specific object types were specifically selected to be buried with the dead, like display axes, and Sögel-Wohlde, Valsømagle, and Tréboul-St. Brandan swords and daggers. Period IB burials vary greatly in richness: some contain only one object, while others are very rich. The existence of a regional division between the Sögel-Wohlde and the Valsømagle group has been confirmed by applying network analysis. However, particularly the existence of a Sögel-Wohlde 'burial package' can be questioned, since there is a high variation in the objects found in these burials, and there are marked regional differences within the Sögel-Wohlde region.

6.6.3 Conclusion

After examining period IB hoards and burials with metalwork, it is clear that they are of a fundamentally different character. Burials with metalwork are much more numerous than hoards. Furthermore, burials contain a greater range of object types and materials than hoards, as demonstrated in the networks in Figure 6.12 and Figure 6.14. On the level of object categories, there are similarities between hoards and burials: the most important ingredients in hoards are axes, spearheads, and swords, and these also occur in burials. Yet when we zoom in to the level of individual object types, we see that different objects were selected to be included in hoards and in burials, particularly in terms of axes and swords. Plain, utilitarian axes were deposited in hoards, while display axes were used as burial gifts. Hajdúsámson-Apa swords do not occur in burials, while Sögel-Wohlde, Valsømagle and Tréboul-St. Brandan swords were predominantly used as burial gifts, and never or rarely occur in hoards. There is clear selective deposition at work in hoards and burials in this period. Burials and hoards thus represent fundamentally different types of depositional events.

Furthermore, period IB hoards are remarkably similar across the research area in terms of their composition and landscape contexts, while period IB burials show much more variation in terms of the selection of objects, as well as regional differences. While period IB hoards seem to express *supra-regionally shared ideas*, the key word for period IB burials seems to be *variation*. This observation is discussed in more detail in Chapters 9 and 10.

6.7 Discussion

The aim of this last data-based chapter was to study the conventions behind selective metalwork deposition in period IB of the Nordic Bronze Age, the last part of the investigated time period. After examining the data from this period, a number of patterns have been identified, as well as a number of changes compared to the preceding period IA.

The most important development in this period is that metalwork was now abundant in burials, in contrast to earlier periods. This development had started in period IA. Burials with metalwork are much more common than hoards, and they occur throughout the research area. A wide range of objects and materials occurs in burials; there is more variation in object types and materials than in hoards. All main object categories from this period were used as burial gifts, although bronze swords/daggers are by far the most common object category. Yet on the level of the individual object types, these burials also clearly demonstrate selectivity: some axe and sword types are avoided in burials, while

they do occur in hoards or single object deposits, and vice versa. There is regional diversity in these burials, both between the Valsømagle and the Sögel-Wohlde regions and within the Sögel-Wohlde region. Especially for the Sögel-Wohlde region, it is actually difficult to speak of one 'burial package', as the only constant element in these burials appears to be a Sögel-Wohlde sword/dagger.

Another development is the fact that period IB depositions are quite uniform in terms of the selection of landscape settings: both hoards and single object deposits were predominantly deposited in wetland contexts. This is in contrast to period IA, when hoards with metalwork were often deposited in dry contexts in association with man-made structures in Denmark, whereas single objects were deposited in wet contexts. The focus shifted entirely towards wet contexts in period IB, irrespective of how many objects people deposited.

Hoards, however, are rare in period IB, especially considering the increase of metalwork depositions in this period. The main ingredients in period IB hoards are axes, spearheads, and swords, which were either deposited in one-type hoards or in mixed hoards. These hoards are remarkably similar across the research area in terms of their contents and landscape settings. They appear to reflect shared ideas, ideas that were shared across large distances. They show a much higher degree of selectivity than burials. Indeed, burials and hoards represent fundamentally different types of depositional events: people chose to include different object types in these two contexts. There is clear selective deposition at work in hoards and burials in this period. This observation is discussed in more detail in Chapters 9 and 10.

Period IB sees a wider variety of object types and shapes than the earlier periods, which is exemplified by axes: high-flanged axes, nick-flanged axes, and shaft hole axes all occurred alongside each other. Each of these axe shapes was deposited in its own way. Overall, while the variety of object types and shapes increases in this period, there is also an increase in selectivity. Each object type or shape is deposited in a specific way. This also applies to swords: metal-hilted Hajdúsámson-Apa swords were predominantly deposited singly in wet contexts, while organic-hilted Sögel-Wohlde swords/daggers were used as burial gifts. The heterogenisation that emerged in period IA, when each object category was deposited in its own way, only increased and branched off in period IB.

Among the range of object types and shapes are new objects, of which the sword is perhaps the most prominent. The sword is thought to be the key element in a Bronze Age warrior ideal. It is striking that the earliest swords, of Hajdúsámson-Apa type, were mostly deposited singly in wet contexts, while somewhat later swords, *i.e.* Valsømagle, Sögel-Wohlde and Tréboul-St. Brandan swords, were predominantly used as burial gifts in specific regions. The incorporation of new objects in deposition practices will be discussed in more detail in Chapter 8. Tweezers and razors also occur for the first time in this period, and they are only found in burials. Furthermore, a range of unusual or even unique items occurs, and these are only included in burials, not deposited in hoards. It is clear that people chose to include unusual, unique items in burials rather than to deposit them in wet landscape settings. The meaning and significance of burying the dead with metalwork is discussed in more detail in Chapter 9.

Regional differences and patterns are clearly observable in period IB. The traditional division between the Valsømagle and Sögel-Wohlde region, as defined by the occurrence of burials with region-specific metal objects, has been confirmed by network analysis. But

also within the Sögel-Wohlde region, there is a great deal of variation. Also in terms of regional practices, the emerging heterogenisation that was observed in period IA increases in period IB. There is no evidence in the data for a specific burial package reflecting a 'warrior ideal'.

In conclusion, in period IB, the final part of the investigated time period, metalwork depositions happened on the largest scale hitherto. In the entire research area, metalwork depositions increased, and particularly in burials, metalwork now became abundant. As discussed in this chapter's introduction, period IB has been argued to be the true beginning of the Nordic Bronze Age, as it is a turning point in terms of the quantity and quality of metalwork in southern Scandinavia (Vandkilde 2014b:608). This turning point can be recognised for the entire research area.

This was the last of the four data-based chapters, in which the patterns in selective metalwork deposition in the four sub periods were examined in detail. The following four concluding chapters zoom out and explore the practice of selective metalwork deposition as a whole and from a more theoretical perspective, comparing and combining the patterns in the four sub periods into one overarching narrative. First the emergence and subsequent development of the practice of selective metalwork deposition through the ages is explored in the next chapter.

Part III

Conclusion

7

A completely normal practice: selective metalwork deposition through the ages

In the previous chapters, the patterns in selective metalwork deposition in the four sub periods between 2350-1500 BC were closely examined. This chapter zooms out and look at the practice from a bird's-eye view. Throughout the 850 years investigated in this study, people deliberately and systematically buried metalwork in the ground, and never retrieved it. Human actions lie at the heart of this practice, and this study allows us to follow these human actions over the course of these 850 years. What did people actually *do* when they deposited metalwork?

Throughout these 850 years, the practice fluctuated, with peaks and dips in the frequency of metalwork depositions, both in terms of the number of depositional events and the number of deposited objects. The relative frequency of metalwork depositions in the four sub periods is shown in Figure 7.1. The relationship between burials, hoards, and single object depositions also changes over time, as shown in the same graph. Although the categories 'hoard' and 'single find' are problematic and have been frequently debated in research on depositions (see Autenrieth & Visser 2019 for an overview), these patterns show that these two categories do in fact represent two different types of depositional events. I return to this observation in Chapter 8. These fluctuations and developments, and what they signify, are discussed in the following sections.

But going back much further in time, people already deliberately and systematically deposited metalwork in specific places in the landscape around ca. 4000 BC, in the Early Neolithic Funnelbeaker Culture, as discussed in Chapter 3 (Klassen 2000). This means that over the course of a staggering *2500 years*, people deliberately and consistently gave up the rarest, most valuable objects they had, for which they depended on metal influx from distant regions. And people continued to deposit metalwork in the research area well into the Iron Age, long after 1500 BC (*e.g.* Fontijn 2002). From our modern perspective, this practice might seem foreign and puzzling, but when we consider this immense time span, metalwork deposition was a persistent practice throughout vast parts of prehistory (Ebbesen 1993, Fontijn 2002, 2019, Klassen 2000, Needham 1988, Vandkilde 1996, Wentink & Van Gijn 2008). People actually deposited metalwork for *much longer* than the length of time since we *stopped* depositing metalwork!

For thousands of years, depositing metal objects in the landscape at regular intervals was thus a natural, self-evident thing to do, as demonstrated by finds across Europe. It was a completely normal practice. From the 850 years investigated in this

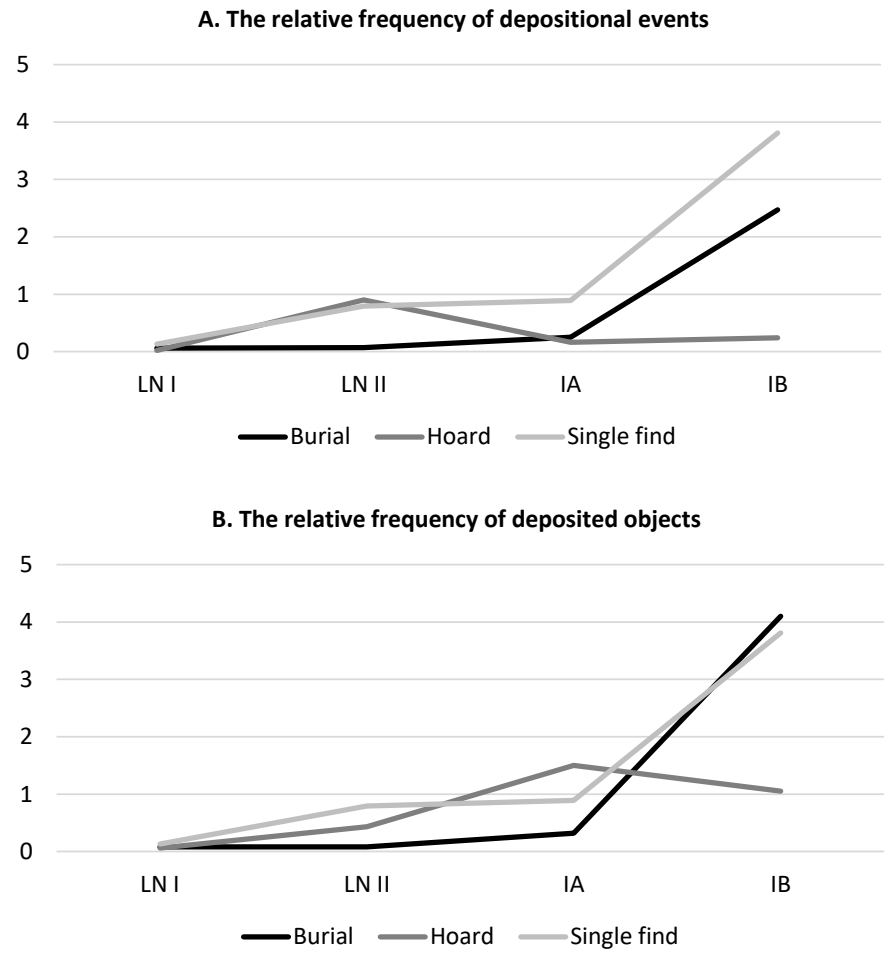


Figure 7.1. The relative frequency of A) sites with metalwork and B) deposited metal objects in the four sub periods. This relative frequency was calculated by dividing the number of objects and sites by the number of years of each sub period, following Holst's method for calculating the relative barrow building frequency in EBA Denmark (Holst 2013:42-113).

study alone, no less than 1850 typologically datable metal objects were recorded in the database, and the quantity of deposited metal objects only *increased* later on in Bronze Age Scandinavia (Vandkilde 2014a, 2014b). And we should keep in mind that what we see is only a fraction of the metal that was in circulation. Different models suggest that perhaps only 5 to 15% of the metalwork ended up in the archaeological record in south England (Wiseman 2017) and in the southern Netherlands (Fontijn 2002:215) in the Late Bronze Age.

This study enables us to not only follow this practice over a vast time period, spanning from ca. 4000 BC to 1500 BC, but also to study its *emergence* from the first introduction of metal in the research area. We have to keep in mind that these metal objects in the Early Neolithic were the very first metal objects that people saw in this region. These objects must have made an exotic and completely foreign impression on them. What did

people do when they deposited these foreign objects? And what did people do when they deposited – in essence very similar – metal objects 2500 years later?

In addition to this chronological depth, this study also provides a vast geographical scope. This is the first time that the practice of selective metalwork deposition is studied in a large area comprising Denmark, northern Germany and the Netherlands, transgressing national boundaries. Throughout this vast area, measuring more than 750 km across as the crow flies, people intentionally gave up metal, all of which had to be imported from afar. This study does not merely focus on metalwork deposition in Denmark, which has traditionally been thoroughly studied for the last 150 years (*e.g.* Worsaae 1866, Vandkilde 1996, see Chapter 1). Instead, it allows us to compare the Danish patterns with patterns from northern Germany and the Netherlands, enabling us to study both regional and supra-regional deposition practices.

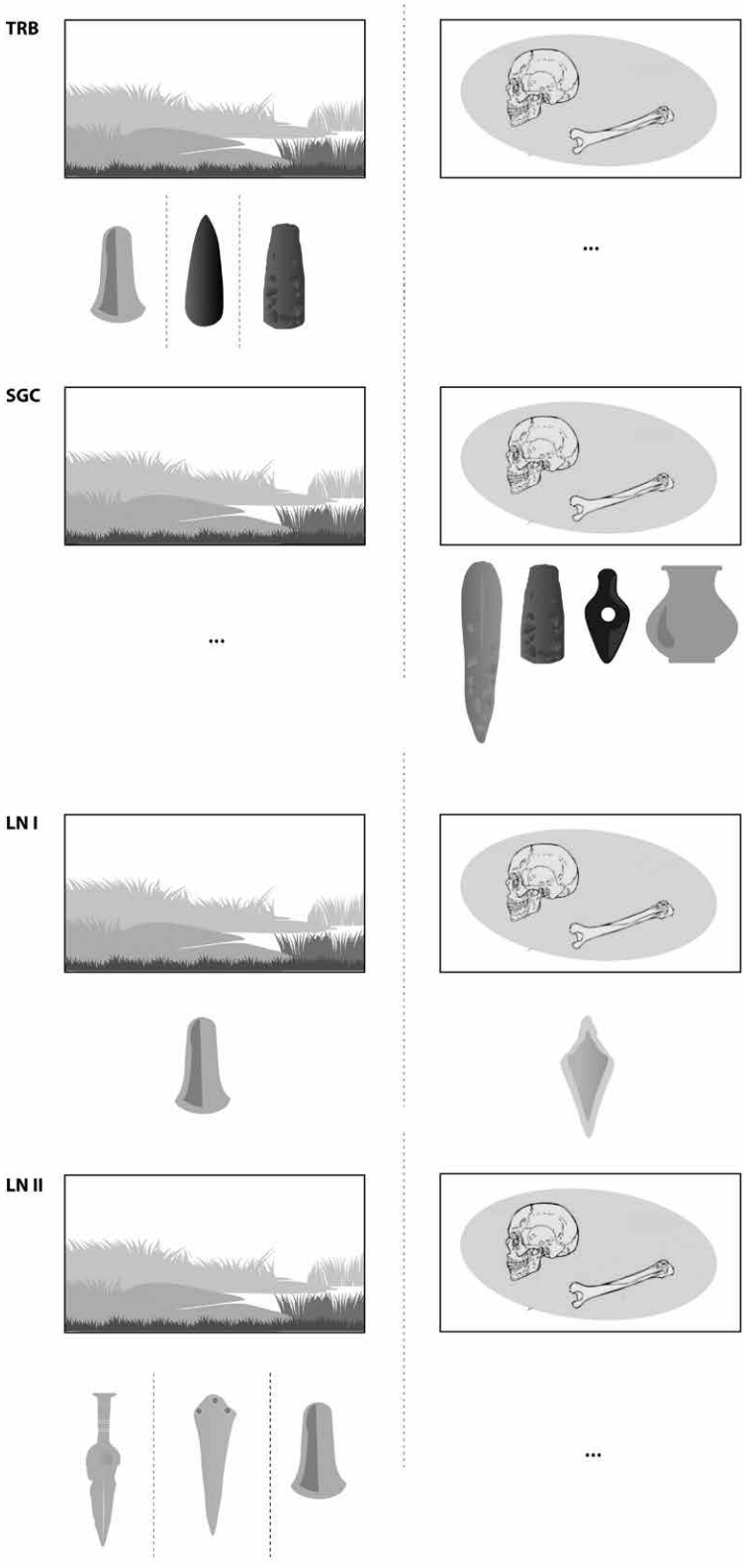
This chapter focuses on the emergence and development of the practice of selective metalwork deposition through the ages. The following sections first focus on the earliest emergence of the practice in the Early Neolithic, after which its developments and fluctuations during the subsequent time periods are considered.

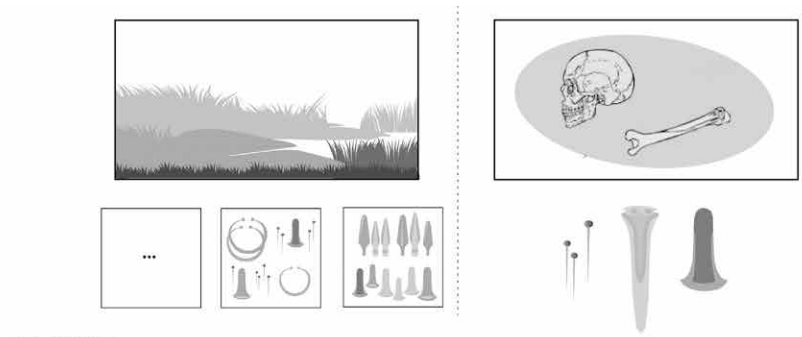
7.1 'Deviating beginnings'

Metalwork deposition emerged in the research area in the south Scandinavian Early Neolithic (EN, 3950-3350 BC, the Funnelbeaker Culture or TRB; Klassen 2000). Already in this early period, people systematically deposited copper flat axes and copper ornaments in specific contexts. As discussed in Chapter 3, a "double exclusivity", defined by Fontijn (2019:29-33) as a characteristic of Bronze Age deposition practices, can already be observed in this early period: people selected specific objects to be deposited in specific places, and avoided other objects and places. But although this early practice at first glance might seem similar to selective metalwork deposition in the Bronze Age, there are fundamental differences between the two practices. With the benefit of hindsight, selective deposition in the Early Neolithic showed 'deviating beginnings' in terms of deposition frequency, the selection of landscape contexts, and the significance attached to the material metal. Therefore, it is argued that selective metalwork deposition in the Early Neolithic and the Bronze Age are two completely different practices. This section takes a closer look at these differences.

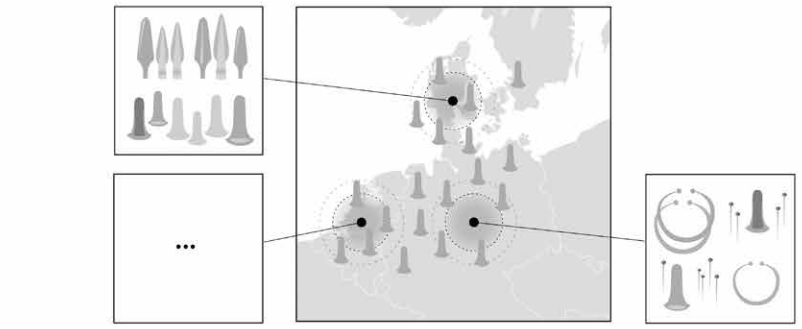
Firstly, metal depositions were few and far between in this early period compared to the Bronze Age. Metalwork was deposited in parts of Denmark and northern Germany, but not in the Netherlands, and the number of metal objects in the archaeological record is modest. Roughly 70 copper axes from Denmark and Schleswig-Holstein are thought to date to the Early Neolithic (Klassen 2000:305). Compared to the number of flint axes that was deposited in this period, this is a very modest number. Neolithic flint axe depositions in Denmark are "practically innumerable, and any attempt at counting them is pointless" (Ebbesen 1993:123-124), as discussed in Chapter 3. Copper was clearly only a minor category in the practice of selective deposition, existing alongside other materials that were deposited much more frequently (see Chapter 3).

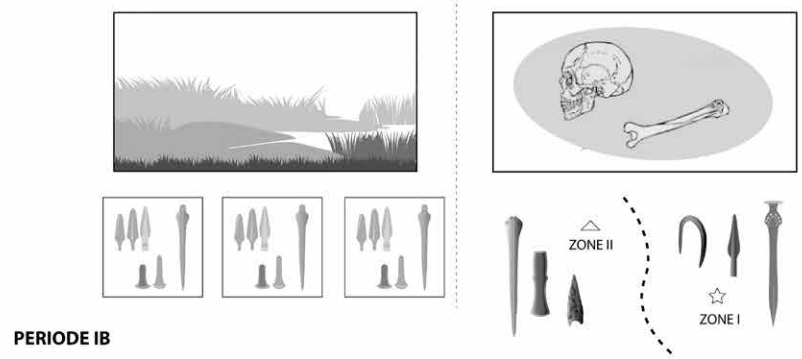
Figure 7.2 (following page). Visualisation of the selective deposition of metalwork and imported valuables between ca. 3950-1500 BC. Drawing by J. Porck, Faculty of Archaeology, University of Leiden.


TRB
...
SGC
...
LN I
LN II
...

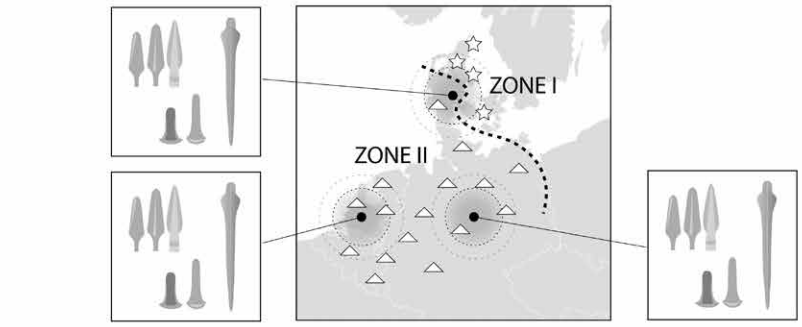


PERIODE IA





PERIODE IB



Secondly, people selected completely different landscape settings for axe depositions in these two periods. As seen in Chapter 3, copper flat axes were often deposited in dry land contexts in the Early Neolithic, frequently in association with burials (but without being burial finds, Vandkilde 1996:178-180). In contrast, from LN II onwards, the practice of depositing metal axes in wetlands took flight (see Chapters 4, 5, and 6). The conventions behind axe depositions were thus different in the Early Neolithic and the Bronze Age. It is actually striking that copper axes were rarely deposited in wetlands in the Funnelbeaker Culture, since flint axes were deposited in wetlands on a massive scale. Copper axes clearly did not follow the conventions for flint axe depositions.

Thirdly and most importantly, copper was first and foremost considered, treated, and deposited as an exotic material. As addressed in Chapter 3, copper and Alpine jade axes were both imported from outside the TRB domain, and they were deposited in similar ways; they were not used as burial gifts (see Figure 7.2). These similar patterns suggest that they were perceived similarly: just like Alpine jade, copper was 'merely' considered as an exotic material. The well-known Bygholm hoard from Denmark illustrates this idea: copper axes, ornaments, and a dagger were all deposited together in a hoard as foreign valuables. The fact that these early copper axes were not intended for functional use (Klassen 2000:278-283) supports this interpretation: copper axes were treated and considered in an abstract way as exotic valuables. The main objective of the local communities was perhaps exactly the acquisition of exotic objects from faraway, mythical places that were situated far beyond their local, familiar world, rather than the exchange and import itself (Helms 1993:99, Needham 2000:188, cf. Fontijn 2019:37). In contrast, locally made flint axes belonged to a very different sphere: they were intended for functional use and used as burial gifts (Wentink et al. 2011). Furthermore, copper and flint axes were not mixed in depositions; they clearly belonged to separate categories. Copper did thus not have any other significance beyond being an exotic valuable in the Early Neolithic; it did not have its *own*, specific, concrete meaning.

In contrast, from the Bell Beaker period onwards, metal was no longer 'merely' seen as an exotic valuable in an abstract way. In this period – which is more than one thousand years later than the Early Neolithic, and thus as distantly removed from the people in the Early Neolithic as the battle of Hastings is from us – metal became *concretised.* Metal objects were now intended and used as functional tools, and the material metal became associated with different, specific domains, and therefore separated in depositions. This revolutionary development is discussed below in Section 7.3.

7.2 The gap?

Moving on to the Single Grave Culture (SGC, ca. 2850-2500/2350 BC), a number of developments took place that were of vital importance for the later periods under study. The Single Grave Culture was part of the pan-European Corded Ware complex, and is thought to have emerged in the research area as a result of a migration from the Eurasian steppe (Allentoft et al. 2015, Haak et al. 2015). The Corded Ware complex had a shared burial practice: from Poland to the Netherlands, people buried their dead in similar ways; an unprecedented similarity existed across Europe (Bourgeois & Kroon 2017). The dead were buried individually underneath a burial mound, in a specific position, and with a specific burial package (Bourgeois & Kroon 2017), reflecting the emergence of an entirely new idea of *personhood* (Fontijn 2002:59, Treherne 1995:106-113). This burial package

contained, among other items, battle axes, imported flint daggers, and imported flint axes, as discussed in Chapter 3. This is the first period in the research area in which daggers were used as burial gifts, an association that we will return to in the following sections. These particular objects, coming from various regions, were thus used to construct a specific *image* of the deceased in burials. This idea of constructing an image in burials using specific objects is discussed in detail in Chapter 9.

People clearly made specific choices regarding which objects they used as burial gifts in this new, supra-regional burial practice. However, they did not have equally clear preferences for depositions in specific places in the landscape (see Figure 7.2). As seen in Chapter 3, depositions outside burials overall, and metalwork depositions in particular, played a minor role in the research area in this period. Although metal does occur in Single Grave assemblages in Central Europe (Bourgeois & Kroon 2017, Hansen 2012:32), the research area has yielded surprisingly little metal from this period. Compared to the previous period, there is a gap in terms of the metal that ended up in the archaeological record. Although there is still a "double exclusivity" (Fontijn 2019:29-33) in selective deposition in this period, people made completely different choices in terms of which contexts they preferred compared to the Funnelbeaker Culture.

7.3 The reinvention

After this prelude, we arrive at last in the first part of the investigated time period: the Bell Beaker period (Late Neolithic I or LN I/Late Neolithic B or LN B, ca. 2500-2000 BC), during which the research area was part of the pan-European Bell Beaker region, spanning from the Iberian Peninsula to the British Isles and Germany (Müller 2009:77, fig. 79). The period is characterised by a shared material culture and burial ritual, which in the research area are primarily found in the Netherlands (Butler & Van der Waals 1966/67), and Niedersachsen (Lanting 2007/2008:84, fig. 23; Willroth 1996:18). In Denmark, Bell Beaker influences are limited to northern and central Jutland (Sarauw 2007b:29 and fig. 18), and of a local character (Vandkilde 2005a:2). Nevertheless, Bell Beaker routes connected various regions within the research area, including Jutland, and metal is thought to have circulated through these routes (Vandkilde 2005a:30, 1996:295). Metal – now including copper and gold – was thus reintroduced to Denmark and northern Germany, and probably introduced for the first time to the Netherlands (Butler & Van der Waals 1966/67, Vandkilde 1996:177, Willroth 1996:18). Metalwork depositions became of great significance once again after the gap in the Single Grave Culture, although they were still scarce compared to the Bronze Age; the relative frequency of metalwork depositions in this period is shown in Figure 7.1. The distribution of metalwork in Denmark is not limited to the Bell Beaker region, as discussed in Chapter 3.

Similarly to the Single Grave Culture, a shared Bell Beaker burial ritual existed across regions, in which the dead were buried individually with a standardised burial package. Across regions, people had shared ideas on how to bury the deceased, which is remarkable in itself, since Bell Beaker influences are particularly strong in the Netherlands and north-west Germany, but much less so in Denmark (see Chapter 3). Still, similar patterns can be recognised in the entire research area. This supra-regional burial ritual and what it signifies is examined in more detail in Chapter 9. For now, it is important to note that for the first time, this burial package contained *metal*, which was an important development. Copper tanged daggers were consistently used as burial gifts and metal ornaments were

used to adorn the dead in the Netherlands. Although flint daggers were already used as burial gifts in Single Graves, this is the first time that *metal* daggers were used as burial gifts across the Bell Beaker region.

This idea of selecting specific objects to bury with the dead is reminiscent of the burial ritual in the Single Grave Culture. But a crucially important development in the Bell Beaker period was that for the first time, metalwork was *also* deposited outside burials. A separation between metalwork in burials and metalwork deposited outside burials emerged, and this separation is observable in the entire research area (see Figure 7.2). Copper tanged daggers and ornaments were used as burial gifts, while copper axes were deposited in specific places in the landscape, and these two objects and contexts were strictly separated in depositions; they were not combined. In the entire research area, copper axes were *never* used as burial gifts in this period (Vandkilde 1996, Fontijn 2002). Metal daggers were thus associated with the deceased, with an individual, while metal axes did *not* have this association (cf. Vandkilde 1996:267). The material metal itself became differentiated in this period: it became associated with different domains, acquired different meanings, and was therefore separated in depositions (see Chapter 3).

There is thus a clear dichotomy between burials and what they entail, and 'non-burials' – for lack of a better word – and what they entail; people made specific choices concerning which objects they placed in these two contexts (see Figure 7.2). The objects that were placed in burials were closely associated with an individual, with a body, while depositions in *e.g.* wetland settings were *not*; on the contrary, these objects were deposited *away* from the individual, in specific places in the landscape. This important separation in terms of metalwork emerged for the first time in this period. Burials with metalwork and what they signify are discussed in more detail in Chapter 9, while 'non-burials' are considered in detail in Chapter 10.

Returning to the Bell Beaker period, copper axes were relatively often deposited in dry land contexts in this period, just like their Early Neolithic counterparts, but wetland depositions start to become more frequent now, a trend that positively boomed in the following periods. This trend is discussed in more detail in Chapter 10. These copper axes were probably functional tools, in contrast to Early Neolithic copper axes. People no longer considered and treated copper/metal in an abstract way as an exotic material, like people did in the much earlier TRB. Instead, metal objects were now *concretised*: they were considered as concrete, everyday objects, with specific uses and associations, *i.e.* with specific *cultural biographies*, and therefore deposited in the 'right' context. The concept of cultural biographies and its implications for depositions are explored in detail in Chapter 8.

7.4 The big rise

This section moves on to Late Neolithic II (LN II, 1950-1700 BC), which roughly corresponds to the Dutch Early Bronze Age (EBA, 2000-1800 BC). Around 2000 BC, the supra-regional Bell Beaker network disappears, and instead, a number of regional groups emerge and grow in importance. The Únětice region in Central Europe was particularly of importance for Denmark and northern Germany in this period, as discussed in Chapter 4, since most of the imported metal is thought to come from this region (Vandkilde 1996:207-209, Laux 2000:30-35). The 'international' networks in which the research area was involved thus changed in this period: instead of one shared supra-regional network, there appears to now have been a fragmentation of the exchange networks.

There is an increase in metalwork deposition in LN II: this is in fact the first period in which metal was deposited on a large scale all over the research area, as shown in Figure 7.1. Evidently, it had now become an established practice to regularly deposit metalwork in the landscape. This increased rate in metalwork *deposition* suggests that there was more metal in *circulation* as well. Metalwork depositions were remarkably similar in the entire research area in LN II: daggers, halberds, and axes were all predominantly deposited singly in wet landscape settings (see Figure 7.2). From Zealand in the east to the Netherlands in the west, people did the same things, over and over again, demonstrating that there were shared ideas on how metalwork was supposed to be deposited. Clearly, there were shared conventions across the entire research area. Some of these conventions were actually supra-regional: metal-hilted daggers were deposited in similar ways all over north-west Europe (Schwenzer 2004:15-19).

Even though axes were preferably not used as burial gifts both in LN I and LN II, a change in the conventions behind axe depositions can be observed: people selected different landscape settings for axe depositions. Copper axes were deposited in dry land contexts in LN I relatively often, but in LN II the practice of depositing metal axes in wetlands took flight, and this continued to be the main practice in the following periods, as addressed in Chapters 5 and 6. Copper and gold ornaments were generally not used as burial gifts either in LN II, but deposited in hoards. On the whole, metal objects clearly no longer played an important role in burials, which is surprising after the significant developments in the preceding Bell Beaker period, when metal became an important element in the burial package. Metal was thus no longer used to construct a supra-regionally shared image of the dead in burials (this is discussed in more detail in Chapter 9); instead, the focus shifted to wetland depositions.

However, a small group of hoards from this period – including the Pile, Gallemose, Skeldal, Vigerslev, and Wageningen hoards – stand out, because people chose to break with these widely shared conventions when they deposited them. Although they do not contain the exact same combinations of objects, they all combine objects that were otherwise never combined in depositions: they are all "convention-breakers" using Fontijn's term (Fontijn 2019:35). They all combine local objects with foreign objects from the various regions that the local communities were connected with. The south Swedish Pile hoard is a perfect example: it contains Únětice and Anglo-Irish imports as well as south Scandinavian axes (Vandkilde 2017). In this way, these hoards represent the international networks in which the local communities under study were involved. They also contain unique objects, such as the gold beehive-shaped box in the Skeldal hoard, or the puzzling bronze hooks in the Gallemose hoard. Compared to the numerous single object deposits from this period, people deposited a surprising amount of metal in these unconventional hoards: the Danish Gallemose hoard for example weighs almost 12 kg (Randsborg 1991:112)! These hoards also embody various stages in the metalworking process, as discussed in Chapter 4. In addition, people also selected special places in the landscape for these hoards, which is discussed in more detail in Chapter 10.

As argued in Chapter 4, these unconventional hoards connect regions, communities, and people with each other, serving as "*Mappa Mundi* hoards" (Fontijn 2019:29-33), and reminding us of Needham's term "community deposits" (Needham 1988:246). These hoards represent the networks in which local communities were embedded, reminiscent of how the Bell Beaker burial ritual reflected the supra-regional Bell Beaker network. The following chapters return to the topic of these unconventional hoards, in particular Chapter 10, since these hoards provide a unique glimpse of the practice of selective deposition precisely *because* they break widely accepted conventions (Fontijn 2019:35-36).

7.5 Prelude to the finale

This section proceeds to the beginning of the Nordic Bronze Age, *i.e.* period IA (1700-1600 BC), which partly corresponds to the Dutch Middle Bronze Age A (MBA A, 1800-1500 BC). The Únětice region loses much of its importance as the main source of metal supply in this period, as discussed in Chapter 5. Instead, the exchange routes become more fragmented, with imports from Central Europe, the Carpathian Basin, and western Europe occurring in Denmark and northern Germany in this period (Vandkilde 1996:220-222). Locally made metalwork becomes increasingly important, especially in Denmark (Vandkilde 1996, fig. 266). The relative frequency of metalwork depositions in period IA is roughly comparable to LN II (see Figure 7.1).

However, it should be noted that there was a striking dip in metalwork deposition in the Netherlands in this period, as seen in Chapter 5. This applies to burials as well as hoards and single object depositions. Compared to Denmark, the number of metal objects from the Netherlands was also lower in the previous two periods (see Chapters 3 and 4). As discussed in Chapter 2, the metalwork recorded from the Netherlands is probably representative; this means that overall, smaller numbers of metalwork were deposited in this region than in Denmark. The dip in period IA may thus reflect an actual scarcity of metal objects in this region. However, it is very likely that at least *some* metal objects were used by the agrarian communities in this region (Fontijn 2002:97). But apparently, people chose to *not* deposit metalwork in this period. In the adjacent regions, people did deposit metalwork, and these depositional events had a social significance. People expressed their ideas on their place in the world through metalwork depositions; I return to this idea in the next three chapters. However, in the Netherlands, depositions apparently did not have this social significance in this period.

The most important development in period IA is that the uniformity of metalwork depositions that was so striking in LN II is no longer visible. Instead, a heterogenisation of the conventions behind metalwork deposition can be observed in period IA: each object category was deposited in its own, specific way, and the conventions were different for each region (see Figure 7.2). People no longer did the same things across vast distances; it appears as if it was no longer of importance to follow supra-regional conventions. Instead, it became more important to emphasise local elements in depositions. Spearheads, for example, were deposited in large numbers in Denmark, almost always in hoards, while they are rare in northern Germany. The increased emphasis on local practices and what it entails is discussed in more detail in Chapters 9 and 10. Overall, most objects were still deposited singly in wetlands, particularly axes; this is a persistent pattern throughout the investigated time period. But burials with metalwork are on the rise; especially metal daggers and ornaments are more common in burials now. This development forms the prelude to period IB, when the dead were often buried with metal objects, particularly with bronze daggers/swords and ornaments (see Section 7.6).

On rare occasions, people chose to deposit assemblages of objects together in hoards. Hoards were obviously a special type of depositional event, a depositional event that stood out. But there are differences between the regions in terms of the objects that people selected. In Denmark, hoards followed local conventions, containing series of spearheads and/or axes. The most striking example is the Torsted hoard, containing seven axes and no less than 40 spearheads, which are among the very first spearheads in the region. Another example are the multiple hoards deposited along the palisade at Boest,

one of them containing five oversized axes. These spearheads and axes are mostly locally made; again, the *local* aspect is emphasised. In contrast, hoards in northern Germany were deposited following Únětice practices, such as the Marwedel hoard, which includes Únětice ornaments and axes (Wegner et al. 1996:377, Laux 2000:35, 42, Laux 2015:3). Nevertheless, all of these hoards do have something in common: they are all excessive in terms of the numbers of objects, size of the objects, and/or the objects themselves. Such Überausstattungen in Hansen's terms (2001) are not found in burials in the region in this period, but only in hoards. Depositing hoards with metalwork in the landscape became a social event that had its own significance in this period.

People selected specific landscape settings for these hoards, which were different from single object deposits: they were often deposited in dry landscape settings in association with man-made structures, such as burials. The hoards deposited in connection with the palisade at Boest are, again, striking examples of this choice of location. These hoards were thus not deposited in unmarked, natural places like bogs, quite the contrary; they were deposited in landscapes on which people had clearly left their mark.

Whereas the LN II hoards discussed above emphasise international connections, these period IA hoards rather appear to emphasise the local communities, particularly in Denmark. These Danish hoards contain series of locally made objects, and they were deposited following local conventions, in landscapes on which people had left their mark. In this emphasis on local practices in Denmark, we might observe the emergence of the Nordic Bronze Age which fully started to flourish in period IB (Vandkilde 2014ab). In contrast, the German hoards emphasise connections with the Únětice region.

7.6 The grand finale: the Nordic Bronze Age and Sögel-Wohlde period

Finally, this section focuses on period IB of the Nordic Bronze Age (1600-1500 BC), the last part of the investigated time period, which corresponds to the last part of the Dutch Middle Bronze Age (Van den Broeke et al. 2005, fig. 1.10) and to the Sögel-Wohlde phase in northern Germany (Laux 2009:3-7). Even though period IA is the first period of the Nordic Bronze Age, period IB has been argued to be the true beginning of the Nordic Bronze Age, since it was a turning point in the quality and quantity of metalwork (Vandkilde 2014ab). The Nordic Bronze Age, with the characteristic style and abundance of metalwork that is typical for this region, is thought to have started to unfold in period IB, with a peak later on in period II and III (Vandkilde 2014ab). By far most of the metalwork in Denmark in period IB is locally made (Vandkilde 1996, fig. 266); foreign imports lost their significance entirely. But also in northern Germany, an important regional development took place: the Sögel-Wohlde group emerged, with its specific style of metalwork of which the Sögel-Wohlde sword is the main object. Southern Jutland and the north-eastern part of the Netherlands were also part of this *Sögeler Kreis*, as discussed in Chapter 6.

All over the research area, metalwork was deposited in this period on the largest scale hitherto, as shown in Figure 7.1. And metalwork did not only occur in larger quantities, but also in a wider variety of object types and shapes, which is illustrated by the axes from this period: while all axes were of one basic shape in the previous periods, high-flanged axes, nick-flanged axes, and shaft hole axes circulated alongside each other in period IB, and in addition, the very first palstaves emerged. Within this wide range of shapes and types, regional styles can be observed: organic-hilted Sögel-Wohlde swords were for example

typical for the Sögel-Wohlde region, while metal-hilted Valsømagle swords were typical for the Valsømagle region in eastern Denmark (see Figure 7.2). The trend towards regionalisation in deposition practices observed in period IA thus continued: regional groups emerged that expressed their regional identity through their own, regional style in depositions.

The most important development in this period is that metalwork became abundant in burials (see Figure 7.2). The dead were now often buried with metalwork, and all main object categories were used as burial gifts. This also includes axes, which is a new development. Particularly bronze daggers/swords were frequently used as burial gifts. Swords were a new object type in this period, and they have been interpreted as signalling an emerging 'warrior ideal' (Kristiansen 1987, Treherne 1995, Vandkilde 1996). This 'warrior ideal' and the role that swords play in it is discussed in detail in Chapter 9.

But although all main object *categories* were used as burial gifts, people preferred particular object *types* in burials, and thus avoided other types. High-flanged axes of types Mägerkingen-Valsømagle and Hüsby were specifically used as burial gifts, while high-flanged axes of type Oldendorf were predominantly deposited in wet landscape settings. The first primarily had a display function, while the latter were utilitarian work axes (Vandkilde 1996:270). The *cultural biographies* of these axes thus played an important role in their deposition, which is discussed in more detail in Chapter 8. As the variety of object types and shapes increased in this period, the degree of selectivity also increased: each object type or shape was deposited in its own, specific way. The heterogenisation that emerged in period IA, when each object type was deposited in its own manner, thus increased in period IB.

Although some shared patterns can be observed in the selection of objects in burials, it is also beyond doubt that there was a high degree of variation, which was analysed by applying network analysis in Chapter 6. Regional burial practices existed: in eastern Denmark (Zone I), the dead were buried with a metal-hilted Valsømagle sword or dagger, and in 46% of the burials with additional objects; and in Jutland (Zone II), northern Germany, and the Netherlands, the dead were buried with an organic-hilted Sögel-Wohlde sword/dagger, and in 55% of the burials with additional objects. The classic division between the Valsømagle region on the one hand and the *Sögeler Kreis* on the other is thus confirmed in this study (see Chapter 6 for a more detailed analysis). Furthermore, there were not only differences *between* regions, but also *within* regions: particularly Sögel-Wohlde burials show a high degree of variation, as considered in Chapter 6. While there was a standardised burial package in the Bell Beaker period, it is difficult to recognise a standardised burial package in period IB. This is discussed in more detail in Chapter 9.

Despite the abundancy of metalwork in burials, single object deposits were still the most frequent type of depositional event. Hoards also occur, and both single objects and hoards were predominantly deposited in wetland contexts (see Figure 7.2). The focus clearly shifted entirely to wetland settings: irrespective of how many objects people chose to deposit in the landscape, the convention was to deposit them in wet landscape settings. This is in contrast to period IA, when hoards were often deposited in dry landscape settings in association with man-made structures. The most important elements in period IB hoards are axes, spearheads, and swords; they were primarily deposited in one-type hoards, but in a small number of mixed hoards, people combined all three object categories together. These mixed hoards, including the Valsømagle I and II, Oldendorf, and Overloon hoards, are remarkably similar, despite the fact that they are widely dispersed across the research area (see Figure 7.2). There is a distance of roughly 600 km between Valsømagle

and Overloon, and yet these hoards essentially contain the same combination of objects, as discussed in Chapter 6. These hoards clearly reflect the same ideas, which is discussed in more detail in Chapters 9 and 10.

Regionalisation in deposition practices can thus be considered the key word for period IB. Particularly burials were used to emphasise ideas of 'regionality': the Valsømagle region had its own burial practice with a specific material culture, and so did the Sögel-Wohlde region. In both regions, locally made objects in the local style were used as burial gifts, although in varying object combinations. It was no longer important to emphasise the international networks that local communities were part of, which shifted over the course of time, as in LN I and LN II. Instead, it became important to express being part of the local group, which was done by using objects with a recognisable local style in burials.

However, in this regionalisation in deposition practices, a distinct and separate Nordic Bronze Age is in fact difficult to discern. Instead, the Valsømagle and Sögel-Wohlde regions clearly come to the fore as regional traditions in depositions, particularly in burials, but these are not limited to national borders. The Sögel-Wohlde region, of which the centre of gravity was probably located in northern Germany (Bergerbrant 2007:41, Hachmann 1957:30, Sprockhoff 1927:132-133), but which reached from Jutland in the north-east to the northern Netherlands in the west (Butler 1995/1996, Laux 2000, Laux 2009, Sprockhoff 1927, Vandkilde 1996), was particularly prolific in terms of metalwork. In fact, when we take Sögel-Wohlde swords/daggers, which are the typical object for this region, as a way of measuring, the numbers are striking: 41 Sögel-Wohlde swords/daggers from Danish territory were recorded in the database, while 109 such swords/daggers were found in Schleswig-Holstein and Niedersachsen. Although Denmark has indeed yielded the largest total number of metal objects from this period when we follow national borders (see Chapter 6), the abundance that is considered typical for the Nordic Bronze Age (*e.g.* Vandkilde 2014ab) is thus not limited to Denmark in period IB. This is the great value of the supra-regional approach that is applied in this study: regional patterns can be identified that are not limited to national borders. In terms of the abundance of metalwork in Denmark, the early and fast development of prehistoric archaeology in the country should also be taken into account: bronze finds were already in the 19th century collected in the Museum of Nordic Antiquities in Copenhagen and studied by scholars like Worsaae (see Chapter 1). This awareness emerged much later in other regions, like the Netherlands.

Apart from the shared burial practice and material culture in the Sögel-Wohlde region, there are additional similarities between the three countries, as discussed in Chapter 6. These include – but are not limited to – single depositions of work axes of Oldendorf type, which occur in the entire research area, and a number of hoards that are widely dispersed across the research area which are remarkably similar, as discussed above. And when we zoom out, even though the Valsømagle and Sögel-Wohlde traditions are indeed recognised as separate traditions in this study, they also express a shared idea: that of the 'warrior ideal', which is discussed in more detail in Chapter 9.

To conclude, comparing the finds from a large area spanning Denmark, northern Germany, and the Netherlands thus provides a new perspective on the Nordic Bronze Age, and suggests that the 'typical' abundance and style of the Nordic Bronze Age is perhaps not as limited to this particular area in this period as usually assumed. Instead, widely shared ideas existed, some of which were interpreted and expressed in regional material terms, particularly in burials. Hoards were actually remarkably similar across regions.

7.7 Epilogue

As already mentioned in this chapter's introduction, the practice of selective metalwork deposition continued long after 1500 BC, but this time span lies beyond the scope of this study. It is evident that selective metalwork deposition was a common practice from 4000 BC all the way to 1500 BC – although with many fluctuations and developments. This can only be expected during such a vast time span. But regardless of these fluctuations and changes – which reflect the supra-regional networks and the societies that people lived in, and how these shifted and developed over time – the practice of selective metalwork deposition *existed*: for thousands of years, depositing metalwork in the landscape was a completely normal thing to do, and it continued to be so long after 1500 BC. From this perspective, it is in fact puzzling that these days we do *not* deposit metalwork anymore.

After exploring the practice of selective metalwork deposition from a bird's-eye view in this chapter, the next chapter focuses on one specific theme: the *objects* that people selected for deposition. Which choices did people make and what do they signify?

8

The selection of objects: cultural biographies

Human actions lie at the heart of the practice of selective metalwork deposition, which the previous chapter studied from a bird's-eye view. People repeatedly *did* specific things over the course of time, creating the patterns that are examined in this study. What they did revolves around two key elements that are archaeologically visible: the objects and the places they selected. This concluding chapter focuses on the former: the objects. The patterns studied in the previous data-based chapters show that people did not simply deposit *any* object. People systematically made choices concerning which objects they deposited (Fontijn 2002, 2019, Needham 1988, Vandkilde 1996). As discussed in the previous chapters, these choices demonstrate that there were conventions behind the practice: apparently, metalwork deposition was supposed to be done in a certain way. This chapter focuses on the conventions behind the selection of objects.

But before moving on to examine these conventions, the objects themselves need to be considered for a moment. As explained in Chapter 2, the conventions behind depositions are examined by using a number of main object categories: daggers/swords, halberds, axes, spearheads, ornaments. Of course, these categories are products of our modern way of thinking. From our modern perspective, an axe is a different kind of object than a dagger, or a spearhead. But did people in prehistory distinguish between these objects, too? How do we know that people perceived these objects as different from each other? One could argue that it is perhaps not meaningful at all to distinguish between axes, daggers, and spearheads, since they are all made of metal, and they all had a sharp edge or point. The solution to this issue actually lies in the patterns in depositions. We have seen in the previous chapters that people consistently deposited axes in a specific way, and daggers in another, and spearheads in yet another way. These patterns show that these objects were indeed considered different objects in the distant time periods under study. This implies that they were deposited differently *because* people perceived them to be different. Although the names of these object categories are modern inventions – we use the term 'dagger', but we may just as well call it 'long, pointed object' – the categories themselves are in fact meaningful. What people *did* with these objects shows that they were perceived as different, demonstrating that it is meaningful to use these different categories. Therefore, the main object categories – and their modern names – are employed in this chapter.

So having established that an axe was in fact considered a different kind of object than, say, a dagger or a spearhead, since it was deposited differently – what *is* the difference? How can we define an axe? What does an axe have that a spearhead does not? In order to answer this question, the objects' function and how they were used need to be examined. Spearheads had a very specific function: they were used as weapons (Horn 2013:18, 21-23, and catalogue), although it is also possible that they were used in hunting (Fontijn 2002:99). In contrast, axes were from very early on of vital importance as tools in agrarian communities (Bradley 1990:43-64, Fontijn 2002:82, Wentink 2006:100). They were of crucial importance in Neolithic societies from a subsistence perspective, as tools to fell trees and thus transform the landscape, and from a social perspective, as tools to construct houses for the community. Furthermore, people engaged in supra-regional exchange networks to acquire for example Alpine jade axes (Kolář 2019:40-41). Axes thus had a great *social* significance as tools (Kolář 2019:42). Furthermore, they could also be used as weapons, and non-utilitarian axes – which were probably used as display items – also occur throughout the investigated time period (see *e.g.* Chapters 3 and 6). Axes clearly had a variety of functions and a broad significance (Bradley 1990:57, Fontijn 2002:82, Kolář 2019, Wentink 2006:100-101). So spearheads and axes had different functions and uses, and this is what distinguished them from each other; this is what caused them to be perceived as different objects. The purpose, design, and use of objects was thus of crucial importance for how they were perceived.

It is here that the concept of an object's *cultural biography* comes into play, a classic concept developed by Kopytoff (1986). According to Kopytoff, objects have biographies just like people do, starting with where the object came from and who made it, and ending with the end of the object's use (Kopytoff 1986:66-67). And people have "biographical expectations" of objects: an object should be treated and end up in a way that is 'right' for it (Kopytoff 1986:67). As an example of "biographical expectations" in our modern society, Kopytoff mentions how we would react if a painting by Renoir would be burned, or would end up in a private collection; these two 'endings' are, to us, not 'right' for such an object (Kopytoff 1986:67). This is a feeling that we would all share, without having to discuss or explain it. Apparently, the idea of how to treat an object is *culturally* influenced (cf. Kopytoff 1986:67).

A more extreme example of modern "biographical expectations" (Kopytoff 1986:67) concerning a painting is the case of the Banksy painting that shredded itself directly after it had been sold for over £1 million at an auction in 2018, leaving people shocked and making headlines all over the world. Interestingly, the piece of art probably *increased* in value after its destruction. Another recent example that comes to mind is the indignation and criticism that arose in the Netherlands when the Dutch royal family decided to auction off valuable artworks by Dutch painters to foreign countries, rather than offering them to Dutch museums first, and preserving this cultural heritage for the benefit of their own country. This was apparently not what *should be done* with these objects, and therefore people protested. The latter is an important notion: not treating objects 'in the right way' apparently has social consequences, and will stir people to react, just like when the Banksy painting was destroyed. It is thus important to treat objects in the right way in order to maintain a balance in society.

Kopytoff's concept of cultural biographies thus essentially entails an *emic* perspective (Fontijn 2013:192): it allows us to explore what people in a specific culture considered to be the right way to treat an object. An alternative approach is to study an object's individual

'itinerary' (Hahn & Weiss 2013). This entails an *etic*, perhaps more neutral, perspective, describing everything that happens to an object during its 'life' (Fontijn 2013:192). The previous data chapters examined what happened to the objects under study in this research, so we might indeed use the term 'object itineraries' here. However, in each sub period and for each object category, we have identified a number of patterns in these 'object itineraries', which demonstrate that people did similar things over and over again. People made similar choices across vast distances, testifying to the existence of shared ideas. There were thus shared conventions behind the practice of selective deposition, and by studying the patterns in depositions, we can catch a glimpse of what people in these distant time periods considered to be the right way to treat objects. Therefore, the concept of an object's cultural biography is of great relevance for this study, and is applied throughout this chapter.

The idea of what one 'should' do with an object, how it 'should' end its life, the fact that these ideas are culturally influenced, and that the 'wrong' treatment has social consequences, is of vital importance for the current study. We already know how the objects investigated in this study ended their lives: they were deliberately deposited, and never retrieved. Apparently, this was how these objects were supposed to end their lives. The alternative 'ending' for metal objects in prehistory – to be recycled rather than deposited – was probably much more common; the largest proportion of metalwork must have been recycled in prehistory, instead of deposited (Fontijn 2002:33). Yet that particular ending cannot be studied in the same way as 'our ending' *can*.

However, here it should be noted that within the ending under study – the deliberate deposition of a metal object – there is a great deal of variation: the objects were deposited in a variety of contexts. Some were used as burial gifts, while others were deposited in bogs, in rivers, or in dry landscape settings. Deposition was overall the right ending for these objects, but apparently, it also mattered *where* an object was deposited. The next two chapters focus on the places that people selected for deposition; this chapter focuses specifically on the objects themselves. But this variation in deposition locations shows that within the group of objects with deposition as the right ending, there is a differentiation. These objects were somehow distinguished between, or differentiated, by the people who deposited them. This is, again, where the objects' cultural biographies come into play.

This chapter therefore focuses on the lives of deposited metal objects. What were the cultural biographies of these deposited objects? What were the "biographical expectations" (Kopytoff 1986:67) that people had of them? We will work our way through the objects' lives, already knowing their ending (although the exact selection of deposition locations is examined in detail in the next two chapters), and focusing on a selection of crucial elements in their lives:

1. We will start our examination by zooming out and investigating the conventions behind the selection of objects from a bird's-eye view, focusing on the shifts and developments during the four sub periods under study. This will serve as an overview, after which we will focus on a number of specific elements in the deposited objects' cultural biographies.
2. Secondly, we will zoom in and focus on the origins of the deposited metal objects and whether these influenced how they were deposited. We know that all metal had to be imported from distant regions, since the research area is non-metalliferous. Yet already from an early stage on, a local production of metalwork is thought to have existed, as

we have seen in Chapter 3. The exotic material metal was thus locally recycled into local products, and in this process, people chose to apply their own style to these objects. However, not all imported metalwork was recycled, as foreign shapes also occur in the metalwork we are studying. Objects with a foreign shape, such as Anglo-Irish axes in LN II, were deposited alongside objects with a local shape. We can thus distinguish between shapes that are foreign in the research area; supra-regional shapes that occurred in the research area and beyond; and shapes that were exclusively made in the research area. Sørensen's work has shown that the 'otherness' of objects that came from afar potentially had implications for how they were considered, used, and treated in the regions they moved to (M. L. S. Sørensen 1987:94). How, then, were foreign and local shapes treated in depositions? This is the main question for Section 8.2, in which we will return to the example of the Anglo-Irish axes that were deposited in LN II.

3. Thirdly, we know that not all of the five main object categories existed throughout the entire time period; some objects were newly introduced over the course of the 850 years under study. A good example are bronze spearheads, which enter the archaeological record in the research area in period IA, as discussed in Chapter 5. These were thus new, unfamiliar objects to the people in the research area. In contrast, other objects existed during all four sub periods. Did this have implications for how they were deposited? This question is the main focus of Section 8.3.
4. Fourthly, we will examine the use lives of the deposited objects, and focus on the question whether how they were *used* had implications for how they were *deposited*. We have already seen above that a spearhead and an axe had a very different purpose, function, and use, which caused them to be perceived as different objects, and therefore to be deposited in different ways. How an object is used during its life is indeed an important element in its cultural biography (Kopytoff 1986:67), and therefore it may play a role in its desired 'ending'. Section 8.4 further examines how the deposited objects were used.

After examining these important elements in the objects' 'lives', Section 8.5 attempts to arrive at an understanding of why people chose exactly *these* objects to end up in depositions. In other words, we will attempt to arrive at an understanding of the desired cultural biographies of the objects that were deposited.

8.1 Objects: developments over time

We will start by examining the selective deposition of the main object categories from a bird's-eye view. The selective deposition of the main object categories in the four sub periods is shown in Figure 8.1. Taking a closer look at this graph, a number of patterns and developments stand out.

Three object categories were deposited in all four sub periods: daggers, axes, and ornaments. We will focus on these first. Even though they were clearly persistent elements in selective deposition, they were not necessarily deposited in the same way throughout these 850 years. Starting with metal daggers, they were predominantly used as burial gifts in LN I, when they were an important element in the Bell Beaker burial package, used to express ideas of personhood. This idea is discussed in more detail in Chapter 9. But in the following LN II, they were predominantly deposited outside burials, either in hoards or singly. Later, in period IA, they started to become more frequent in burials once again, to become very abundant in

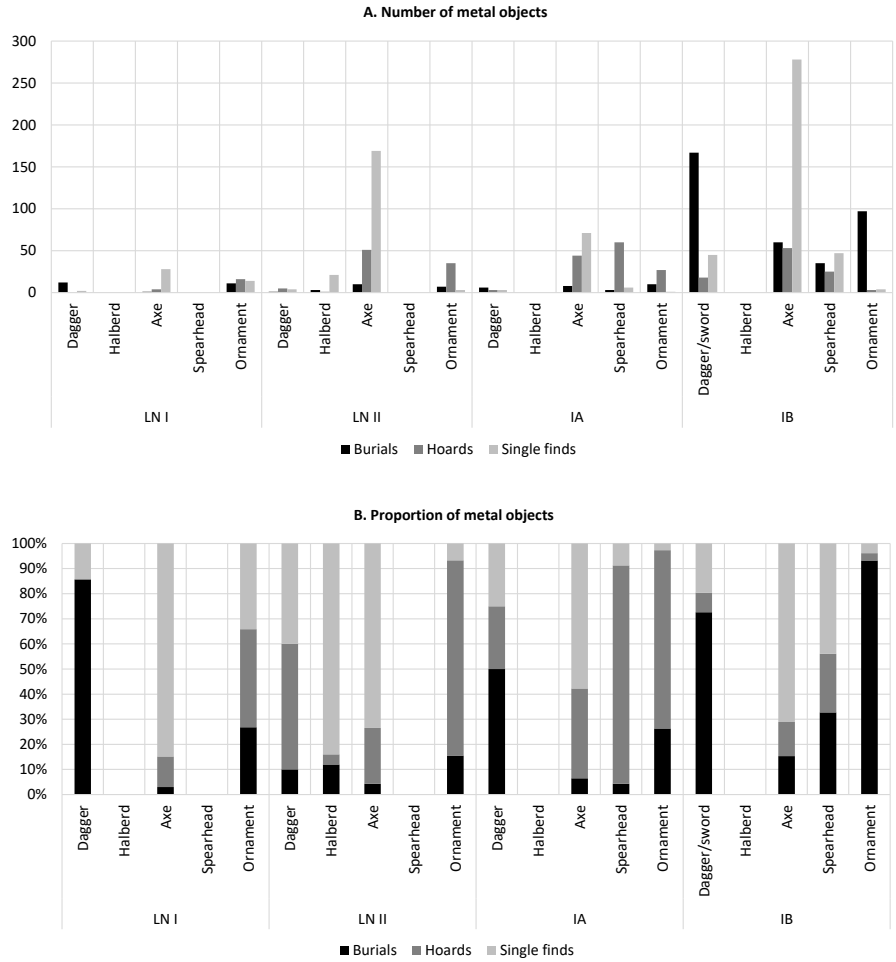


Figure 8.1. The selective deposition of the main object categories over time. A. The absolute number of metal objects from each site type in the four sub periods. B. The proportion of metal objects from each site type in the four sub periods.

burials in period IB. In the latter period, they were an important element in constructing an image of the dead in burials, which is discussed in more detail in Chapter 9.

In contrast to daggers, axes were deposited in strikingly similar ways across time and space. They were predominantly deposited singly throughout the investigated time period, and not used as burial gifts. As discussed in Chapter 3, this also applies to much earlier copper axe depositions in the Funnelbeaker Culture. Throughout a time span of 2500 years, people did similar things with metal axes. This staggering fact is discussed in more detail in Section 8.3, when we focus on persistent and new objects. Nevertheless, when we take a closer look at the graph in Figure 8.1, a few minor changes in axe depositions over time can in fact be observed. In period IA, axes were relatively often deposited in hoards, while in period IB, they were relatively often used as burial gifts compared to the earlier periods. This is a new development, in line with the overall abundance of metalwork in burials in period IB.

Lastly, ornaments occur in burials in all sub periods, although they become very abundant as burial gifts in period IB. There is a clear association between burials and metal ornaments over time; metal ornaments were consistently used in constructing an image of the dead in burials. This is discussed in more detail in Chapter 9. However, a number of fluctuations can in fact be observed in Figure 8.1. In LN II and period IA, ornaments are relatively common in hoards. In period IA, this is primarily the case in northern Germany, while ornaments were mostly used as burial gifts in Denmark in this period, as discussed in Chapter 5. As opposed to axes, ornaments were thus deposited following regional practices. This observation recurs in the following chapters. Overall, metal ornaments were strikingly rarely deposited as single objects compared to the other object categories. When we compare depositions of axes and ornaments, which both occurred throughout the four sub periods, they were clearly deposited in different ways, testifying to the fact that they were perceived as different objects by people in these periods.

Two object categories were introduced during the investigated time period, and one of them disappeared again. Halberds emerge at the end of LN I (Butler 1990:71, Horn 2014:123, Vandkilde 1996:193-199, see Chapter 4), and disappear from the archaeological record after LN II. They were predominantly deposited singly, and rarely used as burial gifts (see Figure 8.1). Spearheads were introduced in period IA (Jacob-Friesen 1967:105-106, Lorenz 2013:245, Vandkilde 1996:212, see Chapter 5), and they continued to be abundant in period IB, particularly in Denmark (Vandkilde 1996:212-214, 229-235). They mainly occur in hoards at first in period IA, but they occur both in hoards, single deposits and burials in period IB. The conventions behind spearhead depositions thus changed over the course of time. Section 8.3 focuses specifically on the incorporation of new objects in selective deposition practices.

To sum up, there are shifts and changes in the selection of objects for depositions over the course of time. Each object category was deposited in its own way, demonstrating that the object categories used in this research are in fact meaningful. Some objects were deposited in remarkably consistent ways throughout the investigated time period: axes were mostly *not* used as burial gifts, and copper ornaments were mostly 'allowed' in burials across time and space. In contrast, the conventions behind dagger depositions fluctuated, as daggers shifted from being an important element in the construction of personhood in burials, to being deposited outside burials, to becoming important elements in burials once again. These shifts in dagger deposition and what they signify are discussed in more detail in Chapter 9. Furthermore, halberds and spearheads were newly introduced to the research area in LN II and period IA, respectively, and the fact that they were new, had implications for how they were deposited. This is discussed in more detail in Section 8.3. In short, there was thus a logic behind the shifts and changes we observe when we examine selective deposition between 2350-1500 BC from a bird's-eye view.

After this brief overview of the selection of objects over time, we will now focus on a number of significant themes, starting with depositions of foreign and local objects.

8.2 Foreign vs. local styles

Metal was an exotic material in the research area: all metal had to be imported, since the research area is non-metalliferous. Even though this is a well-known fact, it is sometimes easy to forget when we consider the large number of metal objects that have been found, particularly in Denmark in period IB. But it is important to keep this in mind precisely *because of* these large quantities. All this metal had to be exchanged and transported

across vast distances: it came from *outside* the local world that people lived in and were familiar with. It was in that respect the complete opposite of flint: flint was a local, abundant resource that had been part of the local, familiar world of people in Denmark for hundreds, even thousands of years. But metal came from regions that most people probably never visited in their lives. These objects entailed the only knowledge of and contact with these distant regions that people in the local communities under study had (cf. Fontijn 2019:37). How did they deal with these foreign, unfamiliar objects?

In Late Bronze Age Scandinavia, the opposition between *local* and *foreign* is thought to have had major implications for how objects were treated (M. L. S. Sørensen 1987). The 'otherness' of foreign objects had consequences for how they were considered, used, and treated in the regions they moved to (M. L. S. Sørensen 1987:94). Although we are studying earlier periods than the Late Bronze Age, this opposition is also highly relevant for us, since metalwork with a local shape was deposited alongside metalwork with a foreign shape, as discussed in Chapters 3-6. And these local and foreign shapes were often very different: Anglo-Irish axes were for example visually very different from axes with a local shape in LN II. Therefore, this section focuses on how objects with foreign and local shapes were deposited. But first, the metal import and the local production of metalwork in the research area are discussed. After this, the focus will be on foreign and local shapes or *styles* and what these entail. Finally, the conventions behind depositions of objects with foreign and local shapes are examined.

8.2.1 Metal import and local production

Based on metal analyses, the metal that was imported to Scandinavia in LN II and period IA is thought to have been imported in the form of finished objects, rather than as raw copper and tin (Nørgaard et al. 2019:26). Metal thus reached the research area in these periods in the form of foreign, exotic, unfamiliar objects. These foreign metal objects were broken into pieces and remelted locally (Nørgaard et al. 2019:26). In this local recycling process, people chose to manufacture objects with a local shape, which was very different from the foreign shape of imported objects. This is important. If metal had been imported in the form of raw copper and tin, it would naturally have been necessary to remelt it into usable metal objects. But there is no practical reason why people could not have used an imported axe with a foreign shape as a tool. However, people mostly chose *not* to put such a foreign axe to use, but instead to recycle it into an object with a local shape, as demonstrated by the predominance of local shapes in the metalwork under study (Vandkilde 1996, fig. 266, and see below). Clearly, it was important to 'convert' these foreign shapes into local shapes. Foreign and local shapes are examined in more detail below. But first, the local production of metalwork throughout the investigated time period is considered. Already from very early on, there are indications of a local production of metalwork in the research area.

In Denmark, metalwork was probably already locally manufactured as early as the Funnelbeaker Culture (ca. 3950-3350 BC, Klassen 2000:308). However, there are no signs of a local production in the region in the subsequent millennium, as discussed in Chapter 3 (Klassen 2000:238, cf. Nørgaard 2019:2). But from ca. 2350 BC, in the Bell Beaker period, copper and gold objects were probably locally made, or at least worked, in the Netherlands and Denmark (Vandkilde 1996:184,295, Butler & Van der Waals 1966/67:98). This early production of metalwork is still modest: in Denmark, it is in fact discussed in terms of metallurgy "experiments" (Nørgaard et al. 2019:2), and in the Netherlands, there is no evidence that copper casting was carried out (Butler 1995/96:159).

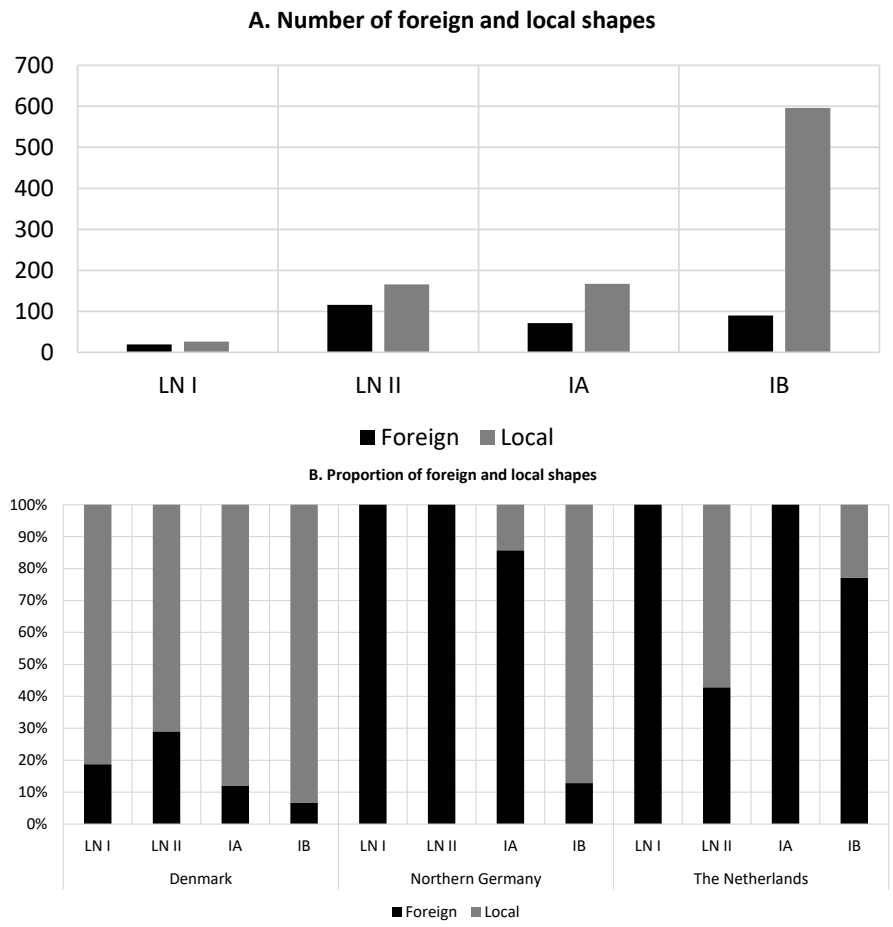


Figure 8.2. Number of foreign and local shapes in the research area. Objects of unknown or debated origin are not included. This includes for example the Bell Beaker copper daggers in the Netherlands, which might be worked locally, but they may also be imports from elsewhere (Butler & Van der Waals 1966/67:98). A. The number of foreign and local shapes in each sub period. B. The proportion of foreign and local shapes in each region in the research area over time.

Later, from ca. 2000 BC, a local production of metalwork is thought to have existed in various regions within the research area, producing large quantities of metal objects (Butler & Van der Waals 1966/67:86, Butler 1995/96:188-191, Vandkilde 1996:207, see Figure 8.2). Particularly low-flanged axes with local shapes occur in large numbers. The number of locally made objects only increased in Denmark in the following periods, until almost all of the metalwork in period IB is thought to be locally made (Vandkilde 1996, fig. 266, see Figure 8.2). However, in the Netherlands, it is difficult to identify a local production of metalwork between ca. 1800-1600 BC, as discussed in Chapter 5. But from 1600 BC, objects were most likely locally manufactured once again in this region (Butler 1995/96:220, see Figure 8.2). In period IB, the vast majority of the deposited metalwork in the entire research area is thought to be locally made.

Yet not every single imported metal object was recycled, as already noted. There is a small number of foreign shapes among the deposited metal objects. In LN II, for example, Anglo-Irish axes were deposited in small numbers in the entire research area (see Figure 8.3). The following sections return to the example of these visually different Anglo-Irish axes. Objects with foreign shapes were thus deposited alongside objects with local shapes, made of imported metal (see Figure 8.2). The proportion of foreign and local shapes in depositions changes over time (see Figure 8.2). Before we turn to the conventions behind depositions of objects with foreign and local shapes, I first focus on what foreign and local shapes of metalwork entail, and the ideas that people had on what objects were supposed to look like.

8.2.2 Foreign and local styles and what they entail

Copper/bronze casting offers the smith the possibility to give objects almost any desired shape (Appleby & M. L. S. Sørensen 2018:99-105). But despite all these possibilities that the material bronze offers, only a limited number of shapes occur in the archaeological record. Even though objects of essentially any shape could be manufactured, people chose to give them a *particular* shape. Clearly, people had specific ideas concerning what objects 'should look like', and these ideas were probably culturally determined (Fontijn 2002:30, M. L. S. Sørensen 1987:94). These objects are cultural products and expressions of the societies in which they were produced (M. L. S. Sørensen 1987:94). And these culturally determined choices and ideas resulted in region-specific *styles*: bronze objects made in – for example – Central Europe looked different from objects made in Denmark. In the periods under study, people must have been able to recognise foreign objects immediately, based on their deviating shape and decoration. They simply *looked* different from their own, local objects, which were made in their familiar *local style*.

The shape of the objects is thus of vital importance. Some shapes are typical for foreign regions, since they were only made *there*. Other shapes were only made in the research area. And some shapes were widely shared and distributed: they were made across regions. We can thus potentially distinguish three groups of shapes: 1) shapes that were not made in the research area, and that are thus not characteristic for the research area; 2) shapes that were made in the research area, and possibly also beyond, *i.e.* in a large area; and 3) shapes that were exclusively made in the research area, or even in a specific part of the research area. In this research, objects in the first category are considered to be *foreign shapes*, and objects in the second and third category *local shapes*. Although objects in the second category were not exclusively local, they can be argued to be part of the local 'repertoire' of metalwork that people were familiar with (see also Section 8.3), and at least some of them were most probably locally made in the research area. The numbers and proportion of these two groups of objects over time are shown in Figure 8.2. It should be noted that for some objects it is not possible to determine their shape's origin. These objects are not included in this discussion.

Let us now focus for a moment on a few examples of local and foreign styles, starting with the former. The first time a local style can be argued to be observed in the research area is in LN II, when large numbers of low-flanged axes were manufactured locally. A good example are the low-flanged axes of Emmen type dating to this period (see Figure 8.3). They were most likely manufactured in Drenthe in the north-eastern part of the Netherlands (Fontijn 2002:68, Butler & Van der Waals 1966/67:86, Butler 1995/96:188-191) – the type is called after the town Emmen in this region – but they are found throughout the research

area. Since they all look very similar, it is actually impossible to determine where exactly they were manufactured. The Emmen axes in Denmark might be imported from the northern Netherlands, but they may also be locally made in Denmark (Vandkilde 1996:69). Nevertheless, they were thus most probably manufactured within the research area; they belong to the second category identified above, which consists of objects that were part of the local, familiar repertoire of metalwork. Overall, many axes in north-west Europe are similar-looking in this period. In LN II, we can indeed speak of "a common western European flanged axe tradition" (Vandkilde 1996:69, cf. Butler 1995/96:189). Despite all the possibilities that the process of metalworking affords in terms of shape and decoration (cf. Appleby & M. L. S. Sørensen 2018:99-105), people deliberately chose to make very similar-looking, almost standardised axes in this region. This was apparently what axes were 'supposed' to look like in this period and region (Fontijn 2002:30, M. L. S. Sørensen 1987:94).

Prior to LN II, a local style is difficult to observe in the data. Quite the opposite: the metalwork occurring in the Bell Beaker period is in fact part of a shared, international 'Bell Beaker style', as shown by finds across Europe (cf. Fontijn 2002:67, cf. Vandkilde 1996:184). Particularly copper tanged daggers and gold ornaments carry the international 'Bell Beaker style', and they are part of the Bell Beaker burial repertoire across Europe. This 'Bell Beaker style' is discussed in more detail in Chapter 9. Although a modest amount of the Bell Beaker metalwork in the research area might be locally made (Vandkilde 1996:184,295, Butler & Van der Waals 1966/67:98), it was deliberately made in shapes that were supra-regionally shared, rather than local.

Another example of a local style is observable in period IB, when high-flanged axes of Oldendorf type were probably manufactured all over the research area (Butler 1995/96:203-220, Laux 2000:72-79, Vandkilde 1996:117-121) and beyond. They might originally have emerged in northern Germany (Butler 1995/96:219-220). They look similar across the research area, although some local variations exist, for example in the northern part of the Netherlands (Butler 1995/96:204, Butler's variant Ekehaar). Again, people specifically chose to give axes *this* particular shape; apparently, this is what axes were supposed to look like in this region.

These two examples of local styles demonstrate that people particularly chose to manufacture *axes* in the research area. This is an interesting observation: although people could cast every possible bronze object when they remelted imported metal locally, they specifically chose to cast the tools they used in their daily activities, tools they must have been very familiar with and that were of great importance in these agrarian communities (Bradley 1990:43-64, Fontijn 2002:82, Wentink 2006:100). These axes were thus firmly anchored in the local communities, both by their shape, the place of production, and their use (cf. Wentink et al. 2011).

Objects with a foreign shape were thus immediately recognisable, since they did not carry the local style. An example of immediately recognisable foreign objects are the Anglo-Irish axes that have already been mentioned several times, occurring alongside local axes in LN II. These Anglo-Irish axes have a very distinct shape and decoration, or 'style', which makes them stand out visually (see Figure 8.3). However, it is not always easy to determine whether an object is foreign. Returning to the case of the Anglo-Irish axes, a small number of axes in Denmark that look similar to the Anglo-Irish axes is actually thought to be locally made, but in the 'Anglo-Irish style', based on metal analyses (these axes are called

Figure 8.3. Two axes dating to LN II with very different shapes. A. Decorated Anglo-Irish axe from Ulstrup, Jutland, Denmark (FHM 140A, 28.8 cm). Photo: National Museum of Denmark, Jesper Weng, used under licence CC-BY-NC-ND, https://samlinger.natmus.dk/do/asset/1477. B. Emmen axe from Emmen, Drenthe, the Netherlands (Drents Museum 1855/I.54, 12 cm). Photo: Marieke Visser.

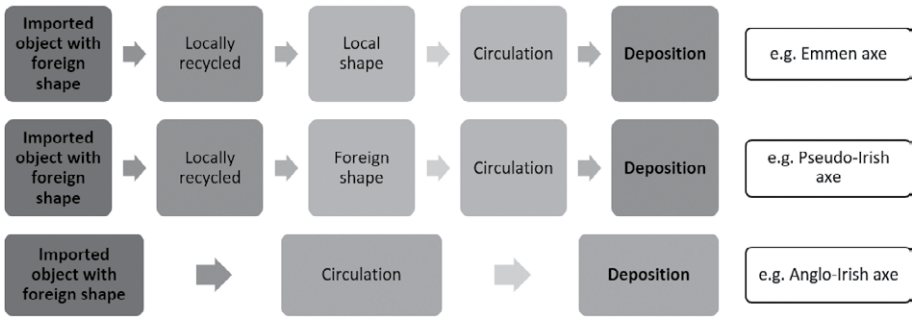


Figure 8.4. The three main cultural biographies that can be observed for the deposited objects.

"pseudo-Irish axes" by Vandkilde, Vandkilde 1996:83, Nørgaard et al. 2019:3-4). They were thus locally made, but in the fashion of the foreign Anglo-Irish axes that were known in the research area.

This example shows that foreign imports influenced the local production of metalwork. Since all metal had to come from 'outside', it is indeed easy to imagine that this influenced the local production of metalwork, *i.e.* the local style, in the research area (Fontijn 2002:30, M. L. S. Sørensen 1987:94). Another example of local objects influenced by foreign styles are the Bagterp-Torsted spearheads of period IA, which were probably locally made in Denmark with influences from Central Europe (Vandkilde 1996:212-213), and the majority of the Hajdúsámson-Apa swords in Denmark in period IB, which are thought to be locally made after Carpathian models based on their shape, casting technique and decoration (Vandkilde 1996:224-225, T.F. Sørensen 2012:47-48).

However, the same example of the "pseudo-Irish axes" (Vandkilde 1996:83) also places this idea of foreign influences in a different light: axes with an exotic appearance were thus known in the region, and yet people apparently only chose to use these axes as models in a few very rare cases. Instead, people deliberately chose to manufacture 'plain' axes, in the 'local style', such as Emmen axes; most of the metalwork in LN II was made in the local style (see Figure 8.2). Although foreign imports did influence the local production

of metalwork in the research area, people clearly also deliberately chose to manufacture metalwork according to their own ideas on what objects were supposed to look like. It is the interplay between the two that makes it possible to speak of a 'local style': a local style can only exist in contrast to a 'foreign style'.

All in all, three different cultural biographies can be discerned for the deposited objects under study (see Figure 8.4): objects with a foreign shape that were imported from afar, recycled locally into a *local* shape, circulated for some time, and were deposited; objects with a foreign shape that were imported from afar, recycled locally into a *foreign* shape, circulated for some time, and were deposited; and objects with a foreign shape that were imported from afar, circulated for some time, and were deposited. Did these three different biographies have implications for how these objects were deposited? This is the main question for the next section.

8.2.3 Depositions of objects with foreign vs. local shapes

Having explored the import and local production of metalwork and the ideas that people had on what metal objects were supposed to look like above, this section returns to the topic of selective deposition and examine how objects with local and foreign shapes were deposited over the course of time. These conventions are first examined chronologically, after which we will focus on two specific cases: we will return to the example of the Anglo-Irish axes and examine how they were deposited in LN II; and we will focus on hoards with foreign shapes in LN II. It is no coincidence that both of these cases date to LN II: as addressed below, foreign shapes played an important role in depositions in this particular period (see also Chapters 9 and 10).

Going first back to the Funnelbeaker Culture, foreign objects were deposited in specific places in the landscape, and not used as burial gifts. This applies to ceremonial flint axes made of imported flint, copper axes, and Alpine jade axes. In contrast, axes made of local flint were used as burial gifts, as discussed in Chapter 3. Later, in the Single Grave Culture, this situation was reversed: foreign imports, such as flint daggers, were now used as burial gifts to express new ideas of personhood in individual burials, while axes made of local flint were deposited in bogs. These patterns are discussed in detail in Chapter 3.

This is the starting point for the situation in the investigated time period, which starts with the Bell Beaker period. Figure 8.5 shows the proportion of foreign and local shapes in burials, hoards, and single object deposits, as well as the proportion of the main object categories that had a foreign or local shape in the four sub periods. A number of interesting patterns stand out.

Starting with LN I, *i.e.* the Bell Beaker period, foreign objects are found in burials, hoards, and single object deposits, but they are most common in burials. These foreign objects in burials consist predominantly of ornaments. In contrast, locally made objects appear to be more common in hoards and single object deposits. Foreign objects were thus used to express ideas of personhood in burials, which is in line with the earlier Single Grave burial ritual. By using foreign objects in burials, people constructed a specific image of the deceased. This image, and what it signifies, is discussed in detail in Chapter 9, which focuses on the role of metalwork in burials. It should be kept in mind that the local production of metalwork was still modest in this early period, as discussed in Section 8.2.1.Moving on to LN II, the local production of metalwork flourished (see also Figure 8.2). Objects with local shapes were mostly deposited singly in this period; this

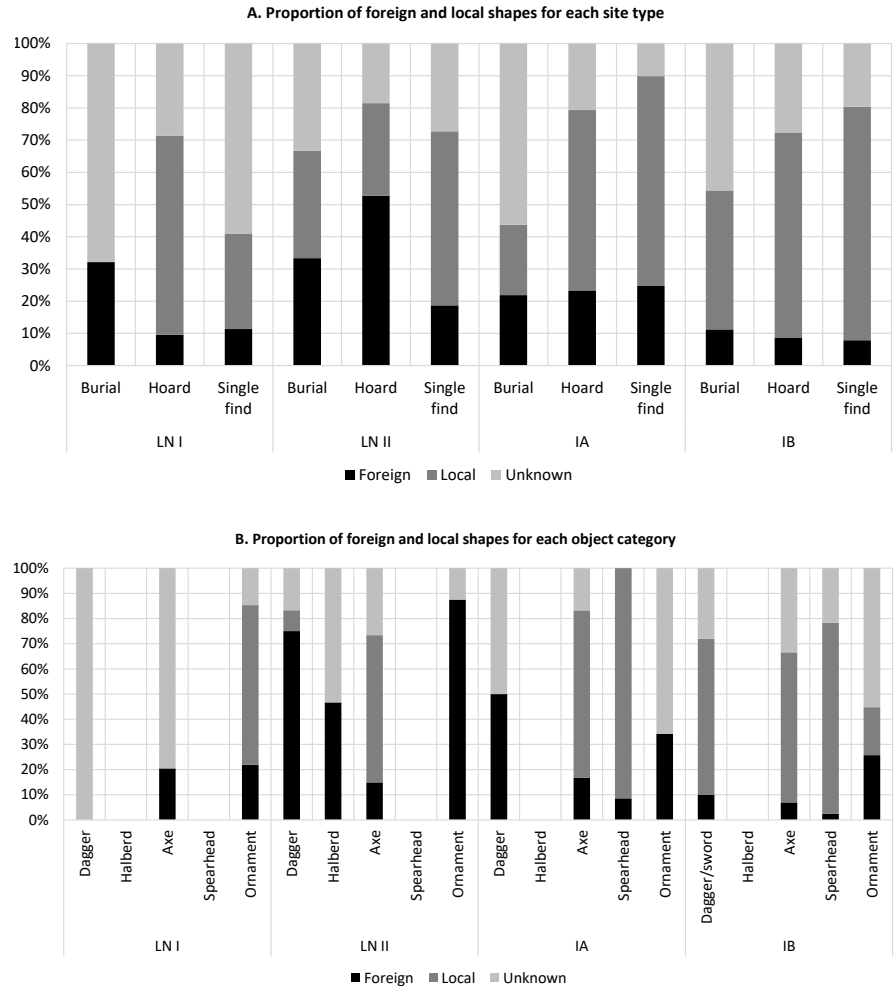


Figure 8.5. The proportion of foreign and local objects (compare with the absolute numbers in Figure 8.3A). A. The proportion of foreign and local metal objects in each site type in the four sub periods. B. The proportion of the main object categories that was foreign and local in the four sub periods.

pattern is mostly influenced by local low-flanged axes, which were mainly deposited singly (see Chapter 4 and Figure 8.1). The pattern that was identified for LN I thus changes in LN II: although foreign shapes are found in all three site types, they are now clearly most common in *hoards* instead of burials. Particularly foreign ornaments played an important role in hoards in this period, as discussed in Chapter 4. Overall, the proportion of foreign shapes is noticeably high in LN II compared to the other sub periods (see Figure 8.2). Since foreign shapes obviously played an important role in depositions in LN II, *even though* the local production flourished, these are examined in more detail after this chronological overview.

In period IA, the proportion of foreign shapes is similar in all three site types. People thus did not have a clear preference for a specific site type when they deposited objects with foreign shapes. Objects with a local shape are most common in single object deposits,

just like in LN II, and this is again influenced by low-flanged axes, which were mostly deposited singly (see Chapter 5 and Figure 8.1).

Lastly, in period IB, foreign shapes are relatively rare. As discussed above, the vast majority of metalwork from this period is thought to be locally made. Foreign imports appear to lose their significance in this period; instead, the *local* style is emphasised. This observation is discussed in more detail in Chapter 9. Objects with a local shape are most common in single object deposits. Overall, the distribution of foreign and local shapes is similar compared to period IA.

The graphs in Figure 8.5 clearly show that people made different choices in burials, hoards, and single object depositions when it came to foreign and local shapes. For example, objects with a local shape were predominantly chosen for single object depositions, and this pattern is chiefly influenced by axes. These patterns show that these three types of depositional events – burials, hoards, and single object depositions – all had their own social significance, and should be seen as independent events of equal importance. In order to make sense of the practice of selective metalwork deposition, it is thus necessary to study *all three types* of depositional events, as they are all equally important, independent elements in it.

We will now return to the example of Anglo-Irish axes in LN II, which has already been mentioned a number of times in this section. These axes are visually very different from local axes, as established in Section 8.2.2 (see Figure 8.3). How were these exotic-looking axes deposited? Figure 8.6 compares depositions of imported Anglo-Irish axes to depositions of local axes in LN II. A modest number of Anglo-Irish axes have been found in the research area, and they were equally often deposited singly and in hoards. They were thus never used as burial gifts, just like local axes. The same applies to axes that are thought to be locally made in the Anglo-Irish style ("Pseudo-Irish axes", Vandkilde 1996:83-85, see Figure 8.6). The only difference is that Anglo-Irish axes were deposited in hoards more often compared to local axes (cf. Vandkilde 1996:87, see also Chapter 4). These hoards are discussed in more detail below and in Chapter 10. All of these axes were predominantly deposited in wetland contexts. So all in all, foreign Anglo-Irish axes were treated 'as axes': just like local axes, they were not used as burial gifts to express ideas of personhood, but instead deposited in wetlands. However, they were more often deposited in hoards than local axes.

Lastly, we will focus on the role that foreign shapes play in hoards in LN II. We have already seen that foreign shapes are common in hoards in this period (see Figure 8.5). These hoards with foreign shapes constitute a small group of unconventional depositional events, as discussed in Chapters 4 and 7. These hoards – including the Danish Gallemose, Skeldal, and Vigerslev hoards, the Dutch Wageningen hoard, and the south Swedish Pile hoard – contain imports from the various regions with which the local communities were connected, thereby embodying the exchange networks that supplied the region with metal in this period (cf. Vandkilde 2017:143, see Figure 8.7). The four south Scandinavian hoards combine Únětice imports – including ornaments – with local axes, and two of them also contain an Anglo-Irish axe (Gallemose and Pile; Vandkilde 1990, 2017). In a similar way, the Dutch Wageningen hoard combines British and south German Singen elements (Butler 1990:68-71). These "*Mappa Mundi* hoards" (Fontijn 2019:37) connect the local with the foreign, representing a "map of the world" (Fontijn 2019:37, see Figure 8.7) as it was known to the people in the local communities under study.

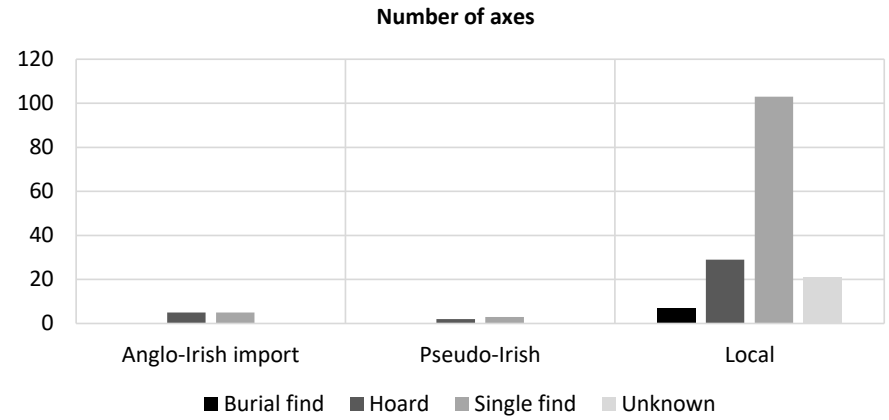


Figure 8.6. Selective deposition of Anglo-Irish axes, locally made axes in the Anglo-Irish tradition ("Pseudo-Irish axes", Vandkilde 1996:83-85), and axes with a local shape in LN II.

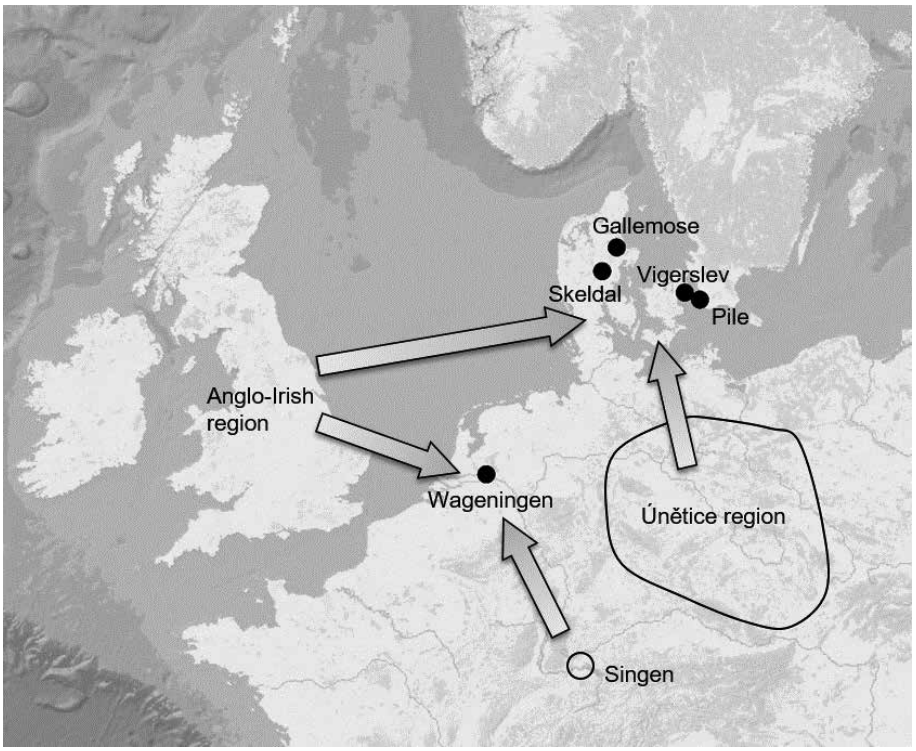


Figure 8.7. The five LN II "*Mappa Mundi* hoards" (term from Fontijn 2019:37) and the foreign influences they represent (based on data in Butler 1990:68-71 and Vandkilde 2017, fig. 103).

Furthermore, these "*Mappa Mundi* hoards" do not only embody the exchange networks that supplied the region with metal (cf. Vandkilde 2017:143); they also appear to emphasise various stages in the metalworking process. They contain (deliberately) broken objects and/or scrap metal probably meant for local recycling (Pile, Skeldal, and Wageningen), enormous amounts of metal (Gallemose), and/or tools that may have been used in metalworking activities (Wageningen). They also contain finished objects, which were probably awaiting further distribution in the region (Wageningen and Pile; Vandkilde 2017:157, Fontijn 2002:73). They embody the 'before and after' of the metalworking process, from the foreign supply of metal to the region, to the process of local recycling, to the finished products ready for further distribution in the region. The Pile hoard is even thought to be deposited at a location where metalworking activities were carried out (Vandkilde 2017:157). The locations of these hoards, which are also unconventional, are discussed in more detail in Chapter 10. These hoards thus embody the whole process of metal import from foreign regions, local recycling of metal, and distribution of finished metalwork in the region. The 'international' aspect of these hoards is also discussed in Chapter 9.

Summing up, people made specific choices to deposit objects with foreign and local shapes singly or in hoards, or use them as burial gifts, and these conventions changed over time. Foreign shapes were either placed in burials to express ideas of personhood, or deposited in unconventional hoards that embodied the international networks in which the local communities were taking part. They became of lesser significance in depositions as the local style became increasingly important over time.

8.2.4 Flint daggers and metal daggers

So far, we have only discussed how *metal* objects with a foreign shape were deposited. But there is another type of object and material that can shed light on the central question of this section: south Scandinavian flint daggers. They were locally made in Denmark and northern Germany, and imported from these regions in the Netherlands. They were deposited in all four sub periods, and the patterns in these depositions are examined in Chapters 3-6. As addressed in Chapter 3, the patterns are particularly striking in LN I. This section therefore focuses on flint daggers (*i.e.* lanceolate flint daggers) and metal daggers dating to LN I, or the Bell Beaker period.

Flint daggers were predominantly used as burial gifts in Denmark and northern Germany throughout the investigated time period (Lomborg 1973, Kühn 1979). It was a common local practice in these regions to use local flint daggers as burial gifts. They were specifically associated with burials, and rarely deposited outside burials. However, in the Netherlands, they were actually rarely used as burial gifts, but frequently deposited in bogs (Bloemers 1968, Beuker & Drenth 2006). This pattern is particularly strong in LN I. In this region, flint daggers were foreign objects, not part of the 'local repertoire', and deposited accordingly. Clearly, objects were treated differently in selective deposition practices based on where they came from. Foreign objects were deposited in specific ways, exactly *because of* their foreign origin.

These lanceolate flint daggers are traditionally suggested to be inspired by the copper tanged daggers that are part of the Bell Beaker 'burial package' (Vandkilde 1996:295, Sarauw 2007a:66). Copper daggers were an important element in Bell Beaker burials, as discussed above and in Chapters 3 and 7. This specific association between daggers and burials is explored in more detail in Chapter 9. More important for this chapter is how these flint

daggers were deposited: if they were indeed inspired by metal daggers, were they then also deposited in the same way as their metal models? In Denmark, copper daggers are virtually non-existent in the Bell Beaker period; in this region, flint daggers are thought to have taken over the role of metal daggers in burials (Sarauw 2007a:66, 71-72). However, it should be noted that Bell Beaker influences are of a different, local character in Denmark, being confined to parts of northern and central Jutland (Vandkilde 1996:295, Sarauw 2007b:29). And lanceolate flint daggers are frequently used as burial gifts in Denmark *outside* this limited Bell Beaker distribution, too (Lomborg 1973). It appears as if using flint daggers as burial gifts is a local practice in this region, which was not simply introduced by and associated with the Bell Beaker burial ritual. Lanceolate flint daggers are firmly anchored in a local tradition. But in the Netherlands, both metal daggers and flint daggers occur; the former were used as burial gifts, while the latter were deposited in bogs. Flint daggers were thus not seen as substitutes for copper daggers in the Netherlands, suitable as burial gifts. Instead, they were deposited in completely opposite ways. Simply interpreting lanceolate flint daggers as copies of Bell Beaker copper daggers appears thus to be a simplification of the situation. Instead, the origins of these daggers play a significant role in how they were deposited. Once again, the origin of objects -the 'otherness' of foreign objects (M. L. S. Sørensen 1987:94) – is crucial for how they were deposited.

8.3 Persistent vs. new objects

As already briefly discussed earlier in this chapter, and as shown in Figure 8.1, not all of the five main object categories – daggers/swords, halberds, axes, spearheads, and ornaments – were deposited in all four sub periods. Some object types were deposited throughout the investigated time period, and even beyond. Other objects were newly introduced during our time period. These objects were completely new, without predecessors, and they must have been foreign and unfamiliar to people in the research area. These new objects were not only new 'things', but they also represented new *concepts* and *ideas*. Their function, use, and the technique used to produce them was new and different. Did this have implications for how they were deposited? What did people do with these new, unfamiliar objects?

8.3.1 Persistent objects

Some object categories were deposited throughout the 850 years under investigation; they might vary in shape and size, but in essence, they are present in depositions during all four sub periods. Because they are persistent elements in depositions, they will be called *persistent objects*. The best example of such a persistent object is the axe. People deposited metal axes – irrespective of whether they were flat, low-flanged, high-flanged, nick-flanged, or had a shaft hole – in the entire research area and throughout the entire time period investigated in this research (see Figure 8.8). Going further back in time, people already deposited copper, Alpine jade, and flint axes in the Funnelbeaker Culture, and flint axes in the Single Grave Culture, as discussed in Chapter 3. And after the investigated time period, *i.e.* after 1500 BC, metal axes continued to be deposited. Over the course of thousands of years and across vast distances, people deliberately deposited axes, whether they were made of metal or another material.

When examining how axes were deposited, the patterns in axe depositions across time and space are strikingly similar. From the Funnelbeaker Culture to period IB, axes were deposited in remarkably similar ways: people preferred not to use them as burial gifts,

Figure 8.8. Five examples of axes from different sub periods A. Copper flat axe from Ølst, Jutland, Denmark, dating to LN I (ÅM 8105, 10.6 cm). B. Emmen axe from 's Heerenberg, Gelderland, the Netherlands, dating to LN II (RMO e99/6.1, 10.3 cm). C. Nick-flanged axe of Fritzlar type from Lejrskov, Jutland, Denmark, dating to period IB (ÅM 5147, 12.5 cm). D. High-flanged axe of Oldendorf type from Ruinen, Drenthe, the Netherlands, dating to period IB (Drents Museum 1888/XI.2, 8.1 cm). E. Shaft hole axe of Fårdrup type from Vorup Kær, Jutland, Denmark (ÅM 6156, 21 cm). All photos: Marieke Visser.

but they mostly deposited them singly in specific places in the landscape (see Figure 8.1). Only in period IB does this pattern change: in this period, people started to use axes more often as burial gifts, but only specific types of axes, and the majority of the axes were still deposited singly. Burials with metalwork – including axes – are discussed in more detail in Chapter 9. The exact landscape settings that people selected for single axe depositions did change somewhat over time, which is discussed in Chapter 10.

The axe clearly had a special significance from very early on. This was already briefly addressed in this chapter's introduction. This special significance has been attributed to its crucial importance as a tool in agrarian communities (Bradley 1990:43-64, Fontijn 2002:82, Wentink 2006:100). However, the importance of the axe did not only lie in its value as a tool, since axes could also be used as weapons, and finds of non-utilitarian axes occur both in and beyond the research area; axes clearly had a broader significance (Bradley 1990:57, Fontijn 2002:82, Wentink 2006:100-101). Non-utilitarian axes occur in the research area in chronologically distant periods as the Funnelbeaker Culture (see Chapter 3) and period IB (see Chapter 6). These axes probably served as prestige items or had display functions (Klassen 2000:278-283, Vandkilde 1996:114-117, 124-125). It was perhaps exactly this broader significance that made axes so 'relatable' and 'flexible' through time and space (Fontijn 2002:82), which is why they were persistent elements in selective deposition.

8.3.2 New objects

In contrast to persistent objects, some object categories were newly introduced in this period, without any predecessors. Two examples of new objects emerging between 2350-1500 BC are halberds and spearheads (see Figure 8.1, Figure 4.7, Figure 8.9). They were new in the entire research area. Halberds probably emerged at the end of LN I in the research area (Butler 1990:71, Horn 2014:123, Vandkilde 1996:193-199) but date primarily to LN II, after which they disappear from the archaeological record (Fontijn 2002:71, O'Flaherty 2002:403-405), as discussed in Chapter 4. Bronze spearheads emerged in period IA (Jacob-Friesen 1967:105-106, Lorenz 2013:245, Vandkilde 1996:212). They may have reached Central Europe, and from there southern Scandinavia, from the Carpathian Basin (Vandkilde 2014b:609), as discussed in Chapter 5. They quickly became abundant in Denmark, and continued to be abundant in period IB (see Figure 8.9), and later on in the Bronze Age. They are in comparison rare in northern Germany and the Netherlands.

Both halberds and spearheads represented new concepts, functions and techniques. A halberd is a blade mounted at a right angle on a wooden haft, as demonstrated by depictions of halberds in rock art (O'Flaherty 2002:5), for example in Scandinavia. Halberds did not have any metal predecessors, parallels, or successors in terms of this design (Fontijn 2002:71, O'Flaherty 2002:403-405). The exact function of halberds is debated, as discussed in Chapter 4: some interpret them as ceremonial objects (*e.g.* Butler 1963:11, Fontijn 2002:71), while others argue that halberds were used in combat as weapons (*e.g.* Horn 2014, Horn 2017). Bronze spearheads also represented a new concept and function: they were socketed, which required a different, new casting technique. They were in fact the first socketed metal object in the research area (Vandkilde 2014b:617). They have been called "the most important martial innovation of the seventeenth century BC" (Vandkilde 2014b:617). They indeed had a specific function: they were specifically used as weapons (Horn 2013:18, 21-23, and catalogue), although they may also have been used in hunting (Fontijn 2002:99), as was already briefly discussed in this chapter's introduction.

When examining how halberds and spearheads were deposited in the periods in which they were introduced, a striking similarity can be observed: they were not used as burial gifts, but deposited in specific places in the landscape (see Figure 8.1 and Figure 8.10). Although the exact way in which they were deposited differs – halberds were deposited singly in wet contexts in LN II, while spearheads were deposited in hoards in period IA, relatively often in dry contexts – they do have in common that they were not included in burials. These patterns suggest that new objects could *not* be buried with an individual. They could not be 'owned' by an individual in death. Instead, they had to be deposited *outside* the individual domain.

Strikingly, the same also applies to Hajdúsámson-Apa swords, which are arguably the earliest real swords in the research area, emerging at the beginning of period IB (Vandkilde 1996:224-225). "Arguably", because the distinction between swords and daggers is debated and often unclear, as discussed in Chapter 6. They are usually distinguished from each other based on their length, with 30 cm sometimes used as benchmark (*e.g.* Vandkilde 1996:239). But this definition is often not given in the literature, and the terms 'dagger' and 'sword' are often used interchangeably. This problem becomes particularly relevant in period IB, when blades with lengths between 25 and 60 cm occur (see Chapter 6). Period IB

Figure 8.9. Spearhead, probably type Bagterp, found near Skanderup, Jutland, Denmark, dating to period IB (ÅM 7063, 10 cm). Photo: Marieke Visser. Scale 1:1.

is the first period in which 'real swords' are thought to emerge, and Hajdúsámson-Apa swords are the earliest among them. However, the patterns in sword depositions support the idea that 'real' swords were new in this period: Hajdúsámson-Apa swords were not used as burial gifts (see Figure 8.10), which is in line with the observed trend for new objects, suggesting that these swords were indeed seen as new.

It does not appear to have mattered whether these new objects were foreign imports or locally made: halberds may have been locally made in Denmark, but some of them are thought to be imports (Vandkilde 1996:197-199); period IA spearheads were probably locally made in Denmark, with influences from Central Europe (Vandkilde 1996:212-213); and as discussed above, the majority of the Hajdúsámson-Apa swords are thought to be locally made in Denmark after Carpathian models, but a few of them are thought to be imports from the Carpathian Basin (Vandkilde 1996:224-225, T. F. Sørensen 2012:47-48). Even though these objects may have been locally made after foreign models, they were new in the local 'metalwork repertoire' of the time. For that reason, they could not be used as burial gifts.

However, after some time had passed since the introduction of these new objects, they *could* be buried with the dead. Spearheads were relatively often used as burial gifts in period IB, while this never happened in period IA (see Figure 8.10). Sögel-Wohlde and Valsømagle swords, which date to the later period IB and are thus somewhat later than Hajdúsámson-Apa swords, were predominantly used as burial gifts (see Figure 8.10). Apparently, after new objects had become incorporated into the local repertoire, they could be used as burial gifts. After some time, these new objects apparently became 'neutralised', or 'localised', and then it was acceptable to bury them with an individual. Unfamiliar, new objects could *not* be placed in burials, but local, familiar objects *could*. Perhaps this 'neutralisation' or 'localisation' was accomplished by depositing new, unfamiliar objects in specific places in the landscape. Before they could be used as burial gifts and be associated with an individual, they had to be 'localised'. They had to go through a transition from new, unfamiliar object to local, familiar object in order to be allowed in burials where they were used to construct an image of the dead (see Chapter 9). It should be noted that for halberds, this transition can unfortunately not be observed: they were never used as burial gifts on a structural basis in the research area. Instead, they disappear from the archaeological record after LN II.

In short, when new objects, such as spearheads, reached the research area, they were new and unfamiliar; they deviated from the local repertoire of metalwork that people were familiar with. But after some time had passed, they were not unfamiliar

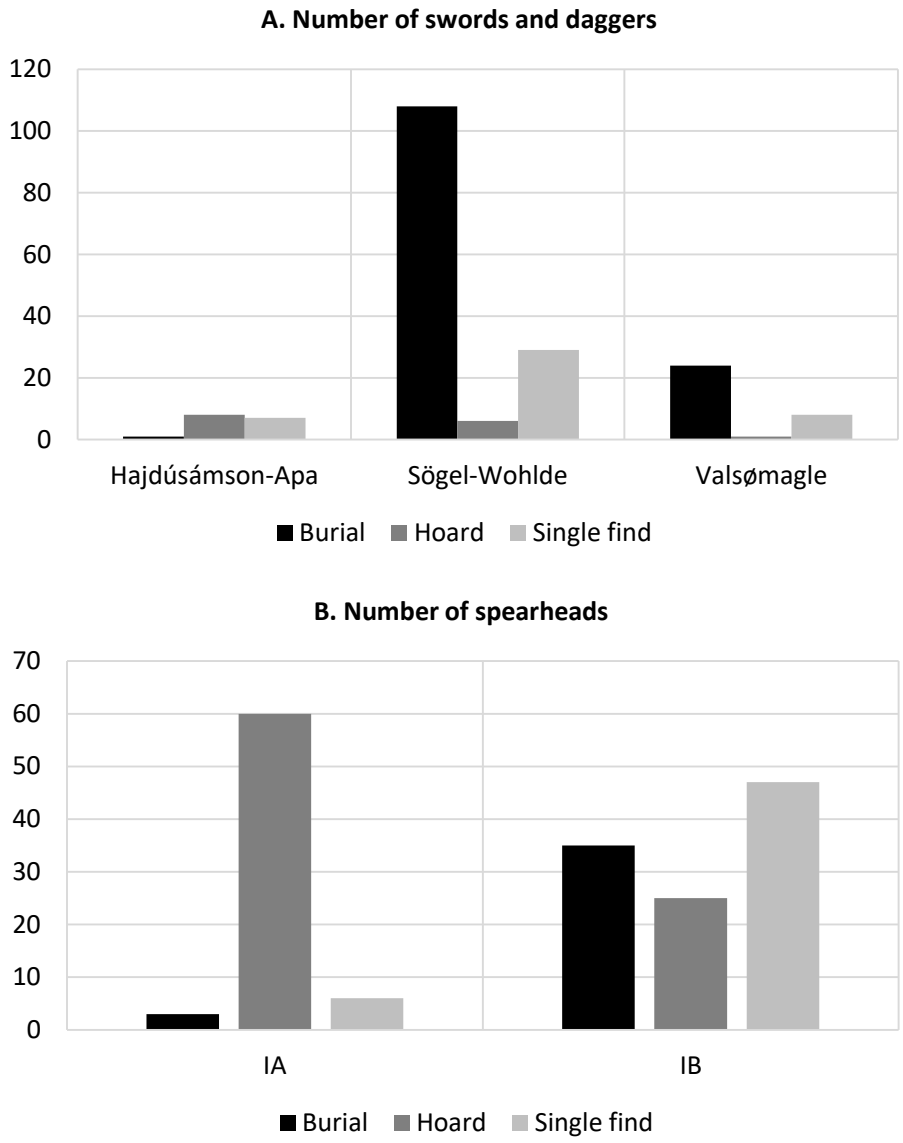


Figure 8.10. A. The number of Hajdúsámson-Apa, Sögel-Wohlde and Valsømagle swords and daggers in each site type in period IB. B. The number of spearheads in each site type in period IA and IB.

anymore; they became familiar and part of the local repertoire. In both situations, people deposited them in the 'right' way. In other words, it was the 'otherness' of new objects that caused them to be treated in specific ways, different from how familiar objects were treated. Since Sørensen's work has shown that the 'otherness' of foreign objects had implications for how they were used and treated (M. L. S. Sørensen 1987:94), as discussed in Section 8.2, we may also apply this concept to the 'otherness' of *new* objects, which were in fact also introduced from elsewhere. Because these new objects were so unfamiliar and different from what people were used to in their daily lives, they had to be treated in special ways.

Summing up, people did specific things with new, unfamiliar objects, including halberds, spearheads, and the earliest swords. These objects were new in the local repertoire, and they represented new ideas, concepts, and functions. Therefore, they had to be treated in special ways. Only after some time had passed did they become familiar and part of the local repertoire, and then they could be used as burial gifts.

8.4 The use lives of objects

This section focuses on one last crucial element in the deposited objects' cultural biographies: how they were used. The use of an object is an important element in its cultural biography (Kopytoff 1986:66-67). This is not necessarily a static element; how an object is used can change during its life (Kopytoff 1986:67). In this context, the term *use life* is also used. At some point, an object may reach the end of its usefulness, upon which its life might be 'ended' in some way (Kopytoff 1986:67). As already discussed previously, the majority of the metalwork in prehistory was probably recycled (Fontijn 2002:33, 215, Wiseman 2017). When a bronze object became useless – for example an axe that was damaged beyond repair, or that could not be resharpened anymore – it was most probably remelted into a new, useful object; this is one of the main advantages of the material metal, an advantage that distinguishes it from for example flint. However, the objects we are studying were not recycled, but they were *deposited*.

As we have seen in this chapter's introduction, the function of an object had important implications for how it was deposited. An axe and a spearhead had very different functions, and that is why they were perceived as different objects in prehistory, and consequently deposited in different ways. It has been noted that many deposited metal objects show signs of having been used (Fontijn 2002:20). Indeed, we have already seen that the majority of the deposited objects we are studying are axes, which were first and foremost of crucial importance as *tools*, as discussed above. It thus appears as if objects that ended up in depositions frequently had a use life prior to deposition. However, this does not apply to all deposited objects: as we saw in the introduction, Worsaae already observed in the 19th century that deposited bronze objects frequently had not been used (Worsaae 1866). Did *how* objects were used have implications for how they were *deposited*? This is the main question for this section.

It should be noted that a detailed use wear analysis has not been carried out in this research, as explained in Chapter 2. However, based on results of use wear analyses published by various authors, a number of general statements can be made for swords and spearheads. The presence or absence of use wear on swords from burials dating to periods II and III of the Nordic Bronze Age has been claimed to reflect the social rank of the deceased (Kristiansen 1984:203, 2002:323-325). Period IB swords mostly appear to have been functional weapons (Boas & Rasmussen 2006, Horn 2013, Melheim & Horn 2014), and the majority of them have been found in burials, as we have seen in Chapter 6. Burials with swords and what they signify is discussed in detail in Chapter 9. Spearheads are also thought to have been functional weapons, used in hand-to-hand combat in a fencing-like type of fighting (Horn 2013:18, 21-23). Depositions of spearheads in periods IA and IB were examined in detail in chapters 5 and 6.

However, the axes from Denmark have been subject of a thorough and detailed use wear analysis carried out by Vandkilde (1996). Based on the results of this analysis, a number of highly interesting conclusions can be drawn as to the connection between the

axes' use and deposition. These conclusions can to some extent be compared to the finds from the rest of the research area. Use wear has in some cases been recorded for the Dutch axes (Butler 1995/96), although not systematically. The axes from northern Germany have not been analysed (see also Chapter 2). The next section focuses on the axes' use lives and their implications for how the axes were deposited.

8.4.1 Axes: use and deposition

Prior to LN I, in the Funnelbeaker Culture, metal axes were probably not used as functional tools, but rather as display items (Klassen 2000:278-283), as discussed in Chapter 3. Klassen actually argues that they perhaps should not be called 'axes', as they were not axes in the modern sense of the word, but rather copper images *representing* axes (Klassen 2000:281). But from LN I, metal axes were intended and used as functional tools. Although they may not necessarily have been very effective as tools, many of the Danish axes do appear to have been used in LN I (Vandkilde 1996:268). From LN II on, metal axes were cold worked on the cutting edge, which increased their hardness, and thus their effectiveness as tools (Vandkilde 1996:268, cf. Kuijpers 2018:118). The majority of these Danish LN II axes is thought to have been used (Vandkilde 1996, figs. 42-43), as discussed in Chapter 4. The same applies to the Danish period IA axes: they are cold worked on the cutting edge, and the majority of them are used (Vandkilde 1996:269, and figs. 42-43, see Chapter 5). In these three sub periods – LN I, LN II, and period IA – all axes are thus thought to have been used in similar degrees, and they were also deposited similarly: they were mostly deposited singly outside burials. This persistent pattern is discussed in more detail in Section 8.3.

However, from period IB, this rather uniform pattern changes, as discussed in Chapter 6. In this period, a division emerges among the high-flanged axes in Denmark between utilitarian and display axes (Figure 8.11). On the one hand, we have Hüsby and Mägerkingen-Valsømagle axes, which were probably mostly *not* used practically, but instead functioned as display items (Vandkilde 1996:114-117, 124-125). These were long and slender axes, sometimes with an extremely rounded cutting edge, and many of them are decorated (see Figure 8.11). These axes were primarily used as burial gifts. On the other hand, we have Oldendorf axes which were heavily used (Vandkilde 1996:119-120). This actually also applies to the Dutch Oldendorf axes: many of them show signs of heavy use and resharpening (Butler 1995/96:204). These signs of heavy resharpening ('straight grinding' and 'pouches' in Butler's terms) demonstrate that these axes were heavy duty work axes (Butler 1995/96:204). When examining the tables in Laux's *Die Äxte und Beile in Niedersachsen I* (2000), these signs are also clearly recognisable on many of the north German Oldendorf axes. Oldendorf axes were small and plain compared to display axes (see Figure 8.11). They were preferably deposited outside burials, mostly singly, but sometimes in hoards, and this again applies to the entire research area (see Chapter 6). In fact, no Oldendorf axes have been found in burials in the Netherlands at all. Here we can thus clearly discern two different cultural biographies of axes, which ended in different ways of deposition. How these axes were used (or *not* used) did thus have important implications for how they were deposited.

In addition to high-flanged axes, nick-flanged axes and shaft hole axes were also deposited in period IB, as examined in detail in Chapter 6. Nick-flanged axes in

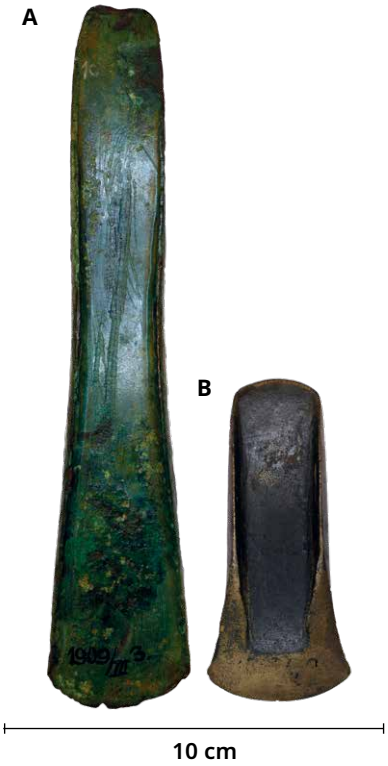


Figure 8.11. Display and work axe from period IB. A. Display axe of Mägerkingen-Valsømagle type (Odoorn/Exloo, Drenthe, the Netherlands, Drents Museum 1909/III.3, 18.2 cm). B. Heavily resharpened work axe of Oldendorf type (Ruinen, Drenthe, the Netherlands, Drents Museum 1888/XI.2, 8.1 cm). Photos: Marieke Visser. Scale 1:2.

Denmark do not appear to have been heavily used; instead they may have had a display function (Vandkilde 1996:131). These axes were primarily used as burial gifts, not only in Denmark, but also in northern Germany; they are a typical object in Sögel-Wohlde burials. These burials are discussed in detail in Chapter 9. Shaft hole axes of Fårdrup type, which are primarily a south Scandinavian phenomenon, are thought to have been unsuitable for practical use since they are extremely heavy (Malmer 1989:22). Instead, they are thought to represent a specific value in metal: it was likely their weight that was of importance, not their function as axes (Malmer 1989:22). These heavy axes were not used as burial gifts, but deposited singly or in hoards (see Chapter 6). A small number of these axes has also been found in northern Germany, where they were also deposited singly (see Chapter 6).

Summing up, prior to period IB, all axes apparently had similar uses, and they were also deposited similarly. However, this changes in period IB, when we see a separation among the axes: display axes (high-flanged and nick-flanged axes) were used as burial gifts, utilitarian work axes were deposited outside burials, and heavy, non-utilitarian shaft hole axes were also deposited outside burials (see Figure 8.12). These patterns are in fact similar across the research area: these "biographical expectations" (Kopytoff 1986:67) were thus shared across regions. In period IB, the use lives of axes were of vital importance for how they ended their lives in depositions.

8.5 Conclusion

After examining the conventions behind selective metalwork deposition – what people *did* with metal objects – this conclusion returns to the topic of the objects' cultural biographies. We know how the objects we study ended their lives: they were deliberately

Figure 8.12. Separation between display axes in burials, and utilitarian axes as well as shaft hole axes in single deposits or hoards in period IB (axes not depicted to scale). Photos: Marieke Visser.

deposited. But some were used as burial gifts, while others were deposited in hoards, and other objects were deposited singly. Within the group of objects for which the right ending was to be deposited, there are thus various specific biographies. In the previous sections, we have seen that a crucial factor determining how objects were deposited were the objects themselves, and their functions: daggers were deposited in specific ways, while spearheads were deposited in another, and axes in yet another way. It is clear that daggers, axes, and spearheads were perceived differently by the people in the distant time periods we are studying, and consequently also deposited differently, in ways that were deemed appropriate for them at that point in time; here we see Kopytoff's idea of "biographical expectations" at work (Kopytoff 1986:67). However, these conventions did change over time, at least for some objects. This is for example the case with metal daggers, which 'switched' between contexts: from burials, to deposits, and back to burials again. We have seen that there is a logic behind these shifts and changes.

The origins of the metal objects that people deposited played an important role. When objects were locally recycled, people manufactured objects in their 'local style', which was visually different from the imported objects with their foreign style. Although the import of foreign objects did influence the local production, it is also evident that for the most part, people deliberately chose to manufacture objects in their own style, based on their culturally influenced ideas on what objects were supposed to look like. As a result, foreign imports and local objects can be recognised based on their shape and decoration, with the visually distinctive Anglo-Irish axes deposited in LN II as a good example.

When people deposited these visually different foreign and local objects, they selected specific contexts for them. The conventions behind these choices changed over time, but one pattern is strikingly constant: locally made axes were consistently deposited singly outside burials. The role of foreign objects in burials and hoards changed over time: in LN I, foreign objects were used as burial gifts in the construction of personhood; but in LN II, they were deposited in special, unconventional hoards embodying the exchange networks that connected the research area with the rest of Europe and that supplied the region with metal. Overall, there is a trend towards a predominance of locally made

metalwork: in period IB, the vast majority of the deposited metal objects was locally made in the research area. Imports became of lesser significance towards the end of our investigated time period.

Another reason for shifts in the conventions behind selective deposition are the emergence and subsequent incorporation of new objects. When objects were newly introduced to the regions we are studying, they represented new concepts, functions, and techniques. They were foreign and unfamiliar to people, and therefore they had to be deposited in specific ways that were appropriate for their 'differentness'. When these new objects, such as spearheads and halberds, had been introduced, they could not be buried with an individual, but they had to be deposited outside burials, either in hoards or singly. Only after some time had passed, did they become familiar and part of the local repertoire, after which they *could* be used as burial gifts, as shown by spearheads and swords in burials in period IB. In contrast, persistent objects such as axes were deposited in largely similar ways throughout the investigated time period.

Lastly, the objects' use lives are another important element in their cultural biographies, influencing how they were deposited. Axes illustrate this connection between use and deposition most clearly. Prior to period IB, all axes were essentially used in similar ways, and also deposited similarly. But in period IB, we see a separation between display axes that were used as burial gifts, work axes that were deposited outside burials, and heavy shaft hole axes probably representing a certain value in metal that were also deposited outside burials. Depending on how an object was used, it was thus deposited in a specific way, and this particularly applies to axes. However, this connection between use and deposition is not clear for all object categories.

Summing up, over the course of the 850 years investigated in this study, people deposited metal objects in ways that were 'appropriate' for these objects. Based on an object's function and use, its origins, and its (un)familiarity, it was supposed to be deposited in a specific way, following people's "biographical expectations" of such an object (Kopytoff 1986:67). As an illustration, let us take a look at the cultural biographies of two objects, and follow their 'lives' until they were deposited.

Firstly, let us examine a spearhead in Denmark in period IA. In this period, it was a new object, an innovation, representing new functions and concepts. It was probably locally made in Denmark with Central European influences, and its socket represented a new, different casting technique. It was designed for a specific purpose: it was probably used in fighting. This spearhead was supposed to end its life in this region by being deposited in a hoard; this was the 'right ending' for it. It could not be used as a burial gift; this did not follow the "biographical expectations" (Kopytoff 1986:67) that people had of this particular object.

As another example, let us take a look at a low-flanged axe in LN II. This was a familiar object that people were used to work with in their daily lives. They used it as a tool in their daily activities, and it was most likely locally made in the local style. It was indeed a familiar, every-day object, deeply anchored in the local community. And it was supposed to end its life by being deposited singly in a wetland, in the same way as many other similar-looking axes ended their lives.

Summing up, by studying the cultural biographies of objects, it is thus possible to acquire an understanding of *what* people did when they deposited objects, and *why* they deposited *these* objects in *this* particular way. Although every depositional act may have

had its own, individual narrative, there clearly was an overarching idea on how objects were supposed to be treated, and on how people were supposed to act. This idea was culturally and supra-regionally shared, and we are now beginning to catch a glimpse of it. We have identified a number of elements that played an important role in this idea, such as whether objects had a local or foreign shape. People expressed their ideas on their place in the world by depositing objects in a particular way, which was not necessarily communicated between regions, but rather self-evident across regions (Fontijn 2019:29-33). By studying the cultural biographies of objects, we can indeed come a little bit closer to the people in the distant periods we are studying.

The next chapter focuses on another aspect of the human actions we are studying: on the metal objects that people selected to bury with the dead, and what these burials with metalwork signify.

9

Burying things with the dead: creating an image

Death is an event that has a dramatic impact on people's lives. Dealing with the death of relatives and members of the community – emotionally and practically – is universally a fundamental part of life. Although we cannot know which emotional reactions people had in prehistory when a member of their family or community died (Stutz & Tarlow 2013:7), we *can* study what people *did* when someone had passed away. By studying how people buried their dead, we can acquire an understanding of the ideas they had concerning death, life, and society (Stutz & Tarlow 2013:5). People had specific ideas on how a burial was supposed to be constructed and how a deceased was supposed to be buried, and by examining burials from different regions these ideas can be reconstructed (Bourgeois & Kroon 2017). Burials were probably highly social events in which people participated in various ways, including as audience (Goldhahn 2006, Oestigaard & Goldhahn 2006, Stutz & Tarlow 2013, Treherne 1995). We can take a look at funerals in our modern times as a parallel: although they are organised on the occasion of a person's death, the most important aspect is that people *attend* the funeral. Against this background of funerals as social events, this chapter focuses specifically on the role that *metal* played in the burial ritual between 2350-1500 BC.

Throughout the 850 years under investigation, people buried the dead with metal objects. Although the practice fluctuates – as we will see in Section 9.3 – people consistently made choices concerning which objects they used as burial gifts, and which objects they did not include in burials. In period IB, for example, Hajdúsámson-Apa swords were not used as burial gifts, while Sögel-Wohlde swords were frequently placed in burials (see also Chapter 8). Axes are another example: they were consistently *not* used as burial gifts through time, even though they were probably the most common and widely distributed type of metal object. Most people probably owned a bronze axe in the agrarian communities we are studying, as suggested by finds from the Late Bronze Age settlement of Must Farm. At Must Farm, the largest collection of domestic metalwork – including a large number of axes – from Late Bronze Age Britain has been found, providing a fascinating insight into the metalwork that would have been present at a Bronze Age settlement (Knight et al. 2019). Nevertheless, axes were apparently *not* supposed to be placed in burials. This pattern only changes somewhat in period IB, when people used specific types of axes as burial gifts (see Chapter 8, and Section 9.6 below).

There were thus specific ideas on what a burial equipment was supposed to look like, and which metal objects were considered appropriate as burial gifts. The concept of the objects' cultural biographies, discussed in detail in Chapter 8, is relevant here: for some objects, the right ending was to be buried with the dead, while for other objects, this was *not* the right ending. There were thus conventions behind the selection of metal objects for burials, and these changed over time, as already alluded to above. Therefore, metalwork in burials is an important piece of the puzzle of selective metalwork deposition; studying these conventions contributes to our understanding of the logic behind this practice. The following sections examine these conventions, but first, we will pause for a moment and explore what it actually *meant* in social terms to bury someone with metalwork.

9.1 Barrows and metalwork: social inequality?

It is important to note that in the periods under study, far from every person was buried with metalwork. Only a minor proportion of the dead was buried with metal items, although the frequency changed over time, which we will see below (and see Figure 9.2). In our time period, the frequency peaked in period IB, and it further increased in period II of the Nordic Bronze Age (Vandkilde 2014b:208). Of the burials with metalwork that were recorded in the database, the vast majority (83%) are in barrows. In contrast, only 5% of the burials are flat graves. For obvious reasons, barrows have attracted a great deal of attention since the early days of archaeology, and they are therefore much more frequently excavated than flat graves (cf. Bourgeois 2013:3). Nevertheless, there appears to be an association between burying the dead in barrows and equipping them with metalwork, and this applies to all four sub periods.

The relative barrow building frequency and the estimated proportion of the population that was buried in barrows in Denmark in the Early Bronze Age was calculated by Holst (2013:42-113). These calculations show that at the most, 20% of the population were buried in barrows, and the relative barrow building frequency per year was surprisingly low (Holst 2013:42-113). Also for the Netherlands, the frequency of barrow construction is estimated to have been low: on average, one barrow is thought to have been constructed every couple of years in the central and southern part of the Netherlands throughout prehistory (Bourgeois 2013:177-178). This means that constructing a barrow was a special event, and only a few people were selected to be buried in a barrow (Bourgeois 2013:198). Although the exact numbers can be debated (Holst 2013:42-113), it is thus beyond doubt that only a small proportion of the population was buried in barrows. And in their turn, only a small proportion of these barrows contained metalwork. In fact, in the Netherlands, non-perishable burial gifts were rarely placed in burials in the EBA, and many MBA barrows do not contain any burial gifts at all (Bourgeois 2013:75, 164-165). So all in all, only a very small fraction of the population was buried with metal objects.

This uneven distribution of metal in burials has been interpreted as reflecting social inequality, particularly towards the later part of the investigated time period (Kristiansen 1989, Vandkilde 1996:276). The dead that were buried with metal objects are thought to have been of higher social rank than those that were buried without (Kristiansen 1989, Vandkilde 1996:294). Since metal is scarce in the research area, it has been stated that burying every individual with metal was too "expensive" (Kristiansen 1989:21, Vandkilde 1996:267-168). Occasionally depositing metalwork singly or in hoards is argued to have been a "cheaper" option, since these depositions were not associated with only one person, and happened less frequently than burials (Kristiansen 1989:21, Vandkilde 1996:267-268).

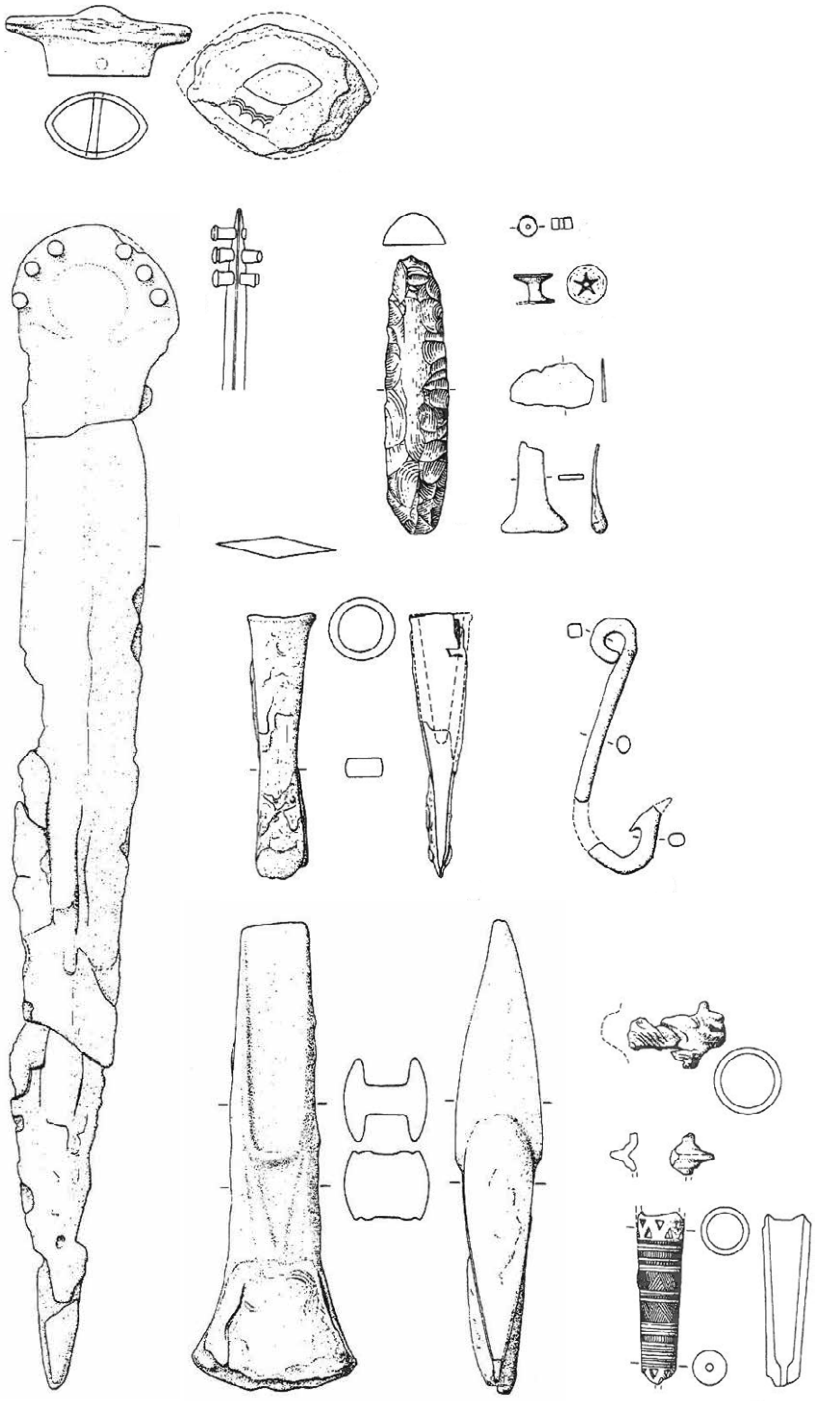


Figure 9.1. 'Rich' burial from Strandtved, Funen, dating to period IB and containing a Valsømagle sword, palstave, socketed chisel, pointed weapon, bronze double button, tweezers, razor, fish hook, strike-a-light, and spiral (after A&K 2144).

A similar interpretation is traditionally suggested for burials in barrows: they are thought to reflect a higher social status (*e.g.* Kristiansen 1999). However, research on barrows in the Netherlands has shown that almost all burials with bronze weapons from barrow contexts dating to period IB were dug into already existing barrows (Bourgeois 2013:165). In fact, from Late Neolithic B on, people increasingly started to reuse existing barrows, and this practice exploded in the MBA (Bourgeois 2013:165-176). Many Bronze Age barrows thus did not just contain one burial, but multiple burials, and many of them were actually constructed with this intention (Bourgeois 2013:170-171). If burials in barrows do in fact reflect a particular social status, they reflect the social status of multiple individuals, not just of one high-ranked 'leader'.

The selection of metal objects in burials itself has also been interpreted as an indication of social rank (Kristiansen 1984, 1989, 2002). For example, swords in burials are thought to indicate that the deceased belonged to a 'warrior elite' (Kristiansen 1984:203, 1989:177, Treherne 1995, Vandkilde 1996, 2006, 2014b, see Figure 9.1). This idea is discussed in detail in Section 9.6. And based on the presence or absence of use wear on swords from periods II and III of the Nordic Bronze Age, it is thought that these swords belonged to warriors or chiefly commanders, respectively (Kristiansen 1984:203, 2002:323-325). Similarly, metal-hilted swords are thought to indicate a higher status than organic-hilted swords in periods II and III (Kristiansen 1984:203). The number of (metal) objects in burials has also been interpreted as signifying social status. Some burials are very 'rich', such as the Danish Strandtved burial dating to period IB (see Figure 9.1), while others *e.g.* 'only' contain a bronze ornament.

However, just like the example of the barrow burials discussed above, this hierarchical focus on burials with metalwork has also been contested (*e.g.* Fokkens 1999:39, Oestigaard & Goldhahn 2006). Instead of focusing on the social status of the deceased that metal objects in burials might indicate, we can also investigate the *image* of the deceased that was created by placing these particular objects in a grave. This is the focus of the following sections.

9.2 Creating an image of the dead: a case study

By burying a dead person with specific objects – in our case specific *metal* objects – a certain image of the dead was created and presented. This section investigates this image and what it signifies, using the Bell Beaker burial practice as an example and case study. This was the first time that metalwork was 'allowed' in burials, and people consistently chose specific metal objects to use as burial gifts, as discussed in Chapter 3. The Bell Beaker burial ritual is therefore used to explore and explain what people actually *did*. This analysis is also be applied to the three subsequent sub periods later on in this chapter.

It should be noted that within the research area, Bell Beaker burials with metal have primarily been found in the Netherlands (Butler & Van der Waals 1966/67); metal is rare in Bell Beaker burials in northern Germany (Lanting 2007/2008:88, Willroth 1996:18) and Bell Beaker influences in Denmark are limited to northern and central Jutland, and of a local character (Sarauw 2007b:29 and fig. 18, Vandkilde 2005a:2). However, as discussed in Chapter 3, distant parts of the research area were connected by Bell Beaker routes, and it is thought that metal reached the research area through these routes (Vandkilde 2005a:30, 1996:295). The entire research area was thus part of the pan-European Bell

Beaker region, an area that spans from the Iberian Peninsula to the British Isles and Germany (Müller 2009:77, fig. 79).

In the Bell Beaker period, men were buried individually with a copper dagger (in Jutland with a flint dagger, Sarauw 2007a:66), a Bell Beaker, flint arrowheads, a wrist guard, amber beads and pendants, gold ornaments, and/or stone tools. Although there is some variation in the objects that people included in male burials, it is clear that people time and again made specific choices, selecting objects from the 'Bell Beaker burial repertoire'. This Bell Beaker burial repertoire is discussed and visualised using network analysis in Chapter 3. The objects that people selected were often placed in specific positions in the grave (*e.g.* Fokkens et al. 2008:116), and people also selected a specific position for the body: men were buried on their left side in a crouched position in this period, while women were buried on their right side (Vander Linden 2006:39, 46).

This Bell Beaker burial ritual has its roots in the new burial ritual that was introduced in the preceding Corded Ware complex. In this period, a supra-regionally shared burial ritual emerged, in which the dead were buried individually in single graves, in a specific position and with specific objects (Bourgeois & Kroon 2017). As discussed in Chapters 3 and 7, these objects included battle axes, imported flint daggers, and imported flint axes (see also Chapter 3). Objects from various regions, including daggers, were used in Single Graves in order to construct a specific image of the deceased.

Returning to the Bell Beaker period, there was thus a specific idea on what a man was supposed to look like in death: he was supposed to lie on his left side in a crouched position in a grave, and he was supposed to be accompanied by one or more (metal) objects from a specific burial repertoire, which were placed in specific positions in the grave. Comparing this to burials in our modern times, we can recognise parallels to this idea: we bury a deceased person in an extended position, lying on their back in a coffin, and in their nicest clothes, even though this is not always what the person dressed like when they were alive. The latter is an important notion: we construct an image of the deceased that does not necessarily match their appearance during their lives. This notion should also be applied to the prehistoric burials under study. Although it has been said many times before, the archaeological cliché *the dead do not bury themselves* again proves to be relevant: burials do not necessarily reflect the actual lives of the deceased. Instead, it is the people that organise the burial who decide on the image of the deceased that is constructed, and this image may or may not match reality (Härke 1994:32). Yet it is precisely this *image* that we can study in archaeology.

By dressing and adorning the dead in a specific way in Bell Beaker burials, a specific image of the dead was thus constructed and conveyed by those arranging the burial. Such a stereotyped, 'codified' equipment made the image of the deceased that was presented during the funeral ceremony instantly recognisable to the audience (Treherne 1995:120-123). Such a 'codified' burial equipment already existed in the Corded Ware complex (Bourgeois & Kroon 2017). This image is thought to have indicated a specific *social role*, *i.e.* a specific kind of *personhood* (Fontijn 2002:81). It is thought that social identities can be detected in the personal appearance that is created by placing certain items in burials (M. L. S. Sørensen 1997:110).

How should we then interpret the objects that were placed in Bell Beaker burials? Based on the presence of archery equipment such as arrowheads and wrist guards,

these burials are often interpreted as archer's burials (Sarauw 2007a:65-66). In combination with the presence of daggers, these burials are thought to express an emphasis on "martiality" (Fokkens 1999:38, Fontijn 2002:81, Fokkens & Butler 2005:392-393). The image that is created in these burials is thus that of an archer, a fighter; *i.e.* a warrior (Vander Linden 2014:53). However, this warrior image should not necessarily be interpreted in terms of prestige or competition (Vander Linden 2014:43), and should not lead us to conclude that these men were actually warriors in their lifetime, as addressed above. The copper tanged daggers of this period were for instance most likely used as 'all-purpose blades' rather than weapons (Wentink 2020:181, cf. Fontijn 2002:67, 221, see Chapter 3). This burial equipment was rather a "costume of death" (Fontijn 2002:204), a "code" that was shared and used across communities (Vander Linden 2014:43, cf. Bourgeois & Kroon 2017). As discussed in this chapter's introduction and in Chapter 3, axes were not used as burial gifts in Bell Beaker burials, although axes must have been widespread and common tools in these agrarian societies. Yet people chose to present the deceased as *fighters* rather than *farmers*, even though the latter was probably a more correct representation of these men's lives (Fontijn 2002:81). People chose to create and convey this particular image of the dead, although this image probably did not match the actual life and appearance of the deceased.

In addition, people also chose to adorn the dead with ornaments, such as amber beads and/or gold rings. These ornaments were apparently part of the image they wanted to convey. Interestingly, many of the objects people chose to place in burials in this period were imported from afar. Some of the gold and copper objects in Bell Beaker burials were probably foreign, as discussed in Chapters 3 and 8, and the materials copper and gold themselves were of course imported from afar. The same applies to the amber ornaments and flint objects in Dutch Bell Beaker burials. Using Fontijn's words, the deceased were "dressed in internationality" (Fontijn 2002:81). The same can be stated for the deceased in earlier Single Graves, which were equipped with a number of foreign objects, as discussed above.

The Bell Beaker burial ritual was shared across regions: people were buried in similar ways, although there were regional differences (Vander Linden 2014:53). Across vast distances, people had shared ideas on how to bury the dead, and constructed a similar image in burials. Actually, out of the various components of the so-called pan-European 'Bell Beaker phenomenon' – ceramics, settlements, and burial ritual – the latter is the *most* similar component across regions (Vander Linden 2014:53). In this context, it is even more interesting that the dead were "dressed in internationality" (Fontijn 2002:81). From the British Isles to Germany and the Iberian Peninsula, people buried the dead in similar ways, constructing a similar image of the deceased, and using similar, 'international' objects. Oestigaard and Goldhahn have suggested that burials should be interpreted as a representation of the alliances and networks that both the deceased and the participants in the funeral ceremony were involved in, which are expressed through the burial gifts that are used (Oestigaard & Goldhahn 2006:45). In the case of the Bell Beaker burials, they can indeed be argued to represent the 'international' Bell Beaker network, through which shared traditions and values circulated (Vander Linden 2014:54). The male warrior, equipped with internationally shared Bell Beaker items, represented and personified this Bell Beaker network.

A. Proportion of metal objects in burials		
Period	**Number of metal objects in burials**	**Percentage of all metalwork**
LN I	22	30%
LN II	18	8%
Period IA	25	20%
Period IB	247	38%

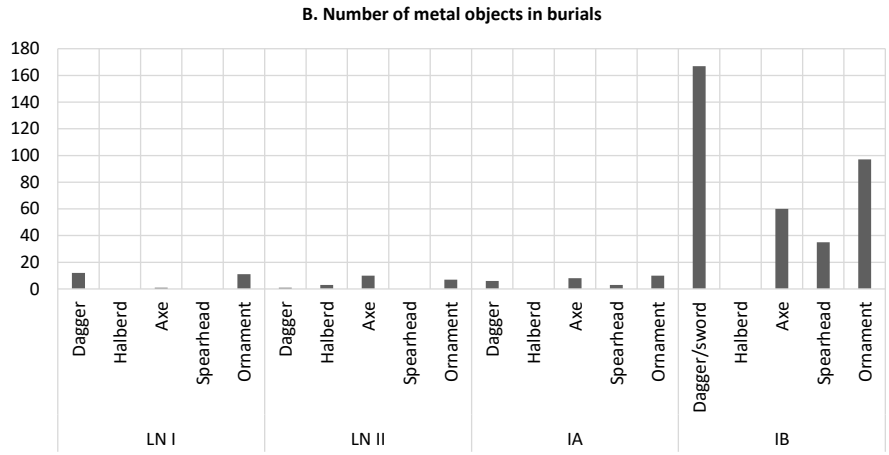


Figure 9.2. A. The proportion of all metalwork that was found in burials (excluding finds from unknown contexts). B. The number and selection of metal objects in burials in the four sub periods.

After using the Bell Beaker burial ritual as a case study to investigate the image that people constructed in burials, I now zoom out and examine the conventions behind the selection of metalwork in burials throughout the 850 years under study. After this overview, I return to the image of the deceased that people created in burials with metalwork in LN II, period IA, and period IB, following the example of the Bell Beaker case study presented in this section, and wrap up this chapter with a conclusion.

9.3 Burial gifts and conventions: an overview

The practice of burying the dead with metalwork fluctuates during the investigated time period, as already briefly mentioned in this chapter's introduction. There are fluctuations and changes over time, both in terms of the number of burials with metalwork and the conventions behind the selection of objects. Particularly in period IB, a number of important developments in the burial practice took place. These conventions and changes are examined from a bird's-eye view in this section. After this, Sections 9.4 to 9.6 zoom out and return to the image that people constructed of the deceased using metal items.

Figure 9.2 shows the number and proportion of metal objects in burials during the four sub periods, as well as the selection of metal objects used as burial gifts. A number of patterns and developments catch the eye.

When we look at the absolute numbers of metal objects in burials, it is clear that until period IB, burial gifts of metalwork are scarce. The use of metal objects as burial gifts

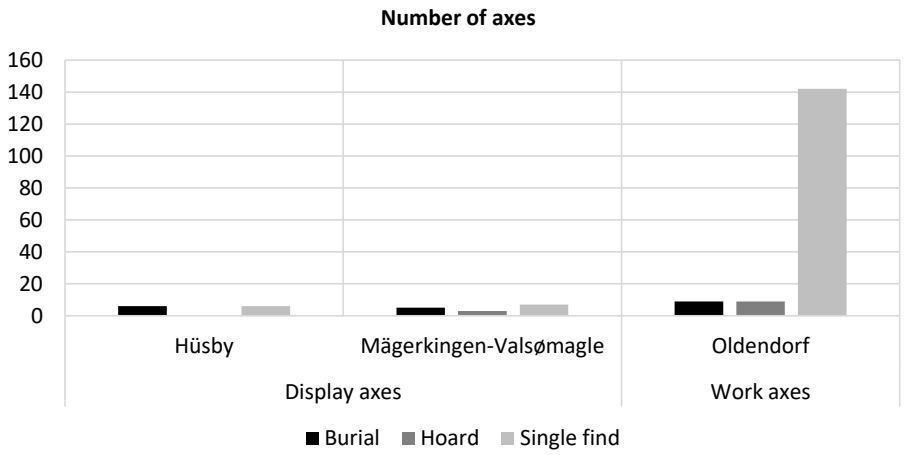


Figure 9.3. Selective deposition of display axes of types Hüsby and Mägerkingen-Valsømagle, and plain work axes of Oldendorf type. All of these date to period IB. Axes from unknown find contexts are not included.

positively exploded in period IB, when particularly daggers/swords were abundant in burials. But when we look at the proportion of metalwork that was found in burials, this is actually relatively high in LN I. As discussed in Chapter 3 and in the previous section, metal objects were relatively frequently used as burial gifts in this period, since they were used to construct a specific 'Bell Beaker image'. Primarily copper tanged daggers and gold ornaments were placed in burials across Bell Beaker Europe, although not in Denmark. But since metalwork on the whole was still scarce in this early period, the absolute numbers are low.

Moving on to LN II, the number of burial finds of metalwork is strikingly low, particularly considering the large amount of metalwork that was deposited in this period, and the significant role that metal played in burials in the preceding Bell Beaker period. These occasional LN II burial finds primarily consist of a small number of axes and ornaments. Overall, metalwork was not chosen to be placed in burials, but instead deposited in specific places in the landscape, particularly in wetland settings. The significance of these natural places is discussed in Chapter 10.

In period IA, a modest increase in burial gifts of metalwork is observable. These now include metal daggers, axes, and ornaments. This can be seen as the prelude to period IB, when bronze daggers and swords are by far the most abundant object category in burials, and ornaments were also commonly used as burial gifts. In addition, axes and spearheads also occur in burials in period IB. All main object categories were thus used as burial gifts in period IB, and this was a new development, as discussed in Chapter 6.

However, as also addressed in Chapter 6, not all object types were 'allowed' in burials in period IB, even though all main object categories were used as burial gifts. Certain types of swords were preferred as burial gifts, such as Sögel-Wohlde and Valsømagle swords, while other types were avoided in burials, such as Hajdúsámson-Apa swords (see Figure 8.10). This separation is discussed in Chapter 8. A similar separation can be observed between different types of axes: the vast majority of plain work axes like high-flanged Oldendorf axes were deposited singly (see Figure 9.3), while display axes like Mägerkingen-Valsømagle

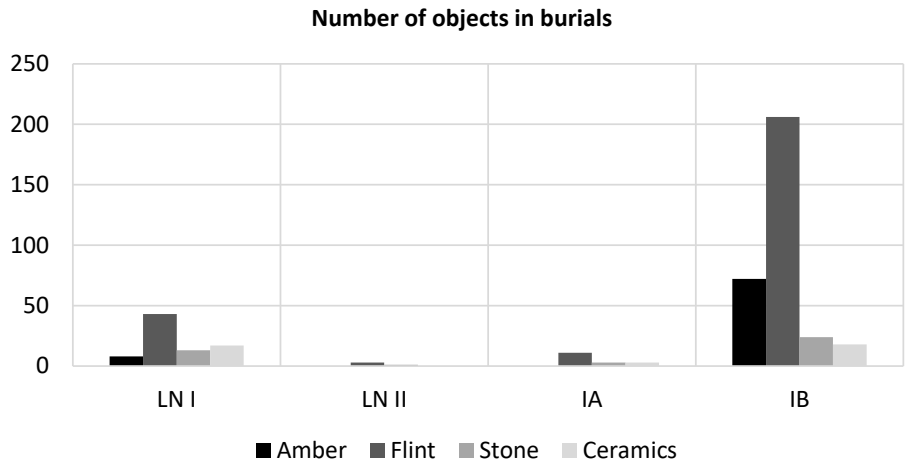


Figure 9.4. Number of objects made of other materials than metal from burials recorded in the database. Only non-metal objects occurring together with metalwork are recorded (see Chapter 2 for an explanation of the data collection methods). It should be noted that it is difficult to count the number of ceramic objects in burials, as this often concerns sherds. Therefore, the number of ceramics rather shows the presence of ceramics in a context.

and Hüsby axes do not show a predominance of single object depositions. There is thus a separation between how different types of objects 'ended their lives', to return to the concept of cultural biographies (see Chapter 8). Such a separation is not visible in the earlier periods; this is a new development in period IB. The cultural biographies of objects were thus an important element in the selection of objects for burials.

Another new development in the burial practice in period IB is the emergence of regional diversity: the research area can be divided into two zones, each of which had its own burial equipment, in which a region-specific sword was the main, characteristic, item (see map in Figure 6.1). In Zone I – covering the Danish islands and north-eastern Jutland – burials are equipped with items from the Valsømagle repertoire, while burials in Zone II – comprising south-western Jutland, northern Germany, and the north-eastern part of the Netherlands – are equipped with items from the Sögel-Wohlde repertoire. These two regional burial packages are discussed in detail and analysed using network analysis in Chapter 6.

It should be noted that while Figure 9.2 shows the occurrence of the main object categories in burials, a wider range of objects, including unusual or even unique items, occurs in burials in period IB. Razors, tweezers, awls, a saw, belt hooks, fish hooks, pointed weapons, and fibulae were now in a few rare cases used as burial gifts. This is a new development, as only the main object categories are occasionally found in burials in the earlier periods. Burials display a wider variety in object types in period IB, and these objects are shown in the network in Figure 6.14 in Chapter 6.

In addition, not only a wide range of objects, but also a wide range of materials occurs in period IB burials. Although metalwork is the main focus of this research, objects made of other materials occurring together with metalwork have also been recorded, and these are especially numerous in period IB. Amber, flint, stone, and ceramics frequently occur in burials in this period, including objects like amber beads and pendants, flint strike-

a-lights, slate pendants, and pots (see Figure 9.4). When we compare the numbers from the four sub periods in Figure 9.4, non-metal objects were also relatively common in LN I, when amber, flint, stone, and pots were part of the Bell Beaker 'burial package', as discussed above and in Chapter 3. But in LN II and period IA, non-metal objects rarely occur in burials together with metalwork.

Summing up, the practice of burying the dead with metalwork fluctuated, and the conventions behind the selection of objects changed over the course of time. In the Bell Beaker period, specific metal objects were relatively often used as burial gifts, but the absolute numbers were still low. Until period IB, only the main object categories occasionally occurred in burials. But in period IB, the use of metal objects in burials positively exploded. The burial practice went through a number of important developments in this period: regional variation emerges, and a wider range of objects and materials is placed in burials, yet at the same time, the cultural biographies of these objects played an important role; not *all* object types were considered appropriate to be buried with an individual.

9.4 LN II: from burials to wetlands…

After zooming out and examining the fluctuations and changes in the burial practice over time, we will zoom in again and examine the burial ritual in Late Neolithic II (LN II), following the example set by the Bell Beaker case study in Section 9.2. How should we interpret the objects that people chose to bury the deceased with in LN II? Which image did people want to construct in these burials and what did it signify?

As discussed in the previous section, metal objects were rarely used as burial gifts in LN II. Only 8% of the metalwork from this period was placed in burials (see Figure 9.2). This is a strikingly low number, especially considering the enormous increase in metalwork deposition in this period (see also Chapter 7). This, however, is a significant observation in itself: there was an enormous increase in metalwork deposition, but metal was rarely buried with the dead. This applies to the entire research area. Apparently, metal objects did not play an important role in the construction of personhood in burials. Instead, people preferred to deposit metalwork in wet landscape settings all over the research area, as discussed in detail in Chapter 4. There clearly was a shift between LN I and LN II in terms of the burial practice.

First, this section examines the objects that occasionally *do* occur in burials in LN II. These are low-flanged axes and ornaments. Starting with the former, only a very small fraction of the axes from this period were used as burial gifts (3.7%, ten axes). These axes were predominantly locally made, which applies to the majority of the axes in this period. The local production of metalwork in LN II consisted largely of axes, as shown in chapters 4 and 8. However, these locally made axes were thus rarely used as burial gifts.

Moving on to ornaments, a noteworthy pattern stands out: bronze/copper and gold *Noppenringe* are the only type of metal ornament used as burial gifts in this period, and these were imported from the Únětice region/Central Europe (Vandkilde 1996:199, 203-205). Although the number is very low (six *Noppenringe* in three burials in Denmark), these burials do stand out. *Noppenringe* were also deposited in hoards in this period, so they were not exclusively used as burial gifts. But in these few burials, people chose to adorn the dead with foreign ornaments. Using the Bell Beaker case study in Section 9.2 as a parallel, these deceased can be stated to be "dressed in internationality" (Fontijn 2002:81).

However, this was only the case in a very limited number of burials. Overall, the dead were *not* buried with metalwork anymore in this period.

The reason for this shift in the burial practice between LN I and LN II is probably the breaking up of the pan-European Bell Beaker network that can be observed at the end of LN I, around 2000 BC. From around 2000 BC, regional groups emerge that grow in importance, while the supra-regional Bell Beaker network disappears. One of these European regions that became of great importance for Denmark and northern Germany in LN II is the Únětice region in Central Europe, as shown in Chapter 4. In LN II, it was thus no longer of relevance to present the supra-regional image of the 'Bell Beaker warrior' in burials.

But interestingly, people did not choose to construct *another* image in burials in LN II; people made completely different choices in this period. Instead, they chose to express ideas of 'internationality' in *hoards*. This is discussed in detail in Chapter 8. In hoards like Pile, Gallemose, and Wageningen, people deposited both local objects and objects from the regions they were connected with through exchange networks, including the Únětice region. These hoards embodied the exchange networks that the local communities were involved in, in the way that the international network was represented in Bell Beaker burials. It was thus still of importance for local communities in the research area to show that they were part of supra-regional networks, but in LN II, this was done by depositing 'international' *hoards* rather than creating an 'international' image in *burials*. People chose to present an assemblage of international objects, not with a body, but without a body, in specific natural places. People selected special places in the landscape to deposit these unconventional hoards in, which is examined in detail in Chapter 10.

One question remains unanswered after examining the burial practice in LN II: if people generally did not bury the dead with metalwork, which other objects did they place in burials? As discussed in Chapter 4, fishtail flint daggers were used as burial gifts in Denmark and northern Germany (Lomborg 1973, Kühn 1979). However, this happened less frequently than lanceolate flint daggers were used as burial gifts in LN I (Vandkilde 1996:283). It appears as though burial gifts on the whole were rare in Denmark in this period (Vandkilde 1996:283-287). The same applies to the Netherlands: non-perishable burial gifts are rare in EBA burials (Bourgeois 2013:164). There appears to have been an actual gap in terms of burial gifts in this period (Bourgeois 2013:164-165). Overall, people apparently did not focus on presenting a certain image of the dead in burials using non-perishable objects. Instead, the focus shifted entirely towards depositions of single objects and hoards.

Summing up, it was clearly not considered of importance in this period to construct and convey a certain image of the dead in burials, like it was in the Bell Beaker period. The dead were not dressed and adorned in a specific way, with a few exceptions, including foreign *Noppenringe*. Instead, the focus shifted towards metalwork deposition in wetlands. Hoards appear to fulfil the role that burials had in the Bell Beaker period in terms of the international connections they represent and embody. These hoards are discussed in more detail in Chapters 8 and 10.

9.5 Period IA: …and back again to burials

In period IA of the Nordic Bronze Age, the use of burial gifts of metalwork increased again after the 'dip' in LN II, as noted in Section 9.3 (see Figure 9.2). Daggers, axes, and ornaments were used as burial gifts somewhat more often than in LN II, which can be seen as the prelude to period IB, in which the use of metalwork in burials exploded. It should

be noted that a number of nick-flanged chisels from northern Germany and Denmark possibly come from period IA burials, but as this is uncertain, they are not included in this discussion (see Chapter 5). There was thus a shift between LN II and period IA, from a supra-regionally shared, almost single-minded focus on wetland depositions to a moderately increased importance of metalwork in burials. Which image of the dead did people construct in period IA and what does it signify?

When comparing burials from different parts of the research area, remarkable regional differences catch the eye. While people did similar things from the Netherlands in the west to Zealand in the east in LN II, we see the emergence of *regional practices* in period IA. The fact that different regions are for the first time combined in this research makes it possible to recognise these developments. Here we can see the first signs of the regional diversity that became highly significant in period IB. The most striking regional pattern in period IA is that metalwork is extremely rare in burials in the Netherlands, as discussed in Chapter 5. Hardly any burials with metalwork are known from this area, which is remarkable, since metalwork *was* used as burial gifts in Denmark and northern Germany in this period. But metalwork was also hardly deposited singly or in hoards in the Netherlands: there was in fact a gap in metalwork deposition overall in this region, as discussed in Chapter 5. Even though bronze axes must have been widespread in these agrarian communities, and they were deposited before and after this period, they were not deposited in *this* particular period (cf. Fontijn 2002:97).

In Denmark, most of the metal objects that people equipped the dead with are ornaments. These metal ornaments, including *Kugelkopfnadeln*, were imported from Central Europe (Vandkilde 1996:216-218). With the Bell Beaker case study in the back of our minds, the fact that these Central European ornaments were used as burial gifts in Denmark rings a bell. Again, the dead were adorned with foreign ornaments; again, the dead were "dressed in internationality". However, this only happened in a very small number of burials (n=4). Most of the metalwork in Denmark in this period was probably imported from Central Europe (Vandkilde 1996:220-222), which is thus reflected in these few 'international' burials.

In contrast, in northern Germany, metal ornaments were rarely used as burial gifts. Instead, they were more often deposited in hoards in this region. Although rich hoards were in fact deposited in Denmark during this period, metal ornaments were not included in these hoards, but instead used as burial gifts. There are clear regional differences in terms of deposition practices. Also in northern Germany, these metal ornaments are thought to be imports from Central Europe (Vandkilde 1996:216-218, Wegner et al. 1996:377, Laux 2015:3). But despite their shared origin, metal ornaments were thus treated differently across regions. While in the Bell Beaker period, a similar image was constructed using similar objects in burials across regions, similar objects were deposited in *different*, region-specific ways in period IA. As argued in Chapter 5, a heterogenisation of the practice of selective metalwork deposition can be observed in period IA.

Metal daggers were also somewhat more often used as burial gifts in this period, as shown in Figure 9.2. This primarily concerns blades of Virring type in Germany (see Chapter 5). In period IB, swords and daggers were abundantly used as burial gifts, and we can observe the emergence of this practice in period IA. This association between burials and swords is explored further in the next section which focuses on burials in period IB.

Lastly, a modest number of axes have been found in burials in Denmark and northern Germany. This is only a fraction of all the axes from this period (5.4%), just like

in LN II. Overall, axes were thus *not* used as burial gifts, even though axes must have been widespread, everyday tools. In Denmark, the axes found in burials are primarily locally made, which applies to the majority of the axes in this period (see Chapter 5). The origin of the north German burial finds of axes is mostly unknown. No conclusions can be drawn based on such a limited number of finds, other than that axes were preferably *not* given to the dead.

Since metal was somewhat more often, but still infrequently buried with the dead, we can ask ourselves the same question as for LN II: which other objects did people place in burials? As shown seen in Chapter 5, flint daggers of type VI were used as burial gifts in Denmark and northern Germany (Lomborg 1973, Kühn 1979), but not as often as lanceolate flint daggers in LN I. Overall, burial gifts are "generally indistinct and anonymous" in Denmark in this period (Vandkilde 1996:288). The situation in the Netherlands is similar: many MBA barrows do not contain any burial gifts at all (Bourgeois 2013:75).

In the previous sections, we observed that both in LN I and LN II, it was important to express being part of supra-regional networks, although in LN I this was done in burials, and in LN II in hoards. What we can we say about expressions of 'internationality' in period IA? These cannot be found in burials, as discussed above. When we look at hoards, we can again observe regional differences. In Denmark, locally made metal objects became increasingly important, and hoards mainly consisted of locally made axes and spearheads in period IA. Apparently, it was no longer important to emphasise international contacts and supra-regional networks in depositions in this region. Instead, the focus shifted to local practices. In that sense, we can recognise the first signs of the Nordic Bronze Age, which truly took flight in period IB (Vandkilde 2014ab, and see the next section), in which southern Scandinavia had its own character. But in northern Germany, hoards were deposited following Únětice practices in period IA, containing axes, ornaments, and *Ösenringe*, including Únětice objects. Expressions of 'internationality' can thus be found in hoards in this region.

Summing up, people chose to use metal objects as burial gifts more often in period IA than before in LN II, but it is difficult to observe the construction of a specific image like in the Bell Beaker case study above. Instead of a supra-regional, shared idea on how to equip the dead in burials, we see the emergence of regional practices in period IA: in Denmark, the dead were occasionally adorned with Central European ornaments such as *Kugelkopfnadeln*, while these were deposited in hoards in northern Germany. In the Netherlands, the dead were not buried with metalwork; metalwork was in fact barely deposited at all in this region. Daggers and axes were occasionally placed in burials, which can be seen as the start of the burial practice in period IB. We can also observe the first signs of the emergence of the Nordic Bronze Age (Vandkilde 2014ab).

9.6 Period IB: warrior burials and regional practices

Finally, we arrive in period IB of the Nordic Bronze Age, the last part of the investigated time period, in which we see a peak in the practice of burying the dead with metalwork, as shown in Figure 9.2. A number of important developments in the burial practice that happened in this period were already discussed in our overview in Section 9.3. To repeat these very briefly: metalwork was used as burial gifts on a much larger scale now; all object *categories* could be placed in burials, but at the same type only specific object *types* were chosen, such as specific swords; in addition, a range of other object types occurs in burials, such as belt hooks and fish hooks; a wide range of materials

Figure 9.5. Period IB burial assemblage from Lejrskov parish, Jutland, Denmark (ÅM 5147), consisting of a Sögel-Wohlde sword (ca. 24 cm), a Fritzlar axe (12.5 cm), a dagger-shaped flint strike-a-light (9 cm), and a bronze dagger fragment. Photo: Marieke Visser. Scale 1:2.

other than metal also frequently occurs together with metalwork in burials; and there is regional diversity in terms of burial practices, particularly between the Sögel-Wohlde and Valsømagle groups.

When we look at Figure 9.2, the first thing that catches the eye is the abundance of bronze swords and daggers in burials. 67% (n=167) of all bronze daggers and swords from period IB are in fact grave finds. It is clear that they played an important role in equipping burials in this period (see Figure 9.5). Therefore, we will focus specifically on the image that was constructed in burials using bronze swords and daggers and compare this to the Bell Beaker period, in which daggers were also an important element in the burial package, as we have seen in our case study in Section 9.2.

Period IB is the first period in which 'real swords' emerge: blades of up to 60 cm occur in this period. The distinction between swords and daggers is not always clear, as discussed in Chapter 6. But, as argued in Chapter 8, the first swords, *i.e.* Hajdúsámson-Apa swords, were treated as new objects at the beginning of period IB: they were not used as burial gifts, but deposited outside burials. Somewhat later period IB swords, such as Sögel-Wohlde and Valsømagle swords, were often used to equip the deceased. This suggests that

swords were in fact considered new in period IB. This section therefore focuses specifically on Sögel-Wohlde and Valsømagle swords.

As discussed in Chapter 6 and already addressed in Section 9.1, Bronze Age swords are traditionally interpreted as warrior equipment (Kristiansen 1984, 1989, 2002, Treherne 1995, Vandkilde 2014b). Indeed, in period IB, a 'warrior ideal' is thought to have emerged which continued to exist throughout the Bronze Age, revolving around the warrior and his personal equipment; this did not only include a sword, but also objects associated with personal appearance such as ornaments, razors and tweezers (Treherne 1995). It should be noted that razors and tweezers are rare in period IB; they become more common later on in the Bronze Age. The Dutch Drouwen burial is one of the few exceptions, containing a razor as well as a Sögel-Wohlde sword, a Fritzlar axe, gold rings, flint arrowheads, a strike-a-light, and a whetstone (Butler 1990:73). This 'warrior package' was used in burials, and is thought to reflect the importance of fighting as well as the human body and how it was presented (Treherne 1995). These warrior burials are traditionally always interpreted as male burials (*e.g.* Hachmann 1957:30, Kristiansen 1987, Treherne 1995, Vandkilde 1996:17). There are a number of parallels with the Bell Beaker burials discussed in the case study: individual men were presented in death as warriors, equipped with weapons, and adorned with ornaments. Treherne already stated that the Bronze Age 'warrior ideal' has its roots in earlier developments in the Neolithic (Treherne 1995:113), and this diachronic development is observable in the data.

Let us first focus on this 'warrior burial package', consisting of swords and appearance-associated items (Treherne 1995). This term implies a standardised burial equipment, which was analysed in Chapter 6 by applying network analysis to the recorded burials with swords. This analysis showed that these burials actually show a high degree of variation. On average, around 50% of the burials with swords *only* contain a sword (see Chapter 6). The remaining ca. 50% of the burials contain varying object combinations, as discussed in Chapter 6. It is indeed difficult to recognise one standardised 'burial package' like the package observable in the Bell Beaker period. Not only are there differences *between* regions – the Valsømagle vs. the Sögel-Wohlde regions – but also *within* regions: Sögel-Wohlde burials in Denmark, northern Germany, and the Netherlands differ in terms of the selection and combination of objects. In fact, the sword itself is the only constant factor in these warrior burials. This makes it doubtful whether we can really speak of a 'warrior package' in this period. Nevertheless, the importance of the bronze sword is indeed evident.

Most of these bronze swords and daggers are thought to have been locally made. Metal-hilted Valsømagle swords were manufactured in the Valsømagle region in eastern Denmark, while Sögel-Wohlde swords/daggers were manufactured in the Sögel-Wohlde region, probably mainly in northern Germany and southern Jutland (Sprockhoff 1927:137, Vandkilde 1996:225, 236-237, 240-243). People thus used locally made swords that were made in the local style as burial gifts in their local communities.

There is thus a major difference with Bell Beaker burials: Bell Beaker 'warrior' burials were standardised, 'codified'; they reflected a shared ideology; and they served the purpose of representing the supra-regional Bell Beaker network in which the deceased and the community were involved. The 'warrior ideal' in period IB appears to entail something else. When zooming out completely, we might observe that they emphasise the same idea: swords are the main items in these burials. But when we zoom in, these 'warrior burials'

show a great deal of variation. They express regional versions of this 'warrior ideal', not only through region-specific swords (Valsømagle or Sögel-Wohlde swords), but also through region-specific or even local object combinations. These burials were not intended to be an expression of taking part in a shared, supra-regional network. Instead, they were intended to be an expression of belonging to a regional, or even local, group – the Valsømagle or Sögel-Wohlde group, or even a local community within the Sögel-Wohlde region.

As we have seen in our case study, the image of the deceased that is created in burials does not necessarily correspond to the actual life of the person. One can thus wonder if the emphasis on fighting and bodily appearance in Bronze Age warrior burials should be interpreted as a representation of reality, or as an ideal representation. However, as discussed in Chapters 6 and 8, many of the bronze swords and daggers from period IB that were analysed for use wear are actually thought to have been functional weapons that were in fact used in combat (Horn 2013:21-23 and table 1). This suggests that this 'warrior image' was not just an *ideal* identity, but may in fact have been reality, suggesting that fighting, or warfare, was in fact an integrated part of life in the Bronze Age, as has been frequently discussed (*e.g.* Horn & Kristiansen 2018). This is, again, in contrast to the idea of the 'Bell Beaker warrior'.

So far, we have only discussed burials with bronze swords and daggers. But as we have seen in Chapter 6, there is also a group of *hoards* in this period that contains bronze swords. These hoards are discussed in Chapter 10, with the current discussion on the 'warrior ideal' in the back of our minds.

Lastly, we should not forget to discuss period IB burials *without* bronze swords or daggers. This section has so far focused on bronze swords in burials, since they are an important development and a typical characteristic for period IB: 66% of the period IB burials with metalwork recorded in the database contain a (or in some cases more than one) bronze sword or dagger (including swords and daggers of unknown type). But this means that a not insignificant proportion of the period IB burials do *not* contain a bronze sword or dagger. 'Warrior burials' are particularly rare in the northern part of the Netherlands, but also in Denmark and northern Germany, a considerable proportion of the burials does not contain a 'warrior package'. As discussed in Section 9.1, warrior burials are thought to have been elite burials, belonging to a warrior aristocracy that emerged in this period (Kristiansen 1987, Treherne 1995, Vandkilde 1996:294). However, as discussed earlier in this chapter, the approach preferred here is not one of trying to identify elites or social status, but rather one of exploring the image of the deceased that people chose to construct, and the ideas of personhood they expressed by doing so.

Summing up, in period IB a number of important developments in the burial practice took place. The use of metalwork as burial gifts exploded: many more people were buried with metalwork. New conventions emerged: for example, display axes were more often selected for burials than work axes. Furthermore, clear regional burial practices can be recognised. Bronze swords and daggers were the most abundant metal object category in burials, and these are interpreted in terms of a warrior ideal that emerged in this period. However, in contrast to the Bell Beaker warrior, people first and foremost used this warrior image to express being part of a regional group rather than a supra-regional network. The vast majority of the metalwork in this period is thought to be locally made, and we see local traditions, notably the Valsømagle and Sögel-Wohlde groups. Although swords were used as burial gifts across regions – yet most frequently in northern Germany and Denmark – people expressed this shared warrior ideal by using their local 'vocabulary'.

9.7 Conclusion

After examining the burial ritual in the four sub periods under study and the role that metal plays in it, it has become clear that people carefully selected specific objects to bury with the dead. They presented specific images of the dead in burials, through which they aimed to express specific ideas. They used burials to show that the deceased and they themselves were part of an international, supra-regional network (the Bell Beaker network), or they used burials to emphasise the opposite: to express that they were part of a local group (period IB burials). This carefully constructed image of the dead did not necessarily match reality. But this was not the point; the point was to convey a specific message to the people that were present at the funeral. After all, funerals were first and foremost social events.

Alternatively, burials were *not* used to express such ideas; instead, the focus shifted to hoards, which embodied the international exchange networks in which the local community was involved (LN II). Zooming out, in some periods people expressed their ideas concerning their place in the world in burials, through a carefully composed image of the dead, while in other periods, they expressed these ideas by depositing specific objects in natural places in the landscape, without this association with an individual. These shifts are not only observable in the time period under study, but in the entire Bronze Age. What they have in common is that these events had a great *social* significance (see also Chapter 10).

The next and last chapter focuses on metalwork depositions *outside* burials, in natural places like bogs, rivers, or dry land settings. Which landscape settings did people choose for depositions and which role do these places play in the practice under study?

10

‘Non-burial-gifts’: placing things in the landscape

This last concluding chapter focuses on one last aspect of the human actions that we are studying: the selection of landscape locations for metalwork depositions. As shown in the previous chapters, people *did* specific things over and over again, and these actions took place in specific *locations*. The landscape is one of the key elements in the practice of selective metalwork deposition that is archaeologically visible, and that therefore can be investigated. The patterns studied in the previous chapters show that people did not simply deposit metal objects in *any* place. They systematically selected specific places in the landscape for metalwork deposition, like bogs, rivers, or dry land settings (Vandkilde 1996, Fontijn 2002, 2019). This shows that there were conventions behind this practice. This chapter attempts to reconstruct these conventions, and explores the significance of the landscape in the practice of selective metalwork deposition.

But before focusing on these conventions, the category of ‘landscape depositions’ needs to be considered for a moment. What does this category actually entail? People systematically chose to deposit metal objects in specific places; it is clear that objects were *supposed* to be deposited in specific types of places, and not in others (cf. Fontijn 2019:29-33). The landscape thus played a vital role in the practice under study. But people also chose to bury the dead in specific places in the landscape: burial mounds were for example not constructed anywhere, but in carefully selected, specific locations (Bourgeois 2013). As discussed in Chapter 9, a small proportion of the graves in these burial mounds contained metal. One could thus state that in both cases, metalwork was placed in specific places in the landscape; in both cases, the landscape played an important role.

However, when people chose to deposit metalwork in natural places like bogs, rivers, or dry land settings, they deliberately chose to deposit these objects *away* from a body, a person – away from an individual. This is the crucial difference between burials on the one hand and hoards and single finds on the other. From the Single Grave culture on, it is thought that objects that were used as burial gifts in single burials were associated with the individual, used to express ideas of personhood (Fontijn 2002:59, Treherne 1995:106-113, cf. Vandkilde 1996:261, 267, see Chapter 3). This idea is discussed at length in Chapter 9. A metal object that was placed in a grave with a deceased thus had a close link with a person, but an object deposited in – for example – a bog very clearly did *not* have this association. This choice was very deliberately and systematically made. An object that was used as a burial gift was deliberately given to the deceased, while an object that was deposited in

a bog was deliberately *not* given to the deceased. Instead, it was given to the *landscape*. Therefore, I use the term 'non-burial-gifts' for the latter category for the moment, even though this is a somewhat awkward term. It describes something by stating what it is *not*, which is not quite intellectually satisfying. In the four data-based chapters, the term 'deposit' is used for this category of finds, in order to distinguish them from burial gifts.

A dichotomy can thus be observed in terms of the selection of locations for metal objects that people had used: they were either given to a deceased *individual*, or given to the *landscape*. This dichotomy can already be observed at the start of the investigated time period. In fact, it can already be observed in the Early Neolithic Funnelbeaker Culture, as we have seen in Chapter 3. Therefore, these two categories of depositions are a priori discussed separately, as is also explained in Chapter 2. The previous data-based chapters indeed repeatedly demonstrated that people made different choices concerning which objects they buried with the dead, and which objects they chose to deposit in the landscape. The first category is discussed in detail in the previous chapter, which dealt with the role of metalwork in the burial ritual (Chapter 9). The current chapter specifically focuses on the latter category of 'non-burial-gifts'.

Yet it should be noted that there is a category of depositions that complicates this dichotomy somewhat: in some of the sub periods, we have seen that people deliberately chose to deposit metal objects nearby or even inside burials, but without actually placing them in a grave with a deceased. This happened in particular in LN I, when copper flat axes were frequently deposited near burial mounds (Vandkilde 1996:179-180, see Chapter 3), and in period IA, when hoards were deposited relatively frequently near burials, like the Tinsdahl and Torsted hoards (Schindler 1960:221-224, Becker 1964:115-116, see Chapter 5). Although people chose to deposit these metal objects in association with burials, they were not used as burial gifts for the deceased. Following the definitions discussed above, these depositions belong to the 'non-burial-gifts' category. This chapter takes a closer look at them later on.

Within the group of 'non-burial-gifts', two different find categories can be distinguished: hoards and single object deposits. These are problematic categories, as shown in the previous chapters. They have been frequently debated, and there is no consensus on how to deal with them in research on depositions. Single finds are often not included, because they are believed to be disturbed hoards or burial finds (Autenrieth & Visser 2019). However, the patterns investigated in the previous chapters demonstrate that burials, hoards, and single object deposits *were* in fact different types of depositional events, as is argued in Chapters 7 and 8. People made different choices for these events, for example in terms of the selection of objects with a local or foreign shape. Local axes were predominantly deposited singly throughout the investigated time period, while objects with foreign shapes were specifically chosen either for burials or for hoards, depending on the sub period (see Chapter 8). Hoards and single object deposits thus do in fact represent different types of human actions, as both of these categories show patterns of their own (cf. Autenrieth & Visser 2019). The same conclusion was reached for the finds from Denmark by Vandkilde (1996:36). The categories 'hoard' and 'single object deposit' – although they might be somewhat problematic – are thus in fact meaningful, and are therefore employed in this chapter.

But there is more variation in the category of 'non-burial-gifts': metal objects were not only either deposited singly or in hoards, but also in a variety of landscape contexts. As

already mentioned several times in this introduction, they were for example deposited in bogs, in rivers, or in dry land settings. Overall, deposition was the 'right ending' for these objects, but it also mattered *where* they were deposited. For some objects, the right ending was to be deposited singly, while for others, the right ending was to be deposited in a hoard. And for some objects, the right ending was to be deposited in a bog, while for others, the right ending was to be deposited in a dry landscape setting. This is where the objects' *cultural biographies* (Kopytoff 1986) come into play again. This concept is discussed in detail in Chapter 8, so it is not repeated here. But it is clear that within the group of objects that were supposed to be deposited as 'non-burial-gifts', there is a differentiation; people differentiated between them.

However, categories like 'wetland depositions', 'bog depositions', and 'dry land depositions' are problematic. It is difficult or perhaps even impossible to catch the enormous variation and nuance that is observable in the landscape in a number of rigid categories (cf. Fontijn 2019:140). The category 'bog deposition' serves as an example to illustrate this issue. A bog is not a fixed, clearly outlined natural phenomenon: some parts of it are more waterlogged than others, some parts might be passable by people while others are not, and the vegetation varies. By categorising an object as a 'bog deposition', all this variation is ignored. Where exactly in the bog did people choose to deposit the object in question? In the most waterlogged, unpassable part? Or in a somewhat drier, passable part? At the edge of the bog or right in the middle of it? Unfortunately, such questions are impossible to answer for the vast majority of the finds. It is in most cases impossible to determine the *exact* landscape setting of the finds we are dealing with. Many of them actually come from entirely unknown contexts, so the information that an object is a bog find is in fact very valuable. Therefore, despite their problematics, these landscape categories are used and applied throughout this research, in order to use as much of the available information as possible, as is also briefly explained in Chapter 2.

Nevertheless, in a few fascinating cases, we *do* know more about the exact landscape setting of a find. A spectacular example is the landscape at Boest in central Jutland, where multiple hoards were deposited in LN II and period IA, and where a palisade and a burial mound were constructed (Rassmann et al. 2015). The palisade, which dates to period IA, consists of five rows of wooden posts, and points in one direction towards a boggy area, and in the other towards a hill on which a burial mound used to be located that is no longer visible today (Rassmann et al. 2015:37-39, see Figure 10.1). Two or three hoards were deposited inside the palisade: the famous hoard consisting of five exceptionally large axes dating to period IA, which was deposited in a pit lined with grass next to one of the posts; a hoard consisting of gold rings and flint objects, which has an uncertain dating; and possibly a third hoard containing two axes (Rassmann et al. 2015). Furthermore, another period IA hoard consisting of axes and spearheads was deposited in a dry context ca. 100 m north-east of the location of the palisade (Rassmann et al. 2015, Vandkilde 1996 no. 894), and an earlier hoard containing gold *Noppenringe* was deposited in a boggy context ca. 1 km north of the location of the palisade in LN II (Vandkilde 1996 no. 608). There are additional burial mounds in the vicinity of the site (Fund og Fortidsminder). These hoards and the landscape at Boest are discussed in detail in Chapter 5.

The landscape around Boest provides a fascinating glimpse of the depositional events that took place at the site. Imagine the rows of posts, stretching through the landscape for metres and metres, thereby creating an avenue, a *route*, with burial mounds in the

Figure 10.1. Excavation of the palisade at Boest in June 2016, carried out by Museum Midtjylland with assistance of the Economies of Destruction team. Photo: Marieke Visser.

background, and people moving along this route and depositing five exceptionally large axes in a carefully dug, grass-lined pit inside the palisade, perhaps knowing about other depositional events that had taken place in that same landscape. But moreover, this example also demonstrates that people did not always choose *unmarked, natural* places for depositions. Quite the contrary: instead of depositing metal objects in for example a bog, people chose to deposit metalwork in a landscape with burial mounds, inside a very visible row of posts that must have clearly marked the location. While a bog is a rather ambiguous place – as discussed above, it entails a great deal of landscape variation in itself – a man-made palisade stretching through the landscape is a very *concrete* place (cf. Fontijn 2019:140-142). And Boest is not the only example of metalwork depositions in such a place. There are other examples of hoards which were deposited along routes through the landscape, such as the later Bronze Age hoards which were deposited along the route to or from the Bourtanger Moor in the north-eastern part of the Netherlands (Fontijn 2019:142). And in the time period under investigation, there are several examples of hoards that were deposited in association with man-made structures, as discussed in the previous chapters. This phenomenon and what it entails is discussed in more detail in the following sections.

Lastly, before moving on to examine the conventions behind the selection of landscape settings, it is necessary to point out once more that this research does not focus on such categorisations and subsequent interpretations as wet-ritual and dry-profane, as was already discussed in Chapter 1. Instead, the focus lies on the patterns in the data, which reflect hundreds, or even thousands of human actions behind which there was not

necessarily one single, specific motive. Instead, there were clearly widely shared ideas behind this practice, as demonstrated by finds from a vast area. There were widely shared ideas on what was considered the right place and the right object for depositions, *i.e.* how objects were *supposed* to be treated, and these ideas are what this research focuses on. This chapter specifically focuses on what was deemed 'the right place'.

The next sections first take a brief look at the conventions behind the selection of landscape settings for hoards and single finds and how they developed over time. After this brief overview, I focus on two main themes: firstly, on the differences between hoards and single object deposits, and secondly, specifically on depositions of hoards in the four sub periods and what they signify, starting with LN II.

10.1 The selection of landscape settings: an overview

We will start by examining the selection of landscape settings for hoards and single finds in the four sub periods from a bird's-eye view. This selection is shown in Figure 10.2. When we take a closer look at this graph, a number of patterns and developments stand out. Overall, the majority of the objects recorded in the database come from wet landscape settings: when we only consider the categories 'wet', 'dry', and 'dry/structural association', 74.4% of the datable metal objects come in fact from wet contexts. It is clear that people systematically preferred wetland settings when they deposited metalwork. However, when we examine the four individual sub periods individually, this is not the case for all of them. In LN I, metalwork was relatively often deposited in dry contexts, whereas in period IB, the vast majority of depositions, both hoards and single object deposits, come from wet contexts (see Figure 10.2). When we examine depositions from a long-term perspective, a trend towards a focus on wetland depositions can thus be observed. Nevertheless, this is not a continuous development from LN I onwards, and there are differences between hoards and single finds in terms of the selection of landscape settings in the various sub periods. These are examined more closely.

Starting with LN I, hoards were relatively often deposited in dry contexts in association with man-made structures. These are predominantly burial mounds. Compared to the later periods, single objects were also relatively frequently deposited near man-made structures, but more often in wet contexts than hoards.

In LN II, this pattern changes. In this period, people deposited the vast majority of metal objects in wetland contexts, and this applies both to hoards and single object deposits, although a small number of hoards was *not* deposited in wetland settings. These are discussed in more detail below. But of the single finds with known find context, 100% in fact come from wet landscape contexts! This number is heavily influenced by axes, which were predominantly deposited singly in wet landscape contexts, as discussed in Chapter 8. The preference for wetland settings was very strong in this period.

However, in the subsequent period IA, the situation is somewhat similar to LN I again. The preference for wetland settings is not as strong as in LN II. Hoards were remarkably often deposited in dry contexts with a structural association, while single finds were more often deposited in wetland settings. This is, again, influenced by axes, which were mostly deposited singly in wet contexts, as discussed in Chapters 5 and 8.

Lastly, in period IB, both hoards and single object deposits were predominantly deposited in wetland settings. Depositions near man-made structures are rare in this period.

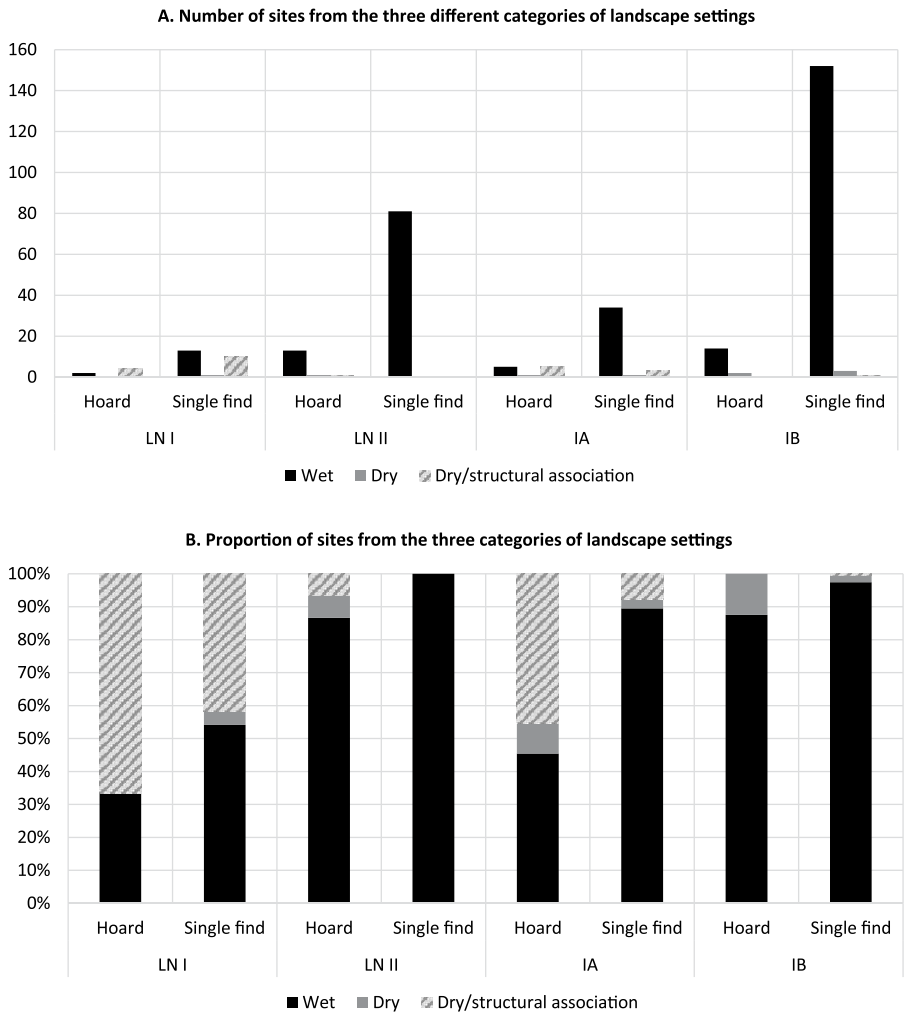


Figure 10.2. The selection of landscape settings for hoards and single finds in the four sub periods. Finds from the context categories 'unknown' and 'wet/dry' are not included. A. the number of sites from the three different categories of landscape settings. B. the proportion of sites from the three different categories of landscape settings.

The patterns in Figure 10.2 clearly show that people made different choices when they selected landscape settings for depositions of hoards and single objects. Particularly in LN I and period IA, hoards were deposited in different types of landscape settings than single object deposits: they were relatively often deposited near man-made structures. This striking association is discussed in more detail in the next sections. These patterns once again show that burials and hoards are different types of depositional events that should be seen as separate actions. Single finds and hoards are thus not simply the same type of action, merely different in terms of the number of objects that people deposited. Quite the opposite, as demonstrated by Figure 10.2 and Figure 8.5. Both hoards and single finds are thus equally important elements in the practice of selective metalwork deposition.

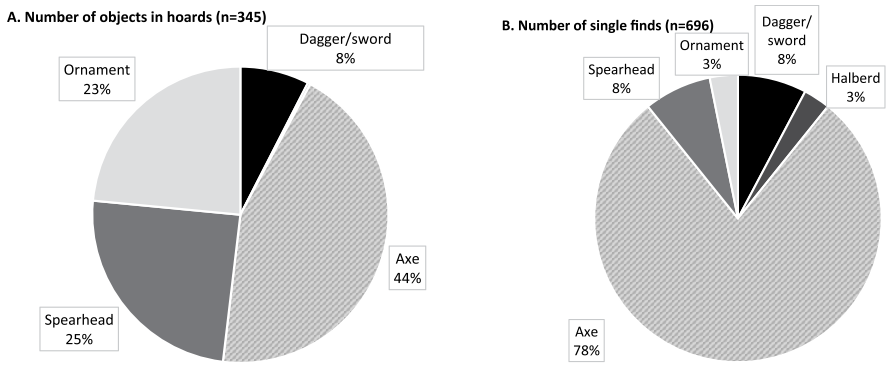


Figure 10.3. The proportion of the different object categories in hoards (A) and single finds (B) in the entire investigated time period.

After this brief overview of the selection of landscape settings for depositions over time, I now focus on the differences between hoards and single object deposits.

10.2 Hoards vs. single object deposits

Hoards and single object deposits, which both belong to the category of 'non-burial-gifts', were thus different types of depositional events. This suggests that these two types of events had a different significance or meaning. Therefore, these two types of depositional events need to be examined in more detail, and this is the focus of this section. The ratio between hoards and single finds fluctuates in the four sub periods (see Figure 10.2).

As shown in Figure 10.2, single object deposits are by far the most common type of depositional event in all four sub periods. The general practice throughout the 850 years investigated in this research was clearly to deposit metal objects singly in specific places in the landscape. Depositing a hoard was therefore by definition a special, unusual event: people deliberately chose to deviate from the general practice of single object deposits when they deposited hoards. Figure 10.3 shows which objects people chose for depositions of hoards and single objects. The selection of objects for depositions is discussed in detail in Chapter 8. Here, it suffices to observe that axes constitute the majority (78%) of all single finds over time, while the hoard category presents a more varied object distribution. It is clear that people selected different objects for depositions of hoards and single objects. Overall, the majority of the single object deposits took place in wet landscape settings, as shown earlier in this chapter (see Figure 10.2). In contrast, hoards were deposited in different types of landscape contexts, especially in LN I and period IA, when they were relatively often deposited in dry contexts near man-made structures.

To sum up the differences between hoards and single object deposits: the vast majority of the metal objects were deposited singly in unmarked, natural, watery places, and this particularly applies to axes. In contrast, hoards were only occasionally deposited, people chose different types of objects for these depositional events (see also Chapter 8), and they also selected different landscape settings, including landscapes with man-made structures.

The general practice in the time periods under study was thus to deposit an axe singly in a wet landscape context (see Figure 10.4). Throughout the research area, people carried out this particular type of depositional act numerous times. These singly deposited axes

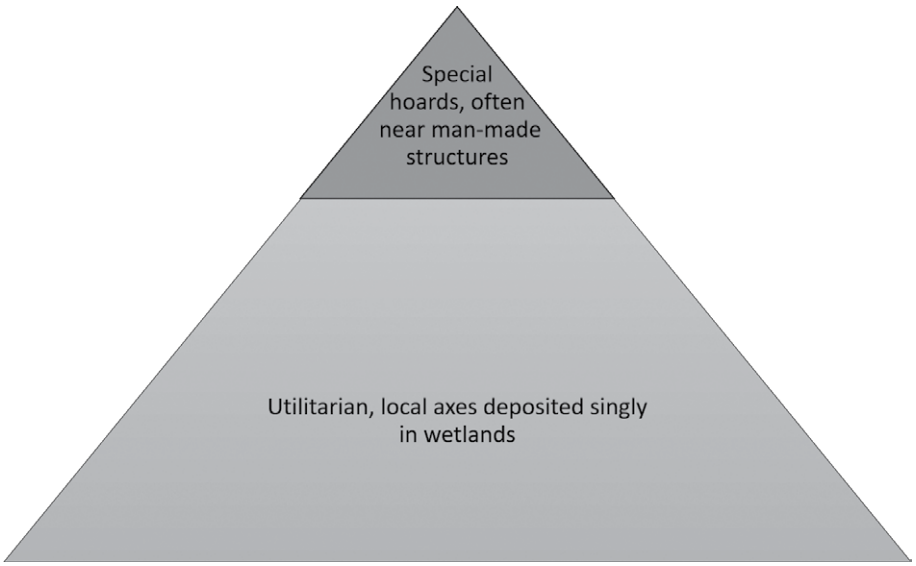


Figure 10.4. Visualisation of depositional events in the category 'non-burial-gifts' in LN II and period IA. Depositions of single axes in wetlands constitute the vast majority. Hoards were only occasionally deposited, so these must have constituted special depositional events.

were mostly utilitarian axes, tools that people used in their day-to-day activities, and they usually had a local shape, as shown in Chapter 8. This was thus the general cultural biography (Kopytoff 1986) of an axe: it was made in the local style, used as a tool in people's daily activities, and deposited singly in a wetland (see also Chapter 8). However, occasionally, people chose to deviate from this established practice. In a small number of special events, people chose to deposit multiple objects together in a hoard, objects that often had a foreign shape, as discussed in the previous chapters (see Figure 10.4). These rare depositional events must have stood out, and must have been memorable occasions. Therefore, the next sections focus on depositions of hoards, and explore what they signify. The following section starts in LN II, after which the subsequent sub periods are addressed.

10.3 Hoards in LN II: international contacts and the community

The majority of the hoards from Late Neolithic II (LN II) can be seen as multiplications of single axe depositions in wetlands: they mainly consist of multiple axes, and they were frequently deposited in wetland contexts. These hoards thus essentially follow the same conventions as the single object deposits from this period, except in multiplication (see Chapter 4 for a more detailed discussion). Examples of such 'conventional' hoards are the Danish Hjadstrup and Værslev hoards (Vandkilde 1996, no. 136 and no. 201): both contain two local axes, and both come from wet landscape contexts.

But alongside these hoards, there is a small group of unconventional hoards that do not follow these conventions. They contain remarkable object combinations, as is discussed in detail in Chapters 4 and 8. These hoards – including the Danish Skeldal, Gallemose, and Vigerslev hoards, the Dutch Wageningen hoard, and the south Swedish Pile hoard –

contain combinations of metal objects that were otherwise never combined, combining local shapes with foreign shapes from various regions, including the Únětice region and the Anglo-Irish region. The term "*Mappa Mundi* hoards" was introduced for these hoards in Chapter 4, using Fontijn's term (Fontijn 2019:37): they appear to represent a "map of the world" as it was known to people in the local communities we are studying. They also serve as 'connector hoards', connecting otherwise separated object categories – axes, halberds, and daggers – as is visualised using network analysis in Chapter 4. Furthermore, these hoards embody the exchange networks existing at the time, supplying the region with metal, as well as the various stages in the metalworking process (cf. Vandkilde 2017:143, see Chapter 8). As discussed in Chapters 4 and 9, these hoards are truly 'connective' and 'international' in character: people showed that they were part of supra-regional, 'international' networks by depositing these hoards in this particular way.

Focusing on their landscape settings, these hoards were *not* deposited in unmarked, watery, natural places, like the majority of the deposited objects in this period. Quite the opposite: these hoards were deposited near man-made structures such as burial mounds and/or settlements, in close association with human activity. One of them, the south Swedish Pile hoard, was deposited in a central location where metal supplies are thought to have arrived and metalworking activities were carried out (Vandkilde 2017:157). Since they are so unconventional, and people deliberately chose to deviate from the general practice of wetland depositions of single axes, depositing such a hoard must have been a memorable event. Because of the high visibility at the location of the Pile hoard, it has been argued that its deposition may in fact have been a *public* event (Vandkilde 2017:165). The same might perhaps apply to some of the other unconventional hoards (see Chapter 4). In a similar vein, Bradley has suggested that river depositions may have been public events (Bradley 1990:138).

Needham argues that such depositional events were probably known to and meant for the whole community, and therefore he uses the term "community deposits" (Needham 1988:246), as discussed in Chapter 4. People deliberately did *not* deposit these hoards in ambiguous natural places like bogs, far removed from human activity, but in the midst of the world they lived in, in very concrete, clearly man-made settings (cf. Fontijn 2019:135-150). These depositional events were special, memorable public events, meant to leave an impression on the audience (see also Chapter 9 for a discussion on the impression that burials were meant to make on the audience). The *communal* aspect of these hoards is indeed striking.

Summing up, these unconventional LN II hoards embody the supra-regional networks that the local communities we are studying were taking part in, and they were deposited in landscapes on which people had clearly left their mark, in the midst of the familiar world that people lived in. These depositional events were probably public events, and probably known to a wider group than the local community. These hoards appear to connect regions, communities, practices, and people (see also Chapter 4).

10.4 Hoards in period IA: regional practices and the community

Moving on to period IA of the Nordic Bronze Age, some hoards were deposited in wetland settings in this period, following the general conventions behind depositions. But again, a group of hoards stand out because people chose to deposit them in very different types of contexts: they were deposited in dry contexts in association with man-made features (see Figure 10.2). This is in particular a Danish pattern, but a few cases are also known from

northern Germany. The contexts of these hoards are discussed in more detail. As already discussed in Chapters 5 and 7, there was a gap in metalwork deposition in the Netherlands in this period, so this part of the research area is not included in this discussion.

Two or three hoards were deposited inside or near the palisade at Boest in central Jutland in period IA, as discussed in this chapter's introduction (Rassmann et al. 2015, and see Chapter 5). Burial mounds and additional LN II and period IA hoards are also located in the vicinity of the palisade. Furthermore, two hoards, Tinsdahl (northern Germany) and Torsted (Jutland), were both deposited in a container inside a man-made stone structure in a landscape with Neolithic and Bronze Age burial mounds and flat graves (Tinsdahl: Schindler 1960:221-225, Torsted: Becker 1964:115-117). These stone structures are themselves remarkably similar to burials (cf. Melheim & Horn 2014:10). Lastly, a hoard in northern Germany is thought to have been deposited inside a burial mound (Klein-Wesenberg, Hachmann 1957 no. 194). In short, these hoards were again thus *not* deposited in unmarked, natural places, far removed from human activity. Instead, people chose to deposit them in close association with man-made features, or even in burial-like settings. Again, there is a striking *communal* aspect to these hoards, which reminds us of the LN II hoards discussed above.

The landscape at Boest (see Figure 10.1) provides a fascinating insight in the practice of selective metalwork deposition, and it is – to my knowledge – a unique context (cf. Rassmann et al. 2015). The palisade consisting of multiple rows of wooden posts, the burial mounds, the Bronze Age hoards, and the Late Neolithic hoards that had already been deposited in the wider area earlier make it a landscape of special significance. Furthermore, the area around Boest was a central location where various transport and communication routes intersected in prehistory (Rassmann et al. 2015:28). This reminds us of the central locations of the LN II hoards discussed above. As discussed above, the palisade itself constitutes a route that stretches through the landscape. The exact meaning and function of the palisade and its connection with the surrounding structures at Boest are as yet unclear (Rasmann et al. 2015). Parallels of similar palisades are known from Sweden, the Netherlands and northern Germany, but so far, no other palisade has yielded depositions of metalwork (Rassmann et al. 2015:37-39). A similar palisade from period II in Hüsby (northern Germany), directed towards a burial mound, has been interpreted in broad terms as a cultic monument (Freudenberg 2012: 631, 634). The public, widely visible and impressive setting of these depositional events is striking.

Turning to the contents of period IA hoards, these were clearly local in character. This is also addressed in the previous chapters. In Denmark, period IA hoards contain 'normal' object categories; particularly local, utilitarian axes and spearheads. In this respect, they are different from the LN II hoards discussed above, which contain exotic and foreign shapes. These might be the first signs of the emergence of the Nordic Bronze Age, which had its true breakthrough in period IB (Vandkilde 2014ab, see also Chapter 9). But these 'normal' objects occur in exaggerated, repeated numbers, like in the Torsted hoard, which contains seven axes and 40 spearheads, or in exaggerated sizes, like in the hoard with five aggrandised axes deposited at Boest. Such Überausstattungen ('over-equipments') in Hansen's terms (2001) are *not* found in burials in this region and period (cf. Hansen 2001:160). Furthermore, spearheads were almost exclusively deposited in hoards in period IA, always in multiples, and never in burials (see Chapter 5 and Figure 8.1). So in terms of their contents, these hoards clearly belong to the 'non-burial-gifts' category of depositions.

The repetition of spearheads in the Torsted hoard has been interpreted as representing a group of warriors (Melheim & Horn 2014:17). Spearheads themselves thus appear to be associated with the *group*. Again, these hoards have a *communal* aspect.

In northern Germany, however, spearheads are rare in hoards. Instead, hoards in this region often include ornaments and *Ösenringe* from the Únětice region, as discussed in Chapter 5. Hoards were thus primarily deposited following Únětice practices in this region. In addition, axes which are thought to have local shapes also occur in these hoards. While the Danish hoards thus emphasise local practices and elements, the north German hoards instead combine Únětice and local elements.

Summing up, in contrast to the LN II hoards discussed in the previous section, which embody ideas of 'internationality', the Danish hoards thus emphasise local practices: they contain repetitions of common objects made in the local style. These series of objects might be associated with a group of people, particularly in the case of multiple spearhead depositions. These hoards were deposited in close association with man-made structures, in some cases in central locations in the landscape. There is a distinct *communal* aspect to these hoards.

10.5 Hoards in period IB: shared ideas and regional interpretations

Lastly, in period IB of the Nordic Bronze Age, a remarkably small number of hoards was deposited, considering the enormous amount of metalwork that was deposited in this period (see Figure 10.2). Single object deposits were still the most common type of depositional event, but metalwork became abundant in burials now, as discussed in Chapter 9. In contrast, hoards with metalwork were scarce. The few hoards that *were* deposited in this period therefore perhaps stood out even more as depositional events.

Hoards were almost exclusively deposited in wetland settings, which applies to metalwork depositions on the whole in this period. People thus chose not to deposit hoards in different types of landscape settings than single objects, like they did in previous periods. Irrespective of how many objects people deposited, they clearly preferred to deposit them in wet landscape contexts.

Turning to the contents of period IB hoards, the most common elements are axes, spearheads, and swords, as discussed in Chapter 6. These objects are predominantly made in the local style, and are thought to have been utilitarian (see Chapter 6). They were mostly deposited in one-type hoards, which consist of either multiple axes, spearheads, or swords. But in a small number of hoards, people chose to combine these three object categories together. The contents of these mixed hoards, including the Danish Valsømagle I and II hoards, the German Oldersbek hoard, and the Dutch Overloon hoard, are remarkably similar (see Figure 6.13), despite the fact that they are widely dispersed across the research area, as shown in Chapter 6. They all combine axes, spearheads, and swords, although in varying numbers and of varying shapes and types, and remarkably, all of them contain two spearheads, one of which is decorated and one undecorated. In addition, the Valsømagle I hoard contains a fish hook, and the Overloon hoard a dress pin. These hoards are thus quite restricted in terms of their contents, in contrast to contemporary burials, in which a great deal of variation can be observed, as discussed in Chapter 9. Apparently, there was a supra-regionally shared idea that this was 'the right way' to deposit the bronze weapons that existed at the time.

But although these hoards appear to reflect a shared idea, this idea was in fact expressed in regional material terms. The two Valsømagle hoards belong to the Valsømagle regional group in eastern Denmark, which has its own characteristic material culture, including metal-hilted Valsømagle swords, Valsømagle shaft hole axes and Valsømagle spearheads, which occur in these two hoards (Vandkilde 1996 nos. 511, 676). The Oldersbek and Overloon hoards belong to the Sögel-Wohlde regional group in south-western Jutland and northern Germany, which also has its own characteristic material culture, including organic-hilted Sögel-Wohlde swords/daggers, nick-flanged axes, and Bagterp spearheads, which occur in these hoards (Vandkilde 1996:121, 230, Butler 1990:74-76). But when we zoom out, these hoards are clearly of the same structure. So an overarching, shared idea was expressed in regional, material terms in these hoards. These hoards thus appear to express both 'international' and 'regional' ideas; they appear to 'operate' on two levels. The overarching idea was internationally shared: the combination sword-axe-spearhead, deposited in a hoard. But the interpretation was regional: people used their 'own' local swords, axes, and spearheads to deposit in these hoards.

Summing up, depositions of multiple objects at the same time were remarkably rare in period IB. Instead, the focus shifted to burials. Hoards were deposited in wetland settings, just like single object depositions; in terms of the selection of landscape settings, nothing thus sets them apart from single object deposits in period IB, which was the case in LN II and period IA. They are remarkably similar across regions, reflecting widely shared ideas on how metalwork was supposed to be deposited at the time. However, people interpreted these shared ideas in regional material terms: they used objects in the regional style – *i.e.* either Valsømagle or Sögel-Wohlde objects – in these hoards. These hoards thus reflect and emphasise international ideas as well as local practices.

10.6 Conclusion

After examining 'deposits', or depositions of 'non-burial-gifts', in the investigated time period, it has become clear that people systematically selected specific metal objects to give to the landscape, instead of burying them with a dead individual. These objects were removed from society and from the association with one particular individual by depositing them in carefully selected landscape settings. Wet landscape settings overall play a vital role in the practice of selective metalwork deposition, a predominance that grew even stronger in period IB. The general practice was to deposit objects singly in wet landscape settings. This particularly applies to axes throughout the investigated time period. Depositing a single metal axe – an axe with a local shape, that had been used in everyday activities, as discussed in Chapter 8 – in a wet landscape setting was thus a common, conventional, 'normal' event that regularly took place.

But in a number of rare, special depositional events, people chose to deposit assemblages of objects together in hoards rather than singly. These special depositional events do not just deviate from the general practice in terms of the number of objects that were deposited. The selection of objects and landscape settings also deviated. In LN II and period IA, people selected different landscape settings for these special depositional events than for single object deposits: they deposited these hoards in association with man-made structures, in clearly marked places, rather than in unmarked, natural, ambiguous places like bogs. These hoards had a clear *communal* aspect, being tied to the community both in terms of their contents and their contexts. These depositions may have

been public events, taking place for the benefit of the community (cf. Needham 1988:246). These hoards either emphasised the supra-regional networks that the local communities were involved in (LN II) or the local communities themselves (in Denmark in period IA). Through these hoards, the communities we are studying expressed their views of their place in the world; in other words, these hoards reflect what the communities we are studying wanted to emphasise in terms of the world they lived in. In period IB, these two spheres come together: in this period, hoards are of a supra-regionally shared composition, reflecting shared ideas, but people chose to express these ideas in regional material terms, demonstrating that they belonged to the local community.

Nevertheless, the hoards in these three periods have in common that they were special, memorable events, intended to leave an impression on the audience. Through these depositional events, in which the landscape played a vital role, these communities expressed their views of the world they lived in and their place in it. These hoards are indeed *communal* in character: they were *community deposits* (cf. Needham 1988:246), in contrast to 'normal', regular depositions of single, local axes. Once again, it is obvious that selective metalwork deposition was first and foremost a *social* practice.

Epilogue: a completely normal practice

This thesis started with a strange and puzzling find: a large number of bronze spearheads and axes deliberately deposited in a stone structure in what is now Torsted in Denmark, around 1700 BC. This find raised an important question: why did people bury such a large amount of valuable metal and never retrieve it? Thus, a problem was introduced that forms the heart of this thesis. This problem has been occupying archaeologists in Europe for over 150 years: what was the motivation behind the deliberate destruction of valuable metalwork, in a world where metal itself was scarce?

In the introduction, it was shown that the problem itself cannot be separated from modern ways of thinking. According to our modern ideas of value and economy, non-economic behaviour is often seen as odd or irrational. Therefore, such behaviour is often explained as 'ritual'. But this approach does not help us to understand Bronze Age people's ideas and motives. Instead, we should accept that for some reason or other, it apparently was important to Bronze Age people to place metalwork in specific places in the landscape. Following the general set-up of the broader 'Economies of Destruction' project this research was part of, it was suggested that one way to acquire an understanding of this practice was by focusing on the practice of deposition *itself*. How was it carried out, which decisions did people make, which objects and locations did they select? What did people actually *do* when they deposited metalwork?

This thesis systematically examined the long-term history of the practice of selective metalwork deposition for three regions that have so far been studied in isolation of each other, but which share similarities in terms of the archaeological record: Denmark, north-west Germany, and the northern part of the Netherlands. It showed how metal became incorporated in deposition practices in the Neolithic, while it was an extremely scarce material at this early stage. Subsequently, metal disappeared from the repertoire for almost one thousand years, to be re-introduced in the Late Neolithic. After its re-introduction, it rapidly came to dominate the practice of selective deposition. Using network science, it could be shown how different types of metal objects were deposited in different ways over time. There was an important difference between the communal sphere of hoarding in the landscape, and the more personal sphere of burials of individuals.

Although there were sometimes widely shared conventions in depositions, such as the exclusion of bronze axes from burials, there were also regional differences between different parts of the research area. Time and again, however, it became clear that for every period and region there were always strict conventions that people

followed when they deposited metalwork. These are seen as reflecting deeper cultural and social meanings attached to these objects, some of which have been explored in Part III of this thesis.

Studying the evidence of more than 1800 objects dating to a period of 850 years, one thing has become clear: there was a shared, systematic logic behind this destructive practice. This implies that these human actions should definitely not be seen as odd, irrational rituals, part of some separate religious domain. On the contrary: these human actions were socially and ideologically relevant. The staggering time span during which people systematically deposited metalwork – starting long before the time period under study, and continuing long after it – demonstrates the significance of these human actions. For thousands of years, depositing metal objects in specific places in the landscape was a completely normal thing to do. Indeed, metalwork deposition was 'a completely normal practice'.

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Nederlandse samenvatting (Dutch summary)

Een geheel normale praktijk. Het ontstaan van selectieve metaaldepositie in Denemarken, noordwest-Duitsland en Nederland tussen 2350-1500 v.Chr.

In de Bronstijd werden in Europa op grote schaal bronzen voorwerpen zoals bijlen, zwaarden en sieraden achtergelaten in het landschap. Ze werden begraven in de grond of gedeponeerd in moerassen, soms alleen en soms met meerdere voorwerpen tegelijk, en nooit meer opgehaald. Deze objecten zijn niet per ongeluk verloren, maar bewust uitgekozen om achtergelaten te worden op specifieke plaatsen in het landschap. Om deze reden spreekt men van de praktijk van selectieve metaaldepositie. Ook in gebieden zonder tin- en kopererts, waar al het metaal over grote afstanden aangevoerd moest worden en dus 'uitheems' en kostbaar was, deed men afstand van dergelijke waardevolle voorwerpen; in Zuid-Scandinavië, en met name Denemarken, zelfs op ongeëvenaarde schaal.

Om de motieven achter deze – vanuit modern perspectief – raadselachtige handelingen te verklaren wordt al sinds de 19e eeuw gepoogd om op basis van specifieke criteria, zoals de eigenschappen van de gedeponeerde voorwerpen en hun landschappelijke context, deposities te classificeren en interpreteren. Vaak wordt daarbij onderscheid gemaakt tussen rituele en profane deposities, een problematische tweedeling die in de eerste plaats een modern concept is en daarom niet zonder meer toegepast kan worden op menselijke handelingen uit de prehistorie. Bovendien bestaan in verschillende regio's in Europa als gevolg van diverse politieke en historische ontwikkelingen (deze worden beschreven in Hoofdstuk 1) regionale onderzoekstradities waarin deposities op verschillende manieren geïnterpreteerd worden, terwijl de vondsten zelf vergelijkbaar zijn. Dit is bijvoorbeeld het geval in Denemarken, Noordwest-Duitsland en Nederland.

Om een beter begrip te krijgen van deze menselijke handelingen uit de Bronstijd maakt dit onderzoek geen gebruik van dergelijke conventionele interpretatiemodellen of studies binnen landsgrenzen. In plaats daarvan focust dit onderzoek in de eerste plaats op de handelingen zelf: de keuzes die mensen maakten en de conventies die bestonden. Aangezien deze handelingen in heel Europa plaatsvonden moet er een onderliggende logica zijn geweest die breed werd gedeeld. Door deze keuzes en conventies systematisch te reconstrueren wordt deze logica ontrafeld. Voor dit doel is een uitgebreide database

gebouwd met gedetailleerde informatie over koperen, bronzen en gouden voorwerpen uit het onderzoeksgebied, bestaande uit Denemarken, Noordwest-Duitsland en het noordelijk deel van Nederland (de precieze methodiek wordt uitgelegd in Hoofdstuk 2). Teneinde het ontstaan en de vroegste ontwikkeling van deze depositiepraktijken uit de Bronstijd te onderzoeken focust dit onderzoek specifiek op de vroegste periode van selectieve metaaldepositie in het onderzoeksgebied, ca. 2350-1500 v.Chr.

In vier 'datahoofdstukken' (Deel II, Hoofdstuk 3-6), die elk een subperiode beslaan, worden de patronen in de data systematisch en in detail onderzocht en beschreven, aangevuld door verspreidingskaarten van de vondsten en tabellen waarin de patronen in de data weergegeven worden. Op deze manier wordt het ontstaan en de ontwikkeling van selectieve metaaldepositie in de onderzoeksperiode gereconstrueerd. Hoofdstuk 3 neemt hierbij een speciale positie in: in dit hoofdstuk worden selectieve deposities vóór de onderzoeksperiode onderzocht, om het ontstaan en de betekenis van de praktijk beter te kunnen begrijpen. Vervolgens wordt in vier concluderende hoofdstukken (Deel III, Hoofdstuk 7-10) een aantal overkoepelende thema's en opvallende patronen uitgelicht en besproken vanuit een breder perspectief.

Hoofdstuk 7 beschouwt het ontstaan en de ontwikkeling van selectieve metaaldepositie in vogelvlucht. Gedurende duizenden jaren was het een volstrekt normale praktijk om waardevolle voorwerpen bewust te deponeren – men heeft dit veel langer wél gedaan dan dat het níet meer gebeurt. Al meer dan duizend jaar vóór het begin van de onderzoeksperiode, in de Trechterbekercultuur en de Enkelgrafcultuur, vond selectieve depositie van voorwerpen plaats; dit betrof tijdens de Trechterbekercultuur in delen van het onderzoeksgebied zelfs al koperen voorwerpen, zoals bijlen en sieraden. De patronen in deposities in deze twee vroege periodes worden op basis van literatuuronderzoek beschreven in Hoofdstuk 3. Desondanks stelt dit onderzoek vast dat selectieve metaaldepositie in de Bronstijd een geheel nieuwe praktijk was met andere, eigen conventies, die ontstond in de Klokbekerperiode. In de Klokbekerperiode werd metaal voor het eerst gedifferentieerd en gescheiden: koperen dolken werden geassocieerd met een persoon en voor het eerst als grafgift gebruikt, terwijl koperen bijlen nooit in het graf voorkwamen, maar juist in het landschap gedeponeerd werden. Deze ontwikkeling was geheel nieuw en van cruciaal belang voor selectieve metaaldepositie in de Bronstijd. Bovendien kreeg metaal in deze periode voor het eerst een concrete betekenis: koperen bijlen werden gebruikt als gereedschap. In de veel eerdere Trechterbekercultuur daarentegen werd koper slechts op abstracte wijze als exotisch materiaal gezien en op overeenkomstige wijze behandeld, op dezelfde manier als bijlen van jadeiet; metaal had geen eigen, concrete betekenis.

In de daaropvolgende periodes ontwikkelde de praktijk van selectieve metaaldepositie zich. In LN II nam de depositiefrequentie enorm toe en waren de conventies opvallend uniform: in het gehele onderzoeksgebied werden metalen voorwerpen voornamelijk individueel in natte landschapscontexten gedeponeerd. In periode IA is echter een diversificatie van de conventies waarneembaar: voor elke voorwerpcategorie (deze categorieën worden toegelicht in Hoofdstuk 2) bestonden aparte conventies, en er ontstonden verschillen tussen de conventies in verschillende regio's. In periode IB, tenslotte, kende de praktijk wederom een explosieve groei. Er bestond nu een niet eerder gekende diversiteit aan vormen en voorwerpen, en elke voorwerpcategorie werd op zijn eigen manier gedeponeerd; de diversificatie van de conventies nam verder

toe. Voor het eerst werd metaal overvloedig als grafgift gebruikt, en er is veel variatie zichtbaar in de keuze van grafgiften. Verder is een grote mate van regionaliteit zichtbaar, waarbij de Noordse Bronstijd (Nordic Bronze Age) met zijn zogeheten typische stijl en overvloedigheid niet direct herkenbaar is; met name de Valsømagle- en Sögel-Wohlde-regio's treden juist op de voorgrond, waarbij de laatste zich uitbreidt over een groot deel van het onderzoeksgebied.

Hoofdstuk 8 focust op de voorwerpen die men uitkoos voor deposities. Van cruciaal belang waren de culturele biografieën van deze voorwerpen en de biografische verwachtingen die men had (termen uit Kopytoff 1986). Er bestonden bepaalde breed gedeelde ideeën over hoe voorwerpen behandeld moesten worden; déze bewuste voorwerpen moesten kennelijk 'eindigen' door gedeponeerd te worden op bepaalde plekken in het landschap. Een aantal elementen in de 'levens' van deze voorwerpen spelen een belangrijke rol hierbij. Voorwerpen met een niet-lokale 'stijl' werden anders behandeld en gedeponeerd dan voorwerpen gemaakt in een lokale 'stijl'. Verder konden nieuw geïntroduceerde voorwerpen, zoals hellebaarden in Laatneolithicum II en bronzen speerpunten in periode IA, niet als grafgift gebruikt worden, maar werden in het landschap gedeponeerd; pas nadat enige tijd verstreken was konden ze meegegeven worden in graven. Ook het gebruik van voorwerpen beïnvloedde hoe zij werden gedeponeerd; dit is met name te herkennen bij bijlen in periode IB. Bijlen die werden gebruikt als gereedschap werden voornamelijk gedeponeerd in natte landschappelijke contexten, terwijl bijlen die een prestigefunctie hadden voornamelijk werden gebruikt als grafgiften. Kortom, men deponeerde metalen voorwerpen op een bij dat voorwerp 'passende' manier, en door de culturele biografieën van deze voorwerpen te bestuderen kan de logica achter deze keuzes en handelingen blootgelegd worden.

Hoofdstuk 9 behandelt graven met metalen voorwerpen. In plaats van te focussen op arme en rijke graven en tot welke rang de dode behoorde, onderzoekt dit hoofdstuk welk beeld van de dode men wilde scheppen en overbrengen door middel van speciaal uitgekozen metalen voorwerpen. In de Klokbekerperiode begroef men in het gehele gebied de doden op gestandaardiseerde wijze wat betreft houding en grafgiften, waardoor het beeld dat op die manier gecreëerd werd direct herkenbaar was voor de toeschouwers. Dit beeld representeerde het 'internationale' Klokbekernetwerk dat grote delen van Europa besloeg. In de daaropvolgende periode LN II gebruikte men echter meervoudige depots om uit te drukken dat men onderdeel was van supra-regionale netwerken; graven waren van ondergeschikt belang als het gaat om metaaldepositie. In periode IA nam het gebruik van metaal als grafgift toe. Periode IB heeft het merendeel van de metalen grafgiften uit de onderzoeksperiode opgeleverd; in deze periode werden veel meer doden begraven met brons en goud dan voorheen. In het gehele onderzoeksgebied bestond in periode IB het gedeelde idee om de doden te begraven met een zwaard, maar een standaardset aan grafgiften is daarentegen lastig te herkennen; in plaats daarvan koos men er juist voor om regionale identiteiten te benadrukken door zwaarden en andere voorwerpen met een lokale stijl en in lokale combinaties te gebruiken.

In Hoofdstuk 10 worden de plekken in het landschap die men selecteerde voor deposities onderzocht. Er wordt hierbij a priori uitgegaan van een tweedeling tussen voorwerpen in graven, die werden meegegeven aan de dode en daarmee een nauwe associatie met een individu hadden (deze worden behandeld in Hoofdstuk 9), en voorwerpen in landschappelijke contexten, die deze associatie niet hadden maar juist aan het landschap

gegeven werden. Binnen deze laatste groep kunnen twee categorieën onderscheiden worden: enkelvoudige en meervoudige depots. De meest voorkomende depositiehandeling was het deponeren van een lokale, gebruikte bijl in een natte landschapscontext. Maar in zeldzame, speciale gevallen koos men ervoor om meerdere voorwerpen tegelijk te deponeren, en men selecteerde hiervoor andere soorten voorwerpen en andere landschapscontexten dan voor enkelvoudige depots. Dit onderzoek beargumenteert dan ook dat deze twee vondstcategorieën twee verschillende depositiehandelingen vormen met hun eigen betekenis.

In periode Laatneolithicum II representeerden meervoudige depots de supra-regionale netwerken waarvan de lokale gemeenschap deel uitmaakte. Deze depots werden niet in natuurlijke, natte landschapscontexten gedeponeerd, zoals enkelvoudige depots, maar juist nabij door mensen gemaakte structuren, in nauwe associatie met menselijke activiteiten, en deze depositiehandelingen vormden mogelijk publieke gebeurtenissen. Deze 'internationale' depots hadden een verbindende functie: zij verbonden regio's, gemeenschappen, mensen en praktijken met elkaar. In periode IA is een andere ontwikkeling herkenbaar: in Denemarken werden meervoudige depots juist gebruikt om regionale kenmerken te benadrukken door middel van deposities van grote aantallen lokale voorwerpen. Deze hadden waarschijnlijk een groepsassociatie en werden gedeponeerd in nabijheid van door mensen gemaakte structuren en op centrale plaatsen in de omgeving, zoals in het fascinerende landschap rond Boest in Jutland. In periode IB werden opvallend weinig meervoudige depots achtergelaten in het landschap, en lag de focus juist op graven. Er bestonden in deze periode supra-regionaal gedeelde ideeën over meervoudige depots: in het gehele onderzoeksgebied bevatten deze hoofdzakelijk dezelfde elementen. Men gebruikte echter lokale voorwerpen om deze supra-regionale ideeën uit te drukken, en benadrukte op die manier dus de lokale gemeenschap.

Duizenden jaren lang was selectieve metaaldepositie een geheel vanzelfsprekende praktijk. Over grote afstanden deelde men dezelfde opvattingen over de juiste manier van handelen en de juiste behandeling van metalen voorwerpen. Selectieve metaaldepositie was een manier waarop de lokale gemeenschappen zich konden verhouden tot de wereld om zich heen en uitdrukking konden geven aan hun plaats daarin. Door middel van deze praktijk drukten zij uit dat ze onderdeel waren van bredere, supra-regionale netwerken, of benadrukten ze juist de eigen, regionale identiteit. Bovenal was het een sociale praktijk, uitgevoerd door en voor mensen.

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A COMPLETELY NORMAL PRACTICE

In Bronze Age Europe, an enormous amount of metalwork was buried in the ground and never retrieved. Patterns in the archaeological finds show that this was a deliberate practice: people systematically deposited valuable metal objects in specific places in the landscape, even in non-metalliferous regions. Although this practice seems strange and puzzling from our modern perspective, these patterns demonstrate that it was not simply a matter of irrational human behaviour. Instead, there were supra-regionally shared ideas and conventions behind this practice.

This book aims to acquire a better understanding of these ideas and conventions. By systematically investigating the objects and places that people selected for metalwork depositions, the logic behind the practice of selective metalwork deposition is unravelled. This research focuses specifically on the emergence of the practice in Denmark, northern Germany, and the Netherlands, a region without sources of copper and tin that has not been studied as a whole before, despite striking similarities in the archaeological record. Starting from the first introduction of metal to the research area, the emergence and development of selective metalwork depositions is examined and followed over time.

For thousands of years, deliberately depositing metal objects in the landscape was a completely normal thing to do. We are now beginning to catch a glimpse of the logic behind this human behaviour. This research does not only add a new chronological and geographical depth to the field of metalwork depositions, but it also provides a detailed catalogue of the metalwork from the research area.

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