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## **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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## 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,

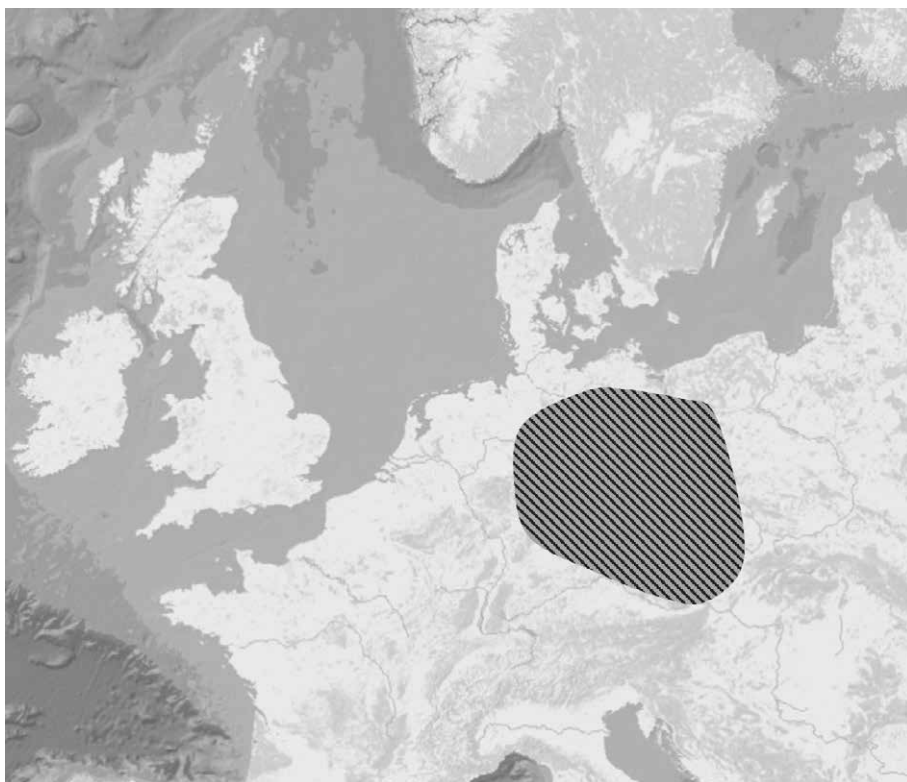


Figure 4.1. The Únětice region (based on Sherratt 2001:246).

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.

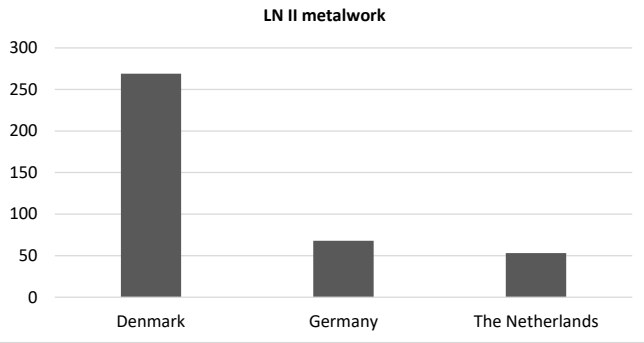


Figure 4.2. The total number of metal objects in the database dating to LN II.

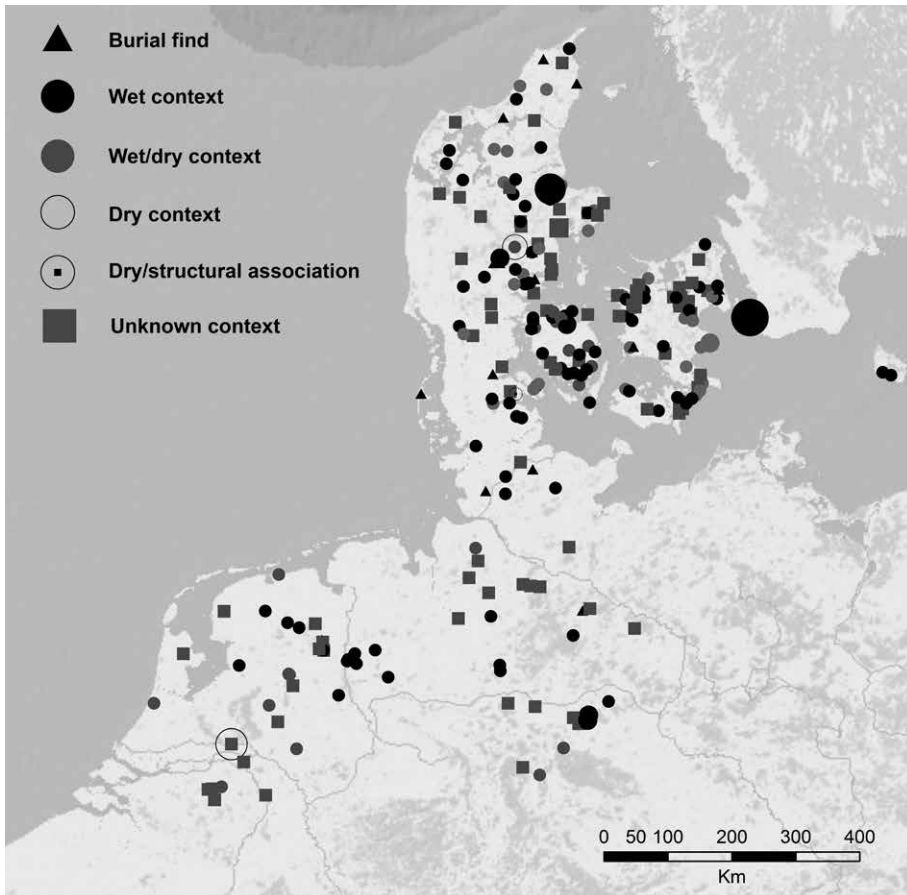


Figure 4.3. The geographical distribution of LN II metalwork in the research area, including the Pile hoard in southern Sweden. The size of the symbols indicates the number of objects found (largest symbol: 30 objects).

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*<sup>7</sup> 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

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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).

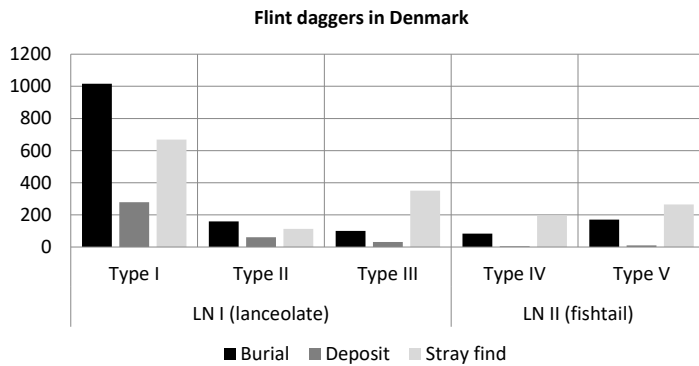


Figure 4.4. The famous fishtail flint dagger (type IV) from Hindsgavl (30 cm). Photo: National Museum of Denmark, Arnold Mikkelsen, used under licence CC-BY-SA, <http://samlinger.natmus.dk/DO/asset/9586>.

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 Bargerroosterveld 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 Værsløv 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 Bargerroosterveld 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 Bargerosterveld 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
<b>Context</b>	3	-	5	1	9
<b>Burial find</b>	-	-	-	-	-
<b>Single find</b>	2	-	1	1	4
Wet	2	-	-	1	3
Settlement	-	-	-	-	-
At/in burial mound	-	-	-	-	-
Gravel/sand	-	-	1	-	1
Field	-	-	-	-	-
Unknown	-	-	-	-	-
<b>Hoard</b>	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	-	-	-	-	-
<b>Unknown</b>	-	-	1	-	1
<b>Details</b>					
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 Bargerosterveld 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

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

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

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 to a 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, Gallelose, 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
<b>Context</b>	<b>32 (8 gold)</b>	<b>12</b>	<b>-</b>	<b>5</b>	<b>49</b>
<b>Burial find</b>	6 (2 gold) ornaments 3 burials	1 ornament 1 burial		1	<b>7 ornaments 4 burials</b>
<b>Single find</b>	3 (1 gold)	-		-	<b>3</b>
Wet Settlement	1				<b>1</b>
At/in burial mound	-				-
Gravel/sand	-				-
Field	2 (1 gold)				<b>2</b>
Unknown	-				-
<b>Hoard</b>	21 ornaments (5 gold) 4 hoards	11 ornaments 2 hoards		4 ornaments 1 hoard	<b>36 7 hoards</b>
Wet Settlement	14 (3 gold)	-		-	<b>14</b>
Close to/below stone	-	-		-	-
Gravel/sand	7 (3 gold)	-		-	<b>7</b>
Field	-	-		-	-
Heath	-	-		4	<b>4</b>
Unknown	-	11		-	<b>11</b>
<b>Unknown</b>	2	-		-	<b>2</b>
<b>Details</b>					
Decorated	6	-		-	<b>6</b>
Undecorated	26	12		5	<b>43</b>
No information	-	-		-	-
<b>Import</b>	32	10		1	<b>43</b>
Local	-	-		-	-
Import or local	-	-		-	-
Origin unknown	-	2		4	<b>6</b>
Used	-	-		-	-
Possibly	-	-		-	-
Unused	2	-		-	<b>2</b>
Use unknown	30	12		5	<b>47</b>

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

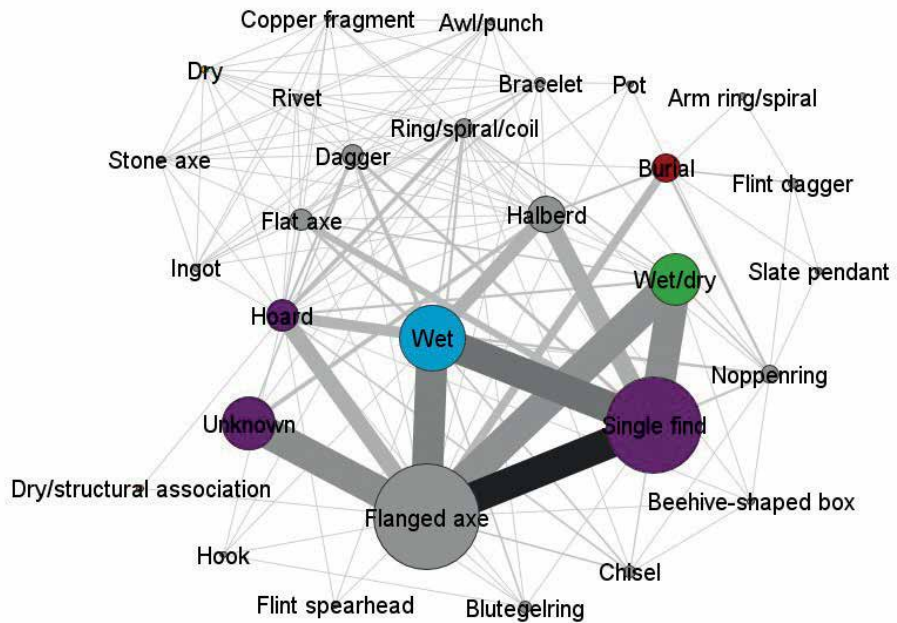


Figure 4.10. Network visualising the patterns in selective deposition in LN II. The size of the nodes indicates the number of objects (value largest node: 243). The colour of the nodes clarifies the type of variable (grey: object category, purple: site type, red: burial, blue: wet landscape context, 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 Gallelose, 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 Gallelose hoard*

Moving on to the Danish Gallelose hoard, this hoard was regarded as a parallel to the Pile hoard already very early on (Forssander 1936:174, see Figure 4.12). Gallelose 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 Gallelose 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 Gallelose 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 Gallelose hoard thus combines Únětice ornaments with local axes and an Anglo-Irish axe. And just like the Pile hoard, the Gallelose 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 Værsløv 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 Gallelose) 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 Gallelose 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

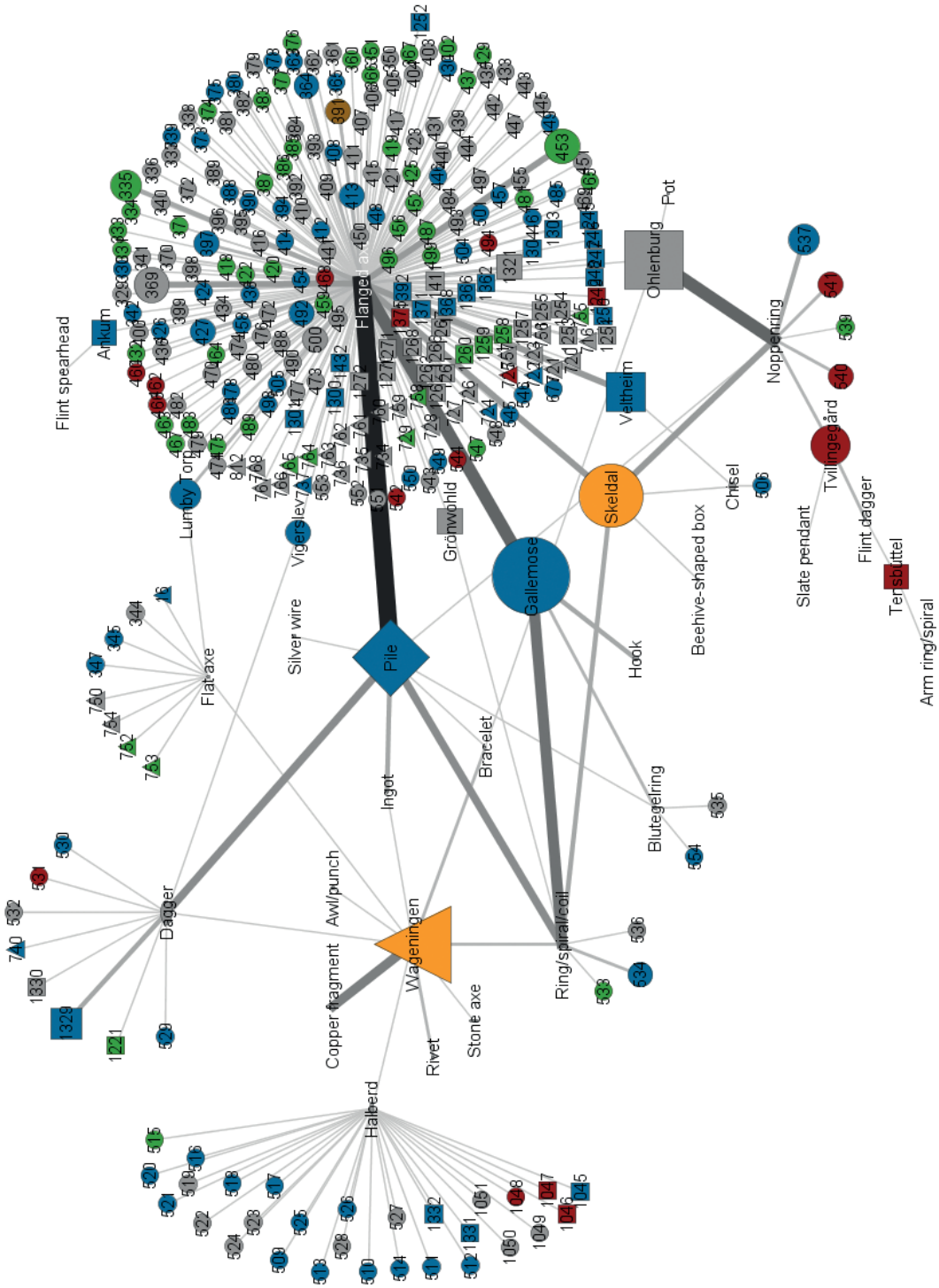
to metalworking activities (Butler & Van der Waals 1966/67:81, Butler 1990:71), while the finished metal objects in the hoard may have been awaiting further distribution (Fontijn 2002:73). Both the Pile and the Wageningen hoards thus represent or connect the 'before and after' of the metalworking process, *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



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 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.

