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## **Fragmenting the Chieftain : a practice-based study of Early Iron Age Hallstatt C elite burials in the Low Countries**

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## 6 How grave goods were used and interpreted

As already touched upon in previous chapters, many of the grave goods interred in the elite burials were not only objects that were used, most were probably also important symbolic items related to special (elite) identities. There is therefore likely a significance to them being selected as grave goods. How the bronze vessels, weaponry, horse-gear, wagons, tools, toiletries and ornaments were used, understood and perceived will have influenced their selection as grave goods and the roles they played during the burial rituals (see also Section 2.3). The importance and symbolic value ascribed to these items therefore lie at the heart of this research, as in order to understand the elite burial practice we need to understand (why) the objects (were) deposited. This chapter therefore explores the various categories of elite gear (*cf.* Section 2.1.3) found in the elite burials, focusing in particular on how they were used in the past and how they currently are interpreted. The reader is referred to Chapter C2 for the terminology and typology of these objects.

### 6.1 Bronze vessels as holders of alcoholic drinks and social facilitators

Use-wear traces observed on several bronze vessels from the Low Countries (Oss-Vorstengraf, Rhenen-Koerheuvel, Venlo, Wijchen and possibly Ede-Bennekom; Fig. 6.1) indicate that they hung suspended from their rings or handles for extended periods of time. These vessels were evidently used prior to ending up in these graves. The following sections explore how they were used and consider what role they (may have) played in funerary rituals.

#### 6.1.1 Bronze vessels in the Low Countries: a different meaning?

The bronze vessels imported from the Hallstatt Culture have long been seen as prestige goods that belonged to local leaders in the Low Countries that derived added value from their status as import pieces (*e.g.* Kimmig 1964, 94–5). It remains unclear, however,



Fig. 6.1 (Complete) bronze vessels from (L–R) Venlo, Baarlo, Ede-Bennekom, Oss-Vorstengraf, Overasselt (otherwise not included in current research as it dates later) and Rhenen-Koerheuvel. Photograph by P.J. Bomhof©RMO.

whether they had the same status or meaning as in the Hallstatt Culture area or represented something different (in burials) in the Low Countries. For example, the use of bronze vessels as cinerary urns in the Low Countries – something thought not to occur in their area of origin – has been interpreted as indicating a difference in associated meaning (Fokkens/Jansen 2004, 57; 82; Kimmig 1964, 94–5). However, while a rare occurrence, there are examples of bronze vessels being used as urns outside the Low Countries, such as in Döhren (Günther 1981), Frög (Schumann 2015, 247) and Strettweg (Kimmig 1964). Moreover, there are also several examples of bronze vessels in the Low Countries that (probably) were *not* used as urns, such as those found in Court-St-Etienne and Wijchen (see also Roymans 1991, 61).

Another factor influencing interpretation of the Dutch and Belgian vessels is the widely held view that the bronze vessels found in the Netherlands were used for extended periods of time, requiring frequent repairs (*e.g.* Fokkens/Jansen 2004, 56; Verhart/Spies 1993) and that this long-term use, in combination with their use as urns (see above) indicates that they were perceived differently here than in the Hallstatt Culture. However, it now appears that while there is some use-wear on the handles of a few vessels, there is little evidence of repairs of use-damage on the Dutch and Belgian vessels. Only the bucket from Rhenen-Koerhevel has patches of bronze riveted on that seem to be later repairs (Fig. C28.2). While the vessels from Ede-Bennekom and Oss-Vorstengraf have small plates attached on the bottom and around the base ring, these are argued to be from the initial fabrication process (Figs. C8.2 and C26.3). Bronze plate tends to tear when being hammered out during the production process and the easiest solution is to rivet on a repair plate. It is this type of repair that is present on the vessels from Ede-Bennekom and Oss. No other repairs were observed on Dutch or Belgian bronze vessels. While we must bear in mind that we are dealing with a small sample and that conservation conditions and subsequent restorations may have obscured repairs, at present there is no reason to suppose that the Dutch and Belgian vessels were more extensively used than those in the Hallstatt Culture.

In short, there are no indications at present that the bronze vessels found in the Netherlands and Belgium were treated all that differently than they were in their area of origin. Both in the Hallstatt Culture and in the Low Countries they were deposited as grave gifts and as cinerary urns. While showing signs of use, they are not ‘extensively repaired’ or ‘used up’. If we stop thinking of these bronze vessels as heirlooms that were in use for generations, it would seem prudent to rethink our views on the meaning they carried and the role they played in the past. This research therefore considers what kind of

role the vessels and the substances they contained may have played in society.

### 6.1.2 Vessels for alcohol and feasts

Direct evidence (such as chemical residues) revealing the original content of the bronze vessels unfortunately rarely survives, though mead residue found in bronze vessels in a number of elite graves – for example at Hochdorf (Biel 1985, 129–30) and Bad Cannstatt (Kimmig 1988, 158) – supports the widely accepted notion that the large bronze vessels were used to mix and serve alcoholic beverages (see also below). Historical texts and the remains of a possible brewery in Germany further confirm that grain beers and mead were being produced and consumed in Europe during the 1<sup>st</sup> millennium BC (*e.g.* Arnold 1999; Dietler 1990; 1999; 2006, 223; Nebelsick 2000b; Stika 1996; 2011). The presence of the large bronze vessels as part of sets of drinking and feasting ware found in elite burials in northern Italy and the Hallstatt Culture area furthermore indicate that the alcohol-filled bronze vessels would have played a central role in feasting activities (see also below). This practice of interring grand feasting sets, though having a longer tradition, peaks with the Hallstatt C chiefly burials (*e.g.* Arnold 1999, 71; Schumann 2015, Ch. 7). These sets often are composed of a large bronze bucket or cauldron, a sieve, ladling and drinking utensils, as well as bowls, dishes and cups or beakers (for overviews of bronze ware see *e.g.* Bouliemié 1977; Jacob 1995; Kimmig 1964; Schick 1981; Stjernquist 1967; Von Merhart 1969). These sets can be made entirely of bronze, but also can include (imported) ceramic or wooden vessels (*e.g.* Bietti Sestieri 1992; Diepeveen-Jansen 2001, 43; Kimmig 1964; Nebelsick 2000b, 226; Schumann 2015, Ch. 7). They indicate that ‘in life’ liquid was scooped out of a large mixing vessel (bucket, situla, basin or cauldron) with some kind of ladle or vessel and then poured through a sieve into a smaller bucket or situla. The filled vessel then would be brought to the drinkers and transferred into a smaller drinking bowls or vessels (Prüssing 1991, 6; see also below).

No elaborate sets of multiple vessels have been found in the Low Countries, where instead the focus seems to have been on the larger mixing vessels (at least in terms of what was selected as grave goods). In the case of the Chieftain’s burial of Oss, the role of the bucket as a drink-holding vessel appears emphasized by the presence of a smaller wooden drinking cup with carved ribs among the grave goods (see Section C26.2). Even among the elite burials of the Hallstatt Culture with more elaborate feasting sets, an association between a larger mixing vessel and smaller drinking bowl is emphasized frequently – for example in the *Fürstengrab* of Frankfurt-Stadtwald, where a bronze vessel and ribbed drinking bowl were positioned

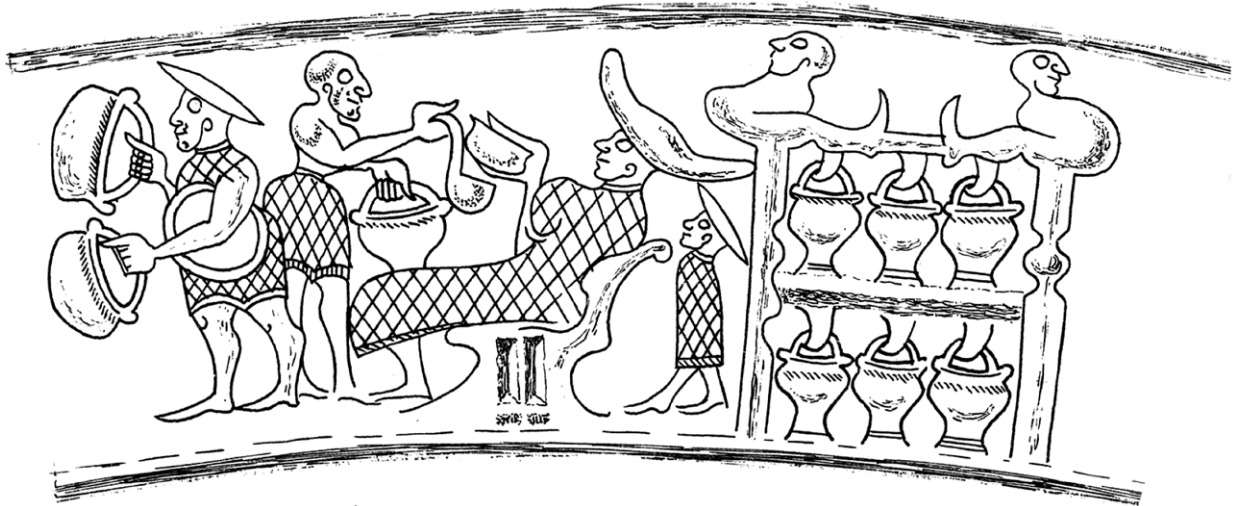


Fig. 6.2 Banquet scene on the situla from Kuffarn (Lower Austria, ca. 400 BC). Figure after Lucke/Frey 1962, pl. 75.

separately from the other feasting vessels within the burial chamber (Fischer 1979, 40–5; Willms 2002, 27–9). Ribbed drinking bowls in particular are a characteristic find in elaborate elite feasting sets throughout Etruria and the Hallstatt Culture (e.g. Sciacca 2009). The presence of a ribbed bowl in the Chieftain's burial is all the more striking as it suggests that even though the bronze bucket was used as a cinerary urn at Oss, it still mattered as a drink-holding vessel as well.

#### 6.1.2.1 Bronze vessels depicted in Early Iron Age contexts

Figural depictions on bronze vessels (so-called *Situlakunst*, see e.g. Frey 2011; Kastelic 1965; Lucke/Frey 1962) found in the South-Alpine region also provide insights. Even though these depictions are generally later than the elite burials and situlae from the Low Countries, it has been argued that the situla art stood for the same thing as the earlier interred situlae (cf. Huth 2003a). As such, the situla art provides insights into the use of the earlier vessels, and why they may have been interred in burials. The *Situlakunst* scenes indicate that the situlae and other vessels found in the elite graves were essential at drinking bouts or banquets and played a role in cult life, and it has been argued that they likely played similar roles in burials (at least in their area(s) of origin and in the Hallstatt Culture area; e.g. Arnold 1999; Diepeveen-Jansen 2001, 41–4; Eibner *et al.* 2010; Kimmig 1964, 91–5; Nebelsick 2000b; Prüssing 1991, 5). The situla of Kuffarn from Lower Austria (ca. 400 BC), for example, shows a feasting scene with a seated individual being served a drink from a situla with a smaller ladle/bowl and several situlae suspended from hooks (Fig. 6.2; Frey 2011, 288–9; fig. 9.5; Lucke/Frey 1962, plate 75). Similar scenes are also found on other bronze vessels, such as the

situla from Vače in Slovenia (ca. 500 BC; Lucke/Frey 1962, pl. 73). The figures on the situlae can be identified as privileged individuals through their quality clothing and headgear and the fact that they are seated and being waited on (Eibner *et al.* 2010, 15; Prüssing 1991, 5). The scenes depicting the vessels suspended from hooks and poles, and sometimes transported in this manner, are of particular interest as the use-wear found on the bronze vessels from the Low Countries is consistent with such use.

#### 6.1.2.2 Bronze vessels described in later contexts

Classical texts on the drinking and feasting habits of the 'Celts', though dating even later than the *Situlakunst*, also can offer insight into how the bronze vessels may have been used. While it must be acknowledged that the use of such texts is not without problems, there are certain recurring illuminating features in classical texts. One recurring element is that of the 'king's or 'hero's' portion at feasts, another is the concept of guest-friendship. Generosity was seen as an important virtue and as a defining characteristic for a good chieftain (Arnold 1999, 72–3). Poseidonius described a typical 'Celtic' feast during the 2<sup>nd</sup> century BC, which was later transcribed by Athenaeus (Tierney 1960, 247):

*“When a large number dine together they sit around in a circle with the most influential man in the center, like the leader of the chorus, whether he surpasses the others in warlike skill or nobility of family, or wealth. Beside him sits the host and next on either side the others in order of distinction ... The drink of the wealthy classes is wine imported from Italy or from the territory of Marseille. This is unadulterated but sometimes a little*

*water is added. The lower classes drink wheaten beer prepared with honey, but most people drink it plain. It is called corma. They use a common cup, drinking a little at a time, not more than a mouthful, but they do it rather frequently.”*

Though not describing an Early Iron Age feast, this text offers another explanation for the recurring set of a large mixing vessel with a smaller drinking cup or bowl in the Early Iron Age elite burials discussed above.

### 6.1.3 The social role of feasting and drinking

As noted above, the drinking paraphernalia (including the bronze vessels) present in the Hallstatt C and later graves have been interpreted as the material manifestation of drinking (cults) and feasting events (*e.g.* Arnold 1999; Dietler 1990; Nebelsick 2000b). The one-time presence of alcoholic drinks in precious and prestigious vessels like those found in the Dutch and Belgian burials, their presence in elaborate sets, as well as surviving depictions and descriptions of their use all seem to confirm that feasting involving alcohol and its consumption played an important role in late prehistoric Europe and would have been a symbolically charged, ritual activity (as also argued for example by Arnold 1999; Diepeveen-Jansen 2001, 39–44; Dietler 1989; 1990; 2006; 2011; Treherne 1995, 108; see also McGovern (2009) for a history of alcoholic beverages). In Iron Age studies of Northwest Europe this often calls up images of feasting and drinking events hosted by members of the elite or ruling class to show their status and to maintain relationships. However, feasting can encompass a broad range of activities (often including the consumption of alcohol) that can serve various social purposes and uses (see also Arnold 1999; Dietler 1990; 1996; 2006; 2011; Dietler/Herbich 2001; Heath 1987; McGovern 2009; Nelson 2005). Considering these purposes and uses offers insights into the use of the bronze vessels and their role in the elite burials and therefore is elaborated on in the following sections.

#### 6.1.3.1 Feasting as a commensal ritual

Many different definitions of ‘feasting’ can and have been given, but the communal consumption of food and drink in ritual activities or events plays a central role in all (Dietler 2001; 2011, 180; Dietler/Hayden 2001). Eating and drinking are far more than a basic human need. They are usually social activities, in particular the consumption of alcohol with its psychoactive effects and transformative properties. Both generally are embedded strongly in socio-cultural ideologies and play an important role in ritual and religious practices. As such, food and drink have been argued to be embodied material culture and symbolically charged (Dietler 1990; 2001; 2006; 2011, 179–81; Heath 1987; McGovern 2009, 130). Feasts,

however, are different from every day meals in a domestic context and can take numerous forms and serve various purposes (including multiple ones simultaneously; Dietler/Hayden 2001, 3).

Feasting, like other ritual undertakings, is a polysemic activity and a single event can serve multiple purposes. This makes attempts to develop a classification or typology of feasting problematic (see Dietler 2011 for an overview of the various classifications of feasts; see also Adams 2004; Benz/Gramsch 2006; Dietler 1996; 2001; Hayden 2001; Kirch 2001). Feasts serve as settings to create, manipulate, maintain and show social relationships, both within and across social groups and networks and at different scales (from family dinner-style feasts to feasts for the area’s political community; Bell 1997, 120–8; Dietler 2011, 180–2; Dietler/Hayden 2001). The social order can be expressed, and individuals or groups may attempt to change or enhance their own station within that social order. For example, people may try to supplement or negate prestige and power gained in other social contexts, such as warfare, religion and so on (*cf.* Dietler 2011, 183–4; Bourdieu 1990; see also Section 2.1).

Feasts also have an intrinsic political dimension to them (Dietler 1996; 2001; 2011, 180; Hayden 1996; 2001). At feasts social control and the order within a community can be maintained in various forms. Legal issues can be addressed (judgments can be passed, sanctions can be carried out and disputes can be arbitrated), religious issues can play a role (feasts can emphasize and strengthen commitments to religious values and principles) and provide links to deities or ancestors. They can also serve to mobilize labor in the form of ‘work feasts’ (Dietler 2011, 182; Dietler/Herbich 2001). In fact, nearly all feasting activities define social boundaries in one way or another while also generating and contributing to a sense of community (Dietler 2011, 184). As rituals or ritualized events feasts frequently play a central role at *rite-de-passage* events, such as for example burials (Dietler/Hayden 2001, 9). Another (possible) diagnostic feature of feasts relevant to the present study is the presence of alcohol, the drinking of which is not part of daily meals in most small-scale societies. Instead it is reserved for and typical of feasting events (Dietler 1990; 2001; Dietler/Hayden 2001, 10).

#### 6.1.3.2 The social and symbolic uses of alcoholic beverages

As noted above, the bronze vessels were used to hold alcohol and this substance generally features in feasting activities. Alcohol, in fact, has played a key role in almost all human cultures since the Neolithic, with all societies making use of some form of intoxicating substances, with alcohol as the most common (*e.g.* Dietler 2006; Heath 1987). From its earliest recorded use, the drinking of

alcoholic beverages has been primarily a social activity, the consumption of which and accompanying behavior have been subject to self-imposed social controls (McGovern 2009; SIRC 1998, 6). Alcoholic drinks are widely used as powerful, potent and multipurpose symbolic tools to create and manipulate the social world in all societies. Cross-culturally there are four main symbolic uses of alcoholic beverages. They can be used to label, identify and/or define the nature of social situations or occasions or as indicators of social status. Alcoholic drinks also can be used to express affiliation or as gender differentiators. Interestingly, in cases where 'foreign' drinks are adopted, often the associated drinking customs (and associated paraphernalia) of the alien culture are adopted as well (SIRC 1998, 8).

These drinking customs conform with the primary functions of the 'drinking cult' that according to Arnold (1999, 87) would have existed in a mutually supportive network in Iron Age Europe. In this cult alcohol could be used in "[...] its ideo-political manifestation as the vehicle of kingship in the inauguration ceremony of the chief or king", in "[...] its socio-political manifestation as the means of maintaining the chiefly prerogatives through feasting and the distribution of liquor among the warrior elites and clients as an incentive and reward for service" or in "[...] its ideological manifestation as an emblem of sovereignty in the complex of status markers meant to accompany a chieftain to the Otherworld". There is a large overlap in the ways feasting and alcoholic beverages can be used to create and maintain the social order, which is only natural as alcoholic drinks frequently play a key role at feasting events that do the same. As the containers for the alcoholic beverages and foodstuffs, the (bronze) vessel sets naturally would have featured at such events and could have come to stand for them.

### 6.1.3.3 Feasting and drinking after death

But what can be made of the presence of the bronze vessels in burials? It has been argued that they played similar roles in burials as they did in life (Arnold 1999; Diepeveen-Jansen 2001, 41–4; Eibner *et al.* 2010; Kimmig 1964, 91–5; Kromer 1959; Nebelsick 2000b; Prüssing 1991, 5). Exactly how remains the question – were they interred as symbolic grave goods, or were they used at a funeral feast or for libations in the deceased's honor? Arnold (2001, 214) argues that there was a common belief during the Early Iron Age in some kind of existence after death that reflected the world of the living and involved feasting and drinking as well as "differential social relationships". If this was the case, then the presence of drinking and feasting equipment in the elite burials were the 'tools' the deceased would require to feast and drink in his (/her) life after death, thereby exacting and expressing the same effect on the social order. This conforms to some extent with the

assertion that the presence of bronze vessels refers to the metamorphosis of the deceased into an ancestor or god (Huth 2003a; Nebelsick 2000b). As Celtic and Germanic mythology features the use of cauldrons to brew liquids that confer immortality and supernatural powers (Brown 1913; Macculloch 1911, 381*ff.*; De Vries 1956), Nebelsick (2000, 227) argues that when cauldrons were used as urns this may be a "sepulchral reflection of these concepts".

### 6.1.4 Conclusion on bronze vessels

In conclusion, there is little to suggest at present that the bronze vessels in the Dutch and Belgian burials were viewed differently from those found in Central Europe. While there is no direct evidence that the bronze vessels from the Low Countries ever held alcoholic beverages, the above indicates that this was a likely use. It is specifically the communal mixing vessels that are found in the Dutch and Belgian elite graves. It may be therefore that it was their function as holders of alcoholic beverages for social feasting events that was being emphasized when they were selected as grave goods. The combination of the large bronze vessel with the smaller ribbed drinking bowl in the Chieftain's burial of Oss especially indicates that it likely was deposited with the intention of representing or reflecting some kind of communal drinking event.

Traces of use-wear on a number of Dutch and Belgian vessels reveal that they were suspended from their rings, indicating some kind of use in life, most likely in elite feasting activities. These bronze vessels came from Central Europe, and it may be that the alcoholic beverages they once held were imported as well. As noted above, the adoption of 'foreign' drinks and drinking customs (and perhaps the associated paraphernalia) go hand-in-hand. It is certainly plausible that feasting events were a big part of the relationships that existed between the Low Countries' elites and the Central European ones (see also Section 7.3). The addition of bronze vessels to the funerary repertoire may indicate a change in the social appreciation of communal eating and drinking. Interment of bronze vessels, items specifically associated with feasting activities – events that facilitate culture contact and power negotiations – may have been a deliberate expression of the contacts that existed between the dead elites and those foreigners who supplied the bronze vessels and perhaps the alcoholic beverages they once contained as well as the social activities that they engaged in.

## 6.2 Weaponry

This section considers a number of weaponry grave goods in more detail and discusses how the weaponry found in the elite burials was likely made, used and treated, and what they may have represented.

### 6.2.1 Local copies and prestigious imports

Two short iron swords as well as the swords from Oss and Wijchen warrant discussing in more detail.

#### 6.2.1.1 Short iron swords: local copies of bronze swords?

As already stated by Fontijn (2002, 171) the first iron swords likely were modeled after the bronze ones (even though the technology of iron working is different from bronze casting, as also argued by O'Connor 1980, 246). This appears to be the case with the short iron swords *CSE-LQ.16\** and *CSE-LQ.26* (and possibly *CSE-FR.T3.8* and *CSE-LQ.TA.5* as well, though these are too degraded for a proper comparison). They resemble early Gündlingen/Holme Pierrepoint bronze swords (see also Section C2.3.1.3), although there are also differences. The iron swords have central raised ribs and a diamond cross-section, which the bronze Gündlingen swords do not. The iron swords also lack ricasso, an identifying feature of Gündlingen type swords. Unfortunately the short iron swords in the Catalogue are broken at the tang, so it is unknown how the tang and hilt design compared. A short iron sword with bronze hilt from Battel that has been mentioned as an example of an iron Gündlingen sword from the Low Countries (Fontijn 2002, 171; Warmenbol 2015, 63; Fig. 4.15) may offer some insights into this as it has a bronze handle consistent with the Gündlingen type. There are also some differences however. The blade of the Battel sword (Fig. C2.6) is roughly consistent with an early type of Gündlingen sword (Etappe I/type Holme Pierrepoint) and is quite similar to the swords *CSE-LQ.16\** and *CSE-LQ.26*, though lacking the edging found on bronze swords. The differences between the short iron swords and the bronze Gündlingen swords could be due to the technical differences between bronze casting and iron forging (*cf.* O'Connor 1980, 246; see also below), for they certainly appear inspired by the early bronze Gündlingen swords. The striking fact relevant to the current discussion is how different these swords are from Hallstatt Culture ones, both in design and size. The Belgian iron short swords originally would have measured roughly 55 cm, while the shortest iron sword included in Gerdsen's (1986, 216–29) classic inventory, for example, is 70.5 cm (see also Tab. 6.1). The differences also become apparent when we view the short iron swords on the same scale as the other iron swords in the Catalogue (Fig. A2.3).

In summary, the Belgian short iron swords bear no resemblance to swords found in the Hallstatt Culture and are likely not imports from Central Europe (as also postulated by Roymans 1991, 36). Instead they may have been produced locally or at least in the Atlantic sphere. Their general shape and design is consistent with Atlantic sword types with their wide leaf-shaped blades. It is somewhat surprising though that these early iron swords

most closely resemble the very *earliest* Gündlingen (Etappe I/type Holme Pierrepoint) swords, as it generally is believed that iron swords date far later. If these iron swords from Court-St-Etienne and Battel are 'locally' (*i.e.* Atlantic) produced blades inspired by bronze Gündlingen swords, they may be far earlier than generally thought. While iron swords in the Low Countries generally are believed to date to the 7<sup>th</sup> century BC (Warmenbol 2015, 63; though see Section 3.4.1.2 for why this research argues they can also date to the 8<sup>th</sup> century BC) the Gündlingen Etappe I/type Holme Pierrepoint swords are argued to date earlier (around 850–750 BC; see Section 3.4.1.1).

#### 6.2.1.2 The gold-inlaid sword of the Chieftain of Oss

There is one Mindelheim type blade that warrants further discussion: the sword of the Chieftain of Oss. This sword is an iconic object from European prehistory, and for good reason. It is visually striking due to its unusually long iron blade with grooves and raised ribs and its hilt decorated with gold and bronze (Figs. 6.3 and 6.5). Moreover, this research established that it originally was decorated with a lead ring and strips of carved bone as well. These were likely incorporated into the pommel hat (see Section C26.2). The identification of the lead ring is especially significant, as this appears to be the earliest use of 'pure' lead (*i.e.* not as part of an alloy) in the Low Countries, which was likely a rare, possibly 'exotic' material.

Ornamentation is not common on swords from this time and it really sets this sword apart. In particular the 'lightning' design on its pommel hat is a very unusual pattern in the Early Iron Age and the only of its kind to be found in the Low Countries. According to Wells (2012, 122) this sword, along with one from Gomadingen (Baden-Württemberg, Germany) and two swords from Hallstatt grave 573 (Oberösterreich, Austria), showcase great craft effort involving the use of precious and exotic materials (see below; Fig. 6.4). He also stated that "the use of imported materials, such as gold, amber and elephant ivory, was especially significant at this time, because it served to draw attention to the far-flung contacts of the elites, (however indirect those contacts may have been) and to the elites' ability to command these exotic materials from far away" (Wells 2012, 122). Note that again *supra-regionality was being stressed* (see Chapter 5).

It is, however, not only craftsmanship that links the swords from Oss, Gomadingen and one sword from Hallstatt (grave 507). There is also an interesting similarity in decoration design. All three feature variations of the extremely rare 'lightning design' mentioned above. In the case of Oss several such emblems of gold are inlaid in the pommel hat (Fig. 6.3), while the Gomadingen sword has a lightning-like design made of gold on its wooden grip. The Gomadingen and Oss swords also have similar designs



Fig. 6.3 The hilt of the sword of Oss from various angles (different scales) showcasing the gold and bronze decorations. Photographs by R.J. Looman ©RMO.

on the bottom of their pommel hats (Fig. 6.4). At 108 cm the former is unusually long (Gerdson 1986, 119; Von Föhr/Mayer 1892, 37), as is the sword of Oss. The sword from Hallstatt has an ivory pommel hat with an inlaid amber lightning design, which is particularly similar to the one on the top of the Oss pommel hat. Interestingly, this Hallstatt pommel hat not only has this 'lightning' design picked out in amber, it also has what appear to be inlaid 'crescent moons' and a 'sun' (Fig. 6.4). These three designs together on a single item certainly suggest that what we have been describing as 'lightning' may well have been intended as such. It could even be argued that the design on the bottom of the pommel hat of Oss (Figs. 6.3 and 6.4) incorporates a similar moon-design.

The Oss sword has an unusually shaped pommel hat, which when compared to most surviving pommel hats is rather long. While this may be a restoration error (see Section C3.1), another sword from the Hallstatt Cemetery (grave 573) has a similarly shaped pommel hat of ivory, this time inlaid with amber (Fig. 6.4). The sword from

grave 573 also, like the Oss sword, has an extremely long blade (Tab. 6.1).

In my opinion the unusually shaped pommel hats, the extreme blade lengths, the use of rare materials like gold and amber along with the similarities in decoration design – all rare features – speak of the same creator and I argue that these swords may all be from the same master smith or workshop. Roymans (1991, 36) once postulated that the sword from Oss likely was made in southern Germany. Given the dispersion of the richly decorated swords discussed above (with the exception of Oss) in southern Germany and Upper Austria, I suggest that this may be where the master smith or workshop was located.

### 6.2.1.3 The unique Wijchen sword – a local copy?

Above it was argued that a number of short iron swords likely were not imported from the Hallstatt Culture area, but instead may have been locally produced. The same may be true for the very unusual iron sword from

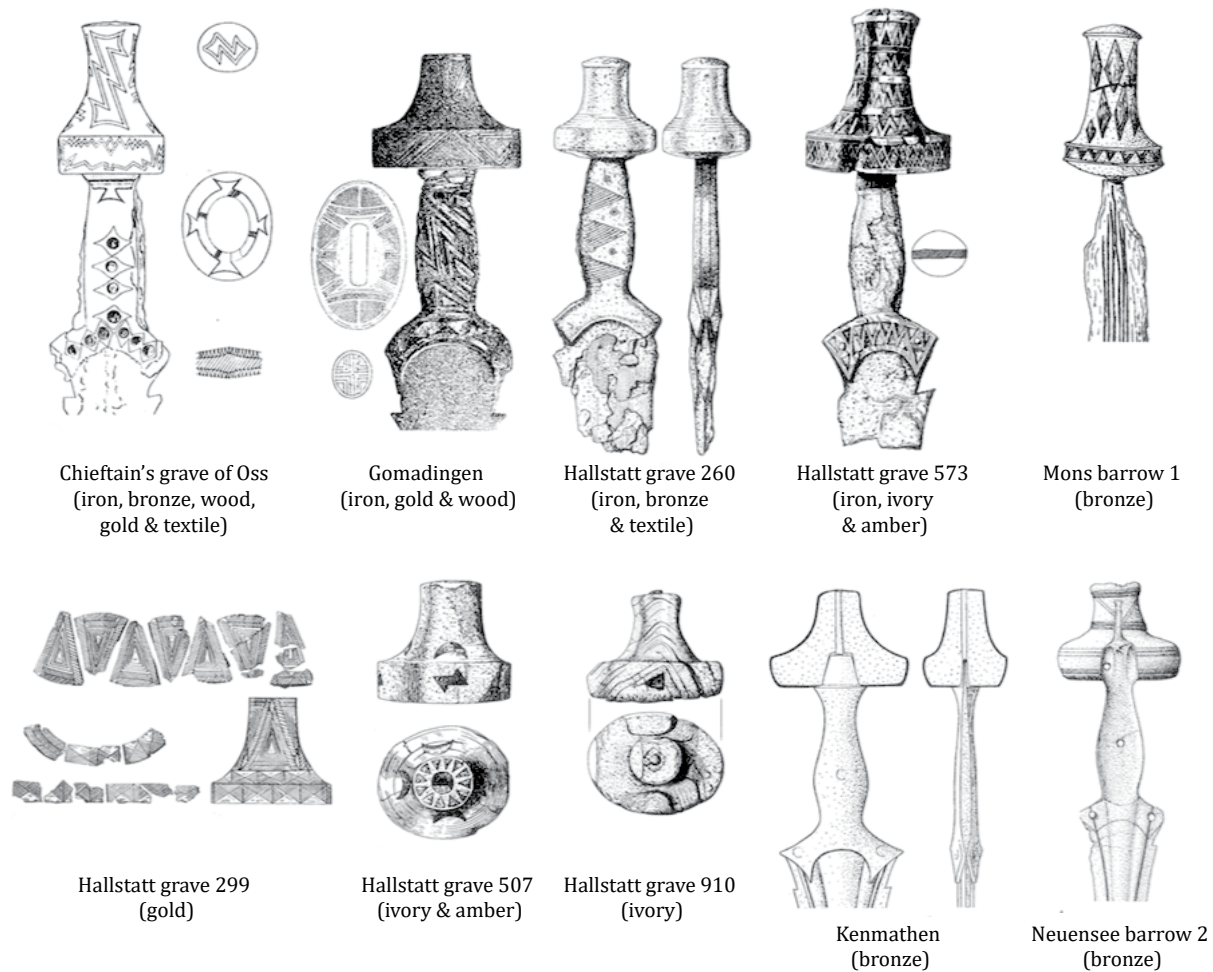


Fig. 6.4 A number of surviving and decorated hilts from Mindelheim swords. Note the similarities in decoration design between the swords from Gomadingen, Hallstatt grave 507 and Oss (see also Fig. 6.5). Figure after Gerdson 1986, pl. 4–6.

Wijchen. Following its restoration (see Sections C3.2 and C35.2) a number of diagnostic features were uncovered that allowed for the reconstruction seen in Figure 6.5. This revealed that it is exceptionally long for swords from this period, at least 115 cm. Only one sword listed in Table 6.1 and the sword from the Chieftain's burial of Oss are of comparable length (see also Figs. 6.5 and A2.3). Unlike contemporary Mindelheim swords (see above and Section C2.3.1.4), the Wijchen sword has a rod-shaped tang with a square cross-section and a squar-ish knob as terminal. To my knowledge and that of all experts I have consulted, *there is not a single parallel for such a sword*. It appears to be unique in Northwest Europe.

However, there are similarities between the Wijchen sword and the one from the Chieftain's burial of Oss and other similar Mindelheim swords, if one considers only the blade. Not only are they roughly the same length, the general shape of and in particular the design and decoration of grooves on the blade are similar (see

Figs. 6.5 and C35.4). In theory, the Wijchen sword therefore could have been made by someone who had seen the Oss sword or a blade like it, and recreated it as best he or she could, without knowing what the tang looked like underneath the organic hilt. Given the preponderance of Mindelheim swords, and the smiths who could make them in the Hallstatt Culture area, the aberrant Wijchen sword may have been made locally. This remains conjecture at present, but research into the composition of the iron in this sword is currently underway (by I. Joosten and V. Fontani) and may shed some light on the matter.

### 6.2.2 The production, use and deposition of swords

Section C2.3.1.6 discusses the assertion that mounted warriors used the Hallstatt C swords and rejects the arguments on which this is based. This section builds on this and (briefly) discusses how Late Bronze and Early Iron

Site	Hilt description	Sword blade	Length	References
Gomadingen (Baden-Württemberg, Germany)	Wooden grip, hat-shaped pommel decorated with geometric shapes of gold sheet	Iron	108 cm	Gerdsen 1986, 119; Von Föhr/Mayer 1892, 37
Hallstatt grave 260 (Oberösterreich, Austria)	Bronze pommel and bronze grip decorated with three ribbed triangles and three circumpunct decorations.	Iron blade with textile adhering;	-	Kromer 1959, 77–9
Hallstatt grave 299 (Oberösterreich, Austria)	Plates of gold sheet decoration	Bronze	72.5 cm	Kromer 1959, 84–5
Hallstatt grave 504 (Oberösterreich, Austria)	Bronze pommel, engraved with triangles	Iron (with textile adhering)	-	Kromer 1959, 116–7
Hallstatt grave 507 (Oberösterreich, Austria)	Ivory pommel, inlaid with amber lightning/moon/sun motif	Iron (with wooden scabbard fragments)	-	Kromer 1959, 118–9
Hallstatt grave 573 (Oberösterreich, Austria)	Pommel and grip made of ivory, inlaid with amber zigzag and diamonds motifs	Iron	115 cm	Kromer 1959, 128; Wells 2012, 122
	Gold striped inlay on the bottom of the grip	Iron	-	
Hallstatt grave 600 (Oberösterreich, Austria)	Bronze pommel and grip	Iron	-	Kromer 1959, 132–3
Hallstatt grave 607 (Oberösterreich, Austria)	Bronze pommel and grip	Bronze	88.5 cm	Kromer 1959, 134
Hallstatt grave 697 (Oberösterreich, Austria)	Ivory pommel, bronze grip and rivets	Iron	-	Kromer 1959, 146
Hallstatt grave 910 (Oberösterreich, Austria)	Ivory pommel	Iron	-	Kromer 1959, 173–4
Ilfeld (Baden-Württemberg, Germany)	Hat-shaped pommel with remains of colors on it, probably from decoration	Iron	93 cm	Gerdsen 1986, 124
Mindelheim (Bayern, Germany)	Bronze pommel decorated with lines and diamonds with circumpunct decoration in them	Bronze	83 cm	Kossack 1959, 167
Neunsee Mound 1 (Bayern, Germany)	Bronze hat-shaped pommel decorated with lines	Iron	88 cm	Gerdsen 1986, 130
Neunsee Mound 12 (Bayern, Germany)	Bronze pommel	Bronze	93.6 cm	Gerdsen 1986, 130

Tab. 6.1 Swords with surviving and/or decorated handles (some also depicted in Fig. 6.4).

Age swords may have been made, worn, used, damaged and deposited.

### 6.2.2.1 Making and maintaining a sword: bronze vs. iron

Making a sword requires skill and experience, but involves very different processes depending on whether it is made of bronze or iron, with only the hammering being at all similar. While bronze swords are cast, iron has to be forged. The early iron swords were treated in a similar way to their bronze contemporaries, indicating that a change in material did not necessarily involve a change in how they were conceptualized (Arnoldussen/Brusgaard 2015, 118; see also Fontijn/Fokkens 2007, 364–5). While it is thought that bronze Gündlingen swords were being produced in the Low Countries, the iron swords generally are assumed to be imports. In Section 6.2.1.1 above, however, it was postulated that a number of short iron swords from the Low Countries may have been produced ‘locally’ (or at least in the Atlantic rather than the Hallstatt Culture sphere). This was argued purely on the basis of morphological characteristics. The following

sections discuss the differences between producing a bronze and iron sword to address whether it is plausible that the iron swords were in fact local productions.

#### Casting a bronze sword: imperfection acceptable?

When casting bronze swords, stone molds can be reused, and an existing bronze sword can be used to produce a clay mold to produce a new sword. While the subsequent trimming, hammering and grinding naturally influence the sword produced, in essence it is possible to remake the same sword. To sharpen a newly cast bronze sword it first has to be homogenized by heating, for example in a charcoal hearth. This process makes it pliable enough to forge, and it can then be hammered (*e.g.* Burridge 2004; Kerr 1994; Molloy 2011). It appears that during prehistory bronze swords did not have to be ‘perfect’ to be acceptable. Colquhoun (2011, 55–6) argues that the frequent occurrence of small casting flaws (such as small holes from air entering the metal while cooling) on swords that appear to have been used means that not all swords that appear imperfect were recycled. ‘Imperfect’ weapons



Fig. 6.5 The Oss Mindelheim sword with inlays and the (left) and reconstruction of the sword from Wijchen (right). Drawings by R. Timmermans.

were apparently acceptable, probably depending on whether such ‘flaws’ would be visible once the hilt plates were attached, or on the status of the intended owner. In his discussion of Irish bronze swords Colquhoun (2011, 56) notes that repairs are common, especially of breaks across rivet holes and that new hilts were added.

#### Forging a sword: the attraction of iron

Like bronze, iron first has to be produced from ore before it can be shaped into an object (Serneels/Perret 2003, 469). Processing ore into iron involves extraction, *i.e.* prospecting and amassing ore and smelting, a process by which ore is converted into bloom. This is followed by primary and secondary smithing. During the former, blooms are converted into bars or billets, while the latter turns the bars or billets into objects (such as a sword). Each phase produces its own kind of waste products (see Arnoldussen/Brusgaard 2015, 115; De Rijk 2003; Serneels/Perret 2003). Unfortunately little is known about the various phases of Iron Age metalworking in the Low Countries (Arnoldussen/Brusgaard 2015, 115; Brusgaard *et al.* 2015). Iron smelting does not appear to have taken place in the Netherlands before the Roman period (Arnoldussen/Brusgaard 2015, 117; Brusgaard *et al.* 2015; Joosten 2004; Van den Broeke 2005), and iron would have come to the Low Countries either as finished objects or as bars/billets. What little evidence there is, also from the later Iron Age, derives from the last stage of the smithing process, and represents small-scale, domestic production serving one or possibly two settlements (Arnoldussen/Brusgaard 2015; Brusgaard *et al.* 2015).

Iron imported in the form of bars or billets can be forged directly into a sword if the bars/billets are big enough. If they are too small or one is reworking objects, they have to first be welded together at high temperature. The result then can be worked into a sword. This also has to be done at high temperature to prevent the fibrous structure of early iron from delaminating. J. van Zuiderwijk (2016, pers. comm.), a smith experienced in prehistoric iron forging referred to this process as ‘kneading with hammer and anvil’, where bit by bit the object is made into its eventual form. During the smithing process the surface is burned continuously, which gives the surface an ‘oxide skin’ and pitting. This requires a final processing, whereby the shape is finely hammered and the surface refined. As this involves minor shape changes there is little risk of delamination and it can be done at a lower temperature. The hammer also leaves marks, which can be worked out with lighter hammering. The final hammering is done cold, as this strengthens the iron and the edge can be hammered sharp. Following this the blade has to be sharpened. This is a lengthy process done with stones and polishing materials (similar to bronze swords). Upon completion

of the blade the hilt has to be made (Van Zuiderwijk 2016, pers. comm.).

#### Going from bronze to iron

In light of the discussion of where the earliest (short) iron swords were produced, how should we envision the very first iron sword being made? Can a bronze smith, for example, switch to working iron? The experiences of J. van Zuiderwijk, an experienced bronze caster using prehistoric techniques who also learned to work iron, suggest this is certainly possible. Any discussion of this with regard to later prehistory has to be limited to the thought-experiment realm, but it is worth briefly considering in light of the short iron swords that appear to be Atlantic copies of local bronze swords. With regard to the differences in skills, it is mostly the welding and the knowledge required regarding the high temperatures needed to work the iron that are challenging to learn. However, while involving different skillsets, once the basics are known the rest can be learned through hands-on trial and error (Van Zuiderwijk 2016, pers. comm.).

Early iron was relatively easy to work with, but due to its relative softness the swords likely would not have held an edge any better than the bronze contemporaries (Van Zuiderwijk 2016, pers. comm.). The earliest iron swords likely held little advantage over bronze ones in terms of functionality. While iron can be worked into longer swords, it is important to acknowledge that the very earliest iron swords, like those found at Court-St-Etienne, were no longer than bronze ones. The differences in shape between the short iron swords and the bronze Gündlingen type swords could be due to the technical differences between bronze casting and iron forging (*cf.* O’Connor 1980, 246). In time it may have been the widespread availability of iron that made it attractive.

#### Hilt for the owner?

The metal swords that survive show a high degree of uniformity in terms of shape and size, with exceptions of course. It may be, however, that the hilts, as the most visible and conspicuous part of a sword, were personalized (as was the case for example in Anglo-Saxon England; Colquhoun 2011, 57). Colquhoun (2011, 57) suggests this following a brief discussion of the almost complete absence of surviving organic hilts (or components thereof), in which he argues that more should have survived as so many swords are found in bogs (in Ireland). He postulates that hilt plates and pommels may have been removed prior to deposition. They may then have been considered heirlooms and incorporated onto new weapons, or played a role in rituals (see also Section 7.2.1.8). From this flows the question: if the sword hilt’s design was unique to the user, was the prospective user involved in the weapon’s

production? In a similar vein one can question how the sword producer/consumer relation functioned. Did a warrior ‘order’ a sword from the smith or did the warrior select a suitable one from swords on offer? On the one hand the strong uniformity of sword morphology seems to suggest the latter, on the other a sword has to fit the warrior to be used effectively. Unfortunately such questions cannot (yet) be answered, but it is still worthwhile to consider them.

#### 6.2.2.2 Wearing a sword

To wear a sword, one needs a scabbard with mounts or attachments, one or two sword belts and perhaps straps that connect the scabbard and sword belt. The buckles or belt crossings can be decorated with metal ornaments (*cf.* Trachsel 2005, 70). The leather components of course can be decorated with color or engravings as well. There are some indications, in the form of small rings found on or by swords, that they were worn at an angle (Trachsel 2005, 71; Willms 2002, 71; Zürn 1987, 125). Especially in comparison to the sheer number of swords that have been found, finds of scabbards or fragments/elements thereof are extremely rare. Generally only the bronze chapes that would have decorated and strengthened the point of the scabbard survive (see also Section C2.3). What little evidence there is regarding the organic components appears somewhat contradictory. On the one hand there are several cases in which thin fragments of wood with strips of linen or woolen textile survive on the sword blade (Gerdsen 1986, 48; Kossack 1970, 16–7; see also Section C12.3.1). It appears that the wooden strips were held together with the textile, and they are interpreted more as protective coverings rather than as ‘true’ functional scabbards. On the other hand there are also instances where a substantial and likely functional construction survives of wooden ‘shells’ covered in cloth (which likely was drenched in some kind of adhesive) and in one case with leather (Gerdsen 1986, 48; Schickler 2001, 112; Trachsel 2005, 71; Zürn 1987, 124–6). In some cases it appears that the wooden scabbards were reinforced with bronze elements (Gerdsen 1986, 48; 91). Given the sometimes substantial nature of the chapes and in particular the rivets with which they were attached to the scabbard tip, it seems most likely that chapes should be envisaged as attached to the latter type of construction. A few very well preserved burials in which the distance between the tip of the sword and the chape could be measured indicate that the organic scabbard was slightly longer than the sword blade (Trachsel 2005, 71).

#### 6.2.2.3 Owning a sword

Swords (of the Late Bronze–Early Iron Age) are viewed as weapons of prestige and it has been argued that they played a role in rituals and the construction and posturing

of the warrior (stratum of society; *e.g.* Anderson 2012, 187; Colquhoun 2011, 56–7; Fontijn 2002, 231–2). Yet it is also argued that (in particular the bronze Gündlingen) swords were relatively common (in certain areas) and should not be interpreted as markers of elite status *per se* (Milcent 2015; see also below). Either way, Fontijn (2002, 149; 221) argues that there is more to owning a sword than any other tool as it is an example of specialized weaponry (in contrast to multifunctional objects such as axes and bows for which a use as a weapon is but one manner of use). Weaponry is related to power in a very direct way and can be used to inflict violence and potentially to impose one’s will on others (Claessen 1988, 7–8). It has been postulated that in the largely egalitarian Late Bronze Age society in the Low Countries that the possession of weapons by certain individuals may have been perceived as a “potential threat to social cohesion” (Fontijn 2005, 149; Fokkens 1997; Roymans 1996, 14).

With regard to ownership, it can be questioned whether swords were personal possessions or perhaps communally owned items that certain individuals temporarily were granted the use of. It has been argued, for example, that weapons are linked with “martial identities, either at a communal or at a personal level” (Fontijn 2002, 232). Selective deposition of swords was then a way to deconstruct these ambiguous and transgressive martial identities. If swords were related to a person’s life cycle and achievements, then by physically laying down weaponry, the associated role and status were laid down as well. This may have happened during one’s lifetime, for example following a battle, when one reached a certain age or at death (Fontijn 2002, 26–7). From this perspective it is interesting to consider the Late Bronze–Early Iron Age transition, a time when some swords were selected for deposition in rivers, while morphologically the same swords were placed in burials, and whether this reflects a change in how ownership of weaponry was conceptualized.

#### 6.2.2.4 Using a sword as a weapon: becoming a warrior

While swords can be used for symbolic and ritual functions, they are first and foremost weapons, presumably intended to be used in combat to maim or kill one’s adversaries (*e.g.* Anderson 2012, 12; Colquhoun 2011, 56; Molloy 2007, 90). The longer swords of the Late Bronze and Early Iron Age represent cut-and-thrust swords that were far more adaptable and efficient weapons than earlier swords (Fontijn 2002, 222; Harding 2000; Thrane 2004, 170). While skeletal evidence for fighting injuries is rare (though perhaps warriors fallen in battle were left on the field as postulated by Trachsel 2005, 72), the swords themselves have been used. Evidence for this may in some cases be anecdotal (Fontijn 2002, 222; this

research<sup>13</sup>), but there is a growing body of systematic experimental and use-wear analysis of (primarily) bronze weaponry that indicates that striking one bronze sword against another produces edge damages consistent with those found on archeological examples, such as nicks along the beveled edge (in particular at the widest part of the blade (*e.g.* Anderson 2012; Bridgford 1997; 2000; Colquhoun 2011, 56; Gentile 2016; Molloy 2006; 2007; York 2002). Repairs have also been found on several blades that indicate they could not have taken heavy blows (*e.g.* Schauer 1971, no. 608, 616, 618, 635; Trachsel 2005, 73; Zürn 1987, 125).

While discussing exactly how this fighting would have been done goes beyond the scope of this research (though see *e.g.* Anderson 2012; Gentile 2016; Molloy 2007), it likely was embedded in the daily lives of those individuals who used the swords. When it comes to the constitution of a warrior, archeological studies tend to focus on the *owning* of a sword, and how this relates to the warrior identity (see also above). Sometimes even only an association with a sword, for example in a burial, is deemed sufficient to label the deceased a warrior. Here, however, it is emphasized that extensive training and continual practice are needed *if one actually wants to effectively use that sword*. One has to learn the limitations of the weaponry, as well as how to effectively use it to defend and attack. The body and mind have to be continually conditioned until fighting becomes instinctive. This stage of becoming and being a warrior generally has received less attention, most likely as it is very difficult to identify and understand such behavior archeologically, but there are a few insights that can be gleaned. First of all, as already noted, using a sword requires practice. Weapon properties (such as its “weight, balance, grip, morphology, sharpness and the presence or otherwise of bevels or a midrib”) as well as aspects of the user (including “strength, height, stamina and defensive equipment”) and target (including “material and movement”) all influence the most effective mode of fighting (Anderson 2012, 42). The efficacy is dictated not only by a fighter’s strength or the quality of the sword, but also by the fighter’s ability to employ and adapt strikes to the fight and weapon used. His/her skill and experience matter far more than brute strength (*e.g.* Anderson 2012, 42;

13 Some possible signs of use-wear or battle damage were noted on swords from the dataset and are listed in the Catalogue, but I stress that these are macroscopic and anecdotal observations. Use-wear analysis was not possible within the current research as microscopic examination could not be facilitated as well as due to time restraints and this research’s focus (see also Section 1.2.1.2). Research by V. Gentile (2016), however, has confirmed the presence of battle damage on Dutch Gündlingen swords through proper microscopic use-wear analysis and experimental analysis.

105–6; Molloy 2007, 102). In order to effectively use such a weapon, one must therefore receive training and practice extensively.

As bronze weaponry can be relatively easily damaged in combat (*e.g.* Anderson 2012, Ch. 12; Gentile 2016; Molloy 2006; 2007), it has been argued that warriors likely trained with wooden practice weapons (Anderson 2012, 191; Molloy 2007, 102–3). A Late Bronze Age wooden (yew) sword with a handle polished from use found on Orkney is argued to be such a training weapon (Anderson 2012, 191; Stevenson 1957, 191). While wooden swords may have been used as part of the training process (*cf.* Kristiansen 2002, 325–6), these would not accurately replicate fighting with solid bronze swords (Colquhoun 2011, 56). It has also been argued that at least some of the signs of use and damage on prehistoric swords are likely the result of repeated practicing with them (Colquhoun 2011, 56). And if people were training with practice weapons – then there must have been a reason (*cf.* Anderson 2012, 191).

There are also cultural aspects to sword fighting. While it may be common practice to equal sword fighting with the desire and intention to kill one’s opponent by any means necessary, in reality sword fighting is not only generally an embedded social practice dictated by cultural guidelines, it is not always to the death. It may be understood that a sword fight is only until first blood, such as for example in ‘modern’ dueling practices where the intention was to win by wounding one’s opponent, rather than killing him/her. Learning to use a sword is therefore not only a very practical endeavor, it is also a cultural one. A fighter has to learn ‘appropriate’ combat techniques and fighting style. In short, being a warrior, a swordfighter, is not just about owning a sword, it is in a practical sense very much a way of life.

### 6.3 Horse-gear and wagons: prestigious transport

In this section I discuss the Hallstatt Culture wagons (*Prunkwagen* in German), associated yokes and horse-gear, focusing on how they appeared, were made and used. Following this the horses who wore the horse-gear and pulled the wagons and what they represented are discussed. As will become clear in the next chapter, the information presented here is key to understanding an important feature of the elite burial practice. M. Egg, J. Koch and C. Pare have contributed greatly to our understanding of the Hallstatt Culture wagons and horse-gear, and the following is based primarily on their research (Egg 1989; Egg/Pare 1993; Koch 2006; 2011ab; Pare 1987a–c; 1992), as well as on my own experiences with horses and horse-gear.

### 6.3.1 Forerunner of the Hallstatt Culture wagon

Four-wheeled horse-drawn wagons with spoked wheels are found from the Late Bronze Age Urnfield period onwards in western and Central Europe (*e.g.* Diepeveen-Jansen 2001, 35–7; Egg/Pare 1993; Pare 1987a–c; 1992, Ch. 3; 186–8; 1998; Winghart 1993). Archeological evidence for the (ceremonial) wagons of the later Urnfield period comes primarily from hoards or single object depositions (Egg/Pare 1993, 211), and it has been argued that draft horses and wagons played a role in cult activities in Northern Europe during the Late Bronze Age (Burmeister 2004, 35–6; Pare 1992, 186–8). Horse-gear and wagon components are found in funerary contexts only at the very start of the Urnfield period in an area north of the Alps (Pare 1992, 19–42), for example the Hart-an-der-Alz group which yielded several cremation burials with burned wagon components, horse-gear and weaponry (Müller-Karpe 1956, 16ff; Pankau 2013; Schauer 1987, 13–4).

In the period under discussion in this research, the Hallstatt C phase, there was a resurgence of wagon deposition in (inhumation) burials in the eastern Hallstatt Culture area that spread westwards during the Hallstatt C/D phase (*e.g.* Diepeveen-Jansen 2001, 35–7; Egg/Pare 1993, 211; Makarová 2017; Milcent 2017; Pare 1992; Metzner-Nebelsick 2017). During this period wagon makers adopted technological advantages from central Italy, an area where the two-wheeled chariot dominated (Pare 1992). The continued use of the four-wheeled wagon north of the Alps shows the Hallstatt Culture wagon tradition to be rooted in urnfield practices. While there are strong similarities between the Hart-an-der-Alz wagon burials (13<sup>th</sup> and 12<sup>th</sup> centuries BC) and the later wagon burial custom of the Hallstatt period, the absence of any such graves in the intervening time indicates we are not dealing with continuity in funerary practices (Pare 1992, 186). There is, however, ample evidence that horse-drawn wagons featured in cult activities (see Section 6.3.5.3 below; also Pare 1987ac; 1992, 135; 1998).

### 6.3.2 Hallstatt Culture wagons

In this section the construction of the four-wheeled wagons is discussed (see Fig. C2.7 for the terminology used). The wagons had relatively small rectangular wagon-boxes that generally were twice as long as they were wide (between 56.5–84 cm wide and 148–185 cm long) with low sides (max 15 cm). They were never longer than the wheelbase, which is the distance between the axles (Fig. C2.7; Pare 1992, 134). Most wagons had a wheel gauge (distance between the axles) between 110 and 130 cm and wheel bases vary between 140 and 190 cm (though there are outliers). The undercarriage of most wagons was undecorated, as were the draft poles (Pare 1992, 129),

with Hochdorf being the best-known exception with its decorated pole (Koch 2006). The wagon-boxes could be elaborately decorated with bronzes (*e.g.* Fig. 4.11), and it seems that the rear ends in particular were richly decorated (Pare 1992, 134) such as, for example, the wagon from Mitterkirchen as reconstructed by Pertlwieser (1987, fig. 10).

The wheels were spoked (usually ten, but the number can range from six to 16 spokes) and generally between 70 and 95 cm in diameter (though both smaller and larger wheels are known; Pare 1992, 127–8). In some cases the wooden spokes of the wheel had metal fittings, which can be undecorated bronze sheet or ribbed cylinders of bronze or iron sheet, such as found for example on the wagon from Býčí skála (Czech Republic; Barth 1969; 1987). They would either be small cuffs at the base or cover the entire spoke (Pare 1992, 87). There are many different types of naves, which often had bronze or iron fittings (such as the type Breitenbonn naves found in Rhenen, Fig. C28.5). Pare (1992, 64) argues that their rapid development suggests that this part of the wheel was critically important “to the functioning of the wagon and required constant development”. Most wagons had forged iron tires on every wheel (as found for example at Grosseibstadt; Kossack 1970, 57; Uenze 1987), and these are the most common wagon component to survive in wagon-graves (Pare 1992, 43). While none were found in the elite burials of the Low Countries, it is assumed that wagons probably were equipped with them here as well. The iron tire first occurred during the Hallstatt period and was an innovation in Early Iron Age Central Europe. Though corrosion often hinders identification, a wide variety of forms were in use during the Hallstatt period. They vary in width (16–42 mm) and cross-section (Pare 1992, 43). Iron tires are known in the Low Countries from later Iron Age graves, like the Nijmegen chariot burial (Bloemers 1986).

### 6.3.3 Hallstatt Culture yokes

The wagons described above were pulled by a pair of horses, who were hitched to the wagon with a wooden yoke mounted just behind the withers of the horses (forward of where a rider would sit; *e.g.* Figs. 4.11 and 6.8). The large ‘cavities’ on the underside of the yokes were designed to clasp the ribs of the horses (in contrast to ox yokes which rest on the neck, forehead or in front of the withers and therefore do not have big cavities; Bauer 2012, 5). The yokes were attached to the horses with straps (note that the chest straps depicted in Figure 4.11 and the like are only to affix the yoke on the horses, they do not contribute traction power; *cf.* Bauer 2012, 8). These wooden yokes often were decorated with bronze or iron fittings, which are a strikingly uniform, distinct and easily recognizable group, though some box fittings do

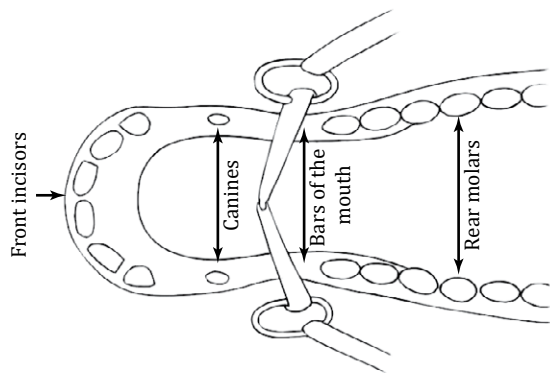


Fig. 6.6 View of the bottom jaw of a horse showing how a bit rests in the mouth. Figure by I. Gelman.

resemble certain yoke fittings (Pare 1992, 94–5). These include *Jochschnallen* (such as find *CSE-LQ.TA.6*), cast bronze oval fittings (such as find *OV.21*), small bronze sheet-knobs (round or oval, with two tongues; such as find *OZ.04–14*) and bronze sheet bands with point-boss or ring-boss decoration (Fig. A2.4). Occasionally bronze or iron chains attached to a central ring are associated with the yoke. Openwork bronze fittings with anchor-shaped terminals that would have been attached to the end of leather straps have been found with some yokes (e.g. find *CSE.LQ.TB.2*; see Fig. C2.8; Pare 1992, 94–5). Nailed rectangular frames, nailed rings, nailed hemispherical bosses and nails with triangular heads have never been found on yokes. Cast bronze plaques from wagons are generally also different than the *Jochschnallen* which have rectangular loops for leather reins on their rear side and typologically form a very uniform group (Pare 1992, 94–5; compare for example *CSE-LQ.TA.6* and *WIJ.15*).

#### 6.3.4 Hallstatt Culture bridles

The horses that once pulled the wagons are not found in the elite burials of the Low Countries, only the horse-gear that they once wore is. This horse-gear forms the primary source of information regarding these animals that likely were highly valued both in the Low Countries and abroad (see below; e.g. Kmet'ova 2013ab). The main horse-gear component found in the elite burials, in addition to the yoke attachments discussed above, are the bridles (*i.e.* headgear worn by the horse). As with the yokes, the leather bridles of the Hallstatt period often were bedecked with metal components. The elaborateness of decoration of both yokes and bridles peaks in Hallstatt C1 (Koch 2011a, 58–60), and it is primarily the metal fittings that survive. While there are some surviving leather components of bridles (for example at Hochdorf; Koch 2006), in most cases reconstructing the leather headgear involves speculation

as various functional configurations of the straps are possible (e.g. Figs. 4.11, 4.14, 7.1 and C2.8).

The main component of (most) bridles is the horse-bit, and it is one of the tools available to the equestrian or driver for communicating with a horse. The *mouthpiece* and the *bit rings* together make up a horse-bit. The bridle and reins attach to the *bit rings* on the sides of the mouthpiece (Fig. C2.7). If these are loose rings that can rotate freely it keeps the bit looser in the mouth since it promotes chewing and relaxation by the horse. When communicating with the horse, the ring will rotate slightly before the mouthpiece puts pressure on the mouth. In this manner the loose ring allows for more signal. A disadvantage is that the ring can pinch the corners of the horse's mouth, in particular if the mouthpiece is too small (see also Section 6.3.6.4). The bit rings affect how the bit works, but the design of the bit mouthpiece is of greater influence. Note that the mouthpiece rests on the gums or 'bars' in the horse's mouth, not the teeth (Fig. 6.6). Leverage and pressure play a role in the functioning of a bit, as does pressure applied by other parts of the bridle. Bits that apply pressure directly to the tongue and lips are *snaffle bits*. These usually have a single-jointed mouthpiece that has a nutcracker effect on the bars, tongue, as well as sometimes on the roof of the mouth (such as for example the bits from Wijchen, see Fig. 6.9). The *cheek-pieces* of a bit keep it from sliding sideways in the mouth, and more specifically prevent pinching at the side of the mouth (which is painful to a horse and can cause him/her to (vehemently) object).

(Modern) bits come in many different shapes and sizes and work by transferring pressure to the horse's mouth; they should not cause pain. Determining what type of bit is needed depends on both the needs of the horse and the rider/driver. In the wrong hands even the gentlest bit can cause pain to a horse, and in the right hands severe bits can convey gentle and subtle instructions. A horse in turn has to learn what particular pressures mean, as these depend on the situation and are generally not natural reflexes (*cf.* Dietz 2003, 192; 2006, 161; see Section 6.3.5.2). Several different general types of horse-bits were in use during the Hallstatt period, made from iron and/or bronze. The mouthpieces were almost always single-jointed, and often constructed from two interlocked rings twisted into bars. In modern horsemanship, bits that have twisted mouthpieces are considered very severe because the edges amplify the pressure on the mouth of the horse. They are more common when driving (see below), but their use is sometimes even forbidden in certain dressage competitions. The Hallstatt Culture bits can have rod-shaped or semi-circular cheek-pieces. The rod-shaped cheek-pieces have either a fan-like or bent ending on one side (see Figs. 3.1, 4.7 and 4.19 for examples). Based on the functioning of the bit, modern parallels and considering

the comfort of the horse, the more elaborate endings of the cheek-pieces would have pointed downwards when the horse was wearing the bit (note that this is in contrast to how it is sometimes reconstructed, see for example Fig. C2.8). The added weight at the bottom of the cheek-pieces provides extra leverage, making them extremely suited for use with driving. This is due to the fact that when one drives a horse one only has the reins and the pressures on the bit to communicate (and possibly a whip or stimulus), while a rider can use his seat and leg pressure to communicate as well and therefore can often suffice with a gentler bit (see also Section 6.3.5.2).

### 6.3.5 Function(ing) of the Hallstatt C horse-drawn wagon

The four-wheeled wagons (*Prunkwagen* in German) of the Hallstatt Culture were intricately made and designed to be seen and heard. The bronze decorations would have jingled and sparkled in the sun, announcing the arrival of whoever was driving (or riding in) it. While it has been noted that their use in life may have differed from their function in the burial or mortuary ritual, it is striking that in discussions of the functioning of these wagon the focus is generally on its role as a prestigious (grave) good used in ceremonial or cult activities. The more practical aspects such as how were they made or driven generally receive less attention (*cf.* Vosteen 2011, 110; with the works by Pare being the obvious exception). However, comprehending how an object was used in life is crucial to understanding why it may have been selected for burial and the role it may have played during the funerary ritual. This section therefore discusses how the four-wheeled wagons were made, worked and driven (the horses who pulled them are considered in Section 6.5.6 below).

#### 6.3.5.1 Making wagons

The manufacture and maintenance of the four-wheeled wagons would have required experience, skill, expertise and specialized tools (Pare 1992, Ch. 9; Trachsel 2011, 95). Woodworking for example involves different skills than those needed to cast the components and ornaments (*cf.* Trachsel 2011, 107). As the wagons are known almost exclusively from funerary contexts, finds of prefabs and casting molds generally are lacking (Trachsel 2011, 96). It is assumed that there were sedentary workshops specialized in making the elaborate wagons. These would have combined the skills of several craftsmen (Pare 1992, 165; Trachsel 2011), though Trachsel (2011, 105) argues that the workshops primarily would have made everyday wagons, rather than being specialized solely in the production of the ceremonial four-wheeled ones. The typological similarities of wagon components and horse tack throughout the western Hallstatt Culture indicate that parts or production methods (or both) were

exchanged (Trachsel 2011, 105). While it is primarily the metal components that survive, the skill and expertise required to produce the wooden wagon should not be underestimated. Wagon building requires the use of seasoned wood, which has to be selected carefully and then stored for a number of years. The skill needed and care taken when selecting raw materials is evident both in recently made wooden wheels and in Hallstatt Culture ones. The wheels from Hochdorf, for example, have naves made of elm, felloes of ash or elm and spokes of maple (Koch 2006, 128–31; Pare 1992, 165).

The wheels show willingness on the part of the makers to develop and adopt technological advances. The draft pole and undercarriage construction were efficient and functional. The fast development of technological features suggests that they had an “important and probably strenuous function” (Pare 1992, 135). The signs of wear observed on certain bronze wagon components, such as on the axle-caps and lynchpins from Wijchen (see Figs. 4.12 and C35.8) certainly indicate extensive use. However, the small size, light construction and simple wagon-boxes seem to argue against them having been used for travel or transport over long distances, suggesting a ceremonial function (Diepeveen-Jansen 2001, 38; Egg/Pare 1993, 213; Pare 1992, 135). At most one or two people could sit or stand on such a wagon and it is probable that they were used for short or festive transport (Egg/Pare 1993, 213; see also below).

Metal fittings decorated the wagon-box, the wheels and sometimes even the draft pole. Many of the fittings have a functional shape and are therefore relatively uniform over large expanses. Decorative elements allow more freedom of design, and Trachsel (2011) argues that in a (very limited) number of cases specific workshops can be identified through these. He also argues that the wagon decorations were made in series and intended for more than one wagon, as shown for example by the manner in which a number of components from the *Prunkwagen* of Birnenstorf were produced which only makes sense if they were making a large number of them. Specialists likely also were needed to make any major repairs on two-axled wagons with spoked wheels, as this requires specialized knowledge, tools and equipment (Trachsel 2011, 95–8).

#### 6.3.5.2 Driving wagons

Wagon driving in the Hallstatt period was relatively well evolved. The driver could communicate with the two horses pulling the wagon in several different ways, with voice commands, through the reins (which connected with horse-bits worn by the horse) and/or with a stimulus (*Treibstachel* in German; Dietz 2006; Koch 2011b, 63). He or she could use these to get the horses to change direction or pace (Koch 2011b, 63; see also Brownrigg 2006). In modern day wagons it is common for the inner

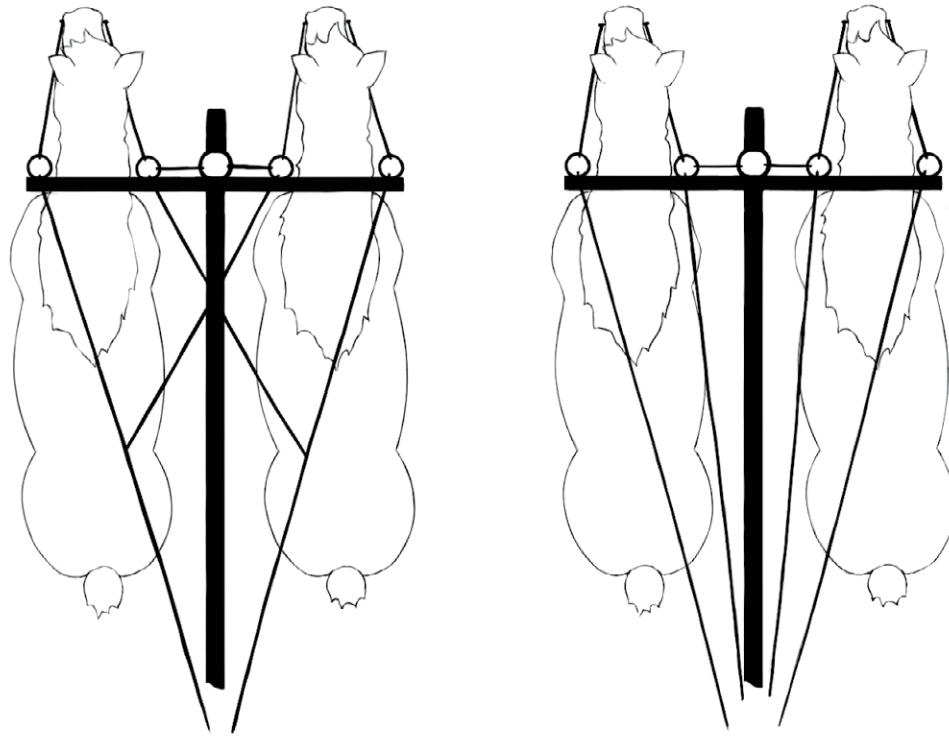


Fig. 6.7 Reconstruction of the reins. Figure inspired by Koch 1999, *abb.* 207; by I. Gelman.

side of horse-bits to be connected to each other with a short bridging strap, while the outer side of the bridles are connected to reins (which are held by the driver). Koch (2006, 237–9; Fig. 203) reconstructs the reins on the Hallstatt wagons differently. She argues that these could either all run from the bridles, through the terrets (supporting rings that carry reins over a yoke and horses' backs) on the yoke to the driver (who would then carry four reins), or the inner reins could cross and connect (meaning the driver would carry two reins; Fig. 6.7).

Horse harnessing also has to be adapted to the wishes of the driver and the horse, and in particular the “physical and psychological problems that a horse has to solve in order fulfill respective commands” (Dietz 2006, 161). For example, when driving a wagon you generally want to prevent a horse from galloping, and this requires very different harnessing than when one rides a horse with a tendency to fling his or her head up. This also means that horse tack cannot always be used interchangeably on different horses (this is elaborated on below). While we cannot reconstruct exactly how such wagons were driven, there are certain givens when working with horse-drawn wagons, namely the build of horses and their instincts, which have not changed (significantly) since the Early Iron Age. Situla art (see also Section 6.1.2.1), moreover, suggests that wagon driving in the Hallstatt period was done according to

the same basic postures and moves in use today (Koch 2011b, 63; see also Eibner *et al.* 2010; Frey 2011; Lucke/Frey 1962).

Both horses and drivers have to be trained to effectively communicate with each other. There must have been general rules or customs over large stretches of Europe with regard to how one drove such a wagon, as horses have to be trained to respond to signals (see also Brownrigg 2006). The supra-regional horse exchange or trade which is postulated to exist at this time (Kossack 1988, 139–40; Teržan 1995, 92ff.) only would have worked if horses were communicated with in similar ways over large areas, indicating the existence of a general driving style. The manner in which the reins are held, for example, can influence how signals are transmitted to the horses. Dietz (2006, 162) postulates that there may have been an important innovation in the posture of the hands at the time of the Hallstatt Culture (as depicted on situlae), and that this new way of holding reins would have allowed for more refined rein aids and therefore more difficult maneuvers.

Not only does a person need training and experience to drive a wagon, in the case of the Hallstatt Culture wagons it may have involved quite some physical strength and skill. While it was once postulated that wagons had some kind of chair on the wagon bed (for example the wagon of Ohnenheim H.9 as reconstructed by R. Forrer or the

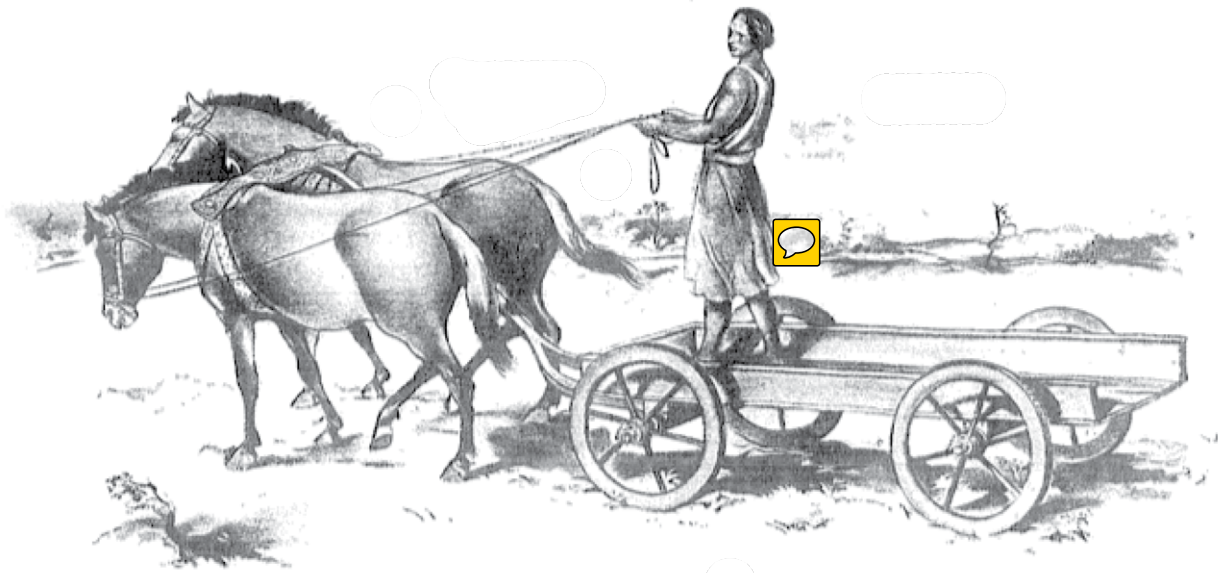


Fig. 6.8 Romantic reconstruction of the four-wheeled wagon from Hradenín. Figure after Dvorák 1938, fig. 1.

Mitterkirchen wagon as postulated by M. Pertlwieser), this idea has since been discarded (Egg 1987; Torbrügge 1992). However, there is some pictorial evidence – such as for example on the bench from Hochdorf (Hoppe 2012, 222) – that the four-wheeled wagons were driven by a single individual standing on the wagon bed (as seen in Dvorák's (1938, Fig. 1) reconstruction of the wagon from Hradenín; Fig. 6.8). Given the construction of these wagons, with their flat wagon beds and low edges, this would mean that the driver had nothing to hold onto, while standing on a moving surface and trying to control two horses. The driving of such a vehicle would have involved considerable skill and physical prowess, especially given the speed at which they likely were moving.

Reconstructing how fast these horses and wagons could move involves conjecture, but an educated guess can be made. The breed, gait, and conditioning of a horse all influence the speed at which it moves. Modern horses have an average walking speed of 6.4 km/h, and can trot at 13–19 km/h or canter at around 19–24 km/h. While a horse on average can gallop 40–48 km/h, it cannot sustain such speeds for very long ([www.speedofanimals.com](http://www.speedofanimals.com)). A horse pulling a wagon naturally will move more slowly and the distances it could cover in a day can vary depending on the size of the party and circumstances (*i.e.* weather, type of terrain and condition of the roads). Wagons generally are pulled at a walk or a trot, and long-distance travel most likely would be done at a walk. So anywhere from 20–40 km per day can be considered a good day's journey. An interesting insight into the speed of the Hallstatt wagons comes from spoke fittings found on the wagon from the Býčí skála cave (Barth 1969; 1987). The ribbing on these fittings was placed in such a

way that a spiral pattern was produced when the wagon went a minimum of 14 km/h. Not only does spacing the decoration in such a way to create this effect evidence the expertise of the Hallstatt wheelwright (Pare 1992, 87), it also indicates that this wagon was intended to travel at this speed (at least part of the time). This wagon, therefore, likely was pulled at a trot at least part of the time, which could indicate that when the *Prunkwagen* were used in their ceremonial and attention-grabbing function that they moved at a trot (see also below).

### 6.3.5.3 Function(ing) of wagons

The extensive use-wear and the care taken in their construction and repair indicate that the ceremonial Hallstatt Culture wagons were not just funeral hearses or made exclusively for burial. They definitely were used, though their small size and simple wagon-boxes seem to argue against them having been used for regular travel or transport over long distances, suggesting a ceremonial function (Pare 1992, 135). There are ample indications that horse-drawn wagons were part of a complex symbolic system and may have featured in cult activities. One class of objects that appears to support this are the various wagon models that characterize this period, such as the *Beckenwagen*, wagons with zoomorphic or ornithomorphic vessels, as well as *Kesselwagen* with bronze vessels and those with ornithomorphic protomes (Pare 1992, 179–81; Schauer 1987). The wide variety of single and hoard depositions of wagon components also shows the esteem in which the wagon was held (Pare 1992, 177–91; Von Brunn 1980). Depictions of wagons in some kind of procession on Pomeranian face-urns as well the later *Situlakunst* (Eibner *et al.* 2010; Frey 2011; Lucke/

Frey 1962; Pare 1992, 186–91; 204–15) also all support the ceremonial or cult-like nature of the wagons, which sometimes (also) took on the role of high status symbols (in wagon-graves; Schauer 1987; Pare 1992, Ch. 12).

While they likely held a ceremonial function, the extensive use-wear found on some wagons and the accompanying horse-gear (for example at Wijchen; Section C35.2; see also Figs. 4.12, 6.9, C35.5 and C35.8) also demonstrates that they did in fact *move around a lot*, something that seems to garner less attention from scholars than their ‘symbolic value’. This was a mode of transport that by the very design of the horse-gear and wagons was intended to attract attention. The bronze fittings on the wagons would have gleamed in the sun and many of the ornaments would have jingled while the wagon was in movement. These wagons were designed to be seen and heard, presumably to attract and focus attention on the driver and/or passenger. This was a highly ostentatious way of getting around, and we should perhaps try to imagine the impact the local Chieftain would have had riding around in such a vehicle. They were symbolically charged, attention-grabbing and status-enhancing modes of transport in life, and they may have fulfilled the same role in death.

#### 6.3.5.4 Wagons in burials – complete and partial deposition

Wagon-graves range from burials with complete wagons to those with only a few components (in particular linchpins) interred as a *pars pro toto* of a complete wagon (Pare 1992, 195). There is, however, a difference between a grave where intentionally only parts of the wagon were selected for interment to stand for the wagon, and cremation graves where a wagon was burned and only some of the fittings were collected and deposited without symbolic intention (Pare 1992, 122–3). Which is *not* to say that fittings from a cremated wagon cannot be *pars pro toto* depositions, but the difference needs to be acknowledged.

#### Horse-gear as a *pars pro toto* of a wagon

There are also graves in which the harnessing for (often a pair) of horses is found without an accompanying yoke or wagon, which are sometimes likewise interpreted as *pars pro toto* depositions of wagons (Koch 2010, 141; 2012; Kossack 1959; Metzner-Nebelsick/Nebelsick 1999; Pare 1992, 195). It is important, however, to distinguish between horse-gear intended for riding or driving when making such interpretations. Some horse-gear, like certain types of bits with elongated cheek-pieces is suited functionally to driving (see above and below), but also could have been used by a rider. When found in isolation this gear cannot always be identified as draft harnessing, even though this is often a likely use, especially in the case of bits functionally suited to driving (see below).

Only when yoke or wagon components are found as well can it truly be established that horse-gear was used with a wagon. However, there is also evidence to suggest that perhaps it was the idea of representing a pair of draft horses, and by extension a wagon, that mattered. The oversized horse-bits from Meerlo probably should be interpreted as such. These bits are typologically ‘correct’, but so large that a real horse could never have worn them and they may have been made as a ‘symbol of a symbol’ (Chapter C23). This is discussed further below. The reverse is, in a way, also true. For while burials with horse-gear for a single horse frequently are interpreted as rider graves (Kmeťova 2013b, 73; Koch 2010, 140; Pare 1992, 195–204), there is an argument to be made that sometimes the horse-gear could still be from a draft horse (which sometimes also can be suggested for technological reasons). This is especially so in the Low Countries where a very destructive and selective burial custom was in practice (see Chapters 5 and 7).

#### Buried with horse-gear and/or a wagon

There is not a lot of data regarding the age or sex of the people buried with wagons and/or horse-gear. In general though it can be said that horses were used by male elites in all aspects of life (Koch 2010, 150), though there is also evidence to suggest a link between females and horses (Metzner-Nebelsick 2009; Metzner-Nebelsick/Nebelsick 1999; see below). Koch (2010, 149) uses finds of horse-gear and wagons as well as figurative art (primarily situla art) to argue that horses were used in many different roles in the Hallstatt Culture (area), including travel, horse racing, carrying armed riders, hunting, jousting or participation in sacrificial rituals. She also argues that peaceful activities dominate. It should be noted that while primarily associated with males, there are also a handful of women’s and child burials with horse-gear depositions, indicating that horses were not only a male purview (Koch 2010). This certainly appears to be indicated by a recurrent association of horse-gear and female attributes throughout the Late Urnfield and Early Hallstatt period, ranging from the burial of horse-gear as ornaments in the Hallstatt Cemetery to ornaments and horse-gear found together in Late Bronze Age hoards (Koch 2012; Metzner-Nebelsick 2009; Metzner-Nebelsick/Nebelsick 1999). Metzner-Nebelsick and Nebelsick (1999, 69) argue that this recurrent linking of horses and women relates to a widespread and long-lived mythology of “heroines and goddesses with equestrian ties as bestowers of fertility, sovereignty and legitimacy”.

#### 6.3.6 The horse in the Hallstatt Culture and the Low Countries

The elaborate horse-gear and wagons found in the elite burials generally are seen as prestigious (grave) goods

and possessions that played a key role in funerary rituals (e.g. Hennig *et al.* 2009; Koch 2006; 2010; Kossack 1959; Pare 1992). The animals that wore the richly decorated horse tack and pulled these wagons, however generally receive less attention. This research, however, argues that they were likely just as important as the wagons and horse-gear. Horses represent and involve major economic and emotional investments. It takes years of training to make a horse suitable for pulling a wagon (and a driver suited to train, control and communicate with them). They would have been valuable animals and important to people's way of life. Moreover, people connect and bond with horses (see below). Even if we ignore the emotional effect that horses have on humans, horses enable people to manage territory, livestock and other people and are seen as a means of controlling wealth and exercising power (Bendrey 2007; 2010). I argue that a pair of horse-bits therefore need not (only) be a *pars pro toto* deposition of a ceremonial wagon at all, it may instead (also) represent the valuable animals used to pull it. Horse-gear has to be made to fit a specific horse in order to work properly. The horse-gear might therefore just as well have been part of the identity of the horse, rather than the chiefly identity of the deceased. This section focuses on these 'noble animals' and their role in the Early Iron Age.

### 6.3.6.1 Relating to horses

Relationships between humans are characterized by "uniqueness, irreplaceability and interdependence" (Adler *et al.* 2003, 14–5). As many horse owners will tell you, the same features characterize their relationships with individual horses. Horses have their own personalities and vary widely in psychological traits. They often are described in the same terms used to describe a human's personality. A horse can be honest, headstrong, spirited and so on. Describing horses in such a manner may seem somewhat un-academic, but in my opinion it is imperative that we acknowledge that (most) people who interact with horses, *do* see them in this manner. Riders understand horses not "out of misguided logic or intellectual naivety about the perceived dangers of anthropomorphism", but as other beings and not as "objects or academic constructs" (Argent 2010a, 169). Humans bond with horses and value them for more than their functional and economic uses. This does not, of course, mean that horses sometimes were not (and still are) exploited, dominated and oppressed by their owners. However, as Argent (2010a, 159) argues, "the relationship between humans and horses is not *necessarily* exploitive". She explores a more cooperative model of human-horse interaction, whereby horses are seen as more than objects or tools used by humans. Working from this perspective she proposes a very interesting interpretation of the costumes worn by the Iron Age Pazyryk horses interred

in the human-horse burials in a Kurgan. By viewing the horses as subjects and analyzing their costumes as possibly reflecting the characteristics and accomplishments of the horses themselves, she was able to suggest that the horses' costumes reflect the roles and statuses of the horses, rather than those of the humans (Argent 2010ab). This type of approach can be of value when examining the Hallstatt C horse-gear. By acknowledging the connections between humans and horses we can avoid treating horses as objects being acted upon. While the elite burials of the Low Countries do not contain the horses themselves, it may be possible to say something about them based on the horse-gear they do contain. The characteristics of a bit, for example, can say something both about the horse and the rider/driver, and even hint at their relationship.

### 6.3.6.2 Horses (represented) in the Hallstatt Culture

During the Early Iron Age, horse tack components (in particular horse-bits) started to be placed in human graves of the Hallstatt Culture, followed by a surge of objects representing horses, including clothing, jewelry and vessels with horses depictions, in particular as grave goods (e.g. Kmeťova 2013b, 68–9; Koch 2006, 144; Lucke/Frey 1962; Metzner-Nebelsick 2002, 454–5, 462–8; 2007; Pare 1987a–c; 1992, 195–202; Fig. 135; Reichenberger 2000). The miniature wagons and figurines, such as the cult wagon found at Strettweg (Egg 1996), are well-known examples (see above). The horse quickly became the most frequently depicted animal of this time period (Kmeťova 2013a, 249).

In the western regions of the Hallstatt Culture and central Italy it was typical to inter horse-gear for a pair of horses, while tack for a single horse was characteristic for the Pannonian Basin and northern Italy. In the East-Alpine Hallstatt regions these two customs met, and there was also the placement of tack for three horses in graves. Numeric symbolism apparently played an important role, with a pair or horse-bits symbolizing horse tack for two (draft) horses and a wagon or chariot vs. a single bit symbolizing harnessing for a single (riding) horse (Kmeťova 2013b, 73; Pare 1992, 195–204; Von Hase 1969, 53–6; though see above). In several regions of the East-Alpine Hallstatt Culture the horses would be buried as well. Sometimes entire horses were buried, while in other cases only some (cremated) fragmentary remains were interred (Kmeťova 2013ab). No burials of horses have been found in the Low Countries, though the Chieftain's grave of Oss yielded a burned fragment of horse bone (Smits *et al.* 1997, 99: Section C26.2). In general though, objects associated with horses were interred more frequently than horse remains (Kmeťova 2013b, 69).

While the prestige associated with owning an elaborate four-wheeled wagon is frequently stressed,

the horses likely would have been equally or even more valuable. Kmeťova (2013b, 73–4) argues that owning one or several high-class and costly horses and a lavish wagon was highly prestigious and the interring of horses and/or horse-related objects in elite burials shows the value of horses in Hallstatt Culture society. Horse tack in graves therefore represented the high social rank of its owner (alive or dead) and identified them as a member of a privileged social class (namely as a rider or driver of horses). In this manner horses, and not only the wagons, served as social symbols for the members of the elite stratum (Kmeťova 2013b, 67). She goes on to paint a picture of the importance a horse would have had in the life of an elite, how it would have been “a nobleman’s daily companion in many of his ‘class-specific’ activities, such as warfare, hunting and racing as well as a manifestation of his wealth and elevated rank” (Kmeťova 2013b, 77–8). After death, the horse served to show the social status of the deceased during the burial ritual, especially in front of his progeny and the community that he once may have led. For certain areas of the eastern Hallstatt Culture it has been argued that placing horses or their harnesses in a grave not only marked the deceased as a holder of high social rank, but probably also expressed the journey after death to the Underworld for which the horse would have served as companion on the final journey (Metzner-Nebelsick 2002, 492; Kmeťova 2013a, 251–2; 2013b, 73–5).

This conforms with the fact that, more generally speaking, the horse certainly had a strong mythological presence in many Indo-European cultures. It has been argued that in funerary rituals in general a horse “performed both the role of intermediary between the human and divine worlds and, also, it provided the deceased the means for resurrection” and that “a sacrificed horse [had the ability] to bring eternal life, as well as spiritual and physical energy” (Kuzmina 2006).

### 6.3.6.3 The origin, appearance and prowess of the Hallstatt Culture horse

Important remaining questions are where did the horses come from, and what were they like? Kossack (1988) already speculated that the introduction of larger horse-bits during Hallstatt C1 indicates that a larger horse-breed was introduced during this period, probably from the North Pontic steppes (see also Pare 1992, 138). A related and for this research perhaps more relevant question is whether the horses in the Low Countries were the same as those in the Hallstatt Culture area. Answering this is difficult as the actual remains of these horses are rare and the following therefore is based on limited evidence. The Hallstatt Culture horses are believed to be descendants of horses who were domesticated on the Eurasian steppes during the Eneolithic and subsequently dispersed from

Eastern to Central and southeast Europe (e.g. Anthony/Brown 1991; Anthony *et al.* 1991; Bökönyi 1974; Greenfield 2006, 22; Olsen 2000; 2006). Osteometric data, for example, indicate that horses imported from Eastern or southeastern Europe were used to initiate controlled breeding of horses in central and southern Germany (Benecke 2006). In general it has been argued that there must have been controlled breeding in the Iron Age as horses were so important. Intensive local breeding certainly is indicated by the development and production of local versions of horse-gear and the burials of high-class horses in certain areas (Bökönyi 1974, 250ff; Kmeťova 2013a, 254; Metzner-Nebelsick 2002, 357–62; Palk 1984). According to Kmeťova (2013a, 254) the importance of the horse could have increased throughout the wider social range as a result of such economic investment and the wider population strata may have participated in rites related to the horses.

With regard to the physical appearance of Iron Age horses in Europe, in his classic work Bökönyi (1968) postulated that the horses of Iron Age Central and Eastern Europe fall into two (not uniform and geographically separated) groups based on osteometric morphological data (though these groups were not identifiable in terms of genetics in a recent study by Hennig *et al.* 2009). The ‘eastern group’ (covering the eastern part of Central Europe, of Eastern and southeastern Europe) incorporated “Scythian and Greek horses of Southern Russia, the Thracian horses of Bulgaria, the horses from the 6<sup>th</sup> century B.C. of Histria in Romania, the Scythian horses of Hungary, as well as the horses of the Hallstatt Age of Magdalenska gora and of Breje” (Bökönyi 1968, 19). The horses of the Hallstatt period of Austria and Germany and of the La Tène period of Germany and Switzerland belong to the ‘western group’ (covering the western part of Central Europe; Bökönyi 1968, 18–9; 39). The horses generally had relatively big heads (Bökönyi 1968, 41). Horses from the ‘eastern group’ were mostly larger-bodied stock, and had an average withers height of roughly 137 cm/13.5 hands (ranging from 121.1–149.9 cm or 120.4–151.9 cm depending on which bone is used to reconstruct the height), while the western group generally are smaller-bodied horses with an average withers height of roughly 126.7 cm/12.5 hands (ranging from 109.9–149.9 cm or 112.5–153.5 cm depending on which bone is used to reconstruct the height; Bökönyi 1968, 22; 36–41). For modern comparison purposes, an average Thoroughbred is 163 cm/16 hands, and ponies can measure up to 147 cm/14.2 hands. The horses of the eastern group were stockier than the western ones. The horses of the steppe had stockier legs than the slender-legged mountain-woodland horses. The eastern horses were more desirable as they were faster, could carry heavier loads and cover greater distances. People living in areas

where the western group was prevalent therefore likely would have striven to acquire horses from the eastern group, something that Bökönyi (1968, 41) postulates was mainly possible for elites. It may be that this is reflected in the change in the size of horse-bits (from 70–80 mm during the Urnfield period to 80–100 mm in Hallstatt C) observed by Kossack (1959, 88–9; 1988; Pare 1992, 3). The size of mouthpieces and how this relates to the horses who wore them is discussed further below.

In terms of appearance, Koch (2006, 222–5; fig. 195) offers modern day Dartmoor or Exmoor ponies as a parallel for what the Iron Age horses may have looked like. These animals, however, are smaller than the Early Iron Age horses, and modern day Haflingers may serve as a better example. All these modern breeds, however, have loose flowing manes, while Iron Age horses often are depicted with a short, standing mane (*e.g.* on the situla of Kuffarn; Eibner *et al.* 2010). This can be specific to the horse breed (for example modern day Przewalski horses), but also the result of the mane being cut short. This is a common practice, in particular with horses that pull wagons, to prevent the reins from becoming tangled in the mane.

#### Horse burials

As already mentioned above, both complete horses and fragmentary (cremated) remains of horses were buried in several regions of the East-Alpine Hallstatt Culture (Kmet'ova 2013ab). Horses, however, are almost never found in burials in the west Hallstatt Culture. One exception comes from Gro'Ben Buhl near Aislingen (Lkr. Dillingen in Bavaria) where two horses were found buried in a pit separate from the central burial chamber (Hennig *et al.* 2009). Though the grave had been robbed out, the fragmentary remains show that a wagon of Pare's (1992) type 4 had been buried in the central chamber. The two horses match in size and build, which in combination with their proximity to the wagon burial, indicates they are a set of draft horses which once pulled the buried wagon (Hennig *et al.* 2009, 183). The horses were stallions or possibly geldings. One was at least 15 years old and the other may have been older. They were slenderly built and 138–141 cm high at the withers (modern day Haflingers would be a close comparison; Hennig *et al.* 2009, 176–81). This is relatively large for horses of that time, and Hennig *et al.* (2009, 183) argue that they are from the local region and were selected for the elites because they were the best. The care taken during the burial shows the esteem in which both the deceased and the horses were held. Two 15–20 year old stallions were found in a large barrow in Nersingen as well (Manhart 2001, 146). In contrast to the Aislingen horses the Nersingen ones were buried wearing horse tack.

#### 6.3.6.4 Changes in horse tack, changes in horses?

As noted above, Kossack established that during Hallstatt C horse-bits in the Carpathian Basin were wider (80–100 mm) than the horse-bits from the preceding western Urnfield Culture (70–80 mm), with bits of 120 mm wide appearing to be the largest in use during the Hallstatt C period (Kossack 1959; 1988). The size of the mouthpiece provides insight into the horses that once would have worn them, as a bit has to fit the mouth of the horse to be functional (see also above). The change in bit size was therefore interpreted as evidence of the introduction of a larger horse breed (Kossack 1959; 1988; Pare 1992, 3; 138). It should be noted, however, that the size of the horse-bit does not always relate one-to-one to the size of the horse. While larger horses generally require larger bits, there are also small horses or ponies with larger heads, and it is therefore important to know about the size and build of a horse's head (*cf.* Koch 2006, 219). Changes in the size of horse-bits in use, however, could indicate a change in the (breed of) horses used.

This makes it all the more striking that the bits found in the Low Countries appear unusually large (Tab. 6.2). The smallest are 120 mm, which is bigger than what Kossack (1959; 1988) noted for the Hallstatt C period. As noted above, the bits from Meerlo are so large that they never could have been used (see also Section 7.2.3.5). Even today there is no horse that takes a bit of 190 mm. The use-wear found on the bits of Oss-Vorstengraf and Wijchen, however, show that these certainly were used (Fig. 6.9), which makes their large size striking. When comparing the sizes of mouthpieces it is important to specify exactly what is being measured. Figure 6.9 shows how measurements can differ depending on where they are taken. I measured the diameter of the mouthpieces from the inside of the outer eyes, or in those cases where only half the mouthpiece survives, from to the inside of the inner eye to the inside of the outer eye (Fig. 6.9, bottom). This gives the best measurement of the material that would have been inside the mouth. The bit would be angled inside the horse's mouth (Fig. 6.6), and this measurement therefore does not equal the width of the mouth. As far as can be determined at present by measuring and comparing horse-gear published by Kossack (*e.g.* 1959), it appears he measured in roughly the same way. This could indicate that at least some of the horses pulling the elaborate ceremonial wagons in the Low Countries were bigger (-mouthed) than those in use in the Hallstatt Culture area. While this does not necessarily mean that we are dealing with a different breed of horse, it does appear that the larger (-headed) animals were selected for duty as draft horses for these particular wagons.

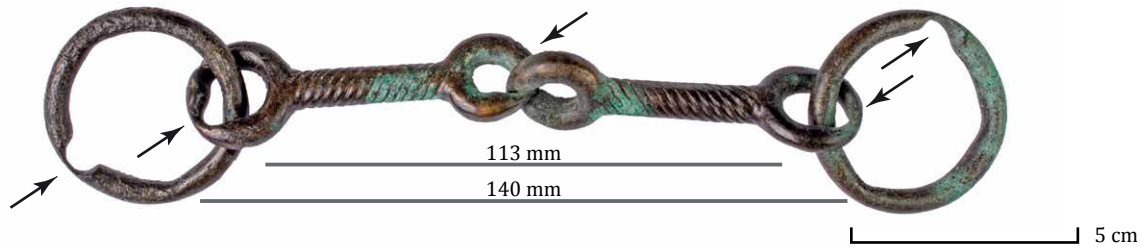


Fig. 6.9 Use-wear on one of the Wijchen bits and the difference in the width of the mouthpiece depending on the point of measurement. Photograph by J. van Donkersgoed.

Object no.	Material and type	Size mouthpiece
CSE-FR.T3.11	Iron bit, type Platenitz	Ca. 120 mm
CSE-FR.T3.12	Iron bit, type Platenitz	Ca. 132 mm
DB.5*	Iron bit	-
LM.T1.4*	Iron bit fragment, type Platenitz	Half the mouthpiece: 71.5 mm; total mouthpiece would have measured ca. 143 mm
M.05, M06, M.08, M09	Iron bit	Ca. 190 mm
M.07, M.10, M.11	Iron bit	Ca. 190 mm
OV.09	Iron bit, type Platenitz	Ca. 155 mm
OV.10	Iron bit, type Platenitz	Ca. 158 mm
WIJ.07a	Bronze bit, simple snaffle	Ca. 135–140 mm
WIJ.07b	Bronze bit, simple snaffle	Ca. 134–140 mm

Tab. 6.2 Size of horse-bit mouthpieces in the Catalogue.

## 6.4 Tools

Tools generally are not considered one of the defining factors of Early Iron Age elite burials. However, it appears that some were key elements of ('ritual') butchering practices, and this research posits that the axes found in a number of Low Countries elite burials actually reveal the involvement of individuals familiar with Hallstatt Culture burial practices in the funerary rituals (see also Section 7.3).

### 6.4.1 Axes: local and regional products

As noted in Section C2.5.2, only four axes are included in the Catalogue and they all appear to be regional products in that they certainly do *not* seem to be Hallstatt Culture imports. This means that the axes were not imported alongside the swords, wagons and horse-gear as part of some elite set. The decision to include an axe in these four graves was made by the people doing the burying. What makes this significant is that the decision to include such objects in burials appears to go completely against the local customs. In the Low Countries axes *never* ended up in graves during this period, instead they were deposited in other contexts (Fontijn 2002, app. 2.14–15; Section 5.1). These four axes, which incidentally were found in some of the richest graves in the dataset (see also Section 4.2.1), are the only known exceptions. Something about these

four individuals or the people who buried them made it acceptable, and apparently necessary, for them to be buried with axes (see also Section 7.2.3.3).

### 6.4.2 Butchering tools: knives and axes

The apparently locally made decision to make an exception to local customs and bury four special individuals with axes becomes even more interesting when we consider that axes feature in several of the richest Hallstatt Culture *Fürstengräber* of Central Europe. Here the axes and knives are interpreted as ritual butchering tools linked to feasting and/or offering and are believed to represent a meaningful component of the elite set and elite identity expressed in these graves (e.g. Krauß 1996, 299–307; Mörtz 2012, 172; Schickler 2001, 124–5). The quality of some of the axes found in elite burials appears consistent with a non-everyday use or function. The axe from Oss, for example, is unusually fine and detailed (compare for example the axe from Didam-Kerkwijk; Van der Veken *et al.* 2011), and making such an axe from iron would not have been easy. Some axes found in elite burials of the Hallstatt Culture are even decorated with gold (Schickler 2001, 125). As noted in Section C2.5.2, the knives found in elite burials can be extravagant both in size and decoration, perhaps likewise indicating a non-mundane function or use.

Examples are the unusually large knife reportedly found in Court-St-Etienne La Ferme Rouge T.3, and the knife inlaid with gold found in the *Fürstengrab* of Frankfurt-Stadtwald together with swine bones, which appears to be a recurring association. Iron knives, for example, were found in association with pig hindquarters and bones in several elite burials at Hradenín (graves 1, 24 and 46; Schickler 2001, 25–6). The (ritual) butchering of animals also is represented repeatedly on situla art, and more specifically a pig or swine can be seen being dragged towards two seated, feasting individuals on the situla of Bologna (Krauß 1996, 304; Lucke/Frey 1962; Schickler 2001, 123). In short there is reason to believe that the axes and knives found in the elite burials held a special function and role, both in life and death, and were an important part of the grave goods.

#### 6.4.3 Whetstone or other stone tool?

Supposed whetstones have been found in a number of the elite burials, which may in fact not have been whetstones at all (Section C2.5.3). Use-wear analysis on the supposed whetstone of Oss revealed no signs of use to sharpen blades. While the absence of use-wear traces does not exclude the possibility that the object once was used for a certain function, the presence of traces of use of a very different kind on the Oss stone does indicate that this was not a whetstone. Instead the narrow end appears to have been used in a transverse, scraping motion (see Section C26.2). It has not yet been possible to reconstruct the exact function of this object. The fact that it was selected for burial and rubbed with ocher, probably during the burial rite, does appear to indicate a special function or significance. At present the Oss stone is the only such item to have been examined in such a way, and it is certainly plausible that some such objects were in fact whetstones. The Oss example, however, demonstrates that such a use cannot be assumed based on shape alone. Research into this is ongoing.

### 6.5 Personal appearance: toiletries and ornaments

As discussed in Chapter 5, it has been argued that the elite burials with Hallstatt Culture imports were geared in their entirety towards conveying a supra-regional, elite, and indeed, warrior identity (e.g. Fontijn 2002, 206; Fontijn/Fokkens 2007; Treherne 1995). Though the artifact complex itself may play a role in conveying a specific identity (see Section 7.2.1.1), there are also several kinds of objects specifically related to physical appearance. These include razors, tweezers and other toiletry items as well as clothing, dress items and ornaments. The razor(s), tweezers and other toiletries in particular would have been used to alter a person's

body and/or face, and it is worth considering how and why this was done. Textiles, though elusive finds, were used not only to keep the body warm, but also to convey messages.

#### 6.5.1 Grooming tools: adjusting one's physical appearance

It has been argued that Bronze Age razors and toiletry items played a role in the presentation of the self and the expression of identity, and that this became increasingly important at this time (e.g. Harding 2008; Treherne 1995). As most men naturally have facial hair once they reach a certain age, “the decision whether to keep or remove it, and if so, in what manner, is part of the presentation for that person” and razors are therefore “the archeological expression of how men presented themselves” (Harding 2008, 194). We should, however, not discount the possibility that some razors and depilatory tweezers may have been used by women. In the case of the current dataset only the razors from Oss (*OV.27* and *OV.28*) can be identified as coming from the grave of a man. Other toiletries cannot be assigned to a specific sex based on physical anthropological grounds, though in the case of Slabroek (*US.11–13*) it is suggested they come from the grave of a woman.

##### 6.5.1.1 The razor's edge – the importance of a close shave?

The razors found in the Dutch and Belgian elite burials fit into a long tradition of both the use and interment of such items. Throughout the Middle and Late Bronze Age razors are found both in poorly furnished burials and in the very richest (Fontijn 2002; Jockenhövel 1971, 248; Louwen in prep.), indicating, “it was not just a matter of observable status in terms of grave goods that determined whether men possessed razors” (Harding 2008, 192). This again raises the question of how a certain type of object was used in life as this gives insight into its selection as a grave good (Section 6.1) – how, and in particular how often were these razors (and tweezers) used? While it is possible to shave with bronze razors, experiments indicate that they are ill-suited to shaving daily or only a few days beard growth. They require about a week's growth so that the blade ‘grips’ better (Drescher 1963; Kaul 1988). So while perhaps not a part of the daily routine as they are for most men today, the wear and resharpening found on many indicate that they certainly were used. Harding (2008, 191) suggests that in the Bronze Age this may mean that (in the absence of mirrors) a specialist was responsible for shaving the living and the dead (though he does acknowledge that Jockenhövel (2003, 138) argues that razors are too common for this to be the case). So while these razors most likely played an important role in how people presented themselves to the outside world,

of particular interest to this research is that the razors may have been used during the burial ritual to prepare the corpse, or by the mourners themselves, as suggested by Treherne (1995, 121) in his seminal work (see also Fontijn 2002, 204; 227–8; Harding 2008). However, Barrett (1994, 116) warns that a distinction must be made between similar items that played a role in dressing the living and those that adorned the dead. In contrast to the living, a corpse does not play an active role in its own adornment. Whether it played an equal role in life and in death, there was an aesthetic of beauty that was considered important enough to play a role in the burial and the dead were being made to look a certain way (see also Section 7.2.1.1).

#### 6.5.1.2 Toiletries as ornaments?

Razors, however, were not the only objects used to change the appearance of the face (and possibly the body). There are a number of toiletry items found in the elite Early Iron Age burials, including tweezers which presumably were used for depilatory purposes. Items with a V-shaped notch are interpreted as nail-cutters, and small spooned items are believed to be implements for applying makeup or for cleaning ears (Harding 2008, 192).

There are some indications that these toiletries were worn on the chest. The set from Slabroek, for example, was found on the left shoulder. It is argued that it was likely in a (leather) pouch of some kind that had an amber bead as a closing (see Chapter C32). The same arrangement was found in the *Fürstengrab* of Frankfurt-Stadtwald, where a bronze and iron toilet set was found in a leather/cloth pouch that not only had an amber bead as closing but was also decorated with feathers (Fischer 1979; Willms 2002, 49). There are also many other instances of toiletry sets found on the chest, and perhaps they were worn pinned on the chest as some kind of ornament. Their presence there perhaps reinforcing the idea of beauty that they were used to maintain.

#### 6.5.2 Pins and ornaments

Pins and ornaments are also among the grave goods found in the burials under discussion. They range from simple clothing pins to more elaborate ornaments like bronze anklets and hair rings. Chapter 5 already touched upon the special nature of a number of these ornaments, namely the *Bombenkopf* pins found in the Chieftain's burial of Oss and possibly also in the Wijchen grave (Sections C26.2 and C35.2). The significance of certain types of ornaments as supra-regional identity markers also was discussed. The exceptional ornaments from Leesten-Meijerink (Chapter C18), which were discussed in Section 5.2.2, appear to be a unique assemblage in the Low Countries. Otherwise, however, the pins and ornaments listed in the dataset appear to

be 'normal' adornments of commonly found types. This should not come as a surprise as ornaments are common finds in both deposits and burials during the Late Bronze Age (Fontijn 2002, 172–4; 198–201; Louwen in prep.).

#### 6.5.3 Cloth and clothing

Not only did the razors, toiletries and ornaments play a role in the specific appearance of the dead, the organic dress of the deceased did as well. In some cases only the imprint of textile survives on metal objects, such as for example a fragment of iron with cloth imprint (*CSE-FR.T4.10\**) found at Court-St-Etienne or the impression of textile observed on the bucket of Rhenen-Koerheuvel (Sections C6.2.5.1 and C28.2). There is also indirect evidence of the clothing of the deceased, in the form of metal dress pins and ornaments. Only in two burials in the dataset do actual textiles survive: Oss-Vorstengraf and Uden-Slabroek.

##### 6.5.3.1 Oss-Vorstengraf and Uden-Slabroek: different cloth cultures?

The textiles found in the Chieftain's burial of Oss and in the exceptional Uden-Slabroek grave appear to have had different functions in the two graves in which they are preserved. While some textiles have been identified as the clothing of the deceased, some are also a functional part of the funerary ritual and were used to wrap grave goods, either by themselves or in groups. In the Chieftain's burial of Oss textile was used to wrap up a number of grave goods (see Insert 7.1; Sections 7.1 and C26.4.2). In the same grave the extreme high quality of some of the textiles, as well as the manner of deposition, suggest that cloth (perhaps in the form of clothing) also was deposited as a grave good in its own right, such as the packet of imported diamond twills (Textiles C and D; App. A2.7 and CA1; Fig. 4.9; Section C26.2). In Uden-Slabroek the deceased appears to have been buried in a long dress with long sleeves, made from an attractively colored woolen textile with a (probably blue and red) houndstooth pattern (see App. A2.7 and CA1; Section C32.2).

In some cases we can use the properties of materials to make an educated guess regarding how they may have been used. Fine, light and/or loosely woven fabrics will fray if left unhemmed, but are well suited to being made into shawls or soft and pleated dresses. Stiff and dense textiles are hardwearing and serve well as outerwear (Grömer *et al.* 2013, 226–7). Differences in types of cloth and their uses also are reflected in the two elite burials of Oss-Vorstengraf and Uden-Slabroek. While the technical aspects of these textiles are discussed elsewhere (App. A2.7 and CA1; Sections C2.7, C26.2 and C32.2), there are some elements to them that warrant further discussion. It appears that the textiles found in the elite burials of Oss-Vorstengraf

and Uden-Slabroek may come from different cloth cultures (a concept introduced by Harris (2008; 2012) and discussed in Section C2.7.1). They are different in terms of thread and weave patterns, and the wool used to make them could not have come from the same sheep as the wool used in Uden-Slabroek could not have been spun as thinly as some of the threads used in the Oss textiles (Grömer 2015, pers. comm.). Some of the Oss textiles have close parallels in the Hallstatt Culture area and Italy and were most likely precious imports in their own right. The dress from Uden-Slabroek, though brightly colored with an attractive pattern, was worn for long enough period of that it became quite worn, almost felted in places (Grömer 2015, pers. comm.).

### **6.6 Conclusion: grave goods that reflect an elite lifestyle**

This chapter discussed practical aspects of both the production and use of the (types) of objects found as grave goods in the elite burials. They are components that played a role in the construction and expression of a complex identity, and I have attempted to show that these objects were both symbolically charged and very much a part of daily life. The bronze vessels held drink and likely served as focal points

for social gatherings which could have served a range of (simultaneous) purposes, not least of which was to ease and celebrate the meeting and interaction of people from far-flung reaches. Exceptional, imported horses once wore the horse-gear and pulled the wagons that were driven by people who had to have trained and practiced extensively to do so. As a moving, glittering and jingling ensemble, perhaps crossing the heath or farmlands the wagons would have stood out and attracted attention. The swords were worn and trained and fought with, perhaps in ritualized combat but most likely also in encounters where the combatants were truly intent on inflicting harm on the other person. The precious textiles, ornaments and grooming tools were used to create and in the latter case maintain a specific appearance that may have made them immediately identifiable as individuals of a certain rank or members of a specific social class, possibly even in way that people from across Europe would have understood. The grave goods are what is left in death of an active and specific way of life and in this manner remain signifiers of that lifestyle, status and identity (*cf.* Boivin 2008, 16–41; Section 2.3.1). Their uses and roles in life likely influenced why they were selected for burial with these specific people through this specific burial practice.