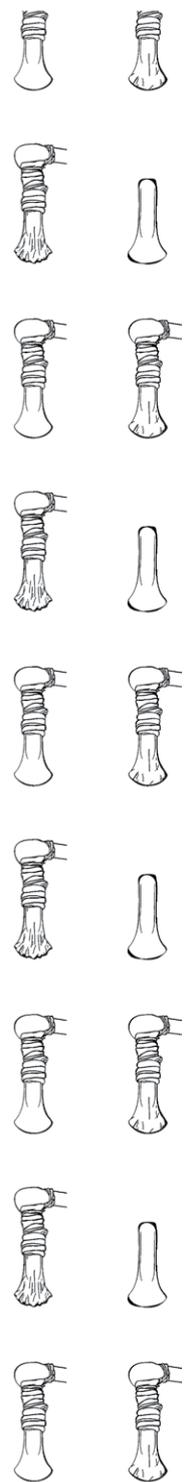
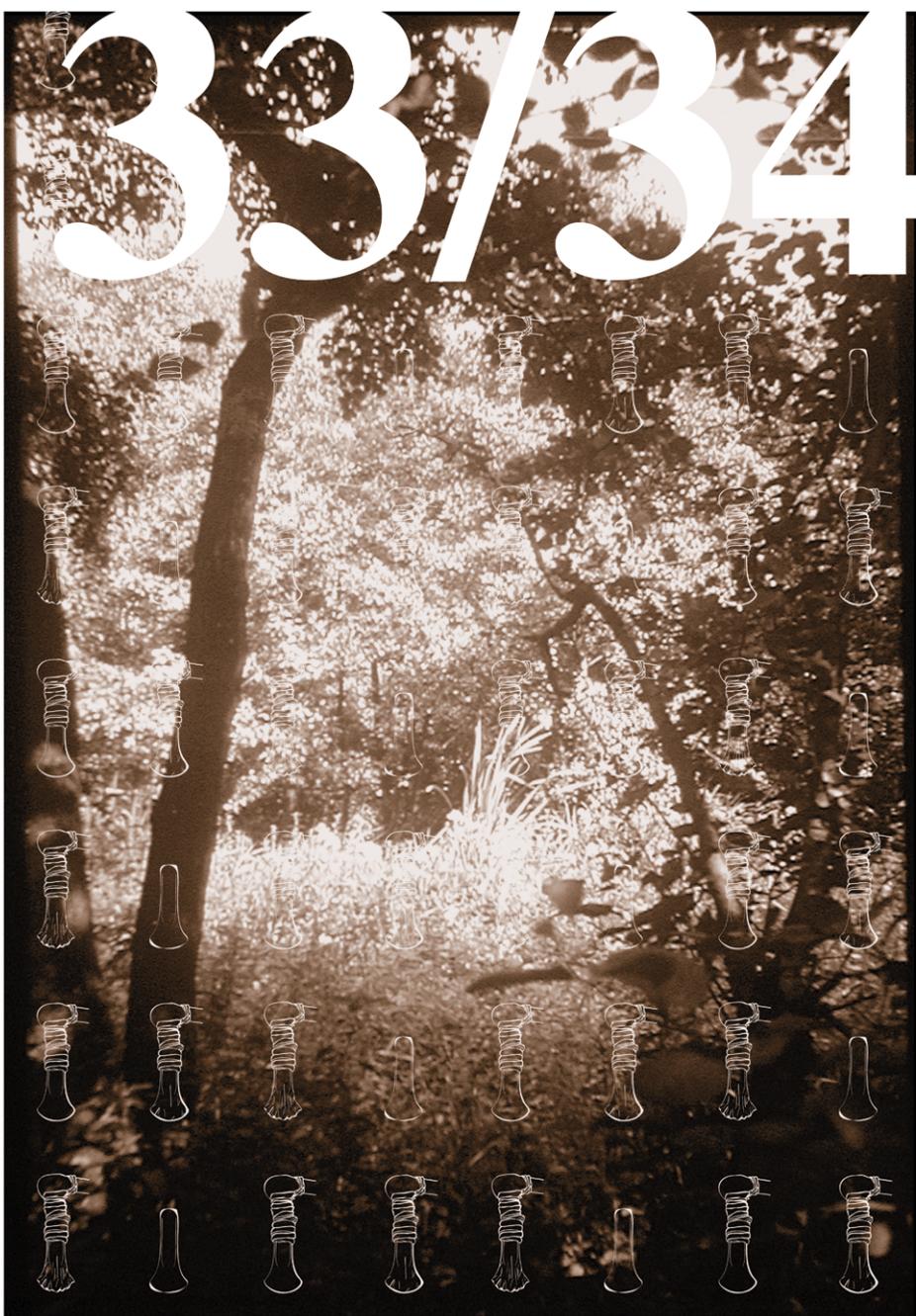
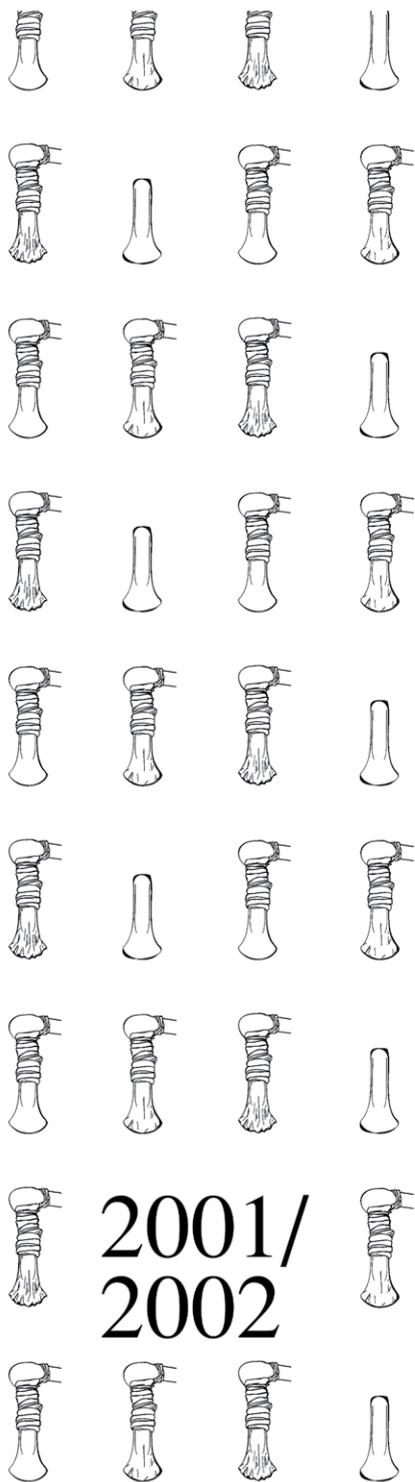


# ANALECTA PRAEHISTORICA LEIDENSIA





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DAVID R. FONTIJN

SACRIFICIAL LANDSCAPES

CULTURAL BIOGRAPHIES OF PERSONS, OBJECTS AND 'NATURAL' PLACES  
IN THE BRONZE AGE OF THE SOUTHERN NETHERLANDS, C. 2300-600 BC



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*Non multo post in Cantabriae lacum fulmen decidit repertaeque sunt duodecim  
securae, haud ambiguum summae imperii signum.*

(Suetonius, book VII: Galba, Otho, Vitellius)

*Und dast Sterben, dieses Nichtmehrfassen  
Jenes Grunds, auf dem wir täglich stehn,  
Seinem ängstlichen Sich-Niederlassen -:*

*In die Wasser, die ihn sanft empfangen  
Und die sich, wie glücklich und vergangen,  
Unter ihm zurückziehn, Flut um Flut*

(R.M. Rilke 'der Schwan')



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## Preface

The European Bronze Age communities have left us thousands and thousands of copper and bronze artefacts. Archaeologists have long realized that many things can be learnt from these objects, like the nature of prehistoric metalworking techniques, exchange relations, the distribution of stylistic traits and so on. Realizing this, archaeologists have written hundreds of books and thousands of articles on these copper and bronze artefacts since the early 19<sup>th</sup> century, and undoubtedly many more are yet to come. The present book focuses on the metalwork finds of one small European region: the southern Netherlands and the adjacent part of North Belgium. It is a book about a very simple question: how is it possible that all this metalwork has come down to us?

Belgian and Dutch archaeologists have always been quite suspicious of the bronze finds. Many came from dubious sources, such as old private collections or antique dealers, and most were believed to give no information on find context. But there were signs of a new attitude towards Bronze Age metalwork. Particularly the work that was published in the late 1980s and early 1990s by Roymans, Van der Sanden, Van Impe, Verlaeck and Warmenbol paved the way for an interpretation of such metal items as 'ritual depositions' or votive offerings. The obvious implication of their view is that the bronzes now came to be seen in a different light, as items informative of 'prehistoric religious practices'. This was more or less the assumption with which I started my research in the late 1990s. Essentially the idea was that I could simply look at the existing *corpus* of metalwork finds from the region, and use it to build theories on the structure and meaning of ritual deposition of metalwork, ultimately culminating in ideas on prehistoric ideology. In addition, there was at that moment an impressive number of new books by post-processual archaeologists and social anthropologists, providing fresh perspectives on the study of material culture. I naively believed that anthropological studies on exchange and sacrifice in particular would give me some clue for making sense of bronze depositions.

When I began my investigations, I rapidly encountered numerous problems, however. To start with, there was no such thing as a comprehensive published *corpus* of all metalwork in the region, let alone publications that provided information on the context where bronzes were found. Even

the existing theories on typology and chronology of bronzes were in the process of being fundamentally revised by J. Butler and H. Steegstra. This left me no other choice but to compile a catalogue of my own. Although it seemed a major setback at the time, I am now very glad that I had to return to the objects themselves. Studying objects and documents in museums and amateur collections confronted me with many questions, which a reading of literature alone would never have made me think of. In addition to allowing me a first-hand account of the reliability/unreliability of many finds, I was able to make many interesting observations. Why were so many objects found in a condition as if they were meant for use? Why were some objects never found in specific contexts? How is it possible that two items obviously made in the same mould were found in places over 800 km apart (the Plougrescant-Ommerschans dirks, chapter 6)? How could associations between specific kinds of objects and places remain so remarkably unchanged over the centuries?

Gradually from the empirical studies the rough outline of a prehistoric system of selective deposition of bronzes emerged: during the Bronze Age in the southern Netherlands, specific types of objects were deliberately placed in specific types of places, avoiding others. There appeared to be no clues in anthropological knowledge for making sense of this remarkable practice, however. Actually, the more ethnography I read, the more convinced I became that metalwork deposition as it was structured during the Bronze Age has no true parallels in more recent history. But, realizing this, a fatalistic question became unavoidable: how are we to make sense of something that is so odd to us as these depositional practices? Actually, the question on the 'why' of metalwork deposition is not a simple one at all. My struggle with it made me question many of my previous assumptions, and brought me back to the essentials of archaeology in an unexpected way. The way in which this book is organized reflects both this theoretical struggle (the theoretical and methodical part I) and the renewed interest in the empirical evidence (the descriptive element of part II). The outcome is not as fatalistic as I once feared, but neither is it a clear-cut narrative on how the Bronze Age was. In a way, the book ends just where it started: with questions.



**PART I**

**PROBLEM, APPROACH, SOURCE CRITICISM**



# Introduction: the problem of bronze deposition and the aim of this study

## 1.1 INTRODUCTION

October 2001: during the construction of a road at a location in the municipality of Susteren (in the south of the Netherlands, province of Limburg), a drag-line unearths a dark-green bronze object. A local amateur archaeologist, who happened to be there, quickly jumped into the already excavated pit and saved the object from destruction. The object appeared to be a well-preserved socketed axe dating from the Late Bronze Age. Further inspection of the find-spot made it clear that the place where the axe was found did probably not consist of secondarily moved earth, but no further objects or soil traces could be detected.

The find almost immediately caused commotion. The reason for this was that it was found in an area that had seen a systematic archaeological survey not long before, uncovering a number of archaeological sites. None of these dated to the Bronze Age, however (Ball *et al.* 2001; Polman 2000;). The find-spot of the axe was just 200 m away from the location where the commercial excavation company of the Faculty of Archaeology (*Archol*) in Leiden had carried out an excavation of an Iron Age site (site no. 1; Ball *et al.* 2001, 5-11). Even closer to the find-spot, there was another site recognized during the surveys (no. 2; Polman 2001), but this one did not yield a shred of evidence for Bronze Age occupation either.

The Susteren axe does not stand alone: in the Netherlands there are currently over 2000 bronze objects known, of which only a few have been found during professional archaeological excavation. For the southern Netherlands only 4 % are excavation finds.<sup>1</sup> This is remarkable given the fact that this region is known for its high number of excavations of Bronze Age settlements, barrows and entire cemeteries, sometimes resulting in the large-scale excavation of entire landscapes.<sup>2</sup> Among these uncontextualized bronze finds there are objects that rank among the most remarkable finds of the European Bronze Age, like for example the ceremonial dirk of Plougrescant-Ommerschans type that was found in Jutphaas (this book, chapter 6). That bronze objects are so rarely found in settlements and burial sites would at first sight be understandable in view of the general scarcity of bronze in a region like the southern Netherlands, hundreds of kilometres removed from the nearest sources of copper

and tin (fig. 1.1). However, the numerous objects collected by amateurs and museums illustrate that such objects did circulate in considerable numbers in this region. Where, then, were all these objects found? Why did all this metal enter the archaeological record in the first place? After all, there is evidence that this region had a thriving bronze production of its own, drawing on recycling and importation of existing metal (Butler 1973). What is it about the sites at which bronzes entered the ground that they are hardly ever the locations we select for excavation?

This book will try to deal with a question that is perhaps the most significant one to be asked by archaeology: why did objects enter the ground? Are there ways to make sense of the fact that so much metal ended up in the ground? Why did this apparently take place in locations outside the ones best known to us, in places in the Bronze Age landscape that have so far failed to attract wider archaeological attention? Thus, the intention is to integrate the evidence on bronze finds in the wider picture of Bronze Age landscape use, structuration and perception.

In this chapter the research goals, the data and the spatial and chronological framework will be defined. First, however, a brief outline will be presented of current views on the significance of bronze objects and their deposition in specific places in the landscape.

## 1.2 THE SOCIAL SIGNIFICANCE OF METALWORK AMONG EUROPEAN BRONZE AGE SOCIETIES

Around the end of the third millennium BC, prehistoric communities in north-west Europe began to use, exchange and produce objects made of bronze. This period, roughly coinciding with the beginning of what is traditionally called the Bronze Age, was and still is seen as a crucial phase in the social evolution of European societies. It is also generally accepted that it was the very adoption of metalwork that set these developments in motion (Champion *et al.* 1984, 197). This notion goes back to the realization that the presence of –especially– bronze objects in many north-west European regions is in itself noteworthy. After all, a large part of north-west Europe is far removed from the natural occurrence of the main constituents of bronze, viz. copper and tin. Fig. 1.1 shows that southern Scandinavia, northern

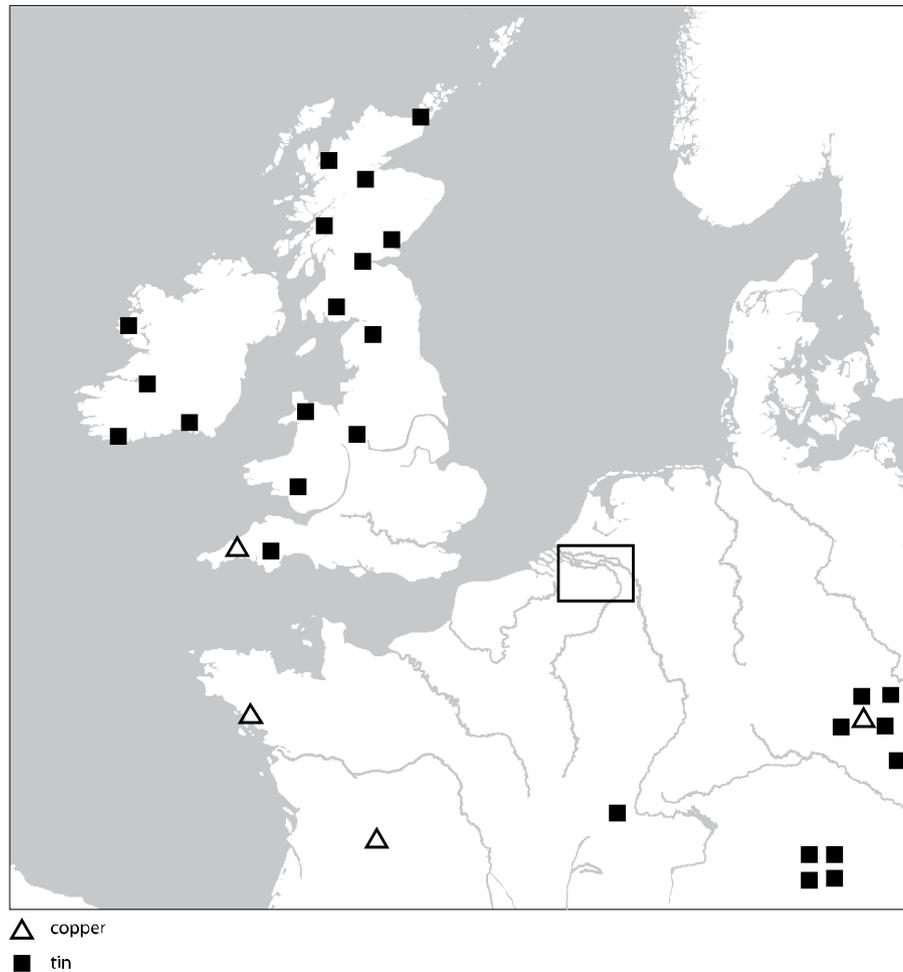


Figure 1.1 Copper and tin ore sources in north-west Europe and the location of the southern Netherlands (after Champion *et al.* 1984, fig. 6.11).

Germany, the Netherlands and Belgium all share this peripheral position. Nevertheless, since bronze is known to have been used in all these non-metalliferous regions throughout the Bronze Age, it must have been imported from abroad on a regular basis, as raw material or finished objects. Since long, it has therefore been argued that bronze circulated across wide areas, in increasing numbers and frequency as the Bronze Age wore on. Montelius (1910), Childe (1930) and others stated that for prehistoric societies to establish such a bronze circulation there had to be widespread and complex contact and exchange networks that covered large parts of Europe, connecting social groups hundreds of kilometres apart. Such circulation has of old been considered to represent some form of trade.<sup>3</sup>

Central to this idea is the assumption that bronze objects were crucial utilitarian implements in the first place, technologically superior to the stone tools they replaced and therefore in great demand (Childe 1930, 1, 4; Coles/Harding 1979, 16).

From the 1960s on, the interpretation of bronze circulation as trade and of bronzes as superior commodities came under fire. Renfrew (1969; 1972; 1973) rejected Childe's trade model as anachronistic on the basis of the point made by Polanyi and others (1957) that it is only in classical Greece that the first traits of a market economy can be recognized. It would be more in line with the nature of Bronze Age society to suppose that the main exchange transactions were gift exchanges (Renfrew 1973, 268; Sherratt 1972, 507).

The significance of bronze, so it was argued, would have been more in the symbolic than in the practical field. The point was made that since bronzes were rare and non-local objects in most north-west European regions, they must have been prestigious status objects in the first place (Sherratt 1976, 557; Randsborg 1973; 1974). Although the notion of a 'European bronze trade' did not disappear altogether (e.g. O'Connor 1980), bronze circulation now increasingly came to be seen as the exchange of symbolic prestigious items. This new interpretation has particularly become known by the influential studies of Rowlands (1980; 1994) and Kristiansen (1998).<sup>4</sup> Drawing on Marxist theories of gift exchange developed in anthropology, both authors argue that bronze objects circulated in what is termed a 'prestige goods economy'. It is fundamental to such an economy that individuals could achieve status and hence power by possessing such prestige goods and by controlling their supply and distribution. According to Rowlands (1994, 2), the overwhelming impression in many parts of Europe is of a network of dispersed élites that expanded their power through such highly ritualized exchange of prestige goods. In his 1998 book *Europe before history*, Kristiansen develops the argument that from approximately 2000 BC onwards the general need for metalwork created a dependency in terms of supplies of metal and know-how between different regions. The resulting expansion of international exchange accelerated the pace of change in regional cultural traditions, adding a new dimension to social change and tradition. A changed balance of international exchange relations might now affect local and regional polities hundreds or even thousands of kilometers away (1998, 3). One of the changes thought to be effected by unbalanced exchange relations is an increasing social hierarchization and the formation of more competitive alliance systems in the later part of the European Bronze Age (Rowlands 1980).

### 1.3 THE PHENOMENON OF BRONZE DEPOSITS AND ITS INTERPRETATION AS 'RITUAL CONSUMPTION'

One of the most puzzling phenomena is that almost everywhere in Europe Bronze Age communities buried large numbers of these valuable bronzes in the ground, without ever retrieving them. Such 'depositions' of bronze are known from large parts of Europe (Louwe Kooijmans 2001, fig. 1; Hänsel/Hänsel 1997). Leaving behind so many valuable objects seems rather odd, particularly when it was practised in non-metalliferous regions. Numerous scholars have therefore tried to discover the logic behind this 'wasteful' activity (Coles/Harding 1979, 517).

Various interpretations have been offered in the course of the last 125 years, ranging from views that take it to be a non-problem to theories that consider bronze deposition as one of the most meaningful ritual practices (Bradley 1990: chapter 1;

Verlaeckt 1995 chapter 3). A number of these interpretations will be discussed later on in this book (chapter 2). For the moment it suffices to describe briefly what can be seen as the most current and most widely accepted interpretation of bronze deposits. This is the theory which sees bronze deposition as a ritual act related to the prestigious value of metalwork. Deliberate deposition of such bronzes would have been regarded as some sort of offering: a gift to the gods. As such, it had an economic function as well: it would have served to create scarcity, thus maintaining the prestigious value of bronze in circulation. Kristiansen (1978; 1998) in particular has elaborated on how such a ritual consumption of bronzes was related to the construction and maintenance of the value of bronzes in circulation.

### 1.4 PROBLEMS IN THE CURRENT INTERPRETATION OF BRONZE DEPOSITS: 'SELECTIVE DEPOSITION'

The interpretation of bronze deposits as a form of ritual consumption is attractive in many ways. An important advantage of this interpretation is that bronze circulation is no longer understood as separate from bronze deposition; the two are seen as inextricably linked. However, there are also some problems with this interpretation. These become conspicuous if one studies bronze deposits in a more detailed way. It is to the problems that we must now turn.

It has long been attested that bronze deposition is no more than a general term concealing a tremendous variety. All sorts of bronze objects existed, ranging from efficient practical tools to the most elaborate ornaments or ceremonial objects. This alone makes it questionable to simply distinguish between bronzes that were 'commodities' or 'symbolic' objects. The German archaeologists Hundt (1955) and Von Brunn (1968) remarked that bronze deposition was a heterogeneous, but far from arbitrary practice. On the basis of regional studies, both scholars concluded that there were clear patterns in the way people deposited bronze objects. Particular types of objects were only observed in particular contexts, avoiding others. Also in the case of multiple object deposits (hoards), characteristic associations between object types were observed. For the southern Netherlands, an example is the deposition of swords during the Ha B2/3 phase. These were almost never deposited in burials, but were placed in major rivers in considerable numbers (Roymans 1991). Having recognized this, the authors assume that this implies that there was a 'taboo' on placing weapons in burials (Roymans/Kortlang 1999, 56). Apparently, depositional practices seem to have been structured: there were rules, prescribing which object should be deposited in which context. Such patterns have also been recognized on the British Isles (Needham 1989) and in Late Bronze Age Denmark (Sørensen 1984; 1987; 1991). Needham refers to such patterns in deposition as *selective deposition*, and I shall also use this term.

If deposition was patterned, how does this accord with the prevailing interpretation of bronze deposition as ‘ritual consumption’? After all, what is fundamental in the ‘prestige goods’ interpretation is that the objects are made of the prestigious bronze. This, however, cannot explain why bronze deposition was selective. If it was just their metal content that counted in deposition, then we might expect that weapons for example were treated in the same way as ornaments. After all, both are made of the prestigious material bronze. But on the basis of patterns in deposition it can be observed that this was not the case, and that weapons and ornaments were as a rule not associated in deposition, but kept apart. How can we make sense of such patterns?

This question brings us to a more theoretical problem. Explaining bronze deposition as a prestige-enhancing practice merely says something about the social effect this particular practice must have had. It very much is an *etic* explanation. It does not make clear why the practice was constituted as it was (as a structured, selective deposition), only what it brings about. As such it is also a functionalist explanation, potentially applicable to a much wider range of object sacrifices than just those of the European metalwork. Although I do not want to play down the importance of its political-economic aspects, the prestige-good interpretation relegates deposition merely to an arena where prestige can be gained. It does not really give information on deposition itself: what was this practice? Why was it practised in the way it was? If we want to deal with such questions, we should be more concerned with what object deposition *meant* to the Bronze Age communities practising it. This brings us to the more specific *emic* meanings of metalwork. To us, the observation that deposition was selective and structured might serve as a clue for discovering such meanings. After all, if we are right in observing that swords were so strictly kept away from burials, but preferably deposited in major rivers, then there must have been some specific understanding of both swords and burials that made the two to be kept separate.

#### 1.5 THE SOUTHERN NETHERLANDS AS A PROMISING REGION FOR STUDYING ‘SELECTIVE DEPOSITION’

In this book, I want to find out whether it is possible to make more sense of bronze deposition by studying the phenomenon of selective deposition. I want to do this not only by tracing patterns in deposition, but also by trying to integrate the evidence on bronze deposits with other fields of evidence on Bronze Age societies. The case of the axe find from Susteren may serve to exemplify the problem. The prevailing tendency has been to treat bronze deposition as a category in itself. It is hardly known how the locations where bronze was deposited fit within the wider cultural landscape of the Bronze Age.

Thus, in order to study selective deposition we do not only need a region with a high number of bronze finds from different contexts; we should also be relatively well-informed on other fields of practice of the communities in question. The southern Netherlands are a region that meets both requirements (fig. 1.2). Due to the work of Jay Butler and Brendan O’Connor it is clear that the southern Netherlands and Belgium have yielded an interesting array of metalwork finds.<sup>5</sup> It is of pivotal importance that there are strong indications that the bronze finds reflect selective deposition. I have already alluded to Roymans’ observation on the selective deposition of swords.

On top of that: there has been intensive collaboration in the southern Netherlands between amateurs, metal-detectorists and professional archaeologists. This has led to the situation that bronze finds are not only known from the major find-spots like rivers, but also in large numbers from the interior parts of the country. For many a region this is not the case.<sup>6</sup>

Another advantage of choosing the southern Netherlands as a region for study is that extensive excavations of Bronze Age sites have been carried out here (Gerritsen 2001, fig. 2.5). In the first place, the excavations of Bronze and Iron Age settlements carried out in and near Oss should be mentioned (Fokkens 1996). These rank among the largest excavated areas in Europe. Large-scale excavations of cemeteries were carried out in Nijmegen and in the interior of the southern Netherlands. The numerous recent excavations of well-preserved settlement sites and graves in the Betuwe should also be mentioned (fig. 1.3).<sup>7</sup> Moreover, the interior part of the region is well-known for its high number of barrows and urnfields, many of which have seen professional excavation (Theunissen 1999; Roymans 1991). The prospects for analysing bronze deposition as part of a much wider prehistoric landscape thus seem promising.

A major set-back is the lack of a complete catalogue of metalwork finds from the region. Butler has taken on the heavy task of making such a catalogue. But while this book is being written, only a part of Butler’s catalogue has been published (a catalogue of axes and some hoards).<sup>8</sup> Also, the majority of the finds published by Butler and O’Connor (1980) has not yet been studied with an eye to their possible role in depositions. This implies that a lot of work still has to be done before a study of depositional practices can begin.

#### 1.6 RESEARCH QUESTIONS AND SPATIAL AND CHRONOLOGICAL FRAMEWORK

The questions that are central to my research can now be formulated as follows:

- 1 Is there any evidence that permanent deposition of metalwork took place in the Bronze Age of the southern Netherlands?

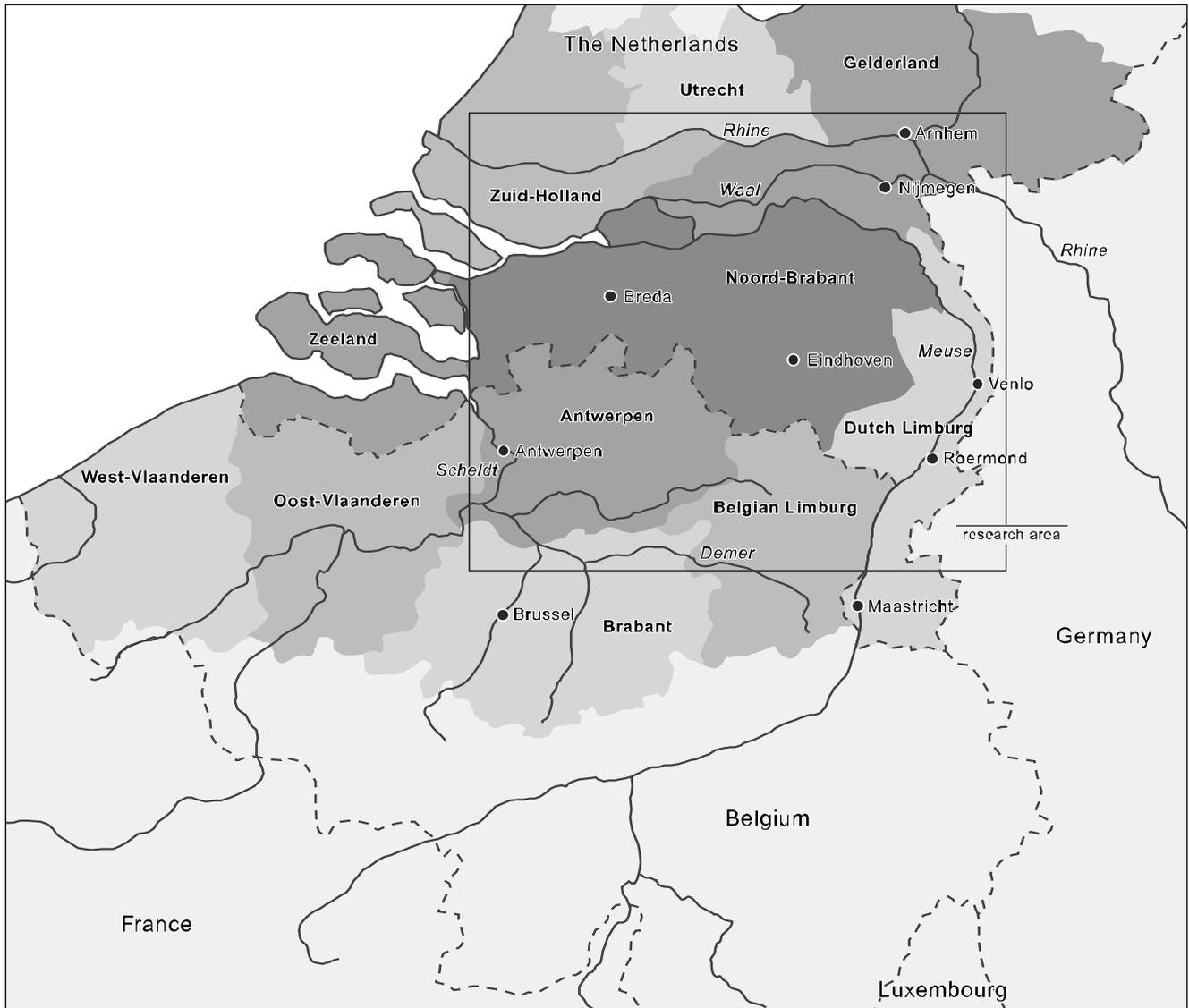


Figure 1.2 Provinces and important modern towns in the southern Netherlands and adjacent areas.

- 2 If so, which patterns in deposition can be observed among them? How was selective deposition structured?
- 3 How should we understand such patterns? Can we make sense of the meanings of objects from their role in selective deposition?

*A brief description of the research area*

I take the southern Netherlands to comprise the present-day provinces of Dutch Limburg, Noord-Brabant and Gelderland with the river Rhine as its northernmost boundary (fig. 1.2 and 1.3). Since the Dutch-Belgian border constitutes a quite

arbitrary boundary, the Belgian provinces of Antwerpen and Belgian Limburg are also included, with the river Demer as the southernmost boundary. Thus, the region comprises what is often indicated as the 'Meuse-Demer-Scheldt' region (Roymans/Theuws 1999), to which the Dutch central river area has been added. This more or less comes down to a region that consists of a Pleistocene coversand plateau of some 250 kilometres (east-west) by 120 kilometres (north-south), bordered in the west, east and north by the major rivers Scheldt and Meuse (fig. 1.2). The northern river area is characterized by Holocene fluvial clay cover-layers.

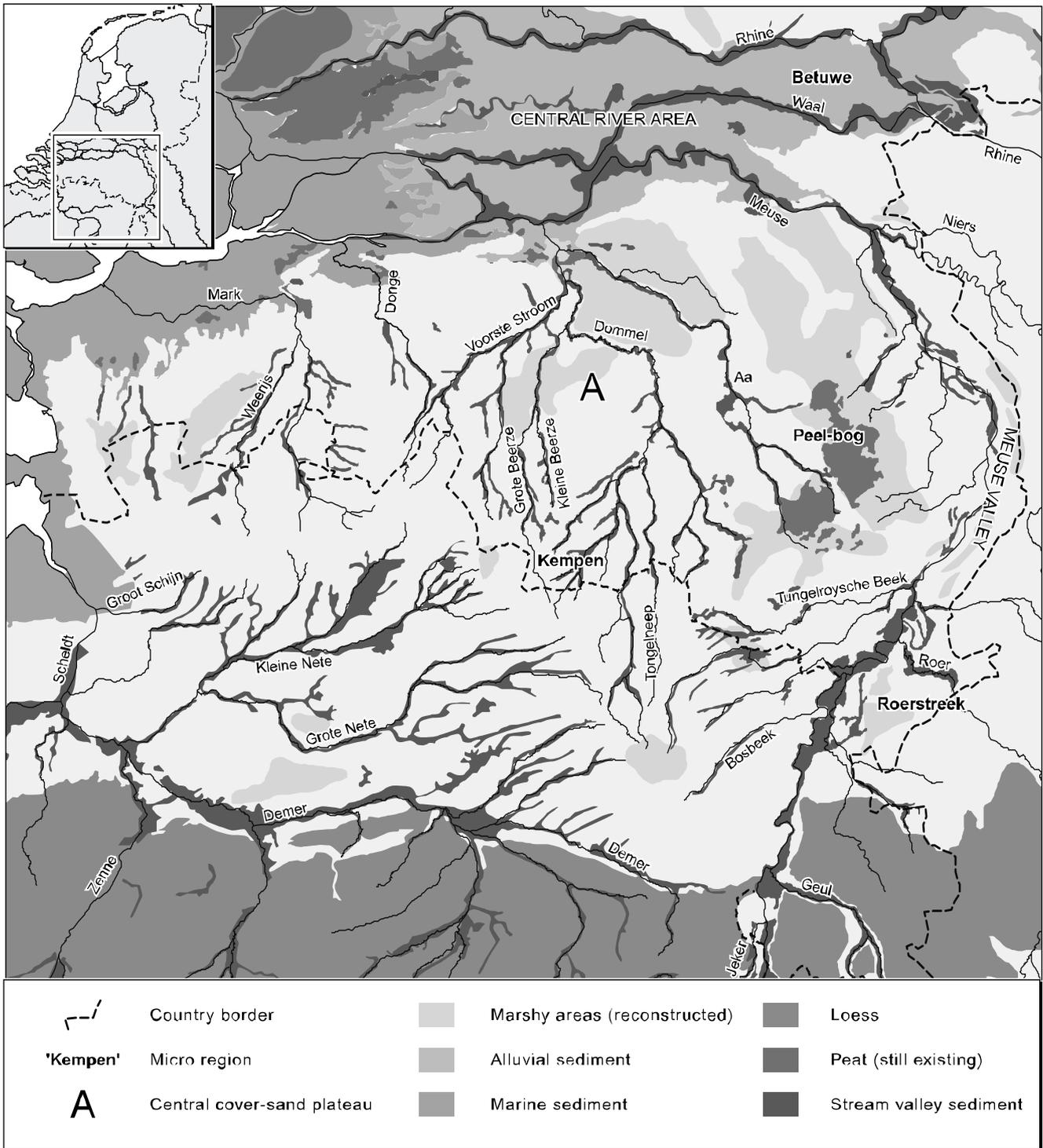


Figure 1.3 General map of the region indicating the most important environmental entities, streams, rivers and marshes and micro-regions.

In the southern part, Pleistocene loess sediment surfaces. I distinguish between three major zones in the landscape: the central coversand plateau, the Meuse valley, and the central river area (fig. 1.3).

The central coversand plateau consists of numerous sand ridges and small plateaus, flanked and defined by various stream valleys, marshes and fens. Although the region is nowadays known as a relatively 'dry' area, maps from the mid 19<sup>th</sup> century make it clear that it was covered by numerous marshes, fens and peat bogs (Theunissen 1999, 40 and references cited therein). The majority of these watery areas has disappeared due to the large-scale reclamations of the late 19<sup>th</sup> and early 20<sup>th</sup> century.<sup>9</sup> Micro-regions that will be referred to in this book are the *Kempen*, in the heartlands of the study area, Western Brabant, and the Maaskant micro-region. An important characteristic of the entire sand plateau is the presence of thick medieval *plaggen* soils, the so-called *essen*. These anthropogenic soils are of interest as they cover up entire areas, thereby often concealing and preserving prehistoric traces. Around the *essen*, there were traditionally heath lands. These are the zones in which prehistoric barrows and urn-fields have been left largely intact. The eastern part of the sandy plateau is marked by the largest peat bog of the southern Netherlands, the Peel.

The Meuse valley is characterized by Pleistocene terraces, generally subdivided in a lower (the present river-bed), a middle and a high terrace. In general, the middle terraces were the most favourable areas for agrarian settlement. All terraces are subdivided by smaller streams discharging in the Meuse. An important environmental element for this research is the presence of swamps that were generally situated on the transition from the middle to the high terrace (nowadays mostly reclaimed). For practical reasons, I distinguish between the micro-regions Northern Limburg (around Venlo), Middle Limburg (with Roermond as its centre), and southern Limburg. The latter region is characterized by loess and loamy soils.

The central river area consists of a complex of fluvial deposits (Berendse/Stouthamer 2001). The recent excavations in this area have made it clear that many parts were intensively occupied in the Bronze Age. Due to the high water-levels, preservation circumstances are often very good in this area. Conspicuous parts in this landscape are the high and steep ice-pushed sandy ridges of Arnhem, Nijmegen and Rhenen, all of which were also inhabited during the Bronze Age.

Although it will be attempted to deal with the evidence of this entire geographical entity, the focus will be on data from the Dutch part. Reason for this is that the data from the Belgian part are much more biased towards areas outside the major river valley (this problem will be set out in detail

in chapter 4). Therefore, I shall omit phrases like the 'Rhine-Demer-Scheldt region', and instead speak of the 'southern Netherlands'. The available evidence from the Belgian provinces of Antwerpen and Limburg will be incorporated in the research. For pragmatic reasons, I consider these regions as part of the southern Netherlands.

#### *Remarks on the chronological framework*

Chronologically, the entire Bronze Age will be covered (c. 2000-800 BC), as well as the preceding phase in which copper and bronze were first introduced, the Late Neolithic B (2500-2000 BC). Although the Early Iron Age in our region signals a general decrease in the use of bronze, in most aspects there is a direct continuation of what happened in the Late Bronze Age. For this reason, the Early Iron Age Hallstatt C- phase (Ha C) will also be discussed to place bronze deposition in a chronological perspective.

The Dutch chronology is illustrated in fig. 1.4 in relation to those of adjacent regions.<sup>10</sup> Unlike chronologies from other regions, the Dutch chronology is hardly based on metalwork evidence, but predominantly on developments in burial practices (Fokkens 2001). This is immediately apparent from the lack of overlap in phases like Middle Bronze Age B to the French and Belgian terminology of *Bronze final I-II*, which is determined by the typo-chronology of bronzes. The entire chronology of the Dutch Bronze Age illustrates how –in this case- burial evidence and metalwork finds have been treated separately. A fundamental problem for the Dutch bronzes is that they are mainly single finds, without associated datable finds and without <sup>14</sup>C-datings. Seriation of hoards, as recently successfully done by Vandkilde (1996) for Denmark, is impossible. There is no foundation for building a chronology on the basis of the finds from the region itself. This implies that we will have to work with typo-chronologies from other regions, mainly from northern France, Belgium, Middle Germany and the Nordic area. This generally results in long dating ranges, making it often difficult to assess whether specific types of bronzes were contemporary to nearby settlements or graves. At the moment this cannot be remedied. For that reason, in discussing objects from for example the Middle Bronze Age B, attention will be paid to the different dating ranges of the object types involved, and in what way they constrain the identification of contemporary patterns.

#### 1.7 HOW THE PROBLEM WILL BE APPROACHED

Essential to the present study is the collection of a representative database. The existing syntheses of Butler (1963) and O'Connor (1980) are no longer up-to-date, not only with regard to typo-chronological interpretations, but also because of the large number of new finds. There is nothing in the way of a more recent synthesis. Butler and Steegstra

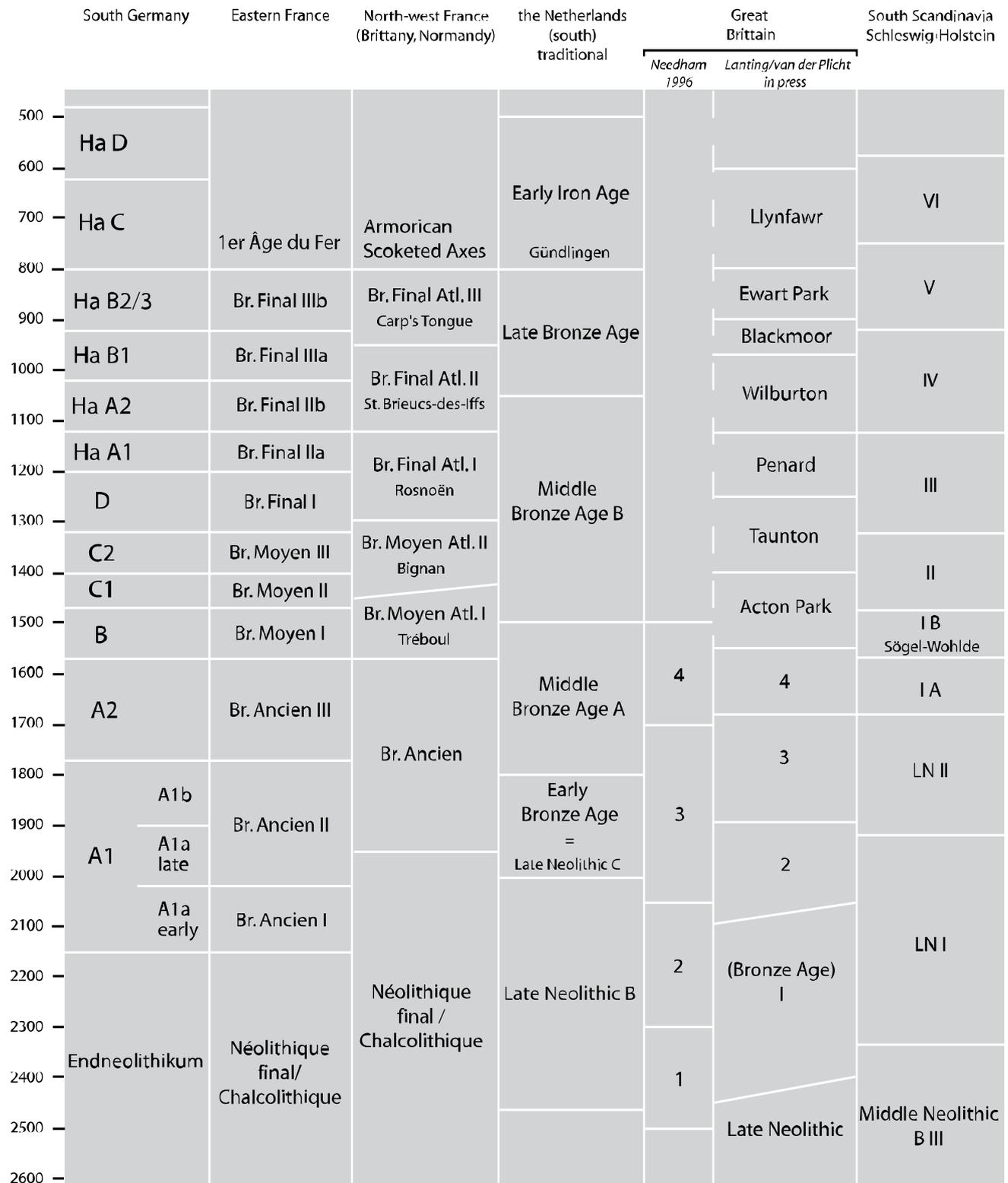


Figure 1.4 Chronological terminology of north-west European regions in use for the period under study (2500 - 500 BC). Based on Fokkens 2001 (the Netherlands), Lanting/Van der Plicht in press, Needham 1996 (Britain) and Vandkilde 1996 (south Scandinavia from LN 1 to Period IB).

(University of Groningen) are currently working on the publication of a new database of the Dutch finds, some parts of which have already been published (Butler 1990 (Early and Middle Bronze Age hoards), Butler 1995/1996 (flat and flanged axes) Butler/Steegstra 1997/1998 (palstaves); idem 1999/2000 (winged axes) and in press (socketed axes)). I did not want to duplicate their efforts by bringing out another catalogue. Instead, a useful form of cooperation developed. I carried out a detailed survey of the literature and studied two important museum collections (see chapter 4 for a more detailed description) and checked my results with those of Butler and Steegstra. The confrontation of our results led to a rich database, as both parties appeared to have been fuelled by different amateur and information networks on recent finds. Butler and Steegstra focussed on the detailed study of typo-chronology of finds and the retrieval of all existing records on individual finds. This made it possible for me to focus on the analysis of the find context of bronzes, to pave the way for a study on the role of these objects in deposition. For a detailed find catalogue in the classic sense, the reader is referred to Butler and Steegstra's publications mentioned above, and forthcoming ones. This book will publish all used data, with specific attention to those variables that are thought to be important (see appendices).

In order to structure the discussion, the book is divided into three parts. Part I introduces the problem in question (this chapter), how to approach it (chapter 2 and 3), and it discusses the limitations and possibilities of the available evidence (chapter 4).

Part II presents the data in chronological order, following the approach set out in chapter 3 and 4. For every period, an outline is given of the most important developments taking place (chapters 5 to 9). For pragmatic reasons, the burial finds of the Late Bronze Age/Early Iron Age urnfields are discussed in a separate chapter (chapter 9). In part II, two of the three research questions are dealt with: (1.) did ritual deposition of metalwork take place, and (2.) if so, what patterns can be observed?

Part III will deal mainly with the third research question: how should we understand such patterns in selective deposition? This part starts with a chapter in which a general outline is given of the main characteristics of selective deposition in the southern Netherlands, how it was structured, and how it developed through time. In the following chapter, separate themes that were relevant to deposition are dealt with from a long-term perspective: these are the deposition of weapons (chapter 11), ornaments (12), and axes (13). Then the attention shifts from objects to context. In chapter 14, the question is broached how depositions structure the landscape. Finally, chapter 15 brings together the different threads of thought developed in this part, and places the findings in a wider context.

## notes

- 1 Large objects like axes, swords, spears and ornaments are mentioned here. In Late Bronze Age urnfields, a minority of the graves contains small and often fragmented parts of ornaments or dress fittings (this book, chapter 9). These are not included here.
- 2 Fokkens 1996; Gerritsen 2001, fig. 2.5; Lohof 1991; Roymans/Fokkens 1991; Theunissen 1999.
- 3 Butler 1963; Childe 1930; Clark 1952, 256; Déchelette 1910, 406; De Navarro 1925; Hawkes 1940; Pauli 1985; Sommerfeld 1994; Stjernquist 1965/1966.
- 4 Other examples are Bradley 1984; Frankenstein/Rowlands 1978; Larsson 1986; Parker Pearson 1984; Thorpe/Richards 1984; Shennan 1986a; 1986b.
- 5 Butler 1963; 1987; 1990; 1995/1996; Butler/Steegstra 1997/1998; 1999/2000; in press; O'Connor 1980.
- 6 A case in point is the west-Belgian province of Oost-Vlaanderen, adjacent to the study area. Verlaeck (1996) has recently published an impressive survey of the metalwork finds from this province. The overwhelming majority are from the river Scheldt and were collected in the early 20<sup>th</sup> century. Not much bronze finds are known from the area beyond the river valley. However, the high number of Bronze Age find-spots (especially barrows) makes it clear that people did inhabit this area (Ampe *et al.* 1996).
- 7 Nijmegen: Fontijn 1996a and b; recent urnfield excavations in the sandy parts of the southern Netherlands: see the contributions in Theuws/Roymans 1999; Betuwe: for example: Jongste 2002; Meijlink 2001.
- 8 Butler 1995/1996; Butler/Steegstra 1997/1998; Butler/Steegstra 1999/2000 and in press.
- 9 *Grote Historische Atlas van Nederland. 1: 50.000. 4 Zuid-Nederland 1838-1857* and *Grote Historische Provincie Atlas 1: 25.000. Limburg 1837-1844* (both Wolters-Noordhoff Atlasproducties), Groningen. The geographical background used for the find-distribution maps in this book (chapter 5 and further) shows the extension of swamps before their reclamation as known from these historical maps.
- 10 The chronology of the Bronze Age used here is the one introduced in the synthesis of Dutch prehistory (Fokkens 2001; Louwe Kooijmans *et al.* in prep.; Theunissen 1999, 54). When the first draft of this book was completed, Jan Lanting (University of Groningen) kindly provided me with the draft of an article which proposes a new chronological terminology for the Dutch Bronze Age (Lanting/van der Plicht in press). A lack of time prevented me from discussing the implications of this new chronological system. The new datings of the German and French chronology are already drawn from this article, but for pragmatic reasons I did not apply the new chronological terminology.



## How archaeology has made sense of object depositions: the distinction between 'ritual' and 'profane' deposits

### 2.1 INTRODUCTION

The first question to be answered in this book is whether deposition of metalwork as it took place in the Bronze Age was intended to be permanent.<sup>1</sup> Permanent depositions are often interpreted as specific ritual acts (votive offerings<sup>2</sup>; Bradley 1990, chapter 1). Seeing bronze depositions as ritual touches upon a fundamental debate which has governed the archaeology of the north European Bronze Age for over 125 years now (Verlaeckt 1995). Discussions are about how archaeology can distinguish 'ritual' from 'profane' behaviour, and how such ritual practices are to be understood. This chapter will chart existing approaches to see whether they are useful for my own research. What is actually implied by the 'ritual'/profane' distinction, and why is it considered a matter of debate in the first place? What do we learn about the past when we interpret a hoard as a 'ritual' one? In what way are existing approaches useful for coming to terms with *selective* deposition?

In this chapter, I shall not attempt to summarize the lengthy debate; rather, my aim is to find out by which assumptions it is structured. First, it will be illustrated how 'ritual' hoards have been recognized (2.3), and why they are thought to have existed (2.4). I will make the point that what underlies the 125 year old 'ritual/profane' distinction is an epistemological rather than an empirical problem. Existing views on ritual, however, also pose problems with regard to the interpretation of the data. This applies especially to the present research, which tries to come to terms with selective deposition. Without claiming to solve such an epistemological problem, this chapter will conclude with a proposal for an approach to the data to get round some of the problems related the 'ritual/profane' distinction (2.6 and 2.7).

The discussion will start, however, by describing an approach that disregards an interpretation in ritual terms altogether.

### 2.2 SEEING BRONZE DEPOSITS PRIMARILY IN PROFANE TERMS: VERWAHRFUNDE AND VERSTECKFUNDE

The previous chapter may have given the impression that it is generally agreed upon that 'ritual' deposition of metalwork was a general prehistoric phenomenon. Although there is indeed more scope for such an interpretation now, it would be far from the truth to state that this is a widely accepted

interpretation. It is more appropriate to speak of different traditions in the interpretation of hoards, of which an interpretation in ritual terms is just one (Bradley 1990, 15-7). In central and western Europe there has traditionally been less enthusiasm to see hoard deposition as an act where objects were deliberately given up.<sup>3</sup> In this school of thought the emphasis is mainly on multiple object hoards, leaving single finds aside (Kubach 1985). Often, the focus is on hoards because they are elemental in the study of typochronology. Some scholars explicitly leave it at that, as the following statement on hoard finds exemplifies: 'They are thus valuable for synchronizing types but otherwise of no special interest' (Childe 1930, 44).

Others, however, have considered bronze hoards as an important source of information on the organization of craft, metalworking and trade (Bradley 1990, 11-4). Interest is especially focused on their contents, and for this reason the study of hoards consisting of several objects seems to be preferred to that of depositions of just one object. Perhaps for this reason, the concept 'hoard' has often been defined as referring to a multiple object deposition only. When in the late 19<sup>th</sup> century bronze hoards were recognized as an empirical find category informative on prehistoric practices, German, Scandinavian, British and French scholars independently invented more or less similar hoard classifications. These are summarized in tables 2.1 and 2.2. Studies on the contents of hoards steered the conceptualization of the European bronze trade. For example: some scholars noticed that scrap hoards and craftsmen's hoards with metalworking equipment were found in regions far away from the metal ores. This indicated the existence of smiths in such peripheral areas. Such empirical evidence was an argument in favour of the assumption that the trade organization was much more complex than just a straightforward importation of ready-made objects from the mining areas (Butler 1963a). The notion of the smith as a crucial intermediary in trade, characteristic for many views on the European bronze circulation, basically stems from such findings (*cf* Childe 1930).

In such studies, the very existence of a hoard as a find category is either taken for granted, or explained in an anecdotal way (for examples from the Netherlands: Butler 1969, 102-23). A recurrent explanation is that such hoards

Type	Objects	References
Craftmans' hoard	Range of intact tools of an individual or household, stored for later use	Hodges 1957, 51-3
Domestic hoard	Similar	Childe 1930, 43
Personal hoard	Similar, but existing solely of personal property (ornaments, weapons)	Evans 1881, 457-63

Table 2.1 Categories of hoards considered as identifying the owners.

Type	Objects	References
Merchants'/ commercial hoards	Freshly made objects stored together to await further distribution	Von Brunn 1968, 231
Scrap/ founders' hoards	Scrap metal, collected for further recycling purposes	Thomsen 1845

Table 2.2 Categories of hoards considered as identifying trade and industrial relations.

were temporary stores that were for some reasons forgotten or unretrieved (table 2.1 and 2.2). The German term for such finds is *Verwahrfunde* (Geißlinger 1984, 322).

A criticism which can be raised is that it is not very likely that all hoards represent forgotten stores. This would be to assume a very careless attitude of Bronze Age societies to their tools (Pauli 1985, 196). This was already rejected early in the 20<sup>th</sup> century by the school of thought championed by Reinecke (Geißlinger 1984). Among their contributions to hoard studies was the systematic study of chronological and spatial *patterns* in hoard distribution in a given region. These scholars also assume that most hoards represent unretrieved object stores, but recognized that hoards are often known from specific chronological phases only. For that reason, there must have been a general historical process which accounts for their presence in the archaeological record. This applies both to the fact that they were hidden and to the fact that they were subsequently left untouched. According to Reinecke and others, the reason must be sought in a general social unrest (*Versteckfunde*, Von Brunn 1968, 232). According to this view, the evidence of hoards can be used for reconstructing political history (Bradley 1990, 15).

Bradley has argued that this way of dealing with hoard finds has been characteristic for central European archaeology. It is probably no coincidence that the modern history of many nation-states in this part of Europe is also marked by the impact of ethnic conflicts and migrations (Bradley 1990, 15). Moreover, Reinecke's *Katastrophentheorie* fitted neatly within the cultural-historical emphasis on migrations as explanation for changes in material culture (Trigger 1990, chapter 5). Reinecke's theories are still popular, particularly for explaining hoard finds in historical periods where

migrations and social unrest are known to have taken place. Reinecke's theory, however, presupposes a quite disastrous scenario, where entire communities hide their valuables, and never come back in the region. We may expect that such fundamental changes would leave traces in other aspects of the archaeological record as well (settlements, graves). The theory becomes less attractive when the hoards in question all come from inaccessible locations, from where it would be impossible to retrieve them.

*'Profane' as an interpretation that goes without saying*  
On a more epistemological level, the interpretation of hoards as temporary stores seems often to have been something that 'goes without saying'. Hoards as representing objects that were deliberately given up apparently was – and often still is – an inconceivable alternative explanation. To give an example from the Western Netherlands: the Voorhout hoard was found in 1907, in a dune area not far from Leiden. The hoard consisted of 18 Middle Bronze Age bronze axes and a chisel, mainly of Welsh types. In its contents, it is a typical example of a trade or merchant's hoard (table 2.2). The hoard has been published and reinvestigated many times.<sup>4</sup> Yet, its interpretation as a trade hoard has never changed. The anecdotes on why it was deposited vary, but they all share the view that it must have been a temporary store of trade goods that was for some reason never recovered. The observation that the hoard came from a peat layer has never played a role in this discussion (Lorié 1908). In Scandinavian archaeology such a find context would probably have been enough to justify an interpretation as a ritual deposition instead of a trade store. Also the more recent observation that the objects in this 'trade' hoard

consist of objects that are totally unknown in the Netherlands outside this hoard has not led to a refutation of this interpretation (Butler/Steegstra 1997/1998, 183-5). The point made here is not whether this interpretation of the Voorhout find is correct or incorrect (see for my own view: chapter 13). Rather, the point is that the interpretation of a trade hoard was apparently readily accepted without further discussion.<sup>5</sup>

The reason that such interpretations have been generally accepted relates to the fact that they neatly fit in an established view on Bronze Age societies and their attitude towards bronze objects. Theories on a European bronze trade have been influential in north-west Europe since the late 19<sup>th</sup> century (chapter 1). A large part of the metalwork finds is constituted by what we would term 'tools' or utilitarian objects. This, together with the assumption that metal is superior in relation to stone, and the dependency of some regions on others for metal implements, has led to a general conceptualization of a bronze trade as a trade in badly-needed implements. This view of a European bronze trade has been widely accepted, probably because it assumes a logic of supply and demand which is basically our own. The deliberate giving up of bronze objects, as in a 'ritual' hoard, seems hard to reconcile with such a logic. The problems we face in coming to terms with bronze deposits are thus not just on the empirical level: they also lie within implicit preconceptions on the nature of a Bronze Age 'economy'. In dealing with deposits, we therefore shall have to find ways to escape such *a priori* ideas.

Let us now turn to alternative approaches to bronze deposits: those accepting that they represent a deliberate 'giving up' of valuable bronze objects by seeing them as ritual hoards. It will be argued that we meet similar problems in this approach.

### 2.3 ACCEPTING BRONZE FINDS AS PERMANENT DEPOSITS AND INTERPRETING THEM AS 'RITUAL'

The interpretation of bronze finds as ritual depositions was predominantly developed in northern Europe, with an article by Worsaae (1867) as one of the pioneering studies. A general acceptance of ritual hoards was not acknowledged in Middle Germany until the 1960s (Von Brunn 1968, 234), and more than a decade later in the British Isles (Bradley 1990, 23). In the northern Netherlands, some hoards were of old interpreted as votive hoards, but the majority of the finds from the southern Netherlands and Belgium were seen in more mundane terms (Butler 1959).

As remarked above, ritual depositions are generally taken to be votive offerings, but some scholars have also remarked that they could represent the buried belongings of a deceased person (*Totenschätze*: Hundt 1955; Torbrügge 1970-71; 1985, note 26), or objects deposited after shamanic activities (Hundt 1955, 122-3). More often, a precise identification is not given, and they are simply designated 'ritual' depositions.

Acknowledging the involvement of bronze in practices of ritual deposition seems to be contradictory to Childe's view that it was exactly due to people's engagement with bronze that science and entrepreneurial skill came to replace the 'neolithic' dominance of religious practices (Childe 1930). Such notions on a European bronze trade, the role of smiths, and the notion of progress were also shared by archaeologists in northern Europe (chapter 1). This is noteworthy, as it raises the following question. How was it possible that 'ritual deposition' became an acceptable explanation *in conjunction* with the idea that there was an entrepreneurial 'commercial' bronze trade (Stjernquist 1965-66)? It seems to be a vital question in this discussion, because an answer to this question may be informative on what many Bronze Age scholars consider 'ritual' to be.

#### 2.3.1 *The distinction between 'ritual' and 'profane' depositions*

Although it has sometimes been suggested that north European archaeology saw a complete surrender to ritual explanations, this is not true. It is rather that in addition to a category of profane hoards, ritual hoards are recognized as another category. Müller (1876) was one of the first to argue for the existence of both ritual and profane hoards. Allowing an interpretation of object deposition in both ritual and profane terms is still the most current approach. Consequently, the main discussion is about how one can empirically differentiate between profane and ritual deposition. I will not reiterate this –as Pauli (1985, 195) calls it– 'dogmatic' discussion, as this has been done many times before (e.g. Verlaeckt 1995, 35-58). I shall focus on the assumptions which underly the 'ritual/profane' distinction by considering which arguments have been used for recognizing 'ritual' depositions.

On the basis of a survey of the available literature, sustained by syntheses such as Verlaeckt 1995, a number of studies were selected that provide arguments for distinguishing between ritual and profane hoards (table 2.3). From this survey it can be deduced that there are basically two criteria that are used:

<i>context:</i>	irretrievable- retrievable
<i>contents:</i>	B1 object types
	B2 treatment of object
	B3 associations within the hoard (the presence of specific object combinations)
	B4 ordering of objects

Table 2.3 shows which criteria are relevant to which authors.<sup>6</sup> At first sight, there seems to be a general approval on which characteristics are vital. However, if we take a closer look at the way in which each author uses such a characteristic in arguing for a profane or ritual character, a single characteristic seems to mean entirely different things

	context		contents		
	wet/dry	type of object	object treatment	association	ordering
Thomsen 1845			+		
Worsaae 1867		+	+	+	
Müller 1876		+	+		
Müller 1886		+			
Petersen 1890		+	+		
Neergaard 1897				+	
Müller 1897	+	+	+		
Kjaer 1915		+	+	+	
Kjaer 1927	+	+			
Broholm/Møller 1934				+	
Broholm 1949	+	+	+		
Hundt 1955				+	
Aner 1956			+	+	
Ørsnes 1959		+			
Baudou 1960	+		+	+	
Thrane 1961		+	+		
Stjernquist 1970	+			+	
Jensen 1973	+				
Stein 1976	+		+	+	+
Knudsen 1978	+			+	
Kubach 1979	+	+			
Liversage 1980	+				
Von Brunn 1981			+	+	+
Levy 1982	+	+	+	+	+
Geißlinger 1984	+	+	+	+	
Willroth 1984/85	+	+	+		
Kubach 1985	+	+	+		
Mandera 1985	+				
Larsson 1986					
Orrling 1991	+				
Hansen 1991				+	
Johansen 1984/1986/1993	+				

Table 2.3 Criteria used by different authors for distinguishing between 'profane' and 'ritual' hoards.

to different authors. Take for example criterion B2, the way the objects are treated. To Worsaae, Ørsnes and Stein, unused objects indicate that they were deposited for ritual purposes. However, Müller and Broholm take this very characteristic as indicating that the objects were stock to be traded, the hoard thus representing a profane merchant's hoard.

From this collection of arguments for the ritual-profane distinction, a number of conclusions can be drawn on how interpretations in terms of ritual come about.

1 *There is no unanimity on what variables are indicative of ritual or profane deposition.* A look at table 2.3 may illustrate this. The most widely accepted variable seems to be the context of the deposition. A lot of authors subscribe to the view that objects placed in a wet location can only

represent a ritual deposition, but still there are authors who argue that this need not necessarily be so.

2 *There is a striking stability of arguments.* Since the late 19<sup>th</sup> century, there has actually been no development of new arguments. The older ones are just repeated, re-invented or reconsidered. This includes the approach of Levy (1982), who was the first to explicitly base her indications on ethnographic parallels from all over the world. In spite of arguments of a seemingly 'new' nature (ethnography), her criteria are almost the same as those of Stein (1976) who did not use ethnographic parallels.

3 *Indications for ritual are often taken from historical sources such as Tacitus' Germania or early Germanic sources.*

*These are very often not coherent.* A much-cited passage in the work of Strabo on the Germans, for example, tells about gold and silver objects being ritually deposited into a lake

(Roymans 1990, 89). Such sources are considered supporting evidence for the theory that a hoard in a wet location indicates a ritual practice (ibid.). However, Geißlinger (1984, 324) gives the example of the Icelandic saga of Thorgil, who threw the silver treasure of the god Thor into a dark pool when he was converted to Christianity. We could conclude from this that consequently deposition did not have the meaning of sacrifice, but was rather a way to destroy objects. Or are we dealing here with a later rationalization of an older myth? On the other hand, the original 13<sup>th</sup> century version of the King Arthur legend includes the story of the King who ritually deposited his sword in a lake (W.P. Gerritsen 2001). These examples clarify the problem with historical sources. How are archaeologists to judge which sources are reliable, and which ones were altered (Christianized) in later periods? Is it at all justified to use such sources, dealing with periods almost 1000 years after the Bronze Age?

- 4 *What underlies all arguments is the assumption that practical behaviour is presupposed and self-explanatory, whereas ritual is something that requires efforts above what is needed in functional terms.* What most authors do is first to refute a purely economic interpretation. For example, they start by signalling *extra* efforts like special treatment of objects, or special arrangements and take these as arguments for an interpretation in terms of ritual. Authors mostly start by arguing that a hoard cannot have been occasional loss or a temporary store (because it was sunk into a bog for example). This paves the way for a ritual explanation. So, an economic interpretation first has to be falsified for a ritual one to become plausible.

The economic, practical interpretation seems to be self-explanatory, whereas ritual is something which should be proven. Theoretically, the reverse – assuming ritual until the contrary has been proven – would be equally feasible, but such an approach is almost non-existent. An exception would be the work of Menke (1978-79), but the severe criticisms his assumptions have raised underline the point I made about the self-explanatory character of economic interpretations (Torbrügge 1985, 17, note 6).

### 2.3.2 *Levy's theory: is the Bronze Age 'ritual/profane' distinction supported by ethnographic parallels?*

Mention has already been made of the work of Levy (1982). Her study deserves special attention for two reasons. The checklists she developed for distinguishing 'ritual' from 'profane' hoards are among the most widely used ones, particularly in recent studies of hoards in the Netherlands and Belgium (table. 2.4; Essink/Hielkema 1997/1998; Van Impe 1995/1996). Next, it is one of the few studies that tries to make sense of bronze deposition by systematically using ethnographic analogies. Nevertheless, as I have already remarked, her criteria do not basically differ from those of scholars who do not use ethnographic analogy. Does this mean that we have now finally found arguments for cross-cultural regularities?

I want to argue that we have not and that, in spite of its ethnographic focus, Levy's study comes down to the same principles outlined above (2.3.2), contending with Levy's statement that ethnographic analogy yields the best results (1982, 17).

	ritual	non-ritual
Ccontext	wet area great depth under a stone grove grave mound	dry land shallow depth next to a stone
content	ornament/weapon intact objects cosmological referent	tools fragmentation raw material
association with food	animal remains pottery sickles	no association with food
arrangement	inside vessel encircled by ring parallel objects	no special arrangement

Table 2.4 Characteristics of ritual and non-ritual hoards according to Levy (1982, 24).

Her analogies are both derived from ethnographies all over the world and from historical sources such as Tacitus' work. In her conceptualization, Bronze Age practices are considered to be fundamentally different from modern and historical ones. Table 2.4 gives the operational criteria at which she arrives on the basis of her study (Levy 1982, 24). The astonishing familiarity between her criteria and those of, for example, Stein (who did not consult ethnography) can be explained as follows. Levy seems to have coloured general, de-contextualized characteristics of ritual with specific information from Tacitus and two Danish hoards that she *a priori* (!) considers to be typical of a ritual and a profane hoard: Budsene (ritual) and Sageby (profane). A general notion about ritual she deduces from her ethnographic survey is, for example, that ritual deposition involves a special choice of objects. But what is a special choice of objects? She fills this in with information from the Budsene hoard: special objects are 'complete' or 'near complete objects' (p. 22). Because the Sageby hoard consists of scrap, profane hoards are in her view characterized by fragmentation. But as she herself notes, many counter-examples can be given of fragmented objects being sacred. Think for a modern example of the veneration of splinters of the Holy Cross. For the Bronze Age, many scholars have interpreted fragmentation the other way around: as a token of ritual (Worsaae 1867). Levy's criterion fragmentation is thus simply reproducing assumptions that had already existed long before, and her analogical reasoning does not contribute to the debate. The only straightforward and clear characteristic concerns the association with food, which is recorded from many ethnographic cases of offerings (and also known from some Danish hoards). But beforehand, an association with food in a hoard makes an interpretation of it in profane terms, as hidden stock, already unlikely to us by sheer logic.

In sum, Levy's ethnographic approach does not yield conclusions that are in any way new in the study of bronze deposits. Rather, she implicitly adheres to the same assumptions as outlined in 2.3.2, and can be criticized for the same reasons.

#### 2.4 EXPLAINING RITUAL DEPOSITION: ECONOMIC AND COMPETITIVE CONSUMPTION

So far, I have described approaches to the identification of ritual deposits. Since the 1970s, more attention was paid to the question of *why* bronzes were ritually deposited. This is primarily by seeing deposition as a form of ritual 'consumption'. We have already touched upon these theories in chapter 1. They are all influenced by (structural-)Marxist theories and all go back to the assumption that bronzes were primordially prestige goods. There are mainly two perspectives on metalwork deposition, both of them *etic* rather than *emic* views.

The first perspective entails various versions (see Bradley 1984, 101-4) but has a study by Kristiansen (1978) as an important starting point. Central is the notion that object deposition functions to maintain the object's prestigious value. If in a region too many bronzes were circulating, they would devalue (be it in economic terms (Kristiansen 1978) or in prestigious terms (Rowlands 1980)). In other words, deposition is a way of taking objects out of circulation, and hence of preventing inflation. Rowlands (1980, 46) argues that it has to do with maintaining the special character of objects, and preventing them from entering more general exchange networks. His account goes back to ideas of the anthropologist Meillassoux (1968). Deposition is thus a way of creating scarcity. A comparable notion can be found in the work of Levy (1982, 102). She sees ritual deposition as enhancing group solidarity. She adds to this a typical Marxist consideration on the ideology of this ritual. Although an elite is sacrificing the very objects that give them prestige, this same act also creates scarcity, and thus upholds the value of bronze objects which this elite acquires by external exchange. The ideology of solidarity in deposition ritual thus mystifies the actual power relations.

Bradley (1984) is the author of a second perspective on metalwork deposition. He argues that the aforementioned views on deposition as creating scarcity are actually of a formalist nature (Bradley 1984, 101-4; 1989, 12-3). To him, they echo the basic principles of the capitalist market trade (scarcity, demand, profit, inflation), and should therefore be dismissed as anachronistic. He also doubts Kristiansen's argument that the 'economy' of bronze exchange determines the rate of deposition (Bradley 1984, 102). On this basis of this criticism, Bradley formulates a second approach. To him deposition is not about economic, but about *competitive* consumption (Bradley 1984, 105). His argument is based on Gregory's analysis of ethnographic cases of 'competitive consumption', like the famous potlatch ceremony of the north-west-coast Kwakiutl native Americans. For Britain, Bradley also sees bronze exchange, especially in the Late Bronze Age, as competitive in nature. Following Gregory, he makes the point that such systems are highly unstable and characterized by an alternating disequilibrium (Gregory 1980, 630), where the counter-gift in every exchange outrivals the other. He gives ethnographic examples where alternating debts increase considerably in time. The offering of such objects ('a gift to god') is according to Gregory a way to break down the spiral. The act itself increases the prestige of the one who gives, as in exchange between people, but from the gods no counter-gift is to be expected that will increase the debt of the receiver.

An attractive element of these theories is that they relate the circulation of bronzes to their deposition. But, as already remarked in the last chapter, what they deal with is primarily

the social effect of such practices. They may explain fluctuations in the practice throughout time, but cannot account for the specific selections made in deposition (the specific meaning objects had). At a more theoretical level, the use of the concept of 'ideology' of deposition can be criticised. Particularly in the case of Levy's work we see a concept of ideology of ritual that is 'false'; it mystifies the true power relations, and helps to reproduce them. This view of ideology as a 'cynical charade' (Treherne 1995, 116) is not one that takes people's beliefs seriously, and the extreme implication might be that the meaning of the act is no more than a façade for the establishment of power. Without questioning the importance of power relations in ritual, we might ask ourselves whether this Marxist world-view is applicable to the non-modern societies that we are dealing with.

## 2.5 HOW 'RITUAL' IS RECONCILED TO ASSUMPTIONS ON THE UNIVERSALITY OF RATIONALITY

Above different theories on ritual deposition have been presented, both on the question of how something can be recognized as resulting from ritual practices, and on the question of how we can make sense of the existence of such ritual practices in the Bronze Age. Paradoxical as it may sound, it will now be argued that the wholesale adoption of ritual interpretations still builds on assumptions that Bronze Age behaviour was fundamentally structured by an economic rationality.

### *Ritual as economic irrationality*

On the one hand, ritual is recognized by archaeologists as 'irrational' behaviour, where its 'oddness' is defined in opposition to an economic rationality (Brück 1999; Hodder 1982b, 164). On the other, there are several approaches that explain ritual itself as a function of economy (2.4). Moreover, the whole phenomenon of bronze depositions has been seen as a problem, only because of the primacy of modern rationality in our thinking about bronze objects in general. Leaving objects in the ground which we think of as scarce and which can be re-used even as raw materials is to us unexplainable, because it is contrary to our economic rationality of maximizing utility and minimizing wastage. As sketched in section 2.2, there has therefore been a general willingness to think of them as objects that were simply lost or only temporarily stored but for some reason never retrieved (the interpretation of the Voorhout hoard!). The ratio behind all these explanations is that they simply were not meant to be where we found them. It seems hard to accept a deliberate giving-up. It is the same rationality which renders a ritual interpretation of depositions acceptable only if it can be argued that the objects were placed in the ground in such a way that they could never be retrieved anymore. In other words: an interpretation in profane terms first has to

be falsified in order to pave the way for one in terms of ritual. Thus, non-ritual behaviour is seen as a self-explanatory universal standard, whereas ritual is an added category that is only acceptable to us after a sound analysis of the evidence (De Coppet 1992, 3).

Why is this so generally assumed? Undoubtedly because it is a way of thinking which prefers down-to-earth explanations to religious ones, an assumption deeply-rooted in a western world view. Brück has argued that it is basically the product of a post-enlightenment rationality, related to 'a belief in the inevitability of progress from a state of savagery to a rational, moral and technologically advanced way of life' (1999, 318). Technological progress is hereby conflated with 'science' that replaces religion and rituals (Kuper 1988, 5). There is a strong notion that it is particularly the shift to metal objects that implies such technological progress and is thus seen as heralding this general social advance (Childe 1930; Rowlands 1984). This may explain why 'ritual' deposition was not even considered to be a possibility in many parts of Europe for a long time (France and the British Isles for example, see Bradley 1990, 15). It contradicts the assumptions of the Bronze Age as a period that saw the development of science and inventiveness and that freed itself from the stagnant, neolithic religious ties (Rowlands 1984).

### *How ritual is made an acceptable explanation*

On the other hand, especially in the archaeology of northern Europe, there has been more readiness to interpret bronzes in ritual terms. I have already shown that the arguments for recognizing such rituals also presuppose an economic rationality. But then the question still remains: how could such interpretations be forwarded, in view of the general assumptions on the supposed economism of the Bronze Age? In general, there are two legitimations for doing this.

A ritual explanation has been made acceptable by showing parallels with practices of Germanic and Celtic societies as handed down by historical evidence. This approach seems to make ritual explanations of Bronze Age practices plausible by showing supposed relations with much later societies that are considered closer to our own society.

Another approach to make sense of religion and to make it something we think we can deal with is to perceive it only in terms of its social function. This approach, which echoes the theories of the sociology of Durkheim, seems to assume that prehistoric religion as such is incomprehensible to us, but that we can make sense of it in terms of its social function (Hodder 1982b, 166-7). Levy's statement that ritual works to enhance group solidarity exemplifies this line of thought. Ritual is given an economic rationality in the prestige goods model. As set out in section 2.4, ritual deposition of bronzes is actually seen to function economically by creating scarcity.

As an answer to the question how the role of metalwork in the field of ritual has been conceived of, the following conclusions can now be drawn. First, an economic rationality defines the problem: it signals strangeness in the fact that bronze objects were left in the ground by Bronze Age communities, whereas they could have served as useful raw material. This applies particularly to the case of hoards in regions devoid of any metal source, like Scandinavia. As Coles and Harding (1979, 517) put it, 'it is difficult to comprehend the reasons behind such an economically wasteful activity, more particularly in the light of the necessity to import all metals in the region.' This strangeness leads to an interpretation of bronze depositions as the result of ritual acts, in which ritual is thus implicitly defined as irrational behaviour. In the many accounts that try to come to terms with this 'oddness' of ritual, a tendency prevails to diminish the strangeness by drawing ritual in the domain of the familiar 'Self'. This is done either by assuming historic continuity with Germanic or Celtic practices, or by explaining it in terms of function. Since the latter is often interpreted as an economic function, economic irrational behaviour has been made rational and we have come full circle.

## 2.6 PROBLEMS WE FACE WHEN USING THE 'RITUAL/PROFANE' DISTINCTION FOR THE INTERPRETATION OF DEPOSITS

Having analysed existing approaches to the interpretation of metalwork deposits, I now want to return to the questions that are central to the present research. These are somewhat different from the questions generally asked. Of course, the first question – did an intentional deposition take place that was meant to be permanent - overlaps the main research issue of over 125 years of hoard research. The next questions, however, – was it a selective deposition, and if so, why? – are less often raised. I will now first argue that the approaches outlined in this chapter are not entirely suitable for dealing with the kind of questions that are central to this research for pragmatic reasons because they are about other aspects of the evidence. The problems we face are both of an empirical and of an epistemological nature.

### 2.6.1 *Problems raised by the empirical evidence*

The general strategy of distinguishing between 'ritual' and 'profane' goes back to the view that ritual is economically irrational behaviour. On the empirical level, this strategy creates some problems that make themselves particularly felt in the case of the research questions of the present study. Identifying some bronze find as *ritual* and as separate from profane reduces the human actions reflected in the bronze deposit to the level of the irrational and symbolic (cf. Brück 1999, 325). Levy, for example, argues for a clear-cut dichotomy between the ritual and utilitarian, when she states

that once a tool becomes an important ritual symbol, it is no longer used for ordinary activities (Levy 1982, 23). Such a view creates a sense of separation between this particular act and the world of daily life that need not necessarily have been felt thus by the prehistoric actors themselves. An empirical observation that is repeatedly made on finds from 'ritual' hoards is that the objects deposited show clear traces of a use life. The objects selected are mostly tools of daily life (see chapters 5 to 8 for examples). This suggests that the 'ritual' sphere was linked to the sphere of daily life. Instead of elevating the ritual act as something out of the ordinary, to be understood on its own terms, this empirical realization may itself serve as an important clue in a study of depositions. This brings me to a more general point. Just deciding whether a hoard was ritual or profane is hardly an enterprise that learns us any more on the past. To quote Bell (1992, 69), the question whether something is ritual or not is no more than a 'taxonomic enterprise' at best. It seems more interesting to bring it back to what people actually did there, and how this relates to their practical engagement with the world (cf. Brück 1999, 327; Hill 1994, 24-25). The abundant evidence of used items in 'ritual' hoards alone suggests that the link between ritual and real life must have mattered in a direct way. We should find ways to use this observation as a clue for making sense of deposition itself (see below).

I have already alluded to the next problem in chapter 1 and section 2.4. Explaining ritual by its social function creates immediate problems for studying the phenomenon of a deposition that is selective. If it is the prestigious value of metal that mattered, then how are the patterns of association and avoidance of objects and contexts to be explained?

Apart from the epistemological problems involved regarding the use of ethnographic or historic analogies for societies distant in space and time (Van Reybrouck 2000), there is also an empirical one: the objects and associations in bronze deposits are very different from the kind of objects known from analogies. To use analogical inference for making sense of bronze deposits would be to fail to deal with the richness and variety of the evidence at hand. Following Von Brunn (1968, 238-9) we can even postulate that bronze deposition was historically a unique phenomenon, for which true ethnographic or historical parallels do not exist.

### 2.6.2 *Epistemological problems*

A more fundamental problem with the kind of approaches described in this chapter is of an epistemological nature. We have seen that over 125 years of discussion on the interpretation of hoards the main arguments have remained remarkably stable. The reason why the main arguments are so stable and dogmatic does not relate to the evidence itself. Rather, it has to do with the underlying preconceptions on economic rationality. I have argued that both the views that

deny that bronze deposits were intended to be permanent and those that see them as ritual acts in the way outlined above are a product of the same line of thinking. It is the same assumption on rational economic behaviour that underlies both views (Brück 1999). If this is a product of a post-enlightenment way of thinking, as sketched above, then how can we escape from it? Phrased otherwise: if Bronze Age behaviour was fundamentally different from ours, how can we come to terms with a phenomenon like deposition?

#### 2.7 HOW CAN WE GET ROUND THE PROBLEMS OF THE 'RITUAL/PROFANE' DISTINCTION?

If the debate on ritual deposits is so strongly situated in a post-enlightenment discourse as Brück argued, then we might wonder how archaeology can get round the epistemological problems, if at all. In view of the longevity of the debate, it would be quite pretentious to claim that the present research can simply step out of it. Nevertheless, we have to find a way to deal with some of these problems. The entire research will be the attempt to do just that. I shall here, in a quite pragmatic way, sketch which approach might be fruitful. In doing this, I shall contrast it to recently formulated alternatives.

##### *The alternative of seeing ritual as permeating all fields of life*

An alternative, recently sketched by post-processual archaeologists, is to reverse the argument and state (on the basis of ethnographic parallels) that ritual permeates all fields of life (Brück 1999, 325). As Brück argues, however, the danger of this approach is that everything becomes subsumed within the category of ritual, and that we consequently run the risk of reducing human action to the irrational and the symbolic (Brück 1999, 325). She herself takes this argument to its logical conclusion and proposes to drop the category of ritual as an analytical tool entirely. She states that archaeologists should no longer be concerned with the 'redundant' question of how ritual behaviour can be identified. Rather, they should accept that prehistoric behaviour was structured by other rationalities, and be concerned to find out what past actions can tell us about the nature of such prehistoric 'rationalities' (p. 327).

##### *Studying deposition by starting from the observation what people did*

I think that Brück's reference to 'rationalities' is unhelpful, particularly when she refers to ethnographic examples of such 'other rationalities' that should be comparable to the Bronze Age ones (1999, 321-2.) In my view, it would be much more interesting to take her theoretical argument as an invitation to return to the patterns in the empirical evidence itself, and take these most immediate sources of information on the past as a starting point for making sense of that past,

instead of ethnographies of distant and different cultures. This will basically be the point of departure of the approach I shall take in this book.

Archaeology is fundamentally about what people *did* (Roebroeks 2000, note 4). In this case, it is the practice of deposition that we have evidence of. If such depositions were carried out in a patterned way (as is the case in selective deposition), then deposition is certainly not an 'irrational' act but a meaningful one. Patterns in deposition have long been recognized for different areas, with the studies by Hundt (1955), Von Brunn (1968), Needham (1989) and Sørensen (1987) as outstanding examples. Many authors have therefore recognized that since deposition was a structured phenomenon, it reflects prehistoric rules on the proper way of doing things. The implication of this is that the things deposited themselves must carry specific meanings. Sørensen's study on the Late Bronze Age hoards from Denmark (1987) has been the first to explicitly translate patterns in selective deposition to what objects meant to people. To my mind, an important clue in finding out what an object meant is not to focus on depositions alone, as Sørensen did, but to see meaning as the product of the entire life of such objects. After all, I have already alluded to the evidence that many objects in such depositions seem to have led such a life.

##### *Why the term 'ritual' still should not be dropped*

From an approach such as this, we automatically come back to the question central to this chapter, namely what deposition is *as a practice*. In dropping the term 'ritual' altogether and replacing it by the vague term 'rationalities', Brück's approach *a priori* denies that specific practices can be a social action that is distinguished from other activities as a separate 'field of discourse', 'designed and orchestrated to distinguish and privilege what is being done in comparison to other, usually more quotidian, activities' (Bell 1992, 74; see also Barrett 1991; Verhoeven in press). It is particularly this aspect of selective deposition that comes to the fore in much of the evidence of depositions: rich hoards are rarely found in settlements or graves, but they are known from remote, natural places. Bell (1992) terms such practices that denote a differentiation of one particular practice from others 'ritualization'. Verhoeven (in press) speaks of 'framing'. Thus there still seems to be scope for interpretations of depositional acts that allowed it to be 'bracketed off' in some way, but this time not as an irrational act, but more as a separate field of discourse in the sense of Giddens (1984; Barrett 1991).

##### *The trouble with applying anthropological views of ritual to archaeological data*

The problem with the archaeological approach to ritual, however, is that their theories often draw on anthropological

discussions. In anthropology, however, ritual is also a widely contested subject that means different things to different scholars (Verhoeven in press). Bell (1992; 1997) gives an impressive illustration of the wide range of views on ritual. At this moment I do not wish to make a choice between the many different theories on what ritual actually is, what it involves, and what it brings about. The reason for this is that, pending the view on what definition of ritual is enhanced, one may bring unverifiable aspects to the study, which steer the subsequent interpretation. There is for example the notion that rituals reveal values 'at their deepest level', and that the study of rituals is therefore the key to an understanding of 'the essential constitution of human societies' (Wilson quoted in Turner 1969, 6; see also Barraud and Platenkamp 1990, 103 and Derks 1998, 22). For the present study, this would be a very interesting starting-point, for it suggests that if the practice of object deposition was such a ritual, then its study should provide clues about vital ideas and values of the society at stake. The objects selected for deposition may then, for example, be informative about such issues. There is, however, also the theory that rituals are non-discursive, highly traditional and very remote from vital issues in the society in question. It has also been argued that they may be quite meaningless, or emphasize symbols and ideas that are in many aspects the reverse from those in real life (Staal 1989; Bloch 1995). This is in contradiction to the theory mentioned earlier. It denies that a study of ritual will help us to gain insight into the vital ideas and values of the society that practised it! On what grounds can archaeologists choose between the two theories?

## 2.8 FINAL REMARKS

Discussing the existing approaches to the study of bronze deposits, I have argued that what structures the entire debate is more than the empirical problem of interpreting bronze finds. The solutions (the concept of 'ritual' as separate from the 'profane', making sense of ritual by focusing on its social function) all have their limitations, and cannot directly be used for the present research. Some clues in the empirical evidence were identified that suggest ways of overcoming the 'ritual/profane' dichotomy, such as the fact that 'ritual' deposits often consist of normal utilitarian tools instead of ceremonial ones only, or the patterns in deposition, indicating that it was anything but an irrational act. The problems with the concept of ritual should not lead to dropping the

concept altogether, but what should be abandoned is the approach that sees ethnographic or historical analogies as *a priori* defining what 'ritual' is. I consider it to be a more fruitful approach the work the other way round and start from the archaeological evidence.

In the next chapter, these considerations will form the basis of a theoretical framework that can be used in making sense of selective deposition.

## notes

- 1 Only a few scholars have argued that ritual deposition need not necessarily imply that objects were put away for ever (Needham 2001). Alternatively, permanent deposition need not necessarily to have been ritual either (Pauli 1985; Huth 1997). These views will be considered in chapter 13. This chapter is primarily about how preconceived views on 'ritual' versus 'profane' underlie most interpretations of depositions.
- 2 Consecration or expiatory offerings, or for reasons of thanksgiving or request (resp. *Weihefunde*, *Sühnopfer*, *Dankopfer*, *Bittopfer*, Bradley 1990, 37; Geißlinger 1984, 322).
- 3 The most common approach is *not* to deal with the question whether objects were or were not deliberately deposited, in order to study other aspects of the metalwork finds. This seems a neutral and acceptable approach. From a methodological point of view, the question can be raised, however, whether we are able to study objects without gaining any understanding on the question of how and why they entered the archaeological record (Schiffer 1976). For example, Furmánek (cited in Torbrügge 1985, note 9) explicitly makes the statement that it is possible to study bronze trade without dealing with the question why bronzes entered the ground. But what scholars like Furmánek then do is assuming that a find distribution map is a more or less straight-forward reflection of trade relations. Thus, there is an implicit theory on deposition at work, which comes down to the assumption that the traded goods were lost or deposited (for whatever reason) in proportion to the spatial extension of trade itself.
- 4 Holwerda 1908; Lorié 1908; Butler 1959; 1963; 1990; Butler/ Steegstra 1997/1998; Glasbergen/ De Laet 1959, 122; Van den Broeke 1991a, 242; Van Heeringen *et al.* 1998, 43; Verhart 1993, 50.
- 5 It should be said though, that Butler and Steegstra have recently remarked that it is actually quite strange that a trader hides his stock in a 'boggy hollow' (1997/1998, 184).
- 6 It is not indicated which characteristics the authors consider to be as decisive.

## Theoretical framework for the study of selective deposition

### 3.1 INTRODUCTION

The previous chapter argued that the problems concerning the interpretation of metalwork deposition lie within a much wider debate, and are partly constructed by preconceived assumptions on the character of Bronze Age society. It was also argued that selective deposition cannot really be dealt with using existing approaches. In order to come to grips with the phenomenon of selective deposition, it was then suggested that we should try to understand the objects in terms of the meanings they had to people who performed the act. This chapter will provide the theoretical framework for studying deposition from such a point of view, as well as the possibilities and constraints of doing such a research on the basis of archaeological evidence alone. The argument is built up as follows.

- 1 I shall define what is understood by the term ‘meaning’, how things are meaningful, and what kinds of meaning can be studied in this research (section 3.1 and 3.2).
- 2 Then I shall argue that for studying ‘meaning’ of objects in deposition one should realize that this meaning is the result of the entire life-path of an object, of its ‘cultural biography’ (3.3). The types of biographies will be indicated (3.4).
- 3 In order to study this life-path, it will be determined what may have been the issue in every phase of such a biography, and how this can or cannot be studied archaeologically. Successively, the pre-deposition phases ‘production’ (3.5) and ‘use and circulation’ (3.6) will be dealt with.
- 4 Finally, I shall broach the discussion on what deposition may actually involve, and how it will be approached (3.7).

### 3.2 THE CONCEPT OF ‘MEANING’

First, it should be made clear what is implied here by stating that an object ‘means’ something. Basic to the idea that material culture is meaningful to an individual is the notion that producing, using and observing an object is not just a physical, but also a mental process. The object is consciously and unconsciously associated with concepts, emotions and feelings. Such a cognitive effect is defined here as ‘meaning’ (Fiske 1993, 46; Hodder 1987, 1). For analytical reasons, a twofold distinction can be made between referential and visual/material meaning.

An object can be associated with a concept, an idea, something that can be put into words. This is taken to be its

referential meaning (Hodder 1994, 73-4). In this way, an object can mean many things. A sword can be understood in terms of its function (a weapon), but it can also be associated with the paraphernalia of a high social position (its societal meaning). On another level, it can also be associated with more abstract and unbounded notions (Hodder 1986, 124-5): it can for example be perceived as ‘sacred’ (Godelier 1999, 123).

At the same time, the object means something by the sheer fact that it is material, that it is something which can be seen (Buchli 1995, 189; Tilley 1994, 15-6). This is a type of meaning that is often neglected; many studies focus on referential aspects only to the effect that objects are understood as no more than embodiments of ideas. Objects, however, can have non-verbal, visual effects on the observer that cannot be put into words (Fletcher 1989). To give an example: Bloch (1995) describes the case of the elaborate carvings in the houses of the Zafimaniry (Madagascar). In referential terms, these carvings mean nothing; they are considered very meaningful to the participants however in terms of the visual impression they make, since they mark the transformations in the life of a house and its inhabitants.

#### *What we are dealing with when studying patterns of deposition: collective meanings*

So far, meaning has been described from the point of view of the individual agent. The meanings attached to a sword may have differed from individual to individual, and it is doubtful whether archaeology is capable of studying such individual meanings. The concept of meaning, however, is here introduced in relation to a particular treatment of particular objects in an act of deposition, like for example a dirk that was deposited in a Middle Bronze Age barrow grave. Such acts are more likely to have been done by or on behalf of a group of people than by an individual alone. Burial ritual is an outspoken example of a social practice (Metcalf/Huntington 1993, 28-9). The meanings attached to this dirk that are involved in the decision of placing it in the grave, are therefore also social in character. There is some shared understanding on what the object is, and why it should be in this grave. Although an individual can manipulate and pursue his or her own aims in such a decision, the placement of the dirk in the grave is ultimately the result of a process that is

social in character. The argument can be made that the concept of meaning in archaeological studies mostly relates to such collective meanings, as opposed to individual ones (Lucas 1995, 42).

This example of meaning being collective relates to a particular event. But what to think of the meaning of objects as it appears from *patterns* of selective deposition? Such patterns are mentioned in chapter 1 as one of the remarkable observations in need of clarification. In many regions, particular objects seem to have been deposited in particular locations only, and not in others. Such patterns can only exist if people in different places, and at different moments, deposited similar objects in more or less similar ways. In this respect, the high number of Late Bronze Age swords found in rivers of the research region can be mentioned. In chapter 8 we shall have a closer look at this pattern, but for the sake of argument, let us suppose here that it is not the result of some sort of selective preservation, but of human preferences. It must have been related to the notion that a river, and not for example an urnfield grave, was the appropriate location for the deposition of swords. Since the deposition of swords in rivers can be attested for many sites in the region, there are apparently meanings attached to swords and ideas on their deposition which were shared by different people, living in different places, at different moments within the Late Bronze Age. What's more, by the very nature of the evidence, such shared meanings and rules also seem to be of a diachronic nature. If it is stated that Late Bronze Age swords were deposited in rivers, what is actually said is that at different moments within the Late Bronze Age the practice of sword deposition in rivers was repeated and thus maintained. Although these swords have a considerable dating range, some swords clearly date to the earlier part of the late Bronze Age, and others to later phases, see chapter 8. Similarly, throughout the Late Bronze Age, the practice of *not* depositing swords in urnfield graves was also maintained. Thus, these rules and meanings with respect to swords in graves not only have a collective, but also a temporal dimension. They may have been part of what is called a *mentalité* in historical science: notions of ideology and symbolism within a specific cultural context, during a certain period (Duke 1992, 101; Knapp 1992, 7). If we discuss the meaning of Late Bronze Age swords as appears from their role in river deposition, then 'meaning' should be understood as part of such a *mentalité*.

#### *Collective meanings and agency*

The next question to be asked is how objects become meaningful. So far, I have only made explicit the hidden assumptions of an archaeological approach that studies meaning on the basis of patterns in human behaviour. Apart from the empirical problems involved (site formation

processes, see the next chapter), there is the danger that we elevate such patterns to the level of a cultural explanation, as if society existed prior to human agency (Barrett 1994, 86-95). Indeed, during the burial ritual a given local community has been – consciously and unconsciously – informed and constrained by traditions and norms that are shared by many other groups with which they are culturally affiliated. They are not, however, automatons, who carry out the burial ritual by pre-conceived culturally determined norms and rules. Rather, the rules are reproduced and reworked by the agency of the individual actors involved, each with his or her own aims. The work of the sociologists Bourdieu (1977; 1990) and Giddens (1984) is seen by an increasing number of archaeologists as crucial for conceptualising how people are on the one hand informed by a general framework of culture and tradition, but on the other hand still able to effect change within it. Rules and meanings are both partly unwittingly used instruments and products of daily acts. This *habitus*, as Bourdieu (1990, 55) calls it, is a reservoir of experiences containing principles enabling the bearers of a culture to respond to new opportunities and situations (Lohof 1994, 99-100). In carrying out the burial of a deceased person, each participant brings with him ideas and memories as to the proper way of burial, the burial tradition. This tradition sets the limits within which acts are meaningful (*ibid.*, 100). In the northern Netherlands a dirk or rapier was deposited in some graves (Butler 1990). Although this took place only rarely, the deposition of such an object was apparently meaningful within the burial tradition. The fact that it did not take place very often, and that there were also other ways in which dirks and rapiers were deposited (in peat bogs), brings us to the second issue.

People carrying out the act not only bring to it ideas on how it should be done, they also have their own goals to pursue. There was no written protocol to obey. Rather, the burial tradition as people remembered it was reproduced. Since a considerable time may have elapsed between the construction of one barrow and another (during the Dutch Middle Bronze Age A, probably a generation or more; Lohof 1994), this in itself may explain variation in burial practices. Apart from that, in reproducing a traditional act, it is also open to manipulation. A funeral is a central moment in life where both the status of the deceased and of the funeral organizers is involved (Parker Pearson 1999, 84). It is historically situated and can be an arena of display among the mourners. The deposition of a dirk can therefore have been an act that gave the actors prestige in the face of the onlookers. At any rate, burial goods are not just an element of a culturally prescribed identity kit but the culmination of a series of actions by the mourners to express something about themselves, their relationship with the deceased as well as to portray the identity of the deceased (Parker Pearson

1999, 84). The decision to deposit a dirk near the deceased must therefore have been steered by such a wide array of factors. In placing a dirk in an ostentative grave, the reasons for choosing such an object relate to the meaning it had in the community. And this meaning is the product of cultural tradition, as well as of the specific socio-political context of the moment and the agency of the people involved. At the same time, however, by its very use in this prestigious burial ritual, this meaning is affirmed, and reproduced.

### 3.3 OBJECTS AS ‘THINGS’ AND OBJECTS THAT ARE ‘LIKE PERSONS’

With regard to the meaning of things, we must make a fundamental distinction between objects that are just things and those that are to some extent like persons and carry specific meanings. The former are commodities, the latter are gifts or valuables. The differentiation is based on the difference between commodity exchange or trade and gift exchange. Table 3.1 presents an overview of the qualifications of each type of transaction (based on a survey carried out by Bazelmans 1999, 14-6).

In trade or commodity exchange, the acquisition of the object itself is the aim of the transactions. In gift exchange, the objects are a *means* to create, maintain or manipulate social relations. As such it can be economic, political, social and religious at the same time, whilst trade is exclusively

‘economic’. In trade, objects are alienable, whereas gifts are to a certain extent personified: they express something of former owners in them, and are therefore inalienable possessions (Weiner 1992). For Mauss and many others, the commensurability of giver and gift, is a vital characteristic of gift exchange (Weiner 1992; Barraud *et al.* 1994, 4-5), as it may explain why a gift is reciprocated. To give a contemporary example: bars of gold can be exchanged for anything else that equals the amount of money they represent. They are just ‘things’. A golden wedding ring<sup>1</sup>, however, is inalienably linked with the owner, and with his or her status as a married person. Although the gold of which the ring is made can be seen to represent a certain amount of money, it would generally be considered a grievous insult to one’s marriage partner and to marriage itself if one sold this ring. The ring thus is a valuable with a special meaning: it symbolically refers to a personal status and to an important social value (being married), and is treated almost as if the ring itself is a person (destroying or selling one’s ring can be seen as an equivalent to destroying the marriage itself and the status of the individual as one’s marriage partner). This exemplifies two things. The first is that a valuable represents a very specific meaning, which leads to a specific treatment of the object. On the other hand, this special meaning is not an intrinsic one: gold itself can just be trade ware; it requires a specific context to transform gold as a ‘thing’ to gold as

Gift exchange	Commodity Exchange
<i>society</i>	
– is non-capitalist/non-modern/non-Western	– is capitalist/modern/Western
– is based on clans, segmented	– is based on class, state
<i>participants</i>	
– are social <i>personae</i> , mutually dependent	– are independent parties, strangers
– are not necessarily of equal status	– are of equal status
<i>transaction</i>	
– has in addition to economic aspects social, political and religious ones as well	– takes place in an independent economic domain
– reciprocity anchored in collective representations	– is contractual (legal anchoring)
– is obligatory and obligating	– is non-obligatory and non-obligating, voluntary basis
– brings about a qualitative relationship between persons (i.e. distinctions in rank)	– brings about a quantitative relationship between objects
– gift and counter-gift not balanced	– (an equivalence in value)
– social relationship formed	– exchange is balanced
– emphasis on consumption	– relationship terminated after transaction
<i>exchanged goods</i>	
– are a means	– are an end
– are inalienable	– are alienable
– are ordered according to rank	– have exchange value

Table 3.1 Contrast between gift exchange and commodity exchange (based on Bazelmans 1999, fig. 2.1).

a valuable signalling and constituting marriage (metalworking, inscribing the names of the marriage partners inside the ring, and finally the wedding ritual itself).

An important difference between personified valuables and commodities consequently is that the former carry specific meanings and are ordered and treated in specific ways according to that meaning. Let us now return to the Bronze Age and our problem of selective deposition. A system of selective deposition is about keeping specific objects apart from others, and from specific contexts. This must have been a situation in which objects are not just things, but where they carry *specific and different meanings* (cf. Rowlands 1993, 147). Scrap hoards, however, consist of broken pieces of any kind of object: pieces of swords, ornaments or axes can be present in the same hoard. This is a situation in which different objects were not kept separate, but treated alike (broken up and collected in one pile of metal, see Bradley 1990, 122-3). From this it follows that a scrap hoard represents the other end of the continuum. Here objects no longer possess the specialized meaning that we can infer from their role in selective deposition. This example already makes clear that objects could be a 'thing' at one moment, and a 'valuable' at another. The question that follows is: if selective deposition reflects a situation where objects were considered to possess special meaning, how did they *become* so meaningful? Or if the objects were already designed as valuable from the beginning how could this meaning be maintained? For coming to terms with this, the concept of the cultural biography of things as developed by Kopytoff (1986) is a useful analytic concept.

### 3.4 HOW MEANING COMES ABOUT: THE CULTURAL BIOGRAPHY OF THINGS

Kopytoff argues that a *cultural* biography of an object 'would look at it as a culturally constructed entity, endowed with culturally specific meanings' (Kopytoff 1986, 68). As already argued above, it is precisely these kinds of meanings that the phenomenon of depositional patterns allows us to study. An important point he makes is about the existence of culturally desirable life-paths of objects. Kopytoff (1986, 66) shows that if one studies life histories of specific objects in a given society, it will become apparent that these life histories often follow the same patterns. From this, it can be deduced that there are culturally specific expectations for the general life-path of objects: idealized biographies that are considered a desirable model in society. We often only come to realize that such idealized biographies exist if we see an object being treated in a way that deviates from its desirable life-path. Think, for example, of a wedding ring that is sold to a jeweller by one of the marriage partners at the moment of divorce.

The notion of generalized life-paths of objects may remind us of the deposition of bronze objects, and in particular of

the observation that similar objects were deposited in more or less similar ways. Kopytoff shows that biographies of things can make salient what might otherwise remain obscure. In our case: there must have been something in the life and meanings of swords and graves that led to the situation that the two are hardly ever found in association in our region. This cannot be inferred if we just stick to a study of swords themselves, but only if we trace the depositional patterns of association and avoidance. As such, tracing the cultural biographies of different things may reveal a wealth of cultural information (Kopytoff 1986, 67).

An important difference that should be made for the present study is the one between *specific* object biographies, and *generalized* biographies (Gosden/Marshall 1999, 170-1). Specific biographies are about the idiosyncratic histories of objects. A modern example would be a guitar used by John Lennon. The only thing that causes the guitar to be displayed in a museum is the fact that it was John Lennon who used it. The lives of guitars may vary, but in general they do not end up in museums. The biography of wedding rings, however, shows all the characteristics of *generalized* biographies that go back to a widely-shared expectation as to their kind of life-path. It may be clear that what we are referring to in studying patterns of deposition, are *generalized* biographies. Archaeologically, it is much more difficult to come to terms with *specific* biographies, since they are outside established patterns (exceptions that prove the rule). As such they might sometimes be recognizable as 'odd' phenomena.

### 3.5 KINDS OF BIOGRAPHIES: VALUABLES ASSOCIATED WITH COMMUNAL VERSUS PERSONAL IDENTITIES

Objects may accumulate special meanings on their life-path, but selective deposition implies that the meanings themselves vary. Thus, there must have been different kinds of biographies. The entire distinction between objects that are like 'things' and those that are 'like persons' is based on the theory of commodity and gift exchange. For the case of bronze items this theory seems attractive. After all, we are dealing here with objects that in our region must often have had a life of circulation, and hence exchange. In order to come to a more detailed understanding of the kinds of biographies that exist, I once again return to the theory of gift exchange. An important element in the theory originally developed by Mauss is the commensurability of the gift and the one who gives. Thus an individual does not merely receive an object, but rather object, giver and receiver are intertwined. The accumulation of meaning during life is thus related to the construction of shared identities between givers, object and receivers. An interesting elaboration of this view can be found in the work of some anthropologists on the biographies of objects in the construction of specific *personal* identities (Bazelmans 1999; Platenkamp 1988; Strathern 1988). Other

biographies are about what I provisionally term *communal* identities.

Objects primarily associated with communal identities must have been numerous, and the most ceremonial objects of non-modern societies can be ranged under this heading (Godelier 1999).<sup>2</sup> The distinction of such objects and personal valuables is to some extent non-existent, since a concept of personhood is of course also a communal representation. Corbey (2000, 17) gives the ethnographic example of ceremonial shields from the northern Moluccas. 'Such shields belong to ancestors with whose power it is invested, to the family and to the house in which it is kept. It lends weight and reputation to that house and may never leave it, except as a ceremonial gift when a male member of the family takes as bride'. Such shields are thus not just an inalienable possession of a warrior, but they constitute the identity of his house, the ancestors and family as well. Reasoning along similar lines, we may assume that a similar notion applies to many 'personal' valuables, including those of the Bronze Age. Be this as it may, the empirical evidence from the European Bronze Age itself suggests that there is at least some scope for differentiating between personal paraphernalia and other objects, because there is a specific group of personal paraphernalia that was treated differently in deposition. This comes best to the fore in what seems to be the most fundamental distinction in selective deposition: the different object types placed in a burial and those deposited elsewhere (Needham 1989; this book: chapter 5 to 9). The category of 'personal valuables' needs some elaboration.

#### *Object biographies related to the construction of personal identities*

With the concept of a person, I mean the person as a social category. Every human being is an individual and a person alike. Both concepts, however, refer to different things: a person is a complex of social relationships, a social category; an individual is a psycho-biological entity (Radcliffe-Browne 1959, 193-4). Mauss (1996) argued that in modern western culture, the two are the same. In our society the individual is seen as a social and ideological category (individualism; Strathern 1988, 157). In non-modern societies, however, the concept of the person often refers to a sum of statuses. 'The completed person is the product of a whole life' (La Fontaine 1996, 132). Becoming a person means joining age groups, and fulfilling social roles that go with it. Young children, for example, are often not considered to be persons, as they have not passed the defining phases of the life cycle. Mauss gives several examples how an individual is defined as a person during his life in the rights he enjoys and his changing place in the group. He also illustrates how such roles, statuses and matching paraphernalia were circumscribed (Mauss 1996, 11). The wedding ring may once again serve as a modern

example. It is this ring, and not for example a necklace or bracelet, that is the matching ornament of the status of a married person. By giving each other a ring to wear, the partners achieve a new stage of personhood in the reciprocal exchange during the marriage ritual.

Thus, a person is constituted by the matching paraphernalia (Bazelmans 1999), and this is where archaeology may come in, since such roles and statuses can be marked by material culture, specific attributes and clothing. Sørensen (2000, 142) argues that 'the dressed people of the past were generally made to look as particular kinds of persons'. We should probably not take this to mean that objects are just signalling a particular role. Strathern (1988, 157) argues that in tribal society the person is conceived of as something that is the *product* of cycles of exchange. Objects are crucial in this process. Following the anthropological studies of Platenkamp (1988), Bazelmans (1999, 68) shows that successive transformations of the person are generally regarded as the bringing together, the development, and the subsequent dissolution of various 'constituents'. In this book we predominantly deal with objects that circulated over vast areas. The following observation therefore seems significant. The ethnographic examples mentioned by Bazelmans (1999, 68) illustrate that the objects which effect a transformation of personhood, are very often valuables in exchange. The objects in exchange are thus regarded as representing the constituent parts of a personal identity (Bazelmans 1999, 68). Objects do not only signal a personal status but they are actively engaged in its construction. Put otherwise: objects 'make' persons.

### 3.6 THE START OF A BIOGRAPHY: PRODUCTION

The fundamental theoretical issues on the study of meaning of objects in deposition have now been presented. We shall now turn to the translation of these theoretical concepts to variables that can be studied archaeologically. In order to do that, I shall chart what could be the potential of each phase in an object's biography for the accumulation of meaning. A general distinction is made between 'production', 'use life' and 'deposition'. Table 3.2 summarizes the most important archaeologically recognizable variables for each phase that can be traced from the literature on bronze finds.

Every biography starts with production. In making an object, the smith is both constrained by practical factors (availability of materials and skill) and cultural ones (which objects were considered necessary to produce and what they should look like).

#### 3.6.1 *The crucial position of the smith as a creator of potential valuables*

There are reasons to suppose that bronze smiths had a special position in Bronze Age communities. This is best illustrated by taking the production of bronze personal valuables as an

example. Objects meant to fulfil roles as paraphernalia for special, circumscribed statuses must have started their life by being made by a smith. The smith thus possesses a crucial position in the creation of valuables. Traditional views on the social position of smiths saw them as detribalised craftsmen, producing for an intertribal, if not international, market (Childe 1958, 169). It is now widely accepted that such a view of detribalised smiths must have been anachronistic for the small-scale Bronze Age societies in question (Rowlands 1971). As a contrast, the prevailing idea is that a smith should primarily be seen as a member of a particular community, and therefore as socially and culturally constrained and situated as any other member of that group. The ethnographic examples on metalworking in non-modern society all show that it is as much a ritual and magic practice as it is a skilful practical task (Budd/Taylor 1995; Helms 1993). Metalworking often takes place in specific ritual circumstances, and is surrounded by taboos and ritual regulations (Bekaert 1998). In their study of prehistoric metalworking, Budd and Taylor (1995) argue that ritual and magic must also have been part of the early copper and iron metallurgy in Eurasia. Although such observations seem to be useful ones, the authors do not really work out why the position of smiths is so often ritualised and ambiguous. Part of the answer, I think, may be looked for in the situation of the smith within his community and in what he produces. Among the products of bronze smiths are the paraphernalia of personal statuses like swords or special insignia. Such objects are likely to have possessed prime value. We may expect that they were intended to lead a life as chiefly paraphernalia. It goes without saying that such objects can only represent such statuses if their production is circumscribed and controlled. In most cases, the smith is in a remarkable in-between position: he may be the creator of valuables that are not necessarily meant for his own use (Helms 1993, 69-77).<sup>3</sup> The ritual sphere in which production of valuables often takes place and the liminal position of many smiths thus may be a way to deal with the potential powerful role of smiths as creators of objects that serve as valuables, and to prevent the objects from losing their prime value.<sup>4</sup>

To sum up, the role of smiths is potentially an important one in the biography of objects. The 'biographical possibilities' (Kopytoff 1986, 66) are in the hands of the smith. The decisions he makes are crucial to an object's further life. Table. 3.2 lists a number of choices to be made in the design and production process which have their effect on the object to be produced. They can serve as relevant variables in the research of the biography of bronzes.

### 3.6.2 *Material and techniques*

First of all the choice of material is relevant. This may seem something that goes without saying, but it is not as straightforward as it might seem at first sight. The choice to make

an object of bronze, instead of for example of stone, is not only steered by technological considerations and availability, but by cultural considerations as well. In general, there is what Sørensen calls a cultural 'attitude' towards materials (1987, 91). The knowledge of working certain materials may be available to a community, but still not applied. For Late Bronze Age Denmark, Sørensen (1991) has shown how for example the working of iron ores was known for a long time, but hardly applied for making specific ritual objects, which were exclusively made of bronze. Bronze may have been considered to possess 'intrinsic value' when compared to other materials (see above). This may particularly come to the fore when objects are made that are not utilitarian in the first place, such as ceremonial or status objects.

If the choice is made to produce an object of bronze, then the provenance of the material itself is relevant. In the case of a non-copper yielding region like the southern Netherlands, it can be made of bronze of imported objects that were melted down, or from metal that was already present for some time in a regional system of recycling. The research done by Northover (1982), and more recently by Rohl and Needham (1998), on British metalwork finds shows that certain phases are characterized by a substantial remelting of metal from a regional circulation pool, whereas in others, people seemed to have relied primarily on the melting down of imported metal. Unfortunately, the Dutch metalwork finds from the major part of the Bronze Age have never been subjected to a substantial programme of metal analysis as was done in Britain, and such data are not available for the Southern Netherlands, with the exception of the Late Neolithic copper finds.

Information on the production techniques must be deduced from studying the objects themselves, since evidence on smiths' workshops is hardly available so far, and finds of metalworking implements are also extremely rare. For the southern Netherlands, the evidence is restricted to some finds of cushion stones and moulds (chapter 5). In a region where bronze was scarce, it is likely that casting debris was assembled for later use. The possibilities for preservation in the archaeological record of casting debris are therefore low.

### 3.6.3 *Concept of form and style*

The smith makes an object on behalf of the community he is a member of. In doing this he or she works with a culturally informed concept of what an object should look like, yet reproducing and perhaps altering it in the same act of production. Empirically obvious differences between objects were also observable for the people producing and using the object; such differences are likely to be meaningful (Sørensen 1987, 94). In general, every society has some form of conceptualisation of what is considered its own material culture (Sørensen 1987). This includes a set of culturally

<b>Production</b>	<i>metal</i>	regional from imported objects
	<i>production technique</i>	usual innovative
	<i>functional possibilities</i>	demanding special craftsmanship allowing multifunctional use specialized
	<i>concept of the object</i>	object cannot be practically used resembling existing metalwork objects resembling objects of other materials new metalwork form new form within existing material culture
	<i>possibilities for display</i>	unique, singular object designed to be impressive
	<i>style</i>	plain, insignificant form sharing traits with objects from other regions combining traits from various regional styles ('hybrid') lacking an outspoken distinctiveness
	<b>Life</b>	<i>use</i>
<i>exchange</i>		local or regional origin import from outside the region traces indicating an object's antiquity
<b>Deposition</b>	<i>choice of objects</i>	single object/ more than one metalwork items only/ other materials characteristics shared by the objects object associations known from other contexts?
	<i>treatment of objects</i>	complete (for example: axe with shaft) dismantled (for example: axe blade only) objects sheathed or covered objects left intact objects worked before deposition (e.g. resharpened)
	<i>arrangement of objects</i>	objects broken/ burnt in specific order individual groups within hoard random
	<i>location</i>	hidden from view objects still visible objects easily accessible objects inaccessible in a 'natural', unaltered location in a grave in or near a man-made construction (e.g. house, mound) characteristics of the location (physical, social) previous history of the location later history (i.e. after deposition)

Table 3.2 Decisive steps in the life-path of metalwork: archaeological correlates.

specific ideas on what objects should look like, and what forms are normative. In a region which not only imports objects from far, but also produces its own – and this applied to the southern Netherlands at least since the Middle Bronze Age B – the idea of what constitutes one's 'own' material culture was constantly influenced by the style of objects imported from foreign regions (ibid., 94). Obvious visible differences, for example between a foreign object and a local one, may potentially contain a basis for differentiated use and different social evaluation (ibid., 94).

An indigenous 'conceptual classification' may have been rigid, which means that pains were taken to effect standardization among objects. This may have been effected by an exchange of moulds between smiths, or by making new clay moulds on the body of existing objects. On the other hand, attempts may have been made to give objects an individual, unique character. Thus, questions to be asked are: which objects were the norm, and which were the exception? How rigidly standardized were the regular types, and how deviating in form were the non-regular ones?

A conceptual classification is not a monolithic whole but something which is constantly being reinvented. One of the factors influencing the decision to shape objects in a new way may have been the appreciation of foreign objects. As the southern Netherlands knew both a regional production and an importation of finished bronze items, the appearance of foreign objects may have influenced the style of regional products. The attitude towards such objects may have been adaptive, modelling local types after foreign ones. Local material culture can also become 'closed' and strikingly traditional, however. In that case, the regional products display an outspoken style, which makes them look different from the foreign ones. This must have been the case in Late Bronze Age Denmark, for example (Sørensen 1987, 99). Consequently, the decision to shape or not to shape an object in a distinct style may be a relevant one, of special interest for the present research. Style may be relevant in the making of distinctions (for example regional versus foreign characteristics), but it may serve to express affiliations as well.<sup>5</sup>

Depending on their social role, some objects can be more prone to change than others. If change is effected, the way in which a foreign object is translatable to existing material concepts may be important. The oldest copper axes visually had a lot in common with the forms of existing stone ones. This may relate to the relatively rapid incorporation and local imitation of such axes in copper in the Netherlands during the Late Neolithic and Early Bronze Age. The importation of a copper double axe or bronze halberd, however, did not lead to local imitations, nor were comparable objects made in later phases. Such objects were new items, for which there seems to have been no predecessor in the locally current material culture. It is possible that such objects were

therefore largely considered 'exotics' among existing material culture classifications (see chapter 5).

It follows from this that it is important to investigate the relationships in form and appearance between imported versus regionally produced objects (adaptive responses versus closure; the aspect of translatability of new forms), as well as to see if some object-types are prone to change, whereas others are strikingly traditional.

#### 3.6.4 *Functional possibilities*

Apart from these remarks on the situation of the smith in terms of material-culture conceptualisations and stylistic arguments, there is also the decision concerning the functional possibilities. Whether an object was made to be worn on the body (and hence potentially to serve as a personal valuable) or to perform practical tasks is quintessential. With regard to 'tools' the decision to allow for multi-functional, specialized, or no practical use at all is important, since it determines the subsequent biographical possibilities to a large extent. In non-metalliferous regions, the decision of a smith to shape the available metal into an axe that could be used, or to make an elaborate one that could nevertheless not be used for any practical task at all, is informative on the sort of life it was meant to live.

The distinction between 'non-utilitarian' and utilitarian needs some elaboration. Needham (1990, 248-9) has argued that Early Bronze Age metalwork almost certainly served multiple purposes, where even seemingly utilitarian axe-heads were designed to fulfil ceremonial roles. Some types may have been used for ceremonial or utilitarian purposes only, but this distinction was rarely brought out in terms of form or treatment. The Middle Bronze Age saw in this respect fundamental change, as now objects were made that proclaimed their specialized ceremonial role in terms of form and treatment. Often this was accompanied by a certain abstraction of existing tool forms and a design that lacks possibilities for actual use. This is in accordance with what the anthropologist Godelier mentions as general characteristics for objects that were considered to be valuables, imbued with special meaning. Such objects look like tools or weapons, but are never used. There is also a certain abstraction to them. This 'seems to be the prerequisite for their being able to 'embody' social relationships and thought systems and then to represent them'. Often such objects are also 'beautiful' to valorise the object's owner and to serve as a source of emotions (Godelier 1999, 161). Thus, apart from their referential meaning, it was their visual meaning that was important to such objects.

### 3.7 THE LIFE OF AN OBJECT

Deliberate deposition can be seen as the end point of an object's biography, when it had acquired a specific meaning. It is during its life, however, that this meaning came about

(Munn 1986; Rowlands 1993, 147, 149). This implies that during its life an object is likely to undergo transformations of meaning. Some objects may already have been considered having 'prime' or 'intrinsic' value at the start of their life (Renfrew 1986, 159). However, they should fulfil specific expectations to become really valuable. If they do not fulfil the expectations, and follow the life-path considered appropriate, they may lose their significance. This is something which has been recorded for several ethnographic case studies on the use of valuables (Weiner 1992). To return to our modern wedding ring example: it already has prime value once it is made and the names of the partners are inscribed into it. It is only since the successful end of the marriage ceremony, however, that it has really achieved the status of a wedding ring. To quote Bekaert (1998, 17): 'Meaning becomes 'true' if proven to be workable'.

Many valuables, however, may start their life just as things or commodities. In circulation, the most important aspect to an object's meaning is the kind of transaction to which it was submitted. This can be either commodity or gift exchange. I shall first discuss theoretically how gift and commodity exchange are linked, and then turn to the archaeological correlates of use and circulation.

### 3.7.1 *Metalwork circulation as an exchange of gifts and commodities; long-term and short-term exchange*

We have seen examples of theories on bronze exchange that explain it predominantly in terms of the circulation of commodities (the 'European bronze trade'), and those that see it mainly in terms of gift exchange (as circulation of prestige goods; chapter 1). In reality, however, the two are always intertwined and variants of the same principle, namely reciprocity (Bazelmans 1999, 15). The strong tendency to contrast gift and commodity exchange is not a characteristic of archaeology alone, it can also be found for example in anthropological studies (Gregory 1982). It may be a product of the unique tension between mercantile and personal relations in our society (Bazelmans 1999, 17-8). Exchange of inalienable gifts and of alienable commodities must co-exist in every society, however. In a perfectly commoditised world, everything is exchangeable for everything else; while in a completely decommoditised world everything would be inalienable, singular and unexchangeable (Bloch/Parry 1989, 15). Applying this to a conceptualisation of the exchange of bronze objects, it is therefore very likely that bronze objects may have been both gifts and commodities. This realization has recently been worked out by Bradley and applied to archaeological evidence (1990, 144-8). We shall return to his ideas below. First something more need to be said on the question how a coexistence of gift and commodity exchange in a given society should be conceptualised.

Studies of non-monetary economies all over the world have shown that the exchange of goods is managed in separate spheres of exchange. These spheres are ranked, they represent value classes (Bloch/Parry 1989, 15; Kopytoff 1986, 71-2). Each sphere constitutes a separate universe of exchange, and conversions between different spheres are possible, but not always easy (Kopytoff 1986, 71). The higher spheres comprise gift exchange of valuables. In the highest sphere, important collective issues are at stake, like a society's beliefs, morality and values. The transactions in this realm are concerned with the reproduction of the long-term social or cosmic order. This highest sphere of exchange is designated 'long-term exchange' by Bloch and Parry (1989). Although working from different points of view, both Dumont and Godelier (1999) have emphasized that such transactions are not only between people, but also between people and the supernatural forces, ancestors, spirits and gods. A well-known example of such long-term exchange are sacrifices made on behalf of the community. As Mauss (1993) has shown, during gift exchange an object is to some extent seen as imbued with the presence of the former owner (hence the inalienability); the object becomes to a certain extent personified. Godelier (1999) has argued that in te case of valuables perceived of as very special, objects are not only seen as signalling the presence of former owners, but of very special persons, and even of ancestors or gods. Weiner calls this 'cosmological authentication' (Weiner 1992, 4-6).

The lower spheres of exchange comprise the arena of individual competition and appropriation, where individual acquisition is legitimate and even seen as a laudable goal (Bloch/Parry 1989, 26). This 'short-term exchange' is straightforward commodity exchange of alienable goods, or 'trade' of the type described by Childe (1930) and others (chapter 1). Often such exchanges take place between relative strangers, outside the local community, as they are considered incompatible with the moral bonds of kinship (Sahlins 1986, 196-204). With regard to the discussion on the extension of Bronze Age economic behaviour in chapter 2, Bloch and Parry's work illustrates that all systems make some ideological space within which 'economic' behaviour is legitimate, but that it is consigned to a separate sphere (Bloch/Parry 1989, 26).

### 3.7.2 *Transformation of commodities into gifts or valuables and the archaeological indications that they took place*

An important realization in terms of the biography of the object, is that during its circulation an object can be transformed from a commodity into a gift, or vice versa. I have already hinted in chapter 2 at the observation that many objects in deposits show traces of a use life. It was argued that we may see this as an indication that the 'ritual'

sphere is conceptually linked to mundane activities, and that conversions between them took place.

Bloch and Parry (1989, 25-6) illustrate how in the case of exchange transactions conversions take place. They focus on the issue how money, acquired as a commodity in profit-based transactions with strangers, is made morally acceptable at home. The practices used are highly various (money is for example ritually cooked by the Langkwari or sacrificed to a god in Roman temples).<sup>6</sup> What these case studies all show is that conversions take place in a ritual context. The goods these short-term transactions yield are used to maintain the overarching order at home, for example when wealth acquired by an individual is used to fund important collective ceremonies at home. The commodities thus become gifts or valuables. Often, this wealth has to be transformed in some way, to make it morally acceptable. If these conversions between spheres are so general, is it possible to recognize such processes archaeologically?

The transactions themselves are probably hard to recognize, but Bradley (1990) has argued that we can see at least some evidence of it. On the basis of evidence from southern Britain, he shows how there are regions in which we find complete objects, presumably ritually deposited. Some objects always seem to be deposited individually, and some types never seem to have been deposited together. In fact, we see all the characteristics of a selective deposition. Outside that region, however, we find the same objects, but now in different associations. They often occur as broken objects in scrap hoards, and the objects held apart during depositions within the region are now associated in the same scrap hoard. Bradley argues that these objects held a particular meaning inside the region, which resulted in their specific treatment during deposition. Outside that region, however, they seem to have lost that meaning. Presumably, they were mere commodities there, and reduced to scrap. The archaeological evidence just indicates that the same objects were in one contexts objects with special meanings, but merely 'things' in another one.<sup>7</sup>

### 3.7.3 *The archaeological correlates for circulation*

Circulation itself cannot be observed archaeologically, but its existence – irrespective of the kind of exchange (see above) – can be deduced from the recognition of objects in a place outside the region where they were made. Where metal sources were absent, the circulation of bronze objects, be it as scrap, ingots or finished objects, must have been considerable, and circulation is undoubtedly an important element in the biographies of most bronze objects.

In archaeological writing, a difference is often made between 'regional' products and foreign imports. Both designations are problematic as they may mask histories of circulation. 'Regional' objects are actually a misnomer for

objects probably made *somewhere* in a vast region. We are in no position to say anything on the distribution of smiths across the regions, but it is not quite likely that every household had one. Probably one smith was serving a larger group, and it is conceivable that there was also a circulation of 'regional' objects across the region. A 'foreign' object may not only have had a history of long-distance exchange before it finally entered the region. It may also have a history of its own in terms of circulation within this region. This history may have been much more relevant to the local communities and to their decision to finally deposit the object than the earlier exchange history. This may particularly be the case if it initially entered the region through commodity exchange (if it was for example brought to the region by ship, with a shipload full of other objects). Another thing is that the contrast between a foreign and a local object is primarily an 'etic' observation, reserved for archaeologists who can simply gloss over the existing literature and compare regions that are actually hundreds of kilometres apart. Did the local group, who owned the object, know about the tremendous distances such an object had travelled? Important to realize is that 'foreignness' is first and foremost a matter of perception. Here the relative 'otherness' of the object in relation to current material-culture conceptualisation (see last section) may be relevant in their judgement. Helms (1993) has argued that there are cases of long-range exchange where the focus is not on establishing or maintaining political ties with far-away societies, but rather on extending the reach of the importing society 'beyond society' as recognized by its own cosmological frame (Needham 2000, 188). The relevance of objects thus is in their 'exotic' character.

### 3.7.4 *The archaeological correlates for 'use'*

Use can be very important for the accumulation of meaning. Ethnographic examples indicate that it is not just stories about their use that matter, but it is also the use traces and patina themselves that make an object special. For the kind of biographies studied here, it is not simply any use that is relevant. Rather, we may expect that it is the use in specific phases of the life of people that will be socially valued; for example, in the case of a weapon, its use in the first battle of a young individual that marks his initiation as a warrior. Unfortunately, such events cannot be reconstructed by archaeological means. It is only possible to recognize 'use' in a generalized way, as the short list of variables in table 3.2. shows (cf. York 2002, 79-80).

Contrary to the case of flint objects, it is even harder to say anything more on the type of use to which an object was put. In theory, objects might also be repaired, by forging new bronze on worn parts, hence preventing us from observing the traces of former use, and making even the recognition of

use or non-use difficult. More common than such repairs was (repeated) resharpening of the edges of the object. This may result in typical asymmetries, J-tips of the blade, and the shortening of the blade (Vandkilde 1996, 32). The rate of use traces is also informative about the length of the use period. Kristiansen (1978) for example argues on the basis of use traces on Danish swords that there was a clear-cut difference between swords with a long and intensive use life and those with only minor use traces. This should indicate that some swords had a much longer use life than others. However, establishing that an object was not used is also informative, since this raises questions as to what alternative sort of life-path the object may have had.

Objects may also be modified, to serve goals different from the ones they were originally designed for. An example are swords that ended up as daggers (Bridgford 1997, fig. 1). There are not many examples known of such modifications of bronze object, however. Presumably, such objects were more readily melted down than modified.

### 3.7.5 *The deposited objects as a skewed representation of the objects in circulation*

To sum up, although the life of an object is very important to the meaning of objects, the possibilities for archaeology to trace it in any detail are extremely limited. The metalwork known to us is just a tiny fraction of what was originally in use. Huth (in press) gives the example of the rich metalwork finds from Brittany: Late Bronze Age/Early Iron Age axe hoards contain some 9 tons of metal. He remarks that this is still not a lot when compared to what must originally have been in circulation. Huth makes this point by referring to the Kargaly mines in the Ural Mountains. Cernych calculated that during the Bronze Age 1.5 to 2 million tons of copper ore were extracted there. Similar figures are known from other mining sites in Europe. This exceeds everything we know from metal deposits by far.

Apart from missing information on the circulation of so much metal, there is another problem with the bronze finds known to us. It is very difficult to reconstruct where precisely these objects came from and how they circulated. Typological and sometimes also metallurgical analysis may provide clues as to where an object was originally made. Still, this does not inform us of all the intricacies of this object's exchange history. Only when the exchange was interrupted by casual loss or when a temporary underground object store could not be retrieved anymore or in the case of an accident may we catch a glimpse of objects *during* a circulation trajectory. As all these situations are likely to have been events, they will leave only tiny shreds of evidence behind. Still, I dwell at length on this subject since it forcefully confronts us with other, and perhaps the most regular, biographies of bronze objects, namely those that ended up in remelting. Since

a regional bronze industry in a non-metal yielding region like the southern Netherlands is impossible to maintain without a (considerable) bronze surplus, the majority of used objects must have been recycled in antiquity instead of deposited. Thus, even if we leave post-depositional disturbances out of consideration, the objects that came down to us via deposition may have been a non-representative reflection of all the metal that was originally in circulation. They represent the long-term, rather than short-term, exchanges.

## 3.8 DEPOSITION

Finally, a selection of objects ended their biography by being put into the ground. They have the best potential of being preserved in the archaeological record. In chapter 1, deposition was defined as deliberately placing objects into the ground. For the present research, a difference must be made between objects that were placed in the ground with the obvious intention of leaving them there forever, and those that were only temporarily stored but never retrieved. The former marks the intentional end of an object's biography from the point of view of the society in question, the latter the unintentional interruption of a biography. As such, they may convey different kinds of information on the meanings of such objects. After all, the temporarily stored objects may have been intended for another life of use and circulation (for example: ending up in remelting) than those that were finally 'sacrificed'. Objects that were lost are another example of an unintended interruption of an object's life.

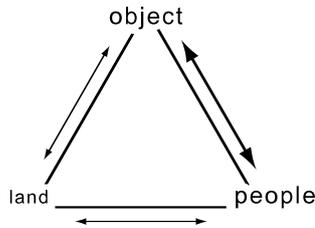
'Discard' is also a way of intentionally depositing an object and deliberately ending a biography. The difference between discard and deliberate deposition is that they are steered by different motivations. Discard is defined here as a way of getting rid of an object that is no longer considered to be meaningful and useful. In deposition, the act of placing an object under the ground is in itself considered a meaningful one. As such, it is close to an act of object sacrifice, but as this concept carries quite specific assumptions with it, the more neutral designation 'deposition' will be maintained. The methodology of recognizing such deposits separate from temporary stores, discard or loss will be described in chapter 4. Below, it shall only be explored what is theoretically involved during practices where objects are deliberately and meaningfully put away, never to be used, touched or seen anymore.

### 3.8.1 *The practice of deposition as constituted by relations between object, people and location*

This study focuses on general, widely shared characteristics of depositional practices. The emphasis is on a very specific feature of deposition: its selective character. Selective deposition presupposes an interplay between three general

elements. They are shown in fig. 3.1 A to C: people, objects and the location. Each has a specific relationship to each other, which can be studied in isolation. What is relevant, however, is the bringing together of all the elements. The following relationships are involved:

*People vs. objects (fig. 3.1 A)*

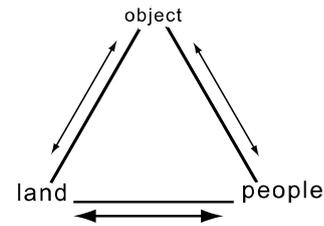


By depositing an object, it is literally taken away from a group of people. It can no longer be used, seen or circulate anymore. It is this aspect of deposition that is emphasized by the influential prestige-goods model (chapter 1). The relevance of the notion of object removal is even more clear when objects are destroyed before deposition, or receive other forms of special treatment (Nebelsick 2000). A list of archaeologically recognized examples is given in table 3.2.

The relation between objects and people can also be reversed: in a way, objects can make people (see 3.4). Although these aspects are hard to recognize archaeologically, something can be inferred from the selection of objects that were apparently considered appropriate to the act (were personal sets deposited?). Variables based on observations from neighbouring regions in north-west Europe are given in table 3.2. Not only the objects themselves, but also their associations are relevant, as these may evoke associations with other fields of practice. In some European regions, for example, objects-only hoards have a great similarity to grave sets, which has led some to conclude that they were buried as *Totenschätze* (Bradley 1990; Torbrügge 1970-71).

For this aspect of deposition, archaeology forces us to approach it from the object's side in the first place. Less can be said on the selection of the people involved. Bradley (2000, 56) argues that the nature of the objects may sometimes be a clue. In Late Bronze Age Denmark, for example, sets of personal ornaments were deposited that are also known from female graves from the same period. The ornament deposition may thus have been primarily a female enterprise, or, alternatively, one which focussed on the paraphernalia of female identities. Here the evocations of the object-associations are taken as a clue. Sometimes, the nature of the location may also be informative: a deposition at an almost inaccessible location is not likely to have been witnessed by a large audience.

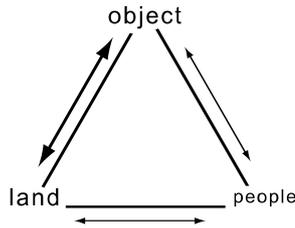
*People vs. locations (fig. 3.1 B)*



There may be a relationship between people and the location that is celebrated, emphasized, created or claimed by the very act of deposition. More precisely, it is the history of the participants and the history of the place that are brought together. The location may have witnessed an actual important event in a group's history (e.g. earlier depositions), or have some likeness to important places described in a group's mythical history. Deposition can also create history, by transforming neutral space into meaningful place (cf. Tuan 1977). The scenery of the place itself can be relevant, e.g. for carrying out an ostentatious performance (being visible from far or commanding a wideview of the landscape, cf. Kommers 1994, 61-6). The locations can also be contested land between rival groups, and claimed by one of them in an act of conspicuous deposition. Brun (1993) has offered such an interpretation for northern France, when he found that the most lavish depositions must have taken place in or near rivers that seem to have been boundaries between different cultural groups. In sum, this aspect of deposition, which is generally neglected in studies of depositions (Bradley 2000), can archaeologically only be approached by studying the characteristics of the location itself, its earlier history or lack thereof, its natural and cultural appearance, and by investigating if the act of deposition also involved the construction of visible markers. Studying this aspect will be much more difficult than the other ones, since many earlier events did not leave archaeologically recognizable traces, and of those that did we cannot be sure whether they were the ones necessitating the subsequent act of deposition. For the environmental aspects, the general lack of detailed palaeogeographical reconstructions will allow us to record the dominant features of the landscape only superficially.

*Object vs. location (fig. 3.1 C)*

Links between specific objects and specific locations can also be perceived. Apart from history and agency of the participants (the above aspect), the choice of a depositional location may also have been steered by cultural considerations. One should think of 'rules' and taboos stating that a particular type of object should only be deposited in places of a particular kind and not in others (see Bradley



2000, 8 for ethnographic examples). This is something that needs to be investigated and cannot be assumed: if such ideas existed, we would expect clear patterns in the associations between certain objects and particular types of locations throughout the region. Here, the example of the apparent preference of depositing Late Bronze Age swords in the major rivers is recalled (see chapter 1).

### 3.8.2 *Deposition as performance*

To sum up: during the act of deposition, all the above relationships are relevant. The histories of the participants, the objects, and the location are brought together. Although attention was so far focussed on the acquisition of meaning of objects during exchange and use, the final act of deposition may equally attribute to their meaning. Deposition itself can have been a way of what some anthropologists have called ‘performance’ of objects (Gosden/Marshall 1999, 174-5). By this term, they refer to cases in which meaning must be enacted. It must both be performed and witnessed. Such performances often end in the destruction of the object (Rowlands 1993). The objects thus become ‘a memory in their absence, and therefore the essence of what has to be remembered’ (Rowlands 1993, 146). The visual and material meaning of the object (section 3.1) is thus central to the performance, since it is this that is destroyed as a result of it, leaving the participant with the memory of the object, its referential meaning. Rowlands (1993, 149) has already argued that Bronze Age object deposition may actually have had this same quality of performance. Objects are exposed to view, just before an act that lets them disappear from view forever. Although we are in no position to say anything about this, it might be ventured that the sinking of gold-glimmering bronze axes into a dark pool may have looked quite spectacular and dramatic. In such an act, the showing together of objects, just before they are deliberately destroyed, may have the effect of forging relationships between the objects in the minds of the onlookers, and may even have the effect of objectifying them (Thomas 1996, 169).

### 3.8.3 *What deposition brings about*

As a result of the act, the three elements relevant to the act may all have been perceived of as ‘changed’: the object itself, which is now literally removed from society, and may

even before that have been destroyed or transformed; the people, who no longer possess and cannot use the object (this may be particularly relevant if the object represent important social values); and the place itself, which in the memory of the participants must now have been linked to this event. The setting in which the act took place may not just have served as a stage. Probably the place itself was perceived as changed by the act. As a result, the location can have been marked, which focuses attention on the place, long after the actual deposition took place, and the precise memory of it has faded away. Theoretically such markers can leave archaeologically visible traces. The construction of a barrow over a grave is an example of such a marker, be it a quite specific one. After the burial event had taken place, the barrow would be a recognizable marker informing future generations that there a person was buried. The exact details of the burial, however, are based on memories. This is particularly true in the case of the objects deposited with the deceased. Whether this person was displayed as a warrior with a famous sword and other objects, for example, is no longer visible. Although such exact knowledge may have been transferred from generation to generation, the exact details will fade, be reinvented, and perhaps new ones added. The same applies to the cases where only objects were deposited. If no marker of any kind is left, which seems to have been the case very often in Europe (Harding 2000, 309), the perception of such a place is merely based on memories. As such, they are much more open to ‘re-writing’ of history and manipulation, something which may be especially relevant when depositions are related to making claims on contested land (Brun 1993).

## 3.9 CONCLUDING REMARKS

This chapter has presented the theoretical framework for studying selective deposition. The concept of cultural biography was seen as a vital analytical tool. Although archaeologically we only ‘see’ the deposition, I argued that the only way of making sense of the object’s meanings, is by seeing it as something that came about in the course of an entire life. Significant variables for tracing the impact of stages in the object’s biography have been presented.

One fundamental question has not been dealt with so far: how can we single out those patterns in deposition that stem from prehistoric preferences? In other words: how can we recognize objects that were deliberately placed in the ground with the intention that they stayed there forever? And how can we decide whether we are dealing with selective deposition, or patterns in the material that came about by selective preservation and missing data? The next chapter will discuss what steps were taken to collect suitable data, and what the constraints and possibilities of the available evidence are.

## notes

1 I am much obliged to dr Raymond Corbey (University of Leiden and Tilburg) for discussing this with me. He was the one to suggest the wedding ring example, but the responsibility for working it out as an example in this chapter is all mine of course.

2 For modern examples, one might think of the emblems of groups (a national flag) or football trophies.

3 Godelier (1999, 60-1) shows that the production of special valuables is often secret and mystified. He mentions for example the rare copper plates of the Kwakiutl native Americans of the north-west coast. These are often of outstanding quality. Although they must have been made by a smith, their origin is mystified, and they are only known as a gift of the gods.

4 The same applies to the role of the smith as a transformer of value: the bronze production in our region must primarily have been based on the remelting of imported scrap or ingots and recycling objects. This remelting need not only have been a functional task, it

may also be seen as the first step in appropriating foreign metals and transforming them into their 'own' metal.

5 Consequently, 'style' is in this sense understood as both passive and active. It is seen as both relating to non-functional elements of material culture (decoration, ornaments) and technological choices. Without reiterating the Sackett-Wiesner debate (Raemaekers 1999, 17-23), this comes close to Sackett's (1985) definition of style as isochrestic behaviour.

6 Chapter 13 deals more extensively with this theory.

7 A problem with this argument is how we should understand the subsequent deposition (and non-retrieval) of this 'scrap' (cf. Barrett/Needham 1988, 137), but the point which he makes regarding the different treatment of objects outside a particular region in which they were valuable is interesting in view of the above statement on short-term exchange taking place between relative strangers, at the fringes of communal borders. Later on in this book, I shall come back to this.

### 4.1 INTRODUCTION

In the previous two chapters, the problem of bronze deposition was discussed from an epistemological point of view (chapter 2), followed by the outline of a theoretical approach to study the problem (chapter 3). It is now necessary to consider the phenomenon of selective object deposition from the point of view of the possibilities and constraints of the evidence at hand: how can we study prehistoric depositional practices on the basis of the archaeological record of the southern Netherlands? In chapter 3, it was argued that empirically the evidence on the deposited objects themselves and the context of deposition are the only clues available to archaeology for a study of the practice of deposition. Since the phenomenon of selective deposition is by its very nature defined in terms of patterns of presence of objects in one context and absence in others, the question of representativity of such presence/absence patterns is of the utmost relevance.

This chapter will describe how the data were collected and what method was used for identifying patterns of deposition. Subsequently, I shall investigate in which way such patterns are influenced by site formation processes (Schiffer 1976), and outline the constraints and possibilities of the available evidence for the present research.

### 4.2 HOW TO RECOGNIZE PERMANENT DEPOSITIONS

What are the empirical possibilities of recognizing permanent deposition, apart from temporary storage, loss and discard? In chapter 2, it was argued that a profane interpretation of object deposition has always been something that went without saying, whereas one in terms of ritual should be sustained by arguments. Now, one might easily reverse the argument, and state that all depositions are 'ritual' until proven otherwise (Menke 1978/1979), but I feel that this still does not help us any further either. It is better to abandon this theoretical debate, and return to the data themselves: what arguments can be found in the evidence itself to make an explanation of a metalwork find as a permanently deposited object *more likely* than one in terms of casual loss or temporary storage? I shall argue that, for a proper recognition of permanent deposition, considering and comparing *patterns* of deposition should be the starting point of our analysis. First, in trying to isolate acts of deliberate

permanent deposition, it is necessary to find verifiable characteristics of both permanent and non-permanent deposition, as well as of unintentional deposition.

*Loss*, to start with, is unintentional and incidental. If objects merely entered the archaeological record as a result of loss, then a random distribution pattern of finds would emerge. Only post-depositional processes (the presence of artefact traps) may yield some patterns. These will act indifferently to objects of various materials, and cannot account for the presence of metal objects alone in such artefact traps.

The presence of *never retrieved temporary object stores* in the archaeological record must also be the result of casual events, since by their very nature, they were not supposed to be there to be found by us. Only social disasters involving the sudden departure of entire groups of people, who are not even capable of taking their hidden wealth with them (or of returning later to retrieve it), will result in a patterned distribution of such stores. It is not likely that such disasters took place very often, and it may be expected they left traces in other evidence. At any rate, such stores should have at least one – empirically testable – characteristic: they must be retrievable, i.e. marked and buried in an accessible location.

*Discard*, on the other hand, is intentional, meant to be permanent, and a structural, recurrent way of deposition. As such it has all the aspects of what has been termed permanent object deposition. In our own society, to say that an object is discarded means that it is no longer considered to be useful and meaningful. For a non-metalliferous region like the southern Netherlands we should realize that, if a bronze artefact was seen thus, it is most likely that it was melted down. However, if bronze artefacts were thrown away for such a reason, they would probably enter the archaeological record in an arbitrary way, following the general discard patterns of other materials.

In chapter 2 it was established why there has always been a readiness to accept explanations of bronze depositions as loss, non-retrieval and discard, rather than the 'irrational' act of deliberately depositing objects without the intention of retrieval. However, accepting 'loss' and 'accidental non-retrieval' as general explanations also implies irrationalities, since we then suppose that Bronze Age communities were characterized by a general clumsiness and forgetfulness,

which is especially unlikely since bronze objects must have been relatively rare in the non-metal yielding regions. Accepting 'discard' as a general explanation implies that metalwork was available so amply that worn objects no longer needed to serve as scrap. This is not very likely.

To sum up, meaningful and permanent object deposition can be recognized archaeologically, depending on the following observations:

- 1 If it is patterned, that is, if within the region metal objects are repeatedly found in similar locations, and not in others.
- 2 If such patterns cannot be explained by other (depositional) processes (discard, general non-retrieval of stores in the case of social crises).
- 3 If such patterns are not solely determined by post-depositional processes and research factors.

It should be noted that when a pattern could also have been created by post-depositional processes, this does not automatically imply that the post-depositional processes rather than depositional activities explain it. It is better to see such a case as a situation where two conflicting explanations can explain the same pattern. Often we are in no position to make a well-argued choice between them.

*Advantages of the method: getting round the wet-dry differentiation as decisive for an interpretation in ritual or profane terms*

From this it follows that for every period a substantial number of finds should be present in the region, and that as much as possible contextual evidence should be gathered on the character of the location during deposition. Similarly, contextual evidence of contemporary sites where apparently no objects were deposited should be gathered and compared. The question should be: what constitutes the difference between them? This is in the first place a comparison of depositional behaviour of people in different locations in the landscape, but especially differences concerning the preservational character of the archaeological record of both contexts should also be taken into account.

This approach has the advantage of not disregarding a certain set of evidence from the start. As mentioned in chapter 2, most dry finds have always been prone to be *a priori* interpreted as non-retrieved stores or loss, and intentional depositions were subsequently looked for among finds from wet locations only. The approach outlined here evaluates depositional patterns, regardless of the question of whether their location is wet or dry.

*Disadvantages of the method*

However, there still are some drawbacks to the approach that need to be discussed.

- 1 It is a positivist approach, and as such just as much situated within a post-enlightenment discourse as the ones

described in chapter 2. The difference is that this approach does not dismiss or prioritise a certain interpretation of bronze finds from the outset, and that it pays some attention to the way in which every interpretation is situated within a wider discourse.

- 2 Unpatterned events are still difficult to interpret. If in a given period, for example, just one bronze axe is known from a river, then it could theoretically be either a lost object (for example from a shipwreck) or a deliberately deposited object (in view of the inaccessible context, it cannot represent an object store). Only if more bronze axes from rivers are known, the interpretation of this find as a permanent deposition becomes more likely. Reference to other evidence is thus quintessential for interpretation. If this reference material is not available, in the case of 'unique' cases, interpretation becomes much more difficult.
- 3 This approach is designed for the problem at hand, the phenomenon that particular types of bronze objects seem to be found in certain contexts and not in others. In order to study the deposition of other materials, from other periods, quite other strategies are needed. See for an example Gerritsen (2001, 91-4) on depositions of pottery in the Iron Age of the southern Netherlands, a find category that is not exclusively associated with certain contexts, but where distribution patterns overlap.

#### 4.3 HOW THE DATA WERE COLLECTED AND EVALUATED

At the heart of this research stands an intensive survey of the literature. The published parts of the Bronze Age catalogue of Butler, O'Connor (1980) and Warmenbol (references cited in appendices) formed the foundation for insight in the most important bronze finds in the regions, to which the case studies of some important Belgian hoard finds from the region could be added (Van Impe 1973; 1994; 1995/1996; Van Impe/Creemers 1993).<sup>1</sup> Information on more recent finds was collected from amateur journals, find reports of provincial archaeologists, ARCHIS, *Helinium*, the recent issues of the *Rapportage Archeologische Monumentenzorg (RAM)* of the *ROB*, and the numerous publications on urnfield excavations (see the references cited in the appendices). The literature survey was complemented by a study of two major museum collections: that of the *Rijksmuseum van Oudheden* in Leiden (henceforth RMO or 'Museum Leiden') and the *Valkhof Museum* in Nijmegen (henceforth 'Museum Nijmegen'), both possessing an important and representative collection of bronze finds from the Dutch part of the research region (in total 226 objects; 24 % of all finds known). On top of that, all new finds by amateurs and metaldetectorists during the last four years have been studied by Butler and Steegstra (University of Groningen), and I am fortunate to have been allowed to use their documentation. In all, a fairly representative picture of

the bronze finds from the Dutch part of the research region was built up, consisting not just of evidence from often old museum collections, but from recent amateur and metal-detectorist finds as well. For the Belgian part, the lesser degree of amateur and metal-detectorist organization and cooperation with archaeological authorities led to the situation that the picture for that part is more biased towards finds outside museum collections. Excluding the small metalwork finds from Late Bronze Age and Early Iron Age urnfields listed in appendices 7.3 and 7.4, 961 objects were recorded (compiled of the data from tables 5.1, 5.2., 6.1, 7.1 and 8.1). The majority are bronze and a few copper finds (approximately 96 %).<sup>2</sup> There are only a few gold objects and one made of tin. Most metalwork objects are single finds. They thus potentially represent individual acts of deposition. Seeing hoards (which contain by definition more than one object) as single acts of deposition as well, the number of potential individual deposition sites then would be 734 (excluding the small metalwork items from urnfields but including Late Neolithic and Middle Bronze Age burial deposits). If we include the many small metalwork finds from both the Late Bronze Age and Early Iron Age urnfields, approximately 1300 objects have been recorded.<sup>3</sup>

#### 4.3.1 Assessing the reliability of data

One of the existing prejudices on bronze finds is the idea that they are in general not trustworthy, and have to be approached very critically or not at all. Verlaeck (1996, chapter 3) has developed a method of evaluating the reliability of such finds. Although his method does not provide absolute certainty either, it has the advantage of making the evaluation procedure a transparent one. With some alterations,<sup>4</sup> I have adopted his method, and used it for evaluating my own database.

The focus should be on objects of which at least some information is recorded on find spot and find circumstances. After all, these may potentially represent finds of which the depositional context can be reconstructed. The main problem then is whether objects really came from the claimed find-spots. Unfortunately, bronzes have always been a popular item for antique dealers, and there is evidence that bronzes were sold to museums or collectors with deliberately faked contextual information (Verlaeck 1996, 33). It is vital to assess the reliability of recorded contextual information first. We should take two steps to find this out. The first is to assess the reliability of a find by tracing who or which authorities were involved in the reporting of the find. Are these reliable sources? The second is to check the contextual information by seeing whether find circumstances and patina of the find match.

#### Step 1: assessing the reliability of the find report

As much information as possible should be gathered on the individuals who are said to have found or sold the object, as well as on the intermediaries involved. The following categories of reporting bodies can be distinguished:

- 1 large private collections from the late 19<sup>th</sup>-early 20<sup>th</sup> century, that are now part of museum collections;
- 2 finds purchased from antique dealers;
- 3 finds by laymen or amateurs, who reported their finds to archaeological authorities including metal-detectorists;<sup>5</sup>
- 4 finds discovered during professional or amateur excavations;
- 5 unknown.

Fig. 4.1 shows the distribution of finds over these categories. In general, I regard finds from antique dealers as suspicious, particularly since some of them are unique objects that are in addition only known from far-away countries. An example is the totally unique find of a Scandinavian ceremonial axe, said to have been dredged from the Meuse between Maaseik and Stokkem (Van Impe/Verlaeck 1992). The entire history of the find, the involvement of commercial dealers and the large amount of money for which it was sold, should cause suspicion. I side with Butler (personal comment) who thinks

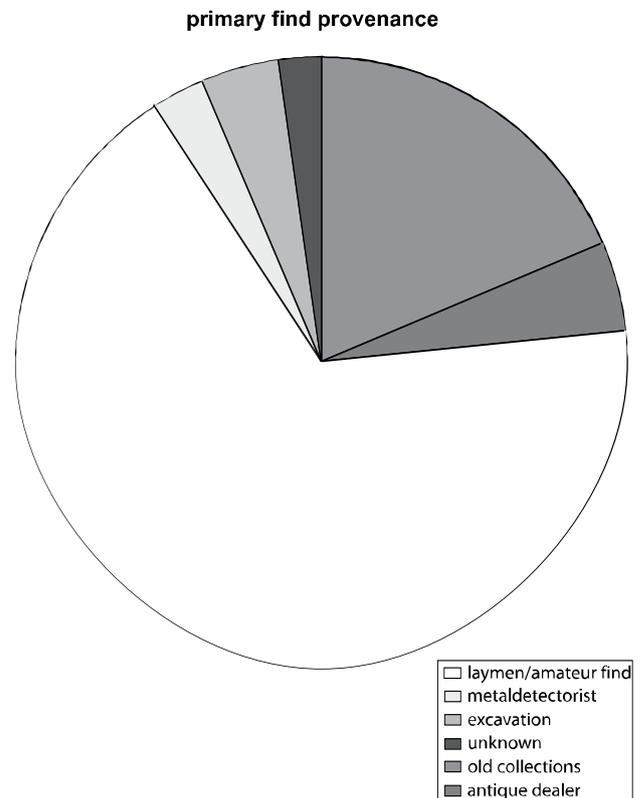


Figure 4.1 Primary find provenance.

it better not to include this find in any account of the Dutch-Belgian Bronze Age. Alternatively, the axe found in tumulus VI in Goirle is also a unique type, probably an import from regions as far away as Hungary (chapter 7). This find, however, was discovered during a professional excavation and there is no reason to doubt its reliability. Only if similar finds are made in a more trustworthy context, the antique dealer objection becomes less suspicious. Notoriously untrustworthy are the finds from the antique dealer J.N. Esser who sold a lot of bronze objects to the RMO. I shall not disregard finds from antique dealers (they will be mentioned in the find lists published here), but they must never be the pivotal element in the construction of a theory.

Verlaeckt (1996) and Warmenbol (1987b) showed the problems one comes up against in dealing with finds from old collections (category 1). Many collectors had a genuine interest in the history of their own region and bought objects from dealers and dredgers who told them that these objects came from this region. Often, however, the collectors were deceived. For the Netherlands, G.M. Kam, collector of antiquities from the Nijmegen area, is a good example; for Belgium, G. Hasse, collector of finds from Antwerpen is another (Warmenbol 1987b). It is difficult to trace whether such old collections are largely problematic or not. The reliability of large collections as a whole can be assessed by taking all finds (not just those from the Bronze Age) into account (cf. Verlaeckt 1996, 35-6). In general, I shall treat this category, like antique dealer find's, with caution.

There are no reasons to doubt the general reliability of category 3 to 5. I have more than once experienced that the find documentation of amateur collections is excellent. With regard to metal-detectorist's finds: they are often regarded with suspicion by official archaeological authorities since their surveys are legally forbidden (Willems 1990). Leaving the legal discussion aside, the increase in bronze finds of the last decades is largely due to their activities. Their finds simply cannot be disregarded by any archaeologist who studies metal finds. Most metal-detectorists I met do their surveying for the pleasure of finding, and for building a collection of their own finds. There are not many indications that objects are offered with faked find circumstances. Rather, the problem is that among this group the find circumstances themselves, or even the find-spot, are very often not recorded. This makes these groups of finds often less interesting for the present research goals.

#### *Step 2: evaluation by means of matching patina and find location*

For finds with known find circumstances, another way to test their reliability is to check whether the patina of the object is in accordance with the find circumstances. Patina is actually

a misnomer for the chemical change – or lack of it – of the surface of a bronze object (the term originally implies weathering taking place). Since it is so widely used, I shall go on using the term.

In non-oxidizing circumstances, the process of corrosion cannot take place; a bronze object therefore retains its own – golden – colour. Wet locations usually provide such milieus, and therefore wet-context finds still have their original golden colour. In the literature this is often indicated as 'river patina', which is the wrong term since it is not a patina at all (it is actually the lack of corrosion), and since it is not confined to river finds (objects lying in stream valleys in peat bogs can for example have such colours too). Also, the lack of corrosion keeps the metal in excellent condition (its surface is not thinned, burst or crumbled). A well-preserved uncorroded object can therefore only have come from a waterlogged milieu. Wet environments can also lead to change in the surface; in particular conditions, the outer surface turns black or brown, or otherwise dark-coloured. This process is actually not well understood in chemical terms, but it has to do with the chemical interaction between the milieu and the specific nature of the metal alloy. Peaty environments in particular seem to effect a brown or black patina on the surface. This is often called 'peat patina', but also objects known to have been genuine river finds can show this colour (perhaps because they were originally deposited in its backswamps; see also Verlaeckt 1996, 33-4). Apart from the discolorations, these objects are also in well-preserved conditions. Actually most finds show a combination of both 'patinas': a golden surface, covered with black or brown shades. Objects deposited in wet locations can be recognized on the basis of their fine preservation and a characteristic 'patina': a golden colour or a brown or black discolouration. Objects deposited on dry land will corrode and therefore show a green colour, and are often less well-preserved. 'Patina', or better, the colour and preservation of the surface, is thus related to the context of deposition. An object that was deposited in a peat bog should show the brown-black patina or not be patinated at all. And here we have a means to check the reliability of the said find circumstances from objects stored in museums.

#### *Pitfalls in the use of patina as an indicator of context*

There are, however, some pitfalls involved that are not often realized. What about an object which was deposited in dry ground that later became wet (for example, by blanket bogs covering older sediment)? Such a find can still be recognized by its 'patina' as stemming from originally dry conditions. Some corrosion will already have taken place. The later waterlogged conditions will have prevented further corrosion from taking place or the surface may for example have reacted with the peaty milieu and become black or brown.

Still, the primary bronze-oxides on the surface indicate its earlier history in a dry milieu. Important to note is that non-oxidation primarily relates to waterlogged conditions, and not to the object's presence in peat. An object may for example have been deposited in the sandy slope next to a small lake where a peat layer was growing. The peat may cover the sediment in which the object was deposited only centuries later, but if this sandy slope in which the object was deposited that was already within the water-table at that moment, the object would have all the characteristics of a 'wet context deposit'. In regions where that water-table was already very high at the moment of deposition, it then becomes difficult to know whether the association between the object and a wet location was deliberate or not, since every object dug in shows the characteristic of such locations. This is particularly a characteristic of wetland sites. In the southern Netherlands, the only region where such conditions existed is the Holocene clay region of the central Dutch river landscape. Interestingly, the recent large-scale excavations in the Betuwe area made it clear that bronzes found in clayey sediment, often have a quite specific rust-coloured surface, different from river finds (personal comment J. Hielkema, ADC, and my own observation). In the sand and loess regions, such ambivalent situations are generally restricted to transition zones between dry land and marshes. The patina itself then indicates whether this zone was wet or still dry at the time of deposition.

Another problem is raised by finds that come from a wet site that for some reason became dry. Many dredge finds, for example, are known to have been lying among huge amounts of gravel for a long time (some were found for example on gravel riverbanks in the Meuse that became dry land). They then begin to corrode after all. A match between patina and the original wet depositional location cannot be made anymore. In the case of the gravel bank, gravel sediment is often included in the corrosion of the object, thereby still indicating an association between this object and the river (in general, gravel is absent in the sandy soils of the southern Netherlands, the clay areas of the central river area, and the loess region. It may only be present in the sediment of the ice-pushed ridges).

Theoretically, another problem preventing an adequate match between patina and depositional location can be caused when a particular object circulates for a very long time. Dependent on the quality of the bronze, it will then start to corrode before deposition. Even if it is deposited in a wet location, it will retain its green corrosion. But although studies on the rate of such corrosion are not available, it can safely be assumed that it takes a very long time for an object to become totally corroded. In the case of real heirlooms we would expect the objects to show considerable wear.

### *The patina test*

Having discussed the possibilities and limitations of using patina as an indicator of context, we can now test it. Again bronze burial gifts from urnfields are excluded, leaving us with a total of 1059 objects. For only 520 of these objects the original patina is known (many have been lab-treated in museums, others were unavailable for study). 275 of these are finds for which there is information on the find context as well (wet or dry). 169 of these objects are from watery places and have a 'wet context' patina (dark bronze, brownish, blackish). 75 are from dry contexts and have an oxidized green patina. In only 31 cases (11 %) there was no match. These are all finds said to have been found in rivers or swamps, but which are nevertheless green or dark green. The relative low percentage of mismatches does not endanger the general idea that patina indicates find context. Nevertheless, the mismatches should be explained. First of all, we can think of the cases where a wet place became dry land, or of objects from rivers that have been resting in dry gravel heaps for a long time. Such dry gravel heaps occasionally exist in Dutch rivers, particularly in the Meuse valley. Alternatively, the mismatch may just as well be a problem of description. For the majority of finds, I had to work with patina-descriptions made by others. It is conspicuous that many of the mismatches are said to have a 'dark-green' patina in Butler's catalogue. When I studied some of these objects themselves, it appeared to me that many are 'dark' rather than 'green' in my view. By this I mean that traces of severe oxidizing are hard to detect, but the outer surface of the object underwent a darkening which reminds me of wet-context finds.

### *How is the reliability assessment reflected in the data used in this study?*

In the following chapters, numerous finds will be listed in tables. The reliability assessment carried out has the following consequences. Objects that have been recognized as fakes by Butler and/or myself are not included in any list in the appendices. Unique finds from antique dealers or unreliable individuals are not included either (cf. the discussion on the Scandinavian ceremonial axe from Maaseik/Stokkem). Finds from antique dealers or old collections that fit in a pattern are listed though, but they are clearly marked as such (designated 'dubious'). Finds where context and patina do not match are included as well since there is more than one way to explain mismatches between find context and patina (see above); such finds will not be used as the pivotal argument in the construction of ideas though.

#### *4.3.2 Retrieving information on find context*

Apart from working with published evidence on find context, it was necessary to collect additional information on the

subject. The reason for this is that the existing syntheses of Butler and O'Connor had hardly paid attention to it so far. Their main emphasis was on the typo-chronology of objects. What was published on contextual evidence was so meagre that it could not serve as a basis for studying depositional practices. For example: Butler's catalogue of the Dutch province of Limburg listed 314 individual objects in 1996. 231 of these were indicated as 'stray finds' for which no additional information on depositional context was available. For only 26 % (83 objects) it was known from which kind of context it came (peat bogs, graves, rivers, hoard). It may be clear that this is much too low a percentage for any general study of bronze deposition. As a result of the present research, however, we can dispose of 203 objects – 64 % – with deposition context known from this province. I shall now continue to describe by what method this was made possible.

Starting point is that there is at least some information on the topographical situation of finds. This can range from the exact coordinates to a vague description or a toponym. If topographical information is available, it is possible to reconstruct the sort of environment where the object was deposited, ranging from very detailed information to superficial interpretations in terms of 'wet' or 'dry' contexts.

A twofold division in the locational information can be made. The first is information that informs us on context; for example: 'found during peat-cutting near the castle of Croy' (chapter 8: the Stiphout hoard). This find record suggests that we are dealing with a peat find. If this is corroborated by the patina (which should be a wet-context patina), then the find is accepted as coming from a marsh. In this case, a look at the map indicates that we are dealing with peat that was formed in the stream valley of the Goorloop next to a higher sand plateau. I shall refer to such information as *primary contextual information*.

The second kind of locational information just mentions a toponym, or a coordinate. In order to retrieve contextual information on such finds, I combined geological and pedological maps (1:50,000 and 1:100,000 for the Netherlands, 1:500,000 for Belgium), as well as the 1:25,000 and 1:50,000 historical maps of the Dutch part of the region. The latter two give detailed information on the undisturbed courses of many stream valleys and the locations of many small marshes before the great reclamations. These, of course, comprise environmental information on a landscape thousands of years after the Bronze Age. If a bronze find, for example, appears to have come from the Echterbroek near Echt (prov. Limburg), the historical and pedological information suggest that it came from a – now disappeared – swamp. I then had to find out whether this swamp already existed in the Bronze Age, something which could not always be established (for the Echterbroek it holds true). In general, the locations of streams, swamps and rivers them-

selves shifted, but the larger environmental entities of which they were part have not altered much since the Bronze Age. On the sandy soils, all the stream valleys are located within the sand plateaus that originated in the Late Pleistocene. In the Meuse valley, the river-bed of the Meuse is generally defined by the higher pre-Holocene terraces. Most of the larger marshes originated in places where pre-Holocene impermeable layers underground caused water to stagnate. Marsh formation in general set in as early as the Early Holocene, although the peat extension itself of course spread in the course of time (Zagwijn 1986). If the object's original patina is known, I then matched the reconstructed find context with the patina of the object in question, to see whether the location was indeed already 'wet' at the time of deposition. I shall refer to this reconstructed kind of information as *secondary contextual information*.

As a result of this method, contextual information was found for 661 of the objects (69 %). Unfortunately, data on patina was often not available for such finds, preventing us from adequately testing their reliability. In the find lists in the appendices, the information on context will be accompanied by a remark whether contextual information is based on primary records ('P'), or on a reconstruction ('secondary information'; 'S'). Some 245 of the uncontextualised finds have their patina described. Given the results of the 'patina test' (above section), it is tempting to translate patina to 'wet' or 'dry' contexts (as was for example done by Vandkilde 1996 in her study on the Danish finds). Because of the pitfalls in using patina-only finds (particularly the problem of 'dark green' patinas), I shall not do this: 'patina-only' finds do not play a role in discussions on deposition.

#### 4.4 EXPLAINING PRESENCE AND ABSENCE OF FINDS: POST-DEPOSITIONAL PROCESSES

It was argued in section 4.2 that recognizing patterns in deposition is central to the recognition of selective deposition. Any pattern in the archaeological record, however, is an artefact of prehistoric practices, post-depositional processes of disturbance and preservation, as well as research factors (Schiffer 1976). Having collected some 661 bronze finds that are to be analysed for indications of selective deposition, we should now assess the representativity of what we have: to what extent can patterns of absence in certain contexts, count as *evidence* of absence? When do patterns of presence and absence of bronze finds reflect selective deposition, rather than selective preservation or selective research strategies? I shall now try to deal with this question.

Since we are dealing here with a regional study, we should see the role of post-depositional processes and research factors as 'map formation processes', to use Fokkens' terminology (1998a). In his pioneering work, Fokkens has developed an elaborate strategy for analysing the impact of

such map formation processes in his study of a region in the northern Netherlands. I shall follow his approach here, with one restriction. Fokkens was able to assess the impact of processes quantitatively. For the present study this is unfortunately impossible to do. The reason is a fundamental lack of data on the collection habits of amateurs and, particularly, metal-detectorists. In a detailed manner, Fokkens could follow the way in which the most important amateurs surveyed, which areas they visited and which were excluded, and what strategies they followed. He neatly illustrated the great, if not decisive, significance of the role of these amateurs in the formation of the find distribution map. It is easy to see the general relevance of this observation for the evidence in question here. For some micro-regions, all the finds have been made by just one or a few amateurs. For example: a considerable number of dredge finds from Roermond have been found or were collected by C. van der Pijl. This recalls the situation sketched by Fokkens. However, for a much larger number of finds, I do not have any clue as to the identity of the finder and his/her search strategies. Especially the survey methods of most metal-detectorists have so far not been analysed.

Below, I shall discuss the impact of the most important natural (4.4.1) and anthropogenetic post-depositional processes (4.4.2) on the find distribution map. This will be followed by the role of research factors (4.5).

#### 4.4.1 *Natural processes*

##### *Geological processes*

Geological processes involve both sedimentation and erosion. Sedimentation may lead to the covering up of depositional locations, thereby making them potentially irretrievable for archaeological surveys. The remnants of the huge peat bog of the Peel represent such conditions, as do the clay and peat sediments in the western part of the province of Noord-Brabant.<sup>6</sup> The (post-Bronze Age) clay deposits in the central river area are highly varied in thickness, ranging from 40 cm to more than one metre. The most important existing clay and peat covers are depicted in fig. 4.3. For the central river area it should be remarked that the thickness of the cover is, however, highly varied within short distances, making find conditions in one part better than in others.

Erosion is another relevant geological process. The most important aspect of erosion is the distortion of original find contexts. The dynamic life-course of the major rivers Rhine, Meuse and Scheldt may have caused the erosion and distortion of many Bronze Age deposition sites (Berendse/Stouthamer 2001). To a much lesser extent the same is true for the many small streams on the sandy area of the Meuse-Demer-Scheldt region. The tributaries of the Meuse in middle and southern Limburg, on the other hand, can have a much stronger erosive effect due to the considerable fall.

##### *Geochemical processes*

Geochemical processes do not influence the metalwork find distribution in the sense that metalwork is not preserved in particular milieus. Unlike iron, copper and bronze can survive in both wet and dry, and in acid and basic milieus. However, there is evidence that the continuous use of artificial dung on the sandy soils may worsen their condition. Probably this relates to an interplay between the specific constituents of the metal, the soil conditions, and the amount of artificial dung being used. The Late Neolithic or Early Bronze Age flat axe of Hoogeloo is an example of an object that is severely damaged by such processes (chapter 5).

In general, bronze objects are better preserved in wet conditions than in dry ones, but the genuine finds from dry conditions show that such milieus do not effect their total destruction.<sup>7</sup>

#### 4.4.2 *Anthropogenetic processes*

##### *Essen or plaggen soils*

Since the end of the Late Medieval Period, the farmers living on the sandy soils have improved the quality of the agricultural land by practising sod-manuring (Gerritsen 2001, 30). Throughout the centuries, sods have been placed on the fields, resulting in a heightening of the arable land with sometimes one metre (Fokkens 1998a, 59). Extensive *plaggen* or *essen* complexes developed, sealing off entire areas of land that might contain traces of prehistoric occupation. Pedologists define these layers as being more than 40 cm thick. Fig. 4.3 shows the distribution of *plaggen* soils in the southern Netherlands on the basis of pedological surveys. In the case of covering *plaggen* soils, artefacts cannot be ploughed to the surface anymore, and they are generally too thick as well to allow the use of metal-detectors. Only digging activities in the *essen* may yield prehistoric finds. These *plaggen* soils constitute a considerable part of the research region. Around an *es*, deforested heath areas developed, where sheep-herding was practised. Until the industrial revolution the *essen*-heath landscape was the most conspicuous characteristic of the sandy soils in the research region. Archaeologically, heaths may easily yield finds, whereas *essen* conceal finds. Although by their very nature, *essen* are agricultural fields, they also cover small fens and marshes (Kortlang 1999, fig. 16); they do not exclusively represent the drier and better soils.

*Essen* are nowadays held in high esteem by archaeologists for their preservation of the traces of entire prehistoric settlement areas (Roymans/Theuws 1999). It should not be forgotten, however, that they were agricultural fields: the original prehistoric surface is ploughed out, and small fens underneath *essen* were also often reclaimed before being covered by sods. Traces of depositions underneath *essen*, for example in such small fens, may thus have been partly disturbed or removed already in early periods.

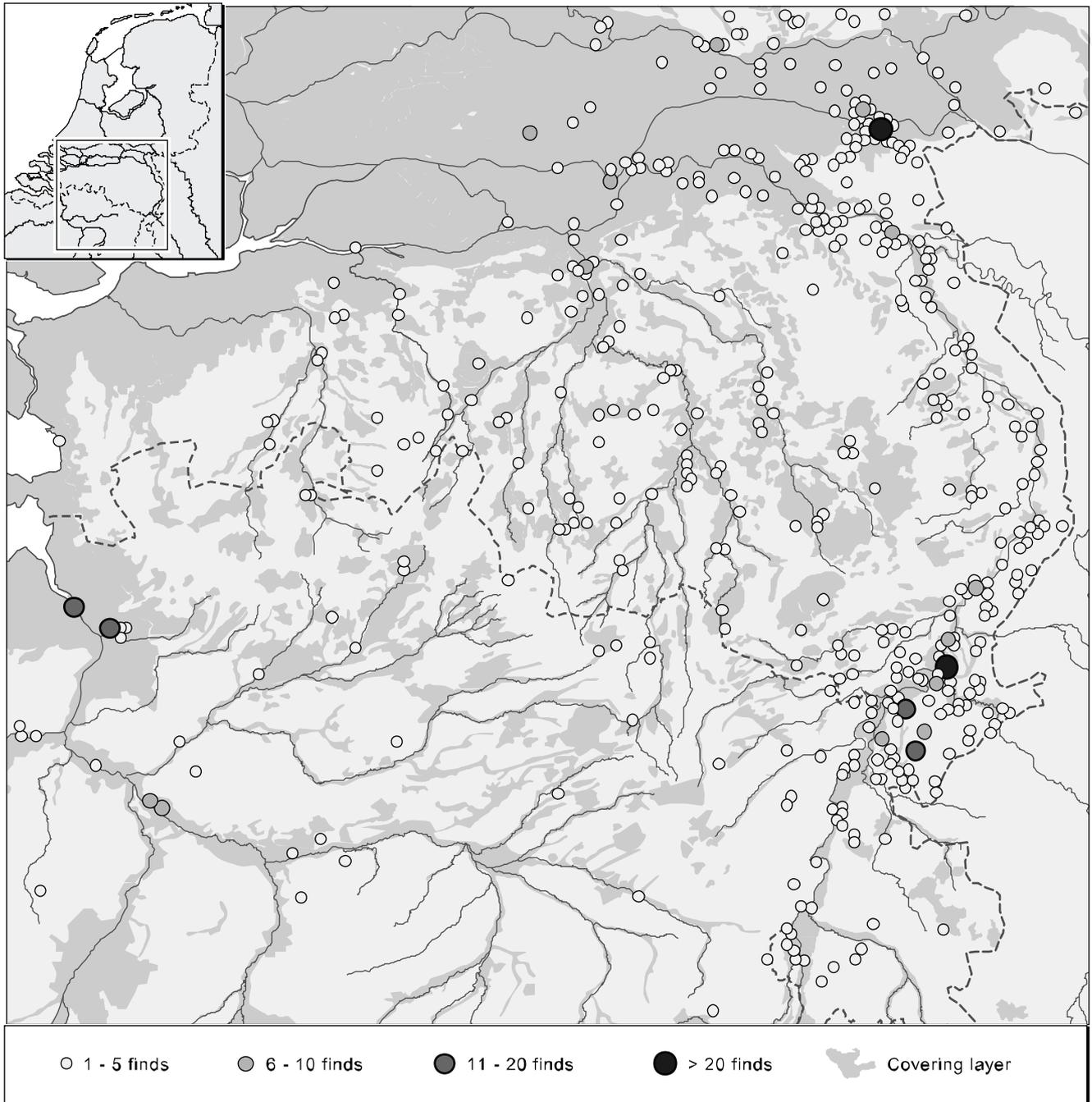


Figure 4.2 Density of metalwork finds in relation to the presence/absence of covering layers.

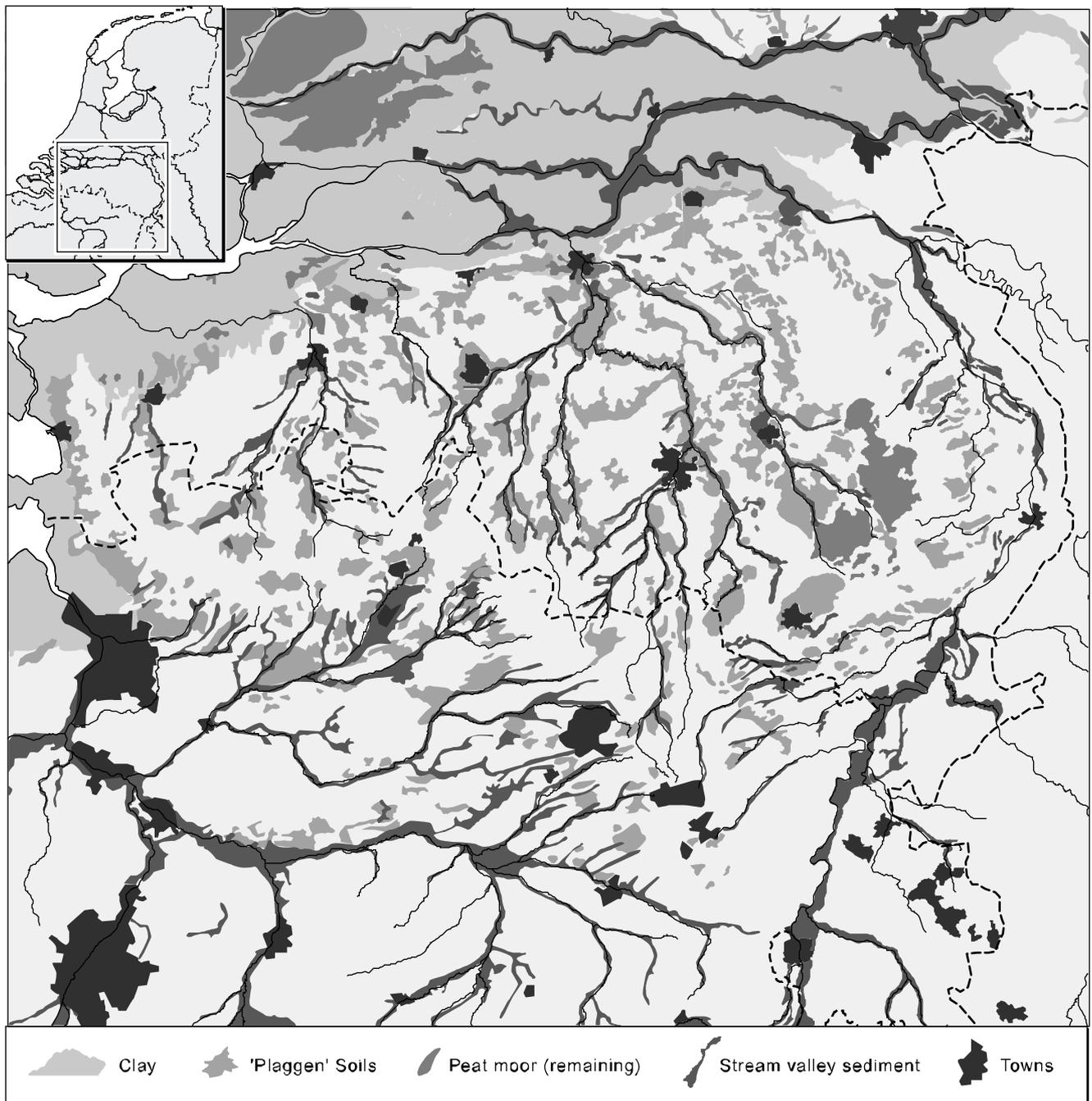


Figure 4.3 The different kinds of covering layers.

The distribution of finds shows that the majority of bronze finds was not found in the area covered by *essen* (compare fig. 4.2 to 4.3). If this happened, then this was related to archaeological excavation or digging activities. The *essen* thus seem to be an important factor in the formation of the find distribution. Indeed, only 0.1 % of the bronze finds come from the *essen* zones; the overwhelming majority has been found elsewhere.

#### *Reclamation history*

The fact that bronze axes were sometimes built into shrines in medieval castles, (Samson, south Belgium; Wielockx 1986, Hu. 122), indicates that such objects had been found long before the start of scientific archaeology. It is likely that bronze objects found by a medieval farmer were melted down, as bronze was also used and worked in the Middle Ages. In the absence of written records and collecting practices, such finds were lost without any notice. To my knowledge, C. Reuvens (1823, 219-23) has published the earliest information on what must have been finds of Bronze Age metalwork known from the study area. In Europe, bronze hoards may have been found in much earlier periods as well. The Roman author Suetonius, for example, mentions the find of twelve axes in a lake in Cantabria after lightning struck it.<sup>8</sup>

Although the scale and intensity of modern land use is unparalleled when compared with reclamations in earlier historic periods, it is very likely that the latter have also disturbed a considerable number of prehistoric finds. It might therefore be expected that areas that saw early reclamations are likely to have witnessed the unrecorded finds and hence loss of more deposition sites than areas that were reclaimed in periods when an active archaeological interest already existed.

The loess belt in the Dutch and Belgian province of Limburg had already been extensively reclaimed early in the medieval period. It is therefore likely that if there were many deposition sites in the reclaimed areas (the middle terrace in particular), these have been lost for archaeological research, and perhaps only stand a chance for later recovery if objects were buried deep in the ground, or if the site was covered by substantial colluvial deposits. The peaty areas near the transition of the middle to the high terrace in these same provinces, however, have not been reclaimed until the end of the late 19th and early 20th century. This was a time when the interest in archaeological finds was growing in local circles, and it became also common knowledge that such areas potentially might yield finds. Therefore it comes as no surprise that a considerable number of the bronze finds from Limburg were indeed recorded as having been recovered during these reclamations. In the Roerstreek and the nearby 'Westelijke Mijnstreek', where a considerable number of

bronze finds have been made in peaty areas, such conditions existed (fig. 1.3; Van Hoof 2000, 17-22). Another locality where this is true is the 'Kempen' area in the province of Noord-Brabant (fig. 1.3; Theunissen 1999). The impression is that the most bronze-rich peats are also those regions where of old historical societies took an active interest in archaeology.

The largest peat bog, the Peel, is remarkably empty, however (fig. 4.2). Currently, this huge area has yielded just 12 Bronze Age finds.<sup>9</sup> It is generally thought that this emptiness is related to the industrial scale on which its reclamation took place, and the absence of active amateur archaeologists (Gerritsen 2001, 174, note 176). The latter is not entirely true: a few amateurs were actively monitoring the reclamations, most notably L.D. Keus in the 1930s. This led to the find of the Kronenberg sword (chapter 7). A structured cooperation between amateur archaeologists, a museum and labourers working in the bog did not come into being. Such a cooperation was very successful in the case of the reclamation of the peat bogs in the province of Drenthe, in the northern Netherlands. The almost industrial way in which the reclamations in the part of the peat bog situated in the province of Noord-Brabant was carried out will indeed have diminished the chances of finding artefacts. On the side situated in the province of Limburg, reclamation was small-scale and more haphazardly organized; chances of recognizing bronzes were probably higher. Nevertheless, the only two finds are from Kronenberg, which is situated at the fringes of the bog.

In general, the *essen* represent the earliest reclamations on the sandy soils that had an effect on the archaeological record. The same goes for the larger part of the loess area in southern Limburg. The land surrounding medieval cities and villages (now mostly part of the town itself) are another example of early reclaimed areas (see fig. 4.3). It is thus very likely that if there were substantial numbers of bronze deposits in these areas, these are now lost without ever being recorded. As a matter of fact, Reuvens (1823, 219-23) recorded such finds made during building activities in and around Nijmegen. The large peat areas, such as the terrace swamps, the Peel, and the marshes once bordering the ice-pushed ridges of Nijmegen-Groesbeek and Rhenen, were reclaimed in the late 19th-early 20th century. As such areas potentially stand a better chance of yielding recorded finds (dependent on the activities of local amateurs, and the type of reclamation), they are more likely to become find-rich areas. Actually, this is another mechanism apart from the better preservation circumstances that may lead to the over-representation of peat-finds in relation to dry finds (deposited in areas that became agricultural fields in the Middle Ages).

From the point of view of reclamation history, conditions for preservation of bronze deposits seem to be relatively bad

in the loess area and in the *essen* area on the sandy soils. They are favourable in the peat areas that were reclaimed in the 20<sup>th</sup> century.

*Dredging and other activities in rivers and stream valleys*  
Special mention should be made of the activities in rivers. The numerous stream valleys in the sand and loess zones in the region have mostly been canalized since the late 19<sup>th</sup> century. This often meant that new stream channels were cut into the older fluvial sediment of the stream valleys themselves. Such activities are known to have yielded finds of Bronze Age metalwork and flint and stone axes. Digging activities in the (former) river-beds and backswamps of the major rivers Meuse, Scheldt, Rhine and Waal, however, have in places led to high number of finds, particular in the Scheldt near Antwerpen, the Waal near Nijmegen-Millingen, and in a zone of some 15 km in the Meuse valley, from Buggenum in the north to Stevensweert in the south, and near Roermond in particular. Here, not only objects from the Bronze Age were recovered, but also from the Late Iron Age, and the Roman Period, and to a lesser extent, from the Neolithic and the early Middle Ages. The most important activity where finds were recovered is gravel and sand extraction; the deepening and straightening of the river-bed is another. A special case is the construction of harbours, which involved the excavating of entire stretches of land. This took place in connection with the development of the growing international significance of the harbour of Antwerpen (Warmenbol 1987b).

Gravel extraction was already done before 1850, but was practised on a large-scale from that time on. It has in particular been carried out in the rivers Meuse and Waal. At first in the river-bed itself and on existing gravel banks and later on in the backswamps of the river (in the Meuse this took place since 1935, both on the Dutch and on the Belgian side of the river). The huge gravel extraction lakes are a visible remnant of it. The alluvial valley of the Meuse was furthermore excavated from 1929 until in the 1940s, in order to make it navigable for large ships (Mooren 1999, 45).

Fig. 4.4 indicates the stretches that have seen severe, high intensity, and moderate, medium intensity, dredging. 'Severe' is taken here to imply intensive gravel extraction in the backswamps, deepening of the gully, and the construction of dams and side-channels, and 'moderate' is taken to mean that only two of these activities took place. In the case of 'low intensity dredging', digging activities were mainly restricted to deepening of the gully. When the rate of dredging is compared to the find distribution of dredging finds, it is clear that the stretches with the highest numbers of finds are all situated in those river stretches that have been heavily dredged. This implies that dredging activities have strongly determined the distribution of river finds. It is

remarkable, however, that the western part of the rivers in the central area has hardly yielded any finds, although dredging was also very intensive here (particularly in the harbour of Rotterdam) (fig. 4.4). This need not reflect a prehistoric reality: in the Meuse valley, and in the eastern part of the central river area the river has always flowed in a relatively small narrow valley, because its bed is confined by higher terraces or ridges. More to the west, such confining ridges do not exist, and the river could shift its course much easier there. The river area is indeed much broader here than it is in the east (near Lobith and Nijmegen) or in the Meuse valley (province of Limburg). This implies that chances are higher for dredging in the eastern part, or in the Meuse valley to yield sediment of the Bronze Age river-bed, whilst they are lower in the western part.

Dredging intensity and the lateral extension of river sediment are not the only factors, however. This becomes particularly clear in the case of the stretch of the Meuse in Limburg between Maasbracht and Borgharen, which constitutes the border between Belgium and the Netherlands. Although severe gravel extraction took place on either side, only a few are known from the Belgian side, whereas 84 reliable finds are recorded for the Dutch side. This must relate to the active interest of collectors and amateur archaeologists monitoring the dredging activities on the Dutch side. Many finds recovered in the Belgian side of the Meuse are known to have been sold to dealers, without ever being recorded by archaeologists (personal communication J. Butler). An additional problem is that a systematic and thorough survey of Belgian amateur archaeologists comparable to the one done by Butler since the 1960s has not yet taken place. Such a survey was impossible to carry out within the present research. Without any doubt, we are dealing with a serious gap in the evidence.<sup>10</sup>

In sum, the distribution map of river finds is strongly determined by the intensity of dredging activities and their monitoring by amateurs. Another distorting factor is that dredging, by its very nature, is an excavation method that precludes any way of establishing the stratigraphical position of objects. Objects of other materials, that may have a relation to the deposited bronze objects, are therefore often not even recognized as such. It should also be realized that dependent on the size of the sieve used, many small bronzes are lost or remain unrecognised. Nevertheless, small object finds like tiny needles have been found.

#### *Conclusion*

The *essen* zones largely explain the blank spots on the find distribution map. The reclamation history of the loess zone and the lack of covering sediment may explain why this zone is poor in bronze finds, except for the find-rich peat areas that were reclaimed in the late 19<sup>th</sup>/early 20<sup>th</sup> century. The

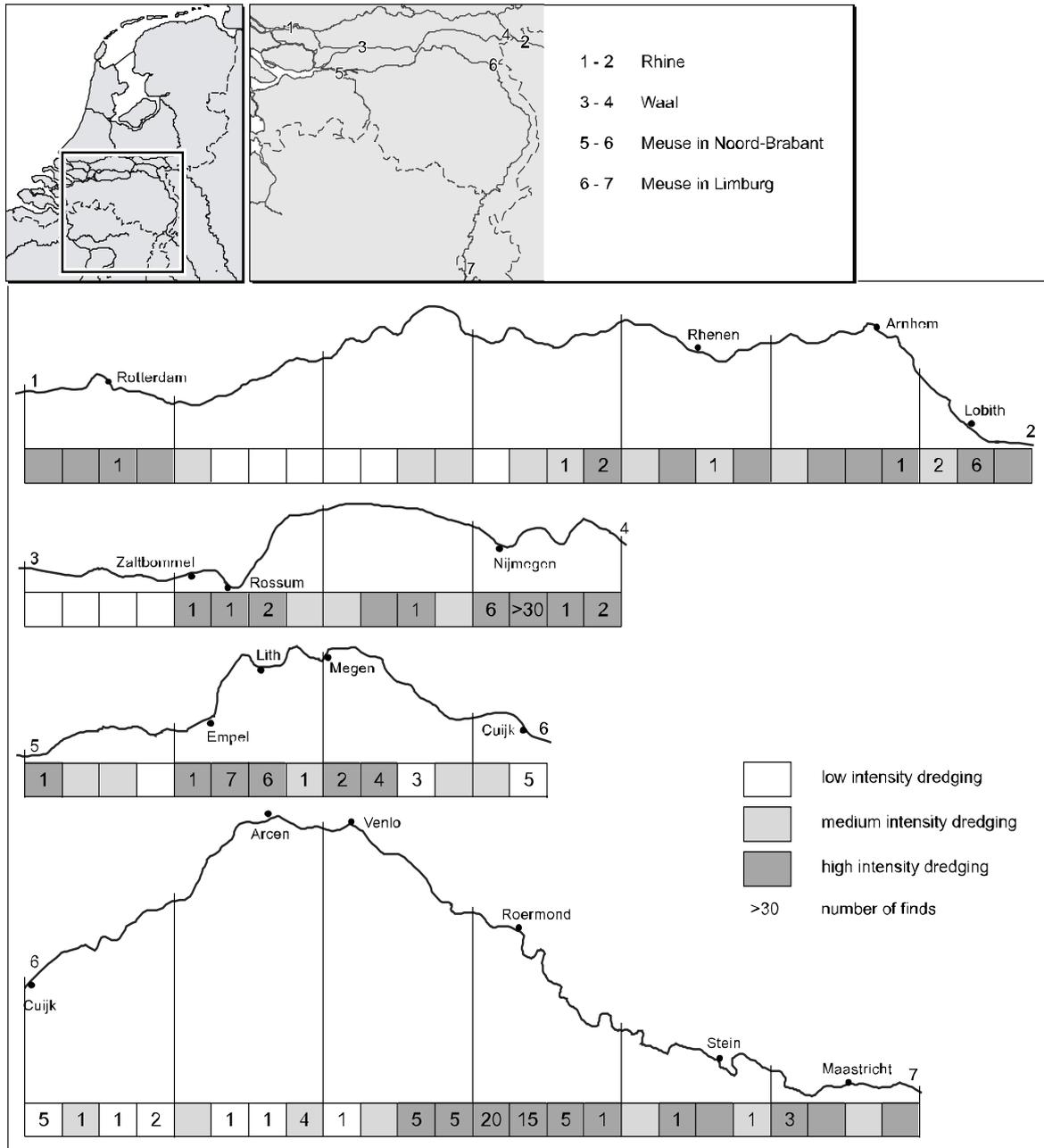


Figure 4.4 The relation between dredge finds in the major rivers and the intensity of dredging.

largest and youngest peat reclamation is that of the Peel bog. This bog, however, has hardly yielded any bronze finds. Find circumstances were generally unfavourable and they may well explain this scarcity of finds. On the other hand, the few finds recovered, among which a sword, are from an area where find circumstances were relatively better.

#### 4.5 EXPLAINING PRESENCE AND ABSENCE OF FINDS: RESEARCH FACTORS

Above, reference has been made several times to the crucial role of amateurs and laymen in finding bronze objects. Fokkens (1998a) has already worked out in detail how amateur finds influence and determine the existing find distribution maps in general. For the present research, their role is even more important, as amateur and laymen finds make up for 67 % of the total of finds. The following aspects are relevant:

- 1 The interest of the finder for metal finds, and his or her knowledge of the material. Amateurs have varying interests; some only collect flint and never pick up shards (see Fokkens 1998a, note 25). In general, amateurs and laymen have a high appreciation of metal finds, so this factor is of lesser relevance. An important factor, however, is their knowledge of the material. Small finds, in general objects like undecorated rings and needles, tend to be under-represented, as they are often believed to be modern. Even large finds, like rapiers, are often not recognized as such. The rapier from Den Dungen, for example, was considered to be a useful tool for papering rooms, something for which it also was subsequently used by the finder.
- 2 The use of metal-detectors. Since the 1980s, the use of metal-detectors has increased enormously. In general, this led to the finding and recognizing of more smaller objects, that formerly remained unnoticed. Most metal-detector collections I have seen indeed consist of an array of all sorts of small metal items. Unfortunately, it is not possible to map the use of metal-detectors in any detail. The central river area is known to be one of the areas in our region that is very intensively surveyed by metal-detectorists because of the high number of metal-yielding sites from the Roman Period. This makes the low numbers of Bronze Age metalwork stand out as remarkable. I know of fewer metal-detector activities from the western part of Noord-Brabant and Dutch southern Limburg, and of hardly any from the Belgian part of the region. This probably does not imply that metal-detecting does not take place there, but rather that people working there do not have much contact with archaeological authorities and amateur groups.
- 3 The existence of areas within the region that have witnessed a long history of amateur surveys has already been touched upon. Of these, the following micro-regions have

yielded high numbers of bronze finds: the Roerstreek near Roermond, the Kempen in southeast Noord-Brabant, and the area around the city of Nijmegen.

- 4 The relationship between finders and archaeological authorities and museums. As already mentioned, this factor is particularly acute in the case of metal-detectorists, who are very often only known in circles that are out of touch with those authorities. This factor largely explains the considerably smaller number of recent finds from the Belgian area as opposed to the Dutch one.
- 5 Of great importance is the accuracy with which the finder recorded the find circumstances, or at least the locality where it was found. For 69 % of the finds, there is more information on find-spot than just the name of the municipality where it was found. This is largely due to the work of individual museums (particularly the RMO), the numerous visits paid by dr. J. Butler to the original finders and some provincial archaeologists who had close contacts with the finders. In particular, the former provincial archaeologist of Noord-Brabant, the late G. Beex, should be mentioned here.

#### 4.6 CONCLUSION: WHICH SET OF DATA IS INFORMATIVE ON SELECTIVE DEPOSITION?

Having seen the impact of post-depositional disturbances, it is now necessary to evaluate the limitations and the potential of the database. I shall begin by dealing with the question whether we can read the find distribution map as indicative of differences in the rate in which ritual deposition was practised among different communities of the southern Netherlands. For most areas it has been shown that people lived there in the Bronze Age. Does the small number of bronze finds of finds in, for example, the western part of the study region imply that bronze deposition hardly took place there? Next, I shall deal with the crucial question on contexts. In which contexts should the lack of evidence on bronzes be taken as evidence of absence? In other words: on which set of data should we base our comparisons?

*In what way is the find distribution map indicative of differences in the rate at which bronze deposition took place?*

Although we are in no position to model the find distribution quantitatively as done by Fokkens (1998a), we can get a good impression of the impact of post-depositional processes by looking at the richest micro-regions in the study area: why are they so rich? A look at the map immediately shows that the Dutch-Belgian border has consequences for the numbers of finds outside rivers and stream valleys. In the Netherlands, we see that bronzes are fairly often found in between stream valleys (province of Noord-Brabant and Dutch Limburg). However, crossing the border, we have

hardly any evidence for such finds in Belgium. We see the same when focussing on the dredge finds. The river Meuse constitutes the Dutch-Belgian border, and is equally intensively dredged on either side. On the Belgian side, the number of finds is much lower than on the Dutch side, however. Still we are talking here about the same river, and similar processes of disturbance by dredging. The inevitable conclusion must be that it reflects the quintessential role of amateurs and the degree of contact between amateurs and 'professional' archaeologists. In the Netherlands, amateur archaeology has of old been much more organized and cooperative towards 'professional' authorities. This alone shows that our find distribution map is to an important degree the artefact of research factors.

A look at the map shows that the area with the highest number of bronze finds is the area around Nijmegen and Roermond. Both micro-regions are characterized by a combination of favourable preservation and research conditions. The major rivers in both are among the most intensively dredged ones in the entire region. Also, they are both characterized by a long-standing history of amateur surveys (since the early 19<sup>th</sup> century). Peat reclamations in the Roermond area (the Roerstreek) and the construction of new building sites in Nijmegen have received ample attention from local historical circles and/or museums.

Still, the richness of these micro-regions cannot solely be explained by such favorable conditions. Similar conditions existed for example in the Maaskant area: the river is intensively dredged and monitored by amateurs and archaeologists (Ter Schegget 1999), and the inland area has also seen intensive surveying by amateurs. The area around Oss has even witnessed the most extensive excavations ever carried out in the Netherlands.<sup>11</sup> The excavations have yielded evidence of many Bronze Age settlement terrains, and even traces for bronze production itself (the clay mould from Oss-Horzak; chapter 7). The use of metal-detectors is standard practice at such excavations, as illustrated by the many finds of (Roman) bronzes (Wesselingh 2000 for examples). Bronze Age metalwork is also known, but not in the quantities we know from the *Roerstreek* or Nijmegen. Within a rectangular area of 130 km<sup>2</sup>, including most excavations in the Oss/Berghem-micro-region and the Roerstreek, only six bronze finds are recorded from Oss, but 48 from the Roerstreek.<sup>12</sup>

In sum: the find distribution map is to an important extent the product of post-depositional factors, but it is difficult to assess how far their impact stretches. It is clear that it is much too simple to see a find-rich micro-region as straightforwardly reflecting an exceptionally rich depositional tradition. Only for micro-regions with very favourable find conditions like Oss, Nijmegen, or Roermond, a comparison of absence or presence of bronzes may reflect a prehistoric reality. Even then a more thorough assessment of map

formation processes is needed. Therefore, I shall refrain as much as possible from making such comparisons.

*In which contexts does the absence of evidence indicate evidence of absence?*

For the present research, the issue is not about questions like: in what way is our information on different micro-regions within the southern Netherlands comparable? Can core regions be recognized? Rather, our question is: how are we able to recognize patterns in depositional practices that are the result of selective deposition rather than selective preservation?

It was argued that there are two factors that make bronzes from wet contexts potentially better represented in the archaeological record than those from dry contexts. The first is the impact of geochemical decay, which is higher in dry contexts. The second is that dry contexts often represent those parts of the landscape that have been agricultural fields for centuries, and that the archaeological record on such contexts therefore is more biased because of ploughing. I have also presented arguments to nuance this distinction, making it clear that many bronze finds have still survived geochemical decay and ploughing on dry locations, but of course we can never know about the numbers of objects that have been ploughed out or corroded without leaving any trace. Therefore, we need better control contexts where we can be sure that the absence of certain types of bronze objects, or of bronze at all, represents a prehistoric depositional reality. Such contexts are not abundantly available, but they do exist. The following contexts can be distinguished.

1 *Barrow or urnfield graves* that have been professionally excavated. The southern Netherlands are rich in both barrows and urnfields. Some 225 barrows are known, almost all of them excavated, and some 85 urnfields.<sup>13</sup> Both comprise numerous graves, often containing cremation remains. On the heath areas of the sandy part of the region, many barrows and urnfields have never been levelled. Although some saw plundering or unprofessional excavation, the number of professionally excavated graves is high enough to state that they are representative of the general burial ritual. Although such contexts are dry ones, and hence potentially represent less favourable geochemical conditions, bronze objects have been found in some numbers there, particularly in urnfields (chapter 8). Even if bronze objects were badly preserved (as for example in the case of the barrow of Goirle; chapter 7), they were still recognizable as bronze items in a grave. When such barrows were excavated, this was never done with machines, and the emphasis was on finding things for dating the grave. The high number of graves excavated and the absence of bronzes in graves can thus in general be assumed to represent a prehistoric reality.

- 2 *Excavated settlement terrains, or other sites where there is evidence that Bronze Age activities took place.* These sites can only serve as an argument if bronze finds could potentially have been preserved there, and if systematic metal-detecting took place. Not all excavated sites meet these criteria, but the numerous recent large-scale excavations in the central river area (the Betuwe) do. As a matter of fact, bronze items have been found here repeatedly. I shall come back to the value of such sites for the present research in chapter 7.
- 3 *Several types of wet contexts, for example inland swamps versus rivers.* Rich wet find-contexts of different types can also be compared. In Limburg, the contrast between the find-rich inland marshes on the terraces and the adjacent Meuse. In dredging, large objects are much easier to find than small objects like pins or ornaments however. In late 19<sup>th</sup> century manual peat-cutting, as it was practised on the terrace marshes, smaller items stand a better chance of being discovered. The reverse is not true, however: that more than ten swords have been found during dredging in the Meuse near Roermond, while only one was found in the adjacent marshes of Echt on the land (that yielded dozens of smaller bronze tools), is more likely to be explained by selective deposition, since it would be rather odd if peat-cutters overlooked an object as large as a sword.
- 4 *General find patterns from metal-detector finds.* The last example is the most problematic one. As already said, we are badly informed about the practices of metal-detectorists. It is known, however, that many work in the Kempen area and in the central river area. In both cases, they brought numerous bronzes to light. It is quite remarkable, though, that dozens of bronze swords are known from the major rivers, but so far not one from the intensively detected areas of the central river area outside the rivers themselves and the Kempen. The implication of this is that swords apparently are absent from areas outside the rivers themselves. As our knowledge on metal-detectorists is biased, I shall not use their surveys as an argument any further, but it should be remarked that more detailed investigation of their work is badly needed.

## notes

1 These comprise Butler 1963 (general survey); 1987 (French and British imports); 1990 (Early Bronze Age and Middle Bronze Age hoards); 1995/1996 (flat and flanged axes) and Butler/Steegstra 1997/1998 (palstaves). In a number of publications Warmenbol published the finds recovered in and around the city of Antwerpen (1983; 1984a, b; 1987a, b, d; 1991).

2 For the Late Neolithic B and Early Bronze Age, there are sufficient metallurgical analyses to differentiate between copper and bronze

objects. For the later periods such analyses are lacking. In line with what has been observed for most parts of Europe at this time, it is assumed that these are all bronze alloys.

3 It should be remarked here that only a sample of urnfield bronzes has been studied. The total number of urnfield bronzes stored in museums and amateur collections is as yet unknown (chapter 9). Since most metalwork finds from urnfield context are incomplete, it is difficult to assess how one should quantify these finds (in this case every fragment was considered to represent one individual object).

4 Verlaeckt (1996) was concerned with the accuracy with which the original find spot could be retrieved. 'Found in the river Waal at De Winseling near Nijmegen' would in his approach rank higher than 'found in the river Waal near Nijmegen'. For the present research, however, both inform us of the fact that an object was found in a river near Nijmegen'. Depending on the reliability of this, and whether the spot was originally wet, they both inform us on objects deposited in rivers. For my purposes, the more detailed find information is welcome, but not vital.

5 This category both includes very old find reports (for example, the discovery of the Wageningen hoard in the 1840s) and modern metal-detectorist surveys. What matters here is the reliability of the report, and what I see as uniting these examples is that in both cases no clear commercial intentions seem to have influenced the find report. This contrary to what might be expected in the case of antique dealers. There is no compelling reason to see an old layman's find report as less reliable than a recent one.

6 The same goes for the colluvial deposits on the loess belt in southern Limburg, and the driftsand sediment in Noord-Brabant. On a regional scale, however, their impact is limited. For that reason, drift-sand areas and colluvial deposits are not included on the maps here.

7 For example, the socketed axe found during the excavations on Nijmegen-Kops Plateau was deposited in the dry sediment of an ice-pushed ridge. Apart from green oxidation of the surface, the axe was in excellent condition. Geochemical processes, however, can lead to differentiated preservation of objects of other materials that may have been deposited with the metal object. In peat bogs, wooden or leather objects are preserved, whereas porous stones and the coarse-tempered Middle Bronze Age pottery will fall apart under such conditions (Fokkens 1998a, 69). In dry conditions, such stone objects and such pottery stand a much better chance of preservation, whereas the organic objects will disappear without a trace.

8 Suetonius: life of Galba, in: *The lives of the Caesars, book VII: VIII*. 'Non multo post in Cantabriae lacum fulmen decidit repertaeque sunt duodecim securae, haud ambiguum summae imperii signum' (Not long after this lightning struck a lake of Cantabria and twelve axes were found there, an unmistakable token of supreme power). Translated by J.C. Rolfe, in Loeb Classical Library 38.

9 The Rosnoën-like sword from Kronenberg, a spearhead now lost from the same area, a palstave and a socketed axe from Volkel, a palstave provenanced 'Peel' and, less reliable, a spearhead from Liessel. The Late Bronze Age Deurne hoard (3 objects; chapter 8) and the ornament and palstave from Deurne-Klein Kasteel are located on the fringes of the Peel bog (chapter 7).

10 The precise methods of dredging used also have consequences. The way in which the sediment is sieved is vital. On modern, large ships the processing of sediment can take place at such a high speed that it is almost impossible to detect artefacts among it. Many smaller dredging ships have a system of conveyor belts where sediment can relatively easily be sorted out for artefacts.

11 Fokkens 1996; Fokkens/Jansen 2002; Schinkel 1998; Wesselingh 2000.

12 A north-south/west-east oriented rectangular area was chosen, including the most intensively surveyed/excavated areas within the micro-regions. For Oss, the coordinates of the north-west corner are 160/425, the south-east corner 170/412. For the Roerstreek, the corners have the following coordinates 190/350 and 200/337.

13 Barrows: Theunissen 1999, 47 plus newly discovered barrows. Urnfields: Roymans 1991.

**PART II**

**SELECTIVE DEPOSITION THROUGHOUT THE BRONZE AGE**



## Late Neolithic B and Early Bronze Age

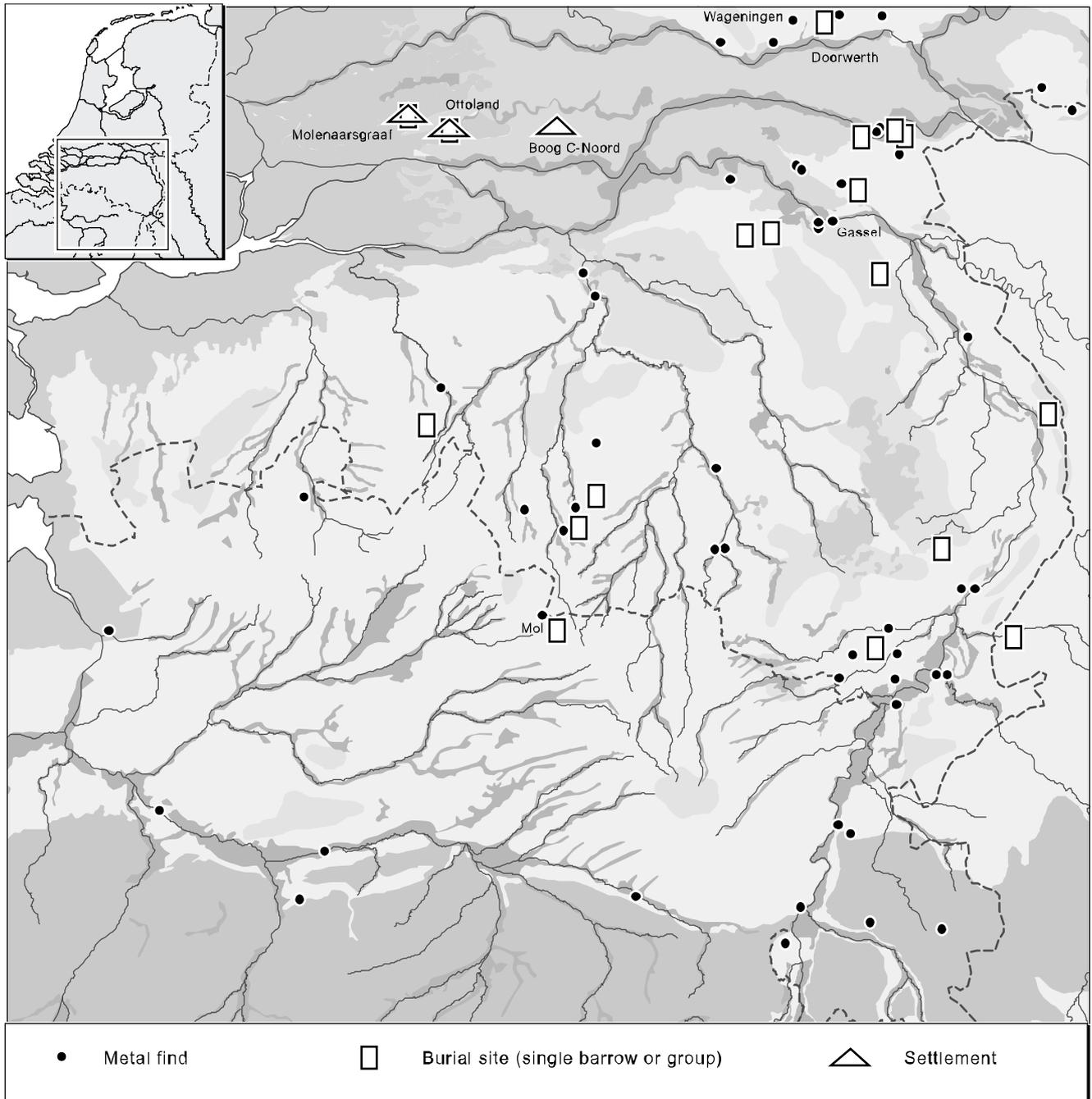


Figure 5.1 The distribution of metalwork finds from the Late Neolithic and Early Bronze Age in relation to the distribution of burial sites and (excavated) settlements. For the legend of this and all following find maps, see Figure 1.3

5.1 INTRODUCTION

In the Low Countries, the adoption of metalwork took place during the Late Neolithic B (2500-2000 BC). More in particular, it seems to have happened during the last part of this period (c. 2300-2000 BC), the phase of which Bell Beakers of the Veluwe-type and the so-called local derivatives of maritime beakers are characteristic artefacts (Butler/Van der Waals 1966, 54). During the Late Neolithic B, the tradition of metalwork deposition was shaped that flourished in the subsequent Bronze Age. For the research questions involved here it seems a crucial period. On the one hand, the new material copper/bronze was incorporated into age-old Neolithic depositional traditions. On the other, these traditions were gradually transformed during the Late Neolithic and the Early Bronze Age. As time wore on, the significance of metalwork objects in depositional practices increased, to culminate in the Middle Bronze Age when bronze had ousted all other materials. Transformations had not taken place not only in the practice of deposition;

changes must also have occurred in the general perception of the cultural biographies of things. If we want to make sense of the depositions of the Bronze Age, it therefore seems vital to understand the period in which the transition from stone to bronze took place. This may explain why this chapter is longer than justified by the discussion of the artefacts alone, which are, admittedly, not high in number.

The metalwork types of the Late Neolithic and subsequent Early Bronze Age (2000-1800 BC) are often difficult to distinguish (fig. 5.2), and for that reason I treat both in the same chapter. This is also in line with other cultural continuities between the Late Neolithic B and Early Bronze Age, that are so conspicuous that Fokkens (2001) has recently argued that the 'Early Bronze Age' had better be termed 'Late Neolithic C'.

After an introduction to the general socio-cultural developments that took place (section 5.2) and a discussion of the quality of the data themselves (5.3), the different object categories will be discussed for evidence on their

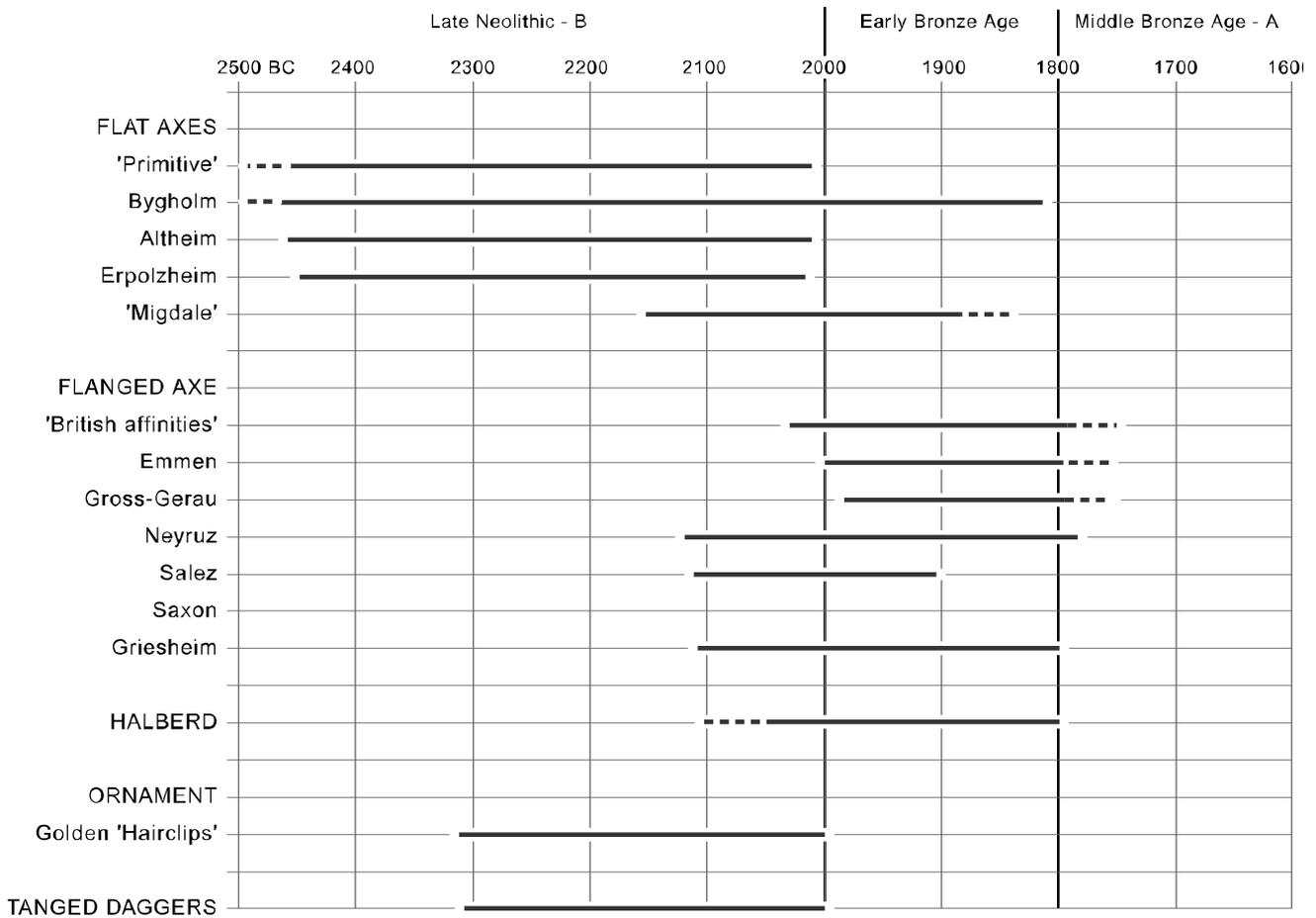


Figure 5.2 Dating ranges of the most important object types discussed in the text.

cultural biographies (5.4 to 5.5). Next, the transition from stone to bronze will be discussed in more general terms, paying attention to the how and why of the changes, and the (dis-)continuities involved (5.6). This is followed by a summarizing account on the biographies of the different object types: production and circulation in section 5.7, and deposition in sections 5.8 and 5.9.

## 5.2 LATE NEOLITHIC AND EARLY BRONZE AGE SOCIETIES IN THE SOUTHERN NETHERLANDS

During the Late Neolithic, a number of crucial transformations must have taken place in the subsistence, culture, the attitude towards landscape and the ideology of personhood. Unfortunately, the period remains elusive for large parts of the southern Netherlands, particularly the dry sandy parts of the research area. I shall deal only briefly with the developments that took place in this period, as they are at the heart of a thesis that is currently being prepared by Zita van der Beek, and I shall restrict myself to those issues that are important for the present discussion.

### *Changes in subsistence*

Characteristic for the Late Neolithic (from *c.* 2900 BC) of the entire Lower Rhine Basin at this stage is a way of life in which hunting, fishing and gathering were a vital aspect of the subsistence, together with agriculture and animal husbandry. Basically, it must have been an extended broad-spectrum economy that still had much in common with the way of life of the Mesolithic forebears (Louwe Kooijmans 1993a). It is only in the last phase of the Neolithic, in our region largely coinciding with the Late Neolithic B, that profound changes in subsistence took place. The positive appraisal of the natural richness changed to make way for a 'truly' Neolithic subsistence economy that can be characterized as mixed farming, involving an agricultural system with large-scale ploughing and extensive cattle breeding, and a negative appreciation of natural sources (Louwe Kooijmans 1993a, 139-40). Although the plough had been introduced as early as the Middle Neolithic, plough agriculture gained momentum during the later part of the Late Neolithic, indicating that an intensification of land-use was underway (Sherratt 1981; Fokkens 1986).

The exact transformation remains hard to follow in the archaeological record, but the outcome is clearly visible in the evidence of the Middle Bronze Age of our region, when all the evidence indicates that the original Neolithic extended broad-spectrum economy was replaced by mixed farming economies in which the use of natural sources was no longer of economic significance (Louwe Kooijmans 1993a, 140). The Early Bronze Age settlement site Boog C-Noord provides arguments that a true mixed-farming way of life, comparable to that of the Middle Bronze Age, was practised as early as 1950 BC (Schoneveld 2001).

### *Changes in material culture*

Culturally, the Late Neolithic A is characterized by different regional groups, the material culture of which is indicated as that of the later Wartberg-Stein-Vlaardingenvan complex (Louwe Kooijmans 1983). From *c.* 2500 BC onwards, however, Beaker ceramics become dominant in both graves and settlements. This development is not unique to the Netherlands, but occurs in adjacent regions as well. Van der Waals (1984) speaks of a unification process taking place at an almost Pan-European scale. This unification, however, becomes primarily apparent in the burials containing the characteristic decorated beaker and a stereotyped grave set (Harrison 1980). In our region, late Single Grave Culture Beakers are known (All-Over-Ornamented Beakers) and Bell Beakers of the early maritime type and of the mature Veluwe type (fig. 5.3; Lanting/Van der Waals 1976; Van der Beek in prep.). North of the Rhine, Beaker ceramics are prominent as early as *c.* 2900 BC. The reason for the delayed reception of the Beaker material culture in our region is unclear. The Beaker pottery is best known as a deposit in the individual burials, often underneath barrows, with their characteristically associated set of wrist-guards, knives or daggers, flint arrowheads or amber buttons (this chapter, section 5.9).

Important for the present study is the fact that it was during the Late Neolithic B that another change in material culture took place: the adoption of copper (daggers, awls, axes) and gold objects (ornaments). For a few Beaker graves of the later phase in the Veluwe region (north of the Rhine), stone hammers and anvils are among the grave gifts (fig. 5.3). Butler and Van der Waals (1966) have argued that these were used for metalworking. The only find in the research region that has been interpreted as a 'smith's grave' is the one from Beers-Gassel (fig. 5.10; Verwers 1990). This interpretation is questionable, however, and we shall not take it into consideration.<sup>1</sup>

The tradition of making decorated Beakers continues into the Early Bronze Age (Barbed Wire Beakers: Lanting 1973). These, however, are no longer found in burials. As a matter of fact, deposition of artefacts now seems generally to decrease.

### *Attitude towards the landscape*

Although difficult to reconstruct by archaeological means, profound changes must also have taken place in the way people dealt with the landscape. Louwe Kooijmans (1993a, 140) remarks that the transition to a fully agrarian subsistence system also implied a different attitude towards nature, in sharp contrast to the preceding Mesolithic. Fokkens (1986) has argued how the adoption of the plough and the ensuing greater commitment to land might have caused land-tenure to become differently organized and larger corporate groups to fall apart into smaller units. A striking development is the man-made

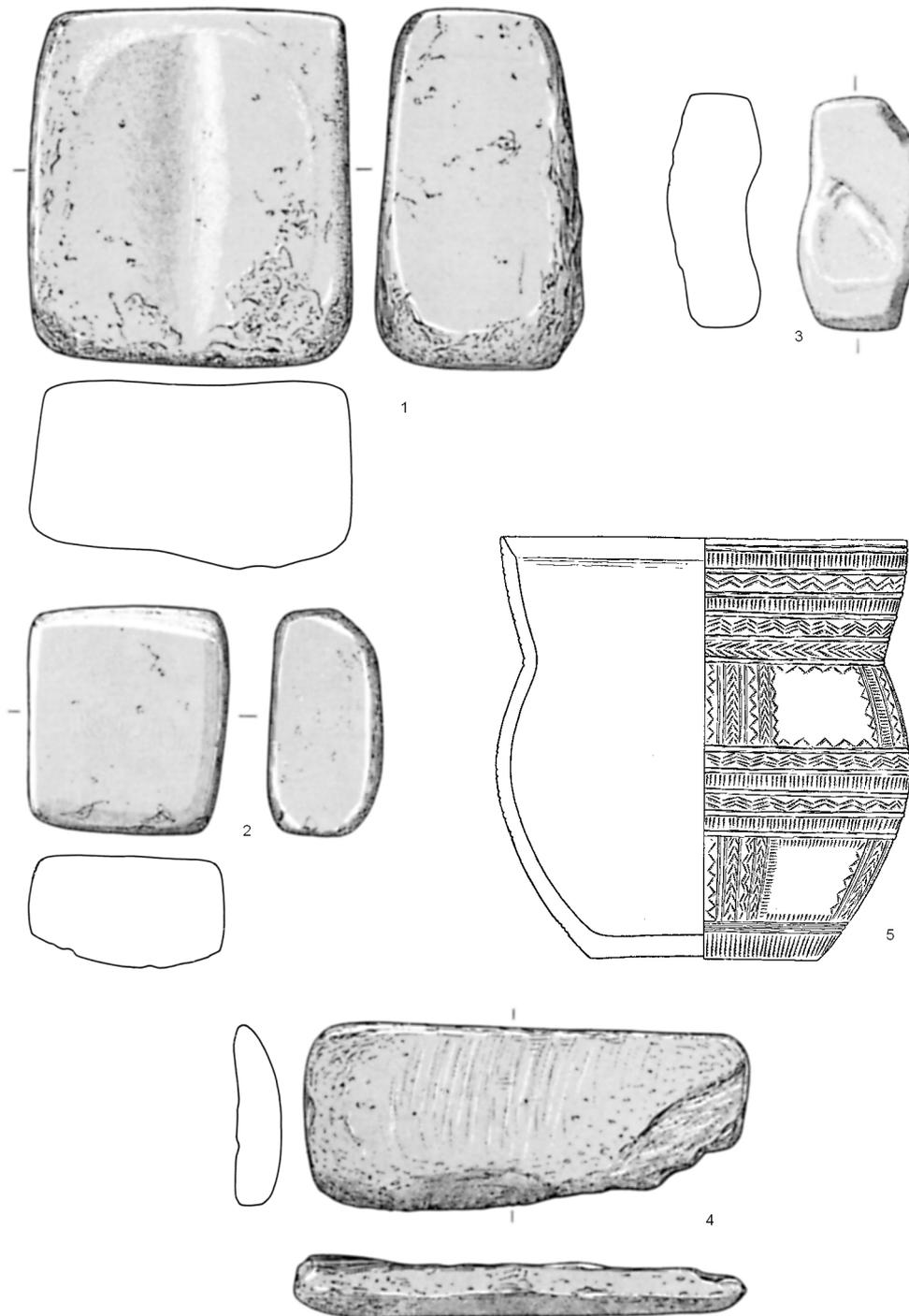


Figure 5.3 Lunteren. Metalworker's tools (1-4) and one of the two Bell Beakers of Veluwe type from the grave (scale 1:3, after Butler/ Van der Waals 1966, fig. 13a).

structuring of the land with barrows, which in our region begins with the Late Neolithic B. Neolithic barrows represent the beginning of the long-term process in which we see the gradual development of a landscape that became increasingly structured with visible ancestral monuments (Fontijn/Cuijpers in press; Gerritsen 2001, 250).

#### *Neolithic offering traditions*

Since the Early Neolithic we find evidence that particular objects were intentionally deposited in watery locations. This tradition is best documented for Denmark, but also, closer to home, for the northeastern Netherlands (Koch 1998; Louwe Kooijmans/Nokkert 2001, 112-5; Van der Sanden 1997; Prummel/Van der Sanden 1995). A great variety of objects was deposited, ranging from complete pots and simple tools to animal remains (red-deer antlers, horn sheaths of cattle). For the southern Netherlands, evidence for such deposits is patchy, but the oldest example of intentional pot deposits comes from this area (Hardinxveld-Giessendam De Bruin: 4905-4621 cal BC; Louwe Kooijmans/Nokkert 2001, 91-6). It is hard to find an umbrella term for such deposits, since it seems as if almost any kind of object was seen as suitable for deposition (Ebbesen 1993; Louwe Kooijmans/Nokkert 2001, 114). At the risk of simplifying things, I would argue that first and foremost, *local, ordinary tools and things of daily life were deposited, among them living matter* (animal remains, food in pots?). In the anthropological theory of Hubert and Mauss (1964; Belier 1995, 73-9), the sacrifice of living (including vegetable) matter is accorded a quality of its own as it is animate material which passes into the religious domain (see also Bradley 1990, 37).

Such deposits can be contrasted with another type, which only comes into being later on in the Neolithic: the deposition of objects that are often *non-local axes, adzes or chisels* (Ter Wal 1995/1996). In the terminology of the present research, these are objects that led a life of circulation before being deposited. Moreover, very often such objects do not seem to have been used, and even straightforward ceremonial versions figure in deposition. Another factor which sets axe deposits apart from that of pots, animal remains and ordinary tools, seems to be that here we see a clear element of selection: the emphasis is on one type of tool, the axe, to the restriction of others. Such objects are only rarely found undamaged in settlements. In northern Europe, we generally find examples of multiple-object hoards consisting of many axes. Examples are also known from the northern and the southern Netherlands (Ter Wal 1995/1996; Bakker in press). The phenomenon of axe deposition recalls what was defined as 'selective deposition' in chapters 3 and 4.

Deposition of single imported stone axes of the *Breitkeil* type in watery places might have been practised by hunter-gatherer communities in our region since the Early Neolithic

(Louwe Kooijmans/Nokkert 2001, 112). With the growing significance of agriculture during the Middle Neolithic, axe deposition seems to have become more important (Ter Wal 1995/1996). For the Late Neolithic A in our region, polished flint axes of the Buren type (fig. 5.4) and the so-called 'Cigar Chisels' are the prevailing axe/chisel form. Many such axes also seem to have ended their life as a deposit in a watery context (Bakker in press; Van der Beek in prep).<sup>2</sup>



Figure 5.4 Flint axe of type Buren, found in Babyloniënbroek, prov. Noord-Brabant. Scale 2:3.

#### *Changes in the ideology of personhood*

A new element in many north-west European regions where Beaker graves were introduced, is a characteristic type of burial of a single individual with a stereotyped equipment having counterparts over vast areas. A part of this equipment consists of non-local items, that must have travelled enormous distances before being placed in such a grave. Among these are metalwork items. This particular burial ritual seems to herald a new ideology of personhood, aimed at personal rather than collective display. In many regions, including the northern Netherlands, these individual burials replace collective burials in megaliths. As Treherne (1995, 107) phrases it, the transition to the Late Neolithic was essentially a transformation of an ideology of place and community to one of individual display, involving the adoption of a deliberately ostentatious life-style. The emphasis was on gender (they are predominantly the graves of males) and on

display and consumption of prestigious objects that were acquired through long-distance exchange (Shennan 1986a and b). Later on in this chapter I shall deal more extensively with this idea, since these graves were one context into which selective deposition of metalwork took place.

### 5.3 DISCUSSION OF THE AVAILABLE EVIDENCE

Only 80 objects from the southern Netherlands and the adjacent part of the central Netherlands can be dated to the Late Neolithic B and Early Bronze Age (see table 5.1 and 5.2). As fig. 5.1 shows, the majority of the finds are from the central river area, but hardly any came from the central and western parts of the study region, although the presence of barrows indicate that people did live there. Late Neolithic burials from the central river area have many affinities to those just north of the Rhine (Van der Beek in prep.), and for that reason it seems unwise to ignore some metalwork finds just north of the actual research area. These include the rich

Wageningen hoard, one possible hoard ('Veluwe'), and a number of burials with tanged daggers and gold. For that reason, this chapter will be the only one to include the northern 'Veluwe' region in the discussion.

With regard to the find provenance, there is one striking feature to all this material: finds from major rivers are much fewer than in any other period of the Bronze Age (9 % of all finds versus 28 % in the Middle Bronze Age A). Since the majority of the Late Neolithic and Early Bronze Age material seems to consist of (large) axes, just as in any of the subsequent periods, the relative absence of river finds must reflect a prehistoric reality. Apparently, rivers were less frequently chosen as depositional places than later on.

Another point of interest is that the period under discussion is the only one for which metal analyses are available. Appendix 10.1 lists the types of metal alloys distinguished here. As will be set out in the following sections, they provide some information on metalwork circulation patterns.

Type Object type	Context								Totals
	Major river	Stream valley	Marsh	Wet	Dry	Burial	Settlem.	Unknown	
Dagger	-	-	-	-	-	9	-	-	9
Riveted knife	-	-	-	-	-	1	-	1	2
Awl	-	-	-	-	-	1	-	-	1
Gold ornament	-	-	-	-	-	4	-	-	4
<i>Flat axes</i>									
Altheim	-	1	-	-	-	-	-	-	1
Bygholm***	-	-	-	2*	-	-	-	2	4
Erpolzheim	-	1	-	-	-	-	-	-	1
Migdale***	-	1	1	1	2**	-	-	-	5
Primitive	-	1	-	-	-	-	-	-	1
Double axe	-	-	-	-	1	-	-	-	1
<b>Totals</b>	-	4	1	3	3	15	-	3	29

Table 5.1 Late Neolithic B metalwork from the southern Netherlands and the central Netherlands (Veluwe and surroundings). \* From possible 'Veluwe' hoard; \*\* one from the Wageningen hoard; \*\*\* may date from the Early Bronze Age as well, see text.

### 5.4 LATE NEOLITHIC METALWORK

The earliest metal objects known in the Netherlands and Belgium date from the Late Neolithic (fig. 5.2; fig. 5.5). So far there is no evidence to suggest that coppers circulated earlier on, during the Middle Neolithic, as in the case of TRB Denmark (Bradley 1990, 57-64). It is particularly the metal analyses carried out on most of the Dutch finds which support this view: all objects analysed appear to have been made out of multi-impurity copper (appendix 10). This seems to be true for the Netherlands as a whole. The find of two copper spirals in a Middle Neolithic megalith in the northern Netherlands is probably no exception. With regard to their typology, such

spirals would not be out of place in a Middle Neolithic TRB-context. Analysis of their metal content seems to indicate a dating in the Late Neolithic or Early Bronze Age, however (Butler/Van der Waals 1966, 76). At the moment, it is not possible to explain this discrepancy.

One of the surprising discoveries about the earliest metalwork from the Low Countries is that we are not just dealing with the introduction of the new materials copper and gold, but with the contemporary introduction of metalworking techniques as well. Before discussing the life-cycles of the different object categories, we should try to find out what this local metalworking actually involved.

Type Object type	Context									Totals
	Major river	Stream valley	Marsh	Wet	Dry	*Dry hoard	Burial	Settlem.	?	
Dagger	-	-	-	-	-	1	-	-	-	1
Riveted knife	-	-	-	-	-	-	-	-	-	-
Awl	-	-	-	-	-	1	-	1	-	2
Ornament	-	-	-	-	-	-	2	-	-	2
<i>Flat axes</i>										
Migdale	-	1	1	1	1	1	-	-	-	5
<i>Low-flanged axe</i>										
British affinities	-	1	-	-	1	-	-	-	1	3
British decorated	-	-	-	1	-	-	-	-	-	1
Emmen	-	-	-	1	-	-	-	-	5	6
Gross-Gerau	4	-	-	-	-	-	-	-	-	4
Neyruz	-	-	-	-	-	-	-	-	2	2
Unknown	1	1	2	1	1	-	-	-	5	11
Salez	-	1	1	-	-	-	-	-	-	2
Saxon	1	-	-	-	-	-	-	-	2	3
<b>Other</b>										
Penannular ring	-	-	-	-	-	2	-	-	-	2
Rings	-	-	-	-	-	2	-	-	-	2
Ingot bar	-	-	-	-	-	1	-	-	-	1
Halberd	1	-	-	-	-	1	-	-	-	2
Halberd rivet	-	-	-	-	-	2	-	-	-	2
Rough bar	-	-	-	-	-	1	-	-	-	1
Sheet metal	-	-	-	-	-	4	-	-	-	4
<b>Totals</b>	<b>7</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>16</b>	<b>2</b>	<b>1</b>	<b>15</b>	<b>56</b>

Table 5.2 Early Bronze Age metalwork from the southern Netherlands. The Migdale axes, halberds and the Wageningen hoard may date from the Late Neolithic B as well. The Migdale axes are also listed in table 5.1. \* From the Wageningen hoard.

#### 5.4.1 *Local production and the 'Dutch Bell Beaker metal'*

The evidence for early local metalworking is based on the finds of stone hammers and anvils in a number of Bell Beaker graves on the Veluwe mostly just north of the research region (fig. 5.3). Butler and Van der Waals (1966, 75) argued that the most likely interpretation of such stone tools is as tools used in the hammering of copper or gold. To support this interpretation, they present a number of ethnographic parallels. Writing more than thirty years later, there is still not much reason to doubt this interpretation (also: Needham forthcoming). Today the Dutch metalworking tools can be ranged with finds of moulds and casting debris in north-west Europe (Needham forthcoming). Combining information of both the metallurgical analyses of metalwork and the nature of the metalworking implements found, it is likely that imported, rough blankets of copper were locally worked into daggers and/or awls. Gold working is another possibility. Also, such tools may have been used for reworking the cutting edges of daggers or axes. For the more complicated task of copper casting, however, there is so far

no convincing evidence that it was at this stage already part of local metalworking skills (Butler 1995/1996, 159).

Another important conclusion of Butler's and Van der Waals' research was the recognition of a distinctive type of copper-alloy, dubbed 'Dutch Bell Beaker metal' (1966, 96), containing high arsenic and nickel impurities (appendix 10.1). The medium to high nickel level is diagnostic in conjunction with the much lower silver (Needham, forthcoming). Since Butler's and Van der Waals' pioneering study, this 'Dutch' Bell Beaker metal has been found in many more regions in north-west Europe. For this reason, Needham (forthcoming) has recently suggested to drop the adjective 'Dutch' and to call it 'Bell Beaker metal' from now on. Needham makes a case for distinguishing between two varieties having rather different nickel levels. Butler and Van der Waals (1966, 96-7) could not identify the sources of this peculiar metal, but suggested links with Brittany. More than 35 years later, it is still difficult to make out where this peculiar metal came from, but I side with Needham (forthcoming) who suggests that 'sources both in northern Spain and further north along the Atlantic façade played a part in creating this distinctive metal'.

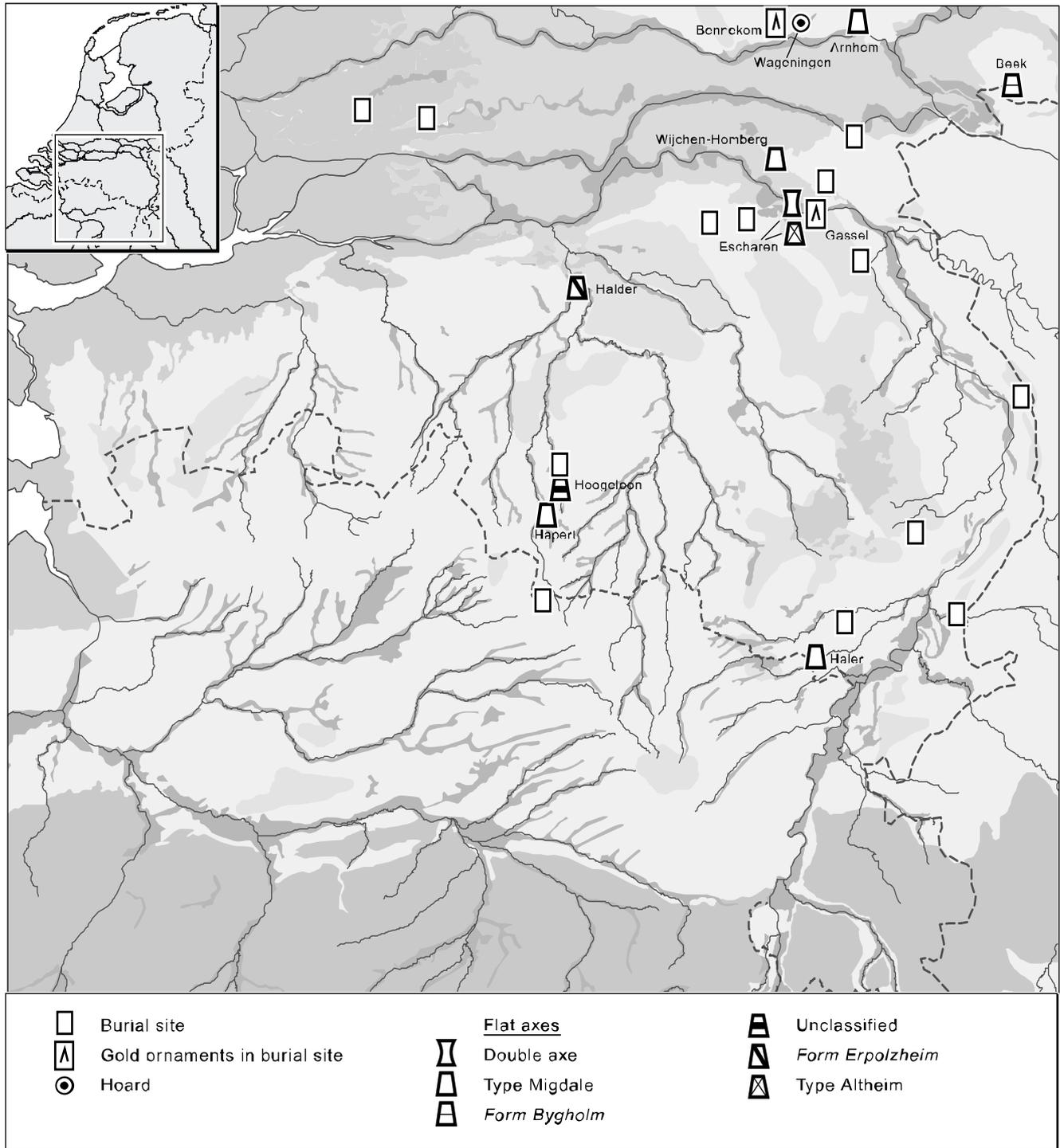


Figure 5.5 The distribution of copper flat axes and gold ornaments. Also shown are Late Neolithic burial sites.

#### 5.4.2 Flat axes

In the Netherlands, the majority of copper flat axes are from the southern part and the region just north of it (the two 'Veluwe' finds) (table 5.1; appendix 2.1). Their distribution is complemented by finds from the adjacent German region (Kibbert 1980, Tafel 61 A and the Belgian region (Warmenbol 1994).<sup>3</sup>

All except one are single finds. Two axes found somewhere on the Veluwe (north of the Rhine) were probably deposited together in a hoard in view of their identical patination. Preservation and patina indicate that this was in a watery place. It is also striking that these axes are very similar in shape and size (fig. 5.7).

Although the flat axes under discussion have been classified as different types, a quick glance at their forms shows that it is their similarity rather than difference that is conspicuous (fig. 5.6 and 5.7). In spite of typological designations, hardly any formal standardization seems to have existed (cf. Warmenbol 1992, 75). Leaving the thinner, round-butted axes with Migdale-affinities aside, most are thick-butted and have a trapeze-shaped body with variation only in size (narrow to large; Butler 1995/1996, 162-7).

The flat axes under discussion have recently been classified by Butler (1995/1996) as representing the following types: 'primitive aeneolithic axe' (fig. 5.6), Form Bygholm (fig. 5.7),

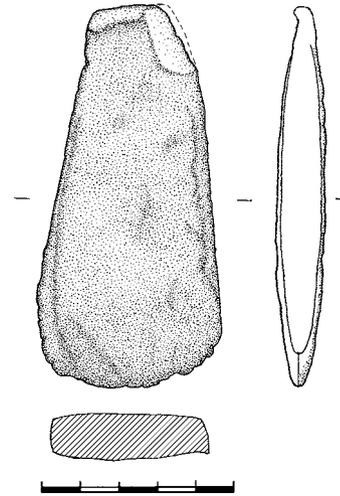


Figure 5.6 'Primitive' flat axe from Hoogeloon (scale 1:2).

Altheim, Erpolzheim, and the Migdale type (fig. 5.8). With the exception of the latter type, most of these axe types seem to have been used for a long period of time (fig. 5.2). If available, the metal analyses of these axes do not support a dating before the Late Neolithic B, however. This applies

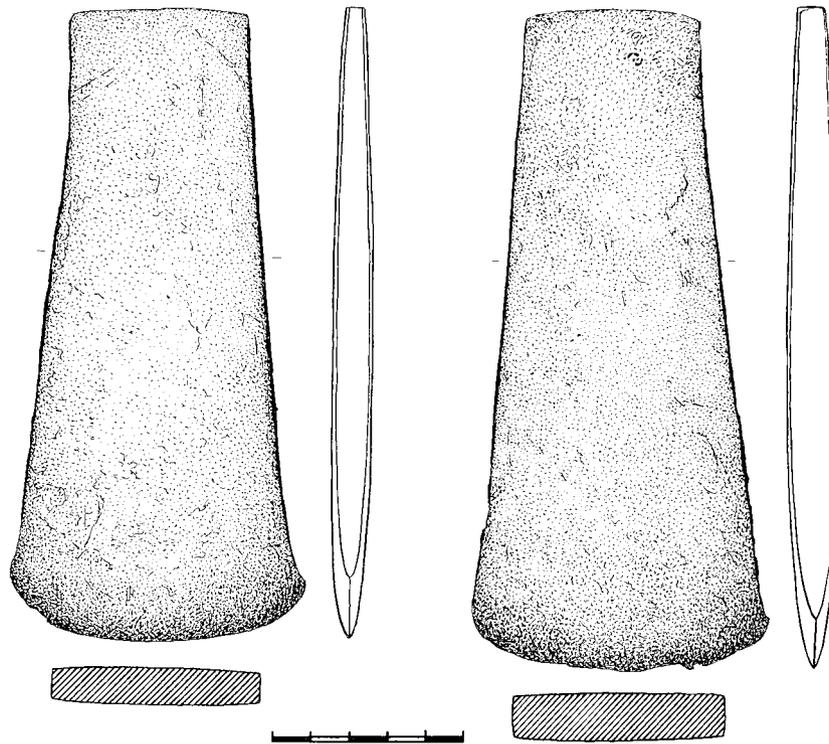


Figure 5.7 Bygholm axes, possibly from one hoard on the Veluwe (scale 1:2, after Butler/Van der Waals 1966, fig. 19).



Figure 5.8 The 'Migdale' flat axe from the Wageningen hoard (l. 11.5 cm).

particularly to two of the Bygholm axes ('Limburg' and one from the possible 'Veluwe' hoard) which are of the 'Dutch Bell Beaker metal' (appendix 10.2). The Bygholm axe from Beek, however, indicates that flat axes are not unique to the Late Neolithic B. With its high Sb and moderate Ag and As it is remarkably similar to a specific metal type from the Salzburg-Tyrol area, dating to – in our terms – the Early Bronze Age rather than the Late Neolithic (Butler 1995/1996, 166; graph 1)

*How did the new axes fit within indigenous conceptual classifications?*

Where were these axes made? There is no convincing answer to this question, only the suggestion that it is not very likely that they were already produced in the Netherlands itself at this stage. We shall see below that there are good indications that many of them actually came from very far. At some point in time they were in our region, however, and since we are dealing with objects made from an entirely new material, we may wonder how they were perceived. How were such axes incorporated in existing indigenous material-culture classifications? Apart from being made of a different material, in what way did they contrast with the usual stone or flint axes?

Leaving the different material aside, the form of the earliest metal axes is actually not so much different from those of current flint axes. This applies particularly to the 'primitive' aeneolithic flat axes which have an oval cross section, just like flint axes (Butler 1995/1996, fig. 2). It is only in the case of the larger Bygholm axes that the axe has

been given a shape that is more appropriate to the new possibilities of tool production that are distinctive to metal (these are much thinner than any flint axe could be and consequentially have much sharper cutting edges; fig. 5.7). Some flat axes are large, but so are many flint axes of the preceding Late Neolithic A. An important visual difference might be its colouring: where flint axes are polished and distinctively coloured, the copper axes are relatively simple and lack standardization and decoration. In the case of flint axes, the distinctive colouring distinguishes axes from different sources (Bakker in press). It is precisely this aspect that is lacking in the case of metal axes. The lack of visual references to production places is not countered with by distinctive forms or decorations either. To take this one step further: in the case of early metal axes we are not dealing with objects that were explicitly designed with visual traits which identified a particular place of origin.

The relative uniformity of flat axes can of course easily be explained by technical constraints. We are probably dealing with objects that could only be formed in one-piece stone moulds; the more effective clay moulds are a later development (Coghlan 1975, 51-3). But if we have a look at early metal axes from other regions, like Ireland, it is interesting to see that we find a lot of axes there that are lavishly decorated (Harbison 1969). Decorating the surface of a metal axe surely will not have been a difficult task, but apparently it was not practised in the case of the Dutch or Belgian axes. Technological constraints alone cannot explain either why two Bygholm axes that were probably part of the same hoard ('Veluwe'), and that are almost identical in shape

and form, still have a very different metal content (fig. 5.7; appendix 10.2). One was made from ‘Dutch Bell Beaker metal’, the other one from metal which has more in common with the south German Singen-metal (Butler 1995/1996, 163, 166). There is even an example of a straightforward discrepancy between typology and metal content. This is the case with the only Migdale axe of which the metal was analysed, the one from the Wageningen hoard (fig. 5.8; appendix 10.2; 10.5). Although its form is reminiscent of that of British Migdale axes, its metal appears to be of a type unknown in Ireland or Britain; it fits within the continental Singen-metal alloys, however. British specimens are of bronze and do not contain high percentages of nickel (Butler 1990, 70).

Summing up the argument, we see that the earliest copper axes visually had much in common with the existing flint and stone ones, but seemed to differ in at least one aspect. Their indistinctive form and lack of any decoration gave no clue at all about the place and source they came from. The evidence of metal content even implies that exactly the same axe types were made in different places. This is very different in the case of polished flint axes, where the specific colouring achieved by extensive polishing makes it easy to distinguish between axes from different production places. In section 5.6 I shall come back to this, and argue that in the biography of copper axes, in contrast to those of flint axes, axes were no longer valued as ‘pieces of places’ but considered imbued with different qualities.

#### *Circulation and use-life*

A conclusion that can be derived from the metal analyses is that flat axes must have circulated over large distances before they ended up in the ground of the southern Netherlands. The different types of metal alloys detected for axes suggest that (roughly finished?) axes came from many different sources, all of which must have been very far removed from the Netherlands: southern Germany, Salzburg-Tirol, or from places along the Atlantic façade (Bell Beaker metal). Exchange therefore must have been an important element in their cultural biography. A second element must have been the use people made of these axes. It is clear that most of the axes seem to have been used, as the resharpener of their cutting edge show (fig. 5.8). It is quite a different question whether they were equivalent to flint or stone axes in effectiveness. Experimentation should provide the answer. It is generally assumed that they are not, however (Sherratt 1976, 557). At any rate, there is no reason to suppose that they were merely display items, as has been suggested for the earliest metal axes of other regions (Kristiansen 1987).

#### *Deposition*

Not one of the flat axes is known to have been found in a Late Neolithic or Early Bronze Age burial (table 5.1). This

applies both to those of the southern Netherlands (Van der Beek in prep.), to the barrow-rich Veluwe area as well as to the northern Netherlands (Lanting/Van der Waals 1976; Lanting 1973). It is inconceivable that such large objects were systematically missed from barrow excavations, and we therefore have to assume that their absence represents a prehistoric reality. One could pursue the same line of reasoning for the absence of axes from Late Neolithic and Early Bronze Age settlement sites, but since only a few of such sites have seen systematic excavation, this argument is not as convincing. Table 5.1 indicates that most axes must have come from stream valleys. If we include the unprovenanced finds with wet-context patina (appendix 2.1), this becomes all the more marked. It is therefore likely that most finds are from wet locations.

#### *5.4.3 The double axe from Escharen*

The recently found copper double axe from Escharen is a curious addition to the ‘aeneolithic’ finds known from the research region (fig. 5.9). According to Butler (1995/1996, 167-70) it is an axe of the *Zabitz, variant Westregeln* type. A number of such axes are known from central Germany, where this axe is also presumed to have been produced, but even there they are rare. The Escharen axe is far removed from the main distribution of such axes (Butler 1995/1996, fig. 6).

Because of its rareness, it is difficult to date the find. Butler – following Kibbert (1980) – attributes this axe to the Bell Beaker phase, although he makes it clear that an earlier date cannot be excluded. It is a large, X-shaped, double axe, with a perforation much too small to have served hafting (Butler 1995/1996, 168). Therefore, in spite of its form, it could not have been practically used as an axe. This makes one think that it was primarily valued in the non-utilitarian sphere. As such, it is an exceptional object amongst the other early metalwork in the research region. This applies not only to its non-functional character, but especially to its form. Whereas most early copper axes may differ in details from stone axes, there is a basic continuity in the form of an axe and in the way it was hafted. The concept of a double axe, however, is quite unconventional. It is more or less common among early copper forms from south-east and Mediterranean Europe. In central Europe and more to the north, double axes do occur, but not in large quantities. Early specimens, designated double hammer-axes, are known from the middle Rhine area, where one hammer-axe was even found as far west as Weeze (Germany), just east of the Meuse valley. These axes are thought to date from the period of the Single Grave Culture, and their form is assumed to relate to the stone ‘battle’ axes that characterize the burial equipment of this period (Kibbert 1980, 23). According to Kibbert, these hammer-axes must have been ritual items (Kibbert 1980, 27-8).

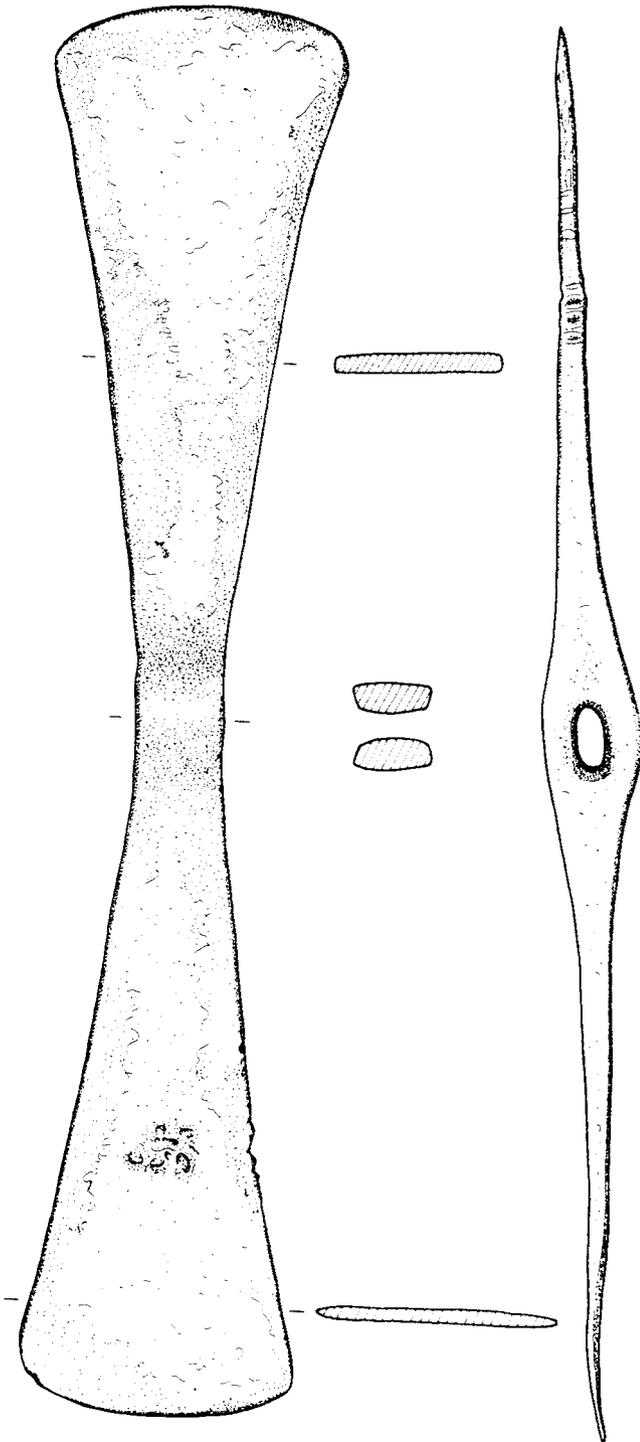


Figure 5.9 The double axe from Escharen (scale 1:2, after Butler 1995/1996, fig. 5).

At any rate, the double-axe concept does not seem to fit in with the general axe concept current in local material culture. Among the dozens of stone axes known, there is only one axe so far that can be considered a double axe. This one was found at Wijchen, and was mentioned by Butler (1995/1996, 169) when discussing parallels for the Escharen find. The Wijchen axe could have been a copy of a copper double axe of the *Cochem* type, related to the *Zabitz* type, but the relations between stone and copper axes could also have been reversed. Anyway, finds such as the Wijchen axe show that there was a relationship in form between stone and copper axes, but rather as an exception than the rule. At any rate, these formal relations were not lasting. The concept of a double axe, be it in stone or copper, does not occur in later forms of material culture.

The double axe from Escharen must have been some sort of *Fremdkörper*, probably obtained via long-distance gift exchange from somewhere within the central German area. There is no indication that the axe was actually used for cutting or stabbing: the edges are still fairly sharp. Since it was also difficult to haft it, perhaps it was just the copper blade itself that was exchanged and perhaps displayed in ceremonies. The object was finally deposited in dry ground. It was dug in on a prominent hillock, on the transition to a stream valley.

#### 5.4.4 Gold ornaments

The only gold objects known from the southern Netherlands dating from this period fall into quite another category. In Beers-Gassel, two were found that have been interpreted as hair clips (fig. 5.10; Verwers 1990, 30-1; Verhart 2000, fig. 3.25). Just north of the Rhine, two oar-shaped ornaments were found that may have been a neck-ring (Bennekom; appendix 7.1). The other contemporary Dutch gold finds are two sheet-gold ornaments from a burial in Exloo in the north of the Netherlands (appendix 7.1). The Bennekom find was probably part of the burial equipment of a Bell Beaker burial underneath a barrow, and an amber bead seems to have been attached to the ornament (Glasbergen/Butler 1956, 53-6).

In Beers-Gassel, the two hair clips were accompanied by a Beaker of the Veluwe type, an extraordinary amber ornament, a cushion stone and a whetstone and two pieces of unworked flint (fig. 5.10). The set of objects suggests that they belonged to a grave, but unfortunately this cannot be verified anymore, since it was not excavated in a professional manner. The gold ornaments show a strong similarity to the expanded oar-shaped ends of the Bennekom ornament. In both cases we are dealing with 'clips' which are the oar-shaped ends of a strand of wire. Decoration, too, is very similar on both examples. In form and decoration, both finds are comparable to the golden basket-earrings from the British Isles (Butler/Van der Waals 1966, 62). However, the



Figure 5.10 Part of the contents of the Beers-Gassel find. Depicted are a large hammer stone or polishing stone, a decorated amber pendant (?), two flint flakes and two gold 'hair clips' (after Verwers 1990, fig. 16).

Bennekom ornament seems to have been a neck-ring. Glasbergen and Butler (1956, 56) proved that the individual wires were broken parts from one and the same ornament, which had a circular shape. Realizing this, they concluded that it must have been used as a large ring, probably adorning the neck. The Beers ornaments must have been used differently, as the wires were – secondarily – folded up. This makes an interpretation as hair clips feasible (Verwers 1990, 62).

It is not just the similarity between the Beers and Bennekom find which is interesting, but also that between these Dutch finds and the golden basket-earrings from the British Isles. The gold used for the Dutch ornaments probably comes from western Europe (Butler/Van der Waals 1966, 98). Whether the objects themselves were imported is not clear. It is a good possibility that gold was worked locally since hammering and punching gold is not that difficult. As a matter of fact, it are precisely these techniques that one would expect to be carried out with the stone hammers and anvils of the smiths' graves. If this was really the case, the similarities between the Dutch gold objects and those from abroad (British Isles, Brittany?) are all the more striking. Other contemporary gold objects known across Europe, like *lumulae* (Eogan 1994), are also

very similar in form and decoration, suggesting that we could almost speak of an 'international' style.

#### 5.4.5 Daggers

Just a few kilometres beyond the northern boundary of the research area, in the municipality of Ede, three Late Neolithic burials are known which had copper tanged daggers among the burial gifts. More to the north, six more daggers have been found in burials (appendix 7.1). Although no such find has occurred in the research region proper, it seems useful to include these nine finds from the Veluwe and surroundings in this discussion. They are the first metal daggers to appear in the Lower Rhine Basin, and the Bell Beaker burials of the Veluwe have close cultural affinities to those of the northern part of the research region (Van der Beek in prep). In addition, one more dagger was found in a Bell Beaker grave in Exloo, in the northern Netherlands (appendix 7.1; 10.3). Of all the finds in question, a dagger from Drie is riveted, the rest are tanged.

Just like the flat axes, the daggers show a great variety in shape and especially in size. Some large examples (the dagger from Stroeërzand) must have been rather crude and clumsy if used as a dagger. Others are remarkably small (those from Lunterse Heide en Ginkelse Heide) and may therefore have been designed as a real stabbing device. Piggott (1963) argued that there is a strong similarity between these Dutch daggers and those from the British Isles. Butler and Van der Waals (1966, 59), however, made it clear that it is actually difficult to pin down exclusive typological relationships. Copper daggers of comparable form occur in various regions, as far as Portugal, Sardinia and the Czech Republic (Butler/Van der Waals 1966, 59).

Seven of the ten Dutch objects have been spectrographically analysed (appendix 10.3). Five of these appeared to be made of the Dutch Bell Beaker metal. The others are of a different composition, which is more difficult to match. At any rate, it is again clear that general similarities in form by no means imply homogeneous origins. Metallurgical analysis of a few tanged daggers indicates that these were made by annealing and, in a few cases, cold-working (Butler/Van der Waals 1966, 59). These are precisely the metallurgical techniques for which we have indications that they were practised in the Netherlands. For that reason, it is probable that rough blankets of copper were exchanged, and locally worked into daggers. In addition to gold ornaments, copper daggers are therefore the second category of objects for which it can be suggested that they were local products. Interestingly, in this case there is no hint of any intention on part of the smith to give them a locally specific identity either.

Almost all daggers are burial gifts, stemming from the richer graves. For the few unprovenanced finds, their patina does not indicate that they were deposited in a wet location.<sup>4</sup>

#### 5.4.6 *Conclusion: selective deposition in the Late Neolithic B?*

Low as the evidence is in numbers, the deposition of the Late Neolithic B metalwork shows all the characteristics of selective deposition (table 5.1). The metalwork categories involved are daggers, ornaments and axes. The first two categories must have served primarily in the field of personal display. It is probable that both were produced locally. Axes, however, all seem to have been imported, often from distant regions. Daggers and golden ornaments were deposited in graves, a context from which copper axes, including ceremonial versions like the double axe, are notably missing. These axes seem to have been preferably deposited in stream valleys as single deposits.

#### 5.5 EARLY BRONZE AGE METALWORK

Early Bronze Age metalwork is known in larger numbers than that from the Late Neolithic (fig. 5.11 and table 5.2). A look at fig. 5.2 elucidates that the dating ranges of some types bridge the Late Neolithic-Bronze Age transition, raising the question of what is understood by 'Early Bronze Age metalwork'. This applies particularly to the Wageningen hoard and the Migdale flat axes. For practical reasons, the latter were already described in the flat-axe section above (5.4.2), whilst discussion of the Wageningen hoard has so far been postponed. There are now some arguments that this hoard might date from the last centuries of the Late Neolithic B, rather than to the Early Bronze Age to which it is traditionally dated (Needham forthcoming; Vandkilde 1996, 197; summarized here in section 5.5.2). Since the arguments for the older dating are not entirely conclusive and do not have serious consequences for my own analysis, I shall let traditional wisdom prevail and discuss this hoard once again under the Early Bronze Age heading.

##### 5.5.1 *Low-flanged axes*

Characteristic for the Early Bronze Age is the low-flanged axe. These are defined by Butler as 'axes with faint side-flanges, rising only a millimetre or thereabouts above the face of the axe' (Butler 1995/1996, 170). Butler divided all the axes from the Netherlands into fifteen types, mentioned here in table 5.2 and individually described in appendix 2.2. A few types are illustrated in fig. 5.12 and 5.13.

When compared with Late Neolithic copper axes, most flanged axes have forms that differ considerably from those of stone axes. The flat thin body of the axe in combination with flanges is a case in point, as is the decorated body of the axe from Haren. Another example are the widely expanding cutting edges of the Saxon axes (fig. 5.12). As in the case of the flat axes, the typological differences are often not very convincing, but some axes do have a quite idiosyncratic form. See for an example fig. 5.13.

Again, the question forces itself upon us how these axes reached the southern Netherlands. For the Early Bronze Age, there is no longer any evidence for metalworking tools as known from the preceding period, but, given the low number of excavated settlement and burial sites, this cannot be taken as an argument that metallurgical skills had disappeared. For the north-eastern Netherlands, it has been argued that by this time a modest local bronze industry had emerged, producing the axes of the Emmen type (Butler 1995/1996, 184-91). There is so far no evidence that the same happened in our region. Rather, typology and metal analyses indicate that all our axes are foreign products, made in production places far away. Most axes are continental types with different regions in Germany as the most probable place of production (Butler 1995/1996). Atlantic types and metals are rarer. Interestingly, most objects considered to be Atlantic (British-Irish) types are actually made of continental metal alloys. Most conspicuous is the case of the objects from the Wageningen hoard, once thought to represent the belongings of an Irish bronze smith (Butler 1963a). The metal analyses of all the bronzes in the hoard point towards a Singen-related type of metal instead of a British-Irish one, and hence to southern Germany rather than the British Isles (appendix 10.5; Butler 1990, 68-71). On top of that, of the five axes thought to be of the British-Irish type, only the decorated axe from Haren with its high-tin bronze metal with moderate As really fits in the British metal alloys (appendix 10.2; Harbison 1968; Butler 1995/1996, 178-9).<sup>5</sup> The undecorated 'British-Irish' axe from Nuenen/Gemert, for example, was made of a high-tin bronze with impurities that are characteristic for Únětice rather than British-Irish coppers (appendix 10.2; Butler 1995/1996, 177-8).

We are therefore dealing here with objects that must have reached the area through long-distance exchange. But does this apply to all axes? The few Emmen axes (fig. 5.12) found in the southern Netherlands might well be an exception: even though such axes might also have been imports (from the north-eastern Netherlands), the distance across which such objects circulated is of an entirely different nature than for example the British-Irish axe from Haren. The problem with this view is, however, that we can no longer take the north-Dutch origin of Emmen axes for granted. An important argument that led to Butler's interpretation of such axes as north-Dutch products was their exclusive distribution in the north. In the last decades, however, Emmen axes have been identified in other European regions as well: middle Germany (Kibbert 1980, 101-3) and Denmark (Vandkilde 1996, 69-70). Vandkilde wants to see Emmen axes as 'part of a common western European flanged axes tradition' (Vandkilde 1996, 69). For this reason, the origin of Emmen axes in the southern Netherlands has become much harder to pin down.

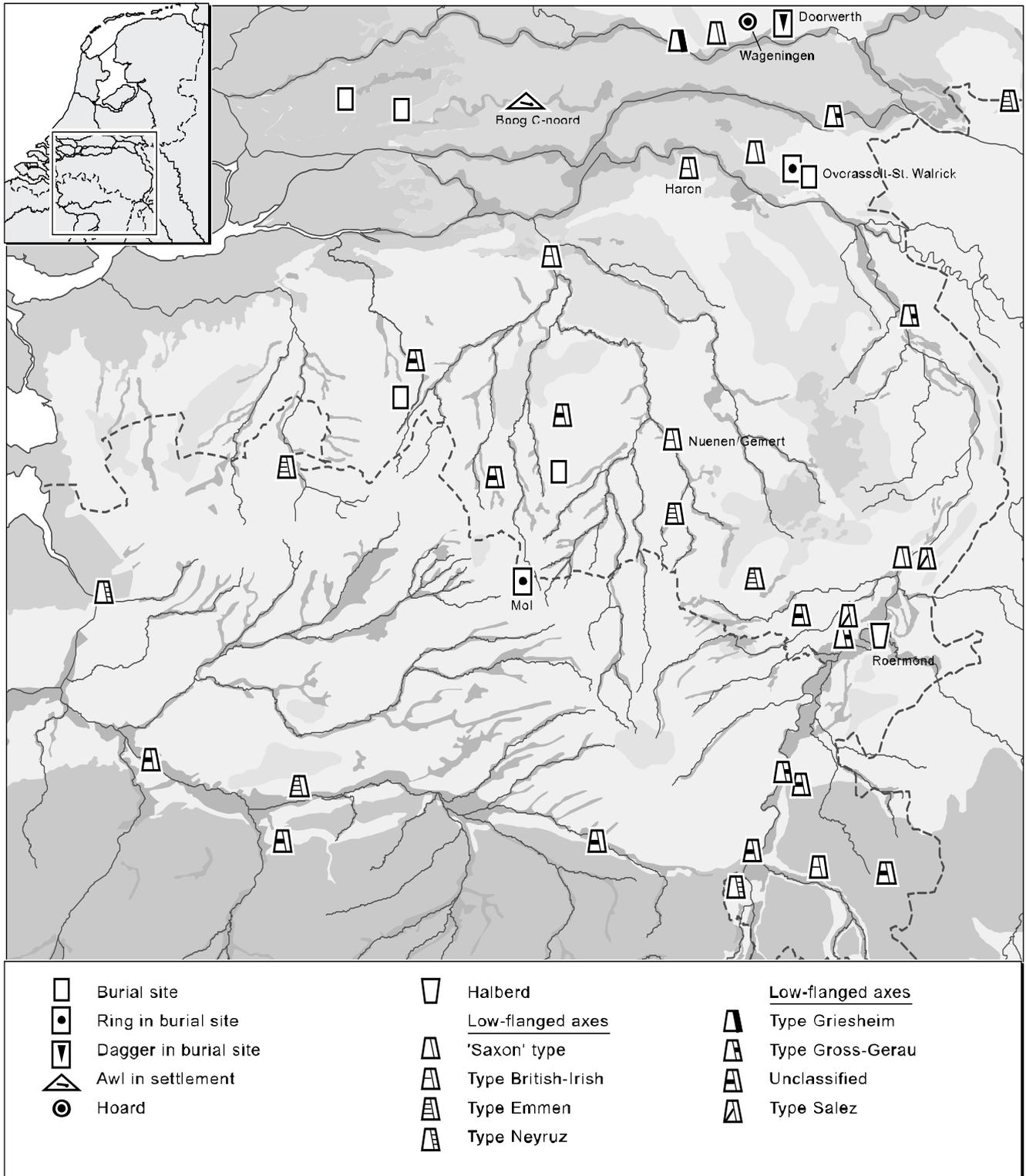


Figure 5.11 The distribution of Early Bronze Age metalwork and halberds. For Migdale axes, see fig. 5.5.

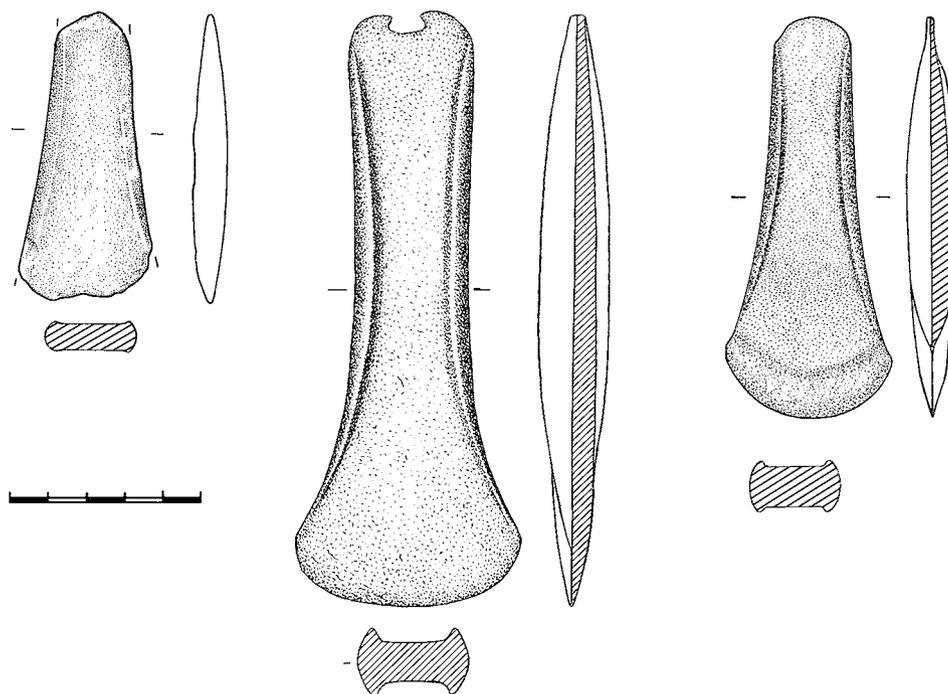


Figure 5.12 Low-flanged axes. Left: Emmen axe from Weert-Kampershoek; centre: 'Saxon' type from Wageningen; right: Gross-Gerau axe from Heel (scale 1:2; after Butler 1995/1996, fig. 14c: 55, fig. 9: 21, 12: 39).

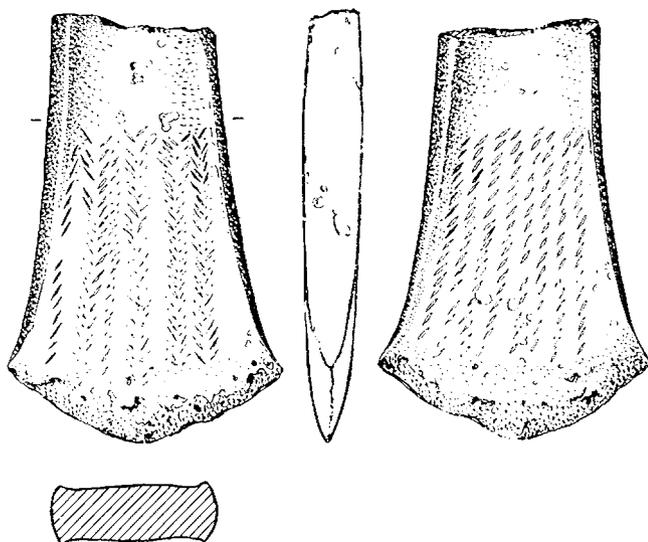


Figure 5.13 Decorated axe of British affinities from Haren (scale 3:4, after Butler 1995/1996, fig. 10b: 28)

Axes did not only travel formidable distances; many were put to use as well. On many traces of use were detected (worn edges and/or traces of resharpening; appendix 2.2). It is clear that such axes were more than imported display items.

Research on the context of the finds made it clear that most provenanced axes are from wet locations, stream valleys in particular, and hardly from other locations. We must be dealing with objects that were deliberately deposited in wet places. The number of excavated Early Bronze Age sites is low, but axes are not among the finds of the relatively well-preserved settlement sites like Molenaarsgraaf (Louwe Kooijmans 1974) and Boog C-Noord (Schoneveld/Gehasse 2001) and Meteren-'De Bogen'.<sup>6</sup> Particularly in the case of the latter two sites, the absence of axes cannot have been due to a research bias: metal detectors were systematically used there, and tiny bronze objects were found. The number of Early Bronze Age barrows is small, but some do contain bronze/copper items (Mol; Overasselt-St. Walrick; appendix 7.1). These are not axes, however (see below). From the encompassing survey of Early Bronze Age barrows in the Netherlands by Lanting (1973), we can deduce that metal axes are in general not among the grave gifts of this period.

### 5.5.2 Halberds

There are only two halberds known from the research area (Roermond and Wageningen; appendix 7.1; 10.4), yet they have evoked far more discussion than any other contemporary metalwork find (Butler 1963a, 11-26; Harbison 1968, 175-8; O Ríordáin 1937; Vandkilde 1996, 193). The Wageningen and Roermond halberds are both variants of the 'straight-midribbed international' halberds (Harbison 1968, 175-8). The Roermond specimen seems to be of a more advanced – and hence somewhat later? – form than the one from the Wageningen hoard. The latter has notches instead of rivet-holes (fig. 5.14).

Halberds are quite extraordinary objects. Depictions on rocks in Denmark and Spain (Bradley 1997, 203) and completely preserved halberds (i.e. including the wooden shaft: see the find from Carn, County Mayo, Ireland (Harbison 1988, fig. 70) make it clear that they were hafted on a wooden stick under a 90 degree angle. Thus, they may have been stabbing devices, yet they do not seem to be very practical. Mostly they are interpreted as weapons (Osgood *et al.* 2001), but it is hard to see what practical advantage such an object must have given the warrior in close combat. I tend to side with Butler (1963a, 11), who characterizes them as clumsy and inefficient weapons. For that reason, they must have been instruments of display in the first place. Traces of damage from slashing or stabbing have not been observed on the Dutch finds, and as far as I know, neither on those from adjacent regions. To this, Butler's observation should be added that in the Wageningen hoard rivets were found that must have belonged to the halberd. One of these was unfinished. The implication of this might be that the halberd was never hafted before deposition (Butler 1990, 70), but further inspection of possible micro-wear traces on the halberd's notches is needed to substantiate this conclusion.

Traditionally, the Dutch halberds are considered to be typical products for the Early Bronze Age of the Low Countries (Butler 1990, 70). Vandkilde (1996, 197) and Needham (forthcoming) have recently questioned this on basis of its typological traits and its metal content, and argued that the Wageningen halberd in particular must be older and date to the Late Neolithic B. Needham opts for a dating around 2150-2000 BC. The possibility of an earlier dating of the Wageningen halberd and – consequently – the entire Wageningen hoard has no consequences for the present study, and for that reason I shall let this discussion rest.

In form, way of hafting and 'use', halberds are new and unprecedented objects in material culture. They do not seem to replace existing forms, nor are there clear derivatives for them in the later periods. They certainly are 'international' objects, fitting in a general 'European' style. On the basis of the metal content (arsenical copper) and typo-chronological considerations, both Dutch halberds are likely to have been



Figure 5.14 Halberd from the Wageningen hoard (scale 1:1).

Type	Metal							
	BB-metal	Singen	Arsen.copper	British/Irish	Osenring	A-deviant	Unĕtice-like	Ars. bronze
<b>Late Neolithic B</b>								
Tanged dagger	4	-	1	-	-	1	-	-
Awl	1	1	-	-	-	-	-	-
Bygholm axe	2	1	-	-	1	-	-	-
Migdale axe	-	1	-	-	-	-	-	-
<b>Early Bronze Age</b>								
Gross-Gerau axe	-	1	-	-	-	-	-	-
Salez axe	-	1	-	-	-	-	-	-
Emmen axe	-	-	-	-	-	-	-	1
British aff. axe	-	1	-	-	-	-	1	-
British dec.axe	-	-	-	1	-	-	-	-
Halberd	-	-	2	-	-	-	-	-
Halberd rivets	-	2	-	-	-	-	-	-
Riveted knife	-	-	2	-	-	-	-	-
Knife rivet	-	-	-	-	-	-	-	1
Total	7	8	2	1	1	1	1	2

Table 5.3 The objects and their metal types from the southern Netherlands and the central Netherlands (Veluwe and surroundings), based on Butler 1990; Butler 1995/1996 and Butler/Van der Waals 1966. SEM-analyses are not included. 'Singen?'; 'Singen a-typical' and 'Singen modest tin' are all classified as 'Singen'.

imported from south-German regions (appendix 10.4; Butler/Van der Waals 1966, 84). The metal content makes it clear that they are certainly no British-Irish imports, as had long been thought (Butler 1963a, 11-25). As mentioned above, the copper alloys of both halberds are very similar, and it is likely that this indicates a common origin. Their metal content has also much in common with that of the dagger in the Wageningen hoard (table 5.3; appendix 10.4 and 10.5). A halberd find from a place not far to the west of our region, in Wichelen (Belgium), was probably a French import (Verlaeckaert 1996, 14). In sum, we are dealing here with remarkable display objects that were exchanged over large distances. All halberds ended up in special contexts: one in a unique hoard (Wageningen, see below), the other in an old Meuse channel. Because of the relative absence of contemporary metals from rivers, the river must have been an exceptional depositional location at that time (section 5.3). Halberds from other regions, like the specimen from Wichelen, are also known to have ended up in rivers or their backswamps (Verlaeckaert 1996, no. 239). It is remarkable that also in other north-west European regions halberds seem to have been deposited in quite peculiar ways. This is markedly illustrated by Needham's study of the British Isles (1989, table 2). Although some 45 are known, there are no specimens that can convincingly be interpreted as a grave gift. They occur as single finds, often in wet contexts or in (halberd-only) hoards. In Denmark, where twenty halberds are known, all are from wet locations, and all seem to have

been single deposits (Vandkilde 1996, 193). Halberds not only seem to be a remarkable object category among contemporary metalwork, with ceremonial rather than practical functions, they also seem to have been treated differently in depositions.

### 5.5.3 *The Wageningen hoard*

Several times the Wageningen hoard has been mentioned. It is the only multiple-object hoard known from the period under discussion, and therefore a special case of deposition when compared with the single deposits of axes and halberds discussed above.

The hoard is unique in an European context for its remarkable contents: it consists of usable items that are generally kept apart in deposition (an axe (fig. 5.8), a dagger (fig. 5.15) and a halberd (fig. 5.14)), in combination with body ornaments (bracelets), an awl, scrap metal and unfinished objects (rivets) displaying a clear link with metal-working (appendix 1; Butler 1990, 68-71). The presence of the awl may also be in line with this: although we tend to see awls as implements for leather-working (Butler/Tulp 2001), one is known from a smith's grave (appendix I B: Lunteren-De Valk). Awls may have been implements for punching gold as well!

The hoard thus falls neither under the definition of a scrap hoard nor under that of a trade hoard (chapter 2). In view of the clear link with metal-working, it has often been thought that the hoard consists of the belongings of a smith. This was



Figure 5.15 Dagger from the Wageningen hoard (scale 1:1).

once thought to be an Irish smith, but the metal analyses of all objects univocally point to metal from south-German sources (Singen and related; appendix 10.5). The metal of the dagger and halberd, for example, is identical, which suggests that they are derived from a common source, and perhaps even from the same workshop. On the other hand it should be noted that the halberd and its rivets are made of metal from different sources. As such, the entire collection of objects would perhaps better fit what Kristiansen (1998, 80) has termed a 'distribution hoard': a pool of collected metal, awaiting further distribution.

By its contents, the hoard is exceptional with regard to the patterns of deposition recognized so far. It even seems to break the 'rules' of deposition, since it consists of objects that are normally rigidly kept apart in north-west Europe (like daggers, axes and halberds; see the above section and Needham 1989). As an unparalleled event, the deposition of all this material is very hard to explain in other than anecdotal terms (see chapter 4). Are we indeed dealing here with a temporary store of objects that was for some reason never recovered, or does it represent a very lavish intentional deposit? Unfortunately, the find context itself is not really informative. The objects were deposited together, in a dry context, on a gentle slope at the south-eastern edge of the Veluwe, overlooking the Gelderse valley, about two kilometres north of the river Rhine (Butler 1990, 68). Its exact find location can no longer be reconstructed. It is only known that it was found in a heath field (now a forest), about 60 cm under the surface while people were trenching to plant trees in 1840. The find spot was situated 'half an hour' north-east of Wageningen. Butler argues that the find-spot therefore must have been around 176-177/443.4-444.5 in modern coordinates. This is an area where a number of Late-Neolithic-B barrow groups are known. It is about one km south from the area of Bennekom-Oostereng, where the barrow is situated in which the gold ornament was found (Glasbergen/Butler 1956), and about two kilometres north of the barrow from Wageningen-Nassau Oord (Lanting/Van der Waals 1976, cat. no. 32). At any rate, the metal was not

deposited in a pristine landscape, but rather in an area that already was to some extent structured with barrows.

As a deposit, the Wageningen hoard is clearly beyond the normative, and for that reason it may remind us of scrap hoards consisting of objects that lost their original meaning or still had to acquire such a meaning (chapter 3). Viewing the hoard as temporary hidden stock would therefore still be a plausible explanation, although it is hard to accept that in a time when metal was still so scarce, and metal deposition only occurred at low rates, so many valuable resources were treated so carelessly. For that reason, there is also scope for seeing the Wageningen hoard as an exceptionally lavish 'community deposit' (Needham 1989, 59), possibly taking place in an area that already had some sacred meaning (a barrow landscape).

#### 5.5.4 *Metalwork from burials and settlements*

In view of the low number of graves and settlements known, it should hardly be surprising that not much is known about possible metalwork deposition in these contexts. The examples can be counted on the fingers of one hand (appendix 7.1; 10.4).

#### *Burial finds*

Although the number of Early Bronze Age burials is considerably lower than from the previous period, in contrast to that period, there is now some evidence that metal was deposited with the dead. The examples are Mol (Belgium), and Overasselt-St. Walrick.

In Mol, a small (width 0.75 cm; length 2.2 cm) and very thin piece of copper/bronze was found, together with two beads, one amber and one fluorite (grave 2: Beex/Roosens 1963, 17; fig. 14). Although the copper/bronze has suffered much from corrosion, the association with these beads might suggest that it was some kind of pendant. They were found together in the north-eastern part of a rectangular feature (2.35 by 1.20 m; orientation NE-SW) that was interpreted as the remains of an inhumation grave (Beex/Roosens 1963, 17; fig. 13). This grave was dug into the mound of an existing

Bell Beaker barrow. This re-use of an existing mound also entailed the enlargement of the original barrow (period II), of which this grave must have been the centre. It had an oval shape with 14.5 m as the smallest diameter. This grave was partly destroyed by another one, that must have been dug in after a long time (Beex/Roosens 1963, 19). The stratigraphical position of this grave makes a dating in the Early Bronze Age most likely, although a dating range extending into the Middle Bronze Age A cannot be excluded.

The other burial find is from the Netherlands: Overasselt-St. Walrick, tumulus I: phase 2 (Groenman-Van Waateringe 1961; Lanting/Van der Plicht 1999/2000, 40, 88-90). As in the case of Mol, the bronze was found in a soil feature that can be interpreted as the remains of an inhumation grave. Here, the corpse silhouette of a contracted body was observed, with the head facing south-east. Enamel of the teeth confirms the interpretation of this soil feature as a corpse silhouette. Directly underneath the place where the chin was located, a pin was found. The pin is semi-circular (fig. 5.16), with its upper surviving part wound with wire (Groenman-Van Waateringe 1961, 73-4; fig. 41). Butler has argued that this object must be an Únětice-ornament, probably a *Schleifennadel* (Butler/Van der Waals 1966, 87; fig. 25; Butler 1990, 71). Pins with similar wire windings are known from the Singen and other Early Bronze Age cultures in southern Germany (Butler 1990, 71). This grave was dug into an existing mound from the Veluwe Beaker period. According to the pollen analysis, it was constructed at not too great an interval after this Beaker grave. Charcoal from this grave and from a later one has been <sup>14</sup>C-dated. On the basis of the results, Butler argues that this grave should be dated in rounded-off absolute terms to the period around 2000 BC cal (Butler 1990, 71). The recent re-analysis of this grave by Lanting and Van der Plicht (1999/2000, 40) does not provide a deviating view. They emphasize the problem caused by the lack of more precisely datable artefacts. They prefer

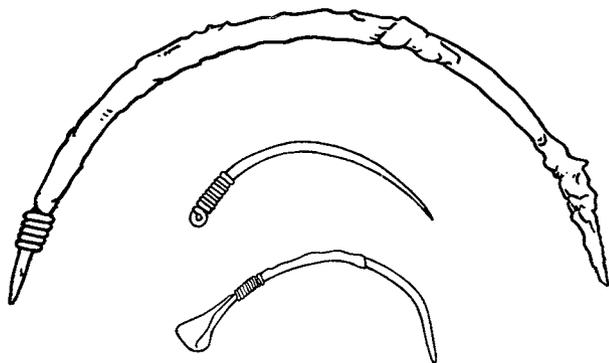


Figure 5.16 Schleifennadel from Overasselt-St. Walrick and two possibilities of its original form (scale 1:1, after Butler/Van der Waals 1966, fig. 25).

a dating to the last phase of the Bell Beaker period, but allow the possibility of a somewhat later dating.

The exact interpretation of the pin remains obscure, but it is clear that it was an ornament for the body or garments. The metal of the pin has not been analysed, but in view of its peculiar form, it is likely that it was an import from central Europe, or a local imitation of such an object.

#### *Settlement find*

So far, there is only one documented find of a copper/bronze object from a settlement: the find from the Boog C-Noord site in the central river area (Schoneveld/Gehasse 2001; Butler/Tulp 2001). It is a three-sided awl, though rectangular in the centre (length 3.9 cm; width 0.4 cm). It was found among a humous find-layer with many shards and other objects, and some soil features that can be interpreted as the remains of a settlement site, dating around 1950 BC. SEM-analysis showed that it is a tin-bronze (Butler/Tulp 2001, 137-8). It is clearly a simple tool, showing the traces of use. Such awls are likely to have been used for making small holes in leather or fur. It was found among the settlement debris; there is no evidence that it was placed in a particular place within the settlement, or that it was a specially prepared deposition. As it is only a tiny object, prone to be lost once fallen in the muddy ground of the farmyard, it might just as well represent a lost object.

#### 5.5.5 *Conclusions: selective deposition in the Early Bronze Age?*

Let us now briefly bring together the evidence on the life-cycles of the different object-types, and compare these to what we now know of the Late Neolithic. What we are dealing with is in the first place an intensification, albeit a modest one. The higher numbers of Early Bronze Age metalwork finds indicate that deposition of metalwork in watery places became more widely practised than it was in the Late Neolithic B. Particularly the rise of axe deposition is conspicuous. Next, there are new objects, the halberds, which must have served ceremonial roles. These deviant objects also seem to have been deposited in different locations. With the demise of burials as depositional locations, it therefore seems as if we are facing a differentiation in the use of watery places, where different objects ended up in different natural places. Of course the Early Bronze Age finds are much too few in number to make this a solid argument, but with the knowledge that such a form of selective deposition can be recognized with more confidence for the following period (the Middle Bronze Age A, next chapter), we may take the findings of this section to imply that it was emerging in the Early Bronze Age.

## 5.6 FROM STONE TO BRONZE

So far, we have charted the evidence on the biographies of metalwork items in the Late Neolithic and Early Bronze Age. The conclusions at which we arrived now need some elaboration. After all, it was in the Late Neolithic and Early Bronze Age that the entire tradition of metalwork deposition that is central to this book came into being, parallel to what is often considered to be one of the most vital transitions in prehistoric material culture: the transition from stone to bronze. It therefore seems necessary to pay some more attention to this transition. In what way did copper/bronze replace stone objects in the southern Netherlands? Which stone objects were replaced, and how vital was metal in daily life? Did the new material lead to new categories in material culture, or to a general continuation of existing material categories? Was the cultural attitude towards bronze different from the attitude towards stone? In this section, I shall deal with these questions, to finally discuss the way in which the biographies of copper/bronze objects differ from those of other materials. This seems a prerequisite for a more detailed discussion further on in this chapter which focuses on the biographies of metalwork alone.

### 5.6.1 *How metal replaced stone in daily life*

The first question to deal with is what kinds of objects were entirely replaced by metal ones. Excavations of Early Bronze Age settlements give some information on the range of tools of daily life (Molenaarsgraaf: Louwe Kooijmans 1974 and Boog C-Noord: Schoneveld/Gehasse 2001).

With regard to the tools of daily life, it is clear that with the introduction of metal hardly anything changes. Scrapers, knives, arrowheads continue to be made of flint. The copper daggers or knives (like the one from the Wageningen hoard) certainly did not oust existing flint knives in daily life. Tanged daggers seem to have been rare items. They are probably successors of prestigious knives formerly made from stone, like the *Grand-Pressigny* flint knives from earlier graves (associated with All-Over-Ornamented pottery; Lanting/Van der Waals 1976, 13-5). On the other hand, afunctional metal objects like the double axe or halberds do not have predecessors in existing material culture. They seem to have been regarded as new ceremonial objects in their own right. So, the replacement of stone by metal must have been merely superficial, with the exception of one tool: the axe. In the southern Netherlands, many polished flint axes and chisels are known from the Late Neolithic A. In the most recent synthesis of these objects, Bakker (in press) makes it quite clear that there is little evidence for finds of such flint or stone axes from the Late Neolithic B. Cigar Chisels are among the latest products. They seem to be contemporary to Beakers of the All-Over-Ornamented type (2600-2500 BC). Occasional finds of flint/stone axes from Bell Beaker

settlements and graves can be mentioned (Louwe Kooijmans 1974, 235), but are in no proportion to the number of finds from the Late Neolithic B. On the other hand, the number of flat axes is so low as well that it is hard to conceive that by the Late Neolithic B copper axes had already replaced stone or flint ones in daily life. To explain this discrepancy, two arguments can be made. The first is that Late Neolithic B settlements have less often been excavated than those of the previous phase. The second is that we actually know very little about the typo-chronological development of the latest flint/stone axes. The examples known from graves are small, inconspicuous ones, lacking characteristic forms as in the case of Buren axes or Cigar Chisels (Bakker in press). What stone axes may have lost in the first phase of metal adoption, is clear attempts to give them a distinctive outlook.<sup>7</sup> Although we cannot trace the precise process by which copper/bronze axes replaced flint/stone ones, the fact that no flint or stone axes are known for the Middle Bronze Age at all, whilst hundreds of metal axes are, shows that it was completed at that time. All the evidence so far indicates that it started in the Late Neolithic B.

As remarked in 5.4, it is clear that even the earliest flat copper axes show traces of use. It is questionable whether they were more effective than stone ones. Experiments with *flanged* axes by Coles (1979, 168), however, illustrate that such an axe is twice as effective as a stone one in felling trees. The combination of a thin body with a sharp edge allows the flanged axe to bite more deeply into the tree, detaching large chips. Other experiments confirm Coles' conclusion, and Vandkilde (1996, 272) therefore states that flanged metal axes were more effective tools than their flint counterparts. The scarcity of flint or stone axes and the effectiveness of flanged bronze axes thus make it acceptable to assume that metal axes largely replaced flint or stone ones in the Early Bronze Age.

Concluding we may say that metal only superficially replaced stone tools in daily life, and that in practice it seems to have been restricted to axes. The other metalwork categories are either metal forms of display items formerly made from other materials (daggers, ornaments) or new additions to existing material culture (double axes, halberds). Daggers, ornaments and halberds must all have had a function in the field of personal display (daggers, ornaments) and the ceremonial (halberds, double axe). This recalls an observation made by Sherratt (1994, 341) that bronze objects were in the first place bronze 'machines for the self, rather than vital elements of infrastructure'.

### 5.6.2 *The cultural attitude towards metals and stones*

The above brings us to the question whether metalwork was held in higher esteem than other materials. There are two arguments to suppose that this was indeed the case.

The first argument can only be made on the basis of the evidence for larger areas than just the southern Netherlands. Whereas the first flat axes are in form reminiscent of stone ones, they soon developed a form more appropriate to metal. There are a few indications that these metal forms then became normative. The famous example is of the Early Bronze Age flint daggers of Scandinavian type, some of which have also been found in the southern Netherlands (Bloemers 1968). Such daggers imitate bronze daggers to such an extent that sometimes even the casting seam was copied in flint. Mariën (1952, fig. 168) gives the example of a flint axe from Maisières (southern Belgium) with widely expanding cutting edges, characteristic for metal axes and quite inappropriate for flint ones.

The second argument is related to the evidence of object deposition. For the Late Neolithic A, there is evidence that flint axes of the Buren type and Cigar Chisels were deliberately deposited in wet locations in the landscape. In the burial ritual of the Late Neolithic, imported non-metal ornaments like wrist-guards were not uncommon to the burial set and this did not change once metalwork was introduced. From the Early Bronze Age on, however, there is no longer any indication for the ritual deposition of flint or stone axes in either watery places or graves. This field of practice seems now to have become dominated entirely by metal implements, not just axes, but new ceremonial items that were made of metal as well (double axes, halberds).

As an argument to the contrary, one could refer to the presumed examples of axe hoards consisting of both metal and stone axes. The existence of such hoards would imply that metal and stone axes ranked equally in deposition. Outside the research area, there are two Belgian flat-axe finds for which such an association may have existed: Jemappes (with a jadeite axe; De Laet 1974, 290) and Harelbeke (with 'stone' axes; Verlaeck 1996, 142). The flanged axes from Nuenen/Gemert is also said to have been found with two flint axes, but this association is questionable.<sup>8</sup> All are badly documented finds and the associations are generally considered unreliable. The hoard from Wageningen is probably a better example: in addition to all the metalwork, this hoard allegedly contains one stone axe (Butler 1990, fig. 10: 9). As mentioned above, this hoard is in all respects an exceptional find that cannot be taken to support views on general cultural appreciation of metal versus stone.

### 5.6.3 *The life of metals and new elements in the cultural biography of things*

On the stone-bronze transition, there is in many ways continuity rather than a break in the cultural biographies of things. Copper axes were deposited in watery places, just like flint or stone ones before them. In both cases, this

deposition was the termination of a life of circulation. We should not forget that stone and flint are in most parts of the southern Netherlands not locally available, just like copper and tin. Apart from the material of which they are made, copper daggers and gold ornaments are no new elements in the Late Neolithic burial set either. Flint knives and daggers already prevailed much earlier, and so did body ornaments made from non-local materials. Still, I think that the copper/bronze and gold objects have limitations and possibilities for the cultural biographies of things that are unknown in the case of those of other materials. In the long-term, these will make themselves felt, and make the biographies of metal objects different from those of earlier objects. They are as follows.

#### *The possibility of recycling*

First, metal can be recycled by re-melting. This is impossible for stone implements. Theoretically a broken stone axe can be repaired and transformed into a smaller one. It will never be possible, however, to reconstruct the axe entirely. This is possible, however, in the case of a copper/bronze one. But this possibility of recycling has implications. A broken stone axe considered unfit for further use is likely to have been discarded. When this happened with a bronze tool, however, it was likely to be remelted or re-used. After all, a metal object potentially represents raw material and tool at the same time. This implies that the decision to deliberately deposit a bronze axe comes down to *not* recycling. In other words: it was no longer a valuable and prestigious tool of foreign material one gave up. Deposition implied the sacrifice of both a usable tool *and* a piece of raw material. Moreover, it implies that the distinction between deposition as discard and deliberate, permanent deposition (see the discussion in chapter 4) disappeared. An object that was formerly discarded was now most likely re-used (and hence never entered the ground). With the adoption of metal, deliberate deposition thus potentially became a more marked phenomenon in the absence of alternative types of deposition (discard).

#### *Flint and stone as 'pieces of places'*

Secondly, copper and bronze may have different evocations than flint and stone axes. A conspicuous feature of Middle and Late Neolithic axes is that they are polished. Especially flint axes with extensively polished surfaces may show a distinctive colour characteristic for the production area (in our case this applies for example to Buren axes). There are reasons to suppose that this was also the intention of the process of extensive polishing. A study of British polished stone and flint axes recently showed that the patterns with which such axes were distributed are sometimes enigmatic by standards of practicality (Bradley/Edmonds 1993;

Bradley 2000, chapter 6). Production sites are sometimes located in dangerous, inaccessible places, whereas safer alternatives were available. Also, regions with flint sources of their own still have imported axes from abroad. Bradley (2000) argues that the character of the place of origin was itself important. Axes, he states, are ‘pieces of places’. The fact that they originated in remote, dangerous places (for example underground mining sites) may add to their value. Bradley goes on to argue that the extensive polishing of an axe may be related to this, as polishing helps to display distinctive colours identifying the source. The Dutch material has not been studied from such a point of view, but I consider it likely that similar themes may have mattered in the biographies of flint axes. They are also often polished in ways that go beyond what is needed in functional terms. Moreover, the colours of flint axes are generally distinctive for a particular extraction site (Bakker in press).

It may therefore be supposed that flint axes, especially the polished specimens showing a distinctive colour pattern, were indicative to people of specific places of origin. Axes of the Buren type or Cigar Chisels might be regarded as ‘pieces of places’. Real or claimed knowledge of the place from which such axes originated may have given them prime value for people who were on the receiving end of the exchange chain. On the basis of ethnographic examples Helms (1993) has shown that in many non-modern societies real or mythical knowledge of far-away places can often be an authoritative resource (see also chapter 3). It is precisely this aspect that is missing on copper, bronze or gold objects. There are by definition no visual characteristics that allow a piece of copper from an Irish source to be distinguished from one from a central European one. Metal simply does not provide that possibility. It is only possible to give copper the character of a ‘piece of place’ by human intervention (conspicuous local or workshop-specific forms or decoration). As amply illustrated above, this was not done in the case of the metal which circulated in the southern Netherlands. On the contrary: the startling thing is that, for the period under discussion here, there were hardly any stylistic traits that made an axe from Britain visually distinguishable from one from Germany.

#### 5.7 PATTERNS IN THE BIOGRAPHIES OF METALWORK: PRODUCTION AND CIRCULATION

Above, I have discussed the transition of stone to bronze, changes in the attitude towards materials and their repercussions for existing views on object biographies. This enables us to focus once again on metalwork biographies alone. This section will deal with the first part of its biography: production and circulation.

##### 5.7.1 *Circulation: the importance of being imported*

A first conclusion to be drawn for the greater majority of objects is that we must be dealing with imports from regions that are very far away. As we have seen, for most objects typological and metallurgical observations strongly suggest that most objects were imported from regions as far away as southern Germany. Consequently, the conclusion seems unavoidable that the exchange history of metal objects must have contributed significantly to its accumulation of value. The use to which an object was put must have been another factor (worn axes, ornaments in burials). I want to focus on the history of exchange first. Archaeology is not in a position to allow a reconstruction of what precisely took place during such long-distance exchanges, but for the present case there are at least two remarks to be made.

##### *The heterogeneity of the imported valuables*

First of all: for both the Late Neolithic and the Early Bronze Age the imported copper/bronze objects came from a variety of ore sources (table 5.3). This must reflect an exchange system that was probabilistic and flexible, rather than rigid and defined by positive exchange rules (cf. Rowlands 1980, 16-21). For both the flat and the low-flanged axes, we have seen that the metal composition is heterogeneous, suggesting that it came from different sources. This is in contrast with other non-metalliferous regions, Denmark in particular. Here, much more thick-butted flat axes are known (the most recent inventory counts 31 examples; Vandkilde 1996, 44), but their metal content is more homogeneous than in the case of the Dutch axes. Most are of the so-called BYGMET metal, (Liversage/Liversage 1989; Vandkilde 1996, 47).

##### *Shifts in the main exchange networks of valuables*

Second, the exchange links were also far from stable through the centuries. In the Late Neolithic and Early Bronze Age, several shifts in the main exchange networks must have taken place. In the southern Netherlands, metalwork was surely not the first imported object type. The largest part of the region is devoid of sources of flint and stone, and long before the Late Neolithic importation of flint/stone axes had already taken place at some scale. The transition to bronze did, however, bring about profound changes in the constitution of existing exchange relations.

During the Late Neolithic A (Wartberg-Stein-Vlaardingen groups), the majority of the Buren-axes seems to come from the Rijckholt-Spiennes zone and some from the Valkenburg and Lousberg sources. All the production sites are located in Dutch southern Limburg or in the adjacent Belgian areas (Bakker in press), implying that objects travelled some 200 km at the most. Some flint daggers (Grand Pressigny), however, come from much further away, and so did the rare Jadeite axes. Then, during the Late Neolithic B, the circulation of

Buren-axes and other flint/stone axes decreased significantly, whilst copper flat axes were introduced. As a matter of fact, only few flint or stone axes can be dated to the Late Neolithic B. In section 5.6.1, it was already argued that somewhere in the late Neolithic B-Early Bronze Age time-span, metal axes replaced flint and stone ones. At the time of their introduction, copper axes do not seem to have been regarded as equivalent to the flint Buren axes or Cigar Chisels they were replacing. Copper axes travelled over much larger distances than the Buren axes ever did: most coppers are imports from southern Germany or the Atlantic façade. The circulation of copper axes is better compared to that of Jadeite axes or Grand-Pressigny knives. In the Early Bronze Age, metal axes continue to be imported via such long-distance exchanges, but now in increasing quantities. In general, it can therefore be concluded that with the transition from stone to copper/bronze, exchange networks not only shifted from exchange chains crossing the Dutch-Belgian region to those linking the southern Netherlands up with southern Germany and the Atlantic façade. The net result is also that the exchange chains widened. For the Early Bronze Age, most axes deposited were acquired via exchange networks covering larger distances than those of their flint/stone predecessors.

A further change in the exchange networks took place on the transition from the Late Neolithic to the Early Bronze Age. This time it is related solely to a shift within metalwork circulation. We have seen that in the Late Neolithic Atlantic metals were important: the 'Dutch Bell Beaker metal'. For the Early Bronze Age, there is not one indication that this type of metal was used any longer, and as observed in section 5.5, Atlantic metalwork was not as frequent as it was before.

#### 5.7.2 *Open systems: the interplay between imported objects and local products*

One of the interesting aspects of the adoption of metalwork in the Netherlands is that it apparently brought the adoption of metallurgical skills in its train. Whether it was gold ornaments or copper daggers or both that were produced in the Late Neolithic, the interesting thing is that the local working and perhaps even complete production of such objects did not lead to products with a distinctive local style. Quite the contrary: both the gold and copper products are entirely comparable to those of other regions (Butler/Van der Waals 1966, 58-9; 61-63 for parallels and arguments). Apparently, it was important that objects looked like international ones that came down via exchange. This finding may be in line with the following observation. Both for the metalwork from the Late Neolithic and from the Early Bronze Age, there is no clear relation between the form of an object and the region it came from. Objects were apparently

not made as indicators of production place, or a regional or local identity. Rather, they seem to have been made to *resemble other objects in circulation*. This points to the existence of a relatively 'open' system, in which valuables were easily convertible and could cross cultural boundaries.

#### 5.8 DEPOSITION: THE INCORPORATION OF METALWORK IN NEOLITHIC OFFERING TRADITIONS AND THEIR SUBSEQUENT TRANSFORMATION

Impressive as the life-paths of many an exchanged copper may have been, most that came down to us ended their life by being put in a watery place or burial. Depositions were by no means an invention of the Late Neolithic B, but a phenomenon which at that time already had a formidable age. The question to be answered then, is: how was metalwork incorporated in these age-old traditions, and are there any indications that its incorporation led to a transformation of depositional practices themselves?

##### 5.8.1 *Continuity and change*

In section 5.2, a brief outline of offering traditions of Neolithic societies in the southern Netherlands was given. A distinction was made between deposition of all kinds of ordinary objects and animal remains in watery places, and the deposition of flint and stone axes. Even the oldest depositions already seem to have focussed on watery places (Louwe Kooijmans 2001) The later deposition of axes seems to have been much more selective, and a recurrent element is that we are here dealing with objects that as a rule already had a history of exchange before being placed in the marshes or bogs. More than the pots, tools, or animal remains, they seem to have been valuables. They were incorporated into an existing sacrificial system in which the focus on watery locations was already essential.

For the Late Neolithic A, we have not much evidence that deposition of animal remains, pots and so on continued in our region, but the finds of Buren axes and Cigar Chisels in streams and bogs suggest that deposition of flint axes was practised (Van der Beek in prep.) The fact that the first copper axes were found in similar contexts does not come as a surprise therefore. It seems a neat continuation of existing forms of axe deposition, although at a much lower level and with a possible hiatus in the first part of the Late Neolithic B (see below).

A new tradition of deposition, however, sets in with the adoption of the Beaker burial ritual. An important observation is that the kind of objects placed in such graves differs markedly from those of deposits in wet places. The argument was made that with the onset of this burial tradition we see the first clear evidence of selective deposition. The adoption of the Beaker burial ritual (c. 2600 BC) precedes the introduction of metalwork by some centuries. Selective

deposition was already being practised before the adoption of metal. For example: Cigar Chisels, often deposited in marshes, are known to be contemporary to the All-Over-Ornamented Beaker graves. Still, they are very rare in the burial set of contemporary Beaker graves (Bakker in press).

### 5.8.2 *Fluctuations in the rate of deposition*

Leaving the case of burials aside, superficially there seems to have been an overall continuity with the Earlier Neolithic period. On second thoughts, however, things are more complicated. In the southern Netherlands, we probably have to reckon with a severe decrease in the practice of wet-place deposition. In the northern Netherlands, deposition even seems to cease entirely during the Late Neolithic B.

Bakker's research has yielded some 85 flint and stone axes from the research region. It is unclear whether all these flint and stone axes were deposited in wet locations, since Bakker did not study this aspect of the axes, but, as remarked in section 5.2, superficial examinations show that at least a significant part of these does come from streams, rivers and bogs (a conclusion corroborated by the study of Van der Beek (in prep)). Although both flint/stone and copper axes have long dating ranges, the number of flat copper axes is in no proportion to their stone predecessors. There are no more than ten copper axes known, a striking small number when compared with the numerous flint and stone axes. As these copper axes are practically the only depositions we can find for the Late Neolithic B, the conclusion is inevitable that the rate at which deposition was practised must have decreased significantly. For the northern Netherlands, flint/stone axe deposition is known from the Late Neolithic A, albeit in much smaller numbers than before (Ter Wal 1995/1996, 149-151). Remarkable, however, is that the deposition of a number of large wooden disk wheels dates specifically from this period (Van der Waals 1964). For the subsequent Late Neolithic B, only three copper flat axes may represent depositions dated to this phase, so in the north the practice seems to have ceased almost entirely (Butler 1995/1996, nos. 6, 12, 17). This makes the upsurge of deposition in the Early Bronze Age almost an atavistic phenomenon there (fig. 5.17).

This coming-and-going of axe deposition is hard to explain. Problems in dating of late stone/flint axes may partly be responsible, but it is probably no coincidence either that the decrease coincides with the crucial period in which the transition to metal takes place. We should not forget that we 'see' only deposition. The numbers of axes in deposition need not be representative of those in circulation. For deposition of vital tools to flourish, it is crucial that there is a regular supply of such tools. One cannot deposit more than one has. The reorientation in exchange relations that must have taken place during the Late Neolithic B (section 5.7.1)

may have led to a decrease of axes in circulation, which was only improved by the re-establishment of exchange networks during the Early Bronze Age.

After the decrease in the Late Neolithic B, there is a strong upsurge of depositional practice in the Early Bronze Age. With its growing significance it seems as if other ritual activities also came to be subsumed in this field of practice. The deposition of elaborate artefacts in graves that was so characteristic for the Late Neolithic B almost entirely ceases in the Early Bronze Age. Copper/bronze daggers that were almost exclusively known from graves before are since the Early Bronze Age only to be found as deposits outside graves (for example, the dagger in the Wageningen hoard). New ceremonial objects like halberds were now also deposited in watery places and not in graves.

### 5.8.3 *Conclusion*

Louwe Kooijmans (2001) recently argued that object deposition in watery places is fundamentally a Neolithic practice. The findings in this chapter are in line with his statement. There is indeed continuity in the phenomenon of deposition of imported axes in wet places. On the other hand, there is a remarkable decrease in this practice, precisely around the time of the incorporation of metalwork. On top of that, a transformation in depositional practices *pre-dating* the adoption of metal should be reckoned with: the rise in burial deposition as evidenced by the Beaker graves that came into being here from c. 2600 BC onwards. This brings us back to the sharp contrast that was recognized between deposition of metalwork in burials and wet places: how should this be interpreted?

## 5.9 DEPOSITION: GRAVES AND WET PLACES AS CONTRASTING DEPOSITIONAL CONTEXTS

Having discussed the long-term developments in depositional practices, we can now focus on details of the earliest metalwork deposition. Particularly the contrast between burial deposition and deposition in watery places recognized for the Late Neolithic B (section 5.4) seems important, since it is the first sign of a practice of metalwork deposition that is selective. The dichotomy recognized was between daggers and ornaments being placed in graves versus deposition of axes in wet places. How can this be understood? The answer might be looked for in the new ideology of personal display and personhood that became pronounced in the burial ritual of the Beaker graves. Following the terminology of chapter 3, it will be argued that daggers and ornaments were primarily significant as valuables relating to the construction of personhood, whereas the relevance of axes was rather in a different field.

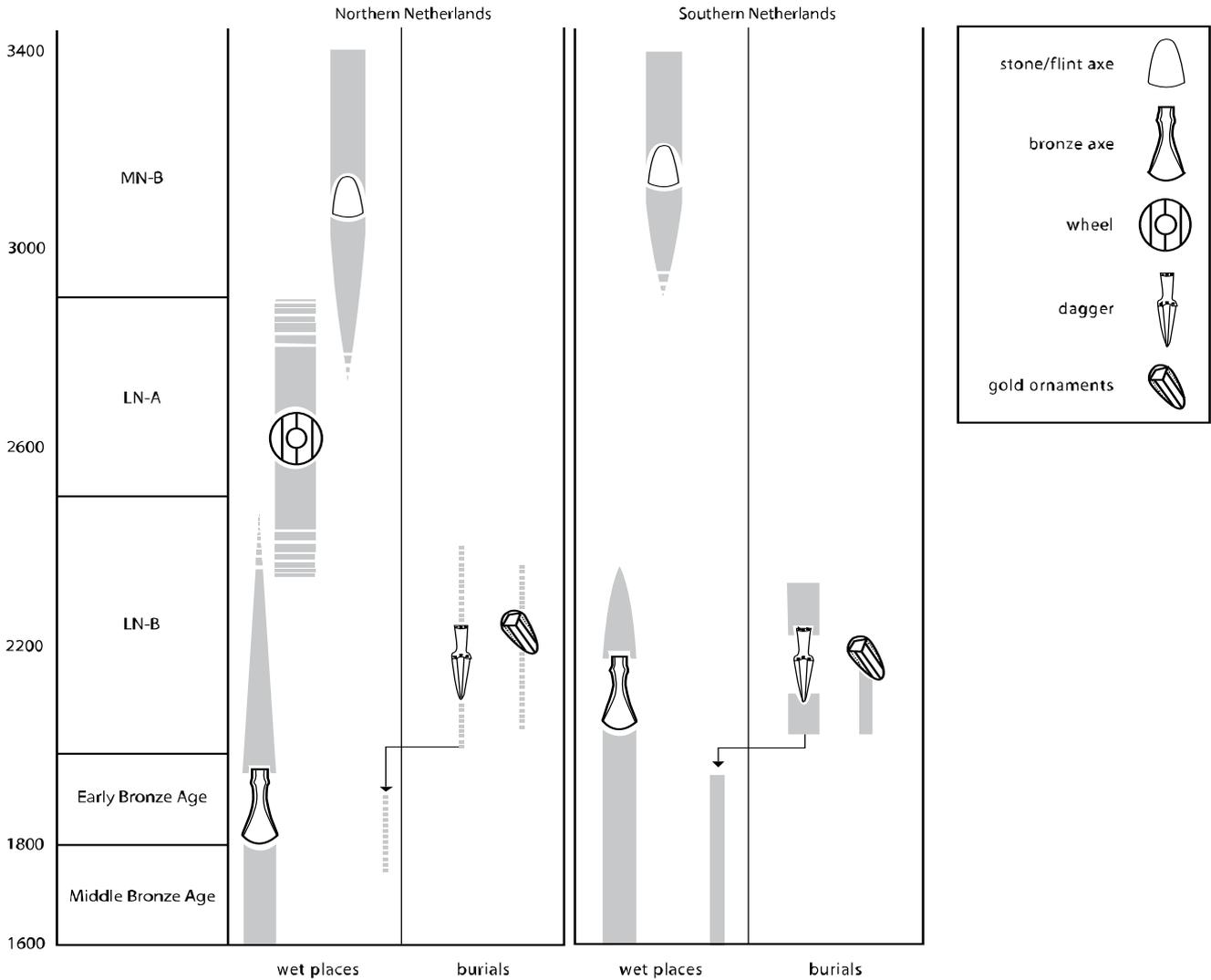


Figure 5.17 Developments in depositional practices in the northern and southern Netherlands compared (3400 - 1600 BC).

### 5.9.1 *The Beaker burial ritual and the significance of objects as valuables of personhood*

Before going into detail, some words should be said about the general characteristics of the beaker burial ritual of the southern Netherlands. It involves the burial of a single individual with a specific, stereotyped selection of artefacts underneath a mound or in a flat grave (Fokkens 1998b). Characteristic aspects of this kind of burial ritual are the deposition of one or more thin-walled, decorated beakers, flint knives, amber buttons with V-shaped perforation, a wristguard and a set of flint arrowheads (Lanting/Van der Waals 1976). The reason why Beaker graves are considered a unique 'phenomenon' is the extremely wide distribution of this way of burial across north-west Europe, which is indeed unprecedented (Harrison 1980).

In dealing with Beaker graves in the study region, one cannot separate any discussion about such graves in a region from the general debate about the so-called 'Beaker phenomenon'. In brief, this long-lived debate is about the explanation of interregional – almost pan-European – similarities between burial traditions (Barrett 1994, 88-97). An extensive survey of its history can be found in the work of Zita van der Beek (in prep). For the present argument, I shall only deal with the explanation that has received considerable international attention in the last decades. It is an important one for the present discussion because it lends much weight to the role of metal objects in the Beaker burial ritual. This explanation may be characterized as a political-economic approach, since it stresses that the Beaker ritual was related to the acknowledgement of individual power (Clarke *et al.* 1985, 81-95).

This view takes the development of the Beaker burial ritual to be related to the rise of 'a more entrepreneurial form of leadership in which emphasis on the individual was altogether more acceptable and desirable' (Clarke *et al.* 1985, 83), contrary to more collective power, associated with communal burial monuments (Thorpe/Richards 1984; Shennan 1986a). In the Beaker period, power would increasingly have been based on the control of exchange networks of prestige goods, including metal objects. Metal had a role in the symbolization of this differentiation (Shennan 1986a, 117). This new concern with prestige and status, and the supposed growth of long-distance exchange networks are thought to explain the similarity in certain material culture items between regions.

*Beaker burials as reflecting personhood rather than individuals*

The interpretation of the Beaker burial set as a collection of prestige goods may be criticized both on theoretical and on empirical grounds. To start with the first: central to the approach is the ideology of the individual, in contrast to the collective. Here, I want to remind the reader of the discussion in chapter 3, about the difference between 'individual' and 'person'. In most of the studies cited, we may recognize a notion of the entrepreneurial, calculating individual, which is very similar to our own notion of the individual. The term 'individual power' is telling. In chapter 3, it has already been indicated that this notion is typical for modern societies, but uncommon for non-modern ones.

We should certainly not play down the prestigious significance of many of the artefacts in the burial set. It is indeed striking that most are made of imported materials, acquired by long-distance exchange (wrist-guards, amber and of course the copper and gold items). However, the way in which these non-local materials were used is not as if they just served to show off richness and prestige; rather, the set is highly similar and even stereotyped between individual graves. As demonstrated, a study of deposition of material in other contexts shows that artefact deposition in Beaker graves involved strict selections. Explaining the presence of the non-local materials in the grave by means of their prestigious character cannot account for these selections (cf. chapter 2). If we want to make sense of the presence of gold and copper in the grave we should go one step further, and assume that the personal display involved more than just richness and power: the personal display involved dressing and adorning the deceased in such a way as to signal a specific social role. The burial ritual did not conceptualise some successful individual, but rather *a specific kind of personhood*. The specific objects that we encounter time and time again in such graves should therefore be explained as the paraphernalia of that kind of personhood. In the terminology of chapter 3, they are *personal valuables*, the objects by which an individual is transformed into a specific kind of person, with special social and ritual roles.

*What was this social role?*

It is hard to make out what the specific social role was, and probably its meaning was not unequivocal. In general, it can be stated that in the kind of Beaker graves we encounter in the southern Netherlands ritual emphasis was particularly on placing a decorated beaker in the grave, on bodily adornment with ornaments that are often of a non-local nature (amber buttons, wrist-guards, gold ornaments), on daggers or knives (of flint or copper, again often of non-local nature) and archery equipment (flint arrowheads, wrist-guards). The emphasis on archery equipment and daggers is often taken to represent weapons rather than hunting equipment (Fokkens 1999), particularly in view of the fact that economically it is precisely the significance of hunting which is decreasing in this period (section 5.2). So martiality might seem an important personal quality emphasized here. Flint/stone axes are much rarer in such graves, and the impression is therefore that the deceased was much less portrayed in his qualities as a farmer. This implies that the kind of person constructed by the mourners in a Beaker grave is a skewed representation of daily life. After all, it is in the same period that the transition to a fully agrarian way of life seems to have been completed (section 5.2). The meaning of the Beaker, then, is difficult to assess. It is often taken to refer to the social importance of communal meals or alcoholic drinking festivities (Treherne 1995; Fokkens 1998b; Van der Beek in prep.). We might perhaps also think of the theme of hospitality, generosity and communal drinking bouts that is so persistent in later ideologies of European elites (Diepeveen-Jansen 2001, 39-44).

This interpretation, which centres on the meaning of things, can be reconciled with the prestige-goods model mentioned earlier on. A meaning-centred approach should not play down the observation that it was indeed non-local objects that were relevant in this peculiar type of burial. It can be said that the deceased was 'dressed in internationality'. The social role constructed in this kind of funeral is partly constructed by non-local objects, in a way that seems to refer to shared instead of local habits and norms. Put differently, the deceased is dressed in a way that claims membership to non-local communities rather than to local identities.

*The Beaker burial and its conservative character*

In making sense of the Beaker burial rite in this way, some words should be said on its conservative character as well. The burial ritual throughout the Late Neolithic Period must have been used to bury only a small minority of the entire population (much less than 10 %). Burials were rare and probably took place only once within several generations (Lohof 1994, 101). In view of the scarcity of the event and the absence of written protocol, one is struck by the general

similarities between burials, not only between roughly contemporary sites, but also in time. In the Low Countries, the presence of one or more beakers in the grave, for example, is a feature found from the Single Grave phase until the end of the Bell Beaker phase, some 900 years altogether (Lanting/Van der Waals 1976). When discussing the Beaker 'phenomenon', it is often the interregional similarities that are dealt with, but the rigid continuity and conservatism in the burial outfit are just as striking. Although the long-term continuities have been recognized (Lanting and Van der Waals (1976), it was never explained why the burial ritual was so remarkably traditional. There is neat continuity in the main categories deposited in graves: beakers and knives/daggers are known for all phases of the Beaker graves. This implies that the conceptualisation of a particular kind of personhood was conservative and stable rather than dynamic and progressive. The notions about the personal qualities that were emphasized in such a grave, whatever they might be, thus seem to have been rooted in a remote past, and were probably of a ritual, perhaps even non-discursive nature. In his study of ritual practices in Madagascar, Bloch (1989, chapter 1) observes that rituals tend to be highly conservative and formal, involving practices and languages that are no longer spoken or understood in normal daily life. 'Ritual' time seems to be entirely untouched by the dynamics of daily life. Bradley (1998, chapter 6) argued that we see the same conservatism in many rituals of prehistoric Europe. We should probably consider the striking traditionalism of the Beaker burial ritual from this same perspective, and one can argue that by its conservatism it *even seems deliberately to reproduce a specific, ancestral way of burial*. It will now be suggested that this is probably no coincidence: non-modern views of personhood often deliberately seem to resort to ancestral roots.

In his quintessential essay on the category of the person, Mauss (1996) gives several examples – and many more recent ethnographies may be added (see the contributions in Carrithers *et al.* 1996) – how within society roles, statuses and matching paraphernalia were circumscribed. They were inherited from ancestors at specific moments, by certain individuals. The individual was defined as a person in the rights he enjoyed and in his place in the tribe, as in its rites (Mauss 1996, 11). In defining a person with names and objects, ancestors are thus reproduced. Continuity may be the essential value in this process (La Fontaine 1996, 132). This same process may be observed in the Beaker burial ritual, in the stereotyped burial set and its continuity throughout time. This implies by no means that burials are exact copies of each other. Every burial reproduces a traditional one, but one should not forget that human agency is involved in this, and that there are considerable intervals in time and/or place between burial rituals (chapter 3).

### 5.9.2 *The deposition of axes in wet places*

The other context into which metalwork was deposited during the Late Neolithic B are the wet, natural places in the landscape. As demonstrated, first and foremost copper axes and items of a more ceremonial nature are involved, and this practice must be seen as a continuation of a much older practice of axe deposition. The first question to be asked is: why axes? The second should be: why were metal axes *not* deposited in beaker graves?

#### *Why axes?*

As the presence of broken flint/stone axes on Middle and Late Neolithic settlement sites illustrates, axes were tied up with the practicalities of daily life. For an important part this should be read as *agrarian* life, where the axe was the most vital tool with which groups reclaimed natural stretches of land, created new settlement grounds, or built new houses. In the daily life of small groups, such tasks are vital to their history and continuity, not only in a practical, but potentially also in an ideological way: building a new house, or reclaiming new territory is often seen as a marked event, coinciding with the self-definition/reproduction of the group in question (cf. Gerritsen 2001, 43-4). It might be ventured that in this period the foundations were laid for a general conceptual link between the biography of an agricultural tool such as an axe, and the biography of the small group on whose behalf it was used.

Be this as it may, the wide-spread evidence on the circulation of axes for such a long time among societies where agriculture was not or only partly an element of daily life (cf. Early Neolithic *Breitkeile* in Northern Europe), implies that its significance as exchange item was based on more aspects than just the one. For a foreign object to be accepted, it is important that it can be translated to local idioms (Sørensen 1991, 198). The wide-spread acceptance of axes probably refers not so much to essential qualities of the object itself, but rather because axes effectively linked a whole range of spheres of human activity (Kristiansen 1984, 79; Tilley 1996, 114). The axe was an important tool for a whole array of daily tasks (forest-clearing, wood-working for houses, fences, canoes and so on), but it could also be effectively used as a weapon and therefore be potentially suitable for expressing power relations. Thus, its multi-vocality is directly related to its wide acceptance.<sup>9</sup>

#### *Why were copper axes not deposited in burials?*

Before the adoption of metalwork, it is clear that axes were seen as imbued with special meaning. Apart from their role in deposition, this is apparent from the fact that magnified, high-quality axes circulated that were impractical in daily life. Although axes do occur in the burials of the Single Grave Culture (2900-2500 BC) north of the Rhine, these are

generally not the kind of axes that were used in daily life. Rather they seem to have been battle axes, thus emphasizing martial qualities rather than evoking associations with the farming way of life. Contemporary multiple-axe hoards from peat bogs in the northern Netherlands consist of different types of axes (for examples: Ter Wal 1995/1996, 149-151). With the onset of the Late Neolithic B, axes hardly figure in the burial set, but if they do, they are small, inconspicuous stone/flint work axes. The contemporary larger copper axes are unknown from this context, but – as we have seen – they are known from wet places. This suggests that the meaning of the new copper axes was more comparable to that of the earlier Neolithic flint/stone axes in hoards, rather than that they functioned as valuables indicating a specific stage of personhood, as we can suggest for the stone battle axe from Single Grave Culture-burials. The dissociation of copper axes and the contemporary Beaker burial set in the subsequent Late Neolithic B is valid for a much larger area than just the Netherlands (Bradley 1990, 64-5; Vandkilde 1996). We can therefore assume that copper axes were generally not regarded as valuables that were significant in the construction of this specific social identity displayed in Beaker burials. Their meaning, then, should have been in a different field. Parallel to Vandkilde (1996, 267-8), we should bring this to its logical conclusion: copper axes were apparently not regarded as valuables indicating a specific personal role. With the theory on different kinds of valuables in mind (chapter 3), it might then be ventured that copper axes and ceremonial double axes were perceived as *valuables associated with a communal instead of personal identity*. Although impossible to prove, this may sound feasible considering the kind of life-path of most axes: they are the tools by which agrarian communities create their existence. With axes, people reclaim land or build houses, activities that are performed on behalf of a collective. Later on in this book (chapter 10), I shall come back to this theory. For the moment it suffices to keep in mind the dichotomy recognized here between valuables indicating personal identities and axes, as this dichotomy was emphasized in selective deposition. As we will see in the following chapters, it would remain a fundamental distinction underlying depositional practices.

## 5.10 CONCLUSIONS

With regard to the questions posed in the introduction to this chapter, the following conclusions can be drawn:

### 1 *The role of metalwork in daily life*

The adoption of metalwork had hardly any consequences for the material culture used in daily life. Metalwork seems to have functioned predominantly in the field of personal display (including weapon-like objects like daggers) and in the ceremonial field (double axes, halberds). The only

exception are metal axes, which by the Early Bronze Age seem to have replaced flint/stone ones as the dominant tool.

### 2 *The properties of metalwork and the new implications for the cultural biographies of objects*

Most of the metal objects that came to figure in deposition in the Late Neolithic B have predecessors in other materials, and were deposited in similar ways: daggers and ornaments in burials, and axes in watery places. There are indications, however, that the metal specimens were held in higher esteem than their non-metal counterparts. In addition, the cultural biographies of the metal objects differ from their non-metal predecessors in two essential aspects. Unlike stone or flint, metalwork does not seem to have been understood as ‘pieces of places’. No attempts were made to give them an outlook that is characteristic for a production place. Unlike stone or flint, metal can be recycled: it is both object and material resource. This makes the decision to deliberately deposit metal objects more marked than in the case of non-metal objects. After all, now it was not just a usable tool that was removed from society, but recyclable scarce raw material as well.

### 3 *The development of a system of selective deposition*

During the Late Neolithic B, a system of selective deposition came into being even *before* the adoption of metalwork. It becomes visible to us with the adoption of the characteristic Beaker burial set, which involved deposition of a strict set of valuables on and near the deceased’s body. Thus, during the burial the deceased was given a distinctive identity, which was probably related to specific social and ritual roles. The deposited valuables were probably related to a special kind of personhood. Although its precise meaning escapes us, martiality seems to have been one of the personal values that was emphasized. It also seems to have been important that this personal identity referred to issues shared among far-flung communities, both in terms of time (the striking traditionality of the personal values) and in space (being for the larger part composed of imported pieces, the Beaker set explicitly referred to non-local identities). Deposition of valuables in burials can be contrasted with the deposition of axes in watery places in the landscape. This contrast became most pronounced in the later phase of the later part of the Neolithic-B, when copper daggers and gold ornaments were deposited in burial context, whilst copper axes and ceremonial items ended up in wet natural places in the landscape. It has been argued that this dichotomy may reflect the distinction between the valuables of *communal* identities (axes, ceremonial items) versus the valuables associated with a specific kind of *personal* identity (daggers, ornaments).

#### 4 *Metalwork deposition as an atavistic phenomenon*

Deposition of axes in wet places is essentially a continuation of age-old Neolithic practices. At the time of the adoption of metalwork, however, the rate of deposition decreased dramatically. This makes the strong upsurge of wet-context deposition in the Early Bronze Age almost an atavistic phenomenon.

#### 5 *The growing significance of deposition in wet places*

By the Early Bronze Age, deposition of metalwork in wet contexts becomes all important at the expense of deposition in burials. Contrasts in depositional practices now become apparent in the offering of different types of objects in different types of wet places.

#### 6 *The ritual appraisal of 'natural places': continuity and re-invention*

Deposition of objects in watery places, however, dates back to times when foraging was still a crucial element of the way of life. We may suspect that the practice of deposition in watery places as it existed in the Early Neolithic was part of the positive attitude of these communities towards natural resources of the land. Louwe Kooijmans (2001, 14-5) speaks of deposition as a way to communicate with the 'spirits of nature'. The attitude towards natural resources must have fundamentally changed precisely at the time of the adoption of metalwork during the Late Neolithic B. The positive *economic* appraisal of the natural richness of the land seems to make way for an attitude to the landscape that is fundamentally culturalist and agrarian. Nevertheless, the continuation of the age-old practice of deposition in wet places at low rates during this phase implies that the *ritual* appraisal of natural places did not cease entirely in our region. Nothing prepares for its strong upsurge during the Bronze Age, certainly not in the northern Netherlands where the practice almost seemed to have disappeared during the Late Neolithic B. In a way, we may therefore also speak of the 're-invention' of natural places as ritual foci. In the following chapters and specifically in chapter 14 we shall trace the history of natural places in the Bronze Age, and see how they acquired a significance of their own in the now largely agrarian Bronze Age world, very different from the way they were valued by Early Neolithic societies. It was during the Late Neolithic B and Early Bronze Age, however, that this transformation must have come about.

## notes

1 Van der Beek (in prep) and Lanting (personal communication) have argued that the stone that was probably part of this grave cannot have been a metalworking tool, since it is not made of suitable material. I follow their arguments here.

2 Although Bakker did not study the Buren axes and Cigar Chisel for their role in deposition, it is likely that for the southern Netherlands at least his catalogue nos. Dl 6 to 10 and Ov 4 and 10 (Belgium: Gent and Wiggelen) seem to represent deposits in watery contexts, as do the following finds of Cigar Chisels: no. 9 (Bladel), 12 (Wanroij), 13 (De Peel), 16 (Echterbroek), 17 (Hunsel) and no. 32 (Belgium: Neeroeteren). Van der Beek (in prep) mentions additional deposits of Buren axes from Roermond-Hatenboer and Kessel –river Meuse (province of Noord-Brabant).

3 From the northern Netherlands, there is only the find of a thick-butted axe of *Form Nieder-Ramstadt*, probably from a stream valley (Butler 1995/1996, no. 6), a Migdale axe from Drouwen (idem, no. 17) and the Noordoost-Polder (idem, no. 12). Both are probably also from a wet context.

4 Verlaeckt (1996, 14) describes a tanged dagger from Lokeren that was dredged from the river Durme in West-Belgium, to the west of the research region.

5 In his most recent publication, Butler also mentions an axe from 'Nijmegen' (1995/1996, no. 29). I recently found out, however, that this axe is in actual fact an unprovenanced find from the collection Kam. Although Kam preferred to collect finds that were found in Nijmegen and surroundings, even the original documentation of his collection does not claim that this particular axe came from Nijmegen. The Haren axe is a genuine and reliable find, though, and this leaves us with just one axe that can be regarded as an import from the British Isles.

6 Personal comment C. Koot.

7 Early Bronze Age stone axes are known from the northern Netherlands, the so-called *Arbeitsäxte* (Fokkens 1998a, 112). As far as I know, such axes are hardly known in the southern Netherlands, at least not in quantities that suggest that it was a regular tool of daily life.

8 If the axe from Nuenen/Gemert was really associated with two Buren axes, this would be different. As stated in appendix 1, there are serious reasons to doubt this association.

9 The significance of axes will be dealt with in more detail in chapter 13.

# The Middle Bronze Age A

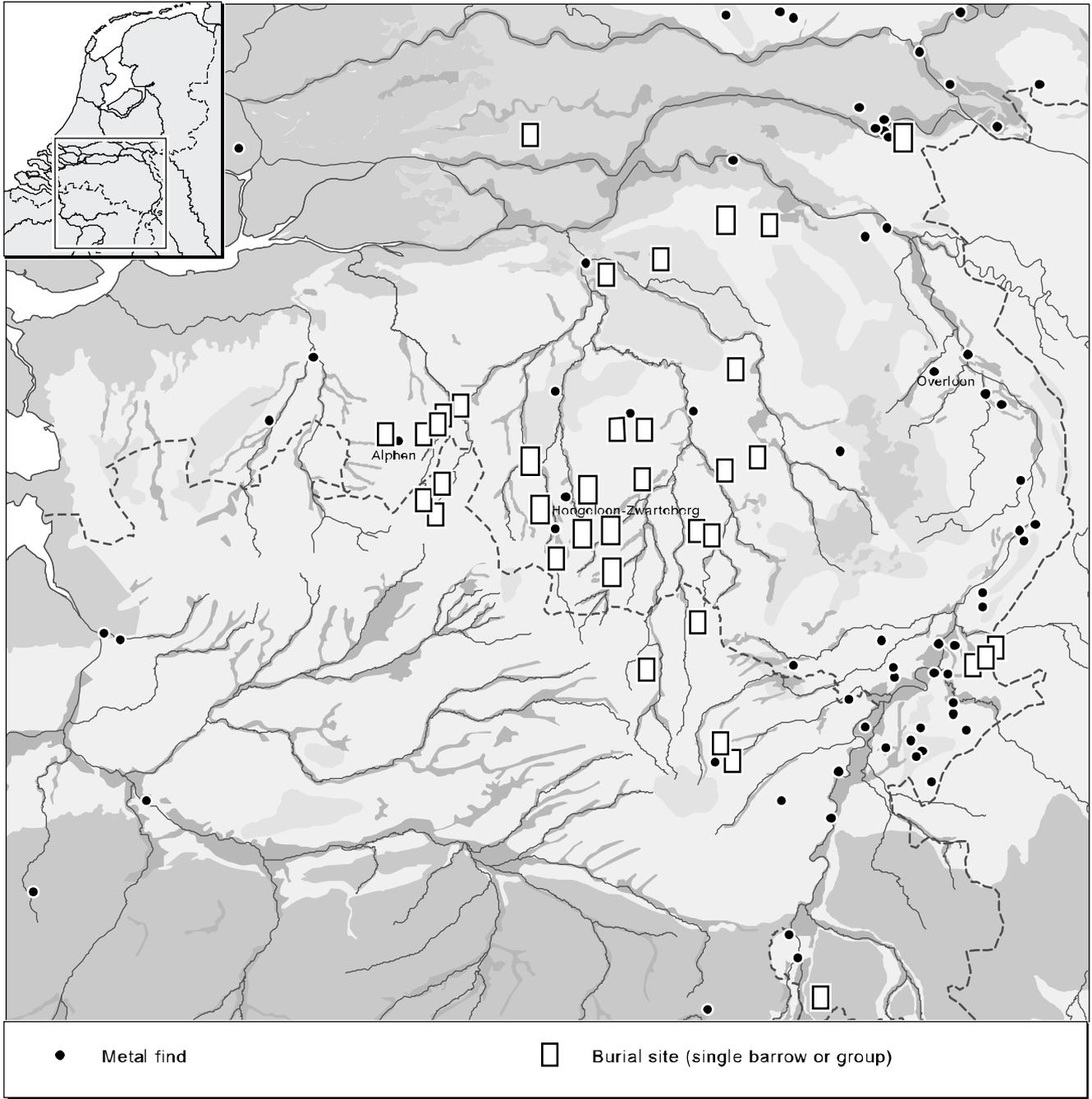


Figure 6.1 The distribution of metalwork finds of the MBA A in relation to the distribution of burial sites.

### 6.1 INTRODUCTION

From the period indicated in the Dutch chronology as the Middle Bronze Age A (1800-1500 BC) a considerably higher number of metalwork finds is known than from the preceding periods. It is also a period in which we see the first occurrence of a new set of objects, swords and spears, that would play a fundamental role in selective deposition for the centuries to come.

The dating ranges of the objects show that the occurrence of a number of objects (high-flanged axes) more or less coincides with phases within the Middle Bronze Age A, although some objects have dating ranges that bridge the transition from Middle Bronze Age A to B (fig. 6.2). Therefore, metalwork with datings extending into the 15<sup>th</sup> century is included in the discussion. First, the general developments that took place in the southern Netherlands during the Middle Bronze Age A will be described. Then, following a brief characterization of the nature of the available metalwork evidence, the several metalwork categories are discussed and investigated for evidence on their biography. Next, the patterns found in the life-cycles of objects are compared and analysed to see in what way they inform us of the history of metalwork production, circulation and deposition in the southern Netherlands during this period. It will be argued that the existing practice of metalwork deposition underwent a significant transformation during this period. The concluding section seeks to investigate how this transformation came about, and how it relates to other developments that took place in the societies inhabiting the southern Netherlands.

### 6.2 THE TRANSITION FROM EARLY TO MIDDLE BRONZE AGE; DEVELOPMENTS IN SOCIETY AND LANDSCAPE

#### *North-west Europe*

During the centuries that we now classify under the heading Middle Bronze Age A, some significant changes took place in the nature, use and circulation of metalwork in north-west Europe as a whole. Since some are relevant for the developments that took place in the southern Netherlands, they will be briefly described. For most regions a steady increase in the number of bronze objects can be witnessed in the course of the Middle Bronze Age A. For this reason, and because of the fact that these objects are 'real' bronze, (a relatively stable alloying of tin around 8-10% was achieved; Kristiansen 1987, 31), these centuries are often seen as the start of the 'real' Bronze Age (Champion *et al.* 1984, 198). In some regions, local production thrived alongside steady importation of other objects. These include Denmark, north-west France, southern England and an area covering northern Germany to the north-eastern Netherlands. Since the north-European regions mentioned are far removed from the natural sources of copper and tin, the increase in metalwork deposition shows that the available quantity of metalwork in

circulation must have increased even more, suggesting that exchange relations with the metalliferous regions became more intensive and regular. In northern Europe, during the 16<sup>th</sup> century BC, a specific type of grave comes into being; the so-called Sögel-Wohlde warrior grave (Vandkilde 1996, 152-6). Sögel and Wohlde refer to two distinct types of warrior burial equipment in which the presence of a bronze dirk or rapier is the most important conspicuous element. In the Netherlands, such graves have been found north of the Rhine (Butler 1990). The Sögel grave from Drouwen (province of Drenthe) is actually the richest grave of this type found in the entire north European region. Such graves are generally seen as elite graves, for an emerging 'warrior aristocracy', evidence for an emerging social hierarchy, related to the control of the increasing metalwork supply (Kristiansen 1987, 42; Vandkilde 1996, 288). In other regions, like Hessen in Germany, we find comparable warrior graves (Jockenhövel 1990: Abb. 108: A-B).

#### *Southern Netherlands*

One of the most important developments to take place in the southern Netherlands at this stage is the genesis of the characteristic three-aisled Middle Bronze Age longhouse with byre. The majority of these houses are only generally dated to the 'Middle Bronze Age' (Theunissen 1999, chapter 4), the better dated sites cluster in the Middle Bronze Age B (particularly the 14<sup>th</sup> century BC, Fokkens 2001, 252-6). Evidence that such houses existed in the Middle Bronze Age A is scarce, and seems so far to be restricted to the central river area (Fokkens 2001, 252). It is clear though, that the transformation from the two-aisled Early Bronze Age house without byre section into the longer three-aisled longhouse with byre took place during the Middle Bronze Age A. This is generally seen as indicating the emergence of a fully agrarian mixed-farming subsistence strategy with a marked emphasis on cattle breeding and hence pastoralism (Louwe Kooijmans 1998).

Another significant development is the increase in the construction of monumental barrows. From many places in the region barrows groups are known that originated in the Middle Bronze Age A (see for their distribution fig. 6.1; cf. Theunissen 1999). Clearly, considerably more barrows were constructed in this phase than before. There also is a marked tendency to re-use existing barrows for burial, at shorter intervals than in the preceding period (Theunissen 1999, 72; Fontijn/Cuijpers in press), and to locate new barrows next to older ones. The best example is the barrow group from Toterfout-Halve Mijl (Glasbergen 1954a and b; Theunissen 1993). The barrows erected are commonly marked with an outer ring-ditch. Clearly, the social relevance of marking stretches of the land with barrows has increased. A rare, new type of barrow are those with an outer bank and

ring-ditch, the so-called *ringwalheuvels*, some of them of monumental character (for example Hoogeloon with an outer diameter of 44 m). In view of their conspicuous and deviating character Theunissen (2001) has interpreted such mounds as founders' graves.

We are not only dealing with an increase in barrow construction; many of these barrows were erected in areas where no earlier settlement and grave traces are known. It is still an open question whether this indicates that the Middle Bronze Age A was a period of demographical expansion and reclamation. The pollen evidence and the fact that barrows were from now on made from heather sods at least indicates that considerable deforestation took place, and that the land became more open in those regions where we find barrows (Van Beurden 2002). A final development that seems important for the present discussion concerns overall changes in local material culture. The tradition of making (lavishly) decorated beakers gradually disappears to make way for pottery types that are generally indistinctive and undecorated coarse ware. The decorations on the earliest Middle Bronze Age pottery, labelled 'Hilversum', has affinities with southern British and North French pottery style. It was seen as characteristic of the so-called Middle Bronze Age Hilversum culture (HVS; Theunissen 1999). Formerly it was interpreted as the result of immigrations. The *ringwalheuvels*,

comparable to the British disc barrows, were another argument for this. This idea is no longer valid, although the HVS pottery and *ringwalheuvels* are still seen as characteristic for the local groups living in the south of the Low Countries (Theunissen 1999).

### 6.3 DISCUSSION OF THE AVAILABLE EVIDENCE

In the following, the different categories of metalwork will be described and discussed. At least 86 objects are known, including those with a dating range into the younger period (see fig. 6.2 and table 6.1). Axes are by far the most important category. Evidence for objects from other material that figured in deposition is non-existent. Hardly anything is known on flint, stone or amber objects dated to this period, apart from a number of flint and bone finds from graves. Metal analysis has not been carried out on any of the objects described here, so it is not possible to say anything on the metal alloy and metalwork circulation zones. Absolute datings are lacking. All arguments for dating are based on cross-dating with comparable objects from better known regions. Considerably more finds than before come from rivers (28 % of all finds). They are mostly dredge finds. Many finds come from the micro-regions where other evidence of Middle Bronze Age A activities is also known (barrows, settlements), like the Kempen and the Nijmegen

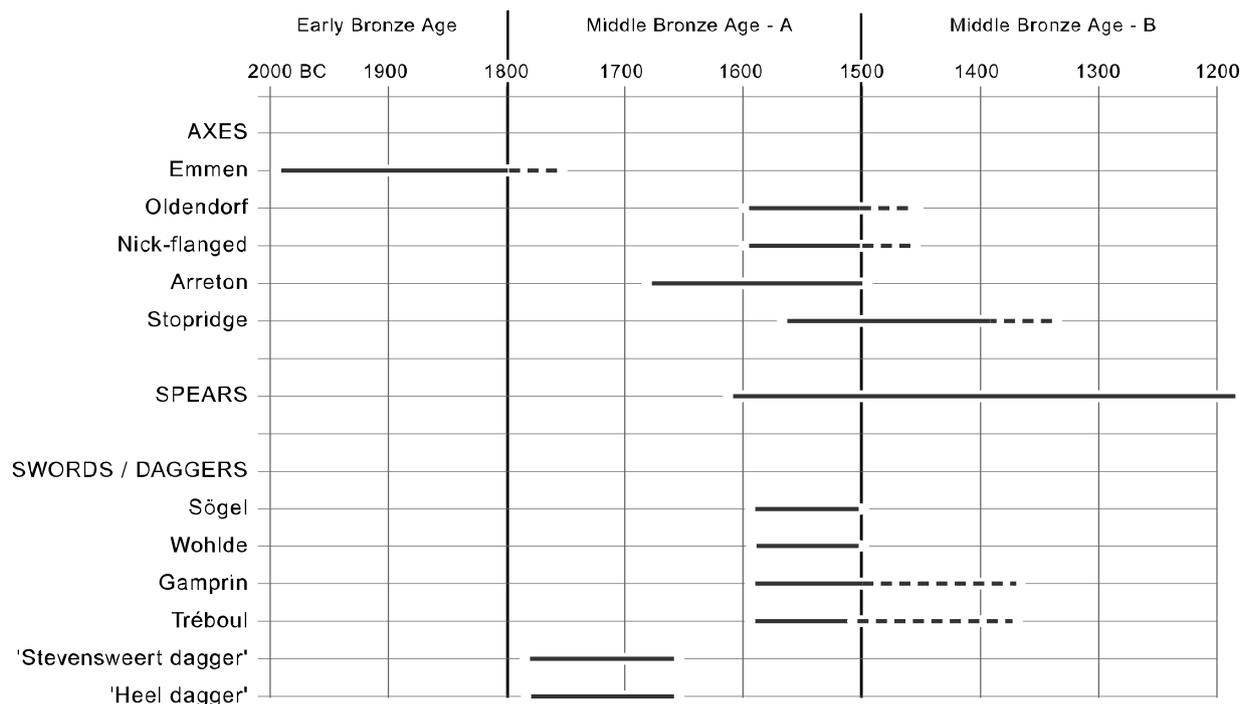


Figure 6.2 Dating ranges of the most important object types discussed in the text.

Type Object type	Context										Totals
	Major river	Stream valley	Marsh	Wet	Wet* hoard	Dry	Burial	Settl.	Unknown		
<i>Swords</i>											
Sögel	2	-	-	-	-	-	-	-	1	3	
Wohlde	3	-	-	-	2	-	-	-	1	6	
Gamprin	-	-	-	-	-	-	-	-	1	1	
Weizen	1	-	-	-	-	-	-	-	-	1	
<i>Tréboul-</i>											
St.Brandan	2	-	-	-	-	-	-	-	1	3	
Plougrescant	-	-	1	-	-	-	-	-	-	1	
<i>Spears</i>											
Tréboul	3	-	-	-	-	-	1	-	2	6	
Other	-	-	1	-	2	-	-	-	1	4	
<i>Daggers</i>											
<i>British types</i>											
Sögel	1	1	1	-	-	-	-	-	1	4	
Wohlde	-	-	-	-	-	-	-	1	-	1	
<i>Ornament</i>											
Bargloy pin	-	-	-	-	1	-	-	-	-	1	
<i>High-flanged axes</i>											
Oldendorf	5	5	7	1	-	2	-	-	16	36	
Nick-flanged	3	-	-	-	1	-	-	-	1	5	
Arreton	-	-	-	-	-	-	-	-	4	4	
Short-flanges	-	1	-	-	-	-	-	-	1	2	
'unique types'	-	-	-	-	-	-	2	-	-	2	
<i>Stopridge axe</i>											
Vlagtwedde	2	-	-	-	-	-	-	-	-	2	
Plaisir	1	-	-	-	-	-	-	-	-	1	
Bannockburn	-	-	-	-	-	-	-	-	1	1	
<b>Totals</b>	<b>24</b>	<b>7</b>	<b>10</b>	<b>1</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>32</b>	<b>86</b>	

Table 6.1 Metalwork from the Middle Bronze Age A. \* From the Overloon hoard.

area (fig. 6.1). In some metalwork-rich regions, however, barrows are completely lacking (De Roerstreek), a situation that seems to reflect a prehistoric reality (Theunissen 1999, 52). Apart from one multiple-object hoard, Overloon, we are dealing with single finds, although for the river finds possible object associations cannot be traced anymore.

#### 6.4 HIGH-FLANGED AND STOPRIDGE AXES

##### 6.4.1 *Oldendorf axes*

Axes of the Oldendorf type are the most current item among the metalwork of the Middle Bronze Age A. They are the earliest metal implements to have been found in considerable numbers, in a variety of localities in both the southern and the northern Netherlands. 36 have been found in the research area (fig. 6.3; appendix 2.3). The majority represent reliable finds by laymen and amateurs with sometimes quite detailed information about the find context. Unfortunately, the only

Oldendorf axe found during an archaeological excavation, the one from Nijmegen-Claes Norduynstraat, was not recorded in situ, but found on the spoil heap of the excavation.

The designation 'Oldendorf' is a type-name originally defined by Kibbert (1980, 37-8). It is employed in a slightly modified version by Butler to denote a group of axes with the following characteristics (Butler 1995/1996, 204): axes with relatively high (1.5 to 2.0 cm) side-flanges, which are parallel-sided in their upper half (fig. 6.4). They can be distinguished from other parallel-sided axes by their shorter and thicker body, in combination with a somewhat expanded blade. In contrast to Kibbert's definition, Butler does not regard a transverse septal ridge ('incipient stopridge') as typical for the Oldendorf type, since in the Netherlands about half of the otherwise comparable axes lack such a ridge. Fig 6.4 shows a characteristic Oldendorf axe. Butler divides his

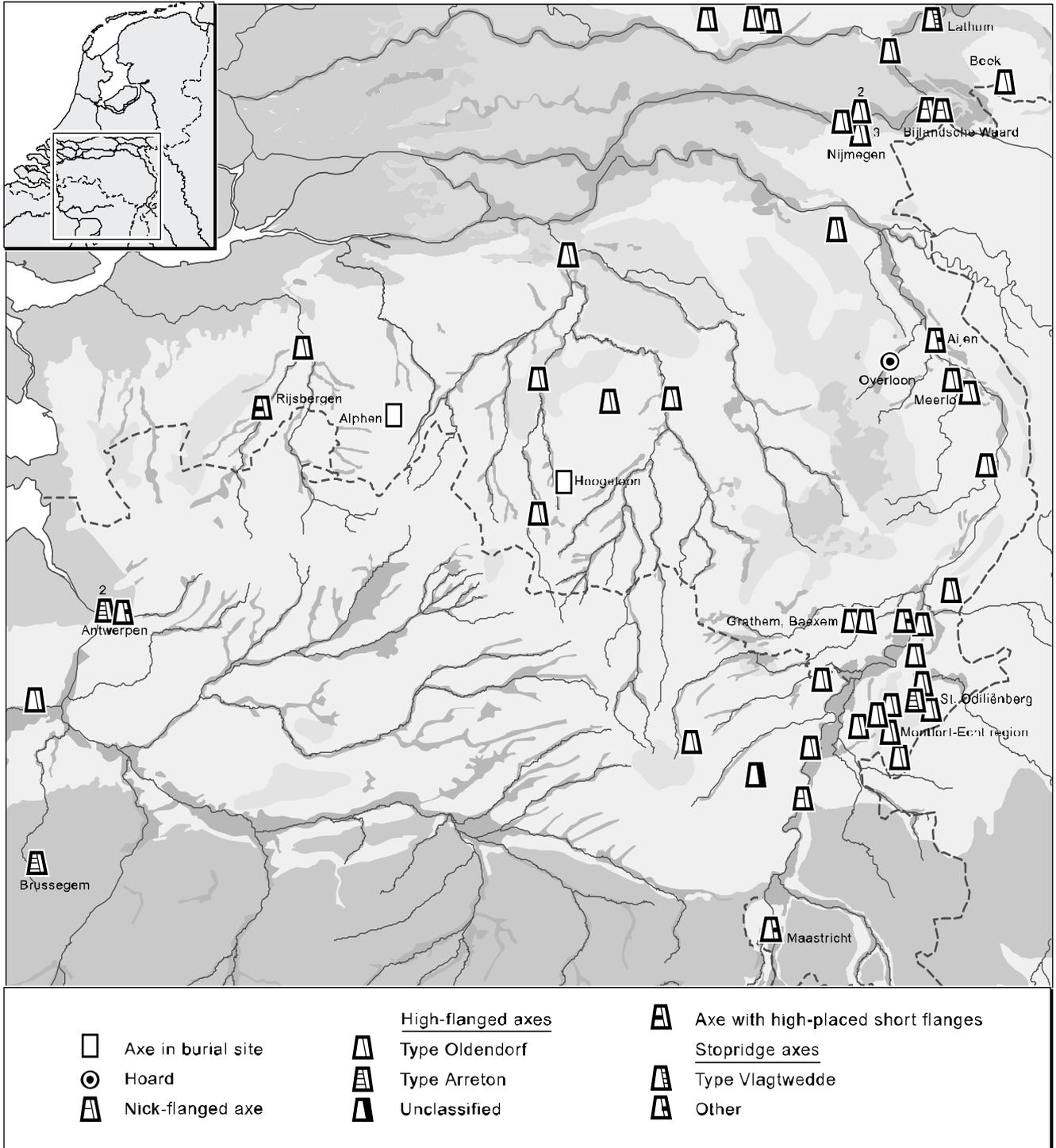


Figure 6.3 The distribution of high-flanged and stopridge axes.



Figure 6.4 Oldendorf axe with septal ridge from Nijmegen-Margiet-paviljoen (l. 8.0 cm).

Oldendorf axes into four varieties. Two of them are of relevance for the axes found in the research region: those without a transverse septal ridge (variety 1), and those having such a ridge (var. 2). The high flanges, the thick body and the transverse ridge must all have served to secure hafting thereby allowing the axe to be used for heavy duties such as the cutting down of large trees. Their bodies are undecorated, and it is hard to see evidence that the element of pure display was significant in their design. Only Butler's so-called 'Ekehaar' (variety 3) has a small decoration of three incised lines at the septum. Such axes, however, hardly occur among the finds of the study region, with the exception of a find from Nijmegen (table).

Reviewing the axes found in the study region that were designated as type 'Oldendorf' by Butler (1995/1996, 204-18), and comparing those to the other high-flanged axes (to be described below), the type indeed seems to cover a number of similar axes, different from other high-flanged axes.

#### Dating

There are no finds of Oldendorf axes in the Netherlands and Belgium that can be dated by  $^{14}\text{C}$ -analysis or object associations. Their occurrence in a number of hoards in Germany confirms that they were contemporary with nick-flanged axes, stopridge axes of type Plaisir, Sögel dirks, Bagterp spearheads and other objects that are also known from the research region and which will be described below (Butler 1995/1996, 219; Vandkilde 1996, 121). Butler

(1995/1996, 219-20) as well as Vandkilde (1996, 159) argue that Oldendorf axes are typical for the north German Sögel-Wohld phase, Montelius IB, and the south German Early Tumulus phase. Following Vandkilde, this comprises a phase that dates at least between 1600 and 1500 BC cal. (Vandkilde 1996, chapter 7; especially fig. 134 and 163). Lanting and Van der Plicht (in press) have recently argued that a dating from 1575 to 1500 BC would be more realistic.

#### Production, circulation and use-life

The fact that a German type-name has been used for describing an artefact type found in the Low Countries presupposes that the German, Dutch and Belgian axes designated as type Oldendorf are related. Reviewing Kibbert's publication of Oldendorf axes, many finds from the adjacent part of Germany are indeed highly similar, if not almost identical, to the ones from the Netherlands and Belgium (Kibbert 1980, 137-50; Tafel 16-19).<sup>1</sup> Recently, Vandkilde (1996, 117-121) has shown that very similar axes are also known from Denmark, where it is the most frequent axe type (113 specimens known), and the oldest metal implement to have been found in such large quantities, just as in the Netherlands. In fact, Oldendorf axes are frequent finds all over northern Europe, and it is therefore not, as previously thought, just a *Norddeutsche Typus* (Butler 1995/1996, 219). It has been argued that Oldendorf axes were locally produced in north European regions (cf. Vandkilde 1996, 119).<sup>2</sup> Consequently they represent an international type of axe that was used in a number of regions that were different in other respects. This recalls the widely shared use of the Emmen axes of the Early Bronze Age (Chapter 5)

Local communities living in the southern Netherlands probably obtained Oldendorf axes by means of exchange. The places of production from which they originated may have been situated in the adjacent part of north-west Germany. The Ekehaar variety is probably an example of a local Oldendorf axe, produced in the northern Netherlands (Butler 1995/1996, 217). Therefore, the Ekehaar axe from Nijmegen possibly represents an object coming from this region. At any rate, there is no indication that Oldendorf axes were independently produced in the southern Netherlands. What is quite clear about the axes that have come down to us, is that they did not only circulate, but were used as well. For the majority of the finds, the objects allowed the observation of traces of use or their absence. Without exception, these all indicate that they had been used. Almost all Oldendorf axes that have been found show traces of sharpening. Many have clearly been ground several times, with wear and resharpening sometimes resulting in asymmetrical blades. 'Pouches', on the side of the cutting edge (a hollow formed by hammering, enclosed by slight

flanges), are another indication of the re-working of the blade for further use. Some axes have even been drastically resharpened, with the lower end of the flanges becoming part of the blade. A striking case of re-use is offered by an axe fragment found near Montfort (Butler 1995/1996, no. 136; fig. 28). The opposite end of this axe fragment has obviously been hammered. Apparently an axe that had already been resharpened several times, was re-used as a chisel or wedge.

On the basis of the available data on their use life, two conclusions can be drawn:

- 1 The considerable re-sharpening, grinding and hammering observed on most axes indicates that the axes were used in activities in which their wear and tear rate was relatively high. This implies that these axes were used for heavy duties like cutting down trees or wood-working. As already indicated, they actually seem to have been designed for such a use.
- 2 The fact that some axes have seen drastic resharpening in the way outlined above (in some 8 cases), and that in one case even an axe fragment was re-used, indicates that these axes were not only used for heavy duties, but that they also had a relatively long life of use and circulation before they were deposited.

#### *Deposition*

For 20 axes the find spot is known. Although most of them were found in places that are now dry land, it can be deduced that in 18 cases these were probably wet locations in the landscape at the time the axe entered the ground (appendix 2.3). Of those without exact provenance, six out of eight axes with preserved patina have a 'wet-context patina'. This mirrors the predominance of wet context finds that became clear in case of the finds with known find spot. Therefore, at least 18, but probably 24,

Oldendorf axes came from wet locations. Two, but probably six are from a dry location (at least one, however, situated in the immediate vicinity of a wet location). Consequently, the association between these axes and a wet location thus cannot be a coincidence; they must have been deliberately deposited there.

The term 'wet location' conceals a variety of different locations. Near Nijmegen, some Oldendorf axes must have been deposited in a predecessor of the river Waal or its backswamps. Other axes, like the ones from Grathem, Hapert and Bergh, were deposited in the (marshy) valleys of small streams or into the streams themselves. The two axes from Echt come from a larger marsh surrounding a number of small streams. Two other Oldendorf axes (Meerlo-Wansum) were deposited in a swamp, where in the immediate surroundings, on higher grounds, a Late Neolithic barrow stood (Verwers 1964). Less is known about the finds from dry context, but the few evidence there is suggest that these

do not represent settlement refuse or casual losses. The axe from Nijmegen-Claes Norduynstraat came from a high plateau on the ice-pushed ridge of Nijmegen, not far from the steep ridge that marks the transition to the river valley of the Waal. Apart from the axe, no other prehistoric traces were found during the excavation that could be dated to the Middle Bronze Age. Such traces were found a few hundred metres away (settlement remains and a group of barrows at the Hunerberg). Here, however, not a single piece of bronze, let alone an axe, was found. The axe must therefore have been put into the ground in an isolated location, away from settlements and graves.

Although most axes seem to have been single finds, some must have been deposited in each other's vicinity. This must have been the case for Meerlo-Wansum and the Echt marsh finds, and probably also for the finds from the river Waal near Nijmegen. Particularly in the case of the Echt marsh, but possibly also in the case of Nijmegen, Oldendorf axes were deposited in locations where in the same period other objects were deposited as well. We may be dealing here with small areas in the landscape that were revisited several times for the deposition of objects. It is not until the Middle Bronze Age B, however, that we can speak of 'multiple-deposition zones' as a general phenomenon in the landscape.

It is hard to see whether the axes received any special treatment before they were placed in such a marsh or river. It is for example unknown whether the axe was deposited in a hafted or unhafted condition. A remarkable observation is that some of the axes still have quite sharp edges. Blunt edges are hardly recorded. It seems as if these axes underwent a final resharpening before they were placed or thrown into the marsh or river.

#### 6.4.2 *Nick-flanged or geknickte axes*

Another typical product of the north European Sögel-Wolhde complex are the so-called 'nick-flanged axes' (German: *geknickte*). They are listed in appendix 2.4. These axes have a very characteristic form: an angle in the curve of the sides. They also have flanges on both the upper and the lower half of the blade (fig. 6.5: no. 5). In Kibbert's typology, they are known as *Typ Fritzlar* (Kibbert 1980, 126-9). Although the nick may indeed have been helpful in providing a good hafting, as Kibbert suggests (1980, 123), it must certainly have been more than just a functional addition. After all, the majority of axes lack such a nick, whereas it is fairly certain that they had been successfully employed in heavy-duty tasks (see the observations made on the Oldendorf axes!). Rather, the nick seems to have been a display element that indicates the special character of such axes when compared to the more regular Oldendorf axes. In the area where they were presumably produced (northern Germany, possibly Schleswig according to Vandkilde 1996, 131),

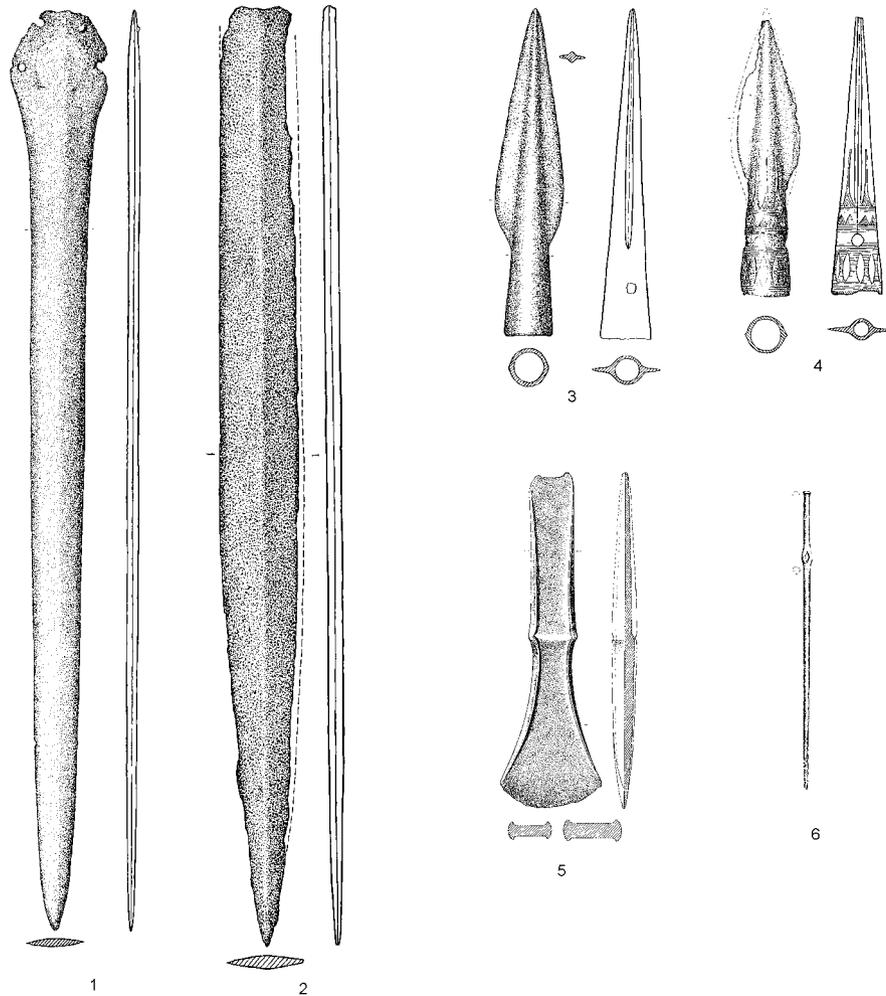


Figure 6.5 Contents of the Overloon hoard: Wohlde rapiers (1 -2), spearheads of type Torsted (3) and Bagterp (4), nick-flanged axe (5) and Bargloy pin/needle (scale 1:4, after Butler 1990, fig. 15).

nick-flanged axes are a recurrent element of the Sögel-Wohlde weapon grave set. In view of the stereotyped association between such axes and weapons, it can be argued that nick-flanged axes were meant to be battle axes in the first place, whereas other axes- and the most current Oldendorf axes in particular- primarily served as work axes. The relatively small degree of resharpening and damage observed by Vandkilde on the Danish nick-flanged axes may be in keeping with this (1996, 131).

In the research area, five nick-flanged axes are claimed to have been found (appendix). Two axes, possibly from the Bijlandsche Waard, are from a collection of dredge finds, that were purchased through the agency of an antique dealer. Although the axes themselves are no fakes, and in view of their preservation certainly finds from river contexts, it is not

certain whether the Bijlandsche Waard is the correct find spot. There is no reason to doubt the reliability of the other finds: the axe from the Overloon hoard, and a dredge find from Negenoord. A fifth object from Nijmegen is somewhat different in form. As it lacks a find context, we shall leave it out of consideration.

These nick-flanged axes must have reached the southern Netherlands through exchange, ultimately probably coming from the same region as the Oldendorf axes. A lack of data on traces of use, or the absence thereof, prevents us from assessing whether these axes had a significantly lower degree of resharpening and damage than contemporary axes, as observed on the Danish finds. At any rate, at least one of them was straight-ground and sharpened before deposition (appendix 2.4; one of the Rijnwaarden finds).

Three of them are finds from the major rivers or their backswamps, and one (Overloon) comes from a weapon hoard, containing two Wohlde rapiers, two spearheads, and one Bargloy needle (fig. 6.5). All of them, therefore, seem to represent intentional depositions. There is some evidence that the deposition of these axes should be contrasted with that of the contemporary Oldendorf axes. The hoard find will be discussed in more detail later on, but it should already be emphasized that this hoard represents a very special and rare type of deposition. If the Bijlandsche Waard is indeed the find-spot for the two other axes, then this must also indicate a special situation: two rare, but similar objects, that were deposited in each other's vicinity. And this may have taken place at a location that in itself has a special character, being not far from the place where the Rhine splits up, and where a high steep hill (Hoch-Elten in Germany) commands a wide view of the river valley.

#### 6.4.3 *Atlantic imports? Arreton axes and axes with high-placed short flanges*

Among the other high-flanged axes there is a small number of axes that were probably made in Britain, or, in some cases, made elsewhere but modelled after British examples (appendix 2.4; fig. 6.3). These are the Arreton axes and the axes with high-placed short flanges, abbreviated as AXRR and AXRS in Butler's typology (Butler 1995/1996, 192-4).

##### *Type Arreton*

There are four Arreton, or Arreton-related, axes from the region. Arreton axes, as defined by Schmidt and Burgess (1981, 72), have a long, rather parallel-sided body, a highly-rounded butt and an expanded crescentic cutting edge. The last two characteristics make them stand out from the Oldendorf axes. Only the axes from Brussegem and Sint-Odiliënberg are very comparable to the British axes, and therefore probably imported pieces. The two axes from Antwerpen-Oosterweel are somewhat divergent, one for example having a slight stopridge. It is unclear whether these were made in the region itself, or elsewhere in the Atlantic realm. There are indications that Arreton axes are contemporary to nick-flanged axes (Schmidt/Burgess 1981, 74). It is not inconceivable, however, that Arreton axes already existed and were exchanged shortly before the Sögel-Wohlde phase (see the discussion in Butler 1995/1996, 193). However, the stopridge of the Antwerpen find, which is a much later feature, shows that at least this axe dates from a considerably later time period (possibly in the fifteenth or fourteenth century BC). The Brussegem and Antwerpen finds are both from old collections. The recent find from St.-Odiliënberg, however, ensures that the presence of this type in the study region is also attested by more reliable sources. Hardly anything is known on their life and

deposition history. As mentioned above, some must have circulated across a wide region, before entering the southern Netherlands. The damage and resharpening observed on the edges of two of them shows that these have been used. Only the patina, observed on two finds, suggest something on the character of the place where these axes were deposited. In both cases, these should have been wet locations.

##### *Axes with high-placed short flanges*

The second axe type, the one with high-placed short flanges, is represented by two finds. These axes, by their short high flanges (only on their upper half) quite different from the other high-flanged axes found in the study region, are very similar to a category of British axes described by Schmidt and Burgess (1981, 73-4). Butler therefore argues that they were probably imported from eastern Britain during the Acton Park phase, probably in the same phase as the importation of the British palstaves that ended up in the Voorhout hoard in the coastal area of the western Netherlands (Butler 1995/1996, 194). This means that they would approximately date from the fifteenth century BC (Butler 1990, 78-84; table 1). There is evidence that at least one of them (Rijsbergen) has been hammered and worked. This axe was found in a peat layer of the stream valley of a small river. Of the other axe, we only know that it was found somewhere in the Dutch province of Limburg. Its patina indicates that it also comes from a wet location.

Summarizing we may say that, although a small and poorly recorded category, some of the axes described above surely represent imports from Britain. The meagre evidence there is suggests that they were used, and finally deposited in wet locations. In this way, they do not seem to depart from the life course followed by most of the Oldendorf axes.

#### 6.4.4 *Two 'unique' axes*

Among the finds of the high-flanged axes in the study region, there are two specimens that stand out. Both are 'unique' examples for which there is no parallel in the southern Netherlands, and neither – and this is more surprising – in the adjacent regions. Still, there can be no doubt that both axes are reliable finds. What is more, both are among the few examples of metalwork that were found in barrow graves, and both are from the primary interment in a monumental barrow with ditch and bank (*ringwalheuvel*).

##### *The axe from Alphen*

The Alphen axe was found during the excavation of the barrow with ditch and bank (*ringwalheuvel*), among the cremation remains of the primary grave (Theunissen 2001). The axe was placed there unhafted (fig. 6.6).

The axe was severely corroded, and only the lower half was recoverable. It is trapeze-shaped, with a scarcely



Figure 6.6 The flanged axe from the Alphen burial (l. 10.8 cm).

expanded blade. On the sides there is a decoration of horizontal incised lines. Although this may have been a secondary feature, carved in the object when in the possession of a local community living near Alphen, such a decoration is actually unknown from any other high-flanged axe from the region. There is no good parallel for this axe, although it is not of a design totally alien to this region and its surroundings, as in the case of the Goirle axe, another burial find which will be discussed in the next chapter. On the basis of both form and decoration, it is likely that this axe was produced somewhere in the north German plain, during the Sögel-Wohlde phase (Butler 1995/1996, 222), but even then it is certainly not a form that is so typical for this area, like the Oldendorf or nick-flanged axes.

#### *The Hoogeloon axe/chisel*

The Hoogeloon axe/chisel was found in the largest *ringwal-heuvel* known in the southern Netherlands (fig. 6.8). It even is the largest grave monument erected during the Bronze Age in the southern Netherlands that is known to us. On an old heath surface, a sod-built mound of 19 m in diameter was built on an old heath surface. It was surrounded by a berm, bank and ditch, measuring 40 m in diameter in total. The

barrow was excavated in 1950 (Theunissen 1999, 59-60). A post circle was placed in the ditch after some silting had taken place. In a later phase, three secondary cremation graves were dug into the mound, as well as an inhumation grave (all without grave goods). In 1846, the amateur archaeologist Panken dug a pit in the centre of the tumulus. At ground level, he found a bronze axe/chisel (fig. 6.8). Although no further observations were recorded, this must be the location where the central grave might be expected. It is therefore likely that this object, like the Alphen axe, came from the primary grave.

This object is very different from all the other axes described in this chapter. It has a very narrow, not expanding cutting edge, and is therefore properly speaking a chisel rather than an axe. The hafting part has a shelf stopridge, much like that of the palstave axes that became current in this region after 1500 BC (see next chapter). There is a clear *nick* in the outline, comparable to those seen on the nick-flanged axes. The sides are partly ornamented with incised transverse parallel lines. This is another feature often observed on nick-flanged axes (although not on those found in the study region; cf. Vandkilde 1996, 131). Glasbergen (1954b, 168) dated the chisel as contemporary to Scandinavian period II/III. However, Butler and Steegstra (1997/1998, 202) have recently argued that close parallels for the Hoogeloon chisel can be found among the chisels attributed to Period IB and the Sögel/Wohlde phase (based primarily on those published by Willroth 1985 as *Form 7* and *10*). To my mind, the more recent publication of Danish finds by Vandkilde (1996, 130-8) corroborates Butler's and Steegstra's arguments. Vandkilde emphasizes the close formal, functional and contextual relationship between nick-flanged axes and nick-flanged chisels like this one. Both are decorated, and their nick-flanged outline, so typical and visually different from the form of other axes, seems to emphasize a commitment to a common significance and function, as opposed to other axes. Indeed, both are known from weapon graves (with dirk and spearheads), not only in northern Europe, but in mid-west Germany (Hessen) as well. Judging from the inventory of such weapon graves, nick-flanged axes and chisels seem to be exchangeable, fulfilling similar roles. Although our term chisel evokes associations with a tool for wood-working first, it is therefore likely that the Hoogeloon chisel was seen as a weapon in the first place. At any rate, its rarity both in design and occurrence in the region suggests that it was imported from elsewhere. Since there is now a wealth of evidence that shows the presence of such objects in the north European realm, including parts of Germany adjacent to the study region, it is quite likely that it came from those regions. They are, however, also known from more southern regions, like the region of Hessen in Germany. Ultimately, the concept of such nick-flanged

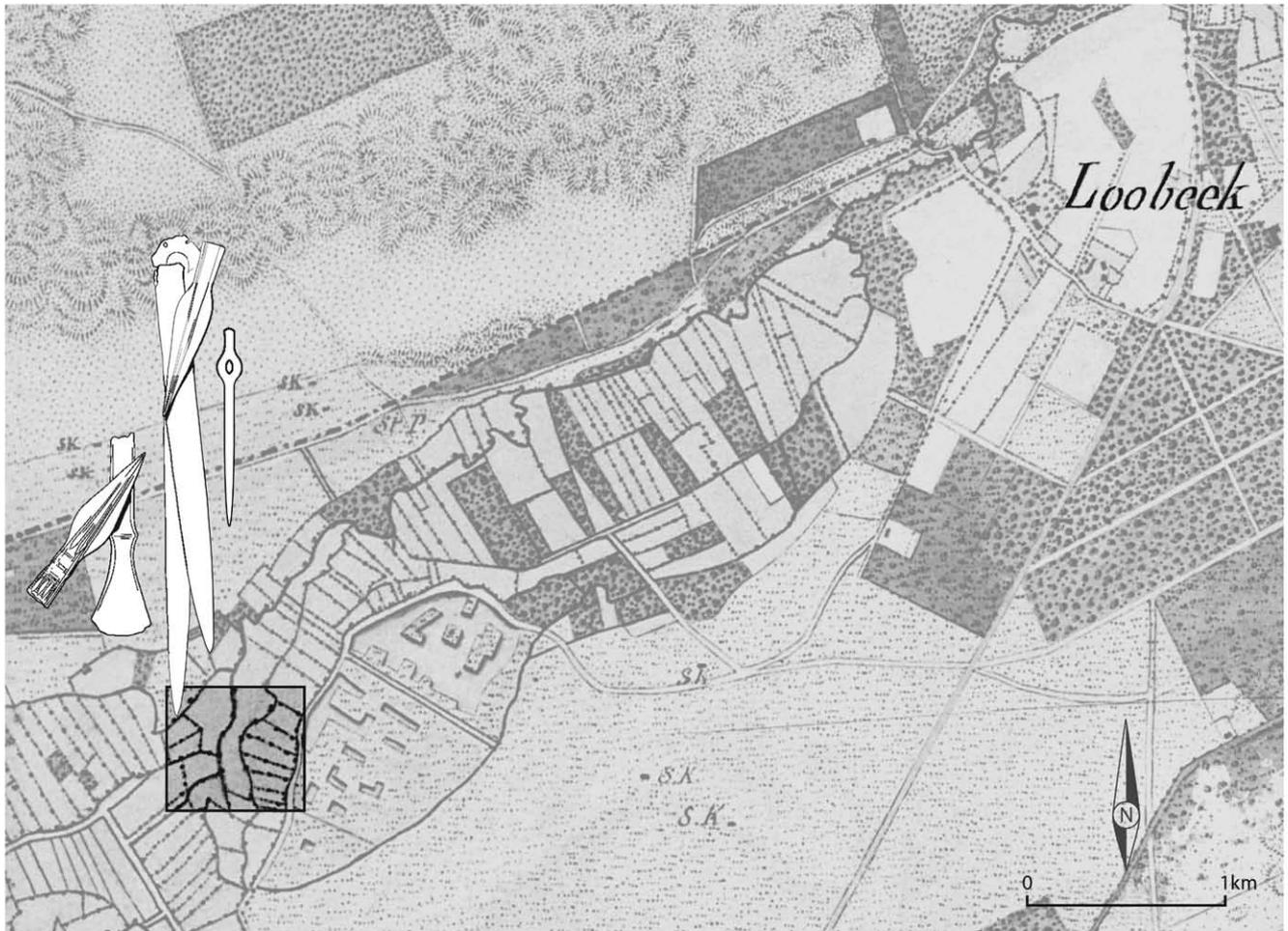


Figure 6.7 The stream valley in which the Overloon hoard was found, and a reconstruction of the original overlapping position of the objects. The historical situation from c. 1837-1844 is shown (based on the historical map 1:25,000, published in *Grote Historische Provincie Atlas Limburg*, Wolters Noordhoff).

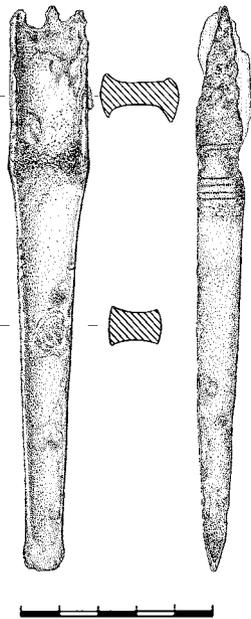


Figure 6.8 The palstave-chisel from Hoogeloon-Zwarteberg (scale 1:2, after Butler/Steegstra 1997/1998, fig. 64).

axes must have come from central European regions, from where the oldest specimens are known. Although its exact region of origin is unknown, this axe thus must have travelled across vast distances, and it is likely that it was seen by the local Hoogeloon community as having accumulated an impressive exchange history.

#### *Conclusion*

In both Hoogeloon and Alphen we are dealing with axes beyond the normative, that were deposited in burials that are beyond the normative as well. As axe deposition is furthermore unknown from burials, the biography of the Hoogeloon and Alphen axes must be considered an example of a specific rather than a generalized cultural biography (cf. chapter 3).

#### 6.4.5 Stopridge axes

Among the high-flanged axes, there is a small number of tools that have a distinct stopridge between the side-flanges (appendix 2.4). Following Butler (1995/1996, 224), a stopridge is defined here as more prominent than merely a ridge defined by the meeting of two planes (as in the Oldendorf variety 2), and it 'is distinguished from palstaves in that the septum below the stopridge is not distinctively thicker than the septum above it' (fig. 6.9). A stopridge generally improves the hafting of an axe, particularly in the case of axes that are used for delivering heavy blows. In general, they are a relatively late type among the high-flanged axes, typologically marking the transition from flanged axes to palstaves. In the study region, a small number of stopridge axes has been found.

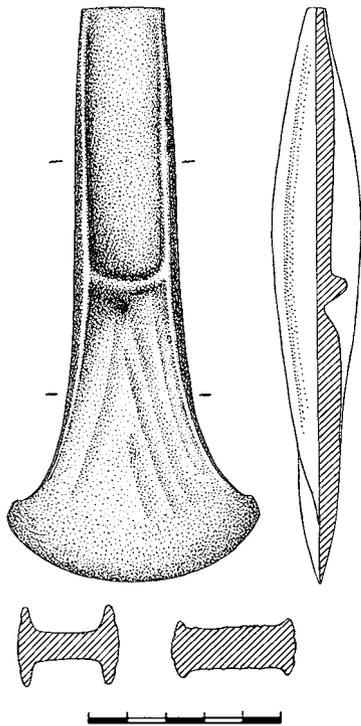


Figure 6.9 Stopridge axe of type Plaisir from Maastricht (scale 1:2, after Butler 1995/1996, fig. 36b: 157).

#### Stopridge axes of British and French types

A stopridge axe found in Aijen is very similar to axes found in Britain, classified there as type Bannockburn. It is probably an imported piece from the British Isles, but in view of a number of finds of comparable axes from Belgium and France, it cannot be ruled out that it was made in these regions, modelled after British imports. It probably dates from the last century of the Middle Bronze Age A

(Butler 1995/1996, 226). At any rate, it is unlikely that it was made in the southern Netherlands itself. The axe has a crescent-ground, sharp cutting edge. Traces of wear or resharpening could not be recognized, and the axe therefore does not give the impression of being used. Given the sharp edge, it must have been ground and sharpened shortly before it entered the ground. There are no records on the place where it was found, but the patina suggests that it was a wet location. Since Aijen is a small place on the river Meuse, it is likely that the axe was found during dredging activities, and thus can be interpreted as a river deposit.

The other stopridge axe that was clearly imported is an axe dredged up from the river Meuse near Maastricht, attributed to Butler's type Plaisir (fig. 6.9; Butler 1987). Butler argues that such axes must have been made in north-west France, something which is, amongst other things, supported by the find of a bronze mould there. They should be dated to the Sögel-Wohlde phase (Butler 1995/1996, 228-230). The axe is remarkable for its decorated blade. Such display elements are extremely rare among the high-flanged axes found in the research region. Although the edge of the blade has obviously been hammered, it is unclear whether it was intensively used. What is clear is that it ended its life by being thrown in the river Meuse (not only was it found among river sediment; its condition and patina indicate a long stay in a wet milieu). The exact find-spot is unknown, but the Meuse near Maastricht-Borgharen is also the place where a special, decorated Sögel-dirk had been deposited in the same period.<sup>3</sup>

#### Vlagtwedde axes

Three finds from the study area are of the Vlagtwedde type. These stopridge axes can be distinguished from others, particularly by their well-developed ledge stopridge high enough at least to match the height of the flanges, and often in side-view even projecting beyond the line of the sides. (Butler 1995/1996, 230-2). Not much is known about their dating range. The presence of one such axe in the Epe hoard (north of the research area) suggests that Vlagtwedde axes were in use as late as the fourteenth century (Butler 1990, 91-2, table 1; 1995/1996, 236). It has been suggested that these characteristic axes were a local product of the IJssel area, north of the research region (Hulst 1989). In view of the absence of such stopridge axes in the adjacent areas (and particularly among the German finds published by Kibbert (1980), this is likely. At any rate, there is no evidence to suggest that they were imports from regions much farther away, like the axes mentioned above. The Lathum the one from the Rhine therefore probably circulated over relative short distances only. If the Antwerpen specimen really is a Vlagtwedde axe (no drawing has been published yet), the distance over which this one was exchanged must have been considerably longer.

The high stopridge of Vlagtwedde axes is likely to have been designed for improving the hafting of the blade, allowing the axe to be used for heavy duties. The asymmetrical blade of the Lathum find indicates resharpener, which may be related to such use. Unfortunately, for the other two finds, no such data is observable. Two of them represent river deposits.

#### 6.4.6 Conclusion

##### *The small number of axes with early datings*

In sum, 49 high-flanged axes have been recorded. The overwhelming majority (at least 43) are attributed to the Sögel-Wohlde phase. In the southern Netherlands there is hardly any axe type that can be dated to the earlier phase, c. 1800-1700 BC (fig. 6.2). Axes that could chronologically bridge that gap, like Lanquaidt axes (Vandkilde 1996, 103-6), are unknown. Only the Arreton axes may date from somewhat earlier, but as already established, for the study region the evidence on their dating range is diffuse, suggesting a long period of use. Theoretically, it is possible that some axes now attributed to the Early Bronze Age, like those of the type Gross-Gerau or Emmen-related axes, were still current in the 18th or 17th century BC, thus filling this gap. Alternatively, the dating of Oldendorf and nick-flanged axes could be earlier. There are currently no indications for both scenarios. What we might be dealing here with is not communities living in the southern Netherlands in the 18th century that did not have axes (which seems impossible to believe since we must be dealing here with fully agrarian societies), but rather with a remarkable increase in the deposition rate of axes since the Sögel-Wohlde phase. But since there does not seem to have been a real bronze industry that was based on recycling metal here, we might wonder where all the earlier axes have gone. We saw a similar problem in the case of the Late Neolithic B flat axes (chapter 5). This problem cannot be solved here, but notwithstanding the evidence for a true increase in object deposition (see below, section 6.9.1), this remarkable gap may just as well point to inadequacies in the typochronological dating method.

##### *Circulation*

There are no arguments for the local production of high-flanged axes. The axes that were deposited in such locations must all have reached the area through exchange. In some cases the chain must have been relatively short (the Oldendorf-Ekehaar variety and Vlagtwedde axes, 6%), in others very long (The Hoogelooen axe). The majority of the axes from this period must have come from the north-west German region, being typical products of the Sögel-Wohlde complex (the Oldendorf and nick-flanged axes, 73% of all high-flanged axes). North French (8%), and British, or

related, products (4% of all high-flanged axes) are much rarer. This is not as might be expected in view of the supposed relations between southern Britain and the southern Netherlands. What's more, in one of the barrows with ring and bank (Alphen), thought to be one of the clearest examples of these relationships, an axe was found of an unknown but clearly non-British nor west European type.

##### *Selective deposition of axes*

The contextual evidence gathered here indicates that the majority of axes does not represent lost finds, or unretrieved stores, but intentional depositions, meant to stay in the ground forever. 49% of all axes probably comes from a wet location, whereas 8% comes from a dry one (table 6.1).

Oldendorf, Atlantic imports and most stopridge axes seem to share the following elements in their life-path: they were imported from beyond the region (although the distances may vary considerably), they were put to use in the domestic sphere, and they were finally deposited in watery places in the landscape. The Oldendorf axes in particular show traces of long and intensive use-lives, this is less clear in the case of the Bannockburn or Plaisir axes.

As a rule, axes appear not to have been deposited in barrow graves, nor were they deposited in settlements. The relative large number of excavated barrows from this period confirms that absence of axes from such contexts represents evidence of absence. The same applies to settlements, most of which are situated in the waterlogged river area and have been excavated with the systematic use of metal-detectors (In particular Meteren-De Bogen: Meijlink 2001; Butler/Hielkema 2002).

Divergent biographies were recognized for the nick-flanged axes and those from the *ringwalheuvels*. These axes all clearly deviate visually from their contemporaries. They can be divided into what probably was a specialized battle axe (nick-flanged type) and two non-normative *Fremdkörper* (Alphen and Hoogelooen). The nick-flanged axes were deposited in rivers, two of them perhaps together (Bijlandsche Waard), and accompanied by an entire weapon set (the Overloon hoard). The *ringwalheuvel* axes were placed in the primary graves of monumental barrows of a special type, possibly founders' graves. They are the conspicuous exceptions to a general tradition of keeping axes apart from barrow graves.

#### 6.5 SPEARS

A new object to enter the existing material culture repertoire is the socketed bronze pegged spearhead (appendix 6.1; fig. 6.5: 3-4; 6.10; 6.11). The objects headed under this designation are generally too large and heavy to be used as a javelin. Functionally, they are more suited for thrusting. Small examples could also have been thrown at a small distance.

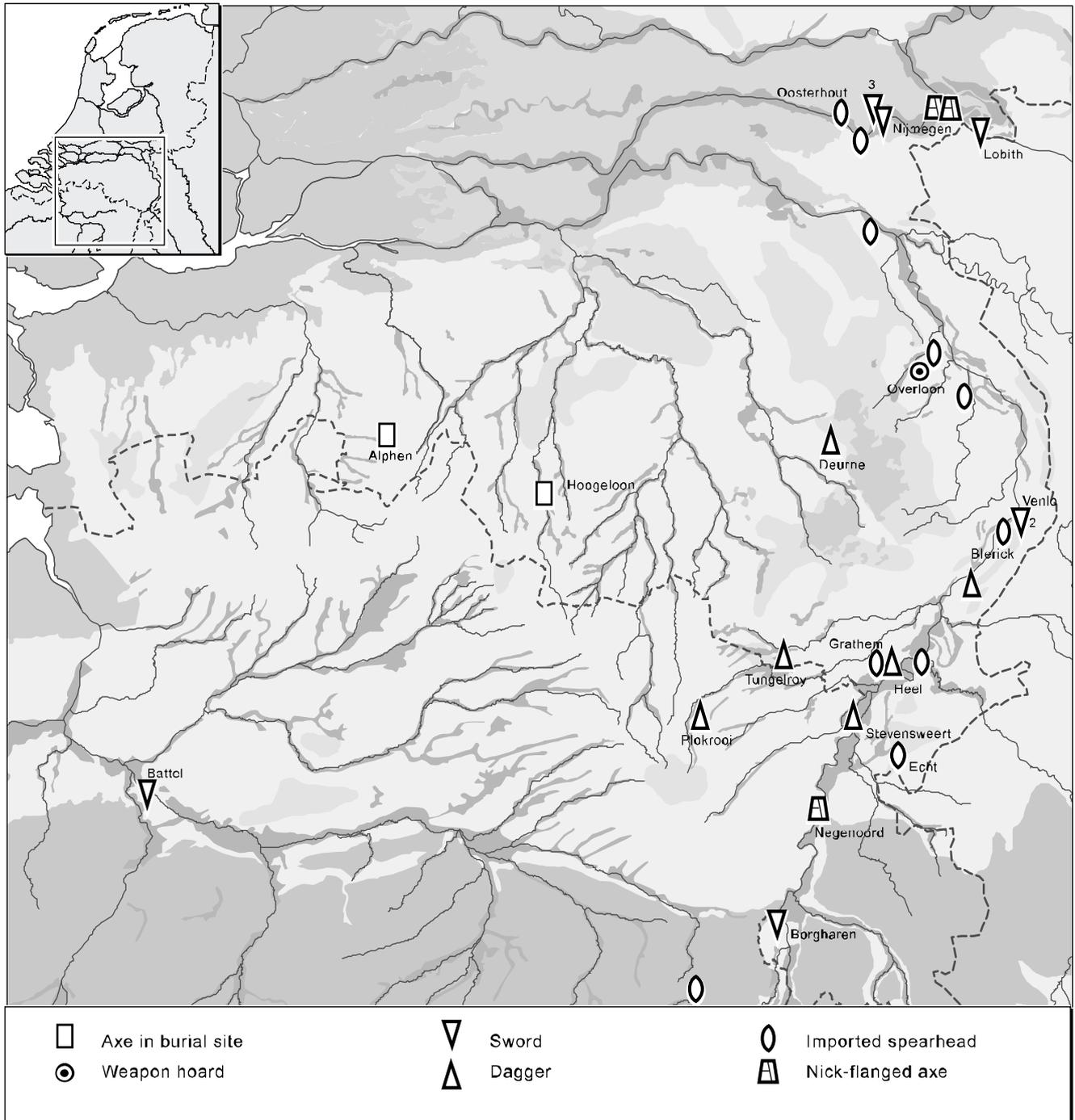


Figure 6.10 Swords, spears, possible weapon axes and 'unique' axe types from the MBA A.

Theoretically, spears can be both weapons and hunting equipment. In Europe, there is firm evidence that spears were used predominantly in battle (Osgood *et al.* 2000, especially fig. 2.7; Harding 2000, 281-3). In the Low Countries the adoption of spears occurs at a stage when fully agrarian economies existed, in which hunting only played a peripheral role that cannot be reconciled with the large number of spear finds. Nevertheless, we should not rule out that spears were used in specialized hunts of wild boars. It is likely, however, that these were special, perhaps prestigious, events.

Spears that for typo-chronological reasons can be dated to the earlier half of the Middle Bronze Age are relatively rare. They include the Scandinavian Torsted and Bagterp types and a possible central European spearhead (the Echt find). The Tréboul spearheads are transitory to the Middle Bronze Age B. These types, however, can only be dated here by virtue of a specific type of decoration. This brings us to the following problem that we will have to tackle not only in this, but also in the next chapters: a large number of plain and quite simple spearheads has been found in the research region, that can be dated no more precisely than Middle or Late Bronze Age. Attempts to trace typo-chronological developments prove to be difficult (Verlaeck 1996, 16-9; Bourgeois *et al.* 1996, 72). <sup>14</sup>C-datings of the wooden shafts of spearheads from the Belgian Scheldt valley west of the research area show that plain spearheads date from at least 3200 BP to 2580 BP, defying existing typo-chronological theories (Bourgeois *et al.* 1996, 72). Although it is clear that since the Middle Bronze Age bronze spearheads are known, the consequences of their long dating range are that nothing can be said about the frequency in which they figured in depositions in the course of time. Theoretically, other plain spearheads may be added to the decorated or otherwise deviating earliest spearheads (appendix 6.3). The ten spearheads now attributed to the Middle Bronze Age A and the transition to the Middle Bronze Age B are therefore not likely to give a representative picture of the intensity of spear deposition.

#### *Scandinavian and central European spearheads?*

Three spearheads have been interpreted as imports from the Scandinavian region. These are the two spearheads from the Overloon weapon hoard (to be described in detail below), and a find from Blerick (appendix 6.1). The complex incised decoration on one of the two spearheads from Overloon is indeed typical for finds from Nordic regions, the so-called Bagterp type, and uncommon on central European, or Atlantic ones (fig. 6.5: 4). The other spearhead, however, interpreted as of the Torsted type by Jacob-Friesen (1967, chapter 1), is less convincing. This spear lacks decoration and has no formal characteristics that make it any different from spears that were current in Atlantic or central European

regions. The same goes for another undecorated spearhead found in Blerick, interpreted as type Bagterp (appendix 6.1; Jacob-Friesen 1967, 380 no. 1741). By its presence in the hoard, the undecorated 'Torsted' spearhead in the Overloon hoard illustrates that undecorated spearheads occurred as early as the Sögel-Wohlde phase. To my mind, the 'Bagterp' spearhead from Blerick does not allow anything to be said about its original place of production, and a more precise dating range than Middle or Late Bronze Age can actually not be given. A decorated spearhead found in Echt has a remarkable incised decoration of two rows of hatched triangles, separated from each other by a cross-hatched band. At the base there is a row of x's above which there are three horizontal lines. The rows of hatched triangles are known from spearheads found in a number of places. According to O'Connor (1980, 66) and Jacob-Friesen (1967, 113) such decorations are believed to be typical for types made in central Europe, although comparable decorations are also known from finds from Nordic areas (see for examples Jacob-Friesen 1967, taf. 16: nos 1, 2). An early date, in the Reinecke A2 or B phase seems likely (Jacob-Friesen 1967, 113). This would place it in the last part of the Middle Bronze Age A period.

Concluding, we may say that the decorated spearhead from Overloon is the only likely Middle Bronze Age A import from Scandinavian regions. The Echt spearhead might be one from the central European realm. Both objects from Overloon show evidence of sharpening or re-sharpening. The Echt find, although well-preserved, lacks sharpening facets, indicating that it was not, or only scarcely, used. To judge by its patina, the Echt find comes from a marshy context, possibly the same marsh where the deposited Oldendorf axes have been found.

#### *Tréboul spearheads*

Six spearheads have been interpreted as of the Tréboul type (appendix 6.1; Butler 1987, 9; O'Connor 1980, 63). Characteristic for such spearheads is a leaf-shaped blade, a socket that is sometimes ornamented with ribbing, incised lines, hatched triangles, or pointillé, and two smaller ribs alongside the mid-rib (fig. 6.11). They are believed to have been produced in France during the Tréboul phase (c. 1575-1450/25 BC, see fig. 1.4). The specimens from the research area mostly do not have incised decoration (see Butler 1987, fig. 1). Some have clearly been ground several times (especially the one from Oosterhout, see fig. 6.11), or have a resharpener facet. In one case (Cuijk/Alem) no facet could be observed, however, and it is unclear whether this specimen was used at all. Of the provenanced finds, most are from watery places, just like the Scandinavian and central European spears and most axe finds. They must represent deliberately deposited objects. One example (Grathem),



Figure 6.11 Decorated spearhead from Oosterhout-Verburgskolk (l. 13.3 cm).

however, is said to have been found in a barrow. This would be a remarkable find, in view of the general scarcity of bronze finds in graves. Unfortunately, nothing more is known of this ‘barrow’,

### Conclusion

It is without doubt that spears were introduced during the Middle Bronze Age A, but the long dating-ranges of plain spearheads prevent any discussion on the frequency with which they were deposited at this stage. Circumstantial and direct evidence (association with swords in the Overloon hoard) suggests that spears were first and foremost meant to serve as weapons. Some of the lavishly decorated pieces must have been acquired through long-distance exchange networks, with the Scandinavian Bagterp spear from the Overloon hoard as the

best example. The distinguished appearance of some decorated spears implies that they were display items in the first place. For the Tréboul spears in particular there is recurrent evidence for resharpened blades, suggesting that these had a lengthy use-history in battle. Most spears discussed here ended their life by being deposited in a variety of watery places.

### 6.6 ‘SWORDS’ AND DAGGERS

Another object without precedents in extant material culture that makes its appearance during the Middle Bronze Age A is the sword (appendix 5.1). Being the result of a progressive trend of lengthening dagger blades, it is nevertheless an object that functionally departs from daggers. The lengthened dagger, a dirk or a rapier, is an object that could be used for thrusting, not stabbing or cutting (Harding 2000, 275-7). As such, it is not very practical for hunting. It can actually only be used as a weapon for close-range fighting. There is considerable confusion on the definition of a real sword, a rapier, and a dirk (Burgess/Gerloff 1981, 4-5). Schauer, for example, sees all blades over 25 cm as ‘swords’ (Schauer 1971, 1); Gordon (1953), on the other hand, sees all blades smaller than 35 cm as daggers. Harding labels all blades longer than 30 cm as ‘swords’ (2000, 277). Others, however, see a true sword primarily as a versatile object that can be used for both cutting and thrusting, enabling the warrior to deliver blows from all kinds of angles. In order to achieve such a functional combination, a firm blade-hilt connection is needed, and the blade should be leaf-shaped, and thickened towards the centre (Harding 2000, 277-8). This cut-and-thrust sword is only known from the Late Bronze Age. The Middle Bronze Age swords are primarily thrusting weapons. A distinction between dirks and rapiers seems useful. In this book, a dirk is considered a broad-bladed short thrusting sword. Following Gordon (1953) and Pleiner (1993, 5-7) thrusting swords with much smaller blades – rapiers that is – should be distinguished from dirks, since these were – unlike dirks – suitable for some sort of fencing, a fighting technique that demanded special training (Osgood *et al.* 2000, 23). Following Gordon (1953, 71), thrusting blades with a width less than 2.5 cm are here classified as rapiers. The term ‘swords’ will be used as an umbrella term for all varieties: dirks, rapiers and cut-and-thrust swords.

Although clearly used for different purposes, daggers will also be discussed here. The reason for this is that daggers have formal similarities to contemporary swords (the hilt) that suggest that both were related. Moreover, broken swords were often transformed into daggers (Bridgford 1997, fig. 1).

#### 6.6.1 *Daggers, dirks and rapiers of the Sögel, Wohlde, Weizen and Gamprin types*

Sögel and Wohlde dirks/rapiers have long been considered to represent an older versus a younger type. It is now generally

agreed that this does not hold true and that they are contemporary, yet part of different kinds of warrior equipment sets (Vandkilde 1996, 156, 159). Vandkilde has recently argued that both date from the 16<sup>th</sup> century BC. A longer dating range, as was suggested by Butler (1990, table 1), seems less likely in the face of the new evidence. The Gamprin sword, which is close to the Wohlde type, is somewhat younger (Locham to Göggenhofen-Stufe; Schauer 1971, 38-41). The rapier dredged from the Rhine near Lobith is remarkable for its rounded trapeze-shaped hilt with notches (reworked torn rivet holes? It can tentatively be interpreted as similar to another central European form: type Weizen (cf. Schauer 1971, 56-7; nos. 154-155).

There are currently three dirks and four daggers of the Sögel type known from the research area. It is remarkable that two of the dirks are from the same place (Nijmegen). One of these, however, has an antique dealer's provenance, whereas of the other only part of the blade has been preserved (Nijmegen-Hunerberg). The dirk from Borgharen does not have the round hilt-plate that is characteristic for real Sögel dirks (fig. 6.12). Two of the dirks carry the typical incised decoration on their blades, the other dirks and all daggers are plain.

More numerous are the dirks and rapiers of the Wohlde and Gamprin variety (7). Such swords are as a rule not decorated, and are characterized by their trapezoidal hilt-form only (fig. 6.5: 1-2). They are generally longer than Sögel dirks (Vandkilde 1996, 156). In fact, this hilt-form is identical for dirks found over vast areas, both in north and in central Europe. This hilt-form also occurs on one heavily worn dagger found on a settlement site (Eigenblok; Hielkema 2002).

#### *Swords as composite artefacts*

It can be argued that the swords are composite artefacts, consisting of a blade, an organic handle, and a scabbard, of which our sample has only preserved information on the bronze blade. With regard to the discussion on their cultural biography, we should take this to mean that handle, scabbard and blade may have had different biographies, and perhaps even specific meanings. When preserved, handles often turn out to be beautifully shaped objects (Schauer 1972, fig. Abb. 2). In the course of time, such handles may have been replaced, however. This may have been particularly acute in case of a dirk that circulated for a long period. The meagre evidence there is on Middle Bronze Age scabbards indicate that these are simple, undecorated objects (see Parker Pearson 1999, fig.4.4 for an example). Since the Sögel dirks themselves are often decorated, the implication is that the blade was the part of the artefact that was meant to be seen. In this way, there is a difference in commitment to display between Sögel and Wohlde swords. Vandkilde (1996, 156)

has therefore argued that the two types had different social meanings, something which is also also apparent from the difference in equipment between Sögel and Wohlde dirk graves.

#### *Swords as items of exchange*

The process of casting swords demands considerable skills. In view of the complete lack of evidence for local casting, there is no reason to suppose that such objects were produced in the region itself. It is unclear whether the same holds true for the production of small daggers like the one from Deurne. We saw that similar small, simple daggers were produced locally during the Late Neolithic B. The swords, however, are generally considered to have arrived in the region through long-distance exchange. Of old, Sögel and Wohlde swords were seen as north European imports. In the face of the overwhelming evidence of the production of comparable types in central Europe (Butler 1990, 74 and references cited there), it seems more likely that Sögel and Wohlde swords were produced in both central European and north European regions. As a matter of fact, the Nijmegen sword with two side-notches and two rivet holes is typical for the central European Gamprin type as defined by Schauer (1971, 38-41). Because of its rounded trapeze-shaped hilt-plate, the Borgharen 'Sögel' dirk is also likely to have derived from this part of Europe rather than from the north.

#### *Functionality and use-life*

In general, the functionality of most objects in battle should not be overestimated. The Sögel dirk from Nijmegen-Waal is only very short and it has a casting imperfection in its blade. The longer Wohlde rapiers from the Overloon hoard, however, are more suitable as thrusting weapons since their length allows the distance between the warriors to be somewhat greater than in the case of the short dirks. A number of swords show traces of grinding and resharpening (appendix 5.1), but impact marks have not been recorded so far (cf. Bridgford 1997). This can be explained by the very nature of such dirks/rapiers: they are simply not very suitable for the slashing and fencing action that causes such damage. Some objects never seems to have been used at all, like the Gamprin dirk, which has a blunt, unsharpened edge, or the Sögel dirk from Nijmegen. On the other hand, the Wohlde dagger from Eigenblok has edges that must have been resharpened to such an extent that practically only the midrib survived. It is very worn, and probably already very old when it finally came to rest in the ground. As such, it is in marked contrast with the evidence of the dirks and rapiers. This may explain the discrepancy between the typo-chronology of the dagger type and the date of the settlement site where it was deposited (c. 14<sup>th</sup> century BC; Jongste 2002; Hielkema 2002).

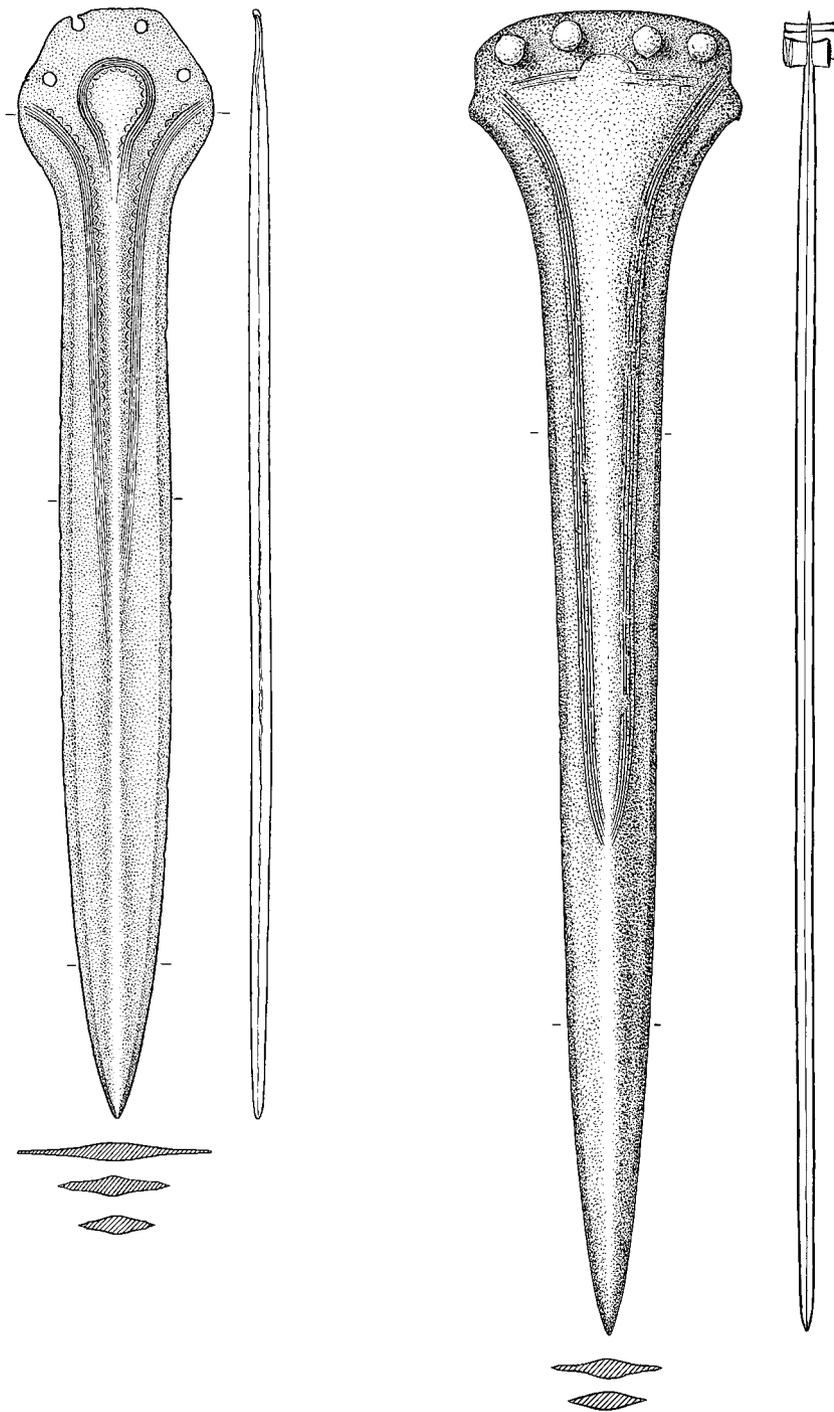


Figure 6.12 Decorated Sögel dirk from Borgharen-Maas (left) and Tréboul-St. Brandan dirk from the river Waal, (scale 2:5, drawing: GIA (Groningen Institute of Archaeology, formerly known as BAI).

### *Deposition*

The majority of the swords come from the major rivers, where they must have been deposited (table 6.1). There is a remarkable concentration of deposits around the Nijmegen area (fig. 6.10). The daggers come from a variety of wet places situated in the region's interior parts. As mentioned above, one dagger (Eigenblok) was found among settlement debris of a Middle Bronze Age B settlement (it will be discussed in association with other house depositions in chapter 7). The other special context is represented by the weapon hoard of Overloon. Although some river finds have an antique dealer's provenance, similar but more reliable sword finds from the same area suggest that the presence of swords in major rivers as a whole is not the result of faked find circumstances. In a few cases it is clear from the patina discoloration that the objects were deposited together with their original wooden haft (this was probably removed when they were found by the dredgers). It is impossible to know whether the objects were originally deposited with or without a scabbard. A blade fragment from Nijmegen-Hunerberg is the only one that can be attributed to a dry context: a plateau near the steep ridge of the hills of Nijmegen. The large-scale excavations carried out at this spot have made it clear that at least one small cemetery with Middle Bronze Age barrows was situated here (Louwe Kooijmans 1973). None of these, however, has yielded a bronze grave gift.

#### 6.6.2 *The Overloon hoard: the deposition of personal warrior sets*

Overloon is a hoard consisting of two rapiers, two spearheads, one pin or needle and one flanged axe, placed in a remarkable position on top of each other (fig. 6.5). They were found in a small natural hillock, bordering the marshy valley of a number of streams (fig. 6.7). In the vicinity, no other Bronze Age finds are known. The object set in the hoard copies those of warrior graves typical of the Sögel-Wohlde region (Vandkilde 1996), and those found more southerly, in Hessen, Germany (Jockenhövel 1990). The needle and nick-flanged axe are also typical elements in this type of graves. In such graves, the needle probably served to fasten garment (a cloak?). Consequently, the objects deposited here seem to have been the paraphernalia of a particular personal status, that of warriorhood with clear references to non-local ways of bodily adornment. Yet, the object set itself is probably not a grave as has often been thought. It is not only its location in the landscape that makes this unlikely: the find spot is a small isolated hillock in or at the fringes of the marshes of several streams (fig. 6.13). It is also the combination of objects that is uncommon for such graves, as well as their ordering in the hoard. Here clearly two personal object sets have been

placed (two rapiers and two spearheads), but only one nick-flanged axe and one needle (if the find indeed represents the original contents of the hoard). As a rule, warrior graves from this periods have one dirk or rapier and one spearhead (Vandkilde 1996, 303). Rare occasions are the combination of a rapier and a dagger, but not of two rapiers/dirks and two spearheads (Pleiner 1993, note 6). On top of that, from the patina of the finds, the original placement of the objects in the ground can be reconstructed (fig. 6.7), which deviates from the way weaponry is normally placed in graves. Therefore, the Overloon hoard must represent the deposition of at least two personal sets of Wohlde warrior equipment in a marshy environment.

#### 6.6.3 *Tréboul-St.Brandan swords*

Another type of dirk found in the region are those of the Tréboul-St.Brandan type (fig. 6.12). There are only two of such dirks known from the region (Battel and one found somewhere in the river Waal), a third has an unknown provenance ('Halle-Zoersel'). They have a broad butt with often six rivet-holes, usually flanked by two notches. The blade has a midrib which is flanked by multiple grooves. Down the blade, the grooves converge and the midrib narrows down (O'Connor 1980, 66). They are dated to the French Tréboul phase, Reinecke B and Montelius Period I (O'Connor 1980, 66-7 and Schauer 1972). There are arguments that they were contemporary with Wohlde rapiers (Schauer 1972, 23). All this implies that they date from the sixteenth century, or somewhat earlier. It is less clear for how long they remained in use. Schauer argues that they were no longer current around the end of the Göggenhofen-Stufe, whereas Butler allows for a longer dating range (Butler/Sarfati 1970-71, 309). Although it is likely that the Dutch finds date approximately from the sixteenth to fifteenth century, a later date cannot be excluded (fig. 6.2).

Like the Sögel dirks, Tréboul dirks have a decorated blade. When the wooden handle has been preserved, this appeared to be decorated as well (Schauer 1972, Abb. 2). Like the Sögel and Wohlde dirks/rapiers, it is a composite artefact, and we may assume that scabbard, handle and bronze blade followed different life-paths. Schauer (1972, 21) argues that the different hilt-form allows a better grip on the dirk than in the case of other dirks (like Sögel and Wohlde dirks). It is primarily a weapon used for stabbing/thrusting, mostly not very long, and not allowing repetitive slashing-and-fencing action. The decoration of the blade indicates that this part was clearly meant to be seen. The decoration is rather stereotyped, although the butt end (as to the number of notches and the exact form of the hilt) can vary considerably. This may imply that the smiths who made such dirks deliberately attempted to produce an object that looked like existing ones, just as was suggested in case of the Sögel dirks.

Such dirks are numerous in north-western France, and probably the Dutch finds were imported from that region. Both dirks must have been deposited in rivers or their backswamps, like most contemporary swords discussed here. Both swords were sharpened before deposition, but they do not bear traces of an intensive use-life.

#### 6.6.4 *The ceremonial dirk from Jutphaas*

A remarkable object among the metalwork discussed so far is the dirk from Jutphaas, found just north of the research area (fig. 6.13; Butler/Sarfatiĳ 1970/1971). In form, this dirk is related to the dirks of the Tréboul-St. Brandan type. Like them, the Jutphaas dirk has a broad midrib that takes the shape of an ogival ornament. From its point a single thin rib descends to the tip of the dirk. It is noteworthy that the casting is nowhere thicker than *c.* 8 mm, and of a perfect symmetry. Traces of casting seams or a casting jet could not be detected, although the object was in a perfect state of preservation. This is highly remarkable, for the edges of the dirk are neither sharpened nor blunted. We would at least expect minimal traces of seams to have survived here, but this is clearly not the case (Butler/Sarfatiĳ 1970-71, 305-6). Particularly if a two-piece mould was used for casting (which must have been the case here), this requires great skill on the part of the smith. This, together with the remarkable symmetry and thinness of the casting, shows that this object is the product of excellent workmanship (Butler/Sarfatiĳ 1970-71, 306; Fontijn 2001, 269). Perhaps the most remarkable observation concerns the hilt-plate. Although carefully finished, it had no notches or rivet holes whatsoever. This implies that it was never held in the same way as one holds a regular dirk. Making an effective slashing or stabbing movement with it must have been quite difficult as well in view of its remarkable thinness. Its unsharpened edges and lack of rivet holes show that this dirk was never used as such. The unpractical design (its thinness) implies that this was never intended even. On the other hand, pains were taken to produce a highly symmetrical object. The element of display seems to have been primary in the design. The dirk has therefore been interpreted as a ceremonial object (Butler/Sarfatiĳ 1970-71)

The Jutphaas dirk was found during dredging operations. The find-spot lies a few hundred metres north of a fossil river course that was already dry land in the Middle Bronze Age. It is some thirteen kilometres away from the Middle Bronze Age settlements of Zijderveld and a few hundred metres north of a fossil river course on which contemporary human occupation could have been possible. The dirk itself, however, must have been lying in a boggy basin (Butler/Sarfatiĳ 1970-71, 304).

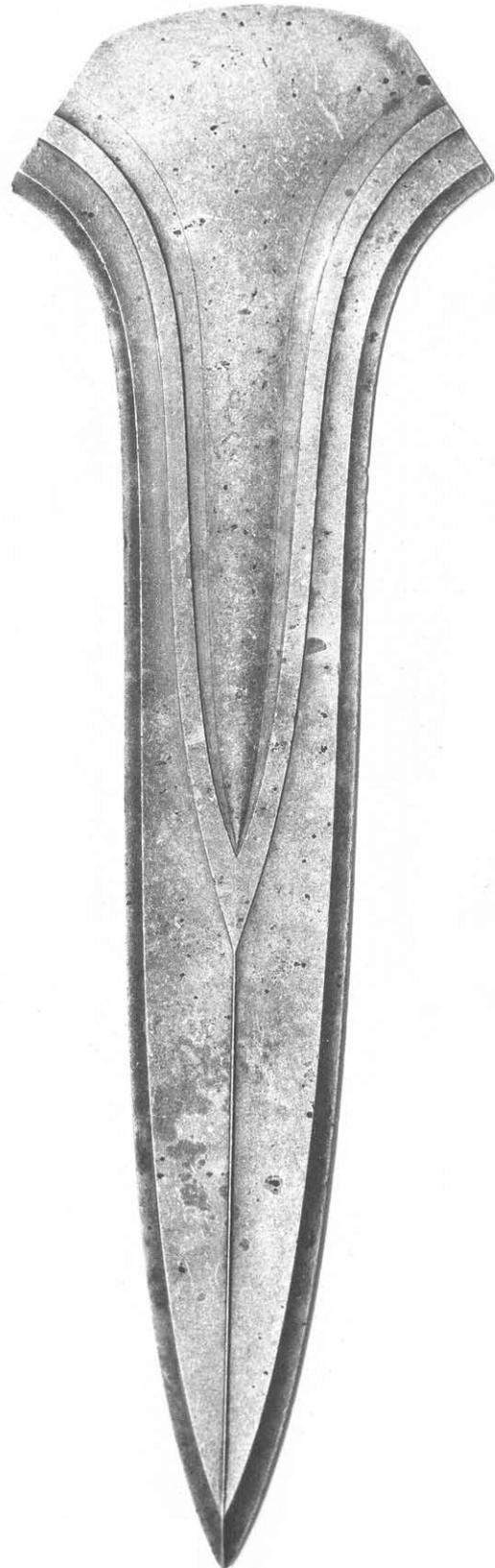


Figure 6.13 The ceremonial dirk from Jutphaas, 42.3 cm. Photograph ROB.

The excellent preservation shows that it must have been deposited there, and that it was not originally a dry location that became a marsh only later.

*Special characteristics of ceremonial dirks of the Plougrescant-Ommerschans type*

The characteristics of the Jutphaas dirk mentioned so far make it an outstanding object among current metalwork. But there is more to it than just that. The Jutphaas dirk is one of a group of very similar dirks. In all, five such dirks are known (Fontijn 2001). Two have been found in France (Beaunne, eastern France and Plougrescant (Britanny), one in southern Britain (Oxborough), and two in the Netherlands (the one from Jutphaas and one from Ommerschans in the northern Netherlands). They have been labelled ceremonial dirks of the Plougrescant-Ommerschans type (Butler/Bakker 1961; Needham 1990), and are dated *c.* 1500-1350 BC.<sup>4</sup> The Jutphaas dirk is the only one of normal dirk size. All the others are much larger, and can safely be described as absurdly over-sized for a dirk (Butler/Bakker 1961). For example, the one from Ommerschans is 68.3 cm long and 18.6 cm wide across the hilt-plate. None of them has notches or rivet-holes or sharpened edges and all are very thin. For the large ones, their non-utilitarian design is even clearer than for the one from Jutphaas. These objects were meant to be seen. Particularly the large ones could not even be held in the way one holds a dirk. They are not dirks in a proper sense, but magnifications of the visual impression of a dirk (Fontijn 2001, 267).

In all their details the dirks are very similar. Those from Ommerschans and Plougrescant are even similar to such an extent that they must have been made in the same mould (Butler 1990, 87). The example from Oxborough has slightly different dimensions and therefore must have been made in another mould (Needham 1990, 239-41). This, however, makes the visual similarities between this one and those from Ommerschans and Plougrescant all the more striking. The smith who made the Oxborough dirk must have had an intimate knowledge of those from Ommerschans/Plougrescant. Only the blade part of the Beaunne dirk is left, but again it shows great similarity to the other ones. Jutphaas is the only specimen of regular dirk size. Even this object, however, is a copy of the other dirks in all their details. Butler has argued that Jutphaas is actually a reduced version of the Ommerschans dirk (Butler/Sarfati 1970-71, 308). The resemblances between the objects are so striking that they must be deliberate. The smith seems to have made an object that not only had some similarity to an existing Plougrescant-Ommerschans dirk: the aim seems to have been to make an object that was an almost identical copy of such a dirk in every respect. This implies that the smith worked with a well-defined visual concept of a specific type of dirk

in his mind. (Fontijn 2001, 268-9). The Jutphaas dirk, being the only one of deviating size, is a case in point. Although smaller, the typical form of the ogival ornament, the minute details of the midrib, and the shape of the hilt-plate all add to the visual impression that this is one of them'. Such a high-level of similarity is unprecedented among the objects described so far, and it suggests that these similarities were deliberate and apparently mattered to the community on whose behalf the objects were produced. It also suggests that they were all made by the same smith or workgroup (Butler 1990, 87).

These observations become particularly interesting in view of the observation made above that these objects are all the product of excellent workmanship, outstanding among contemporary metalwork (Butler/Bakker 1961, 199), and in view of the fact that some – particularly the Dutch objects – of them must have travelled over a vast area. Butler (1990, 91) has suggested that the dirks were made in northern France, or in southern England. Consequently, the Jutphaas dirk must have been exchanged over hundreds of kilometres.

*6.6.5 Other finds: two daggers of British type*

Finally, some words need to be said on the find of two daggers that typologically and chronologically do not fit within existing sword and dagger types. These are the daggers from Heel and Stevensweert, both erroneously interpreted as halberds (appendix 5.1; Stoecker 1990, 241). The Stevensweert dagger (fig. 6.14) can be interpreted as a grooved ogival dagger dating to the Wessex 2/South German A2 phase (Gerloff 1975). This phase precedes the Sögel-Wohlde phase (fig. 1.4). The dagger from Heel is comparable to British daggers of Gerloff's Ridgeway group (Gerloff 1975; spec. no. 94 and 95). This type is also dated to the late Wessex phase. Both daggers seem to be earlier than the other swords and daggers discussed here. Since both daggers have three instead of four rivets, they are likely to have been British imports rather than central European (Swiss) ones. Later on, we shall see that these daggers are actually among the few examples of object deposits dating from the earliest part of the Middle Bronze Age A. The find-spots of both daggers are in the Meuse valley not far removed from each other. The Stevensweert dagger is a dredge find and probably represents a river deposit. The Heel dagger was found on dry land with a metal-detector. It might come from a former river channel, however, since the edges carry a brown patina. Since the precise find spot is unknown to me, this cannot be verified.

*6.6.6 Sword biographies*

Reviewing the evidence on swords and daggers, a number of conclusions can be drawn. Contrary to axes, a number of deposited swords has never been used. In general, they were skilfully made, and the element of display seems to have



Figure 6.14 Dagger from Stevensweert-Maas (not to scale; after Stoepker 1990, fig. 38).

been more important than for contemporary metalwork (Sögel, Tréboul St. Brandan, Jutphaas). By their very design, some swords were also quite impractical specimens. Both aspects are present in the extreme in the Jutphaas dirk, which is an outstanding piece of metalworking, that was never was intended to be used, however. The implication is that swords more than other objects had ceremonial rather than practical functions. The rather stereotyped decoration on some types indicates that swords were deliberately made to look like other swords; again this comes best to the fore in the case of the Jutphaas dirk, which belongs to a well-defined, highly similar group of ceremonial dirks. It is this find, too, that exemplifies another element vital to all swords known to us: they must all have circulated over vast areas. They were probably part of a more encompassing warrior outfit that was for some reason laid down by the warrior, as is suggested by the well-preserved Overloon hoard. Resharpener blades remind us of the fact that some swords may also have accumulated meaning by actually having been used in battle. Although the number of finds is not so high, the majority seems to have been deposited in major rivers, sometimes in the same place (several sword deposits are known from the Nijmegen area and probably also from Venlo). In the emphasis on rivers, they contrast with inland deposits of axes, spears and daggers. The latter category may include objects with some formal similarity to swords, but their deposition seems to have been in a greater variety of watery places than in the case of sword deposition. It might

therefore be ventured that they probably did not have the same special meaning as swords.

#### 6.7 DEVELOPMENTS IN THE STRUCTURE OF THE METALWORK REPERTOIRE

Having discussed the metalwork finds of the Middle Bronze Age A and having gained some insight into the biographies of different types of objects, it is now necessary to bring the different pieces of evidence together and consider general patterns in the life-cycles of things. Before we focus on these, it seems wise to pay some attention first to the introduction of new objects among the metalwork repertoire: swords and spears. Since these new object types were specialized weapons, the very fact that they were adopted and came to play a role in depositional practices suggests that the significance of warfare and martiality was on the increase.

##### 6.7.1 *The category of specialized weaponry and what it implies: the social significance of martiality*

In the last chapter, I concluded that since the Late Neolithic metalwork objects were increasingly used in practices of permanent object deposition, gradually replacing those made of other materials. Tentatively, a division could be made between metal objects used for bodily adornment and axes. The idea was put forward that body ornaments and dagger may have been related to the construction of a specific kind of personhood in a burial context, and that martiality was one of the values being emphasized in such a context. This martial element seems to have become more pronounced during the Middle Bronze Age A.

Above, it has been argued that both swords and spears were new objects in the Low Countries, for which no real predecessor existed. Both are specialized tools designed for battle. There is a gradual difference between spears and lances on the one hand, and dirks and rapiers on the other. In practical terms, spears could still be used for hunting as well, but dirks and rapiers are not much use for other practices than fighting. I want to emphasize that spears may to a certain extent allow low-risk fighting (throwing spears at the enemy from some distance), whereas dirks and rapiers are only useful in high-risk fighting practices where warriors agree to come face-to-face. Therefore, dirks and rapiers are certainly not a technical improvement in warfare techniques; rather they indicate a commitment to a specific way of fighting, a way that is highly personal (warriors coming face-to-face), more risky, and based on common codes (if one of the warriors chooses to shoot his opponent with bow and arrow from a safe distance, the idea of dirk fighting is pointless from the outset). Moreover, the characteristics of the dirks and rapiers studied here make it clear that they are certainly not superior, forceful weapons. Slashing an

approaching enemy with an axe was probably much more effective. Apart from that, dirks and rapiers are also more difficult to produce than such axes. In this period, almost everywhere in north-west Europe dirks and rapiers appeared and became an inextricable element of material culture from then on (Harding 2000, chapter 8). The very fact that dirks and rapiers were made shows a distinctive commitment to a peculiar way of fighting, which is not more effective, but more personal and based on specific behavioural codes. The evidence from northern Europe, including the northern Netherlands, shows that dirks tend to occur in large barrows and rich graves. It may therefore be argued that this way of fighting was not just different, but also distinctive for the martial life-style of a small group, an elite. The fact that a ceremonial object now takes the shape of a sword seems to exemplify the special meaning of swords and sword-fighting.

If we now go back to the division between tools and objects of body adornment, seen as typical for the period before the Middle Bronze Age, a dirk or rapier may be a new element in the latter category. Many of the early dirk graves from northern Europe can be seen as still having many elements of the Beaker grave. One characteristic is, for example, the presence of a set of flint arrowheads, just as in Beaker graves. The copper dagger that is so often found in Beaker graves, however, seems to have been replaced by a (Sögel) dirk. The potential multi-functionality of the weapons from a Beaker grave (dagger/knife and archery equipment) was now being replaced by a more clearly specialized weapon set.

#### 6.7.2 *Transformations in existing categories of material culture*

There are a number of basic contrast between the new objects on the one hand, dirks/rapiers and spears, and the already existing bronze axes on the other. They are summarized in table 6.2. The weapons that were deposited are not only specialized tools, they also have visual characteristics that are absent from most axes. The blades of dirks/rapiers

and some spears are decorated in a stereotyped way, implying that such objects were more rigidly defined as a group. Also, many dirks and rapiers that figured in deposition do not give the impression of actually having been used, in marked contrast to the heavily worn Oldendorf axes. The increase of specialized weapons suggests that axes lost the dual roles they had had before, being both tool and weapon. A diversification among axe forms in northern Europe suggests that this was indeed the case. This development is relevant here, since these objects reached the southern Netherlands as well. The visual contrast between the regular Oldendorf axes and the rare nick-flanged axes have already been emphasized. Actually, Oldendorf axes and nick-flanged axes – their contemporaries – differ in a way that reminds us of the way in which the new weapons differ from axes. Table 6.3 summarizes these contrasts. It has already been argued that the visually deviating nick-flanged axes were specialized objects, weapons, because of their associations with swords and spears. They may have been designed as weapons, but this does not mean that they were also used for it in regions to which they were imported. In the southern Netherlands, however, there are arguments that the nick-flanged axes were indeed deposited in a way different from Oldendorf axes. One of those contexts, the weapon hoard of Overloon, is clearly of martial character, whereas another, the chisel from Overloon, must have come from the central grave of the largest Bronze Age barrow in the region, reminding us of the elite-associated character of most of the weapon graves.

### 6.8 METALWORK CIRCULATION

#### 6.8.1 *The restructuring of spheres of exchange?*

The incorporation of weapons in the already existing phenomenon of deposition of metal objects not only seems to coincide with a significant increase of the rate in which it was practised; it also seems to have led to new objects being treated and valued differently, and to a restructuring of the until then rather undifferentiated practice of axe production, circulation and deposition. On the basis of their frequency of

	<b>Axes</b>	<b>Dirks/rapiers and spears</b>
<b>Occurrence</b>	regular	rare
<b>Display elements</b>	sometimes	often (stereotyped)
<b>Function</b>	multi-functional	specialized (battle)
<b>Production</b>	relatively simple	complex (dirks/rapiers)
<b>Type of object</b>	existing	new
<b>Use life</b>	for a variety of tasks	often not used at all
<b>Deposition</b>	in many types of wet locations	major rivers, weapon hoard, unknown

Table 6.2 Contrasts between MBA A metalwork objects.

	Oldendorf axes	Nick-flanged axes/chisels
Occurrence	regular (> 30)	rare (< 10)
Display elements	lacking	emphasized
Function	multi-functional	specialized? (battle axe?)
Production	relatively simple	more complex
Type of object	existing	new, visually deviating form
Use life	used for a variety of (heavy duty) tasks	unknown
Deposition	in many types of wet locations	major rivers, possibly associated; weapon hoard; burial in monumental barrow

Table 6.3 Contrasts between axe types from the Sögel-Wohlde phase.

occurrence, specialization, presence of display elements, decoration, functionality (and signs of actual use), the Middle Bronze Age A metalwork can be classified in the way outlined in fig. 6.15. At the top, there are the extremely rare, a-functional, highly elaborate and excellently made objects of a ceremonial nature. At the bottom, there are the plain, simple and regular work axes. The suggestion can be made that these different form classes of objects were also treated differently by people, and had different biographies. Since most objects must have reached the region through exchange, it is conceivable that this differentiation echoes ranked spheres of exchange. As set out in chapter 3, every non-monetary exchange system would have different spheres of exchange, with most objects that are a society’s most valuable and inalienable possessions at the top, and the more current and alienable ones in the lower spheres. Although archaeology does not allow us the study of circulation in such detail, it is an interesting question whether dirks, for example, had a different life from Oldendorf axes. As said above, there are indications pointing in this direction. What can be investigated, however, is the way these different objects were treated in depositional practices. Before that subject is dealt with, some final words need to be said on

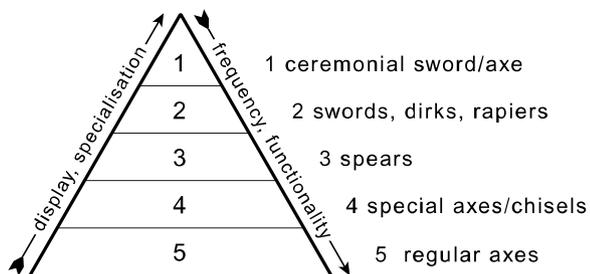


Figure 6.15 Structure of the metalwork repertoire.

the issue of exchange. For many objects, particularly dirks/rapiers and their ceremonial versions, it is likely that they circulated in a system of exchange of valuables. Godelier (1999, 161 ff.) has argued that valuables in such systems usually have the following characteristics:

- Although they look like tools or weapons, they are never of practical use.
- There is a certain abstraction. ‘This seems to be the prerequisite for their being able to embody social relationships and thought systems and then to represent them’ (Godelier 1999, 162).
- They are ‘beautiful’ to valorise the object’s owner and serve as a source of emotions

He goes on to argue that consequently the most valuable things are unique. If we now return to the classification presented in fig. 6.15, then it appears that the top-most objects (dirks/rapiers and ceremonial dirks) all have these characteristics. The distinction between real dirks and a ceremonial dirk like the one from Jutphaas becomes also more marked.

- Such objects certainly evoke the image of a particular weapon (a dirk, a high-flanged axe), but they could never have functioned thus.
- There is obviously an element of abstraction in the manner in which Plougrescant-Ommerschans objects represent dirks. The same is true for ceremonial axes, like we know them from adjacent regions.<sup>5</sup> As a rule, both are magnifications of the original objects, there are their remarkable thinness, the unsharpened edges and the absence of rivet-holes and notches (in the case of the dirk)
- Although ‘beautiful’ is a subjective concept, all these objects are the products of excellent workmanship, not seen on more regular dirks and axes.

If we add to this the fact that these ceremonial versions are extremely rare, and – in the case of the Plougrescant-Ommerschans dirks – part of a small, rigidly similar group

probably made by the same smith, then it becomes likely that these objects most have belonged to the highest ranking objects. They must have been designed as a singular, outstanding class of objects. Following Godelier's re-formulation of Mauss' original thesis on gift exchange, these objects may have served as the ultimate inalienable possessions, embodying a society's most crucial possessions. The fact that such a ceremonial object is an abstraction of a dirk is informative on the significance attached to such martial objects by the French or British community on whose behalf it was produced. However, the fact that such an object was exchanged over long distances and was apparently capable of transcending cultural barriers to be finally deposited in a marsh in the southern Netherlands, say a good deal about the appreciation and valorisation of martial ideologies in those regions as well.

#### 6.8.2 *Metalwork circulation: the southern Netherlands in the north-west European world*

So far, I have discussed the nature of the objects that were imported into the region, as well as the way in which this metalwork exchange was structured. This leaves us with the question of the more precise constellation of the contact networks that linked the southern Netherlands to the wider European world. That the southern Netherlands were part of such a network is evident: there is actually no evidence for metalwork being locally produced in this region. If a local production existed, it may have applied to the most regularly found objects, the Oldendorf axes. Another possibility is that the production of the later Vlagtwedde stopridge axes took partly place in the southern Netherlands (as argued in section 6.4.5, it has been suggested that such axes were produced in the northerly Dutch IJssel region). This remains entirely hypothetical, although it is a possibility. At any rate, if Oldendorf axe were produced in the eastern parts of the region (the Meuse valley and/or the adjacent German region), then the fact still remains that no trouble was taken to give them a regional character (as was done in the case of the Ekehaar variety that was probably locally produced in the northern Netherlands). Actually, an Oldendorf axe found in the Netherlands cannot be visually told apart from one found in Denmark. If such axes were locally produced, then the attempt to make them look like those from other regions must have been deliberate (e.g. by means of making clay moulds of imported ones). In this way a regional identity would not have been emphasized in the character of the objects, rather the contrary. We saw a similar phenomenon in the case of the Early Bronze Age Emmen axes.

Summarizing we may say that the tools that were so significant in the existence and life of local groups in the research region were probably all imported, and, if locally produced, strongly affiliated to an international style. As will

be further argued below, the marked increase in deposition of such bronze objects, axes in particular, in most parts of the southern Netherlands indicates that the practice of deposition became wide-spread and took place more often. Consequently its social significance must have grown considerably. Since this practice could only exist by virtue of a regular supply of bronze objects from outside the region, it can be inferred that the southern Netherlands (but the northern Netherlands as well) was to the regions whence these objects came as a periphery to a core. After all, socially relevant practices like axe deposition depended entirely on the importation of foreign objects. In view of the total lack of evidence on axes made of other material than bronze, the dependency relations must have been even more fundamental than just the supply of objects that were relevant to specific ritual practices like deposition. It would, however, go too far to state that a real core-periphery relation existed between, say, the north German region and the southern Netherlands during the 16<sup>th</sup> century. For such a relation to exist, we would expect a local elite to have based their power on exclusive access to external prestige-goods networks. Although there is evidence for the exchange of rare valuables (see last section), these valuables are too few in number to suggest that an entire system of social reproduction was based on the control of such prestige-goods networks. The Dutch evidence is in no relation to the situation in Denmark during this phase, where the presence of an elite, portrayed in graves with a recurrent set of central European imports, is clearly discernible (Kristiansen 1987). In essence, however, it can be argued that the southern Netherlands too, was linked, much more than before, to a wider, regular system of long-distance exchange. It must have been through these channels that the new objects like dirks and rapiers, and the ensuing concepts about martiality, flowed.

#### 6.8.3 *Bronze circulation and the problem of the 'Hilversum culture'*

But were there regional developments as well? In the introduction to this chapter, it was argued that the Middle Bronze Age A saw transformations in existing material culture, the formation of the 'Hilversum culture' being the most significant one. The new, so-called British, elements on ceramics, as well as a remarkable new type of barrow, the *ringwalheuvel*, were arguments in favour. In a recent study, Theunissen (1999, 208-11) has argued that the occurrence of Hilversum ceramics in the Middle Bronze Age A develops parallel to a regionalisation in ceramic traditions in the Netherlands, Belgium, northern France, and southern Britain. In the preceding period there was a marked similarity in ceramic style (Beaker pottery) in most of these regions. The Hilversum type of ceramics, however, is still clearly related to pottery styles current in northern France,

western Belgium and southern Britain (Theunissen 1999, 210-11). *Ringwalheuvels* occur in these regions as well (idem, 207).

Hilversum pottery may be restricted to a very early phase within the Middle Bronze Age A before the 16<sup>th</sup> century<sup>6</sup>, a phase for which we hardly know any bronzes. *Ringwalheuvels*, however, extend later in time, as suggested by the bronze finds and <sup>14</sup>C-datings (Theunissen 2001). The bronze imports from the later part of the Middle Bronze Age A, however, show considerably less evidence of Atlantic connections. The most frequent items of this period are the continental Oldendorf axes, and most sword types are continental as well (appendix 5.1). The networks of contact and influence that linked the southern Netherlands to the adjacent European regions during the Middle Bronze Age-A, are more heterogeneous than once thought (cf. Theunissen 1999, 207-8). A case in point are the *ringwalheuvels*, traditionally thought to be one of the clear-cut examples of those British, or at least Atlantic, connections: the bronze objects found in them are not Atlantic, but north or central European in origin.

Summing up, we see that the evidence of metalwork shows the significance of continental relations instead of the predominance of Atlantic ones that we would expect on basis of the prevailing pottery style and the *ringwalheuvels*. Consequently, a major part of the bronze circulation took place through different contact networks than those by which the Atlantic pottery traditions and barrow types became dispersed.

## 6.9 PATTERNS IN METALWORK DEPOSITION

In section 6.4 to 6.6, the following patterns in deposition have been recognized.

- Deposition of used axes in a variety of watery places all over the region
- Deposition of nick-flanged axes in a deviating manner (together in a river or as part of a weapon set)
- Deposition of spears in a variety of watery places, or as part of a weapon set
- Deposition of swords, often unused, including a ceremonial version, predominantly placed in rivers
- Non-deposition of metalwork in burials and settlements.

The exceptions are non-normative objects in non-normative barrows.

(The deposition of daggers is more difficult to understand. It seems to overlap the kind of locations into which axes or spears were placed.)

What can be deduced from these patterns? In the following, it will be argued that essentially the patterns follow the fundamental division between deposition of valuables related to personhood, and other valuables. First, however, we should tackle the discussion on possible fluctuations in the rate at which deposition was practised.

### 6.9.1 *Fluctuations in the rate of deposition*

Looking at the dating ranges of the objects under investigation (fig. 6.2), a major differentiation exists between objects dating from the first half of the Middle Bronze Age A (only a handful) and those from the later phase (parallel to the Sögel-Wohlde-phase). If we trust these datings, we can only conclude that metalwork deposition was significantly lower in the earlier part of the Middle Bronze Age A. As we have seen, it was different in character as well, involving new objects like swords and spears. On the other hand, we should be careful in drawing such conclusions. Axe types that would chronologically fill the gap in the earlier part, like Langquaidt axes, are indeed unknown from the Netherlands and Belgium. The dating range of Early Bronze Axes of the Emmen type, however, is much less well known. Theoretically, it could extend to the beginning of the Early Bronze Age. Our find hiatus may therefore partly, but not entirely, be the result of dating problems. After all, the evidence for axes with clear later, and not earlier, datings cannot be ignored. Among them are the items that we find most frequently in Middle Bronze Age A deposits: the Oldendorf axes, the nick-flanged axes, most axe types listed in appendix 2.4 and the Wohlde swords.

### 6.9.2 *Axe deposition*

The overwhelming evidence of depositions is for offerings of axes in all kinds of watery places. Apart from a possible hiatus, or at least decrease in deposition rates in the first part of the Middle Bronze Age A, it is fundamentally a continuation of the widespread practice that we saw in the Early Bronze Age. In section 6.4 it was argued that the life-paths of Oldendorf axes, Atlantic imports and stopridge axes all shared common elements: an axe was imported from far, it circulated, was put to use and finally deposited in a watery place. The traces of a use-life are the most pronounced in the case of the most-current axe type, the Oldendorf axe. Use traces on such axes show that they were used for heavy duty tasks like cutting down trees and heavy wood working. In all probability, we can assume that these were tools with which the land was reclaimed and the houses built. Some examples must have circulated for a long time, like the Oldendorf axe fragment from Montfort that was re-used as a wedge. We may be inclined to see it as evidence of a rigid economical way of dealing with material. However, this makes no sense in the light of the observation that most of these economically used axes were deposited in a way that result in their loss: they were thrown into rivers or streams, impossible to retrieve any longer, and as shown in section 6.4, this cannot be the result of casual loss, but it was a deliberate removal of this object from further use. Moreover, it was observed that many axe were re-sharpened, and the sharp patinated cutting edges indicate that this happened not long before their final

deposition. They were thus deposited *as if for use*. The conclusion that can therefore be drawn that this use-life that was so visible on the axe, was not the result of economical use of scarce material; *this use life mattered for the selection of the axe for deposition*.

The preference for placing such axes in watery places, and not in graves, was something that we have already seen for the Late Neolithic B and Early Bronze Age. With the rise in archaeologically visible burials, it becomes even more apparent than in the case of the earlier periods that axes did not have a place in the construction of personal identity of a deceased individual in a barrow grave. The possible entanglement of axes and communal histories (reclamation, house-building) and the subsequent meaning of axes in the communal domain that was suggested for the Late Neolithic B and Early Bronze Age thus seem to continue in the Middle Bronze Age A, as does their notable absence in association with the construction of personhood in graves.

Although essentially we saw the same for the Early Bronze Age, the paradox involved in the selection of the offering location now becomes more apparent. If this involvement of the axe in local histories of house building and settling or resettling was really so important, it then comes as a surprise that such axes were almost as a rule finally deposited in locations that seem to have nothing to do with settlement, reclamation or house locations. Rather the contrary. For example, the Oldendorf axes found in the marsh near Echt are from an entire valley that must have been a remote, uninhabitable swamp. The axes from Meerlo-Wanssum were found near higher grounds with at least one barrow. The axes, however, come from an old Meuse channel, below the high grounds. The same goes for the axes deposited in the predecessor of the river Waal near Nijmegen. People lived on the high ice-pushed ridge bordering the river valley, but not in the valley itself, the place where these axes must have been deposited (see 6.4.1 for other examples). Summarizing the paradox comes down to this: after a long life of use in cultivating the land, the axe ended up in uncultivated, 'natural' places in the landscape, some of which must have been remote and peripheral to the areas of settlement and graves.

### 6.9.3 *Weapon deposition as the surrender of the paraphernalia of personhood*

Above, it was argued that swords, spears, nick-flanged axes and possibly daggers served primarily as weapons. These new, specialized weapons (swords) soon came to play an important role in existing offering practices. This indicates a growing, and more explicit, concern with martial values in the practice of object deposition. As we saw in the last chapter, this emphasis on martiality was not new; it was an element in the Bell Beaker burial set as well. What

constitutes the difference, however, is that the Middle Bronze Age A weapons, swords in particular, are no longer multifunctional tools, but specialized weapons designed for close-range fighting. By their very nature, swords are related to an individualized type of fighting, and therefore prone to be used in personal rather than communal display. We might therefore expect that the most likely place where such objects were deposited would be in a grave, placed on or near the body of the deceased, as in the case of the Bell Beaker graves. In Sögel-Wohlde burials, however, the emphasis on martiality seems much more outspoken.

Indeed, in large parts of Europe the earliest Sögel and Wohlde swords tend to be found in graves, often containing a rather stereotyped set of accompanying grave goods (a.o. a nick-flanged axe or chisels, objects of body adornment like arm-rings, and objects for working the body, most notably razors (Lohof 1991, 246-7)). This again may remind us of the earlier Beaker graves (chapter 5). The conclusion therefore forces itself upon us that we are dealing with the paraphernalia of a specific kind of chiefly personhood, constructed by highly specific valuables. The entire imagery seems deliberate to evoke associations with non-local communities. As in a Beaker grave, the deceased is dressed in a way that suggests membership among far-flung, *non-local* communities. This certainly applies to the Netherlands as well, where Sögel and Wohlde graves have also been found (appendix 5.6). The richest Sögel grave of the entire *Sögeler Kreis* even comes from the northern Netherlands (Drouwen).

In the southern Netherlands itself, Wohlde and Sögel swords have also been found in comparable numbers as we have seen (section 6.6.). None of them, however, comes from a grave<sup>7</sup>, but they all come from watery places. The same goes for spears and nick-flanged axes. It should probably not be seen as an entirely deviant way of recontextualising these non-local objects. The Overloon hoard clearly contains the equipment of two Wohlde warriors, including the needle, that is so characteristic for graves north of the Rhine. Here, however, individuals seem to have surrendered their paraphernalia in a specific manner and in an isolated marshy area cross-cut by small streams.

The weapon finds are all located in the eastern part of the research region (the Meuse valley and the eastern river area), and it is possible that dirks or rapiers did not circulate in the more western parts, thus explaining the absence of those objects in the many barrows excavated there. Still, in at least one case Middle Bronze Age A graves could be studied that were situated in the vicinity of sword deposition zones: in Nijmegen at the ice-pushed ridge bordering the valley (Fontijn/Cuijpers in press; Louwe Kooijmans 1973). Here, however, not even the tiniest piece of bronze was found in the graves. Apparently swords, spears, and axes were preferably kept away from graves and deposited elsewhere.

On the whole, it can be concluded that weapons were deposited in a different way than in the regions north of the river Rhine and in other north European regions. Although obviously participating in intra-regional weapon exchange networks like the adjacent regions did, we may here be witnessing a different way of recontextualising weaponry. Weapons were apparently not meant to be placed near deceased individuals in barrow graves; rather they should be sunk down to the bottom of major rivers or their boggy backswamps, or be deposited on the fringes of a large bog and several streams, as we saw in Overloon. And this hoard is a case in point for the argument developed here, for in spite of its odd, peripheral natural location, its contents clearly echo the regular weapon sets that were commonly deposited in graves in more northerly regions. The needle may even indicate the deposition of warrior-associated garments. So the ideas about the typical appearance and adornment of Sögel-Wohlde warrior graves were vivid in the southern Netherlands as well, but recontextualised in a different way.

#### 6.9.4 Conclusion

If we now return to the patterns mentioned in the introduction to this section, I think it is feasible to bring together the patterns recognized for individual object types. Spears, swords and nick-flanged axes all seem to represent the deposition of weaponry. Objects now arbitrarily kept apart should probably be seen in conjunction, as the Overloon find implies. They were all part of martial equipment that was for some reason laid down by people. A distinction can be made between high-status weaponry (swords, some spears, nicked-flanged axes and a needle type) and more regular spears (found everywhere across the region, just like axes). I argued that such weapons should primarily be seen as personal valuables. The meaning of axes, which had life-cycles of exchange, an intensive use-life and deposition, is more likely to represent values in the communal realm. This might also be the reason why axes are so conspicuously absent from individual barrow graves. Thus, essentially, the Middle Bronze Age A depositional patterns echo the basic distinction between deposition of valuables that was first recognized for the Late Neolithic B, with two points of difference. The first is that now there seems to be a more outspoken emphasis on personal valuables relating to martial values. The second is that selective deposition no longer takes the form of a distinction between deposition in burials and in watery places. Possibly in conjunction with the higher accessibility of the barrow burial ritual (more people than before were buried in it, and barrows can be seen as collective graves in their own right), burials were no longer seen as the repository for the deposition of personal valuables; these were now increasingly placed in watery places. In essence, this transformation must already have taken place during

the Early Bronze Age (last chapter). Selective deposition is now more than before a practice entailing that different kind of valuables were deposited in different places in the landscape. The most notable phenomenon is the marked increase in the use of major rivers for offering practices of – in particular – high-status weaponry.

#### 6.10 CONCLUSIONS

Some conclusions can now be drawn with regard to the generalized biographies of metalwork that came into being during the Middle Bronze Age A.

##### 1 *Metalwork and material culture classifications*

The most notable development that takes place during this period is the incorporation of new objects, all specialized weapons, in the corpus of metalwork in circulation and deposition. They exemplify a stronger concern with martiality and warfare in society. On top of that, a new structure in classification of valuables has been recognized. Whereas in the preceding period ceremonial objects were *Fremdkörper* in existing material culture (halberds, double axes), we are now dealing with a ceremonial object – the Jutphaas dirk- that directly refers to more regular, functional objects in circulation. It fits neatly in Godelier's recent theory on gift exchange, in which a distinction is made between valuables that circulate, and very special sacred versions thereof, that range among a community's most inalienable possessions.

##### 2 *The production and exchange system as an open rather than closed system*

It is a moot point whether axes, spears etc. were locally produced in the southern Netherlands. A general observation, however, is that the metalwork in circulation in this region copies that of adjacent ones, particularly German regions. If a local production of axes came into being (Oldendorf or Vlagtwedde?) then there seems to have been no interest at all in giving these a distinct regional identity, as was done in the northern Netherlands (the Ekehaar variety). As such, it seems a direct continuation of the situation in the Early Bronze Age.

##### 3 *Increase in the volume of metalwork in circulation*

The majority of the find material can be dated to the later part of the Middle Bronze Age A and the transition to the later half of the Middle Bronze Age (16<sup>th</sup>-15<sup>th</sup> century). It is clear that far more objects are known from this period than before. Taking into account that these only represent deposited tools, the quantity of metalwork has increased sharply when compared to the Early Bronze Age. Again, the Atlantic is less prominently represented than might be expected from other cultural phenomena (ceramics, *ring-walheuvels*). As before, the majority represents contacts with north-west and middle German regions, although not necessarily a specific one.

4 *The emergence of a system of selective deposition centred around different types of wet places*

Much more than before, watery places take on a new significance as offering locations. A distinction can be made between the deposition of weaponry, interpreted as related to personal display, and deposition of intensively used axes. In essence, this mirrors the contrast between the valuables of personhood and other valuables recognized for the Late Neolithic B. Swords in particular seem to have been preferably deposited in major rivers. The general impression is that with the adoption of weaponry, rivers gain in significance as depositional places. As we shall see in the following chapters, the system of selective deposition as it emerged during the Middle Bronze Age A would remain fundamentally similar in the periods to come.

5 *Axe paradox: a life of cultivation that ends up in natural places*

The most widespread depositional practice is that of axe deposition. There is not only a sharp increase in the deposition of axes in wet places; also the axes show more than before evidence of an intensive use-life in reclamation, house-building and so on. If in the Early Bronze Age some axes were still deposited for reasons other than their life as tools, then this aspect decreases significantly in the Middle Bronze Age A. Deposited axes almost invariably show all the traces of a use-life. With regard to their depositional context, we are dealing with a paradox that now becomes more conspicuous than before: the tool of cultivation *par excellence* was preferably deposited in non-cultivated, watery places.

6 *Was the rise in depositional practices linked to a phase of expansion and reclamation?*

Finally, we have to look at the remarkable rise in axe deposition during the later part of the Middle Bronze Age A. Although a general intensification and regularization of metalwork circulation is a *sine qua non* for allowing an increase in metalwork deposition, it does not explain the increase itself, nor the particular form it took in the southern Netherlands. Axe deposition as the culmination of a generalized biography exists by virtue of decisions made by the local group involved in it, steered by arguments put forward by their beliefs, their local social and political circumstances, and not by reference to the fact that it was widely practiced in north-west Europe as a whole. Comparing it with other developments in the landscape, the increase in barrow construction comes to the fore. Theunissen (2001) sees some burials as founders'

graves, implying that a phase of expansion and reclamation was going on. Constructing conspicuous barrows in the landscape can be seen as a way of claiming and socializing the land (Fontijn 1996). It is not inconceivable that the rise in axe deposition has something to do with such historical developments (it is after all the tool with which it was effected). The more pronounced ritual emphasis on the tools of warfare and the concept of martiality may also be related, since martiality is linked up with ideas about self-defence, power of one's own group, and the ability to force one's will onto others in situations of social tension that may concur with periods of expansion.

## notes

1 This does not apply to all the axes published by Kibbert as type Oldendorf, since he uses a slightly different definition of this type from Butler. See for this discussion Butler 1995/1996, 203-4 and 219.

2 There is also evidence of axes of comparable –but somewhat divergent– design that were current in north-west France. The find of a sandstone mould of such an axe indicates that they were locally produced there (Butler 1995/1996, 219).

3 The Arreton axe from Antwerpen also has a slight stopridge.

4 The precise dating of these dirks is debatable. Needham (1990, 245-6) argues that the emergence of these dirks must have taken place during the Acton Park phase (Lochham to Göggenhofen in continental terms). This is approximately the period from 1575 to 1400 BC (fig. 1.4; Lanting/van der Plicht in press). Butler (1990, 91) prefers a somewhat later date within the Middle Bronze Age. The supposed derivation of such dirks from those of Tréboul-St.Brandan dirks, however, would place the Plougrescant-Ommerschans dirks in the Tréboul phase or somewhat later (Schauer 1972; Butler 1990, 91). At any rate, the argument that Plougrescant-Ommerschans dirks are a ceremonial version of Tréboul St.Brandan and/ or Kimberley-type dirks, implies that both existed at the same time, or at least that the chronological gap between both is not too wide. This would be in line with the dating range argued for by Needham. In view of the possibility of this earlier dating and for practical reasons, the Jutphaas dirk is described here and not in the next chapter. It should, however, be borne in mind that a date in the Middle Bronze Age B is still a possibility.

5 For an example from the Netherlands see Butler 1995/1996, 198-200: no. 71 and 224-5: no. 140).

6 Personal comment Z. van der Beek.

7 The only possible exception could be the Tréboul spear from Grathem.



# Middle Bronze Age B

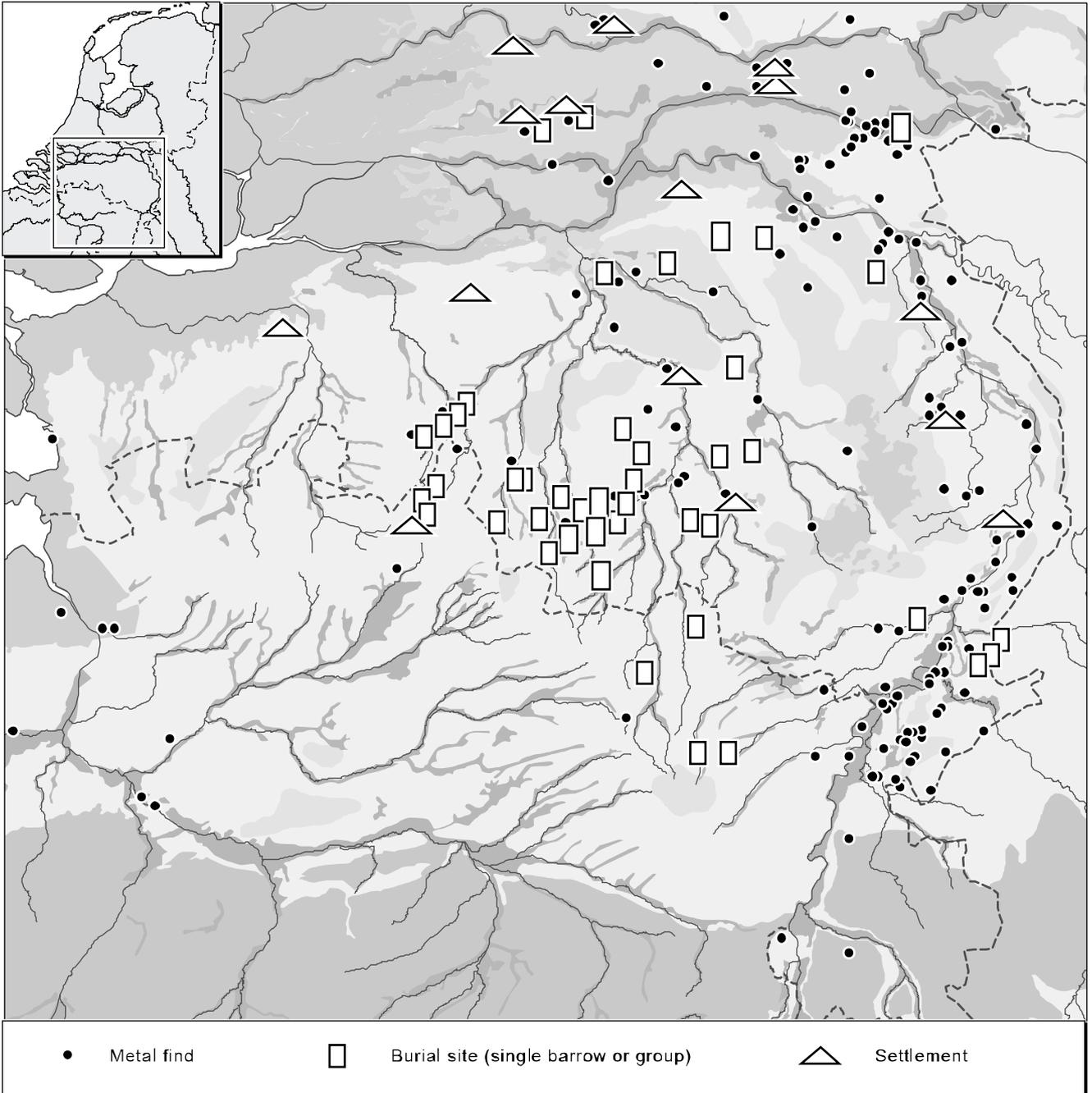


Figure 7.1 The distribution of metalwork finds of the MBA B in relation to the distribution of burial and settlement sites.

### 7.1 INTRODUCTION

The later part of the Middle Bronze Age (1500-1050 BC) signals a significant rise in the number of archaeological sites. This does not only apply to data from settlements and barrows, but to bronze finds as well. For almost every locality in the region bronze finds are known (fig. 7.1). Apart from hundreds of single finds, these also include a number of multiple-object hoards.

The concept of Middle Bronze Age B as a chronological unit is not very useful for dealing with chronological developments in bronze typology, even less so than in the preceding period. The dating ranges of most types cross the chronological boundaries. A well-recognizable sub-phase in the Middle Bronze Age B that only seems to be meaningful for metalwork is the French *Bronze final I*, to which a number of French imports are dated (fig. 7.2; fig. 1.4).

For the present discussion, the Middle Bronze Age B is important because new bronze objects make their appearance (sickles), whereas others seem to have been deposited in some numbers for the first time (ornaments). It is of great significance that the first decisive evidence for bronze production in the southern Netherlands dates from this period.

After a brief introduction to the general developments in society and landscape during this period (section 7.2), and some remarks on the available data (7.3.), the different object categories will be discussed (7.4 to 7.8). This will be followed by an interpretation of the evidence on metalworking activities. Next, we shall assess the place metalwork had among contemporary material culture (7.10). This is followed by sections which chart the patterns in the generalized biographies of metalwork items for each stage in their life-path: production (7.11), circulation (7.12) and deposition (7.13).

### 7.2 SOCIETY AND LANDSCAPE DURING THE MIDDLE BRONZE AGE B

#### *North-west Europe*

In north-west Europe, the period from c. 1500 until 1200 BC is generally considered to have been a period of cultural integration and acculturation of wide areas in Europe. According to Kristiansen (1987, 33), international exchange networks had a range thousands of kilometres, 'transmitting ideological and cultural influences between the Mycenaean area, Central Europe and Scandinavia'. In many of the non-metalliferous regions, the supply of bronze must have become so rich and regular as to allow the development of a substantial regional bronze production, often leading to objects displaying a distinct regional style. These include a wide variety of objects, including ones that were formerly made of other materials. There is evidence that bronze had become an inextricable element of local material culture, even in non-metalliferous regions, being used for the

manufacture of tools, prestigious weapons, and socially significant ornaments as well. Having realized this, we may ask ourselves: did a similar development take place in the southern Netherlands as well?.

In many parts of Germany and – particularly – southern Scandinavia, the tradition of equipping warriors' graves with bronze swords as the most important item continues and becomes much more common even (Kristiansen 1997). During this period, however, high-status female identities also acquires significance, as can be seen from rich burials with a distinctive bronze ornament set (Wels-Weyrauch 1989).

#### *The southern Netherlands*

The Middle Bronze Age B is relatively rich in excavated settlement sites when compared with both the preceding and the succeeding period. House places are known both from the sandy part of the region and from the central river area (fig. 7.1; Theunissen 1999). It is argued that settlements were made up of no more than one or two long-houses existing at the same time (Roymans/Fokkens 1991). In general, we seem to be dealing here with fully agrarian, self-sufficient societies (Louwe Kooijmans 1998). There must have been a strong emphasis on cattle raising, which becomes evident from the byres present in the long-houses (Louwe Kooijmans 1998, 332). Fokkens (1999) argues that this emphasis should primarily be understood from the social role cattle had; adopting Roymans' terminology (1999) he speaks of a 'pastoral ideology'. There is no convincing evidence for specialization in food production, as argued for in other north-west European regions like Denmark (Kristiansen 1997, 287). Neither is there any evidence for settlement hierarchy, defensive structures or the existence of larger settlements (more than four contemporary houses (Roymans/Fokkens 1991). Settlements were typically 'unsettled': house locations seem to shift their locations once in a generation; re-use of the same farmyard hardly ever occurred (Gerritsen 2001; Schinkel 1998).

The practice of structuring the landscape with monumental barrows continues and actually seems to increase (Theunissen 1999, 72, 85; table 3.6 and 3.7). There is even evidence for a more pronounced ritual centred on barrows themselves, similar to the northern Netherlands (Lohof 1991, 270; Fontijn/Cuijpers 1998/1999, 62). More than before, barrows cluster in specific parts of the landscape, leading to the formation of true barrow landscapes (Fontijn/Cuijpers in press). In the formation of a structured, cultural landscape a further step had been taken.

### 7.3 DISCUSSION OF THE AVAILABLE EVIDENCE

Although the number of finds of the Middle Bronze Age B is considerably larger than in the case of the preceding period (236 versus 86; table 7.1), the metalwork evidence

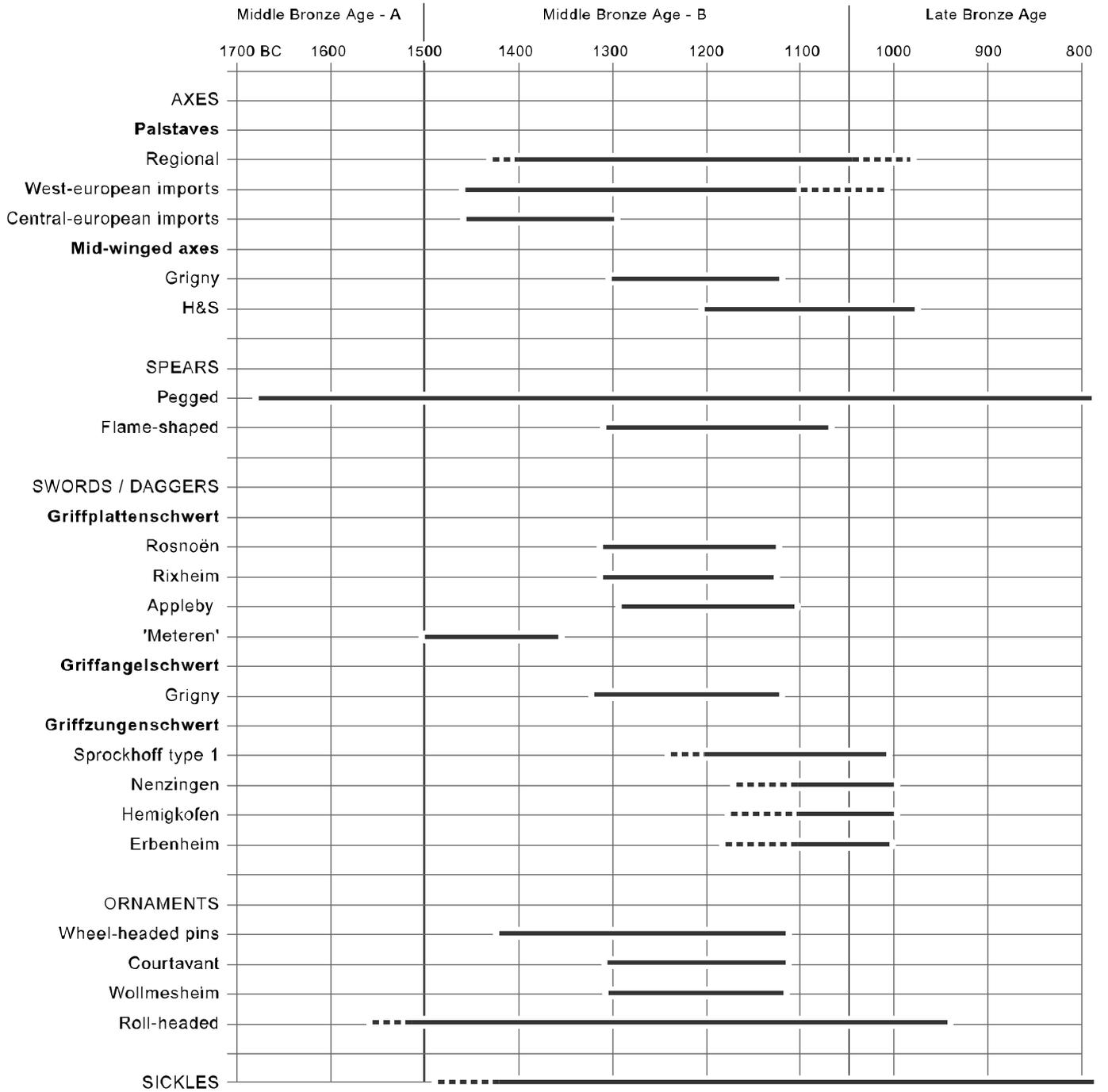


Figure 7.2 Dating ranges of the most important object types discussed in the text.

Type Object type	Context										Totals
	Major river	Stream valley	Marsh	Wet	Wet hoard**	Dry	Burial	Settl.	Barrow Hoard	?	
<i>Swords</i>											
Rosnoën	4	-	3	-	1	-	-	-	-	2	10
Cloontia	-	1	-	-	-	-	-	-	-	-	1
Rixheim	1	-	-	-	-	-	-	-	-	-	1
Grigny	1	-	-	-	-	-	-	-	-	-	1
Regional	1	-	-	-	-	-	-	-	-	-	1
Other	3	-	-	-	-	-	1	-	-	-	4
<i>Spears</i>											
Bühl	-	-	-	-	-	-	-	-	1	-	1
Flame-shaped	9	-	-	-	-	-	-	-	-	5	14
British types	1	2	-	-	-	-	-	-	-	1	4
Pseudo-flame	3	-	-	-	1	-	-	-	-	-	4
Arrowhead	-	-	-	-	-	-	2	1	-	-	3
<i>Daggers</i>	3	-	-	1	1	-	-	1	-	3	9
<i>Ornament</i>											
Wollmesheim*	1	-	-	-	-	-	-	-	-	-	1
Disc-headed *	-	-	1	-	-	1	-	-	-	-	2
Courtavant *	1	-	-	-	-	-	-	-	-	-	1
Wheel-headed*	2	-	-	-	-	1	-	-	-	1	4
Roll-headed*	-	-	-	-	-	-	-	2	-	-	2
Bracelet	-	-	-	-	1	-	-	-	-	-	1
Spiral	-	-	-	-	-	-	-	4	-	-	4
Gold spiral	-	-	-	-	-	-	-	-	-	1	1
Others	4	-	-	-	-	-	2	4	-	-	10
<i>Palstaves regional</i>											
Sinuous/ trapeze	7	2	9	2	4	2	-	-	-	20	46
Midrib/ridge	9	2	5	2	-	-	-	-	-	13	31
Unknown	3	2	1	-	-	-	-	-	-	9	15
<i>Palstave import</i>											
W. European	8	1	2	-	1	-	-	-	-	6	18
C. European	-	-	-	-	-	-	2	-	-	1	3
North Dutch	-	-	-	1	-	-	-	-	-	3	4
<i>Mid-winged axes</i>											
Grigny	-	-	1	-	4	-	-	-	3	6	14
H & S	2	-	-	-	2	-	-	-	-	4	8
Unknown	-	-	1	-	-	1	-	-	-	1	3
<i>Tools</i>											
Awl	-	-	-	-	-	-	-	3	-	-	3
Sickle	-	-	-	-	-	-	-	6	2	-	8
Knife	-	-	-	-	-	-	-	-	-	1	1
Chisel	-	-	-	-	-	-	-	2	-	-	2
<i>Smiths' tools</i>											
Bronze mould	1	-	-	-	-	-	-	-	-	-	1
Clay mould	-	-	-	-	-	-	-	2	-	-	2
<b>Totals</b>	<b>64</b>	<b>10</b>	<b>23</b>	<b>6</b>	<b>15</b>	<b>5</b>	<b>7</b>	<b>25</b>	<b>6</b>	<b>77</b>	<b>238</b>

Table 7.1 Metalwork and moulds from the Middle Bronze Age B (single finds and objects from hoards). Included are the pseudo-flame shaped spearheads, a number of which dates from the Late Bronze Age. Ornaments 'other' are: tweezers, beads, possible pin, pins with uncertain dating from Nijmegen. \* Pins; W. western; C: central \*\* wet hoards: Escharen, Kessel, Sevenum, Neeroeteren, Nijmegen-Heesche Poort; Berg en Terblijt (Late Bronze Age).

of the Middle Bronze Age B is not very different. Most are single finds, many were dredged from rivers, and hardly any were found in burials, in spite of the relatively high number of Middle Bronze Age B barrows excavated (Theunissen 1999). There are only a few hoards, all rather small: Sevenum, Swalmen-Hillenaar tumulus 1 and 2, the Holset barrow<sup>1</sup>, Kessel (province of Dutch Limburg) and a probable hoard from Nijmegen-Heesche Poort (appendix 1). All finds except one (a gold ornament from Susteren) are bronze items. A special feature of the Middle Bronze Age B is that a number of bronzes was found on settlement sites (appendix 9). This does not automatically imply that bronze deposition on settlements was typical for the Middle Bronze Age B alone: rather, there are not many settlement sites that can be dated to either the Middle Bronze Age A or the Late Bronze Age. Another special feature is that this is the first period for which we have some evidence of metalworking tools and probably even bronze production sites (appendix 8).

#### 7.4 PALSTAVES AND MID-WINGED AXES

As before, axes are the most common object known (142). They can be divided into palstaves, a further development of stopridge axes, and mid-winged axes. The former are defined here as axes with a stopridge where the septum below the stopridge is distinctively thicker than the septum above it. The mid-winged axes represent quite a different way of connecting the axe to a shaft, that is characteristic, however, for central European axes. Winged axes are known in the Netherlands only since the later part of the Middle Bronze Age B (the Grigny axes; Butler/Steegstra 1999/2000). Palstaves are by far the most frequent type. The earliest examples are imports (fig. 7.3), but later on regional products dominate. The imports are mainly from west European regions. Palstave imports from Nordic regions are well represented on the Dutch coast and north of the Rhine (Butler/Steegstra 1997/1998, 168-79). They are conspicuously absent, however, from the study region.

Independent dating evidence is very scarce for the Dutch and Belgian palstaves, but there are indications that in the southern Netherlands palstaves, both regional and imported ones, occurred until somewhere in the Late Bronze Age (see the discussion in Butler/Steegstra 1997/1998, 268-9). As the transitional and late palstaves typical for the Late Bronze Age in Britain and France are almost non-existent in the Netherlands, as imports as well as in local imitations, Butler and Steegstra (1997/1998, 268-9) argue that palstaves must have become very rare by then. So it can be assumed that in the southern Netherlands palstaves are primarily a feature of the Middle Bronze Age B (fig. 7.2).

##### 7.4.1 Imported palstaves

###### *West European imports*

A number of palstaves have been found that were probably all imported from north-west France or Britain (listed in appendix 2.5; for their spatial distribution see fig. 7.3). Most are dated to the French *Bronze moyen II* phase or the British Taunton phase ('primary shield palstaves of 'non-British type' (fig. 7.4); type Wantage, type Stibbard, type Normand, and palstaves with midrib and side-flanges (Butler/Steegstra 1997/1998, 185-93). The Rosnoën axes seem to have had a much longer dating range, possibly extending from *Bronze final I* into the Late Bronze Age (*Bronze final II* or even *IIIa*, see the discussion in Butler/Steegstra 1997/1998, 195). The looped axe from Zaltbommel, very similar to British 'transitional' palstaves, is among the few examples of a type dated exclusively to the Late Bronze Age (Schmidt/Burgess 1981, 131; Butler/Steegstra 1997/1998, 197). The Portrieux axe seems to have an extremely long dating range and our find cannot be more accurately dated than Middle Bronze Age B to Late Bronze Age (cf. Briard 1965, 109-18). A notable feature of a number of types is that they are decorated.

For most types discussed under this heading, particularly the decorated ones, it is reasonable to suggest that they were imported from 'western Europe', taken to imply north-west France or southern Britain (personal comment J. Butler). A differentiation for a British or French origin is not always possible to make, but shield palstaves with arches on their side seem to be unknown from Britain, and must be French imports (the 'non-British' shield palstaves; O'Connor 1980, 431-2). There are indications that this life of long-distance exchange was in itself significant. The Asselt palstave was never sharpened and deposited in blunt, unworked condition. The same seems to have been the case with the Stibbard axe from Eerselen, found in a swamp. The Rosnoën axe that possibly came from a hoard, Nijmegen-Heesche Poort, was already broken when deposited. The two regional axes with which it was claimed to have been deposited, were intact, however. Thus, some axes seem to have gained significance by their exchange history only. In most cases, however, the axes had been used. From their find context it can be deduced that the majority comes from watery places.

###### *Central European imports*

There are only two finds of imported palstaves with a very different place of origin. They are attributed to the Niedermockstadt type, Var. Reckerode, as defined by Kibbert (1980, 232-6). Only one (from Vught) was found in the study region. The other one (Doorwerth) comes from a barrow situated directly north of the river Rhine, and thus properly speaking outside the study area (fig. 7.3; appendix 2.5).

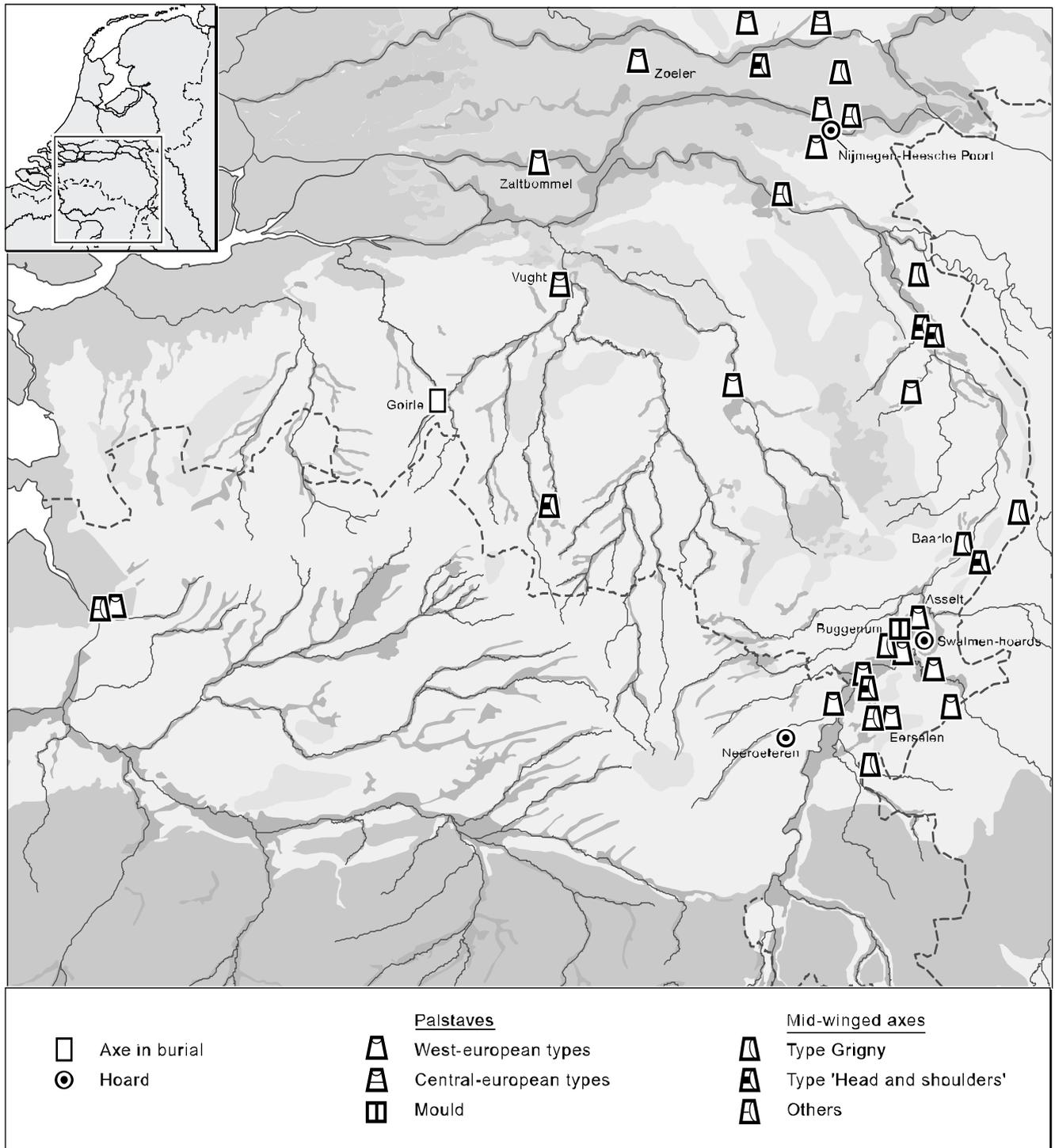


Figure 7.3 The distribution of imported axes and a mould of probable non-local origin.



Figure 7.4 West European primary shield palstave dredged from the river Meuse near Wessem (l. 15.5 cm).

Visually, both are very different from the west European palstaves described above and from the regional ones. There are also considerable differences between the axes themselves. The Vught specimen has a ribbed ornament, absent on the Doorwerth axe. The latter has side flanges marking an arch-shaped depression on the face. They date predominantly to the *mittlere Hügelgräberzeit* allowing for some earlier and later datings (Kibbert 1980, 234-5), which is more or less contemporary with the 15th and possibly 14th century BC. Both are interpreted as imports from the central European regions (Butler/Steegstra 1997/1998, 199-200). In Germany (particularly in the Fulda-Werra region in Hessen) they are predominantly found in weapon graves. For that reason, Kibbert interprets them as battle axes in the first place. The Doorwerth axe was found in the centre of a barrow that was later (in 1924) excavated. It is not certain that it came from the central grave, but it seems quite likely. In this barrow, unpublished so far, some (secondary?) grave pits were found, as well as the traces of a ring-ditch. Remarkable is the find of large charcoal deposits (the remains of a funeral pyre in situ?), a feature seldom found underneath barrows in this region. Whether the axe was originally deposited in a central or secondary grave, or just isolated in the mound, as a place of deposition, this is as exceptional as the axe type itself.

Unfortunately, even less is known about the Vught find. Its patina suggests that it comes from a wet location. In the area around Vught, there must have been extensive marshes in the past. It is likely that the axe came from such a place.

#### 7.4.2 *Regional palstaves*

The most numerous group of palstaves distinguished by Butler and Steegstra are their group IV-palstaves. In total, 81 of them are known from the southern Netherlands (appendix 2.6 and 2.7; fig. 7.5; 7.6; 7.7). In view of their clustering in the Netherlands (and in some cases in the adjacent part of Germany and Belgium) they are interpreted as palstaves made in the Netherlands themselves, an idea corroborated by the recent mould find from Oss. Butler's typology is extremely detailed. Ignoring this variety, I think the following subdivision is vital:

1. Types that are common both to the southern and to the northern Netherlands.
2. Those that are typical for the southern Netherlands only.
3. Imports from the northern Netherlands.

They will be described below, followed by a separate section dealing with the evidence on their use-life and deposition.

#### *Palstave types common to the southern and the northern Netherlands*

Plain (undecorated) palstaves with a 'more or less sinuous outline', have been found in some numbers both in the study area and in the northern Netherlands. They are subdivided into a variety with a very short blade, one with a relatively broad blade, and a looped variety of 'medium size' (Butler/Steegstra 1997/1998, 202-17). In the adjacent part of Germany (where they are described as of the *Var. Andernach* by Kibbert (1980, 248-50), such axes have been found in the area between the rivers Rhine and Weser. We are therefore dealing here with an axe type that was common to a wide regions. It is a palstave in its most simple form, almost without any characteristic that makes it visually recognizable as a typical product of a specific smith or group of people. As such, they may remind us of the Oldendorf axes (chapter 6). It is unclear whether such axes were produced in one region and exchanged from there, or whether they were produced in several places at a time (both in Germany, the northern and the southern Netherlands), probably in (clay) moulds modelled after imported objects.

#### *Palstaves produced in the southern Netherlands*

There are two types of palstaves of which it can be argued that they were produced in the study region itself. These are the plain palstaves with trapeze-shaped outline and those that have a small ornament: a midrib or mid-ridge.

*Palstaves with trapeze-shaped outline.* This type is defined as including not only those palstaves with a trapeze-shaped outline, but also those with a parallel-sided hafting part and trapeze-shaped blade outline (fig. 7.6; 7.7; appendix 2.7; Butler/Steegstra 1997/1998, 222-28). They are almost exclusively found in the southern Netherlands, and a few in the adjacent part of Germany. Like the plain palstaves with

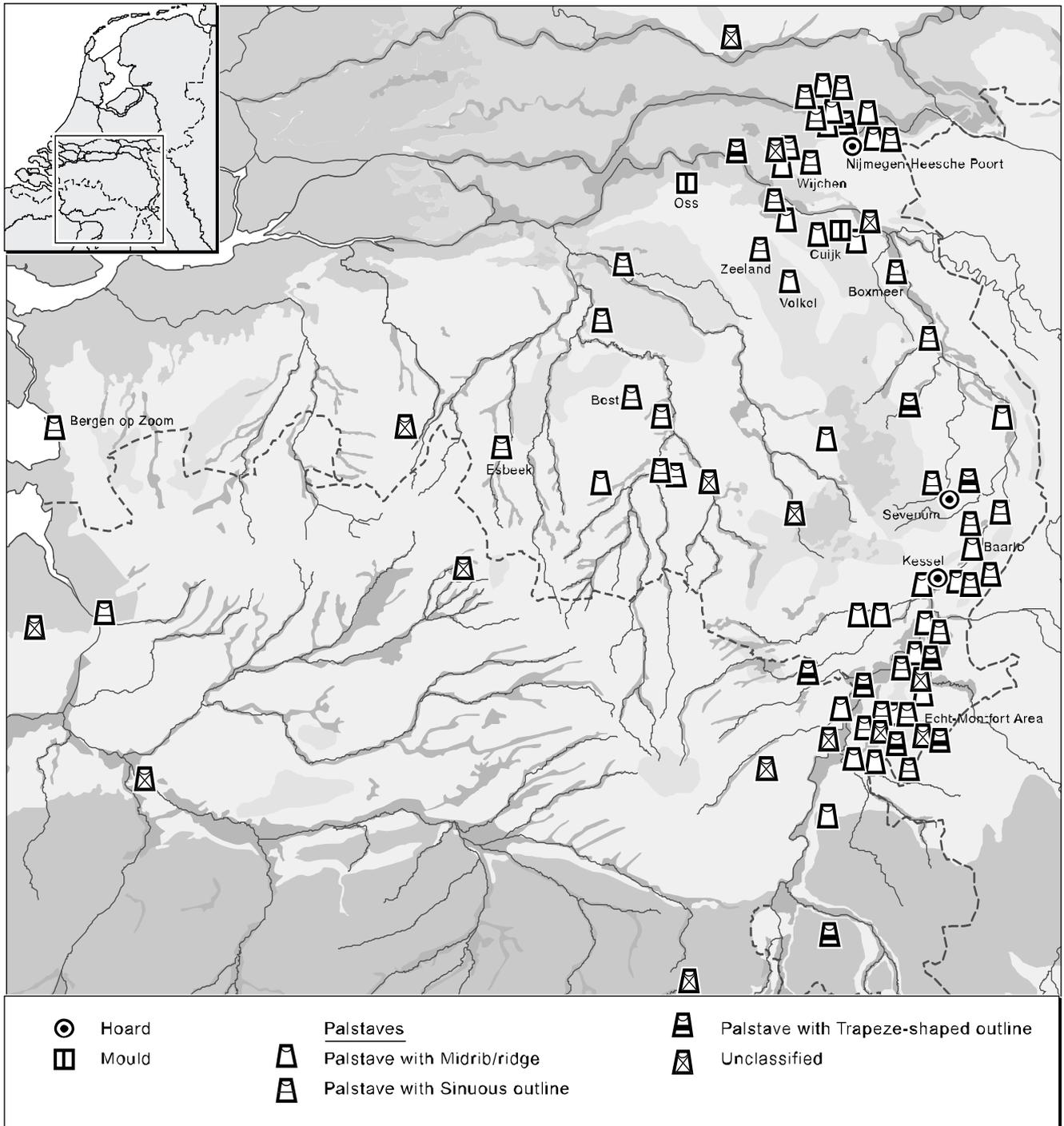


Figure 7.5 Distribution of regional axes and moulds for such axes and unclassified ones. North Dutch types are not mapped.

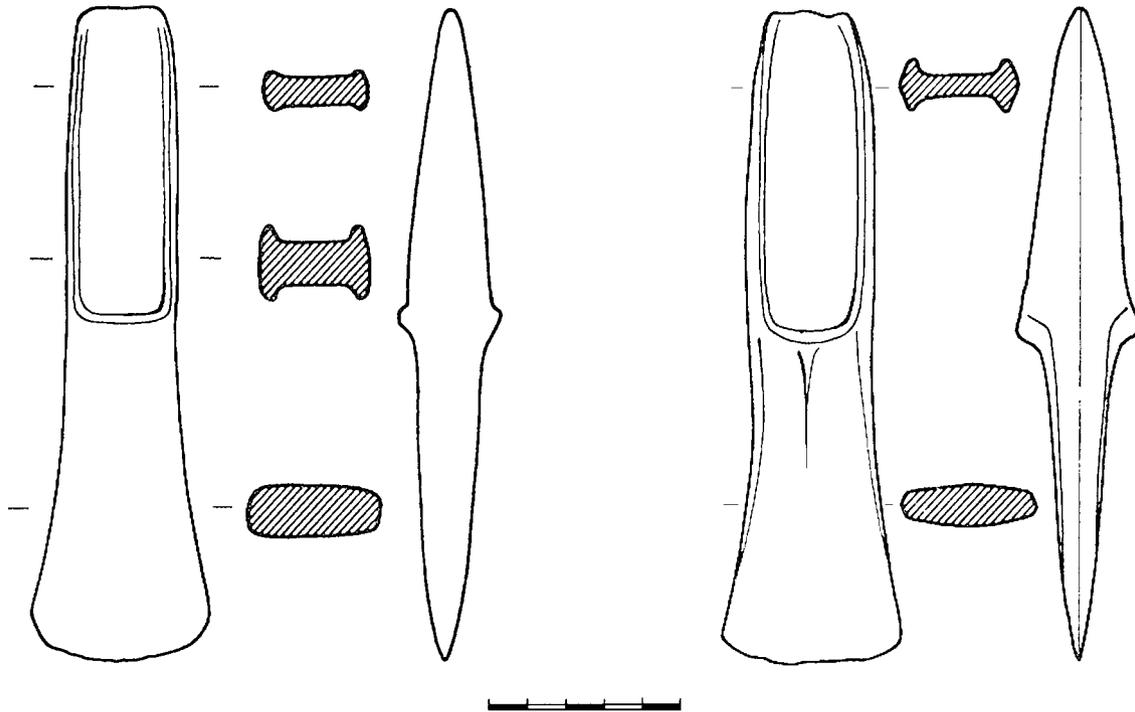


Figure 7.6 The Kessel hoard, consisting of two regional palstaves: one with a 'parallel-sided hafting and blade part with trapeze outline' (left) and one with a midrib (right). Drawing ROB.

sinuous outline, it is a very simple form, without clear display elements. The characteristic trapeze-shape does not seem to be a deliberate visual signifier of regional identity. Rather, a specific basic form of mould seems to have been used. It is likely that such moulds themselves circulated throughout the region, or that local smiths made new moulds on the basis of existing palstaves, thus copying the basic design. Palstaves that were formed in the clay mould of Oss had such a trapeze-shaped outline. The Oss form, however, also had cast flanges on the blade, something that is less often observed (see under 'northern imports')

*Palstave with midrib or mid-ridge.* The other type that is characteristic for the research region, are those with a midrib or mid-ridge (fig. 7.6). Some 31 examples are known from the study area, only a few north of the Rhine (appendix 2.6; Butler/Steegstra 1997/1998, 241-51). This distribution is taken as main evidence for their interpretation as regional products. The midrib can be blade-strengthening, but it is unlikely that this was the case with the finds described here, since there is only a relatively small rib/ridge. It seems to have been a decorative feature in the first place, subdivided into a number of varieties. The most frequent one has a narrow midrib/ridge and a sinuous outline. It can be looped and have a relatively small, medium-sized or wide blade. The midrib can – Butler's and Steegstra's terms – be more or

less 'trumpet-shaped', or take the form of a triangular raised ornament below the stopridge. In some cases, a midrib was placed on palstaves with a trapeze-shaped body, but these are rare.

The midrib, trumpet and raised ornament have clearly been imitated from palstaves presumed to have been imported from west European regions. In some cases the objects come close to straightforward imitations, as in the case of the axe from 'Maas/Waal' and the one from the Kessel hoard (fig. 7.6). They look like a palstave of Normand type, but are nevertheless slightly different from those found in north-west France (Butler/Steegstra 1997/1998, 245).

Just like the trapeze-shaped axes, the midribbed ones also seem to have been much more frequently used in depositions in the south than in the north. It is therefore likely that this also relates to a production and distribution that was connected to the southern region. This is interesting, for the midribbed palstaves are derivatives from west European imports. These imports, however, are as frequent in the south as in the north. For some reason, the midrib decoration was picked up and locally imitated in the south, but not in the north. And this brings us to the following observation. Although the midribbed palstaves are just like the trapeze-shaped examples, simple forms, they are a form of decoration. Was this decoration significant to people in emphasizing

a particular origin, like a specific smith, a local group, a micro-region perhaps? It is not quite clear. It might just as well be that axes were produced in clay moulds that were modelled after existing ones, the similarities between axes being only an unintended and coincidental result of a particular regional axe distribution system. On the other hand, particularly when the visual qualities of the ornament are more pronounced (in the case of the trumpet decoration and the raised ornaments), it is clear that not one axe found comes from the same mould. Here it is clear that the prominence of such an ornament is not simply due to a mould-copying or mould-circulation system; the ornament was apparently deliberately added, and seen as an integral and necessary part of the palstave. Therefore, I want to suggest that – at least for those varieties – the ornament was deliberately attached, and in view of its absence on northern products, something which served to emphasize local or regional identity.

#### *Imports from the northern Netherlands?*

A small number of palstaves from the research region has an arch-shaped ornament on the sides. Such ornaments are uncommon in western Europe, but frequent in north European regions. They are also present on a number of palstaves that according to Butler and Steegstra must have been produced in the northern Netherlands (1997/1998, 257). They suggest the same for palstaves with a flanged blade part, but since the palstave form from the Oss mould has similar flanges, this now seems less likely. Palstave with flanged blade may therefore probably have been produced in the southern Netherlands as well.

#### *Use-life and deposition of regional palstaves*

Most axes show traces of an intensive use-life. Most are sharpened, and in some cases there is evidence of drastic resharpening (appendix 2.6 and 2.7). Some nine palstaves (e.g. Esbeek, Best) have edges that are blunted and battered before the axe was deposited. Exceptional is the case of the axe from Wijchen-Berendonck: this axe was broken in antiquity (appendix 2.7). The same holds for one from Putbroek, and one from an unknown context (appendix 2.8).

For 56 % of the finds the original depositional context could be inferred. Most are single finds, but three come from small hoards in wet places: Kessel and probably Nijmegen-Heesche Poort (axe-hoards), and Sevenum (axe-spear hoard). 96 % of the objects with known context are from a wet context. For less than half of the finds the precise deposition location could not be retraced. On the basis of their patina, it is clear that among these finds those from a wet location are also the most prominent (54 % have wet-context patina), but the patina of approximately 23 % of the finds without context points towards a long stay in oxidizing, and therefore probably dry, circumstances (cf. The discussion in chapter 4).

In particular, this can be attributed to the palstaves found in Dutch Limburg. Although the predominance of wet deposition locations remains clear, the ‘patina-only’ finds indicate that we lack information on a number of finds from possibly dry contexts.

It seems that everywhere in the study region, palstaves were deliberately deposited, after an intensive use-life. Many of them were sharpened before deposition, a minority was deposited with blunt, damaged edges. Almost all palstaves, including the modern metal-detector finds, are single finds. Apparently they were usually not deposited together with other metal objects. The exceptions are an axe-hoard of two regional palstaves (Kessel; fig. 7.6) in or near a marsh at a terrace, and a probable association of two intact regional types with an imported Rosnoën palstave that was already broken before deposition in a marshy area near the river Waal (Nijmegen). The latter hoard implies that regional and imported axes were at least not separated in deposition, as seems to have been the rule in the Danish Late Bronze Age (Sørensen 1987). The Sevenum hoard (axe and large spear) seems to represent a deposition of an axe as a weapon (fig. 7.7). Although hoards are exceptional, we repeatedly see concentrations of (mainly regional) palstaves in small

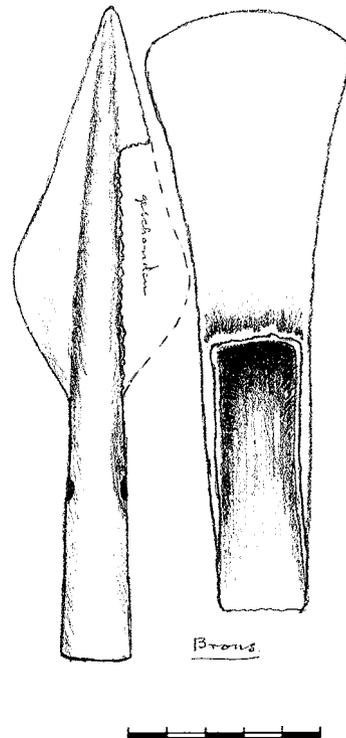


Figure 7.7 The Sevenum hoard. A spearhead (now lost) and a regional palstave with ‘parallel-sided hafting and trapeze-shaped blade’ (after a sketch in a letter of P.S. Everts to dr W. Goossens (Maastricht), April 14 1932).

confined areas (multiple-deposition zones). Examples are the marshes in the Montfort-Echt region, or the river terraces near Kessel, Baarlo and Kesseleik (fig. 14.1). It is noteworthy that a number of the not exactly provenanced finds comes from these same localities as well. Other places that saw several contemporary depositions are the river Meuse near Buggenum, and Herten-Roermond (fig. 14.1), and probably the river Waal near Nijmegen. In the province of Noord-Brabant, there is less evidence for such find concentrations.

The 'wet' locations conceal an enormous variety of localities. Some palstaves must have been deposited in the extensive peat bog of the Peel, being the oldest recorded traces of deposition here ('Volkel', 'Peel'; appendix 2.6 and 2.7). Others come from the river-terrace marshes in the Meuse valley, stream valleys, a natural source on the steep slope of an ice-pushed ridge (Beek near Nijmegen; appendix 2.7). Less is known about the finds from dry locations. The palstave from Boxmeer comes from the edge of a plateau, not from the place where an excavation yielded the traces of Middle Bronze Age house plans (Van der Velde 1998; Hiddink 2000). Other dry locations are often situated in the immediate vicinity of marshes.

#### 7.4.3 MID-WINGED AXES

In the last centuries of the Middle Bronze Age B, a new type of axe becomes relevant in the long-standing tradition of axe deposition in the southern Netherlands. This is the so-called mid-winged axe, an axe for which hafting is not secured by means of a septum, but by means of a pair of wings, that are situated approximately in the middle part of the body (fig. 7.8; appendix 2.9). Such axes are relatively rare when compared with the much more current palstaves (fig. 7.3). They are all imported objects, that are almost exclusively found in the southern Netherlands (Butler/Steegstra 1999/2000). For the Middle Bronze Age, two types are relevant: mid-winged axes of type Grigny, and those of the so-called 'Head and shoulders' type. The dating of the latter extends into the first part of the Late Bronze Age.

##### *Type Grigny*

Following the definition of Kibbert (1984, 47) and Butler and Steegstra, Grigny axes have a slab-like body, in outline close to rectangular. Characteristic are the incurving wings, which are relatively short. The butt is usually rounded and has a U-shaped or crescentic notch. In total 14 of them are known from the study region. The length is between 18 and 21 cm. The short variety does not exceed 15.5 cm. The long variant is large, heavy and impressive. According to Butler and Steegstra (1999/2000, 135), these were primarily weapons. The short variant rather seems to have been designed as a tool in the first place, as attested by use traces.

Both Butler and Steegstra and Warmenbol (1989a) have argued that these Grigny axes all are imports from eastern France, dating chiefly to *Bronze final I*, possibly extending into *Bronze final II*. More or less contemporary axe imports from northern France are the Rosnoën palstaves and swords mentioned in section 7.4.1, but these are Atlantic types (north-west France). Butler (1987) sees the importation of the Grigny axes nevertheless as belonging to the same chronological horizon: a historical phase that saw a wave of French imports, mainly of martial objects.

The large Grigny axes are rather similar to each other, and visually very different from contemporary regional and imported axes (which are all palstaves). They have not been imitated in regional production either. Most axes have sharpened edges, but only the smaller version shows clear traces of being used (Venlo; appendix 2.9). This is most clear in the case of the axe from Baarlo (ibid.), which was broken in antiquity but re-used as a wedge. It indicates a long circulation time. The blunted edge of this axe is also patinated; it is one of the few examples in which the axe was not sharpened before deposition.

The 'otherness' of large Grigny axes also comes to the fore in the way in which they were deposited. There are three multiple-object hoards consisting of Grigny axes only. In view of the general rarity of multiple-object deposits in this area, this is in itself remarkable. It becomes all the more noteworthy since seven of the large Grigny axes come from such hoards. In Neeroeteren-Maaseik, at least four Grigny axes, very similar to each other, were found together in a marsh near a small stream (fig. 7.8). It is not improbable that the hoard consisted of even more objects originally (Warmenbol 1989a, 280).

The context of the other two hoards, the ones from Swalmen, is special. They are among the few depositions that were discovered during an excavation. These are two different hoards, one consisting of a Grigny axe and a large whetstone (tumulus I), the other of two similar Grigny axes. The three axes are very similar, although probably not from the same mould. Both hoards were deposited in the north-eastern part of two different, but adjacent, barrows that are part of a small barrow cluster of four or five burial mounds (Lanting/Van der Waals 1974, 68-72). Although they were found in a barrow, they were clearly not deposited together with human remains. Tumulus II is a much older barrow, with a central grave probably dating back to a late phase of the late Neolithic. In the Middle Bronze Age, the interment of an urn in the barrow shows that it was secondarily used as a grave. Therefore, at the moment of deposition the barrow into which the axes were placed was already very old. When Tumulus I was constructed is not clear, but here there are also secondary graves, one dated to the Middle Bronze Age, the other to the Early Iron Age. In both cases, similar axes

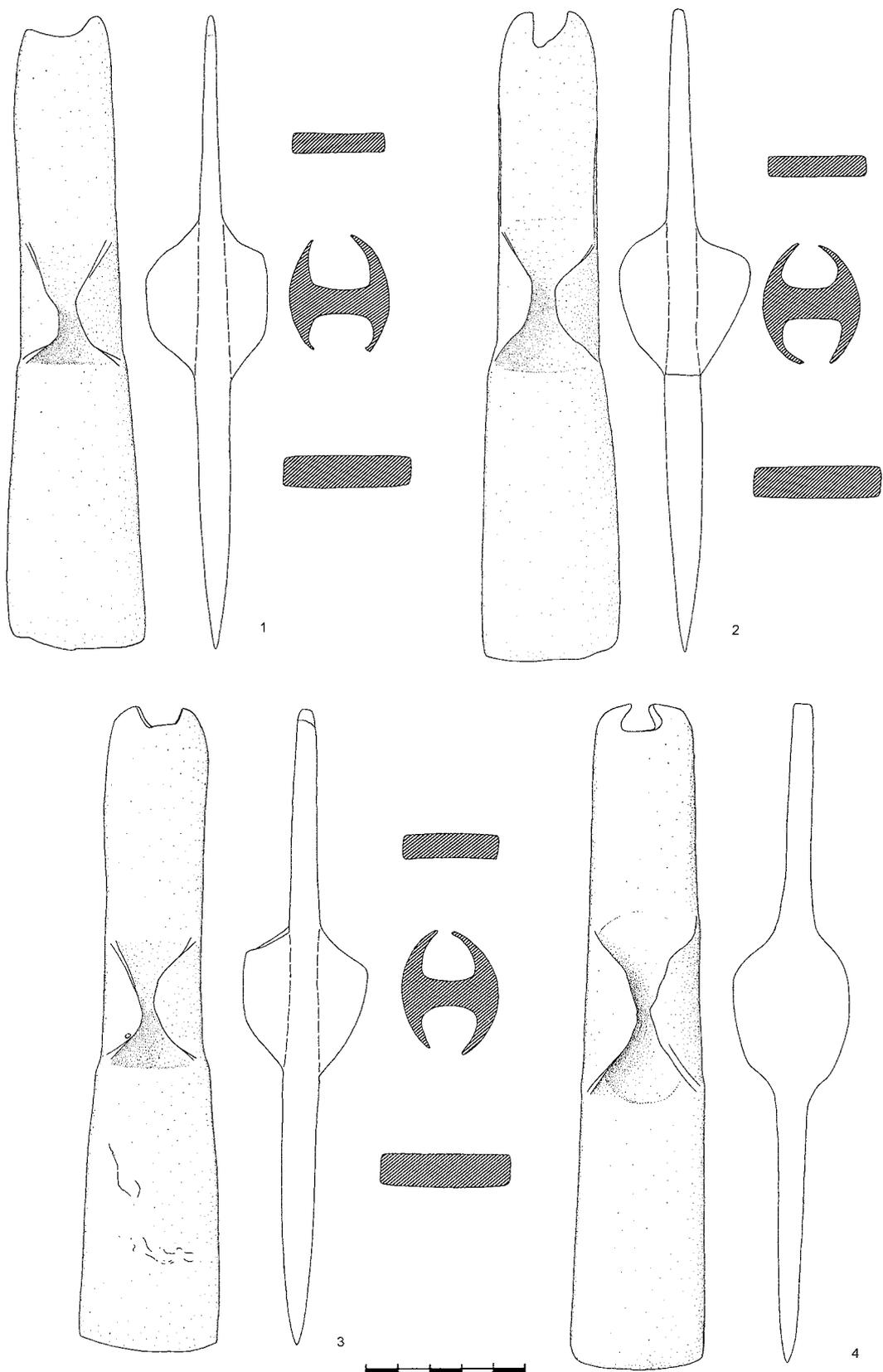


Figure 7.8 The Maaseik-Neeroeteren hoard, consisting of four mid-winged axes of type Grigny (after Warmenbol 1989a, fig. 1 and 2).

were placed in two different barrows, in each other's immediate vicinity. Both are not in direct association with a grave, but they may have been contemporary to the interment of an urn grave. In both cases, the depositions took place in a monument that already existed, in one case already for almost 1000 years. In view of the similar location and nature of the deposits (north-eastern side of the barrow, in each case two objects, in both hoards Grigny axes that are very similar to each other), it is likely that both depositions took place at the same time, or within a short time-span (some years, or within the same generation). The association between a Grigny axe and a whetstone is another curiosity, underscoring the uniqueness of the event: bronze axes and stone objects are never associated within a hoard. As a matter of fact, such whetstones are hardly known from settlement sites either.

Little is known about the deposition of the other Grigny axes. The re-used Baarlo fragment was probably deposited in a marshy area where more axes have been placed. The Venlo axe, too, comes from a wet location (appendix 2.9).

#### *Mid-winged axes of the 'Head and Shoulders' type*

Some words need to be said on another small group of mid-winged axes, dating somewhat later than the Grigny axes (*Bronze final II*). They are dated to the transition of the Middle to the Late Bronze Age and two figure in the Late Bronze Age hoard of Berg en Terblijt (chapter 8; fig. 8. 19). For convenience sake, they are all described in this chapter.

Butler and Steegstra have described them as of the 'Head and shoulders' type, based on their characteristic tripartite form: a head, separated by distinct shoulders from the wing part, which passes over into the blade part 'with little or no hip' (Butler/Steegstra 1999/2000, 136). A number of them comes from wet locations. These axes appear not to have been deposited in the same deviating manner as we saw for the Grigny axes, but more in line with contemporary axes (late palstaves and socketed regional axes).

#### 7.4.4 *The Goirle axe: the remarkable life-path of an old, much-travelled axe*

An extraordinary find among the metalwork of this period is the axe found in the central grave of a barrow in Goirle, Tumulus VI, *De Vijfberg* (fig. 7.9; Van Giffen 1937, 33-9). Here, on a sand ridge bordering a stream valley, at least six barrows were constructed, more or less aligned (along a pathway?). The history of this cemetery probably started with the construction of a barrow with bank and ditch (*ringwalheuvel*, see chapter 6) in the Middle Bronze Age A. Following Theunissen (2001), this visually deviating barrow was a founder's grave. Tumulus VI is probably one of the youngest barrows (Verwers 1980, 33). It was constructed next to the *ringwalheuvel*. Tumulus VI is a multi-period

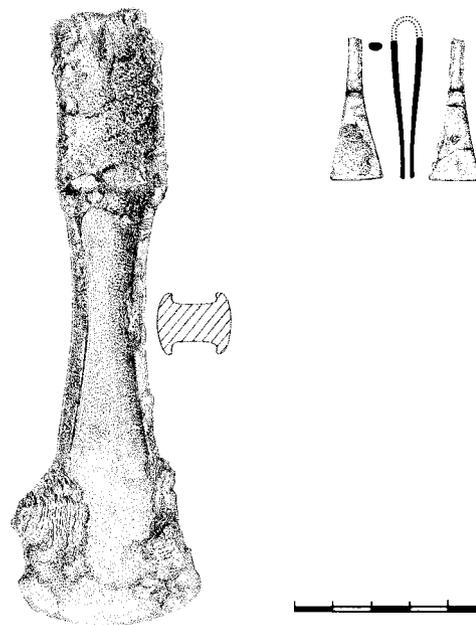


Figure 7.9 The axe and tweezers from Goirle, tumulus VI (scale 1:2, after Butler 1995/1996, fig. 22).

barrow. The primary grave, over which the sod-built mound was erected, must have been an inhumation grave in a (trunk tree?) coffin, oriented north-east-south-west, placed on the old surface. Around the mound, a multiple timber circle was built. In a later phase, a ring-ditch was dug around this circle, cutting through part of the mound. An urn, or part of it, with cremation remains was placed into this ditch. In view of the fact that the post circle is the primary peripheral marker of the barrow, it would date from the later part of the Middle Bronze Age (Butler 1995/1996, 199-201).

In the central coffin grave, an axe was placed on or next to the deceased's body (of which not a trace was left). Other objects found here are a pair of bronze tweezers, an incomplete small bronze ring, and some strips that were microscopically identified as being of bone (fig. 7.9; Verwers 1980). Not only the presence of bronze objects in the grave is rare, but also the fact that it was a coffin grave on the old surface. This way of interment is quite exceptional in the Middle Bronze Age B (Theunissen 1999). The axe, however, is even more remarkable; it is of a type that is not only totally unknown in the southern Netherlands, but in the adjacent regions as well.

The axe has an unflanged upper part, separated by a distinct angle from a concave-sided, firmly flanged lower part (Butler 1995/1996, 199). It has been interpreted as a (nick-flanged) Sögel axe by Verwers (1980, 33), but it is actually very different from such axes. Recently, Butler has argued that the Goirle axe is similar to a series of axes from

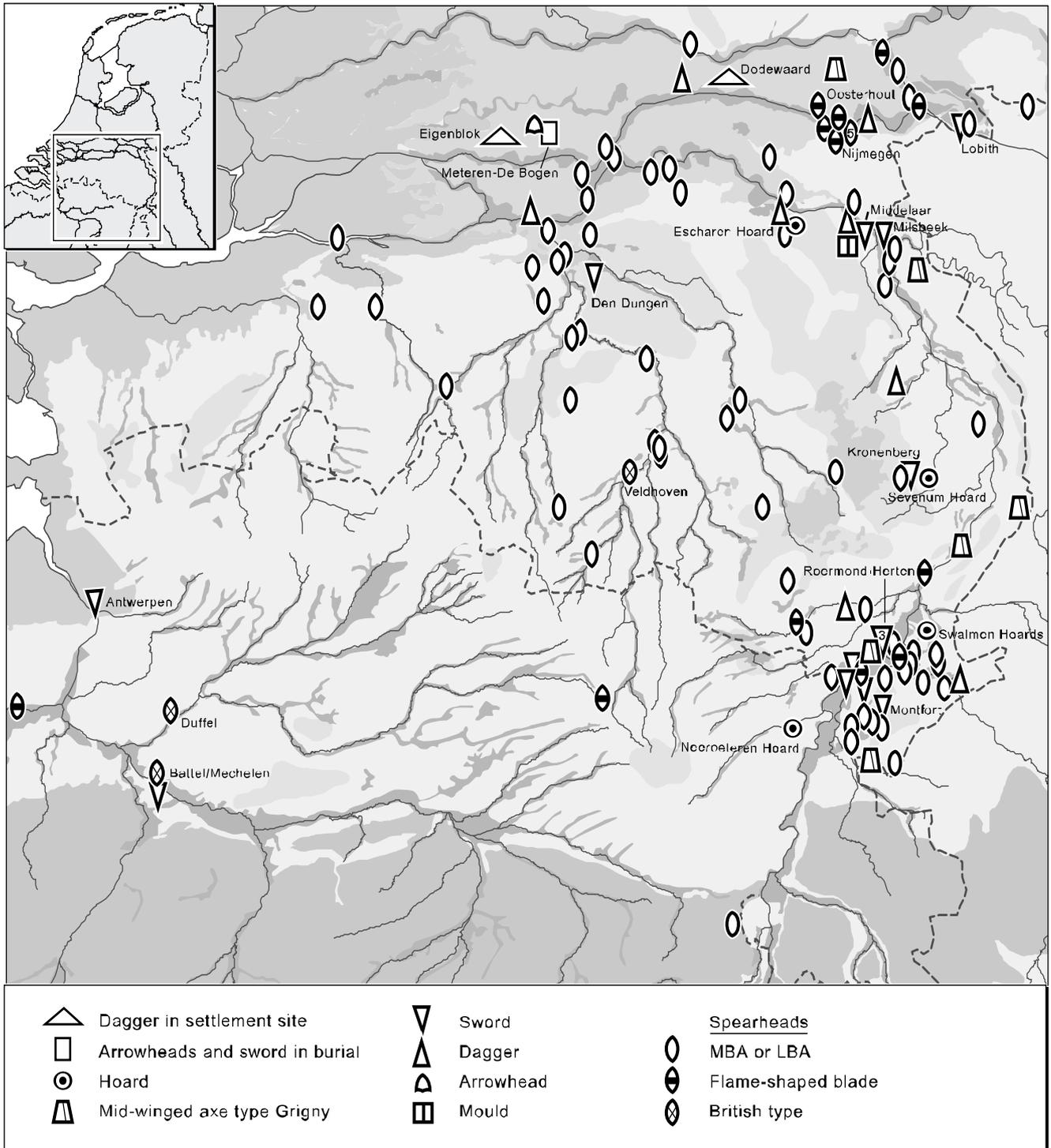


Figure 7.10 Distribution of MBA B swords, daggers, spearheads and battle axes.

(the eastern part) of central Europe (1995/1996, 199-200). The parallels found and the lack of any in adjacent regions, suggest that the axe was produced somewhere in the Hungarian plain or surroundings. If this is true, then the Goirle axe is one of the most striking examples for long-distance exchange that the southern Netherlands has ever provided during the Bronze Age. Since the design of the axe is so uncommon outside central European regions, and since the numerous axes of the adjacent German regions have been extensively studied (Kibbert 1980 and 1984), it is not very likely that one day evidence will turn up that such axes were made in German localities closer to home. Even then, the axe must have been exchanged over vast areas, and in form deviating from axes current in the southern Netherlands. Butler goes on to argue that this identification of the Goirle axe confronts us with a possible contradiction. A northern import of such an axe should be expected to fall somewhere in the Sögel-Wohlde phase. This, however, implies a contradiction between the primary peripheral post circles, that date the barrow to a later period, the Middle Bronze Age B (Butler 1995/1996, 201). It might therefore be ventured that the Goirle axe was already very old when it was finally deposited in this grave. Bearing in mind the enormous distances across which the axe must have circulated, this is not inconceivable. The axe was in a very bad condition when found: severely corroded and blistered. No further observations could be made about use or traces of wear. The bad condition itself, however, may well be in keeping with the supposed advanced age of the object. It is, for example, remarkable that the condition of the other bronze objects was not so bad as that of the axe.

#### 7.4.5 *Conclusion: axe biographies*

Some general conclusion on the biographies of axes can now be drawn. There is evidence that palstaves were produced in the region, but importation of axes – palstaves and mid-winged ones – took place as well. In regional production, the expression of a regionally specific identity hardly seems to have been important. If ornamentation was practiced, it more or less copied the styles of imported Atlantic axes. Central-European or Nordic style affinities are unknown. At this stage, the continental winged axes do not seem to have influenced regional styles either, as they would do in the Late Bronze Age. The most current imports are Atlantic/west European ones (north-west-France/ southern England), and it is with these axes that some regional products (those with midrib) are affiliated (particularly with French types). It seems that Atlantic imports and regional axes were convertible and part of the same exchange network. Unlike the situation in the Middle Bronze Age A, the north European link that was visible in the Oldendorf axes and the weapon types now seems to have been severed: Nordic imports are

known in some numbers in the Netherlands, but only north of the river Rhine (Butler/Steegstra 1997/1998, 168-79; map 22).

Most axes that ended up in depositions show traces of a use-life (appendices 2.5-2.9). This is most conspicuous for the regional axes, but for most west European ones as well. In the latter case, there are indications that these imported axes were primarily valued for their role in long-distance exchange: a few were deposited unsharpened or broken. The small Grigny axes and the ‘Head and Shoulders’ type also seem to have led a regular use-life. The larger Grigny axes, however, were sometimes sharpened, but do not show similar traces of re-working of the blades. It is likely that these axes were primarily prestigious weapons. For the deviating central-European palstave and the Goirle axe, there is no data available.

The differences and similarities noted above seem to be reflected in selective depositions. The norm seems to be the deposition of regional palstaves in wet places. In addition, dry places near marshes were also favoured. There is a tendency towards clustering depositions in a specific zone in the landscape. The west-European palstaves were generally placed in similar locations, sometimes even associated with regional types (the Nijmegen hoard).

Rare central European axes that do not seem to have had a counterpart in existing material culture forms were deposited in burials of a special nature (Goirle, Doorwerth). They are exceptional with regard to the general habit of non-deposition of objects, and particularly metalwork, in burials (see also section 7.13.4). The earliest winged axes of type Grigny, equally deviant, also tend to occur in deviant depositional locations like paired in the mounds of burial monuments or in a large (type Grigny-only?) hoard. There is a slight overlap with deposition of regular palstaves (rivers and marshes), but this applies particularly to the smaller variety. The ‘keeping apart’ of larger and smaller Grigny axes might reflect a different use-life: as a prestigious weapon (large) or as a tool (small). The possible separate deposition of the earliest mid-winged axes changed with the later ones (the ‘Head and Shoulders’ type of the early Late Bronze Age): their biographies overlap with those of regional axes as can for example be seen in the association of both types of axes in the Berg en Terblijt hoard (chapter 8).

#### 7.5 SPEARHEADS

Undoubtedly, a large number of the plain, pegged spearheads dates from the Middle Bronze Age B (appendix 6.3). Dated specimens are known from the Sevenum hoard (fig. 7.7) and the Escharen weapon hoard (fig. 7.11). On typological grounds, the spearhead from the Holset barrow hoard can be dated to the Middle Bronze Age B (type Bühl, Butler 1990, 100; this book: appendix 6.2). Butler (personal communication) assumes that such spearheads were also regionally produced.



Figure 7.11 The Escharen hoard (l. of the rapier: 35.8 cm).

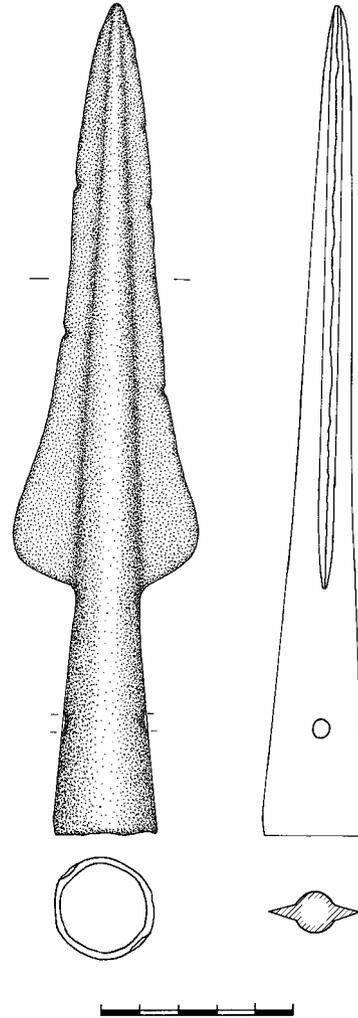


Figure 7.12 Flame-shaped spearhead from the river Meuse near Wesseem (scale 1:2; coll. Niessen).

The fragmented Cuijk mould is by some regarded as a mould for casting spears. As will be observed in section 7.9, it is at the moment uncertain what exactly was produced in this mould.

Repeating the argument from chapter 6, we are currently in no position to distinguish Middle Bronze Age B examples typologically from Middle Bronze Age A or Late Bronze Age ones (fig. 7.10). One category of typologically distinct spearheads can be placed in the Middle Bronze Age B, however: the flame-shaped spearheads. It should be kept in mind that these are probably only a minority among the numerous plain, pegged spearheads.

#### *Spearheads with flame-shaped blade*

Conspicuous among the many spearheads are those with a flame-shaped blade ('ogival' by O' Connor 1980, 448).

This shape can be the result of a specific way of re-sharpening (fig. 7.12). For those mentioned here, however, it is argued that the flame shape must be part of the original design of the spearhead. This is for example clear for those that have not seen drastic resharping, like the one from Roermond. Their occurrence in a number of characteristic French later Middle Bronze Age hoards indicates that they date mainly from the French *Bronze final I* phase (c. 1300-1125 BC century, Butler 1987, 13-7; Butler 1990, table 1). Of the finds listed in Butler 1987, to which a number of new finds have been added here, those from Kessel, Antwerpen and the Late Bronze Age Berg en Terblijt hoard to my mind hardly have the characteristic flame-shaped blades as seen on fig. 7.12. The same goes for the one from the Dutch Epe hoard (north of the research area; Butler 1987, 17; fig. 7). These are also the cases where the hoard context (Berg en Terblijt

and Epe) or parallels from other hoards (Antwerpen, Kessel) suggest a Late Bronze Age date (see the discussion in Butler 1987, 17). Butler argues that in the case of the hoard finds, we may be dealing with an older object deposited in a later period (Butler 1987, 17). I side with Verlaeckt (1996, 16) that these are not true examples of the 'flame-shaped' type, but 'pseudos'. For the 'real' flame-shaped examples a dating to the *Bronze final I* phase still seems the most likely.

Flame-shaped spearheads do not only stand out among others as to their form, they are also often rather large, and therefore they must be lances and not javelins. They are characteristic products of the north-west French regions. Following Butler (1987, 30), flame-shaped spears, Grigny axes, and Rosnoën swords all represent a historically-situated phase of weapon importation from the French realm. These spears and Rosnoën swords might well have been produced in the same area. Whether they were originally part of one warrior set is unclear. The warrior equipment from the Escharen hoard, at any rate, does not suggest this, since it consists of a Rosnoën rapier combined with a regular, non-flame-shaped spearhead.

The evidence is not very informative on the use-life: some spears show traces of re-sharpening, most have sharp edges. Those of the Roermond find are very sharp but patinated, and it can therefore be assumed that the objects were sharpened just before deposition. The recent find from Nijmegen-Oosterhout-De Boel has a socket that was severely damaged in prehistory. It is at present unclear whether such traces represent damage from battle or not.

No less than seven of these spears are said to have been found in the river Waal near Nijmegen or its immediate surroundings, and another one not far from there, in the Rhine near Millingen near the Rhine/Waal bifurcation. Further downstream is a find from Huissen, presumably from Rhine sediment (fig. 7.10). Two finds have an antique dealer's provenance, but leaving those aside there is no reason to question this find cluster. The recent excavation find from Nijmegen-Oosterhout supports this. Unfortunately, with the exception of one find (Nijmegen-Winsseling), it is unknown whether the Nijmegen objects were found in the same location, or dispersed along the river stretch near Nijmegen. Even in the latter case, we seem to be dealing here with recurrent deposition of similar objects in the same river stretch. This is all the more remarkable, since this river stretch not only saw the deposition of other objects in this same phase, but had an older history of metalwork deposition as well (see chapter 6). The same goes for the river stretch of the Meuse near Roermond and Wessem; in both places a number of other *Bronze final I* objects were deposited. The other finds are also from rivers (Antwerpen: Scheldt, Kessel: Meuse), or from other types of wet locations (marshes or swamps: Swartbroek and possibly Eksel). In one case (Wessem)

part of the wooden shaft was found in the spear's socket, suggesting that the spear was deposited with its wooden shaft or at least part of it. Summarizing, we are dealing with biographies that ended in watery places, preferably zones in major rivers, whereas dry finds are hardly known.

#### *Other spears*

Four looped spearheads must represent British imports (basal-looped and side-looped). Their life-path does not seem to have differed from that of the flame-shaped spears; the provenanced finds seem to be wet-context depositions as well. The large Battel specimen must have been a prestigious object, like some flame-shaped spearheads (O'Connor 1980, list 56: no. 11). For the find from 's-Hertogenbosch it can be deduced that this spearhead had a long use-life. It shows traces of repairs: the side-loops have been removed and the spearhead was transformed into a pegged one (Butler 1961b). Since it is difficult to date the more regular plain, pegged spearheads, this prevents us from contrasting the deposition of flame-shaped spears with those of the more current ones. Suffice it to say that the latter are also known from a variety of wet locations (appendix 6.3), including major rivers, but not from burials. Middle Bronze Age B examples are from weapon hoards (Escharen; fig. 7.11), or weapon-tool hoards (fig. 7.7: Sevenum). The Holset spearhead is the only example of a spearhead coming from a barrow. This was probably not a grave gift, however, but a deposit in an existing mound, comparable to Swalmen-Hillenraadt barrow hoards (section 7.4.3).

#### 7.6. SWORDS AND DAGGERS

It is a difficult question which swords should be mentioned under the heading 'Middle Bronze Age B', since the traditional end date of this period in our region, dated primarily by burial types and pottery (Van den Broeke 1991b; Fokkens 2001), cuts through the dating ranges of sword types (fig. 2). In general, a few sword types can be discerned that have a relatively earlier dating in the Middle Bronze Age B (like the Meteren sword; fig. 7.2). Other types (most notably Rosnoën type, but Rixheim and Appleby as well) should mainly be dated contemporary to the north-west French *Bronze final I* or *Ila* (Briard 1965, 162-73). So far, these swords are all *Griffplattenschwerter*, in which the blade is connected to the hilt with notches or rivets. Occasionally, we encounter a *Griffangelschwert* with the same dating (type Grigny). Swords with a new type of hilt-blade connection, *Griffzungenschwerter*, or flange-hilted swords, are also known: Sprockhoff type I sword, type Nenzingen, Hemigkofen, Erbenheim. These types are somewhat later, although there is an overlap.<sup>2</sup> Properly speaking, they should be discussed in this chapter. However, since *Griffzungenschwerter* herald a new development in sword-fighting techniques that gained momentum in

the Late Bronze Age, I shall treat these swords not in this chapter but in the next. The swords discussed here are listed in appendix 5.2

### 7.6.1 *Rosnoën swords*

The most frequently found swords from this period are of the Rosnoën type. These swords are characterized only by the rectangular form of the hilt and the number and position of the rivet holes or side notches therein (fig. 7.13; appendix 5.2; Briard 1965, 172; fig. 56). Their length is relatively long, their width regular and small (Butler 1987, 19-23); this implies that they were designed as rapiers in the strict sense (see the definition in 6.6). The Herten-Ool find with side

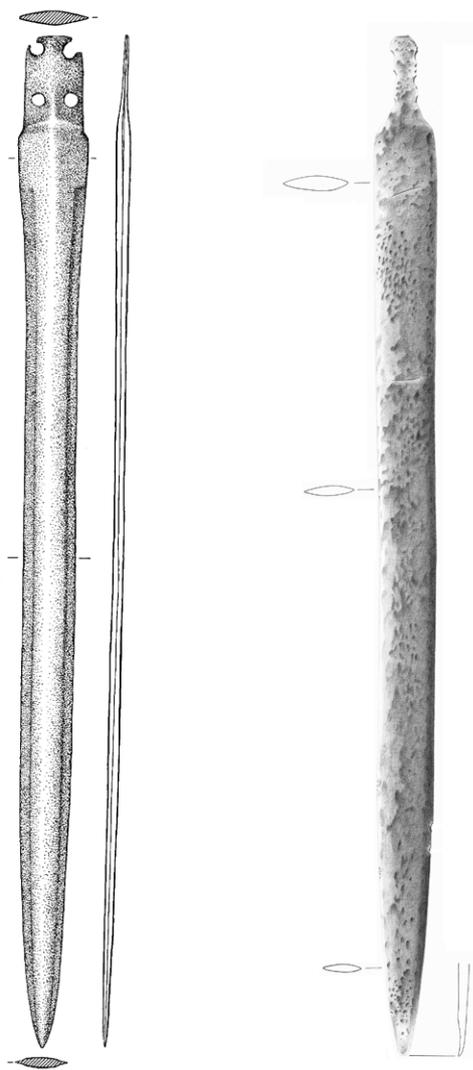


Figure 7.13. Two Rosnoën swords. One from the river Meuse near Herten (left; after Butler 1987, fig. 12:2), one from the marsh near Kronenberg (right) (scale 1:4).

notches, however, has a slightly leaf-shaped blade near its tip. This implies that it could be used for slashing as well. This specimen can therefore be seen as one of the first examples of a sword in the definitions used here. With regard to this, another observation is relevant: both the Den Dungen find and one of the Herten specimens have a ricasso (Den Dungen on one side only). Such a feature improves one's hold of the rapier, but most of all, it gives more protection to one's hand in the case of rapier fights (fencing, slashing). Much more than in case of Middle Bronze Age A examples, the Rosnoën rapiers have been designed for a way of fighting that comes closer to what can be regarded as real sword fighting.

Rosnoën swords are typical products of north-west-France, which are assumed to have reached our region through exchange (Butler 1987). It is particularly remarkable that these swords are all found in or near the river Meuse, whereas more to the south this river does not yield similar sword finds (Butler 1987, 19). Most objects that could be studied show traces of resharpening, particularly on the tip. On the Kronenberg sword impact traces were recognized, implying that it was used for slashing. Consequently, most swords seem to have been used in battle. The Middelaar and Kronenberg find are certainly no typical Rosnoën swords (fig. 7.13), but this is due to their reworked butts (appendix 5.2; see also Briard 1965, 54: 3). These traces of reworking are indirect evidence for a use-life: when using rapiers or dirks for repeated slashing, the rivets are prone to tear and can be severely damaged, urging repairs.

Just like the contemporary flame-shaped spears, their occurrence shows a remarkable clustering. Almost all were found in or directly near the river Meuse. Four rapiers have been found by dredging in the Meuse near Herten/Roermond/Linne, two actually in each other's immediate vicinity (Herten-Ool). This is the same zone that saw deposition of other weapons. Discolourations on the hilt of the Den Dungen find indicate that it was deposited with its organic hilt still attached (Drenth/Kleij 1998, 27-8). A sword from Montfort was found on the higher grounds of the Meuse valley in the Echt-Montfort marshes. It was found in a thick peat layer. The object was covered with a remarkable, so far unidentifiable substance. It gives the impression that the object was covered with something, perhaps an organic sheet (its scabbard?). This marsh yielded more bronzes from this period, mainly palstaves. Another marsh find comes from the fringes of the large Peel peat bog (Kronenberg: fig. 7.13). The find from the river Raam from Escharen is quite remarkable. Here, a Rosnoën rapier was said to have been found together with a spearhead, a bracelet, and a dagger. All objects have a wet context patina, and must have been deposited in the river or its backswamp. It is likely that these objects represent one contemporary deposit (fig. 7.11).

### 7.6.2 *Other Griffplatten and Griffangelschwerter*

The group of other *Griffplattenschwerter* is more diffuse. A relatively early specimen is the sword from the Meteren-De Bogen burial. This rapier was found in the remnants of a large barrow with in the clayey soils of the Betuwe in the central river area (Meijlink 2001). Nearby, two bronze arrowheads were found, as well as two rivets (probably part of the rapier itself), a bronze wire and a bronze bead. These objects are likely to have been part of the original burial equipment, although the precise find contexts of the smaller objects could not be assessed. The rapier must have belonged to the central skeleton burial of the barrow. Since this consists of two skeletons in the same position, one (no. 3) on top of the other (no. 10), it is difficult to make out to which one the rapier belonged. It seems most likely that rapier and arrowheads belong to burial 1 (see Lanting/Van der Plicht in press). The sword itself seems to have been an import from south Germany (Butler/Hielkema 2002, 539-41). Similar swords are known from warrior graves in Velsbroek (western Netherlands) and Essel (North Germany; Butler/Hielkema 2002).

The other swords are mainly dirks and rapiers, although the a-typical *Griffangelschwert* from Heumen has a ricasso, which points to a more advanced use as a thrusting or slashing weapon. The majority of the swords must be imports, be it from a variety of regions (Grigny, Rixheim: continental, Cloontia: British, Meteren: south Germany, Maasbracht and Heumen: a-typical, unclear). Only the Antwerpen-Appelstraat sword is of a type that is unparalleled in Europe, apart from a similar find near Schoonaarde in west Belgium. Warmenbol (1992, 82: no. 60) convincingly argues that this is in all likelihood a regional product. Whether it was produced in our region, or elsewhere in Belgium (East-Flanders?) remains unclear. It should be emphasized that it does not bear a characteristic decoration that makes its regional identity more pronounced. Nevertheless, such a sword is exceptional; the majority seems to have been imported from far. A number shows clear traces of use as torn rivet holes (for example the Cloontia sword) or reworked points (Appleby)). The damage on rivet holes results from thrust-only swords that were apparently still used for slashing movements (Bridgford 1997). Again, most swords ended their life in major rivers. The Meteren-De Bogen sword is the only exception to this rule.

### 7.6.3 *Reworked sword blades*

Another phenomenon repeatedly observed is that damaged sword blades were re-used to make daggers or shorter swords. Several examples of repairs have been observed, most notably swords with reworked butt. For some finds, the original form was still recognizable (some Rosnoën blades, see 7.6.1), but for those discussed here re-working was

carried out to such an extent that this is no longer possible. As they are *ad hoc* products, they do not show characteristics with a typo-chronological value, although the way in which new rivet holes were constructed often recalls British group IV rapiers (for examples see Burgess/Gerloff 1981, plates 111-114). For that reason, and because some must clearly have been derived from rapiers with a considerable length, it is likely that most are of Middle Bronze Age B rather than Middle Bronze Age A date. For the present discussion, these finds are of much greater interest than one might initially think. They do not only testify to sword biographies in which swords had been extensively used, but also to the re-use, repair and conversion of them. They testify to intensive use-lives and long circulation periods, unknown from earlier swords in deposits. Such re-worked and converted swords nevertheless ended up in the same kind of deliberate deposits as did other swords (major rivers). We may prefer to interpret such re-use and repairs as an economical way of dealing with bronze when the bronze supply ran short. Such an economical treatment was not carried out to the extreme, however. Like other swords, the reworked swords were also offered in watery places. It would fit the evidence better to suppose that their long use-life apparently made them suitable for deposition. Re-using small parts of a long rapier for daggers, as happened in case of a 'dagger' from Nijmegen (appendix 5.2), need not just be the result of an economical attitude. It could also have been done to lengthen the history of a sword that for some reason had attained a special significance. We could for example think of a sword that was divided up into smaller pieces after the death of its owner and given to relatives as small daggers.

### 7.6.4 *Conclusions: life-cycles of swords*

Although the dating ranges of swords are long, and the fact that we can only date these objects by means of extrapolating chronologies from other regions, the conclusion is undeniable that the last part of the Middle Bronze Age B (parallel to Reinecke D-Ha A in the German terminology, or *Bronze final I-IIa*), is a period from which a much higher number of sword finds is known than the earlier part of the Middle Bronze Age B. The *Griffplatten*- and *Griffangelschwerter* are more than their Middle Bronze Age A predecessors undecorated, functional objects. They are longer (often rapiers), and in some cases their design allows more versatile battle action (leaf-shaped blade and an occasional ricasso), being closer to a manner of fighting that we know from 'real' swords. A number of the (Rosnoën) swords have rather narrow parallel-sided blades which thicken relatively quickly towards the fairly thick centre. Following Bridgford (1997, 103), such objects are primarily intended for thrusting. Another argument for this is the observation that of many *Griffplattenschwerter* the point is clearly sharpened,

sometimes even drastically (for example, the Appleby sword from Milsbeek, or the dagger from Escharen that was probably made from a sword blade fragment). Swords intended for cutting or slashing alone do not require such a sharpened point (Bridgford 1997, 103). There is also another reason to suggest that the proper way of using these long rapiers could not have been making slashing and cutting movements: the vulnerable hilt-blade connection would easily break then. Osgood *et al.* (2000, 23) point out that therefore effective rapier-fighting may have been quite difficult, something that required special training. Nevertheless, the tearing of rivet-holes of some swords indicates that these swords were still used for cutting or slashing, although their design did not really allow this (cf. Bridgford 1997, 105). The damaged (and sometimes repaired) butt ends, witnessed on some trapezoidal-hilted rapiers, probably indicates friction caused by thrusting movements.

Summing up, the life-cycles of Middle Bronze Age B swords depart in some ways from those of earlier ones. Again, most must have reached the region through long-distance exchange with both Atlantic and continental regions. Now there is also at least some evidence for local sword production in the Scheldt valley. Deposited swords often show evidence for an intensive use-life, some examples were even repaired and re-worked several times. Again, the swords were deposited preferably in major rivers (table 7.1; fig. 7.10). Concentrations of sword finds in the Meuse valley around Roermond-Herten indicate that this river stretch was repeatedly used for sword deposition. The Escharen hoard in a stream valley more inland suggests that rapiers were deposited in conjunction with a complete warrior set, including an ornament, a dagger and a spear.

### 7.7 ORNAMENTS

A small category of objects that can be dated typologically or by means of circumstantial evidence to the later half of the Middle Bronze Age are body or dress ornaments. These are mainly pins, spirals, a golden coiled spiral and a bracelet (appendix 4.1; fig. 7.14).

#### *Large disc-headed pins with a decorated shaft*

Two such pins are known (Vorstenbosch and Deurne). The smallest one is the Vorstenbosch pin (7 cm, but point missing), which has a *pointillé* decoration. The Deurne specimen is 22 cm long and has a completely decorated shaft (horizontal lines directly underneath the head, long vertical lines going down to the point; the surface is regularly waved here). On the basis of its decoration the former can be compared to a pin found in the Weerdinge burial in the northern Netherlands, which provides a date contemporary to Montelius' period II or III. It is considered to be a north-west European type (O'Connor 1980, 75). The Deurne find seems so far to

be an unparalleled one, but according to J. Butler (personal communication), who studied this pin, it is probably a central European import. The Vorstenbosch pin is said to have been found in association with a complete pot of the Hilversum type with barbed-wire decoration (Modderman 1959). Since this type of pottery is firmly dated around the earliest centuries of the Middle Bronze Age A, the finds were probably not associated (see also Lanting/Van der Plicht *in press*). The Deurne pin was found to the east of 'Klein Kasteel'. This is on the fringes of the large peat bog of the Peel. Its patina and good state of preservation imply that it comes indeed from the peat bog itself, and not from its dry environment. A regional (midribbed) palstave comes from the same area, but the two finds were probably not found together (H. Steegstra, personal comment).

#### *Gold coiled spirals*

The only gold find from this period are the coiled spirals from Susteren, probably an import from Brittany (Warmenbol 1989b, 509). Their precise function is unknown. Although it seems to be a reliable find, nothing can be said on its original depositional context (Van Hoof 200, catalogus: Susteren-Reinoud van Gelderstraat). For that reason, we shall leave it out of consideration.

#### *Wheel-headed pins*

Four wheel-headed pins are known to have been found in the research area (fig. 7.15). Such pins have a wide distribution in Germany, both in its north-western parts as in the middle Rhine area (O'Connor 1980, 75). In southern and north-west Germany, they have characteristically been found in rich females' burials, where they were one of an entire range of ornaments (Wels-Weyrauch 1989). Such rich graves are the female counterparts to the male warriors' graves from the same areas. It is generally agreed upon that these pins were an element of a particular costume, indicating different female statuses (Sørensen 2000, 139-40). Such pins have generally been considered to be totally alien to the female ornamentation that was current in the Low Countries. The only find of two such pins in a secondary burial of the northern Netherlands (Weerdinge), was for that reason interpreted by Lohof (1994, 116-7) as a burial of a woman that might have come from the German region of the Rhine-Main area and was married to a local. The prestige of having a marriage partner from such a remote region then would have been emphasized by burying her in her native dress. A recent discovery in the southern Netherlands, however, now seems to offer an alternative scenario. One of the objects to be made in the clay mould from Oss-De Horzak, was actually a large wheel-headed pin (section 7.9.3). It is somewhat larger than the other Dutch finds, but for the rest it matches well enough the examples that are known from the

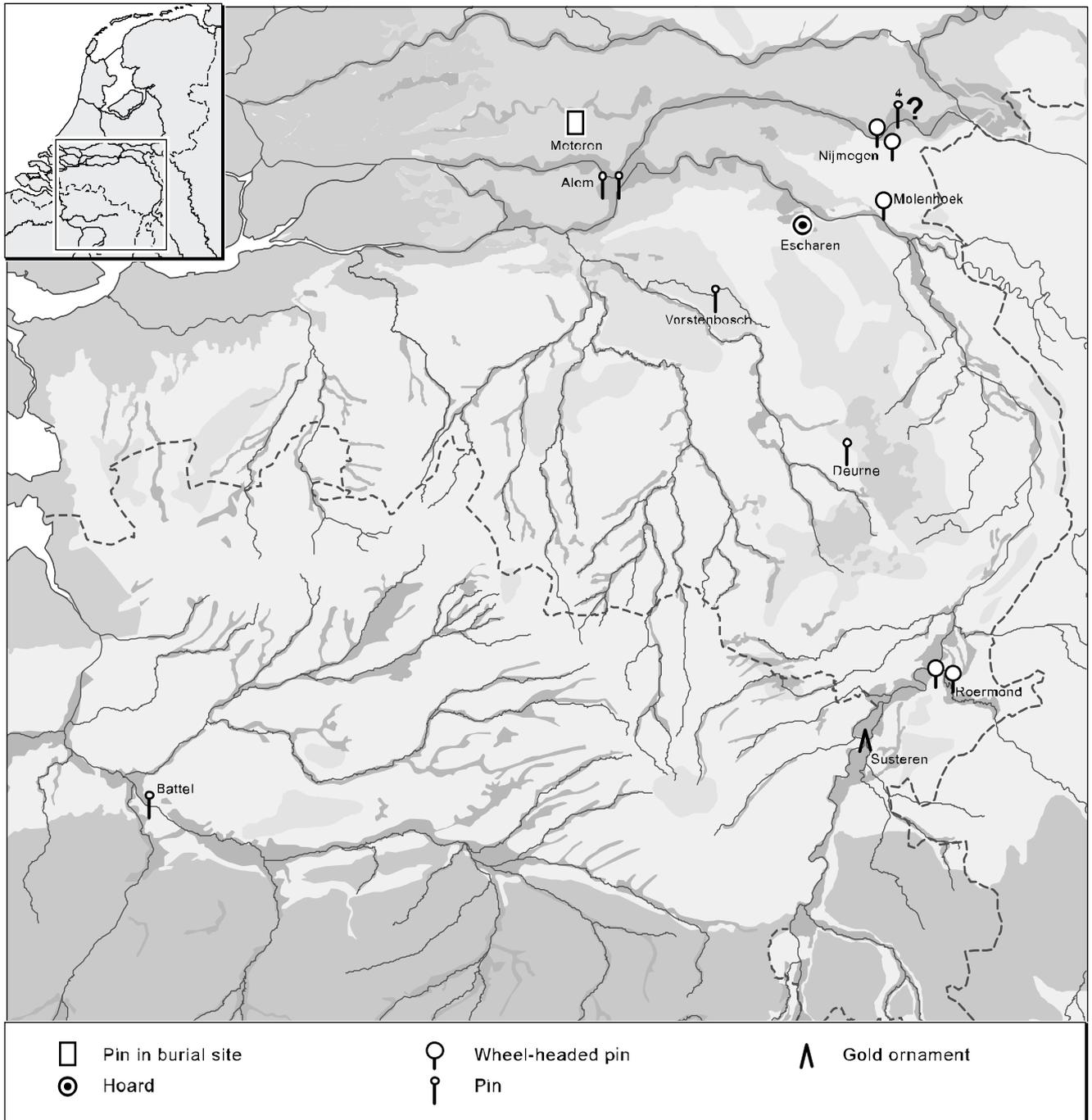


Figure 7.14 Distribution of MBA B ornaments.

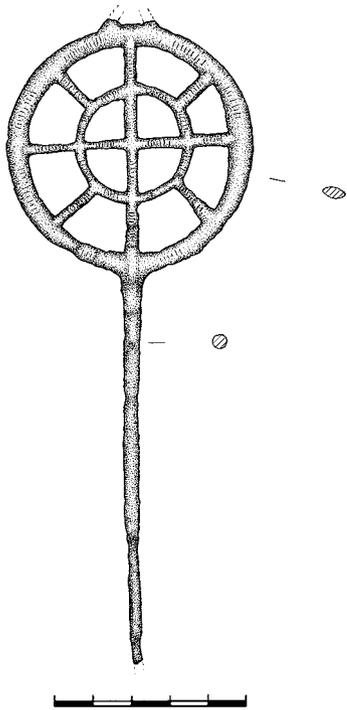


Figure 7.15 Wheel-headed pin from Molenhoek (scale 1:2, drawing Groningen Institute of Archaeology, formerly known as BAI).

German Rhineland (Weber 1993; Weber/Von Detten 1993, BE 4). Although Lohof's observations that such female ornaments were exceptional still stands (they are still extremely rare in the Low Countries, unlike in Germany), we now have evidence that this non-local, exceptional pin-type was locally produced, and hence, the Weerdinge woman may have been born in the Netherlands after all. What is important, however, is the observation that a non-native way of female dress seems to have been copied, whereas there is no evidence at all for local production of ornaments with specific regional styles, as we know them from Denmark (Sørensen 1987).

Two of the pins are from a dry, but otherwise unknown, context, the other two are from major rivers.

#### *Courtavant and Wollmesheim pins*

Some smaller pin forms have a trumpet-shaped head, with swollen ribs on the shaft, also known as type Courtavant (O'Connor 1980, 120). A variety is the Wollmesheim type with convex or onion-shaped heads with one to six collars (O'Connor 1980, 123-4; Kubach 1977, 422). A small number of these objects have been dredged from the Meuse and Scheldt. Both are dated to the last centuries of the Middle Bronze Age B (Reinecke D/Ha A; *Bronze final I*; O'Connor 1980, 120, 124). Both are continental types, the Courtavant

having their main distribution in north-eastern France, and Wollmesheim pins in the middle Rhine area. Whether these objects were as clearly gendered as is assumed for the wheel-headed pins is unclear. In a burial in Dietzenbach, a Wollmesheim pin was associated with a *Griffangelschwert*, implying that it was part of a martial outlook (Kubach 1977, 429: no. 1044). It is unclear whether this applies to the others as well. The finds from the study region do not come from burials at all: almost all are river finds.

#### *Roll-headed pins, spirals and a bracelet*

The roll-headed pin is a simple ornament with a wide distribution, that remain in use for a very long time (Verlaeckt 1996, 26). It lacks the elaborate decoration that made the other pins so conspicuous. It is also unclear whether such pins were parts of brooches or pins in their own right. In northern Germany, roll-headed pins are known from male burials (Laux 1976, 51). In the northern Netherlands, a roll-headed pin was found together with the two wheel-headed pins in the (female) Weerdinge burial (Butler 1990, 59-61). The pins showed no relation to the body of the deceased: all objects were placed alongside the coffin. In the southern Netherlands, not one is known from a burial. The two pins listed here were both found among settlement debris of a Middle Bronze Age B site.

The *spirals* found on the Geldermalsen-Eigenblok settlement may have been *Lockenringe*, rings used for hairdressing. From an Middle Bronze Age context such a use can be argued for when they are found in graves on both sides of the deceased's head. This was probably the case in the Middle Bronze Age grave from Hijken, where the spirals are made of gold (Butler 1990, fig.11A). On the other hand, the spirals are no more than bent bronze wire, that could be used for a variety of tasks (part of fibulae, used for attaching clothing). Spirals may even have been a way to store bronze wire, and not an object in their own right (spirals were also encountered in the Wageningen hoard for example; see chapter 5).

The *bracelet* is from the Escharen hoard (fig. 7.11). By its association with weaponry, it was probably part of a warrior's equipment, deposited together in a stream valley.

#### *Conclusion: ornament deposition?*

It is difficult to interpret these finds from the point of view of a possible role in practices of deliberate deposition. Much more than in the case of other find categories, we are confronted with missing data, and therefore unrepresentative contexts. The ornaments described above are often small, inconspicuous, and are more easily overlooked than larger objects like dirks or axes. Consequently, it should come as no surprise that all bronze spirals (small and vulnerable objects) have only been found during a modern excavation of

a well-preserved settlement where metal-detectors were systematically used. On the other hand, a number of bronzes have been found during dredging activities in rivers (Alem, Nijmegen, Battel; appendix 4.1). Because of the very nature of dredging, the chances are small that such small objects can be recognized during gravel or sand extraction. Some of the so-called dredge finds come from old collections, the reliability of which can be questioned (Battel; Warmenbol 1987b, 55), but the recent discovery of similar ornaments by reliable finders (the wheel-headed pins from Molenhoek and Roermond) is an argument to take the older finds seriously. Whether the settlement finds represent deliberate deposits, as Jongste (2002) argues, will be dealt with in section 7.13.1.

A conclusion that can be drawn on selective deposition, however, concerns the absence of bronze ornaments from burials. In view of the high number of burials excavated, this absence seems to reflect reality. Apparently, bronze ornaments were not deposited in barrow graves, but at least some were placed in rivers and other wet places (table 7.1).

#### 7.8 SICKLES AND OTHER TOOLS

In this section the attention will be mainly on the finds of bronze sickles. Other tools are a few awls (known from settlement sites in the central river area), a small chisel (Boxmeer) and an early urnfield knife (Nijmegen-Brakkestein). The awls and chisel will be discussed in conjunction with other settlement finds (section 7.13.1). On the find context of the knife nothing is known, and for that reason it will not be discussed here. The objects are listed in appendix 3.

Sickles are a small but intriguing category of finds from the point of view of their role in deposition. 26 are known from the research area (appendix 3). They are practically unknown north of the region, suggesting that they were characteristic elements of southern exchange networks and/or metalworking traditions (Warmenbol 1985). In central Europe, sickles are very current, and known in numbers comparable to or even higher than axes (Bradley 1990, 119). The sickles under discussion here are knob-sickles, often with ribs on the edge of the blade (see figure 8.19 for an impression). In two cases, we find grooves instead of ribs (Dodewaard; Venray), which seems to be a regional feature. Finds from well-dated contexts (for example the Late Bronze Age Berg en Terblijt hoard or the settlement finds discussed here) indicate that the form of sickles hardly underwent any changes throughout the centuries. Single finds are therefore hard to date. Sickles are probably multi-functional tools. As harvesting implements, they are an addition to already existing flint knives in use for such ends. The evidence there suggests that sickles came into use during the Middle Bronze Age B.<sup>3</sup> Interestingly, all Middle Bronze Age B finds are from settlement sites, apart from two sickles that were placed in the mound of the Holset barrow (section 7.13.4).

Other –Middle or Late Bronze Age sickles are from a variety of wet contexts or from contexts unknown (appendix 3; for their spatial distribution see fig. 8.20).

I wish to pay special attention to sickle finds from Middle Bronze Age settlement sites, as bronze finds from such contexts are quite uncommon (appendices 3 and 9). In the case of Breda and Venray, they were found in the fill of a pit, together with undecorated shards. On both sites Middle Bronze Age house plans were recognized, and the pits were located near the house sites, although it is unclear whether the two existed at the same time. Those from Dodewaard and Geldermalsen are also from house sites, where they were found among the settlement debris. Although not properly excavated, the two sickles from Opheusden are also from a find layer that yielded a number of Middle Bronze Age shards. Although small (five sites), the association between Middle Bronze Age house sites and bronze sickles is conspicuous. All were found during recent excavation, where metal detectors were systematically used. In this light, the absence of other, much more common objects like axes and spears becomes marked. For one of the sites (Geldermalsen-Eigenblok), cut marks on wooden posts indicate that metal axes were intensively used at this site (Brinkemper *et al.* 2002, 515). It might thus be ventured that the absence of the more regular objects and the presence of sickles is deliberate, even though the sickles seem to follow the normal discard pattern at all these locations (see section 7.13.1 for a more general discussion). Another characteristic shared by all settlement finds is that they are extremely worn, having been used for a long time. The sickles from watery places do not show traces of such an intensive use-life.

The find of two sickles and a type Bühl spearhead from a Bronze Age barrow in the ultimate south-east end of the research area has recently been interpreted by Butler as objects that were not part of the burial gifts, but deposits placed in the mound itself (Butler 1990, 98-9). We saw a similar phenomenon from the barrows from Swalmen-Hillenraad with deposits of Grigny axes (section 7.4.3). Such hoards are unknown from the many excavated barrows in the rest of the study area, and it seems to be a practice idiosyncratic to the middle and southern part of the Dutch Meuse valley.

#### 7.9 MOULDS

Although the existence of a regional production has traditionally been based on artefact typologies, there is now also some evidence of metalworkers' tools themselves. More precisely, three moulds have been found in the research region, one of bronze and two of clay. They are the only Middle Bronze Age moulds from the Netherlands and Belgium, and as a possible direct link to the study of bronze production they are important finds. The scarce finds of

pieces of melted bronze on settlement sites listed in appendix 8 may be additional evidence for bronze production sites. As their interpretation is rather ambiguous, I shall focus on the mould finds.

### 7.9.1 *The bronze mould from Buggenum*

The bronze mould found at Buggenum is a fragment of what must originally have been a half-mould. It has always been interpreted as a mould for a regional palstave (Butler 1973, 322). On the external face there are radial ribs connected by a thin rib at the base. Butler originally published this find together with a palstave also said to have been found in Buggenum, and considered to have been formed in this same mould (Butler 1973, Abb. 1; Butler/Steegstra 1997/1998: no. 394). Only recently, it has become clear that this is probably not true. The palstave indeed has a similarly shaped blade, but also a midrib that products from this mould would not have had (Butler and Steegstra 1997/1998, 271). The most recent inventory of palstaves from the Netherlands does not provide examples of axes that could have been formed in this mould, although the product from this mould shares the general trapeze-shaped blade of palstaves considered to be regional products (section 7.4.2; Butler/Steegstra 1997/1998). Butler and Steegstra are now of the opinion that this mould fragment was imported simply as a piece of scrap intended for recycling, and that it may never have been used for casting in the southern Netherlands. They do not pay attention to another remarkable feature of this find, which is significant for the present study: the mould fragment is a river find, and seems to have been deposited there just like the many other bronzes dredged from this stretch of the Meuse.

### 7.9.2 *The clay mould from Cuijk*

Some years ago, fragments of a clay mould were found by the amateur archaeologist Jo de Wit (Grave) in Cuijk. According to the finder, the mould fragments came from a pit, in which some coarse-tempered sherds were found as well. Unfortunately, the find was unavailable for study when this book was being prepared.<sup>4</sup> According to Nico Roymans, the sherds are of Middle Bronze Age pottery. The mould is light-coloured, and seems to have been tempered with 'glittering' particles (biotite or muscovite?). It is one half of what must have been a two-piece mould (fig. 7.16). Since the mould is severely damaged, it is hard to make out what kind of object was shaped in it. As fig. 7.16 indicates, we are dealing with a two-edged object with a slight midrib. Theoretically, it may have been a long spearhead, a sword or a dagger. The parallel-sided edges, the narrow width and the long length of the form in the mould make the spearhead-theory less probable. A sword remains a possibility, but since the sides of the form are small and run parallel just above the

tip, Butler now sees a dagger as the most likely option (personal comment). As I have only seen a plaster of this find, unfortunately I shall have to leave it at that.

### 7.9.3 *The clay mould from Oss-Horzak*

When this book was close to being completed, an important find was made at the excavations carried out by the University of Leiden at the site of Oss-Horzak. While investigating the remains of a Roman cemetery, a number of Middle Bronze Age features were discovered. Among them were the traces of a pit, in which the remains were found of what could readily be identified as a clay mould for the production of bronze items (fig. 7.17). Apart from this, a high amount of charcoal, a number of pot shards, stones, and as yet unidentified burnt clay fragments were retrieved. The contents of the pit were collected and sieved (width of measure 2 mm): it yielded more tiny fragments of charcoal and pottery, but not the bronze remains that were expected. Since we are dealing with a well-preserved clay mould from a reliable context, the first example of such a find in the Netherlands and Belgium, and since it provides vital information for the present study, it was decided to include it in this book. At the time of publication, unfortunately, not all analyses have been completed. In advance of the final report of this find (Fontijn *et al.* 2002 and in prep.) the preliminary results are presented here.

#### *Description of the mould*

The mould measures 11 (w.), by more than 11.5 (l.) by 4 cm (th.). The uppermost part is preserved, and shows a slightly rounded-off form (fig. 7.17). The surface in which the object negatives are to be found is very smooth and regular on both sides. Although broken, both surfaces are largely undamaged. The long sides display horizontal grooves, that are conspicuously absent on the short side (fig. 7.17). The impression is that they were made with twigs or rope and that they served to allow a better grip at the sides. Probably rope or twigs were attached along this side to fasten the clay casting channel that must have been situated at the short side of the mould.

The mould is of a yellowish to beige colouring, not only on its surface but on the inside as well. So, the clay is entirely oxidized. According to Lou Jacobs of the Ceramological Institute of the Faculty of Archaeology in Leiden, it is a very clean clay. Re-baking a tiny fragment showed that it was originally made at a temperature of approximately 650° C, which is not very much lower than the temperatures at which regular (Iron Age) pottery from Oss was fired (personal comment P. van den Broeke). It is remarkable that the clay was tempered with biotite, and that iron particles are lacking. Biotite is generally absent in the regular pottery of Oss as the pottery analysis of Peter van

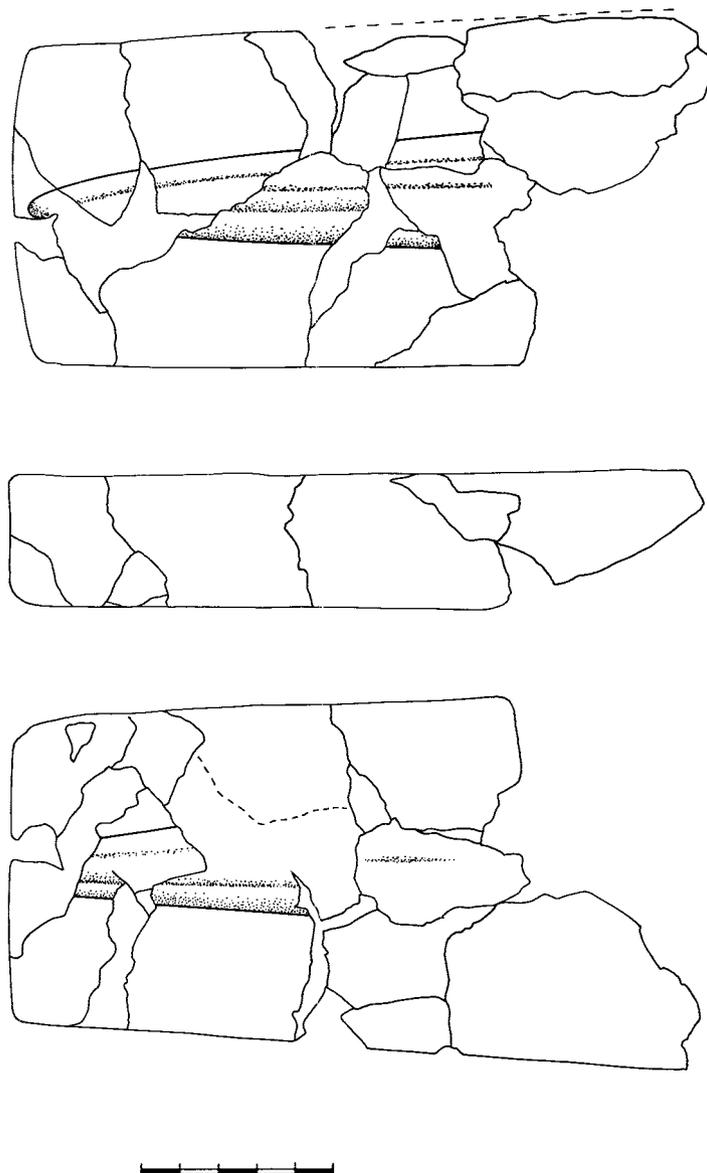


Figure 7.16 The clay mould from Cuijk, coll. J. de Wit (scale 1:2).

den Broeke has made clear (1987; personal comment). Iron, however, can be found in all clay sediments in the surroundings of Oss (the nearby Meuse valley). Although thin-section analysis has yet to be carried out, this makes it likely that the mould was made from a non-local clay.

On one side, from now on termed the axe-side, the smooth surface is blackened. The surface of the object negatives in the clay body are largely blackened as well. On the other side, termed the pin-side, this black colouring is conspicuously absent. Experimentation and ethnographies have made it clear that blackening (with charcoal?) serves as

some sort of insulation. It prevents the remaining damp in the clay from interacting with the fluid bronze while casting, and prevents the flowing bronze from sticking to the clay (Drescher 1957, 58; Henderson 2000, 180). This could explain this remarkable black colouring. On the other hand, the temperature at which the mould was fired was so high that all water must have disappeared (L. Jacobs, personal comment), and the charcoal-as insulation-hypothesis does not tally with the observation that the parts of the sides are blackened either. Perhaps it is more logical to suppose that the blackening was simply due to contact of the mould with

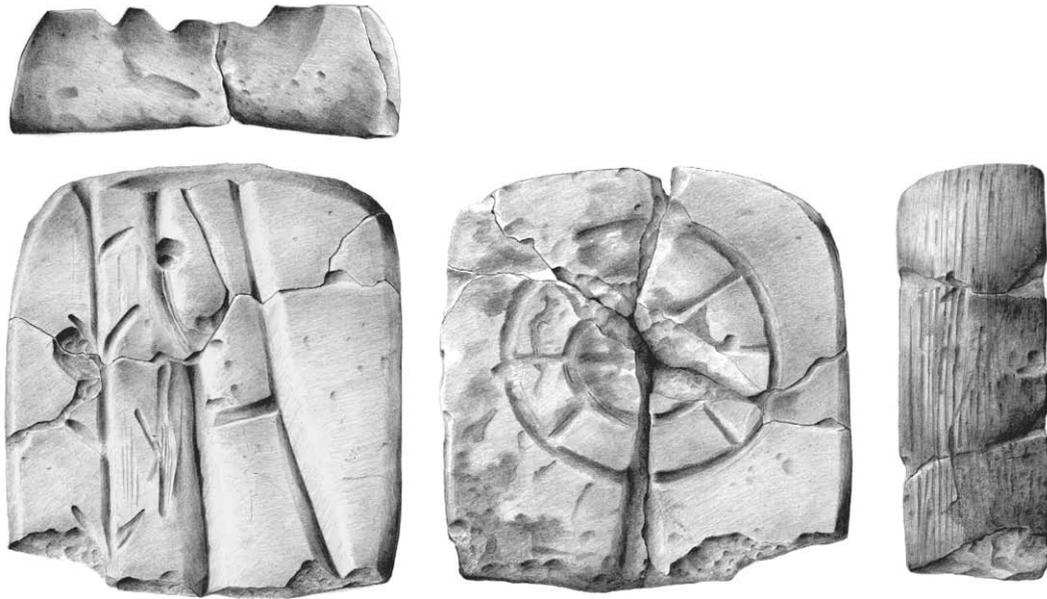


Figure 7.17 The clay mould from Oss-Horzak (scale 1:2).

the fire when the pin was being cast. Drescher's experiments showed that casting is more successful when the mould is pre-heated before it is used (Coghlan 1975, 60-1).

To make the casting process successful, some sort of conical casting channel is needed. This channel may have been situated at the lost short side of the mould. For casting the axe, this is unlikely, however. The most massive part of a palstave is near its butt, and it is logical that this is the place where the bronze flowed into the form. A slightly rounded depression around the opening on the butt of the axe-negative might have functioned as a casting channel, but for successful casting usually a longer, conical channel is needed. Interestingly, a sandstone palstave mould from Plumieux, Brittany, also had a modest opening on the butt side, but nothing in the way of the larger conical channel we would expect (Briard 1965, 94-6; fig. 30). Ernest Mols, who is a bronze smith skilled in prehistoric casting techniques, suggested that the channel might have been situated in a clay core that was constructed on top of this side. Indeed, loamy fragments have been found in the pit fill that cannot be interpreted as pottery fragments. This suggestion needs to be investigated further, however, and should be seen as a working hypothesis.

#### *The objects*

On one side, the negatives can be recognized of what must have been a small palstave fitting neatly within the 'parallel-sided palstaves' described in section 7.4.2. The find of the mould corroborates Butler's theory that these were regional products. Curiously enough, however, this specimen has

flanges on its side, which was thought to be a northern rather than a southern feature. The negative seems to have been carved out of the clay. Other negatives are of a single arrowhead, partly cut off when the axe-negative was formed, and two arrowheads in a row, with a single barb. It should be kept in mind that the blade was probably hammered out further once cast. Single-barbed arrowheads are known from Hijken, tum. 9, find no. 39 (Butler 1990, 65-7; fig. 11A) in the northern Netherlands. The few examples from the southern Netherlands (appendix 6.3), most notably those from the burial of Meteren-De Bogen) do not have barbs. On the other side, the negative can be recognized of what must have been a wheel-headed pin (section 7.7). It is slightly larger than the examples known from the Netherlands, but matches the general form of such pins. The broad shaft was in all likelihood hammered out after casting. Ernest Mols thinks it is unlikely that bronze could flow successfully through this negative (the gullies are irregularly shaped and narrow). Does this imply that this side was not used? It might be, but one should not forget that we may be dealing with a bivalve mould, just as in the case of the axe. Hence, use traces could be expected on the missing half. The truth of this needs further investigation.

#### *Implications*

Although only superficially investigated, the Oss-mould has implications for our views on bronze production. In contrast to the Buggenum mould, which is a river find, the Oss find seems to be directly related to production. It is hard *not* to interpret the high amounts of charcoal and the lumps of loam

as related to the casting process, particularly since such finds are entirely missing from the adjacent Bronze Age features. Remarkable is the concentration of very different objects that were apparently produced by the same smith: a regular tool of daily life, rare arrowheads, that are generally only known from special warriors' graves like the one from Meteren-De Bogen, and a wheel-headed pin: an ornament of a female dress native to German regions as Hessen or the Lüneburger Heide, but that was nevertheless produced in Oss. Finally, there is the possible non-native character of the clay. For the moment, we can only speculate where this clay came from, but it brings us closer to a belief in smiths that were perhaps much more itinerant than recent views assume them to have been.

#### 7.9.4 Conclusion

Several conclusions can be drawn from the mould finds. Two of them (Cuijk and Oss) may be related to bronze production taking place at the location where they were found. The Buggenum bronze mould, however, seems to have been deliberately deposited in the river, just like other bronze objects. It indicates that the craftsmanship of smiths, and subsequently, the tools of metalworking, may have had an added value. We saw arguments pointing in that same direction in the case of the smiths' graves of the Late Neolithic-B (chapter 5). Next, the products that must have been made in that mould confront us with a much higher variety of local products than we are inclined to think on the basis of the typology of the products themselves (the dagger or long spearhead from Cuijk, the arrowheads and the flanged palstave from Oss). Startling is the evidence for local production of wheel-headed pins: female ornaments that are characteristic for rich female burials from German regions, and generally thought to represent a typically female dress. As discussed in section 7.7, the few examples of wheel-headed pins from the Netherlands have therefore always been considered imports, perhaps even as marriages between local chiefs and German women (Lohof 1994, 116-7). The Oss mould implies that such ornaments were apparently copied locally.

#### 7.10 METALWORK AND CONTEMPORARY MATERIAL CULTURE

If we looking back at the long list of bronze object types described so far, some general observations can be made. A high number of tools (most notably axes) were by this time made in the region itself. The stock of metal in circulation seems to have increased somewhat, and there is a larger variety of bronze objects than was the case in the Middle Bronze Age A. Realizing this, it becomes inevitable to once again deal with the question of the place of metalwork among contemporary material culture: what exactly was its

significance in daily life at this stage when opposed to objects from other materials? Were there material culture categories that now fully consisted of bronze objects? When compared with the period when metalwork was adopted, did existing material culture classifications change completely?

*The place of bronze objects among tools of everyday life*  
Axes, sickles, chisels, knives and awls are bronze objects that – as attested by use traces – were actively involved in everyday practices. An interesting result of the recent excavations of settlements, both in the Holocene central river area (Van Gijn/Niekus 2001) and in the Meuse Valley (Boxmeer; Hiddink 2000), is that considerable quantities of flint artefacts have been found that seem at first sight to have been used in the same field of practice. Research done on these finds has shown that the general assumption that flint objects lost their significance as tools for everyday activities to objects made of bronze, can now be shaded. Indeed, flint material is very scarce at Middle Bronze Age settlement sites like Oss (Fokkens 1991) or Venray-Hoogrieboek (Krist 2000), but as these sites have been heavily ploughed out, the archaeological find material may be very biased. Better preserved sites in the Holocene part of the central river area, however, yield a wealth of flint material.

Among the tool types recognized in the Middle Bronze Age find assemblages are retouched pieces, scrapers, knives, points, borers and reamers, and strike-a-lights (Van Gijn/Niekus 2001).<sup>5</sup> The technology can be described as an *ad hoc* strategy, aimed at the production of flakes. The selection of tools, however, was not *ad hoc*, but based on 'clear ideas of what constituted a suitable edge with respect to the task at hand' (ibid., 313). Micro-wear analysis shows that the objects were for example used for working hides (scrapers and some knives), and possibly for working bone or wood and different kinds of tools were used as strike-a-lights (ibid., 309-13). Clearly, the flint implements only partially overlapped with regard to practices for which one could use the contemporary bronze tools known to us. Both bronze and flint artefacts were used as knives and small wood-working tools (chisels), and for cutting tasks performed with bronze sickles there were probably also good flint alternatives (many flint objects appeared to have been used for 'cutting' activities; Van Gijn/Niekus 2001). For some tasks, flint was indispensable (strike-a-lights) or far better suited than known contemporary bronze objects (scrapers for hide-working).

The only object that seems to have been exclusively made of bronze is the axe. We do not know of any flint (or stone) equivalent for axes dating from this period. This implies that for such tools only bronze versions were used. The cutting marks preserved on the wooden posts of one of the Middle Bronze Age house from the Eigenblok site,

indeed shows that the axe used was made of metal, and not stone (Brinkemper *et al.* 2002, 515). The replacement of stone axes by bronze ones seems to have been completed as early as the Early Bronze Age (chapter 5) so this should not come as a surprise.

#### *Weaponry/hunting equipment*

A category in which a full bronze kit dominates, is the category of specialized weaponry. In Chapter 6, it was argued that rapiers, dirks and swords were made of bronze from the beginning. Although conceptually derived from long daggers, which existed in both flint and metal versions, a usable dirk or rapier could only have been made from metal. As such, it is an object category that could be developed only due to the specific properties of the material used. The same goes for most spearheads, since these are primarily thrusting weapons, and less useful for throwing. Flint points may have been used as javelins, but less so for those with a thrusting function. However, pointed wooden or bone javelins may be very effective as well. Such bone points are known from a Late Iron Age cult place in Oss-Hertogswetering (Jansen *et al.* 2002). Finds of this kind are probably underrepresented because of their poor chance of preservation. There are at present no flint artefacts known that may have been used as (javelin) spearheads, but some objects determined as arrowheads may in theory have been used as such. Flint arrowheads are known from the Middle Bronze Age A, but seem to have been replaced by bronze ones in the Middle Bronze Age B.

#### *Body ornaments*

The evidence of non-metal body ornaments is extremely rare. This is undoubtedly related to the fact that most evidence on clothing and dress consists of organic material for which the conservational circumstances are extremely bad (see Groenman-Van Waateringe 1990 and Vons-Comis 1990 for some finds of clothing from the northern Netherlands). Some pieces of decorated bone found in barrow graves have been interpreted as ornaments attached to clothing or to necklaces (appendix 7.2; Theunissen 1999, 33-4, table 3.13). In some of these graves animal bones have been found as well among the cremated remains (Theunissen 1999, table 3.13 and Fontijn/Cuijpers *in press*). Most of these bones may represent the remains of funeral meals of grave gifts rather than body ornaments. The brown bear phalanx found in grave 5.2 from Toterfout-Halve Mijl, however, raises the question whether this object was an amulet kept in a small purse around the neck (Theunissen 1993, 34). Interestingly, decorated bone and antler is also known from at least two settlement sites in the Betuwe area: Valburg-Zetten-West (Peters 1999) and Voetakker site 28-1, (Van Dijk *et al.* 2002). From the first site the round antler object can be interpreted as a pendant (Peters 1999, 19; *afb.* 9).

#### *Conclusion*

A bronze tool kit has come to dominate the scene only in the case of (specialized) weaponry including daggers. For the settlement sites studied, most of the daily household tasks were performed with flint objects. Not much is known on bronze ornaments, but their small numbers and general absence from burials implies that they were far from regular items of bodily adornment.

#### 7.11 REGIONAL BRONZE PRODUCTION

A conclusion of major importance is that the Middle Bronze Age B heralds the beginning of a thriving regional bronze production, as in many other European regions. It implies not only that craftsmanship was (generally) available, but also that metal recycling systems became highly important. This must have affected the biography of metals in a direct way, since the option of recycling was now more than before a logical way of terminating an object's use-life. It makes the decision to deliberately deposit an object a more marked phenomenon (chapter 5). General observations can be made on the nature of regional production.

First of all, it is clear that production focussed largely on axes. Nevertheless, alongside local production, axes were also still imported, and often in large numbers.

Second, although regional products can be recognized visually, an outspoken regional style did not come into being. Rather, the regional axes were modelled after imported ones. This interplay between imports and local product shows all the signs of an open, rather than closed system. We saw the same in the case of the earliest metallurgy of the region around the Late Neolithic-B (chapter 5).

Third, although local smiths apparently modelled their own products after supra-regional styles, they did not do this arbitrarily: It is the west European imports that regional axes have outspoken affinities with. Continental palstaves or winged axes, however, do not seem to have had any influence on regional styles. On the other hand, the Oss mould confronts us with a stunning example of the copying of non-native female dress styles (wheel-headed pins), whereas regionally-specific ornament types are unknown, at least in bronze.

Fourth, the Oss mould, with its possible non-local provenance implies either that smiths themselves were at least partly (seasonally) itinerant, or that they had contacts beyond the region to acquire suitable implements, clays and so on.

Fifth, the Oss mould also suggests that high-status female and male objects (wheel-headed pins or arrowheads) were made by the same person or workshop that produced a regular tool like a palstave. The biography by which such objects came to lead separate lives apparently had not yet begun.

Finally, the presence of non-native moulds among river finds implies that smiths' implements – and hence the practice

of metalworking itself – had not only technological and social aspects, but religious aspects as well.

#### 7.12 METALWORK CIRCULATION

The rise of a local bronze production did certainly not lead to a breaking-up of the existing long-distance bronze exchange networks. In section 7.4 to 7.9 we have seen that for most categories, including those produced locally, objects kept on being imported from far. Moreover, the fact that copper and tin ores are situated far beyond our region implies that in the end a surplus of raw materials, scrap or ingots must have been imported from the source areas. It therefore seems wise to have a closer look once more at the constellation of these exchange networks.

##### 7.12.1 *General developments: reorientation of exchange networks*

As before, the imported objects came from a variety of sources: Atlantic, central European, German regions. There are reasons, however, to suppose that a significant reorientation of the Middle Bronze Age A network took place in the Middle Bronze Age B. For the Middle Bronze Age A, a few Scandinavian imports were known, and the Sögel-Wohlde swords and Oldendorf and nick-flanged axes were examples of types that are known from both Nordic and more southern regions. For the Middle Bronze Age B, there is not one Nordic palstave that has been found south of the Rhine, although twelve of such imports are known from the north and west of the Netherlands (Butler/Steegstra 1997/1998, 168-79). On the other hand, mid-winged axes and sickles, both objects with clear continental affinities, have not been found in the north. Flame-shaped spearheads, Rosnoën rapiers and west European palstaves have hardly or not at all been found in the northern Netherlands (Butler/Steegstra 1997/1998, map 23; Butler 1987, fig. 8 and 13). Apparently, the networks through which these Atlantic types were exchanged to the Netherlands did not extend into the northern part of it. Swords in general are even hardly known from the Middle Bronze Age B in the northern Netherlands: O'Connor 1980 lists just two examples!<sup>6</sup> Only for the British basal-looped spearheads there are examples known from both the south and the north (Butler 1987, fig. 11).

##### 7.12.2 *Patterns of procurement*

In section 7.10 we have seen that bronze objects were only one category among a larger number of items procured by means of exchange. For the period under investigation, we are in the unique situation that we can compare the patterns of procurement for bronzes with those of other materials.

##### *Objects procured on-site or in short-range exchanges*

On the basis of the settlement finds investigated, it appears that the most relevant tools of everyday life were procured

and produced on-site (pottery, bone and antler tools and ornaments, flint and stone tools). Flint was vital for most tasks, and although not native to most parts of the river area and the sandy core area of the southern Netherlands, it was mostly imported from fluvial sediment or layers in the neighbouring ice-pushed ridges, like those from Nijmegen, Arnhem or Rhenen (Van Gijn/Niekus 2001, 307). For the central river area and the Meuse valley, these flint sources were mostly no more than 10 to 30 km away, thus demanding only short-range exchange or expeditions. For the Boxmeer settlement, situated near the Meuse, the fluvial sediment was even more easy to reach. Flint from sources much further away, like the Rijckholt-St.Geertruid or Valkenburg mining sites, seem hardly to have been used in the study region (Van Gijn/Niekus 2001, 307). It is an open question whether flint was used in similar quantities in the interior of the study area (De Kempen micro-region for example), as these are clearly much more remote to any sources of flint.

An interesting observation is that most objects produced on-site or procured via short-term exchange hardly have any element of display, with the exception of decorated bone and antler ornaments. Pottery is hardly decorated and of poor quality; the flint assemblages lack sophistication, as if less effort was put into their manufacture than in earlier periods (Van Gijn/Niekus 2001, 315).

Unfortunately, it is unknown how regional bronze objects fitted within this picture because we have no information on the distribution of forges across the region.

##### *Objects coming from further away*

A three-fold distinction can be made for the objects that generally came from further away. These are almost exclusively objects made of bronze

- 1 *Object types that were imported from abroad in some numbers, but for which regional bronze equivalents existed as well.* These are imported palstaves and flame-shaped spearheads. Only in the case of west European palstaves, the imported ones often show similar use traces as the regional products. Moreover, it is only these palstaves that the regional products seem to have been modelled on. Continental axes, although occurring in the region, do not seem to have influenced regional styles.
- 2 *Object types that were imported only.* These are dirks, rapiers and swords (with the exception of the rapier from Zwijndrecht), and mid-winged axes. All of these were only made in bronze. The former are specialized weaponry, associated with a specific, close-range, fighting technique. The latter are not only remarkably different from contemporary axes for their form of hafting, but especially the Grigny variant is also conspicuously large and heavy, suggesting a specialized weapon function as well as a prestigious character. Swords and mid-winged axes are

much rarer than the above-mentioned category, but the number of finds still indicates that their importation was based on regular long-range networks. This situation applies particularly to the phase contemporary to the *Bronze final* period, for which a relatively large number of similar Rosnoën rapiers is known. This is also the same phase in which the import of the Grigny axes must have taken place.

- 3 *Objects that were extremely rare, coming from far away and visually deviate from more regular material culture forms.* These are the central European axes like the one from Doorwerth or the high-flanged axe from Goirle. The latter axe probably represents the longest distance across which a bronze object travelled. These axes seem to represent exchange transactions that were very rare and that were not based on more regular long-distance links. For such objects, we should think of long-range procurement in which the focus was not on establishing political ties, but rather on extending the reach of the importing society of the realm beyond its own cosmological frame (chapter 3; Needham 2000, 188).

### 7.13 DEPOSITION

Most of the metalwork described here ended a life of use and circulation in an act of deliberate deposition. Listing the evidence on deposited objects, the following conclusions can be drawn. As before, the majority of metalwork was placed in ‘watery’ places. Such deposits contrast sharply with objects that were deposited with the dead in barrows. New is the – scarce – evidence for deposited bronzes on settlement sites. The evidence indicates selective deposition, with specific types of objects ending up in specific types of locations. Below, the different kinds of deposition will be described, and additionally, a few words will be said on deposition of a quite idiosyncratic type: deposition of objects in burial mounds.

#### 7.13.1 *Deposition in and around houses*

In wet deposition sites, small indistinctive bronze objects like awls, undecorated pins or chisels are notoriously lacking, whereas they are present at settlement sites (fig. 7.18; appendix 9). Wet deposition sites have so far not been investigated systematically, and are often only known from dredging, so we cannot take this as evidence of absence. Settlement sites, on the other hand, particularly those with a well-preserved find layer like those from the central river area have seen professional excavations, generally aided by systematic metal-detecting. The fact that small bronze items have only been found on settlement sites can therefore at the same time be the product of research factors as well as selective deposition. We are in no position to make this out.

There are, however, other patterns that do not agree with preservation and research circumstances. The most common bronze objects, axes and spears, have not been found on settlement sites so far.<sup>7</sup> Even the majority of the unprovenanced finds cannot balance this, since most of these have a wet context patina (section 7.4). Their general absence on settlement sites must therefore represent evidence of absence: axes, spears, but swords as well, were as a rule not deposited on farmyards or in houses.

Another pattern that also reflects prehistoric practices instead of preservation and research processes concerns the repeated presence of bronze sickles on settlement sites. At least eight Middle Bronze Age sickles have been found; they are all from settlement sites. Another 18 sickles cannot be more precisely dated than Middle Bronze Age or Late Bronze Age (appendix 3; table 8.1). Eight of them are from a wet location, and two from a burial mound (the Holset barrow). So, although sickles are a much rarer tool than axes, and well-excavated settlement sites are also not very numerous either, half of the sickles with known context are from settlement sites, whereas the more numerous axes are totally absent from this context. Are we dealing here with a general practice in which sickles were deliberately deposited in or near houses? I think that this is indeed the most viable explanation which we shall arrive at by evaluating the alternatives.

As all sickles are extremely worn, and found among what is interpreted by the excavators as ‘settlement refuse’, one of the first interpretations that comes to mind is that they are discarded objects. To this view two practical objections can be raised. In the first place, sickles were relatively rare objects: if they ended up there as refuse, why then did we never find far more current tools like axes among the settlement debris? Second, for bronze tools that could no longer be used anymore, it is much more likely that they were recycled instead of thrown away. As we have seen, bronze was rare in the southern Netherlands, and during the Middle Bronze Age B a thriving regional production must have existed that must have been based mainly on remelting. Another idea would be to see these sickle as lost objects, but this is – I think – very unlikely: although awls or pins may easily get lost when fallen down in the trampled clayey ground of a site in the central river area, a relatively large object like a sickle should in most cases be retrieved easily. Moreover, some of them were found in pit fills (Venray, Breda), which makes loss even more unlikely. On one site (Opheusden) two sickles were found. Again, the chances that two sickles got lost suggests extremely clumsy behaviour on the part of the inhabitants. Another interpretation is to regard the sickles as stored but not retrieved objects. Again, it would be quite unlikely that such accidents resulted in the regional find pattern described; it is also quite odd that sickles and not other objects dominate such ‘stores’.

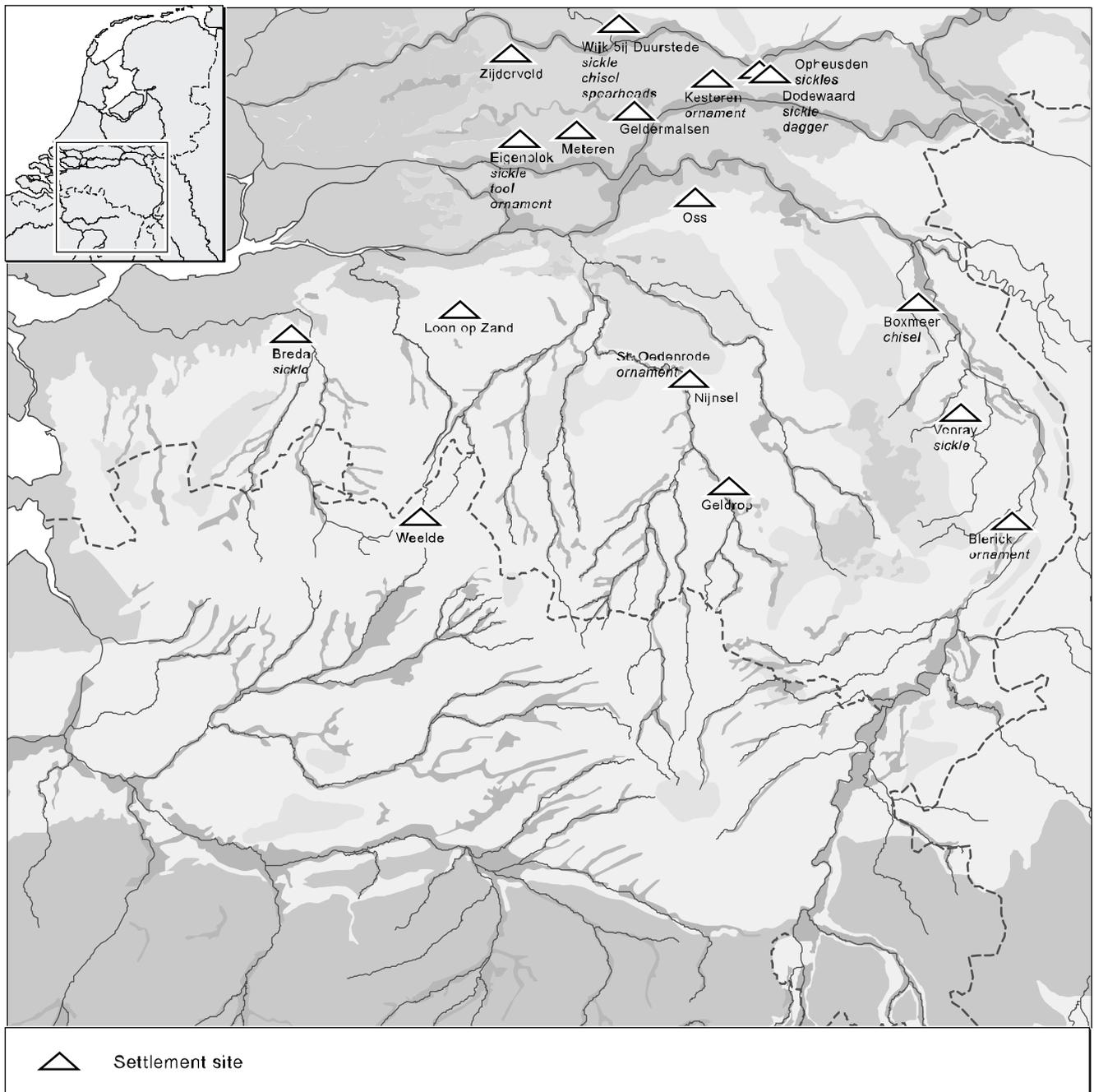


Figure 7.18 Distribution of MBA B settlements. indicated are the ones which have yielded metalwork finds.

Consequently, the frequent presence of bronze sickles on settlement sites can only be explained by the fact that people left them there intentionally. At this point, it becomes interesting to have a closer look at their more precise find context (if possible). At Venray-Hoogriebroek, the sickle was found in a pit fill together with some sherds. Into this pit fill one of the construction posts of the house had been dug in (Krist 2000, 21). It is very unlikely that the association between a pit with such a special content and one of the main posts of a house is accidental. In actual fact, similar situations are well known from the later Iron Age and Roman Period in the southern Netherlands (Gerritsen 2001, table 3.5). We therefore seem to be dealing here with a deposition related to the building of the house: a foundation deposit.

The find context of the sickle of Eigenblok-5 is also interesting. Near what should have been the western entrance of the house, a bronze sickle and an awl were found. Close to the house the excavators found burnt lumps of clay and pieces of a burnt human skull. According to Jongste (2002), their stratigraphical position implies that the bronzes were all deposited in the last phase of the occupation of the site. He suggests that this took place on the occasion of the abandonment of the house.

Such detailed observations are (still) not available for all sickle finds, but it is interesting to see that some of the other bronze finds also have characteristics that suggest their intentional, meaningful deposition. The Boxmeer chisel was found in the upper fill of a silo, a pit containing a layer of charred grain. In Dodewaard-site 20, the dagger itself is remarkable. It is probably a French import of a type so far unknown in the Low Countries, and in excellent condition. It is very unlikely that such an object was simply discarded or lost.

#### *Bronze deposition and the social significance of houses*

Some conclusions can now be drawn. There is evidence that in some Middle Bronze Age B farmyards in the region bronze objects were intentionally left or buried in refuse layers or pits. Sickles are the only objects of which we know that they were selected for such practices at different places and different moments across the region. The settlement data is too scanty to make out whether the same applied to other bronze finds. Still, although sickles may figure in farmyard-depositions across the region, the practices in which they were involved must have differed considerably. In Venray, a sickle was probably used as a house foundation deposit. At Eigenblok-5, the deposition was related to the last phase of the occupation of the house or its abandonment. It might even have taken place at a moment when the house itself – or what was left of it – had already been abandoned for some time. The sickles are all extremely worn, suggesting that in

all cases its intensive and long use-life might be related to its selection for deposition (cf. Jongste 2002). With regard to the other objects, other ideas may have mattered. The deposition of the chisel may have been related in the first place to the silo with grain, and not to the house. The dagger from Dodewaard is, contrary to the dagger from Eigenblok-5 and all the sickles, in an excellent condition. As such it is directly comparable with the characteristics of some daggers and rapiers from rivers. Summing up, the evidence of bronze depositions on farmyards is far from equivocal. To this an important research hiatus must be added: the other settlement finds have so far hardly been investigated for traces of possible deliberate object depositions in relation to houses, apart from the deposition of human remains mentioned. There are some indications, however, that such practices took place (Jongste in press). What's more, the formation of the refuse layers on the settlement as a whole is something we hardly know anything about as yet.<sup>8</sup>

What is especially clear when comparing deposition on farmyards to other forms of object deposition, is that deposition of many important and current object types (axes, spears, swords) as a rule seem to have taken place elsewhere. Sickles may be the one object type regularly deposited on farmyards, but they were placed in other non-settlement locations as well. The evidence so far does not allow us to see whether tools of other materials (flint, stone) also figured in such non-settlement depositions. There are some finds of non-bronze objects in graves, but these are rare (see section 7.13.3).

Biased as it may be, the evidence on farmyard deposition is important as it confronts us with the perceived significance of houses (Brück 1999; Gerritsen 2001). In the introduction to this chapter we saw that from the Middle Bronze Age B on there is evidence of house sites from areas within the study region. These are often large houses, varying from 20 to more than 30 m in length. Most probably they had a large cattle byre (Roymans/Fokkens 1991, 6-8). Particularly the excavation of well-preserved house sites in the central river area has shown that the house itself was surrounded by peripheral structures like fences, and probably also field systems (Theunissen 1999, fig. 4.11, 4.33). The house was the primary centre of daily life, and as Gerritsen (2001, 43-8) argues, questions on social identity cannot be tackled without an explicit focus on the household. These large buildings were probably both physically and symbolically focal points in the lives of the inhabitants. Using an anthropological perspective, Gerritsen argues that the households and the buildings they inhabit tend to be symbolically fused; a house is identified with its inhabitants and vice versa, the social identity of the inhabitants is partly constructed through the inhabitation of the house (*idem*). Therefore, he argues that in the life of a house different phases can be distinguished that

probably parallel the social history of the household: its formation (building of the house); its development (inhabitation); its splitting up or ending (leaving the house after marriage of a member of the household or the death of the family head). As we have seen, some of these phases were marked by special deposits for which bronzes were selected: a foundation deposit in Venray, and perhaps a closing deposit at Eigenblok-5. At the latter site, the link between the house and human inhabitation was even emphasized in a quite literal way by the placement of burnt fragments of a human skull in front of one of the house's entrances (or attaching it to its wall). Similar examples of human bones on Middle Bronze Age house sites are known from the southern Netherlands and elsewhere in the Low Countries.<sup>9</sup>

### 7.13.2 *Axe and weapon deposits: deposition zones as places of historical significance*

The age-old tradition of deposition of axes in watery places continues without major changes in the Middle Bronze Age B. The same applies to the deposition of swords, daggers and spears.

Again, axes with clear traces of a use-life were deposited in natural watery places, often as single deposits. Axe hoards consisting of numerous palstaves, like the Voorhout hoard from the western Netherlands (fig. 13.3; Butler 1990, 78-84), are unknown. Regionally produced palstaves now dominate depositions, but west European imports seem to have been deposited in the same way. There are a few examples of deposited unused West-European imports, but these are clearly a minority. It was argued that continental imports, palstaves and large mid-winged Grigny axes were deposited in a non-normative way: in burials or in mounds respectively (section 7.4.3). Deposition of swords and spears also follows the same patterns that became established in the Middle Bronze Age A, but seems to have been practised more often. Swords were predominantly placed in major rivers, whereas spears are known from wet inland sites as well. The Escharen hoard probably represents the deposition of an entire warrior equipment.

Sword deposition gained in importance by the end of the Middle Bronze Age B. New is the fact that there is now also evidence for concentration of sword finds in one place in the river. Sites like Roermond-Ool, where three Rosnoën swords were found in the same location (fig. 7.10) suggest that river depositions involved several offerings taking place at the same time, perhaps at communal feasts. They give the impression that such river deposition sites attained the status of martial, elite offering places.

With axe deposits we see a similar phenomenon at inland sites. The best example are the marshes around Montfort and Echt, where a large number of palstaves was deposited (see elsewhere in this book: fig. 14.1). These finds do not

show a strong clustering in one zone of the marsh, but they are scattered across the swamp. Therefore this must have resulted from several visits to the area, probably by groups of people coming from different sides of the swamp. An occasional spear and at least one sword was also placed in the marsh at such an occasion, but there is a contrast to the Meuse depositions nearby (five to ten kilometres): here many more swords and spears have been found. We thus seem to be facing at least two environmental zones in the landscape that were used for different kinds of multiple-object deposition. The river almost exclusively served as repository for prestigious weaponry (swords) and thus must have acquired a special significance as a landscape element with martial connotations in this period.

Summarizing we see that the way in which the landscape was used for depositions in watery places seems to have been defined in the Middle Bronze Age A, and that it seems to have undergone hardly any fundamental transformations in the Middle Bronze Age B. However, there is now more evidence for repeated use of *the same zone in the landscape* for depositions of the same kind (for example: swords in the Meuse near Roermond-Herten). The somewhat haphazard use of the wet zones in the land now seems to have become more structured, and some wet zones became multiple-deposition zones, sometimes with specialized – martial – meanings. Thus it seems as if such places acquired a historical and structural significance in the way people dealt with their environment. In section 7.2, it was remarked that there are indications that the cultural landscape now became more structured by barrow cemeteries and settlements, and as such became more than before a landscape with a historical and ancestral significance. From the intensification and concentration of offerings in certain natural places, we can now argue that these places acquired a historical significance as well.

### 7.13.3 *Deposition of objects in burials*

The evidence for a larger number of deposition sites is paralleled by a rise in archaeologically visible burial rites. For the Middle Bronze Age B, clearly more burials are known than for the Middle Bronze Age A (Theunissen 1999, 72, 85). Appendix 7.2 lists the objects found in those burials. They include both Middle Bronze Age A and Middle Bronze Age B burials, as these often cannot often be distinguished anymore (L. Theunissen, personal comment). A look at the table indicates that bronze finds are extremely low in quantity. The green discolorations on cremated bone are thought to indicate bronze objects that melted and got lost (Theunissen 1993). Green discolorations are also known from burnt fish bone from a the Early Neolithic site Brandwijk (Ball 1997, 12, fig. 4), which makes the identification of green discoloration as bronze remnants less likely. Chemical analysis

on one piece of cremated human bone from a Middle Bronze Age burial from Nijmegen-kops Plateau has not corroborated this theory either, but this sample is too small to be decisive, however, and we will therefore not take the interpretation of green discolorations into consideration (see also Fontijn/Cuijpers in press).

Although the cremation remains that were deposited in urns never seem to have been completely collected (Fontijn/Cuijpers in press), it is unlikely that bronze items were systematically forgotten. The general absence of bronzes must reflect a prehistoric intention: these objects were apparently not meant to be with the remains of the deceased. The grave of Meteren-De Bogen is the only case of a sword placed in a burial. It contrasts sharply with the numerous other sword finds, the majority of which can be shown to be from major rivers or other watery places. The Meteren burial seems to be the exception rather than the rule, and might relate to a special historical event. The two examples of burials with bronze axes (Goirle, Doorwerth) also underline the non-normative character of axe deposits in burials. In both cases they consist of unique, non-normative objects, that can be considered exceptions to the rule of non-deposition of bronzes in burials. Drenth *et al.* (2002) recently argued that the few bronzes in Middle Bronze Age burials known from the Netherlands are related to the special social position of the interred deceased in intra-regional bronze exchange networks. However, they do not seem to realize that in the case of most bronze axes deposited in Dutch Middle Bronze Age graves, we are dealing with unique, exotic and non-normative items. The Goirle and Doorwerth axes were not the kind of axes that were regularly used or exchanged, not even as elements in prestigious warrior outfits. The same applies to the Middle Bronze Age B *socketed* axe from the 'Eupen Barchien' tumulus in the northern Netherlands (Drenth/Brinkemper 2002), or the Middle Bronze Age A axes from the *ringwalheuvels* in the southern Netherlands (see previous chapter). Rather, the items deposited seem to have been regarded as unique exotics, not symbolizing the control of vital exchange networks, but rather the reach of local communities for exotic material beyond the normal social exchange networks and perhaps cosmological frames of society.

The items that have been found in such burials are generally not made of bronze. Theunissen (1999, table 3.13) lists amber and bone ornaments and pendants, and even a brown bear phalanx. Again, it is conspicuous that the bronze ornaments that are now in some numbers known were not found in burials but in watery places. This is in contrast with what we shall see with regard to the evidence from the Late Bronze Age, when bronze body ornaments were deposited in burials. The conclusion can be drawn that bronze ornaments, identical to male and female dress of other regions, were

used in our region, but for some reason not considered to be important in the last presentation of the remains of the deceased before being interred.

#### 7.13.4 *Deposition of objects in burial monuments*

A depositional location that was so far unknown is the mound of the burial monuments themselves. Only three examples are known (Swalmen-Hillenaarad tumuli 1 and 2 and the Holset barrow; Butler 1990, 98-102), all Dutch Limburg. Middle Bronze Age barrows are only in low numbers known from the Meuse valley, and it is therefore hard to say whether mound deposition was the exception or the rule. In the Swalmen cemetery, where a relatively large number of Middle Bronze Age barrows was excavated, it has been attested only for the two mounds mentioned (Lanting/Van der Waals 1974). In other parts of the research area larger numbers of barrows are known (the Kempen micro-region for example; Theunissen 1999), but here bronze or other artefacts have never been found in the mound. This makes it likely that mound deposition was only practised in Dutch Limburg. The number of finds is too small to allow some more general statements on it, apart from this: the Swalmen mounds show that bronzes were deposited in a mound that was itself already quite old. It is unclear whether they were deposits made on the occasion of re-use of the mound for burial, or whether there was no link to the burial ritual at all. That barrows themselves became foci for special activities could be in line with a more general development. From the construction of *allées* and annexes it can be deduced that there was a more general tendency to see barrows as places where special rituals were carried out (Lohof 1991, 270; Fontijn/Cuijpers 1998/99, 62).

#### 7.14 CONCLUSIONS

Summing up, the following points can be made on Middle Bronze Age B metalwork and its cultural biographies.

##### *The role of metalwork in daily life*

Bronze was predominantly significant as a tool, weapon or ornament. It is only in the category of axes and weapons that a full bronze tool kit dominates (mainly swords and spears). As such, the structure of material culture was essentially similar to that of the Middle Bronze Age A. Sickles are a new element among the metalwork repertoire, but their introduction does not seem to have affected the production of existing non-metal tools. During the Middle Bronze Age B, bronze ornaments are more current than before, but still not known in huge quantities. When compared with other sorts of material culture, bronze was the most important object that was acquired through long-distance exchange.

*The emergence of regional production and its 'open, 'adaptive' character*

As elsewhere in north-west Europe, the Middle Bronze Age B heralds the emergence of a thriving regional production. By far the greatest part of the deposited palstaves were now produced in the region itself. A striking feature of this regional production is its 'open' and 'adaptive' nature. An outspoken regional style is lacking, and local products seem to have been made to look like imported ones rather than to express a distinct identity of their own. The similarities are especially with the Atlantic types (palstave) and not with central European ones. The Oss mould, furthermore, suggests that non-local ornament styles were copied in a straightforward manner.

*A reorientation of long-distance exchange networks*

In spite of the emergence of regional bronze production, objects that were made in the region kept on being imported (most notably axes). When compared to the preceding Middle Bronze Age A, it is remarkable to see that Nordic imports are now no longer among the metalwork of the southern Netherlands. Moreover, continental products like sickles and mid-winged axes are absent in the north, but present in the south. It is also remarkable to see that swords kept on being deposited in the southern Netherlands, and even in larger numbers as the Middle Bronze Age B wore on. In the northern Netherlands, however, they were hardly known. In all, it seems as if a reorientation of the main exchange networks took place by which the northern and the southern Netherlands drifted apart.

*Watery places, settlements, and burials: the system of selective deposition*

The system of selective deposition as it was shaped in the Middle Bronze Age A continued. The larger number of finds may indicate that the rate at which deposition was practised increased, particularly during the later part of the Middle Bronze Age B (contemporary to *Bronze final I*). Axes ended up in a variety of watery places, usually after a life of circulation and intensive use. The same applies to spears and – in particular – swords, but to bronze ornaments as well. As before, barrow graves hardly serve as repositories for bronze objects. There is new evidence which suggests that some farmyards now also served as foci for deposition, but the offerings made here contrast with those in watery places (mainly sickles, and no axes, spears and swords). Deposition on farmyards seems to have been practised on different occasions. There is both evidence for links to acts of house construction and house abandonment. Occasionally, objects were deposited in the mounds of barrows. This, however, seems to have been a practice idiosyncratic to Dutch Limburg only.

*Natural places as places of historical significance*

For the Middle Bronze Age B, we have indications for the first time that some parts of rivers or peat bogs were repeatedly visited for depositing items. It thus seems that – parallel to the indications that the cultural landscape now became more structured with barrows and settlements – natural places acquired a historical significance as well. In the next chapter, we shall see that this only intensified during the Late Bronze Age.

## notes

- 1 This site is just to the south of the area depicted on the maps in this book.
- 2 Schauer places all in the south German *frühen/älteren Urnenfelderzeit* (respectively, Reinecke D to Ha A1; Ha A1 to Ha A2; Ha A2; see the argument in Schauer 1971 and O'Connor 1980, chapter 3). O'Connor (1980, 115) argues that leaf-shaped flange-hilted swords appeared in west central Europe during Ha A1, but did not become common until Ha A2. The earliest types have been the Hemigkofen swords. Lanting and Van der Plicht's recent evaluation of the <sup>14</sup>C-datings of this south German chronology equals Ha A1 to 1200-1125 BC; Ha A2 to 1125-1025 BC (Lanting/Van der Plicht in press). Assuming that similar dating ranges are applicable to the Dutch finds of these *Griffzungenschwerver*, then the phase into which such swords would have been introduced and become dominant is the last century of our Middle Bronze Age B, respectively the transition to the Late Bronze Age.
- 3 Modderman and Montforts (1991, 149) claim that in the find layer of the Opheusden sickles there were also Hilversum pottery shards. This would imply a dating in the Middle Bronze Age A. Whether shard and sickles are really from the same time period cannot be stated with certainty, however.
- 4 The find has been studied by J.J. Butler and N. Roymans. Both kindly provided me with information on the find. In the near future I shall pursue the study of this remarkable find further.
- 5 Since many of the find assemblages represent a mix of Late Neolithic and Bronze Age material, it is unfortunately not possible to see which tool types were current in the Middle Bronze Age only. The plano-convex knives and barbed and hollow-based arrowheads listed by Van Gijn and Niekus, for example, are generally seen as typical for the Late Neolithic and Early Bronze Age (Lanting 1973).
- 6 A trapezoidally-hilted sword from Emmen and a Rosnoën rapier from Ekslooerkijl (O'Connor 1980: list 28: no. 34; list 73: no. 24).
- 7 Two spears from Wijk bij Duurstede, just north of the research area, are from a site that also yielded Middle Bronze Age settlement remains. These might represent settlement finds, but as the site is unpublished and the excavator could not provide me with detailed information, I cannot discuss this find.
- 8 The forthcoming publications of the settlement excavations in the *Betuwe* will deal with such questions however (personal communication C. Koot).
- 9 Personal comments L. Theunissen and C. Koot.



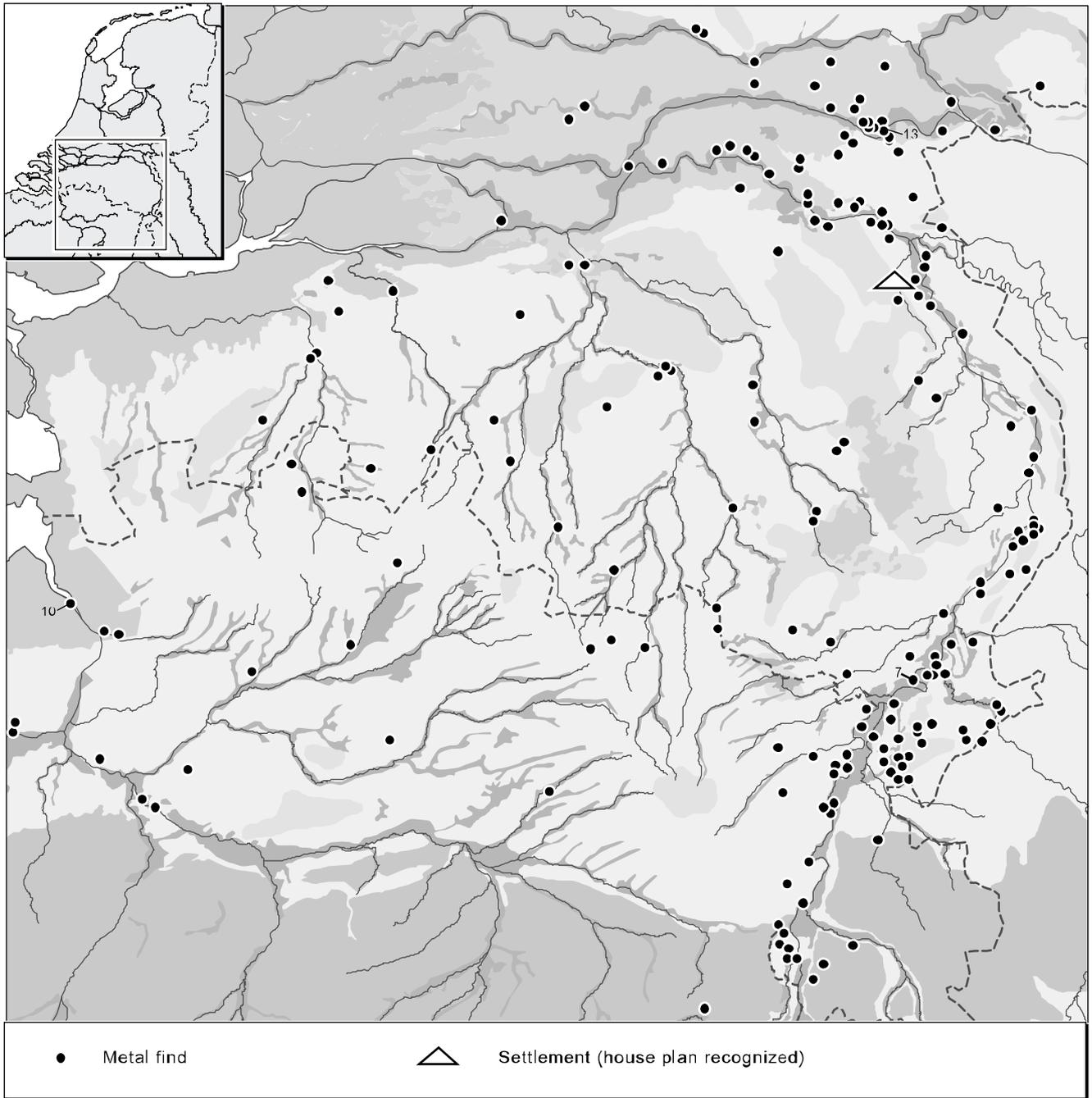


Figure 8.1 Distribution of LBA metalwork finds and settlement sites. Not depicted are finds from urnfields (for these, see fig. 9.1).

## 8.1 INTRODUCTION

The Late Bronze Age is a pivotal period in any discussion on bronze deposition in north-west Europe. It is during the Late Bronze Age that the rate at which deposition is practised reaches a peak, to be followed by a dramatic decrease during the transition to the Iron Age. In many European regions, this remarkable tradition of bronze deposition that we have been able to follow for many centuries seems to disappear almost completely at the end of the Bronze Age (Kristiansen 1998). The bronze finds from the Late Bronze Age in the southern Netherlands are rich when compared with those of preceding periods. Not only do we know of large numbers of single finds; for the first time there are also several multiple-object hoards known consisting of dozens of bronzes and a high variety of bronze artefacts. The available evidence begs the question whether the practice of bronze circulation and deposition also reached unprecedented heights during this period. Was deposition essentially the same kind of practice as before, or did it undergo fundamental transformations? And with regard to the sharp decrease of deposition recorded for many European regions, the following question should be answered: did a similar development take place in the southern Netherlands as well? It may be clear that for a study that focuses on the phenomenon of bronze deposition, all these questions are vital ones. They will be central to the present chapter, which describes the evidence on bronze deposition of the Late Bronze Age.

The beginning of the Late Bronze Age has traditionally been defined in the Low Countries by the first urnfields (around 1050 BC in the southern Netherlands; Van den Broeke 1991b). This date is quite meaningless for most metalwork typo-chronologies used here, however, (fig. 1.4; fig. 8.2). In the Late Bronze Age and Early Iron Age, a threefold typo-chronological division can be made:<sup>1</sup>

- 1 the period coinciding with Ha A2 to B1 (more or less *Bronze final IIb/IIIa*): 1025-925 BC
- 2 Ha B2/3 (*c. Bronze final IIIb*): 925-800 BC
- 3 Ha C: 800-625 BC, the first 75 years or so are known as the Gündlingen phase. Ha C heralds the start of the Dutch Early Iron Age

The discussion on the life cycles of Late Bronze Age metalwork will follow the same format as that of the previous chapters, although the evidence is more complex than before since it is much more diverse and includes material dating to a period that saw the bronze-iron transition. A brief introduction to society and landscape in the Late Bronze Age defines the general issues involved (section 8.2). Then, following a short outline of the nature of the evidence (8.3), the different object categories are dealt with (8.4 to 8.7), excluding burial gifts. To keep the discussion to manageable proportions, the latter are dealt with separately in chapter 9. Then, we will discuss the place of metalwork among

contemporary material culture (8.8), to be followed by general conclusions on patterns in the cultural biography of metalwork. As before, this will be done for the different stages in their life-path: production (8.9), circulation (8.10) and, finally, deposition (8.11). The different findings will be brought together and placed in the context of more general developments in society and landscape (8.12).

## 8.2 SOCIETY AND LANDSCAPE DURING THE LATE BRONZE AGE

### 8.2.1 *North-western Europe*

From a European perspective, the Late Bronze Age is generally seen as a period of major change. Almost everywhere in Europe it is considered to be one of the most densely populated eras of later prehistory (Kristiansen 1998, 104). A characteristic element of many European societies in this period is the custom of burying incinerated human remains in urn graves in large cemeteries, the so-called urnfields. These are known from an area stretching from eastern France to the Carpathian Basin, and from northern Italy to the north European plain (Roymans 1991, 14). The demographic increase is seen as having led to increased pressure on the land and sometimes to economic crises (Champion *et al.* 1984, 278). All sorts of economic and social changes taking place at the transition from Middle to Late Bronze Age have been thought to be related to it (Fokkens 1997). An open, intensively exploited landscape is assumed to have been a recurrent feature of Europe by now (Kristiansen 1994, 8).

Especially significant to the present research is the theory that the Late Bronze Age was also a period that saw a tremendous increase in the quantity of metalwork in circulation (Fokkens 1997). Rowlands (1980) and, more recently, Kristiansen (1998) have argued that this also involved the development of intra-regional bronze exchange networks that had a degree of reciprocal interaction that was so far unprecedented in European history. More precisely, they propose that several regions in Europe acted as 'regional systems or economies'. By this term, borrowed from Wallerstein's theory of 'modern world systems' (1974), they mean that different political or cultural entities depended upon economic exchange with each other for their self-maintenance. They were linked to each other through their different roles in production and exchange (Rowlands 1980, 37-8). Kristiansen (1998) has worked out this concept in detail for the specific case of the Bronze Age, and it is his understanding of the term that is used here. He argues that in the Late Bronze Age different regions functioned as a system in the sense that the frequency of interaction between them was high enough to maintain a common pace of change in metal and ceramic production. The several constituting regions may be culturally distinct but they were

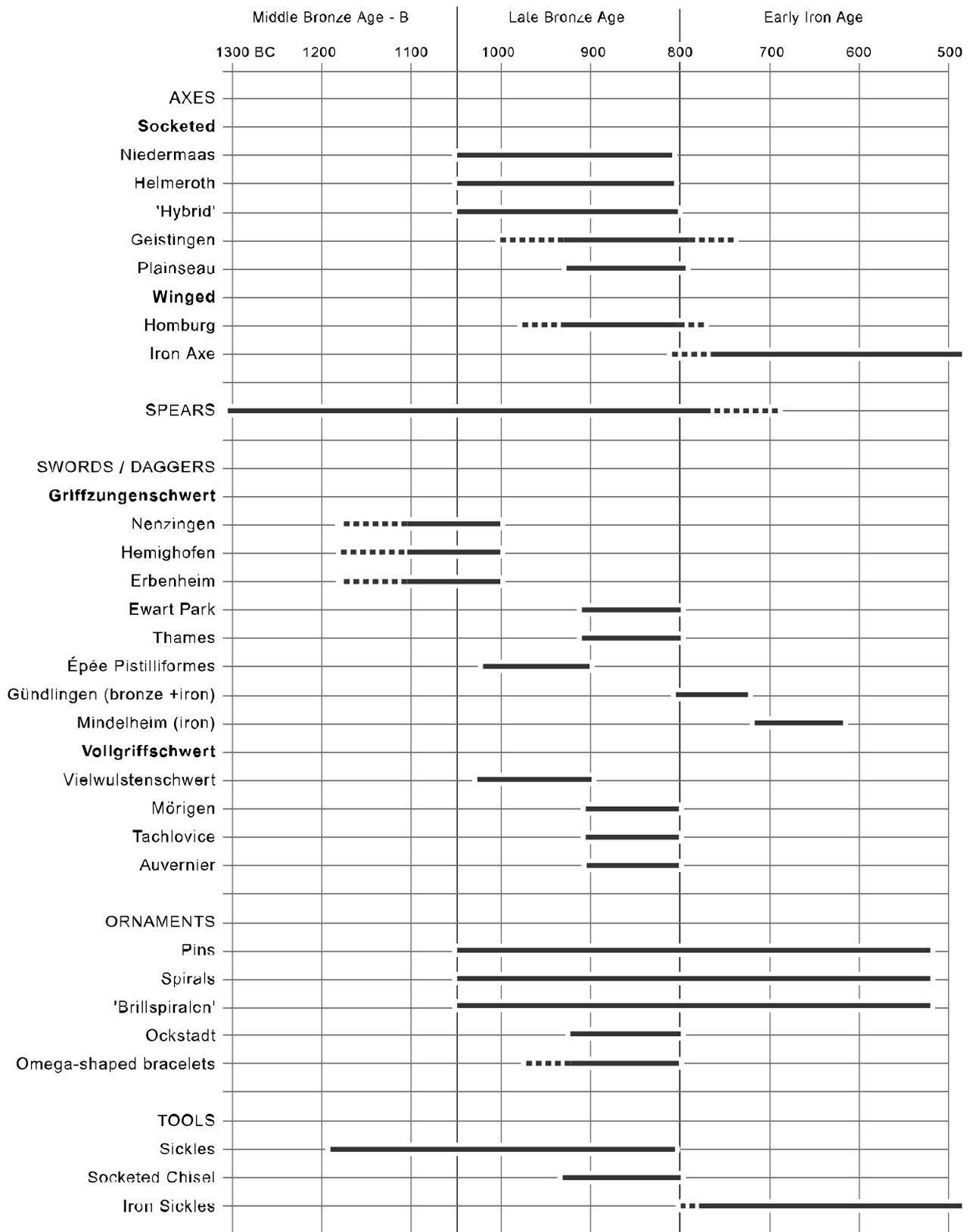


Figure 8.2 Dating ranges of the most important object types discussed in the text.

highly dependent upon each other for the circulation of the badly needed metalwork, both for social (prestige goods) and practical (tools) reasons. The bronze circulation patterns between different entities within the system were so tight that they followed the same developmental pulses, the spread of new ideas and institutions.

All over north-west Europe, intra-regional bronze circulation seems to cease or at least to diminish considerably during the 8<sup>th</sup> to 6<sup>th</sup> centuries BC. Consequently, the practice of bronze deposition, which was in many regions (southern Britain, north-west France, southern Scandinavia) practised at a much higher rate than ever before, and involving unprecedented high quantities of metal, seems to cease almost entirely. In many regions, iron objects replace ones formerly made of bronze, both everyday tools and highly prestigious ones. The apparent 'breakdown' of international bronze circulation is generally seen as a consequence of the increased inter-dependence between regions that came into being in the last centuries of the Late Bronze Age. After all, it is inherent to such a system that changes, when triggered in one of the regions, affect the other ones as well (Kristiansen 1994, 7). As recently set out by Kristiansen (1994; 1998, chapter 4), we may be dealing here with a very complex process. Among other things, it has to do with historical changes causing a fundamental re-orientation of the dominant exchange axis in Europe, the result being that the western and northern areas were deprived of one of their major sources of metal supplies (central Europe).

### 8.2.2 Southern Netherlands

With regard to the Late Bronze Age in the southern Netherlands, we are dealing with groups traditionally termed *Niederrheinische Grabhügelkultur*. For the discussion in the present chapter, the following points are of specific importance.

#### *Continental influences and the Urnfield burial ritual*

The spread of urnfield cemeteries and new burial rites is the defining characteristic of the Late Bronze Age in the Lower Rhine Basin as well. It was clearly much less a 'new' phenomenon, however, than in the case of some other European regions: the cremation rite was already widespread in the Middle Bronze Age, and barrow cemeteries were also known. Nevertheless, there were undoubtedly 'new' developments, like for example a new kind of high-quality, thin-walled pottery with German and central European affinities and new types of graves (*lange bedden* or long barrows).<sup>2</sup> In many European regions, the shift to continental affinities is marked (for example: west Belgium, Verlaeck 1996, 46), and it may be expected that the re-direction to the continental tradition as seen in pottery styles and burial rites is also reflected in the bronze exchange networks.

#### *Demographic growth or processes of fission?*

According to Roymans (1991), the Late Bronze Age was also a period that witnessed a sharp demographic growth. In the foundation of new cemeteries, Roymans and Kortlang (1999, 38-9, note 15) see a reflection of a process of 'filling up' the landscape by new local groups, often at the expense of existing territories. Fokkens (1997) is of the opinion that such a demographic growth actually never took place, but in the gradual shortening of houses during this period he sees arguments for another transformation: *large extended families splitting up into smaller social units* (nuclear families), coinciding with the shrinking of households. Both views, although opposed, see a rise in the number of elemental social units peopling the land. If such units are the core entity practising deposition, then their gradual increase must have affected the number of depositions practised in total.

#### *A structured, territorial landscape*

Related is an increased commitment to the land during this period, which goes hand-in-hand with a growing significance of laying claim to the land (Roymans/Kortlang 1999). *Territoriality* is assumed to become more important in the Late Bronze Age than it was before (Roymans/Kortlang 1999, 40). The adoption of Celtic field agriculture in the Late Bronze Age is also seen in such a way, as it seems to demand a higher level of collective regulation than the small dispersed plots of arable land that characterize the Middle Bronze Age agriculture (Roymans/Kortlang 1999, 51). Gerritsen has argued that the long-term process by which the land was gradually reclaimed, structured with man-made elements like houses, barrows and field systems since the Late Neolithic, now seems to have resulted in a landscape that was seen as profoundly historical and ancestral. Settlements were still 'unsettled': unbounded by visible boundaries like ditches or palisades, and shifting their location once in a generation.<sup>3</sup> Urnfields, however, were stable, formal, central places that now provided a fixed point of reference in the landscape for centuries in a way not seen before. Hence, the following question may force itself upon us: what was the place of object deposition in such a structured, 'ancestral' and 'historical' landscape?

### 8.3 DISCUSSION OF THE AVAILABLE EVIDENCE

The evidence of the Late Bronze Age is different from that of preceding periods in a number of ways. First of all, there are considerably more finds. Table 8.1 lists 696 metalwork objects! Also, a much larger number of hoards is known from this period, and some of these contain dozens of objects (fig. 8.3 and appendix 1). Such lavish hoards are – as we have seen – totally unknown from all preceding periods. Next, the dating ranges of many types are shorter, allowing

Type Object type	Context									Totals
	Major river	Stream valley	Marsh	Wet hoard	Dry	Dry hoard	Burial	Settl.	?	
<i>Swords</i>										
<i>Ha A2-B1</i>										
Erbenheim	2	-	-	-	-	-	-	-	-	2
Sprockhoff I	-	-	-	-	-	-	-	-	1	1
Nenzingen	1	-	-	-	-	-	-	-	-	1
Hemigkofen	-	-	-	-	-	-	-	-	1	1
Vielwulstschw.	1	-	-	-	-	-	-	-	-	1
Other	5	-	-	5	-	-	-	-	1	11
<i>HaB2/3</i>										
Thames	1	-	-	-	-	-	-	-	-	1
Ewart Park	5	-	-	-	-	-	-	-	-	5
Carp's Tongue	5	-	-	-	-	-	-	-	-	5
Vollgriffschwert	2	-	1	-	-	-	-	-	-	3
Other	1	-	2	-	-	-	-	-	1	4
<i>Early Iron Age</i>										
Gündlingen br.	7	-	1	-	-	-	7	-	1	16
Iron swords	2	-	-	-	-	-	6	-	2	10
<i>Spears</i>										
LBA-dating*	3	-	1	8	-	1	5	-	-	18
MBA/LBA arrowhead	22	14	10	-	4	-	-	2	61	113
	2	-	-	-	-	-	-	-	6	8
<i>Ornament</i>										
Pins	6	1	-	-	-	-	32	-	1	40
Oeckstadt pin	2	1	-	-	-	-	-	-	1	4
Spirals	2	-	-	1	-	-	5	-	1	9
Rings, all sizes	-	-	-	1	-	6	13	-	1	21
Bracelet	-	-	-	7	-	8	38	-	-	53
Bracelet dec.	1	-	-	-	-	2	4	-	-	7
Beads	-	-	-	-	-	3	8	-	-	11
<i>Socketed axes</i>										
<i>regional</i>										
Niedermaas	2	3	4	6	-	9	-	-	17	41
Helmeroth	5	1	4	3	-	-	-	-	1	14
Geistingen	2	-	-	-	-	33	-	-	3	38
<i>Socketed axes</i>										
<i>import</i>										
Plainseau	4	4	1	16	-	77	-	-	18	120
Wesseling	3	4	4	2	2	-	1	-	12	28
Others**	13	2	4	12	-	1	4	-	24	60
<i>Winged axes</i>										
H&S	2	-	-	2	-	-	-	-	4	8
Homburg/others	4	-	1	1	-	-	-	-	5	11
<i>Tools</i>										
Gouges	-	-	-	1	-	-	-	-	-	1
Chisels	-	-	-	3	-	-	-	-	-	3
Sickles	2	1	2	3	1	1	-	-	8	18
Knives	3	-	-	-	-	-	2	-	3	8
<i>Smith's tools</i>										
Bronze mould	1	-	-	-	-	-	-	-	-	1
<b>Totals</b>	<b>111</b>	<b>31</b>	<b>35</b>	<b>71</b>	<b>7</b>	<b>141</b>	<b>125</b>	<b>2</b>	<b>173</b>	<b>696</b>

Table 8.1 Metalwork finds from the Late Bronze Age and Early Iron Age (single finds and from hoards), excluding Ha C horse-gear, wagon parts and iron axes but including items for which a more precise dating than Middle or Late Bronze Age is not available (pegged spearheads, a number of sickles and arrowheads). In view of their dating range, the H & S axes and pseudo-flame spearheads are listed both here and in table 7.1. \* LBA-spears are those dated to the period by C14-datings or associations in hoards and burials up until the Gündlingen-phase. Ornaments from burials are those dating from the Late Bronze Age/Early Iron Age urnfields studied here (see appendix and chapter 9), excluded are finds from urnfields which were founded in the Early Iron Age. Virtually all urnfield ornaments are broken and incomplete. The Early Iron Age brooches said to have been found in Nijmegen are excluded as well, in view of their unreliable provenances.. \*\* 'Hybrid', north Dutch types, faceted and Sompting axes. Armorican and iron axes are not included. Dec.= decorated.

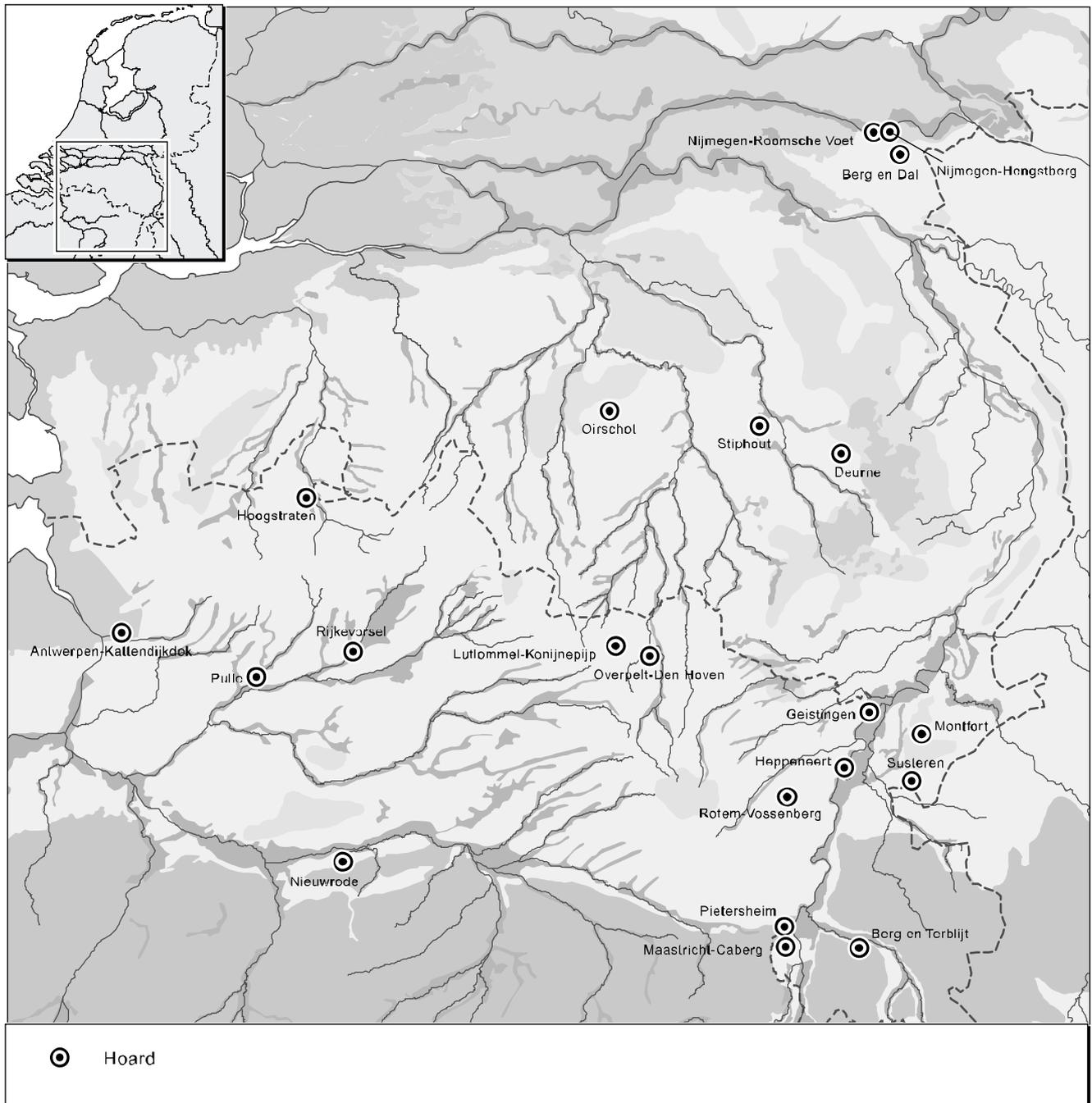


Figure 8.3 Distribution of LBA hoards.

the threefold distinction in sub-phases mentioned in the introduction: Ha A2-B1, Ha B2/3 and the Gündlingen phase of the Early Iron Age. Another feature which sets the Late Bronze Age apart is the large number of bronze (and later iron) objects from burials (chapter 9). Leaving these aside, most other objects are from the same sort of find contexts as before (dredge finds from rivers, and many from inland streams and marshes) and from the same micro-regions (fig. 8.1). The rectangular man-made 'cult place' from Nijmegen-Kops Plateau represents a new kind of depositional context. In contrast to the Middle Bronze Age B, however, there is no evidence of settlement finds or production sites. This probably has to do with the remarkable situation that so far hardly any Late Bronze Age settlements have been excavated in the southern Netherlands (Fokkens 2001).

#### 8.4 SOCKETED AND END-WINGED AXES

Although palstaves might occasionally still have been used for some time in the Late Bronze Age (for example: type Portrieux and Rosnoën, see previous chapter section 7.4.1), as are some mid-winged axes (Head & Shoulders variety, section 7.4.3), the socketed axes are the most predominant axe form. With 301 objects recorded, they outnumber the axe types of previous periods by far. End-winged axes, the other axe form of this period, are a striking minority when compared with the socketed axes (11). As recently remarked by Butler and Steegstra (in press), this is a peculiar feature of the southern Netherlands and northern Belgium, since the adjacent middle west German region studied by Kibbert shows a clear predominance of winged axes over socketed ones (Kibbert 1984).

As in the case of the palstaves, socketed axes can be divided into regionally produced forms (type Niedermaas, Helmeroth, a hybrid form having affinities to both south and north Dutch axes and Geistingen; fig. 8.4) and imported ones (fig. 8.8), of which Plainseau axes are the most important. The numerous type Wesseling axes are probably imports as well, although this is not quite clear. The end-winged axes, then, must again all have been imported. There are a few Armorican axes which are said to have been found in the study region. Most of them are from antique dealers, however, and the information on their provenance is often in contradiction to their patina (appendix 2.15). It seems better to leave these axes out of consideration, although it cannot be ruled out that one day more reliable finds will come to light.

##### 8.4.1 *Regional socketed axes Niedermaas*

The Niedermaas or Lower Meuse type comprises a variety of axe forms, characterized by a fairly large D-loop (three to four centimetres and more or less circular in section). It springs directly from the collar. Most have plastic 'wings' on

their body and sometimes a pellet (fig. 8.5). They do not have a neck-ring nor facial arch facets (thereby differing from the north Dutch Hunze-Eems type, Butler/Steegstra in press). The Niedermaas axes from the region are listed in appendix 2.10. The original definition of the type (Butler 1973) also included axes that are now grouped with axes of type Helmeroth (Kibbert 1984, 139-41). In their most recent treatise of Niedermaas axes, Butler and Steegstra (in press) adjust the original type definition, and distinguish some sub-types mostly on the basis of presence/absence of wings and pellet, and form of the collar.

Butler and Steegstra's study (in press) shows that Niedermaas axes are indeed an artefact characteristic to the southern Netherlands. It is almost completely absent from the northern Netherlands, and surprisingly few finds are known from the adjacent German region (Kibbert 1984). Find associations in hoards suggest that they were contemporary to late artefacts like Plainseau axes (*Bronze final Atlantique IIIb*; Heppeneert, Lutlommel and Hoogstraten hoard) and Wesseling axes (last part of Late Bronze Age-beginning Early Iron Age; Susteren-Eilandje hoard). The presence of Niedermaas axes in the Berg en Terblijt hoard (Ha A2/B1) in particular suggests that they were in use in an earlier phase as well.

There is no reason to doubt that Niedermaas axes were designed as work axes, although the presence of one such axe in the Pulle weapon hoard suggests that it had a weapon function as well. They are generally crudely produced items, with often ragged casting seams and irregular collars (Butler/Steegstra in press). There is considerable variation among the objects recorded, and there is no reason to assume that they were made as a series of identical tools. As Butler and Steegstra (in press) remark each example rather seems to be endowed with a degree of individuality.

The majority of axes known to us come from wet locations like stream valleys, bogs, or major rivers. These axes usually show traces of a use-life. A few are from hoards. Wet context hoards are Berg en Terblijt, Pulle, Montfort, Susteren-Eilandje. Other (dry or unknown) types of context are Rotem, Heppeneert, Lutlommel, Hoogstraten and Nieuwrode. It is remarkable that in only two cases (Montfort and Nieuwrode) these hoards consist solely of Niedermaas axes, and here the number of axes in the hoard is small (two and five respectively). This is in marked contrast with the rich hoards like the ones from Heppeneert or Lutlommel which consisted of dozens of axes of just one type: the Plainseau axes. This implies that in terms of the quantity of axe types in circulation and deposition, the regional Niedermaas axes were not on the same level as the imported Plainseau axes.

##### *Helmeroth*

Kibbert's publication of the axes from middle West Germany (1984) has made it clear that some of the Dutch axes that

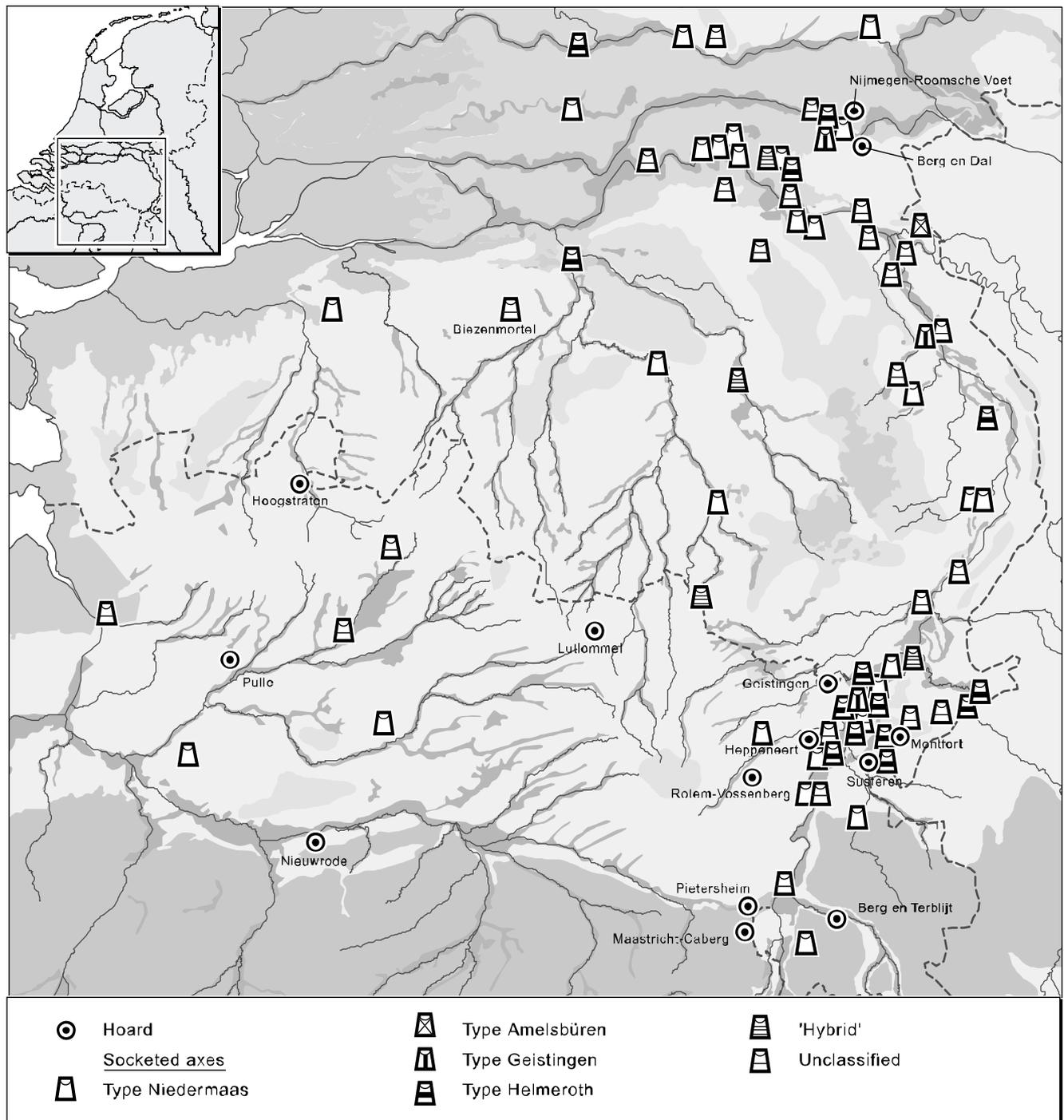


Figure 8.4 Distribution of regional and unclassified axes.

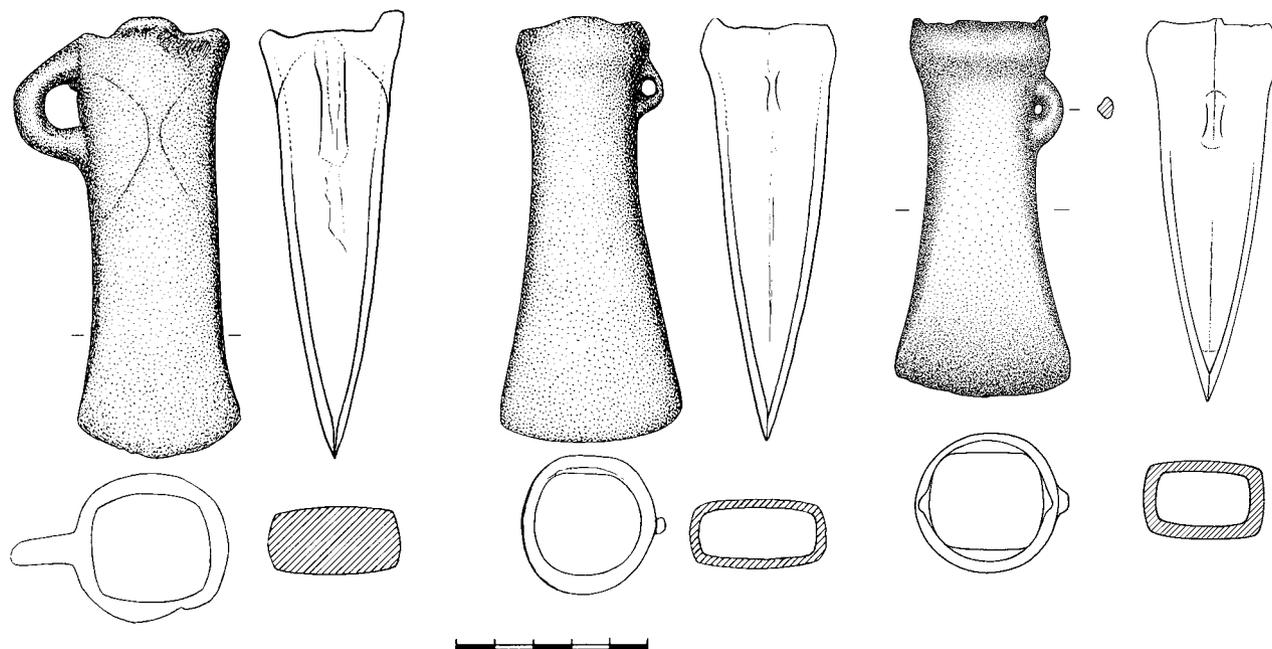


Figure 8.5 The Susteren-eilandje hoard, containing one Niedermaas axe (left) and two Wesseling axes (centre and right) (scale 1:2; after Butler/Steegstra in press).

were originally designated as ‘Niedermaas’ but which had some deviating features like vertical furrow ornaments, had better be classified as axes of Kibbert’s *Form* Helmeroth, mainly his Kirchhoven variety (1984, 139-41). This comprises slender axes with a flattened D-shaped loop, like Niedermaas axes, but unlike the latter this has a ribbon cross-section. As in the case of Niedermaas axes, there is no neck-ring, but there mostly is a conspicuous type of vertical furrow decoration on their body. A few have pellet decoration (Butler/Steegstra in press). The bronze axe in Susteren with which I began this book can actually be interpreted as of the Helmeroth type. See appendix 2.11 for a list of finds from our region.

The axes show a grouping in the Meuse valley, slightly expanding across the German border which makes it reasonable to see them as a product characteristic of the region, rather than as an import from far (fig. 8.4). Moreover, the half of a bronze mould that was dredged from the Meuse near Roermond<sup>4</sup> is in all likelihood a mould in which such axes were produced (Butler/Steegstra in press).

Like Niedermaas axes, Helmeroth ones must have been designed as functional tools and used as such. Most recorded examples ended up in the same sort of wet places where we find the Niedermaas axes: streams, marshes and major rivers. Unlike the Niedermaas axes, there is no good example of a Helmeroth axe from the study region being deposited together with other objects. This can be suggested only for

three Helmeroth axes from the former marshes in the municipality of Echt (two from ‘Peij’, one from ‘Diergaarde’) which in view of similar patination may originally have formed one (bog) hoard (the ‘Echt’ hoard; appendix 1).

#### *North Dutch imports and hybrid forms*

The axes described above are in marked contrast to the regional axes of the north Dutch Hunze-Eems type (Butler 1961c). Characteristic for the northern products is for example a large, angular ‘elbow’ loop, arch facets on the face, and often neck-rings imitating rope or a saw-tooth motif. Only two of such north Dutch axes are known from the southern Netherlands (appendix 2.15). A few others display similarities to these Hunze-Eems axes in their biconical profile, the large loop and the decoration around the neck (Van der Sanden 1980, 170). This is most clear in the case of the finds from Wijchen and Budel (appendix 2.15). They lack arch facets, however, and the outline of the body is not dissimilar from that of most Niedermaas axes either. This sets them apart from the true Hunze-Eems axes. We seem to be dealing here with some sort of hybrid form, perhaps made in the south, but influenced by northern stylistic traits. In other ways, however, these ‘hybrid’ axes do not depart from the life-paths of socketed axes described so far: the known examples were used, and most ended up in watery places, just like Niedermaas and Helmeroth axes.

### *Geistingen axes*

Geistingen axes are without any doubt the most remarkable regional axes from the southern Netherlands (fig. 8.6; appendix 2.12). They have relatively long and narrow outlines without neck-ribs and a small low-placed D-shaped loop (Butler 1973, 339-41; Kibbert 1984, 166-8, 214; Butler/Steegstra in press). Most conspicuous, however, are their extremely thin walls (1 to 2 mm). Their thin walls and their light weight (approximately half of an average socketed axe; Butler/Steegstra in press) make it highly unlikely that these axes were made with an eye to practical use. Although most axe edges are sharpened, there is indeed no additional evidence to suggest that they were in any way practically used as tools or weapons (see also Butler/Steegstra in press). In addition, the axe from Herten-Ool and one from Nijmegen (Butler/Steegstra in press, nos. 560 and 562) have metal protrusions inside the socket which would have made the insertion of a haft into the socket impossible: they were apparently not even hafted as axes!<sup>5</sup> They are more than simple crude as cast products however, as their fine external finish and impressive large length suggests (up to 16 cm; Butler/Steegstra in press). As they have not been found in associations with other artefacts, they cannot be accurately dated. In western Europe afunfunctional axes are mainly a feature of the Ha C period (Kibbert 1984, 167-8), and for that reason a dating in the later part of the Late Bronze Age/beginning Early Iron Age seems feasible.

Geistingen axes are only known from the eastern part of the study region and the adjacent German region (a few as far as the Rhine-Main area; Kibbert 1984, Taf. 89C). Its distribution and shape suggest that they were also produced in the study region or the adjacent German area. Remarkable, particularly in view of the striking 'individuality' of other axe types (Niedermaas and Plainseau in particular), is the homogeneity of this type. Both Butler and Steegstra



Figure 8.6 Geistingen axe from Herten-Ool (l. 15 cm).

(in press) and Kibbert (1984, 168) go so far as to argue that for this reason it is likely that *all Geistingen axes are the product of a single workshop over a short period of time*. To this Butler and Steegstra (in press) add that such a production of thin-cast walls with varied metal to work with (judging from the few German specimens with analysed metal content) requires highly skilled smiths. With regard to production, there is another feature that needs elaboration. Geistingen axes may be symbolical objects that evoke the image of an axe, but are we dealing with ceremonial objects in their own right, or objects made to resemble true axes? The idea that the symbolical axes were in form referring to practical ones is interesting, since we saw something similar in the case of the ceremonial swords of the Middle Bronze Age A (chapter 6: the Plougrescant-Ommerschans type). A similar thin-walled socketed axe from the middle West German region, type Amelsbüren, seems to be such an afunfunctional version of an existing functional one (in this case the Plainseau axe, Butler/Steegstra in press). Butler and Steegstra (in press) recently suggested that Geistingen axes have features in common with regular Wesseling axes, and that perhaps this was deliberate. Their long, unparalleled slender form, however, suggests that they were much more designed as a category in themselves, contrasting with other forms.

The life-paths of the Geistingen axes must have differed considerably from those of other types of axes. First of all, if Butler, Steegstra and Kibbert are right about these axes being produced in one workshop and subsequently distributed over a large area, then we are dealing with a circulation pattern that is unknown in the case of other axes. Their individual peculiarities in form and style imply that these must have come from a heterogeneity of workshops. If Geistingen axes were being produced in different workshops, their circulation remains deviant: why would different smiths make objects that are so similar to each other in size and finish? This becomes particularly acute if we realize that Geistingen axes are surely among the more difficult axe forms to produce. Second, we are dealing with a life-path in which axes were sharpened, but never used and probably not even hafted. Yet they are carefully finished, elaborate examples, much too elaborate just to fulfil a role as a unit of metal. For the first time, we are dealing with an entire axe category *that was not made with an eye to practical use, never used in a practical way, yet made in some numbers*.

It is the way in which the life-paths of Geistingen axes ended that shows a further departure from current axe biographies. Geistingen axes are known as single finds and from a few hoards. As far as we know, the latter are hoards consisting of Geistingen axes only. Contrary to what we generally see, the hoards are all from dry contexts on high plateaus (Maastricht-Caberg, the possible hoards from

Nijmegen and Berg en Dal). The eponymous Geistingen hoard is on a high plateau on which there are gullies that seasonally may be watery (Van Hoof 2000, catalogue). The exact find-spot of the hoard is unfortunately unknown, but one remarkable observation on their find context has been preserved: the 26 or 28 axes were said to have been tied together with a cord, which had crumbled and was not preserved (Butler/Steegstra in press and references cited therein). Apart from these deviating ways of deposition there is the observation that other Geistingen axes, at least the examples from Hertem-Ool, are from major rivers (fig. 8.6). So, these ended up in exactly the same way as hundreds of bronze axes did before them. The same is true for Geistingen axes from the adjacent German region (Kibbert 1984, 167).

#### 8.4.2 *Imported socketed axes*

##### *Type Plainseau*

The most significant imported axes are without any doubt those of the Plainseau type (120 objects; see fig. 8.7 and 8.8; appendix 2.13). Plainseau axes are a characteristic artefact type of the French *Bronze final IIIb* phase (Blanchet 1984; Gaucher 1981; Van Impe 1994; Warmenbol 1987), the last phase of our Late Bronze Age (Ha B2/3). They are distributed over a wide area, ranging from northern France to the southern Netherlands (a few also known from more northerly locations, Butler/Steegstra in press). In France, they occur in huge numbers in hoards like the eponymous Plainseau hoard (Van Impe 1995/1996, 28). They are a recurrent feature of hoards containing a characteristic set of (north-French) artefacts, especially ornaments, but also some tools like chisels and gouges. Such hoards are known from northern France to the southern Netherlands, and their wide distribution has been interpreted as a cultural phenomenon, the *Culture du Plainseau* (Gaucher/Verron 1987). As a cultural trait, it would be a rather peculiar one, as it is only visible in hoards. In burial ritual, settlements, ceramics and so on, there are striking differences between the different groups that would have been part of this 'Plainseau culture'. Later on in this chapter, I shall come back to the meaning of this widely shared 'hoard tradition' (section 8.6.3). For the moment, suffice it to say that it existed, and that the Plainseau axe is one of the most prominent objects in such hoards.

The most lavish hoards of Plainseau axes are from northern France, sometimes consisting of hundreds of axes (Gaucher 1981, fig. 120). The northernmost Plainseau axe hoards can be found in the study region, all on the Belgian side of it: Hoogstraten (some 20 axes), Antwerpen-Kattendijkdok (9), Lutlommel-Konijnepijp (originally 20, or even 44), and Heppeneert (47, almost all of the Plainseau type). The Lutlommel and Heppeneert hoards are depicted elsewhere in this book, see fig. 12.1 (Lutlommel) and 13.2 (Heppeneert). These hoards contain several dozens of axes at

most, and are as such actually in no proportion to the lavish French hoards. Nevertheless, hoards like the ones from Hoogstraten and Heppeneert are practically unparalleled in the study region, and must therefore represent special deposits. No other axe type figures in such large numbers in hoards apart from the Plainseau axe. There is only the eponymous Geistingen hoard that can be mentioned (26 to 28 axes), but this one seems to be without counterparts, whereas there are plenty of lavish Plainseau-axe hoards.

The quantities in which Plainseau axes must have been produced, circulated and deposited are probably much higher than for any other axe type. Nevertheless, there is a tremendous variety among the individual axes, brought out in differentiation in ornamentation. Butler and Steegstra (in press) even speak of individualization, which could perhaps be interpreted as evidence for the existence of individual property rights, or perhaps of an exclusive right of use for the object concerned. We saw a similar 'individualization' in the case of the Niedermaas axes, whilst the Geistingen axes rather seem to have been produced as objects neatly similar to one another. Butler and Steegstra (in press) and Van Impe (1994) have recognized all kinds of sub-types, which we shall not take into consideration here. An important point which requires further attention, however, is that some types seem to be typical for the study region. This applies particularly to those with 'jail-window' decoration (in the hoards of Antwerpen-Kattendijkdok and Hoogstraten, Warmenbol 1987a). We seem to be dealing with local adaptations of foreign types. Although the remarkable 'jail-window' decoration seems to emphasize a local identity, the axes are in other respects still very close to the original imported ones. It would go too far to suggest that we are now for the first time dealing with local styles which are closed rather than open.

Most Plainseau axes found have been sharpened, and were probably used as well, as Van Impe's analysis of those preserved from the Lutlommel and Heppeneert hoards shows. We are therefore not dealing with objects like Geistingen axes, although it is remarkable to see that Plainseau axes are sometimes significantly lighter than regular ones.<sup>6</sup> Many are single finds, coming from the same sort of watery places as the other axes, and therefore must represent deliberate depositions. The Plainseau axe from Cuijk which is said to have been found in a giant urn should be regarded with some caution and cannot serve as a good argument that such axes were also deposited in burials.<sup>7</sup> There are also differences between Plainseau axes and others, and these come to the fore in the phenomenon of the lavish axe hoards. Some of these axe hoards are from the traditional type of context. The Antwerpen hoard, for example, comes from a boggy area of a stream (fig. 13.4), and so do the smaller Oirschot (fig. 8.7) and Stiphout hoards. It is remarkable, however, that the



Figure 8.7 The Oirschot hoard: two Plainseax axes (l.11.8 and 11.2 cm).

Antwerpen axes were deposited in this small stream, removed from the higher terrain on which present-day Antwerpen is built, and also removed from the Scheldt itself (cf. fig. 13.4). In this major river, numerous objects were deposited during the Late Bronze Age. Why were these axes deposited in the smaller river? More deviant is the context of the Heppeneert, Lutlommel and Hoogstraten hoards. All are situated on dry or semi-dry, high terrains. In the case of the Lutlommel hoard, we are dealing with objects placed halfway a gentle slope, and as we will see later on (in section 8.6.3), there are reasons to suppose that it was (at least seasonally?) wet. Moreover, it seems to have been situated in a place that was in some kind of ‘no-man’s land’, surrounded by cemeteries and at least one settlement (see also chapter 12; fig. 12. 2). The environmental position of the Hoogstraten hoard has similarities with that of Lutlommel, although here nothing can be said on the cultural landscape. The Heppeneert hoard seems to have been deposited on dry high grounds, which are transected by shallow gullies that carry water in autumn and winter (Van Hoof 2000, catalogue). The fine preservation of the axes may be in keeping with this.

#### *Type Wesseling*

A considerable number of socketed axes from the Netherlands can be attributed to a type that was hitherto not recognized as one (Butler 1998/1999). These are the so-called Wesseling axes (28 objects, see fig. 8.5 and appendix 2.14), as defined by Kibbert (1984, 126-31). They are more or less evenly distributed across the north and south of the Netherlands and the adjacent German region. A bronze mould for such an axe was found in Erkrath, Germany (Kibbert 1984, no. 599), indicating that it was produced in the German Rhineland, but it can certainly not be ruled out that they were made in our region or the northern Netherlands as well. Whereas all other

types that were current in the south hardly seem to have been deposited in the northern Netherlands, the Wesseling type is the only type that is important in both regions. Most of the finds in the southern Netherlands are plain, undecorated forms mostly of Kibbert’s Traben-Trarbach variety. Characteristic is the prominent socket-mouth, with a very small, often unperforated D-shaped loop. On typological grounds, Kibbert (1984, 130) argues that such axes date from the later part of our Late Bronze Age, or the beginnings of the Early Iron Age. A Wesseling axe was found in the rich Ha C ‘chieftain’s grave’ of Rhenen, suggesting that it might still have been in use as late as Ha C (Van Heeringen 1998/1999, 83; Butler 1998/1999).

The biographies do not seem to deviate from those of regular axes like Niedermaas or Helmeroth. As a matter of fact, two Wesseling axes were deposited in a marsh together with a Niedermaas axe (the Susteren hoard: fig. 8.5). Wesseling axes must have been effective work axes, apart from their unpractical small loop. Most are from watery places, as are most other axes. Exceptional finds, however, are the examples from Rhenen (mentioned above) and from Nijmegen-Kops-Plateau. The former because it was part of a very rich burial equipment, which is very uncommon: there is still no convincing case of a socketed axe being deposited in a burial, apart from this one and the burnt axes from the Wijchen Ha C chieftain’s grave (see chapter 9). On the Kops Plateau, a blunt Wesseling axe was placed at the northeastern corner of what must have been a rectangular open-air cult place (section 8.13.3 and Fontijn 2002; Fontijn/Cuijpers 1998/1999, 55-60). Both examples date from the Early Iron Age (Rhenen) or the Bronze Age-Iron Age transition, both periods in which profound changes appear to have taken place in depositional practices (section 8.13).

#### *Others*

There are numerous axes of other types or type unknown (fig. 8.8; appendix 2.15). A number of them represent imported axes, like the unique decorated axe from the Nijmegen-Hengstberg hoard, or some faceted axes and axes of the Sompting type (some of which must represent British imports; Butler/Steegstra in press). A remarkable larger number of Armorican axes are from antique dealers or from other dubious provenances (see the remarks in appendix 2.15). Therefore, I decided to leave them all out of consideration here. This brings the number of objects down to 60.

Apart from the hoards mentioned, most of these axes seem to have ended up in marshes, rivers or bogs, and as such they were not treated differently from other axe types. There is a vague old find record of three socketed axes of unknown type that are said to have been found in an urngrave in the cemetery of Biezenmortel.<sup>8</sup> If this is true, then it would be the first example of axes being deposited in Late Bronze Age

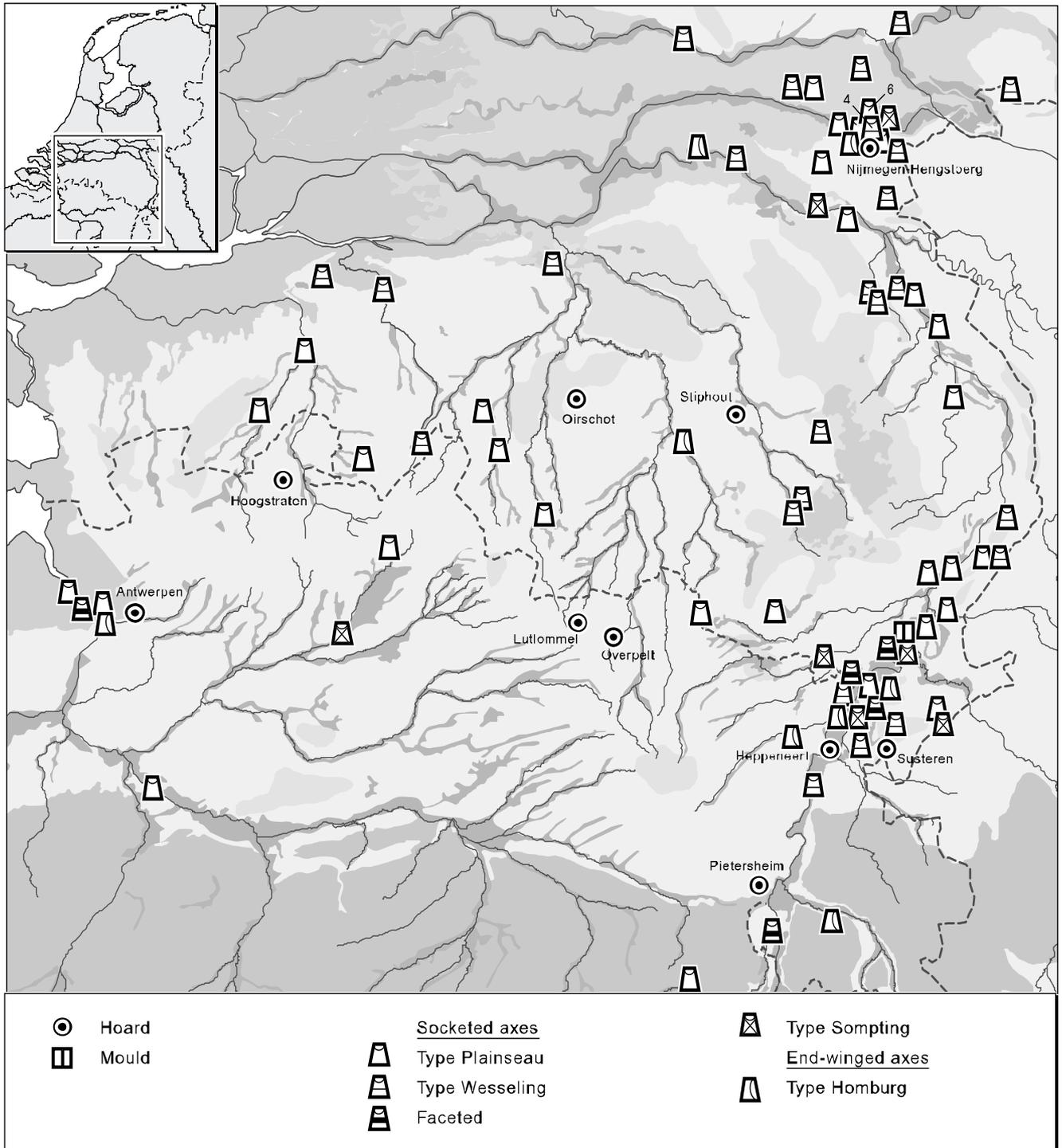


Figure 8.8 Distribution of imported socketed and end-winged axes.

burials. Since then, many professional excavations of urn-fields have been carried out, but so far there has never been another find of axes in urns (see also above on the Plainseau axe, allegedly found in an urn in Cuijk).

An unparalleled axe that deserves special attention is the one found during the reclamation of a peat bog in Milsbeek-Ven Zelderheide (fig. 8.9). Its form vaguely echoes that of Plainseau axes, but it is its thin walls which make it stand out from the rest. Like the Geistingen axes, this one was not produced for practical use. It is somewhat closer to axes of the German Amelsbüren type, which have similar remarkable thin walls. Like the afunctional Geistingen axes of Herten-Ool, this one also seems to have been deposited in a watery place, just like regular work axes were.

#### 8.4.3 *End-winged axes*

There is a small number of bronze axes with an entirely different kind of hafting: the end-winged axes (fig. 8.8; appendix 2.16). Virtually all finds known to me can be considered as (varieties) of Kibbert's type Homburg (Kibbert 1984, 90-7). Such axes are numerous in the adjacent middle west German region studied by Kibbert, but remarkably absent from the southern Netherlands. Like the earlier winged axes (chapter 7), they are practically unknown in the northern Netherlands, again illustrating the remarkable north-south dichotomy in exchange networks. In chapter 7 I presented some arguments that the earliest mid-winged axes (type Grigny) had a different kind of biography when



Figure 8.9 Thin-walled socketed axe from the swamps near Milsbeek-Ven Zelderheide (l. 7.8 cm).

compared to other axes. For later winged axes, this no longer seems to be true. Apparently, the deviating axe form was now accepted as a normative form in indigenous conceptual classifications. Although they never seem to have been produced locally, the wing decoration on socketed axes (Plainseau and Niedermaas in particular) seems to emphasize that these different types of axes were seen as affiliated. The end-winged axes mostly show traces of use, and were deposited in a way similar to regular socketed axes. The Pietersheim hoard, allegedly consisting of five Plainseau axes and one Homburg winged, axe is a case in point (Heymans 1985).<sup>9</sup>

#### 8.4.4 *Iron axes*

Although bronze Wesseling axes must have remained in use throughout the Early Iron Age, there are no other bronze axe types that can be ascribed to this phase with certainty. As a matter of fact, from the Middle Iron Age on, axes are almost unknown from the archaeological record. As we will see later on, there are arguments to suppose that this relates to three new developments. First, it concerns the transition from bronze to iron axes, the latter being preserved far worse in most milieus, including waterlogged ones, than bronze items (iron axes are listed in appendix 2.15). Second, we should take into account the decline of the age-old tradition of axe deposition itself during the earliest part of the Iron Age (see the discussion in section 8.11). Third, the few iron axes we know cannot be dated by typo-chronological means. One comes from the Ha C chieftain's grave of Oss, and therefore should be of Early Iron Age date. Furthermore, there are two iron axes with preserved wooden shaft from the southern Netherlands: one from Rijnwaarden (unlooped) and one from Lith-Kessel (looped; fig. 8.10). Their <sup>14</sup>C-datings are 2520 ± 60 BP (UtC-1356) and 2540 ± 50 BP (GrN-12807) respectively (Lanting/Van der Plicht in press).



Figure 8.10 Iron looped axe, dredged from the Meuse near Lith (l. 9.8 cm) (after Verwers 1988, fig. 21).

Calibration of those dating at a two  $\sigma$ -standard deviation level makes it clear that neither find can be dated precisely. Both ranges vary from the beginnings of the Early Iron Age to c. 400 BC cal. Although far from satisfying, these dating at least show that iron axes were in use since the first half of the Iron Age. For the present research, it is interesting to see that both are finds from major rivers. These iron axes thus seem to have been deposited in a watery place, just like their bronze predecessors.

#### 8.4.5 *Conclusions*

As before, and in spite of a thriving regional production, axes were still imported from other regions as well. The dating of the different types discussed varies. Apart from a group of axes that is current throughout the entire Late Bronze Age (Niedermaas axes), and those for which there is no good dating evidence (Geistingen), Plainseau axes clearly date from the last century of the period, and Wesseling axes even extend into the earlier part of the Early Iron Age.

#### *Production*

An entirely new element in the production of axes is the evidence for axe types that are so fragile that they could never have been used (the Geistingen axes). These axes were not single, ceremonial aggrandisements of existing types (as we saw in case of the ceremonial sword of the Middle Bronze Age, chapter 6); rather, they are a type in themselves, with no clear references to existing types, and made in a regionally specific form. They were probably also produced in considerable numbers, as the Geistingen hoard implies. Something like this is entirely new, and it is important to realize that we are not dealing with imported objects from other regions, but with axes in all likelihood produced in the southern Netherlands itself! The Late Bronze Age thus seems to herald an important development: if symbolical aspects were relevant to axes before, we are now dealing with a situation where they were brought out in a specialized form. I shall come back to the implications of this later on and in chapter 13.

In general, the element of display seems to have been much more important in the case of socketed axes than earlier on with the palstaves. It is remarkable, however, that the regional axes (the decorated Niedermaas axes) have a much more conspicuous regional identity than the regional palstave types. The decoration itself is quite interesting: it may be one that gives the axes a characteristic 'local' touch, but the type itself clearly refers to other, non-local styles in its ornamentation. The style is 'open' rather than 'closed'. The best example are the Niedermaas axes that are in form comparable to axes from the adjacent regions, but in decoration (the pseudo-wings) refer to central European axes.

Another characteristic, observed by both Van Impe and Butler and Steegstra, concerns the enormous variety and even something close to individuality (both observed on axes of the Niedermaas and Plainseau type). Although similar in general outline, the individual Plainseau axes from, for example, the Heppeneert hoard are very different. It would be a bridge too far to suppose that we are dealing with axes with an individual identity, but clearly there has been an attempt on the part of the smith to create axes that are similar in general characteristics, but different in details.

#### *Circulation*

For the Middle Bronze Age B, the conclusion was drawn that our region was apparently no longer connected to Nordic networks. With regard to axes, this situation seems to continue in the Late Bronze Age. I know of not one convincing Nordic import, apart from two Hunze-Eems axes. Plainseau, end-winged and Geistingen axes, on the other hand, are hardly known from the north. We thus seem to be dealing with two different, almost exclusive exchange networks, one for the north and one for the south of the Netherlands. Only the Wesseling axes occur in both regions, but this axe type dates somewhat later. In terms of style, only the 'hybrid' type shares characteristics with North Dutch products, but this kind of axe is not found very often. As argued, it is likely that Plainseau axes were actually made in more than one region, perhaps even in the research region (this applies at least to the 'jail-window' sub-type). What remains, however, are 'imported' axes which are predominantly Atlantic, French ones. Atlantic-affiliated axes, most notably the Plainseau axes, are especially prominent in the last phase of the Late Bronze Age (parallel to the French *Bronze final IIIb* phase). In the Early Iron Age, bronze axes are predominantly of the Wesseling type, believed to have been produced in the German Rhineland. The high number of Atlantic axes in the last centuries of the Late Bronze Age seems to reflect an intensification of exchange relations with the north-west French area, that later on almost entirely made way for relations with the continental, German regions.

#### *Deposition*

With regard to axe deposition, the Late Bronze Age saw both continuity and change. To start with the former: most axes deposited must have had life-paths similar to those of axes in previous periods. They were produced, circulated and put to use, and some were finally deposited individually in a stream, marsh or river, but never in a burial.

From now on, axes were deposited in watery places that had not only never been used, but had even been made in such a way that they could not have been used in the first place (Geistingen axes and the axe related to type Amelsbüren from Milsbeek-Ven Zelderheide). Some of these ended up in

exactly the same kind of contexts that ordinary, used axes did (marshes, swamps, rivers). In other words: having been used to be crucial for axes to be selected for sacrifice. Use was *elemental in the generalized biographies of axes ending up in wet places*. Moreover, we have seen that it was a vital element of the tradition of axe sacrifice since the beginnings of the Bronze Age for all periods up till the last phase of the Bronze Age. Now, with the deposition of Geistingen axes in these same places, however, we see a break in this practice for the first time. Whatever the use-life of a Geistingen axe, it was not used for wood cutting, clearance, house-building, and so on. The life of Geistingen axes thus must have been fundamentally different from that of normal axes, in spite of their formal similarities to normal axes. The traditional views of the kind of biography axes should follow in order to be selected for deposition were gradually changing apparently.

From now on, axes were not only deposited as single items, although this still applies to the majority. Now, there is also a number of large deposits of axes known. Most of the times, these consists of axes only, with one predominant type, which is usually the Plainseau axe. In one case, dozens of axes were deposited in conjunction with ornaments (Lutlommel). These axe hoards are often in environments that differ from the usual. Still, the fact that such axe hoards are a recurrent phenomenon suggests that they are not simply unretrieved trade-ware, but intentional deposits. Chapter 13 will deal with these hoards in details, for the moment it suffices to say that for the Late Bronze Age, divergent deposition modes came into being.

## 8.5 WEAPONS: SPEARS, SWORDS AND CHAPES

Again, weapons consist mostly of spears and swords (fig. 8.11). Apart from a find from the Scheldt near Antwerpen ('left bank complex'; Verlaeckt 1993) daggers are unknown to me and so are spear types that are characteristic for the Late Bronze Age only (like flame-shaped ones for the Middle Bronze Age B. <sup>14</sup>C-dating of the wood in two spearheads from Belgium indicates that plain pegged spears, of which numerous finds are known, were in use in this period as well, and even continue to be used into the Early Iron Age (based on the Bornem find and the one from Battel (Iron Age-dating); Verlaeckt 1996). This is corroborated by the observation that similar spearheads are also known from Late Bronze Age hoards (Pulle, Berg en Terblijt, Heppeneert). Undoubtedly, many, if not most, of the bronze spearheads from the region date from the Late Bronze Age<sup>10</sup> and it is likely that they were regionally produced. They were apparently not subjected to special treatment in terms of decoration or characteristic blade form. This is quite different in the case of swords, and for that reason we will further on focus on these, and on a remarkable weapon hoard (Pulle).

### 8.5.1 Early Griffzungenschwerter

In the last chapter, reference was already made to a new type of sword, the *Griffzungenschwert*, or flange-hilted sword. With its secure hilt-blade connection it is a clear improvement of the earlier *Griffplattenschwerter*. Moreover, these swords are the first to have truly leaf-shaped blades, and as such they are close to the real 'cut-and-thrust swords' we know from the mature Late Bronze Age (like those of the Ewart Park type). It is argued that the first *Griffzungenschwert* in our region probably were the Hemigkofen swords and those of type Erbenheim (fig. 8.14), Nenzingen, and Sprockhoff type I swords (fig. 8.14). It was already remarked in chapter 7 that these types probably became common not before the Ha A2 phase, although an occasional piece is earlier (the Sprockhoff type I sword which is traditionally considered the earliest flange-hilted sword from Northern Europe<sup>11</sup>, and the Hemigkofen sword; O'Connor 1980, 115; table 10). This places them in the period of 1125 to 1025 BC, just around the transition from the Middle to the Late Bronze Age (following Lanting/Van der Plicht in press). The Locras swords are generally dated somewhat later (O'Connor 1980, 142). It is somewhat remarkable that swords typical for the next phase (after Ha A2, but before Ha B2/3) are known in smaller numbers. One could think of swords of the Mainz or Wilburton type, or 'Atlantic leaf-shaped swords' (O'Connor 1980, 142-6).

As before, the majority of these swords comes from river deposits, and the unprovenanced examples display a wet-context patina as well (appendix 5.3). A remarkable exception is the find from Neer. At the 'Kappersberg', a fragment of an early *Griffzungenschwert* was found. Although data on its original patina are not available, it seems likely that we are dealing here with a find from a dry context, probably from a high terrain. Are we dealing here with an element of a scrap hoard, a burial find, or with an intentional deposit of a complete sword that was broken in recent times?

### 8.5.2 The Vielwulstschwert from Buggenum

Recently, a remarkable sword was re-discovered that originally came to light around 1964 during dredging activities near Buggenum-De Geer. According to the finder, P. Peters from Haelen, it came from a former bedding of the river Meuse between Buggenum and Horn (*Oude Maas*), coordinates approximately. 195.75/358.5 (Butler/Steegstra 2000). The sword has been studied by Butler and Steegstra (2000), and myself.<sup>12</sup> What follows is based on our joint findings (fig. 8.12).

We are dealing with a sword with a richly ornamented bronze hilt (l: 68.5; w: 3.8 cm; weight: 920 g). It has a nearly circular pommel, decorated on both sides (fig.). It is topped by a smaller projection which is also decorated. The top and the bottom side of the pommel are decorated with

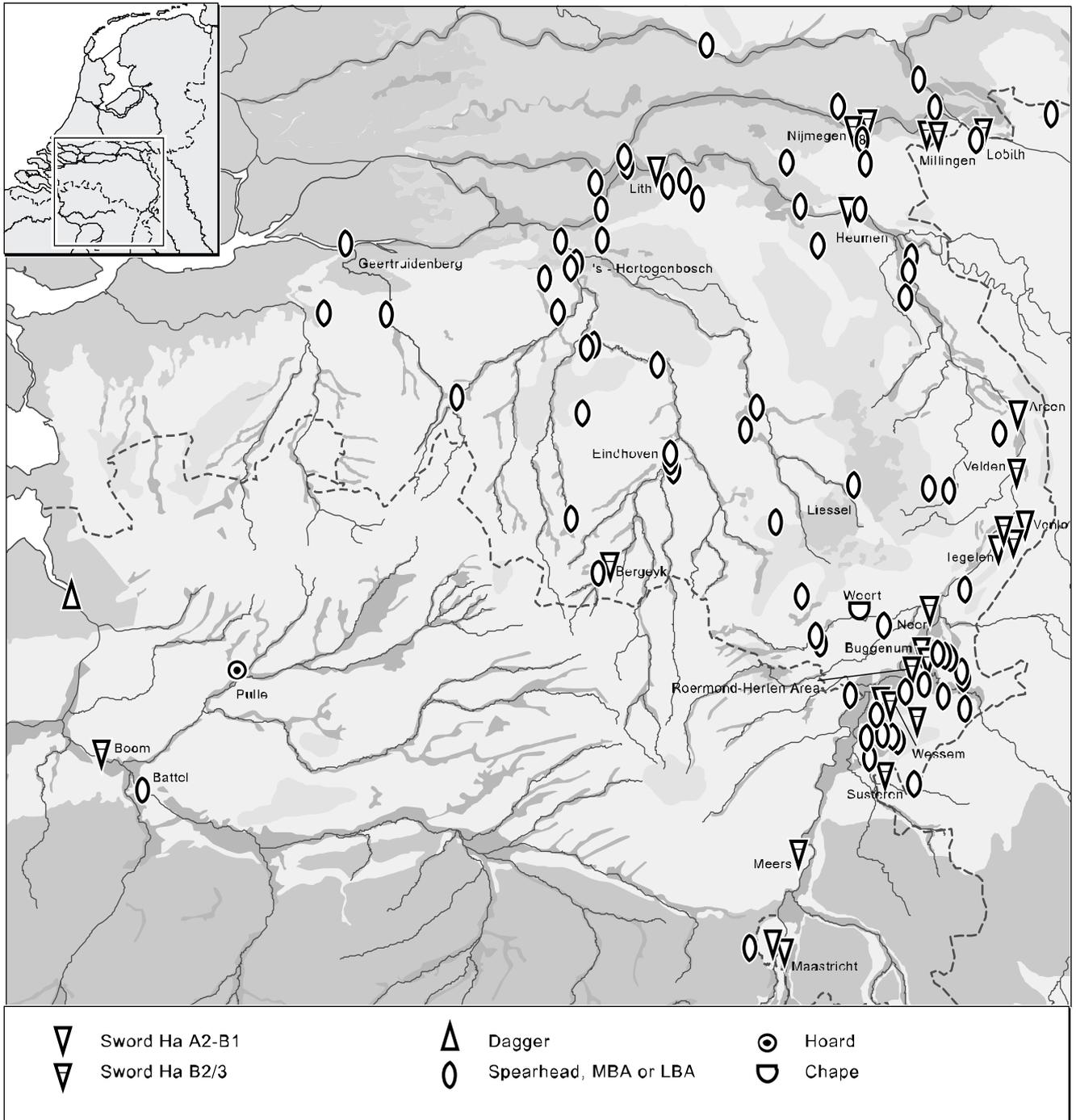


Figure 8.11 Distribution of LBA swords, a chape and a dagger, and spearheads, which cannot be precisely dated.

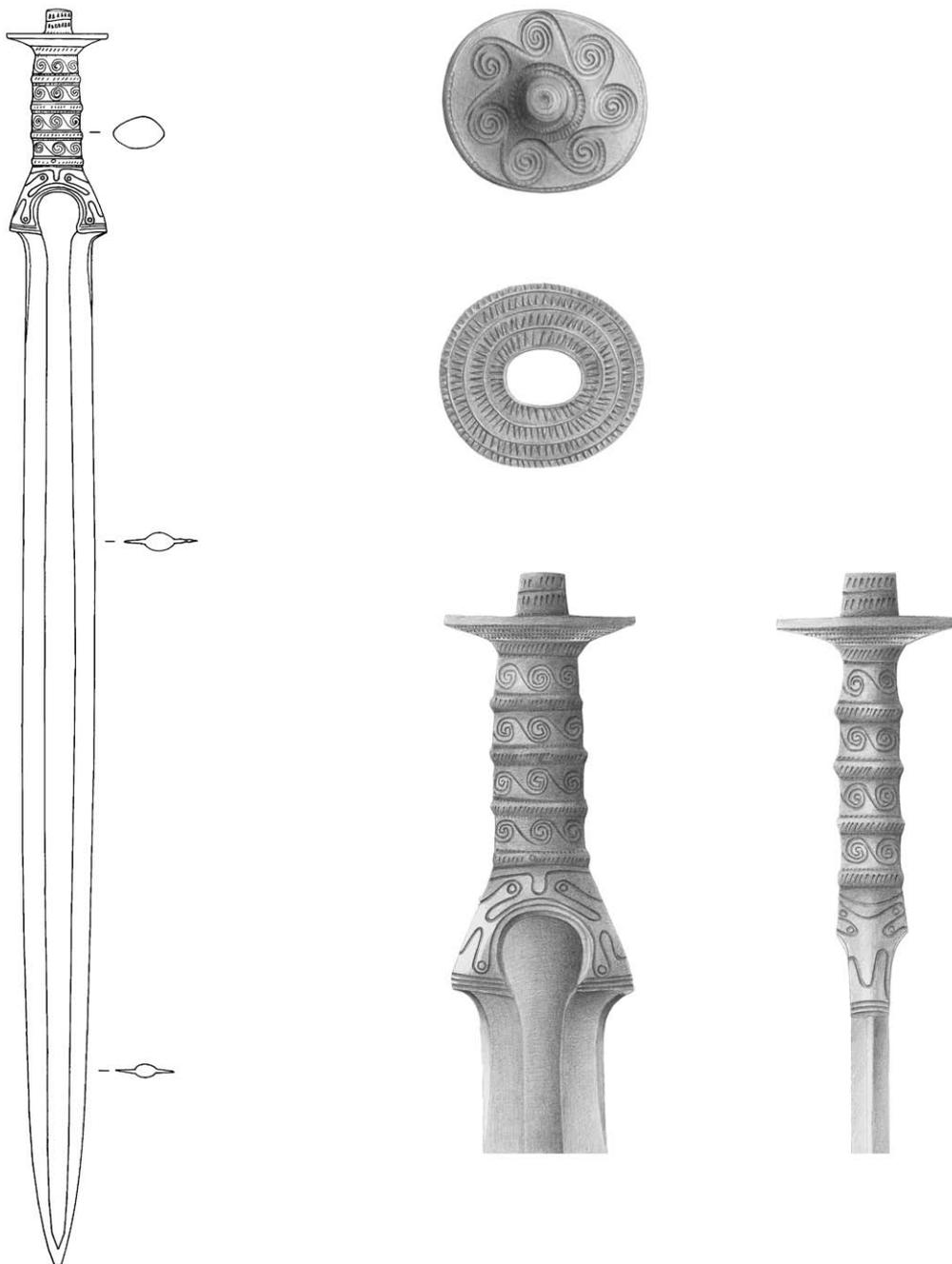


Figure 8.12 The Buggenum *Vielwulstschwert* (left, 1:4) with details of its hilt and pommel (right, scale 1:2).

*Kerbschnitt*-like incisions, the upper part of the pommel with a series of seven connected running spirals. On the handgrip there are four and a half ribs, the spaces between each are again filled with encircling rings of running spirals, carried out in exactly the same technique and style as those on the upper part of the pommel. Although giving the impression of being strongly symmetrical, closer inspection makes clear that they are actually placed in an irregular mode. At first, the artist who was preparing fig. 8.12 and I myself had considerable problems in understanding how this pattern had been constructed by the smith. By trial and error, we found out that all running spirals were made according to a similar logic: every new spiral starts from the innermost part of another one. Having broke this 'code' it was quite easy to draw the decorative pattern. Apparently, in the material culture forms of the region where this sword was made this logic of making decorations was as common as it is alien to us. Below the handgrip, there is a trapeze-shaped grip, decorated with incised lines and smaller circles. Seen from the side, this pattern has some similarity to the head of an animal, but this may be coincidental and subjective.

The blade is sharpened, but obviously it was never used; it lacks sharpening facets. It is parallel-sided, and clearly was not meant to have the leaf-shaped form of some cut-and-thrust swords. It is remarkably well preserved, with a dark bronze patina with black patches.

As said, it was found in the sediment of a former Meuse channel while dredging. This stretch of the Meuse has yielded more sword finds (fig. 14.1). It seems obvious that we are dealing here with a sword that was deposited in the river. A remarkable detail is that it was bent when found. Was it ritually destroyed before deposition? The fact that it was found during dredging activities suggests that it might just as well have been bent as a result of the dredging process itself.

It is obvious that we are dealing here with a *Vollgriffschwert*, more particularly with the variety known as the *Vielwulstschwerter* (Butler/Steegstra 2000; von Quillefeldt 1995, 142-88). In decoration and general outline, they are a well-defined group. The individual swords are not as close to one another as are the ceremonial swords of the earlier Plougrescant-Ommerschans type. Thus, we are probably not dealing with sword types that were made by the same smith or workshop. Neither does a strict visual similarity seem to have mattered. The decoration motifs are also not characteristic for these swords only; the running spiral motif is known from bronze ornaments as well, and the *Kerbschnitt* motif is characteristic for Late Bronze Age pottery.

Such swords are primarily known from southern Germany; the Buggenum find is way outside this distribution. With its ostentatious decoration and non-functionality it seems to have been some sort of *Fremkörper* among the more regular

swords. Typo-chronologically, this type is dated in Ha A1, or slightly later. Therefore it is a relatively early sword in the Late Bronze Age, and broadly contemporary to the early *Griffzungenschwerter* described above.

### 8.5.3 *The weapon hoard from Pulle*

Special mention should be made of a weapon hoard from Pulle, Belgium. There are two reasons why this weapon hoard departs from the general patterns of deposition. The first is that we are dealing with a set of weapons (eight spears, fragments of at least five swords and one socketed Niedermaas axe) that *were intentionally broken and some of which had been burnt before deposition* (Van Impe 1973). This treatment deviates from the normative: generally, swords were deposited in undamaged, unburnt condition. The second reason is that we are dealing with an entire collection of weapons including swords that were deposited together in a marshy stream valley. As we have seen, swords were generally placed in major rivers. Occasional finds of spears are known from stream valleys outside the major river valleys, but never in such large numbers. We are clearly dealing with an offering that must have been extraordinary. The find report also mentioned remains of pointed wooden posts, but unfortunately these have not been preserved for <sup>14</sup>C-dating.

Van Impe (1973, 10-1) sees the leaf-shaped blades and their decoration (six incised lines on both sides of the midrib) as comparable to the Atlantic *épées pistilliformes*, and more in particular to the category of swords of the *Saint-Brieuc-des-Iffs* group (cf. Briard 1965, 176-98). This would date the swords to the *Bronze final IIb-IIIa* phase (Van Impe/Creemers 1993, 48), that is, still before the Ha B2/3 phase. In retrospect, Van Impe's dating still seems defensible, particularly in view of the fact that the decoration with multiple incised lines is not characteristic for Ha B2/3 or *Bronze final IIIb* swords.

The edges of the swords and some spears have been (slightly) sharpened. On some of the sword fragments a sharpening facet has been observed (Van Impe 1973: Pl. I: nos 1 and 2; II: no. 3), suggesting that they were used during their life. Before deposition, almost all seem to have been deliberately broken, and at least some of them, burnt. The cutting edge of the axe and the tips of the spears no. 7, 8, 10, 12 and 13 have clearly been bent to make them unusable. It is not likely that burning in itself would cause only the tips to bend. Perhaps the metal was heated and then the tips were crushed. The collective destruction of weaponry is most uncommon for our region, and it suggests that something unusual was going on here. The fact that so many weapons were deposited undamaged, and sometimes even specially prepared (with sharpened edges) implies that this completeness and usefulness was considered important. What happened in Pulle is

in sharp contrast with this. Are we dealing here with the ritual destruction of ‘polluted’ weaponry, like booty for example? We shall probably never know, but the recognition of this treatment as non-normative is important, I think.

Van Impe remarked that the finds were scattered around an area of several square metres, and not concentrated. Yet it is hard to believe that the concentration of these objects is not the result of one deliberate mass deposition of material, especially in view of the fact that the objects are similarly treated (broken, burnt). We can only guess as to the presence of a deposition platform (the wooden posts), but it should be mentioned that remnants of a platform are also known from the famous Late Bronze Age cult place of Han-sur-Lesse (Warmenbol 1996). Again, we do not know whether this platform really dates to the Late Bronze Age.

#### 8.5.4 Griffzungen- and Vollgriffschwerter from the Ha B2/3 phase

Roymans (1991, 20-6) has already paid ample attention to the swords from the Ha B2/3, what allows me to deal with this category more briefly (see appendix 5.4 for all finds from the region). The main typological difference is between *Griffzungenschwerter* and *Vollgriffschwerter*. Among the latter are those of types Mörigen, Tachlovice, Auvernier. These are all central European types. According to Harding (2000, 277), they are predominantly ceremonial swords, although some nevertheless seem to have been used. Indeed, traces of use or wear were not recorded on the specimens listed here. Also, the blade-hilt connection seems impractical for thrusting, although they allow stabbing movements. Moreover, a general characteristic is that they often have decorated hilts. Clearly, their hilts have an element of display.

*Griffzungenschwerter* are known in larger quantities. Among them are both central European types (type Mâçon, Port-Nidau) and Atlantic types. The latter are known in larger numbers: carp’s tongue swords, characteristic for the French Plainseau industry, British swords of the Ewart Park type and the later Thames type (fig. 8.13). Most of them seem to have been intended as cut-and-thrust swords. A number shows resharpening facets, implying that they were used for cutting at least. The impact marks on the blade’s edge that Bridgford recognized on so many British/Irish swords, however, have not been recognized on the swords studied here. Also, some swords are relatively long and fragile (for example, the Mâçon sword from Wessem), implying that these *Griffzungenschwerter* at least were not made for practical use.

As before, the majority of these swords are river finds. A few swords originally published by Roymans have a dealer’s provenance, but as a group the river finds must represent a genuine find category. Some have been dredged from the same location (Roermond, Millingen-Biesterveld). Therefore, these sites must represent either deposition of

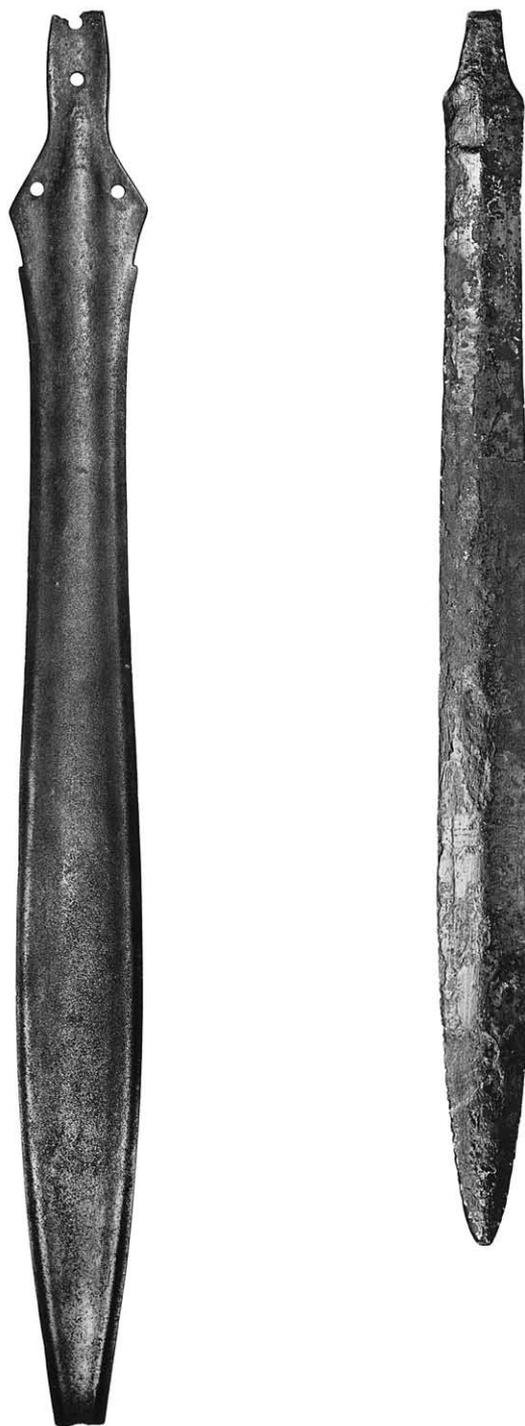


Figure 8.13 Swords from the river Meuse near Wessem: an Ewart Park sword (left; l. 56 cm) and an unclassified *Griffzungenschwert*, (l. 43.3 cm) (after Willems 1986, fig. 8).

several pieces of weaponry, or repeated visits to one place in the river. We saw a similar concentration of swords for Middle Bronze Age B Rosnoën swords near Roermond (chapter 7). It is striking to see that all swords are undamaged; York (2002) recently showed that the Late Bronze Age swords from the river Thames in England are often bent, burnt or otherwise destroyed. Deliberate destruction seems to have been a recurrent treatment of swords before deposition. This certainly is not the case for the material of the southern Netherlands. The swords are undamaged; the sharp edges of many a sword even implies that they were sharpened before deposition. Thus, they seem to have been prepared *as if for use*, rather than for being destroyed. The Late Bronze Age swords from the German lower and middle Rhine area (Weber 1993; Wegner 1976), and the Scheldt valley in Belgium are also mainly undamaged swords. The deposition habits in southern England thus seem to depart from those on the continent in this respect.

The occasional presence of a type of contemporary bronze chape among the dredged-up material implies that swords were deposited with their (leather) scabbards. Whether the scabbard was deposited separately, or with the sword sheathed within is unclear.

Although there seems to have been a clear preference for depositing such swords in rivers, some Ha B2/3 swords are known from other contexts. A sword from Montfort probably comes from the large swamps that yielded a large number of other Middle and Late Bronze Age bronze deposits. Swords are totally unknown from Late Bronze Age urnfield graves, however, as are spears. There is one exception: a bronze object that must have been the chape of a sword is said to have been found in the large urnfield of Weert-Boshoeverheide. Although old, it seems to be a reliable find (Warmenbol 1988, 247-8). There is no indication at all, however, that it was deposited with a sword. It seems unwise to see deposition of a chape as similar to deposition of weaponry. So, for the Ha B2/3 phase there is no compelling reason to doubt the general validity of the theory that weaponry was generally kept outside graves.

#### 8.5.5 *Gündlingen swords*

Roymans (1991, 34-7), following Pare (1991b; 1996), has recently re-emphasized the significance of the Gündlingen sword as the guiding artefact for a short phase between Ha B2/3 and the Ha C (fig. 8.14; fig. 8.15 and appendix 5.5). He introduced the concept of a 'Gündlingen phase', a concept that seems very useful from the point of view of the typochronology of metalwork, since Gündlingen swords herald the gradual transformation of sword biographies for two reasons.

The first reason is that these swords are not only made of bronze: there are iron ones as well. The short iron swords with bronze hilt from Battel are the best example

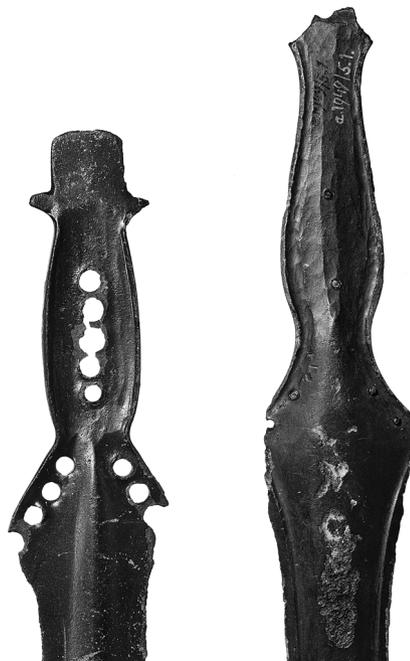


Figure 8.14 Hilt of an Erbenheim sword from the river Meuse near Tegelen (left), and hilt of a Gündlingen sword allegedly from the Meuse near Overasselt/Heumen (right).

(Warmenbol 1987b, 60; fig. 30). A new typological study of the iron ones is badly needed, but the overall similarity of iron swords with bronze ones suggests that the first iron swords were made to look like the bronze ones (O'Connor 1980, 246).<sup>13</sup> Although the technology of iron working is much different (forging instead of casting), the first iron swords seem to have been modelled after bronze cast ones. Both Atlantic and continental version are known (Schauer 1971; Roymans 1991). In spite of its German type name, the Gündlingen sword does not signal the complete replacement of Atlantic types by continental ones. The current Steinkirchen variety is now generally accepted as a type originating in the Atlantic rather than in central European (O'Connor 1980, 240-6; Roymans 1991, 35 and his table 5; Warmenbol 1988).

The second reason for assuming a change in the general views on the life-paths of swords, is that now for the first time in centuries swords were deposited in burial context (fig. 8.15). Clearly, Gündlingen swords were still deposited in major rivers as well (including the iron specimens!), but a number of bronze swords are indisputable burial gifts. The best example is grave 72 from the Neerharen-Rekem urnfield, in which fragments of three bronze Gündlingen swords, three spearheads and two winged chapes were deposited in a cremation grave. Another, less-well documented, example may be from Weert-tumulus O and Maastricht-Vroenhof. Chapter 9 will deal with those graves in depth.

A possible third reason might be evidenced by the remarkable winged chapes that belong to these swords. Cowen (1967, 418-20) argued that such chapes only make sense if they were part of scabbards that were worn by mounted warriors. While riding his horse, the winged chape allowed the warrior to anchor the scabbard with his foot, while drawing the sword with his other hand. The implication, therefore, is that Gündlingen swords may be the first swords to have been used in a kind of warfare involving mounted warriors.

The presence of Gündlingen swords in burials is a remarkable break with past practices. It is all the more conspicuous that in the Atlantic world burial deposition of Gündlingen swords only seems to have been practised in the southern Netherlands and Belgium. This is in sharp contrast to what happened elsewhere in the Atlantic world, where such swords were still deposited in rivers (Warmenbol 1988).

#### 8.5.6 *Mindelheim swords*

The Mindelheim sword is generally seen as the successor to the Gündlingen sword, dating from the later part of the Ha C phase (appendix 5.5; fig. 8.15; Cowen 1967, 384-91). The examples found in our region are made of iron and have a considerable length. Outside north-west Europe, bronze versions are also known, although bronze swords now seem to be the minority (O'Connor 1980, 247). The sword from Oss – the best preserved example – also has a pommel decorated with gold inlay (Fokkens 1993, fig. 19). This sword, and most other ones that are more difficult to attribute to a specific type because of their damaged state, are from burials (Roymans 1991). These burials, generally known as 'Ha C chieftains' graves' are characterized by a number of grave gifts, such as bronze vessels, horse-gear, and elements of wagons. They will be dealt with more extensively in chapter 9, which focuses on burial finds. It will be argued there that they introduce new aspects to existing ideologies of warriorhood. During the Ha C phase, iron now seems to have completely ousted bronze as the material for making swords, but as before, the swords still seem to have been imported from far. Swords now seem to be an integrated part of a characteristic warrior burial set. Not one Mindelheim sword is known from a wet context. So, in the Early Iron Age, the transformation from sword deposition in rivers to deposition in graves seems to have been completed.

#### 8.5.7 *Conclusion: sword biographies*

When compared with their Middle Bronze Age B predecessors, the *Griffzungenschwerter* are different in more than one way. Their design is meticulous and allows more options for decoration. Particularly for the Ha B2/3 and the Early Iron Age, the remarkable similarity between swords in north-west Europe is conspicuous (Ewart Park, Thames, Gündlingen types). It suggests a significant integration of intra-regional

exchange networks and metallurgical traditions. By their very design, almost all Late Bronze Age swords can be seen as true (cut-and-thrust) swords. The element of display seems to have gained in significance, both on regular and ceremonial swords. Of the latter category, a number of decorated central European *Vollgriffschwerter* were deposited in our area, both in the early and in the later phase of the Late Bronze Age. As the lavishly decorated Buggenum *Vielwulstschwert* illustrates, such ceremonial objects could be masterpieces of bronze-working which circulated across vast areas. The ceremonial swords were, remarkably, deposited in the same stretches of the river as were the more regular swords (fig. 8.11). This might be taken as an indication that regular and ceremonial swords were considered to be complementary categories. It is interesting that some of the regular swords lack clear battle damage as well. Were they not used? Whatever their precise use-life, in the Late Bronze Age, swords were now almost exclusively deposited in major rivers, often in the same places, suggesting repeated events or one contemporary act involving larger audiences than before. Swords never seem to have been damaged prior to deposition, but instead, deposited intact. The one exception is the remarkable weapon hoard of Pulle, which in all aspects indicates a deviant kind of deposition: objects were deliberately bent and burnt, and deposited together in a marsh.

The major shift in the nature of sword biographies takes place during the first part of the Early Iron Age (table 8.1). Gündlingen swords are not only traditionally placed in rivers, but by this time in graves as well. The age-old 'taboo' on placing weapons in graves is broken. Also, Gündlingen swords seem to have had different evocations, being horsemen's swords rather than foot soldier's weapons. On top of that, these swords were made of bronze or iron, or both (the Battel iron sword with bronze hilt). Also, swords deposited in burials were – contrary to river deposits – generally broken or otherwise damaged before deposition.

The new material iron seems to be used as an imitation of bronze and was probably imported as well. Later on, in the Ha C-phase of which Mindelheim swords are the guiding artefact, swords were made of iron only, and no longer placed in rivers but only in – often exceedingly rich – burials. These so-called 'Ha C chieftains' graves' seem to represent a break with the past in the other burial equipment as well (chapter 9). Summing up, we can say that profound changes took place in the cultural biographies of swords.

#### 8.6 ORNAMENTS AND DRESS FITTINGS

When compared to the preceding period, the Late Bronze Age is characterized by a much larger number of bronze ornaments in deposits (appendix 4.2; fig. 8.16). The increase is due in the first place to the larger number of bronze ornaments placed in (urnfield) graves, but they are known in

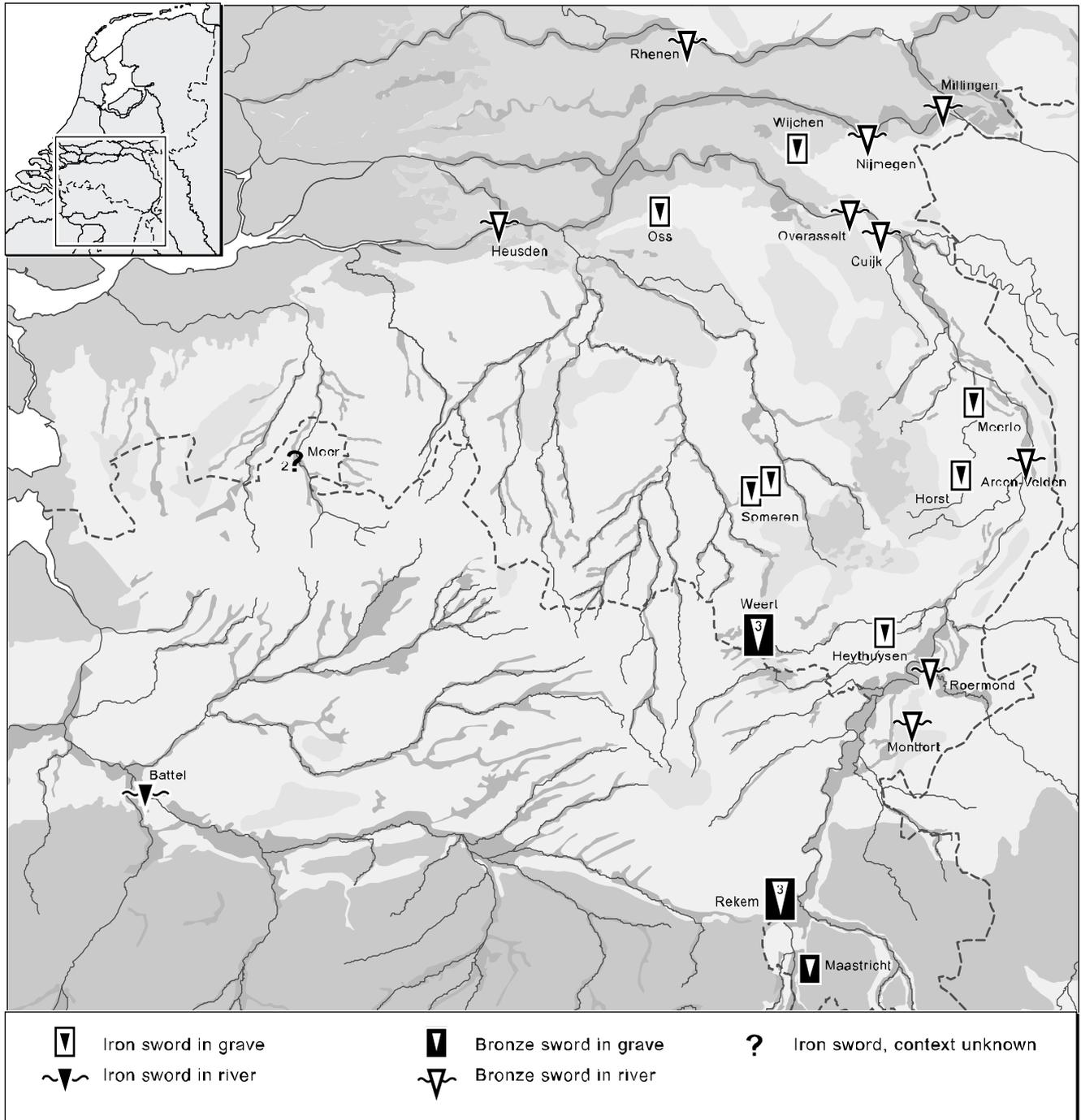


Figure 8.15 Distribution of Early Iron Age swords and their depositional contexts.

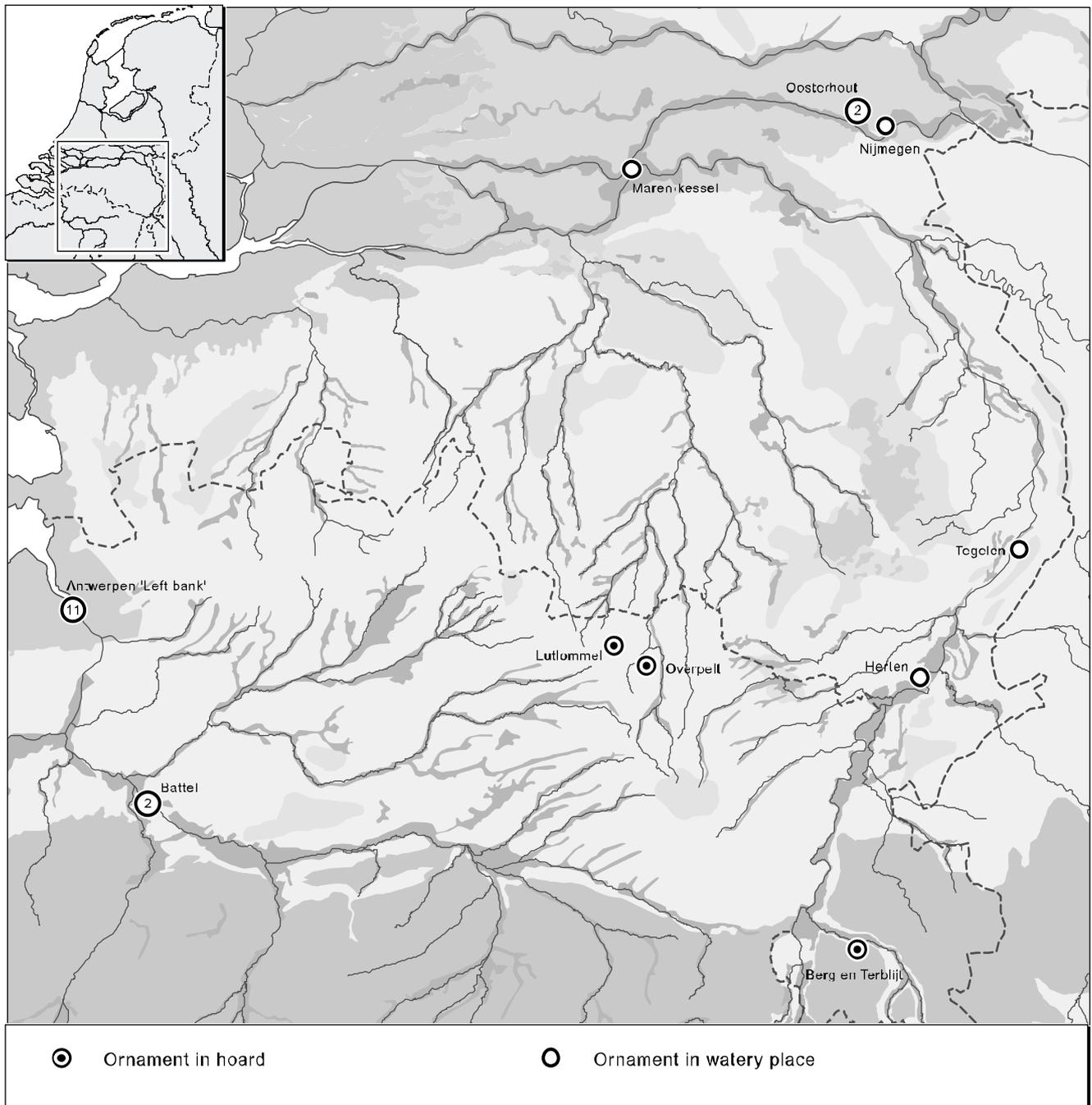


Figure 8.16 Distribution of ornaments and their depositional contexts.

some numbers from deposits in natural places as well. In the research area the latter are particularly multiple-object hoards consisting of tools and ornaments and in river deposits. To keep the description and discussion of the finds to manageable proportions, the ornaments from urnfield burials are discussed in the next chapter. This section will be restricted to those from rivers and hoards only.

### 8.6.1 *Deposition in major rivers*

A number of ornaments has been dredged from the major rivers. There is a slight concentration of find material from the Scheldt near Antwerpen, and incidental finds from the Dutch Meuse and Waal. It is obvious that the river finds are biased in a way that burial finds are not. In the case of urnfields, we are generally dealing with material from excavations. As finding artefacts is a goal in itself here, chances are high that inconspicuous, damaged bronzes are still recorded. River finds are the result of dredging activities. Inconspicuous ornaments like spirals, undecorated bracelets and Late Bronze Age ornaments of bone, stone or glass and so on are likely to escape wider attention for two reasons. First, they are prone to get lost during dredging because of their small size. Second, in urnfields undecorated bracelets can be dated to the Late Bronze Age due to associated finds. In dredging situations, contextual information is lost, and undecorated and undiagnostic Late Bronze Age ornaments that are current among urnfield finds tend to remain undated or unrecognized as such. This prevents us from making statements on the absence in river depositions of ornament types that are characteristic for urnfields.

Some years ago, Verlaeck (1993) published a collection of Late Bronze Age finds that had been dredged up from the river Scheldt. They were found by Mr. Waterschoot in the Krankeloonpolder at Melsele, among heaps of dredged-up material. It is unclear where exactly the finds had been dredged from. Theoretically, the find spot may have been situated everywhere in the river Scheldt between Bath (the Netherlands) and Melsele (Belgium) close to Antwerpen. Following Verlaeck, I refer to these finds as the 'Antwerpen-left bank' find complex.

The find complex is interesting because it contains a number of smaller objects that generally get lost during dredging. The collection is of interest to the present discussion because it contains ornaments: eight Late Bronze Age pins, two fragments of *Brillspirale* and a penannular bracelet that is hard to date on typo-chronological grounds. Other finds are two Plainseau axes, twelve bronze fish hooks of unknown date (Bronze Age?), a knife (designated as a leather knife type Roth II by Verlaeck), a fragment of a dagger/sword blade, and a stud.

An interesting observation is that among the dredged-up material, there are both ornament types that we know from

urnfields and ornaments that are unknown from such contexts. A plain, penannular bracelet would not be out of place in an urnfield grave, and neither would the *Brillspirale* and most of the pins. This does not seem to apply to the two decorated pins, one of which can be considered the largest Bronze Age pin from Belgium (l. 31.1 cm; Verlaeck 1993). The entire find complex is dated to the French *Bronze final IIIb* stage.

Other finds are scarce. One example are the *Bombenkopfnadel* to be discussed in the next section. Apart from these, finds from Lith and Tegelen can be mentioned. In Lith, a lavishly decorated bracelet of an almost unique type was found among sediment dredged up from the Meuse. Its decoration motifs have similarities to those of a bracelet known from a grave in the Neerharen-Rekem urnfield (chapter 9; fig. 9.5 and De Boe 1986, fig. 3: 9). Two pins from Tegelen-river Meuse may be another example of ornament deposits in rivers. Of one the head was preserved (convex-headed type), of the other only a pointed shaft fragment decorated with horizontal grooves. They were found 'along the Meuse' (Bloemers 1975, 28). It is likely that they are from river sediment, and not from disturbed urnfield graves. In contrast to the Lith bracelet, these pins belong to the types one may encounter in an average urnfield (chapter 9).

### 8.6.2 *Deposition of ceremonial ornaments: The giant Bombenkopfnadel of type Ockstadt*

A small but remarkable find category of ornaments that is totally missing among the grave gifts in urnfield burials in our region are the *Bombenkopfnadel*. The most conspicuous variety of these pins are those of type Ockstadt (Wassink 1984). This type comprises giant bronze pins with large, hollow, globular heads (fig. 8.17). Inside these heads there are circular holes. At present, five of these pins are known (Oosterhout, Nijmegen, Rhenen, Heerde, Herten), one of which is situated north of the study region (Heerde). Comparable finds are 'from the Meuse in the province of North Brabant' and another one from Heerde. The Heerde finds are from the same hoard, which consisted of the two pins mentioned, a pseudo-flame-shaped spearhead and a tubular ferrule (Elzinga 1957/1959). The Oosterhout pin is the largest specimen (total length 52.2 cm; diameter of head 5.8 cm). Apart from the holes that had been created during production, all heads have holes that were made secondarily. Wassink argues that these are not simply the result of occasional damage, but intentionally produced holes. Another element shared by all the pins mentioned (apart from the find from the Meuse) is the faceted rectangular shaft directly underneath the head, that changes into a round one a few centimetres below. This is unknown from finds outside the Netherlands (Wassink 1984, 343).

The pins can all be interpreted as comparable to the *Bombenkopfnadel* of type Ockstadt described by Kubach

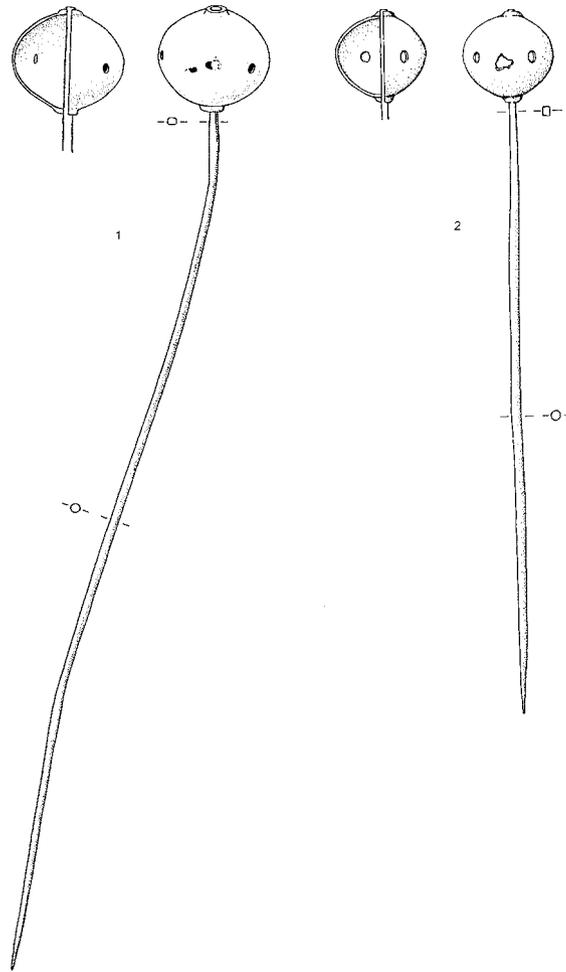


Figure 8.17 *Bombenkopfnadel* of type Ockstadt from Oosterhout (left; l. 52.2 cm) and the river Waal near Nijmegen (right; l. 38.6 cm) (after Wassink 1984, fig. 1)

(1977, 505). The Ockstadt type is dated to Ha B2/3 and is considered to be a middle-Rhine product. Wassink (1985, 343) argues that the Oosterhout, Heerde, Nijmegen and Rhenen specimens are very similar to each other. They share unique traits (the rectangular section on the shaft), and the group of Dutch finds is cut off from the main distribution of finds of this type. She therefore assumes that the Dutch variety is a local product, constructed in one and the same workshop. A few other *Bombenkopfnadel* are known from the research region. These are of normal pin-size and lack the holes in the head (appendix 4.2). In Oosterhout, such a normal pin was found on the same find spot as the exaggerated version (fig. 8.18).

#### *A ceremonial life-path*

What were these pins? The most conspicuous characteristic to us seems to be their exaggerated size. Clearly, they are much too large to be safely worn on the body as a brooch or

dress fastener. Wels-Weyrauch (1989, Abb. 8 A and B) shows that extremely large pins are known from inhumation graves where they were positioned in pairs on the body, in the same way as cloak fasteners are supposed to be. However, it is hard to imagine that such large pins were practical; rather they were dangerous both for the one who wore them and for others. I therefore side with Wassink, who regards them as ceremonial ornaments in the first place, but I would like to add a few things to her conclusion.

First, the object seems to have been used. The original holes in the head might be explained in relation to the production process (for example for connecting the clay core to the wall of the head), but for the secondarily made holes this is inconceivable. Since we find these secondary holes on almost all pins and *not* on those of normal size, they seem to have been vital to the use of this pin. 'Use' then should probably be read as *ceremonial* use. The eponymous find from Ockstadt may give a clue as to this use: the head of



Figure 8.18 Small *Bombenkopfnadel* from Oosterhout (l. 10.5 cm).

this pin had several rings attached to it (Kubach 1977, *Tafel* 80: no. 1296). The function of these rings is unclear, perhaps they merely served to make a noise when moved (the rings clinking against the pin's head). Studying the well-preserved Oosterhout pin, I could not find worn places on the head that would result from such use. Moreover, whatever the function of these holes, if bronze rings had been attached in them, they were apparently removed before deposition.

Second, the giant version existed side-by-side with normal sized pins of the same type. We can state that the Ockstadt version is an exaggerated version of a normal one. We have seen this before in the case of ceremonial swords of the Middle Bronze Age (chapter 6). I argued that these were also exaggerated versions of regular types. It is difficult to imagine that the fact that in Oosterhout a normal and a giant version were found on the same find-spot is merely coincidental. Also, in the case of the ceremonial Middle Bronze Age swords of Plougrescant-Ommerschans type it was argued that all the ceremonial swords were highly similar, very well made, and in all likelihood the product of one workshop or smith (chapter 6). We can argue the same for the Ockstadt pins.

Third, although affiliated to continental ornament types, *Bombenkopfnadel* are certainly no regular item in urnfield burials. This not only applies to our own region, but to Belgium,

north France and middle Germany as well (O'Connor 1980, 203 and list 186 and Kubach 1977). Among the few finds from graves, the Gering-Kehrig find (Kreis Mayen, Germany) is probably the most informative one (Desiterre 1968, fig. 5). It contained a fragment of what seems to have been a sword. Contrary to what is the case in the southern Netherlands, swords were occasionally deposited in graves in this German region, but this is still quite exceptional. Another German burial find (Rheinbach-Flerzheim) only yielded some sherds and burnt bronzes (Joachim 1984, 1). The probable association with a sword suggests that *Bombenkopfnadel* were associated with male, martial identities. Two observations from the Netherlands suggest the same. The Heerde hoard, containing two such pins, a spearhead and a ferrule is another example of the association between this ornament type and weaponry. Elzinga (1958/1959) observes that these objects were found standing in upright position. This remarkable placement suggests that it was a deliberate deposition (in a dry place). Furthermore, the pins from Herten and Oosterhout come from river deposition zones where relatively large numbers of Late Bronze Age weapons have been found (the Roermond and Nijmegen area respectively). Summarizing, we may tentatively conclude that this remarkable ceremonial ornament was linked to specific martial values. As we shall see below, this makes it stand out among contemporary ornaments.

#### *Deposition*

Having been made and apparently used as an object in unknown, but possibly martial ceremonies, the pins under discussion here all seem to have been deliberately sacrificed in the end. In the southern Netherlands, it can be argued that all *Bombenkopfnadel* finds, large and small ones, are from the major rivers. North of the research area, the Heerde hoard offers a different situation. Here, deposition took place in a dry environment, where a larger and a smaller one were placed upright in the ground together with a spear and the ferrule, and covered with earth. The Nijmegen pin clearly was a river find, although its precise provenance is not generally considered reliable (Elzinga 1958/1959, 17).

A more reliable river find is the one from Herten. The same applies to the 'Meuse' and 'Rhenen' finds, although the exact find-spot of these pins is unknown. The Oosterhout find was dismissed by Wassink as a find from a wet context, although the excellent preservation would certainly be in agreement with it. It has now become clear, however, that at the location of the find-spot (the Verbrugtskolk, near the present bed of the river Waal), a smaller tributary river flowed into the predecessor of the Waal.<sup>14</sup> It was found *in situ* by an amateur during a period of extremely low water levels. The two pins were found 'close to each other'.

Another find was a decorated spearhead, dated by myself to

the Middle Bronze Age (see chapter 6, fig. 6.11). Prehistoric pottery shards have not been found. Wassink suggested that the objects might have been moved by the water, but the excellent preservation of both makes this not very likely. At least it can be argued that the bent shaft was not the result of dredging or careless behaviour of the finder; the shaft must have been bent or damaged already before deposition.

### Conclusion

Together with some sword types (*Vollgriffschwerter*), the giant Ockstadt pins are the few examples of objects explicitly designed for ceremonial use only. In form, they clearly refer to normal-sized pins. Such pins, however, are still not among the various pin types regularly encountered in urnfields. It suggests that *Bombenkopfnadel* were perceived as special ornaments, perhaps associated with special identities. The suggestion has been made that these were in the field of the martial. This would be in line with the general Late Bronze Age attitude of dissociating weapons and burials. According to Wassink, we are dealing with ceremonial pins that were made in the region itself. It is therefore interesting to see that such pins were still made in a style that copied ornaments from other regions, and it is far from a pronounced regionally-specific style. The practice of making exaggerated ceremonial versions of regular items has also been recognized for the Middle Bronze Age (chapter 6). It was then argued that such ceremonial items celebrate special or even key values of the society in question. Unfortunately, with regard to the question of what those values were in the case of the Ockstadt pins, we can – apart from a possible association with the significance of martiality – only guess.

### 8.6.3 Ornaments in multiple-object hoards

#### *The Berg en Terblijt hoard*

The most diverse hoard of the entire study region is the hoard that was found in 1863 in Berg en Terblijt. It consisted of axes, sickles, spears, a knife, a chisel, a number of decorated spiral ornaments, and bracelets (fig. 8.19). On basis of the original find report (Habets 1865, 207) it is clear that the number of spirals must have been much higher. The finder mentioned that he could fill an entire basket with the spirals he found while ploughing. Although originally thought to contain material with a long dating range, and hard to place to a phase within the Late Bronze Age (O'Connor 1980, 418: no. 209), Warmenbol (1985) has shown that the objects can all be dated to the Ha A2/B1 horizon. Apart from a number of regional products (the Niedermaas axe, some objects are probably imports from the middle or south German regions (winged axe, sickles). Focusing on the ornaments, we can see that they are of types that are also known from urnfield graves, although I do not know of any parallels for the decorated spirals from this context. If we

may believe the find report, a massive amount of such spirals was originally present here.

Obviously, we are dealing with a deposition containing almost every object type current at the time. It recalls what Needham (1989, 59) has termed a 'community deposit'. The question to be asked is whether the hoard represents one deposition or an accumulation of several depositions. Unfortunately, we can no longer answer this question, apart from seeing that all finds probably belong to the Ha A2/B1 phase. The Berg en Terblijt hoard is situated in hilly terrain, in the small dry valley that descends into the valley of the Geul. According to Habets, there is a natural source near the find-spot (Habets 1865, 207). Apparently, the bronzes were deposited at or near the place where water springs from the hill. This would be in agreement with the fine preservation of most bronzes.

#### *The Lutlommel-Konijnepijp hoard*

An ornament hoard dating to a later phase is the hoard found at Lutlommel-Konijnepijp (Belgium; fig. 12.1; appendix 1). As Van Impe's most recent publication of this find illustrates, this hoard can neatly be dated to the last phase of the Late Bronze Age, contemporary to the French *Bronze final IIIb* (Van Impe 1995/1996). This hoard originally consisted of at least 19 or 20, but possibly even 44 socketed axes, 15 of which have been recorded. At least 15 ornaments are known to have been part of this find, but the original number was undoubtedly much higher. The axes have already been dealt with in section 8.4. As mentioned there, the majority is of the Plainseau-type, whereas a few have affinities to the Niedermaas type. I want to focus here on the ornaments. Van Impe was able to record the following items, all made of bronze:

- *Six small rings* of a function unknown (diameters ranging from 2.9 to 3.0 cm). Such small rings are current among most north French and Belgian hoards, and in urnfield burials. Although their function is unclear, the recurrent association with ornaments in hoards suggests that they were part of composite body ornaments (Van Impe 1995/1996, 26).
- *Three biconical beads* (diameters ranging from 14.4/14.9 to 19.6/20.3) and *three large tubular ribbed beads* (length/diameter proportion ranging from 49.1/9.7 to 49.7/13.9), which must have been part of elaborate necklace(s), belt ornaments, or perhaps even used as head dress<sup>15</sup> (Van Impe 1995/1996, 25-6). The tubular beads are rare ornaments that are only known from hoards. The biconical beads, however, have been deposited in urnfield burials as well. For example, Meerhout-Zitaart grave 8 contained four such beads, two of which were burnt (appendix; Van Impe 1995/1996, 26).
- *Two decorated bracelets* with small everted terminals, so-called 'omega-shaped bracelets'. The best parallels for

these bracelets are from the hoard found in the fill of a ring-ditch of grave 4 in the urnfield of Drouwen, northern Netherlands (Butler 1965). This hoard contains an unusually rich set of ornaments, the most conspicuous element of which is a decorated cast-bronze bowl, undoubtedly a Scandinavian import (Butler 1965). Van Impe (1995/1996, 23-4; 31-2) makes the interesting point of showing that these bracelets are not as exclusively Nordic as has always been thought; comparable bracelets figure in several north French hoards. I do not know of comparable bracelets in urnfield graves in our region.

- Twelve fragments of one *spiral arm ring*. This is remarkable not only because we are dealing with a type of ornament that only rarely figures in hoards, but also because this is not an Atlantic but a continental type of ornament.

Although certainly incomplete, the contents of this hoard are comparable to those often designated as hoards of the 'Plainseau culture' (Gaucher/Verron 1987). This designation includes rich hoards containing a number of characteristic ornament types, Plainseau axes and weapons, dating from the *Bronze final IIIb Atlantique*. The nearest finds are in Belgium, and include both ornament-only hoards, like Gent-Port Arthur (Verlaeckt 1996, 91-2; nos 45-56), and axe-ornament hoards like Jemeppe-sur-Sambre or Zandbergen (Verlaeckt 1996, nos. 272-273). Carp's tongue swords and scrap are usually encountered in the north French hoards, but not in the Belgian hoards closer to our region. Although far from heterogeneous, defining ornaments in these hoards are the Lyzel pendants and diverse types of bracelets with everted terminals (Van Impe 1995/1996, 32). The former are missing in Lutlommel and in the research area as a whole, a variety of the latter are represented here by the omega-shaped bracelets. The (tubular) beads of the Lutlommel hoard also have parallels in 'Plainseau hoards', although they are certainly not regular.

As the term 'La culture du Plainseau' implies, Gaucher and Verron (1987) see the hoards in the first place as a phenomenon typical to a specific Atlantic culture. They have been criticized for this by others, because the defining 'cultural' element (a specific set of bronzes, among which ornaments) is only to be found in hoards (cf. Van Impe 1995/1996). To this another objection can be added: such hoards are found in areas that are different in other aspects, for example in burial ritual, ceramic traditions and so on. I shall return to the phenomenon of the 'Plainseau culture' later on, but I wish to make it clear here that there is something about these ornament hoards that deserves more attention than it receives now, specifically in relation to the present research. Dispersed across different regional groups, we find hoards displaying a similar (but not identical) number of ornaments *that are nevertheless absent from other contexts like burials or settlements*. The

bracelets, pendants, and necklaces are essential for a way of bodily adornment that is shared between regions that are different in other respects. Since the hoard has been incompletely recorded, personal sets cannot be recognized anymore. We do not know whether we are dealing with the ornament set of just one person or of more. At the least, the ornaments testify to different usage: bracelets, an arm ring and necklace/belt or head ornamentation, perhaps the lavish appearance of one person, probably a female. Admittedly, the evidence for the gendered character of these ornaments is meagre. An argument that can be put forward in favour of this idea is that similar omega-shaped bracelets are known from a hoard of which the female character is not in dispute: the Drouwen hoard.<sup>16</sup> What seems more important is something we are able to observe: although there is some overlap with ornaments from average burials (the biconical beads, perhaps arm-rings as well), some of the ornaments (bracelets, tubular beads) are unique to this hoard only. They do have parallels with items from hoards in other regions, but again, the richer ornaments of these hoards are also absent from contemporary burials or settlements, and only known from rich depositions. I side with Van Impe (1995/1996, 32) in assuming that this way of adornment was restricted to females of special rank only. Stated more precisely: in the case of the Plainseau hoards, we are often dealing with the deposition of special ornaments, related to special female identities shared at the supra-regional level.

Finally, some words need to be said on the place where all these ornaments and the axes were deposited. Van Impe (1995/1996, 26-8) has investigated this subject in depth. He concludes that the hoard was buried halfway down the gentle slope of a sand ridge, in between an area from which several urnfields and at least one settlement are known. He supposes that it was deliberately situated in this 'in-between'-position, in some sort of no man's land. The latter seems hard to prove on the basis of the archaeological evidence. He argues that it was deposited in dry ground, in a zone that forms a watershed. Its position is comparable to that of the Hoogstraten axe hoard. The fine preservation of the finds is not entirely in keeping with the dry position claimed for by Van Impe. We should probably leave the possibility open that it was deposited in a place where the ground water table was very high, or sharply fluctuating, which nowadays is still the case in some places (Van Impe 1995/1996, 26-7). Historical maps also show that there were formerly two fens in this area, now drained. It is well possible that these fens go back to prehistoric times, as do many of the marshes and fens in this area. Since we have no data on the precise location where the hoard was found, we cannot even rule out the possibility that it was originally placed in one of these fens.

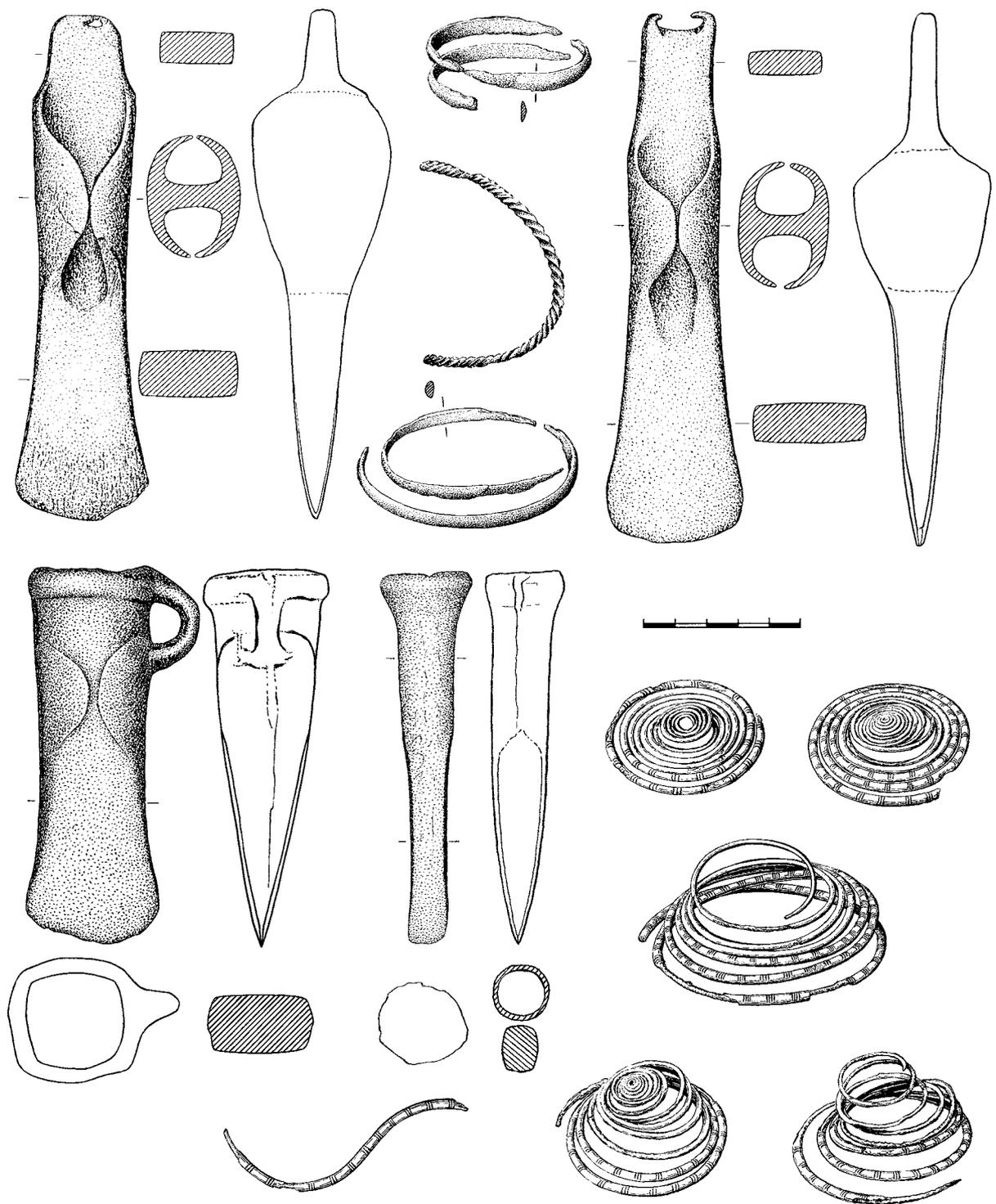


Figure 8.19 Contents of the Berg en Terblijt hoard (scale 1:2, after Butler 1973, fig. 14).

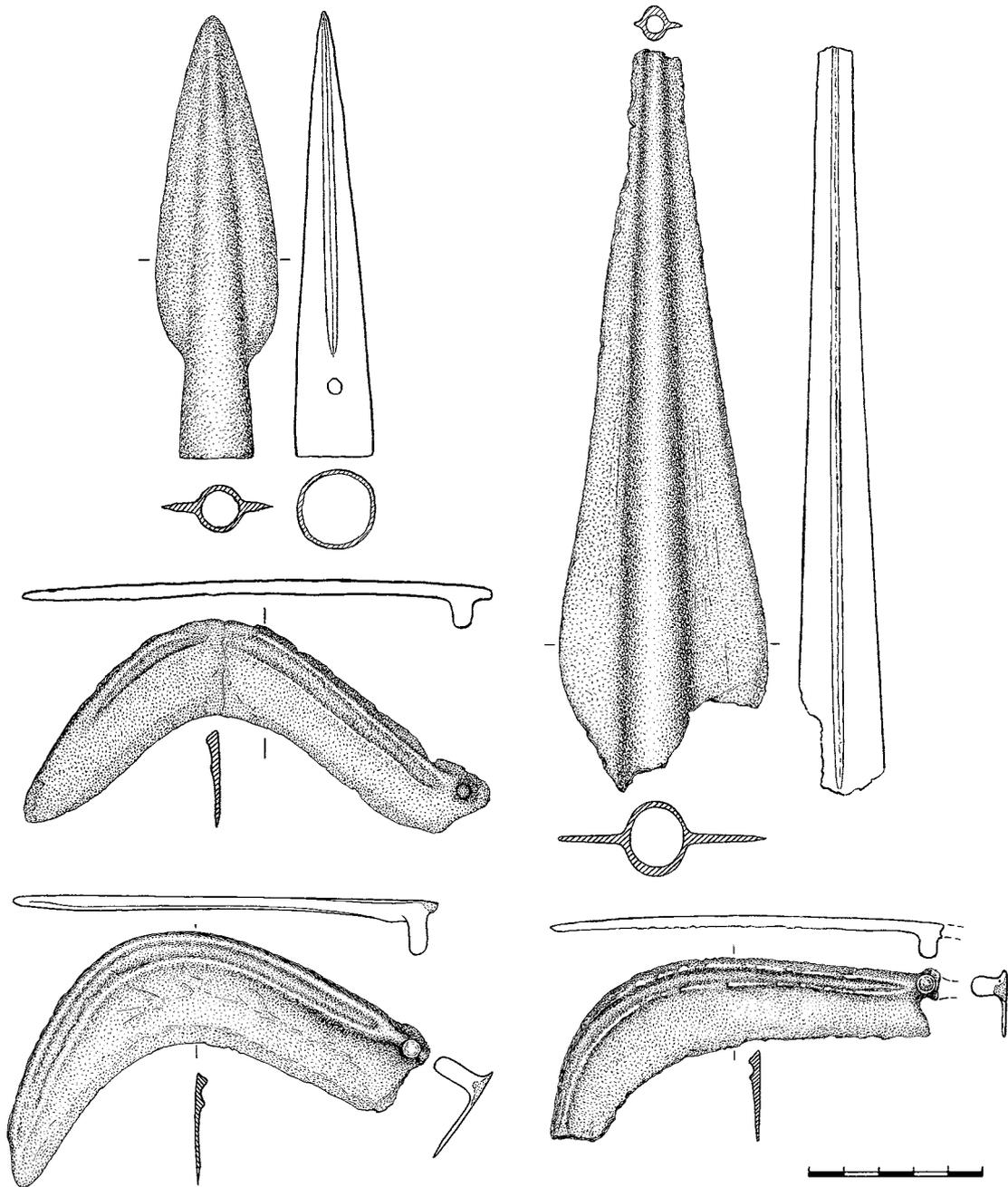


Figure 8.19 Continued.

### *The Overpelt-De Hoven hoard*

Unfortunately, not much can be said on the hoard that was found at Overpelt-De Hoven. The find circumstances were poorly documented and described, leaving the most essential questions unanswered. What can be inferred from the find report by Inderherberg (1984) is that spirals and two socketed axes were found in each other's immediate neighbourhood during road construction. The author mentions the find of a leg or arm spiral, and fragments of other spirals and a ring. As such, it recalls the find of the arm-ring from Lutlommel. Allegedly Late Bronze Age pottery and a fragment of burnt (human?) bone has also been found, as is a large stone. It is unclear whether these traces can be interpreted as the remains of an urnfield or a settlement. What can be said, is that leg/arm rings that are complete and axes are uncommon for both contexts, suggesting that we are probably dealing with material deposited for other reasons.

### *Conclusion*

Although all ornament hoards described here have been incompletely documented, two conclusions can be drawn. Multiple-object hoards on the land are rare in a region where the prevailing offering rite seems to have involved the deposition of single items. Only in the case of deposition in major rivers, larger quantities of material may have been left there at one time. None of the hoards described seems to have been an ornament-only hoard; in all cases there were associations with tools (most notably axes). The ornaments deposited at the Berg en Terblijt source and at Overpelt do not fundamentally differ from those placed in burials, only in their treatment (in complete, undamaged, unburnt state (Overpelt)), or in their numbers (the large number of spiral ornaments deposited at Berg en Terblijt). The ornament type that is most current in burials, the pin, is remarkably absent from these hoards, but this can just as well result from the incomplete recovery of the hoards. In case of the Lutlommel hoard the situation is different. Here we are dealing with special, elaborate ornaments that are not known from burials at all. It has been argued The argument that they were part of a special, possibly female, dress, that refers to personal identities shared at the supra-regional level.

#### 8.6.4 *Conclusion: selective deposition of ornaments*

After this long review of the evidence on ornament deposition, the question should be addressed whether there are depositional patterns that show that different kinds of ornaments had different kinds of biographies. To the finds from rivers and hoards, I shall add my conclusions on ornaments from burials that will be described in chapter 9. The most important conclusion is that there is an overlap between the type of ornaments deposited in graves and those in other types of rivers and hoards, but there are differences as well.

In urnfield burials, bronze and other ornaments are generally quite simple objects. We can assume that most were made in the region itself, but there is not much that indicates a conspicuous local or regional style. Ahead of what will be concluded in chapter 9, it can already be said here that the meanings of ornaments differ from place to place and time to time. Also, ornaments in urnfield burials are often deposited incompletely (*pars pro toto*) or damaged by fire (chapter 9). Ornaments from rivers or hoards partly consist of the same types, but these were not burnt or otherwise intentionally damaged.

Among the river finds, there are some special ornaments that are unknown from burial context. The ceremonial *Bombenkopfnadel* is the only type of ornament that seems to have been constructed for ceremonial purposes only. These giant pins, probably regional products like most urnfield ornaments, are exaggerated versions of regular *Bombenkopfnadel* that are also known from riverine, and not urnfield, contexts. There are some arguments to suppose that these ornaments had something to do with the celebration of martial values.

The few multiple-object hoards also testify to the deposition of the same kind of ornaments that we encounter in burials, but in a different way. The ornaments are generally complete and unburnt, and they are known in much larger numbers, suggesting repeated visits, extraordinarily lavish gifts or more givers. In the only Plainseau-ornament hoard from our region, Lutlommel, we encounter ornament types of probably foreign origin that are related to special ways of female dress, unknown from urnfields. The special character of ornaments in such hoards is a characteristic shared by Plainseau hoards from other regions as well. If we are dealing with ornaments related to *local* identities in urnfields, then we are dealing with ornaments related to *supraregional*, *female* identities in these hoards.

#### 8.7 OTHER TOOLS

The number of bronze tools known is higher in the Late Bronze Age than before, illustrating that bronze had become more important as the raw material for the tools of everyday life (cf. the discussion in chapter 7). There is no reason, however, to suppose that it had now replaced the Middle Bronze Age flint tool-kit that was vital to everyday life. For example, the Late Bronze Age Dilsen settlement, situated not far from the axe-sickle hoard of Rotem-Vossenbergh to be described below, shows that most tools were made of flint and not bronze (Van Impe/Creemers 1993, 48).

The most current tool are sickles (fig. 8.20), although it is often difficult to date these more precisely than to the Middle or Late Bronze Age (see chapter 7). There is a find of a socketed knife and a leather knife (Antwerpen-left bank find complex; river context, see 8.6.2). Below, attention will be paid to the biographies of sickles and chisels/gouges.

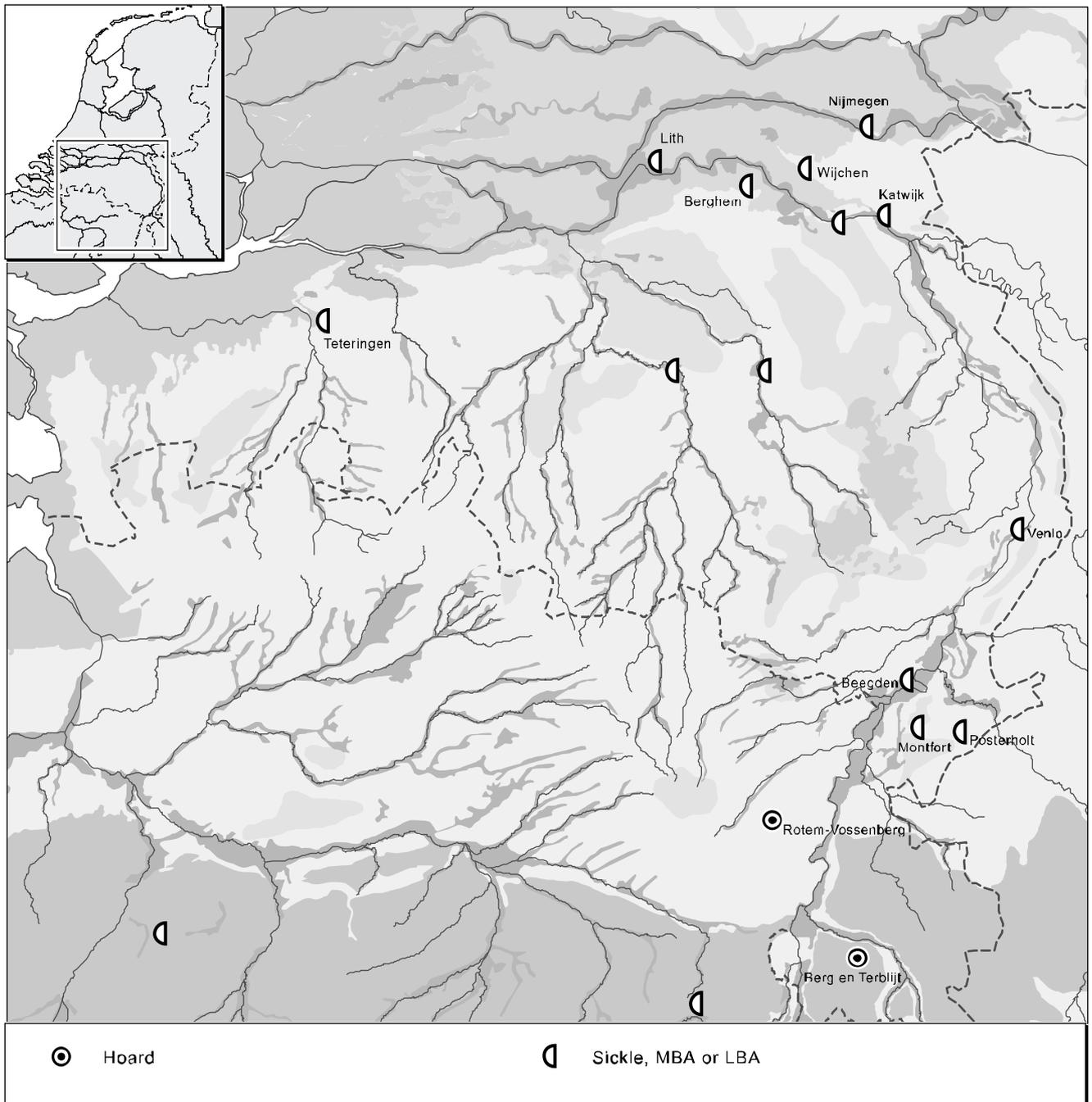


Figure 8.20 Distribution of sickle finds, including those without precise dating.

### *Sickles*

Sickles from the southern Netherlands are predominantly knob-sickles. In southern Belgium, other forms are current (faucilles à languette; Warmenbol 1985). Sickles are known in large quantities from the adjacent middle and southern German regions and from eastern France and Switzerland. In all these regions, sickles lack outspoken regional styles, and it is therefore hard to make out where the sickles of our region were imported from, or whether they were locally produced. Apart from a few sickle finds from hoards, it is not possible to make out which single sickle finds in the appendix 3 date from the Late Bronze Age.

Like axes, sickles are known from a diversity of contexts: major rivers, marshes, dry places and in hoards. Most of the sickles deposited show traces of use (resharpening). Again like axes, they are unknown from urnfield burials. Only in the case of the Rotselaar-Heikant find, a sickle find was made on the terrain of a Late Bronze Age urnfield (Van Impe/Creemers 1993, 45). We do not know, however, whether it came from a grave or whether it was deposited individually.

In Berg en Terblijt a number of sickles was part of the material deposited in or around the well at this place. It is probably no coincidence that a whole array of other tools was offered here as well (axes, a gouge, knives).

Another hoard find is the one from Rotem-Vossenbergh (Van Impe/Creemers 1993). Here, four Niedermaas axes were found together with one sickle in a conspicuous, dry place: near the eastern edge of the high terrace before it descends sharply. The hoard was found by an amateur, but the deposition site itself was excavated by the Belgian IAP. In a trench measuring 13 by 13 m not one archaeological trace was found, however, apart from two additional fragments of the sickle. So far, this has been the only professional excavation of a deposition location in our region. Although nothing was found, this lack of evidence may be interesting in itself. It shows that we are not dealing here with an urnfield location, or a settlement, but with some other kind of place. Some 1500 m to the south, traces of a Late Bronze Age settlement have been excavated. Also, at the foot of the plateau, other bronzes have been found<sup>17</sup> (Van Impe/Creemers 1993, 47-8). It therefore seems to have been a place unaltered by human hands on a prominent location.

There is so far no evidence that bronze sickles were still used in the Early Iron Age. There is one unpublished find of an iron sickle from Early Iron Age context (Huissen; a settlement), but this find alone cannot testify to the complete replacement of bronze sickles by iron ones.

### *Socketed gouge and chisels*

Socketed chisels and gouges are relatively rare. Unlike the Nordic regions where they appear much earlier, they seem to occur not before the Late Bronze Age in our region

(O'Connor 1980, 175). It is nevertheless hard to make out whether the finds from the southern Netherlands were imported objects or locally made. Gaucher and Verron (1987), for example, see the specimens from Deurne as products of their 'Culture du Plainseau'. Surprisingly little attention has been paid to the kind of use to which such implements were put. Their relative rarity and their regular presence in the rich French Plainseau hoards suggests that they were no ordinary tools. They may well indicate that the craft of wood working was socially held in high esteem. It might be ventured that it was even linked to bronze production: were gouges and chisels perhaps used to make wooden models for clay moulds like those from Ireland (cf. Coghlan 1975, 53-9; fig. 8)?

The few chisels and gouges that have been found in the research region are all from watery contexts, implying that they held special meanings in this region as well. The gouge from the Berg en Terblijt hoard has already been mentioned. In Deurne, two chisels and one gouge are said to have been found. From their patina, which is very similar, they might be from the same spot. Butler (1963, 126; fig. 35) has argued that they belonged to the same hoard, which in view of the black-bronze patina should be a wet place, probably a bog (Deurne is situated on the fringes of the large Peel peat bog).<sup>18</sup> The objects show traces of intensive use. Another find of a socketed gouge was dredged from the Waal near Rossum.

## 8.8 THE PLACE OF METALWORK AMONG CONTEMPORARY MATERIAL CULTURE

Having described the main object categories and the characteristics, we should now return to the fundamental questions involved: what can be said about the life-cycles of metalwork, and what evidence is there on selective deposition? First of all, however, we have to zoom out, and consider the role of metalwork among contemporary material culture. A similar analysis was carried out in the last chapter on the Middle Bronze Age B material. We shall now review the categories recognized in that analysis, and see what has changed in the Late Bronze Age.

### *The place of bronze objects among tools of everyday life*

When compared to the preceding period, there are no new object types added to the tool repertoire, apart from bronze gouges. These, however, are so rare that their impact was only superficial (section 8.7). Axes, chisels, (leather) knives are all known in bronze form. Unfortunately, the lack of excavated settlement sites makes it hard to make out in what way bronze had replaced flint and stone ones (cf. 7.10). The stability of the prevailing bronze types when compared with the Middle Bronze Age B, however, indicates that no fundamental changes took place. In spite of the large number of

bronze axes known, the Late Bronze Age is the first period since the Early Bronze Age from which a number of *stone* axes are known, termed *Nackengebogene Äxte* (Achterop/Brongers 1979). The function of these axes is unclear. A number of them come from riverine context, suggesting that they were deposited in ways similar to bronze axes. Achterop and Brongers have argued that their function was probably specialized. They would not have been normal wood-cutting axes, but rather axes used for working iron ores (Achterop/Brongers 1979, 277). This hypothesis is interesting, but it should be remarked that there is not one piece of evidence so far suggesting that iron objects were used in the Late Bronze Age of the southern Netherlands.

#### *Weaponry/hunting equipment*

As in the Middle Bronze Age B, the category of specialized weaponry is one where a full bronze set dominates: swords, spears (in a variety of sizes) and arrowheads. For the latter, there is even an example illustrating that flint versions still existed (the Donk urnfield grave no. 44). It is noteworthy that there is not one find that indicates that the bronze shields we know from other regions (Britain, Ireland, Scandinavia; Harding 2000, 285) were in use in the southern Netherlands. Similarly, there is no evidence at all for bronze helmets, greaves, corslets. The harnesses 'urnfield warrior' that figures in so many accounts of the European Late Bronze Age (Kristiansen 1998, fig. 59) seems never to have existed in our region or the entire Lower Rhine Basin. From west Belgium only one find is known that comes close to it: a bronze helmet dredged from the river Scheldt (Warmenbol 1992, 100-2). So far, hardly anything seems to have changed in the Late Bronze Age. Only for the Gündlingen swords, a new element can be seen: the winged chapes that have been interpreted as related to the use of swords on horseback. During the Ha C phase, bronze swords were entirely replaced by iron ones, whereas bronze spears were probably still in use, as Belgian <sup>14</sup>C-dating suggests (section 8.5). These were only replaced by iron ones during the Ha D-La Tène A phase (Ball 1999; Fontijn 1995).

#### *Horse-gear and wagons*

A category in material culture that becomes now only visible consists of items related to horse-riding (horse-gear) and wagons. Horse-gear and wheeled vehicles, often in association, are known from central Europe during the urnfield period. The latter seem to appear at an even earlier date in Scandinavia (O'Connor 1980, 152). Horse-gear is only known in north-west Europe from the surviving bronze, and later iron, elements (cheek-pieces, *phalerae*, buttons and studs; O'Connor 1980, 149-50). Of the regions surrounding the southern Netherlands, it is virtually only the British Wilburton and Isleham hoards that have yielded convincing

examples of Late Bronze Age horse gear (O'Connor 1980, 365-71). For the study area, it has been suggested that small rings found in some urnfield burials might well have been part of horse-gear (chapter 9), as is the occasional find of a stud (Antwerpen-left bank complex), but these finds are too ambiguous to see them as clear evidence of horse-gear present in our region during the Late Bronze Age.<sup>19</sup> Convincing examples of horse gear are only known from the Early Iron Age Ha C 'chieftains' graves' (Roymans 1991). These graves also contain the earliest unambiguous examples of wagons. The majority of the horse-gear and wagon elements from these graves are then made of iron. Only in the richest grave of all, Wijchen, wagon parts (linch-pins) and the horse-gear (bit) are made of bronze (Pare 1991a, 219-20).

#### *Vessels, cauldrons, pots, bowls and cups*

The contrast between the crude, undecorated and large Middle Bronze Age pottery, and the more refined and varied pottery of the Late Bronze Age implies that its social significance altered. The variety of forms implies that pottery was designed to serve both as containers, for serving food and drinks (bowls and cups), as well as for preparing meals. In British, north-west French and Scandinavian regions, the changed appreciation of pottery, and hence the social appreciation of eating, drinking, communal meals and feasting behind it, resulted in the addition of bronze vessels and cauldrons to the pottery repertoire (O'Connor 1980, 147-8; 191-3). The technology needed for this – constructing forms out of sheet metal or casting vessels – had probably not yet been mastered everywhere. The vessels and cauldrons from the Atlantic and Nordic regions all are elaborate, large items, implying that they were used for special occasions only. They are generally seen as ceremonial items. Bronze flesh hooks, known from sites along the Atlantic façade (Sørensen 1998, 257), may be seen in the same context. All such items are entirely absent from the Late Bronze Age of the southern Netherlands, both as imports and as regional products. Metal does not play any role in this field of material culture. It is only in the Early Iron Age that such items come to play a role as goods in the Ha C chieftains' graves.

#### *Body ornaments*

As we have seen in the lengthy section 8.5, bronze ornaments are known from the Late Bronze Age in much larger numbers than before. In urnfield burials they outnumber non-metal ones, like glass beads or stone pendants (chapter 9). In the Early Iron Age, pins and small rings are gradually replaced by iron versions, but bronze does not seem to lose its role in this field at all. Large, elaborate ornaments like neck rings and torques keep on being made of bronze until far in the Iron Age (Ball 1999).

### Conclusion

The European Late Bronze Age is generally seen as a phase of invention in bronze technologies (8.1), yielding new bronze object types. For the north French, British, and Scandinavian regions this probably holds true, but not for the southern Netherlands. Essentially, the metalwork categories of the Late Bronze Age are similar to those of the Middle Bronze Age B. New items in which bronze was used, like horse-gear, wheeled vehicles, vessels, cauldrons or flesh hooks are unknown from our region. With regard to the metalwork we can therefore dismiss any ideas on the Late Bronze Age as a period of change in existing views on indigenous material culture. It was not until the Early Iron Age that some of these items acquired a place in existing material culture, but then the changes are for an important part related to iron instead of bronze objects.

### 8.9 REGIONAL BRONZE PRODUCTION

The same traditionality that characterizes the material culture categories of the Late Bronze Age can be recognized in the regional bronze production of this period. Reviewing the evidence for regional products described in this chapter, the following conclusions can be drawn with regard to the regional production of bronze.

As in the Middle Bronze Age B, we are dealing with regional production that seems to have focussed largely on axes.

Tentatively, we can assume a regional production of spears, simple ornament (pins, rings, bracelets), and ceremonial ornaments (*Bombenkopfnadel* of type Ockstadt). Only in the case of axes a regional style can be recognized (in particular the Niedermaas axes). Regional-specific styles are unknown for ornaments, tools or weapons. Again, the local axes are not idiosyncratic for the region, however, like the Hunze-Eems axes of the northern Netherlands. Rather, it is a style borrowing elements from other ones. An example is the wing-shaped ornament, that is a clear reference to the contemporary imported winged axes. Like in the Middle Bronze Age B, the style can be characterized as open rather than closed.

Similar to the Middle Bronze Age B, the openness to styles of other regions is selective. Nordic forms do not seem to have mattered, which is in sharp contrast to the situation in the northern Netherlands. Only the 'hybrid' axes have affinities with the products of the northern Netherlands, but not with those of Scandinavian or North German regions. The metalwork styles from continental regions seems to have mattered much more than in the Middle Bronze Age B. This can be seen in the copying of ornament styles like the *Bombenkopfnadel*, or in the references to continental winged axes on the Niedermaas axe type. New among the products produced regionally are objects produced in some numbers that look like tools, but can never have been used as such: the Geistingen axes.

When compared to the adjacent regions, the regional bronze production did not witness major technological progress. The more complex technique needed for making socketed axes, or chisels was itself not new; it had already been practised in the Middle Bronze Age B on spearheads. Sheet metal working, practised in Nordic and Atlantic regions, seems not to have been mastered here.

Finally, it is interesting to see again that the only (bronze) mould we have comes from a watery place (the river Meuse near Roermond). We saw the same in the Middle Bronze Age B, and can therefore again suggest that the practice of metalworking had religious aspects as well.

### 8.10 METALWORK CIRCULATION

In the last chapter, it was argued that the Middle Bronze Age B saw a reorientation of bronze exchange networks. The southern Netherlands severed the connections with the Atlantic regions, north France in particular, without loosening the ties with the continental mid and south German and east French realm. Products from north German or Scandinavian regions, however, turned up only rarely present among the deposited bronzes. For the Late Bronze Age, the situation is largely similar. Particularly for the last phase of the Late Bronze Age, the lavish Plainseau products in hoards show that the ties with the Atlantic regions were very close. It is only with the Early Iron Age that the situation changes. First of all, the much smaller quantity of metalwork finds from the Early Iron Age shows that metalwork deposition decreased significantly (chapter 10). This is a phenomenon that can be witnessed in most north-west European regions (section 8.2), and must ultimately be related to a general disintegration of intra-regional exchange networks. Huth (2000, fig. 12.7; in press) recently showed that the decrease in deposition did not occur everywhere at the same time, but it was something which happened to every region. He illustrates this by seeking out to which periods most multiple-object hoards date. The peak in the construction of hoards in the southern Netherlands seems to be contemporary to those from lowland England and northern and western Germany, but much earlier than in the French regions Languedoc and Armorica. Although the rate of deposition is not the same as the rate of circulation, the two are related. The link is particularly clear in this case, as the period following the peak in deposition is the Early Iron Age, the phase in which bronze was increasingly being replaced by iron and therefore a phase in which bronze circulation must have dropped significantly.

In the Early Iron Age, Atlantic objects become far less common than before, to the benefit of German ones. The most current bronze axe must have been of the Wesseling type. In the southern Netherlands, we have nothing in the way of early Iron Age French imports. The only likely candidate, the Armorican axes, probably did not reach the

Southern Netherlands until modern times, not in prehistory (Butler/Steegstra in press). Among the Gündlingen swords that reached the study region, however, there are still Atlantic products (section 8.5; Warmenbol 1988). After the Gündlingen phase, however, the shift to continental exchange relations must have been completed. From the Ha C chieftains' graves, almost all imported products must have come from central Europe (Roymans 1991). The shift from predominantly Atlantic to continental exchange networks now seems to have been completed.

#### 8.11 DEPOSITION

For every period studied so far, the distinction between personal valuables and communal valuables seems to have been vital. Among the personal valuables there were body ornaments and martial objects. In the latter category, the difference between high-status weaponry (swords, some spear types and specific ornaments) and more regular ones (spears, regional axes) was important. It was also noted that axes may have been valuables that were less outspokenly associated with stages in the personal life-cycles, and more with concerns and ideals in the communal realm. During the Late Bronze Age, the differentiation between these two types of valuables seems to have continued instead of changed. What differs is primarily the scale on which deposition took place. In the field of deposition of communal valuables, other tools than axes gained in significance (sickles in particular). In the field of deposition of personal valuables, the same happened with ornaments, which were offered in relatively larger quantities. It can be argued, however, that at the end of the Late Bronze Age, a break in the age-old depositional traditions did take place.

##### 8.11.1 *Axe and tool deposition*

The traditional way in which axes were deposited in the Bronze Age of our region was the deposition of a single axe that had been extensively used during its life. Such axes were placed in a variety of locations, but the majority of these were natural, wet places. This does not change throughout the Late Bronze Age. Most axes in appendix 2.10 to 2.16, socketed and winged alike, seem to have been single finds in stream valleys, marshes, rivers and so on. Again, a considerable part of these axe deposits consists of imported axes, but there is not much to indicate that these were treated differently from regional ones in deposition. Sickles were deposited in locations comparable to axes, and in some cases both were deposited together (Rotem, Berg en Terblijt). In the case of sickles we are also dealing with deposition of tools that show the traces of a use-life, and similarly, they never seem to have been placed in graves. It might therefore be concluded that the biographies of axes and sickles had much in common. As will be set out in another chapter (13),

there is a further argument in favour of this, which is that both axes and sickles had widely recognized dual roles, being both tool and exchange item.

There are, however, three developments that show that the traditionally held views of axe biographies ending up in depositions were on the wane in the Late Bronze Age.

##### *The mass deposition of axes*

The first is that at the end of the Bronze Age not only axe deposition in general increased, but axes were now also deposited together in much larger quantities than before. Before the last century of the Late Bronze Age, these are axe-only hoards (Nieuwrode), axe-sickle hoards (Rotem-Vossenber), or hoards containing ornaments and almost any kind of tool available at the time (Berg en Terblijt). In the last century of the Late Bronze Age, however, this becomes more marked. Instead of deposition of a handful of axes, we are now dealing with hoards of dozens of axes (Heppeneert, Antwerpen, Lutlommel, Hoogstraten). It is probably no coincidence that all these hoards consist almost exclusively of axes and nothing else, and that these axes are all of the same type: the Atlantic Plainseau axe. Similar hoards, but containing even much larger amounts of Plainseau axes, are known from northern France. The predominance of the Plainseau axes, it was argued in the last section, should be seen as the result of a historically situated intensification of the Atlantic branch of the bronze exchange networks connecting the southern Netherlands to the world around. What we observe archaeologically of this phenomenon is that dozens of Atlantic axes were deposited on one occasion, on types of locations deviant from those where single axes were usually placed, but also outside the places that saw the massive deposition of the other prestigious bronzes: the major rivers. These peculiar mass axe hoards will be dealt with more extensively in chapter 13. For the moment, suffice it to say that they represent a deviant and so far unprecedented depositional act, contrasting with the age-old practice of offering single axes in watery places. What is important for the present argument is that the very existence of such axe hoards implies that these tools were perceived differently than before. That axes were now deposited *en masse* either implies that many more people than before were involved in axe deposition, and/or that the significance of the individual axe had diminished.

##### *The decline of the essentials of axe deposition: Geistingen axes*

Ample attention was given to the Geistingen axes and what they implied: regionally made objects that in form refer to real ones, but nevertheless can never have functioned as such. We have seen that as early as the Middle Bronze Age A, but probably even much earlier (chapter 5), single axes were deposited in watery places. It was recognized time and time again that these were not simply, 'symbolical', 'ritual'

items: these were tools that had been used in a variety of ways, a use-life that its resharpened edges, its damages spoke of. It seems to have been this involvement in daily life, and the entanglement with the people who used it, that made the object meaningful and a potential valuable to the community. Well into the Late Bronze Age, we see that it is predominantly the used axes that were selected for deposition. It is in this light that the deposition of the Geistingen axes and the comparable thin-walled axe from Ven-Zelderheide should be seen. Some of these axes were also selected for axe deposition in watery places, as if they were equivalent to those that had really been used. But the undeniable fact is that such axes never had a kind of biography that was in any way comparable to those of regular axes. They were not used for reclamation, house building, wood working or fighting; they were practically unsuitable for it. If we accept that it was the object's intended life-path by which it acquired its culturally recognized meaning (chapter 3), then the deposition of Geistingen axes, in some ways similar to that of normal axes, cannot but signal the decline of the fundamental idea that the object's life really mattered. Although the number of Geistingen axes deposited in such a way is low, it nevertheless is another indication that traditional views on object biographies were gradually losing significance.

#### *The significance of iron axes*

Much more difficult to grasp is a possible decline of the general meanings attached to axes in the face of the increasing adoption of iron axes. We have already seen that bronze socketed axes continued to be used throughout the Early Iron Age. Regular axes even figured as grave gift in the most prestigious Ha C chieftains' graves, as the bronze axe from the richest grave of all, the wagon burial of Wijchen, indicates. The other example is the recent find of a bronze axe of type Wesseling in another rich grave, that of Rhenen (section 8.4; appendix 2.14). This very find category of Early Iron Age chieftain's graves, however, also provides arguments that iron axes were at that time considered more or less equivalent to bronze ones. The rich Ha C chieftain's grave of Oss contained such an iron socketed axe. The river finds from Rijnwaarden and Lith imply that iron axes also seem to have figured in deposition in ways similar to the age-old deposition of bronze ones (section 8.4). Small as the number of iron axes recovered may be, the conclusion seems inevitable that they were rapidly considered equivalent to bronze ones. Although this does not necessarily imply that the ritual significance of bronze axes was emulated, it must imply that at least it changed.

#### *8.11.2 Weapon and ornament deposition: evidence for a structured sacrificial landscape?*

We have seen that with the coming of specialized, prestigious weaponry, weapon deposition sites came to occupy a specialized

location in the landscape. From the very introduction of swords and spears in the Middle Bronze Age A, we have also seen that they were conspicuously concluded from graves. Instead, for the 13<sup>th</sup> century BC, there is evidence of locations in rivers where several swords seem to have been sacrificed, either testifying to repeated visits or to larger gatherings. At any rate, in both cases we can deduce that some zones in major rivers had acquired the status of specialized, martial offering places. As we have seen in this chapter, the very same riverine zones where concentrations of sword finds were uncovered continue their significance as weapon deposition zones throughout the Late Bronze Age. Particularly for the last century of the period (Ha B2/3), weapon deposition zones can be recognized near Nijmegen, Millingen and Lobith (river Rhine and Waal), and near Roermond-Herten and in the Scheldt valley. This observation has already been made in an influential article by Roymans (1991), who saw the existence of such zones as indicating the ritual activity of a Late Bronze Age elite. Having considered metalwork deposition from a long-term perspective covering the entire Bronze Age, without focussing on a single kind of deposit, like Roymans did in case of swords, what can we make of this generally accepted theory in the face of the new evidence?

#### *River deposition zones and local elites: a revision*

Roymans (1991, 28) interpreted Late Bronze Age (Ha B2/3) sword depositions as a form of public display of wealth, associated with the activities of a sword-bearing elite. In his view, these were the places where elite competition was most intense. Since Roymans' seminal article, the 'Nijmegen-Millingen', 'Roermond' and 'Scheldt' area tend to be seen as elite cult places, core regions for an elite whose power base lay in the monopolization of supra-regional bronze exchange. Crucial for their participation in such networks would have been the local economic base. According to Roymans, 'the region in which deposition of fine metalwork is concentrated –the Scheldt valley and the Lower Meuse/Rhine valley –can be referred to as economically superior regions. These areas had a high agrarian productivity' (Roymans 1991, 28). In another paper, Roymans and Fokkens (1991, 14-5) argue that near these sword deposition zones we may expect settlements that functioned as elite residences. Amongst other things, these should yield traces of bronze production (since they were seen as functioning as some sort of redistribution place for imported bronzes). I think this view must be nuanced for a number of reasons.

First of all, the wide spatial extension of sword deposits in rivers makes it less likely that it simply reflected activities of local elites, with spatially defined residences that were situated on the land nearby. The available evidence does not suggest that there was one place in the river where prestigious

metalwork was offered; such objects have been recovered in rivers everywhere over stretches of more than ten kilometres. Moreover, in chapter 4 we have already seen that both the Roermond and the Nijmegen-Millingen find concentration are artefacts of intensive dredging and amateur activity. Indeed, swords are occasionally also found beyond those zones. Seeing sword deposition locations as indicating the activity centres of local elites would then imply that almost the entire Belgian-Dutch Meuse valley, the Scheldt valley and the Rhine/Waal in the Eastern River Area inhabited by local elites.

Second, these zones became the locations where deposition of fine metalwork and prestigious weaponry was concentrated as early as the later part of the Middle Bronze Age B. Thus, sword deposition zones are strikingly traditional. Interestingly, there are other places where fine metalwork was deposited, but these are situated outside the area where sword deposition took place at the same time. Mapping the finds of rich Plainseau hoards, containing axes and often prestigious, imported Atlantic ornaments (Lutlommel, for example), it can easily be recognized that the rich hoards are generally found outside the major river valleys (fig. 8.21). Although there is an overlap in the deposition of axes (both in hoards and in rivers), the rich hoards are thus situated outside the sword deposition zones, making it unlikely that conspicuous elitarian deposition only took place near the rivers. Rather, fig. 8.21 seems to suggest a pattern of selective deposition. Prestigious, female (?) ornaments were probably deposited at inland sites, rather than in the river plain, which seems to have been preferred for prestigious, male weaponry.

Third, if depositional acts became relevant for acts of conspicuous, competitive consumption, then we would expect a strong upsurge in the practice of river deposition in the last phase of the Late Bronze Age, as is known from other regions, like the Scheldt in west Belgium (Verlaeckt 1996, 45). Apart from a slight increase in numbers of swords deposited, there is not much that can sustain the idea of competitive consumption of prestige goods at the end of the Late Bronze Age. Moreover, this same rise in deposition can be seen in the inland sites (the 'Plainseau' hoards).

Fourth, during the last ten years, there have been extensive excavations near the places where elite residence were expected (for example: Nijmegen and Roermond; Fontijn 1996a and b; Tol 2000). So far, nothing has been found that indicates the presence of special settlements or bronze production centres.

*The alternative: a structured, specialized sacrificial landscape?*

Summing up, we see that the special, martial connotations of zones in the major rivers that were already recognized for the Middle Bronze Age, now become fully visible. Their

long-term existence and the contrast with the inland Plainseau hoards, that sometimes contain rich, female (?) ornaments, now suggests that river deposition is not simply the result of the fact that the local elite was living there and therefore claimed leadership by prestigious acts of metalwork deposition; rather, rivers seem to have been seen as preferred places to offer weaponry for reasons that were primarily religious. This of course does not imply that an element of competition was wholly absent in such acts. What we seem to have laid bare here, is the fundamental, deep-rooted structure governing which kinds of objects should be placed in which places in the landscape. A look at fig. 8.22, mapping the ornament/axe hoards and sword deposits of the Ha B2/3/*Bronze final IIIb* phase for a much larger area, indicates that this pattern is true for Belgium and the southern Netherlands as a whole, crossing cultural boundaries (like that of the *Niederrheinische Grabhügelkultur* in our region and the *Group Rhin-Suisse Oriental* to the south of it). It should also be noted that this particular contrast between the deposition of rich ornaments and prestigious weaponry can only be fully recognized for the last phase of the Late Bronze Age. Before, ornament deposition is relatively rare. The contrast between weapon and ornament deposits is not idiosyncratic to our region alone. Bradley (2000, 55-60) recently identified similar ones for Scandinavian deposits. His argument builds on the ethnographic observation that particular locations and practices were limited to particular groups of people, on the basis of age, gender and occupation. He recognized contrasts between weapon deposits (male), ornament hoards containing sets (females), scrap hoards (smiths) and deposits of ceremonial items (ritual specialists). For Scandinavia, the number of supposedly female deposits increased throughout the Bronze Age, suggesting that hoarding became a largely female domain in the course of time. In the southern Netherlands, we can also see that rivers acquired a strictly martial emphasis since the last centuries of the Middle Bronze Age B. Politically correct statements aside, it is likely that these were primarily the domain of a male, warrior elite. The recurrent presence of high-quality ceremonial swords among the weapons sacrificed (section 8.5) implies that emphasis on weaponry have a much wider, ideological, significance than the socio-political alone. If we now consider the ornament-axe hoards situated on the land itself, it is certainly telling that these never contain swords in our region and southern Belgium, but they do consist of elaborate ornaments. We have seen that there are arguments to link these with important female identities (Lutlommel). Taking into account that such ornaments differ from those deposited with the dead in the contemporary urnfields, what we seem to be dealing with is a system of selective deposition of valuables that are related to different, personal identities. With regard to the supposedly

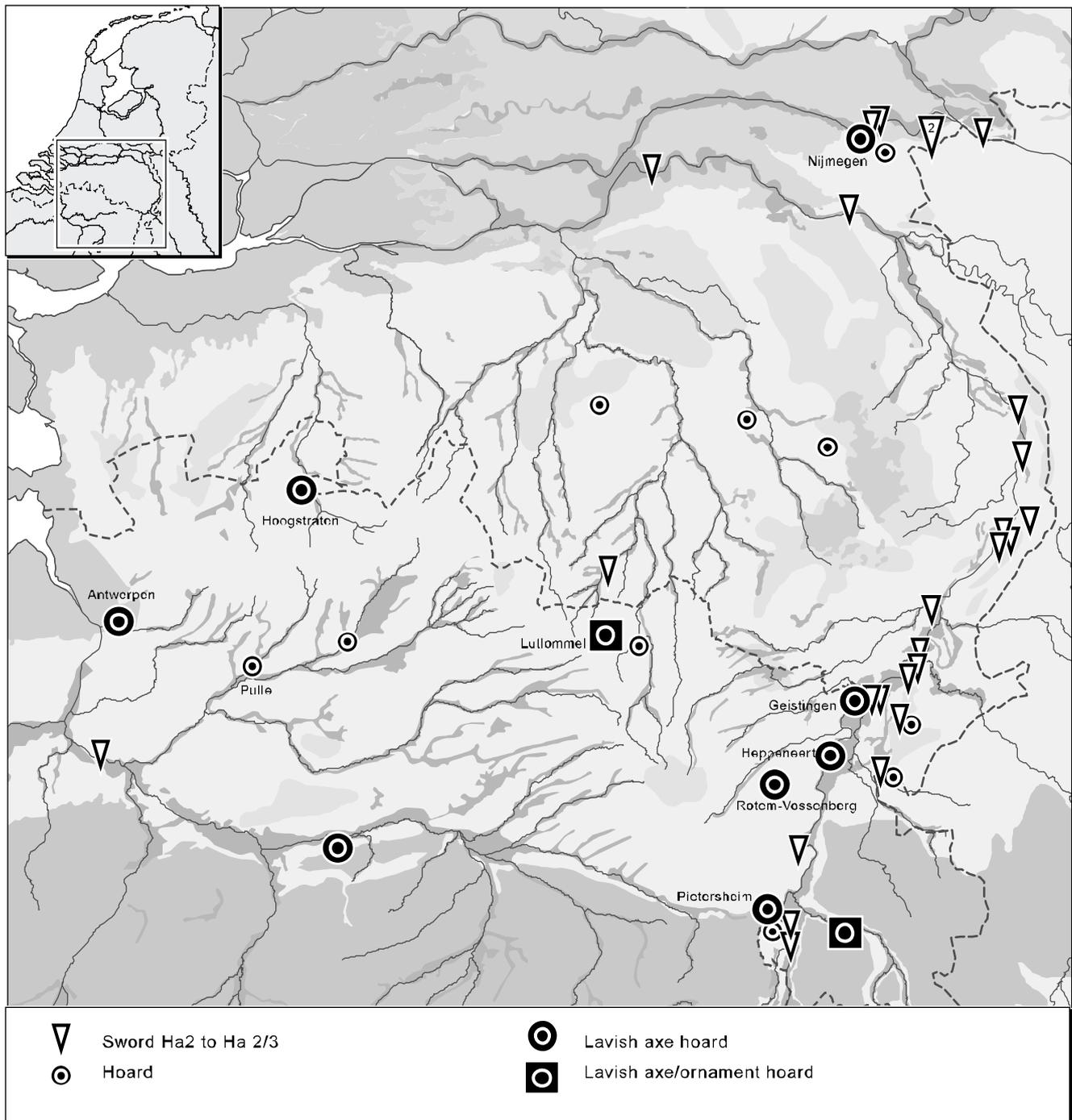


Figure 8.21 Distribution of sword deposits in relation to depositions in multiple-object hoards.

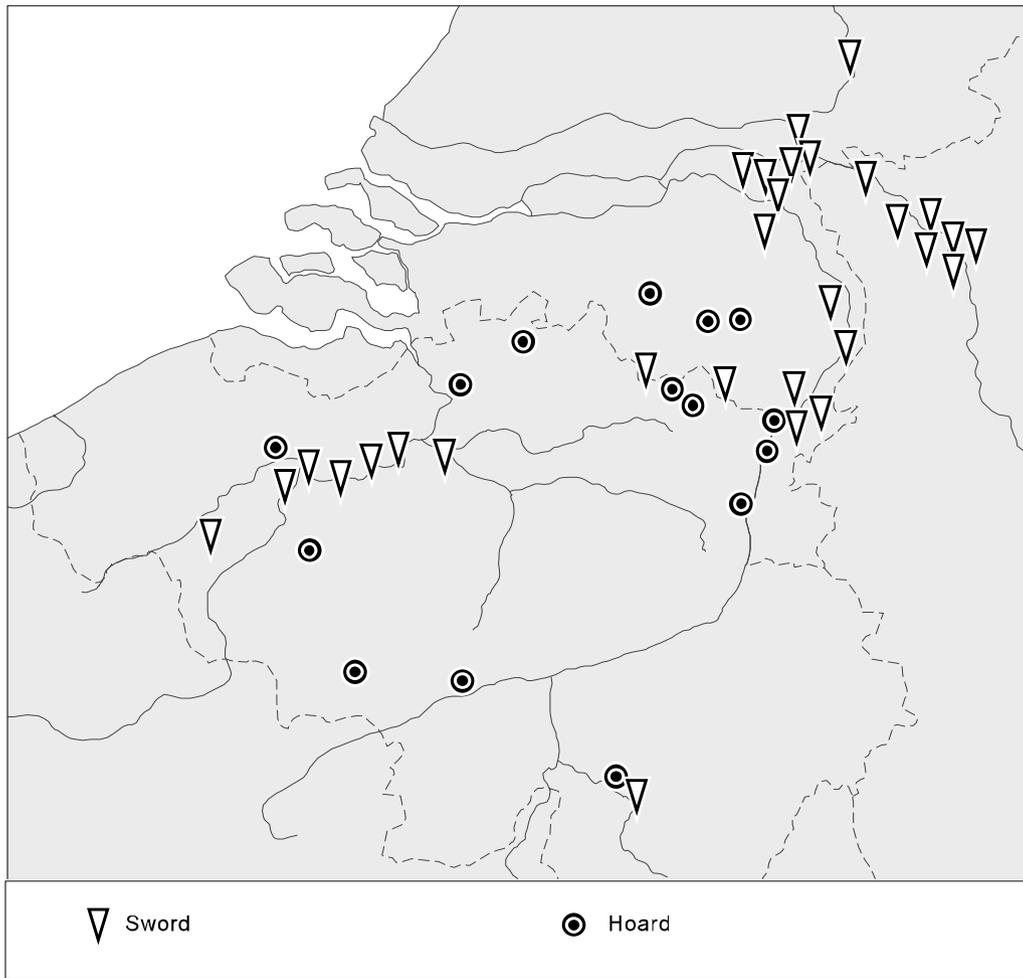


Figure 8.22 Distribution of swords deposits in relation to depositions in multiple-object hoards for the southern Netherlands and Belgium. Finds from France and Germany outside the Rhineland are not mapped (after Van Impe 1995/1996, fig. 5, with changes).

female element in ornament hoards, it should be remarked that ornament-only hoards are relatively rare. More current are associations with axes and ornaments. This does not suggest that this way of hoarding was a female enterprise, or at least one focussing on the deposition of female valuables, but rather that it was a specific kind of community deposit.

Chapter 14 will deal more extensively with the way landscape was structured by depositions. For the moment, it suffices to have noted the indications for it, and that it is only in the later part of the Late Bronze Age that the almost exclusive emphasis on the male, martial domain is accompanied by indications that other kinds of lavish offerings were carried out as well.

### 8.11.3 *New places for deposition?*

Finally, some words need to be said on the indications that the transition to the Early Iron Age also heralded deposition in new types of places and of new materials.

Starting with the former: in spite of all the variation in depositional locations, a common element of such places seems to be that they were 'natural' places, unaltered by human hand. The excavation at the site of the Rotem-Vossenberghoerd neatly illustrates this. Man-made cult places, used for depositions are unknown from our region. In the northern Netherlands, there is the so-called temple of Bargerooosterveld. It is a small wooden structure, erected in a peat bog (Waterbolk/Van Zeist 1961). Although this structure indeed

seems to have been a ritual building, it did not function as the place where metalwork was deposited. Hoards are known, however, from the peat surrounding the structure, suggesting that the entire area itself was considered ritually significant (Butler 1961). For the Bronze Age of north-west Europe, a few other man-made cult places are known, but everywhere metalwork deposition seems to have been practised preferably in natural, watery places (Harding 2000, 309). A few years ago, a rectangular enclosure was found in Nijmegen-Kops Plateau (Fontijn/Cuijpers 1998/1999; Fontijn 2002). This structure can be interpreted as a new type of cult place, constructed by human hands.

*A rectangular cult place: Nijmegen-Kops Plateau*

On a conspicuous high place, hundreds of pebbles were used to mark out a rectangular space situated along the edge of a plateau. The enclosure measures 24 by at least 15 m, and was probably marked by posts as well. The area enclosed was probably an open space. Only the traces of a few pits were found, directly inside and outside the structure. Directly to the east of the structure, a large number of traces of posts and pits were found, a few of them containing high amounts of Early Iron Age sherds, stones and a complete iron knife. Part of the pottery and stones were burnt. One of the pits was constructed in a remarkable way: the upper part of a large pot was placed in upright position in the upper part of the pit, covered with pebbles. Pits containing Early Iron Age (or Late Bronze Age) pottery were also found within the enclosure. The northeast corner of the enclosure adjoins a 42 m long, 0.8 m wide and northeast-southwest oriented stone pavement, which links the enclosure to a large Middle Bronze Age stone platform, interpreted as the remains of a Middle Bronze Age barrow that was reused for burial at least twice in the Late Bronze Age or Early Iron Age (Fontijn/Cuijpers 1998/1999). Among the stones of the rectangular structure, on the exact spot where the pavement was connected with the northeast corner of the enclosure, a bronze socketed axe of type Wesseling was found. In view of its specific location, it must represent an intentional deposit. The axe and the pottery found in the fill of a few postholes make clear that the structure should be dated to the later part of the Late Bronze Age, or the earlier part of the Early Iron Age. The enclosure has been interpreted as an open-air cult place, in form and size well comparable to those of the Middle and Late Iron Age (for parallels: Fontijn 2002; Gerritsen 2001, 162-73). In view of its clear links to burial monuments (the formal stone-paved road connecting the enclosure to the large barrow, that was re-used as burial location during the Late Bronze Age/Early Iron Age), I argued that the cult place was primarily related to the veneration of ancestors and burial ritual (Fontijn 2002; see also Gerritsen 2001, 167-8). During these rituals, objects

were deposited. In the first place this is the socketed axe, but we should also think of the large number of pots and the iron knife just outside the enclosure, the former suggesting that funeral feasts took place.

*Deposition in or around farmyards*

For the Middle Bronze Age B, we already saw evidence for the deliberate deposition of metalwork in and around houses, related to a variety of occasions (from founding to abandoning the house, see chapter 7). Gerritsen (2001, table 3.13) made it clear that, particularly for the Early Iron Age/Middle Iron Age, more examples can be found, this time primarily related to the abandonment of the house. A variety of items was deposited, but it is clear that metalwork was not prominent among these. Gerritsen particularly recognized deposition of pottery (with food?) and grains. In all, it suggests that the house became a focus of ritual in its own right. Although this was not a new phenomenon, it seems to have been current particularly in the Early Iron Age and the first part of the Middle Iron Age.

*Conclusion*

The evidence from deposition on farmyards and rectangular cult places implies that by the end of the Bronze Age, other locations than natural places acquired significance. Farmyard deposition was already practised in the Bronze Age, and the relative large number of Early Iron Age farmyard deposits at best illustrates that it was now more widely done (Gerritsen 2001; chapter 3; table 3.13). Rectangular cult places, however, are a wholly new phenomenon. The Nijmegen structure can be seen as the oldest forerunner known of similar structures from the southern Netherlands and beyond (the German *Viereckschanzen* and the north French *sanctuaire de type belge*, see Fontijn 2002). Such cult places retained their link with mortuary rituals until well into the Iron Age, but at the end of it they acquired different meanings (more closely associated with settlements). Although rectangular cult places and farmyard deposits are known from the period that heralded the drastic decrease of metalwork deposition in natural places, they cannot have replaced the traditional offering locations. First of all, because so far only one Early Iron Age rectangular cult place is known, and second, because among the material deposited there seems to have been virtually no metalwork.

*8.11.4 Change and tradition in the practice of deposition*

Finally, we have to address the question of what happened to the entire system of deposition. Did it change fundamentally, and did it cease to exist at the end of the Bronze Age, as happened elsewhere?

To start with the first question: it is only in the last phase of the Late Bronze Age (Ha B2/3/*Bronze final IIIb*) that real

changes took place. These are the mass deposits of axes and ornaments, the latter being a first indication for deposition of personal valuables related to female identities. For the rest, the practice of deposition of individual axes and other tools seem to have continued to be practised, and so did the practice of weapon deposition. Deposition of ornaments in rivers was already practised before the Late Bronze Age as well (chapter 7). There is a striking traditionality in the overall biographies of bronzes and the kind of places where they were deposited. Using bronzes as grave goods (chapter 9) is largely unknown from the Middle Bronze Age B, but realizing that metalwork in burials is an exceptional phenomenon even in urnfields (chapter 9), the difference with the Middle Bronze Age B burials is not so large. After all, urnfields probably represent the burials of almost any member of a local group, whereas in the Middle Bronze Age B only the graves of a very small fraction (10-15 %) are known. Moreover, just like before, in the Late Bronze Age, weaponry seems to have been deliberately kept out of graves and to have been deposited elsewhere.

As said, a first hint of changes can be seen in the rich hoards of the last part of the Bronze Age. A more fundamental one is the introduction and deposition of the unusable Geistingen axes. It was argued in 8.13.1 that their incorporation in deposition to some extent undermined traditional views on axe biographies.

The first traces of a true transformation of tradition can be observed in the subsequent Gündlingen phase. In this phase, the age-old taboo on placing weapons in graves seems to have given way for the first time. Swords were now deposited both in their traditional locations, the rivers, and in burials. Another new element is that these swords were not only made of bronze, but of iron as well (modelled after bronze forms). It was the bronze swords, however, and not the new iron ones that were deposited in graves. Also, the depositions of these swords in burials all had a collective rather than an individual character (Chapter 9). In both Neerharen-Rekem and Weert, the swords were deposited in collective rather than individual graves. It seems as if an outspoken association of a sword with a specific individual was mystified under a collective veil. Was this to bring it in line with the general egalitarian nature of the urnfield burial ritual at that time? Moreover, all swords were deliberately damaged, which may be in keeping with the age-old taboo on placing weaponry in graves, and contrasts with the deposition of undamaged Gündlingen swords in rivers. The warrior outfit itself, however (spear-sword association), is – apart from the possible reference to riding on horseback – a traditional Bronze Age one. Finally, the swords themselves are still Atlantic rather than continental products, although the latter gain importance (Roymans 1991, table 5).

This changes altogether with the Early Iron Age. Sword deposition in rivers ceases altogether, and continues to take

place in graves only. This time, bronze swords are replaced by iron ones. Often accompanied by wagon parts, horse-gear and bronze vessels, we can speak of the adoption of a new warrior ideology, based entirely on central European ideas (chapter 9). Unlike the collective Gündlingen graves, these are straightforward individual elite burials. Atlantic products and ideas now hardly seem to be relevant anymore. On the whole, metalwork deposition in natural places ceased, which is primarily due to the much lower amount of what was the most frequent deposited item: bronze axes. They are gradually replaced by iron ones, probably made from local iron ores, but these axes are hardly known as depositions, however. Mass deposits of Early Iron Age axes, like the Armorican axes in north-west France, are unknown from the southern Netherlands (Huth 1997). In urnfields, bronze items are also gradually replaced by iron ones (chapter 9). Bronze ornaments continue to be deposited, but at a much lower rate than before. New depositional locations (a rectangular cult place, farmyards) seem to date from the Early Iron Age, rather than the Late Bronze Age. As they seem to have involved deposition of predominantly non-metal items, they stand in no relation to the decrease in deposition of metalwork in natural places

In conclusion, we can say that in the southern Netherlands only the last part of the Late Bronze Age seems to indicate changes in the practice and frequency of metalwork deposition. A real decline in depositional frequency and true transformations of the practice were not achieved until the Early Iron Age (Ha C), with the Gündlingen phase as transitory period (see also chapter 10, especially fig. 10.4). The general decrease of bronze deposition in watery places is largely contemporary to those of other regions. It is hard not to see this as related to a general decrease in the bronze supply, and the adoption of the locally available iron (Huth 1997, 197). A strong reorientation at central European rather than Atlantic networks, unseen in the Bronze Age, becomes visible in the prestigious imports from the Hallstatt core region. Undoubtedly, these must also have been the channels by which the new elite ideology as visible in the Ha C chieftains' graves reached our region.

## 8.12 CONCLUSIONS

After this lengthy discussion, a number of general conclusions can be drawn on the nature of metalwork biographies and how these changed during the Late Bronze Age and Early Iron Age.

### *Metalwork and contemporary material culture*

The metalwork categories of the Late Bronze Age are largely similar to those of the previous period. There still seems no reason to suggest that the majority of the tools of everyday life were now made of bronze. The large *Bombenkopfnadel*

of type Ockstadt are perhaps a single example of locally made ceremonial items. New bronze objects introduced in adjacent regions at this time are helmets, greaves, corslets, horse gear, elements of wagons, vessels, cauldrons and flesh hooks. These seem to have not reached the southern Netherlands. Truly new items in material culture were not introduced until the Early Iron Age.

#### *From bronze to iron*

The earliest documented iron finds are prestigious weapons, the Gündlingen swords, probably modelled after bronze ones. Although locally available, iron enters the region first in the form of imported prestige goods, like bronzes before them. Bronze spears, however, continue to exist at least until the Ha D phase, when they are replaced by iron ones. Other prestige goods made of iron are horse-gear and wagon linchpins, all dating from the Early Iron Age. Bronze axes continue to exist well into the earliest half of the Early Iron Age, probably contemporary to iron ones. Thus there is a progressive replacement of bronze by iron, starting off at the level of imported prestige goods. A wholesale replacement was never achieved, however; particularly ornaments and prestigious metal vessels continued to be made in bronze during the Iron Age.

#### *Production: an open, unsophisticated system*

No fundamental changes seem to have taken place in the regional bronze production. Production was still focussed on axes, and probably spears, ornaments and dress fittings. Exceptional are the ceremonial *Bombenkopfnadel*. A local production of swords has not been attested. As in the Middle Bronze Age B, the regional style is only conspicuous in the case of axes. It is an open rather than closed style, constituted by elements borrowed from Atlantic and – this time also – continental traditions. Nordic elements are wholly absent. The production is far from technologically advanced, and seems to have lacked the innovations that characterize bronze technologies from other regions.

#### *Circulation: reorientation from Atlantic to continental regions*

As we have seen, the imported products in the region have always been from both Atlantic and continental regions. After having grown in significance during the Ha B2/3 phase, the Atlantic element largely disappears in the early Iron Age Ha C, after the Gündlingen phase. By that time, the flow of bronzes, however, had decreased considerably and among the central European imports, a considerable part was now made of iron instead of bronze. Another, noteworthy, development is that for the first time there is evidence for the production and circulation of axes functioning as exchange items instead of axes. That such specialized exchange items were made in the southern Netherlands itself, tells us about the complexity

of regional bronze exchange at that time, involving the circulation of ready-made objects and bronze currency as well.

#### *Selective deposition in the Late Bronze Age: a structured sacrificial landscape*

The Late Bronze Age in the southern Netherlands is generally seen as a period in which a structured, territorial landscape came into being. In this landscape, urnfields became formal, central places in the ritual topography of the land. The same can be said for depositional locations. These also had long-term histories of specialized use, essentially going back to the Middle Bronze Age B (most notably: sword deposits in rivers). Male, martial places seem to have been other kinds of places than those where in the last part of the Bronze Age rich, supposedly female, ornaments were deposited.

#### *Transformation of depositional practices in the Early Iron Age*

Just like elsewhere in north-west Europe, deposition of bronzes achieves a peak in the last phase of the Late Bronze Age, but it does not fundamentally change. During the subsequent Gündlingen phase, the most significant change to take place is the shift from sword deposition from wet places to burials, which is completed in the Ha C. By that time, deposition of metalwork in natural seems to have decreased considerably, but does not wholly stop. The decrease in wet-context deposition is for the larger part caused by the decrease, and ultimately ending, of deposition of bronze axes. The iron axes do not seem to have replaced bronze ones in deposition at all.

## notes

1 Following Lanting/van der Plicht in press and Roymans (1991, 20; fig. 5). The concept of a Gündlingen-phase is borrowed from Roymans' work.

2 For the Netherlands Fokkens (1997) has recently also emphasized that another new element introduced with the urnfield is that we are now dealing with a burial ritual in which almost any member of society was buried in an individual grave that was part of the entire cemetery and archaeologically visible.

3 It should be remarked here that in spite of this idea, and of the general theory about a sharp demographic increase, so far not one house plan in the southern Netherlands can comfortably be dated to the Late Bronze Age (personal comment H. Fokkens). This is in sharp contrast to the Middle Bronze Age B, from which a large number of house sites are known (Fokkens 2001; this book, compare fig. 7.1 and 8.1).

4 Originally erroneously attributed to Maastricht (Butler 1973, 338; Abb. 15).

5 There are no metal analyses available for the finds from the southern Netherlands, but similar afunctional axe types from western Europe also often have a relatively high lead percentage,

making the casting too soft for the production of effective tools (Huth in press).

6 Verlaeckt (1996, 24), based on west Belgian finds.

7 In the first find report of this axe no mention was made at all of this axe coming from an urn. This was only remarked in later one. This leads one to suspect that somehow information from different finds was mixed up.

8 W.H.Th. Knippenberg 1959, *Brabants Heem* XI, 50.

9 Butler and Steegstra (1999/2000, fig. 7b: no 473) illustrate a find with preserved parts of the wooden shaft, indicating that this specimen was deposited in the condition in which it was during its use-life. Unfortunately, it is without provenance and we do not know whether it is from the southern Netherlands.

10 Table 8.1 lists all the spearheads which cannot be precisely dated. Although a large number of them are likely to date from the Late Bronze Age, there is no claim that all spears listed in 8.1 are of Late Bronze Age date!

11 The Maastricht-Bosserveld find is the only example of this early type. It is, however, a very old find, the reliability of which can be questioned. Moreover, its form is remote from the general type. For that reason, its determination as a Sprockhoff type I sword is not without problems (cf. O'Connor 1980, 104).

12 In the meantime, the sword has been bought by the museum of Antiquities of Leiden (RMO).

13 Compare for example the similarities in the hilt of the iron 'Hallstatt sword' from the chieftain's grave barrow 1 in Morimoine (Belgium; Mariën 1952, fig. 278b) with a bronze Gündlingen sword.

14 This information was provided to me by the finder, and P. van den Broeke. *Raaprapport* 155 (Haarhuis 1997) shows the location of a prehistoric residual channel close to the place where the pin was found. It can be assumed that it was this channel into which the two pins were deposited.

15 Van der Sanden (1981: grave 13a) recorded bronze beads being attached to skull fragments in the urnfield of St. Oedenrode. This suggests the use of beads for head dress.

16 The Scandinavian belt box in this hoard is characteristic for females in the Scandinavian regions from whence it came. In its content, this hoard is closest to what a personal set might look like (Huth 1997, 188).

17 Unfortunately, these have not been published.

18 In the archive of G. Beex, former provincial archaeologist of the province of Noord-Brabant, I found a note that these objects are from the urnfield 'Sint-Josephshof'. This would have been based on information by Bursch, unavailable to me. The patina of the finds seems irreconcilable with a burial context, but this conflicting evidence amply shows that we should be careful with drawing conclusions on the basis of this find.

19 Verlaeckt (1996, 29) mentions the find of two phalerae from the Scheldt near Schellebelle (west Belgium).

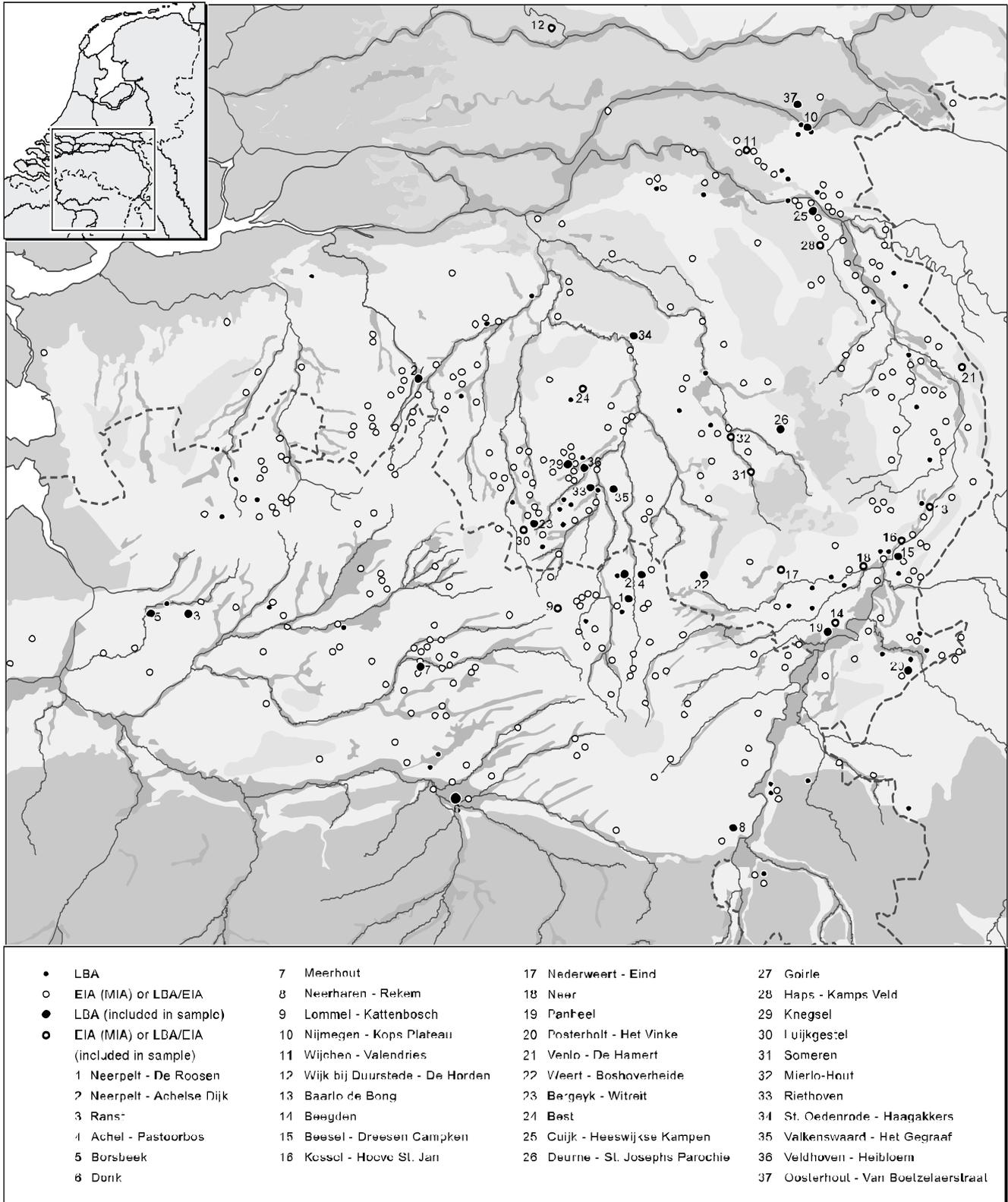


Figure 9.1 Distribution of all known Late Bronze Age and Early Iron Age urnfields (after Roymans 1991, fig. 21 with changes).

## Late Bronze Age and Early Iron Age: metalwork from burials

### 9.1 INTRODUCTION

The last chapter focussed on object deposition in natural places only. However, this was not the only field of practice where metalwork was deposited. Metal items figured in the burial ritual as well. This chapter will be devoted to this particular practice, thus serving as an important addition to the findings of the last chapter.

Although the urnfields from the southern Netherlands have received ample attention of old, the bronzes found in burials have generally been neglected (see Tol 2000b for an exception). The deposition of objects into a grave, however, raises significant questions on the nature of the urnfield burial ritual in our region. Some of these are fundamental to the present research. We shall focus on the following questions:

- What was this deposition of metalwork in graves? How frequently and at which stages of the burial ritual did it take place, and which objects were used?
- What did the deposition of burial gifts mean? Do graves containing metalwork contrast with other graves, and does this provide clues on gender and social roles of the individuals buried with metalwork?
- In what way does the deposition of metalwork in graves contrast with the deposition of metalwork in natural places that was described in the previous chapter?

### 9.2 DISCUSSION OF THE AVAILABLE EVIDENCE

Unfortunately, there is at present no complete catalogue of all urnfields from the southern Netherlands. In a recent survey, Roymans (1991) counted 371 urnfields from the region, 85 of which date to the Late Bronze Age only (fig. 9.1). An overview of these urnfields has been published by Gerritsen (2001). From the latter publications, it becomes clear that among these 371 urnfields there are urnfields from which no more than a few urns survive and urnfields that have been excavated almost completely. Among the not or only superficially published urnfields, there are important ones like the large urnfield of Weert-Boshoeverheide (Bloemers 1988), Neerharen-Rekem (De Boe 1986; Temmerman 2002; Van Impe 1980b) and several from Wijchen (unpublished). Even if urnfields have been published, the often crude excavation methods of earlier generations make it likely that not all of the often insignificant and breakable bronze items

have survived. In this study, some 268 burials with metalwork/or green discolourations on bone from probably 61 urnfields all over the region were assembled, ranging from the Late Bronze Age to the beginning of the Middle Iron Age (appendices 7.3 and 7.4).<sup>1</sup> The discussion will focus on the developments up until the Ha C phase (until *c.* 600 BC). Some urnfields (Haps, Nijmegen-Kops Plateau, Someren) contain rich graves of the later Ha D/La Tène A phases (graves with iron spearheads). These are listed here when they are present in the urnfields studied, but excluded from further discussion (see Ball 1999; Fontijn 1996; Roymans 1991). Modern, reliable physical-anthropological analyses of cremation remains from the Netherlands are available only for the Dutch Early Iron Age urnfields. Cremation remains from Belgian urnfields were analysed in the 1960s and 1970s but are now generally considered suspect (personal comment B. Temmerman). The lists in appendix 7.3 and 7.14 include bones with green discolourations as well, but since we are at present unable to see whether these are really the result of bronze grave gifts, they are included in the discussion on bronze deposition (see the discussion 7.13.3). This survey does not pretend to present a complete overview of the entire evidence on metalwork finds, but I assume that it covers the most general find categories.

### 9.3 THE URNFIELD BURIAL RITUAL AND THE PROVISION OF ARTEFACTS

Before dealing with the metalwork finds from graves, it is necessary to pay some attention to the urnfield burial ritual as a whole.

The urnfield burial ritual has three important characteristics. First, cremation of the body has become the most important way of treating the body of the deceased before interment. Second, the larger part of the community was buried in a collective cemetery, the urnfield, including both sexes and all ages, with the possible exclusion of new-born babies (Fokkens 1997). Since most were interred in an individual grave, often underneath a moundlet, and cemeteries were in use for centuries on, large urnfields developed. Estimation of population sizes for both Late Bronze Age and Early Iron Age urnfields suggests that the average urnfield is the burial ground of a relatively small community consisting

of 10 to 20 people, three or four farms (Fokkens 1997 and references cited therein). Third, many urnfields display a variety of burial monuments: flat graves, long barrows (Dutch: *langbedden*), and those enclosed by circular and rectangular ring-ditches. Only for the Early Iron Age, there is evidence for graves that contrast with others by their monumentality: the large long barrows of type Someren (Kortlang 1999), and the large circular mounds that cover the Ha C chieftains' graves (Roymans 1991).

After cremation, part of the cremated remains were collected from the pyre, and deposited in a shroud or urn. For all urnfields studied, far less than half of the burials in an urnfield contained artefacts. Most frequent are small pots or cups, the function of which is unclear: they may have contained food or drink, or oils that were poured out over the body before cremation. The largest number of such small pots recorded so far is in the large urnfield of Best (in 23 % of the preserved graves) and the small one from Maastricht (26 %). Bronzes clearly are the second-most deposited artefact. As table 9.1 shows, the frequencies of bronzes range from 19 % of the recovered burials to no bronze at all. This table is based on urnfields that yielded relatively large numbers of intact graves, and were almost completely excavated.<sup>2</sup> It is clear that metalwork items in urnfield graves are the exception rather than the rule. The single exception seems to be the (unpublished) Early Iron Age urnfield of Neerharen-Rekem, where almost any grave contains metalwork (Temmerman 2002). But as Temmerman's own survey of Belgian urnfields indicates, this cemetery is clearly

exceptional, and low frequencies like those shown in table 9.1 are the norm (Temmerman 2000, 84). Much rarer than bronzes are artefacts of iron and gold, stone, glass and flint. I have not carried out an exhaustive survey of the non-metal find categories, but their frequencies can be estimated at 5 % or lower. Iron objects are only known from Early Iron Age urnfields. Figure 9.8 shows that iron objects gradually replaced bronze ones, with iron becoming dominant only in the Middle Iron Age. As can be seen in the appendix 7.3 and 7.4, the metalwork items are generally ornaments and this also applies to the majority of the stone and glass objects.

#### 9.4 ORNAMENTS AND TOILET ARTICLES IN URNFIELD GRAVES

For the Late Bronze Age and Early Iron Age (Ha A2 until Ha C), the most recurrent metal ornament type are pins, followed by bracelets/arm rings, some of which are twisted, and some decorated. Also known are pendants and gilded rings (particularly from Early Iron Age context), spirals in different sizes and of different shapes, among them *Brillspirale* (Early Iron Age), bronze beads, and a few razors and tweezers. From Early Iron Age burials, there is evidence for pins and small rings carried out in iron instead of bronze. The material from these burials is often damaged by the cremation fire, and this makes many artefacts difficult to recognize.

##### *Pins*

Pins are not only the most recurrent artefact; they are also the ornament type that shows most variation in form. They

Site	Date	Graves	Bronze	%	Iron	%	Pots	%	References
Hilvarenbeek-Laaq Spul	LBA	67	3 (3)	4	-	0	8 (8)	12	Verwers 1975
Knegsel-Knegsels Heide	LBA(EIA)	63	3(2)	3	-	0	?(>2)	-	Braat 1936
Ranst-Ranstveld	LBA	25	5(4)	16	-	0	5(4)	16	Lauwers/Van Impe 1980
Bergeijk-Witrijt	LBA/EIA	23	2(2)	9	-	0	4 (3)	13	Van Giffen 1937
Best-Aarlesche Heide	LBA/EIA	44	18(8)	18	-	0	9(9)	23	Willems 1935
Donk	LBA/EIA	142	12(10)	7	2(2)	1	26(25)	18	Van Impe 1980
Esch	LBA/EIA	26	-	0	-	0	2(2)	8	Van den Hurk 1980
Goirle	LBA/EIA	49	2 (2)	4	1	2	3	6	Verwers 1996a of b
Nijmegen-Kops Plateau	LBA/MIA	38	5 (5)	13	20 (8)	21	2 (2)	3	Fontijn 1995
St.Oedenrode-Haagackers	LBA/EIA	41	17 (5)	12	-	0	1(1)	2	Van der Sanden 1981
Valkenswaard-Het Gegraaf	LBA/EIA	99	2	2	-	0	1	1	Brunsting/Verwers 1975
Venlo-De Hamert	EIA	94	9 (9)	10	-	0	19(19)	20	Holwerda n.d.
Beegden	EIA	19	-	0	1	5	-	0	Roymans 1999
Someren-Waterdael	EIA	72	-	0	6(3)	4	-	0	Kortlang 1999
Mierlo-Hout-Snippenscheut	EIA	49	1	2	2(2)	4	2(2)*	4	Tol 1999
Wijk bij Duurstede-De Horden	EIA	73	5(5)	7	1	1	-	0	Hessing 1989
Roermond-Musschenberg	EIA	139	35(27)	19	7(7)	5	13(12)	9	Schabbink/Tol 2000
Sittard-Hoogveld	EIA	91	1	1	1	1	11(11)	12	Tol 2000
Maastricht-Vroendaal	EIA	15	0	0	-	0	4(4)	26	Dijkman/Hulst 2000

Table 9.1 The frequency of bronze and iron objects within urnfields. Only those graves are included in which there is a possibility that grave gifts could have been preserved.

can be roll, vase, convex or biconical-headed (fig. 9.2). Pins with ribbed heads are also known, as are a few pins with decorated shaft. Although clearly meant to be seen, these pins are generally less conspicuous than most pins from the Middle Bronze Age B. They are generally interpreted as dress-fasteners as they generally seem to be too long to serve as hair pins. A pin from Neerpelt-Achelse Dijk (Belgium) is more likely to have been used as a fastener for a shroud than as an ornament (Van Impe 1995/1996, 30). It is unclear whether we are dealing with locally-made or imported objects. Most pin-types mentioned are known from more than one region (England, Belgium, northern France; O'Connor 1980, list 179, 181, 184, 185, 189). Nevertheless, these are all easy-to-make objects of a rather simple form, and it is likely that they were produced locally.



Figure 9.2 Fragments of pins from the Weert-Boshoverheide urnfield, coll. M. Heijmans: unit 'E' (scale 1:1).

#### *Bracelets and other rings*

Next in line are all sorts of rings. In view of their sizes, most have been used as bracelets, or as arm rings (fig. 9.3). Rings with a much smaller diameter are also known (fig. 9.4). Small rings have occasionally been interpreted as finger rings (Weert; Felix 1945, no. 451), but often the diameter of these rings seems either too large or too small for such a purpose (Hessing 1989: *Wijk bij Duurstede*, grave no 26). Some small rings may be interpreted as horse-gear (for examples:



Figure 9.3 Twisted bracelet from the Weert-Boshoverheide urnfield, coll. J.H. and P.M. Houben, no. 294 (scale 1:1).



Figure 9.4 Set of small rings from the Weert-Boshoverheide urnfield, coll. M. Heijmans: unit 'C' (scale 1:1).

fig. 9.4). With regard to the objects for which an interpretation as bracelet or arm ring seems most likely, it can be concluded that these objects are plain and very simple, without clear elements of display or decoration. They are sometimes twisted (fig. 9.3), and an occasional one has slightly everted terminals (Venlo-De Hamert no. 35). They are probably regional products. Occasionally, lavishly decorated bracelets are found, like the one from Neerharen-Rekem with its geometrical decoration (fig. 9.5, De Boe 1986). For this type of decoration, the only parallel known is a bracelet that was recently dredged up from the river Meuse near Lith (chapter 8). Exceptional are the penannular gilded rings, known from a few urnfields (O'Connor 1980, 215). These are rings of base metal covered with gold sheet. Their function is not clear: they seem to be too small to have served as bracelets. A fragment of a ring entirely made of gold comes from an Early Iron Age grave from Nijmegen-Kops Plateau (burial no. 88), and from Borsbeek where a fragment of a gold plate, a bronze bracelet fragment, and a small cup accompanied the gilded ring in grave 10 (Warmenbol 1988, 256). Gilded rings are dated to the Early Iron Age, or around the transition to this period and are seen as imports from beyond the region, probably Ireland or Britain, although north French examples are also known (O'Connor 1980, 215; Warmenbol 1988, 255). Warmenbol (1988, 255-8) has shown that these gilded rings are all from the richer graves, and are clearly exceptions among the general inconspicuous nature of most bronze rings and bracelets.

#### *Spirals*

It is hard to say something more on the variety of *spirals* recovered from burials. They are generally incomplete, and due to their fragile nature more damaged than other artefacts. The *Brillspiral* fragment from Roermond-Mussenberg grave no. 34 probably served as a brooch or belt ornament (cf. Verlaeck 1996, 28).

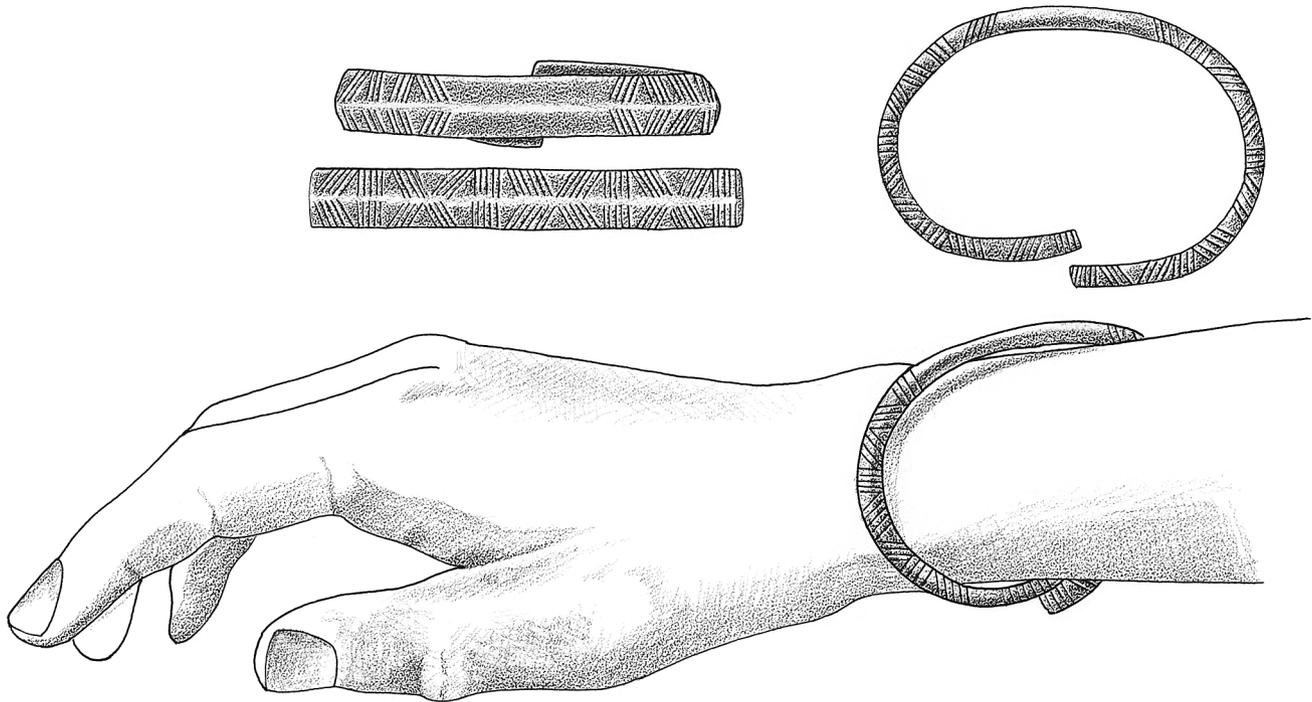


Figure 9.5 Decorated bracelet from the Neerharen-Rekem urnfield. Object drawing based on De Boe 1986.

#### *Pendants, necklaces and head dress*

A number of bronze ornaments were probably used as pendants. This is most clear for the small conical objects that have repeatedly been found in urnfields in the Kempen (both in the Dutch and in the Belgian part). A number of graves contained several of such objects, ranging up to 15 (Luijksgestel; fig. 9.6). To find the same type of object in such quantities is highly unusual for urnfield graves (cf appendix 7.3 and 7.4). It has been argued that these pendants were part of necklaces (fig. 9.7), placed on the body before cremation. Apart from a stray find (Cuijk) and one such pendant from a grave in Roermond-Mussenberg (no. 34), they are only known from urnfields situated in the Kempen (Best, Luijksgestel, Overpelt-Kruiskiezel, Achel-Pastoorbos, Neerpelt-Roosen). Associated finds date them predominantly to the Early Iron Age. A burial from the Meerhout urnfield (no. 7) also contained one comparable conical pendant. This burial may date from the Late Bronze Age as well. Such objects are unknown from other regions, and even in the southern Netherlands they are restricted to a small micro-region. We must be dealing here with locally-specific dress items. Some small socketed spirals, bronze and glass beads, and an occasional stone perforated amulet (Knegsel; Braat 1936, fig. 31) are examples of other types of pendants. This category includes some non-bronze ornaments as well. For all the pendants we are probably dealing with

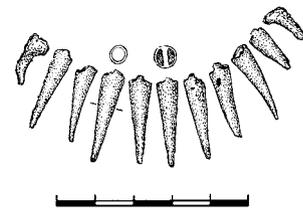


Figure 9.6 Burnt conical pendants from the Luijksgestel urnfield (scale 1:2).

remains of necklaces, although some can also have been tied to garments. An observation done by Van der Sanden made clear that there were alternative ways to decorate the body: he found seven small round bronze objects in one grave, one of which was attached to what probably was a skull fragment (St.-Oedenrode, grave 13a: Van der Sanden 1981: grave 13a). We might be dealing here with bronzes being part of some sort of head dress.

#### *Razors and tweezers*

Finally, in a few burials razors and tweezers have been found. These are generally seen as implements to adorn the male body (Treherne 1995). Three razors have a V-shaped notch and two of these also have a circular perforation in the centre of the blade. O'Connor has termed such razors 'Dutch bifid razors'. Warmenbol (1988, 252-5), however, has argued that

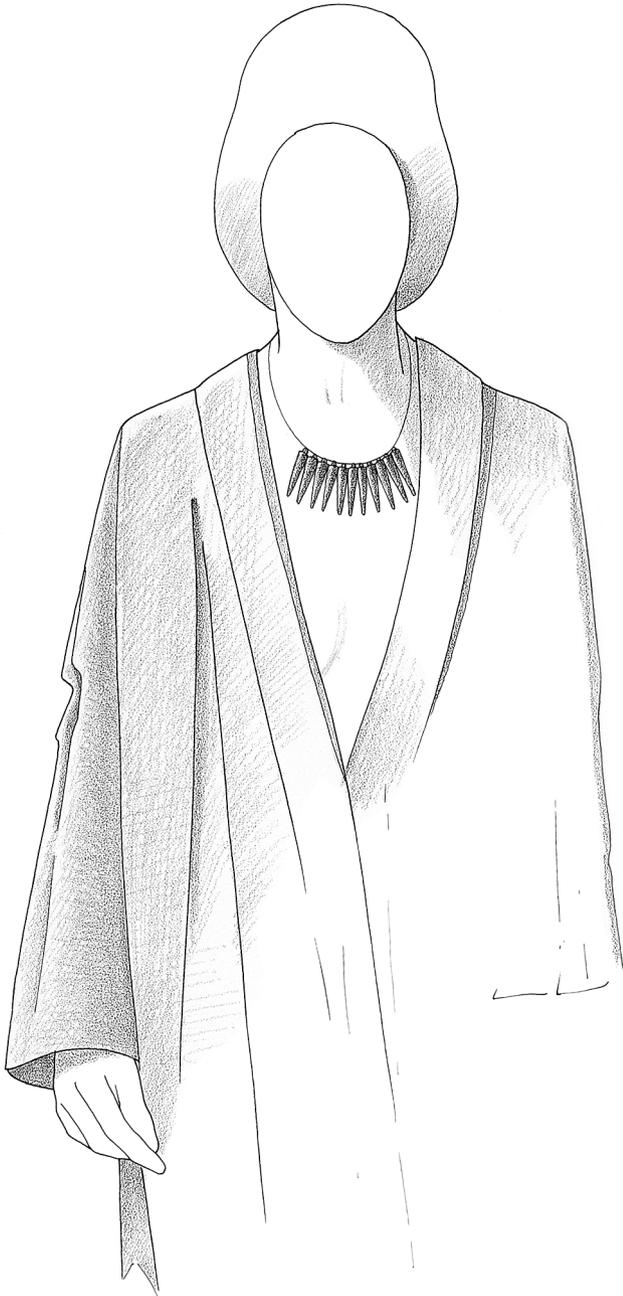


Figure 9.7 Reconstruction of the way in which the conical pendants might have been worn.

they are not so exclusively 'Dutch', but have good parallels in razors of the Havré group, mainly distributed over Britain and Belgium. The few tweezers known have an undiagnostic form. Associated finds (Goirle) date such razors to the Early Iron Age rather than the Late Bronze Age. O'Connor (1980, 219) considers the Deurne razor as an argument for an Ha B date, but the association between the pottery preserved from

this urnfield and this particular find is far from certain. Like gilded rings, razors and tweezers often come from the richer graves, but unlike Bronze Age warrior graves, which often contain tweezers or razors, these are not associated with weaponry (cf. Treherne 1995).

#### *Conclusion*

Summarizing, the following conclusions can be drawn. Ornaments deposited in urnfield graves are predominantly made of bronze. Only in the category of pendants do other materials figure. Urnfields from the Early Iron Age are known in larger quantities than Late Bronze Age ones. Therefore, the observation that pendants are predominantly known from the Early Iron Age does not necessarily indicate a change in the way the dead were dressed. Apart from pendants and the presence of iron ornaments (pins), there are no fundamental differences between Late Bronze Age and Early Iron Age metal ornaments. Ornaments are first and foremost pins and bracelets. As a rule, most objects are simple, plain ones, not lavishly decorated. It is therefore likely that most were made in the southern Netherlands itself. Conical pendants are the clearest examples of local products. Objects like the lavishly decorated bracelet from Neerharen-Rekem (fig. 9.5) or the gilded and golden rings may be imports, but these constitute a clear minority.

#### 9.5 DEPOSITION OF WEAPONRY

Other metal artefacts than ornaments and dress fittings are rarely found in burials. The most conspicuous exception are the prestigious sword graves from the Early Iron Age, which can be shown to be a burial equipment in their own right. These are the ones with Gündlingen swords (Gündlingen phase), and the later so-called Ha C 'chieftains' graves'. Other weapon graves are unknown, apart from a burnt spearhead and burnt flint arrowheads in the Donk urnfield (nos. 35 and 44 respectively; appendix 7.4), and a spearhead from Weert-Boshoeverheide (no find association recorded). The finds from Donk are most likely to date from the Early Iron Age rather than from the Late Bronze Age.

#### *Gündlingen weapon graves*

Gündlingen swords have already been described in the previous chapter (section 8.5.5; fig. 8.14; appendix 5.5). These swords were carried out in bronze but there are iron of comparable form and style as well. Both were deposited in rivers as well as in burials. The southern Netherlands have yielded evidence of probably seven burial finds. It is remarkable that in two cases (Weert-Boshoeverheide and Neerharen-Rekem) we are dealing with graves with a clear collective element. In Weert fragments of swords seem to have been found in three barrows, one of which was quite large (tumulus O; Gerdson 1986, 168). Tumulus O contained six individual graves, three

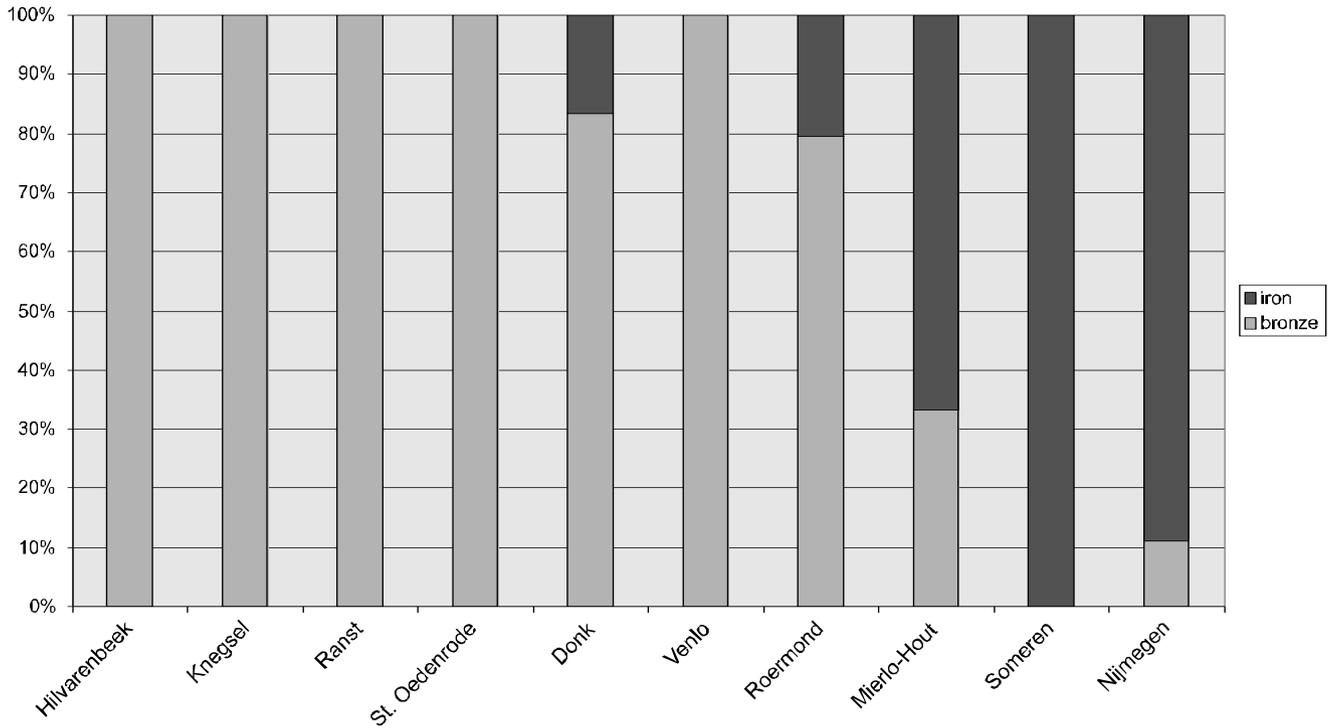


Figure 9.8 The relative frequency of bronze versus iron objects in different urnfield graves. (Venlo = Venlo-De Hamert). For the datings of the different urnfields see appendix 7.3 and 7.4.

of which were buried in extraordinary large urns. The urn from which the four fragments of a sword came was 45 cm high and 133 cm wide. In Neerharen-Rekem, three bronze spears and swords with two chapes were deposited in one grave (no. 72) which is said to have contained the remains of three individuals. In both Weert and Neerharen-Rekem we thus seem to be dealing with graves that are non-normative. There are examples of double burials in one grave, and in Beegden no. 22 the remains of no less than seven individuals seem to have been buried. A look at appendix 7.3, however, indicates that such multiple-burials are the exception rather than the rule. The Weert and Neerharen-Rekem graves as therefore not only exceptional for their grave gifts, but also because they are collective graves, whereas the majority of urnfield barrows are individual ones. In Maastricht-Vroenhof another Gündlingen sword was found. It is less clear whether the sword found was related to a grave of the nearby urnfield. Both the Weert and Neerharen-Rekem finds were broken/burnt and deliberately damaged. The weapon sets (sword-spearhead, or just a sword) do not basically differ from earlier ones encountered in hoards like the Overloon (Middle Bronze Age A) or Escharen (Middle Bronze Age B) hoard.<sup>3</sup>

#### *Ha C 'chieftains' graves'*

The designation 'chieftains' graves' is commonly used to refer to a group of graves in which iron (Mindelheim) swords were deposited, often together with prestige goods from the Hallstatt area: wagon parts (linch-pins, yokes), bronze vessels, and horse-gear (chapter 8, section 8.5.6; Roymans 1991). Besides these artefacts, it is also the size of the graves that sets them apart from others. Among these graves are the most monumental ones ever encountered in our region.

Like their bronze predecessors, the swords were also imported from far away, but this time probably from continental regions only (chapter 8). The sword from Oss, for example, was probably produced in southern Germany (Roymans 1991, 36). Among the differentiated group of graves with iron Hallstatt swords, a few graves stand out because of their burial sets. These contain elements of a four-wheeled wagon, a yoke, horse-gear, (bronze or iron) axes, and a bronze situla imported from central Europe. In the case of the bronze vessel, the wagon and the horse-gear, we are clearly dealing with categories of objects that have no precedents in the Bronze Age material culture of the region

(see the previous chapter and Roymans 1991, 59). Wijchen and Oss in particular are rich beyond comparison, and the monumental size of the Oss grave (diam. 52 m) testifies to its elite character, hence the designation ‘chieftains’ graves’. The horse-gear and wagon parts should probably be seen as related: draught animals for the four-wheeled wagon. The use of such wagons, with the lavishly decorated lynch-pins, is generally seen as ceremonial; they are unsuitable as true chariots (Pare 1991a: chapter 12). It has been suggested that such wagons relate to ideas about the journey of the deceased to the after-world (Roymans 1991, 202). What is important here, is that such an elite ideology is unprecedented, and firmly rooted in ideologies of the Hallstatt elites to the south from where these objects must ultimately have been imported. The local elites of the southern Netherlands thus seem to have referred explicitly to a non-local, elite warrior ideology.

The bronze vessels are also unprecedented in our region. In the Hallstatt region itself such vessels are always part of an entire drinking-service set, probably indicating the social significance of drinking bouts (Roymans 1991, 60). In the southern Netherlands, however, they were repeatedly used as urns. Although it is widely recognized that in central Europe hospitality, and hence drinking bouts, formed an integral element of the martial elite ideology (Diepenveen-Jansen 1999; Dietler 1990), this value may have been less important in the chiefly ideal that was constructed in the Dutch chieftains’ graves. At least, it was contextualized in a different way. Only in the Wijchen grave, the bronze vessel seems to have been deposited in a way more in keeping with its original Hallstatt meaning. Roymans (1991, 61) has demonstrated that here fragments of a bronze ribbed bucket were originally deposited in an urn now lost. There are other indigenous traits as well: cremation instead of inhumation, the *pars pro toto* character of the burial (only parts of wagons and horse-gear were deposited), and the deliberate destruction of most swords (compare the different treatment of swords in wet deposits and burials listed in appendices 5.4 and 5.5).

#### *Hallstatt C and the adoption of a new elite ideology*

Summarizing, we can say that the Ha C chieftains’ graves for a part linked up with already existing local notions and practices but their basic outline had been adopted from southern Hallstatt elite groups, and contrasted sharply with local ideas current in the burial ritual. We shall come back on this in chapter 11. Illustrating this, fig. 11.4 there shows the categories that are present in an average urnfield burial containing artefacts, in comparison with the categories present in a chieftains’ grave (fig. 11.5). It is conspicuous that in chieftains’ graves there is no evidence at all for the significance of body ornamentation that is so important in general urnfield graves. Even razors or tweezers, which seem

to be essential in Bronze Age warrior graves throughout Europe (Treherne 1995), are no longer present in the Early Iron Age weapon graves (see also Pare 1991a: catalogue).<sup>4</sup> The small pots repeatedly found in average urnfield burials do not have a counterpart in the chieftains’ graves either. On the other hand, the latter graves contain evidence for entirely new objects in the burial ritual: horse-gear, wagons, and large bronze vessels.

#### 9.6 STAGES IN THE BURIAL RITUAL AND THE INCLUSION OF ARTEFACTS

Above the most current metalwork finds in burials were introduced. We shall now try to make sense of their presence in burials. In order to do this, it is first necessary to find out how they got there. As the general burial ritual involves a complete destruction of the body (cremation), and a second phase in which the ultimate grave assemblage is constructed out of its scarce remains, this is not a redundant question.

#### *Dressing and burning the deceased*

The first phase involves placing the dead body on the pyre and leaving it there before the mourners set fire to the pyre. It is very well possible that the deceased was not lying there in his or her everyday clothes, but in a specific dress, with his or her body ornamented for the occasion. Shaving or hair-dressing may have been among the acts carried out (Treherne 1995, 121). There may have been funeral meals on the occasion of the cremation, and objects may have been placed next to the deceased on the pyre, as gifts, as part of a burial equipment. These acts all contribute to the specificity of the event, and to a specific ultimate portrayal of the deceased before he or she disappears from sight. Some of these acts have potential archaeological correlates: clothes will burn completely, but bronze parts of clothing will remain identifiable, although in melted condition, as will parts the meal (animal bones, ceramic vessels thrown into the fire or placed on the pyre). Bronze, stone or flint objects will –although burnt– survive the fire. These burnt objects are termed *cremation artefacts* (Roymans 1990, 219). To what extent bronze objects melt depends on their specific alloy, which is unknown for the material under investigation.

#### *Collecting the burnt remains*

The next step involves the collection of objects from the burnt-out pyre, in order to take it to a grave. In most cases, the pyre seems to have been in a different location than the grave where the remains were interred. Picking out human remains from the pyre heap may lead to incomplete retrieval. Interestingly, cremation analysis shows that for the Late Bronze Age and Early Iron Age only a part of the bones that remain after cremation was collected. Clearly, there was no intention to recover as much as possible, to the extent that

a completely recovered urns only contained one gram of bone (Fontijn/Cuijpers 1998/1999, table 2: grave no. 66). Apparently, it was the representative character of the collected remains that counted. The assembled pieces may have been considered as a *pars pro toto*, rather than a full rendering of the individual. The counter-argument, that the incomplete bone assemblages in graves are simply due to the fact that most bones become too small to be retrieved, can be refuted: only in special kilns built for the occasion, where temperatures of 1000 °C (Fontijn/Cuijpers 1998/1999, 53) can be reached, do human bones become no more than dust. There is no evidence that such large kilns could be and were constructed in prehistory. In an open pyre, temperatures hardly exceed 800 °C, and the characteristics of analysed bone are well in keeping with such temperatures (Fontijn/Cuijpers 1998/1999, 53). At such temperatures, cremated bone is deformed and cracked, but still of easily recognizable size. Incomplete collection of remains is therefore the most likely explanation for the underrepresentation of bones in graves, all the more so, as it is also in keeping with a recurrent observation concerning cremation artefacts: objects that can crack and break during heating, like bracelets or large rings, tend to be incomplete as well. Most burnt bracelets I have seen are incomplete. I therefore assume that the same *pars pro toto* attitude prevailed for cremation artefacts.

*Adding artefacts to the cremated remains: the final representation of the deceased*

The final stage where artefacts were added to the interment is when the collected remains were put in a container or a shroud. In view of their unburnt condition the small pots that are often found among the remains are such post-cremation artefacts, and so are the ceramic and glass beads, stone pendants, and many bronzes. For the latter, however, this is not always clear, since cremation can take place at temperatures that are so low (c. 600 °C) that bronzes do not melt. There are some examples of such low-degree cremations, but these seem to be exceptional. The general white colour of the bones indicates that temperatures were higher as a rule (Fontijn/Cuijpers 1998/1999, 53). At any rate, many bronzes must have been added to the grave contents after cremation had taken place. It is interesting to see that these are sometimes the same objects as presented on the pyre, like pins. This is an argument for the theory that the absence of bronze objects among cremation remains is not simply the result of incomplete recovery from the pyre heap (suggesting that it is well possible that every deceased wore bronze bracelets and so on, but that these were only occasionally recovered from the pyre remains). That objects were added *post*-cremation is an argument in favour of the view that it was apparently significant that the deceased was associated with this bronze object after cremation as well. Nowhere is

this more clear than in the case of tweezers and razors. As can be seen in appendices 7.3 and 7.4, some graves contain such toilet articles. As far as can be judged from the publications, these were never burnt, and therefore probably added to the grave after cremation. In the dressing and decoration of the deceased's body, a razor or tweezer makes some sense. As was remarked earlier, for some well-preserved Middle Bronze Age graves from Denmark it could be shown that the dead were indeed shaven before interment, and that the razor put next to the body still contained beard hairs (Treherne 1995, 121). We might expect the same for our Late Bronze Age/Early Iron Age razor graves. However, adding a razor when the deceased was already transformed into a small heap of bones makes less sense in terms of body treatment, and is more an argument for the theory that the act of shaving or picking out beard hairs (tweezer) had important cultural significance, emphasized in the incorporation of the razor in the final grave. This, of course, might well go together with the actual use of this razor to shave the deceased before his cremation.<sup>5</sup>

*Conclusion*

Considering the role of artefacts in relation to the stages in the ritual itself, their presence among cremated remains is generally more than the logical result of the fact that the body was decorated and dressed; ornaments and toilet articles were added to the cremated remains as well, implying that they were meaningful to the final representation of the deceased, and indicative of a specific social identity.

9.7 THE DECORATED DEAD

The items that were deposited in burials can all be interpreted in the sphere of the decoration and adornment of the body, and for that reason the objects are prone to be used in the construction and communication of social identities and differences (Sørensen 2000, 124). As set out in chapter 3, we must be dealing with people made to look like *particular kinds of persons*. It is important to realize that the image of personhood thus constructed relates to a highly specific occasion: the moment when the deceased, decorated and dressed, was placed on the pyre, just before the final transformation of his or her body. The deceased's appearance is a costume of death rather than anything else. With regard to post-cremation artefacts, we are again dealing with a special event: the bringing together of the final remains of what was once a living individual before these are hidden from view forever. The addition of body ornaments and toilet articles to a heap of cremated bones is an even better illustration of the symbolic significance of ornaments and personal appearances, for the ornaments were added to the body at a stage when there was no longer any physical appearance left.

If we accept this conclusion, the following question should be asked: since graves with ornaments and dress items are a clear minority, are we perhaps dealing here with a specific selection of people? It may be obvious that we are in a bad position to study such questions: after all, the metalwork fragments are the only surviving elements of what must have been an entire appearance (hair, tattoos, garments and so on). Also, information on the position of the ornaments on the body can be meaningful (Sørensen 2000, 135), but again such information does not survive the cremation process. Actually, only a few aspects of dress and body decoration can be studied archaeologically. Apart from the relative frequency of metal and other objects in urnfields, the presence or absence of ornaments may be related to age and sex. Given the variety of burial monuments, it can also be investigated whether metalwork was related to specific kinds of graves only (like long barrows, flat graves etc.).

#### *Frequency of graves with metalwork*

The relative frequency of graves containing metalwork varies considerably, as we saw earlier (table 9.1). Compare, for example, the Early Iron Age cemeteries of Mierlo-Hout and Roermond. From the 49 surviving interments in Mierlo-Hout, only one contained bronze, and two iron contained objects. Here, the urnfield was used for centuries, but bronze metal objects hardly seem to have played a role in the burial ritual. In the contemporary urnfield of Roermond, however, 19 % of the graves contained bronze objects. Although still a minority, this is more in line with a situation in which at least one deceased in every generation was burnt with metal body ornaments. On the other hand, even in the most metal-rich urnfields, such graves are a minority. It was already argued that this cannot be explained entirely by careless selection after the cremation alone; it was also a minority of the deceased that carried such ornaments.

#### *The relation between type of burial monument and provision of metalwork in the grave*

In urnfields where a variation of grave types exists, it appears that bronze-equipped graves are known from all sorts of graves. Only in the case of the Early Iron Age equipment with clear Ha C links, it is clear that these objects tend to come from large, monumental, round barrows (Oss, Horst, Baarlo).

#### *The relation between the presence of metalwork and the age and sex of the deceased*

The collected evidence does not show a straightforward pattern between the presence of metal in graves and certain sex/age categories (appendices 7.4 and 7.5). Both adults and children, and males and females alike were buried with bronze and iron goods. In general, however, adult graves predominate, and this indicates that in general adults carried

metal ornaments. This implies that such objects were at least related to individuals who had reached a certain, culturally meaningful, stage of life. But the pattern is far from clear. If we focus on the data from individual urnfields only, then it can be seen that in some urnfields both children and adults carry metal (Roermond for example), but that in others it seems to have been reserved for adults only (e.g. Weert-Raak).

With regard to sex we see the same. In general, more females had metal objects than males, but again the pattern is not unequivocal<sup>6</sup> (table 7.4). If we go down to the level of the individual urnfield, there are patterns, however. In Roermond, when sex is known, the (adult) deceased almost all appear to be females. In other cemeteries, however, we find both male and female graves containing metal objects. As suggested for age, the impression is again that the use of metal objects in graves differs between the individual urnfields (and consequently between the local groups these represent).

#### *Conclusion: the meanings of body decoration as a local, idiosyncratic phenomenon*

The available evidence does not suggest that pins, bracelets and rings in general had a fixed sex/age-specific meaning, in the sense of meanings shared by the different local groups in the southern Netherlands. The conclusion should be *that metal ornaments were used to express different ideas from group to group, and time to time*. This is not a negative conclusion! Rather, it seems to say something about the relative autonomous expression of ideas at the level of the local urnfield group itself.

Focussing on the level of the individual urnfield, what can be said about the meanings of ornaments in graves? Take for example the relatively metal-rich urnfield of Roermond. It is clear that most graves with bronze objects belong to females. Only one male grave has a fragment of a bronze bracelet, and this is quite an extraordinary grave in the entire urnfield because of its large ring-ditch (diameter 16). Among the female bronze-equipped graves, there are differences, however. No. 1, for example, contains spiral ornaments (pendants?) and a ring. The female from no. 39, however, was probably burnt wearing a bracelet and an earring. What may have happened here is that the attempt was not so much to differentiate women from men, but rather *to treat women in terms of differences among themselves*. After all, most women lack body ornaments, and among those with ornaments, the objects themselves are different. Sørensen (2000, 139-40) has observed a similar phenomenon from much better data for Middle Bronze Age graves from southern Germany. We can only speculate as to what motivated people to make such a differentiation between women. With the theory on the significance of personhood in mind, it might be ventured that it related to the achievement of particular life stages.

Sørensen (2000, 139) argues that such creations of different types of women was probably based on gender identities such as ‘distinctions made due to physical or ‘moral’ development, reproduction or ‘marriage’-like contracts’. In theory, similar differentiations might be brought out elsewhere by other means that are elusive to us (by garments alone for example). In other urnfields graves containing bronzes are from males only (appendix 7.4: Someren-Waterdael; Weert-Raak; Sittard-Hoogveld), or from both adults and young individuals (appendix 7.4: St.-Oedenrode; Wijk bij Duurstede).

#### 9.8 LOCAL AND SUPRA-LOCAL PERSONAL IDENTITIES

The use of objects in the construction of personal identities in graves was not entirely shaped in an idiosyncratic, local fashion. There are examples of conventions shared between different local groups as well. Evidence was found for shared ideas on two levels. The first is the use of a common, female dress, specific to a micro-region within the southern Netherlands. The second concerns a specific male warrior identity, that has clear and deliberate references to elite ideologies that were shared between entire regions.

#### *Female identities that were shared among adjacent local groups*

The above findings have so far pointed to the ambiguous and non-fixed meanings of pins, bracelets and rings in terms of sex and age. If the cremation analyses can be trusted, this seems less valid in the case of the conical pendants: the investigators argued that these are all from the graves of females (fig. 9.6 and 9.7). Three of the analysed specimens are from the same urnfield (Neerpelt-Roosen), one is from another, situated nearby. These objects stand out for other reasons as well: they are of a form typical for one area in the southern Netherlands only. Moreover, the conical pendants are in most cases not single goods; burials generally contain several of them. Clearly, the deceased had an entire necklace of such pendants. In this sense they are unique, and such bronze-ornamented necklaces can without any problem be termed ‘lavish’ among the general finds of urnfield graves in general, and, more specifically, with regard to finds of bronze pendants in a grave. There are more finds of such necklaces with several conical pendants; these are all from each other’s vicinity, situated in the Kempen around the present Dutch-Belgian border: Best, Luijkgestel, Overpelt-Kruiskiezel, Achel-Pastoorbos, Neerpelt-Roosen. Outside that region I found two examples, one a stray find (Cuijk), the other a single pendant from the Roermond urnfield.

We are dealing here with necklaces that are typical for a small area. On the basis of the existing cremation analyses it seems to have been part of a specific female costume, that had a shared meaning in this area. That the bronze-rich necklaces were part of the dress of a deceased in more than one urnfield is intriguing. Again, we are in no position to

arrive at a real answer, but what these finds make clear is the attempt of the mourners to adorn the body of a specific deceased woman with local products in a way only attested for a small number of neighbouring communities. Such a local, but shared, dress may reflect strong inter-communal ties and a feeling of identity. In practice, it may have come down to existing ties in the field of exchange of marriage partners for example, and the pivotal role of some women therein (in terms of their role of negotiators and/or object of exchange). In contrast with the highly idiosyncratic use of other ornaments, we seem to be dealing here with an example in which the use of ornaments in graves built on a shared understanding of a particular kind of personhood and female identity. Undoubtedly, there are similar examples for other object types with similar roles. In particular we could think of another rich grave set in which the gilded rings are the most conspicuous element. Like conical pendants, these are also repeatedly found in a number of adjacent urnfields, but further data on sex and age of the cremation remains associated with these objects is lacking so far.

#### *Ha C warrior graves and their references to non-local, ‘imagined’ communities*

In the case of the conical pendants, we might be dealing with the female identities that were shared among local groups. They were typical products for the micro-region of De Kempen and were not current in the entire region, let alone beyond. This does not apply to the male warrior burial sets we find in the Early Iron Age Ha C chieftains’ graves. The categories in the burial set are similar among different regions ranging from central Europe to the Netherlands (Pare 1991a). They refer to a highly specific elite ideology non-native in our region, on the deposition of parts of ceremonial wagons with draught animals and bronze vessels (drinking bouts) (Roymans 1991). Elements characteristic for European Bronze Age warrior appearances no longer play a role in the new warrior graves at all (sword-spear combinations, toilet articles and body ornaments), which underscores this deliberate otherness. The large dimensions of some of the burial monuments underline that these non-local, supra-regional identities are equivalent to elite identities (Roymans 1991, table 4). Throughout this book, we have seen different examples of the construction of identities that were clearly similar to those of other regions, starting off with the Bell Beaker burial set (chapter 5). It was argued that persons were conceptualised with references to non-local, imagined elite communities, and the Ha C graves involved here would perfectly fit in such a view. In most cases, these identities were male warrior identities. The Ha C graves seem to be the most outspoken argument that such identities were primarily chiefly ones, as these are the only examples

where such warrior identities were constructed on more than one occasion in an individual grave of true monumental size.

#### 9.9 CONCLUSIONS

With regard to the questions posed in the introduction to this chapter, the following conclusions can now be drawn.

##### *The low frequency of object deposition in burials*

Although artefacts from burials are known from the Late Bronze Age and Early Iron Age in much larger quantities than before, still only a small number of graves was provided with them. They are predominantly small pots, followed by bronze items and, in the Early Iron Age, by iron ones. The majority of the bronzes are plain, simple items that were probably made locally. Golden, glass and stone objects are also known, but in much lower frequencies.

##### *Ornaments and dress fittings: costumes of the dead before and after cremation*

The metalwork and glass, gold and stone objects are in the first place body ornaments (bracelets, rings, pendants for necklaces), dress fittings (pins) and toilet articles. In the Early Iron Age, bronze and iron swords were also deposited in graves, the latter sometimes in association with elements of wagons, horse-gear and bronze vessels (the Ha C ‘chieftains’ graves’). Metalwork was both part of the death costume of the deceased on the pyre, as well as added to the remains after the cremation had taken place.

##### *Burial goods and the construction of personhood in graves*

It was argued that the metal ornaments, pins and toilet articles were instrumental in the construction of personhood. The precise meaning of these appearances escape us, but there are indications that they sometimes served to make differentiations between particular kinds of females. In general, the meanings of the ‘decorated dead’ seem to have been idiosyncratic to the local group only, since their age and sex associations differ from place to place. Shared conventions on the representations of specific female identities have only been recognized at the level of a micro-region (the conical pendants as a typical dress for the Kempen), but not for the entire region, let alone the supra-regional level. The contrary is true for the male identities that were constructed in the Early Iron Age warrior graves. Particularly in the case of the ‘chieftains’ graves’, deliberate references are made to a non-local, central European ideology.

##### *Selections: ornaments placed in burials versus those placed in natural places*

In the Late Bronze Age, bronze ornaments and dress fittings were also deposited outside burials: in rivers and multiple-

object hoards. Although there are types that figure both in graves and in rivers/hoards, like some ornaments, pins and Gündlingen swords, there are differences as well. Among the deposits from natural places there are finds that are clearly absent in urnfield burials: high quality, non-local ornaments, sometimes even of a ceremonial nature (chapter 8: female ornaments in Plainseau hoards, *Bombenkopfnadel* and male warrior identities). For the Late Bronze Age, selective deposition thus seems to have been practised to the effect that items associated with non-local appearances, related to both male and female social roles, were kept out of urnfields. This situation changes entirely in the urnfields of the Early Iron Age, with the new, non-local elite ideology displayed in the ‘chieftains’ graves’. Here, there seems to be no longer a female counterpart, however.

## notes

1 For badly documented urnfields like Deurne St. Josephs parochie or Weert Boshoverheide, individual find numbers are counted as belonging to one individual grave. Whether this reflects a prehistoric reality can no longer be inferred.

2 Van Ginkel (1982) and Tol (2000) published more or less similar tables, based on a smaller but overlapping number of urnfields. There are slight differences between the percentages published there and mine. Reason for this is that I only counted those graves where metal objects could potentially have been preserved. Ring-ditches where the central interment is missing are excluded. In Mierlo-Hout, for example, 165 grave monuments were observed, but only 49 contained remains of the interment. Furthermore, there is uncertainty about the data of old excavations: was every pot published as ‘urn’ really a container of cremated remains? In Best we are dealing with excavated remains, and therefore I assume that pots described as ‘urns’ were indeed used as such. In Valkenswaard and Goirle, I also included ‘urns’ from older and low-quality excavations. There is a risk that small bronze finds from these urns have not generally been recorded. The problems with the older excavations are, however, counterbalanced by the better data of the recent ones, which do not show basically different frequencies of metalwork.

3 Only in the case of Neerharen-Rekem have the cremation remains been analysed. These are interpreted as those of two males and one female (Van Impe 1980b: no. 72). Three individuals in combination with three swords would suggest that we have an argument to suppose that sword-bearers were not just males, as is generally assumed, but include females as well. However, the reliability of the physical-anthropological analyses carried out here has recently been questioned, so we had better not use them in the discussion.

4 It should be remarked, however, that a badly preserved iron blade from the chieftain’s grave of Oss, traditionally interpreted as a knife, may also be interpreted as a razor blade.

5 Some metal objects may then also relate to the fastening of a (hypothetical) shroud into which remains were collected. Van Impe claims that the position of a bronze pin in the urnfield of Neerpelt-Achelse Dijk (grave no. 20) indicates that it was used as some sort of shroud fastening (Van Impe 1995/96, 30). The fact that

many pins were found in urns can taken as an argument that most pins were something else than shroud fasteners. When an urn is used, a shroud seems unnecessary, unless cremation remains were always first collected in shrouds and later put into an urn. Even then, the presence of many burnt pins implies that pins as a category were as a rule used for other purposes.

6 There are too few data on iron finds to investigate whether iron was a sex-specific metal. I treat iron and bronze together here.

**PART III**

**UNDERSTANDING SELECTIVE DEPOSITION**



### 10.1 INTRODUCTION

The question central to the present study is to see whether a general practice of bronze deposition existed in the Bronze Age of the southern Netherlands, and if so, whether it was a system of selective deposition. From the evidence presented in the previous chapters, it may be clear that both questions can be answered in the affirmative. In part II of this book, the evidence from different periods was treated separately for pragmatic reasons. If we want to make more sense of the phenomenon of selective deposition, it is now necessary to treat depositional practices from a more encompassing, long-term perspective. This will be done in this last, third part of the book.

In the present chapter, I shall summarize the main patterns that can be recognized in depositional practices. It will deal with the following questions:

- what were the general characteristics of this practice of deposition?
- how was it structured? (Which objects were placed in which locations?)
- what were the main developments in the practice through time?

The findings of this chapter provide the structure for the next thematic chapters. In this chapter, the argument will be made that in order to make sense of object deposition that is selective, we should understand objects from the meanings they acquired during their life. What seems to have been the case is that particular kinds of objects followed particular life-paths, finally ending up in different types of deposition. It will be established that in making sense of these differences, we should distinguish between objects whose use-life was related to:

- 1 the constitution of personhood/ the construction of personal identities (weapons and body ornaments);
- 2 the construction of communal identities (axes and other tools).

### 10.2 SOME GENERAL CHARACTERISTICS OF METALWORK DEPOSITION

I shall begin the discussion by briefly summarizing what seem to have been the main characteristics of metalwork deposition throughout the entire period studied. General statements

can be made on the location in which deposition took place, on the characteristics of the objects deposited, their treatment before deposition, and on the rate at which depositions was practised.

#### *Depositional location*

Deliberate deposition of metalwork in the southern Netherlands that was intended to be permanent generally involved placing or throwing a bronze (or copper) object in a *watery* location in the landscape.<sup>1</sup> This contextual evidence is based on provenanced finds. For almost every period, there is also a large number of finds with unknown find context, however, usually ranging up to 50 %. In addition, we have seen that the majority of the unprovenanced finds also carries a wet context patina. It should be remarked that this preference for wet places existed for the entire period under study and can thus be seen as an essential characteristic of depositional practices.

This appreciation of wet locations for object deposition is very general in north-west Europe as a whole (Harding 2000, 329-30), and was probably based on shared religious ideas. The term ‘wet’ locations, however, conceals a wide variety of locations. Fig. 10.1 lists the types of locations recognized for the study region. They probably represent a simplified categorization of place-types, reflecting prehistoric categorizations that were much more subtle. In another chapter we shall take a closer look at what these places were (chapter 14). For the moment it suffices to mention just one general characteristic: most depositional locations are situated in uncultivated, ‘natural’ places in the landscape.

Although depositional locations were pre-dominantly wet places, throughout the Bronze Age, other locations were in use as well: dry places, settlements, burials, burial mounds (fig. 10.1). The number of bronzes deposited in graves is generally small (tables 10.1 and 10.2). It seems as if bronzes were preferably not deposited in burials (either cremation or inhumation). It is not until the Late Bronze Age that bronzes are known from burials in large numbers. In chapter 9 it was argued that this ‘rise’ in burial deposition should be placed into perspective by realizing that the Late Bronze Age is unique because it is the only period of the Bronze Age for which we have evidence of the burial grounds of entire local

<p>Place-types</p> <p><i>Major rivers</i></p> <ul style="list-style-type: none"> <li>– Near the confluence of rivers</li> <li>– Near a high hill overlooking the river plain</li> <li>– At a place where one can cross the river</li> <li>– In marshy riverplains/ backswamps</li> </ul> <p><i>Streams</i></p> <ul style="list-style-type: none"> <li>– Near confluences</li> <li>– At a place where one can cross the stream</li> <li>– Where they spring from marshy areas</li> <li>– Away from settlements</li> <li>– On a hillock in or near a confluence of streams</li> </ul> <p><i>Peat bogs</i></p> <ul style="list-style-type: none"> <li>– In small marshes near streams</li> <li>– Near the fringes of large bogs (the Peel bog)</li> <li>– In marshes near steep ridges</li> </ul> <p><i>Dry places</i></p> <ul style="list-style-type: none"> <li>– At high points, commanding a fine view of the area</li> <li>– Halfway the slope of a steep ridge</li> <li>– Idem, near a source</li> <li>– Near a watershed</li> <li>– On a high plateau with gullies seasonally discharging rain water</li> <li>– In positions peripheral to cemeteries and settlements</li> <li>– In uncultivated zones, near settlements</li> </ul> <p><i>Cultivated areas</i></p> <ul style="list-style-type: none"> <li>– In burials</li> <li>– In burial mounds</li> <li>– At farmyards in pits or on the surface</li> <li>– In or on the house</li> </ul>
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Figure 10.1 Types of places where objects were deposited.

communities. For earlier periods, we only know burials of a tiny percentage of the original population (10-15 % or less). Moreover, I argued that within every urnfield only a minority of burials contained bronzes (15 % or less). Summing up, we see that burial deposition in the Late Bronze Age is just as exceptional as it was before. In section 10.6, I shall return to the theme of burial deposition since it displays one important characteristic: it is selective.

#### *Characteristics and treatment of the objects*

For the finds of every single period studied here, I argued that the majority of the objects deposited had been used. Use traces were best detected on axes, spears and swords. From this we can deduce that the life-path of the object apparently mattered for its selection for deposition. They

were certainly not just symbolic items whose importance lay in the exotic character of the material bronze. The few examples of unused items are the exceptions that prove this rule (the Plougrescant-Ommerschans dirk from Jutphaas or the *Vielwulstschwert* from Buggenum, chapters 6 and 8 respectively). Apart from that, we have also seen that a great number of objects must have been imported from far, even at a time when metalworking was practised at some scale in the region itself (chapters 7 and 8). Consequently, an history of circulation must have been another essential element of the life-path of many objects. Both findings are in line with the theory on the significance of the cultural biography of objects, in which objects are thought to accumulate meaning in the course of a life (chapter 3). We are dealing with objects that were made, exchanged, used and at a certain point in their life some were selected for deposition.

The most general kind of object deposition seems to have been deposition of a single object (*Einzelstückhorte*). Multiple-object hoards are relatively rare when compared with evidence from Denmark or southern Germany. With regard to the emphasis on single deposits, the Southern Netherlands are comparable to the northern Netherlands, west Belgium, and the adjacent western part of middle Germany (Essink/Hielkema 1997/1998; Verlaeck 1996; Kibbert 1980; 1984). With the single exception of the northern Netherlands, however, all these regions are also characterized by huge numbers of bronzes deposited in major rivers (Rhine, Waal, Scheldt, Meuse). We cannot rule out that river deposits involved mass deposition of items at one occasion, comparable to multiple-object hoards in other regions.

A conspicuous characteristic of deposition in our region for the entire Bronze Age is that objects were as a rule not broken, burnt, or otherwise destroyed. There are a few indications that objects such as axes, spears, or swords were deposited with their shafts or at least a part of them. See for an example fig. 10.2. Although deposition is often seen as a way of destruction (for an example: Rowlands 1993, 142), it rather seems as if the object was deliberately preserved, comparable to the ways in which they were treated in use-life and gift exchange. In this light, another empirical observation should be added. Particularly for deposited spears and axes it is noteworthy that their edges are often sharpened. From this it follows that before deposition, many objects were prepared *as if for use*. This is in contrast to what we see in the rare cases of deposition of objects in graves. Here there is evidence that the axe shafts were removed (chapter 6: the Alphen find), or that objects were burnt or bent (the Pulle hoard: chapter 8; urnfields: chapter 9).

#### *The rate at which deposition took place*

Deposition of metalwork is relatively rare during the Late Neolithic and Early Bronze Age. It becomes a more regular

Object type	Wet			'Dry'	Dry		Totals
	Major river	Stream/marsh	'Wet'		Burial	Settl.	
<b>Weaponry</b>							
Dagger/knife	-	-	-	1	10	-	11
<b>Ornaments</b>							
Bronze	-	-	-	-	2	-	2
Gold	-	-	-	-	4	-	4
<b>Ceremonial</b>							
Halberd	1	-	-	1	-	-	2
Double axe	-	-	-	1	-	-	1
<b>Tools</b>							
Axe	6	11	6	4	-	-	27
Awl	-	-	-	1	1	1	3
<b>Unfinished</b>							
Ring	-	-	-	4	-	-	4
Ingot	-	-	-	1	-	-	1
Rivet	-	-	-	2	-	-	2
Sheet metal	-	-	-	4	-	-	4
Rough bar	-	-	-	1	-	-	1
<b>Totals</b>	<b>7</b>	<b>11</b>	<b>6</b>	<b>20</b>	<b>17</b>	<b>1</b>	<b>62</b>

Table 10.1 Metalwork objects from the Late Neolithic B and Early Bronze Age in the southern Netherlands (single finds and from hoards). For the Late Neolithic objects, finds from the adjacent part of the central Netherlands are included as well (cf. table 5.1). Only contextualised finds are listed. 'Dry' includes the objects from the Wageningen hoard.

Object type	Wet			'Dry'	Dry			Totals
	Major river	Stream/marsh	'Wet'		Burial	Mound of barrow	settlement	
<b>Weaponry</b>								
Arrowhead	2	-	-	-	2	-	1	5
Dagger	5	2	2	-	-	-	2	11
Sword	50	8	8	-	14	-	-	80
Spear	38	28	10	5	6	1	2	90
Weapon axe	3	1	5	-	-	3	-	12
<b>Ornaments</b>	<b>17</b>	<b>2</b>	<b>11</b>	<b>21</b>	<b>102</b>	<b>-</b>	<b>10</b>	<b>163</b>
<b>Ceremonial</b>								
Pin	2	1	-	-	-	-	-	3
Sword	-	1	-	-	-	-	-	1
<b>Tools</b>								
Awl	-	-	-	-	-	-	3	3
Axe	70	70	53	127	9	-	-	329
Chisel	-	-	3	-	-	-	2	5
Knife	3	-	-	-	2	-	-	5
Gouge	-	-	1	-	-	-	-	1
Mould	2	-	-	-	-	-	-	2
Sickle	2	3	3	2	-	2	6	18
<b>Totals</b>	<b>194</b>	<b>116</b>	<b>96</b>	<b>155</b>	<b>135</b>	<b>6</b>	<b>26</b>	<b>728</b>

Table 10.2 Metalwork finds from the Middle Bronze Age and Late Bronze, up until the Early Iron Age Ha C phase (single finds and objects from hoards). Including contextualised bronze, iron and gold objects (cf. Table 6.1; 7.1; 8.1). Of the urnfield metalwork, finds from urnfields which were founded in the Early Iron Age are excluded, but swords, spears and axes from the Gündlingen phase and Ha C chieftains' graves are included. Nick-flanged and Grigny axes are considered as 'weapon axes'; objects from 'wet' or 'dry' hoards in tables 6.1, 7.1 and 8.1 are listed under respectively 'wet' and 'dry'.



Figure 10.2 Spearhead from Beugen with wooden shaft preserved (l. 26 cm).

phenomenon from the Middle Bronze Age A onwards, gradually increasing throughout the later part of the Bronze Age, with a conspicuous peak in the last phase of the Late Bronze Age. It decreases dramatically in the Early Iron Age (fig. 10.3). Fluctuations within the Middle or Late Bronze

Age deposition rate as known from other regions are not discernable, but this is due to the long dating ranges of most object types (cf. Verlaeckt 1996, 45; fig. 12 and 13). The trend of increasing deposition rates throughout the Bronze Age is general for north-west Europe, and is assumed to reflect the steady increase of metal supply (Huth 1997). A more appropriate observation is that what we see is basically the increase in *depositional* practices, and hence, the social significance of deposition. On the basis of the objects come down to us from the Late Neolithic-Early Bronze Age period, the average rate of deposition would imply that one deposition was made somewhere in the region within a period of 10 years (burial and settlement finds excluded).<sup>2</sup> If we count the Wageningen hoard as one deposition, we even arrive at the estimation of one deposition within a period 14 years. For the Late Bronze Age-beginning Early Iron Age, this would be almost one deposition a year.<sup>3</sup> Although these figures are no more than averages based on an undoubtedly incomplete record (there are hundreds of finds without context known!), the point can be made that in the early phase it must have been a practice that took place only very rarely. For the Late Bronze Age, it must have occurred more frequently, but even then it was not a very regular practice. The following calculations may illustrate

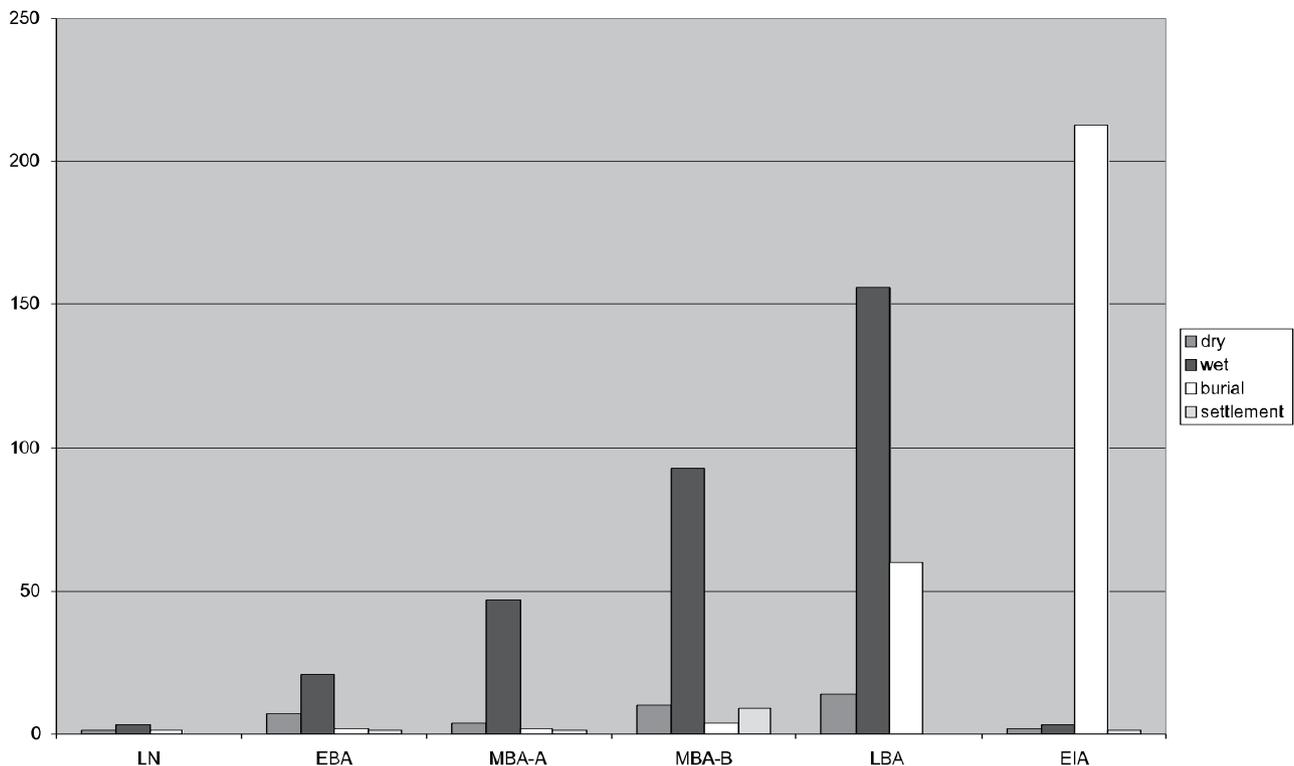


Figure 10.3 The frequency with which depositions were carried out through time. Multiple-object hoards are counted as one deposition.

this. For the Late Bronze Age Roymans (1991) recognized 85 urnfields in the southern Netherlands. Let us assume that these represent the 85 local communities that were originally living in the southern Netherlands during the Late Bronze Age, and take this period to last 350 year. If each community deposited an object once a year (burials excluded), for the entire LBA, 29,750 objects must have been deposited. If each community did this once in a generation (25 years), then we arrive at 1190 deposits. The number of contextualised finds that must represent deliberate deposits recognized in this study for the Late Bronze Age, however, is approximately only 200 (multiple-object hoards counted as one). This is still in no proportion to the calculated 1190 deposits, implying that in the Late Bronze Age it was a rare, infrequent practice as well. For a more realistic understanding, we should take into account that the majority of deposits comes from the same stretches in major rivers and the adjacent valley, whereas much less are known from micro-region in the centre of the region. Deposition was probably not practised with the same frequency everywhere, and it is probable that the intensity with which the communities from the Meuse valley in Midden-Limburg practised it comes closer to the estimate of one deposition within a generation than the frequency of deposition in the central part of the southern Netherlands.

### 10.3 THE LONG-TERM PATTERNS OF SELECTIVE DEPOSITION

In the previous chapters, the analysis of the evidence led me to conclude that for every period studied a form of selective deposition existed. The most convincing patterns were found for the later periods (Middle Bronze Age B and Late Bronze Age). The low number of metalwork finds for the Late Neolithic B and Early Bronze Age makes the depositional patterns harder to evaluate. Fig. 10.4 summarizes the long-term developments in depositional practices.

If we compare the tables listing the contextual associations of types of objects which were made for every period (tables 5.1, 5.2, 6.1, 7.1 and 8.1), there appears to be a remarkable similarity. For example: swords predominantly come from major rivers, and are conspicuously lacking in burials, even in the most monumental ones. This is true for the period of their introduction (Middle Bronze Age A) until the end of the Late Bronze Age. Such strict long-term associations between an object and a particular type of context indicate a system of selective deposition that was remarkably unchanging. Combining the evidence of the separate periods, two summarizing tables can be made: one listing the depositional evidence for the Late Neolithic B and Early Bronze Age (table 10.1), and another one combining that of the Middle Bronze Age A until the Late Bronze Age. Because of the much higher number of finds, the latter is the most convincing one. For that reason, I shall now restrict myself

to the patterns of the Middle and Late Bronze Age listed in table 10.2.

One obvious conclusion is that in spite of the fact that it summarizes the evidence from a period of some 1000 years, the picture is remarkably consistent. For example: both in the Middle Bronze Age A, Middle Bronze Age B and in the Late Bronze Age, axes and spears were deposited all over the region in considerable numbers, but this was hardly ever in graves. Virtually all swords and axes from burials listed in table 10.2 date from the Early Iron Age. Therefore we can say that *with regard to the preference for placing specific objects in specific places*, selective deposition thus seems to have been an extremely conservative practice. This certainly does not imply that it did not vary in other factors, like the number of people involved, or the way in which the whole act was performed (cf. Bradley 1998, 89). The traditionality in the selection of the location is particularly clear from zones where in the course of time objects were repeatedly deposited. Zones where swords were deposited in rivers often continued to be used as such for centuries onwards. From this we can deduce that there was a generally shared understanding as to what was the proper place to deposit swords, transmitted from generation to generation. It was apparently the historicity of the place that mattered.

Following the patterns compiled in tables 6.1, 7.1, and 8.1, summarized in table 10.2, it is possible to infer some of the 'rules' that structured the selection. These are as follows:

- 1 Axes, sickles and weapons were not deposited in graves, but elsewhere. The large number of graves known and excavated for both the Middle and Late Bronze Age makes it quite certain that the lack of such objects in graves represents evidence of absence, rather than absence of evidence.
- 2 Swords seem to have been deposited predominantly in major rivers.

Other 'rules', of a more tentative nature, are:

3. Metalwork deposition on farmyards or in houses occasionally took place. It was particularly the deposition of sickles that is a recurrent practice in this context. Axes do not seem to have been deposited on farmyards (only attested for Middle Bronze Age B; table 7.2).
4. In the deposition of body ornaments and bronze dress items, a distinction is made between lavish ornaments of supra-regional styles and locally made and/or inconspicuous ones (tentatively for the Middle Bronze Age B, more outspoken for the Late Bronze Age).

### 10.4 SELECTIVE DEPOSITION AS AN INDICATION THAT DIFFERENT OBJECTS HAD DIFFERENT MEANINGS

How are we to understand these patterns of selective deposition? What, for example, was so specific about swords that they were preferably deposited in rivers? Why was



Figure 10.4 Chronological developments in the practice of deposition.

a distinction made between axes and sickles with regard to their deposition in farmyards? Why were weapons and axes so rigidly kept away from graves? The answer, I think, should not be looked for in their character as a 'thing' (a tool or a weapon), but rather in the way in which they as things had merged with and contributed to the lives of people and *became meaningful as such*.

In chapter 3, I made a distinction between objects that are merely things and objects that are meaningful and to some extent like persons. Things or commodities are mutually exchangeable and alienable. Seeing objects as commodities is a system in which an axe can for example be considered equivalent to two spears on the basis of the mass of metal it represents. In gift exchange, things become imbued with former owners, acquire specific meanings and hence become

personified and inalienable (chapter 3). Therefore an item in one sphere of gift exchange is not easily convertible to another one (chapter 3). In gift exchange, an axe can be considered as incomparable to a spear because it is considered to carry totally different meanings. A system of selective deposition, in which specific kinds of objects are deposited in specific kinds of places only, testifies to the latter situation: objects are rigidly kept apart from other kinds of objects and from specific types of contexts. This must have been in situations in which objects are not merely things, but in which they carry *specific and different meanings*. From this it follows that a scrap hoard represents the other end of the continuum. Here objects no longer possess the specialized meaning that we can infer from their role in selective deposition. Scrap hoards consist of broken pieces of any kind of object:

pieces of swords, ornaments or axes can be present in the same hoard. This is a situation in which different objects were not kept separate, but treated alike (broken up and collected in one pile of metal, see Bradley 1990, 121).

Having now established that selective deposition testifies to a situation in which different objects carried different meanings, the question forces itself upon us as to what kind of meanings those were (cf. the discussion in chapter 3)? In view of the long-term stability of this system of selective deposition in both spatial and temporal terms, such meanings must be understood as deep-rooted, and based on widely shared, cultural understandings of the life-cycles of objects. The patterns of selective deposition mentioned above are thus about widely shared understandings on the generalized cultural biographies of objects. For such biographies to have existed, they must be rooted in fundamental ideas and values of the society in question. The observation that for centuries on swords have life-cycles ending up in a specific kind of deposition, implies that swords as a category were seen as having prime value at the start of their biography, and that there were culturally-specific expectations as to what would be the appropriate further life-cycle. Here it should be emphasized that archaeologically, we only see a limited part of the cultural biographies of swords: those ending up in depositions.

#### 10.5 HOW OBJECTS BECAME MEANINGFUL: THE SIGNIFICANCE OF THEIR CULTURAL BIOGRAPHY

The realization that selective deposition reflects a system in which different objects carried different cultural meanings, should now be related to the empirical observation that most deposited objects show signs of a use-life and/or a life of circulation. The conclusion should be that this life mattered for its selection for deposition (section 10.2). Thus, object deposition was not just a ritual act in which the meaning of the objects was established (meaning through performance, Gosden/Marshall 1999). Rather, we are dealing with deposition as the culmination of an entire *cultural biography* (chapter 3). Therefore, it is to the kinds of life-paths that we should turn. When objects become meaningful to people, what kinds of biographies are we then dealing with? I shall now repeat a distinction made in chapter 3, because it seems to be applicable to the evidence at stake. The distinction is between objects with a biography related to the construction of personal identities and those more related to communal identities.

In the first case, objects are used in marking the life stages of individuals, and hence in signalling social roles and statuses. Here, *objects are the paraphernalia of a specific kind of personhood*. These are often objects related to appearances (dress, ornaments, bodily adornment, Sørensen 2000, chapter 7). Ethnography shows that such objects are

often related to the achievement of a specific stage in the personal life-cycle (e.g. marriage, Corbey 2001; Platenkamp 1988). The objects are thus inextricably linked to a stage of personhood (Bazelmans 1999). The biography of such objects is about their life, and their entanglement with the biography of individuals. With regard to the Bronze Age data we see that there are arguments to suppose that biographies of bronze body ornaments, dress fittings and weaponry should be seen as related to the construction of such personal identities.

In the second case, the life of objects is seen to be metaphorically linked to *communal, collective identities*. These can be a wide variety of items, ranging from ceremonial objects to 'down-to-earth' tools. In the present case, axes and some other tools seem to have been valued in this field.

In both cases, I already precluded to the further discussion by mentioning which kind of Bronze Age object categories would belong to which kind of life-path, but I have not yet made it clear why the deposition of axes should be primarily understood from the point of view of their links with communal rather than personal identities. This will be worked out in detail in the next chapters, which focus entirely on weaponry (chapter 11), ornaments (12) and axes (13). First, I shall make it clear why I think that a distinction between personal and communal identities matters to selective deposition in the first place.

#### 10.6 DEPOSITIONS IN BURIALS VERSUS DEPOSITIONS IN NATURAL PLACES

The most fundamental form of selective deposition is the differentiation between objects deposited in burials versus objects placed in natural places. The first indications for selective deposition date from the Late Neolithic B, when the Beaker grave tradition was adopted in the southern Netherlands (chapter 5). Quintessential is the observation that a restricted but highly specific set of objects was placed in such a grave, whereas other kinds of objects were never deposited in such graves, but in other types of locations.

##### *The construction of personhood in graves*

In chapter 5 it was argued that a Late Neolithic Beaker grave involves a more or less stereotyped representation of a male person, accompanied by a specific and widely shared set of objects. Some of these objects are body ornaments, others are related to specific activities (for example: hunting/warfare). The non-local character of these ornaments (including metal) is conspicuous. It appears that foreign items are a repetitive element in the adornment of the body. The deceased was decorated and equipped in a highly specific and traditional way, and some of the items involved must have had a special cultural biography: they were made of materials derived from distant sources. Without neglecting

the variation between the individual burials, I argued that it is the overall similarity between burials from different areas and periods that needs explanation. We must be dealing here with a deceased individual made to look like a particular kind of person: a cultural idealization rather than the true representation of this individual in life. Apparently, some ornaments and tools were important in the construction of this specific personal identity, among them metal items (gold ornaments, copper daggers). It is hard to say what these objects meant or what values or qualities they represented, but archaeologically we can at least see that *a specific kind of body decoration and equipment mattered in the shaping of the deceased into a particular kind of person*. To bring this to its logical conclusion we can say that the body ornaments and daggers served as the paraphernalia of this specific personal identity.

#### *Deposition of objects in other contexts*

For the Late Neolithic, we thus seem to be able to identify valuables which are related to personal identities, including metal ones: body ornaments and weapons/tools. It is important to take this one step further. The restricted number of items in such a grave implies that a selection was made. Axes, in particular, are remarkably lacking from the graves of the Late Neolithic B. We have seen that copper axes were introduced during this period. Unlike copper daggers or golden ornaments, they were not deposited in Beaker burials but in watery places. This is not only true for the southern Netherlands, but for other regions as well (west Germany, northern Netherlands, Denmark, see chapter 5). Copper daggers and axes thus seem to have been kept separate in deposition. From this, we can conclude that copper axes were apparently not considered as a valuable related to the specific personal identity that was constructed in graves. In her study of the Danish situation, Vandkilde (1996, 267-8) observes this same pattern of selective deposition and argues that the fact that axes were not placed in the graves of individuals must mean that their meanings were in the communal rather than in the individual domain. With the theory on valuables relating to personal identities versus those relating to communal ones in mind (chapter 3), this is an interesting point. We should not take this to mean that axes were communal possessions, but rather that they apparently did not matter in the construction of the specific type of personal identity in Beaker graves. They were *not* paraphernalia of specific personal statuses in the way that copper daggers or some ornaments were. Alternatively, the sort of life axes led (reclamation, house-building) might rather be in line with that of valuables relating more to *communal* identities. At any rate: the dissociation between regular work axes and weapons/ornaments would remain a crucial element in the structure of selective deposition in the centuries to come, even though

from the Early Bronze Age on the deposition of 'personal' valuables was transferred from the sphere of burials to that of watery places.

10.7 LONG-TERM HISTORY OF SELECTIVE DEPOSITION  
Having established the basic differentiation between weapons and ornaments on the one hand, and axes on the other, a general outline of the long-term history of selective deposition of metalwork can now be drawn on the basis of the conclusions from chapters 5 to 9 (see fig. 10.4). Separate spheres of deposition emerge during the Late Neolithic B. The difference is between deposition of objects related to personal identity in graves and axes in watery places. The deposition of single, used metal axes in all sorts of wet places would remain the most recurrent type of deposit for the entire Bronze Age. They replace stone/flint axes that figured in wet context depositions earlier on, but there might have been a significant decrease in the frequency with which axes were deposited during this transition.

During the Early Bronze Age deposition in graves ceased almost entirely. Objects that were formerly deposited in burials were from now on deposited in watery places as well. New objects, like halberds, were not deposited in graves but in a hoard and in a river. In the Middle Bronze Age A, specialized weapons like dirks, rapiers and bronze spears were introduced. They illustrate a new, pronounced accent on martial ideologies. Most weapons are known from depositions in watery places; not one seems to have been placed in a grave, not even in the monumental barrows with bank and ditch (*ringwalheuvels*). Among the deposits are weapon hoards that clearly reflect personal sets (the Overloon hoard, chapter 6 or the Escharen hoard, chapter 7). Weapon deposition remains almost exclusively river-bound during the Middle Bronze Age B and Late Bronze Age.

New objects like sickles and supra-regional styled ornaments were incorporated in the depositional tradition during the Middle Bronze Age B. The deposition of sickles generally follows the depositional patterns of axes, but sickle deposition seems to have been less strictly bound to watery places than in the case of axes or weapons. They were also repeatedly deposited in farmyards or in houses. With regard to ornaments and dress fittings, there seems to have been a difference between simple, plain and probably locally produced ones, versus the more lavish, internationally styled ornaments. In the Middle Bronze Age B and Late Bronze Age objects of the latter category were deposited in major rivers and in a special hoard (Lutlommel, Late Bronze Age). They are generally absent from burials. Bronze ornaments are virtually unknown from Middle Bronze Age B burials. In the Late Bronze Age, a small part of the graves carried such items. It is remarkable though, that these are generally plain

and simple dress fittings, but not the more special items we know from rivers (like the ceremonial pins of type Ockstadt). Similar simple ornaments are also known from Middle Bronze Age B settlements, where they might have been deposited deliberately.

*Changes in the system of selective deposition during the Early Iron Age*

During the Early Iron Age, there are two major changes in the system of deposition. The first is a drastic decrease in the numbers of bronze objects deposited. The second is a marked shift in the depositional context of prestigious weaponry. Since the Gündlingen phase swords, some made of iron, were not only deposited in rivers, but for the first time repeatedly placed in graves as well. By the Ha C phase, the shift from rivers to graves is complete: swords (now entirely made of iron), were now deposited in graves in urnfields which are often of a monumental nature. In such graves is an entirely new set of objects: elements of wagons, horse-gear and bronze vessels, all with central European affinities. We seem to be dealing with a new martial elite ideology here (chapter 9). As part of such grave sets, for the first time since centuries, large bronze items (but now iron ones as well) were deposited in graves. There are no longer objects reminding us of bodily adornment and decoration like we know them from Bronze Age warriors' graves (like razors, tweezers, hair rings), suggesting that the ideas on warriorhood had changed.

Apart from this, for the Early Iron Age and later, there is a remarkable increase in the evidence on deliberate deposition of objects in farmyards. According to Gerritsen (2001), this probably coincided with a new appreciation of the house itself as a ritual focus. As a rule, these depositions are not metal objects, however (table 10.3).

It would be wrong to suppose that the Bronze Age system disappeared entirely. For the Early Iron Age there is evidence of both bronze and iron axes that were deposited in ways comparable to what was common in the Bronze Age. The lower frequency of iron axes can also be explained for an important part by the fact that it is much more vulnerable to decay in wet milieus than bronze (Van den Broeke 2001). Furthermore, an occasional find of an iron sickle among settlement debris of an Early Iron Age house place in Huissen, may remind us of the frequent presence of such objects in Bronze Age farmyards. Particularly with regard to ornament deposition, there are strong indications that the practice did not disappear at all (Van den Broeke 2001). Bronze ornaments even seem to become an important element in deposition, coming to the fore in the presence of large neck rings, which in their exaggerated form remind us of the giant ornaments of the Late Bronze Age (ceremonial pins of type Ockstadt).

10.8 DEVELOPMENT OF THE ARGUMENT IN THE NEXT CHAPTERS

Now that the general characteristics and the structure of selective deposition, as well as its long-term development has been sketched, it is time to treat the different practices in a more detailed manner. I shall base myself on the meaningful distinction made here between objects relating to personal identities (weapons/ornaments) and those relating to communal ones (axes). In the following chapters, I shall try to find out for all categories how their cultural biographies culminating in deposition were constituted; the central question will be to find out what it was in their biography that made axe deposition different from ornament deposition, but also what constitutes the difference between tools like axes and sickles. The arguments will be presented as follows:

	MBA	LBA	EIA/earlyMIA	MIA/LIA	Late LIA/ERP
<i>Related to the house itself</i>					
Foundation deposits: metal tools	+	?	-	-	+
Foundation deposits: other	-	-	-	+	++
Abandonment deposit granary	-	-	++	-	-
Abandonment deposit house	-	-	++	+	-
Abandonment deposits metal tools	(+)	?	?	?	?
<i>Farmstead-related or unclear</i>					
Ceramic groups	(+)	?	++	-	-
Single vessels	(+)	+	++	++	+
Grain deposits	+	+	++	++	+
Human burials	-	-	+	++	++
Single human bones	+	?	?	?	?
Metal tools in pit fill or stray	++	?	+	+	+
Metal ornament in pit fill or stray	+	(+)	-	-	-

Table 10.3 relative frequency of deposits related to house and farmstead. (? : unknown; - : absent; (+): probably present; + present; ++ fairly present). Based on Gerritsen 2001, chapter 3, spec. table 3.13 with additions).

- chapter 11: weaponry
- chapter 12: ornaments (those that are not associated with weapons)
- chapter 13: axes and sickles

Central will be the idea that their selective deposition illustrates how people structured them as meaningful, yet different items. But in deposition, the landscape is in its turn structured by selective deposition. Therefore, in chapter 14, deposition will be studied the other way around: what can be learnt from depositional practices on the way in which people perceived their relations to the landscape? Having studied the evidence in this way, we shall return to the main question in the final chapter 15: what is object deposition?

## notes

1 Deposition of objects made from other materials (gold, tin, ceramics, amber, stone or flint, food, animals, humans) is poorly known, but I have not surveyed the non-metal finds to such an extent that it is possible to state that it was practically non-existent. The relatively high number of finds from dry contexts in table 10.2 can be explained by a few dry Late Bronze Age hoards that contained extraordinary large numbers of items (Heppeneert, Geistingen, Hoogstraten and Lutlommel; chapter 8). Nevertheless, in chapters 12 and 13 it was argued that Heppeneert, Geistingen and Lutlommel may have been locations that were seasonally wet; they were not simply 'dry' places.

2 Based on the contextualised finds from table 10.1, for the period from 2300-1800 BC.

3 Based on table 8.1. Finds without context, burial and settlement finds and spearheads and arrowheads with dating ranges covering both Middle and Late Bronze Age are all excluded. The period is considered to span 1050 until 700 BC.

### 11.1 INTRODUCTION

In the southern Netherlands, but elsewhere as well, weaponry is one of the principal categories of material in deposition for the later Bronze Age (Harding 1999, 158). 31 % of the deposited objects from the Middle and Late Bronze Age are weapons.<sup>1</sup> Moreover, weapons, and swords in particular, were often deposited in specialized locations only: an example *par excellence* of selective deposition. For both reasons, I feel it is necessary to devote an entire chapter to the cultural biography of weaponry. In the previous chapter it was argued that the significance of weapons should be understood from their life-paths before deposition, and that these were tied up with the construction of personal identities. In line with the general evidence on prehistoric weapon graves, it is assumed that we are here predominantly dealing with male identities.<sup>2</sup>

This chapter will review the biographies of weaponry, and confront them with general ideas on the nature and significance of warriorhood in the European Bronze Age. The point I want to make is that the Dutch-Belgian evidence on weapon *deposition* illustrates that it does not really give information about warfare and violence itself, but rather about martial ideologies. I shall argue that weaponry was an ambiguous category in material culture, and that martial identities were temporary ones, constructed and deconstructed in ritualised circumstances.

### 11.2 THE DISTINCTION BETWEEN MULTIFUNCTIONAL TOOLS AND WEAPONS BEFORE THE MIDDLE BRONZE AGE

Practically, almost any tool with a heavy weight or a sharp cutting edge can be used in battle. In this sense, a bronze dagger can functionally produce the same effect as a bronze dirk. The meagre evidence of prehistoric battle victims indeed shows that people were killed with wooden clubs, arrows or axes (Mercer 1999). West of the research region, the Early Bronze Age mass grave of Wassenaar is a case in point. Here, the remains of twelve individuals were found, all probably killed in battle (Louwe Kooijmans 1993b). The find of an arrowhead in the breast of one victim shows the use of bows and arrows in the massacre, and cut marks on the jaw and arms of others the use of cutting implements, probably bronze axes (Smits/Maat 1993, 24-5). This brings me to an important distinction to be made: the distinction

between multi-functional objects, for which a weapon function is just one example, and between objects that are specialized weaponry. Axes, bows and arrow and spears belong to the first category, swords to the second. As the latter was not developed until the Middle Bronze Age, one may ask whether we can speak of proper weapons in the earlier periods.

Beaker graves are often taken as the first examples of an individual buried with objects that had a weapon function (chapter 5). Fokkens (personal comment), for example, remarked that the surface retouch of the flint arrowheads is a treatment beyond purely functional aims, suggesting that they had an added significance and were not just hunting tools. The recurrent presence of such arrowheads seems to indicate the importance of long-distance fighting, but it might also express a double role in prestigious hunting practices (cf. Fokkens 1999). A comparable arrowhead was found in the body of one of the victims of the Wassenaar burial, illustrating its weapon function (Louwe Kooijmans 1993b, 9). The copper tanged dagger that is sometimes present in Bell Beaker graves could then symbolize the role of fighting at close range (giving a wounded enemy the *coup de grâce*, Fokkens 1999). Again, such a function is also conceivable for hunting. As a matter of fact, a study of tanged daggers themselves led me to the conclusion that they were anything but functional and effective weapons (chapter 5). On the basis of the fact that they were repeatedly deposited in graves, we can conclude that bows and arrows and daggers were paraphernalia of personhood. It is possible that they were weapons exclusively, but this cannot be proven. Perhaps, it was their combined significance in both warfare and prestigious hunting practices that they were meant to express. As we shall see later on, both options are related to a comparable concern with martial values in the expression of personhood in such a grave.

### 11.3 WEAPONS OF THE MIDDLE AND LATE BRONZE AGE

For the Middle and Late Bronze Age, the evidence for a category of objects with specialized weapon functions is much clearer. I shall now present that evidence, and for each object type briefly synthesize the evidence gathered so far on their biographies of production and life-path.

*Swords and daggers*

The first 'swords' deposited in our region are Sögel and Wohlde types, dating from the last part of the Middle Bronze Age A (chapter 6). They are no more than lengthened versions of daggers, either with a broad blade (dirks) or with a small one (rapiers). More versatile 'cut-and-thrust' swords are only known since the Late Bronze Age (Bridgford 1997; this book chapter 8). Swords are known all over Europe, and it is generally assumed that they were the paraphernalia of an elite, judging from their elaborate character, their presence in the largest graves and in specialized deposits (Fontijn 2001, 272). In some regions, swords seem to have been quite numerous. Tables 11.1 and 11.2 summarize evidence from a number of them, and illustrate that the evidence from our region is relatively modest. It is clear, however, that the southern Netherlands outnumber the north Dutch region. Apparently, sword deposition was much more frequently practised here than in the northern Netherlands, which is a region with an otherwise rich record of deposited bronzes. The difference makes itself particularly felt for the Late Bronze Age.

With a sword, there is actually not much one could do but fight, and even then the use to which it could be put is restricted. The earliest swords are relatively short dirks or rapiers consisting of a wooden handle that was connected to a bronze blade by means of notches or rivets. Such a hilt-blade connection is quite vulnerable, and such objects are not suitable for parrying blows or hacking, but rather for stabbing at close quarters. Harding (1999, 166) even goes so

far as to question whether a rapier thrust could cause a fatal wound. He makes the argument that Bronze Age scholars like Kristiansen have all too often assumed that swordfights were conducted in the manner of Shakespearean actors (Harding 1999, 166). For rapiers and daggers this is indeed hard to believe; the cut-and-thrust sword that was developed in the Late Bronze Age, however, must have been a much more versatile and efficient weapon (Chapter 8). Impact and damage on the cutting edge of such swords from Britain and Ireland has been shown to result from such use (Bridgford 1997). Similar traces were observed on some swords from the study region, but this aspect needs further attention.

According to Treherne and Sørensen, the sword departed from earlier axes and daggers in being 'the first object clearly designed for combat' (Sørensen 1991b; Treherne 1995, 109). It was not just a specialized weapon, but also a new form of personal weapon the production of which demanded much more than regular bronze axes (long, vulnerable moulds). A sword, however, did not give its user any practical advantage over warriors with axes or archers. What's more, during the first centuries when swords were used (or rather dirks and rapiers), they were in practical terms quite vulnerable objects as evidenced by a number of objects studied (chapter 6). Still, swords became an inextricable element of material culture since their first occurrence everywhere in Europe. Almost any sword known in the southern Netherlands seems to have been imported from abroad, or if locally made, produced in a supra-regional style. The only exception I know of is the Middle Bronze Age B rapier from

Region	Number of swords	Density per 1000 square km
Switzerland, Austria, South Germany	1161	4.22
Italy	232	0.77
Romania	353	1.48
Hungary	428	4.60
Former Yugoslavia	234	0.91
Denmark, north Germany	1245	6.88
Britain	660	2.87
Ireland	624	7.61
Southern Netherlands	68	0.23

Table 11.1 Bronze Age swords from different European regions compared. Data from Harding 2000, table 8.1.

Region	Swords
Northern Netherlands (prov. of Drenthe/Overijssel)	9
Central Netherlands (prov. of Gelderland/Utrecht)	2
Southern Netherlands (study region)	68
Western Netherlands (prov. of Zuid-Holland/Noord-Holland/Zeeland)	2
Western Belgium (prov. of Oost-Vlaanderen/West-Vlaanderen)	29

Table 11.2 Bronze Age swords of adjacent regions in the Lower Rhine Basin compared. Data from Butler 1990; O'Connor 1980; Verlaeck 1996.

Antwerpen-Appelstraat (chapter 7). The earliest swords we know are carried out in quite similar forms, with set patterns of decorations (the Sögel dirk), suggesting that they were made as a category in themselves, with no references to other categories of material culture. For the Middle Bronze Age B and Late Bronze Age, decoration hardly mattered anymore, but particularly for the Late Bronze Age it is interesting to see again that individual swords of the same type are very similar to each other (Ewart Park and Thames swords, Gündlingen swords).

For the Middle Bronze Age B, there is some evidence that rapiers circulated for long periods: many show traces of resharpening, and repeated repairs. Moreover, broken blades were used to make smaller rapiers or daggers (chapter 7). Thus, daggers were often just derived from swords, and therefore probably not equivalent to them. Unlike swords, daggers may have been locally made as well (the Cuijk mould, see chapter 7), and were probably not specialized weapons but rather multi-functional tools. As the number of daggers known is small and evidence on their deposition sketchy, I shall further leave them out of consideration.

The genesis and incorporation of swords by most regional groups – including the southern Netherlands – testifies to a growing symbolic emphasis on warfare that was more pronounced than in the preceding period (Treherne 1995, 109). In other words: in the emergence of the sword we see a growing emphasis on the social and ideological significance of warfare.

#### *Battle axes*

For a sword a weapon function is quite obvious, but what about axes in deposition? Was an axe deposited because it had played an important role in the reclamation of new land (or symbolized such a role), because it was a foreign object, or because it figured in an historic battle? It is difficult to make that out. Getting ahead of what I shall say on the role of axes in chapter 13, it seems that the elemental role of axes in deposition was due to the fact that they connected many different fields of life, instead of representing just one. It is, sometimes possible, however, to make a distinction between axe biographies primarily reflecting a role as weapon or as agrarian tool. Besides, there is the theory that specialized battle axes seem to have been made as well.

The traces of a heavy use-life (worn edges, re-sharpened cutting edge facets) observed on most deposited axes are generally unlikely to have resulted from the cutting off of so many heads. Rather they testify of a use-life as a wood-cutting tool. When normal axes were deposited together with weapons, however, it is likely that their role as weapon was expressed, or its dual role as weapon and tool of reclamation. This applies to the palstave-spear hoard from Sevenum (Middle Bronze Age B, chapter 7), and the

Late Bronze Age hoard of Pulle, where one axe accompanied a number of swords and spears (chapter 8).

There is also some evidence for specialized battle axes. In the Middle Bronze Age A, deposition of heavily used Oldendorf axes contrasts with that of nick-flanged axes. In chapter 6, I argued that this typological difference is likely to represent a functional difference. The visually contrasting form of nick-flanged axes probably coincided with a specialized use: these axes were meant to be battle axes, part of a specialized elite warrior equipment. For the Middle Bronze Age B and Late Bronze Age, specialized battle axes are unknown, or the large Grigny mid-winged axes must have served as such (chapter 7). At any rate, the depositional context of these large Grigny axes differed from contemporary palstaves (chapter 7). There are no reasons to suggest the same for the other winged axes (mid-winged and end-winged); these neatly fit in the general patterns of axe deposition (chapter 7 and 8). Therefore, it is interesting to see that those axes for which we can assume a specialized battle function on other grounds, were deposited in the southern Netherlands in a different way than the regular axes.

#### *Spears and arrows*

After axes, spears are the most predominant object in deposition (chapter 10). Like swords, the thrusting spear is a new object in material culture in the Middle Bronze Age (Harding 2000, 281). Principally, spears are multi-functional objects, usable both in battle and in hunting. A specialized weapon function, however, is the most likely. The first evidence for spears in hoards in the southern Netherlands is, as elsewhere (Harding 1999, 162) associated with swords (chapter 6: the Overloon hoard). On top of that, most spears are thrusting rather than throwing weapons. They can for example be used for boar or bear-hunting, but this is not a kind of hunting that is likely to have taken place regularly. It is a kind of hunting that gives prestige to the hunter, rather than a regular supply of meat. Moreover, the available zoological data on subsistence economy in general indicate that the role of hunting must have been peripheral (Van Dijk *et al.* 2002, 607-11; Schoneveld 2001, 187-8). This indicates that spears may have been used for hunting purposes, but it is unlikely that this special use explains the large numbers in which they figured in deposition and the production of spears in the first place. We can therefore assume that a weapon function was the most significant.

The same line of reasoning applies to the few finds of bronze arrowheads. They are basically known from similar contexts as spears, but in much smaller numbers. Unlike swords, the majority of spears were probably produced locally. For arrowheads, we have evidence of their local production in the form of the Oss mould (Chapter 7).

Unlike swords, spears are known from all over the southern Netherlands. From the numbers in which they are found and their wide distribution over the region we can conclude that the spear was the general weapon with which Bronze Age conflicts were fought out rather than an elite-associated object. The majority of spearheads are plain and pegged, another factor that sets them apart from the often decorated and elaborate sword types. Their form hardly changes since their introduction in the Middle Bronze Age A, which makes individual spearheads notoriously difficult to date (chapter 6). There is considerable variation in size of the blade, and length of the socket, but so far there is no evidence that it represents typo-chronological developments. Although most spearheads were probably produced locally, just like axes, they differ from axes in lacking locally or regionally-specific display elements. Imported and visually deviating spears are also known from the Middle Bronze Age A and B: Tréboul spearheads, side- and basal-looped spearheads and flame-shaped ones). As in the case of axes with a specialized battle function, these deviant types tend to have been deposited in major rivers, in zones where other weapons and axes were deposited as well (fig. 6.10 and 7.10). Most plain, pegged spearheads show traces of resharpening, implying that they were used. Resharpening was less often observed on the deviant imported spearheads, but the number of detailed object studies is still too low to be decisive.<sup>3</sup>

#### *Weapon sets*

For the Bell Beaker grave, the argument was made that they probably represent evidence of bow and arrow as a long-range weapon, and the dagger as an implement for fighting at close quarters. A similar combination of aspects of warfare can be recognized among personal weapon sets recorded from graves in the Netherlands as a whole. In one of the earliest weapon graves, the Sögel grave from Drouwen (northern Netherlands), the presence of flint arrowheads recalls those of the former Beaker graves with the dagger now being replaced by a bronze dirk (fig. 11.1). In Middle Bronze Age B weapon graves, flint arrowheads were replaced by bronze ones, but they still seem to have been part and parcel of this kind of weapon set. In Meteren-De Bogen, the only sword-grave from the southern Netherlands, bronze arrowheads were probably combined with a bronze rapier (Butler/Hielkema 2002; Meijlink 2002). Spears are in the Middle Bronze Age only known from early burials: those with Wohlde rapiers (Butler 1990). In our region, the earliest dated spears occur in the hoard of Overloon, again together with a Wohlde rapier (chapter 7). The sword-arrowhead combination thus seems to have been a long-term characteristic of personal warrior sets, the roots of which can be traced to the Bell Beaker grave.

#### *Conclusion*

Summarizing we see that during the Middle Bronze Age A a new group of objects becomes important in deposition that from then on will be an inextricable element of material culture: swords. The sword is the first specialized weapon we know of, and for that reason informative of the significance attached to warfare. By its special nature and treatment, it becomes clear that it had a special meaning, and probably served as an elite weapon. Parallel to swords, bronze spearheads become prominent in deposition. Their biography must have been largely in the field of warfare as well. Bronze arrowheads and specialized battle axes are also known, the former particularly in association with sword graves. In all, we can safely speak of the emergence of an entire weapon complex since the Middle Bronze Age. What does this imply for the role and meaning of warfare in Bronze Age society?

#### 11.4 THE NATURE OF BRONZE AGE CONFLICTS AND WARFARE

Throughout this chapter, the argument is developed that weapons were more than just the tools of warfare. Still, it is in reference to the practice of warfare that their meanings of weaponry as a category originate, and therefore it is vital first to consider the kind of conflicts in which weapons were used. Needless to say that the conflicts themselves hardly have any archaeological visibility. The mass grave of Wassenaar is practically the only direct evidence that armed conflicts took place during the Bronze Age (Louwe Kooijmans 1993b; 1998). Ideas about the kind of warfare practised should therefore primarily be based on basis of the evidence of settlements and graves and what has generally been inferred on social structure.

Louwe Kooijmans (1993b; 1998) argued that there are virtually no indications that warfare was a fundamental element of Dutch Bronze Age societies. Defensive settlements are lacking, and the evidence of warrior graves is so rare that warfare cannot be seen as an organizational principle of social ties in themselves. For the Netherlands and Belgium, there is no reason to assume the existence of retinues or warrior aristocracies as fundamental social units, contrary to what has been supposed for other European regions (Kristiansen 1999; Randsborg 1995).

On the basis of an ethnographic survey of warfare in tribal societies, Louwe Kooijmans goes on to argue that Bronze Age conflicts should generally be seen as small-scale, endemic warfare. In his view, the most probable option is to assume a kind of warfare that took place among groups that were socially and spatially distant (raids). Such conflicts are generally small-scale and do not cause many casualties, but can sometimes result in excesses. The Wassenaar grave, where males, females and children were killed, may be more

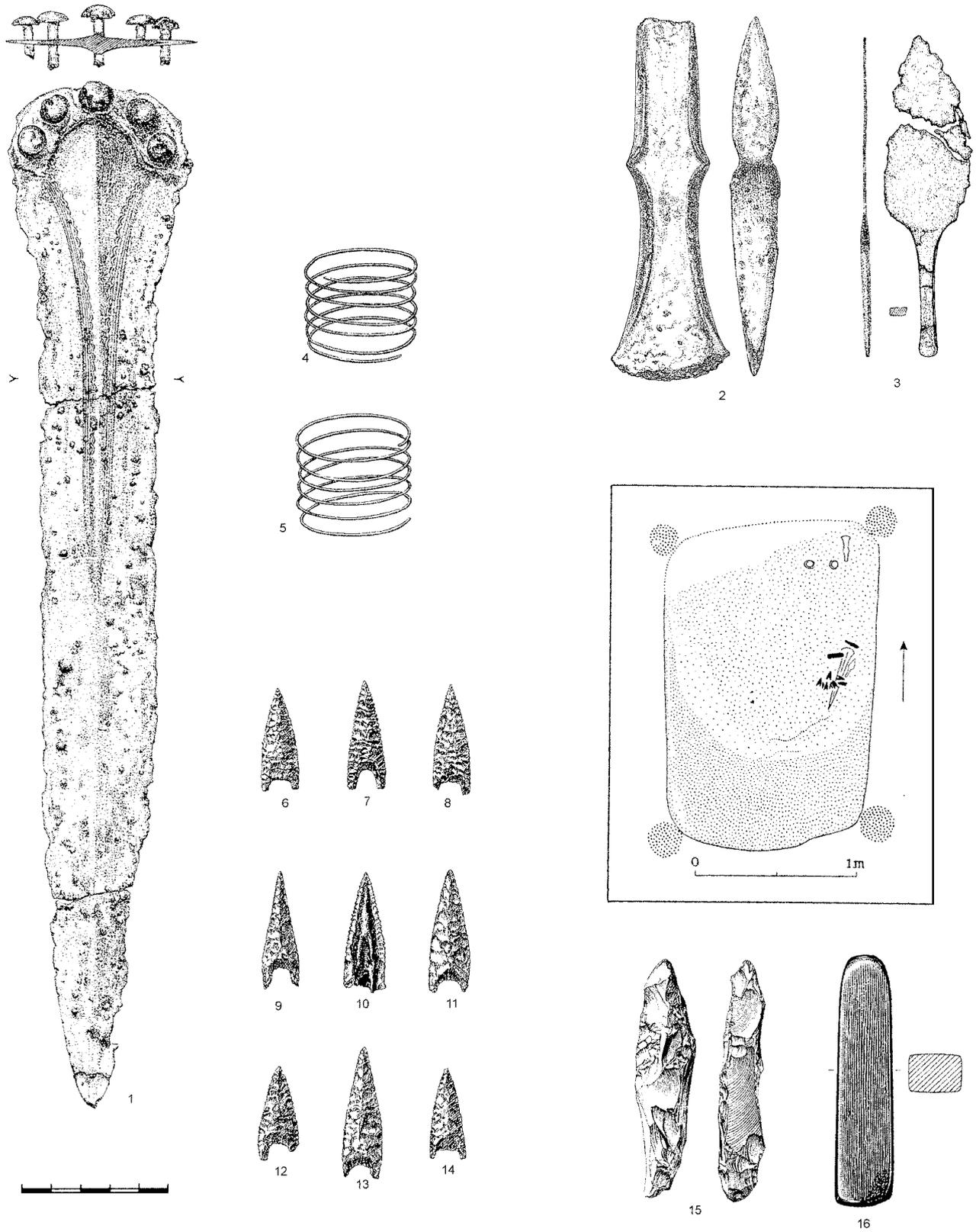


Figure 11.1 Contents of the Drouwen burial. The inlay shows the position of the objects in the grave (after Butler 1990, fig. 14).

in line with such an excess than with regular feuding (Louwe Kooijmans 1998, 337-8). Cattle-raiding is seen as one of the most probable causes of violence in the Dutch Bronze Age, by Louwe Kooijmans (1998), Fokkens (1999) and Roymans (1996). All authors emphasize the important role cattle must have had, not only economically, but socially as well. To Fokkens, the very existence of the long-house that is so typical for the Bronze Age, where people and cattle live under the same roof, indicates that cattle were socially very significant. Possessing and exchanging cattle would have been a means to acquire and maintain social relations and 'to enter into strategic and nuptial alliances' (Fokkens 1999, 37). Stalling cattle may have been a way to protect cattle from being raided. With regard to the social significance of cattle, following Roymans, we may even speak of a 'pastoral ideology' (1996, 54). It may be no coincidence that such an ideology emerged parallel to the significance attached to martial values.

Armed conflicts around cattle raids are a very different kind of warfare than the kind of battles that Osgood and others (2000) see as typical for the European Bronze Age: conflicts caused by over-population. Although such conflicts may have existed, we would expect a stronger emphasis on defensive settlement if it were the main reason. Moreover, battles would have had far-stretching results, deciding on life and death of entire social groups. The kind of small-scale, low-casualty conflicts Louwe Kooijmans and Fokkens envisage for the Dutch Bronze Age are more in line with the evidence we have. It also bypasses the functionalist assumption inherent in the accounts of Osgood and others (2000) that warfare is a product of population increase. In Louwe Kooijmans' and Fokkens' line of reasoning people fight 'because they do' (Louwe Kooijmans 1998, 337). As we shall see further on, this is more in keeping with the evidence on the ritualized aspects of warfare that we see in the weapons themselves, and the significance of fighting to personal life cycles.

#### 11.5 WARFARE AS IDEOLOGY

So far, the picture sketched of the nature of Bronze Age conflicts was hardly based on the evidence of the weapons themselves. When we turn to the evidence of weaponry, it becomes apparent that it tells us not so much about the actual practice of fighting, but rather about the ideological values associated with it.

The first indication can be found in the contextual evidence. Weapons may be so remarkably missing from funeral and settlement context, high numbers of them are known in other contexts. These do not reflect prehistoric battle-grounds, but deliberate depositions in watery places. That weapons are – after axes – the most prominent category to have figured in such ritual practices tells us about the ideological significance of weaponry.

The second indication can be drawn from some of the objects themselves. It is one of the few bronze object categories of which ceremonial versions circulated in both the Middle and Late Bronze Age. The best example are the giant ceremonial swords of the Plougrescant-Ommerschans type, described in chapter 6. For the Late Bronze Age, some full-hilted swords can be interpreted as ceremonial swords (chapter 8: in particular the one from Buggenum). Plougrescant-Ommerschans swords are not so much swords as idealized versions. For these swords, I argued that they were probably the ceremonial counterparts of real utilitarian swords in circulation (Fontijn 2001; chapter 6). Their very design and shape makes it clear that they were never intended to be used. Their biography must primarily have been one of circulation over vast distances. In his elaboration of Mauss' original work on gift exchange, Godelier (1999) recently recognized evidence for the existence of a special type of valuable. These are valuables that are generally considered to represent a community's most important inalienable possessions, intimately linked with the group's history, embodying crucial values. Such objects are not just personalized, but rather like very special persons. They have become so valuable that they cannot be given to people anymore, but are regarded as only fit to be 'gifts to the gods to be hoarded' (Godelier 1999, 61). Such valuables look like tools or weapons, but are never of practical use. They are often abstractions. 'This seems to be the pre-requisite for their being able to 'embody' social relationships and thought systems and then to represent them' (Godelier 1999, 162). Furthermore, such objects are often very well made, to valorize the object's owner. In the case of the ceremonial weapons of the Plougrescant-Ommerschans type, their existence implies that both for the society on whose behalf they were made (probably in north-west France or southern England) and for the party at the receiving end of the exchange chain (communities in the Netherlands), swords symbolized values that were held in high esteem. The symbolic aspect of weapons must therefore have been more important than it may appear at first sight, and this brings us to the conclusion that more than warfare alone, martiality itself was a crucial ideological value of Bronze Age communities living in the southern Netherlands.

#### 11.6 WARRIOR IDENTITIES

Having established the significance of martial values, it is now necessary to find out how such values were constructed. Ideology is not just a mental construct, but rather something that is constructed in life, something which people believe in, since people 'live their ideology as real' (Treherne 1995, 116). Ideologies are reflected and constructed in the practices and life-styles of people. It is therefore to the intermingling of martial values and real life that we should turn. The point

will now be made that in the archaeological evidence of sword deposition, we can see at least a glimpse of this connection between martial values and real life. I shall take the evidence for elite sword-bearing warriors as a starting point, and argue that what we see of these warriors indicates that warriorhood was a stage in life for some, and that weaponry was only part of a more encompassing cultural idealization involving the construction of martial personal identities.

#### 11.6.1 *Sword fighting and becoming a person*

I shall first elaborate on the question why sword fighting is more than any other kind of fighting *potentially* related to the shaping of significant personal identities. My point comes down to this: Bronze Age swords are not the product of a progressive development in increasing the effectiveness of weaponry. As we have seen, some scholars even go as far as to consider it unlikely that Middle Bronze Age dirks and rapiers were capable of causing fatal or even debilitating wounds (Harding 1999, 166). Rather they testify to a strong and durable commitment to a peculiar way of fighting, in which warriors agree to engage in face-to-face combat. The type of sword-like weapons used before the advent of the true, versatile Late Bronze Age sword, ensures that the manner in which dirk, rapier or sword fighting took place was constrained and sometimes demanded special techniques (in the case of long rapiers, see chapter 7). The Middle Bronze Age dirks and rapiers are much smaller than fencing foils, which means that warriors were very close to each other. Moreover, they were not well balanced and the hilt-blade connection was vulnerable to breaking. From this, it follows that *the idea of* close-range fighting was held in higher esteem than the existing, more effective and less risky long-distance fighting with bow and arrow, or throwing and thrusting spears. That specialized objects – swords – were designed for the purpose of close-range fighting is indicative of the high appraisal of this way of fighting. The elaborate design, decoration and symmetry of some swords seems to be in keeping with this special significance attached to swords. Another argument concerns their limited practical use, which hardly surpasses the effectivity of regular axes, an effective alternative tool for close-range fighting. That nevertheless effort were taken in the production and exchange of dirks and rapiers, and that they became a lasting element in local material culture without ever becoming effective weapons before the Late Bronze Age is an argument that it was not so much close-range fighting that was valued but sword fighting itself. This brings us to considering a kind of close-range fighting that was ritualised and guided by specific codes rather than practical.

By its very nature sword fighting draws on the courage to enter into a close-range fight and the skill to use a sword. Courage and skill are both qualities that are generally seen as

adding to personal identity. ‘Honour’ may even have been seen as a vital constituent for personhood, and sword fighting as a special arena in which an individual became an ‘honourful’ one. It is tempting to refer here to Van Wees’ analysis of warrior ideologies in Homer’s *Illiad*. In the idealized image of warriorhood that is central to these Greek epic poems, ‘honour’ (*timè*) is an abstract, immaterial value that one has in one’s own and other people’s eyes. It is a socially constituted value: in Homer, honour is the actions and words by which others acknowledge one’s status, corresponding to what we call ‘deference’ (Van Wees 1992, 69). Thus, it is not an innate, ascribed or age-related status, but a quality one can achieve in the eyes of others. Deference, or honour is therefore a specific constituent of personhood as defined in chapter 3. Honour is scarce, which implies that becoming honourful has to be acknowledged and conferred in a social arena. It can also be denied or withheld (Van Wees 1992, 66, 71). In Homer, honour is expressed in receiving deference mostly in face-to-face interaction. The fight between two individual warriors in front of others is an important, almost ritualised arena in which a person can become acknowledged with the quality of ‘honour’. It may be obvious that we are dealing here with Homeric warrior ideals that need not coincide with those of communities living in the southern Netherlands at all. I do think, however, that the peculiarities and constraints of sword-fighting and the entire concept of pre-Late Bronze Age swords should be understood in such a context.

#### 11.6.2 *The evidence of warriors’ graves*

The second argument for regarding sword-like objects as being related to the construction of a specific identity can be read from archaeological evidence in a more straightforward way. Since the beginning of the Middle Bronze Age, there is an overwhelming body of evidence that dirks and rapiers became a prominent element in a specific type of male graves all over Europe. For our region, Sögel and Wohlde (or related) dirks and rapiers are the best examples. Treherne (1995) has dwelt on the European-wide distribution of such warrior graves. He argues that they refer to a widely shared conceptualisation of persons as a specific type of warrior. This warrior ideal is not only related to sword-fighting, but also to a specific way of bodily adornment. He points to the recurrent presence of tweezers and razors. There is even evidence that shaving was part of the portrayal of an individual as this specific type of warrior during the funeral. A specific style of hair-dressing seems to have been relevant as well. Treherne gives cross-cultural examples of a perceived relationship between physical strength and hair.

The Sögel dirk graves are the closest example to the southern Netherlands displaying such grave sets. The richest Sögel grave of northern Europe is even situated in the northern Netherlands,

in the grave of Drouwen (fig. 11.1; appendix 7.2). It neatly illustrates some of the elements mentioned by Treherne. It contains a nick-flanged axe, a bronze razor, a decorated dirk, golden spiral ornaments, a stone polissoir (for sharpening the dirk?) and a set of flint arrowheads. I have already argued that this type of grave has many elements in common with the Neolithic Beaker graves with the dagger being replaced by a sword. Similarly, we are dealing with a type of grave that has a wide distribution over northern Europe. It is the consistency of the weapon and ornament/toilet article set, regardless of cultural and economic differences, that is most conspicuous.

Kristiansen (1999) has also recognized the wide dispersal of this kind of warrior grave across Europe, and he sees it as argument for the appearance of a new chiefly-elite culture all over Europe, embedded in new rituals and new ideas of social behaviour and lifestyle. This emergence of what he calls the 'warrior aristocracy' should have been based on a new power system of clients/retinues, that served as a basis for mobilizing war parties, raids, trading expeditions. For some European regions his theory seems to fit the evidence. In Seddin, Eastern Germany, for example, a large number of hierarchically ranked graves is known, where the topmost layer of graves were

warrior graves (Harding 1999, 169). The Dutch evidence at first sight seems to fit in with Kristiansen's theory: from the north and the west, warrior graves with that characteristic grave set are known (Sögel-Wohlde graves). The richest grave of all Sögel graves is actually situated within the Netherlands. Appendix 7.2 and fig. 11.2 list all known Middle Bronze Age 'warrior graves' in the Netherlands. The clearest examples are all graves with dirks and rapiers. In the north, such sword-graves only date from the Middle Bronze Age A, in the west only from the Middle Bronze Age B. Although without swords, comparable warrior graves are in the north known from the Middle Bronze Age B as well. In the grave of Sleenezand-Galgenberg phase 2 and Hijken-tumulus 9 find no. 39, there is for example continuity with the Sögel grave in the presence of sets of arrowheads (although now of bronze), gold spirals (for hair-dressing?), a pair of tweezers (only in Sleenezand) and a flint strike-a-light (Hijken only) (Butler 1990, 65-8; 86). In the western Netherlands, in Velsbroek, a rapier-grave was found with, again, gold-wire coiled rings. This grave also shows similarities to warriors' graves from other regions (for example: a grave from Essel, Kr. Stade in northern Germany (Butler/Steegstra 1997/1998, 177-8).

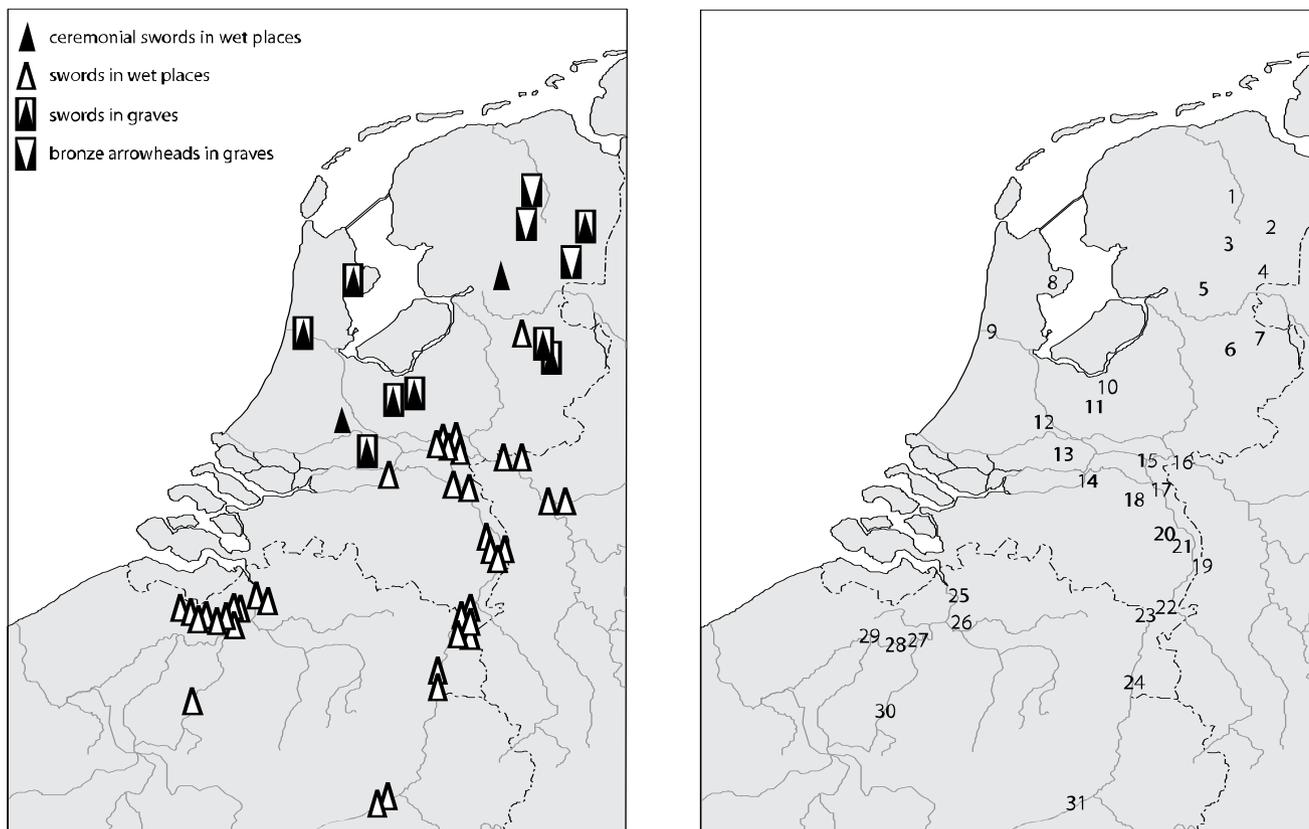


Figure 11.2 Middle Bronze Age swords in the Netherlands and their depositional context. See also appendix 5.6 for a description of the sites.

11.6.3 *Warrior identities and 'imagined communities'*  
 Apart from the similarity in grave sets, I still think there is no reason to assume a kind of warrior aristocracy comparable to what we know from a region like Seddin. Lohof has emphasized the rarity of this kind of warriors' graves. Several hundred years separate the construction of the Drouwen grave and that of Slenerzand (1994, 110). If there were a warrior aristocracy, it cannot have been represented by those rare warriors' graves. Lohof (1991; 1994) convincingly argued that on the whole the Dutch Bronze Age was not a ranked society at all. The rarity of the event of the construction of warriors' graves becomes even more prominent if we realize that barrow graves are the graves of only a minority of the entire population (10-15 %; Lohof 1994). The meaning of such a grave should therefore be interpreted in ideological terms rather than in political terms only. In the north and the west of the Netherlands, the expression of a martial ideal in such a grave was apparently the exception rather than the norm. This indicates that it was related to quite specific occasions only, for example linked to special events in the history of a group (claiming new territories, the establishment of a new group after group fission). This does not imply, however, that a link between sword-bearers and power was wholly absent. As a high-quality imported object, acquired through long-distance exchange, it signals the power of the owner to have access to such exchanges. Also, possessing weapons implies the possibility of fighting; using violence, or threatening to do so, is still a powerful way to impose one's will upon others.

The widespread evidence on warrior graves like those of the Sögel-Wohlde group indicates that the 'warrior ideal' expressed in such a grave was capable of crossing cultural boundaries. There is no need to doubt the local character of most warrior graves, and it therefore seems that the portrayal of the deceased in this specific, non-local way was deliberate. We are dealing here with conceptualisations of personhood that are rooted in supra-regional traditions. This kind of 'warrior ideal', with its emphasis on a specific bodily adornment, probably deviated deliberately from local appearances. This expression of warriorhood must in some way have referred to worlds that were beyond the daily reality of most members of the local community. A person was here defined in his membership of non-local, *imagined communities* (cf. Isbell 2000). Remarkably, the male, martial warrior-equipment is the best example we have in our region for such international appearances. The next chapter will discuss whether they had a female counterpart.

The evidence of warrior graves and the prominent role of swords in them confronts us with the ritualised, idealized nature of this particular imagery of warriorhood. It also shows that this representation of martiality is more than just bearing a sword. It involves specific, almost stereotyped

bodily appearances. This would be in keeping with an observation made by Harrison on the nature of warrior statuses in tribal societies. They are 'something on the outer surface of the self that can be worn or shed'. 'Aggression is an undertaking that requires a ritually transformed self' (Harrison 1995, 87, 91).

11.7 WEAPON DEPOSITS AS GRAVELESS GRAVE GOODS?  
 So far, the evidence on the role of weaponry in the construction of personhood was inferred from the European phenomenon of the warriors' grave. In the southern Netherlands, however, weaponry seems to come predominantly from depositions in watery places and not from burials. The question we shall now have to answer concerns this remarkable practice to keep weapons apart from graves. We shall start our inquiry by asking whether this is what happened in prehistory: could weapon deposits themselves not be directly related to graves?

Fig. 11.2 shows the distribution of Middle Bronze Age warriors' graves in the Netherlands, most of which contained swords. It is easy to see that the southern Netherlands are relatively rich in sword finds, but that they are almost exclusively from depositions in watery places, unlike in the west and north of the Netherlands. Moreover, in those cases where we have detailed evidence on the original associations of the sword finds, it appears that some of them display weapon sets that in the north are only found in graves. These are the weapon sets from Overloon (Middle Bronze Age A) and Escharen (Middle Bronze Age B). They were already discussed in chapter 6 and 7 respectively. The Overloon hoard in particular illustrates the point I want to make. It was argued that in Overloon we must be dealing with the personal sets of at least two warriors, which were deposited in a peculiar way. They were placed in a remarkable position (fig. 6.7) in a hillock within a swampy stream valley. It is in its contents a typical set for a Wohlde type of warrior grave. In chapter 6 it was argued why it is very unlikely that we are dealing here with a disturbed warrior's grave. Still, the Overloon hoard is a good example of what Eogan (1964) has called 'graveless grave goods'. The type of object is characteristic for graves, and yet there is no evidence for a grave at all. Eogan seems to have used this term to refer to missing information (graves that were not recognized). For the Overloon hoard this is not likely, but how are we to make sense of the similarity between weapon deposits and funeral goods?

#### *Weapon deposits as the remains of graves*

The interpretation that is closest to what Eogan originally meant sees the contrast between barrows and urnfields lacking weapons versus river deposits as one between non-martial and martial graves kept separate in the landscape. In

this contrast river finds would represent the remains from deceased warriors deposited in the river with their equipment. Bradley and Gordon (1988) have successfully shown that in the river Thames, England, there is not only a large amount of Late Bronze Age swords dredged up, but large numbers of skulls as well. <sup>14</sup>C-datings of some showed that a proportion of these indeed date from the Bronze Age. Although the association between the skulls and the swords cannot be proven, the idea that these weapon depositions are related to burials becomes more conceivable. In the Netherlands, Ter Schegget (1999) has recently done a comparable survey of human bones from the Dutch rivers. She showed that the Dutch rivers also yielded large numbers of dredged-up bones. Only a few (27) have been <sup>14</sup>C-dated, however. (Ter Schegget 1999, fig. 2, table 1 and 2.) One dates from the Late Neolithic (Deurzerdiep 1) and two date from the Bronze Age (Deurzerdiep-4 and the Rhine near Elst/Amerongen. Only the find from Elst is from the research region. This is a mandible dated to the end of the Middle Bronze Age to the Late Bronze Age. It may be clear that this one find can neither support nor falsify the river burial theory.

#### *Weapon deposits as funeral hoards*

Another way to make sense of personal weaponry deposited outside the grave would be to see them as funeral hoards (*Totenschätze*), an explanation recently put forward by Roymans and Kortlang with regard to the Late Bronze Age sword finds from rivers, and by Warmenbol (1996) with regard to the lavish bronze and gold deposits in the cave deposition site at Han sur Lesse (south Belgium). The studies by Wegner (1976), Torbrügge (1970-71) and Bradley (1990, 102) provide the basis of this theory. They all observed that weapon sets that were first deposited in graves were at a later stage in the Bronze Age placed in hoards. For that reason, they have been interpreted as hoards of personal equipment, deposited at the moment of death, but buried separate from the grave. The implication is that weapon deposits are related to the conceptualisation of the deceased, but in a skewed manner: his martial paraphernalia were deposited outside his grave (one of the options depicted in fig. 11.3). What would make the specific interpretation of weapon sets as burial gifts deposited outside the grave less appropriate to the case of the southern Netherlands is that here – unlike regions such as southern Germany or the northern Netherlands – weapons seem to have been kept outside the grave from the very beginning. We cannot really envisage a *translation* of funeral goods from one context to the other in the course of the Bronze Age, because they never seem to have been deposited in graves in the first place. This still does not make the link between the death of an individual and the deposition of his weapons improbable; the link only seems to have been not as direct as can be seen in other regions.

#### *Weapon deposits as rites of passage during life*

A third explanation has been suggested by Fokkens (1999) and myself (1999). Building on the theory that weaponry was associated with the constitution of personhood, we suggest that weapon deposition might coincide with a rite of passage during life, when the warrior becomes an elder (fig. 11.3) If this were the only viable explanation, then we would still need an additional explanation why weapons were never deposited in graves. Middle and Late Bronze Age graves do not just represent older men, who had already given up their warrior status (Theunissen 1999; Fontijn/Cuijpers in press). Young men are represented as well, but practically none carried weapons.

Alternatively, we could think of situations in which warrior identities required only a temporary shift in identity, adopted by a group by means of a collective ritual, involving special dress and bodily adornment, before a raid took place. The special fighting regalia and weapons were then laid down (deposited) after the battle was over, transforming warriors back into ordinary men. The latter option is particularly known from ethnographies on tribal warfare in the Sepik region in Papua New Guinea (Harrison 1995). Fig. 11.3 summarizes the different moments at which martial paraphernalia may have been laid down.

#### *Conclusion: the non-martial character of graves*

To question at what occasion weapons were regularly deposited, no conclusive answer can be given. Central to all explanations put forward here is the point that within the prehistoric communities involved there must have been some cultural understanding stating why the paraphernalia of martial identities did not belong in the barrows and urnfields of the later Bronze Age. There is much to be said for the idea stated by Roymans and Kortlang (1999, 56) that there was a general taboo on placing weapons in graves, and the present research now shows that this taboo was much older than they originally thought (stemming from a period as early as the Middle Bronze Age A, perhaps even the Early Bronze Age). We should realize that this involves more than understanding a burial for what it is not. Central to such a taboo must be a specific understanding of the cultural issues at stake in the burial ritual: notions about the sort of values that need to be emphasized in order to send the deceased to the hereafter in the appropriate way. Apparently, these were values conflicting with and perhaps even contradictory to values celebrating martial ideas. Given the strong emphasis on collective ideals, both in the collective barrows of the Middle Bronze Age and in the Late Bronze Age urnfields, it might be ventured that the values emphasized in burial rituals had a heavy accent on group identity, collectivity and solidarity. Such values may be at odds with martial ones, celebrating competition and capacities to use violence (cf. Roymans/Kortlang 1999, 56).

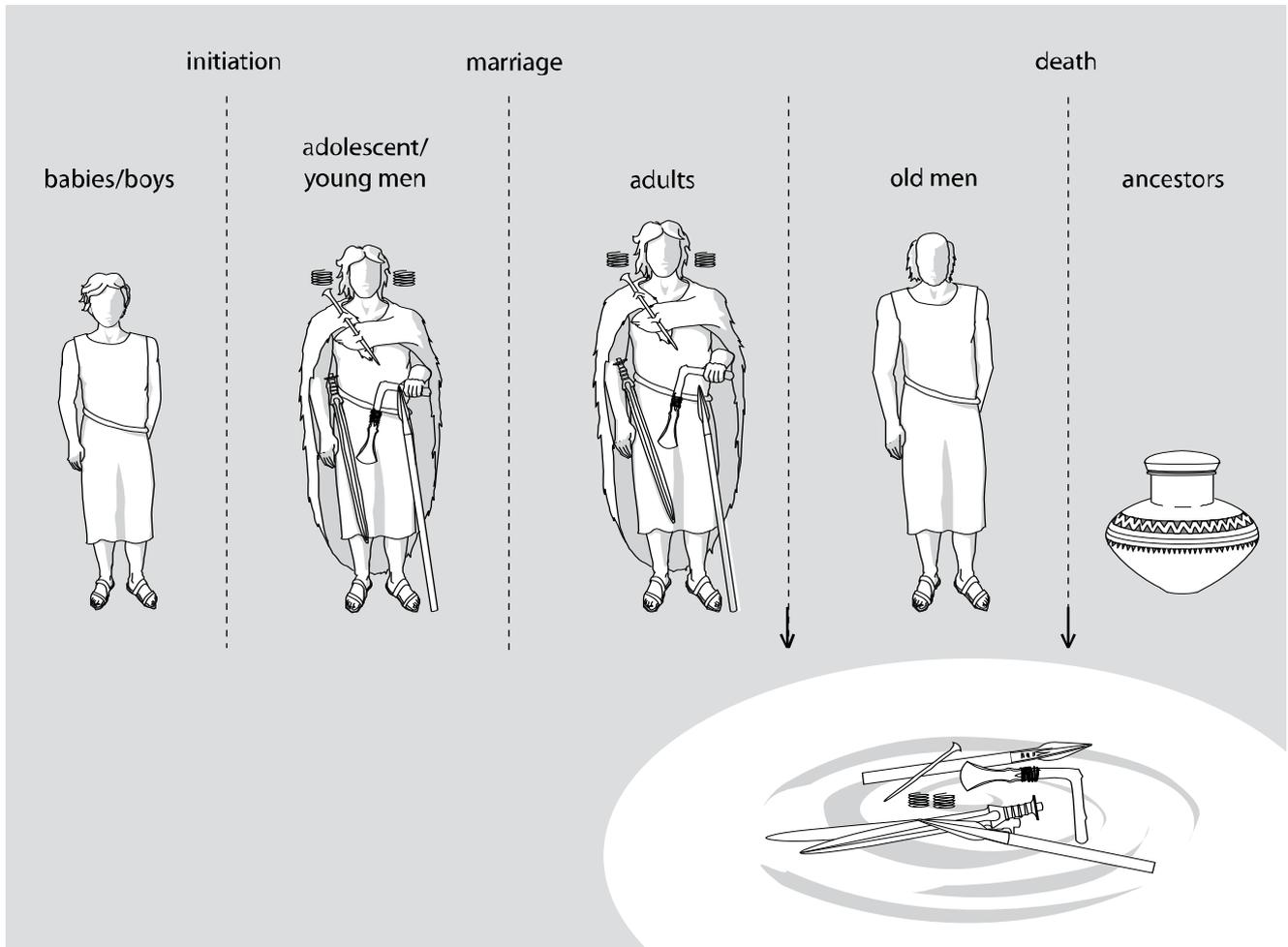


Figure 11.3 Hypothetical life-cycle of a warrior. The assumption is that a martial identity was confined to a specific stage in the life-cycle and that weaponry and specific body ornaments were instrumental in signalling this stage of personhood. Consequently, the deposition of these objects marks the transition to another stage of life. Shown are possible moments at which such a deposition may have taken place.

#### 11.8 WARRIORHOOD AS AN AMBIGUOUS, TEMPORARY IDENTITY

Having seen the dichotomy between identities constructed in graves versus the evidence that martial identities existed, we can conclude that the rigid keeping apart of weapons implies that they represented an ambiguous category in material culture. This is something that is true in many cultures: weapons are often seen as an ambiguous, even dangerous, object category.

In socio-political terms, weapons are dangerous because their presence in a social group implicates 'haves' and 'have-nots', and thus potentially a group who can impose their will upon others (Claessen 1988, 7-8). In the kind of society we are dealing with there was no authority with an effective monopoly of force (Roymans 1996, 14). Essentially, this applies both to power relations within a particular group and

to relations between groups. In essence, the presence of weaponry can thus be threatening to an established social order; it can both derive from and cause social tensions in all kinds of ways. For the small-scale, largely egalitarian Bronze Age societies we are dealing with, the presence of weapons among some members of the local community might present a potential threat to social cohesion.

Using violence, or the capacity to do so, is ambiguous in a more ideological way as well.

Blok (1994, 34) argues that using violence against others is a transgressive, polluting action, since it transgresses the boundary between the category of life and death. As such, it may have repercussions for the way in which people deal with weapons, both in daily life and in ritual. For this reason, the use of violence is often related to rituals (Blok 1994, 34).

In our case, I argued that weapons are not just tools, but inextricably linked with martial identities, either at a communal or at a personal level. With regard to the latter, I presented evidence that the conceptualisation of sword-bearing warriors implied specific bodily adornment as well. What matters is therefore not just the weapons; rather it is martial personal identities that were considered ambiguous and transgressive. But what the deposition of weapons implies is particularly the surrender of the paraphernalia of warriorhood; in other words, the de-construction of martial identity in a ritual act. This comes close to the picture of warrior identities in tribal societies as sketched by Harrison (1995) for the Sepik in Papua New Guinea. He illustrates that tribal warfare is not just directed against distant tribes, as is often thought. Rather, he shows how people living next to each other, and even related by descent, may still fight. Violence, in his view, can be a concomitant of sociality. It is the same actors who are violent and sociable towards one another *in different contexts*. 'Their basic assumption is not that there are radically distinct categories of people (friends and enemies, kin and strangers, in-group and out-group) but that there are radically distinct modalities of action' (Harrison 1995, 85). For neighbours or kin to meet each other as enemies, a temporary shift in identity is needed. Such shifts are ritualised, and the identities themselves are acquired by a transformation of the self by means of self-decoration (for example: wearing special fighting regalia). Such decorative elements are often seen as ancestral, and by wearing them people take resort to a shared, imagined group identity that refers not only to the warriors present, but to their forebears as well. The implication is that it is groups that are hostile, whereas individuals are sociable. I already referred to his observation that aggression thus is 'something on the outer surface of the self that can be worn or shed' (Harrison 1995, 87). I think this example is interesting, as it illustrates how martial identities are very much contextually and ritually constructed by body decoration and weaponry. It is precisely for this that we have evidence (the 'warrior ideal', fig. 11.3). At the same time, it also implies that a ritual act is needed to transform the warriors back into normal people. It is this deconstruction of the martial identity that is reflected in weapon deposition, on whatever occasion it took place (at death or during life). In the face of participants, the objects that make a man into a warrior were laid down, and given to supernatural entities. The paraphernalia of warrior identities were thus cosmologically authenticated and fixed, yet the warrior – or the group he represented – was transformed back into a non-martial person.

This idea would fit in with what we assume about the kind of conflicts that took place. Endemic warfare may have taken place, and could even be valued without being a threat to sociality, because it involved structured rituals in which martial identities were adopted and also laid down (deposition).

This may have prevented the emergence of more permanent, hierarchical warrior identities, as known from other regions (the warrior aristocracy). The rituals to deal with the ambiguity of weaponry involve a strict separation of depositional contexts, where rivers and streams were the martial domain, whereas martiality was denied and values of collectivity and sociality celebrated in the context of the collective cemeteries (collective barrows and urnfields).

#### 11.9 THE SHIFT FROM RIVERS TO GRAVES

Considering the traditionality and wide acceptance of this particular way of depositing weaponry, it must have been based on deep-rooted views on the biography of weaponry. The subsequent shift of sword deposition from rivers to burials which took place during the Early Iron Age therefore seems a sharp and decisive break with the past. In interpreting this view, Roymans (1991, 56) sees the new weapon graves as the expression of an elite whose power was more than before individually based.

##### 11.9.1 *Ha C chieftains' graves as reflecting a different kind of elite?*

With the discussion on 'warrior aristocracies' in mind, we might ask ourselves whether the presence of chieftains' graves in the southern Netherlands implies that we now finally have tangible evidence that such an aristocracy existed in our region? In my view, the answer should be negative. Like Bronze Age warrior graves in the northern Netherlands, 'chieftains' graves' occur only rarely in our region. Only in a striking minority of urnfields do we encounter such graves, and they are certainly not common to all micro-regions in the southern Netherlands (fig. 8.15). Nowhere do we find evidence that there was more than one rich weapon grave in the same cemetery, contrary to the situations in Belgian cemeteries to the south of the research region (for example: Court-St. Etienne yielding no less than 16 of such graves). The chiefly status seems to have been determined primarily by the personal qualities of the leader; there is no evidence to suggest that such elite positions continued for several generations (see also Roymans 1991, 55). So far, the shift in weapon deposition on the transition from the Bronze to the Iron Age has been explained mainly in terms of a shift in power base. Roymans (1991) sees weapon deposition in rivers as related to the activities of a warrior elite whose power position was based upon exclusive access to bronze exchange networks. With the collapse of the interregional bronze exchange during the Early Iron Age, this power base shifted to an exclusive 'middle man' position in the exchange of hides and salt between the Lower and Upper Rhine area (Roymans 1991, 54). The assumption is that the individuals in rich Ha C graves like the ones from Oss or Wijchen held such middle man positions. On top of that, Roymans argues

that these graves represent a higher rank level than existed previously (1991, 55).

Writing more than ten years after Roymans' seminal article on this matter was published, and having considered metalwork deposition in its entirety (instead of focussing on weapon deposits only), I find this shift to burial deposition even more problematic to explain. Surveying the entire evidence for Bronze Age deposition of prestigious metalwork, it seems to have been a practice guided by very specific and traditional rules. The expression of an elite position in burials as was practised in the Early Iron Age took place in a very different context, at a time when these 'rules' were apparently losing significance. As the entire way of expressing status in the Iron Age differed from that in the Bronze Age, how are we to make out that a Ha C grave like the one from Oss or Wijchen expressed a power position that was in an absolute sense of the higher rank than those of the Late Bronze Age elites? Moreover, it is difficult to verify the hypothesis that it was the control on the salt and hide trade which provided the power base for the new elite. Hide trade is archaeologically invisible. The evidence from settlement excavations, moreover, indicates that Early Iron Age houses do not have the lengthy byres that characterize those from the Middle Bronze Age (Fokkens 1997; Gerritsen 2001, 255). It is therefore hard to conceive that hide trade gained in importance during the Early Iron Age. The salt trade is equally difficult to use as an argument. Salt trade, assumed to be reflected in the finds of the characteristic *briquetage* pottery is only attested since the Ha D phase (Van den Broeke 1986). Even if it did circulate before, then there is still no way to verify whether it was the control of the salt trade on which power positions were based. Next, the exchange of salt and hides seems to be confined to a specific sphere of exchange that cannot be seen as equivalent to the sphere in which prestigious metalwork circulated. With regard to the latter, there is not so much difference between the circulation of prestigious Ha C metalwork and that of the Bronze Age apart from the stronger emphasis on central European goods and objects associated with new elite ideals. On the other hand, it would also be wrong to see the Late Bronze Age and Early Iron Age as reflecting essentially similar socio-political contexts. Some scholars have argued that the Early Iron Age heralds a phase of strong demographic growth, with more emphasis on territoriality and claims to the land by individual local groups (Gerritsen 2001, 256-8; Roymans/Kortlang 1999, 38-9). If they are right, it is likely that this involved new socio-political relationships between groups (alliances, competition, tensions).

#### 11.9.2 *How did a shift to burial deposition become socially acceptable?*

Given its emphasis on the practice of deposition, this book cannot fully come to terms with the Bronze-Iron Age

transition and the ensuing socio-political developments. It seems more realistic to focus on the changes in the practice of deposition itself. The fundamental question to be asked is this: given the established structure of depositional practices, how could such a shift to burial deposition become socially acceptable and 'the right thing to do'? I shall try to deal with this question by considering changes in the fields of circulation, deposition, burial ritual and the ritual construction of power.

#### *Circulation: a decisive shift in the constitution of supra-regional exchange networks*

Throughout this book, we have seen that the southern Netherlands of old had a link both to central Europe and to the Atlantic. In chapter 8 it was established that during the last phase of the Late Bronze Age the large numbers of Plainseau imports indicate a firm link between our region and the Atlantic Belgian and north French ones. As shown, these are not just about the flow of bronzes; ideas were communicated as well. For example, the evidence of ornaments implies shared ideas on the appearances of high-status females (chapter 8 and 12). At the beginning of the Early Iron Age, bronze circulation seems to have decreased here like it did in the adjacent regions. Nevertheless, within the remaining bronze circulation changes took place as well. In general, Atlantic products seem to have lost their prominence to the benefit of those from the adjacent German regions and the central European realm (chapter 8). Again, this does not only apply to circulation of products, but to ideas as well. Deposition of weaponry was not practised in Late Bronze Age urnfields in the southern Netherlands, but in the German regions to the east it took place occasionally (for an example from the Rhineland: Gering-Kehrig, Kr. Mayen grave no. 16; Desittere 1968). Gündlingen swords were produced both in Atlantic and continental regions, but the form their deposition took in the Lower Rhine Basin is different from what was normative in the Atlantic: as we have seen, they were in our region deposited both in rivers and in burials. Elsewhere in Atlantic Europe, they were still exclusively placed in rivers as before (Warmenbol 1988, 262). So, even if the majority of those swords were still Atlantic products, as Warmenbol (1988) claims, it can yet be argued that a part of these was now deposited according to ways which are more in line with German, continental traditions than with Atlantic ones. This seems to have been a decisive shift. For the Middle Bronze Age B and the Late Bronze Age, the general impression was that the biographies of metalwork in the southern Netherlands had more in common with those from the Atlantic than with those from the continental regions, even though products of both spheres were present (chapter 7 and 8). This clearly changes with the adoption of the essentially *continental* habit of sword deposition in burials during the Gündlingen phase. The

re-orientation towards continental ideas becomes more profound during the Ha C phase, when the richest warrior sets in burials show no less than a prestigious continental elite outfit with elements unprecedented in indigenous martial sets: horse-gear, bronze vessels and parts of ceremonial four-wheeled wagons. The Lower Rhine basin remains exceptional in this wholesale acceptance of these ideas on chiefly appearances; they are unknown to the north-west French and British Atlantic regions.

*The diminishing significance of metalwork deposition in watery places*

Next, we should realize that the shift to burial deposition took place at a time when deposition of metalwork in natural, watery places as a whole was on the wane. Ahead of the arguments presented in chapter 13, I would like to remark here that the entire phenomenon of bronze deposition must ultimately have been related to what can be termed the 'sacrificial economy' of what were essentially 'importing' societies. Deposition as a way to uphold scarcity and converting metal from commodities into gifts (chapter 13) lost significance in the face of the general transition to and mastering of iron working, a material that was, unlike copper, locally available. There are other indications as well to assume that the fundamental characteristics of bronze biographies ending up in deposition were gradually 'hollowed out' as early as the Late Bronze Age. Chapter 13 will address this subject at large, but for the moment it suffices to remark that the shift to burial deposition took place against the background of a deposition tradition that in its entirety was losing significance.

*Changes in the burial ritual itself*

Not in the last place should the shift to burial deposition be understood in the context of changes in the burial tradition itself. Burial ritual can be argued to be made up of two fundamental oppositions: the expression of a deceased individual and the way in which this individual was represented as part of the larger collective whole of which he/she was a part. From the Middle Bronze Age B on, it can be argued that there was a gradual shift to a more pronounced representation of individuals. Middle Bronze Age B barrows are clearly collective graves, in which in our region there is not much differentiation between the individual graves making up the entire barrow (Fontijn/Cuijpers in press). Nevertheless, the barrow ritual is very unrepresentative since it contains only the graves of a minority of the population. Fokkens (1997) has recently argued that it is particularly this element that changes profoundly during the Late Bronze Age. An urnfield is a case in point of a collective cemetery, in which nevertheless the burials of almost any member of a local group had a grave. Graves are much more than before

created as the final resting place for a particular individual; only a minority carries signs of secondary burials. The burial ritual echoes a strong egalitarian ideology, since burials hardly show signs of individual differentiation. The Late Bronze Age elite, whose existence can be assumed on the basis of the sword deposits, is invisible in these urnfields. The general impression of a Late Bronze Age urnfield is one of a cemetery governed by a strong notion of the collective in which every member of society had his/her prescribed place (cf. Roymans/Kortlang 1999). It is precisely this relative non-differentiation that changes in the subsequent Early Iron Age. The cemeteries of this period undoubtedly display a similar concern with collective identities as they did before, but this time there is more variation in the burial ritual itself. Apart from the regular differentiation between long barrows, ring-ditch graves and flat graves, there are extremely large long barrows like those from the Someren urnfield (length: 145 m), or ring-ditch graves three to four times larger than the average size in the cemetery (Kortlang 1999; Roymans 1991, 57). Roymans speaks of a trend towards individualization of the burial ritual (1991, 56). In some cases, this 'individualization' resulted in the location of such monumental graves in a position isolated from the collective urnfield (Fontijn 1996b, 84). The increase in differentiation in graves does not just apply to those containing Ha C imports; the extremely large long barrows of type Someren, or many other large ring-ditch structures do not contain such imports. It must have been a much more general phenomenon, culminating in the final disintegration of urnfields at the end of the Early Iron Age. Ha D/ La Tène A chieftains' graves, then, were no longer positioned in a large collective urnfield, but isolated, sometimes themselves forming the focus of a small cemetery (Fontijn 1996a, 83-4).

Summing up, it can therefore be said that from the Early Iron Age on, this trend of differentiation between burials in an urnfield made the burial ritual gradually more suitable as an arena for claiming and challenging status positions, which was after all what happened during the Ha C phase. That it is part of a wider transformation implies that it was not just related to the Ha C chieftains' graves alone. The earliest sword burials in the preceding Gündlingen phase can now be much better understood as a transitory phase. The individual differentiation brought out in the deposition of swords seems to have been counterbalanced by a stronger emphasis on the collective element of these graves. From what we know of these burials (Neerharen-Rekem and Weert tumulus O; chapter 9), it is clear that they were still with one foot in the Late Bronze Age burial tradition. Although tumulus O already seems to have been a large barrow, both graves are still strongly constructed in a collective rather than an individual vein. Tumulus O is exceptional for being a barrow containing several graves, instead of just one. Neerharen-Rekem no. 72

is also a collective grave, containing the cremated remains of what probably were three individuals, buried together.

*A new elite ideology...*

Part of the strategy of differentiation in burial rites was the provision of graves with Ha C imports. There is not much that indicates that modest burials with Ha C imports contrast sharply with the earlier graves with Gündlingen swords, and we can hardly see these as a break with traditions that became established during the Gündlingen phase. In the case of the richest graves, the ones from Wijchen and Oss, however, the situation is markedly different. In spite of all the evidence that suggests that Ha C chieftains' graves were a logical continuation of developments that had their roots in earlier phases; these graves display a clear concern with deliberate 'otherness' and differentiation as well. This is not only visible in the extraordinary size of the Oss barrow or the isolated position of the Wijchen grave, but in the burial set as well. In chapter 9, I concluded that in a number of ways the burial set in such graves embodied a new elite ideology, imported from central Europe, that had no precedents in contemporary conceptualisations of martial personhood. This contrasts sharply with the profound stability of martial sets that we have recognized throughout the Bronze Age. Even the Gündlingen graves with their associations of spears and swords still fundamentally reflect the essentials of Bronze Age warriorhood. The presence of lunula-shaped chapes may be related to an incipient emphasis on horse riding, but this is speculative (chapter 8). Nothing prepares for the wholesale adoption of ceremonial wagons pulled by horses, and the fine large bronze vessels. In chapter 8, I argued that the concern with 'novelty' also comes to the fore in the material used (iron) or the technological refinement (the bronze vessels). Fig. 11.4 shows the object categories present in regular urnfield graves with gifts, to be contrasted

<b>Body ornaments</b>	
Dress Ornaments* Toilet articles	
<b>Tools</b>	<b>Food/(Drinking?)</b>
Flint tools Spindle whorl Knife	Ceramic pots Meat?

Figure 11.4 Categories of objects in non-martial LBA/EIA urnfield graves. Unless indicated otherwise these are of bronze. An \* means that iron, gilded or gold examples exist as well.

with the object categories in Ha C chieftains' graves (fig. 11.5). With regard to Wijchen and Oss, there thus still seems to be scope for Roymans' original point that some of the chieftains' graves relate to the emergence of new status positions of people who deliberately sought to differentiate themselves from existing elites by having exclusive access to a new complex of rituals associated with the world of the Southern Hallstatt elite (Roymans 1991, 61).

*...and the continuation of the Bronze Age attitude towards weaponry*

There may have been a deliberate element of 'otherness' involved in the adoption of the Ha C burial set; beyond doubt there were indigenous elements as well. For the present discussion, the most important of this is what seems so far the most pronounced break with past depositional practices: the fact that swords were now placed upon the remains of the deceased, instead of being placed in a river. In view of the theory on the temporary and ambiguous character of martial identities current in the Bronze Age, does this new habit imply that martial identities were now more than before presented as 'fixed' and inextricably linked up with a certain individual? I think the evidence on the way weaponry was treated indicates that this was not the case. Both in the Gündlingen and in the Ha C phase, most swords were intentionally damaged before being placed in the grave. This is in sharp contrast to the swords deposited in rivers, which are generally undamaged and in splendid condition (sometimes sharpened as if for use; chapter 10). The way in which the swords were damaged suggests deliberate ritual acts. The Mindelheim sword from Oss was not simply broken, but elegantly bent in a spiral-like form. We see something similar in the case of the sword from Meerlo, which is more or less compressed in the form of a post packet. It might be ventured that this treatment of swords echoes the age-old taboo on placing weapons in graves; now swords were

<b>Body ornaments</b>	<b>Riding/Driving</b>
	<u>Horse gear</u> <u>Horse harness</u> <u>Yoke</u> <u>Wagon parts</u>
<b>Weapons</b>	<b>Drinking/Food</b>
<u>Sword</u> <u>Axe</u>	Situla <u>Knives</u>

Figure 11.5 Categories of objects found in Ha C chieftains' graves. Underlined items are often made of iron.

placed there, but they were made unusable. A martial element is present, but treated in such a way as to suggest that it no longer plays a role as a marker of warrior statuses. It is important to realize that a similar destructive attitude is not observed on the other prestige goods (the wagon, horse gear or the bronze vessel).

### 11.9.3 *Conclusion: the continuing ambiguity of warrior statuses*

Reviewing the discussion on the transformation of weapon depositions, it seems too simple to explain the shift to burial deposition in a functionalist fashion as the expression of a new elite, claiming their position by referring to new (Ha C) status goods in new contexts (graves). On the other hand, there are cases (Wijchen/Oss) in which the signs of attempts at breaking with the past must reflect a deliberate attempt at differentiating and claiming new, unprecedented (?) status positions. These went hand in hand, however, with attempts at naturalizing these new positions by claiming bonds with former owners of the land. This is most clear in the case of Oss, where the large monument was built over what must have been a Middle Bronze Age A barrow (Fokkens/Jansen 1998).

In general, the transition to burial deposition must be seen as a gradual one, taking place against the background of more general changes in circulation, and changes in the social significance of deposition and burial ritual. It would be wrong to state that nothing changed. For the southern Netherlands, there is no empirical support at all for Treherne's (1995, 108) theory that the European warrior ideal rested on four fundamental pillars: an association with the ideals of

- 1 drinking/alcohol and drinking bouts,
- 2 warfare,
- 3 riding/driving and
- 4 body ornamentation.

The elements of warfare and bodily ornamentation were as we have seen characteristic for the Bronze Age ideals of warriorhood in our regions. The element of drinking and riding/driving, however, were added to it with the adoption of the Ha C chieftain ideology, whilst bodily ornamentation seems no longer to have had any significance in it. The idea of a European warrior ideal as conceived of by Treherne seems – at least for our region – to be a modern invention that does no justice to historical developments in martial ideals.

The crucial question that concerns us here is whether the transition to the Iron Age heralds an essential change in the cultural attitude towards weaponry and the martial identities associated with these. The answer is negative. The ambiguity that was found to be so characteristic in the attitude towards weaponry in the Bronze Age does not seem to change fundamentally, but rather it is expressed differently

### 11.10 CONCLUSIONS

The above study of weapon deposition leads to the following conclusions.

- 1 Since the Middle Bronze Age A, the evidence of weaponry displays a commitment to battle and violence that goes beyond purely practical needs. Swords and sword fighting in particular had a special social and ritual significance. It was related to personal life cycles, and the fact that ceremonial swords were made and circulated neatly points out that the cultural attitude towards these objects had ritual overtones. In all, there are arguments to suppose that warfare and violence was as much an ideology of martiality as a practice.
- 2 Martial values were inextricably linked up with life cycles of male individuals. Battles themselves should probably be understood as related to them. They were probably in the first place endemic conflicts involving small war parties rather than an all-out warfare of communities whose very existence was threatened. Since weapons are general in the southern Netherlands we can suggest that most local groups were from time to time in one way or another occupied with battle. There is no evidence at all, however, for the existence of retinues and warrior aristocracies as we know them from elsewhere.
- 3 There is evidence to suggest that some regions knew a sword-bearing elite, not to be confused with a warrior aristocracy. In some cases, such elite warrior identities involved special paraphernalia, including ornaments. The warrior equipment had clear links with those of other regions, suggesting that such martial identities referred explicitly to membership of non-local, 'imagined' (elite) communities.
- 4 Weapon deposition took a particularly selective form in the southern Netherlands. Weapons generally seem to have been kept from graves, suggesting a widespread taboo on their presence in burials.
- 5 If weaponry was related the achievement of social roles during the life cycle of an individual, its deposition then implies that this role and status was laid down together with the physical laying down of the objects which signalled it. It is unclear whether this happened during life (becoming an older man, or after a successful battle), or at death. At any rate, it implies that martial identities were ambiguous ones, to be constructed and deconstructed in ritualized circumstances. Their selective deposition seems to have been one way to deconstruct such martial identities.
- 6 In the Early Iron Age, weapon deposition shifts entirely from rivers and marshes to burials. Clearly, this implies some decisive changes in the cultural attitude towards weaponry, coinciding with the adoption of a new warrior elite ideology. Most changes can be understood as the

culmination of a larger process of change in depositional practices which was already under way for some time. Although the paraphernalia of martial statuses expressed in the 'chieftains' graves' definitely changed, there seems to be continuity in the ambiguity surrounding the cultural attitude towards weaponry.

### notes

- 1 Counted are swords, spears and daggers.
- 2 Ehrenreich 1997, 124; Treherne 1995; Sørensen 1998, 262).
- 3 Resharpening probably removed traces of wear and use. It is unclear whether we should expect regular use of a thrusting spear in battle to result in clear cut or impact marks on the edges such as known from swords (Bridgford 1997).



## Ornament deposition: the construction and deconstruction of personhood

### 12.1 INTRODUCTION

Body ornaments and dress fittings are another category of bronzes that matter in depositional practices of the Middle Bronze Age B and Late Bronze Age. I argued that their life should be understood in relation to their role in the construction of social identities; like weapons, they are primarily to be regarded as valuables of personhood (chapter 10). Even more than in the case of weapons, their role is referential rather than practical. They are primarily related to bodily adornment, and hence potentially involved in the signalling of social status. They should be regarded as the only archaeologically visible part of a completely dressed and decorated body, ‘which is central to the acquiring of socially ascribed identities and the communication of them’ (Sørensen 2000, 124). The construction of (gendered) identities may have been an important theme in the cultural biography of these ornaments and dress fittings ending up in deposition; it is a difficult one to grasp archaeologically. There is at least one distinction that we can and should try to grasp, however, since it was brought out in selective deposition: the distinction between ornaments and dress fittings deposited in burials versus those ending up in watery places and hoards. The following discussion will try to make sense of this distinction.

### 12.2 ORNAMENT DEPOSITION IN NATURAL PLACES VERSUS DEPOSITION IN BURIALS

Much of what was said on the biographies of weapons in the previous chapter applies to the biographies of ornaments and dress fittings. We saw that in weapon deposition burials were avoided. In the case of ornament deposition<sup>1</sup>, a differentiation between deposition in burials and watery places mattered as well. There is no evidence that at some point in time a shift from one depositional context (wet places) to another (graves) took place, as we saw for weapons. In ornament deposition, both modes of deposition existed side by side.

For the Middle Bronze Age B, deposition of ornaments in farmyards can be assumed to have existed as well, but as set out in chapter 7 there is no compelling empirical evidence to sustain such an assumption. The discussion will therefore be restricted to the distinction between deposition in burials and natural places.

With regard to Late Bronze Age burial deposition, the following observation made in chapter 9 should be recalled. Not all ornaments were cremation artefacts. Some seem to have been deposited *after* the cremation remains were put into the urn or shroud. That unburnt body ornaments were added to a body that had already completely been destroyed makes it clear that this ornament was not deposited for its practical value (for example: a dress fastener), but for its symbolic social meaning. Thus, in the burial ritual, a social role held by the deceased was not only deconstructed (the individual was burnt dressed in the paraphernalia signalling this role), but sometimes an identity was also constructed by placing meaningful ornaments on the deceased’s remains.

Depositing ornaments in natural places points to something different. As set out in the previous chapter, we can consider such an act as a practice in which the paraphernalia of a social role were laid down. They were not handed over to others to start a new life of circulation. Neither were they physically associated with the remains of what was once a living person, thus creating an indissoluble link between the deceased and the statuses associated with the imagery. Similar to the argument about weapons, we can imagine that depositing ornaments in natural places may be a way to deal with personal identities that should be temporary, ambiguous ones, related to special roles. This theory becomes more likely, if the ornaments kept out of graves are different from those current in burials. As we shall see later on, there are arguments to suppose that this was indeed the case.

### 12.3 SELECTIVE DEPOSITION OF ORNAMENTS AND DRESS FITTINGS DURING THE MIDDLE BRONZE AGE

During the Middle Bronze Age, bronze ornaments have only rarely been found. Those known are almost exclusively pins. A few were found in association with weapons, and seem to have been part of a male warrior outfit. The biographies of bronze ornaments in general seem to be different from those made of other materials. For that reason, I shall start by making some general observations on non-metal ones.

#### *Burials and settlements: bone and antler ornaments*

Non-metal ornaments dated to the Middle Bronze Age are known of stone, bone, antler and amber (appendix 7.2), all

carried out as pendants, beads and pins. The evidence on such objects is limited, which in part can be explained by bad preservation circumstances. With the exception of amber beads, they are made of locally available material, in techniques that do not demand special craftsmanship. This is not to say that some of the objects did not have a special biography. The brown bear phalanx that was found in grave no. 5.2 from Toterfout-Halve Mijl might have been the trophy of a prestigious hunt, or a magical object (Theunissen 1993, 33-34). We are dealing here with an example of a specific rather than a generalized biography, however (cf the discussion in chapter 3).

It is interesting to see that these objects sometimes carry incised ornamentation of types unknown from other material culture forms, some even in elaborate styles (Verwers 1966a, fig. 5). They thus seem to have been regarded as a category in themselves with specific characteristics, not known from other kinds of material culture. There is furthermore no unity whatsoever in their design and ornamentation. They may have been important in signalling specific kinds of personhood, but probably in a way that was locally-specific rather than shared among many communities. Such ornaments have also been found on well-preserved settlement sites (farmsteads, chapter 7; appendix 9). The majority, however, is known as cremation artefacts in graves (appendix 7.2). We should not forget, however, that if bone and antler objects were primarily post-cremation grave gifts, they would have decayed in most cases.

It must be said that in both graves and settlements such ornaments are surely no regular find category. They are virtually unknown from the kind of natural places where bronze deposits are generally found, but this may be the result of a research bias due to their low visibility during dredging activities when compared to larger bronze objects as well as their actual absence.

#### *Rivers and marshes: bronze pins and a bracelet*

Although our knowledge on the depositional contexts of non-metal ornaments is skewed and biased due to site-formation processes, it is nevertheless important to bring up the little evidence there is of them. The reason for this is that the depositional context of bronze ornaments only partially overlaps with them.

First of all, contrary to non-metal pins, pendants etc. bronze ones are *absent from graves*. Some bronze ornaments have been found on settlement sites, just like those of bone and antler. However, these are all rather simple roll-headed pins. The more elaborate types of pins seem to have had different biographies. For the Middle Bronze Age B, a distinction can be made between ornaments decorated in a style affiliated to international ones (wheel-headed pins and pins of the Courtavant and Wollmesheim type) versus

the more simple ornaments (roll-headed pins). The elaborate, international-styled pins tend to come from rivers. The more roll-headed pins, however, have several times been found on settlement sites. The contextual associations of most pins from a watery context are unknown, but in the Meuse near Alem and in the Scheldt near Antwerpen several have been found, suggesting that they were deposited on the same occasion. The German reference finds from graves make it clear that wheel-headed pins signal high-status female identities (Wels-Weyrauch 1989). We do not know whether the same applies to the Courtavant and Wollmesheim pins. In Germany, the latter type is known from a warrior's grave implying that it was part of male martial imagery (chapter 7). Comparable ornaments from wet places that ostensibly indicate male martial identities are the Bargloy pin found in association with weaponry in the Overloon hoard (Middle Bronze Age A; chapter 6), or the only Middle Bronze Age bracelet known, which was found in association with a rapier, spearhead and a dagger (the Escharen hoard, chapter 7).

#### 12.4 THE SIGNIFICANCE OF SUPRA-REGIONAL ORNAMENT STYLES: THE IMPLICATIONS OF THE OSS MOULD

A conclusion to be drawn from the above is that elaborate bronze ornaments and dress fittings are all of styles shared between different regions. Styles idiosyncratic to the region or locality seem to have been worked out in the decorated bone pins or pendants but not in bronze. Although by the Middle Bronze Age B a thriving regional bronze production was established, the general impression is that people apparently still imported bronze ornaments, which in itself would be remarkable since these objects were certainly not the most difficult ones to produce. Lohof (1994, 116-7) sees the presence of wheel-headed pins as an argument to suppose that long-distance exchange of marriage partners took place. The wheel-headed pins would then have been part of the native dress of such females.

The clay mould from Oss described in chapter 7 sets these ideas in a new light. One of the forms that could be shaped in this mould was a wheel-headed pin. Its form was carved out in the clay in the mould. The form was not reproduced by pressing an existing (imported) mould into the clay, but the form was imitated. We are therefore dealing here with the production of such 'foreign' ornaments in our own region. It is not a local variety of the regional form of the wheel-headed pins, but rather a form very similar to those from the German regions (for example: the German Rhineland (Weber 1993)). Apparently it was important that this ornament in its form referred to supra-regional styles, rather than to local styles. Therefore, in ornaments, the supra-regional-local distinction seems to have mattered.

## 12.5 SELECTIVE DEPOSITION OF ORNAMENTS AND DRESS FITTINGS DURING THE LATE BRONZE AGE

### 12.5.1 *Ornaments and the construction of local identities in urnfield graves*

In chapter 9, bronze finds from Late Bronze Age and Early Iron Age urnfields were analysed. A significant contrast with regard to the Middle Bronze Age the burial deposition is that this time we do have ample evidence for bronze ornaments being part of burial equipment. Does this signal a major change in the way the dead were adorned? Probably this is more apparent than real. Even in the urnfields, where almost any individual seems to have been buried in an archaeologically visible way, graves with bronze objects are only a tiny fraction (generally 15 % or less; chapter 9). We should not forget that the burials known from the preceding Middle Bronze Age represent only 10 to 15 % of the entire population, whilst the representativity of burials in an urnfield is close to 90 %.

In urnfields, the metal ornaments and dress fittings are most of the times quite simple pins, spirals, bracelets and so on. Some were cremation artefacts, others were added after cremation. Here, non-metal ornaments are also occasionally known, as are small grave gifts (like small pots). The physical anthropological analyses of the graves with ornaments for the Early Iron Age shows that their social meanings must have been fleeting and ambiguous. In one urnfield, they are exclusively associated with females, whereas they are gender-neutral in another one (see chapter 9). Their meanings were often locally-specific. At the level of the individual urnfield it can for example sometimes be seen that bracelets were almost exclusively found in graves of women (Roermond-Mussenberg, for example; chapter 9; appendix 7.3). It was argued that here differentiations were made not between males and females, but between different kinds of female identities.

In chapter 9 it was established that in general a distinction can be made between:

- *Metal ornaments used in ways differing from time to time and from urnfield to urnfield.* Such objects were probably related to themes and social messages that mattered specifically at the level of the local community, the urnfield group, of which he or she was a member (most pins and bracelets).
- *Metal ornaments that were used in the construction of appearances in ways that were shared between neighbouring communities.* The best example that I could find for the second phenomenon is the local-specific dress of necklaces consisting of several bronze conical pendants. They are characteristic for a number of neighbouring urnfields near the present Dutch-Belgian border, and probably part of a characteristic female dress.

A type of burial set that occurred over a much larger area comes from the so-called Ha C chieftains' graves from the

Early Iron Age (chapter 9 and 11). These warriors' graves generally lack body ornaments, however. They probably exclusively expressed male, martial identities.

In general, we can therefore conclude that in urnfields, bronze ornaments and dress fittings were mainly simple objects signalling locally-specific – often female – social roles and statuses. The social meaning of bodily ornamentation in urnfield graves seems primarily to have been based on conventions idiosyncratic to the local communities involved.

### 12.5.2 *Placing ornaments and dress fittings in rivers and sources*

The practice of ornament deposition in major rivers and sources, which originated in the Middle Bronze Age, continued and slightly increased in frequency during the Late Bronze Age. In chapter 8, it was concluded that ornament deposition in natural places contrasts with ornament deposition in burials in a number of ways. It is true that there is an overlap in the types of ornament deposited in both these watery places and those in urnfields. This suggests that burial and object deposition in wet locations had points of convergence. This makes an interpretation of river finds as 'graveless grave goods' or *Totenschätze* a feasible one (cf. the discussion on weapons from rivers in 11.7). There are other observations, however, that imply that both ways of deposition should be seen as practices of a quite different nature.

First of all, among the ornaments found in such contexts, we miss the burnt or deliberately destroyed items generally present in cremation graves. This is not a very strong argument, in view of the coarse-grained recovery methods. Next, from the source-deposit of Berg en Terblijt, it is clear that ornaments were deposited in high quantities not seen in graves, suggesting that the depositional practice was not comparable to what happened in an average urnfield (chapter 8). It rather suggests a lavish activity involving a large audience. On top of that, this hoard contains items which are completely absent from contemporary urnfields: axes, sickles and a chisel.

Furthermore, just like in the Middle Bronze Age B, river finds include elaborate, imported ornaments, of types unknown from burial contexts (very long pins: Antwerpen-left bank complex; giant pins of type Ockstadt, the decorated bracelet from Maren-Kessel; chapter 8). Moreover, there are ornaments among these that are not only unknown from urnfields, but large ceremonial items in their own right: the *Bombenkopfnadel* of type Ockstadt (chapter 8). It was argued that these are exaggerated forms of regular pins that are also unknown from urnfields. The ceremonial pins could never have been used as dress fittings or brooches, but all show signs of a ceremonial use-life, involving modifications of the

original object. That such objects were deposited in rivers illustrates that river deposits were special, ceremonial occasions. It was argued that they were possibly related to the notion of male, martial imagery. The oversized proportions of these pins are paralleled in some of the Celtic ornaments from later periods, also known from deliberate deposits in our region. These consist of characteristic neck rings, torcs, which are often much too large as well to be worn on the body (Van Impe 1997, 23). Their aggrandized form seems to have been related to the fact that such torcs are seen as attributes of gods, rather than people (Green 1989). In this way, they are 'larger than life'.

### 12.5.3 *Deposition of special ornament types in hoards: the Lutlommel hoard*

A new form of ornament deposition emerges in the Late Bronze Age: deposition of ornaments in lavish hoards on the land. Three examples are recorded: Berg en Terblijt, Overpelt-De Hoven, and Lutlommel-Konijnepijp (chapter 8).

I would like to pay special attention to the latter since it is most clearly an example of selective deposition. It contains ornaments of types unknown from rivers and burials. Interestingly, similar types of ornament hoards are known from north French and Belgian regions, the so-called hoards of the '*culture du Plainseau*' (chapter 8; Gaucher/Verron 1987). Apart from characteristic ornaments, they often contain tools of specific types as well. In our region, these are predominantly Plainseau axes. The only 'Plainseau' hoard from our region containing ornaments is the one from Lutlommel-Konijnepijp (fig. 12.1; Van Impe 1995/1996). In chapter 8, I already made argued that this hoard results from a special kind of deposition, contrasting with contemporary practices. We shall now take up this argument in order to make sense of what happened at Lutlommel.

Analysing the typology of the ornaments in the hoard, it was concluded that they are generally lavish, elaborate ones when compared to those from other contexts. As a matter of fact, they include some ornaments that are virtually unknown



Figure 12.1 The still existing objects of the Lutlommel hoard (after Van Impe 1995/1996, fig. 2).

from other depositional contexts like graves, marshes or rivers. Interestingly, similar ornaments are known from rich hoards in other regions (northern France, southern Belgium, see chapter 8). In these regions their presence seems to be restricted to such hoards as well. For Lutlommel, there are some indications that we are dealing with ornaments related to specific *female* identities (chapter 8). Siding with Van Impe, I argued that in view of their elaborate character, such ornaments should probably be regarded as the paraphernalia of high-status female identities, fulfilling special (although unknown) social roles. Although the different Plainseau hoards are far from possessing identical female imagery, there certainly are recurrent ornament types (chapter 8; Gaucher/Verron 1987). This seems to indicate the existence of conventions on high-status female appearance that were shared between different regions. The references made to non-local appearances as apparent from such supra-regional ornament types can therefore be taken to be deliberate. The individual dressed in such a way was 'dressed in internationality'. It might be ventured that they should be seen as the female counterpart to Late Bronze Age male warrior appearances.

The Lutlommel hoard, then, represents the deposition of such special imagery, and it is to this case that we should now turn. As the hoard has been incompletely recovered, it is no longer possible to see whether sets of ornaments were deposited, indicating several females, or whether the ornaments should be seen as the conspicuous dress of just one person. They were deposited together with some dozens of axes in what probably was an isolated location in between the territories of different local communities. The depositional location is not situated in the usual stream valleys, but on a higher (but not necessarily dry) gentle slope (fig. 12.2; chapter 8).

For the present discussion it is particularly this location in the cultural landscape which is interesting, since it neatly illustrates the selective character of this deposition. In the immediate vicinity of the find, no less than three urnfields are known. Unfortunately, none of these has been completely excavated. All yielded finds from the Early Iron Age, one contains burials from the Late Bronze Age as well (Lommel-Kattenbosch, about four kilometres away). The find of an Iron Age settlement nearby should also be mentioned (Hoeverheide). All sites now dated to the (Early) Iron Age may well have a history going back to the Late Bronze Age. At least, it could have been the community of the Lommel-Kattenbosch urnfield who deposited this hoard. Van Impe goes on to argue that if we assume that all urnfields display a more or less representative picture of settlement, it then becomes more clear how this hoard was deposited in a zone in the landscape, remote from urnfields and probably from settlements as well (if we assume that these were located in

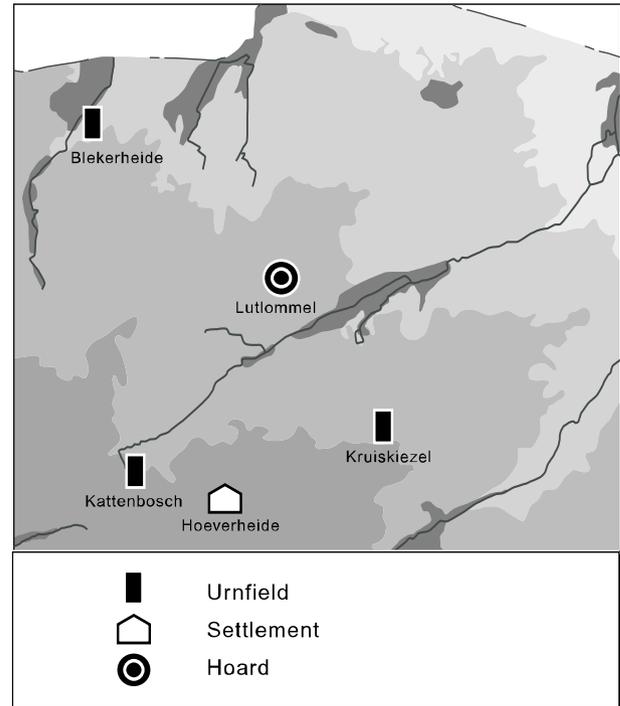


Figure 12.2 The position of the Lutlommel hoard in the Late Bronze Age landscape (scale 1 : 118000; the darkest shade represents 50 m and up, the lightest represents 40 m (after Van Impe 1995/1996, fig. 11).

the neighbourhood of urnfields; Roymans/Fokkens 1991). Van Impe sees this isolated position as an added argument for an interpretation of the hoard as a deliberate deposit.<sup>2</sup> I would like to use his reconstruction to illustrate something else: the selective character of this deposition comes much more to the fore if we compare the bronze ornaments from those urnfields with those in the hoard. The bronze ornaments from the contemporary Lommel-Kattenbosch urnfield for example are of the simple, local types described in section 12.5.1. In Kruiskiezel, for example, one grave contained the conical pendants that I interpreted as a characteristic local female dress. In the urnfields, however, there is nothing in the way of the elaborate bracelets or arm rings that we know from the hoard. Of course our knowledge of these particular urnfields is biased, but we have seen in chapter 9 that this lack of special, supra-regional styled ornaments is characteristic for Late Bronze Age urnfields in general. The hoard represents a deposition of objects that were not placed elsewhere in the urnfield or settlement, and in view of its rich contents (probably originally more than 50 objects, Van Impe 1995/1996, 28), its deposition must have been a very special event.

If we compare this hoard to other depositions in the region, its special character becomes more marked. Including

the deposits in the stream valleys and major rivers, it can be seen that the other category of high-status, prestigious bronzes, weaponry, is predominantly to be found in the major rivers (fig 8.22). This seems to be a pattern, since it is conspicuous that for all Belgian and Dutch 'Plainseau hoards' swords are lacking. The contrast between the content from such an ornament hoard and the deposits in major rivers becomes more marked if we consider a hoard consisting entirely of ornaments found in the adjacent west-Belgian region: the Gent-Port Arthur hoard (Verlaeck 1996, 91-9; nos. 45-56). This hoard contained a number of ornaments, typical for the Plainseau hoards (among others Lyzel pendants), but no spears or weapons. It was found near a stretch of the river Scheldt, where considerable numbers of contemporary bronzes including swords and spears were found. Although ornaments have been dredged up from the river Scheldt in some numbers, the types from the 'Plainseau' hoards ornaments are not among them.<sup>3</sup>

Let us return to Lutlommel. This hoard must represent a deposition of special valuables, in line with a more general concern to keep these specific paraphernalia of a perhaps female, high-status supra-regional identity outside the sphere of the local, and outside the sphere of the martial as well. In agreement with what was argued in the previous chapter, it might thus be ventured that such imagery was just like chiefly, martial imagery considered an ambiguous, temporary one, the paraphernalia of which should be treated with the utmost caution and kept apart. The large number of objects deposited on one occasion implies that Lutlommel represents what Needham (1989, 59) has termed a 'community deposit': an important deposition by a group of people or an aggregation of groups, reflecting very basic concerns of society and 'buried in the knowledge and to the benefits of society at large'. The association of ornaments with numerous axes, that for other reasons can be interpreted as communal valuables *par excellence*, would be in line with this (the role of axes will be discussed in the next chapter). If Van Impe is right that these ornaments were possibly deposited in a no-man's land, in between the communal burial grounds of different local groups (1995/1996, 28), we might venture to see this deposit as involving participants of these different communities.

#### 12.6 CONCLUSION: THE CONTRAST BETWEEN LOCAL AND NON-LOCAL IDENTITIES

Although the discussion on the biography of ornaments in terms of their role in the process of engendering remains difficult, a general theme in their selective deposition can be recognized throughout the centuries. This is the role of ornaments in constructing male or female identities that were primarily meaningful at the level of the local community, versus those ornaments which expressed the individuals'

membership of non-local, 'imagined', communities.

Ornament deposition in graves is related to the *construction* of local identities. Ornament deposition in hoards, however, is about the laying down of paraphernalia, and hence about the *deconstruction* of identities. Fig. 12.3 illustrates the role of ornaments in the life-cycle of a female member of society and gives several options for moments in life when these objects may have been deposited. The interesting thing is that in the case of deposition in Plainseau hoards we are strictly dealing with identities that are the opposite of those expressed in graves: they are of a *non-local, supra-regional* character. Ornament deposition in burials versus deposition in hoards and watery places are therefore not contradictory, but complementary. A clear illustration of this was found in the Lutlommel hoard. We must be dealing here with the same group of people that were doing different things in different places. Two conclusions are to be drawn from this.

#### *The significance of belonging to distant communities*

The first is that the difference between local and non-local identities mattered in these local communities, and had their implications for the way in which objects were made. Regionality, particular in female identities, was apparently important. It is tempting to relate this to the significance of kinship and marriage alliance relationships, in which it mattered where a marriage partner came from, and in which way he or she took part in supra-regional exchange networks (cf. Lohof 1994). After all, the communities we are studying are by their dependence on bronze items inextricably linked up with larger networks, of which the bronzes are probably just the aspect visible to us. Communication of technological and cultural knowledge might have been another thing that flowed via these channels, as is the exchange of people themselves. The significance of belonging to distant communities through exchange networks becomes archaeologically visible by the lack of outspoken local styles, and the copying of supra-regional ones, the importation and wearing of imported ornaments and costumes.

#### *The significance of local identities*

The second conclusion is that in spite of the considerable 'openness' of the system to these non-local ways of dress, the contrast between local and supra-regional identities did matter, and was played out in the deposition of objects. Supra-regional identities, as reflected by the Plainseau ornaments, were not part of the imagery of the deceased in an urnfield grave. They seem to have been deliberately kept out of the final representations of the deceased, and instead ornaments, and items were deposited that were primarily meaningful at the local level. References to non-local identities and to the essential involvement of this community in a wider area of groups are lacking. Instead, emphasis is on

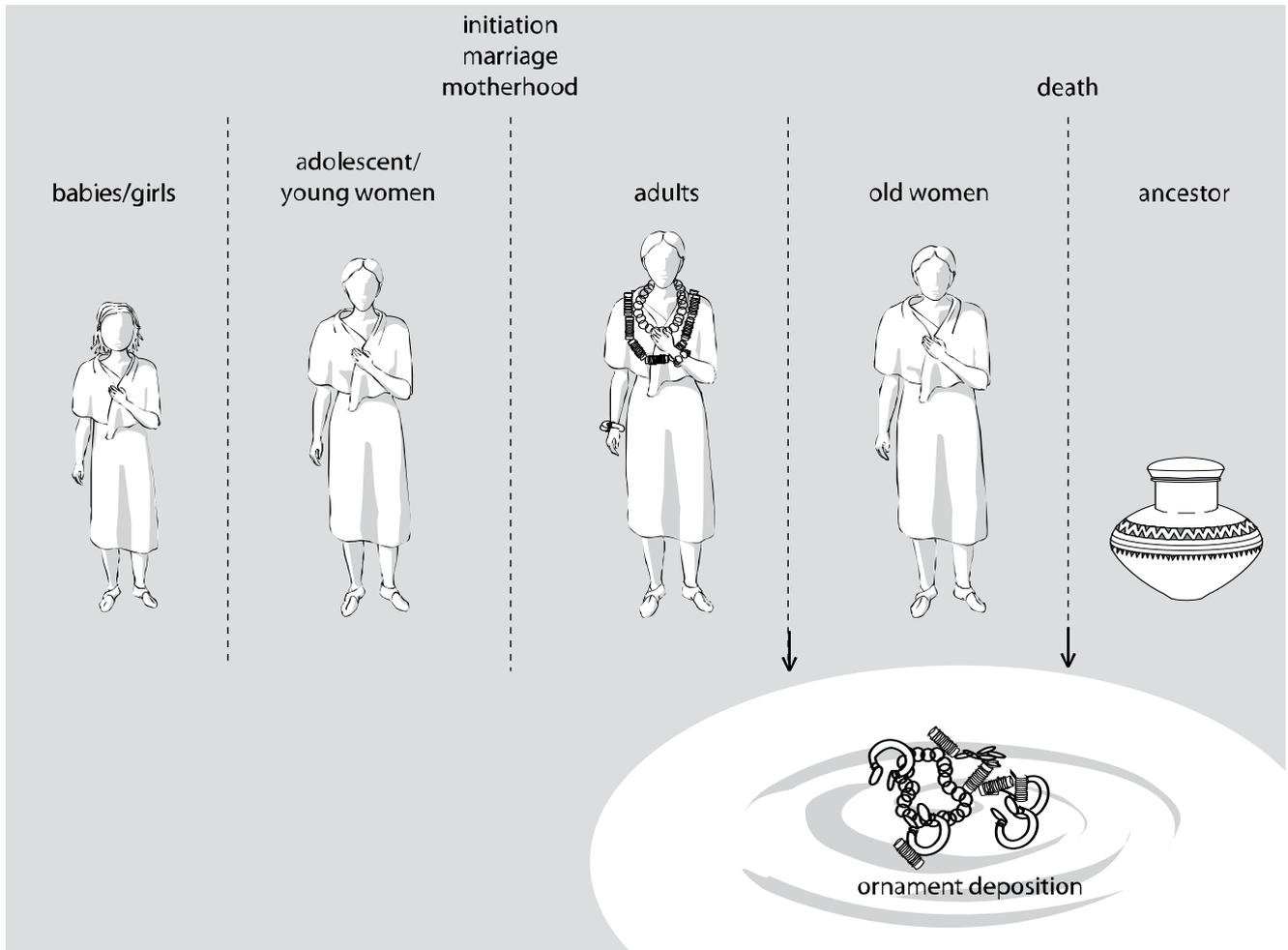


Figure 12.3 Hypothetical life-cycle of a female of high status. The assumption is that this identity was confined to a specific stage in the life-cycle and that specific non-local body ornaments were instrumental in signalling this stage of personhood. Consequently, the deposition of these objects marks the transition to another stage of life. Shown are possible moments at which such a deposition may have taken place.

decorating the dead according to highly idiosyncratic local norms and ideas. Gerritsen (2001) has recently argued that a local identity is not just something that results from the fact that people live nearby and work together on the fields. A notion of a local identity is just as much an ideological value, a construction. This becomes particularly pronounced in the case of Late Bronze Age urnfields. After all, these are the communal burial grounds of different households, living dispersed over the land. These households, however, buried their dead in a communal, fixed and inclusive cemetery, linking different social entities to each other and to their ancestors (Gerritsen 2001, 257). In a Late Bronze Age urnfield every individual is represented as subjected to a larger, communal whole (Roymans/Kortlang 1999, 53). Collectivity seems to have been a dominant value in urnfields, to the

extent that values relating to difference in personal status were not expressed. We already touched upon this with regard to the clear absence of weapon graves in such urnfields. In addition, the evidence from ornament deposition discussed here implies that urnfields were not just imbued with notions on communal identities, but that these were explicitly understood as an identity that was profoundly *local* in nature. We can deduce from the wholesale reliance on imported bronzes and the general 'openness' of regional bronze production styles, that being part of non-local exchange networks was highly significant. In the Late Bronze Age urnfields, there is not much that reminds us of that. Although we can assume that some social roles embodied the social significance of such a belonging to non-local identities by adopting non-local appearances (Plainseau ornaments,

warrior identities), these nevertheless did not play a role in the final representation of the deceased in an urnfield.

The reality of a community that is firmly rooted in a specific environment and the ensuing sense of belonging to that area, seems to have been at odds with the reality of certain individuals participating in networks stretching far beyond the boundaries of that environment. These were not just about acquiring access to non-local materials, but also about sharing cultural knowledge on supra-locally acknowledged categories of personhood and their appearance. This probably involved getting access to the circulation of personal valuables that served as constituents of personal identities. As in the case of weapons, the latter seem nevertheless not to have been fixed to a specific individual by placing them in a burial, but rather these were laid down in nature. Like weapons, they were probably also regarded as ambiguous, temporary identities that were worn or shed at

some stage in the life-cycle. Given the Lutlommel evidence or that from rivers, this may have been performed in a communal gathering of special nature, in a special environmental setting.

### notes

1 For practical reasons, the term ornament used here includes dress fittings (pins) as well.

2 Following the approach set out in this book, it was already argued that this hoard represents a deposition intended to be permanent, because such large Plainseau hoards are not an isolated, but a patterned phenomenon (chapter 8).

3 Verlaeckt 1996, 27-9, see specifically his discussion on bracelets with everted terminals and pendants of type Lyzel.

### 13.1 INTRODUCTION

Throughout the Bronze Age, axes were the most important item in depositional practices. Much more than any other tool, they occur not only in numerous single object deposits, but also in combination with other tools, weapons and ornaments. From this alone, it can be inferred that their deposition reflects a multiplicity of meanings, rather than just their significance as an agrarian tool. The predominance of the axe in depositional practices is a widely-shared, north-west European phenomenon. It applies both to the Neolithic and the Bronze Age. On the basis of archaeological and historical evidence, some scholars have even argued that the axe was a central symbol in north-west European prehistory from its early adoption somewhere in the Neolithic, into in the Middle Ages (Lequellec 1996).

Interesting as such generalizing studies may be, we might run the risk of attributing some essentialist qualities to axes. It is clear that the present book also has to come to terms with the special role of axes in deposition. In order to avoid essentialist arguments, however, I wish to return to the evidence for the special role of axes in prehistoric societies in the southern Netherlands itself, and in particular to their elemental significance in depositional practices.

What should concern us here, is understanding the meaning of axe biographies ending up in deposition. The various patterns in which deposition took place indicates that there were several kinds of biographies, reflecting the multiple roles of axes. This chapter will chart these meanings. The argument will be developed that apart from depositional practices that are related to the role of axes in agrarian life and household cycles, there is evidence for axe depositions that are related to their role as fundamental exchange items in bronze circulation, and to the conversion of the sphere of commodity to gift exchange.

### 13.2 THE SIGNIFICANCE OF IMPORTED ADZES AND AXES FOR NON- OR SEMI-AGRARIAN COMMUNITIES

When the first farmers settled on the fertile loess grounds in southern Limburg around 5300 BC (Linear Pottery Culture or LBK), the largest part of the southern Netherlands was inhabited by hunter-gatherer communities (Verhart 2000). The hunter-gatherer way of life was to remain a crucial

aspect of these societies at least until the beginning of the Late Neolithic Bell Beaker phase (chapter 5). Agriculture and cattle-breeding were only gradually incorporated, and in the course of the centuries the characteristic way of life that came about in the southern Netherlands was a broad-spectrum subsistence, in which agriculture and cattle-breeding were in different ways combined with hunting, fishing and foraging (Louwe Kooijmans 1993a). As Raemaekers (1999) has argued, instead of a wholesale adoption of the ‘farmer’s way of life’, we see the development of this subsistence system as the ‘new neolithic’ that originated among hunter-gatherer groups. In our region, it is only since the Late Neolithic-B (2500-2000 BC) that a transformation to a ‘fully Neolithic’ subsistence system can be seen.

Initially, the differences between the first farmer communities on the loess soils and the mesolithic hunter-gatherer groups beyond must have been significant. However, the finds of Early Neolithic artefacts among Mesolithic settlements show that there was contact between both groups: such objects obviously circulated among hunter-gatherer communities (Verhart 2000), and this is where we touch upon issues relevant to the present discussion. The exchange items on which we are relatively best informed are the early Neolithic stone adzes and axes, in particular those dating to the Rössen phase. Raemaekers (1999: appendix 4) shows that such objects circulated far beyond the loess zone. Important to note is that such tools were produced by fully agrarian societies and designed to perform tasks related to agrarian life. Axes can be seen as *the* symbol of agricultural settlement (Bradley 1990, 48). In northern Europe, however, there is ample evidence that Neolithic adzes and axes were circulating much earlier among hunter-gatherer groups where true agriculture was hardly practised (Bradley 1990, 45). The fact that they circulated widely implies that they were accepted and valued as an important exchange item, linking different communities in a wider exchange network. Apparently such foreign objects were translatable into local idioms. Gradually, their role was taken over by polished flint axes in the Middle and Late Neolithic. These axes were then circulating between communities where agriculture gradually became incorporated as part of extended broad-spectrum economies, be it to a different extent and in different ways (Raemakers 1999).

Although the circulation of axes dates back much earlier, the existing role of axes as exchange item may have taken on a new significance with the growing importance of true agriculture and the ensuing commitment to land (cf. Bradley 1990, 73). As the regular presence of broken flint axes on Middle and Late Neolithic settlement sites illustrates, axes were tied up with the practicalities of daily life. For an important part this should be read as *agrarian* life, where the axe was the most vital tool with which groups reclaimed natural stretches of land, created new settlement grounds, or built new houses. In the daily life of small groups, such tasks are vital to their history and continuity, not only in a practical, but potentially also in an ideological way: building a new house, or reclaiming new territory is often regarded as a marked event, coinciding with the self-definition/reproduction of the group in question (cf. Gerritsen 2001, 43-4). It might be ventured that in this period the foundations were laid for a general conceptual link between the biography of an agricultural tool as an axe, and the biography of the small group on whose behalf it was used. It is from the Later Neolithic that there is ample evidence that such axes were deposited in high quantities in watery places, and as mentioned in chapter 5, this is also what happened in the southern Netherlands.

Summing up, we can conclude that axes were widely recognized as valuable in supra-regional exchange long before the Bronze Age. That this was true for communities that did not or only superficially practise agriculture illustrates that the meanings of axes were much wider than just a tool for agrarian, settled life. For a foreign object to be accepted by local communities, it is important that it can be translated into local idioms (Sørensen 1991, 198). The widespread acceptance of axes is probably not so much related to essential qualities of the object itself, but rather because it effectively linked a whole range of spheres of human activity (Kristiansen 1984, 79). It was an important tool for a whole array of daily tasks (forest-clearing, wood-working for houses, fences, canoes and so on), but it could also effectively be used as a weapon and therefore potentially be suitable for expressing power relations (Tilley 1996, 114). Apart from that, from the wide distribution of imported axes across Europe it can be deduced that it was valued as an exchange item in its own right.

### 13.3 THE DEPOSITION OF SINGLE, USED BRONZE AXES: THE GENERALIZED BIOGRAPHY OF AN AXE

Although a superficial inspection of textbooks may suggest that axes were generally deposited in hoards (Butler 1969), the reverse is true for the southern Netherlands. As recognized for all periods under study, the general manner of axe deposition seems to have been the deposition of just one axe into all kinds of watery places. As a rule, such an axe was used.

Axe hoards containing dozens of axes are virtually only a feature of the last part of the Late Bronze Age in this region. Except for some exotic axe types, they never seem to have been meant to end up in burials. For the entire Middle Bronze Age I know of only three axes in burials, and none for the Late Bronze Age (appendices 7.2, 7.3 and 7.4, leaving the dubious Late Bronze Age Biezenmortel find aside). The recent excavations of well-preserved Middle Bronze Age B settlement sites indicate that they were not deposited in farmyards either, although other tools were (most notably sickles: chapter 7). Single axe deposition seems a case in point for the theory that it was an object's life that mattered for its selection for deposition (chapter 3). It also seems to be the best example for a kind of biography that was based on a shared, cultural understanding of how the life-path of such an axe should be. Focussing on the shared elements in the biographies of all the single axe deposits, I shall now try to reconstruct some of the issues that mattered by describing elements of the generalized biography of an axe (illustrated in fig. 13.1). Fundamental to the entire biography is the assumption that the axe in the course of its life became increasingly entangled with the lives of the people who used it (chapter 3).

#### *Production*

The life of the axe starts at the moment of its production, and it is at this stage that a number of issues matter. We have seen that once a regional bronze production came into being, the axe was one of its principal products. This production could only thrive by virtue of a regular influx of metal to be remelted: these might have included ingots, scrap, but also finished objects. I once again refer to the find of the Dover wreck before the British coast. This ship contained numerous axes of types uncommon in the British Isles. The assumption then is that these were meant to be melted down to form objects in styles that were locally acceptable (Bradley 1990, 146). Production thus might have involved a first step in the process of appropriation: alien metal and forms were melted down to form objects more familiar to the region. Both for the Middle Bronze Age B and the Late Bronze Age we have seen that regional axes are among the few regional products to display a regional style. This deliberate attempt to transform foreign metal into something that appeals to a distinct regional style can be seen as an initial step in linking the object to the people on whose behalf it was produced.

#### *Circulation and use-life*

The next step in the axe's biography is its life. This life must have included a use-life and a life of circulation. The latter is particularly true for the many imported axes that remained vital even though a regional axe production was established,

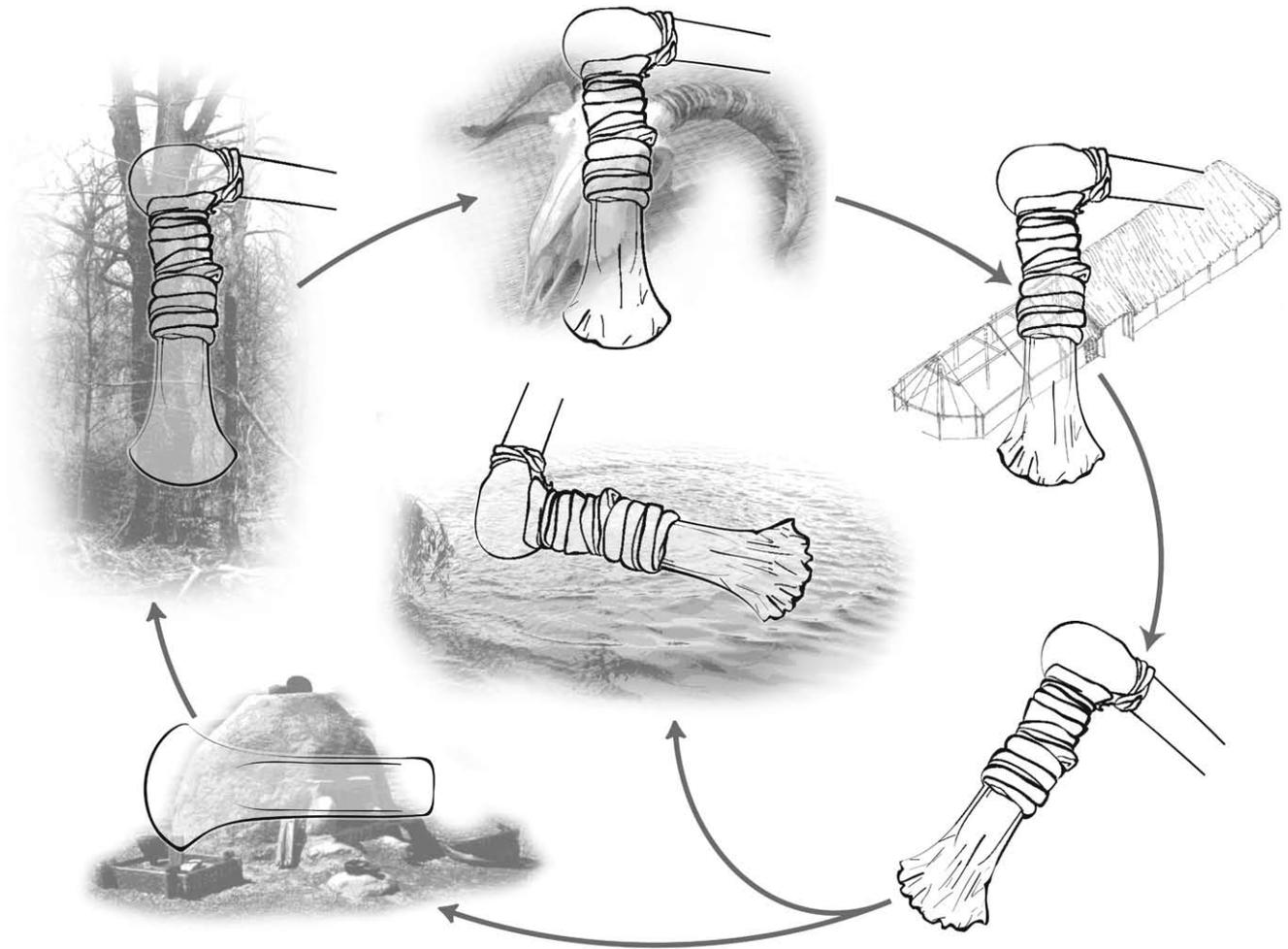


Figure 13.1 Impression of the cultural biography of an axe. Shown is its life-course through all fields of agrarian life (reclamation, creation of fields or pastures, house-building), until it is either re-melted and starts a new life-cycle or deposited in a stream to never be used again.

but we can assume that a life of circulation mattered to regional products as well, unless we are dealing with a reality in which every household had a smith, which seems very unlikely. Moreover, the evidence of the Oss mould (chapter 7) pleads for a considerable mobility among smiths. During circulation, the axe may witness significant transformations in meaning (commodity to gift or vice versa), and become imbued with histories of former owners. We can also think of the use of axes as a dowry or as political gifts. The point is that it is impossible to read such histories of circulation from the object alone. In the next sections (13.4 and 5), I shall argue that there are cases in which such a role in exchange transactions might be related to their deposition in a straightforward way. For the kind of deposition under discussion here, that of single, used axes,

we should consider the significance of its life-path in the daily reality of agrarian life.

It cannot be a coincidence that most single axe deposits show traces of an intensive use-life: worn edges, damaged butts, edges that have been resharpened several times, objects that started as an axe and ended up as a wedge, and so on. These axes must have been put to use in all kinds of activities, ranging from felling trees for reclaiming land, working wood for building a house, sheds, granary stores, but also the use of axes in cutting and working wood that was so conspicuously used in the peripheral structures of barrows and related structures. We can also think of other kinds of use: as weapons, for example (chapter 11). Particularly in the case of house building or clearing land for creating a new living area, these activities must have been important events in the

life of a local group. Gerritsen (2001) argues that the building of a new house often involved the formation of a new household. As we have seen, these houses are also often large and impressive structures. Its construction must surely have been an important communal event, carried out by a group of people. Axes were instrumental in carrying this out. For that reason alone, we can argue that by being used in such a way, an axe became intimately linked to the settlement history of a local group.

### *Deposition*

A moment came when the axe's life ended. Apart from unintentional loss, there were several ways in which people deliberately terminated the biography of an axe:

- the axe was melted down to form a new object;
- the axe was discarded;
- the axe was deposited.

There is not much evidence to suggest that discard (as defined in chapter 4) of bronzes took place, but the fact that in the Middle Bronze Age B and Late Bronze Age a thriving regional bronze production existed is enough to assume that the most current termination of an object's biography was its ending up in the melting pot. What we are dealing with, however, is that a single axe was placed in a wet place after an intensive use-life. The estimates of the frequency at which deposition was practised presented in chapter 10 imply that this only took place rarely. Furthermore, the selection of places is noteworthy: although displaying a high variety of environments, most are wet, uncultivated places (see also chapter 14 on the role of the landscape). It is also significant to note what these places are *not*: they are not the graves of individuals, nor are they settlement sites (although tool deposition was practised there occasionally). The former suggests that axes were not deposited as individual property, nor as an element in personal appearance. Given the communal character of use to which axes were put (land clearance, reclamation, house-building), we might also see this non-deposition of axes in individual graves as a continuation of their meaning as a communal rather than a personal valuable. Given their inextricable links with the essential activities of households, we might wonder, however, why axes seem to have been kept away from settlement terrains. Is this apparently deliberate avoiding of farmyards in deposition an indication that axe deposition was perceived as related to communities larger than a single household? It might be in line with the observation that the styles of axes locally made is not idiosyncratic either to one or few local communities, but appeals rather to what was current in the southern Netherlands as a whole (and even beyond, see below). According to this line of thinking, it follows that sickles, which were after all deposited at farmyards, were more

readily associated with households and perhaps held in less high esteem than axes.

In the deliberate choice of placing axes into uncultivated, watery places, we seem to face a paradox: the tool *par excellence* for transforming 'nature' into 'culture' is placed not in man-made settlements, fields or barrows, but in unaltered, natural places. When discussing the attitudes towards landscape that might have steered deposition in the next chapter, I shall deal with this in more detail. It is ventured that this remarkable preference for 'nature' may reflect a fundamental notion on the reciprocity of people and the land, where the object which 'takes' from the land is at the end of its cycle finally 'given back' to it.

13.4        THERE IS MORE TO AXES THAN JUST THE TOOL  
Above, axe biographies were primarily explained by reference to the use-life they bear traces of, and in particular to their entanglement with household cycles. When I explained the role of the axe in selective deposition, I explained its role in depositions primarily in terms of its use-life. Similarly, we could make sense of the deposits of some axes in terms of a use-life as a weapon (those from weapon deposits, chapter 11). In 13.2, however, I have already argued that there is more to the axe than just its role as a multi-functional *tool*. It is this idea that we should pay more attention to, in particular because axes also have a number of characteristics that are not so easy to explain from a life as a tool alone. These are as follows:

- 1 As we have seen, axes are by far the most important object in depositions, outnumbering any other object category. This situation is not unique to the southern Netherlands, but to western Europe as a whole (Bradley 1990, 118-9). Bradley makes the interesting observation that the same applies for the sickles in central and eastern Europe. Both sickles and axes functioned as tools, but as he states it, it is improbable 'that West European land use was based mainly on the axe and that in Central Europe farming depended on an abundant supply of sickles' (Bradley 1990, 119).
- 2 Once a regional production of bronze came into being (at least from the Middle Bronze Age B onwards), the importation of axes did not cease at all. As we have seen, in some regions (the Meuse valley for example), the number of imported Middle Bronze Age B axes even remains remarkably high, and this does not change in the Late Bronze Age (chapters 7 and 8). Why should a region capable of producing their own axes continue to import axes from regions as far away as England or northern France?
- 3 There is evidence that axes, spears, arrowheads, ornaments and perhaps daggers were all regionally produced since the Middle Bronze Age B (the Oss and Cuijk moulds, and the

evidence on regional styles, see chapters 7 and 8). Still, it is only axes that were given a regionally-specific appearance. Why was this? Moreover, the styles themselves are not idiosyncratic to the region. Rather, they are based on the adoption of decorative elements current on west and central European axes that were imported to our region. The Niedermaas socketed axe, for example, refers to winged axes in their decoration, but is a regular socketed axe in form (chapter 8). Sometimes, styles even seem to have been imitated (the shield decoration of Norman palstaves for example, chapter 7).

- 4 For the Late Bronze Age, there is a number of multiple-object hoards in which axes are predominant. Sometimes over 40 axes have been deposited together (Heppeneert, fig. 13.2; chapter 8). With regard to context, these hoard deviate from regular deposits of single items: the richest hoards are from semi-dry locations.
- 5 For the Late Bronze Age there is for the first time plenty of evidence for objects that were not finished and were never used. A number cannot even have functioned as a tool because they are much too fragile (Geistingen axes, chapter 8).

*Implications: the dual roles of axes*

What can be inferred from these observations? That axes continued to be imported when there was a thriving regional production, whilst the regional axes were made to look like

imported ones, can be taken to mean two things. The first is that in spite of regional production, there was a shortage of axes. This seems very unlikely, however, since both imported and regional axes were deliberately given up. The second interpretation seems more viable: the side-by-side circulation of imported and regional axes suggests that bronze itself circulated *in the form of axes*. In the case of bronze circulation, we are dealing with an exchange system which connected different cultural entities. For such a system to flourish, exchange items are needed whose significance is widely recognized. For the north-west European system it can be argued that axes played such a role. We have seen that they were already valued as widely accepted exchange items since the Neolithic. Following Barrett (1989, 315), it can be stated that the axe appears to have been involved in exchanges which extended beyond routine agricultural activity. Bradley's observation, cited under 1, makes sense in view of the supply of axes that is more abundant than explainable from the nature of agricultural activities alone, and his interpretation deserves to be followed here as well. Bradley considers axes as fulfilling *dual roles*. On the one hand, they are a widely accepted exchange item in supra-regional bronze exchange, being readily usable both as axe or as raw material for production. On the other hand, they are a multifunctional tool. For the Geistingen axes we then seem to be dealing with an object that no longer combines both roles, but has become a specialized exchange item only.



Figure 13.2. The Heppeneert hoard (after Van Impe 1994, fig. 1).

Accepting that axes had this added significance as a general exchange item makes observation 3 easier to understand. If there was a supra-regional metalwork exchange network, and if axes were crucial valuables in it, then axe types must be acceptable beyond their own region. This might explain why regional styles were open and inclusive, rather than closed and idiosyncratic. For both regional palstaves and socketed axes, it was argued that the axes were very much meant to look like those of other regions, and in ornamentation refer to stylistic traits of these. Tentatively, we can state that regional styles mattered in the constitution of long-distance exchange networks.

### 13.5 LATE BRONZE AGE AXE HOARDS

If we accept that axe circulation is not just ‘the trade of a tool’, but that an axe is just as much the ‘tool of a trade’ (Doumas 1998), then the question may force itself upon us whether some axe deposits can be seen as related to such a life of circulation rather than anything else. As set out in section 13.3, it might well have been its exchange history that made the difference in selecting an axe for deposition in a watery place; we simply cannot tell because such a history leaves no tangible traces on the object. For an imported palstave that was deposited in broken condition, probably together with two undamaged regional palstaves near Nijmegen-Heesche Poort (chapter 7), we may assume that it was its life of circulation that accounts for the selection of the damaged imported palstave. For the present study our interest should be focussed on patterned deposition of axes in such a way that their deposition is more difficult to explain along the lines set out in section 13.2 (a use-life culminating in deliberate deposition). A group of deposits that challenge the explanations offered so far, are the rich axe hoards of the Late Bronze Age, containing numerous axes.

#### *Hoard containing numerous axes: their characteristics*

Let us first briefly review what was so remarkable about these axe hoards. In the discussion on axe deposition in chapter 8, a group of five axe hoards was recognized, including the Heppeneert, Lutlommel, Hoogstraten, Antwerpen-Kattendijkdok and Geistingen hoards. They all share the following characteristics.

- They involved the deposition of large numbers of axes. In Heppeneert, some 44 axes have been uncovered. Such numbers contrast sharply with the regular single axe deposits.
- The majority of the axes in the hoard are of the same type. This is also true for the more modest axe hoards, like Rotem-Vossenbergh (four axes), Pietersheim (five) and Nieuwrode (five)
- The axes in these lavish hoards are almost all of the same type, and they all date from the last phase of the Late Bronze Age. In the eponymous hoard, all axes are of the



Figure 13.3. The Voorhout hoard.

Geistingen type. In all other cases they are predominantly of the Plainseau type.

- The axes were deposited in locations that deviate from what was normative: Hoogstraten, Heppeneert and Lutlommel were not deposited in marshes or stream valleys, but in dry places. There are indications for Heppeneert, Geistingen and Lutlommel that these were not strictly dry, but – seasonally? – wet. Only Antwerpen-Kattendijk is a peat hoard from a stream valley near the river Scheldt (fig.13.4). For Lutlommel there is additional evidence that it was deposited in between the territories of different local groups (chapter 12).
  - Hoogstraten, Antwerpen and Geistingen seem to have existed of axes only. In Heppeneert an additional spearhead was found, and in Lutlommel the axes were associated with numerous ornaments (chapter 12).
- Leaving these generally shared characteristics aside, a feature which distinguishes the Geistingen hoard from the hoards with Plainseau axes is that the Geistingen axes are all afunctional ones. A use-life does not seem to have mattered in the biography of these axes. For the other hoards, most axes were functional ones and display use-traces (Heppeneert and Lutlommel; van Impe 1994 and 1995/1996).

### 13.6 AXE HOARDS AS REPRESENTING DELIBERATE PERMANENT DEPOSITS

The axe hoards described have all the characteristics of what is generally defined as trade hoards: trade stock buried for later retrieval (chapter 2). After all, they consist of one object type and were buried in locations that were potentially accessible. Also, the Geistingen axe hoard consists of objects that were probably purely exchange items or ingots instead of tools. Have we now finally found evidence for object deposits that were not meant to be permanent? Are these axe hoards straightforward examples of trade hoards?

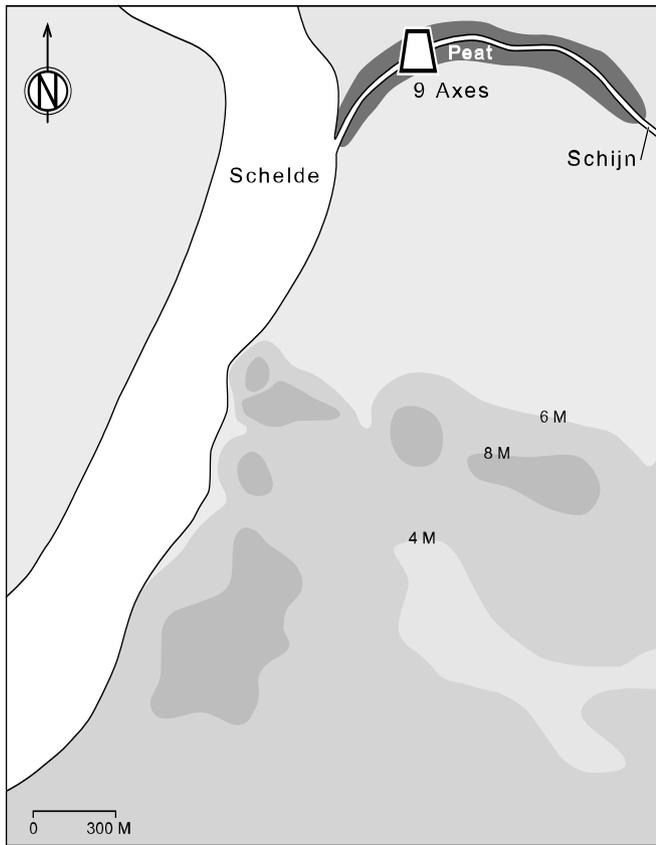


Figure 13.4. Position of the Antwerpen-Kattendijkdok hoard in the landscape (after Warmenbol 1984a, fig. 0).

In my view, such deposits might indeed have had a straightforward link with ‘trade’, or better, commodity exchange. Still, they cannot simply be regarded as temporarily hidden object stores that were by some whim of fate never recovered. I shall start by arguing why this seems unlikely, and then formulate an alternative explanation.

#### *Axe hoards as patterned phenomenon*

First of all, in line with the methodology set out in chapter 4, an interpretation of the mass axe hoards as temporary stores seems unlikely because it is a *patterned* phenomenon. Similar types of axe hoards, built up in similar ways and deposited at often comparable locations, are known from both the Scheldt valley (Antwerpen), the Meuse valley (Heppeneert) and the area in between (Hoogstraten and Lutlommel). They can only be considered temporary stores if we link them to a patterned historical phenomenon which explains their non-recovery (a hurried migration of the people who buried them, not being able to dig up their belongings). Alternatively, no such migration took place, but they simply represent the stores that were forgotten. The assumption that

goes with this view is that these hoards represent the exceptions to a widely shared pattern of hoard retrieval.

#### *The evidence of context*

A second argument that makes the ‘temporary store’ interpretation less likely is that of the context. The Antwerpen-Kattendijkdok hoard was placed in the marshes surrounding a stream valley. This is not likely to have been regarded as an easily retrievable store in an accessible place; rather, it is the kind of location we find most of our metalwork deposits in. Although more difficult to grasp, I presented arguments that the Lutlommel hoard may also come from an environment that was – at least partly – wet (chapter 8); the same has been suggested by Van Hoof for Heppeneert (chapter 8). At any rate, the patina of the objects from either hoard does not unequivocally support the view that they were plain and simple dry hoards. Moreover, in chapter 12 it was already argued that the location of the Lutlommel hoard in the landscape was a special one. It was probably situated in the periphery of different territories.

#### *Mass axe deposition as a historically situated phenomenon*

Third, it is conspicuous that these axe hoards only date from the last phase of the Late Bronze Age. This is also true for the north-west French region, from which massive hoards with hundreds of Plainseau axes are known (Gaucher 1982, fig. 120). Mapping the frequency of metalwork deposition in western Europe, Huth (1997; in press) has shown that the peak in deposition is always reached at the end of the Bronze Age. Later on, we shall come back to the implications of this. At this point, I wish to use this observation of synchronism as another argument to see axe hoards in the region as a related phenomenon of deliberate deposition, and not of shared ‘forgetting’.

#### 13.7 LINKING ‘RITUAL’ DEPOSITION TO THE FLOW OF METAL

Before taking the next step in the argument, it is necessary to combine the findings of the last two sections. Axes must have functioned as general exchange items in the supra-regional flow of metal, potentially allowing application both as ingot and as tool. This metal circulation between regions must have been voluminous, as the occasional find of a shipload of bronze indicates. The example of the Dover cargo has already been mentioned. Another one is the shipwreck of Cape Rochelongue near Agde (France), containing around 1700 bronzes, many of them as-cast axes, 800 kg of copper ingots and some lead (Huth in press). It is hard not to relate the large axe hoards from our region to the life of axes in this huge bronze circulation. Apart from that, we have seen that these large axe hoards nevertheless are not simply forgotten trade stocks; they must be deliberate, permanent

deposits. It is now important to link this to a conclusion drawn earlier on in this chapter: the voluminous deposition of large numbers of axes existed side by side with the practice in which axes were deposited individually in streams or marshes, after a long and intensive use, and in all probability in relation to the meaning accumulated by such a life. It is important to note that these single deposits are also of axe types that we encounter in mass hoards (Plainseau axes). Thus, single axe deposits and large axe hoards are examples of contrasting kinds of deliberate axe deposits. The conclusion to be made is, I think, that this differentiation in deposits goes back to different meanings attached to the axes in these deviating contexts. Simplifying matters, we are dealing with axe depositions reflecting specialized meanings (single deposits of a used axe in wet places), versus deposition of axes reflecting their role of exchange item in the large-scale supra-regional bronze circulation (large one-type axe hoards). The latter is most clear in the case of Geistingen axes, which are ingots in their own right. It is this contrast between divergent ways of deposition which seems to hold a clue for further understanding. It is essential in my view that we go back to the realization made in chapter 3. Objects can be commodities or things at one stage in their cultural biography and gifts possessing specialized meanings at another. In the case of the deliberate deposition of single axes in streams or rivers, we are dealing with an example of the latter. Axes, however, were not made as such specialized, symbolic items in their own right: they acquired such a status as a result of a specific biography. Still, these objects once entered the region as bulk-traded metal or as finished objects: they started their life as commodities. How could a transformation from the commodity-status (short-term exchange) to a more specialized symbolic meaning have taken place (long-term exchange)? I shall now sketch a hypothesis in which it is suggested that deposition of a number of axes as exchange items might also have been a way to achieve this transformation.

### 13.7.1 *How gift and commodity exchange are linked*

What we are dealing with here is a much more general phenomenon: the transformation from what was termed the short-term sphere of exchange (the domain of commodity exchange and individual, competitive acquisition) to the long-term sphere of exchange (the domain of exchange of personified gifts between people, and between people and the supernatural; Bloch/Parry 1989; this book: chapter 3). Bloch and Parry show that every society has procedures by which objects derived from the short-term sphere of exchange are converted into the long-term transactional order. They argue that the possibility of conversions between the two orders has much to do with their moral evaluation. 'While the long-

term cycle is always positively associated with the central precepts of morality, the short-term order tends to be morally undetermined since it concerns individual purposes which are largely irrelevant to the long-term order. If, however, that which is obtained in the short-term individualistic cycle is converted to serve the reproduction of the long-term cycle, then it becomes morally positive' (Bloch/Parry 1989, 26). With regard to the role of money in 'traditional society' they give examples of converting procedures in which cash is 'consumed' (Fiji), 'cooked' (Langkwari) or 'digested' (the Brahmans of Benares, Bloch/Parry 1989, 25). More modern examples are wealthy capitalists donating to charity or funding a church. The procedures of converting are culturally-specific, but the principle is the same: to make commodities procured in short-term exchange acceptable for fulfilling special roles in one's own group, a part (*pars pro toto*) of it is sacrificed. It is ritually converted, by being put in the long-term sphere of exchange. Needham (2001, 288) gives the example of votive gifts to Roman temples: in a temple gift, wealth is ritually provided to the supernatural for some time after which it can be safely transformed into commodified finance for the temple's economic advantage.

Now back to archaeology. How could such conversions in object status have taken place in the case of bronze circulation? I would like to suggest the following possibilities.

#### 1 *Transformation by re-shaping the object*

One of the most drastic ways to effect a transformation is by physically transforming the object. Melting down an object and re-shaping it in a form that appeals to what is locally acceptable seems an important way to achieve this. Bradley made the important point that the Dover wreck illustrates that such transformations actually took place. As said before, this ship contained numerous axes of a type that is hardly known in England. The idea is that they were meant to be melted down and shaped into forms that appealed to local norms, and would consequently acquire specialized functions as appears from their presence in wet-context deposits (Bradley 1990, 121-9). It would also be in line with another observation made in this chapter in section 13.4: axes are one of the few examples of regional products with their regional distinctiveness emphasized in decoration, although always in reference to styles from other regions. That pains were nevertheless taken to provide these axes with a regional decoration may be linked to the theory that this was to emphasize that they were from now on to fulfil specialized roles with accordance to regional/local ideas and values.

#### 2 *Transformation by 'pars pro toto' sacrifice*

Crucial to Bloch and Parry's theory is the notion that things acquired in the short-term, commodity, exchange become socially and morally acceptable once they are converted to reproduce the long-term exchange. As we

have seen, sacrifice of imported items to supernatural entities is one way to achieve this, and this brings us to the possible role of deliberate deposition. Could deposition of a representative part (*pars pro toto*) of the imported valuables not have been a comparable way to achieve such conversions? Placing alien objects in one's own land might have been a very literal way to 'give' and recontextualize alien things. Perhaps we might even venture, as Needham (2001) recently did, that such deposits, after being consecrated in such a way, were dug up later on to be used again. It goes without saying that Needham's theory is by definition untestable, and it seems hard to reconcile with the large axe hoards at hand, since for these hoards there are better arguments for their intended permanency.

### 13.7.2 *Object deposition as a way to transform items from commodities into gifts*

Let us now focus on the possible role of object deposition in this process of transformation. On the face of it, it seems to imply a paradox. However, considering the dual roles of axes as mass-commodity *and* specialized, meaningful objects, it may well be in line with this. In order to uphold such a dual role both spheres of exchange should remain strictly separate, to prevent the role of axes in semi-commercial transactions from diminishing the special meaning of axes within the communities. Sacrifice of *a part* of the acquired goods, perhaps envisaged as a gift to the supernatural, might have been the procedure to make the new bulk of material morally acceptable and suitable to fulfil these specialized roles.

Consequently, depositing items to convert metal from commodities into gifts, seems to be an act integral to the functioning of the entire flow of metal. In an *emic* way, the notion of making them morally acceptable might have been an explanation. In an *etic* way, it is a strategy which not only converts material to fulfil specialized roles, but also functions to create its special value by controlling its supply. Obviously, the implication is that bronze circulation was fundamentally a *sacrificial* economy.

Can such acts be recognized archaeologically? We would expect it apply to material that still had to enter a biography of use. The reader will recall that indeed for all periods there were some cases of deposition of unfinished or unworked imported axes. Scrap hoards in wet contexts might well be another example. For the western Netherlands, the curious palstave hoard of Voorhout comes to mind (fig. 13.3; Butler 1990). This hoard has always been considered one of the best examples of a trade hoard (temporarily hidden trade ware; Van den Broeke 1991a, 242). Only recently has it become clear that the axes deposited are Welsh products of a type that is unknown from any other site apart from this hoard. Also, the original find information (generally ignored)

suggests that the axes were buried in a peat layer (Holwerda 1908; Lorié 1908). This seems hard to reconcile with stock that was only temporarily hidden. For the Late Bronze Age, the example of the Geistingen axes comes to mind. Being no more than ingots, such objects still had to undergo the first transformation of melting down. Finally, we can envisage such a scenario for the deviant deposition of axes in the large axe hoards, with their clear references to their role as bulk commodity in trade. To this we can add the observation that comparable Plainseau hoards in northern France often also contained scrap (Van Impe 1995/1996, 28), making the link between traded ware even stronger. The context of a hoard such as the one from Lutlommel, described in chapter 12, then seems to allow us a glimpse of the special character of such deposits. It was argued that it must have been a community deposit, possibly involving the participation of several local groups, and carried out in a remote area. The deposition involved an entire range of objects that all seem to have been kept out of other contexts deliberately, like settlements and graves. They are outstanding examples of non-local things, epitomized by the deposition of ornaments relating to a way of bodily adornment that had clear references to supra-regional styles. It seems as if a deliberate attempt was made to recontextualise an entire set of 'alien' things, including communal trade ware.

With regard to the remarkable axe hoards questions still remain. If depositions sometimes functioned to make imported things morally acceptable to local ideas and values, then it must have been a very general practice. If we accept that the large axe hoards of the Late Bronze Age relate to this phenomenon, why then are they so exceptionally lavish? Why do they all date to the last phase of the Bronze Age?

### 13.8 WHAT HAPPENED AT THE TRANSITION FROM THE LATE BRONZE AGE TO THE IRON AGE?

So far, we have established that axes not only had dual roles, but that they were also deposited according to those roles. We now have to address the remaining question: why are lavish axe hoards, with their references to biographies of circulation and the commodity-status of objects, so much a feature of the end of the Bronze Age? In order to make sense of this, it is necessary to realize that this is a feature shared by other west European regions as well. We shall therefore first discuss a current theory which explains this phenomenon as relating to the collapse of the traditional bronze exchange system at the beginning of the Iron Age. Without playing down the importance of this collapse, we shall return to the evidence from our region itself. It will then be argued that deposition is not simply a function of developments in circulation, but a social and religious practice in its own right. From the later part of the Late Bronze Age depositional practises started to change.

### 13.8.1 *Understanding lavish hoards in relation to a collapsing bronze circulation*

Huth (1997; in press) shows that large axe hoards are everywhere a phenomenon of the last phase of the Late Bronze Age. For the Early Iron Age there is a similar phenomenon, this time consisting of the large-scale deposition of axes as cast with remarkable high percentages of lead or tin. The lead percentages are so high that they make the metal practically unsuitable for use. The best example are the hoards of Armorican axes, that are found in northern France in hoards containing hundreds of examples. Often, these axes were locally made and probably deposited not long after their production. It is both the deposition of axes on an unprecedented scale and the poor quality of the alloy that are remarkable. Huth relates both phenomena to the general collapse and disintegration of the traditional intra-regional system of copper/bronze supply and exchange, and the subsequent transition to the use of iron (1997, 197-8). Huth, but recently Needham (2001) as well, makes the point that in any society where the impetus to ritually sacrifice metal grew, there needs to be a corresponding desire in the given community to build up stocks of metal. At the end of the Bronze Age this system breaks up, however. Huth states that it seems as if there had been a hidden surplus of bronze metalwork which could not be exchanged any longer. This metal was still deposited, *'in der vergeblichen Hoffnung, es eines Tages wieder zu bergen'* (Huth 1997, 198). This, however, would never happen. According to Huth, such depositions still had ritual meaning as sacrifices, but apparently as the kind of sacrifices that Needham wants to see in the Bronze Age: deposits of stocks of metal, deposited in a ritual act, but nevertheless with an eye to later retrieval (2001, 288). The survival of a ritually buried deposit may just as well be seen as *'the result of the failure of an enterprise, rather than its long-term success'* (2001, 292). And this is what Huth suggests that happened in the Early Iron Age: with the breakdown of long-distance bronze exchange and the adoption of the locally available iron, the bronze stocks lost their value.

#### *Arguments in support of this theory*

There are things to be said in support of Huth's theory. The Hoogstraten and Antwerpen hoard consist in all probability of local axe types. Warmenbol (1987a) suggests that these axes were not deposited far from the place where they had been produced. In other words: their biography of circulation would not have been lengthy. Following Huth's theory, we can see this as a sign of a collapsing system of circulation, of the dissolution of traditional exchange links; axes could no longer circulate as they were supposed to do. The Geistingen axes go even one step further. Although we lack metal analyses for these axes, visual inspection gives the

impression that they are of poor quality. Like Armorican axes, they are local products. According to Huth (in press) we should regard Geistingen axes as being deposited not long after their manufacture in as-cast condition. Again, all this suggests a breaking up of normal patterns of circulation.

#### *Counterarguments*

Nevertheless, there are also arguments that the phenomenon of lavish axe hoards should not just be understood as a function of the collapsing bronze circulation. It should be emphasized here that Huth (in press) himself already recognized that the situation in the Low Countries was indeed much less influenced by dramatic break-ups in intra-regional bronze exchanges than for example in north-west France with their massive axe hoards containing hundreds of as-cast axes. For the southern Netherlands, I see the following observations as nuancing the effect of the dramatic developments in European bronze exchange.

- 1 It is unlikely that massive hoards of Plainseau axes and Geistingen axes just represent stocks of *bronze* surpluses that had lost their (exchange) value, since there is ample evidence that bronze continued to be exchanged and continued to be held in high esteem into the Early Iron Age. Think of the bronze metalwork deposited in Early Iron Age urnfield graves, the prestigious bronze swords of the Gündlingen type, bronze spears and the numerous bronze axes of the Wesseling type deposited in wet places.
- 2 The hoards in question still represent structured, deliberate deposits that seem to have been guided by the same set of rules of selective deposition as before. Also, the hoards are not just dumps of metal, but deposits of particular types, to the exclusion of other ones in circulation at that time. Swords, for example, are totally absent from these large hoard like Heppeneert, whilst in the same period they were deposited in considerable numbers in the river Meuse nearby (chapter 8).
- 3 In the adjacent German region, there is a comparable axe hoard known which consists of bronze *and* iron axes: the hoard of Barsinghausen, near Hannover (Wegner 1996, 435). This implies that multiple-axe hoards cannot simply be understood as dumps of metal, but rather as a deposition category in their own right, carried out for reasons that had to do with the meanings of axes themselves.

### 13.8.2 *Changes within the depositional practices themselves*

Having nuanced the effect of changes in the bronze circulation, it might be ventured that changes took place in the perception of axes themselves and in the more encompassing views on their cultural biographies. In chapter 8, I argued that the rapid decrease in metalwork deposition in the Early Iron Age in essence goes back to the decrease in axe

deposition. In my view, this has everything to do with the change in the attitude towards axe biographies. Charting a number of developments, I shall now discuss how these changes took place, how they were brought out in deposition, and how the phenomenon of large axe hoards can already be seen as signalling them.

*The increasing social significance of bronze deposition during the Late Bronze Age*

It seems justified to conclude that the social significance of bronze deposition increased in the Late Bronze Age. It took place more often, and was practised more widely than before. It reached a level of differentiation not seen before, with specialized axe hoards, tool hoards (the Deurne gouges, for example) and weapon hoards. The numbers of objects deposited were also larger. Axe hoards consisting of three to four axes are entirely absent from the Early and Middle Bronze Age. For the Late Bronze Age, we have several of them, with the lavish axe hoards like Heppeneert at the top (chapter 8). For hoards like Lutlommel or Heppeneert, we may suspect that more people participated than before. Therefore there seems to be some ground for Fokkens' (1997) theory that in the Late Bronze Age participation in metalwork circulation and deposition was open to more people than before. The larger numbers of objects being deposited must have been related to larger amounts of metalwork in circulation, something which applies to all west European regions (Harding 2000; Kristiansen 1998, chapter 4; fig. 32 A). Accepting the view expressed in this chapter that axes were among the most important forms in which bronze circulated we should also take this to its logical conclusion. Controlling the tension inherent in the fact that axes had dual roles must have become more pronounced. A higher influx of axes might potentially diminish the specialized meanings of axes in long-term exchange. The axe hoards themselves seem to indicate that this was what actually happened: a mass axe hoard like Heppeneert implies that the significance of the individual axe in such a hoard was less than in previous periods, when a hoard consisted of two or three axes at most (chapter 7).

*Specialized trade-axes and how these hollowed out the original idea of axe deposition*

The development of Geistingen axes can be seen as the ultimate form in which the dual role of axes was worked out. Before, an axe that circulated as a commodity was both tool and metal. It could readily be converted to either sphere. With specialized ingot-axes, this is no longer possible. Such an axe could no longer be converted to the sphere of long-term exchange in the way functional axes had always been. It could not follow the life-path of so many axes: accumulating meaning by becoming entangled with the

agrarian life-cycles of small communities. It was set out in this chapter, that it was precisely these biographies that ended up in deposition in watery places. What we can observe, however, is that the same nevertheless happened to the Geistingen axes. Some of these were also deposited individually in watery places, although they never had led a use-life. Apparently, in depositions Geistingen and functional axes were now considered to be similar (chapter 8). This can be seen as a sign that the original idea of axe biographies ending up in deposition – acquiring meaning by being used – was eroded or lost significance.

*The adoption of iron axes as another sign that the original idea of deposition was eroded*

It was argued in this chapter that bronze axes not only had dual roles; they were also deposited in accordance with such roles. I suggested that deposition could also play a role in circulation by converting items from commodities into gifts, thereby at the same time managing the influx of metal. With the gradual adoption of iron axes, it is precisely this element which lost significance. It is doubtful whether iron axes had similar dual roles. The ones known from our region are extremely simple pieces, and in all probability locally produced. Given the general availability of iron ores, it is also very unlikely that they had a function as a metal unit, available for reworking like we supposed for bronzes. Consequently, depositions which functioned to manage the flow of circulating metal and converted them from one sphere of exchange to another (*pars pro toto* sacrifices) would have had much less significance. That this change only took place gradually is evidenced by the few deposits we have of Early Iron Age iron axes: these were placed in wet places like bronze axes. In this respect, I want to recall another example: the hoard of Barsinghausen containing both bronze and iron axes (Wegner 1996, 435). These cases can be regarded as marking a transitional phase, in which biographies of iron axes echoed those of bronze ones. Later on, probably coinciding with the wholesale transition to the use of iron axes, this gradually changes. I do not know of iron axes deposited in watery places from the Middle Iron Age. Apparently, axe biographies ending in deposition almost ceased to exist.

### 13.9 CONCLUSIONS

Summing up, we can say that the special significance of axes was not only related to their multifunctionality as tool. In north-west Europe, axes were of old a widely accepted exchange item in supra-regional bronze exchange as well. They had a *dual role*. The theory that metal circulated as axes, and not as other items or special ingots, is suggested by a number of observations. Long before the Bronze Age axes already circulated over vast areas, even among communities

that were not or hardly agrarian. In the Bronze Age, axes outnumber other tools in ways that extend beyond their applicability in daily life (for example: lavish axe hoards). Also, a function as exchange item would explain why axes were still imported in large numbers even when they were locally produced. The remarkable 'openness' of axe styles would also be in line with a role as supra-regionally convertible exchange item.

In general, a distinction should be made between axes figuring in intra-regional commodity (short term) exchanges and the role of axes as objects with specialized meanings within a region (long-term exchange). In order to allow objects acquired in commodity exchanges to play a role in long-term exchange, a conversion of short to long-term exchange is necessary. Ethnographic and historical sources indicate that a *pars pro toto* sacrifice is one way to make material thus acquired morally acceptable to carry more specialized social and ideological meanings. The hypothesis was put forward that some kinds of axe depositions may be interpreted as such conversion sacrifices (scrap, unused imported axes). It has been argued here that the lavish axe hoards from the last phase of the Late Bronze Age in our region may paradoxically also be an example of this. The single deposits of axes showing traces of an intensive use-life can then be considered as deposits of axes that in the course of their life had become imbued with special meanings. The suggestion was made that they became inextricably linked with the history of small groups and their life-cycles. Such single axe deposits are the most widely practised kind of axe deposits.

There are indications that the special significance of axes in depositions was on the wane at the end of the Late Bronze Age. The influx of foreign metal must have increased considerably. This put the specialized meanings of axes as reflected in single axe deposits under pressure. Axes were now deposited in considerable quantities in hoards as well, which implies that their special significance must somehow have diminished. Non-functional axes were now made as well, even within the region itself. They were also deposited in watery contexts, like their functional predecessors before them. This deposition was not the culmination of an entire functional life-path, however. The implication then seems to be that the original idea behind the hundreds of axe biographies – that only an axe that was intensively used was selected for deposition in a wet place – was fading. Another implication of change is embodied by the emergence of iron axes. These axes came to be used alongside bronze ones during the Early Iron Age. It is unlikely, however, that they fulfilled the dual role of tool and exchange item that was so characteristic for bronze axes. In sharp contrast to bronze, iron is widely available in the region. Deposits relating to such a role as exchange item therefore no longer had a function (*pars pro toto* sacrifice). There is nevertheless some evidence that iron axes had cultural biographies ending up in wet-place deposition like their bronze counterparts. However, at some time in the Early Iron Age axes ceased to be made of bronze and were entirely replaced by iron ones. This seems to have heralded the final demise of axe deposition in watery places.

### 14.1 INTRODUCTION

So far, we have discussed the relation between objects, people and land predominantly from the point of view of people 'doing things' with objects. Attention has also been paid to the ways in which objects 'do things' with people: the constitution of personal identities by wearing and using weaponry and ornaments (chapter 11 and 12). In chapter 3 it was argued that in deposition there is also a relationship between people and land, and between specific types of objects and specific types of places involved. In depositional practices, landscape is more than just a receptacle of objects. In this chapter we will chart the ways in which the land itself was defined and structured by the acts of object deposition. The argument will be constructed as follows.

First, we shall deal with the question what depositional locations are both physically and historically speaking (section 14.2). Then, they will be studied from different perspectives: as places within the landscape of daily life (14.3), as locations within an environment peopled by different social groups (14.4), and as locations within a cosmological landscape (14.5). Accordingly, we will try to find out about the general cultural attitudes that make the practice of placing objects in the land a logical one in the first place (14.6). Then, having paid ample attention to the way in which depositions construct the identity of places, we shall study the other side of this coin: how people construct identities from using depositional places (14.7). Finally, section 14.8 will summarize the main conclusions arrived at.

### 14.2 DEPOSITION IN A HISTORICAL LANDSCAPE

In the long term, the most fundamental development which takes place in the landscape during the period under study seems to be the formation of a structured cultural landscape (Fokkens 1999). Throughout the Bronze Age, the landscape became increasingly characterized by the signs of a tangible, ancestral past. Barrows and urnfields represent the most important and lasting intentional act of the inhabitants to shape their landscape, but, as Gerritsen argues, to the inhabitants the ancestral nature of the landscape also came to the fore in other signs of former occupation. In the course of the Bronze Age relocating a farmstead was less a matter of entering areas that were not yet marked by previous phases

of habitation, cultivation and burial, 'and more a matter of returning to named places with historical and ancestral meaning' (Gerritsen 2001, 254). Reviewing the chronological developments that were outlined in chapters 5 to 8, it can be argued that depositional places became part and parcel of this historical landscape in the course of time.

#### 14.2.1 *The system of selective deposition as reflecting structured perceptions of the land*

In the Late Neolithic B and Early Bronze Age, object depositions must have been rare. It was argued that objects were placed in a variety of (wet) places, but hardly in major rivers. The majority represents single deposits. There is virtually no evidence that the same place in the landscape was re-used for subsequent deposition in the same period (chapter 5). A fundamental change takes place during the Middle Bronze Age A. After a period when metalwork deposition seems to have been almost non-existent (since around 1800 BC), a major increase in its frequency has been attested from 1600 BC onwards. Now we see the first indications for the strict structuration of the practice in the sense that specific objects ended up in specific places only (chapter 6). It is only in this period that rivers became significant for depositions. They acquired special meaning since they were the places where prestigious weaponry (swords, battle axes) was deposited. Whereas from now on barrows and settlements came to have a growing significance in the landscape as foci for social and ritual practices, the general absence of metalwork deposits in such places becomes only more pronounced. For the Middle Bronze Age A, it can be argued that the landscape was seen as structured in such a way that there was a general agreement on which kinds of places were appropriate for depositing which type of object, which also implies that other environmental elements were not considered the right place to deposit objects. The system of selective deposition as it took shape then very much seems to have been based on a shared, cultural understanding of the landscape. This interpretation of the environment is reflected by the system of selective deposition, but also reproduced by every new deposition. We must be dealing with a system which is profoundly traditional (see also chapter 10). This can be inferred from the observation made

that since its origination in the Middle Bronze Age A, the kind of places where prestigious weaponry, ornaments and functional axes were deposited does not alter until the end of the Bronze Age. It only became more pronounced, because from the Middle Bronze Age B on, there are clear indications that – for example – sword depositions were not only carried out in the same *kind* of place, but also in the same area. For the Middle Bronze Age B, there is compelling evidence that certain environmental zones were time and time again revisited for carrying out depositions: they became historical ‘multiple-deposition zones’. Examples are the inland swamps between Echt and Montfort, the terrace swamp near Belfeld, the stretch of the river Meuse near Roermond-Herten, the river stretch of the Waal near Nijmegen, and the Rhine-Waal bifurcation near Lobith-Millingen. Figure 14.1 and 14.2 illustrate the situation in a part of Dutch Middle Limburg. Showing multiple-deposition zones in the river Meuse and in the adjacent inland swamps. For most of these areas a history as multiple-deposition zone can be recognized from approximately the 13<sup>th</sup> century onwards (*the Bronze final I phase*).

With regard to this structuration, two questions come to mind.

- 1 How could such a long-term history of using and valuing watery environments exist?
- 2 What does it mean that objects with a specific life were apparently meant to be placed in specific kinds of places only?

#### 14.2.2 *Multiple-deposition zones and the landscape of memory*

Let us first deal with the question how this long-term use of depositional places could exist in the first place. The evidence implies that since the Middle Bronze Age B, people *repeatedly visited specific zones in the land in order to carry out specific types of depositions* (chapter 7). If we add to this what we know about the practice itself and the character of the places selected, the conclusion is that these ‘multiple-deposition zones’ thrived on collective memory. After all, there is no evidence for lasting markers, other than natural ones. It is unlikely that throwing an axe into a marsh leaves any trace, other than memory traces. To an outsider, there would be nothing to indicate that a particular marsh had a long-term history as a receptacle for objects. Still, the evidence shows that particular locations were preferred for such acts time and time again. Therefore, it is argued that depositional zones were first and foremost ‘landscapes of memory’. The repeated use of former depositional locations must have been deliberate: such places were apparently meaningful and historical, and therefore probably seen as appropriate to the act.

#### *How could this knowledge be transmitted? Internal and external place characteristics*

The question that immediately comes to mind is: how was such remembrance possible? This question shows our underestimation of the transmission of knowledge in non-literate cultures. Historical and ethnographic sources make it clear that comparable natural sacrificial sites have equal long-term histories as those of the Bronze Age.<sup>1</sup> Myth and folk-tales appear to be central to such remembrance. Küchler (1987) and Rowlands (1993) both make the point that in the transmission of cultural knowledge there is a tension between constancy and variation. For memorizing particular swamps and rivers as historical depositional locations, people must draw on mental templates: a range of possible place-images and a range of possible interpretations of them (Rowlands 1993, 141). For recognizing historical depositional locations a combination of both internal and external place characteristics was relevant (Chapman 1998, 111-2. Internal place characteristics draw on memorized group histories, actual or mythical. Here we should think of a precise understanding of the local history of a place, for example ‘knowing’ that a particular place was the location of the first settlement of a group’s ancestors. External place characteristics do not derive from the knowledge of specific histories of a place, but rather from cultural knowledge. By our cultural knowledge, we can recognize a regular church everywhere by its external characteristics, but apart from recognizing it as a church we often know nothing about the specific local history of the building. Now let us return to the discussion of natural places in the Bronze Age. We have seen that there was a general cultural preference for using watery places for deposition in north-west Europe. An inhabitant of another part of the southern Netherlands may well have recognized a major river or a swamp in the Meuse valley as a potential depositional place on external place characteristics alone. This is different, however, from knowing the exact zone in the river where the local people used to deposit axes (internal characteristics). Recognizing places as cultural categories draws on stereotyped place-images. It is probably impossible to grasp what exactly constituted such place-images, but it is for example remarkable that in large parts of north-west Europe the confluences of major rivers, or the zone where a smaller river flows into a larger one, seem to have been preferred for the deposition of swords (Wegner 1976; Torbrügge 1970/1971). Perhaps this was one of the characteristics of rivers that was culturally valued?

#### *Physical characteristics as supporting memory*

This brings us to the physical characteristics of these zones. Although they were probably not marked by human hands in a lasting way, the ones I recognized are associated with

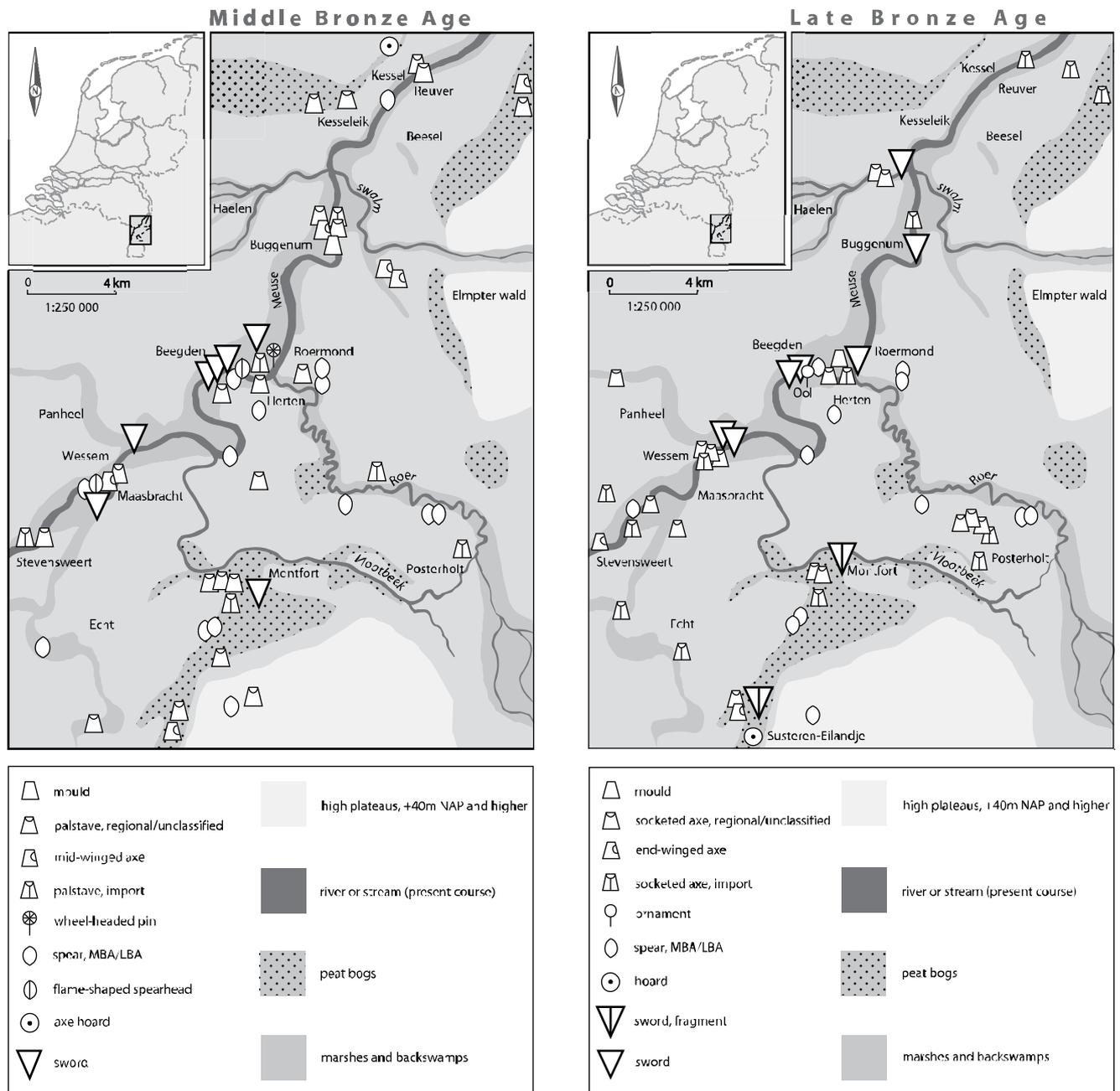


Figure 14.1. Deposition in the river Meuse and in the adjacent inland marshes in Midden-Limburg for the Middle and Late Bronze Age. Only contextualised finds are mapped.

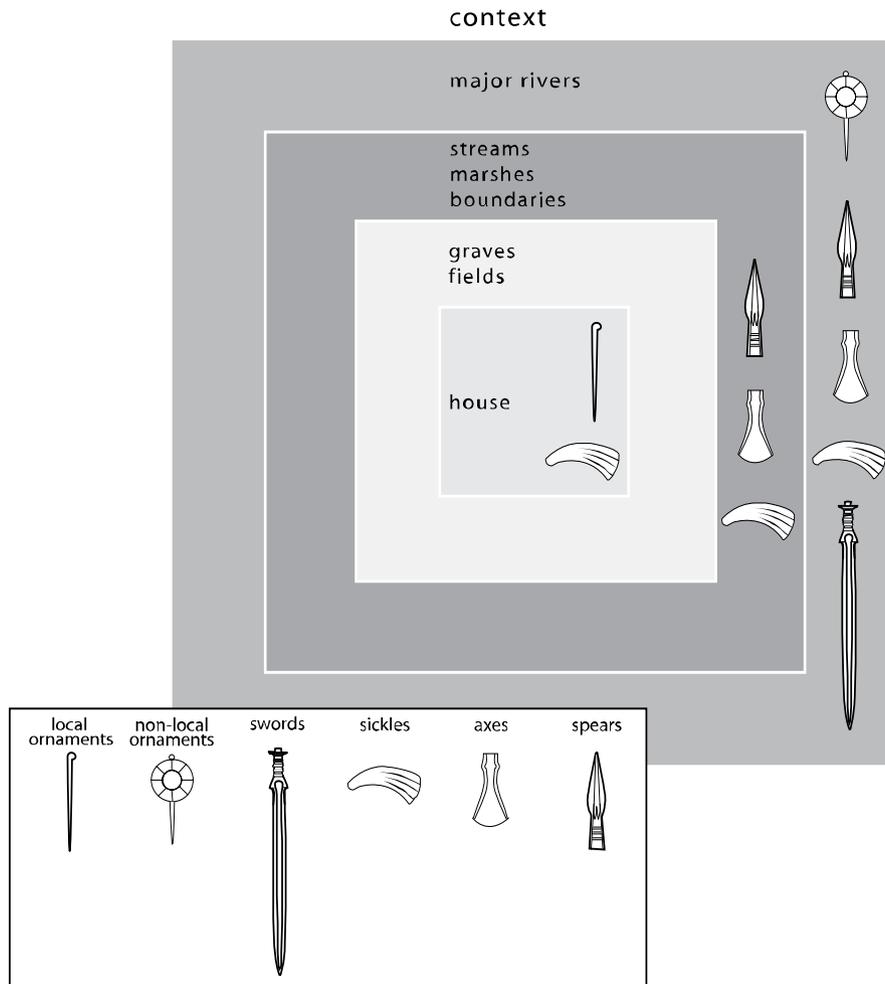


Figure 14.2. Deposition of different categories of objects from a perspective which takes the settlement to be the central point from which the surrounding world was ordered.

prominent natural features. The Echterbroek-Montfort swamps are enclosed by higher grounds on all sides. On one side (the southern), the dry, higher grounds are separated from the swamp by a steep elevation. In the landscape, this swamp must therefore have been a visually separated, enclosed area. The terrace marshes to the north (some of which also saw multiple deposition, as the one near Belfeld) were a relatively small strip of land, visually marked from a distance by the prominent ridge of the high terrace that represents its eastern boundary. For the river locations, we see similar features. The Waal near Nijmegen is recognizable from a distance for the high hills that mark this part of the river. The same goes for the Rhine near the Bijlandsche Waard: there is a prominent hill, flanking the river. In both cases the river itself also displays a prominent feature: the Bijlandsche Waard represents the bifurcation of the Rhine

(present-day Oude Rijn and Boven Rijn). Near Nijmegen, a small stream flowed from the north into (the predecessor of) the river Waal.<sup>2</sup> In Roermond, a similar situation can be observed: here the river Roer flows into the Meuse (fig. 14.1). All this suggests that a multiple-deposition zone was probably recognized and retrieved by specific natural characteristics that made them stand out in the landscape.

#### *'Zones' rather than 'places'*

Having established the crucial role of memory in the re-use of depositional sites and charted how it could be transmitted, the following empirical observation seems easier to understand. There is hardly any evidence that depositional sites can be seen as *places*. The situation in the micro-region of 'Midden-Limburg' is a case in point (fig. 14.1). It represents an area where both river dredging and reclamation of

swamps have of old received relatively ample attention from amateur archaeologists. The remarkable observation with regard to the river finds is not that there are zones where no metalwork was found (which would be understandable given the differences in dredging intensity, chapter 4; fig. 4.4), but rather that almost everywhere metalwork has been found. We are certainly not dealing with one cult place, centred around Roermond, but with a situation in which the river has almost everywhere been used by local communities for depositing prestigious metalwork. We are dealing with depositional *zones* rather than places. There is no evidence for a real ritual focus; it rather seems as if it was the entire river that mattered and not just a specific place in it. The concentration of metalwork near Roermond-Herten is at best a case of higher depositional intensity in a river zone where metalwork was deposited almost everywhere. This can be substantiated by comparing the river finds from Bronze Age swords with those of Late Iron Age swords, like Van Hoof (2000, 57-8; table 4.1) did. As they are comparable in size and character, it can be assumed that Bronze Age and Iron Age swords were subject to the same kinds of site-formation processes. Nevertheless, Iron Age swords are only known from one particular place in this same stretch, whilst Bronze Age swords have been found almost everywhere. For Late Iron Age depositional sites we thus seem to be dealing with just one *place* which served as a focus, in the Bronze Age with an entire river stretch. Excavations of Late Iron Age cult places in or near rivers corroborate this view. Sites like the Hertogswetering near Oss (Jansen *et al.* 2002) show that on such sites large amounts of deposited items are found in a relatively confined area. Some of these Late Iron Age cult sites continued to function as sanctuaries throughout the Roman Period (Roymans 1990, 87, 89).

At first sight this appreciation of landscape in terms of zones rather than places may be easily understandable because it seems simply impossible for societies to recall the exact place in a river where earlier depositions had been carried out. On the other hand, memory must have been equally faulty in the Iron Age: as far as we know, the Iron Age cult places near rivers did not have true lasting markers either. Moreover, Bronze Age river deposits from other regions also attest to the use of zones in the rivers rather than of focal places (for example: the Scheldt in west Belgium; Verlaeckt 1996; the Thames in South England: York 2002). The implication then, seems to be that in depositional practices Bronze Age perceptions of landscape were different from those of the Later Iron Age, even though there is a similarity in the preference for rivers. Valuing zones or environmental elements in a landscape rather than sites pinpointed on a map is widely known from non-modern societies (Hubert 1997, 11-2). Sacred sites are often wider areas of land, like natural outcrops, lakes or entire mountain-sides.

#### 14.2.3 *What does the difference between adjacent multiple-deposition zones imply?*

The second question to be addressed now is what the existence of multiple-deposition zones meant. It may be evident that such a zone represents an important place in the collective history and memory of groups. It is harder to understand how *several* of such zones could exist in each other's vicinity. This seems to have been the case in 'Midden-Limburg', where the river Meuse and the inland swamp near Echt and Montfort in the Roerstreek are examples of such a situation (illustrated on fig. 14.1). We are dealing with adjacent deposition zones, in the river and on the land, that are different both in their physical characteristics, geographical position, as well as in the kind of practices carried out there.

The Echt-Montfort swamp is a particular, enclosed area, where throughout time dozens of axes and some spears were deposited. The objects are scattered over the swamp: there is a concentration on the northern fringes (Montfort), on the western fringe (Echt), and more in the heart of the swamp (Putbroek) (fig. 14.1). This implies that different groups were involved in depositional acts, possibly living on different sides of the swamps. This swamp does not seem to have been the exclusive deposition zone of one local residential group. The same applies to the river, a communal zone *par excellence*. For the river, due to dredging, less is recorded on concentrations within this stretch, but as dredge finds have been done both on the westernmost side (for example Heel and Panheel) and on the easternmost side of the Meuse valley (Herten and Roermond), it might be suggested that we see a similar use of the river by different groups, this time possibly involving quite different audiences than in the case of the Echt-Montfort swamp. For the river, we may think of groups living west of the Meuse versus groups living on the east side. The river depositions may also have taken place from boats. This river is not – like the inland swamp of Echt-Montfort – a peripheral, enclosed area, but rather a crucial landscape element, that probably stood at the heart of the daily lives of the people living on either side of the river (as a major transport route, but also as the major dividing element between groups living on either bank of the river). This river was known to all communities living in the Meuse valley, and must have been a common reference. By its very nature, such a major river seems much have been a shared, collective and a central element in people's perception of landscape to a much greater extent than an inland swamp.

There is also a difference between the kind of depositions that was carried out in both zones. Swords and spears are far more prominent in the river than in the Echt-Montfort swamp (13 contextualised sword finds and seven spear finds in the river against three sword finds – two of which no

more than a fragment – and five spear finds in the swamps and inland streams). These differences are interesting if we realize that the two zones are only separated by a few kilometres. We do not know exactly where on the east bank of the Meuse Bronze Age communities were living, but their settlements should probably be looked for on the fertile loamy parts of the middle terraces (personal communication L. Verhart). From most possible settlement locations, both the Echt-Montfort swamps and the river are near. It is therefore likely that the same local groups used both the river and the inland swamp for carrying out depositions. The pronounced martial character of the river depositions when compared to those from the swamp, implies that the different zones were seen as imbued with different meanings.

#### 14.3 DEPOSITION AND THE LANDSCAPE OF DAILY LIFE

So far attention has been paid to the way in which selective deposition structured the land and how this structure was rooted in history. It was also argued that depositional practices are about valuing zones, or elements in the landscape rather than places, and how certain elements (rivers for example) had different connotations from others. All this is about understanding landscape from its constituting elements ('rivers', 'dry land' or 'swamps') and not from a dwelling perspective which takes the routines of daily life of an average local group as central to the interpretation of landscape (cf. Ingold 1993). It will now be argued that if we consider the spatial information on bronze deposits from such a perspective, more can be said on the identity of depositional zones.

##### 14.3.1 *Depositional zones as remote and peripheral areas*

Our starting point should be the general assumption that the landscape of daily life is understood from the point of view of the places that are most central to one's life. In the perception of a household, it seems reasonable to assume that their dwelling area and the surrounding agricultural fields and pastures were the central point from which the surrounding world was ordered (Chapman 1998, 112-3). Fig. 14.2 brings this out by seeing the house, farmyard and agrarian land as the centre of the world of daily existence. Agrarian settlements are located on relatively high and dry areas, with fields and pastures, but also barrows and urnfields. In the southern Netherlands, wet, marshy areas and stream valleys are almost everywhere located in the vicinity of settlements. In the sandy core area, settlements are found on sand ridges that are intersected or ringed by marshy streams and sometimes larger swamps. In the clayey river area, they were situated on crevasse sediment or alluvial banks, with streams, rivers or their marshy backswamps surrounded. In the Meuse valley, settlements were generally located on

extensive terraces, which are also intersected by smaller streams and marked by extensive swamps near terrace ridges. In the Meuse valley and the central river area, most settlements were near to a major river (outer ring on fig. 14.2). Only the central part of the southern Netherlands is remote from any major river. The outer ring of fig. 14.2 therefore simply does not exist in those areas. Interestingly, depositions typical for major rivers like swords are virtually absent here as well.

If we now try to order the evidence of bronze deposits according to context (e.g. farmyard, river, stream valley, inland swamp), type, and origin/affiliations (local or supra-regional styles) then we arrive at the picture as shown in fig. 14.2. Sickles are the only artefact that is found on all contexts. On farmyards only relatively simple tools and ornaments in local or indistinctive styles are found. In and around barrows or in other dry locations (agricultural fields/pastures?) bronzes are generally absent, whereas these were placed in the surrounding streams and marshes: numerous axes and spears are known from such contexts. The most valuable items are to be found in the major rivers: numerous swords and ornaments of supra-regional styles, as well as axes and spears. The objects with the most outspoken supra-regional character are thus to be found in the zones that are relatively the most remote from the dwelling area of the local group. At the same time these rivers have the special quality of representing the main connection between the local world and those of groups much further away.

Perceived from the perspective of everyday life the conclusion is that depositional locations are not to be found in a direct relation to the areas where that life took place. Only farmyards can sometimes function as foci for deposition, but more regular and lavish depositions took place in parts of the landscape that are 'remote' and 'peripheral' from this point of view.

##### 14.3.2 *Depositional zones as natural, unaltered places*

Above, depositional locations were approached in a negative way. Emphasis was laid on their peripheral position within the landscape of agrarian life. This does not recognize that they have qualities of their own. Instead of being peripheral, they are better characterized as being shaped by other forces than human ones. They are literally uncultivated: as far as we know, there were no lasting human markers, and there were no man-made cult places. This is true for most societies of the north-west European Bronze Age (Harding 2000, 309). One of the few exceptions seems to be the small ritual building that was found in the peat bog near Bargerosterveld in the northern Netherlands (Waterbolk/Van Zeist 1961). Although hoards have been found in the vicinity there is no evidence that this building was itself a place for metalwork depositions (Butler 1961a).

Depositional zones were ‘natural’ ones. In this sense, ‘nature’ does not imply that they had an existence outside ‘culture’. Ingold (1992; 2000, chapter 4) gives convincing ethnographic examples of ‘natural, unaltered’ zones around cultivated ones, which were nevertheless perceived as entirely cultural by the inhabitants (populated with spirits). ‘Nature’ is always a social construct and the ways in which it is conceptualised are culturally specific (Descola/Pálsson 1996, 15). For archaeologists, who do not have access to knowledge of indigenous narratives on the uncultivated zones in the land, it is perhaps better to avoid the concept entirely. However, a contrast between the cultivated and the uncultivated land, must have mattered, since it comes to the fore in the specific selection of objects deposited in the peripheral, natural zones surrounding the cultivated land. These are first and foremost axes, mostly displaying clear traces of an intensive use-life. These tools of cultivation, however, are clearly absent from cultivated places (in farmsteads or in barrows, chapter 13). On the contrary, they were deposited in locations that were as a rule not cultivated, and that do not seem to be related in any way to the life the axe had led (for example, they were not deposited in the locations of the forest where wood was cut). What we seem to observe therefore is a deliberate differentiation and contrasting of zones in the landscape played out in selective deposition.

To this we should add that these depositional zones were not just ‘natural’: there is a clear preference for locations that are wet. This preference dates from long before the Bronze Age. The earliest examples known from the study region date from the Early Neolithic (chapter 5). Originally it might have been rooted in animistic hunter-gatherer ideologies about communication with the spirits of nature (Louwe Kooijmans 2001). We can only guess at the motivations for the preference for watery places in the case of our Bronze Age farmers, but it is clear that the preference for watery places increased throughout the Bronze Age: deposits became increasingly water-bound since the Middle Bronze Age A (chapter 6). This is not just true for the southern Netherlands, but for large parts of Europe as well (Bradley 1990). It has therefore often been suggested that this significance of watery locations is based on widely shared religious beliefs. Whatever the precise religious motivations may have been, the presence of water itself may have been another quality that gave these depositional zones their significance (Richards 1996, 317). The qualities for which water was valued may be various (purity, pollution, regeneration, fertility; see Douglas 1994, 162), and probably inaccessible for archaeological studies. What archaeology does show, however, is that water was of elemental significance for the selection of locations for deposition.

14.4 DEPOSITIONAL ZONES IN A SOCIAL LANDSCAPE  
In discussing depositional locations from a dwelling perspective, an important element is still missing out. Depositional zones were approached from the world-view of a hypothetical household, but what is persistently missing in this view is the presence of other people. In this section, it will be argued that there is another important quality to zones that were used for depositions: they represent *boundaries*, not only between social groups, but between people and supernatural entities as well. Although it may seem odd to treat social groups and supernatural entities under the same heading, ethnographic studies provide arguments that the supernatural and the living society are often seen as inextricably related and representing society at large (Bazelmans 1999, 67).

Depositional zones are not just watery, natural places. In a very physical way they all have the quality of being transitional zones in the landscape. Fig. 14.3 is a reconstruction of settlement on the sandy cover sand region of the interior part of the region. It shows the position of houses, fields and graves (based on Theunissen 1999) and the locations where we find bronzes: in the numerous marshy stream valleys in between. With regard to the stream valleys, extensive swamps and the major rivers, their transitional character is obvious. The same, however, can be suggested for some of the dry locations mentioned here. In the case of the hills of Arnhem, Beek (municipality of Bergh), and Nijmegen, the dry deposits tend to be located near the steep slopes of the ice-pushed ridge. Large swamps are barriers in the land that one has to cross. In some cases their passage might even have been difficult and risky.

#### *Wet zones as dividing and linking elements in the social landscape*

Since watery zones provide natural, clear-cut divisions of the inhabitable land, it is generally assumed that they represented social boundaries. As transitional zones, however, their character is ambiguous. Inhabitants of any micro-region may perceive streams, rivers or swamps as meaningful physical and social boundaries (cf. fig. 14.3). At the same time, they are unbounded themselves. We may ask ourselves what exactly was seen as the limiting, bounding part of the line, what was seen as belonging to ‘us’ and to ‘them’? As highlighted in section 14.2, we have examples of swamps and rivers where objects were deposited on either side of their extension, that is, by groups living on different parts of it: the Echt-Montfort swamp, and deposits on either bank of the river Meuse. These wet zones, lacking any visible marker within, were probably contested and differently interpreted by groups living on their fringes.

Streams and rivers, however, are not only a dividing element in the landscape, they provide social links as well.

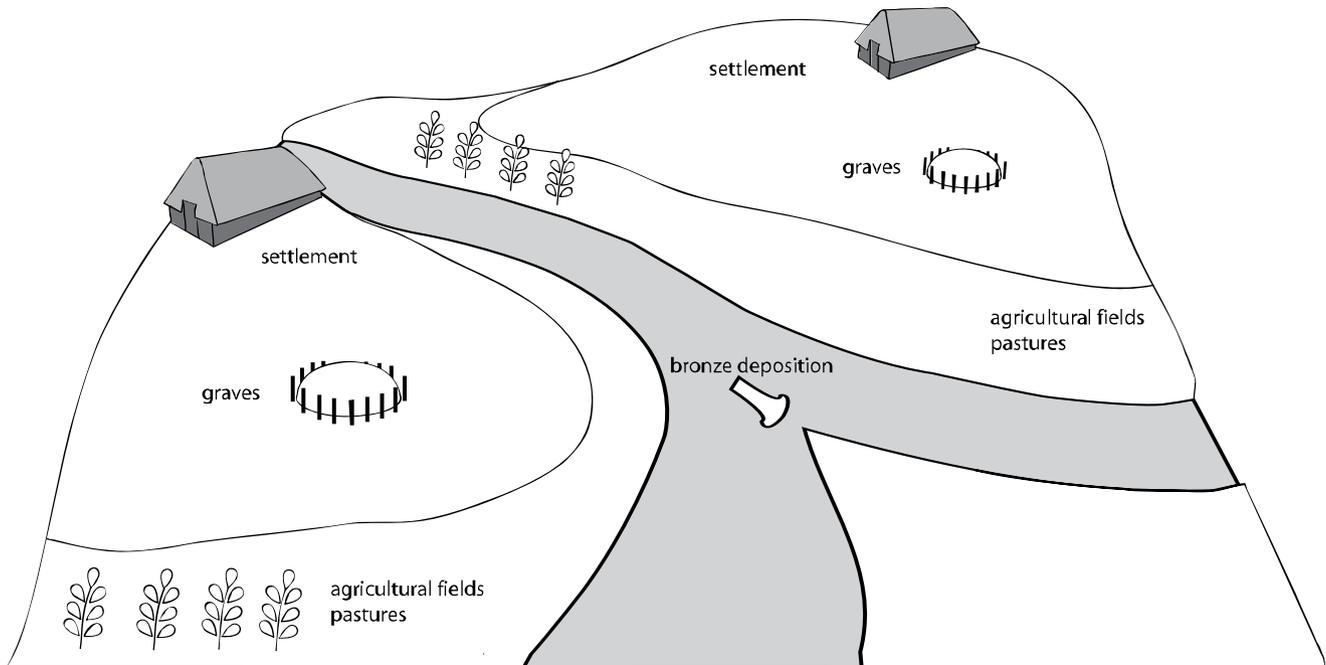


Figure 14.3. Simplified picture showing the cultivated Bronze Age landscape of the sandy areas in the central part of the study region and the location where bronze deposition took place.

The local groups living near streams, and especially major rivers, must have realized that those streams came from somewhere and went somewhere else. They must have been aware that the part of the river they knew intimately knew, was only part of a much more encompassing world that was not known by experience, but only in folk-tales and myth. A major river like the Meuse was a shared point of reference both for people living upstream and for people living many kilometres downstream. After all, the rivers must have been the major transport route by which the imported metalwork was brought to them from far. Helms (1993) has shown how knowledge of places far away can be a powerful authoritative resource. The entire Bronze Age period provides evidence that objects from far away were locally appropriated and valued. Unless one envisages regular journeys over land, which should have taken years, the most likely way in which such foreign objects entered a region in the southern Netherlands is via the major rivers. We shall never know how a local group perceived the world they lived in, but I think that in any cosmological map the rivers must have been seen as the threads connecting the own group with the outer world (Needham in Oliveira Jorge 1998, 186). Perhaps this was one of the reasons why the metalwork that had the most outspoken non-local and supra-regional characteristics was preferably deposited in just these major rivers (14.3.1, fig. 14.2).

#### 14.5 DEPOSITIONAL ZONES IN A COSMOLOGICAL LANDSCAPE

##### 14.5.1 *Wet zones as cosmological boundaries*

Wet places are not only boundaries between people: they may also have been regarded as boundaries between worlds. They 'seal off' the invisible parts of the world: the muddy bottoms of streams and rivers, the land underneath a marsh. The sediment-rich streams and rivers of the southern Netherlands are mostly turbid and not transparent. This applies particularly to swamps, where water plants often conceal the watery component. Throwing a gold-glimmering bronze axe into such a place must have been an act whereby the onlookers really got the impression that the object disappeared completely. Sunk to the bottom of a marsh, it could no longer be seen or retrieved anymore.

The theory that these watery zones were thus in some way also regarded as cosmological boundaries would be in line with what the anthropologist Douglas (1994) sees as vital to the nature of boundaries: their transgression is both powerful and dangerous. Applying Turner's terminology, they might well have been perceived as 'liminal' places. It is of particular interest that both Douglas and Turner emphasize that the transgression of such boundaries is often circumscribed and should be maintained with ritual action. This seems in line with some characteristics of depositional practices that were summed up above: the idea that they thrive on specialized

knowledge and memory, their qualities as areas shaped by forces outside human powers in a world that became increasingly defined by the latter and their ambiguity in the social landscape.

Although impossible to prove, it might not be too far-fetched that deposition was ultimately related to a belief in an 'under-world'. Such a belief is widespread among many religions (Bradley 2000, 28-32). If such a world was thought to exist, then the marshes and rivers might have been seen as the openings and gaps in the land by which to approach it, or to communicate with it. I do not claim that the evidence of object depositions shows that such a belief in an under-world existed (although such a statement has recently been made by Randsborg 1995). What is noteworthy, however, is the following characteristic of depositional practices in our region recognized in chapter 10: objects were placed in marshes or streams in undamaged condition. Sometimes they were even resharpened as if for use (chapter 10). This is in line with the way in which the object was treated during its life of use and circulation, and it can be taken as an indication that depositing an object was not envisaged as destruction, but more as a final form of exchange, this time possibly being perceived as exchange between people and supernatural beings. For the participants, however, deposition practically represented a final loss, and whether or not a belief in sacrifice to the supernatural was relevant, the characteristics of wet places may at least have contributed to the dramatic impact of the act of deposition: the total disappearance of an object that was literally 'taken up' by the land.

#### 14.5.2 *Deposition in watery places: gifts to gods?*

Now that a parallel has been drawn between deposition and exchange, a more detailed discussion of the way in which these places were conceptualised becomes inevitable. In this book I have so far been reluctant to suggest that swamps or rivers were seen as the dwelling places of particular gods or spirits. In chapter 2 we have seen that this idea has been forwarded by many authors, steered by parallels with historical examples of object depositions in watery contexts. I then argued that this parallelism is one of the ways in which scholars try to cope with the irrationality of metalwork deposition. Indeed, there are many historical examples illustrating that watery places were seen as the residences of deities or even as deities themselves (Wegner 1976, 100-2). The closest ones in time are the Germanic and Celtic sources. Roymans (1990, 89) gives the example of the Gallic king Viridomarus who claimed descent from the river Rhine (3<sup>rd</sup> century BC). An example of particular interest for the present study is the historical and archaeological evidence for a Roman sanctuary dedicated to the goddess *Rura* on the bank opposite the place where the river Roer discharges into the Meuse, near Roermond. *Rura* is a personification of

the river Roer (Roymans 1990, 89). The link between this historically known sanctuary and river deposits seems obvious. In the Late Iron Age, several La Tène swords were deposited in this part of the river. The same happened hundreds of years earlier. Does this imply that the Bronze Age depositions should also be considered as votive offerings to a river deity? In chapter 2 it was already argued that we should be very cautious in making such an argument for methodological reasons. Having now assessed the peculiarities of Bronze Age depositions, new objections can be raised.

#### *Objection one: unique characteristics of Bronze Age deposition*

Bronze Age metalwork deposition reveals a system of selective deposition: specific items were deposited in specific kinds of places only. In historical sources there is nothing to indicate that a similar system was at work. Rather, they inform us of undifferentiated mass depositions of wealth at natural or man-made sanctuaries. On top of that, we have seen that the Bronze Age depositions seem to be aimed at zones rather than places. This is quite unlike the situation in the Late Iron Age, where depositions indeed seem to have focussed on one particular place in the river (section 14.2.2). It was remarked that sword depositions from the Late Iron Age indeed all came from one place in the river Meuse near Roermond, whereas the Bronze Age swords come from an extensive zone in the river, including Roermond.

#### *Objection two: changes in the practice of deposition itself*

Using historical sources as parallels for practices which took place hundreds of years earlier suggest a long-term stability in religious ideas. This, however, does not seem justified by the evidence itself. First of all, metalwork deposition in watery places almost totally disappears after the Late Bronze Age to re-emerge only in the last centuries of the Late Iron Age. Although there seems to be some continuity in the outline of the practice (an emphasis on swords and a preference for placing these in rivers), it is hard to conceive that Late Iron Age sword depositions elaborated on ideas which had been extinct for over 600 years. Even if this were possible, it was not until the Middle Neolithic that deposition of valuables really became a socially significant practice (chapter 5). This means that it came into being at a time when people were exploring the landscape within an extended broad-spectrum economy, in which hunting/gathering views probably mattered side by side with agrarian notions. Although this should be investigated more fully, it may well have been the case that deposition originated from an animistic ideology (Verpoorte 2000). We have been able to trace it throughout time, and have seen it flourish and further develop with the introduction of truly agrarian

societies in the Bronze Age during periods when the land became an increasingly cultural landscape. For Celtic and Germanic societies, there is evidence that more or less personified gods were venerated. Godelier (1999), however, remarks that among hunter-gatherer societies such concepts of gods are not general. Ebbesen (1993) supposes that for the earliest Neolithic deposits in Denmark we might be dealing with offerings made to 'spirits of nature' rather than to such personified gods (see also: Ebbesen 1993; Koch 1998; Louwe Kooijmans 2001). Randsborg (1995) argues that the introduction of the Celtic-Germanic personified gods did not take place until the Iron Age, and replaced a religion that centered around the veneration of ancestral beings. Man-made rectangular cult places like *Viereckschanzen* are in his view the places where these new personified gods were venerated. The earliest *Viereckschanze*-like cult place from the southern Netherlands, the Late Bronze Age/Early Iron Age cult place from Nijmegen-Kops Plateau, however, seems directly to have been associated with an urnfield and the burial ritual taking place there and with ancestral burial monuments (Fontijn/Cuijpers 1998/1999; Fontijn 2002). There is no reason at all to suggest that such a 'new' cult place had anything to do with the veneration of a new type of god. Summing up, we can say that the extremely long history and the fundamental societal and ideological changes that took place in the course of it should stop us from transferring ideas from the proto-historical Celtic/Germanic world to societies of the Bronze Age. Through this time, religious ideas themselves were probably in a state of flux, and it seems unwise to project Celtic/Germanic gods back to earlier times, given the differences in the depositional practices.

### Conclusion

It is not likely that a one-to-one continuity existed between the Celtic/Germanic sacrifices to personified gods and Bronze Age object depositions. At a European level, however, it is likely that the roots of Celtic/Germanic sacrificial practices of metalwork deposition should be looked for in Bronze Age depositions. The presence of a system of selective deposition for the Bronze Age suggests that particular places held particular identities. Whether or not these were seen as associated with different religious entities, it at least indicates that special parts of the land were seen as imbued with different qualities. Pálsson (1996) mentions a study by Gurevich on the Scandinavian Middle Ages that is informative in this respect. From ancient Scandinavian cosmologies Gurevich infers that these people regarded the land and its owners as one, and the land acquired its qualities from the latter and vice versa. 'A man was closely and indissolubly linked with the land he cultivated; he saw in the land a prolongation of his own nature. And the fact that

a man was thus personally linked with his possessions found reflection in a general awareness of the indivisibility of the world of men and the world of nature' (Gurevich 1992, 178). Such a general notion of linking up people and land is interesting for the present study: as we have seen throughout the book, one of the categories of objects deposited in the land were personal valuables (ornaments, weapons). Assuming a more mutual relationship between people, personhood and the land of the kind described by Gurevich would make more sense of the deposition of the paraphernalia of personhood in natural places.

### 14.6 DEPOSITION AND CULTURAL ATTITUDES TOWARDS THE LAND

The discussion on cosmology brings us to a more fundamental point. Whatever the social aspects of the practice of deposition, the practice exists in the first place because placing objects into the ground was considered an act that made sense in people's understanding of the world. Ultimately, it must have been rooted in general religious beliefs. There is no claim here that we can have access to such beliefs, but there is one point that we should take further: the cultural practice of placing objects into the land must somehow be related to an understanding of the land itself.

#### 14.6.1 *Exploitative and communalist attitudes*

Recently, anthropological studies have revived the discussion on the cultural attitude towards the land. Pálsson (1996), for example, distinguishes between the following attitudes: the orientalist attitude and the communalist one. An orientalist attitude towards the land is about domesticating and exploiting the land. The communalist attitude is one that draws on a generalized reciprocity between people and land: the environment is a 'giving environment', with which people maintain reciprocal relations. It rejects the notion of a separation between humans and the natural world. As Brück (1999, 336) has recently stated, the communalist attitude is based on assumptions that special relationships are realized between people and the environment. She argues that the fact that depositional practices existed shows that the Bronze Age attitude towards land was 'communalist' rather than exploitative. There is something to be said for her view. After all, what we have recognized is a more than 2000-year-old tradition of placing valuables in the land. Several times it was argued that objects were placed in the land in neat, sometimes splendid, condition. There is no indication at all for deposition implying the ultimate end of the object itself. It is only the circulation among human beings that is terminated by it. Earlier on in this chapter it was already remarked that deposition has in fact all the characteristics of objects in formal gift exchanges. Regardless of the way in which the depositional location was

perceived: would it be too far-fetched to suggest that this implies that deposition itself was seen as a form of ‘giving’ to the land as was done earlier? After all, one of the most crucial elements in the life of deposited objects was a life-path of exchange itself. Deposition might therefore be seen as the ultimate form of exchange: the form that results into ultimate inalienability. Deposition, then, would come close to a form of sacrifice. As a matter of fact, literature on sacrifice in ancient society and anthropology generally shows that the concept of a gift to the gods, expectations on reciprocity and sacrifice largely overlap (Burkert 1996, 149-55).

#### 14.6.2 *Deposition and notions on reciprocal relations with the land*

The long-term and widely-shared tradition of deliberately placing valued metalwork into the land will undoubtedly have been understood differently from time to time and place to place. This need not rule out that it was on the whole structured by a general belief that it served to maintain reciprocal, mutual relations with the land. Of great interest is the study of the anthropologist De Coppet (1985) who showed that in non-modern society it is not simply people who own land, but the land itself is ultimately seen as an ancestral creation, to which the living community only owes its existence. In his terms ‘land owns people’, just as much as people own land. Meillassoux in Bradley (1984) has remarked that this is generally true for agrarian societies who after all build their own existence on the activities of their forebears: the land these reclaimed and made fertile, the living areas they created. For the Bronze Age, we can at any rate state that the profound and widely-distributed traditions of re-using and reclaiming ancestral burials (barrows; urn-fields), for which our area yields so much evidence, testifies to a general tradition of veneration and valoration of ancestors, and in its turn, this reminds of both De Coppet’s and Meillassoux’ theory. Bringing the discussion back to the practice of deposition we can say that in world-views in which the notion of land as an ancestral entity is so important, a notion of sacrifice to and exchange with ‘the land’ may well have had a place. It would tally with the often-held view that sacrifice itself is a feature of agrarian societies rather than anything else (Jonathan Smith, check!!).

Admittedly, the above is hard to test and run the risk of being essentialist. What I still prefer to maintain, however, is the idea that deposition has something to do with notions on reciprocal relations with the land, Pálsson’s ‘communalist’ attitude towards the land. However, contrary to Brück (1999), I would refrain from labelling ‘Bronze Age attitudes towards the land’ solely under this heading for the following reason. Apart from the ‘odd’ deposits of valuable metalwork in watery places, we also have evidence on Bronze Age homesteads, reclamations and agrarian practices which seem

to be of an exploitative, ‘orientalist’ nature rather than anything else. For the southern Netherlands, the Bronze Age heralds the first large-scale opening-up of the landscape. There is, for example, evidence that by the Early Iron Age large heath landscapes existed in the southern Netherlands (De Kort 2002). The farmyards, the fields and the agricultural practices of the mature Bronze Age are generally felt to have some familiarity with farmer’s life as it existed in Europe before the Industrial Revolution (Brück 1999, 329). Similarly, it might be this ‘feeling of familiarity’ that makes Vandkilde (1996, 262) argue that the domestic in the Bronze Age is basically the non-ritual domain that represents true images of the social reality.

#### 14.6.3 *Depositions and the logic of taking and giving*

Equating attitudes towards the cultivated environment as familiar and rational, while labelling those towards the uncultivated as ritual and irrational does not help us any further. In her attempt to resolve this dichotomy, Brück (1999) argues that the argument that ‘odd’ deposits were placed on Bronze Age farmsteads shows that these farmsteads were not associated with a rationality that is ours, in spite of their superficial similarities with modern farmer’s attitudes. Therefore, she apparently concludes that Bronze Age attitudes towards the land were entirely ‘communalist’ and as such entirely different from our own. As we have seen in chapter 7, ‘odd’ deposits are also attested for farmyards in the southern Netherlands, and we might therefore be inclined to adopt Brück’s view for our region. In my view, however, the evidence we have on the practice of object deposition itself suggests a more nuanced view. As we have seen, depositions were carried out in such a way that they reflect a contrast between the cultivated and the natural zones in the landscape (see fig. 14.2 and fig. 14.3). True, metalwork was sometimes deposited at or near farmyards or in or near barrows, but this stands in striking contrast to the overwhelming majority of metalwork that was placed in rivers and marshes. This may again be used as an argument in support of the old theory which contrasts between ‘familiar’, ‘rational’ agrarian places in the landscape, and the ‘odd, ritual’ zones in rivers and marshes. In my view, however, the evidence provides arguments for links between these areas as well: the ‘familiar’ evidence on Bronze Age farming settlements seems to have been deliberately linked to the evidence on the ‘odd’ deposits in watery places. This is most clear for the most frequent type of deposition, that of axes. I argued that most deposited axes show traces of an intensive (agrarian) use-life, but that their deposition seems to have been kept outside farmyards and graves (chapter 13). They seem to have been preferably deposited in the watery places, generally outside those locations where they had been put to use. The deposited axes thus seem to have linked the

‘cultivated’ and the ‘uncultivated’ domain. If we would phrase it in terms of the traditional nature-culture dichotomy, then the axe is the tool with which ‘nature’ was transformed into ‘culture’. But the same tool was itself placed into locations that are themselves uncultivated. Some sort of reversal of contexts seems to have mattered, whereby the cultivated and the uncultivated land were meaningfully integrated in such an act. If we would phrase this in the terms used by Pálsson (1996) then we have evidence of an ‘orientalist’ exploitation and domestication of land that is at the same time accompanied by a more mutual ‘giving-back’ attitude witnessed in the axe deposition. A similar example of taking-and-giving in deposition would be Louwe Kooijmans’ recent re-interpretation of the antler tool finds in the Neolithic flint mines of Rijckholt, province of Dutch Limburg. He argues that the huge numbers of antler picks found in the mining shafts cannot have been lost or temporarily stored items. In his view, it would fit the data more to think of them as deliberately deposited tools. If he is right about this, then this would be another example in which the object that was used to ‘take’ from the land and ‘transform’ it, is finally ‘given back’ to it (Louwe Kooijmans 2001).

#### 14.7 DEPOSITIONAL PRACTICES AND THE CONSTRUCTION OF COMMUNITIES

We have now charted several aspects of the identity of depositional zones – historical, social, cosmological – but so far we have focussed too much on the identity of places themselves. Participants carrying out a deposition do not only construct the identity of such a place. In carrying out a deposition they also define themselves by it as a sacrificial community.

##### *Places in the landscape and the construction of communities*

In his study on late prehistoric societies in the southern Netherlands, Gerritsen (2001) has recently shown how different practices carried out in the landscape were related to the construction of communities. The best example are perhaps urnfields: these are the communal burial grounds of several individual households that in daily life lived dispersed across the land. In an urnfield, the deceased is redefined as a member of a larger community including not only his own household, but others as well. By burying the dead of dispersed groups into the same cemetery, a sense of communality was expressed that did not come to the fore in other aspects. By using the urnfield, people defined themselves as a burial community.

Gerritsen argues that one individual can at the same time be a member of quite different communities like a household, an age group spanning several households or a burial community. A community is a symbolic construction: it is about creating insiders and outsiders. Membership is based

on practices, knowledge and symbols by which a group distinguishes itself from others (Gerritsen 2001, 123-4). One of the valuable points made by Gerritsen is that he was able to show how the construction of communities was often tied up with specific practices carried out in the land (for example, the urnfield).

Gerritsen did not discuss the evidence of depositional places, although it must be assumed that here, too, special collective practices were carried out and hence possibly a sense of community was derived from it. There are arguments, however, to suppose that such ‘sacrificial communities’ were constructed in a different manner and occupied with quite different ideas. To start with the latter: it is intriguing to see that some of the ideas and values which must have mattered there seem to be in total opposition to those emphasized by burial communities in urnfields. In chapters 11 and 12 it was for example concluded that objects related to martial identities are persistently missing in deposition in burials, but figure amply in depositions carried out in watery natural places. The same applies to ornaments that refer outspokenly to supra-regional appearances. These must have been worn and used by local communities living in the southern Netherlands. Nevertheless, they too seem to have been kept out of urnfields but were placed in major rivers, marshes or remarkable ‘in-between’ places (the example of the Lutlommel hoard, chapter 12). Simple and locally shaped ornaments, on the other hand, were deposited in urnfields, and, as we saw, their meanings were idiosyncratic to the local community involved (chapter 12). Apparently, different places had different meanings. Rivers and marshes were associated with martiality, whereas burials were not. Selective deposition was one way in which this was played out.

##### *Phenomenal and imaginary landscapes*

We should not make the mistake of thinking that we have now laid bare a mere symbolic system of places. There is also a profound difference in the way the identity of these places was defined. Barrows, cemeteries, fields, houses or farmyards: they are all elements in a phenomenal, visible landscape. In the case of barrows and urnfields, we are dealing with a ritual act, the result of which was clearly meant to be seen by a larger group than the participants alone. Some barrows were clearly built in large sizes to impress onlookers, others drew attention by elaborate peripheral post structures. They were visible signs in the landscape significant to one’s own group as well as to others. Here, visibility was an authoritative resource; it was the result of a deliberate social strategy.

Throughout this chapter it was argued that all this was different for depositions in natural places. Here, it is only the act of deposition itself which mattered and not its

visible result. The fact that natural places were repeatedly visited through time implies that the authoritative resource here was memory, not visibility. However, as a social strategy, a practice thriving on memory alone is much more vulnerable to manipulation. Participants may claim to visit a place where their ancestors did the same as they are planning to do, but it is impossible to check this. As a matter of fact, archaeology shows that repeated use of the same location is not a matter of re-using a particular place; rather, the deposited objects always show a clustering in a spatially circumscribed zone. Although natural places are phenomenal just like barrows or urnfields are, their meaning as sacrificial sites is not: they only exist in practice and in collective memory. Deposition relates more to an 'imaginary' than to a phenomenal landscape (cf. Hirsch 1995; Gerritsen 2001, 125).

*Depositions and the construction of sacrificial communities*

The implication of this is that knowledge of the zones where earlier depositions took place must have been an important social resource, to use Giddens' phrasing (Giddens 1984, 33, 373 check). The knowledge of what took place in the remote locations in the landscape must have been an essential element in the history of the local group as transmitted from generation to generation. This becomes particularly interesting if we realize that such a collective memory was not only about where to deposit objects, but also about where to deposit a specific kind of object (cf. the difference between adjacent multiple-deposition zones: weaponry in the river and axes in the swamps, section 14.1). The point made here is that such knowledge is about knowing 'the proper way to do things', and knowing (or claiming to know!) the right places to deposit things might have functioned to create insiders and thus to define a 'sacrificial community'. We are in no position to see which selection of people was involved in such practices (a household, an urnfield group, a larger corporate group?), but it is likely that the community formed was not just 'real', but 'imagined' as well. It was apparently vital to re-enact past events, to do things in the same ways as one's (real or claimed) forebears did.

*Selective deposition and 'keeping things apart'*

One of the most puzzling aspects is the contrast in the ideas and values mattering to burial communities versus sacrificial communities, particularly in the Late Bronze Age. The ideology of urnfields largely denies differences in social power, whilst the evidence from metalwork strongly suggests that such differences existed. We know that weaponry was widely in use, and certain people must have managed long-distance exchange networks, claiming membership to far-flung communities by adhering to non-

local imagery (chapter 11 and 12). The paraphernalia of such statuses and their obvious high appreciation may well have been considered ambiguous, at odds with the specific local identity and ideals on collectivity and solidarity between the members of the local group. Selective deposition may have been an attitude to deal with such conflicting ideas and values. It might be ventured that this ambiguity was one of the reasons why weapons and special ornaments were deposited in such a way that they disappeared for ever without a recognizable trace. The preference for remote places which were not yet altered by human hands may also relate to this. Would it be a coincidence that such places are unbounded and ambiguous like the objects placed in them?

14.8 CONCLUSION

Even after such a lengthy discussion it remains extremely difficult to understand the landscape of deposition. Summing up, the following points have been made.

- 1 Selective deposition reflects a structured cultural understanding of the land, in which different places and zones had different and possibly even conflicting meanings (for example, weapon deposition sites and the collective, egalitarian-shaped urnfields).
- 2 The landscape of deposition is primarily a landscape thriving on collective memory. In contrast to other structuring elements, like barrows or settlements, it should primarily be understood as an imaginary rather than a phenomenal landscape. For multiple-deposition zones, we may think of gatherings of a specific selection of people – a sacrificial community – knowing how, where and why to act.
- 3 From the point of view of the landscape of agrarian daily life, depositional places are generally remote and peripheral ones. They are unaltered 'natural' and predominantly watery places, zones rather than places. Specific environments in the landscape, like stretches of rivers extending for several kilometres and extensive zones in marshes repeatedly saw metalwork deposition. Clear focus points ('cult places') are lacking. This makes it appropriate to speak of the existence of entire 'sacrificial landscapes'.
- 4 Socially and cosmologically, depositional places are ambiguous ones, being both dividing and linking elements in the land.
- 5 Since specific types of objects seem preferably to have been placed in specific types of environments (swords in rivers), such places must have been considered to have been imbued with a specific identity. The idea of the land as being imbued with specific (personal) qualities seems to make some sense, as does the idea that deposition was perceived as some kind of 'giving', a definite form of

exchange. In terms of the attitude towards the land, depositions of agrarian tools (axes) in uncultivated places may even reflect an ideology of reciprocity with the land. It is one step too far, however, to specify this further and claim that depositional places were the residences of personified gods similar to what we know from much younger historical sources on Germanic/Celtic societies.

### notes

1 See Mulk 1997 for an example from the Saami, the indigenous people from the northern parts of Norway, Sweden, Finland and north-west Russia.

2 The giant *Bombenkopfnadel* of type Ockstadt in Oosterhout was probably found in the remnants of this stream. See chapter 8, section 8.6.2.

## Final reflections: what is selective deposition and what does it bring about?

### 15.1 INTRODUCTION

Three questions were central to this book. The first was whether deliberate deposition of metalwork took place. Our review of the evidence showed that for all periods studied at least 50 % of the metalwork finds, but probably much more, were intentional deposits (chapter 10).

The second question was about the structure of depositional practices. The answer is that we are indeed dealing with selective deposition. Specific objects, with specific types of cultural biographies ended up in particular places in the landscape and not in others. In chapter 10, the structure of selective deposition was set out. It proved to be a rigidly structured and profoundly traditional practice. Burials, farmyards and all sorts of natural places (major rivers, stream valleys, peat bogs, hoards on dry land) proved to be places where specific objects ended up. It was argued that the distinction between two kinds of valuables mattered: those related to the construction of specific kinds of personhood (ornaments, weaponry) and valuables related to communal identities (axes in particular). Chapters 11 to 13 discussed the evidence of their biographies in detail. Martiality was recognized as a specific theme to be played out in deposition. In the case of deposition of paraphernalia of personal identities a further distinction was recognized between local and non-local identities (chapter 12). Deposition of axes and other tools proved to be more complex. A distinction was recognized between cases in which axe deposition was primarily related to its life as general exchange item and to depositions of axes related to an intensive use-life.

The third question was how to make sense of these patterns of selective deposition. Why did different types of deposition exist side by side? Since this question can only be answered after a review of all separate themes, dealt with from the point of view of relations between people and objects (chapter 11 to 13), and the relations between people and land (chapter 14), it is only now that we can turn to this last research question. It may be the most intriguing one, it is also the most difficult one to deal with. The point made here will be that we are dealing with attitudes towards objects and land that are alien to us, and hardly have counterparts in ethnography or history. An attempt is presented here to make at least *some* sense of them. It will be argued that selective

deposition represents different ritual practices in which specific ideas and values were emphasized *and* deconstructed.

### 15.2 CIRCULATION OF FOREIGN MATERIALS AND SOCIAL REALITIES

Local communities in the southern Netherlands can basically be considered as *importing* societies. Even when a thriving bronze industry emerged, people still depended entirely on sources from far outside the region. In chapter 5 we saw that this was already true for most Neolithic communities as well: the majority had to import flint – and sometimes stone as well – from beyond. Thus, the necessity to participate in exchange networks spanning vast areas must have been an essential characteristic of the *longue durée* history of prehistoric communities in the southern Netherlands. For both the Neolithic and the Bronze Age, prehistoric communities in the southern Netherlands can be characterized as *importing* communities. This may be an important point because it has consequences for the way local communities perceived themselves as part of the wider world. Helms (1988, 22) shows that it is fundamental for any social group to recognize spatial and cosmological frames, in which one's own group occupies the central position. Whatever the conceptualisation of such frames, the point is that they are basically about the *identity* of the group as constructed in opposition to the world beyond. The communities under study systematically derived vital items via long-distance contact networks. It can therefore be assumed that for those communities there must always have been a tension between two different kinds of social reality.

- 1 The reality of the *local* community rooted in a 'sense of belonging' to a specific locality. This is the reality of daily life. It is about the feeling of belonging to the people one works and lives with. It is also about feeling attached to the peculiarities of one's dwelling area: the specific environment, the buildings, the monuments and its idiosyncratic local history (Gerritsen 2001). For the kind of communities we are studying this local identity must have been the most important and pervasive social reality (Chapman 1998, 110).
- 2 There is also a reality that is detached from locality. This is the reality of the *importing* society, a reality in which

one's own group is perceived as being part of a wider social network (Barth 1992, 29). This is the reality in which people saw themselves as necessarily linked to a more encompassing social world, acknowledging that the cycles by which a social unit reproduces itself draws upon resources derived from a wider geographical and social world (cf. Barrett 1998, 19).

These two realities necessarily need co-exist. For a local group to reproduce itself, the world beyond that group is vital (if only for the exchange of marriage partners and of crucial non-local materials). At the same time, the outside world is potentially ambiguous and dangerous. A sense of belonging to a wider social world denotes the dependency of the local group on others for the reproduction of the local group. It emphasizes the group's dependency on factors beyond one's own control. Crucial is the realization that *the vehicle that effectively links both realities is the imported object or material or individual (marriage partner)*. Helms shows how foreign things for that reason alone tend to be seen as imbued with meaning. They are an objectification of the reach of the local group upon resources beyond their existence as determined locally (Helms 1993, 99). And this brings us to the special significance that was attached to the non-local bronzes.

### 15.3 BRONZES AND THE SIGNIFICANCE OF NON-LOCAL IDENTITIES

Throughout this book we have seen how important non-local materials were. Bronze objects continued to be imported even when a thriving local industry existed which was capable of producing them. Moreover, many imported bronzes were indeed indispensable tools, but even for the Middle Bronze Age B and Late Bronze Age only axes were a tool of daily life for which stone or flint equivalents no longer existed. The other tools were still made from materials that were procured closer to home. The southern Netherlands are not unique in this. Bradley has shown that one of the characteristic features of the European Bronze Age is the enormous distance travelled by some types of artefacts. He makes the argument that it must have been the foreignness of the metal itself which mattered. A continuation of importing and using finished products even when these could be made locally is also witnessed in countries possessing sources of their own. Bradley gives the anomaly of the situation in Britain. Here artefacts made of continental metal even eclipsed the products of local sources. This means that there must have been a *cultural preference* for foreign material (Bradley 1990, 131-5). Such a preference has wider implications than just the objects themselves. There is also evidence for bodily adornments using exotic bronzes. Some people were 'dressed in internationality'. Specific personal appearances were geographically widespread. Think for

example of the personal imagery displayed in Bell Beaker burials, in Sögel-Wohlde and Ha C warrior equipment (chapter 11), or in the international female dress styles of the Middle Bronze Age B and Late Bronze Age (chapter 12). By adopting such imagery, membership was claimed of distant non-local communities. Following Isbell (2000), we may perhaps speak of membership of 'imagined' communities. The point is that within communities there was a concern with concepts of personhood in which the links with the world beyond were emphasized. As Barrett (1998, 23) puts it: 'In such cases the biographical histories of objects and of the body itself may have converged in such a way as to ensure that the body's identity was expressed in terms of distances travelled and of absent origins'. The significance of adopting such non-local identities seems to have been considerable. When local bronze industries emerged there never seem to have been attempts to make tools or ornaments that primarily emphasized locally or regionally-specific identities. In Denmark, for example, outspoken regional ornament styles did exist, and the entire bronze industry there seems to have been closed rather than open, in spite of the reality that it was just as the southern Netherlands a region which depended on the importation of bronze from far-away regions (Sørensen 1987). Summarizing, we can assume that the world beyond daily existence mattered considerably in the southern Netherlands, not just in a practical way (the importation of badly-needed materials) but in an ideological way as well. Still, it can be argued that inherent in this situation there was a certain tension between the significance of local and non-local identities which had to be managed and resolved. In what follows it will be argued that depositional practices were related to this, but first some attention needs to be paid to what deposition involved and how it worked.

### 15.4 ACCEPTING THEIR LOGIC: A SACRIFICIAL ECONOMY

In chapter 2 it was argued that the main problem we come up against in our attempts to understand depositional practices is that the logic of this deliberate giving up of objects defies fundamental modern assumptions on (economic) rationality. We saw that many explanations offered tried to restore a sense of familiarity by seeing deposition as a practice which in the end fulfilled economically rational aims, or by seeing them as predecessors of odd – but more familiar – sacrificial practices known from historical sources on societies of much later periods. I argued that both explanations fail to explain the peculiarities of the Bronze Age practices studied in this book. The (political-) economic explanation cannot explain the existence of a system of deposition that is as profoundly structured as the one studied in this book. A link between Bronze Age practices and those of the Late Iron Age or Roman Period also fails to make

sense of those particularities of the older Bronze Age system (chapter 14). The only way out seems to be to cut this discussion short by simply accepting that the deliberate giving up of (valuable) objects was *apparently a culturally prescribed and meaningful way to deal with objects*. We must be dealing here with a widespread sacrificial mentality that can be traced back in our region at least until the Early Neolithic.

We saw that an enormous variety of items figures in these early Neolithic depositions: pots, animal parts, simple tools (chapter 5). Of special importance for the present study is that among these there were also objects that must have been imported from elsewhere. The *Rössener Breitkeile* and later on the flint Buren axes and cigar chisels are a case in point (chapter 5 and 13). We are dealing here with biographies of objects in which a life of circulation ended in deliberate deposition. It is precisely this deposition of such non-local items that would assume enormous proportions in the Bronze Age. In the case of bronzes the element of giving up is even more pronounced, as now not only a usable object was sacrificed but recyclable material as well (chapter 5). Still, it is precisely with the emergence of a supra-regional bronze exchange that bronze deposition increased dramatically. For the Bronze Age, the statement on the sacrificial mentality can be further refined: *the economy of exchange itself was sacrificial in nature*. Importing materials from abroad was apparently seen as inextricably linked to giving a part of it up. Hence, we may even speak of a *sacrificial economy*.

It may be true that the logic of a sacrificial economy conflicts with the logic of commodity exchange. On second thoughts, it has considerable affinity with the logic of gift exchange. Gift exchange is also essentially about the social relevance of 'giving away'. This giving is, however, not done haphazardly: there is a specific social and ritual context involved, there are norms regarding what to give to whom, and there are expectations about the results of the act (*do ut des*) (chapter 3, fig. 3.1; Bazelmans 1999, 14-20). This is not unlike the rather rigid patterns of selective deposition, that I described for the Bronze Age. In deposition a specific context is selected (a particular zone in the landscape), and a specific type of object (e.g. swords in major rivers). There are also historical precedents (multiple-deposition zones) and rigid rules (no depositing of weapons in graves). In this light, the irrationality of the 'giving up' of valuable things has a counterpart in gift exchange. Given the earlier exchange history of so many items which ended up in deposition, deposition may well have been seen as affiliated to gift exchange. As in gift exchange, the object is not kept but given away. In gift exchange, it is the giving up which imbues the owner with fame and renown, and it can be assumed that depositing the object has a similar effect. Perhaps even more, since deposition is about the most definite way in which the object is given up: it prevents the object from playing any

role in future exchange histories. These parallels to gift exchange may to some extent remove the oddness this sacrificial economy may have to us, but do not explain why deposition was practised. For this, we have to pursue the analysis and focus on the peculiarities of deposition as a practice.

#### 15.5 DEPOSITION AS A PRACTICE

Although I tried to study depositional practices in all their intricacies, we have to accept that archaeology fails to provide detailed information on the practice. At best, some impression could be gained from the location where it was performed. We know something about the treatment of the object deposited as well as its earlier history, but many questions remain. How was the actual depositional procedure carried out? On what occasion was it done, which people were present, what further activities did it involve and so on? All these aspects may contribute to a further understanding of the meaning of depositional practices, but they are practically beyond the limits of archaeological knowledge and we should rather focus on those aspects that we are able to grasp. These are as follows.

##### *Deposition implies religious and historical knowledge*

In general, it was a practice that was carried out in a specific context in the landscape, often beyond the world of daily agrarian life. The places have qualities of their own: they are mainly non-cultivated, and they are wet places. This in itself implies a particular view of the environment as a space imbued with specific meanings, where watery and 'natural' places had a special, probably religious, significance. On top of that, they generally lacked man-made markers and as some zones witnessed a long history of deposition, we may assume that people's reading of the environment was not just based on cultural religious knowledge ('wet' places are right for depositing metalwork'), but specific historical knowledge as well ('it was this particular wet place where objects should be deposited'). This implies that specific knowledge was required for carrying out a deposition in the proper way. In the case of zones that saw repeated visits, such knowledge must have been a social resource. Knowing the right place to go and the proper way to act may have served to construct a group of insiders, a sacrificial community (chapter 14). The peripheral and sometimes remote position of depositional zones, and the lack of clear man-made markers seems to be in line with this, since it suggests that it was a practice that was deliberately severed from daily reality and involved a sense of secrecy (chapter 14).

##### *The paradox of deposition: meaning performance and deconstruction*

We have seen that on the whole objects were deposited which had already been imbued with meaning by their

previous life-path. It can be assumed that deposition itself was also a practice in which further meaning was enacted (chapter 3): it involved a special event in which the histories of people, objects and place were brought together and transformed. The special emphasis on the objects (their selection and treatment) implies that deposition can be seen as an act in which the accumulation of meaning which took place during the object's life-path was celebrated, magnified and culminated. The paradox is, however, that this same act also led to the final disappearance of the object in question: the termination of its meaningful life. In a way, deposition is both about meaning performance and its deconstruction. *This makes it a very suitable practice for coping with objects which are important and meaningful, but which are nevertheless also seen as circumscribed and ambiguous for the society in question.* We have seen that certain deposited goods were meant to signal specific social identities which may have been considered ambiguous. Think for example of the paraphernalia of martial identities as described in chapter 11, or the paraphernalia of supra-regional dress, indicating ties with the world outside the local community (chapter 12). Deposition is an act in which a group ostensibly draws attention to such identities in the face of participants in a specific ritual context. The act probably performs and celebrates this meaning, in an act that ends up in its final deconstruction when the participants literally separate the paraphernalia of such special personal identities from a human body by letting them disappear from sight for ever.

#### 15.6 DEPOSITION AS RITUAL

Chapter 2 discussed whether we can make sense of deposition as a ritual practice. In my view, any attempt to understand Bronze Age depositional practices by seeing them as sacrificial practices for which the historical and ethnographic record has parallels fails to see the uniqueness of it. Bronze Age deposition is a historically unique phenomenon because of the enormous scale and impressive time span at which it was practised (almost the whole of Europe, and for a period as long as the Neolithic until the Iron Age). It is especially its structuration as a system of selective deposition which makes it so special. The way in which the landscape was used does not support the idea of the existence of cult places that we know from the Iron Age and the Roman Period, but rather the existence of entire 'sacrificial landscapes' (chapter 14). This does not imply that the logic of deposition is entirely alien to us. In particular, scholars have been inclined to see it as the logic of a specific ritual of sacrifice (a votive offering or a gift to god). I discussed these views in chapter 2, and objected to them by asking: which ritual logic? There are many theoretical views on what rituals are and what they bring about. I refrained from selecting one because it might bring with it assumptions that may be unjustified for the case

under study. The alternative chosen was to pay attention to what archaeology tells us about it: how was it structured, how did it contrast with other practices? We now have some general idea on the nature of Bronze Age deposition and we can now confront these findings with several theories on ritual.

#### *Ritual as meaningless, traditional behaviour*

One theory sees ritual as meaningless, non-discursive routine behaviour, the wider meanings of which escape the participants. Its significance should rather be in the field of the social effects it brings about (chapter 2; Bloch 1989; Verhoeven in press). We have indeed seen that deposition is a profoundly traditional practice in its selection of places and objects. With regard to these aspects, the structure of selective deposition as it emerged during the Middle Bronze Age A did not undergo real changes until the beginnings of the Iron Age (chapter 10). The traditionality is indeed profound and suggests that general ideas on the right way to carry out a deposition were based on beliefs and narratives which were so traditional that they were largely beyond negotiation. On the other hand, in every single act, the practice and its rules were re-invented and it would reflect a very cynical view on mankind to rule out human agency in this by assuming that the participants acted as some kind of robot devoid of interpretations and agency (section 3.2). Crucial to deposition is that we are not dealing with largely symbolic objects which no longer had any role in daily life. On the contrary, most objects deposited had a life in daily existence, be it in agrarian life (axes, sickles), circulation, in personal life-cycles (body ornaments, weaponry) or in specific activities (battle). This implies that their roles and meanings were subject to evaluation and negotiation in daily life and it is very hard to understand the complex selective attitudes towards these objects in deposition as a reality that is totally separate from the meanings of these items in daily life.

#### *Seeing ritual as permeating all fields of life*

It may be obvious that the present study cannot be reconciled either with the theory of some post-processual archaeologists that ritual permeates all fields of prehistoric life and therefore has no true meaning as a separate practice (chapter 2). It may be true that there are elements of religion or superstition to all human practices, but what we have laid bare in the case of metalwork deposition indicates practices that were carried out in separate contexts. It involved a specific selection of items, places and ideological themes (for example: issues relating to martial values). This comes close to Bell's (1992) concept of 'ritualisation': practices that denote a differentiation of one particular practice and ideological value from others (see also chapter 2).

*Ritual as revealing values at their deepest level*

Since deposition as a practice has this 'separateness' and seems to focus on specific themes, one could bring this further and confront it with the theory on ritual which states that rituals reveal ideological values at their deepest level (chapter 2; Barraud/Platenkamp 1990, 103). Martiality, for example, seems to have been such a theme that was privileged in depositional practices (chapter 11). Does this imply that martial values were among the most essential ones of the society in question?

First of all, we should be cautious about the way in which depositional practices reveal the significance of a specific value, since their messages are ambiguous. In deposition there is a clear focus on specific items and hence the ideas and values with which these were associated. At the same time, however, deposition is the practice in which the items embodying such values are removed from society (section 15.3).

Second, the present research has tried to confront the evidence of depositional practices with that of other ones, including ritual ones; for example, the burial ritual. This exercise has shown that the themes of different 'rituals' are not in line with each other. On the contrary, they can even be conflicting. For example, we have seen that there were specific zones in the landscape where weaponry was deposited. It was shown that this was not just deposition of the tools of warfare, but of the paraphernalia of martial identities. The striking observation is that the pronounced emphasis on weaponry contrasted with depositional practices in other contexts where the personal identities mattered. In burial deposition, weaponry is notoriously absent, and seems to have been deliberately avoided even in the most monumental barrows (chapter 11). We saw a similar phenomenon in the case of the deposition of body ornaments (chapter 12). Lavish, non-local ornaments that sometimes were part of entire costumes are equally absent in burials, but they were deposited in quite different zones in the land (rivers, multiple hoards in a peripheral place). The evidence of deposition of ornaments in Late Bronze Age urnfields, however, shows that here social identities were constructed which primarily had meaning at the level of the local community itself (chapter 9, 12). There is no case of representations of deceased individuals that were shared among remote communities, however. Summing up we can say that we are dealing with contrasting, perhaps even conflicting, sources of evidence indicating that different values were significant to different ritual practices.

*Conclusion*

Depositional practices indeed seem to have been 'ritualised' in the sense of Bell (1992), but there is no case for the often-heard theory that this reflects the profane-

ritual dichotomy, in the sense that only the 'non-ritual' domain of settlements and daily life represents 'true' images of social reality (Vandkilde 1996, 262). Farmyards were sometimes depositional places as well (chapter 7), but as such different from major rivers or marshes. Nor is there a case for the theory that deposition, as a ritual, reveals either the most fundamental values of society, nor images of life that are the reverse from daily reality (cf. Staal 1989). The contrasting evidence of the different kinds of deposition seems more in line with a situation in which different ritual practices constituted separate 'fields of discourse' (Barrett 1991). Martiality was 'true' in one context, but denied in another. The contrasting evidence of different sorts of depositions presupposes not the celebration of one particular ideological value, but rather a more encompassing system of values (cf. Bazelmans 1999, 41-6). We will now bring this further, by arguing that selective deposition was implemental in managing and effecting such an ideological system of values.

### 15.7 WHAT DOES SELECTIVE DEPOSITION BRING ABOUT? *Depositional practices as mystifying ideologies?*

In chapter 1, the paradox of bronze deposition was introduced. Deliberate deposition of metalwork was most current in those regions lacking ores of their own (Bradley 1990, 131-5?). Since the evidence for biographies of foreign items ending up in deposition existed for such a long period of time, it must have been related to the way in which importing societies managed the opposing kinds of social realities: those of the local versus the non-local world. Foreign objects, ideas, people and styles of personal representation are beyond the control of local producers. Therefore they are by definition different as a cultural category (Sørensen 1989, 185). Scholars enhancing the prestige good model have realized the political-economic aspects of this for a long time (chapter 1). The circulation of foreign things was something which cannot have been taken care of by everybody. It implies 'haves' and 'have-nots' in largely egalitarian societies, potentially leading to social tensions which had to be resolved. The reader will recall that the prestige good model saw the function of the deposition of so many of these items as some sort of political-economic levelling mechanism (chapter 1 and 2). The idea was that it had the double function of resolving social tensions caused by the unequal access to socially important items, whilst it created scarcity at the same time. In this way deposition of bronze would prevent deflation of the prestigious value of bronze and paradoxically uphold the very system of empowering prestige good circulation (chapter 2). This mirrors the Marxist view that ritual acts are 'false' images of social reality, mystifying and recreating the true power relations (Treherne 1995, 116).

*The alternative: selective deposition as related to a complex whole of ideas and values*

I now hope to have shown that the different ritual practices, selective deposition in natural places, burial ritual, and rituals carried out on farmyards all display an emphasis on different ideological themes that may even be conflicting. In the field of settlements and daily agrarian life there is not one faint hint at a world in which there were individuals who had access to long-distance exchange networks, and who distinguished themselves from others by wearing lavish ornaments or weaponry. The burial ritual of the Late Bronze Age is also profoundly egalitarian in nature. The emphasis seems largely to have been on an ideology of collectivity (chapter 11; Roymans/Kortlang 1999). The final representations of the deceased in burials known to us did not have the slightest reference to martiality either, even though we know from the large quantities of weaponry deposited in marshes and rivers that some of the males buried in an urnfield must once in their lives have taken up weapons. The same goes for the supra-regionally styled body ornaments. Again, in the burials there are practically no references to the fact that such non-local identities were valued. Still, the evidence from deposits in rivers and hoards implies that they were: non-local ornaments and probably entire supra-regional dress styles were known (chapter 12). Even the exchange of marriage partners from far-away regions might be envisaged. Nevertheless, in burials and urnfields in particular, there is nothing to remind us of that. Instead, localism is pervasive in the dress and adornment of the deceased, and the entire burial ritual seems to be imbued by an egalitarian ideology (Roymans 1991, 30). In sum, there is no evidence for a 'true' image of society, as there is none either for rituals which mystify them. As suggested above, the reality seems to be different ideological themes being emphasized in different ritual contexts, together constituting a complex whole of ideas and values.

*Deposition as a way to recontextualise objects and the ideas they stand for*

Back to deposition: what was the exact role played by depositional practices? Let us first once more take up the general observation that depositional practices were conceptually linked to foreign objects. As said before, the strangeness and foreignness of the imported object is something that should be dealt with by people who acquired it. In one way or another, the object should be recontextualised; there should be practices suppressing strangeness and enabling a certain level of relocation and comprehension (cf. Barrett 1999, 23). These might involve practices which ignore the dependency to which the imported object testified, and realign the object with the moral order at home (Bloch/Parry 1989). As histories of long-distance exchange so often ended

up in deposition, we may assume that deposition was one way to achieve this. Any attempt to make some sense of the understandings people had of it is speculative. It was argued that we can make the point that in a general way deposition might have been rooted in a cultural belief that reciprocal relations existed between people and the land (chapter 14; Pálsson 1996). The local landscape is the most conspicuous environment from which local communities can derive a sense of belonging (Gerritsen 2001, 125-6). Placing foreign objects in this landscape might therefore be considered as a compelling way to realign a foreign idea, symbolized as *pars pro toto* by the object selected, with the local order at home. Bloch and Parry (1989) see such procedures as widespread. On the basis of ethnographic examples they point out how sacrifice or transformation of some representative item was a way to make foreign, ambiguous items derived from beyond morally acceptable at home (chapter 13). A political-economic aspect of levelling and creating scarcity mattered as well, but if we take the actions of prehistoric communities seriously, we should accept that the practice itself existed in the first place because people *believed* in it.

*Selective deposition and the contextualisation and ordering of ideas and values*

At this point in the book it may be clear that deposition was about much more than just recontextualising foreign items. Rather it seems to be *about the recontextualisation or ordering of specific ideas and values*. Many of the objects deposited have far more meanings and qualities than just the quality of being exotic. They are about personal statuses and identities, related to life-cycles, social power and special activities (warfare, participating in long-distance exchanges). They are about communal practices and identities (axes), or highly specific ideas and values celebrated in ceremonial items (swords and ornaments). In chapters 11 and 12 we have seen that many of these things are about items and values which are charged, ambiguous, or confined. In largely egalitarian societies like those we have been studying, martial identities can be ambiguous, dangerous ones. In chapter 11, we have seen that there is no evidence at all for warrior aristocracies. There is only evidence for people laying down the paraphernalia of martial identities – and hence the identity itself – in a conspicuous ritual. It was argued that this is in line with situations in which small-scale warfare is endemic, but only of ideological importance (taking place as part of the life-cycles of individuals). In such circumstances, aggression is something that requires a ritually transformed self. Referring to the anthropologist Harrison (1995, 87, 91), martial identities are essentially temporary ones. They are something on the outer surface that can be worn or shed by wearing or laying down the appropriate paraphernalia in ritualized circumstances. It was

argued that the practice of weapon deposition in special places and circumstances (in a multiple-deposition zone) may well be understood as the reflection of the ritual laying down of such roles (chapter 11). Supra-regional personal appearances that were constructed by wearing foreign or foreign-styled ornaments may also have been charged, confined ones. They underline the reality of importing communities which may have felt at odds with the reality of the local group, who defines itself as belonging to the people they live and work with on a daily basis and their attachment to the local environment. The contrasting evidence of local identities in urnfields and supra-regional ornaments in rivers or hoards suggests that both realities were kept apart in rituals.

We saw that deposition by its very nature has this quality of coping with ambiguous and circumscribed identities and the values they represent (section 15.5). The meanings of the objects are celebrated and magnified in front of onlookers but deconstructed as well. The ritual ends up in their definite disappearance. Particularly in the case of ornaments and weapons, the paraphernalia signalling it are laid down,

making the element of deconstruction almost a tangible one. It may be no coincidence that depositional locations are themselves often as ambiguous in nature as the objects which were placed in it (chapter 14).

Selective deposition, thus, is a system of 'keeping things apart', a system of resolving ideological and political tensions stemming from different (sometimes conflicting) ideas and values that every society has. To archaeologists, it gives a skewed picture of social realities. If we concentrate on studying burial sites and settlements in order to distil a picture of prehistoric reality from them, then we should realize that they do not give us the picture of small groups that in spite of their localism had exchange contacts with communities far beyond and were informed about and sharing some of their cultural and religious ideas. Nor do they inform us on the high ritual appreciation of natural places in a time in which the contours of a man-made, cultivated and deforested landscape became more pronounced, nor on the reality that these seemingly peaceful communities did not only practise warfare but even valued it as well.



## Epilogue: Ending with questions

This book started with the recent find of a socketed axe in Susteren. The story of this find is similar to that of so many other bronzes. Although professional archaeological excavations were carried out nearby, the axe was a stray find done by a metal-detectorist. The excavation and survey results give little or no information on any activity during the Bronze Age, and nothing therefore seemed to prepare the excavators for the find of this axe. Since we are now at the end of an entire book on such finds, it is useful to return to the Susteren axe. How does it fit into the general theories on bronze deposition unfolded in this book? On a general level, it can now be said that it fits well into the general patterns of axe deposition recognized. On the other hand, it also exemplifies the many things we still do not understand.

The peripheral position of the Susteren axe was considered a problem when it was found. It is now clear, however, that it was deposited into the stream valley of the Roode Beek. Dozens of other axes described in this book appear to have ended their life in a similar way and it was argued that they represent deliberate single-axe deposits in watery places. From the point of view of settlement location, the find spot is peripheral indeed. However, for bronze deposits such a location is the rule rather than the exception. On closer inspection, questions remain: does the absence of Bronze Age settlement traces really indicate that the area was a remote place, far beyond the location where people lived? Did a deposition involve a special journey to a secluded area? And at what time and on what occasion was it thought necessary to offer an axe? Which people were involved, and which were excluded? In this case, it is even unclear where precisely the axe was placed: was it thrown in flowing water, or placed in the waterlogged backswamp of the stream?

This book may have revealed something of the structure of depositional practices. It has also evoked many questions, some old, some new. It seems appropriate to end with some of these, as I hope they will stimulate further research.

*When, how and why did selective deposition like we know it emerge?*

The roots of the depositional practices we have studied here can be traced back to the Late Mesolithic/Early Neolithic (chapter 5), but these earliest deposits seem very different

from the Bronze Age system of selective deposition. However, this selective deposition of personal and communal valuables was no Bronze Age invention. Deposition of axes with a biography of exchange existed as early as the Early Neolithic (the *Rössener Breißeile*, for example; chapter 13) and gathered momentum during the Middle Neolithic when in some regions massive axe hoards were deposited in peat bogs. The selective deposition of personal valuables was recognized as a feature already significant to the Single Grave Culture before the adoption of metalwork (chapter 5). The fundamental question to be answered is how the much-varied Early Neolithic system of deposition of pots, animal bones, antler etc. should be understood, and how it was gradually transformed or expanded to become the system of selective deposition of valuables studied in this book. The prospects for studying the long-term history of Neolithic deposits are promising for the northern Netherlands, north Germany and south Scandinavia. The crucial point is that Neolithic 'stray finds' should be approached, just like the later bronze items, with a keen interest in the question how they ended up in the place where we found them. In chapter 5, we saw that our discussion on Neolithic axe finds from the southern Netherlands was hampered because they were never studied from such a point of view.

*The dichotomy between burial deposition and deposition in natural places*

Among the earliest indications for a system of selective deposition is the case of the difference between the kinds of objects deposited in burials and those placed in natural places. In the study region, the earliest indications were found for the Late Neolithic B. It was suggested that valuables instrumental in the construction of specific communal identities were treated differently from those related to the construction of specific personal identities. Throughout the European Bronze Age, items related to the construction of a specific kind of personhood continue to be treated in quite specific ways, but these are generally not well understood. Many European rivers and bogs have yielded dozens of ornaments and other items of personal appearance (for example: Kubach 1977; Sørensen 1987; Warmenbol 1996). So far, interpretation of such finds has focussed on whether

they represent badly preserved river burials or not (see the discussion in section 11.7). In this book it was argued that the empirical evidence of ornament or weapon depositions represents a much more complex practice than their current interpretation as 'graveless grave goods' allows (see chapters 11 and 12). One of the alternatives offered in this book is to see ornament deposition as a practice related to the deconstruction of personal identities during life (chapter 11 and 12). It should be mentioned, however, that the evidence on weapon and ornament deposition of the southern Netherlands is modest when compared with the lavish deposits known from many German rivers or Irish or south Scandinavian bogs. There are indications that the current 'graveless grave goods' interpretation cannot explain the depositional patterns found in those regions either. It may therefore be rewarding to test the ideas developed in this book on this much richer material, thus allowing a better understanding of the widespread phenomenon of ornament and weapon deposition.

*What did a depositional location look like?*

The present research may have traced some of the general features of depositional locations, but it failed to give detailed information on what such places looked like and how they were used. We have seen that they were mainly 'natural' places, often with similar characteristics (for an example from the Meuse valley: elongated marshes defined by the slope of the high terrace on one side and the dryer part of the middle terrace on the other, chapter 14). But did the natural environment have specific characteristics as well (specific vegetation, absence of trees, natural sources, flowing or standing water, and so on)? And what about the place of depositional sites in the cultivated landscape? Were they located nearby settlements, near communication routes, fords, or in areas that were virtually inaccessible? In chapter 14, some broad generalizations could be made, but what is persistently lacking is detailed information on two levels, that of the depositional site itself and that of its wider environment ('micro-region'). For the first, we need a good excavation of a depositional site, or rather, 'zone' (see chapter 14). For the second we need an area that has been outstandingly surveyed and holds good potential for the reconstruction of the Bronze Age natural and cultural environment. The central river area in general and the 'Betuwe' in particular is an area that meets such demands.

*How was a depositional site used?*

There is an acute need for detailed information on Bronze Age depositional 'zones'. Admittedly, if they were mainly unaltered places chances are that such excavations would not yield much in the way of man-made features. This will undoubtedly make it difficult to find funding for the excavation of such a site, but it is vital to realize that even

the outcome that human constructions were indeed lacking will contribute to our knowledge. On the other hand, the few examples of excavated multiple-deposition sites like Flag Fen (Britain; Coombs 1996; Pryor 1991) indicate that even such natural places knew man-made constructions like trackways or platforms. An excavation would also make clear whether the predominance of metalwork reflects a prehistoric reality. In the cave of Han sur Lesse (southern Belgium), for example, there are also indications that pottery and human remains were deposited together alongside the metalwork (Warmenbol 1996).

*The continuation of depositional traditions into the Iron Age*

To me, one of the most startling phenomena of depositional practices is the sharp decrease in metalwork deposition in natural places in the Early Iron Age and its re-emergence a few centuries later. I offered arguments to diminish the oddness of this remarkable shift (chapter 10, 11 and 13 in particular), emphasizing that it was not at all the abrupt change we generally think it was. I also argued that there are clear elements of continuity. Still, a feeling of uneasiness remains. This may be caused by the fact that the present research has tried to capture the long-term history of depositional practices up until the period of change in the Early Iron Age, but was unable to study Iron Age deposition as a phenomenon in itself. Yet, pilot studies like the one carried out by Ball (1999) on Ha D metalwork deposits in the Netherlands indicate that we cannot just see Ha C as the apex of a long tradition of metalwork deposition. Rather, it is something that should be studied in its own right. One of the interesting phenomena to be studied in depth may be the repeatedly found deposits of (gold) ornaments in combination with coins in our region (Van Impe 1997). Are such finds comparable to the typical axe-ornament hoards of the Late Bronze Age (chapter 13)?

*Depositional sites and heritage management: what should be done?*

In June 2002, I visited the site where the Kronenberg sword (chapter 7; fig. 7.13) was found, guided by the family of the original finder. This visit impressed me for a number of reasons. One of them was that I now had the opportunity to visit such a place on the basis of first-hand knowledge. Although the find was done in the 1930s, the sword and its story had been taken care of in an excellent way. The Mulder family could still show me the original place where it was found: a small but never reclaimed marsh in woodland. In addition to that, they could also tell me a number of stories that had not gone into the documented records but which seem very intriguing. They told me that next to the find spot of the sword there was also a wooden construction found: a pathway or platform? In addition, another metal object,

now lost, was found a few metres further. I am not really inclined to believe that this wooden construction or the lost metal item may have had something to do with the deposition of the sword (they seem to be of later date), but they are significant in another way. Since this marsh was never drained, it is still possible to excavate the depositional site, to sample the wooden construction and determine whether it may be contemporary to the sword and perhaps see whether other things were deposited as well. In other words: this site is one of the wet depositional locations that is still there and this brings me to the crucial discussion of heritage management.

Heritage management is a difficult business in a densely populated country as the Netherlands, and it is understandable that only those sites are selected for official protection of which we can reasonably suggest that they are worth it. Depositional sites, it is thought, are *terra incognita*: archaeologists do not seem to know where they are situated and what they are. In discussing this, specialists of archaeological heritage management often raise questions like: are we only protecting a 'natural' unaltered place where once a sword was deposited, or can we reasonably expect to find many more items and even some man-made constructions when it will be excavated? Their doubts and questions are valid ones, but I want to argue that they should not lead us to disregard depositional sites altogether in heritage issues.

With regard to the places where we may expect metalwork deposits, it occurred to me that many amateurs/metal-detectorists repeatedly find Bronze Age metalwork. They apparently know where to look for them! Also, the present book (chapter 14) may have shown that depositional sites have some general characteristics. Could not these serve as first indications for building models predicting site locations? Such models should be tested and this brings me to the second point: we do not know much about the details of depositional sites simply because we have never tried to

excavate them (see above). Current models used for predicting site locations are primarily based on the logic of subsistence economies. They have their value but they seem to ignore that the logic of subsistence strategies is only one factor explaining why people did certain things in certain places. Watery sites are generally disregarded as of no archaeological interest since they are not likely to yield settlement or burial traces. In this book we have seen that many of them do yield tangible traces of human practices. What is more, many have yielded the most splendid items of Bronze Age material culture, totally unknown from any other context. They tell us about themes that we will never know about when we continue to focus on burials and settlement sites. Difficult as their interpretation still is, depositional sites tell us about the significance of martial values, about the involvement of local societies in long-distance exchange networks, about issues of local and supra-local identities, and about the ideological way in which fully-agrarian societies approached the 'natural' environment. Recent cases underline the necessity of re-adjusting existing approaches to modelling site location. Ignoring the poor expectations indicated on the map that is generally used as an instrument for predicting and evaluating site locations (IKAW), a team of Leiden University decided to excavate in a former channel of the river Meuse. Their labour was rewarded, for they uncovered what probably was a Late Iron Age deposition site on a river bank containing an *in situ* complex of a large number of well-preserved deposited items (Jansen *et al.* 2002).

Depositional sites may be among the most important places in the world of prehistoric communities. If we take them seriously it is inconceivable that natural depositional sites are almost entirely lacking from the prehistoric landscape that we, 21<sup>st</sup> century archaeologists, try to preserve for the future.



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# Appendices

## 1 LIST OF ALL HOARDS FROM THE STUDY REGION

For these and all following appendices: P means 'primary' information and S stands for 'secondary' information, which means that it was reconstructed by the author (see chapter 4, section 4.3.2. Note that 'primary' information does not necessarily mean that this information is more reliable than 'secondary' information (a find

from an antique dealer who says that it was dredged from the river counts as primary information as well!)! Use traces: all indications of use, but they may include preparations related to deposition as well (for example: resharpening of axes just before they were placed in the water)

Type	Use traces	Context	Patina	Info	Reference
LN/EBA					
<i>Wageningen (NL: Gelderland)</i>					
1 halberd, 1 Migdale axe, 1 knife, 2 penannular rings, 2 ring fragm., 1 ingot bar, 1 stone polished axe, 1 awl, 2 halberd rivets, 1 bar, 5 fragm. of sheet metal	Dagger: worn edges, other tools unknown, 1 halberd rivet unfinished	On gentle slope, dry. In vicinity: LN barrows	All: light green	S	Butler 1990, 68-71; this book fig. 5.14; 5.15
<i>Gemert-Nuenen 'Kollse hoeve'</i>					
1 flanged axe with 'British affinities' (but Unétice metal), allegedly with two flint polished 'Vlaardingen' axes	-	Stream valley. Allegedly under large stone, which is dubious since these are not locally available. Association with flint axes is dubious as well. Interpretation as hoard must be doubted	-	S	Butler 1995/1996: no. 26, pers. comment N. Arts (Eindhoven)
MBA A					
<i>Overloon (NL: Limburg)</i>					
2 Wohlde rapiers, 1 nick-flanged axe, 1 Bagterp spearhead, 1 Torsted spearhead, 1 Bargloy pin	Rapiers have been sharpened, spearheads resharpened	Objects were deposited in overlapping position (fig. 6.7) in hillock in or near marshy stream valley	All: fine dark green	S	Butler 1990, 74-6; this book fig 6.5; 6.7
MBA B					
<i>Escharen-Raam (NL: Noord-Brabant)</i>					
1 Rosnoën rapier, 1 spearhead, 1 dagger, 1 bracelet	Dagger made out of sword blade?	Objects were found together in marshy stream valley 'at short distance from each other'	All: d. bronze	P	Verwers 1988, 26-7; this book fig. 7.11

Type	Use traces	Context	Patina	Info	Reference
<i>Holset (NL: Limburg)</i> 2 knobbed sockles and type Bühl spearhead	All: resharp.	Found in large barrow (d. 23 m) with drystone constructions, objects were found close together, but no asso- ciation with burial was attested	-	P	Butler 1990, 98-9
<i>Kessel (NL: Limburg)</i> 2 regional palstaves, one midribbed, the other with parallel-sided hafting	-	Found at the same spot (but not at the same time) in what was once a marshy area	Both 'well-preserved'	S	Butler/Steegstra 1997/1998, nos 318 and 365; this book fig. 7.6
<i>Neeroeteren/Maaseik- Waachteren (B: Limburg)</i> 4 Mid-winged Grigny axes	All: resharp.?	In peaty stream valley	D. bronze	P	Warmenbol 1989a; this book fig. 7.8
<i>Nijmegen-Heesche Poort (NL: Gelderland)</i> 3 palstaves: 1 Rosnoën type, 2 regional types (with parallel hafting and with sinuous outline)	Rosnoën axe: broken before deposition, the others: edge sharpened, later damaged	In watery place, near river Waal: very old find and said object association therefore dubious	Brown/d. green, unknown and bronze	S	Butler/Steegstra 1997/1998: nos. 229, 289 and 320
<i>Sevenum-Molenbeek (NL: Limburg)</i> Regional palstave (parallel-sided hafting) and spearhead (now lost)	Axe: sharpened	In stream valley	Bronze/ black (axe)	S	Butler/Steegstra 1997/1998: no 309; this book fig. 7.7
<i>Swalmen-Hillenraad 1 (NL: Limburg)</i> Mid-winged Grigny axe and whetstone	Sharpened	Placed in barrow, no direct association with grave. Adjacent barrow: comparable hoard in mound (below)	Green-black	S	Butler 1990, 100-2
<i>Swalmen-Hillenraad 2 (NL: Limburg)</i> 2 mid-winged Grigny axes	One sharpened, other unknown	Placed in barrow, no direct association with grave. Adjacent barrow: comparable hoard in mound (above)	One d. green, other unknown	S	Butler 1990, 100-2
<b>LBA</b>					
<i>Antwerpen-Kattendijkdok (B: Antwerpen)</i> 9 socketed axes (local Plainseau-'Jail Window' variety)	-	In peat of stream valley of the Schijn, close to the place where it flows into the river Scheldt (fig. 13.4)	All: brown-black	S	Warmenbol 1984a, 1987a; this book fig. 13.4

Type	Use traces	Context	Patina	Info	Reference
<i>Berg en Dal (NL: Gelderland)</i> At least 2, possibly 3 Geistingen axes (Mus. Nijmegen: nos AC 19-20, possibly also xxx.d.39 ).	Unsharp.	Very similar patina, acquired by museum in one party. Accounts on find circumstances lacking: interpretation as hoard dubious	Green-black	S	Butler 1973, 341
<i>Berg en Terblijt-Vilt (NL: Limburg)</i> 2 Mid-winged 'Head and Shoulders' axes, one Niedermaas axe, 1 socketed chisel, 3 sickles, 1 pseudo-flame shaped spearhead, 7 fragm. of bracelets, 1 twisted armring, spiral	Sickles and axes: (re)sharpened	In gully on hills of Geul valley, near natural source. Only selection of items found survived	D. green	S	Butler 1973; Van Hoof 2000; Habets 1865; this book fig. 8.19
<i>Deurne (NL: Noord-Brabant)</i> 2 socketed chisels, 1 gouge	Resharp.	Very similar patina, indicating long stay in peaty environment. Detailed information is lacking. Interpretation as hoard dubious	Black-bronze	S	Butler 1963a, 126
<i>Echt (NL: Limburg)</i> 3 Helmeroth axes	-	Similar patina, indicating long stay in peaty environment. Detailed information is lacking. Interpretation as hoard is dubious	Brown-green	S	Butler/Steegstra in press nos. 538, 539, 544
<i>Geistingen-Letterveld (B: Limburg)</i> 26 or 28 Geistingen axes	Sharp. and unsharp.	Dry place? On high plateau plateau with gullies that may carry water in the wet seasons. The axes were allegedly placed in a circle, tied together with a rope	Most d. green, some brownish	P	Van Hoof 2000; Wielockx 1986: Hu 16-37
<i>Heppeneert –Wayerveld (B: Limburg)</i> 47 socketed axes (mainly Plainseau type, 1 faceted British axe) 1 spearhead fragm.	Most sharp.	Dry place? On high plateau plateau with gullies that may carry water in the wet seasons.	Green to brown	P	Van Impe 1994; this book fig. 13.2
<i>Hoogstraten (B: Antwerpen)</i> c. 20 socketed axes, mainly Plainseau type, jail-window variety, 1 Niedermaas axe	-	Dry place on sand plateau between two streams	-	S	Warmenbol 1984

Type	Use traces	Context	Patina	Info	Reference
<i>Lutommel-Konijnepijp</i> (B: Limburg)					
9 socketed axes (mainly Plainseau), 6 rings, 3 biconical beads, 3 tubular ribbed beads, 2 Omega-shaped bracelets, 8 fragm. of armrings.	Axes: sharpened	Originally much more ornaments and axes (possibly 44). Located on gentle sandy slope, possibly high water table. In the vicinity: several urnfields and possibly a settlement (fig. 12.2)	D.green-bronze	S	Van Impe 1995/1996; this book fig. 12.1; 12.2
<i>Maastricht-Caberg</i>					
2 Geistingen axes, allegedly a knife was also part of this hoard, but this is doubtful	Unsharpened	On a high, dry plateau. Interpretation as hoard dubious	Green-black	S	Butler 1973, 341, note 25 and pers. comm.
<i>Montfort (NL: Limburg)</i>					
2 Niedermaas axes	Resharpened	In a marsh	-	P	Butler 1973, Abb. 11 and pers. comm.
<i>Nieuwrode (B: Brabant)</i>					
5 Niedermaas axes	Resharpened	Unknown	D.green-grey	-	Warmenbol 1987e
<i>Nijmegen-Hengstberg</i>					
1 geometrically decorated socketed axe of unknown type, 1 Plainseau axe	Plainseau axe: resharpened	On a high hill, commanding a fine view of the river valley of the Waal. In or directly near a LBA urnfield	-	S	Butler/Steegstra in press: no. 509 (Plainseau axe only); documentation Mus. Leiden
<i>Nijmegen-Roomsche Voet</i>					
6 socketed axes, probably lost	-	Unknown	-	-	Reuvs: Antiquiteiten 1823, 221-2.
<i>Oirschot (NL: Noord-Brabant)</i>					
2 Plainseau axes	Sharpened	Found together in dump of ROB excavation; similar patina and there- fore likely to have been a hoard. Patina suggests wet context	D. bronze	S	Drenth 1994; this book fig. 8.7
<i>Overpelt-De Hoven (B: Limburg)</i>					
2 Socketed axes, 1 leg/arm spiral, fragm. of other spirals	-	Unknown	-	-	Inderherberg 1984
<i>Pietersheim (B: Limburg)</i>					
4 socketed axes (type uncertain, 1 Niedermaas and 3 Plainseau), 1 end-winged axe	-	Allegedly in (natural) stream which was included in the defensive system of the castle	-	S	Heymans 1985
<i>Pulle (B: Antwerpen)</i>					
8 spearheads, fragm. of 5 different swords, 1 Niedermaas axe	Edges light sharpened, most objects are bent and damaged, a few show traces of fire	In stream valley, the items were lying in each other's immediate vicinity but not together. Objects must have been intentionally damaged before deposition (chapter 8)	'well preserved'	S	Van Impe 1973

Type	Use traces	Context	Patina	Info	Reference
<i>Rijkevorsel-Scheidhaag</i> ( <i>B: Antwerpen</i> ) 5 or 6 axes, a flint axe, a hammerstone. Only one axe has come down to us (faceted socketed axe)	-	In peat layer. The objects were allegedly found in some sort of wooden box. The surviving axe may well have come from a peaty location	Brownish	-	Wielockx 1986: Hu 117
<i>Rotem-Vossenbergh (B: Limburg)</i> 4 Niedermaas axes, 1 sickle	Resharpened	On dry, high place commanding a wide view, near the edge of the plateau	D.green	P	Van Impe/ Creemers 1993
<i>Stiphout-castle of Croy</i> ( <i>NL: Noord-Brabant</i> ) 1 or 2 Plainseau axes, 1 socketed chisel	Sharpened	In peaty layers of stream valley. Hermans mentions three axes, Van der Bruggen van Croy speakes of 2 axes without making clear that they were found together. Interpretation as hoard is dubious	Brown	P	Butler/Steegstra in press: no. 514, 524
<i>Susteren-Eilandje (NL: Limburg)</i> 3 axes, 2 Wesseling, 1 Niedermaas type	Sharpened	In marsh	D.bronze	P	Butler 1998/1999; Butler/Steegstra in press: no. 484; Van Hoof 2000; this book fig. 8.5

## 2.1 FLAT AXES

Flat axes in the research region and from the central part of the Netherlands ('Veluwe'). B. no. 14 = Butler 1995/1996 no. 14; R.Sharp. = Resharpened

Site	Type	Date	Metal	Use	Context	Patina	I.	Reference
NL: Gelderland								
Arnhem	Migdale	LN-EBA	-		Dry?	-	S	B. no. 14
Beek	Bygholm	EBA	Ösenring	R.sharp.	-	Green	-	B. no. 5
Wageningen	Migdale	LN-EBA	Singen	Sharp.	Dry hoard	Green	S	B. no. 13
Wijchen	Migdale	LN-EBA	-	none	Stream/marsh	Black	S	B. no. 18
NL: Limburg								
Haler	Migdale	LN-EBA	-	R.sharp.	Dry-wet trans.	-	S	B. no. 15
Unknown	Bygholm	LN-B	BB-metal	Sharp.	-	Green	-	B. no. 2
NL: Noord-Brabant								
Escharen	Double axe	LN-B?	-	None	Bank of stream	Green	P	B. no.11; this book fig. 5.9
Escharen	Altheim	LN-B	-	Sharp.	Stream valley	Gr.black	P	B. no. 7
Halder	Erpolzheim	LN-B	-	-	Stream valley?	R.brown	S	B. no. 10
Hapert	Migdale	LN-EBA	-	-	Stream valley	Gr.brown	S	B. no. 16
Hoogeloon	primitive	LN-B	-	-	Stream valley	D.green	P	This book, fig. 5.6
NL: Gelderland (north of research area)								
'Veluwe' 52	Bygholm	LN-B	Singen	Sharp.	Hoard with no. 53 in wet place?	Brown	S	B. no. 3; this book fig. 5.7
'Veluwe' 53	Bygholm	LN-B	BB-metal	Sharp.	Ibid.	Brown	S	B. no. 4; this book fig. 5.7



## 2.3 OLDENDORF AXES

Legend: Var. = variety; B. no. 97 = Butler 1995/1996 no. 97

Site	Var.	Use	Context	Patina	Info	Reference
NL: Gelderland						
Huissen	1	-	River	D.bronze	P	B. no. 97
Nijmegen-Waal	2	Ground	River	Black-green	P	B. no. 110
Nijmegen-Margrietpaviljoen	2	Resharp.	Dry	D.green	P	B. no. 98; fig. 6.4
Nijmegen	2	Ground, pouched	-	Black-brown	-	B. no. 118
Nijmegen	2	Ground	-	D.green	-	B. no. 116
Nijmegen-Waal	3	Resharp.	River	Black	P	B. no. 130
Wageningen-Papenpad	1	Pouched	-	Green	-	Butler, unpublished
Wageningen-De Drie	4	Resharp.	-	<i>Edelpatina</i>	-	B. no. 134
NL: Limburg						
Asselt	2	Ground, pouched	-	Black-green	-	B. no. 106
Baexem	1	Re-sharp.	Stream valley	Green	S	B. no. 84
Echt	1	Re-sharp.	Marsh	-	S	B. no. 91
Echt-‘achter St. Joost’	2	-	Marsh	-	S	Unpubl., mus. Echt no. 34942
Echt-‘near Koningsbosch’	2	Ground	Dry?	green	S	Butler, unpublished
Grathem	1	Resharp.	Marsh	-	S	B. no. 81
Grubbenvorst-Lovendaal	2	Reduced blade	Wet?	Blue-green	S	B. no. 105
Meerlo-Karrewiel	2	Sharp., pouched	Marsh	‘Well preserved’	S	B. no. 122
Meerlo	2	Ground, Sharp.	Marsh, near barrow	Green-l.brown	S	Unpublished, coll. Dittrich, Maastricht
Melick-Centeberg	2	Sharp., pouched	-	Black	-	B. no. 109
Montfort-Rozendaal	-	Re-used fragment	Stream valley?	-	S	B. no. 136
Neeritter	2	Sharp., expand. blade	(near) Marsh?	d.green	S	Butler, unpublished
Posterholt	1	Damaged blade	-	l.green	-	B. no. 87
Reuver	2	Ground, pouched	-	Black	-	B. no. 104
Roermond	2	Sharp., later blunted	-	Black-green	-	Butler, unpublished, Mus. Maastricht 2924A
Unknown	2	Sharp., later battered	-	D. green	-	B. no. 108
Unknown, Maas	1	-	River	D. bronze	P	Butler, unpublished, Mus. Maastricht 3752A
NL: Noord-Brabant						
Best	1	Ground, pouched	-	Brown-green	-	B. no. 86
Breda	1	-	Stream valley	Black	P	B. no. 85

Site	Var.	Use	Context	Patina	Info	Reference
Gassel-Blauwe Sleen	2	Ground, pouched	River sediment?	Black-d.green	S	B. no. 120
Hapert-De Vliegert	1	Resharp.	(near) Stream valley	D.green-black	S	Butler, unpublished
Oisterwijk (Moergestel?)	1	-	-	-	-	B. no. 95
's-Hertogenbosch	2	Pouched	-	-	-	B. no. 115
Son en Breugel-Breugelse Beek	?	-	Stream valley	-	S	AW no. 82
B. Limburg						
Elen	2	-	-	Well preserved	-	Warmenbol 1994 no. 18
Opoeteren-Driepaalhoeve	2	Resharpended?	-	-	-	Warmenbol 1987 no. 22
Ophoven (or Kessenich)	1	Resharpended	Marsh? Allegedly with other objects	Brown-green	P	Wielockx 1986: Ra 16, Van Hoof 2000 (see 'Geistingen hoard')
B: Oost-Vlaanderen (just west of border research region)						
Beveren	1	-	-	-	-	Warmenbol 1994 no. 29

## 2.4 OTHER MBA A AXES

Legend: B. no. 172 = Butler 1995/1996 no. 172; BS no. 243 =  
Butler/Steegstra 1997/1998, no. 243

Site	Type	Use	Context	Patina	Info	Reference
NL: Gelderland						
Lathum-Lathumse Gat	Stopridge, Vlagtwedde	Ground, pouched	River	D. bronze	P	B. no. 172
Nijmegen-Hunerberg? (dubious provenance)	Nicked palstave-chisel	-	-	Green	-	Unpublished, Mus. Nijmegen AC 38
Rijnwaarden-Bijlandsche Waard?	Nick-flanged	Ground, sharp.	River	Well preserved	S	B. no. 75
Rijnwaarden-Bijlandsche Waard?	Nick-flanged	-	River	-	S	B. no. 76
Unknown, Rijn/Waal	Stopridge, Vlagtwedde	-	River	-	P	Hulst 1989, 143
NL: Limburg						
Aijen	Stopridge, Bannockburn	Ground, sharp.	-	Black	-	B. no. 150
Buggenum	Stopridge	-	-	L. green	-	B. no. 176
Maastricht-Maas	Stopridge, Plaisir	-	River	Black	P	B. no. 157; this book fig. 6.9
Overloon	Nick-flanged	-	Weapon hoard, with 2 swords, 2 spears and a needle	D. green	S	B. no. 78; this book fig. 6.5
St.-Odiliënberg	Arreton	Sharp, battered	-	Black	-	Butler unpublished
Unknown	Stopridge	-	-	-	-	B. no. 175
Unknown	With high- placed flanges	-	-	Bronze	-	B. no. 62
NL: Noord-Brabant						
Alphen	Flanged, unclassified	-	Burial, ( <i>ringwalheuvel</i> ), primary grave	green	P	B no. 141; this book fig. 6.6
Hoogeloon-Zwartenberg	Nicked palstave-chisel	-	Burial ( <i>ringwalheuvel</i> ), primary grave	green	S	BS. no. 243; this book fig. 6.8
Rijsbergen-Bakkebrug	With high- placed flanges	Edge expanded	Stream valley	D.bronze	S	B. no. 61, pers.comm. J. Verhagen (Tilburg)
B: Antwerpen						
Antwerpen	Arreton	-	-	-	-	Warmenbol 1994 no. 2
Antwerpen-Oosterweel	Stopridge	-	-	-	-	Warmenbol 1994 no. 4
Antwerpen-Oosterweel	Arreton- Tréboul	-	-	-	-	Warmenbol 1994 no. 3
B: Brabant						
Brussegem-Ossel	Arreton	-	-	brown	-	Warmenbol 1994 no. 9
B. Limburg						
Negenoord-Meuse	Nick-flanged	-	River	-	P	Butler 1995/1996, 203

## 2.5 IMPORTED PALSTAVES AND OTHER AXES

Legend: W =western European,C=central European; ND north Dutch types. BS no. 429 = Butler/Steegstra 1997/1998, no. 429. AXPASW Butler's and Steegstra's code for a sinuous-shaped

palstave with flanged, wide blade section; AXPASW: the same, but with an arch-shaped ornament on its sides and no flanges; AXPAGSW: similar but with a groove

Site	Type	Use traces	Context	Patina	Info	Reference
NL: Gelderland Berg en Dal	ND: AXPASW	-	-	Brown	-	BS no. 428
Doorwerth-Italiaanse weg	C: Niedermockstadt, var. Reckerode	-	Barrow, primary grave	-	S	BS no 239
Nijmegen	ND: AXPFSW	Ground	-	Black	-	BS no. 358
Nijmegen-Heesche Poort	W: Rosnoën, looped	(broken in antiquity)	Hoard in wet location? With 2 regional palstaves	Bronze	S	BS no. 229
Wijchen-Nijmegen	W: Wantage	-	-	Brown	-	BS no. 214
Weurt-Waal	W: Rosnoën, looped	Sharp.	River	D.bronze	P	BS no. 230
Zaltbommel-Waal KM 932	W: Looped, narrow blade	Reworked loop, sharp.	River	D.bronze	P	BS no. 235
Zoelen	W: Midrib, flanged, wide-bladed	Broken in antiquity	-	L.green	-	BS no. 225
NL: Limburg Asselt	W: Wantage	Not sharp. blunt!	River	D.green-black	P	Unpublished, coll. Van Kaathoven, Schijndel
Beesel	ND: AXPAGSW	Ground, sharp., battered	(Near) marsh	Black-green	S	BS no. 429
Eerselen	W: Stibbard	-	Marsh	D.green	S	BS no. 217
Leunen/Brukske	W: Normand	+	(Near) marsh	Brown	S	BS no. 220
Melick	W: Normand	-	-	D.green/Brown	-	Unpublished, coll. Dahmen, St. Odiliënberg
Roermond-Maas	W: Wide, trapeze blade	-	River	Blackish, traces of wood	P	BS no. 237
Stevensweert-Maas	W: Wantage	Resharpended	River	Well preserved	P	BS no. 213
Venlo-Hamburger Singel	W: Rosnoën, looped	Reworked	-	-	-	BS no. 231
Vlodrop	W: Primary shield palstave	Sharp.	-	D.Green	-	BS no. 207
Wessem?-Maas	W: Primary shield palstave	Sharp.	River	D.Bronze	S	BS no. 212; this book fig. 7.4
NL: Noord-Brabant Beek en Donk-uiversnest	W: Wide, trapeze blade	-	Stream valley	D.brown	S	BS no. 236
Breda	W: Portrieux	-	-	-	-	BS no 226
Esbeek-Molenheide	ND: AXPASW	Ground, sharp.	-	Black, well preserved	-	BS no. 427
Goirle-Tum. VI	C: Unclassified	-	In primary burial in barrow with bronze tweezer, ring and 2 indet. bronze items	Green	P	B no. 72; this book fig. 7.9

Site	Type	Use traces	Context	Patina	Info	Reference
Vught	C: Niedermockstadt, var. Reckerode	-	-	Brownish	-	BS no. 240
B: Antwerpen Antwerpen	W: Birchington	-	River	-	P	O'Connor 1980 list 8: 5
Antwerpen	W: Broadward	-	River	-	P	Verlaeckt 1996: A11

## 2.6. REGIONAL PALSTAVES, MIDRIBBED

Legend: BS no. 378 = Butler/Steegstra 1997/1998 no. 378. AXPMI: Butler's and Steegstra's code for a midribbed or midridged palstave; AXPMT: the same but now with trumpet-shaped ornament; AXPL:

a looped variety; F with flanged blade; S: sinuous-shaped; W with wide blade; C crinoline-shaped blade outline; < small variety; > large; >< medium

Site	Type	use traces	Context	Patina	Info	Reference
NL: Gelderland						
Eimeren-De Cradillen	AXPLMIS<	Sharp.	-	-	-	BS no. 378
Nijmegen (dubious)	AXPMIFSW	-	River?	Green	P	BS no. 390
Nijmegen-Hunerberg?	AXPLMIS<	Sharp.	-	Brown	-	BS no. 384
Waal/Rijn (dubious)	AXPMIS>	Ground	River?	Bronze	P	BS no. 364
Weurt	AXPMIC	Sharp.	River?	D.green/bronze	-	
Weurt	AXPMISC>	Sharp.	-	Green/bronze	-	BS no. 360
Wijchen (dubious)	AXPMISW	Sharp.	-	-	-	BS no. 386
NL: Limburg						
Baarlo	AXPMIS	Resharp.	Wet?	Black	-	
Broekhuizen-De Kolk	AXPMIS<	Sharp.	River	-	S	BS no. 375
Buggenum-Maas	AXPMI^	-	River	L.green/D.bronze	P	BS no. 394
Graetheide	AXPMVSW	-	-	Well preserved	-	BS no. 397
Heythuizen	AXPMISC>	-	-	Green	-	BS no. 361
Kessel	AXPMIS>	-	Hoard in marsh with other palstave (AXPP^)	D.green	S	BS no. 365; this book fig. 7.6
Kessel	AXPMISW	Sharp.	-	Green	-	BS no. 387
Leveroij	AXPMTSW	Ground, sharp.	-	Black/D.green	-	BS no. 395
Linne	AXPMVSW	Resharp.	-	Green	-	BS no. 399
Montfort	AXPMIS><	Sharp.	Stream valley	-	S	BS no. 369
Roermond-Maas	AXPMIS><	Ground, sharp.	River	Bronze	P	BS no. 370
Roggel en Neer	AXPMIS<	Sharp.	Wet?	Brown/green	S	BS no. 374
Stevensweert-Maas	AXPMISW	-	River	D.bronze	P	BS no. 388
Susteren-Gebroek	AXPMISC>	Sharp., battered	Marsh	Brown-green	S	BS no. 362
Susteren-Dieteren	AXPMTSW	Ground	Stream valley?	Well preserved	S	BS no. 396
NL: Noord-Brabant						
Beers-Tongelaar	AXPMIS<	Re-ground	Prehistoric river channel?	Black	S	BS no. 373
Beers-Tongelaar	AXPMIS><	-	Prehistoric river channel?	-	S	BS no. 371
Deurne	AXPMRS	RS	Marsh	Black	-	
Escharen-De Schans	AXPLMIS<	Expanded blade	-	Black	-	BS no. 381
Haps	AXPLMIS<	Sharp.	-	-	-	BS no. 383
Oerle	AXPMVSW	Resharp.	-	D.green	-	BS no. 398
Volkel-Zeeland	AXPLMIS<	Resharp.	Peat bog (Peel)	Grey-green	S	BS no. 379
B. Limburg						
Maaseik	AXPAMV...	-	-	-	-	Wielockx 1986, Hi 17

2.7 REGIONAL PALSTAVES, PLAIN, SINUOUS-SHAPED AND PALSTAVES WITH TRAPEZE OUTLINE (SEE CHAPTER 7)  
Legend: BS no. 317 = Butler/Steegstra 1997/1998, no. 317. AXPP: Butler's and Steegstra's code for a plain palstave; AXPP\, the

same, but with trapeze outline; S: sinuous (ogival) blade outline; W: with wide blade; H: parallel-sided hafting; C: crinoline blade outline. <, > etc. see appendix 2.6

Site	Type	Use traces	Context	Patina	Info	Reference
NL: Gelderland Batenburg-Maas (dubious)	AXPP\	Sharp., expanded blade	River	Black	P	BS no. 317
Beek-Oorsprong	AXPPSW	Hammered blade	Natural well on steep slope	D.green	S	BS no. 285
Nijmegen-Hees	AXPPS	Sharp., later battered	-	Green	-	BS no. 261
Nijmegen-Heesche Poort	AXPP\	Sharp., later damaged	Hoard in wet location	D.Green-Black	S	BS no. 320
Nijmegen-Heesche Poort	AXPPSW	Sharp., later battered	Hoard in wet location	-	S	BS no. 289
Nijmegen-Heesche Veld	AXPPSW	Sharp., later blunted	Wet	Brown/d.green	S	BS no. 282
Nijmegen (dubious)?	AXPP\	Sharp.	-	Brown	-	BS no. 319
Waal/Rhine (dubious)	AXPP\	Sharp.	River	Black	P	BS no. 315
Wijchen-Berendonck	AXPPS	Broken in antiquity	-	Brown	-	BS no. 250
Woezik	AXPPS	Sharpened	-	Black	-	BS no. 263
NL: Limburg Belfeld-Meelderbroek	AXPLPH	-	Marsh	D.bronze	P	BS no. 340
Berg en Terblijt-Vilt (dubious)	AXPP\	-	Allegedly in LBA hoard (which is doubtful)	D.bronze	-	BS no. 322
Buggenum-Maas	AXPPS	Ground, expanded blade	River	D.bronze	P	BS no. 252
Buggenum-Maas	Mould for AXPP\	-	River	-	P	BS no 323
Dubbroek-Blerick	AXPLPS><	Ground, sharp.	-	D.green	-	BS no. 329
Echt	AXPPHC	Resharp., re-worked blade	-	D.green	-	BS no. 306
Eerselen-Groen Bosch	AXPPS	Blunted edge	Marsh	Black-green		
Herten-Ool	AXPPS	-	River	-	S	BS no. 253
Kessel	AXPP\	-	Hoard in marsh with other palstave (AXPMIS>)	Well preserved	S	BS no. 318; this book fig. 7.6
Kessel?	AXPPSW	Ground, sharp.	(Near) marsh	Black-green	S	BS no. 283
Kessel	AXPPSW	-	-	Brown	-	BS no. 284
Koningsbosch	AXPPS<>	Resharp.	Dry?	Green		
Leunen-Op de Steeg	AXPP\	Sharp.	Stream valley	Green/brown	S	BS no. 313
Lottum?	AXPPS	Sharpened	-	D.brown/green	-	BS no. 265
Montfort	AXPP\	-	Marsh?	D.green-black	S	BS no. 314
Montfort-Schrevenbroekje	AXPPSW	-	Marsh/stream valley	Green	S	BS no. 291
Pepinusbrug	AXPP\	Sharp.	-	L.green	-	BS no. 310

Site	Type	Use traces	Context	Patina	Info	Reference
Roermond	AXPP^\	Sharp.	-	Green	-	BS no. 316
Sevenum	AXPP^\	Sharp.	Hoard in stream valley, with spearhead	Bronzel/black	-	BS no. 309; this book fig. 7.7
Sevenum-Dorperweiden	AXPPH<	Sharp.	-	Green	-	BS no. 294
Venlo-Hagerhof	AXPPSW	Sharp.	-	D.green-black	-	BS no. 279
Vlodrop	AXPPSW	Resharp.	-	D.groen	-	-
Wessem-Maas	AXPP^\	-	River	D.bronze	P	BS no. 321
NL: Noord-Brabant						
Aanschot	AXPPS<	-	-	Blackish	-	BS no. 268
Bergen op Zoom	AXPPSW	-	Marsh	Black/l.green	S	BS no. 277
Bericum	AXPPHJ	Ground, sharp.	-	Black/bronze	-	BS no. 304
Best-'Moeras'	AXPPS	Sharp., edge blunted in antiquity	Marsh	Black	P	BS no. 244
Boxmeer	AXPLP><	Resharpened	Dry, n. edge plateau, n. MBA settlement	D.green	S	BS no. 332
Eindhoven-Stratum	AXPPS	Ground, later blunted	-	Black/green	-	BS no. 258
Eindhoven	AXPLPS><	Resharp. Reworked blade	-	D. brown	-	BS no. 331
Esbeek-Lange Gracht	AXPPS	Sharp., edge battered in antiquity	-	Black-brown	-	BS no. 249
Gemonde	AXPPS<	-	-	Black	-	BS no. 270
Grave/Zeeland	AXPPSW	Sharp.	Stream valley	Black	-	-
Peel	AXPPHC	2 re-grinding facets	Peat bog	Dark bronze	P	BS no. 305
St. Oedenrode	AXPPLPS><	-	-	-	-	BS no. 330
Velp-Maasdijk	AXPPS	Expanded blade	Prehistoric river channel? Allegedly with 2 pottery sherds	L.green	S	BS no. 259
NL: Utrecht (just north of research region)						
Rhemen-Meent	AXPPH<	Sharpened	Marsh	Green	S	BS no. 292
B. Limburg						
Molenbeersel	AXPP^\	-	-	Well preserved, brown-grey	-	Wielockx 1986, Hi. 19

## 2.8 UNCLASSIFIED PALSTAVES

Unclassified palstaves (not included in the studied sample, or unclassifiable due to damage or loss).

Legend: BS no. 440 = Butler/Steegstra 1997/1998 no. 440

Site	Remarks	Use traces	Context	Patina	Info	Reference
NL: Limburg						
Heythuizen?(dubious)	-	-	-	-	-	Wielockx 1986, 73
Montfort-Vlootbeek	-	-	Stream valley?	-	P	BS no. 436
Putbroek	Fragm.	-	Marsh?	-	S	BS no. 430
St.Joost	-	-	-	-	-	Felix 1945, no 223
Unknown	Fragm.	Broken in antiquity	-	L. green	-	BS no. 431
NL: Noord-Brabant						
Alphen-Molenheide	-	Expanded blade	Stream valley	-	S	Verhagen 1984, 56
Cuijk-Maas (dubious)	-	Sharp.	River	Black	P	Unpublished, Mus. Leiden k. 1940/6.1
Geldrop-along E3 highroad	-	-	-	Green?	-	Documentation G. Beex, Geldrop.
Vierlingsbeek	Looped	-	-	-	-	BS no. 440
B: Antwerpen						
Antwerpen (dubious)	-	-	River?	-	-	Verlaeckt 1996: A24
Battel-Dijle	-	-	River	-	P	Warmenbol 1987, 47
Oud-Turnhout	Regional type?	-	-	-	-	O'Connor 1980: list 9:1
B. Limburg						
Louwel-Slagmolen	-	-	-	-	-	Wielockx 1986, 71
Maaseik	-	-	-	Grey-green	-	Wielockx 1986, 71
Tongeren	-	-	-	L.green	-	Wielockx 1986, Hi. 31

## 2.9 MID-WINGED AXES

Mid-winged axes of type Grigny and 'Head and Shoulders' (=H & S).

Legend: BS no. 442 = Butler/Steegstra 1999/2000 no. 442. \*: according to Van Hoof (2000; personal comment) this axe is probably a fake. Butler is of the opinion that it is a genuine piece.

Site	Type	Use traces	Context	Patina	Info	Reference
NL: Gelderland						
Elst	Grigny, small	Resharp.	-	Green	-	BS no. 442
Lent	Fragm.	-	Dry	Green	P	BS no. 475
Hemmen	H & S	Sharp.	-	D.green	-	BS no. 458
NL: Limburg						
Baarlo	Grigny?	Broken in antiquity, re-used as wedge	Marsh	Blackish green	S	BS no. 451
Belfeld	H & S	-	-	Black-green	-	BS no. 460
Berg en Terblijt (Vilt)	H & S	Sharp.	Lavish LBA hoard on land near natural source	D. green	P	BS no. 455
Berg en Terblijt (Vilt)	H & S	Edge sharp., later battered	Ibid.	D.green-black	P	BS no. 456
Bergen-Meuse	H & S	Resharp., traces of wood on septum	River	Bronze	P	BS no. 462
Buggenum?	Grigny	Hammered wings, sharp.	-	Green-brown	-	BS no. 446
Heijen	Grigny	-	-	Green	-	BS no. 444
St.Joost-Boonenbroek	Decap.	Reworked	Marsh	D.green-brown	S	BS no. 464
Susteren (dubious)*	Grigny	Resharp.	-	L. green	-	BS no. 445
Swalmen-I	Grigny	Sharp.	Hoard with fragm. of whetstone in burial mound	Green-black	P	BS no. 448
Swalmen-Hillenraad tumulus II	Grigny	Sharp.	Hoard with next Grigny axe in burial mound	-	S	BS no. 447
Swalmen-Hillenraad tumulus II	Grigny var. Swalmen/Altrip	-	Hoard with above Grigny axe in burial mound	D. green	S	BS no. 449
Unknown (dubious)	Grigny, small	-	-	Brown	-	BS no. 452
Venlo	Grigny, small	Resharp.	-	Brownish	-	BS no. 443
Wessem-Maas	H & S	Sharp.	River	D.brown	P	BS no. 461
NL: Noord-Brabant						
Hapert-Hoogeloose weg	H & S	-	-	D.green	-	BS no. 463
Vierlingsbeek (dubious)	H & S	Resharp.	-	D.bronze	-	BS no. 459
B: Antwerpen						
Antwerpen (dubious)	Fragm.	Resharp.	-	-	-	Warmenbol 1989a: no. 2
B. Limburg						
Neeroeteren/ Maaseik-Waachten	4 Grigny axes	Resharp.?	Hoard in Marsh	Dark bronze	P	Warmenbol 1989a

## 2.10 SOCKETED AXES OF THE NIEDERMAAS TYPE

Legend: BS no. 486 = Butler/Steegstra in press no. 486. AW = Arts/Van de Wijdeven 2001

Site	Use traces	Context	Patina	Info	Reference
NL: Gelderland					
Batenburg-Maas (dubious)	Resharpended	River	D.bronze-black	P	BS no. 486
Nijmegen (dubious)	Resharpended	-	Grey-green	-	BS no. 490
Wijchen	-	-	Brown	-	BS no. 492
Zaltbommel (dubious)	-	-	D. bronze	-	BS no. 498
NL: Limburg					
Berg en Terblijt-Vilt	Sharpened, later battered	Large hoard on land near source	D. green	P	BS no. 488
Bemelen	Sharpened	Allegedly associated with LBA pottery sherds	L. green	-	BS no. 489
Blerick	Sharpened	-	-	-	BS no. 497
Echt-Echterbroek	Resharpended	Marsh	Green	S	BS no. 478
Grevenbicht-Berg	-	-	-	-	BS no. 480
Montfort	Sharp., battered				
		and broken in antiquity	-	D. green	- BS no. 477
Montfort-St. Odiliënberg	-	2 Niedermaas axes in hoard in marsh	-	P	BS no. 481, 487
Ottersum	Sharpened	-	D. bronze	-	BS no. 494
St. Joost	-	-	Green	-	BS no. 496
Susteren-Eilandje	Sharp., use marks on cutting edge	Hoard in marsh with 2 Wesseling axe	D. bronze	S	BS no. 484; this book fig. 8.5
Venray	Sharpened	-	D. green	-	BS no. 495
NL: Noord-Brabant					
Beek en Donk	Sharpened, battered	Stream valley	D. green	S	BS no. 479, AW no. 95
Escharen	-	-	Brown	-	BS no. 483
Heeze	-	Stream valley	D.bronze-black	S	BS no. 482, AW: no 93
Megen-Meuse	Resharpended	River	Bronze	P	BS no. 500
Nieuw-Gassel-Krekelberg (affiliated to Niedermaas)	-	-	-	-	Verwers 1981, 28-9
St.Oedenrode-Groot Laar	-	Stream valley	-	S	AW no. 70
Ter Aalst	Sharpened	-	Well preserved	-	Butler unpublished, coll. Vriends-Gaymans
Volkel-Zeeland	-	Marsh?	Grey-green	S	BS no. 491
B: Antwerpen					
Hoogstraten	-	1 Niedermaas axe in large hoard of Plainseau axes; on dry land	-	S	Warmenbol 1987a: no. 16; this book section 13.5
Pulle	Heated and bent	Hoard: with broken/bent/ heated swords and spears in peaty stream valley	-	P	Van Impe 1973
St. Katelijne-Waver	-	-	-	-	O'Connor 1980: list 126: no. 2

Site	Use traces	Context	Patina	Info	Reference
NL: Gelderland Batenburg-Maas (dubious)	Resharpended	River	D.bronze-black	P	BS no. 486
B: Limburg Elen-Watering Slegers	-	In marsh	-	P	Wielockx 1986: Hu 11
Gruiten	-	In marsh	-	P	Wielockx 1986: Hu 39
Heppeneert-Wayerveld		1 Niedermaas axe, part of large hoard of almost 50 (Plainseau) axes; on dry land			Van Impe 1994: no. 12; this book section 13.5
Lutlommel-Konijnepijp	-	2 Niedermaas-related axes, part of large hoard consisting of many Plainseau axes and ornaments; on dry land	-	S	Van Impe 1995/1996: no. 16 and 40; this book section 12.5.3; 13.5
Rotem-Vossenbergh	Resharpended	Hoard of 4 Niedermaas axes and a sickle, on dry high place near edge of plateau	D.green	P	Van Impe/Creemers 1993
Pietersheim	-	1 probable Niedermaas axe, part of probable hoard containing socketed axes and a winged axe in stream	-	S	Heymans 1985; Butler/ Steegstra in press
B: Vlaams Brabant Nieuwrode (5 axes)		5 axes in hoard,	D. green	-	Warmenbol 1987

## 2.11 SOCKETED AXES OF THE HELMEROOTH TYPE

Legend: BS no. 532 = Butler/Steegstra in press no. 532

Site	Use traces	Context	Patina	Info	Reference
NL: Gelderland Nijmegen-Winsseling	Split in side	River	D. brown	S	BS no. 532
NL: Limburg Diergaarde-Contine	-	Marsh, associated with no. 538 and 539? (= Echt hoard)	D. brown	S	BS no. 544
Maasbracht	-	Marsh	Brown-green	P	BS no. 543
Meerlo-Swolgen	Sharpened	-	D. green	-	BS no. 540
Ohé en Laak/'Roosteren'-Maas	Sharpened	River	D. brown	P	BS no. 545
Peij	-	Marsh	D. brown	S	BS no. 533
Peij-Pepinusbroek	-	Marsh, associated with no. 539 and 544	Brown-green	P	BS no. 538
Peij-Pepinusbrug	-	Marsh, associated with no. 538 and 544?	Brown-green	P	BS no. 539
Roermond-Maas (bronze mould for Helmeroth axe?)	-	River?	-	P	BS no. 549
Stevensweert (dubious)	Sharpened	River?	-	P	BS no. 537
Susteren-de Mehre	-	Stream valley	D. green	S	BS no. 541, this book chapter 1
Vlodrop-Kroddel	Blunted edge	Marsh	Black	S	BS no. 548
Wessem	-	River	Bronze	S	BS no. 542
NL: Noord-Brabant 's-Hertogenbosch-Meijerij	Blunted edge	Marsh?	Black	S	BS no. 535
NL: Utrecht (just north of study region) Wijk bij Duurstede (dubious)	Sharpened	River	D. bronze	P	BS no. 534

## 2.12 SOCKETED AXES OF THE GEISTINGEN TYPE

Site	Use traces	Context	Patina	Info	Reference
NL: Gelderland Berg en Dal	-	2 axes, very similar patina: hoard? Possibly including no. 555 as well	Green	S	BS no. 553-4
Nijmegen	-	-	Green	-	BS no. 552
Nijmegen	-	-	D. green	-	BS no. 562
Unknown	Battered edge	Possibly part of Berg en Dal hoard?	Black	S	BS no. 555
Unknown	-	-	-	-	BS no. 556
NL: Limburg Herten-Ool	Impossible to shaft due to projecting internal casting seams	River	Black	P	BS no. 560; fig. 8.6
Herten-Oelerveld-Maas	-	River	D. bronze	P	BS no. 561
Maastricht-Caberg	None, but sharp edge; one broken in antiquity	2 Geistingen axes, probably hoard on dry plateau. Allegedly with Ha A2 knife, but this should be doubted	Black-green	S	BS no. 550-1
Vierlingsbeek (dubious)	Sharpened	-	D. brown	-	BS no. 557
B: Limburg Geistingen-Letterveld	-	26 or 28 similar axes, allegedly tied together with a rope. On high plateau that may carry water in the wet seasons	D.green-brownish	P	Van Hoof 2000; Wielockx 1986 Hu 16-37

## 2.13 SOCKETED AXES OF THE PLAINSEAU TYPE

Legend: BS no. 502 = Butler/Steegstra in press no. 502

Site	Use traces	Context	Patina	Info	Reference
NL: Gelderland					
Lienden-Tollerwaard	-	-	Brown	-	BS no. 502
Nijmegen	-	-	Black	-	BS no. 506
Nijmegen	-	-	D. brown	-	BS no. 526
Nijmegen-Hengstberg	Resharpener	Probably with other axe of unknown type, on high hill in or near urnfield	Green-black	S	BS no. 509
Nijmegen-Waal	Sharpened	River	Green-black	P	BS no. 519
NL: Limburg					
Belfeld	Battered edge	-	D. green	-	BS no. 531
Bergen	Sharpened	-	D. bronze	-	BS no. 501
Borgharen	-	-	D. bronze	-	BS no. 525
Breda (dubious)	-	Stream valley	D. bronze	S	BS no. 521
Kesseleik	-	-	Green	-	BS no. 527
Meerlo	-	-	Green	-	BS no. 518
Posterholt	Blunted edge	-	D. green, very well preserved	-	BS no. 508
Posterholt	-	-	Brown	-	BS no. 511
Swalmen	-	-	Bronze-black	-	BS no. 528
Wessem-Maas	Sharpened	River	D. bronze-black	P	BS no. 522
NL: Noord-Brabant					
Bladel-De Pals	Sharpened, later blunted	Stream valley	Black	S	BS no. 529
Boxmeer	Resharpener	Marsh	D. brown	S	BS no. 510, doc. G. Beex
Cuyk	-	Allegedly in urn with cremation and bronze bead: this information is not generally accepted	D. green	-	BS no. 515
Oirschot	Both sharpened	2 Plainseau axes, probably hoard in wet place	Black	S	BS no. 513, 523, Drenth 1994; this book fig. 8.7
Stiphout-castle of Croy	-	2? Plainseau axes, 1 socketed chisel: possible hoard in boggy stream valley	D. brown, d. bronze	P	BS no 514, 524
Unknown	-	-	D. green	-	BS no. 530
B: Antwerpen					
Antwerpen-Kattendijkdok	-	9 Plainseau axes ('jail-window variety') in peaty stream valley, close to the place where it flows into the Scheldt	Brown-black	S	Warmenbol 1984a; 1991
Antwerpen-Krankelooipolder	-	River?	-	S	Verlaeck 1996: A29
Antwerpen-Krankelooipolder	-	River?	-	S	Verlaeck 1996: A30

Site	Use traces	Context	Patina	Info	Reference
Antwerpen-Schijn	-	Stream valley/marsh	-	S	Warmenbol 1987d: no 14
Antwerpen-Zuiderkasteel	-	-	-	-	Verlaeckt 1996: A20
Antwerpen-Zuiderkasteel	-	-	-	-	Verlaeckt 1996: A21
Hoogstraten-Vlamingstraat	-	c. 20 Plainseu axes, mainly Plainseu 'jail-window' variety, 1 Niedermaas axe. Hoard on dry place on sand plateau between 2 streams	-	S	Warmenbol 1987a
Mechelen	-	-	-	-	O'Connor 1980: list 123: no. 4
Turnhout	-	-	-	-	Desittere 1976, 91
Turnhout-Merksplas Borch	None	Stream valley?	Bronze	S	Wielockx 1986: Hu 102
B: Limburg					
Hamont	-	-	Brown	-	Wielockx 1986: Hu. 40
Heppeneert-Wayerveld	Most sharpened	47 axes, mainly Plainseu, 1 faceted British axe, 1 Niedermaas axe, 1 spearhead. Dry. On high plateau with gullies that may seasonally carry water	Green to brown	P	Van Impe 1994
Lutlommel-Konijnepijp	Sharpened	9 axes, mainly Plainseu, originally possibly 44 axes. Together with several ornaments. Located on gentle slope, possibly high-water table. In the vicinity: urnfields and possible settlement	D.green-bronze	S	Van Impe 1995/1996
Pietersheim		3 Plainseu axes, 1 Niedermaas, 1 winged axe in stream?	-	S	Heymans 1985

## 2.14 SOCKETED AXES OF TYPE WESSELING

Legend: Socketed axes of type Wesseling (\* just outside research area)

Site	Use traces	Context	Patina	Info	Reference
NL: Gelderland					
Arnhem-Mariendaal	-	-	-	-	Felix 1945: no. 10
Batenburg-Maas (dubious)	Sharpened	River	Black	P	Felix 1945: no. 24
Beek* (mun. of Bergh)	-	-	-	-	Felix 1945: no. 29
Groesbeek	-	-	-	-	Felix 1945: no. 179
Kernhem*	-	-	-	-	Butler unpublished, coll. De Koeijer
Lienden-Tollerwaard (or faceted type)	-	-	-	-	Modderman/ Montforts 1991, 149
Nijmegen	Resharpened	-	Brown	-	Unpublished, Mus. Nijmegen no. AC 15
Nijmegen	-	-	-	-	Unpublished, Mus. Nijmegen no. GAS 1958.9.29
Nijmegen-Hunerberg	Sharpened	Dry on high plateau?	Green	S	Felix 1945, no. 300
Nijmegen-Kops Plateau	Blunt edge, damaged	At rectangular cult place, where stone-paved pathway joins corner	Green	P	Fontijn/Cuijpers 1998/1999
NL: Limburg					
Belfeld-Bakerbosch	Sharpened	Stream?	D. brown	S	Wielockx 1986: Hu 1; doc. Butler
Echt	-	-	-	-	Butler unpublished mus. Echt: no. B3
Echt-Slek Bolven	-	Marsh	-	S	Butler unpublished, mus. Echt no. B2
Montfort-Echt-Klinkhei	-	Marsh?	-	S	Butler unpublished (dbno. 715)
Obbicht (dubious)	-	River	-	-	Unpublished, mus. Leiden l.1950/2.1
Susteren-Eilandje	Sharpened	2 Wesseling axes, 1 Niedermaas in marsh	D. bronze	P	Butler 1998/1999; BS no. 484; Van Hoof 2000; this book fig. 8.5
Venlo-Maas	-	River	-	P	Felix 1945: no. 425
NL: Noord-Brabant					
Alphen-Poppelse Leij	-	Stream valley, possibly ford	-	S	Unpublished, pers. comm. J. Verhagen (Tilburg)
Asten (now lost; axe seems to have been reburied!)	Sharpened	Peaty stream valley	Brown	S	Unpublished, pers. comm. J van Weerden
Boxmeer	-	-	Black-green	-	Butler unpublished, coll. Hermers (Boxmeer)
Boxmeer-Boxmeerse Broek (lost)	-	Marsh	-	S	Butler unpublished, doc. ROB
Den Hout-Hespelaar	Resharpened	-	Black	-	Butler unpublished, coll. J. Buster (Waspik)
Deurne	-	-	-	-	Verwers 1986, 29-30
Deuteren (lost)	Blunted	Marsh?	-	S	Unpublished, doc. FAL (J. Boogerd, excavation Meerlo)
Someren-Punderman	Sharpened	Stream valley	D. brown	S	Unpublished, pers. comm. F. Kortlang (Eindhoven)
NL: Utrecht (just north of research region)					
Rhenen	-	-	-	-	Butler unpublished
B: Limburg					
Geistingen	-	-	-	-	Wielockx 1986: Hu. 16
	-	-	-	-	Wielockx 1986: Hu 15

## 2.15 OTHER SOCKETED AXES AND EARLY IRON AGE IRON AXES

Legend: BS no. 574 = Butler/Steegstra in press no. 574

Site	Type	Use traces	Context	Patina	Info	Reference
NL: Gelderland						
Arnhem	-	-	-	-	-	Unpublished, mus. Nijmegen 10.2.22.3
Arnhem	-	-	-	-	-	Unpublished, mus. Nijmegen 10.2.22.4
Batenburg/Nijmegen (dubious)	Armorican	None	-	-	-	Unpublished, mus. Leiden: e.1948/8.1
Bemmel-Lingewal	North Dutch (Hunze Eems)	-	-	Green	-	Butler unpublished, dbno. 20
Doorwerth-Duno* (dubious)	Armorican	Sharpened	Dry on high plateau?	Green	S	BS no. 574
Herveld	North Dutch (Hunze Eems)	-	-	-	-	Felix 1945: no. 205
Lienden-Tollerwaard	-	-	River?	-	-	Unpublished, Mus.Nijmegen G89-19
Nederasselt	-	-	-	Brown	-	Felix 1945: no/ 272
Nijmegen (dubious)	Armorican	Never sharp., anciently damaged	-	Green	-	BS no. 586
Nijmegen (dubious)	Armorican	Never sharp., anciently damaged	-	Green	-	BS no. 588
Nijmegen-Roomsche Voet (lost?)	-	-	Wet hoard of 6 axes	-	-	Reuvens, 'Antiquiteiten' 1823: 221-2
Nijmegen-Lennepe Kamer (lost?)	-	-	River (near)	-	S	Butler unpublished, dbno. 2394
Nijmegen-Waal	Faceted	-	River	-	-	Unpublished, mus. Leiden e.1906/1.3
Oosterhout-Van Boetzelaarstraat site 8	- (fragm.)	-	-	L. green	-	Pers. comm. P. van den Broeke (Nijmegen)
Overasselt (dubious)	Armorican	Never sharp.	-	D. green	-	BS no. 569
Overasselt (dubious)	Sompting	Resharp.; wood of shaft preserved	Wet	D. green	S	Unpublished, mus. Leiden: e.1949/6.1
Rijnwaarden	Iron axe	Wood of shaft preserved	Peaty stream valley	-	P	Hulst 1990, 189
Slijk-Ewijk (dubious)	-	-	-	-	-	Unpublished, Butler coll. Roefs (Boekel)
Wijchen	- (burnt)	-	Part of Ha C chieftain's grave; bronze situla, horse gear etc. from exceptionally rich burial	-	-	Pare 1991
Wijchen-Wijchense Meer	North-South hybrid	-	River	Bronze	S	Van der Sanden 1980
NL: Limburg						
Bergen	-	-	-	-	-	Felix 1945: no. 42
Blerick-Maaszijde	-	-	River?	Green	S	Wielockx 1986: Hu 5

Site	Type	Use traces	Context	Patina	Info	Reference
Echt (dubious)	Italian type	-	-	-	-	Butler unpublished, dbno. 1876
Echt-Annendaal	Faceted	-	-	-	-	Butler unpublished, dbno. 1006
Gennep-Maas	-	-	River	-	P	ARCHIS 16052
Hout	-	-	-	-	-	Unpublished, mus. Leiden I.1938/6.55
Maastricht	Faceted	-	-	-	-	Wielockx 1986: Hu 100
Milsbeek-Ven Zelderheide	Related to Amelsbüren?	To thin to be used, not sharp.	Marsh	D. green	S	This book, section 8.4.2. fig. 8.9
Montfort-broek	-	-	Marsh	-	S	Felix 1945: no. 268
Neer	-	-	-	-	-	Willems 1983, 210-1
Neer	(fragm.: Niedermaas?) - (fragm.)	-	-	Brown/green	-	Butler unpublished, coll. Van Lier (Neer)
Posterholt	- (fragm.)	-	-	Brown	-	Butler unpublished, dbno. 547
Roermond-Hatenboer	North-South hybrid	-	River	-	P	Butler unpublished, mus. Leiden I. 1971/11.5
Roermond-Hatenboer	Faceted	-	River	Bluegreen	P	Wielockx 1986: Hu. 118
Stevensweert-Maas	Faceted	Sharp.	River	Bluegreen	P	Butler unpublished, dbno. 2425
St. Joost/Nijmegen (dubious)	Armorican	Never sharpened	-	Green	-	BS no. 576
Unknown	-	-	-	-	-	Felix 1945, no. 281
Unknown ('moeras')	-	-	'Peat'	—	-	Butler unpublished, dbno. 388
Venray-Maas	-	-	River	-	P	Butler unpublished, dbno. 2109
Venray-Venrayse Broek (lost)	-	-	Marsh	-	P	Doc. ROB (obs. No. 16186)
Wessem-Maas (dubious)	Armorican	Sharpened, anciently damaged	River?	Green/black	P	BS no. 564
NL: Noord-Brabant						
Beek en Donk	North-South hybrid	Sharp. but later battered	Stream valley	D. green	S	AW: no. 95
Beugen-Maas (dubious)	Armorican	-	River?	D. green	P	BS no. 568
Bergeyk (dubious)	Armorican	-	-	Green	-	Butler unpublished, museum Den Bosch no.8562
Berghem-Waatselaar	- (fragm.)	-	-	-	-	Verwers/Beex 1978, 5-7
Biezenmortel (lost; dubious)	-	-	Allegedly 3 socketed axes in urn	-	P	Beex 1954
Budel-Driebokstraat	North-South hybrid	-	Stream valley	D.bronze	S	Pers. comm. N. Arts (Eindhoven)
Cuyk-Padbroek	- (fragm.)	Broken in antiquity	Wet?	Brown-black	S	Butler unpublished, coll. Koeling
Katwijk (dubious)	-	-	-	-	-	Unpublished, mus. Leiden k.1949/5.2
Lith-Kessel	Iron axe	Wood preserved	River	-	P	Verwers 1988, 30-1; this book fig. 8.10
Lith-stuw	-	-	River	-	P	Felix 1945: no. 239

Site	Type	Use traces	Context	Patina	Info	Reference
Oss-Vorstengraf	Iron axe	-	From chieftain's grave: bronze situla, horse gear, iron Mindelheim sword and other items in extremely large barrow	-	P	Roymans 1991: table 4
Zeeland	-	-	-	-	-	Butler unpublished, dbno. 2439
B: Antwerpen						
Antwerpen	Faceted	-	-	-	-	Warmenbol 1987d
Hoogstraten (dubious)	Armorican	-	Allegedly hoard of 33 Armorican axes: unreliable	-	-	Warmenbol 1987b, 48, pers. comm.
Rijkvorsel-Scheidhaag	Faceted	-	Hoard of 5 or 6 axes (type unknown) in peat; objects were allegedly placed in wooden box; also flint axe and hammerstone	-	P	Wielockx 1986: Hu 117
Turnhout	Armorican	-	-	-	-	Warmenbol 1987b, 48
Turnhout-Marck	-	-	-	-	-	Unpublished
B: Limburg						
Heppeneert-Wayerveld	Faceted	-	Part of large axe hoard (Plainseau), 1 spearhead; on dry plateau with gullies that may seasonally carry water	Green	P	Van Impe 1994
Hunsel	Sompting	-	-	-	-	Mariën 1952: fig. 200: no. 3
Maaseik (dubious)	Armorican	-	-	-	-	Wielockx 1986, (catalogue), 295
Maaseik-kerkhof						
Neerharen	Armorican	-	-	-	-	Wielockx 1986: Arm. 26
Neerpelt	Armorican	-	-	D. groen	-	Wielockx 1986: Arm. 27
Rekem-de cup						
Tongeren (very dubious)	Armorican	-	Allegedly 1 or 2 hoards of Armorican axes:	-	-	Wielockx 1986: (catalogue), 284

## 2.16 END-WINGED AXES

Legend: BS no. 467 = Butler/Steegstra 1999/2000, no. 467

Site	Type	Use traces	Context	Patina	Info	Reference
NL: Gelderland						
Nederasselt	Homburg	-	-	Green	-	BS no. 467
Nijmegen	Geseke-Biblis	Sharp.	-	D. green	-	BS no. 474
NL: Limburg						
Maasbracht	Homburg	Sharp.	-	D. green	-	BS no. 471
Peij	Homburg	Sharp., later battered	-	Black	-	BS no. 472
Roermond	Homburg	-	River	Brown/d. green	S	BS no. 469
Susteren-broek	Homburg	Blunt edge	Marsh	Black/green	S	BS no. 468
NL: Noord-Brabant						
Megen	Homburg	Resharp.?	River?	-	S	BS no. 466
Nuenen	-	-	-	-	-	BS no. 476
B: Antwerpen						
Antwerpen-Schelde	Homburg	-	River?	-	P	Warmenbol 1989, 291: no. 1
B: Limburg						
Maaseik-Tost (lost)	-	-	River?	-	-	Unpublished, doc. author
Pietersheim	Homburg	-	With 3 Plainseau and 1 Niedermaas axe in stream	-	S	Heymans 1985

3 SICKLES, KNIVES, CHISELS AND GOUGES FROM THE MIDDLE  
AND LATE BRONZE AGE

Site	Dating	Use traces	Context	Patina	Info	Reference
NL: Gelderland (NL) Bemmel	Knife, tanged, LBA	-	River?	L.green	S	Butler unpublished dbno. 2506
Dodewaard	Sickle, MBA	Resharp.	Settlement, debris layer	-	P	Drenth/Bulten 1998, 36
Eigenblok-5	Sickle, MBA	Heavily resharp.	Settlement, debris layer	Brownish	P	Hielkema 2002
Opheusden	2 sickles, MBA	Resharp.	Settlement, debris layer	Green	P	Modderman/ Montforts 1991, 149
Nijmegen	Sickle, MBA/LBA	-	-	Bronze	-	Unpublished, mus. Leiden, e.1931/2.295
Nijmegen (dubious)	Socketed knife, LBA	-	-	L.brown	-	Unpublished, mus. Nijmegen no. 4.1947.4
Nijmegen-Brakkenstein	Knife, MBA	-	-	D. green	-	Fontijn 1996b
Wijchen (dubious)	Sickle, MBA/LBA	-	-	-	-	Unpublished, mus. Leiden, e.1948/3.4
NL: Limburg Beegden	Sickle, MBA/LBA	Resharp.	Marsh?	D. green	S	Butler unpublished, coll. Dahmen (St. Odiliënberg)
Berg en Terblijt (Vilt)	3 sickles, LBA	All resharp.	In lavish hoard on land near source	D. green	P	Butler 1973
Holset	2 sickles, MBA	Resharp., worn	In mound of barrow	-	P	Butler 1990, 99
Maastricht-Maas	Blade of knife (MBA/LBA)	-	River	-	P	Sprenger 1948, 21.
Posterholt-Zwarte berg	Sickle, MBA/LBA	Fragm., Resharp.	-	D. green	-	Butler unpublished, coll. Dahmen (St. Odiliënberg)
Venlo-Zuiderbrug	Sickle, MBA/LBA	-	-	-	-	Butler unpublished
Venray-Hoogrieboek	Sickle, MBA	Resharp., worn	Settlement, in pit related to house construction	Green	P	Krist 2000
NL: Noord-Brabant Beek en Donk	Sickle, MBA/LBA	-	Stream valley	-	S	AW 2001: no 100
Beers	Sickle, MBA/LBA	Resharp.	River	D. green	S	Verwers 1992, 149
Berghem	Sickle, MBA/LBA	Fragm.	-	Green	-	Verwers/Beex 1978, 5-7
Boxmeer	Chisel (MBA)	-	In silo, near house	Green	P	Van de Velde 1998, 32-3
Breda-Moskes	Sickle, MBA	-	Pit near house	-	P	Pers. comm. C. Brandenburgh; Van den Eynde/ Berkvens 2001
Deurne	Gouge, 2 chisels (LBA)	Resharp.	Possibly hoard in marsh	Black/bronze	S	Butler 1963a, 126

Site	Dating	Use traces	Context	Patina	Info	Reference
Katwijk (dubious)	Sickle, MBA/LBA	-	-	-	-	Unpublished, mus. Leiden no. k.1949/5.1
Lith-Meuse	Sickle, MBA/LBA	-	River	-	P	Verwers 1983, 21-2
St.Oedenrode (dubious)	Sickle, MBA/LBA	-	-	-	-	AW 2001: no. 69
St. Oedenrode	Socketed knife, LBA	-	-	-	-	AW 2001: no. 68
Teteringen	Sickle, MBA/LBA	Fragm.	Marsh	Green	S	Verwers 1992, 149
NL: Utrecht						
Wijk bij Duurstede-De Geer	Chisel, sickle (MBA)	Sickle: worn	Settlement	-	P	Unpublished; Drenth 1996, note 3
B: Antwerpen						
Antwerpen-left bank	Knife, Roth type II, LBA	-	River	Green	P	Verlaeckt 1993
B: Limburg						
Lommel (LBA?)	Tanged knife	-	-	-	-	O' Connor 1980, list 140: no. 7
Rotem-Vossenber	Sickle, LBA	-	In hoard on high, dry land	Green	P	Van Impe/Creemers 1993
Tongeren (dubious)	Sickle, MBA/LBA	-	-	-	-	Van Impe/Creemers 1993, no. 8
B: Brabant						
Rotselaar-Heikant	Sickle, MBA/LBA	-	In urnfield, but uncertain whether it was a burial gift	-	S	Van Impe/Creemers 1993, no. 9

## 4.1 ORNAMENTS MAINLY FROM THE MIDDLE BRONZE AGE B

Site	type	Use traces	Context	Patina	Info	Reference
NL: Gelderland						
Eigenblok-5	Spiral	-	Settlement	Brownish-green	P	Hielkema 2002
Eigenblok-6	Roll-headed pin	-	Settlement	Brownish-green	P	Hielkema 2002
Eigenblok-6	3 spirals	-	Settlement	Brownish-green	P	Hielkema 2002
Lienden-Woonwagenkamp	Roll-headed pin	-	Settlement	Brownish	P	Unpublished, AAO 14, find no. 108.6.186
Molenhoek	Wheel-headed pin	-	Dry	Green	S	Butler unpublished, coll. J. de Jong; this book fig. 7.15
Nijmegen-Hunerberg or Waal	Wheel-headed pin	-	-	Light green	-	Unpublished, mus. Nijmegen AC 40
Nijmegen-Waal	Wheel-headed pin	-	River	Black green	P	Unpublished, mus. Leiden e.1931/2.77
Nijmegen-Waal (dubious)	4 pins, 1 round-headed, 3 conical headed, dating uncertain	-	River	-	P	Unpublished, mus. Leiden e.1949/4.1- 4.4
NL: Limburg						
Blerick	Pin, type unknown	-	Settlement	-	P	Unpublished, personal communication L. Theunissen
Roermond-Isabellagriend	Wheel-headed pin	-	River	Bronze-green	P	Butler unpublished, coll. J. Danser (Tegelen)
Roermond (probably)	Wheel-headed pin	-	-	L. green	-	Butler unpublished, coll. Hoofwijk
NL: Noord-Brabant						
Alem	Wollmesheim pin	-	River	-	P	Braat 1964
Alem	Courtavant	-	River	-	P	Braat 1964
Deurne	Disc-headed, decorated shaft	-	Peat bog	Brownish	S	Butler unpublished, coll. Wiegersma
Escharen-Raam	bracelet	-	Weapon hoard in stream valley	Dark bronze	P	Verwers 1988, 26-7
St.Oedenrode (fragm.)	Kolbenkopf pin	-	Settlement	Green	P	Van der Sanden 1981
Vorstenbosch	Disc-headed, decorated shaft	-	-	-	-	Modderman 1959
B: Antwerpen						
Battel-Dijle	Courtavant pin	-	River	Dark bronze	P	O Connor 1980, list 81: no. 10

4.2 ORNAMENTS FROM THE LBA/EIA FROM OTHER CONTEXTS  
 THAN GRAVES

Site	type	Use traces	Context	patina	Info	Reference
NL: Gelderland Hees-Nijmegen (very dubious!)	Curved bow-brooche	-	-	-	-	O'Connor 1980, list 257: no. 14
Hees-Nijmegen (very dubious)	Spiral brooche, type Haslau Regelsbrunn	-	-	-	-	O'Connor 1980, list 262: no. 5
Hees-Nijmegen (very dubious)	Brooche	-	-	-	-	Van Buchem 1941, Pl. F: no. 4
Nijmegen-Waal (dubious)	<i>Bombenkopfnadel</i> , type Ockstadt	Worn head	River	Brown/black	P	Kubach 1977, 506: no. 35; this book fig. 8.17
Nijmegen-Waal (very dubious!)	Elbow brooche	-	-	-	-	O'Connor 1980, list 220: no. 6
Nijmegen-Hunerberg (very dubious!)	Curved bow-brooche	-	-	-	-	O'Connor 1980, list 257: no. 13
Nijmegen (very dubious!)	Curved bow-brooche, bow swollen	-	-	-	-	O'Connor 1980, list 255: no. 8
Nijmegen (very dubious!)	Curved bow-brooche	-	-	-	-	O'Connor 1980, list 257: no. 15
Oosterhout-Verburgskolk	Large <i>Bombenkopf-</i> <i>nadel</i> , type Ockstadt	Worn, damaged head, reworked	River/side gully of major river	D. green	S	Wassink 1984; this book fig. 8.17
Oosterhout Verburgskolk	Small <i>Bombenkopf-</i> <i>nadel</i>	-	At same place where large one was found; river or side gully of major river	D. green	S	Hulst 1988, 187; this book fig. 8.18
NL: Limburg Berg en Terblijt-Vilt	7 fragm. of bracelets, 1 twisted armring, spiral (originally much more ornaments)	-	Hoard with 2 winged axes, 1 Niedermaas axe, 3 sickles, 1 socketed chisel, 1 pseudo-flame shaped spearhead. In gully on hills of valley, near natural source	D. green	S	Butler 1973; Van Hoof 2000
Herten	<i>Bombenkopfnadel</i>	-	River	D. bronze	P	Butler unpublished, coll. Van Gasselt
Tegelen	Large convex-headed pin, decorated	-	River sediment?	Well preserved	S	Bloemers 1975, 28-9
NL: Noord-Brabant Maren-Kessel	Decorated bracelet, slightly everted terminals	-	River	-	S	Letter G. van Alphen to author (25-8-2001)
Unknown/Ravenstein	<i>Bombenkopfnadel</i>	-	River	-	P	Felix 1945, no. 359

Site	type	Use traces	Context	patina	Info	Reference
NL: Utrecht (just north of research region Rhenen/unknown	<i>Bombenkopfnadel</i> , type Ockstadt	Head is worn	-	-	-	Wassink 1984 Abb 1: 3
B: Antwerpen Antwerpen-left bank complex	1 bracelet, ring, 2 <i>Brillspirale</i> , 1 decorated pin, decorated disc- headed pin,	-	River, uncertain whether objects were originally associated; also: knife, stud, dagger, 12 (bronze) fishhooks	-	S	Verlaeckt 1993; 1996
Battel	2 <i>Bombenkopfnadel</i>	-	River	-	P	Warmenbol 1987b, 55
Zwijndrecht-Vlaams hoofd	Biconical-headed pin	-	-	-	-	Verlaeckt 1996: A27
B: Limburg Lutlommel-Konijnepijp	Several Plainseau ornaments: at least: 6 rings, 3 biconical beads, 3 tubular ribbed beads, 2 Omega-shaped bracelets, 8 fragm. of armrings;	-	Together with many Plainseau axes (44?) in hoard located on sandy slope, possibly high- water table; several urnfields and possible settlement in vicinity (fig. 12.2)	D. green- bronze	S	Van Impe 1995/1996
Overpelt-De Hoven	1 leg/arm spiral, fragm. of other spirals	-	Possible hoard, with 2 socketed axes	-	-	Inderherberg 1984

## 5.1 SWORDS AND DAGGERS (DA.) FROM THE MBA A

Site	Type	Use	Context	Patina	Info	Reference
NL: Gelderland						
Eigenblok	Wohlde (da.)	Heavily worn	Settl. debris	Brownish	P	Hielkema 2002
Lobith-Rijn	Weizen	None visible	River	D.bronze	P	Unpublished, Mus. Leiden e.1925/1.2
Nijmegen-Hunerberg	Sögel (fragm.)	Sharp.	Dry	Green	S	O'Connor 1980 list 25: 4
Nijmegen-Waal	Wohlde	Sharp.	River	Brown/ l.green	P	O'Connor 1980, list 26: 5
Nijmegen-Waal (dubious provenance!)	Sögel	Sharp.	River	Bronze	P	O'Connor 1980, list 25: 3
Nijmegen (dubious provenance!)	Gamprin	-	-	Bronze	-	Unpublished, Mus.Leiden e.1940/11.1
River Waal	Tréboul-St. Brandan	Sharp.	River	Brown/bronze	P	Fontijn 2001; this book fig. 6.12
NL: Limburg						
Borgharen-Maas	Sögel-variety	Sharp.	River	D. bronze	P	Butler 1969, Pl. 5; this book fig. 6.12
Heel	British type (da.)	Sharp.	-	Brown	-	Butler unpublished
Kessel-Maas	Sögel-related (da.)	Sharp.	River	Black-bronze	P	Felix 1945, no. 227
Overloon	2 Wohlde rapiers	Ground, sharp.;	Weapon hoard in/ near stream; with 2 spearheads, pin and nick-flanged axe	Both d. green	S	Butler 1990, 74-6
Stevensweert	British type (da.)	-	River	-	P	Stoepker 1990
Tungelroyse beek	Sögel (da., fragm.)	-	Stream valley	-	P	Bruekers 1986
Venlo-Maas (dubious provenance?)	Wohlde	Sharp.	River	Bronze	P	Butler 1990, 76
Venlo-Maas	Wohlde	-	River	-	P	Butler 1990, 76
NL: Noord-Brabant						
Deurne	Sögel (da.)	Sharp.	Marsh?	Black	-	Unpublished, Mus. Leiden no. k.1911/5.1
NL: Utrecht (just north of research area)						
Jutphaas	Plougrescant- Ommerschans	Not sharp., Not used	Marsh	Dark bronze	S	Butler/Sarfati 1970-71; this book fig. 6.13
B. Antwerpen						
Battel-Dijle	Tréboul-St.Brandan	Sharp.	River	-	P	Warmenbol 1992, fig. 42b
Unknown (‘Halle-Zoersel’)	Tréboul-St.Brandan	-	-	-	-	Warmenbol 1992, fig. 42a
Unknown (‘Zwijndrecht’)	Wohlde	-	-	-	-	Warmenbol 1986
B. Limburg						
Plokrooi	Sögel (da.)	-	-	D. Bronze	-	Van Impe/Creemers 2001

## 5.2 SWORDS AND DAGGERS FROM THE MBA B

*Griffplatten*-, *Griffangelschwerter*, reworked sword blades, and a mould which may have served to produce daggers (all discussed in

chapter 7). The swords are *Griffplattenschwerter* unless stated otherwise. Their hilt-blade connection is secured with rivets unless stated otherwise

Site	Type	Use traces	Context	Patina	Info	References
NL: Gelderland Dodewaard-site no. 20	Dagger with side-notches	-	Settlement site	-	P	Jongste 1997, 14, afb. 6
Hedel-Meuse	Dagger, dating uncertain	-	River	-	P	Felix 1945, no. 187, Abb. 252
IJzendoorn	Dagger, reworked butt, dating uncertain	Sharp.	River	Bronze	P	Unpublished, mus. Leiden e.1967/6.1
Lobith-Rhine	Rapier, reworked butt	Resharp.	River	Brown-bronze	P	Unpublished, mus. Nijmegen 12.1943.1
Meteren-De Bogen	Rapier	-	In inhumation grave with 2 arrowheads; primary grave under barrow	D. green	P	Butler/Hielkema 2002
Nijmegen-Waal (dubious)	Sword fragm. Reworked into dagger w. side-notches	Sharp.	River	D.bronze	P	Felix 1945, no. 306, Abb. 247
Unknown/ Weurt?	Rosnoën rapier	-	-	-	-	Felix 1945, no. 459, Abb.259
NL: Limburg Herten-Ool	Rosnoën sword (leaf-shaped, side notches)	Resharp.	River	D. bronze, well preserved	P	Butler unpublished, coll. Hansen
Herten-Ool	Rosnoën rapier	-	River	-	P	Butler 1987 note 7: 2; this book fig. 7.13
Heythuysen-Arenbosch	Dagger, type Keelogue?	Fragm.	-	D.green	-	Butler unpublished, coll. Heymans (Ittervoort)
Kronenberg	Rosnoën rapier	Reshaped butt, Resharp., Impact marks	Marsh	D.bronze	P	Bloemers/Willems 1980-81, 35-6.; this book fig. 7.13
Linne	Rosnoën rapier	Torn rivet holes	-	-	-	Butler 1987 note 7: 3
Maasbracht-Meuse	Trapezoidal-hilted rapier	-	River	-	P	Felix 1945, no. 246, Abb. 255
Middelaar-Meuse	Rosnoën rapier?	Reshaped butt	River	Bronze	P	Willems 1984, 365
Milsbeek-Meuse KMP 158	Appleby rapier	Shortened blade?	River	D.bronze	P	ARCHIS no. 38540
Montfort-Gemeentebroek	Rosnoën? Side notches	Sharp., in sheathe?	Peat	Blackish	P	Unpublished, mus. Leiden 1.1976/11.405
Panheel-Meuse	Grigny rapier	Resharp.	River	-	P	Willems 1983, 211-2
Posterholt	Dagger, dating uncertain	Fragm.	-	Green	-	Smeets 1979
Roermond	Rosnoën rapier, side notches	-	River?	-	-	Butler 1987, note 7: no. 5
Stevensweert-Meuse	Rixheim	-	River	-	P	Desittere 1961, fig. 3

Site	Type	Use traces	Context	Patina	Info	References
NL: Gelderland Dodewaard-site no. 20	Dagger with	-	Settlement site	-	P	Jongste 1997, 14, afb. 6
Venray-St. Odapark	Dagger, reshaped butt	Reworked	-	-	-	Willems 1984, 365-6
NL: Noord-Brabant Cuijk-Meuse (dubious)	Dagger, type Keelogue	-	River	-	P	Lost? Doc. museum Leiden
Cuijk	Mould for dagger or spearhead	-	Settlement site	-	P	Coll. J. de Wit, Grave
Den Dungen-Donksestraat	Rosnoën rapier	Sharp, deposited with haft	Marsh/stream	Bronze	S	Drenth/Kleij 1998
Escharen-Raam	Rosnoën rapier and dagger of unknown type	Dagger: made out of sword blade?	Hoard (?) in stream	D.bronze	P	Verwers 1988, 26-7; this book fig. 7.11
Escharen	Dagger w. side notches	-	Wet?	Green	S	Unpublished, coll. J. de Wit, Grave
B: Antwerpen Antwerpen-Appelstraat	Local type	-	Stream/river	D.bronze	S	Warmenbol 1985
Battel	Cloontia	Torn and repaired(?) rivet holes	Stream	-	P	Warmenbol 1986b, 155-6

## 5.3 SWORDS FROM THE HA A2 (HA A1)- HA B1 PHASE

Site	Type	Use traces	Context	Patina	Info	References
NL: Gelderland						
Heumen	-	Sharp.	River?	Brown	S	O'Connor 1980: list 76: no. 7
'River Waal'	Flange-hilted	Sharp.	River	Green, gravel corroded to sword	P	Unpublished, mus. Nijmegen no. xxx.c.8
NL: Limburg						
Arcen-Blitterswijk	Erbenheim	-	River	D. bronze	P	Cowen 1955, 131: no. 18
Buggenum	<i>Vielwulst-schwert</i>	Sharp., but not used	River	Bronze, well preserved	P	This book, section 8.5.2, fig. 8.12
Herten-Oolergriend	Nenzingen	-	River	-	P	Butler unpublished
Maastricht	Locras	-	River	-	P	Cowen 1955, 142: no. 6
Maastricht-Bosserfeld	Sprockhoff type 1	Shortened (modern repair?)	-	-	-	Cowen 1955, 122: no. 28
Neer-Kappersberg (dating uncertain)	- (fragm.)	-	Dry?	-	S	Bloemers/Willems 1980/1981, 116-7
Tegelen-Maas	Erbenheim	-	River	Bronze	P	Cowen 1955, 131: no. 17; this book fig. 8.14
Venlo	Hemigkofen	Worn?	-	-	-	Cowen 1955, 137: no. 38
Wessem (dating uncertain)	<i>Griffangel-schwert</i>	-	River	Bronze	P	Willems 1986, 215-6; this book fig. 8.13
NL: Noord-Brabant						
Lith	Flange-hilted	-	River?	-	S	Verwers 1990, 36-7
Unknown	Atlantic, leaf-shaped	Sharp.	-	Black-bronze	-	O'Connor 1980, list 111: no. 70
B: Antwerpen						
Pulle	Fragm. of 5 swords, Atlantic <i>épées</i> <i>pistilliformes</i>	Intentionally burnt and broken	Hoard in stream valley, together with 8 spearheads, 1 Niedermaas axe, also damaged and some burnt	-	S	Van Impe 1973, this book: section 8.5.3

## 5.4 SWORDS FROM THE HA B2/3- PHASE

Site	Type	Use traces	Context	Patina	Info	References
NL: Gelderland Lobith-Rijn	Carp's tongue	-	River	-	P	Butler 1987, 33, fig. 19
Millingen-Biesterveld	2 Ewart Park swords	Sharp.	River (swords from same find spot)	Green-bronze	S	Hulst 1970, 32-3
Nijmegen	Tachlovice	-	River	Green-black; gravel in corrosion	P	O'Connor 1980, list 150: no. 6
Nijmegen-Waal-spoorbrug	Thames	Sharp.	River	D. green	P	Cowen 1967: no. 21
Nijmegen	Carp's tongue (dubious)	Sharp.	River	Bronze	P	O'Connor 1980, list 158: no. 29
Nijmegen/Arnhem-Rijn/Waal	Ewart Park	-	River	-	P	Roymans 1991. 75: fig. 8e
NL: Limburg Blerick (lost; dating uncertain)	-	-	-	-	-	Pers. comm. J. Mooren
Herten (dubious)	Carp's tongue	-	River	-	P	Bloemers 1973, 17-9 (incorrectly assigned to the Nenzingen type)
'Maas'	Ewart Park	-	River	-	P	Bloemers 1973, 17-8
Meers	Ewart Park	'Blade worked'	River	D. green	P	Hendrix 1995
Montfort-Sweeltje (dating uncertain)	-(fragm.)	Broken in antiquity	Stream valley/marsh	Black	S	Butler unpublished, coll. Glezer (Maasbracht)
Susteren-Neerechterbos (dating uncertain)	-(fragm.)	-	Marsh	Black/green	S	Pers. comm. L. van Hoof (Leiden)
Tegelen/Blerick	Möriegen	Never used	River	Black-bronze	P	O'Connor 1980, list 149: no. 5
Velden-Lomm (dating uncertain)	-(2 fragm.)	-	River	-	P	Unpublished, mus. Leiden l. 1936/9.1
Weert-Boshoven	chape	-	Allegedly in grave	-	P	Warmenbol 1988, 247
Wessem	Ewart Park	Sharp.	River	Bronze	P	Willems 1986, 215-6; this book fig. 8.13
Wessem	Maçon	-	River	-	P	Roymans 1991, 23, 76, fig. 7e
NL: Noord-Brabant Bergeyk	Möriegen	-	Marsh/stream?	Black-brown	S	Müller-Karpe 1961, 74: no. 8; Roymans 1991, app. I
Unknown	Auvernier	-	River?	-	S	Müller-Karpe 1961, 80: no. 21; Roymans 1991, app. I
B: Antwerpen Boom (-Rupel?)	Carp's tongue	Shortened blade	River	-	S	Cowen 1971, 165: no. 1
B: Oost-Vlaanderen (just west of research area)						
Hamme (dubious)	Carp's tongue	-	River?	-	-	De Laet 1982, 508
Hamme (dubious)	Port Nidau	-	River?	-	-	De Laet 1982, 507

## 5.5 EARLY IRON AGE SWORDS (MADE OF BRONZE AND IRON)

Site	Type	Use traces	Context	Patina	Info	References
NL: Gelderland Heumen-Overasselt (dubious)	Bronze Gündlingen	-	River	Blackgreen	P	Cowen 1967, 440: no. 148; this book fig. 8.14
Millingen-Kekerdom (dubious)	Bronze Gündlingen	-	River	D. brown	P	Cowen 1967, 440: no. 146
Nijmegen-Waalkade	Bronze Gündlingen	-	- (River?)	-	-	Roymans 1991, app. 2
Wijchen	Iron (fragm.)	-	Grave, with wagon parts, bronze vessel, horse gear, bronze axe (burnt)	-	P	Pare 1991
NL: Limburg Arcen-Velden	Bronze Gündlingen	Sharp.	River	Black-bronze	P	Cowen 1967, 440: no. 143
Heythuizen-Bisschop	Iron	-	Grave?	-	S	Roymans 1991, app. 2, table 4
Horst-Hegelsom	Iron	Folded up	Grave, large barrow	-	P	Roymans 1991, app. 2, table 4
Maastricht-Heer-Vroendael	Bronze Gündlingen	Broken	Unclear, near urnfield	-	P	Dijkman 2000
Meerlo	Iron	-	Grave? Also: horsegear	-	S	Roymans 1991, app. 2, table 4
Montfort	Bronze Gündlingen, double ricasso	-	Marsh?	Bronze	S	Cowen 1967, 439: no. 138; Roymans 1991, app. 2
Roermond	Bronze Gündlingen	-	In river	Very well preserved	S	Cowen 1967, 439: no. 139
Weert-Boshoven	Bronze Gündlingen (fragm.)	-	In separate grave in tumulus O	-	P	Gerdsen 1986: no. 284a
Weert-Boshoven	Bronze Gündlingen (fragm.)	-	In separate grave in tumulus O	-	P	Gerdsen 1986: no. 284a
Weert-Boshoven	Bronze Gündlingen (fragm.)	-	In separate grave in tumulus O	-	P	Gerdsen 1986: no. 284a
NL: Noord-Brabant Cuyk-St. Agatha	Bronze Gündlingen	broken	River	-	P	Cowen 1967: no. 144
Heusden	Bronze Gündlingen	-	River	-	P	Cowen 1967: no. 145
Oss-Vorstengraf	Iron, Mindelheim	Sword folded up	In grave, with bronze vessel, horse gear, iron axe, dagger (?), knife (?). In extremely large barrow (D= 52 m)	-	P	Roymans 1991, app. 2, table 4
Someren-Philipscamping	Iron	-	Grave	-	P	Roymans 1991, app. 2, table 4
Someren-Kraaienstark	Iron	-	Grave	-	P	Roymans 1991, app. 2, table 4

Site	Type	Use traces	Context	Patina	Info	References
NL: Utrecht (just north of research area)						
Rhenen-Rijn	Bronze Gündlingen	-	River	-	P	Cowen 1967, 440: no. 147
B: Antwerpen						
Battel-Dijle	Iron, short, with bronze hilt	-	River	-	P	Warmenbol 1987b,60
Battel-Dijle	Iron, short	-	River	-	P	Warmenbol 1987b,60
Meer	2 iron short swords?	-	-	-	-	Roymans 1991, app. 2
B: Limburg						
Rekem-grave 72	3 bronze Gündlingen	Deliberately damaged	In grave with 2 bronze chapes, 3 spearheads; allegedly cremation remains of 3 adults (2 male, 1 female)	-	P	Van Impe 1980: no. 72; Warmenbol 1988, 248, 250

5.6. MBA SWORDS FROM THE NETHERLANDS AND BELGIUM:  
DEPOSITION IN GRAVES VERSUS DEPOSITION IN WATERY PLACES  
Including weapon graves without swords but sets of bronze  
arrowheads. Excluding unprovenanced finds and Ha A1/2 swords

(D= diameter). The finds are mapped in fig. 11.2; (3) = fig. 11.2,  
site no. 3

Site	Objects	Context	Province	Reference
<i>Northern and Central Netherlands</i>				
Agelo (MBA A)	Sögel sword (fragm.)	-	Overijssel	Butler 1990, 73
Bergsham-tum. 3 (MBA A-B) (11)	Wohlde sword	Primary grave in eight-post mortuary house under barrow with peripheral circle of posts; sword presumably from cremation grave	Gelderland	Butler 1990, 76 and references cited there
Drouwen (MBA A) (2)	Sögel sword, razor, nick-flanged axe, 2 gold coils, whetstone, flint strike-a-light, 9 flint arrowheads,	Primary grave (inhumation) in four-post mortuary house, under barrow (D= c. 9 m)	Drenthe	Butler 1990, 71-3; this book fig. 11.1
Hijken tumulus 9; find no. 39 (MBA A-B) (3)	10 arrowheads, 2 pins (all bronze), 2 gold coils, flint strike-a-light	Primary grave under barrow, coffin inhumation	Drenthe	Butler 1990, 64-7
Monnikenbraak-find no. 13 (MBA A) (7)	Wohlde sword, flanged axe, whetstone, ceramic bowl	Allegedly from burial under barrow	Overijssel	Butler 1990, 76-8
Monnikenbraak (MBA A-B) (7)	Wohlde sword, spearhead?	Allegedly from burial mound, association uncertain	Overijssel	Butler 1990, 76
Ommerschans (MBA A-B) (5)	Ceremonial sword, Plougrescant-Ommerschans type; giant version; with razor, chisel, pins, rods and sheet metal, flint and stone implements	On platform of birchwood stakes in peat bog	Overijssel	Butler 1990, 86-91; Fontijn 2001
Putten (MBA A-B) (10)	Wohlde sword	Allegedly from burial mound	Gelderland	Butler 1990, 76
Sleenezand-De Galgenberg (4)	Palstave, ring, 14 arrowheads, tweezer fragm., (all bronze), 2 gold coils,	Primary grave, phase 2 in barrow with postcircle	Drenthe	Butler 1990, 86
Vries-tumulus 2 (MBA A-B) (1)	1 arrowhead	Secondary coffin inhumation grave in barrow	Drenthe	Van Giffen 1941, 17
Vriezenveen-Weitemanslanden (6)	Wohlde sword	Peat bog	Overijssel	Butler 1990, 76
<i>Southern Netherlands/ North Belgium (=study region)</i>				
Antwerpen-Appelstraat (MBA B) (25)	Sword, local type	Stream-river	Antwerpen (B.)	Warmenbol 1985
Battel-Dijle (MBA A) (26)	Tréboul-St. Brandan sword	River	Antwerpen (B.)	Warmenbol 1992
Battel (26)	Cloontia sword	Stream		Warmenbol 1986, 155-6
Borgharen-Maas (MBA A) (24)	Sögel-variety sword	River	Limburg (NL.)	Butler 1969, Pl. 5
Den Dungen (MBA B) (14)	Rosnoën sword	Marsh?	Noord-Brabant (NL.)	Drenth/Kleij 1998
Escharen-Raam (MBA B) (18)	Rosnoën sword, spearhead, bracelet, dagger	Hoard in stream/marsh?	Noord-Brabant (NL.)	Verwers 1988, 26-7

Site	Objects	Context	Province	Reference
Herten-Ool (MBA B) (22)	Rosnoën sword	River	Limburg (NL)	Butler 1987, note 7: 2
Herten-Ool (MBA B) (22)	Rosnoën sword	River		Butler unpublished; this book
Jutphaas (MBA A-B) (12)	Ceremonial sword, Plougrescant- Ommerschans type; dirk size	Marsh	Utrecht (NL.)	Butler/Sarfati 1970-71
Kronenberg (MBA B) (21)	Rosnoën sword, reworked	Marsh	Limburg (NL.)	Bloemers/Willems 1980-81, 35-6
Linne (MBA B) (22)	Rosnoën sword	-	Limburg (NL.)	Butler 1987, note 7: 3
Lobith-Rijn (MBA A) (16)	Weizen-sword	River	Gelderland (NL.)	Unpublished; this book
Lobith-Rijn (MBA B) (16)	Sword with reworked butt	River		Unpublished, this book
Maasbracht (MBA B) (22)	Trapezoidal-hilted sword	River	Limburg (NL.)	Felix 1945, no. 246
Meteren (MBA B) (13)	Sword, 2 tanged arrow- heads, wire and indet. item (all bronze)	Primary grave in large barrow	Gelderland (NL.)	Butler/Hielkema 2002
Middelaar-Maas (MBA B) (17)	Rosnoën (?) sword, reworked butt	River	Limburg (NL.)	Willems 1984, 365
Milsbeek-Maas (MBA B) (17)	Appleby sword	River	Limburg (NL.)	Unpublished; this book
Montfort-Gemeentebroek (MBA B) (22)	Rosnoën (?) sword	Marsh	Limburg (NL.)	Unpublished; this book
Nijmegen (MBA A) (15)	Gamprin-sword	-	Gelderland (NL.)	Unpublished; this book
Nijmegen-Hunerberg (MBA A) (15)	Sögel sword (fragm.)	Dry		Unpublished; this book
Nijmegen-Waal (MBA A) (15) (dubious)	Sögel sword	River		O'Connor 1980, list 25: 3
Nijmegen-Waal (MBA A) (15)	Wohlde sword	River		O'Connor 1980, list 26: 5
Nijmegen-Waal (MBA B) (15) (dubious)	Sword fragm. reworked to dagger	River		Felix 1945, no. 306
Overloon (MBA A) (20)	2 Wohlde swords, 2 spearheads, nick-flanged axe, pin	Hoard in or near stream	Limburg (NL.)	Butler 1990, 74-6
Panheel-Maas (MBA B) (22)	Grigny sword	River	Limburg (NL.)	Willems 1983, 211-2
River Waal (MBA A)	Tréboul-St. Brandan sword	River	Gelderland (NL.)	Fontijn 2001
Roermond (MBA B) (22)	Rosnoën sword	River	Limburg (NL.)	Butler 1987, note 7: no. 5
Stevensweert-Maas (MBA B) (23)	Rixheim sword	River	Limburg (NL.)	Desittere 1961, fig. 3
Unknown ('Halle-Zoersel') (MBA A)	Tréboul-St. Brandan sword	-	?	Warmenbol 1992, fig. 42a
Unknown ('Weurt')	Rosnoën sword	-	?	Felix 1945, no. 459
Unknown ('Zwijndrecht') (MBA A)	Wohlde sword	-	?	Warmenbol 1986
Venlo-Maas (MBA A) (dubious) (19)	Wohlde sword	River	Limburg (NL.)	Butler 1990, 76
Venlo-Maas (MBA A) (19)	Wohlde sword	River	Limburg (NL.)	Butler 1990, 76
<i>Western Netherlands (coastal area)</i>				
Velserbroek (9)	Sword, palstave, gold coiled rings,	Inhumation burial in a natural dune, no barrow, surrounded by rectangular ditch	Noord-Holland	Butler 1990, 94-5 (sword not mentioned)

Site	Objects	Context	Province	Reference
Zwaagdijk grave 3 (MBA B) (8)	Sword, 4 amber beads, allegedly also: piece of worked flint, piece of sandstone, indet. animal bone	Inhumation in flat grave, one of at least 5 such graves	Noord-Holland	Butler 1990, 102
Zwaagdijk? (lost) (8)	Allegedly: sword, pair of coiled gold wire	-	Noord-Holland	Butler 1990, 103-4
<i>West Belgium</i>				All: Verlaeckt 1996
Dendermonde (MBA B) (27)	Rosnoën sword (related to)	River?	Oost-Vlaanderen	No. 28
Gent (MBA B) (29)	Narrow-butted sword	River		No. 57
Geraardsbergen (MBA B) (30)	Sword, type Grigny	River		No. 71
Gottem (MBA A-B) (29)	Sword, Tréboul-St. Brandan	-		No. 76
Grembergen (MBA B) (27)	Rosnoën sword (related to)	-		No. 77
Melle (MBA A) (29)	Gamprin sword	River		No. 99
Melle (MBA B) (29)	Ceremonial sword, Wandsworth	River		No. 100
Moerzeke (MBA B) (27)	Rosnoën sword	River?		No. 115
Oudenaarde (MBA B) (29)	Reutlingen sword	-		No. 121
Schellebelle (MBA B?) (29)	Indet; <i>Griffplattenschwert?</i>	River?		No. 133
Schoonaarde (MBA A-B) (28)	Sword, local type?	River		No. 156
Schoonaarde (MBA) (28)	Indet. sword (fragm.)	River		No. 157
Wichelen (MBA) (28)	Indet. sword (fragm.)	River		No. 227
Wichelen (MBA B) (28)	Rosnoën sword	River		No. 228
Wichelen (MBA) (28)	Indet. sword (fragm.)	River		No. 229
<i>South Belgium</i>				
Huy (MBA A) (31)	Wohlde sword	River?	Liège	De Laet 1974, 298
Huy (MBA B-LBA) (31)	Arco-Terontola sword	River		Warmenbol 1992, 84-6
Huy-Statte (MBA B) (31)	Rixheim sword	River?		Warmenbol 1992, 86
German Rhineland				
Xanthen	<i>Griffplattenschwert</i>	River	-	Weber 1993

## 6.1 SPEARHEADS FROM THE MBA A

Spearheads of types discussed in chapter 6 (MBA A and transition to MBA B). \* According to Butler 1987 this spear is his fig. 1:3.

This is incorrect. \*\* Idem: Butler 1987, fig. 1:4

Site	Type	Use	Context	Patina	Info	Reference
NL: Gelderland Oosterhout-Verburgtskolk	Tréboul	Heavily Resharpended	River/swamp	Blackish green	P	Modderman/Montforts 1991. 147; this book fig. 6.11
NL: Limburg Blerick	Bagterp	-	-	-	-	Jacob-Friesen 1967 no. 1741.
Echt	Decorated	Edges battered	-	Well preserved	-	Butler unpublished, coll. Keuren (K.21)
Grathem	Tréboul	Torn peg holes	Barrow?	D. green	P	Butler 1987, fig. 1:2
Meerlo-Swolgensche Broek	'Westbaltische Typ'	Resharpended	Marsh	Black	S	Jacob-Friesen 1967 no. 1740
Roermond-Hateboer*	Tréboul?	-	River	Blackish	P	Butler 1987
Smakter Spurkt	Tréboul	Sharpened	-	-	-	Butler 1987, fig. 1:1
NL: Noord-Brabant Cuijk/Alem-Meuse**	Tréboul	Torn peg hole	River	Black-brown	S	Butler 1987
B. Limburg Tongeren	Tréboul	-	-	-	-	O'Connor 1980 list 18: 4

## 6.2 SPEARHEADS FROM THE MBA B

MBA B spearheads (flame-shaped and British types) and pseudo flame-shaped spears.

Site	Type	Use traces	Context	Patina	Info	Reference
NL: Gelderland						
Huissen	Flame-shaped	-	River	-	-	Butler 1987, note 5: no. 8
Oosterhout-De Boel	Flame-shaped	Torn rivet holes	-	D.green	-	Unpublished, pers. comm. P. van den Broeke, find no Db2
Nijmegen-Waal (dubious)	Flame-shaped	Sharp.	River	Bronze	P	Jacob-Friesen 1967: no. 1732
Nijmegen-Waal	Flame-shaped	Sharp.	River	Brown	P	Felix 1945: no. 314; Abb. 310
Nijmegen	Flame-shaped	-	-	-	-	Butler 1987, note 5: no. 5
Nijmegen-Winsseling	Flame-shaped	Sharp.	River	Brown/bronze	P	Butler 1987, 32: note 5: no. 4
Millingen (dubious)	Flame-shaped	-	River	-	P	Butler 1987, 32: note 5: no. 7
River Waal	Flame-shaped	Sharp., reworked blade	River	Bronze	P	Butler 1987, note 5: no. 13
NL: Limburg						
Berg en Terblijt (Vilt)	Pseudo-flame	Broken	Lavish LBA hoard on land near source	-	P	Butler 1987, note 5: no. 3
Kessel-Maas	Pseudo-flame	Resharp.	River	Blackgreen	P.	Butler 1987, note 5: no. 1
Neer-Boshei	Flame-sheaped?	Resharp.	-	-	-	Kierkels 2001
Roermond-Maas	Flame-shaped	Sharp.	River	Black?	P	Butler unpublished, coll. Schokker
Swartbroek	Flame-shaped	-	-	-	-	Butler 1987, note 5: no. 2
Wessem-Maas	Flame-shaped	Sharp., wood of shaft preserved	River	Bronze	P	Butler unpublished, coll. Niessen; this book fig. 7.12
NL: Noord-Brabant 's-Hertogenbosch	British, side-looped	Converted to pegged spearhead in antiquity	-	Brown	-	Butler 1961b
Veldhoven	British, side-looped	Sharp.	Stream valley	Black	P	Roymans 1980
B: Antwerpen						
Antwerpen-Schelde	Pseudo-flame	-	River	-	P	Warmenbol 1987: no. 8
Battel	British, basal-looped, straight-based	-	-	-	-	O'Connor 1980, list 56: 11
Duffel-Nethe	British, basal-looped	-	Stream	-	P	O'Connor 1980, list 20: 15
B. Limburg						
Eksel	Flame-shaped	-	-	-	-	Mariën 1952, afb. 254, 4
B: Oost-Vlaanderen (just west of research region)						
Temse	Flame-shaped	-	River	-	P	Verlaeck 1996: no. 203
Temse	Pseudo-flame	Wooden shaft preserved	River?	Bronze	S	Verlaeck 1996: no. 204

### 6.3 SPEARHEADS WITHOUT PRECISE DATING (PLAIN PEGGED SPEARHEADS) AND ARROWHEADS

Plain pegged spearheads and arrowheads (indicated) without a precise dating within the Middle or Late Bronze Age (or even first part of Early Iron Age).

Legend:

AW= Arts/ Van de Wijdeven 2001.

\* C14-dating of wood: 3110 ± 60 BP (Verwers 1990, 140-1).

Calibrated dating (2σ): 1517-1257 cal BC and 1235-1215 cal BC, which places this find in the MBA B.

\*\* Its unusual colour and excellent state of preservation makes me wonder whether the object stored in the museum might be a modern product.

\*\*\* Wood has been C14-dated: 2870 ± 40 (UtC-3736). Calibrated dating (2σ): several ranges within 12<sup>th</sup> to 9<sup>th</sup> century cal BC (Verlaeckt 1996)

Site	Remarks	use traces	Context	Patina	Info	Reference
NL: Gelderland Arnhem (dubious)	-	-	-	Green	-	Unpublished, mus. Nijmegen no. 25.1.22.3
Arnhem (dubious)	-	-	-	Black-bronze	-	Unpublished, mus. Nijmegen no. 27.5.22.7
Batenburg-Maas?	Probably fake!	-	-	-	-	Unpublished, mus. Leiden no. E.1937/7.2
Duiven-Loowaard	Arrowhead	Sharp.	River	Black-d.bronze	S	Butler unpublished, coll. Kuijpers, Arnhem.
Duiven-Loowaard	-	Sharp.	River	Black-d.bronze	S	Butler unpublished, coll. Kuijpers, Arnhem.
Kerkdriel	-	-	River	-	P	Unpublished, coll. Stolzenbach
Lent-Steltse straat	-	-	-	D.green	-	Unpublished, mus. Nijmegen, excavation 1999, find no. 4/85
Lobith-Rijn	-	-	River	Brown	P	Unpublished, mus. Nijmegen no. 1.1946.1
Mook-Middelaarsche Broek	Not pegged!	-	Marsh?	Bronze	S	Unpublished, mus. Nijmegen AC 31
Millingen/Kekerdome-Rijn (dubious)	Decorated with incised lines	Impact marks?	River?	D.brown	P	Unpublished, mus. Nijmegen 10.1951.6
Nijmegen	'Saxo-Thuringian type'	Sharp.	-	Black	-	Jacob-Friesen 1967, no. 1731
Nijmegen	-	-	-	-	-	Felix 1945, no. 315, Abb. 305
Nijmegen-Hunerberg (dubious)	'Lüneburg Typ II'	Impact marks?	-	Brown-black	-	Jacob-Friesen 1967, no. 1733
Nijmegen-Hunerberg	-	-	-	-	P	Abeleven/Bijleveld 1895, 152: E.XIV.12. Location find unknown
Nijmegen-Hunerpark	-	-	Dry, near ridge high plateau, in vicinity: LBA urnfield	L.green	P	Daniëls 1955, 63, mus. Nijmegen no. AC 36
Nijmegen-Kopse Hof?	-	-	Dry? In vicinity: MBA and LBA graves	Brown-green	P	Unpublished, mus. Nijmegen no. 6.1940.3

Site	Remarks	use traces	Context	Patina	Info	Reference
Nijmegen-Kraayenhof	Fragm.	-	-	Green	-	Brunsting 1949, 60, afb. 2:8
Nijmegen-Maasplein	Fragm.	-	-	Green	-	Unpublished, mus. Nijmegen excavation 1992 find no. 1/32
Nijmegen-'garden of Mr Smith'	-	Sharp.	Dry, c. 100 m. away: settlement traces	D. green	P	Unpublished, mus. Nijmegen no. xxx.e.26.
Nijmegen-Winsseling	-	Torn socket mouth	River	Brown-bronze	P	Felix 1945, no.. 462
Nijmegen-Waal	Fragm.	Resharp.?	River	Green-black	P	Felix 1945, no. 317
Nijmegen-Waal (dubious)	-	Sharp.	River	Black-brown	P	Felix 1945, no. 311
Nijmegen-Waal (dubious)	-	Sharp.	River	Well preserved	P	Unpublished, mus. Leiden e.1947/5.1
Nijmegen/Wijchen (dubious)	Long socket (9 cm)	Resharp.	-	D.brown	-	Unpublished, mus. Leiden no. e. 1947/8.3
Oosterhout-Hoge hof?	-	-	-	Black-d.brown	-	Unpublished, mus. Nijmegen no. 11.1952.23
Wijchen	-	-	-	-	-	Felix 1945, no. 468, Abb. 303
Wijchen	-	-	-	-	-	Felix 1945, no. 476
Just north of research region 's-Heerenbergh	-	-	-	-	-	Felix 1945: no. 189
Ede-Edensche Bosch	-	Sharp.?	-	D.green	-	Felix 1945: no. 106, Abb. 302
NL: Limburg Asenray-Thuserhof	Fragm.	-	-	-	-	Butler, unpublished, coll. Schatorjé
Echt	-	-	-	-	-	Felix 1945, no. 99a
Echt	-	-	-	-	-	Butler unpublished, mus. Brussels B. 594
Echt-Hambroek	-	-	Marsh?	-	S	Butler unpublished, mus. Echt no. 2719
Echt-Farm 'De Horst'	-	-	-	-	-	Butler unpublished, mus. Echt no. 2999
Echt-Kranenbroekveld	-	-	(Near) marsh	-	S	Unpublished, doc. ROB: letter R. Geurts to Glazema (1-11-1962)
Echt-Ophoven	-	-	River/marsh	-	S	Van Hoof 2000, catalogue
Ell-Heijkersbroek	-	-	Marsh?	-	S	Butler unpublished, coll. Bouts
Gennep-Stamelberg	-	-	-	-	-	Excavation AAC 1989/1990, pers.comm. H. van Enckevort (Nijmegen)
Herkenbosch	-	-	-	Black-green	-	Unpublished, mus. Leiden no. L.1911/5.1
Herkenbosch	Blade has been bent down	-	-	Green	-	Butler unpublished, coll. Dahmen (St.Odiliënberg)
Herten-Mussenberg	-	Reworked blade, broken in antiquity	-	Black-l.brown	-	Butler unpublished, coll. Hansen (Linne)

Site	Remarks	use traces	Context	Patina	Info	Reference
Heythuysen?	Fake?	-	-	-	-	Unpublished, mus. Leiden no. L.1937/12.3
Ittervoort	Fragm.	Sharp.	-	Green	-	Butler unpublished, coll. Hansen (Linne)
Kessel-Maas	-	Resharp.	River	Black-bronze	P	Felix 1945, no. 229
Koningsbosch	-	-	-	-	-	Butler unpublished, mus. Echt no. 2283
Kronenberg	-	-	Marsh	-	S	Doc. mus. Leiden, letter L.D. Keus to F. Bursch, 3-7-1938
Linne-Maas	-	-	River	-	P	Butler unpublished, Heemkunde Vereniging Roerstreek no. 248/3
Maastricht-Kanaal Maastricht-Luik	-	-	-	-	-	Sprenger 1948, 21
Melick	-	-	-	-	-	Felix 1945, no. 259
Melick-Melickerheide	-	Resharp.	-	Green	-	Butler unpublished, coll. Hansen (Linne)
Nederweert-Molenbeek	3 spearheads	-	At same spot in stream valley: hoard?	-	P	Bruekers 1986
'Noord-Limburg'	-	Sharp.	-	D.green	-	Unpublished, mus. Leiden no. 1.1912/12.2
Roermond	-	-	-	-	-	Butler unpublished, coll. Houtakkers
Roermond-Roerbrug	-	-	Wet?	-	-	ARCHIS no. 33779
Roermond-Hatenboer?	Long socket (9.3 cm)	Resharp.	River	Black-bronze	P	Unpublished, mus. Leiden 1.1971/11.2
St.Joost	-	-	-	Green	-	Felix 1945, no. 224
Swalmen	-	Resharp.	At same spot: LBA urnfield. However: find not from burial	Black-green	P	Lanting/Van der Waals 1974, 78: no. L.1938/8.43
Swartbroek	-	-	-	-	-	Felix 1945, no. 400, Abb. 297
Swartbroek	-	-	-	-	-	Felix 1945, no. 402
Unknown	-	-	-	-	-	Felix 1945, no. 235
Wessem-Maasgrind	Fragm.	Sharp.	River	Green-black	S	Butler unpublished, coll. Niessen
NL: Noord-Brabant						
Aarle-Rixtel-Aa	-	-	Stream valley?	-	S	AW no. 102
Alem-Empel	-	-	River	-	P	Unpublished, doc. G. Beex, mus. 's-Hertogenbosch no. 8422
Alem-Maas	-	-	River	-	P	Felix 1945, no. 2, doc. G. Beex
Alem-Maas	-	-	River	-	P	Felix 1945, no. 3, doc. G. Beex
Alem	-	-	-	-	-	Doc. G. Beex, mus. 's-Hertogenbosch no. 8496

Site	Remarks	use traces	Context	Patina	Info	Reference
Bergeyk	Arrowhead	-	-	-	-	Felix 1945, no. 39
Beugen-Maas		Sharp., wood in socket preserved	River	Well preserved	P	Verwers 1981, 27-8; this book fig. 10.2
Boxmeer-De Kater	-	-	(Near) marsh?	Black	S	Butler unpublished, coll P. Hutten (Boxmeer)
Boxtel-Munsel	-	-	Stream valley? But might be in disturbed position!	-	S	Verwers/Kooistra 1990, 251, fig. 7: 2
Boxtel-St.-Petruskerk	-	-	Stream valley	Black-green	S	Felix 1945, no. 55; doc. G. Beex
Cromvoirt	-	Resharp.	Marsh?	-	S	Verwers 1986, 29
Dongen-Kasteel	-	-	-	-	-	Stoepker 1986, 30-1
Duizel-Duiselsche Broek	No peg holes!	Resharp.	Marsh	Bronze	S	Felix 1945, no. 70 (incorrectly provenanced as 'Deurne')
Eindhoven-TU/Diaconessehuis	-	-	Stream valley	-	S	Verwers 1990, 140-1
Eindhoven?	-	-	-	-	-	Doc. G. Beex, coll. P. van Elst (Eindhoven), find lost
Eindhoven-Eindhovenkanaal	-	-	Stream valley	Well preserved	S	Arts/Van de Wijdeven 2001, no. 73 and personal communication
Engelen?	-	-	-	-	-	Doc. G. Beex, mus. 's-Hertogenbosch no. 8679
Escharen	Socket mouth decorated with lines and pointillé	-	Near stream valley	Green	S	Butler unpublished, coll. J. de Wit (Grave)
Geertruidenberg-Haven	-	-	-	-	-	Doc. G. Beex
Goirle	-	-	-	-	-	<i>Archeologisch Nieuws</i> 1973, 13
Grave-Maas	-	-	River	-	P	Felix 1945, no. 177, Abb. 308
Grave-Maas	-	Resharp.	River	D.green	P	Felix 1945, no. 176, mus. Leiden no. k. 1938/9.3
Hapert-crossterrein	-	-	-	-	-	Doc. Liesbeth Theunissen (ROB)
Heeswijk-Dinther-Beekgraaf*	Logenze-shaped blade	Wood preserved	Stream valley	D.bronze	S	Verwers 1990, 140-1
Helmond-Eenselaar	2 spearheads	-	At same spot in stream valley: hoard?	-	S	Felix 1945, no. 197-8; AW no. 99
's-Hertogenbosch-Gr. Ziekengasthuis	-	-	-	-	-	Verwers 1983, 22-3
's-Hertogenbosch	-	-	-	-	-	Doc. G. Beex, mus. 's-Hertogenbosch no. 8326
's-Hertogenbosch	-	-	-	-	-	Doc. G. Beex, mus. 's-Hertogenbosch no. 8325
Liessel-Fringes of Peel bog (dubious)**	-	Resharp.	Peat bog	Black	S	Unpublished, mus. Leiden no. k. 1949/12.1

Site	Remarks	use traces	Context	Patina	Info	Reference
Lith-De Bergen	Fragm.	-	River	-	S	ARCHIS no. 14427
Lith-Lithse Ham	-	-	River	-	S	Kleij/Verwers 1994, 144-6
Mill-Tongelaar	1 Fragg./ or arrowhead?, 1 spear close to flame-shaped type	Spear: reshap.	River/marsh; both objects at distance of 1,5 m: hoard?	D.brown (both)	S	Butler unpublished, coll. C. van Riet (Beers)
Oirschot?	-	Reshap.	-	'Wet context patina'	-	AW no. 24
Oss-IJsselstraat	-	-	Near MBA settlement site	-	S	Verwers/Beex 1978, 16
Oss-Paalakker	Fragm.	-	Near river	D.green	P	Unpublished, coll. G. Smits (Oss)
Rosmalen-Nieuwstraat 24	-	Reshap.	-	-	-	Verwers 1988, 29-30
Someren-Vlerken	-	-	Stream valley	-	S	AW no. 104
St.-Oedenrode-Groot Laar	-	-	Stream valley (from same site: socketed axe: hoard?)	-	S	AW no. 70
Teefelen-De Kampen	Fragm.	-	-	-	-	Unpublished, coll. P. Haane (Oss)
Teteringen	Fragm.	-	Marshy terrain; from same site: sickle (hoard?)	Green	S	Verwers 1992, 149; personal communication J. Verhagen (Tilburg)
Unknown (dubious)	Long socket (12,5 cm)	Reshap.	-	Black-bronze	-	Unpublished, mus. Leiden no. k.1948/9.2
NL: Utrecht (just north of research region						
Rhenen	-	-	-	-	-	Personal communication E. van Hagen (ROB)
Wijk bij Duurstede-De Geer	-	Reshap.	Settlement?		P	Drenth 1996, note 3;
Wijk bij Duurstede-De Horden	-	Reshap.	Settlement?		P	Drenth 1996, note 3;
B: Antwerpen						
Antwerpen	Arrowhead	-	River	-	S	Warmenbol 1983 no. 9; Mus. Antwerpen no. 56.35.1352.1
Antwerpen	Arrowhead	-	River	-	S	Warmenbol 1983 no. 10; Mus. Antwerpen no. 56.35.1352.2
Battel	-	-	-	-	-	Warmenbol 1987b, 52; Mus. Antwerpen no. 56.35.3545
Bornem***	-	Wood in socket preserved	Marsh	Green-brown	S	Verlaeckt 1996
Hoogstraten	Arrowhead (socketed)	-	-	-	-	O'Connor 1980, list 59: 5
Turnhout	3 arrowheads (socketed)	-	It is uncertain whether the 3 were found together	-	-	O'Connor 1980, list 237: 6-8

Site	Remarks	use traces	Context	Patina	Info	Reference
B: Brabant (south of research region)						
Schaerbeek-Kattepoel	Arrowhead (socketed)	-	-	-	-	O'Connor, list 238: 7
Teralfene	-	-	'Bog'	D. green, well preserved	S	Verlaeckt 1996

7.1 DAGGERS, KNIVES, HALBERDS, ORNAMENTS FROM THE LATE NEOLITHIC B AND THE EARLY BRONZE AGE, MAINLY FROM BURIALS

N-H; province of Noord-Holland; D = Drenthe, Northern Netherlands

Legend: NL: Netherlands; B: Belgium; A province of Antwerpen; G: province of Gelderland; L: province of Limburg;

Site	Objects	Context	Reference
Research region Beers-Gassel ( N-B)	2 gold ornaments (LN B)	With a Bell Beaker of Veluwe type, amber pendant, stone, 2 pieces of flint; presumably grave	Verwers 1990, 30-1
Geldermalsen-‘Boog C-Noord’ (G) Mol (A)	Bronze awl (EBA) Copper/bronze indet. (EBA/MBA A)	In settlement debris In inhumation burial in barrow, with amber and fluorite bead	Butler/Tulp 2001 Beex/Roosens 1963
Overasselt-St. Walrick (G)	Copper/bronze <i>Schleifen-nadel</i> (EBA)	Central inhumation grave in barrow, second phase	Butler/Van der Waals 1966: no. 55; Butler 1990, 71
Roermond-Hatenboer (NL: L) NL: Gelderland (just north of research area) Bennekom (G)	Halberd (EBA) 2 oar-shaped ornaments of gold; (LN B)	River Presumably barrow grave with Bell Beaker	Glasbergen/Butler 1961 Glasbergen/Butler 1956
Doorwerth (G)	Copper/bronze dagger with rounded butt; 2 rivets (LN B/EBA)	Uncertain; possibly in central burial in barrow, with Bell Beaker and wrist guard	Bursch 1933, 89
Ede-Ginkelse Heide (G)	Copper tanged dagger (lost) (LN B)	Cremation grave in barrow, with Bell Beaker type 2Ib, 4-holed wrist guard, flint objects	Butler/Van der Waals 1966: no. 9
Ede-Lettense Berg (G)	Tanged copper dagger (LN B)	Grave in barrow, with 3 V-bored amber buttons	no. 2
Ede-Lunterse Hei (G)	Tanged copper dagger (LN B)	Grave in barrow, with Bell Beaker type 2Id, two 2-holed wrist guards, 2 flint arrowheads	no. 5
Ede-De Kweekerij (G)	Tanged copper dagger (LN B)	Secondary grave in barrow, with Bell Beaker type 2Ib	no. 4
Wageningen-hoard (G)	1 Halberd, 1 Migdale axe, 1 knife, 2 penannular rings, 2 ring fragm., 1 ingot bar, 1 stone polished axe, 1 awl, 2 halberd rivets, 1 bar, 5 fragm. sheet metal (LN B-EBA)	Dry hoard on gentle slope. In vicinity: Late Neolithic barrows	Butler 1990, 68-71; this book fig. 5.14; fig. 5.15
NL: Further north of research area Bargerosterveld (D)	Bronze knife/dagger; horn hilt with tin nails (EBA)	Peat bog	Butler/Van der Waals 1966: no. 54
Buinen-Hunebed XXVIII (D.)	2 copper spiral ornaments (Dating: Middle Neolithic to EBA)	In Hunebed (megalithic tomb; Middle Neolithic); possibly later deposit	nos. 14-15

Site	Objects	Context	Reference
Drie (G)	Copper knife/dagger, 2 rivet holes (LN B/EBA)	-	no. 53
Exloo ( D.)	Tanged copper dagger, copper awl, copper spiral bracelet, gold bead (LN B)	Grave in barrow, with Bell Beaker type 2Ib and amber beads	no. 6
Hilversum-Tum. I (N-H)	Tanged copper dagger (LN B)	Grave, no further information	no. 7
Laren-Tum. 10 (N-H)	Tanged copper dagger (LN B)	With 3 flint arrowheads	no. 8
Lunteren-De Valk (G)	Copper awl (LN B)	Grave in barrow, with Bell Beakers of Veluwe type 2Id-e, 2-holed wrist guard, flint objects, stone metal workers' tools	no. 12; this book fig. 5.3
Nieuw-Millingen (G)	Tanged copper dagger (LN B)	Grave in barrow, with Bell Beaker of Veluwe type 2Ie, amber lunate pendant, flint arrowhead and knife	no. 10
Stroeërzand (G)	Tanged copper dagger (LN B)	Grave in barrow, with 4-holed curved wrist guard	no. 3
Vaassen-Tum. III (G)	Tanged copper dagger (LN B)	Secondary grave in barrow, with Bell Beaker of Veluwe type 2ID, amber button, pendant	no. 1

7.2. BURIAL GIFTS FROM THE MIDDLE BRONZE AGE AND DEPOSITS IN BURIAL MOUNDS (METALWORK AND OTHER MATERIALS)

Based on Theunissen 1999, table 3.13 with new finds added. All are from the southern Netherlands, except those with an \*. All are from barrows

Site	Object	Position	Human remains	Reference
Alphen-Kwaalburg (N-B)	<i>Bronze</i> flanged axe	Primary in <i>ringwalheuvel</i>	Cremated, adult	Theunissen 2001; this book fig. 6.6
Alphen-Op de Kiek (N-B)	Flint arrowhead or scraper	Secondary	Cremated remains in urn	Theunissen 1999, table 3.13
Berghem-Zevenbergen 1.2 (N-B)	Decorated bone fragm.	Primary	Cremated remains in urn	Verwers 1966
Doorwerth (G)	<i>Bronze</i> palstave, type Niedermockstadt	Presumably primary	-	Butler/Steegstra 1997/1998: no. 239
Goirle-De Vijfberg 2.1 (N-B)	Decorated bone fragm.	Secondary	Cremated	Theunissen 1999, table 3.13
Goirle-De Vijfberg 4.1 (N-B)	Flint knife	Primary	Cremated	Theunissen 1999, table 3.13
Goirle-De Vijfberg 6.1 (N-B)	<i>Bronze</i> East-European axe, <i>bronze</i> tweezer, 1 <i>bronze</i> ring, 2 <i>bronze</i> indet. fragm.	Primary in barrow	Inhumation in trunk on surface	Butler 1995/1996, no. 72; this book fig. 7.9
Grathem (NL: L)	<i>Bronze</i> Tréboul spearhead, allegedly in 'barrow'	-	-	Butler 1987, fig 1: 2; pers. comment H. Steegstra
Gronsveld-Savelsbosch (NL: L)	<i>Bronze</i> item? Flint artefact(s)?	Primary	Cremated remains on stones	Theunissen 1999, table 3.13
Holset-'Sickle grave' (NL: L)	2 <i>bronze</i> sickle, 1 type Bühl <i>bronze</i> spearhead	No association with burial! Deposition in mound	-	Butler 1990, 98-100; this book section 7.13.4
Hoogeloon-Smousenberg (N-B)	Flint arrowhead	Primary	Cremated	Theunissen 1999, table 3.13
Hoogeloon-Zwartenberg (N-B)	<i>Bronze</i> nick-flanged chisel	Primary in large <i>ringwalheuvel</i>	Cremated	Theunissen 1999, table 3.13, this book section 6.4.4; fig. 6.8
Malensbosch-Franzosengrab (NL:L)	<i>Bronze</i> dagger (now lost, dubious find)	Primary?	?	Theunissen 1999, 88
Meteren-De Bogen burial no. 3 (G)	<i>Bronze</i> rapier, two <i>bronze</i> tanged arrowheads, <i>bronze</i> wire and small indet. <i>bronze</i> item	Primary in large barrow	Inhumation, adult male	Butler/Hielkema 2002 (but see comments in chapter 7)
Meteren-De Bogen burial no. 5 (G)	1 amber (?) bead with <i>bronze</i> wire, 1 bead made of pure <i>tin</i> (dating uncertain: possibly LBA or even later?)	Secondary in barrow	Inhumation, child. Amber on skull, tin bead on breast	Butler/Hielkema 2002
Neer-Boshei 1 (NL:L)	Ceramic pot	Primary	Cremated in tree trunk	Theunissen 1999, table 3.13
Nijmegen-Kops Plateau no. 18 (G)	Green discolouration, indet. animal bones	Secondary	Cremated, remains in urn. Adult (34-40) and infant (2-5 years)	Fontijn/Cuijpers in press
Nijmegen-Kops Plateau no. 20	Green discolouration, indet. animal bones	Secondary	Cremated, adult, male, age: 40-47	Fontijn/cuijpers in press

Site	Object	Position	Human remains	Reference
Nijmegen-Kops Plateau no. 21	Green discolouration, bones large + medium sized mammal	Secondary	Cremated, remains in urn. Adult (16-27) and infant (2-5 years)	Fontijn/Cuijpers in press
Nijmegen-Kops Plateau no. 22	Animal bones: bird and indet.	Secondary	Cremated juvenile (13-19)	Fontijn/Cuijpers in press
Nijmegen-Kops Plateau no. 37	Animal bones, indet.	Primary	Cremated, remains in urn. Adult (34-40)	Fontijn/Cuijpers in press
Nijmegen-Kops Plateau no. 38	Animal bones, medium sized mammal	Secondary	Cremated, remains in urn. Juvenile (14-19) and infant (2-5)	Fontijn/Cuijpers in press
Oss-Vorstengrafdonk (N-B)	Bone awl	Secondary	Cremated, remains in urn	Theunissen 1999, table 3.13
Riethoven-Boshoven 7.2 (N-B)	<i>Bronze?</i> Indet.	Primary	Cremated	Theunissen 1999, table 3.13
Swalmen-Hillenraad tum. 1 (NL-L)	<i>Bronze</i> Grigny axe and whetstone	No association with burial! Deposition in mound	-	Butler 1990, 100-2, this book section 7.13.4
Swalmen-Hillenraad tum. 2	2 <i>bronze</i> Grigny axes	No association with burial! Deposition in mound	-	Butler 1990, 100-2, this book section 7.13.4
Toterfout-Halve Mijl 1a (N-B)	Bone pin	Primary in <i>ringwalheuvel</i>	Cremated, adult, male (22-40); adult, male? (20-40); female (12-24 years)	Theunissen 1999, table 3.13; personal comments
Toterfout-Halve Mijl (1c)	Green discolouration	Secondary	Cremated, adult, male (22-40 years)	Theunissen 1999, table 3.13, 3.14
Toterfout-Halve Mijl (1d)	Green discolouration	Secondary	Cremated, female adult (22-30 years)	Theunissen 1999, table 3.13, 3.14
Toterfout-Halve Mijl 1B (60a)	Green discolouration, stone arrow straighter	Secondary	Cremated, remains in urn. Female, adult (22-40 years)	Theunissen 1999, table 3.13, 3.14
Toterfout-Halve Mijl 1B (61a)	Bone pins	Secondary	Cremated remains in urn	Theunissen 1999, table 3.13
Toterfout-Halve Mijl 1B (62a)	Green discolouration	Secondary	Cremated, remains in urn. Female, aged (40-60 years)	Theunissen 1999, table 3.13, 3.14
Toterfout-Halve Mijl 1B (63)	Green discolouration, bone pendant, antler fragm.	Secondary	Cremated. Child (8-12 years)	Theunissen 1999, table 3.13, 3.14
Toterfout-Halve Mijl 1B (65a)	Green discolouration	Secondary	Cremated, remains in urn. Female, adult (20-40 years)	Theunissen 1999, table 3.13, 3.14
Toterfout-Halve Mijl 5.1	Decorated bone fragm., antler fragm.	Primary	Cremated, child, 2 years ± 8 months	Theunissen 1999, table 3.13
Toterfout-Halve Mijl 5.2	Brown bear phalanx, antler fragm.	Secondary	Cremated, child 0-3 years	Theunissen 1999, table 3.13

Site	Object	Position	Human remains	Reference
Toterfout-Halve Mijl 10	Ceramic pot	Primary	Cremated, adult, female? (20-40); child 7 years ± 24 months; adult, female, 20-40 years	Theunissen 1999, table 3.13; personal comment
Weelde-Groenendaelsche Hoef; grave IV(A)	2 flint scrapers	Secondary	Cremated, remains in tree trunk; child	Theunissen 1999, table 3.13; Beex 1959
Weelde-Hoogeindse Bergen (A)	Green discolouration	Secondary	Cremated, remains in urn. Female, adult (c. 25 years)	Theunissen 1999, table 3.13, 3.14

7.3. METALWORK FROM URNFIELD GRAVES IN THE DUTCH PART  
OF THE STUDY REGION

Unless otherwise specified, the objects are made of bronze

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
NL: Gelderland Ede	Bronze vessel, possibly other items (EIA) (incompletely recovered)	-	-	Roymans 1991, table 4
Nijmegen-Kops Plateau no. 32	Pin, triangular-headed, sherds (LBA)	Flat grave?	-	Fontijn 1995
Idem no. 71	Bracelet, bronze fragm. (LBA/EIA)	Flat grave	-	Fontijn 1995
Idem no. 72	6 iron spearheads, 1 iron ferrule (EIA-MIA)	Circular ring-ditch (D= 6.5 m)	-	Fontijn 1995
Idem no. 76	(Finger?)ring (LBA/EIA)	Flat grave	-	Fontijn 1995
Idem no. 78	3 iron spearheads (EIA-MIA)	Flat grave	-	Fontijn 1995
Idem no. 79	2 iron spearheads (EIA-MIA), 1 ferrule	Flat grave	-	Fontijn 1995
Idem no. 81	1 iron spearhead, 1 iron ferrule, 1 iron pin fragm. ( <i>Kropfnadel?</i> ) (EIA-MIA))	Flat grave?	-	Fontijn 1995; unpublished, doc. of author
Idem no. 83	1 iron spearhead (EIA-MIA)	Flat grave?	-	Fontijn 1995
Idem no. 87	2 iron pins, small pot in urn (EIA)	-	-	Unpublished., do. of author
Idem no. 88	Golden ring (fragm), bracelet, urn grave (EIA)	-	-	Unpublished, doc. of the author
Nijmegen-‘terrein O’ (Hugo de Grootstraat)	Urn (?), large arming (D =18 cm), fragm. of bracelet; burnt; LBA/EIA	-	-	Unpublished, Mus. Nijmegen, no inv no.
Nijmegen-near ‘Kwakkenberg’ (dubious!)	Urn, small pot, some lightly burnt ornaments: 2 penannular bracelets, one decorated, fragm. bracelet decorated, fingerring, spiral, necklace of joint rings; LBA	-	-	Desittere 1968, (Catalogus), 125
Oosterhout-Van Boetzelaer- straat no. 11	Small piece bronze indet., small sherds; LBA (EIA)	Flat grave	-	Pers. comm. P. van den Broeke (Nijmegen)
Idem no. 17	Burnt pieces of bronze, indet. In urn (LBA)	Flat grave	-	Pers. comm. P. van den Broeke
Wijchen	Iron sword, wagon pars, bronze vessel, horse gear, bronze axe (burnt)	-	-	Pare 1991a, 219-20
Wijchen-Valendries	Several rings (from 1 or more graves?) (LBA/EIA)	-	-	Unpublished, mus. Nijmegen

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
NL: Limburg Baarlo	Bronze vessel, probably other items as well (incompletely recovered; EIA)	Large barrow	-	Roymans 1991, table 4
Baarlo-De Bong	2 tweezers (probably from 2 graves (LBA/EIA))	-	-	Butler unpublished
Beegden no. 17	1 iron <i>Kropfnadel</i> in urn (EIA)	Circular ring-ditch grave (D= 4.5 m)	Adult, 18-30	Roymans 1999
Beegden no. 22	Indet. fragm.	Multiple-grave: remains of at least 7 individuals in one urn in large long barrow (L= 52,5 m)	Juvenile: 2-4; 8-12; 8-12; adult, female, 18-80; adult, female, 18-80, adult, female?, 18-80, adult, male, 30-40	Roymans 1999; Tol 2000b, appendix 2
Beesel-Dreesen Campken	2 pins, burnt, in urn (LBA)	-	-	Willems 1983, 214-6
Heythuizen-Bisschop	Iron sword	-	-	Roymans 1991, app. 2, table 4
Horst-Hegelsom	Iron sword, folded up	Circular barrow (D=19 m)	-	Roymans 1991, app. 2, table 4
Kessel no. 4	1 iron <i>Schaelchenkopfnadel</i> in urn (EIA)	-	-	Willems 1984, 376
Kessel no. 16	Indet. bronze fragm., burnt in urn, 1 twisted bracelet fragm. (LBA)	-	-	Willems 1984, 377
Kessel-Hoeve St. Jan no.2	Indet fragm. in urn (EIA)	-	-	Willems 1983, 209-10
no. 3	Burnt fragm, spiral ring, twisted ring (EIA)	-	-	
no. 4	8 burnt fragm., in urn (EIA)	-	1 juvenile	
no. 6	Spiral fragm. in urn (EIA)	-	-	
Meerlo	Iron sword, horsegear in urn with lid	-	-	Roymans 1991, app. 2, table 2
Neer-Kappersberg	Pin	-	-	Butler unpublished, coll. Silvrants
Panheel no. 3	Spiral socket, ring, sherd, 2 small pots in urn (EIA)	-	-	Bloemers 1973
Posterholt-Het Vinke A	1 or 2 iron pins, burnt pin, spiral in urn (EIA)	Long barrow (25/4 m), secondary grave?	-	Willems 1983
D	Iron pin (EIA)	Flat grave?	-	
H	Twisted bracelet (LBA/EIA)	Circular ring-ditch grave (D= 7.5 m)	-	
L	Decorated bracelet fragm. (LBA/EIA)	Flat grave	-	
J	Several indet. burnt fragm., spiral, fragm. of twisted bracelet (LBA/EIA)	Flat grave or secondary grave	-	

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
Roermond-Musschenberg:				Schabbink/Tol 2000
All EIA				
no. 1	2 fragm. <i>Brillspirale</i> , 1 ring, 1 iron indet. 1 small pot in urn	-	Adult, female, 20-40 years	
no. 10	Indet fragm. in urn	-	Adult	
no. 18	Fragm. of bracelet in urn	-	Infant, 0-2 years	
no. 21	Fragm. iron indet. In urn	-	-	
no. 25	Indet fragm. in urn, pot	-	Adolescent, 10-16 years	
no. 34	3 fragm. of <i>Brillspirale</i> , 1 conical pendant, 3 indet. (2 burnt)	-	Adult, 16-20 years	
no. 39	Brac. Fragm, ring, small pot, 3 indet.	-	Adult, female, 19-28 years	
no. 41	1 indet., animal bones, small pot in urn	-	Female, 30-60 years	
no. 42	Many indet fragm., fragm. of bracelet and ring (for finger or ear)	-	Adult, 24-40 years	
no. 45	2 indet. Fragm., 1 animal bone (sheep/ goat) in urn	-	Adult, female 24-40	
no. 50	Iron pin fragm. in urn	-	Adult, > 20 years	
no. 53	Indet. Fragm. in urn	-	Adult, 30-60 years	
no. 57	6 indet. Fragm. in urn	-	Female, 20-40 years	
no. 58	2 indet. Fragm. in urn	-	-	
no. 59	2 bracelet fragm, 2 indet, small pot in urn	-	Adult, female, 40-60 years	
no. 60	Iron ring, spindle whorle	-	Adolescent, 9-16 years	
no. 63	Bracelet fragm., burnt, in urn	-	-	
no. 72	Ring	-	Juvenile, 11-12	
no. 73	Burnt bracelet fragm. and indet., animal bone (cow), in urn	-	Adult, female, 30-60 years	
no. 88	Many small burnt fragments	-	Adult, female, 20-40 years	
no 92	3 indet. fragm., small pot, in urn	-	-	
no. 102	2 burnt indet. fragm. in urn	-	-	
no. 104	Iron indet. in urn	-	Adult	
no. 106	Burnt (?) pin, small pot in urn	-	Adult, female, 30-60 years	
no. 107	Indet. fragm. in urn	-	-	
No. 109	Indet. fragm., rib fragm. of cow in urn	-	Juvenile, 6-12 years	

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
no. 126	Indet. fr., stone fragm. in urn	-	Adult, 20-40 years	
no. 127	Iron fragm. in urn	-	Adult?, Female?	
no. 130	Fragm. folded bronze in urn	-	Adult, female, 20-40 years	
no. 135	4 indet. fragm., iron wire	-	Adult, female, 20-40 years	
no. 137	Burnt bracelet with everted terminals, 5 flint flakes, 1 scraper, 2 fragm. stone, sherds, 2 indet. bronze fragm.	Circular ring-ditch grave (D=16,25 m)	Adult, male, 30-60 years	
no. 138	Indet. fragm. in urn	-	Adult, 35-40 years	
Sittard Hoogveld: All EIA				Tol 2000a
No. 32	Burnt fragm pig jaw in urn; association uncertain: pin, iron ring, iron nail	Flat grave 30-60 years	Adult male,	
no. 47	Iron fragm.	Flat grave	-	
no. 48	Iron pin	Flat grave	-	
no. 98	Ring with hook in urn	Flat grave	Adult, male, 30-60 years	
Venlo	Bronze vessel, possibly other items as well (EIA; incompletely recovered)	Possibly large barrow	-	Roymans 1991, table 4 and own documentation
Venlo-De Hamert: All EIA				Holwerda n.d.
no. 33	Indet. burnt fragm.	Circular barrow		
no. 35	Bracelet with everted terminal in urn	Circular barrow		
no. 64	Ring in urn	Circular barrow		
no. 66	Indet. fragm. in urn	Circular barrow		
no. 67	Indet. fragm.	Circular barrow		
no. 69	1 or 2 rings, small pot in urn	Circular barrow		
no. 79	Indet. fragm. in urn	Circular barrow		
no. 87	Indet. fragm. in urn	Circular barrow		
no. 90	Indet. fragm., small pot in urn	Circular barrow		
Weert-Boshoverheide				
-	Convex-profile button (LBA/EIA)	-	-	O'Connor 1980, liat 173: no. 15
-	Chape (LBA)	Presumably isolated grave	-	Gerdson 1986: no. 284b
Tum. O	5 fragm. Gündlingen sword (broken) in very large urn (EIA)	In large barrow (D= 16 m) with 6 graves	-	Cowen 1967: no. 142
Tum. O	3 fragm. Gündlingen sword (burnt, broken) in large urn (EIA)	In large barrow (D= 16 m) with 6 graves	-	Cowen 1967: 141

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
Tum. O	4 fragm. Gündlingen sword (broken, burnt), in large urn (EIA)	In large barrow (D= 16 m) with 6 graves	-	Cowen 1967: no. 140
-	Fragm. of spiral ring (LBA/EIA)	-	-	Willems 1984
-	Twisted bracelet (LBA/EIA)	-	-	Bloemers/Willems 1980/1981
-	Twisted bracelet, small pot in urn (LBA)	-	-	Bloemers/Willems 1980/1981
-	5 bracelets with everted terminals	From 5 graves?	-	O'Connor 1980, list 235: no. 3
-	Bifid razor (LBA/EIA)	-	-	O'Connor 1980, list 222, 3
II.136	Fragm. of spearhead in urn (LBA/EIA)	-	-	Felix 1945: no. 449
-	Tutulus head (LBA/EIA)	-	-	Felix 1945, no. 450
-	Ring (LBA/EIA)	-	-	Felix 1945, no. 451
1.1891/8.8a	Finger ring (LBA/EIA)	-	-	Felix 1945, no. 452
WST 61	Spiral fragm. (LBA/EIA)	-	-	Felix 1945, no. 453
1.1891/12.115	Ring (LBA/EIA)	-	-	Felix 1945, no. 454
No. 2	Ring (LBA/EIA)	-	-	Van Ginkel 1982 (esp. P. 40-1)
No. 8	Indet. fragm., burnt (LBA/EIA)	-	-	
H72	Possibly elements of horse harness, burnt? (EIA)	-	-	
H91g	Pin (LBA/EIA)	-	-	
H246	1 <i>Scheibenkopfnadel</i> (LBA)	-	-	
H248	14 fragm. of bracelets, 1 twisted (LBA/EIA)	-	-	
H249	Bracelet, twisted (LBA/EIA), 2 spirals	-	-	
He 7	Indet., burnt (LBA/EIA)	-	-	
He 10	Fragm. of <i>Steigbügelformiger Arming</i> (LBA)	-	-	
He11	4 Indet. fragm., burnt, fragm. of bracelet (LBA/EIA)	-	-	
He 12	8 Rings; horsegear 'ratelringen'? (EIA)	-	-	
He 13	100 fragm., most indet., including fragm. of bracelets, wires, pins (LBA/EIA)	-	-	
He 14	Vase-headed pin (LBA)	-	-	
He 14a	Biconical-headed pin (LBA)	-	-	
He 15	2 fragm. of pins, 2 fragm. of wires (1 twisted) (LBA/EIA)	-	-	
He 16	Stud; horsegear?; 50 fragm. (pins, bracelets, rings)	-	-	
Weert-Raak (all: EIA) 70B	Fragm. of bracelet	Circular ring-ditch grave (D=5.5 m)	Adult, 18-80 years	Tol 2000b, appendix 2

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
180	Indet. fragm.	Flat grave?	Adult, male?, 24-40 years	
252	Indet. fragm.	Flat grave?	Adult, 20-40 years	
NL: Noord-Brabant				
Bedaf no. 7	Spiral in urn (LBA/EIA)	-	-	Verhagen 1984
Bergeyk-Witrijt no. 4	Fragm. of pin in urn (LBA)	-	-	Van Giffen 1937, 49
Bergeyk-Witreit no. 10	Pin, 2 small pots (LBA)	Circular ring-ditch grave (D=7 m)	-	Van Giffen 1937, 50
Best				
no. 3	10 conical pendants (EIA), razor fragment, all burnt, small pot, in urn	Circular ring-ditch grave (D=5 m)	-	Willems 1935, 96-9
no. 12b	Bracelet with everted terminals in urn (EIA)	Circular ring-ditch grave (D=9 m)	-	
no. 41	Spiral in urn (LBA/EIA)	Flat grave	-	
no. 42	2 biconical-headed pins (LBA/EIA)	Circular ring-ditch grave	-	
no. 53	Pin (LBA/EIA)	Circular ring-ditch grave (D= 6 m)	-	
no. 54a	Ring (LBA/EIA)	Circular ring-ditch grave (D = 6 m)	-	
Noord-Brabants museum no. 120	Pin, conical-headed?, decorated (LBA/EIA)	-	-	
Best-Potjesbergen	Pin	-	-	AW no. 65
Cuyk-Heeswijkse Kampen no. 4	Spiral, small pot (LBA)	-	-	JAWN-Nijmegen 1981
Deurne	Dutch bifid razor (LBA/EIA)	-	-	Felix 1945, no. 69
Deurne-St. Josephs Parochie: all LBA/EIA				
no. 96-103	Rings from several graves	-	-	Doc. G. Beex
no. 141-2	Rings from several graves?	-	-	
no. 588-9	Pins from several graves?	-	-	
no. 591	Spirals	-	-	
-	Ring	-	-	
-	Pin (bent)	-	-	
-	3 pins	-	-	
-	Ring (fragm.)	-	-	
-	2 round-headed pins	-	-	
-	Conical pendants?	-	-	
Goirle no. 36	Iron pin, iron ring (EIA?)	Circular ring-ditch grave	-	Desittere 1968, 122

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
Goirle no. 55	Dutch bifid razor in urn (LBA/EIA)			Desiterre 1968, 122
Goirle no. 60	Biconical-headed pin (LBA), small pot, in urn	-	-	Verwers 1966b, 45
Goirle no. 62	Pin in urn	-	-	Van Ginkel 1982
Haps-Kamps Veld no. 81	<i>Wendelring</i> (Ha D), burnt	Circular ring-ditch grave	-	Verwers 1972
no. 190	Iron dagger, 3 iron arrowheads, iron swan's neck pin (Ha D)	Circular ring-ditch grave		
no. 166	Fragm. of ring (EIA)	Circular ring-ditch grave		
no. 222/231	Bronze wire, 5 glass beads	Circular ring-ditch grave	-	
Hasselt NBM 153	Needle (LBA/EIA)	-	-	Felix 1945, no. 183
Knegsel no. 34	Penannular gilded ring, pair of tweezers (EIA)	-	-	Braat 1936
Knegsel no. 51	Indet. fragm. (LBA/EIA)	-	-	Braat 1936
Laag Spul no. 32	Fragm. of wire	Circular ring-ditch grave (D= 3.9 m)	-	Verwers 1975
Laag Spul no. no. 42	Fragm. of wire (LBA/EIA)	Long barrow (24.4/5 m)	-	Verwers 1975
Laag Spul no. 81	Fragm. of wire	Flat grave	-	Verwers 1975
Luyksgestel	15 burnt conical pendants (EIA)	-	-	De Loë 1931, 81; this book fig. 9.6; 9.7
Luyksgestel	Indet. fragm. (LBA/EIA)	-	-	
Luyksgestel	Penannular bracelet (LBA/EIA)	-	-	
Luyksgestel	2 fragm. of fingerrings	-	-	
Luyksgestel	Fragm. of bracelet	-	-	
Mierlo-Hout no. 1	1 indet. iron object, 1 iron bar fragm., 4 burnt pottery fragments, 1 burnt rib of sheep/pig (EIA)	Boat-shaped ditch grave (20/7 m)	Adult, female, 43-52 years	Tol 1999
Mierlo-Hout no. 4	Iron pin (EIA0)	Rectangular ditch grave (6.5/7 m)	-	Tol 1999
Mierlo-Hout no. 87	Indet. fragm., burnt	Circular ring-ditch grave (D =5.5 m)	Adult, female, 20-40 years	Tol 1999
Oss-IJsselstraat no. 3	Iron torque (Ha D)	Rectangular ditch grave	-	Wesselingh 1993
Oss-IJsselstraat no. 4	Iron knife/dagger (fragm.), Ha D?, iron pin, indet.	Rectangular ditch	-	Wesselingh 1993
Oss-IJsselstraat no. 7	Iron indet. (EIA)	Circular ring-ditch grave		
Oss-Vorstengraf	Iron Mindelheim sword, folded up, bronze vessel, horse gear, iron axe, dagger?, 3 knives? All in bronze vessel	Circular ring-ditch, extremely large barrow (D=52 m); on top of MBA-A barrow	Adult, male	Roymans 1991, table 4, appendix 2, pers. comm. H. Fokkens

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
Riethoven no. 6	Biconical-headed pin (LBA)	-	-	Desittere 1968
Riethoven no. 10	Ring	-	-	Willems 1938, 39
Riethoven no. 19	Biconical-headed pin	-	-	Desittere 1968
Someren-Waterdael no. 2	Green discolouration on bone (EIA)	Flat grave	Adult, male, 30-47 years	Kortlang 1999
no. 4	Iron ring, iron pin (EIA)	Circular ring-ditch with posts (D=14.75 m)	Adult, male, 30-40 years	Kortlang 1999
no. 6	3 burnt iron arrowheads (Ha D)	Circular ring-ditch with posts (10.10/12.75)	Adult, 30-60 years	Kortlang 1999
no. 175	Fragm. red deer bone, iron pin, fragm. of dagger, all burnt	Long barrow (9.75/4.5 m)	Adult, male, 23-40 years	Kortlang 1999
Someren-Philipscamping	Iron sword	-	-	Roymans 1991, table 4, appendix 2
Someren-Kraaijenstark	Iron sword	-	-	Roymans 1991, table 4, appendix 2
St. Oedenrode-Haagakkers no. 11a	Fragm. of bracelet, 2 indet. fragm., burnt (EIA)	Circular ring-ditch, interrupted in southeast	Adult	Van der Sanden 1981
no. 11b	1 indet. fragm. (EIA)	Circular ring-ditch, interrupted in southeast	Adult	
no. 12	Green discolouration on bone (LBA/EIA)	Circular ring-ditch, interrupted in south		
no. 13a	7 small beads, burnt?, in/near ceramic bowl (EIA)	Circular ring-ditch, interrupted in southeast	Adult	
no. 26	Thin rod, U-shaped fragm. (EIA?)	Circular ring-ditch, interrupted	Child	
no. 43	Spiral, rod fragm., 3 pieces of flint (LBA?/EIA)	Flat grave	Adult	
no. 67	2 indet. fragm., burnt (LBA/EIA)	Flat grave	Adult	
Valkenswaard-Het Gegraaf no. 51	Roll-headed pin (LBA/EIA)	Flat grave	-	Brunsting/Verwers 1975
Valkenswaard-Het Gegraaf no. 55	Ring, indet. fragm., burnt (LBA/EIA)	Long barrow	-	Brunsting/Verwers 1975
Veldhoven-De Heibloem no. 48	Iron pin in urn (EIA)	Barrow with posts	-	Modderman/Louwe Kooijmans 1966
Veldhoven-De Heibloem no. 51	Biconical-headed pin (LBA/EIA)	-	-	Modderman/Louwe Kooijmans 1966
Verhoven	Small ring	-	-	Verhagen 1984
Verhoven	Indet fragm., burnt	-	-	Verhagen 1984

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
NL: Utrecht (just north of research area) Rhenen-Koerheuvel	Bronze vessel, axe (burnt), wagon parts (a.o. iron linch pins) (EIA)	-	-	Van Heeringen 1998-1999
Wijk bij Duurstede no. 1c	Bracelet or neck ring fragm., in urn (EIA)	Secondary grave in Bronze Age barrow	Adult, female, 30-35 years	Hessing 1989
Idem no. 26	Small ring (no finger ring) (EIA)	Parallel ditches (1.75/2 m)	Adult, female, 30-40 years	Hessing 1989
Idem no. 60	Bracelet/neck ring fragm., in urn, with small sherds (EIA)	Flat grave?	-	Hessing 1989
Idem no. 63	Bronze strips, folded, in urn (EIA)	Flat grave?	-	Hessing 1989
Idem no. 70	Iron <i>Kropfnadel</i> (fragm.), sherds, charcoal in urn (EIA)	Flat grave?	1 Adolescent, 14-18 years	Hessing 1989
Idem no. 87	Bronze strip, folded (association with grave uncertain)	Circular ring-ditch grave (c. 3.5 m)	-	Hessing 1989

7.4. METALWORK FINDS FROM URNFIELD GRAVES FROM THE  
BELGIAN PART OF THE STUDY REGION

Unless otherwise specified, the objects are made of bronze

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
B: Antwerpen Borsbeek no. 10	Bracelet, gilded ring (EIA), several pots	-	-	Van Impe 1972
Donk (all: LBA/EIA) no.2	Green discolouration on bone, small pot in urn	Flat grave?	-	Van Impe 1980a
no. 22	Indet. fragm., in urn	Flat grave?	-	
no. 23	Indet fragm., bracelet fragm., burnt, small pot	Flat grave?	-	
no. 33	Green discolouration on bone	Flat grave?	-	
no. 35	Spearhead, burnt in urn	Flat grave?	Adult, male	
no. 40	Pin, small pot in urn	Flat grave?	Adult, female	
no. 44	Tweezer, animal bone, flint, flint arrowhead, all burnt in urn	Flat grave?	Infans I	
no. 52	Bracelet, 2 ring fragm., in urn	Flat grave?	Adult, male	
no. 58	Green discolouration on bone, urn	Flat grave?	Adult, femal	
no. 60	Indet. fragm., burnt, small pot, in urn	Flat grave?	Adult, female	
no. 78	Pin fragm., flint, burnt in urn,	Flat grave?	Infans I	
no. 98	Green discolouration on bone	Flat grave?	Adult, female	
no. 100	Green discolouration on bone, urn	Flat grave?	Adult, female	
no. 103	Green discolouration on bone	Flat grave?	Adult, female	
no. 133	Iron indet., 2 pots	Flat grave?	Adult, male	
no. 134	Iron indet.	Flat grave?	Adult, female	
no. 136	Indet. fragm. burnt	Flat grave	Adult, female	
no. 137	Ring in urn	Flat grave?	Adult, female	
no. 138	Knife fragm.?, burnt	Flat grave?	-	
no. 141	Indet. fragm., burnt, 2 pots	Flat grave?	Adult, female	
Grobbendonk B 1127	Decorated pin in urn (LBA)	-	-	Desittere 1968, 135
Ranst (all: LBA) no. 1	Green discolouration on bone, small pot in urn	-	Adult, male?	Lauwers/Van Impe 1980
no. 5	Gilded penannular ring in urn	-	-	
no. 6	Bracelet fragm., ceramic bead	-	Adult, female	
no. 10	2 pins, small pot	-	Adult, female	
no. 12	Bracelet fragm. burnt	-	-	
Zitaart-Meerhout no. 7	Pin, conical pendants, several beads (LBA/EIA)	-	-	
Zitaart-Meerhout no. 8	Biconical beads, bracelet (LBA/EIA)	-	-	

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
B: Limburg				
Achel-Pastoorbos no. 6	Indet. fragm., burnt, in urn (EIA?)	-	-	Beex/Roosens 1967
Achel-Pastoorbos no. 38a	Conical pendants, burnt, ceramic cup ( <i>Eierbecher</i> ) in urn (EIA)	Circular ring-ditch grave	-	Beex/Roosens 1967
Achel-Pastoorbos no. 38b	Indet. fragm., in urn (LBA/EIA)	Circular ring-ditch grave	-	Desittere 1968, 134
Achel-Pastoorbos no. 50	Indet. fragm., spiral fragm. (burnt), blue glass bead (LBA/EIA)	Circular ring-ditch grave, objects partly outside urn	-	Desittere 1968, 134
Celwol-Dorperheide	Bracelet	-	-	Van Impe 1995/1996, 30
Celwol-Dorperheide	Bracelet	-	-	Van Impe 1995/1996, 30
Grote-Brogel no. 73	Indet. fragm., pin, burnt	-	-	Roosens <i>et al.</i> 1963
Lommel-Kattenbosch: all EIA				De Laet/Mariën 1950
no. 19	Ring in urn (LBA/EIA)	Circular ring-ditch grave (D=10 m)	-	
no. 20	Pair of iron tweezers, iron razor, whetstone in urn	-	-	
no. 22	Iron neckring in urn	-	-	
no. 24	Fingerring, armring, beads	-	-	
no. 47	Small bracelets	-	-	
Neerharen-Rekem				Van Impe 1980b
no. 1	2 bracelets in urn (LBA/EIA)			
no. 8	Socketed spiral in urn (LBA/EIA)			
no. 18	Fragm. of pin in urn (LBA/EIA)			
no. 21	Stud? (LBA/EIA)			
no. 41	2 bracelets (LBA/EIA)			
no. 72	3 bent swords, 3 spearheads, 2 chapes, 1 ring with iron bar, all damaged/burnt (EIA)			
-	4 pins, from several graves? (LBA/EIA)			De Boe 1986, 24
-	4 rings/bracelets from several graves? (LBA/EIA)			
-	Decorated bracelet (LBA/EIA)			This book fig. 9.5
-	Ferrule (LBA/EIA)			
-	<i>Brillspirale</i> (LBA/EIA)			
Neerpelt-Achelse Dijk no. 1	Ring in urn (LBA/EIA)			Roosens <i>et al.</i> 1975
Neerpelt-Achelse Dijk no. 20	Pin in urn (LBA/EIA)	pin as fastener shroud?		Roosens <i>et al.</i> 1975
Neerpelt-Roosen: all EIA				Roosens/Beex 1960;1961; Van Impe <i>et al.</i> 1973; Van Impe 1995/1996, 30

Site	Object(s)	Grave type	Analysis of cremation remains	Reference
no. 4	Bracelet	-	-	
no. 19	Indet. fragm. burnt in urn	Ring-ditch grave	-	
no. 47	Indet. fragm.	-	-	
no. 55	Fragm. bracelet	Ring-ditch grave, opening in eastern part	-	
no. 56	Conical pendants, spiral, indet. fragm. (burnt) in urn, some flint part, bronze fragm. in ditch!	Circular ring-ditch, opening in eastern part, 2 individuals, both adults, male and female		
no. 65	Bracelet fragm.	Circular ring-ditch, opening in eastern part, fragm. in ditch!	Adult, male	
no. 70	Knife	Circular ring-ditch, opening in the eastern part, knife in ditch!	Adult, female	
no. 72	Bead in urn, conical pendants in urn	Ring-ditch grave, opening in eastern part, posts in ditch	Adult, female	
no. 77	Indet. fragm. in urn	Ring-ditch grave, opening in eastern part	Adolescent?	
no. 78	Bracelet fragm. in ditch	Ring-ditch grave, opening in eastern part	Adult, male	
no. 82	Bracelet fragm.		-	
no. 85	Bracelet fragm.	Ring-ditch grave, opening in north-eastern part		
no. 87	Bracelet fragm., flint	Ring-ditch grave, opening in north-eastern part	-	
no. 93	Bracelet fragm, conical pendants, hook	Ring-ditch grave, opening in north-eastern part		

## 8 INDICATIONS FOR METALWORKING (MIDDLE AND LATE BRONZE AGE)

Site	Objects	Find context and interpretation
NL: Gelderland Meteren-De Bogen site 29	Small piece of melted bronze	Found in settlement debris (Butler/Hielkema 2002). This find apart there are no other indications for metalworking
Nijmegen-Hunerberg youth prison	Small piece of melted bronze	Found in MBA pot of which the upper part was already missing when placed in the pit. The pot lay at its side at the bottom of the pit. Inside the pot the bronze was found. No other objects were found. The excavation yielded a number of traces of posts and pits of pre-Roman date. Some of them contained MBA sherds (unpublished ROB excavation, documented by present author)
Buggenum-Meuse	Fragment of bronze half-mould for palstave with trapeze-shaped blade	Dredged from the river. Given to the Museum in Roermond by J. Rumen (Haelen) Butler/Steegstra 1997/98, 227: no. 323. Originally thought to be the mould of a typical type of palstave, made in the southern Netherlands (Butler 1973, 322). It is now clear that palstaves that could be cast in this mould are lacking in the Low Countries (Butler/Steegstra 1997/98, 271).
Maastricht-groeve Klinkers	Tiny fragments of bronze	Found in the fill of two pits which also contained MBA sherds (Theunissen 1990, 211).
Roermond-Meuse	One half of bronze mould for socketed axe (LBA)	Dredged from the river. Type of axe that was produced in it is uncertain. Butler and Steegstra (in press) recently suggested that we are dealing with a mould for producing axes of the regional Helmeroth type (chapter 8)
NL: Noord-Brabant Cuijk	Fragments of one part of a two-piece clay mould for large dagger (or spearhead)	Said to have been found in a pit fill which also contained MBA sherds. Amateur find (chapter 7; fig. 7.16)
Oss-Horzak	Fragment of one part of a two/three-piece clay mould for palstave, arrowheads, wheel-headed pin	Found during excavation of University of Leiden in fill of large pit, containing numerous MBA sherds, lumps of loam and much charcoal (chapter 7; fig. 7.17; Fontijn <i>et al.</i> 2002)

9 METALWORK FINDS FROM SETTLEMENTS (DISCUSSED IN CHAPTER 7)

Legend: \*: just north of the study region

Site	Objects	Find context and interpretation
NL: Gelderland <b>Dodewaard site 20</b>	Dagger	Find layer where also MBA sherds, some stone, flint and bone remains were found. Only partially excavated (Jongste 1997, 14)
<b>Dodewaard site 38</b>	Sickle, rivet	Find layer in clayey sediment with a concentration of MBA sherds, some stone and flint artefacts, and a number of soil traces that can be interpreted as the remains of a settlement site. Only partially excavated. The bronze objects were found in the centre of the artefact concentration. Objects dating to the Neolithic and Late Bronze Age were found as well (Drenth/Bulten 1997).
<b>Eigenblok site 5</b>	Heavily worn sickle, awl, spiral	Find layer in clayey sediment where MBA sherds and some stone and flint objects were found. Not disturbed by ploughing. Sickle and awl were found at about one m west of group of soil traces interpreted as remains of a MBA house (no. 1), at a relatively high position in the find layer. The spiral lay more remote: seven m northwest of the recognized house plan (Hielkema 2002)
<b>Eigenblok site 6</b>	Hook, 5 indet. fragments, 2 awls, arrowhead, heavily worn Wohlde dagger, 3 spirals, roll-headed pin	Find layer in clayey sediment where MBA sherds and some stone and flint objects were found. Disturbed by ploughing. An awl, two spirals and the arrowhead were found within a cluster of soil traces interpreted as the remains of a MBA house (no. 1). Awl and arrowhead had a relatively high position in the find layer, probably due to ploughing. All objects may be close to the location of the probable entrance of this house. The dagger, another awl and a third spiral lay at several metres from the recognized house plan. Much more remote is the find spot of the pin (Hielkema 2002)
<b>Kesteren 230 N</b>	Awl, roll-headed pin	Find layer in clayey sediment with a concentration of MBA and EBA sherds, some stone and flint artefacts. Finds were done at a considerable distance from each other, and therefore probably belong to different clusters of settlement traces (unpublished)
<b>Manen*</b>	Sickle	Amateur find, said to have been found together with MBA sherds (Modderman/Montforts 1991, 149)
<b>Meteren De Bogen site 28-1</b>	2 small indet. pieces of bronze, 2 possible beads	Found in MBA settlement debris. Objects were found apart, no indication that they were related to man-made constructions (Butler/Hielkema 2002)
<b>Meteren De Bogen site 28-2</b>	2 small pieces of lead, indet.	Found in MBA settlement debris. Objects were found apart, no indication that they were related to man-made constructions (Butler/Hielkema 2002). In my opinion it cannot be ruled out that these items are younger than the Bronze Age
<b>Meteren De Bogen site 29</b>	Small bronze bead, small chisel (?), melted piece of bronze	Bead was found in fill of pit for posts of house 28-1AH. The other objects were found in MBA settlement debris (Butler/Steegstra 2002).
<b>Opheusden (Brienen)</b>	2 sickles (1 incomplete)	Find layer in clayey sediment, containing MBA sherds of the HVS and DKS variety. Not excavated. The layer was recorded when an existing ditch was widened (Modderman/Montforts 1991, 149)
NL: Limburg <b>Blerick</b>	Pin	Allegedly in MBA settlement site, unpublished (pers. comment L. Theunissen)
<b>Venray-Hoogriebroek</b>	1 sickle (heavily worn)	In pit fill which also contained MBA sherds of the Drakestein type. A post was dug through the fill of this pit. This post is interpreted as one of the constructional posts of MBA house A (Krist 2000, 21)

Site	Objects	Find context and interpretation
NL: Noord-Brabant <b>Breda-Moskes</b>	Sickle, worn	Found in the fill of a pit, located near an MBA farmyard. It also contained six MBA sherds (pers. comm. C. Brandenburgh).
<b>Boxmeer</b>	Chisel	Found in the fill of a pit, belonging to a distinct cluster of soil traces interpreted as the remains of a farmyard (no. 1). The pit seems to have been used to store grain (Hiddink 2000, 72; Van de Velde 1998, 32-3)
<b>Sint-Oedenrode</b>	1 pin (fragment), <i>Kolbenkopfnadel</i>	Stray find. Found during excavation, near a cluster of soil traces, interpreted as the remains of a LBA settlement (unit C; Van der Sanden 1981, 323).
Utrecht (NL) <b>Wijk bij Duurstede De Geer*</b>	1 sickle (worn), 1 spearhead (resharpened), 1 chisel, 2 awls	Found during large-scale excavation where some settlement traces from the MBA were uncovered. Exact relationship of bronze finds to these traces is at the moment unclear, as the prehistoric finds are unpublished (Drenth 1996, note 3)
<b>Wijk bij Duurstede de Horden*</b>	1 spearhead	Found during large-scale excavation of traces of an MBA settlement and an EIA urnfield (Hessing 1989). The relationship of the bronze find to these sites is unclear as the find material is unpublished.

10.1 METAL TYPES DISTINGUISHED BY BUTLER/VAN DER WAALS (1966, TABLE 1)

Metal types	Composition
Singen metal	Cu + moderate to high As, Sb, Ag, Ni
Bell Beaker metal	Cu + high As, moderate to high Ni
Arsenical copper	Cu + high As
Arsenical bronze	Cu + Sn > 1 %
Ösenring metal	Cu + high As, Sb, Ag
A deviant	Cu+ high As and Ni, moderate Pb, Sb, Fe
Qualifications used:	
‘High’	Values between 1 and 10 %
‘Moderate’	Between 0,1 and 1 %
‘Low’	Between 0,01 and 0,1 %
‘Very low’	Below 0,01 %

10.2 METAL ANALYSES OF FLAT AND LOW-FLANGED AXES  
Butler’ s and Van der Waals’ metal analyses of flat and low-flanged axes in the research area based on Butler 1995/1996 and Butler/Van

der Waals 1966. 52 en 53: inv. numbers of Veluwe ‘hoard’; Gross-G= Gross-Gerau; British-de= British type, decorated; British aff.: type with affinities to British types.

Site	type	Sn	Pb	As	Sb	Ag	Ni	Bi	Fe	Interpretation
<b>Late Neolithic</b>										
Beek	Bygholm	n.d.	n.d.	0.2	1.1	0.6	0.01	0.01	n.d.	Ösenring-Piding series
Limburg	Bygholm	n.d.	0.01	4.0	0.05	0.015	0.37	0.003	0.005	BB-metal
Veluwe-53	Bygholm	n.d.	n.d.	2.8	0.2	0.12	0.52	n.d.	n.d.	BB-metal
Veluwe-52	Bygholm	n.d.	n.d.	0.1	0.29	0.45	0.14	0.003	0.0-5	Singen, a-typical?
<b>Early Bronze Age</b>										
Bergen	Gross-G	0.21	0.05	0.3	1.6	2.7	0.40	0.006	0.005	Singen metal
Exaten	Salez	11.0	n.d.	0.5	0.60	0.83	0.64	n.d.	n.d.	Singen-high tin?
Haren	British-de	9.0	n.d.	0.2	0.04	0.02	n.d.	n.d.	n.d.	British-Irish
Nuenen/Gemert	British-aff	7.2	n.d.	0.2	0.24	0.26	0.05	n.d.	0.01	Únětice-like
’s-Heerenberg	Emmen	9.3	n.d.	0.2	n.d.	0.01	0.02	n.d.	n.d.	Arsenical bronze
’s-Hertogenbosch	British aff	1.0	n.d.	0.2	0.6	1.6	1.5	n.d.	0.01	Singen, modest tin
Wageningen-hoard	Migdale	1.6	0.01	0.2	0.13	0.33	0.66	n.d.	n.d.	Singen, a-typical





# Samenvatting

## DEEL I PROBLEEM, BENADERING, BRONNENKRITIEK

### 1 *Inleiding: het probleem van bronsdepositie en het doel van dit onderzoek*

Vanaf het eind van het derde millennium voor Chr. begint men in Noordwest-Europa in toenemende mate koperen en later bronzen werktuigen te gebruiken. In gebieden waar koper- en tinertsen van nature niet voorkomen, zoals in Nederland en België, betekent dit dat de prehistorische gemeenschappen voor de aanvoer van bronzen werktuigen geheel afhankelijk werden van brongebieden honderden kilometers verderop. Brons werd blijkbaar hogelijk gewaardeerd en volgens de algemeen gangbare verklaring heeft dit niet zozeer te maken met de technologische superioriteit van brons ten opzichte van het al langer in gebruik zijnde steen, maar eerder met het prestigieuze karakter ervan. Bronzen zouden in de eerste plaats statusobjecten zijn geweest. Door de toegang tot de interregionale bronsuitwisselingsnetwerken te monopoliseren konden bepaalde individuen zich exclusief voorzien van metalen voorwerpen, wat hun aanzien en macht in de lokale gemeenschap zou hebben vergroot: de bronscirculatie zou het karakter hebben gehad van een prestige-goedereconomie.

Het eigenaardige is dat deze kostbare bronzen in Noordwest-Europa in grote getale worden teruggevonden op plaatsen waar we ze niet direct zouden verwachten: in moerassen en rivieren. Waarom ging men zo verspillend om met voorwerpen die blijkbaar zo bijzonder waren en die in principe konden worden hergebruikt (omsmelten)? De meest gangbare verklaring stelt dat prehistorische gemeenschappen geregeld kostbaarheden offerden in moerassen of rivieren. Dit zou als belangrijke economische functie hebben om de hoeveelheid brons in circulatie schaars, en dus in hoog aanzien, te houden. Een belangrijk bezwaar tegen deze verklaring is dat ze het selectieve karakter ervan niet verklaart: bepaalde objecten blijken nooit in bepaalde contexten gedeponerd te zijn. Vermoedelijk hadden verschillende bronzen objecten verschillende betekenissen en had dit repercussies voor de plaats waar ze uiteindelijk gedeponerd werden. Het voorliggende onderzoek richt zich op dit fenomeen van *selectieve* depositie.

Een regio die geschikt is voor een studie naar dit fenomeen is Zuid-Nederland en het aangrenzende deel van Noord-België,

grofweg begrensd door de rivieren Rijn, Schelde en Demer. Hier zijn niet alleen meer dan 1000 bronzen voorwerpen uit de bronstijd bekend, maar ook zijn er op grote schaal nederzettingen en grafvelden onderzocht. De volgende vragen staan centraal.

- 1 Zijn er voor dit gebied ook aanwijzingen dat men hier in de bronstijd bronzen voorwerpen bewust in de grond achterliet met de intentie om ze nooit meer op te halen?
- 2 Zoja, op welke wijze vond dit plaats? Was er sprake van selectieve depositie en hoe was die gestructureerd?
- 3 Wat betekenen deze patronen van selectieve depositie? Kunnen we inzicht krijgen in de betekenissen die men aan de bronzen en de depositielocaties toedichtte?

### 2 *Hoe de archeologie deposities heeft proberen te begrijpen: het onderscheid tussen 'rituele' en 'profane' depots*

Als mensen in de bronstijd inderdaad bewust kostbare bronzen achterlieten in bepaalde locaties, wat stellen wij ons daar dan bij voor en kunnen we vanuit onze denkwereld zo'n 'verspillende' activiteit überhaupt begrijpen? In dit hoofdstuk wordt duidelijk dat we daarbij niet alleen met een empirisch, maar ook met een epistemologisch probleem te maken te hebben.

Door de interpretatiegeschiedenis van bronsdeposities in kaart te brengen wordt duidelijk dat het in feite steeds draait om de vaststelling of een depositie 'ritueel' of 'profaan' was. Het blijkt dat elke analyse steeds uitgaat van praktisch, economisch-rationeel handelen. Wanneer men daarvan afwijkt ('irrationeel'), dan pas wordt een rituele interpretatie van bronsdeposities een mogelijkheid. Een rituele interpretatie blijkt echter steeds gelegitimeerd te moeten worden om in wetenschappelijke kringen acceptabel te zijn. In feite moet de irrationaliteit van ritueel weer 'rationeel' worden. Dit wordt bereikt door te benadrukken dat dit schijnbaar economisch irrationele ritueel in feite een economische functie vervulde (het creëren van schaarste), of dat het ging om het sociale nut van zo'n ritueel (het creëren van groeps-solidariteit). Een andere, steeds terugkerende benadering, is om het 'vreemde' van bronsdepositie te benadrukken door te wijzen op vergelijkbaar geachte offers uit historische bronnen uit veel later tijd, of d.m.v. etnografische parallellen.

Al deze verklaringen kunnen geproblematiseerd worden, hetzij vanwege het feit dat ze niet in staat zijn het verschijnsel van een *selectieve* depositie te verklaren (de verklaring van de economische en sociale functie), hetzij vanwege het feit dat de historische/ethnografische parallellen in tijd, ruimte en vooral in de aard van de praktijken wel erg ver van de bronstijddeposities verwijderd blijken.

Vervolgens wordt in meer algemene zin beargumenteerd dat de hele tegenstelling tussen ‘profane’ en ‘rituele’ activiteiten problematisch is. Een argument van empirische aard is dat veel van de objecten in ‘rituele’ deposities juist sterk met het dagelijkse profane leven verbonden blijken te zijn (bijvoorbeeld bijlen en sikkels met sporen die een intensief gebruiksleven suggereren). Een argument van meer epistemologische aard is dat het gemaakte onderscheid tussen ritueel en profaan zoals dat in de archeologie van de bronstijddepots gebruikt wordt, in feite het product is van westers post-Verlichtingsdenken. Als dit laatste het geval is en bronstijddeposities dus geworteld zouden zijn in een fundamenteel andere denkwijze, dan rijst de vraag hoe archeologen überhaupt uitspraken kunnen doen over de prehistorische betekenissen van bronstijddeposities. Verschillende ‘oplossingen’ die recentelijk voorgesteld zijn worden besproken en verworpen. Er wordt beargumenteerd dat men te veel uitgaat van specifieke, aan etnografie ontleende, theorieën over wat ritueel is en wat het doet. Elke theorie brengt impliciete aannames met zich mee, die de interpretatie van de prehistorische activiteiten ongewenst kunnen sturen. Er wordt voorgesteld om niet deze theorieën, maar de structuur van prehistorische activiteiten – voorzover waarneembaar – als uitgangspunt te nemen. Wanneer we ons daar enigszins een beeld van hebben kunnen vormen, zal dit geconfronteerd worden met de bestaande theorieën.

### 3 *Theoretisch kader*

Als we ons een beeld willen vormen van de betekenissen van bronzen objecten zoals die tot uiting komen in patronen van selectieve depositie, dan moet allereerst duidelijk worden dat die ‘betekenissen’ dan in de eerste plaats collectieve, culturele en lange-termijn betekenissen zijn.

Er wordt besproken hoe objecten betekenis krijgen. Cruciaal is de vaststelling dat dit het resultaat is van het levenspad van een object, haar ‘culturele biografie’ (*sensu* Kopytoff 1986). In deze studie gaat het om algemene culturele biografieën die steeds eindigden in bewuste depositie van een bronzen object met de bedoeling het nooit meer te gebruiken. De – veel meer voorkomende – tegenhanger zijn biografieën die eindigden in het omsmelten van een object. Er wordt een onderscheid gemaakt tussen twee soorten algemene biografieën die voor deze studie van belang lijkt: biografieën waarbij een object betekenis krijgt door de rol die hij/zij speelt als constituent en indicator van

een specifieke *persoonlijke identiteit in de levenscyclus* van een mens (bijvoorbeeld de trouwring bij een huwelijk). Bij de andere biografie gaat het meer om de rol die objecten spelen bij het verwerven en symboliseren van een *groeps-identiteit*.

Vervolgens worden de verschillende levensstadia van een bronzen voorwerp in kaart gebracht. Onderscheiden worden *productie*, *circulatie* en *depositie*. Per stadium wordt gekeken wat potentiële levenspaden zijn, hoe de omgang met objecten in één stadium haar/zij leven in het volgende kan beïnvloeden en wat daarvan in principe archeologisch waarneembaar is. Het blijkt dat de keuzes gemaakt door de smid ten aanzien van de stijl, vormgeving en functionaliteit belangrijke – in principe archeologisch waarneembare – zaken zijn. Het eigenlijke gebruik en de circulatie van het object moeten buitengewoon belangrijk zijn geweest voor de betekenis die het object opdeed, maar deze zijn zeer lastig of niet te reconstrueren. Vooral de overgang van *commodity* naar *gift exchange* is belangrijk. In het eerste geval is het object louter een ‘ding’, in het tweede draagt het een specifieke culturele betekenis en wordt het in zeker zin gezien als iets wat ‘vermenselijkt’ is. In het laatste geval wordt gesproken van *long-term exchange*, een vorm van uitwisseling waarin belangrijke culturele waarden in het spel zijn en waarin niet alleen uitwisseling tussen mensen plaatsvindt, maar ook uitwisseling tussen mensen en bovennatuurlijke entiteiten. Er wordt beargumenteerd dat het geval van selectieve depositie niet anders begrepen kan worden dan als een context waarin objecten geen dingen zijn maar waar ze zeer specifieke betekenissen hebben gekregen. Depositie zelf wordt hier opgevat vanuit een samenstel van drie relaties: tussen mensen en het gedeponeerde object, tussen mensen en het land waarin het gedeponeerd werd en tussen het land en het object.

### 4 *Bronnenkritiek: beperkingen en mogelijkheden van de beschikbare gegevens*

Vervolgens wordt nagegaan hoe we intentionele depositie en haar patronen kunnen herkennen. In essentie komt dit neer op het herkennen van patronen in associaties tussen objecten en plaatsen die niet verklaard kunnen worden uit andere prehistorische activiteiten en uit post-depositionele processen en onderzoeksfactoren. De voor- en nadelen van deze aanpak worden opgesomd en vervolgens worden de gegevens en hoe deze verkregen zijn geïntroduceerd.

Uit het onderzoeksgebied zijn 961 bronzen objecten bekend. Als we daarbij de bronzen uit urnenveldgraven optellen dan komen we uit op rond de 1200 objecten. Het overgrote deel zijn vondsten gedaan door leken en amateurs, slechts 4 % komt uit professionele opgravingen (urnenvelden uitgezonderd). Vondsten afkomstig van antiekhandelaren moeten gewantwoord worden, en mogen niet een belangrijke

rol spelen in de empirische onderbouwing van interpretaties. Wanneer de objecten niet wezenlijk afwijken van die uit amateur collecties worden ze wel in dit onderzoek meegenomen, zij het onder de vermelding ‘dubious’ (zie appendices). Het patina van vondsten wordt gebruikt als manier om te testen of de opgegeven vondstcontext aannemelijk is. Patina alleen wordt echter gezien als onvoldoende om een depositiecontext te reconstrueren.

Cruciaal is dat we kennis hebben van de locatie waar het object in de grond raakte. De bestaande literatuur heeft juist hierover erg weinig gegevens, daarom is aanvullend onderzoek naar context gedaan met behulp van bodemkaarten, geologische, archeologische en historische gegevens. Dit heeft geleid tot de situatie waarin voor 69 % van alle vondsten (bronzen uit urnenvelden uitgezonderd) informatie over de depositielocatie kon worden achterhaald.

Patronen in de associatie tussen objecten en locatie-types kunnen bepaald zijn door natuurlijke en antropogene vertekende processen en onderzoeksfactoren. Hun invloed blijkt groot te zijn. Micro-regionale variaties in de vertekende processen maakt het erg moeilijk om micro-regio’s onderling te vergelijken; vondstrijke regio’s hoeven niet direct rijkere depositiepraktijken te weerspiegelen. Contexten waar missende waarnemingen nulwaarnemingen voorstellen zijn: professioneel opgegraven grafheuvels en urnenvelden; goed bewaarde en opgegraven nederzettingsterreinen waar systematisch metaaldetectoren zijn gebruikt; moerassen en rivieren waarin activiteiten plaatsvonden die potentieel vondsten kunnen opleveren en die intensief zijn begeleid door amateur-archeologen.

## DEEL II SELECTIEVE DEPOSITIE GEDURENDE DE BRONSTIJD

In deel II wordt per periode een overzicht gegeven van de belangrijkste bronzen, hun datering, voorkomen en depositiecontext. Zoveel mogelijk probeer ik via informatie over productie-, circulatie- en depositiegeschiedenis inzicht te krijgen in hun culturele biografieën en zo in hun mogelijke rol in selectieve deposities. De depositiepraktijken worden in verband gebracht met algemene sociale en landschappelijke ontwikkelingen in de betreffende periode.

### 5 *Laat-neolithicum-B en vroege bronstijd* (c. 2500 – 1800 BC)

Het laat-neolithicum en de vroege bronstijd zijn relatief de slechts bekende periodes. Toch is het juist in deze tijdspanne dat drie voor dit onderzoek essentiële ontwikkelingen plaatsvinden. Ten eerste vindt in deze periode de introductie van metalen voorwerpen plaats. Ten tweede voltrekt zich in deze periode de overgang naar een geheel agrarische bestaanswijze. Ten derde wordt het karakteristieke laat-enkelgraf/klokbeker-begravingsritueel geïntroduceerd.

De vroegste metalen (koperen en gouden) objecten moeten we aanvankelijk zien als één exotische materiaalcategorie temidden van andere. Wel gaat het om een materiaal met een soort culturele biografie die in een aantal opzichten wezenlijk verschilt. Zo kan metaal geheel hergebruikt en getransformeerd worden, iets wat gezien de aanwijzingen voor lokale metaalbewerking (koperen dolkjes, gouden sieraden) ook daadwerkelijk gebeurde in onze streken. Ook komen de metalen voorwerpen uit gebieden die veel verder weg liggen dan de plekken waar de meeste vuurstenen bijlen en beitels vandaan komen. Verder valt op dat metalen objecten op geen enkele manier gemaakt lijken te zijn om als *pieces of places* te fungeren, wat voor de vele vuurstenen bijlen wel het geval lijkt te zijn. Integendeel: de stijl waarin ze uitgevoerd zijn is opmerkelijk internationaal, zonder uitdrukkelijke referenties naar een bepaalde stijlgroep of regio.

We treffen de vroegste metalen voorwerpen in twee soorten contexten aan: in klokbekergroeven (epi-maritiem of Veluwe klokbeker, c. 2300-2000 BC), soms samen met metaalbewerkingswerktuigen) en in beekdalen. In het eerste geval gaat het om lichaamssieraden van goud, koperen dolkjes en een enkele priem, in het tweede om bijlen. We herkennen hierin selectieve depositie, waarbij we in het geval van de grafgraven kunnen spreken van sieraden en wapens die fungeerden als constituenten van een bijzondere, uitermate zeldzame en traditionele persoonlijke identiteit die geconstrueerd werd met een stereotype grafset. Koperen bijlen en hellebaarden, daarentegen, lijken in deze en andere regio’s geen enkele rol in deze persoonsvoorstellingen te spelen en het vermoeden is gerechtvaardigd dat hun betekenis meer verweven was met groepsidentiteiten.

In de vroege bronstijd neemt het aantal in natte contexten gedeponeerde metalen toe, terwijl depositie van metaal in graven aan belang verliest. Een uitzonderlijk depot, dat van Wageningen, bestaat uit een verzameling objecten die normaliter niet samen voorkomen, waaronder een partij schroot en onaffe objecten. Hoewel er geen beslissend argument te geven is, gaat het vermoedelijk eerder om een bewuste, zeer rijke depositie in de omgeving van grafheuvels dan om de vergeten voorraad van een reizende bronsmid waarvoor dit depot altijd gehouden is.

### 6 *Midden-bronstijd-A (1800-1500 BC)*

In de periode na de vroege bronstijd blijft het gebruik in zwang om bronzen voorwerpen doelbewust te ‘offeren’ in natuurlijke, meestal natte plaatsen. De aantallen gedocumenteerde metalen voorwerpen uit de midden-bronstijd-A zijn zelfs aanzienlijk hoger dan die uit de vorige periodes. Wel is het opvallend dat de grote meerderheid van de gedeponeerde bronzen dateert uit de periode van 1600-1500 BC (samenvallend met wat elders de Sögel-Wohldefase wordt genoemd) en dat rivierdeposities in aantal toenemen.

Vondsten die in de oudere fase van de midden-bronstijd gedateerd kunnen worden, zijn opmerkelijk schaars, en dit suggereert een afname van het depositiegebruik rond de overgang van de vroege naar de midden-bronstijd. Pas in de zestiende eeuw vond een sterke opleving van metaaldepositie plaats. Het is ook in die eeuw dat de introductie van nieuwe bronzen objecten plaatsvond: het korte zwaard en de speer.

Ik betoog dat het zwaard een bijzonder object is. Het gaat om het eerste specialistische wapen, en er zijn duidelijke aanwijzingen dat deze objecten prestigieuze, hooggevaardeerde voorwerpen waren. Dit komt onder meer tot uiting in het feit dat er van zwaarden ook ceremoniële, praktisch onbruikbare versies bestonden met een zeer bijzondere ontstaans – en circulatiegeschiedenis: de Plougrescant-Ommerschans zwaarden. De introductie en aard van zwaarden is een uiting van het groeiend belang van martiale idealen in de bronstijdgemeenschappen. Deze spelen met name een rol in het depositiegebruik. Er zijn aanwijzingen dat gespecialiseerde wapens vaak op speciale plaatsen (bepaalde plekken in de grote rivieren) en wijzen (samen met andere wapens of op plekken met een geschiedenis van wapendepositie) werden gedeponereerd. Het lijkt hier primair te gaan om depositie van objecten waarvan de culturele biografie te maken heeft met persoonlijke identiteiten, het soort objecten dat we in de voorgaande periode in grafcontexten tegenkwamen. Het depot van Overloon is een voorbeeld van een situatie waarin minstens twee wapensets zijn afgelegd en gedeponereerd. In graven zelf werden vrijwel geen objecten gedeponereerd. Alleen in de monumentale ringwalheuvels van Alphen en Hoogeloon vinden we bijlen terug; die zijn echter van types die verder geen tegenhanger in de regio hebben en het lijkt dan ook om bijzondere objecten te gaan met een uitzonderlijke biografie.

Daartegenover staat de depositie van vele werkbijlen (m.n. van het type Oldendorf) met sporen van een lang leven in allerlei soorten natuurlijke plaatsen. We mogen hierin een continuering zien van bijldepositie als aparte, met de cycli van huishoudens verbonden praktijk zoals we dat ook voor eerdere periodes deden. Het is waarschijnlijk geen toeval dat de *hausse* aan bijldeposities samenvalt met een periode van expansie en ontginning. Er zijn aanwijzingen dat het in cultuur brengen van het gebied vanaf deze periode zijn beslag begint te krijgen en het valt dan ook op dat juist de depositie van het werktuig bij uitstek waarmee ontginningen werden uitgevoerd bij voorkeur plaatsvond in natuurlijke i.p.v. gecultiveerde plaatsen.

#### 7 *Midden-bronstijd-B (1500-1050 BC)*

Het lijkt alsof de ideeën over de conceptuele classificatie van bronzen voorwerpen en het karakter van hun culturele biografieën, zoals die tot stand komen in de midden-bronstijd-A, nauwelijks aan verandering onderhevig zijn in

de opvolgende periode. Uitzondering zijn de waarschijnlijk in deze periode te dateren introducties van sikkels en die van bijlen met nieuwe bevestigingsmechanismen (hielbijlen en middenstandige vleugelbijlen). Het belang van metaal in het dagelijks leven blijft echter oppervlakkig. Het artefactenbestand van goed geconserveerde nederzettingssites laat zien dat voor de meeste bronzen artefacten stenen en benen alternatieven bestonden. Bronzen domineren alleen als wapens en bijlen. Ook in het veld van de prestigieuze lichaamsdecoratie lijken bronzen voorwerpen aan belang te winnen. Een belangrijke ontwikkeling is dat we vanaf deze periode voor het eerst duidelijke aanwijzingen hebben voor regionale bronsproductie, niet alleen in de vorm van aardewerken en bronzen gietmallen, maar ook in de vorm van hielbijlen met een regio-specifieke vorm of versiering. De regionaal gangbare vormen zijn duidelijk gebaseerd op die uit de Atlantische regio. Er is echter geen sprake van regionale producten die in vorm en decoratie duidelijk afwijken van stijlen uit de omliggende regio's. De gebezigde stijl lijkt eerder 'open' dan 'gesloten' te zijn, in tegenstelling tot wat bekend is uit Nordische gebieden. De nadruk op het aansluiten bij internationaal gangbare stijlen in plaats van op het uitdrukken van een regio-specifieke identiteit blijft ook in de latere periodes van de bronstijd een kenmerk van de Zuid-Nederlandse bronsproductie. De gietmal van Oss-Horzak maakt zelfs duidelijk dat sieraden die karakteristiek zijn voor andere regio's hier blijkbaar bewust gekopieerd werden. De radnaald die in deze aardewerken mal gevormd kon worden is een bekend onderdeel van regionale vrouwenkostuums uit meer zuidelijk gelegen Duitse gebieden.

In de intraregionale metaalcirculatie gingen Noord- en Zuid-Nederland steeds meer tot verschillende netwerken behoren. Atlantische en bepaalde continentale producten (vleugelbijlen, sikkels) komen vrijwel niet ten noorden van de Rijn voor, terwijl Nordische importen in Noord-Nederland wel, maar in Zuid-Nederland niet meer voorkomen tussen de metaalvondsten. Ook komen zwaarden vanaf de midden-bronstijd-B met tientallen voor in Zuid-Nederlandse rivieren, terwijl we ze vanaf deze periode in het noorden nauwelijks meer tegenkomen.

Het systeem van selectieve depositie zoals dat vorm kreeg in de vorige periode blijft grotendeels bestaan, waarbij het onderscheid tussen enkelvoudige depositie van werkbijlen en die van aan persoonlijke identiteit gerelateerde objecten (sieraden van mannen en vrouwen (radnaalden) en wapens) belangrijk blijft. Wederom ontbreken metalen vrijwel geheel in graven, met als spectaculaire uitzondering het zwaardgraf van Meteren-De Bogen. Nieuw zijn de aanwijzingen voor doelbewuste depositie van eenvoudige metalen voorwerpen op erven, met name van sikkels, die waarschijnlijk in verband staat met de levenscyclus van de huishoudens zelf.

In de Maasvallei zijn incidenteel objecten gedeponeerd in de heuvellichamen van grafheuvels.

#### 8 *Late Bronstijd (1050-800 BC)*

Veruit de meeste vondsten dateren uit de laatste fase van de bronstijd. Dit is ook de enige periode waaruit bronsdepots bestaande uit tientallen objecten bekend zijn. Om praktische redenen worden bronsvondsten uit grafcontext in het volgende hoofdstuk beschreven.

In principe wijkt het repertoire aan bronzen voorwerpen niet af van dat uit eerdere periodes. In deze periode komt een nieuwe bijlvorm in zwang (de kokerbijl) en zien we de introductie van een echt snij- en slagzwaard. Ook zijn er veel meer bronzen sieraden bekend dan uit de voorgaande periodes. De regionale bronsproductie blijft floreren en ook in deze periode zijn er – met name onder de bijlen-producten in regionale stijl bekend (bijlen van het Niedermaas- en Geistingentype). De technologie is echter in vergelijking tot omringende regio's eenvoudig en in de decoraties herkennen we duidelijke verwijzingen naar zowel Atlantische als continentale stijlen. Werkelijke nieuwe elementen in het bronsrepertoire treffen we pas vanaf de vroege ijzertijd (Ha C-fase) aan (bronzen vaatwerk en versierde wagenwioldoppen). In de voorafgaande Gündlingen-fase zien we de geleidelijke vervanging van bronzen door ijzeren zwaarden, die doorzet in de Ha C-fase. Er is echter geen sprake van dat brons zijn belang geheel verliest. Bronzen bijlen lijken pas aan het einde van de vroege ijzertijd te worden vervangen door ijzeren; in de categorie prestigieuze sieraden blijft brons zelfs het belangrijkste metaal. Een opmerkelijke ontwikkeling is wel dat in de late bronstijd voor het eerst bijlen werden gemaakt die niet functioneel zijn (m.n. Geistingenbijlen). Het gaat om bijlen die vermoedelijk alleen nog als metaalbaar functioneerden.

Net als in de voorgaande periode zijn de geïmporteerde objecten grotendeels afkomstig uit de Atlantische en Zuid-Duitse regio's; er lijken vrijwel geen banden te zijn met de Nordische wereld. In de laatste eeuw van de late bronstijd (min of meer samenvallend met de Franse Bronze final IIIb-fase) is er een sterke toename van Noordwest-Franse bronzen in de deposities. Het gaat hier om producten van de zogenaamde 'Plainseau-industrie'. Dit verandert echter vrij drastisch in de opvolgende Gündlingen-fase om uiteindelijk uit te komen op de situatie van de Ha C-periode waarin de geïmporteerde metalen voorwerpen hoofdzakelijk van Centraal-europese herkomst zijn. Rond de overgang van de brons- naar de ijzertijd moet zich dus een duidelijke heroriëntatie van bestaande uitwisselingsnetwerken voltrokken hebben.

In de depositiepraktijk vindt geen wezenlijke verandering plaats vóór de Gündlingen-fase. Depositielocaties die in de midden-bronstijd-B in gebruik kwamen bleven van belang

in de late bronstijd. Voor het eerst worden de contouren van een gestructureerd offerlandschap duidelijk. Depositie van wapens en met name zwaarden in bepaalde zones in de grote rivieren, terwijl rijke vrouwelijke sieraden bij voorkeur buiten deze zones lijken te zijn geofferd. Ook de grote bijlendepots als die van Heppeneert en Geistingen vinden we in afwijkende, vaak semi-natte of zelfs droge plaatsen. De belangrijkste verandering vindt pas in de Gündlingen-fase plaats. In die periode zien we voor het eerst dat wapens in graven werden gedeponeerd, al komt rivierdepositie dan ook voor. Zwaarden zijn dan zowel van brons als van ijzer. Dit valt samen met een periode waarin de hoeveelheid bronsdeposities drastisch afneemt.

#### 9 *Late bronstijd en vroege ijzertijd: metaal uit graven*

Voor de late bronstijd zijn voor het eerst grote aantallen bronzen voorwerpen uit graven bekend (appendix 7.3; 7.4). Dit is vermoedelijk hoofdzakelijk te wijten aan het feit dat we uit deze periode eenvoudigweg veel meer graven kennen dan uit voorgaande periodes. Per urnenveld gaat het om kleine aantallen van hooguit 19 % van alle graven. Het zijn hoofdzakelijk eenvoudige sieraden, kledingaccessoires en toilet artikelen die deel uitmaakten van het doodskleed op de brandstapel of die nadien werden toegevoegd. Met uitzondering van de vroege-ijzertijd vorstengraven gaat het om sieraden die van plaats tot plaats andere sexe- of leeftijdsassociaties hadden, en hooguit om een lokale dracht die gedeeld werd door naburige gemeenschappen (in geval van de conische hangertjes). In de late bronstijd ontbreken wapens uitdrukkelijk en ook bijzondere sieraden uitgevoerd in supraregionale stijl of ceremoniële sieraden als de Ockstadt-naalden zijn alleen bekend uit deposities in natuurlijke plaatsen.

#### DEEL III EEN INTERPRETATIE VAN SELECTIEVE DEPOSITIE

In deel II zijn de eerste twee onderzoeksvragen beantwoord. Gedurende de hele bronstijd werden bronzen voorwerpen intentioneel gedeponeerd en deze depositie was inderdaad selectief van karakter: specifieke objecten werden slechts op specifieke plaatsen in het landschap in de grond gestopt. Dit laatste deel richt zich op de derde onderzoeksvraag: hoe moeten we deze selectieve depositie begrijpen?

#### 10 *Selectieve depositie: kenmerken, ontwikkeling en structuur*

Uit de studies in deel II kunnen we afleiden dat in ieder geval de volgende zaken kenmerkend zijn voor metaaldepositie tijdens de bronstijd. Ze vindt bij voorkeur plaats in een natte, 'natuurlijke' locatie en de meeste geselecteerde objecten dragen de sporen van een gebruiksleven. Een groot aantal moet bovendien uit verre streken afkomstig zijn en is

over grote afstanden uitgewisseld. De gedeponeerde objecten zijn in de regel niet gebroken, uit elkaar gehaald, verband of anderszins onbruikbaar gemaakt. Integendeel: ze zijn meestal in goede staat en veel bijlen, speren en zwaarden lijken vlak voor depositie zelfs nog te zijn aangescherpt. Ze zijn – met andere woorden – gedeponeerd in een staat alsof ze weer in gebruik genomen moesten worden.

De frequentie waarin depositie plaatsvond neemt geleidelijk aan toe (fig. 10.3), met de late bronstijd als hoogtepunt. Toch moet het in alle periodes een praktijk zijn geweest die niet vaak werd uitgeoefend. Het getal van één depositie per generatie per gemeenschap – een schatting voor de late bronstijd – lijkt nog aan de hoge kant.

De lange-termijn ontwikkeling in depositiepraktijken zijn samengevat in figuur 10.4. Wat betreft de associatie van types objecten met specifieke soorten locaties lijkt de praktijk nauwelijks te veranderen. Uit de waargenomen patronen kunnen minstens de volgende ‘regels’ voor selectieve depositie worden afgeleid. Bijlen, sikkels en wapens werden niet gedeponeerd in graven maar in allerlei natte plaatsen in het landschap. Zwaarden werden bij voorkeur in de grote rivieren geofferd. Eenvoudige metalen voorwerpen, met name sikkels, zijn incidenteel ook gedeponeerd in of rondom huizen, maar de veel meer voorkomende bijl- en wapendeps bevinden zich duidelijk in een ander soort locaties. Met betrekking tot selectieve depositie van sieraden is er een verschil waargenomen in de behandeling van de eenvoudig vormgegeven lokale objecten tegenover die van de meer bijzondere in supra-regionale stijl uitgevoerde sieraden.

Het fenomeen selectieve depositie impliceert dat aan verschillende objecten verschillende betekenissen werden toegekend. Deze moeten ze hebben opgedaan tijdens hun levenscyclus waarin ze als ‘ding’ geleidelijk aan verweven raakten met de identiteit en sociale status van individuen of groepen. Het was blijkbaar de bedoeling dat deze cyclus eindigde door het object in een moeras of rivier te werpen. Er zijn in grote lijnen twee varianten van deze ‘culturele biografieën’ te herkennen. De eerste behelst die van wapens en sieraden, objecten die fungeerden als de parafernalia, ‘constituenten’, van een specifieke sociale rol en status in de levenscyclus van een individu. In de tweede variant, waarin we met name aan bijlen moeten denken, lijken objecten meer verbonden te worden met groepsidentiteiten dan met persoonlijke identiteiten.

### 11 *Wapens, het bewapende lichaam en martiale identiteiten*

Van de gedeponeerde objecten die een rol hebben gespeeld in de constitutie van een specifieke persoonlijke status zijn wapens, de parafernalia van een martiale identiteit, het meest voorkomend.

Voor de midden-bronstijd bestaan wapens als specialistische categorie niet echt. Het zwaard kan gezien worden als het

eerste metalen object dat exclusief voor de strijd is gemaakt en ook de lans moet in de eerste plaats een wapen zijn geweest. Bronstijdoorlogen in onze streken waren vermoedelijk kleinschalig en endemisch (veeroof, *raids*) en mogelijk een vast onderdeel in de levenscyclus van mannen. Strijd om cruciale bestaansmiddelen of twisten over land zijn veel minder waarschijnlijk dan vaak wordt gedacht. Oorlogsvoering lijkt sociaal hoog gewaardeerd te zijn en in de eerste plaats ideologisch gemotiveerd. De introductie van het zwaard in de midden-bronstijd – in die periode nauwelijks een effectief wapen – wijst vooral op de hoge waarde die kennelijk gehecht werd aan het risicovolle mantot-mangevecht. Dat zwaarden objecten met een hoge status moeten zijn geweest blijkt onder andere uit het voorkomen van zeer bijzondere ceremoniële versies als het kortzwaard van Jutphaas, dat als een meesterwerk van smeedkunst mag gelden. Krijgersgraven zoals we die met name uit de Noord-Europese midden-bronstijd kennen zijn niet simpelweg de graven van een krijgersaristocratie waarvoor ze vaak worden gehouden. Het lijkt in regio's als Noord- en West-Nederland eerder te gaan om hoogst zeldzame graven, waarbij individuen op zeer specifieke wijze uitgedost worden. Lichaamsversiering speelt hier een rol in. Deze wijze van uitdossing is over grote gebieden gelijk en dit zal geen toeval zijn geweest: door een individu op een dergelijke wijze een martiale identiteit te verlenen werd bewust aansluiting gezocht bij krijgersidealen die door elites in verschillende regio's uitgedragen werden. Men claimde als het ware dat men deel uitmaakte van een bovenlokale ‘imagined community’.

In Zuid-Nederland is – met als enige uitzondering het zwaardgraf van Meteren – er geen sprake van dat wapens in graven werden meegegeven. Wel werden ze in grote getale gedeponeerd in rivieren en moerassen (fig. 11.2). Er wordt beargumenteerd dat het in het algemeen niet zo waarschijnlijk is dat deze deposities zelf de resten van riviergraven representeren. Het is aannemelijk dat een martiale identiteit – en de daarbijbehorende wapens en sieradengerelateerd was aan de levenscyclus van de drager en dat deze de wapens bij de overgang naar een nieuwe levensfase doorgaf aan een jongere of ze offerde. Het is ook mogelijk dat dit pas gebeurde na de dood van het individu (fig. 11.3). Dit levenscyclus-model is in overeenstemming met wat de etnografie ons leert over martiale identiteiten in niet-westerse tribale samenlevingen, maar archeologisch gezien ontoetsbaar. Het feit dat zowel jongeren als ouderen in het dodenbestel nooit als krijger zijn uitgedost maakt wel duidelijk dat de zaak complexer ligt: er moet een diep-geworteld taboe bestaan hebben op de depositie van wapens in graven. Een meer aannemelijke verklaring is dat martiale identiteiten in dergelijke gemeenschappen primair tijdelijke identiteiten waren. In kleinschalige, grotendeels egalitaire

samenlevingen kunnen wapenbezit en agressie bedreigend zijn voor de sociale cohesie. Martiale identiteiten zijn daarom vaak ambigu en met taboes omgeven. De transformatie van vreedzame mannen tot krijgers is dan omgeven met ritueel en vereist specifieke dracht en lichaamsversiering. Dit geldt ook voor de transformatie van krijger tot gewone man, na het afronden van de strijd, en houdt onder meer het afleggen in van de krijgersparafernalia. Dit lijkt ook voor de wapenoffers uit de bronstijd een aannemelijke verklaring. Immers, krijgersidentiteiten in de bronstijd zijn eveneens vaak gerelateerd aan specifieke lichaamsversiering en het deponeren van wapens in de bronstijd houdt vaak het deponeren in van complete persoonlijke sets inclusief sieraden (depots van Overloon en Escharen).

Uiteindelijk lijkt het taboe op het plaatsen van wapens in de Ha C-fase van de vroege ijzertijd te verdwijnen. Gezien de enorme tijdsdiepte van het taboe op wapens in graven kunnen we ons afvragen hoe dit uiteindelijk toch zover is gekomen. In de eerste plaats heeft dit te maken met een belangrijke een vrijwel exclusieve heroriëntatie van de uitwisselings- en communicatienetwerken. Invloeden uit de Centraal-Europese wereld, waar wapengraven wel voorkwamen nemen dan sterk in belang toe. Verder was depositie al in de late bronstijd aan het veranderen. Ook het begraving-ritueel zelf veranderde: het egalitaire ritueel uit de late bronstijd maakt plaats voor een grafritueel waarin monumentale graven voor konden komen; er is een zekere trend naar individualisatie in het grafritueel. In een dergelijke context zijn graven met een afwijkende grafset (wapens) beter voorstelbaar. De Ha C vorstengraven belichamen bovendien een martiale elite ideologie die in een aantal aspecten duidelijk afwijkt en ‘nieuw’ is ten opzichte van die uit de voorgaande periodes. Toch lijkt het aloude taboe op wapens in graven niet helemaal verdwenen. Het is opvallend dat in deze vorstengraven de zwaarden zelf steeds intentioneel onbruikbaar zijn gemaakt.

#### 12 *De depositie van sieraden: constructie en deconstructie van persoonlijke identiteiten*

Een tweede, minder talrijke, groep objecten waarvan de culturele biografie gerelateerd is aan de constructie van een persoonlijke identiteit zijn allerlei andere sieraden en bronzen kledingsaccessoires. Anders dan in het geval van sieraden die onderdeel uitmaakten van wapensets blijkt het in de meeste gevallen onmogelijk te zijn om te achterhalen met wat voor identiteit deze sieraden verbonden waren. Voor sommige objecten (midden-bronstijd radnaalden en vermoedelijk bepaalde Plainseau sieraden uit de late bronstijd) lijkt het aannemelijk dat het gaat om sieraden die specifiek verbonden zijn met bijzondere vrouwelijke identiteiten.

In dit onderzoek is depositie van sieraden bekend uit twee verschillende soorten context: als grafgift of als onderdeel

van het dracht van de overledene of als depositie in een natte locatie. Voor de midden-bronstijd en vooral voor de urnenveldentijd is aangetoond dat het in beide contexten om verschillende soorten objecten gaat. Bijzondere, aan supra-regionale stijlen geaffilieerde objecten en duidelijk ceremoniële sieraden vinden we uitsluitend in natuurlijke plaatsen en niet in graven.

Er wordt betoogd dat depositie in graven ook een ander doel dient dan depositie in niet-funeraire context. In grafcontext is er sprake van de constructie van een bepaalde persoonlijke identiteit door middel van een specifieke dracht of associatie van de stoffelijke resten met bepaalde sieraden. Bij depositie in natuurlijke plaatsen worden betekenisvolle sieraden juist afgelegd en is er dan ook sprake van het afleggen, *deconstructie*, van een identiteit (fig. 12.3).

Deze theorie wordt verder uitgewerkt voor de late bronstijd. Sieraden in grafcontexten blijken vaak per urnenveld wisselende betekenissen te hebben en primair gerelateerd te zijn aan ideeën die betrekking hebben op de specifieke identiteit van de lokale groep. De meer bijzondere sieraden in natuurlijke plaatsen zijn over grote gebieden hetzelfde. Dit geeft aan dat er in regio's die cultureel gezien verder behoorlijk verschilden er wel vergelijkbare opvattingen bestonden over de manier waarop men met sieraden en kleding bijzondere vrouwelijke identiteiten en statusposities gestalte gaf. We lijken hier een vrouwelijke tegenhanger te hebben voor wat we eerder zagen in het geval van bepaalde krijgersidentiteiten. Door het dragen van sieraden met uitgesproken referenties aan supra-regionale stijlen claimde men waarschijnlijk dat men deel uitmaakte van sociale netwerken die het lokale niveau verre ontstegen. Het valt op dat juist deze sieraden ontbreken in grafcontexten en het vermoeden lijkt gerechtvaardigd dat dit bewust zo was: sieraden met dergelijke referenties waren vermoedelijk niet op zijn plaats in urnenvelden waar het accent juist zo sterk op de identiteit en samenhang van de lokale groep lag. Net als in het geval van wapens zullen dergelijke sieraden – en de bovenlokale wereld waar ze associaties mee opriepen een zekere ambiguïteit hebben gehad. Dit zal een reden zijn geweest waarom we zulke objecten alleen maar kennen uit situaties waarin er sprake is van het afleggen, het deconstrueren, van een persoonlijke identiteit: deposities in specifieke natuurlijke plaatsen.

#### 13 *De culturele biografieën van bijlen*

Bijlen zijn het belangrijkste voorwerp in deposities. De reden hiervoor moet gezocht worden in hun tweeledige rol. Ze waren niet alleen een cruciaal multifunctioneel werktuig, maar golden ook van oudsher als de algemeen geaccepteerde vorm waarin metaal tussen regio's circuleerde. Er zijn goede aanwijzing dat bijlen in grote hoeveelheden als *commodities* verhandeld werden tussen regio's. Uit deposities kennen we

bijlen echter vooral als objecten die een lang gebruiksleven achter de rug hadden en daardoor een bijzondere betekenis hadden gekregen. Er wordt een beeld geschetst van zo'n culturele biografie van een bijl, waarbij deze in de loop van zijn leven in toenemende mate verbonden raakt met de identiteit van zijn gebruikers (fig. 13.1). Veel van die bijlen zullen echter de regio binnen zijn gekomen als 'ding' via langeafstandshandel. Er moet dus een transformatie van betekenis hebben plaatsgevonden waardoor de bijl van een 'ding' kon worden tot een object met een zo bijzondere betekenis dat het uiteindelijk geselecteerd werd voor depositie in een beekdal of moeras. De 'onreine' handelswaar behoefde een bepaalde transformatie voordat ze meer betekenisvollere rollen in de lokale groep konden gaan spelen. Bloch en Parry's theorie van de geschenkenuitwisseling (1989) laat zien hoe we ons dergelijke transformaties voor moeten stellen. Een wekerende praktijk blijkt te zijn dat een deel van de handelswaar (*pars pro toto*) gebruikt wordt voor een hoger, voor de lokale gemeenschap moreel acceptabel doel (meestal in de vorm van een offer aan de goden, maar denk voor een modern voorbeeld aan liefdadigheidsacties van rijke kapitalisten). Met name de rijke meervoudige bijldepots uit de late bronstijd, traditioneel gezien als tijdelijk opgeslagen maar vergeten handelsdepots, kunnen mijns inziens ook als dergelijke *pars pro toto*-offers verklaard worden. Er kan echter geen sprake zijn van simpelweg vergeten handelswaar, zo wordt beargumenteerd. Het moet gaan om bewust – onder meer in natte locaties – gedeponeerde bijlen. We hebben hier dus te maken met depositie die niet zozeer gerelateerd is aan het gebruiksleven van bijlen, maar aan hun rol als uitwisselingsobject.

De tweeledige rol van bijlen resulteert uiteindelijk in de productie van specialistische vormen waarbij slechts nog sprake is van metaal dat de vorm heeft van een bijl, maar dat niet meer als zodanig te gebruiken is (Geistingen bijlen uit de late bronstijd). Op de overgang naar de vroege ijzertijd neemt het belang van bijldepositie af. Hiervoor zijn verschillende redenen. Uit de steeds meer massale bijldepots blijkt al dat individuele bijlen minder betekenisvol waren dan tevoren. We zien dan ook dat bijlen die nooit gebruikt zijn en dat ook niet konden worden (de Geistingen bijlen) gedeponeerd werden in natte plaatsen, terwijl dit door de eeuwen heen voorbehouden was aan bijlen die pas door een lange gebruiksgeschiedenis een bijzondere betekenis hadden gekregen. Het lijkt er dus op dat de fundamentele idee van enkelvoudige bijldepositie in natte plaatsen – betekenis door een lange culturele biografie – langzaam aan van binnen werd uitgehouden. Tenslotte speelt de introductie van ijzeren bijlen een rol: aangezien ijzer overal lokaal verkrijgbaar is en bewerkt kon worden, zullen ijzeren bijlen niet de tweeledige rol van werktuig-metaalbaar gehad hebben die bronzen bijlen

wel hadden. Er is al betoogd dat juist deze dubbele functie verklaarden waarom bijlen veel meer in deposities voorkwamen dan we op grond van hun gebruikswaarde alleen zouden verwachten.

#### 14 *Het landschap van depositie*

In dit hoofdstuk wordt tenslotte nagegaan hoe het landschap zelf gestructureerd en gedefinieerd werd door depositiepraktijken. Een belangrijke ontwikkeling in het bronstijdlandschap is dat dit in de loop van de tijd in toenemende mate een voorouderlijk landschap werd; vooral grafvelden bleken door de eeuwen heen foci van funeraire activiteit. Hetzelfde geldt voor depositielocaties. Vanaf de midden-bronstijd-B onstonden er zones in het landschap waar eeuwenlang metalen voorwerpen werden gedeponeerd. Het gaat daarbij niet zoals in de latere periodes om één specifieke cultusplaats, maar eerder om gehele landschappelijke zones. Blijkbaar was vooral de associatie van een object met een bepaald landschapselement, en minder met een specifieke plaats daarbinnen, van belang.

Het is opvallend dat het niet gaat om willekeurige deposities, maar dat men verschillende objecten op verschillende soorten locaties achterliet (fig. 14.1). Het gaat dus bij depositie ook om een ruimtelijk gestructureerde handeling waarbij in geval van bijvoorbeeld wapendepositie bepaalde plekken generatieslang martiale connotaties konden houden. In tegenstelling tot de langdurig in gebruik zijnde funeraire plaatsen gaat het bij deposities om natuurlijke plaatsen zonder door mensenhand vervaardigde markeringen die de eeuwen konden doorstaan. Het landschap van depositie moet dus primair gebaseerd zijn op collectief geheugen. We kunnen ons voorstellen dat kennis over de juiste wijze en plaatsen voor het deponeren van objecten specifieke kennis vereisten die niet voor iedereen beschikbaar was.

Bezien vanuit het landschap van het dagelijks leven zijn depositielocaties gesitueerd in de perifere, ongecultiveerde plaatsen (fig. 14.2). Sociaal gezien moeten dit zowel de ambigue grenszones geweest zijn tussen de territoria van verschillende groepen mensen als de landschapselementen die gemeenschappen verbonden (bevaarbare rivieren). Ook in het cosmologische landschap kunnen depositiezones op grond van hun fysieke eigenschappen als grenszones tussen werelden gezien zijn. De veelgehoorde theorie dat bronstijddepositiezones als woonplaatsen van godheden werden gezien, net als in de veel latere Germaanse/Keltische religies is discutabel. Ze doet geen recht aan het geheel eigen karakter van bronstijddeposities, de enorme tijdsdiepte van het fenomeen en alle veranderingen die zich zowel in de prehistorische samenlevingen als in hun depositiegebruiken hebben voorgedaan.

Tenslotte wordt afgevraagd of we uit het depositiegebruik iets af kunnen leiden over de culturele houding van bronstijdgemeenschappen tegenover het land. Er wordt

beargumenteed dat er aanwijzingen zijn dat deposities teruggaan op fundamentele noties van reciprociteit tussen mensen en hun landschap. In deze visie is het land onvervreemdbaar verbonden met menselijke kwaliteiten en identiteiten.

15 *Wat is selectieve depositie en wat brengt het teweeg?*

In dit hoofdstuk wordt op basis van de thematische studies van hoofdstuk 11 t./m. 14 ingegaan op de overkoepelende vraag hoe we het fenomeen selectieve depositie moeten begrijpen.

Een fundamenteel kenmerk van de prehistorische samenlevingen in Zuid-Nederland is dat we van doen hebben met importerende gemeenschappen: cruciale materialen zoals steen, vuursteen en later koper en brons moesten meestal van elders betrokken worden. De sociale realiteit van deze gemeenschappen is aan de ene kant die van de lokale gemeenschap. Aan de andere kant is er de realiteit van de importerende samenleving: het besef dat de eigen groep deel uitmaakt van een veel groter sociaal geheel, een besef van een 'buitenwereld' die men meestal niet uit eigen waarneming kent. Tussen beide realiteiten bestaat een ideologisch spanningsveld. Cruciaal is dat de uitgewisselde, niet-lokale materialen die in dit boek centraal staan beide sociale realiteiten met elkaar verbindt. Voor het neolithicum en vooral voor de bronstijd van Noordwest-Europa geldt dat er een opmerkelijke culturele voorkeur bestaan moet hebben voor niet-lokale zaken. Dit geldt niet alleen voor objecten, maar evenzeer voor identiteiten. Voor de meeste periodes hebben we aanwijzingen gevonden voor persoonlijke parafernalia en dracht die over een groot gebied voorkwamen.

Depositie heeft veel gemeen met geschenken uitwisseling: zo is er sprake van specifieke handelingen, contexten en geschikt geachte objecten en ook is het opgeven van een bijzonder voorwerp de cruciale handeling. In feite kan

depositie gelden als de ultieme vorm van opgeven, aangezien het object nooit meer terug kan komen bij de eigenaar. Als we mogen spreken van een economie van uitwisseling dan is deze voor de bronstijd te karakteriseren als een 'offereconomie'. Een (klein) deel van de uitgewisselde niet-lokale objecten eindigde steevast in een moeras of rivier en dit was ook al het geval met de niet-lokale objecten uit het neolithicum. In plaats van ons te verbazen over de irrationaliteit van deze 'verkwistende' handeling, zouden we moeten concluderen dat dit voor de prehistorische gemeenschappen blijkbaar een algemeen gangbare, cultureel-betekenisvolle manier was om met niet-lokale objecten om te gaan.

Als praktijk vereist depositie specifieke religieuze en historische kennis. De paradox van depositie is dat door de handeling bepaalde objecten en de ideeën waar die voor staan bijzondere betekenis krijgen, voorafgaand aan de definitieve verwijdering van die objecten uit de samenleving. Dit maakt het een zeer geschikte praktijk om om te gaan met objecten en ideeën en waarden die belangrijk en betekenisvol zijn, maar ook ambigu, gevaarlijk, voorbehouden aan enkelen of met taboes omgeven. Voor de hier onderzochte praktijken lijkt dit het geval te zijn geweest. In brede zin geldt dit voor het deponeren van niet-lokale materialen en de omgang met persoonlijke parafernalia en dracht die refereren aan niet-lokale sociale netwerken (het spanningsveld tussen de sociale realiteit van de lokale samenleving en die van de importerende samenleving). In nauwere zin geldt dit voor de omgang met verschillende, met elkaar in tegenspraak zijnde ideeën en waarden die er binnen een samenleving nu eenmaal bestaan. Het ontkennen van het belang van de ideologie rond oorlog en martialiteit in late-bronstijdurnenvelden en het benadrukken, maar ook weer deconstrueren ervan tijdens depositiepraktijken in natuurlijke plaatsen is daarvan een uitgesproken voorbeeld.



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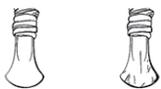
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# SACRIFICIAL LANDSCAPES

CULTURAL BIOGRAPHIES OF PERSONS, OBJECTS AND 'NATURAL' PLACES  
IN THE BRONZE AGE OF THE SOUTHERN NETHERLANDS, C. 2300-600 BC

DAVID FONTIJN



One of the most puzzling phenomena of the European Bronze Age, is that many communities buried or otherwise hid large numbers of valuable bronze objects, but never returned to retrieve them. This book focuses on the metal finds of one small European region, the southern Netherlands and the adjacent part of North Belgium.

Fontijn considers the question of why so many elaborate bronze objects have been found in watery locations in this landscape, such as rivers, streams, and marshes, while so few have been found in the controlled excavations of local settlements and cemeteries. He looks at the evidence for the selective deposition of metal objects, and discusses the “cultural biographies” of weapons, ornaments or dress fittings, and axes respectively. He considers how different depositional contexts might be related to the construction of various forms of social identity, such as male or female, or of belonging to local or non-local communities. He also looks at the way the land itself may have been defined and structured by the act of object deposition. This book was awarded with the Praemium Erasmianum Study prize and the W.A. Van Es Prize for Dutch archaeology.



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