### Preface

The present study is a revised and supplemented version of my dissertation "Spätbronzezeitliche Waffendeponierungen Nordwesteuropas" ("Late Bronze Age Weapon Depositions of North-Western Europe"), which was submitted to and successfully defended at the Institute of Prehistoric Archaeology at the Free University of Berlin in 2019. The aim was to investigate a connection between warlike events and the specific selection, destructive treatment, and irreversible deposition of metal hoards consisting almost exclusively of spearheads and swords. Thanks to the cooperation of the museums in Britain and Ireland, as well as in France, almost 1500 artefacts were subjected to a personal examination, photographed, and presented here in catalogue form. Several regional institutions, private collections, and lost artefacts were excluded.

For various reasons, the publication of the dissertation was delayed. I am therefore all the more pleased that the work is now available in both analogue and digital form and in a German and English version. This complex project was made possible by the Logos publishing house in Berlin. The final work was carried out in the summer of 2023. Only a selection of literature issued after submission could be added. It was also not possible to include the drawings published by Susan Bridgford and Peter Northover (2020) for the Fincham and Waterden Hoards for the plates.

The preparation of this dissertation, including travelling to record the artefacts, was funded by a three-year Elsa Neumann Scholarship from the Free University of Berlin. The printing was kindly supported by the Geschwister Boehringer Ingelheim Foundation for the Humanities in Ingelheim am Rhein.

Hamburg, Summer 2023

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### 1. Introduction

Weapons are one of the most important groups of metal items dating to the Late Bronze Age in north-western Europe. Almost without exception, these are discoveries from waters as well as artefacts that were deliberately deposited individually or as hoards away from graves and settlements. Specific characteristics regarding composition, condition, and the ecological environment of the finds can be identified. Based on these criteria, the study presented here is intended to examine in more detail the depositions consisting entirely or predominantly of swords and spears. The central question is whether the selection of the artefacts found together, their traces of use, and the way they were handled during deposition enables conclusions concerning the causes and motives of their concealment. It is reasonable to understand larger accumulations of weapons in warlike contexts, and one aim of this work is to investigate this assumption and to discuss corresponding interpretations.

The text is divided into three parts. Firstly, the study area and the chronological framework are described. This is followed by an account of the most important contributions to the interpretation of Bronze Age metal hoards in north-western Europe and the research on violence in that period. Against this background, the second part begins with a definition of the weapon depositions and a characterisation of the find spots. The documented artefacts are then presented typologically and examined regarding their use and deliberate destruction. The final part presents an interpretation of the weapon depositions under consideration of analogous phenomena, starting with the sanctuaries of ancient Greece and ending with the sacrifices of the Roman Iron Age in southern Scandinavia.

The hoards dealt with here are characterised by a very one-sided composition of armament, a comprehensive destruction of these artefacts, and a deposition in wet ground or water. According to my interpretation, the finds are the remains of sacrificial rituals in which the equipment of defeated enemies was destroyed and disposed of. These acts also ended a period of legitimate killing. The weapon depositions thus provide information about the social management of violence during the Late Bronze Age.

## 2. Study Area 2.1 Geographical Definition

The study area "north-western Europe" refers to the islands of Britain and Ireland as well as the continental lowland regions along the Atlantic coast between the Rhine delta in the north and the mouth of the Loire in the south (Figure 1). The border to the east is formed by the mountain ranges of the Ardennes and the Forest of Argonne, the Plateau of Langres, and the Morvan. The study area thus includes the present states of the United Kingdom of Great Britain and Northern Ireland and the Republic of Ireland, parts of the Kingdoms of Belgium and the Netherlands, and several regions in the north of the Republic of France. The current administrative divisions form the basis for the spatial location of the finds presented here.

The geomorphology of Ireland is defined by a central lowland area with formerly extensive wetlands, which is surrounded by mountains along the coasts. The longest and most important watercourse is the Shannon, which divides the island from north to south. Britain has a more differentiated landscape, with the lowlands in the southeast contrasting with pronounced highlands in the north and west. The conditions in the Thames catchment area are similar to those in the continental parts of the study area. These form a relatively homogeneous zone, characterised by the wide valleys of major rivers such as the Seine and Loire with their numerous tributaries.

The differences in the natural environment have a direct effect on the conditions for settlement and have caused different intensities of use in prehistory. This is reflected in the general occurrence of finds, also regarding the deposition of metal artefacts (Chapter 6.1). Besides the recent exploitation of the landscape, detectorists have an important influence on the current archaeological inventory. Such activities are permitted in England and Wales, where they are responsible for almost all new discoveries. These are recorded by a modern registration system, the "Portable Antiquities Scheme" (Chapter 6.1). Apart from quantitative differences, both supra-regional similarities and differences in the selection and condition of the deposited bronzes can be found within north-western Europe. Various "hoard landscapes" exist (Maraszek 2006), which can be identified, among other things, by the discoveries of weapons (Chapter 8.6.1).

#### 2.2 Cultural Definition

The study area corresponds to the northern zone of the so-called "Atlantic Bronze Age" (Figure 2) (Brun 1991; Brun 1998; Maraszek 2006, 16f.; Milcent 2012, 17-22). This term was introduced into archaeological research by Adolf Mahr (1937, 397) and should serve as a demarcation from the Central European "Lusatian Culture" and the "Nordic Bronze Age" in the western Baltic Sea area. Undoubtedly, the regions subsumed in this way are



Figure 1: Map of the study area.

distinguished by specific finds and features, whose distribution is geographically limited accordingly. Among the characteristic metal artefacts of the period under discussion here are, for example, grip-tongue swords of the Wilburton and Ewart Park types (Chapter 7.1.1), barbed spearheads (Chapter 7.1.7) or bugle-shaped objects (Chapter 7.1.4), which also occur in the weapon depositions.

More important for the delimitation of the Atlantic Late Bronze Age are cultural peculiarities which clearly differ from the patterns in the rest of Europe. On the one hand, the known settlements are not characterised by angular, but rather by round buildings with diameters of 3 to 12 metres (Chapter 8.6.2), and on the other hand, it has not yet been possible to systematically identify the burial sites archaeologically. The few, but increasing evidence suggests that the dead were cremated as in the Middle Bronze Age, but the ashes, however, were no longer buried in urns, and without any accompanying arrangements at various locations, perhaps even above ground (Chapter 8.4.1). The Late Bronze Age pottery of Britain and Ireland is of moderate quality, scarcely decorated, and could only be described systematically through the progressive discovery of settlement sites from the 1970s onwards (Barrett 1980; Gibson 2002, 109-116; Woodward 2008; Manem et al. 2013).

Particularly in the peripheral areas of the study area, deviations from the conditions in Britain and Ireland can be observed despite many similarities in material culture. For example, urn cemeteries (Brun 1986; Delattre/Peake 2012; Leclerq 2014) and elongated house constructions (Arnoldussen 2008; Arnoldussen/Fokkens 2008) occur in the north of France and the Benelux countries. Connected to this are pottery types that often show

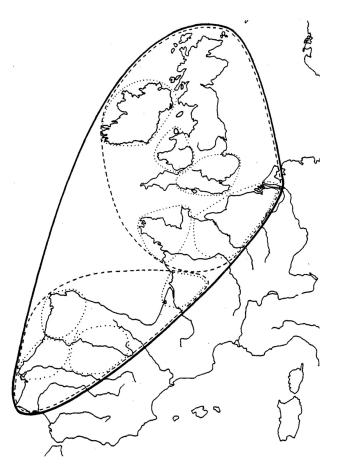


Figure 2: Spatial definition and division of the Atlantic Late Bronze Age according to Patrice Brun (1998).

connections to Central Europe (Brun 1986; Henton 2013; De Mulder 2013; Nicolas/Peake 2013). The inclusion of these regions is based on the occurrence of weapon depositions that are very similar in composition and treatment to hoards further west. This applies above all to the Paris Basin and the artefacts recovered from the river Seine (Chapter 6.2). However, most of the extensive weapon depositions known to date have been discovered in the south of Britain and therefore this region forms the focal point of the present study.

In Britain and Ireland, the archaeological concept of culture and the associated attempts to spatially divide the find material, but above all the ethnographic identification with particular groups of people, do not play a significant role (Vander Linden/Roberts 2011). In contrast, French research has developed such approaches, which sometimes make use of complex seriations (Gaucher 1981; Brun 1986; Gaucher/Verron 1987; Milcent 2012, 23-29). In all, the Late Bronze Age of north-western Europe is primarily defined by metal finds. Although their selection and the treatment of artefacts reproduces social rules (Chapter 4.1), these hoarding patterns can often be followed over long distances, as in the case of weapon depositions. As a basis for a cultural definition, the reference to a single kind of discovery is insufficient. In the following, I will therefore refrain from applying associated terms and spatial differentiations and understand the Atlantic circle as a superordinate, structural category of modern research.

# **3. Chronology** 3.1 Relative Chronology

Metal finds and their typological order, mostly in the sense of an evolutionary development, traditionally form the backbone of the chronological systems of the European Bronze Age. Basically, since the end of the 19th century and the important contributions of John Evans (1870-73; 1881), it has been common practice to divide this epoch into an early, middle, and late phase in Britain and Ireland, which he named "Early Bronze Age", "Middle Bronze Age" and "Late Bronze Age". Evans (1881, 460-468) recorded the then known 110 hoards for the first time in a combination statistic. This revealed the special significance of the different axe designs for the chronological order of the Bronze Age (Evans 1870-73, 395-401; Evans 1881, 468-474). Swords, socketed spearheads, and socketed axeheads are characteristic for the last phase of this period. Evans put the end of their use well before the Roman occupation in the 5th or 4th century BC.

A three-part division of the Bronze Age was initially also followed by Ernest Chantre (1872; 1873). Later, however, the two-tier system of Gabriel de Mortillet (1876) prevailed in France, according to which he assigned the hoards known at the time to either the older "Morgien" or the younger "Larnaudien" (de Mortillet 1894). The inventory of a particular site - the settlement of Morges/Mörigen on the northern shore of Lake Geneva<sup>1</sup> and the Larnaud hoard in the French Jura mountains<sup>2</sup> - was equated with a supra-regional temporal unit. This principle was to remain characteristic for the chronological research of the 20th century.

Around the turn of the century, Oscar Montelius designed a finer division of the Bronze Age, first for France (Montelius 1901) and later in greater detail for Britain (Montelius 1908). In doing so, he tried to transfer the five-tier periodic system he had developed for northern Europe. His typological method, which followed an evolutionary understanding, was based on the use of closed finds, i.e. artefacts presumably compiled simultaneously in burials or in depositions, with the help of which a chronological order was established according to the principle of exclusion. Due to the disappearance of the burials at the end of the 2nd millennium BC in north-western Europe, some misconceptions occurred. In contrast to Britain and Ireland, the proposals of Montelius met with a more positive response in France, and Joseph Déchelette (1910) adopted at least four of the five periods as an organising principle in his influential "Manuel d'Archéologie" (Feugère 2015).

The value of Montelius' studies lies primarily in the clearly shown continental references of the British and Irish finds. Including the phase of the Bell Beakers, which he considered as Copper Age, this resulted in the - from the present perspective - astonishingly precise

<sup>&</sup>lt;sup>1</sup> Mörigen, Kanton Waadt, Suisse: Bernatzky-Götze 1987; Fischer 2012, 51f.

<sup>&</sup>lt;sup>2</sup> Larnaud – Les Genettes, Département Jura, Bourgogne-Franche-Comté, France: de Mortillet 1894, 316; Déchelette 1910, app. 1, 65, no. 411; Coutil 1914; Jockenhövel 1980, 89, no. 272; Gallay 1988, 63f., no. 723; Millotte 1993; Simon-Millot 1998; Mödlinger 2017, 123, no. 116; Simon-Millot 2017

allocation of the Bronze Age between 2500 and 800 BC (Montelius 1908, 162). The rejection of this proposal by British scholars mainly resulted from the invasion theories favoured back then (Bradley 2013, 651f.). According to these models, which were also embraced by continental researchers, the adoption of technological developments was tied to immigration from the mainland and therefore should have taken place with a time lag at the edge of Europe (Crawford 1922; Doppelfeld 1930; Evans 1930). Such ideas were only refuted by the introduction of the radiocarbon method (Clark 1966).

The regional studies that began after the Second World War also advocated dates that were clearly too low and usually did not allow the Bronze Age to end until around the middle of the 1st millennium BC. The systematic analysis of the find material for Wales (Savory 1958), Scotland (Coles 1959/60), Ireland (Hodges 1954; Hodges 1956; Hodges 1957; Eogan 1964), and northern England (Burgess 1968a) was accompanied by the introduction of local chronological divisions. Their definition usually referred to the inventory of certain metal hoards, which were considered characteristic for a certain phase.

Jacques Briard (1965) took a similar approach in his study of the Bronze Age in Brittany. In contrast to the British and Irish researchers, he was able to draw on detailed previous work in this and neighbouring regions. Thus Paul du Chatellier (1899) had already compiled a catalogue of the hoards from the Département Finistère, Louis Marsille (1913; 1921) on those from the Département Morbihan and Albert Dubus (1911) on those from the Département Seine-Inférieure. Léon Coutil (1898; 1899; 1908; 1922; 1923) presented the Bronze Age metal finds from Normandy and Henri Breuil (1900; 1901; 1902; 1903; 1905; 1907; 1918/19) those from the Somme valley. In addition to prints and drawings, these publications for the first time included photographs of selected artefacts. For many discoveries, these studies are still the only more detailed references.

Based on this local research, Colin Burgess (1968b) developed a comparative chronological scheme for north-western Europe. Its structural outlines followed an unpublished concept by Christopher Hawkes (Gerloff 2007, 122f.; Turner 2010, 1-9) and are still valid today. In the entire study area, the period between 1150 and 800 BC is divided into two phases that are considered largely contemporary. These are "Wilburton" and "Ewart Park" in Britain, "Roscommon" and "Dowris" in Ireland, as well as "Saint-Brieuc-des-Iffs" and the so-called "Carp's Tongue complex" ("groupe de l'épée en langue de carpe") in northwestern France (Figure 3). The transition between these phases is generally dated around the turn of the millennium. As a result of the supra-regional parallels, the local systems for Scotland, northern England and Wales lost importance and were largely abandoned.

Briard (1965) added "Bronze final II" and "Bronze final III" to his phase designations to combine the chronological classification for Brittany with the system used in the rest of France by Jean-Jacques Hatt (1961), who in turn was inspired by Hermann Müller-Karpe (1959). The attempt to transfer a sequence based on the grave inventories of Central Europe not only to another region but also to a completely different group of finds, namely

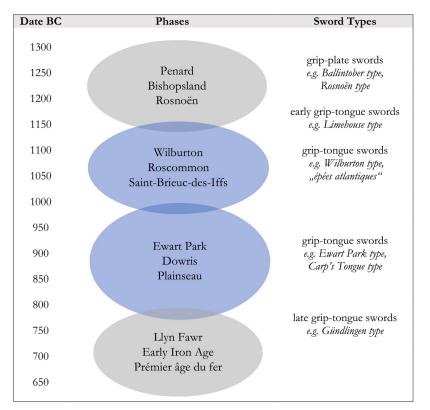


Figure 3: Chronological phases (blue) of the Late Bronze Age in Britain, Ireland, and north-west France with assignment of characteristic sword types.

the hoards, inevitably led to problems (Gaucher 1992; Milcent 2012, 35-42). The high precision of the analysis of burial data cannot be achieved with the help of metal depositions, especially since deviating accumulation processes must be taken into account (Chapter 4.1).

More recently, Richard Bradley (2007, 178-187) suggested that the Bronze Age should be divided into only two major periods, the Early Bronze Age and the Late Bronze Age. His aim was to break away from a self-supporting periodisation based on metal finds and to present an alternative conceived on a broader basis. Bradley tried to summarise the changes in settlement patterns, burial customs, and deposition practices in a holistic way. Inconsistently, however, he did not abandon the concept of a "Middle Bronze Age" but continued to use it as the first part of the "Late Bronze Age".

There is no doubt that around the middle of the 2<sup>nd</sup> millennium BC a fundamental change in the archaeological remains of north-western Europe can be identified, which Benjamin Roberts (2013) summarised with the contrasting slogans "Monuments, Burials, and Craftmanship" versus "Settlements, Cremations, and Hoards". Nevertheless, the traditional division into three parts is maintained in this work due to the focus on hoards. From this perspective, at the end of the 2<sup>nd</sup> millennium BC, new types of bronze artefacts were introduced, including grip-tongue swords and socketed axeheads, while the principle of fastening the spearheads with rivets became established. In the same way, novel deposition customs appeared, such as the extensive weapon hoards focussed on here. Several of these finds were regarded as specific assemblages for certain phases, which is problematic

because of the one-sided structure of the discoveries. At the same time, this circumstance illustrates the great importance of weapons for the Late Bronze Age chronology in north-western Europe.

The contrast between the claim of characterising a phase-specific canon and the real entity of an eponymic find can be seen most strikingly in the example of the Ewart Park hoard in Northumberland (List 1.1.37; Catalogue 1.20). This discovery consists of only three swords of the same type and thus forms a strong contrast to the heterogeneously composed fracture hoards dominating the archaeological record in southern Britain, which are characterized by socketed axeheads and regularly contain weapons, but not in every case. In the "Carp's Tongue complex", i.e. the metal items of the Bronze final III phase in north-western France, a single sword type was also declared an index find and other artefact groups merely added.

The hoard from the Rush Fen near Wilburton (Catalogue 2.27) is more diverse in its composition, but it does not represent the entire repertoire of metal artefacts available at the time of its deposition. From this point of view, the most extensive find of the study area, found at Little Isleham in Cambridgeshire<sup>3</sup> with more than 6500 artefacts, would be much more qualified, even though the inventory has not yet been published completely. However, the assemblage buried in a clay vessel was not discovered until 1959 and thus shortly after Hubert Savory (1958, 28-34) introduced the concept of the "Wilburton phase". The hoard from Saint-Brieuc-des-Iffs in Brittany, considered by Briard as typical for Bronze final II in Brittany<sup>4</sup>, allows a more varied overview than the find of Wilburton.

There are different opinions on the definition of the beginning of the Late Bronze Age. While research in north-western France is based on the concepts developed for Central Europe and therefore refers to the "Bronze Final" as early as 1300 BC, the onset of this epoch in Britain is estimated to be about 150 years later. In this study, the latter model is followed, because of the introduction of innovative types of weapons. From the late 12th century BC, i.e. with the phases Wilburton/Saint-Brieuc-des-Iffs/Roscommon, grip-tongue swords with leaf-shaped blades (Chapter 7.1.1) replaced the tanged swords with parallel-sided blades, while looped spearheads were followed by those with rivet holes (Chapter 7.1.6). Also new are conical chapes (Chapter 7.1.2) and ferrules (Chapter 7.1.9). Likewise, the socketed axeheads (Chapter 7.2.1), which have been known since the middle of the 2nd millennium BC, are becoming more popular than the palstave and thus the dominant tool. At the same time, ornaments are disappearing from the hoards, at least in southern Britain (Smith 1959; Rowlands 1976, 110-114; Roberts 2007; Wilkin 2017), and many finds are henceforth characterised by the deliberate fragmentation of artefacts.

<sup>&</sup>lt;sup>3</sup> Little Isleham, Cambridgeshire, England: Britton 1960; Jockenhövel 1980, 77f., no. 220; O'Connor 1980, 365-369, no. 127; Northover 1982, 101-106; Colquhoun/Burgess 1988, 42, no. 164-66; Northover 1995; Pendleton 1999, 201, no no.; Burgess/O'Connor 2004, 188; Needham/Bowman 2005, 106, no. 4; Maraszek 2006, 394, ENG/CA o. Nr.; Malim 2010; Gerloff 2010, 71f., no. 14; Davis 2015, 52, no. 66

<sup>&</sup>lt;sup>4</sup> Saint-Brieuc-des-Iffs, Département Ille-et-Villaine, Bretagne, France: Le Moine 1890; Déchelette 1910, app. 1, 60, no. 384; Briard 1965, 313, no. 325; Briard/Onnée 1972; Gallay 1988, 162, no. 1524.1525