A completely normal practice: the emergence of selective metalwork deposition in Denmark, north-west Germany, and the Netherlands between 2350-1500 BC

Visser, K.M.

Part I

Introduction and Methodology

1

Introduction

1.1 Introduction: the Torsted hoard

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

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

1.2 The Torsted hoard: not an isolated case

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

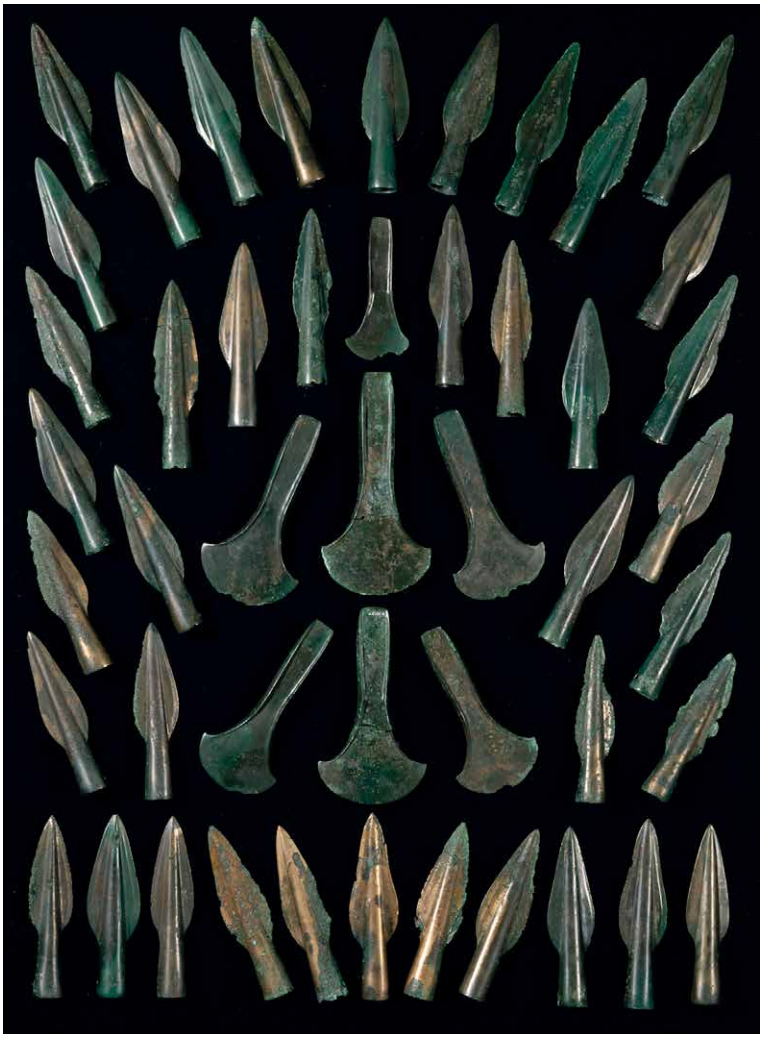

Figure 1.1. The Torsted hoard (axes: 12-18 cm). Photo: National Museum of Denmark, Lennart Larsen, used under licence CC-BY-SA, https://samlinger.natmus.dk/DO/asset/2014.

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

1.3 Conventional interpretation models of hoards

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

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

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

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

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

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

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

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

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

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

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

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

1.4.1 Ritual interpretations in the Scandinavian research tradition

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

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

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

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

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

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

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

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

1.4.3 Worsaae's observations and Kopytoff's biographies

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

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

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

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

1.5 The Scandinavian school of archaeology: emergence and characteristics

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

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

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

1.5.1 National archaeology

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

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

1.5.2 Literary historical tradition

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

1.5.3 Ex oriente lux school

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

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

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

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

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

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

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

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

1.7 Ritual interpretations: problems and challenges

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

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

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

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

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

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

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

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

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

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

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

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

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

1.8 Interpreting Bronze Age depositions: the European debate

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

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

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

1.8.1 Utilitarian approaches to hoards

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

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

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

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

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

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

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

1.8.2 Wet versus dry contexts

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

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

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

1.9 Approach: patterns and practices

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

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

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

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

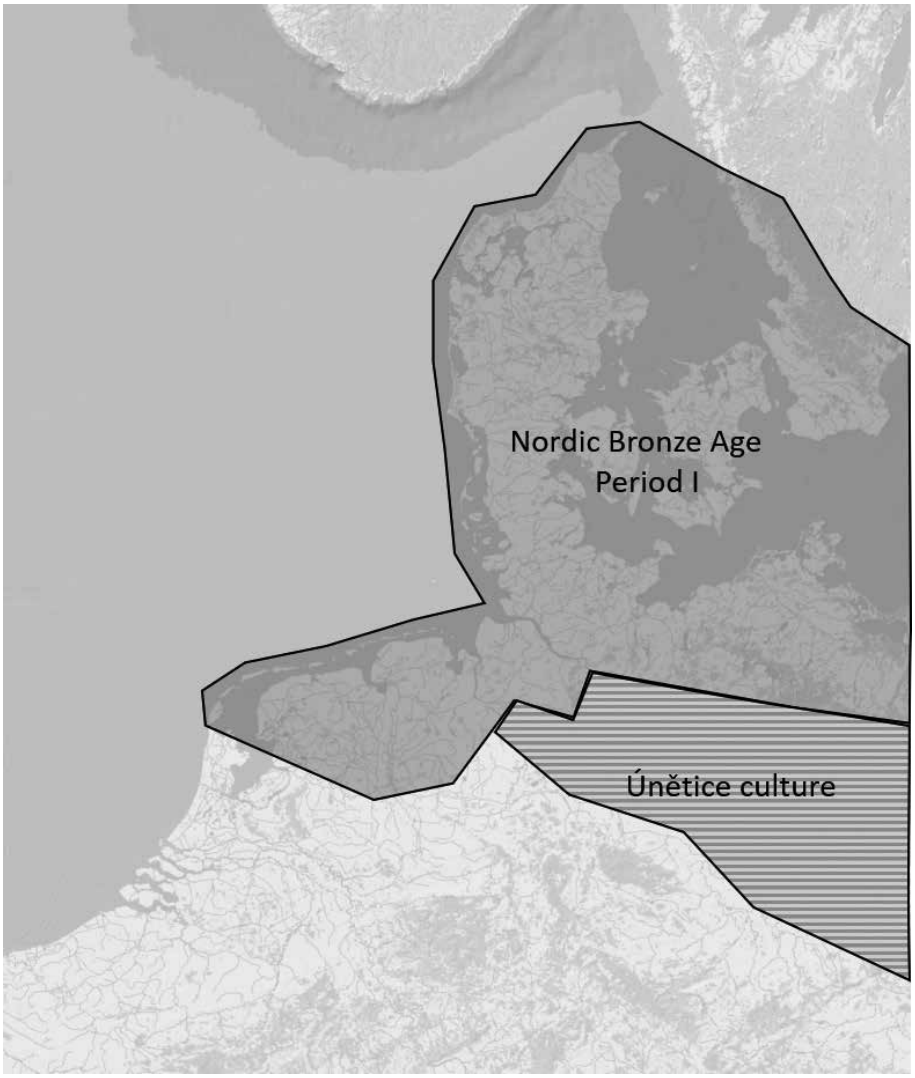

Figure 1.3. Distribution of regional groups in the research area in the Early Bronze Age (based on Hänsel 2009:114, fig. 119).

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

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

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

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

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

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

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

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

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

1.10 State of affairs

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

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

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

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

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

1.11 Aim and research questions

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

Three broad research questions have been formulated:

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

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