All the single finds – single object depositions in the Netherlands, Belgium and beyond

Samenvatting

Losse vondsten worden vaak verwaarloosd in onderzoek naar deposities in de bronstijd, aangezien hun context vaak onduidelijk of zelfs helemaal onbekend is. Er wordt vaak aangenomen dat losse vondsten oorspronkelijk afkomstig zijn uit meervoudige depots, graven of nederzettingen. Maar behoren ze echt oorspronkelijk tot andere contexten, of vormen ze een autonome contextcategorie die meer aandacht verdient? De groep van losse vondsten is een enorm grote groep, en heeft dus zeker potentieel om inzicht te bieden in selectieve depositiepraktijken in de bronstijd. Dit paper beargumenteert dat losse vondsten van grote archeologische waarde zijn, en focust daarbij op vondsten uit de Rijnregio en Noordwest-Europa. Op basis van de beschikbare contextinformatie stelt dit paper een preciezere definiëring en categorisatie van verschillende soorten losse vondsten voor om tot een groter inzicht in deze groep vondsten te komen. Daarbij wordt er onderscheid gemaakt tussen losse vondsten met en zonder contextinformatie. Vervolgens is het mogelijk om, door middel van systematische vergelijkingen van de verspreiding en de biografieën van de verschillende categorieën van losse vondsten, te onderzoeken of losse vondsten zonder contextinformatie een patroon laten zien. Op deze manier kunnen we het archeologische potentieel van losse vondsten ten volle benutten.

1. The Problem & Research History

1.1. The Problem

While studying the deposition of Late Neolithic and Early Bronze Age depositions, it quickly became clear that one find category is often left out in the analysis of finds, or is barely touched upon. Single finds seem to be nobody's favourite. The reason for this circumstance is obvious: single finds usually do not have details on their original context, since they were often found on the surface of fields or in bodies of water. Single finds from the river Rhine, for example, were mostly found during dredging activities, and it is unclear whether those objects were deposited as a group of objects or individually. The usual consent is that single finds must originally either belong to hoards or burials that are not visible or detectable anymore. However, single finds constitute the largest group of Bronze Age finds, so they have an enorSabrina N. AUTENRIETH & Marieke VISSER¹

mous potential to shed light on Bronze Age deposition practices and their development over time. Since single finds are so plentiful, it is of great importance that they are interpreted in a correct and meaningful way (Vandkilde 1996, 36). Are they really just part of other contexts, or are they actually a find category of their own?

1.2. Research History

In the past, single finds have been interpreted in various, often contrasting ways, and a variety of categorisations and terms have been used (see table 1). Some have interpreted single finds as lost objects, or as parts of disturbed burials (Menke 1978/79, 87) or hoards.

Wolf Kubach (1979) describes depositions as an intentional act of depositing objects, which excludes any accidental loss. He furthermore explains that a deposition needs to consist of at least two objects which were deposited at the same time in the same context. However he later refers to single depositions during the Early Bronze Age in Southern Germany (e.g. the flanged axe from Eschollbrücken, the Saxon flanged axe from an unknown location and the cloverleaf pin from Groß-Gerau which furthermore commences the deposition of singular pins in bogs in the Hessisches Ried). Following this rule, only "special" objects would be considered as deliberate single depositions.

Another problem, especially in the Rhine area, are river finds. Endrich categorised river finds as Lesefunde or Einzelfunde and he describes them as lost by accident while crossing a river (Endrich 1961, 24). In 1954, Tackenberg 1954 analysed some of the finds and interpreted them as remains of washed settlements. This interpretation is based on the work of Schumacher (1921) who compared the accumulation of finds in the Rhine with the lake dwellings in Switzerland and Lake Constance. Bronze objects were compared to objects from Swiss lakes, but, according to Driehaus (1970), Schumacher overlooked the fact that there are no equivalences for the objects from the EBA within the Swiss material. Behrends (1927) also adopted the idea of the lake dwellings without any further discussion. Driehaus seems to be surprised by the fact that apparently no one considered the finds from the river Rhine as something else, particularly considering the legend of the Rheingold or the well-known Rhenisch Münzopfer that occurs after the carnival in that region, as well as the general idea of archaeology as a very "romantic" research. According to Driehaus there has been a great discrepancy in the previous interpretation of river finds, since previous research acknowledged finds from bogs and springs as "offerings" while river finds were hesitantly considered as

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Author (Year)	Region	Time Period	Single find Interpretation/tatement
Butler 1990	The Netherlands	Bronze Age	Einstückhorte; separate from stray finds
Endrich 1961	Bavaria	Prehistory	Single finds from rivers are accidental losses
Fontijn 2002	The southern Netherlands and Belgium	Bronze Age	Single depositions were the most common act of deposition
Kubach 1978/79	Southern Germany	Early Bronze Age	Specific objects can be seen as deliberate depositions, but usually hoards must contain 2+ objects
Menke 1978/79	Bavaria	Early Bronze Age	Specific object categories must have belonged to burials if they were not often found in other contexts
Tackenberg 1954	Rhine region	Prehistory	Single finds from rivers as remains of washed settlements
Vandkilde 1996	Denmark	2300-1500 BC	Deliberate single depositions; separate find category
Willroth 1985	Southern Sweden and Danish islands	Ältere Bronzezeit	Deliberate single depositions; separate find category of Einstückhorte

Table 1. Research history of single finds.

possible "offerings" quite late. River finds were more likely to be explained in terms of non-offering settings (e.g. settlement remains, accidental loss, floated material, naval accident etc.). A reason for the uncertainty in interpreting river finds is the fact that they were therefore usually found individually during dredging activities and come from a nonclosed context, which makes conventional archaeological methods quite useless. This circumstance (single find + river find) may be the reason why river finds were mostly ignored by researchers until 1970, and the river Rhine has so far been no exception.

In contrast, various authors have interpreted single finds of metalwork from northern Europe as deliberate single depositions. In her study of Early Bronze Age metalwork from Denmark, Vandkilde interprets single finds as deliberately deposited singly in the landscape, instead of accidentally lost objects or disturbed and disappeared hoards or burials (Vandkilde 1996, 36). To support her interpretation, she mentions several cases where investigations of sites where a single metal object was found did not yield any additional objects (Vandkilde 1996, 36). Furthermore, the single finds in her study present clear patterns, constituting a part of the larger depositional structure (Vandkilde 1996, 190, 209, 222, 246). She thus considers single finds to be a separate find category (Vandkilde 1996, 36). Single finds of Early Bronze Age metalwork from southern Sweden and the Danish islands are also considered to be intentional depositions by Willroth (1985). Using the term Einstückhorte, he discusses them as a find category of their own, independent of hoards and burials (Willroth 1985). This line of thinking is also followed in research from the Netherlands, where Butler tentatively interprets single depositions of metalwork as possible Einstückhorte, distinguishing them from stray finds (Butler 1990, 47). However, he does not go into any detail on how to arrive at such a distinction between single depositions and stray finds. Single object depositions are thought to have been the most common depositional act in the southern Netherlands and Belgium in the Bronze Age (Fontijn 2002, 212), which once again emphasises their importance as a find category.

It is evident that single finds have been dealt with in completely opposite ways in Bronze Age research, if they were dealt with at all. Furthermore, the terminology used is often problematic: "single finds" can include both single depositions and stray finds in the literature (Vandkilde 1996, 36). The inconsistent way in which single finds have been dealt with and the confusing terminology that is being used have not been helpful in unlocking their potential.

2. Classification & Approach

2.1. Classification of single finds

Clearly, a new and consistent approach is needed in order to do justice to single finds. They are a large group of finds, waiting to reveal their information on Bronze Age deposition practices. We suggest a new classification of single finds in order to arrive at a more specific terminology, which will improve our understanding of this group of finds. We would like to focus on single finds of Bronze Age metalwork. Zooming in on these single finds, they possess varying degrees of find context information. Based on the available context information, they can be divided into four categories. Firstly, we can distinguish single finds with no context information whatsoever. For these finds, it is unknown where or in what type of landscape context they were found. These finds were often acquired by museums from private collections. Secondly, we can discern single finds of which the general context is known (for example objects found in a field during ploughing), but that have not been excavated. These can be considered to be stray finds. Thirdly, there are the single finds that have been excavated or otherwise archaeologically investigated, and of which we can with a relative degree of certainty say that they represent single acts of deposition. Lastly, an aspect that should also be considered is the deposition of a single object within a container (pottery, textile, wrap etc.). The golden cup of Wachtberg-Fritzdorf (North Rhine-Westphalia, Germany) for example was deposited in a ceramic vessel (von Uslar 1955). The question is: do objects that were deposited in a container still count as single depositions? We might assume that the contained object was meant to be the primary object and the container therefore would "only" be a part of the depositional practice, a "gift-wrap" so to speak. Single finds deposited inside a container constitute the fourth possible category of single finds.

In order to make a clear distinction between the four different types of single finds, we suggest the following classification and terminology, which will be applied in the rest of the article: 1 - Single finds (no context information) \rightarrow isolated finds

2 - Single finds (known general context; stray find) \rightarrow interrupted finds

3 - Single depositions (excavated) \rightarrow true single depositions 4 - Single depositions in a container \rightarrow covered single finds

2.2. Approach

The category of true single depositions is the most informative among the single finds, while the group of isolated finds possesses the least potential to provide information on metalwork depositional practices. In order to access this group of isolated finds and glean as much information from them as possible, we suggest analysing the true single depositions in terms of their landscape contexts and biographies, and comparing these results/patterns to the group of **the interrupted single finds.** Lastly, we can test if these two patterns show any similarities or differences to the group of isolated finds as well as the covered single finds.

Since people made deliberate choices when they deposited metalwork, these choices are reflected in the archaeological record, making it possible for us to study them. This particularly applies to the objects' biographies. Specific objects often have specific life histories, or biographies, which are culturally specific (Kopytoff 1986). In terms of depositions, this means that specific objects with specific cultural biographies were deposited in specific places in the landscape (Fontijn 2002, 273). An object's biography starts with the moment of production, and the choices that were made at that point in its biography: what kind of objects it is, what it looks like, whether it is decorated or not, its shape and size, for what purpose it was made, what material it is made of, and whether it was manufactured locally. The next phase is the object's use life: whether it was used or not, how it was used, e.g. worn on the body or carried in the hand (Autenrieth forthcoming 2019/20), whether the object was imported from elsewhere and was hence in circulation for a longer time. The last phase is the moment of deposition: in what landscape context the object was deposited, and whether it was treated in any special way prior to its deposition, e.g. the removal of an axe's haft, or the deliberate breaking of an object. These cultural biographies can be distilled from the group of true single depositions, and compared to isolated single finds. In other words: by deducing the specific recipe for deposition from true single depositions, we might apply the same recipe to isolated finds, arriving at a greater understanding of how they fit in the greater depositional picture, instead of simply lumping all single finds together.

2.3. Example: Oldendorf axes

To illustrate our approach, we would like to take as an example small, utilitarian, heavily used, locally made, usually undecorated high-flanged axes dating to ca. 1600-1500 BC (Middle Bronze Age A; see fig.1). These small, heavily used axes are traditionally classified as Oldendorf type axes, but it should be kept in mind that this classification is a modern construction. For Bronze Age people, these were not "Oldendorf axes". Instead, this was apparently what a small, utilitarian, heavily used axe looked like in this region and time



Fig. 1. Examples of Oldendorf axes from north-western Europe. a) RMO e. 1940/I.109: Garderen, Gelderland, the Netherlands, single find from unknown find context. b) RMO u. 1931/2.27: the Netherlands, without provenance. c) Moesgaard Museum ÅM 113: Lejre, Zealand, Denmark, single find from unknown find context. All photos: © Marieke Visser

period. These axes were deposited in similar ways across regions in Denmark, northern Germany, Belgium and the Netherlands: such axes were predominantly deposited singly in wet contexts like rivers, peat bogs and marshy areas (Butler 1995/1996, 203-220; Vandkilde 1996, 117-121; Verlaeckt 1996; Laux 2000, 71-79). Apparently, axes with this particular biography had to be deposited in this particular way and in these particular places in the landscape; this was the recipe for the deposition of such axes. Consequently, we may apply this pattern to isolated finds of axes of similar shape and biographies. In doing so, a large number of axes without find context information, which would otherwise be left aside in analyses of Bronze Age metalwork, can be accessed and included in archaeological research.

2.4. Methodology

Even though this paper contains a purely theoretical approach, we would like to suggest some possible methods that can be used to analyse and compare the different single find categories, in addition to the suggested classification and approach. The analysis for Late Neolithic to Early Bronze Age single finds in the Rhine region and northern Europe will be presented at the Lunula Conference in 2019 and partly published in the authors' forthcoming doctoral dissertations (Rhine region: Autenrieth forthcoming 2019/20; northern Europe: Visser forthcoming 2019/20).

2.4.1. Single object depositions follow specific rules in size and/or weight

For this hypothesis, the measurements (size and weight) of objects will be compared within their object category (e.g. axes with axes, and swords with swords). By looking into the normal distribution (Mean, Minimum, Maximum and Range) of these measurements, it will be examined what the "normal" sizes of objects were during specific time frames. To analyse the normal distribution of object categories, objects from true single finds will be considered. Afterwards, the remaining single finds (isolated, interrupted and covered) will be compared with the normal distribution of the true single finds. If there are significant differences between the normal distribution of true single finds and individual isolated, interrupted and covered single finds of the same type, we may assume that the non-true single finds were not originally deposited as single depositions.

2.4.2. Single object depositions occur in specific landscape settings

Objects were deliberately deposited in specific places in the landscape in the Bronze Age. However, many of the objects in the dataset do not have information about their original location or find context (i.e. isolated and interrupted finds). Nevertheless, it is often known in which general area they were found (i.e. interrupted finds). Therefore, we suggest analysing the landscape contexts of these finds in terms of broader topographical zones, as this information is usually correct. This way, we can deal with the majority of the single finds and are able to include those finds that would otherwise have been neglected in the analysis. If specific individually deposited object types are for example mostly found in hilly areas, while others were found in the flatland, we might speak of topographically dependent landscape zones. To test this hypothesis, true and interrupted single finds will be analysed according to their topographical context. By measuring the frequency of the topographical context of specific object types, it is possible to identify if there is a correspondence between individually deposited object types and specific topographical landscape zones (see also Fontijn 2002). By mapping the single finds and analysing their density, it is further possible to see if there are well-defined culturally created zones in which only individually deposited objects occur.

2.4.3. Object biographies

As discussed above, objects were treated in a variety of ways, from the moment they were produced to the moment they were deposited, and a great number of possible biographies can be observed in the dataset. By taking into consideration features such as material, use-wear, production traces (finished/unfinished, casting errors, etc.), import, deliberate alteration (fragmentation, bending, heating etc.), we can find out if individually deposited objects share the same or similar object biographies, either within their own object categories or as an overarching context-type.

2.5. Scenarios

Applying these methods to the group of single finds, two main scenarios may be envisioned. 1) Isolated **finds** may not follow the recipe deduced from true single depositions. In that case it is possible that they actually belong to disturbed burials or hoards, and were not deposited singly. 2) Isolated finds may follow the recipe deduced from true single depositions. In that case it is likely that they indeed are single depositions, and should be included in the group of true single depositions.

Let us once again look at small, heavily used, locally made, singly deposited axes, i.e. so-called Oldendorf axes. In general, isolated finds of Oldendorf axes can be assumed to have been single depositions in wet contexts, following the recipe deduced from the majority of the Oldendorf axes from north-western Europe (cf. Vandkilde 1996, 37). However, when isolated finds of Oldendorf axes do not follow the pattern in terms of cultural biographies of these axes, it is possible that they were not single depositions, but treated in a different way in deposition practices.

3. Conclusion

The study of single finds is often neglected in archaeological research, since their context is often unknown or uncertain. Single finds are often assumed to just be stray finds, originally belonging to disturbed hoards, burials or settlements. However, by assigning single finds to four possible categories, it is possible to overcome the so far negative attitude towards single finds, and make them qualitatively and quantitatively analysable and comparable. This classification opens up new opportunities to include single finds in the overall data analysis, unlocking their potential to shed light on Bronze Age deposition practices. By systematically comparing the measurements, topographical contexts, distribution and object biographies of single finds in a large area (Rhine region and northern Europe), it is possible to find out if single finds are randomly distributed, or if there is an underlying regional or supra-regional pattern. This approach can also be applied to other regions. Single finds are indeed a valuable find context of their own. By incorporating them in research on Bronze Age depositions, together with hoards and burials, we can gain a better understanding of depositional practices, and why some objects were singled out while others were engaged in multi-objects contexts.

Bibliography

BEHRENDS, G. 1927. Bodenurkunden aus Rheinhessen Bilderheft zur Vor- und Frühgeschichte Rheinhessens. 1 Die vorrömische Zeit. Mainz: Schneider

BUTLER, J.J. 1990. Bronze Age Metal and Amber in the Netherlands (I). *Palaeohistoria* **32**, pp. 47-110.

BUTLER, J.J. 1995/1996. Bronze Age Metal and Amber in the Netherlands (II:1). Catalogue of the Flat Axes, Flanged Axes and Stopridge Axes. *Palaeohistoria* **37/38**, pp. 159-243.

DRIEHAUS, J. 1970. Urgeschichtliche Opferfunde aus dem Mittel- und Niederrhein. In: H. JANKUHN, (ed). Vorgeschichtliche Heiligtümer und Opferplätze in Mittel- und Nordeuropa: Bericht über ein Symposium in Reinhausen bei Göt*tingen in der Zeit vom 14. Bis 16. Oktober 1968*, Göttingen: Vandenhoeck & Ruprecht, pp. 40-54.

ENDRICH, P. 1961. Vor- und Frühgeschichte des bayerischen Untermaingebietes. Aschaffenburg: P. Pattloch

FONTIJN, D.R. 2002. Sacrifical Landscapes. Cultural biographies of persons, objects and "natural" places in the Bronze Age of the southern Netherlands, c. 2300-600 BC. *Analecta Praehistorica Leidensia* **33/34**.

KOPYTOFF, I. 1986. The cultural biography of things: commoditisation as process. *In*: A. APPADURAI (ed), *The Social life of Things*. Cambridge: Cambridge University Press, pp. 64-91.

KUBACH, W. 1978-79. Deponierungen in Mooren der südhessischen Oberrheinebene. *Jahresbericht des Instituts für Vorgeschichte, Universität Frankfurt*, pp. 189-310.

LAUX, F. 2000. Die Äxte und Beile in Niedersachsen I (Flach-, Randleisten- und Absatzbeile), *Prähistorische Bronzefunde Abteilung IX*, Band **32**. Stuttgart: Franz Steiner Verlag. MENKE, M. 1978/79. Studien zu den frühbronzezeitlichen Metalldepots Bayerns. *Jahresbericht der bayerischen Bodendenkmalpflege*, **19/20**, pp. 5-305.

SCHUMACHER, K. 1921. Siedlungs- und Kulturgeschichte der Rheinlande 1. Die Vorrömische Zeit. Mainz: Wilckens Verlag.

TACKENBERG, K. 1954, Fundkarten zur Vorgeschichte der Rheinprovinz. Beih. 2 der Bonner Jahrbücher. Bonn: Habelt.

USLAR, R. VON. 1955. Der Goldbecher von Fritzdorf bei Bonn. *Germania* **33**, pp. 319-323.

VANDKILDE, H. 1996. From Stone to Bronze. The Metalwork of the Late Neolithic and Earliest Bronze Age in Denmark. *Jutland Archaeological Society Publications* **32**. Aarhus: Aarhus University Press.

WILLROTH, K.-H. 1985. Die Hortfunde der älteren Bronzezeit in Südschweden und auf den dänischen Inseln. *Offabücher* **55**. Neumünster: Karl Wachholtz.