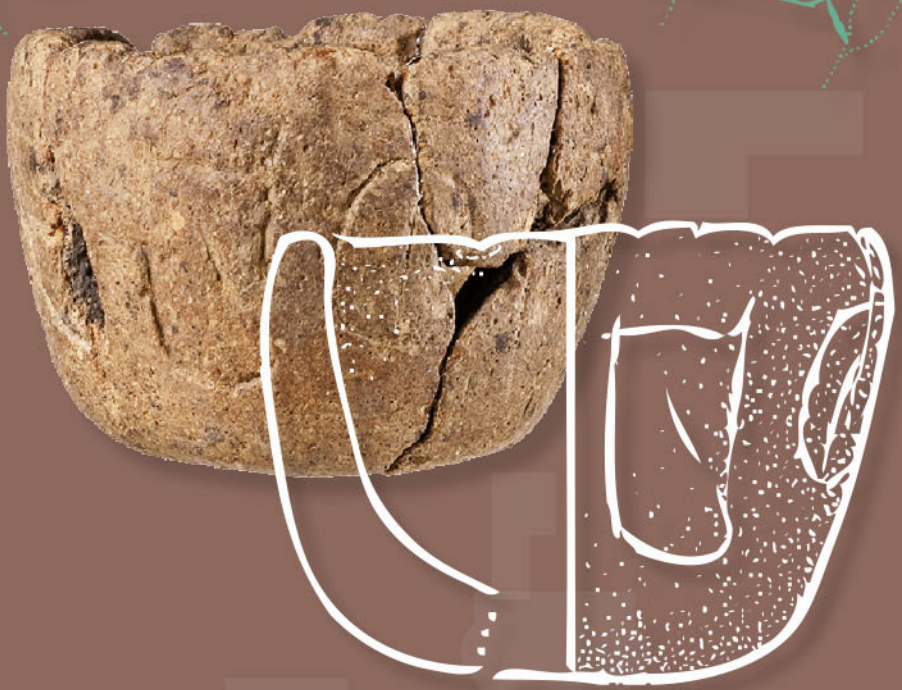
METAALTIJDEN 6

BIJDRAGEN IN DE STUDIE VAN DE METAALTIJDEN



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Inhoudsopgave

Down by the River. A Late Bronze Age full-hilted sword from the river Meuse near Thorn and Wessem

Luc W.S.W. Amkreutz, David R. Fontijn & Valerio Gentile

Keywords: Bronze Age, Meuse, sword, river deposition, Vollgriffschwert

Introduction

As prehistorians we are often confronted with the limits of material evidence. At the same time translating this evidence into what it can tell us about our past is what we find exciting. Only recently Peter van den Broeke published a small Iron Age vessel that may display some of the oldest signs of writing north of the Alps (this volume). It was an odd exception to his lifelong work, devoted to make the most of often apparently much more insignificant finds. Nevertheless it is the recording, comparing and mapping that result in patterns that are informative. To some extent this is also the case for the beautiful objects that ended their life in in a watery context, one of which we present here. We hope Peter may enjoy it and will charge ahead for many years at unravelling our prehistory.

In the autumn of 2018, through the intervention of archaeologist Tom Hazenberg, Mr. Jan Robert Zijp contacted the National Museum of Antiquities (RMO) in Leiden to report the find of a Bronze Age sword. The sword was found during dredging activities along the Meuse in the 1960s and had been in his family for decades. The owner agreed on loaning the object to the museum for an in-depth study. This contribution reports the results of that study. We argue that the object belongs to the final phase of the Late Bronze Age, that it was probably produced in more southern regions, had been intensively used, and ended its itinerary by being deposited in the river Meuse.

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Discovery and find history

The sword was found during the large-scale dredging and quarrying of the river Meuse in the 1960s. The current owner inherited the sword from his mother. He reports it used to hang above the fireplace in the house of his grandparents. His grandfather, mr. Jan Joost Paans (who passed away in 1966), used to work on a dredging haul, probably a bucket dredger. Mr. Zijp was told his grandfather saw the sword sticking out of one of the buckets. He estimates that this must have happened in the vicinity of Thorn and Wessem on the Meuse in 1962 or 1963. In this area gravel has been intensively quarried since the nineteenth century until the 1990s (fig. 1) resulting in a massive extraction area of c. 30 km^2 currently consisting of (recreational) lakes. These activities also yielded many archaeological finds and, amongst them, several artefacts dating to the Bronze Age (cf. Fontijn 2002). Since its discovery, the sword has been in private possession of the Paans and later Zijp families. It was not until a couple of years ago that mr. Zijp wondered about the origins and age of the sword. He went to an antiquities dealer but only received scarce information. In 2018, he met the archaeologist Tom Hazenberg after a talk on the Roman Zwammerdam ships the latter gave during an event in the Archeon (Alphen aan den Rijn). The subject of the sword came up during dinner and, after having received photographs, Tom Hazenberg recognized it as a prehistoric sword and alerted the curator of the National Museum of Antiquities. The sword is still in possession of the Zijp family.

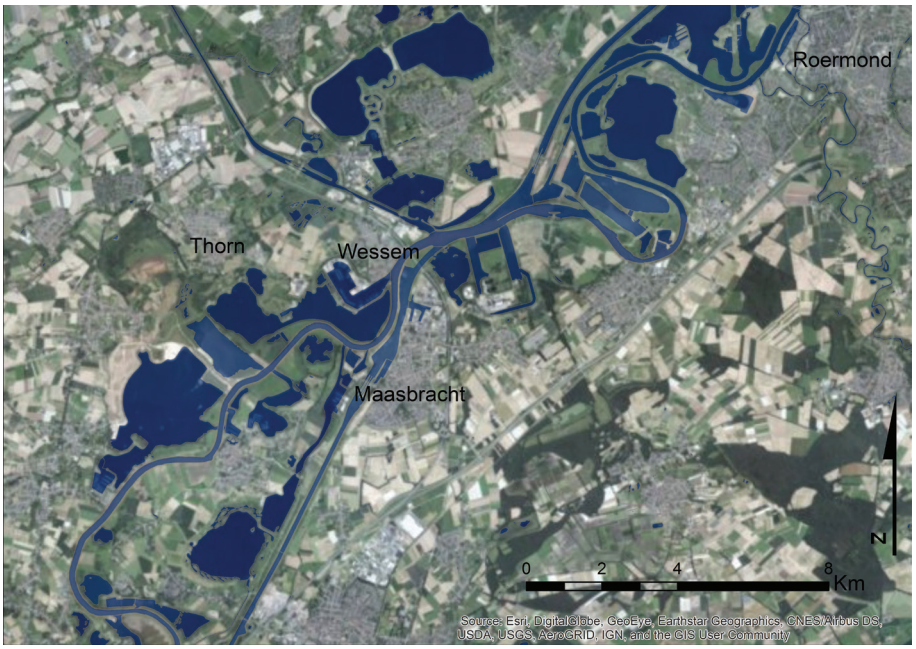

Figure 1. Area in which the sword must have been found. Background map source: Esri, Digitalglobe, GeoEye, Earthstsar Geographics, CNES/Airbus DS, USDA, USGS, AreoGRID, IGN, and the GIS User Community).

Description of the sword

The sword weighs 553 g and is 53.7 cm long from the tip to the central end of the hilt and 54.5 cm to the end of the pommel (fig. 2A). The visible part of the blade is 46.3 cm long. The width of the blade is 1.4 cm right below the tip, and is 3.7 cm at its widest point (22 cm from the tip). The thickness of the blade is 0.7 cm. The hilt is 9.7 cm long from the lateral guards to the flared lateral parts of the pommel and 7.4 cm from the V-shaped cut in the hilt to the central part of the end of the pommel. The thickest part of the hilt is 1.3 cm and the hilt measures 3.5 cm at the end.

Figure 2. A: the Thorn-Wessem sword (photograph National Museum of Antiquities (RMO), Leiden; 2B. Decoration of the pommel (photograph National Museum of Antiquities (RMO), Leiden); 2C: Irregularities in the blade decorations and how the craftsperson corrected these (photograph V. Gentile, Laboratory for Artefact Studies – University of Leiden).

The hilt is well-preserved and has a uniform dark brown patina. The patina of the blade has flaked off, exposing green corrosion. It is unclear what caused this preservational distinction, but the sword was also regularly handled in recent times. Striation patterns parallel to the edge and cutting through corrosion layers indicate that in modern times, some patina has been mechanically removed (perhaps with a metal brush). Casting voids appear to be exposed by a corrosion cluster nearer to the tip, which suggests a cast from the hilt-side downwards.

The hilt is widest at the blade end, where the guard bars extend almost perpendicular in an upward sloping angle for 2.9 cm on each side. In between there is a U- to V-shaped recess with a round sunken rivet on either side that fixes the blade in the hilt on both sides. The hilt is decorated with three bands that extend from the surface. These bands are demarcated by a groove-line on either side and one on the top. The middle band is situated at the widest part of the grip section of the hilt measuring 2.8 cm. The hilt ends in a flaring (hochgebogenem), pommel (Knaufplatte). The pommel is decorated with a lozenge figure consisting of three lines on the side facing the hilt. These were carved from the centre to the margins, as shown by the overlapping and tapering extremities of the incisions (fig. 2B). The exterior side is undecorated. Slightly off-centre there does seem to be a bronze 'peg' (Pflock) that plugs a hole (casting related or damage).

The blade is slightly leaf-shaped and with a lense-shaped cross-section. The blade is widest in the central part (see above) and near the grip where there is a distinct elongated and smooth ricasso. The blade is decorated with two bundles of double incised lines on either side of the central rib, converging in two points near the rounded tip and widening towards the grip. One of the internal lines stops around 6 cm from the tip and resumes c. 1.5 cm ahead, but closer to the midrib than where the original line would have been. This indicates the craftsperson had to correct the curve of the line during the decoration process. The two segments of the line are connected through a thinner incision, suggesting the gap was filled in at a later stage, possibly with another tool (fig. 2C).

Pre-depositional use-life

In places, the sword's edges narrow closer to the midrib. Such an asymmetrical outline is often found on Bronze Age swords, and interpreted as repair or resharpening of combat marks too deep to be repaired by local hammering and filing (Bunnefeld 2018; Kristiansen 2002; Thrane 2006). Unfortunately, the loss of original surface hinders the possibility to detect re-sharpening striations on the edges. However, the enlarged and deformed outline of the parallel incised lines right below one of the edge-narrowing points (fig. 3A), can be interpreted as the proxy of an attempt of hammering back a damaged portion of the blade.

A large indentation is visible on one side of the sword at c. 27 cm from the tip (fig. 3B). The feature appears patinated and thus compatible with an ancient origin. Furthermore, its morphology is comparable to traces created in combat experiments with bronze swords (Crellin et al. 2018; Gentile & van Gijn 2019). However, its particularly large size makes we cannot rule out other possible origins, such as the impact with an axe's edge, or the rim of a metal shield (Molloy 2011, 76).

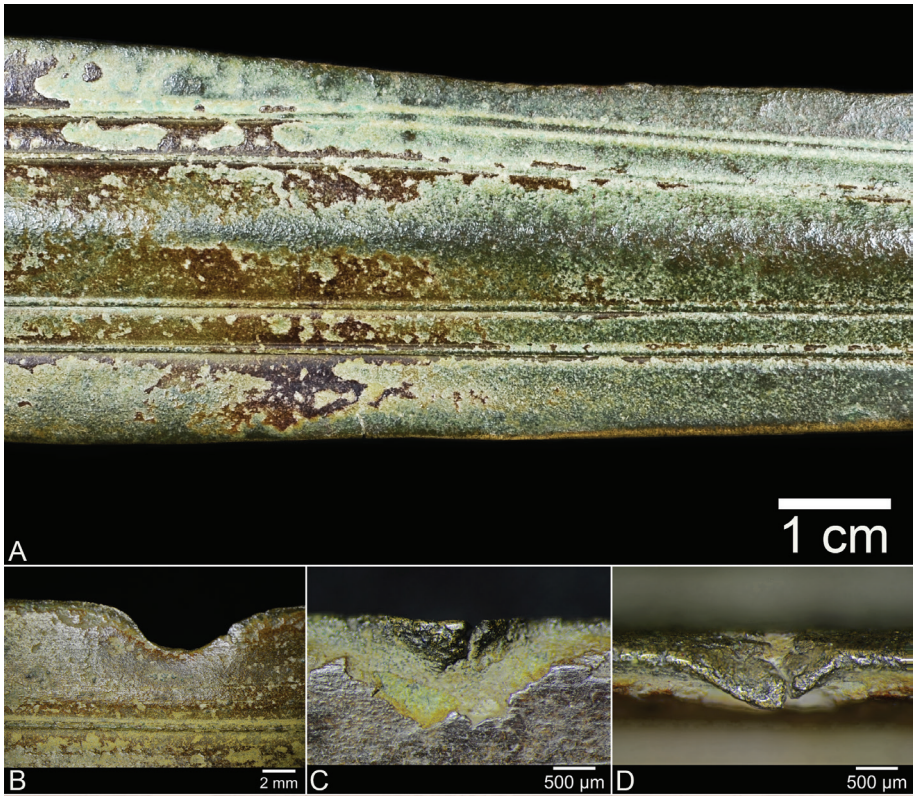

Figure 3. Ancient use-related traces; 3A: deformed incised decorations; 3B: large indentation on the sword; 3 C-D: small notch found on the sword, (C) side-view, (D) top-view (photographs V. Gentile, Laboratory for Artefact Studies – University of Leiden).

A small notch has also been detected on the sword (fig. 3C-D). This mark shows similarities with traces found on another LBA sword from the Netherlands (Gentile & van Gijn 2019, 140 fig. 9A-B) which has been argued to represent sword-to-sword combat damage. The notch is located in a heavily scraped area of the edge and most of its surface has no patina. However, the patination inside the notch's fissure and the presence of cleaning striations only on the outmost part of the burr created by the impact, suggest that the notch was produced in a phase which precedes the mechanical cleaning of the sword.

Classification and parallels

The solid metal hilt classifies the sword as a Central European bronze full-hilted sword, or Vollgriffschwert with a hilt of the three-ribbed variety (cf. Von Quillfeldt 1995; Müller-Karpe 1961, 7-41; Kemenczei 1991; Krämer 1985, 21-32). As in an earlier study of the Vielwulstschwert of Buggenum (Butler & Fontijn 2007), Von Quillfeldt's classification and documentary overview will be followed here. Von Quillfeldt distinguishes between eleven types and three type variants for the three-ribbed and multi-ribbed swords. Within these groups there is variation to the extent that no two swords are alike and no distinct workshops could be identified (Butler & Fontijn 2007,

303-304). The present sword best matches the Mörigen type and the Weisenau variety (Von Quillfeldt 1995, 230-231, 233-235; Taf. 90-93).

Within Central Europe, there are nine examples of this type and several others that may be attributed or associated with it (Von Quillfeldt 1995, 234-235; Taf. 90-93). In particular the swords from Mühlheim am Main (no. 258) and Waldau (no. 263). Based on the distribution maps of the Mörigen type and the associated variants Nächstenbach and Weisenau (Von Quillfeldt, Taf. 133-134) it is clear that there is a main distribution in Central and southern Germany, Switzerland and Austria. Concentrations may be found around Lake Neuchatel, on the Danube and its tributaries as well as further north along the river systems of Weser, Elbe and Oder. A major concentration can be found on the Rhine at Mainz. Individual finds of Mörigen type swords have been documented as far north as Scandinavia, for France, and for the Netherlands. The latter includes two swords of the Preinersdorf variant (Von Quillfeldt 1995, Taf. 135), one of which was also dredged from the river Meuse, but c. 5 km to the north between Tegelen and Blerick (Fontijn 2002, App. 5.4; O'Connor 1980, list 149: no. 5). A third full-hilted sword (of the Tachlovice variety) has been dredged further to the north, from the river Waal near Nijmegen (Fontijn 2002, App. 5.4; O'Connor 1980, list 150: no. 6). Close to Nijmegen, just across the border at Wesel, on the confluence of the Rhine and Lippe another one was found (Nächstenbach variant; Von Quillfeldt 1995, Taf. 134). As far as it is known the Wessem-Thorn sword is the first confirmed sword of the Weisenau variant in the Netherlands, although the sword from Bergeijk (RMO inventory number k 1931/2.4) may also be a possible candidate for the Weisenau or Nächstenbach variant). While two Weisenau swords are known from northern and southern France, the Thorn-Wessem sword and possibly the Bergeijk sword would be the most northwestern examples so far. All this suggests the Thorn-Wessem sword was produced in regions further south than where it ended its life, probably in Central Europe. It is generally assumed that such swords were exchanged between elites (cf. Roymans & Kortlang 1999).

Based on Sprockhoff (1934), Von Quillfeldt (1995, 197) dates these swords in Hallstatt B3 or Period V. She groups them (Taf. 137) in the Späte Urnenfeldzeit. This would date the sword between c. 925 and 800 cal. BC. Several of these swords were found in rivers, as is the case here. Some are known from hoards and a small number of finds of the Nächstenbach variant have been found in burial mounds in Germany (ibid., 231-238).

Depositional context

As with most dredge finds, precise information on the depositional context is unknown. Its patina confirms that it stayed in a waterlogged environment for a long time. However, whether it was left in the flowing river itself, in marshy backswamps, or in parts of the river beds that remained dry in the summer, remains uncertain. The original brownish patina seems best to match a long stay in a peaty environment, like the backswamps of a river. Since the majority of bronze swords with contexts more or less known come from major rivers in the southern Netherlands and Belgium, and are

conspicuously lacking in contemporary burials, hoards or settlements, it is generally assumed that these swords were deliberately deposited there (Bradley 1990; Fontijn 2002; Roymans & Kortlang 1999). This may have been done during life-cycle rituals of warriors or war bands. Given the unrepaired damages on this sword (whilst it did undergo several cycles of repair before), it seems it was deposited after combat. Its deposition might relate to its role in such an event (cf. Fontijn 2002, 221-237).

So far, the present find is the first Late Bronze Age sword known from the area. Bronze Age metalwork has been found during dredging activities near Thorn (in Heel, Stevensweert, Maasbracht; cf. Fontijn 2002), though the main concentration lies a few kilometres northward, on the east bank (near Herten and Roermond). These (probably) include a carp's tongue sword (Fontijn 2002, App. 5.4 with further references) that dates to the same period. Roughly five kilometres north of Thorn, another Mörigen sword was found in the Meuse between Tegelen and Blerick (ibid.). In marked contrast to the Thorn one, this sword barely bareley appears to carry traces of use.

Conclusion

The sword dredged from the Meuse near Thorn-Wessem can be classified as a Mörigen sword of the Weisenau variant, dating to the last phase of the Late Bronze Age (c. 925-800 cal. BC). In all likelihood, it was made somewhere in Central Europe, and reached the north (probably through long-distance exchange). Wear traces indicate prolonged use and maintenance of a functional weapon for a long period of time. Like many contemporary swords, it ended its life by being deposited in the river, or – more likely – its marshy backswamps, somewhere around the banks of the Meuse near present-day Thorn and Wessem. The presence of still unrepaired combat traces suggests that cycles of combat and repair stopped relatively shortly after a battle, when deposition took place.

Acknowledgements

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