A Late Bronze Age Carp's-Tongue Sword from Swettenham, Cheshire

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Abbreviations
The abbreviations used in this volume follow the system laid down in British Standard 4148 part 2; many of the most relevant abbreviations are listed in *Signposts for archaeological publication* ed 3. London: Council for British Archaeology, 1991.

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III: A Late Bronze Age Carp's-Tongue Sword from Swettenham, Cheshire

by Matthew G Knight, Vanessa Oakden, Ben Jones and Dirk Brandherm*

In 2018 five fragments of an almost complete late Bronze Age copper alloy sword were recovered during metal detecting at Swettenham, Cheshire, and subsequently reported to the Portable Antiquities Scheme. This article outlines the discovery of the sword, its typological features and the nature of its fragmentation, as well as its place amongst other late Bronze Age metalwork from Cheshire. The sword can be classed as belonging to the 'transitional' group of carp's-tongue swords, dating *c* 950/930–900/880 BC; it is the first of its kind in Cheshire and one of only a few known from western Britain. The sword was donated by the finder and landowner to Congleton Museum.

Introduction

In October 2018, five refitting fragments of an almost complete copper alloy sword were found during metal detecting in a field in the parish of Swettenham, Cheshire. This discovery was reported to the Portable Antiquities Scheme and subsequently recorded as LVPL-55FB97. The sword has since been kindly donated to Congleton Museum by the finder and landowner. It is a late Bronze Age sword of carp's-tongue type with 'transitional' hilt, previously unknown in Cheshire. This paper presents a full description of the sword and its typology, dating and fragmentation, before discussing its place in late Bronze Age Cheshire and amongst Atlantic late Bronze Age swords.

Discovery and findspot

After receiving permission from the landowner, Rick Firth and members of the Congleton and District Metal Detecting Club proceeded to metal detect a field close to the border of

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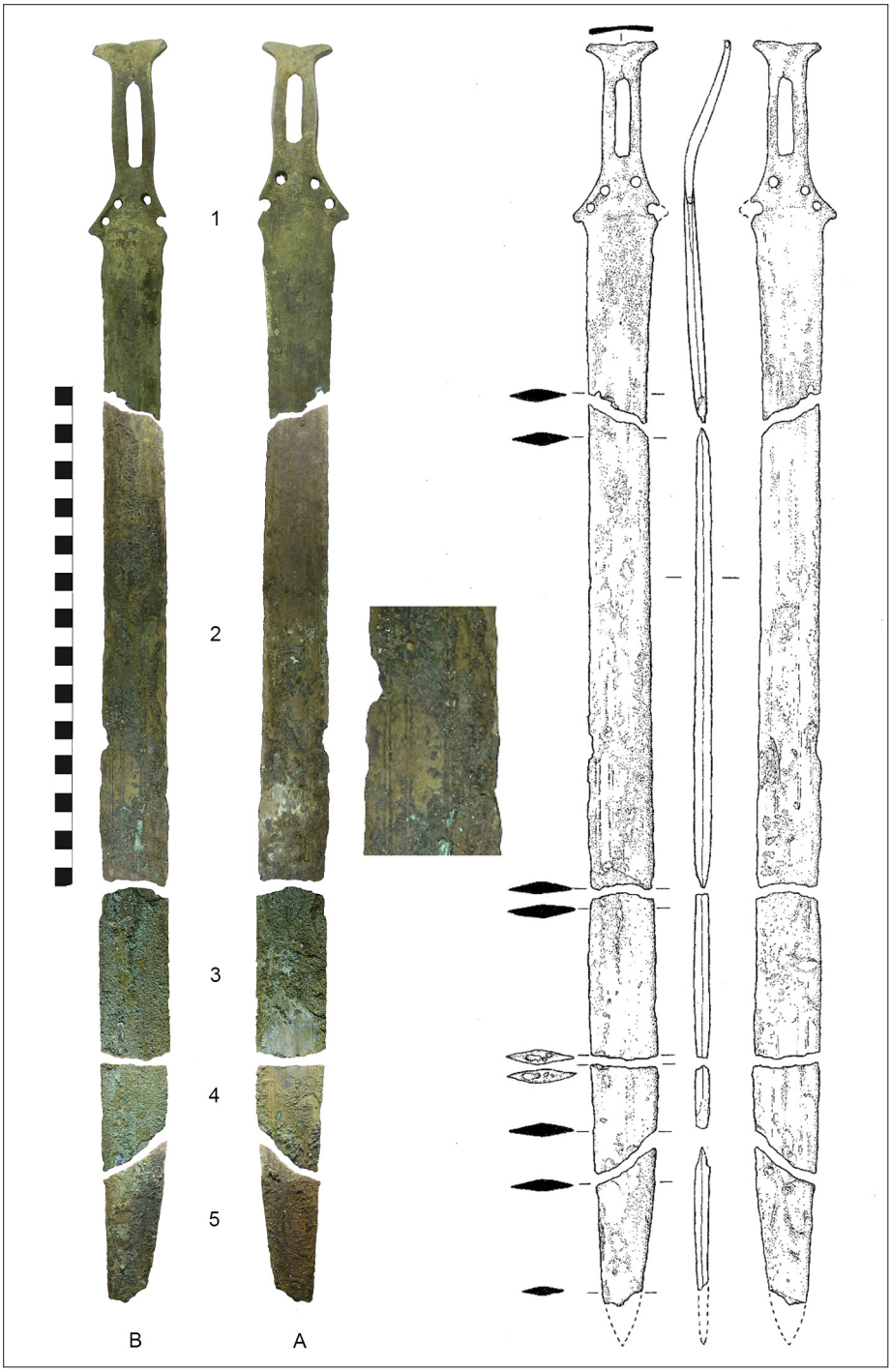


Illus III.1 The Swettenham sword. (Scale 1/4; enlargement 1/2). Drawing by Julian Heath; photos © Trustees of Museum of Liverpool

the parish of Swettenham. The field slopes steeply towards a flat area of marshland. This marshy area, potentially a silted-up glacial mere or pool, appears to be drained by a ditch that runs into the Swettenham/Midge Brook, a tributary of the River Dane. The landowner reports that, because of the topography, the field has only been ploughed once, during the late 1990s.

The initial fragment of the sword to be recovered was recognised as a significant find by the metal-detecting club members. They then began to search the field more systematically, and all of the sword except for the tip was recovered. A second visit to search for the tip was unsuccessful.

The fragments were reported to one of us (B J), then the Portable Antiquities Scheme Finds Liaison Officer for Cheshire, Greater Manchester and Merseyside, hosted by the Museum of Liverpool, during a finds reporting day held at Congleton Museum. Because of the rarity of the find and the nature of the breaks, specialist knowledge was sought, and the sword was further examined by M G K at Manchester Museum, along with the finder and a second member of the Congleton and District Metal Detecting Club.

A discussion with the finders about the local importance of the sword, its future and the conservation risks resulted in its donation to Congleton Museum. As part of the recording process a series of photographs was taken. To capture further detail, a drawing by a professional illustrator was commissioned thanks to a grant from the St John's House Trust, Chester.

Table III.1 Details of the sword fragments

Frag no	*Description*	*Dimensions (mm)*	*Wt (g)*	*Damage*
1	Hilt and upper blade	L 250 Terminal W 40	169	Bent; broken across upper blade
2	Long mid-blade piece	L 255 W 37 Th *c* 10	225	Broken at both ends
3	Short mid-blade fragment	L 85 W 37	88.2	Broken at both ends
4	Short mid-blade fragment with diagonal fracture	L 59 W 38	40.5	Broken at both ends
5	Tapered fragment	L 77 Max W 33 Min W 22	48	Broken at both ends

Key L = length; W = width; Th = thickness

The sword

Description

The sword is almost complete, surviving in five refitting fragments, although the tip is missing (Illus III.1; Table III.1). The blade has a lenticular cross-section and the edges run straight and broadly parallel to each other. There are four decorative cast ribs on each face (two

each side of the midrib), although they are inconsistent and the quality of the ribbing varies between the two faces; this is a result of the definition achieved in the casting process. The blade is encrusted with patches of corrosion, but the surface is otherwise largely preserved, with an olive green patina. There is some discolouration at the lower end of the blade on Fragment 5, as well as patches on other fragments, possibly indicating the remains of a scabbard that has decayed *in situ*. The fragments were scattered across the field, with a number of pieces close to a waterlogged area. The longest section of the sword, Fragment 2, was dry upon discovery and found high in the soil, while the other fragments were found at a greater depth and were all damp. The sword and its individual fragments were described in Beeton and Savage's (2020) round-up of finds reported to the Portable Antiquities Scheme from Cheshire, but it is worth reiterating and expanding key aspects of this information that relate to the subsequent discussion. The fragments are numbered from the hilt to the tip.

Fragment 1: Hilt and upper blade. The hilt has a fishtail-shaped terminal 40mm wide and 3mm thick at the edges. The hilt tang has an oval slot and there are two holes in each shoulder for rivets that would have secured an organic handle, although no rivets survive and one shoulder tip has broken across the hole. The hilt tang is bent about 10–15 degrees from straight at the hilt tang–shoulder transition.

From the shoulders, the blade tapers inwards in a sharp, even curve onto the upper blade of the sword, with very shallow ricasso notches. The cast ribbed decoration starts about 40mm below the surviving rivet hole on the broken shoulder, although it is faint. Corrosion is visible along one edge. The break is light green in colour, showing signs of recent corrosion. Air bubbles are visible within the break.

Fragment 2: Long mid-blade piece. The ribs on Face A are worn. The upper half of this face is smooth with an olive green patina, whilst the lower half is encrusted with corrosion and plant matter. The ribs are well defined on Face B, which is partially encrusted with corrosion. Small fragments of a possible scabbard are preserved as bright green corrosion towards the distal break; this extends onto Fragment 3. The proximal break is freshly corroded, matching the nature of the break on Fragment 1. The distal break is darker in colour and more worn, but this is slightly obscured with soil embedded into the corrosion layer. The long edges of the blade are damaged in places, possibly due to abrasion within the soil.

Fragment 3: Short mid-blade fragment. Much of this fragment is encrusted with corrosion, although on Face A there is an area of smooth, uncorroded surface with an olive green patina, and clearly defined ribs are visible. There are three substantial air bubbles in the distal fracture, but the patina is consistent, suggesting an ancient break. On Face B there is a central vertical band of smooth bright green fragments as well as fragments of a wood-like material broadly along the midrib, which may represent scabbard remains extending from Fragment 2. Alternatively, this could be organic matter which adhered to the blade post-deposition.

Fragment 4: Short mid-blade fragment with diagonal fracture. This fragment refits snugly with Fragment 3 and with corresponding air bubbles in the proximal break. However, there is a distinct change in colour from the smooth olive green of the end of Fragment 3 to a dark

iron-rich brown on Face A of Fragment 4. The lower part is encrusted with rough corrosion. The ribs remain clearly defined. Face B has the same rough, mid-green encrusted surface as Fragment 3. The proximal break has a dark brown, even patina and three air bubbles that perfectly match those in Fragment 3. The diagonal distal break has a mottled purple/blue and brown colour and no air bubbles.

Fragment 5: Tapered fragment. The diagonal proximal break joins snugly with Fragment 4. Both faces are covered with rough encrusted corrosion, although Face A is dark orange-brown in colour, while Face B is light to mid-green. The proximal break has a blue-purple central core surrounded by a darker brown colour and is probably recent. The distal break is mid-green in colour and contains two rows of air bubbles running across its width. The tip of the sword is missing.

Typology and dating

The form of the Swettenham sword corresponds to the group of late Bronze Age carp's-tongue swords with 'transitional' hilts as defined by Brandherm and Moskal-del Hoyo 2014 (appendix, list 16). These hilts are identified by the transition from the shoulder to the grip, which is not sufficiently angular to qualify for inclusion in the earlier Type Huelva, but lacking the even curve observed in later Type Nantes swords. However, the Swettenham sword differs from most other 'transitional' specimens in that its grip features a central slot and a slightly bulging outline, whereas on other 'transitional' carp's-tongue swords where the grip survives it is more straight-sided and invariably possesses individual rivet holes rather than a central slot. Within the 'transitional' group, these features align the Swettenham sword more closely with carp's-tongue swords of Type Nantes than with the earlier Type Huelva, indicating that if the morphological continuum represented by carp's-tongue swords with 'transitional' hilts is to be interpreted as an expression of a temporal continuum, the Swettenham sword would have to be situated towards the more recent end of that continuum. The very shallow ricasso notches, on the other hand, would seem to constitute a relatively archaic feature, which is only rarely found among Type Nantes specimens. In any case, these observations serve as a poignant reminder that carp's-tongue swords with 'transitional' hilts do not constitute a neatly circumscribed 'type' in the same sense as Type Huelva or Type Nantes swords do.

The blade design of the Swettenham specimen is unusual but by no means unique amongst Atlantic late Bronze Age swords. Parallel decorative ribs like those seen on the blade of the Swettenham piece are much more common on Urnfield swords of the Ha B2/3 period (*c* 925–800 BC) than they are on Atlantic swords, but Urnfield-inspired features do occur on several French Atlantic specimens. However, this particular type of decoration is currently unknown among the relatively small group of 'transitional' carp's-tongue swords. Among the two main types of carp's-tongue swords, one would expect to encounter this feature in pieces of Type Nantes rather than of Type Huelva. In terms of absolute chronology, the Swettenham sword would most likely sit towards the very end of the tenth century BC, but could equally be early ninth century; this is equivalent to the end of the Wilburton-Blackmoor phase and start of the Ewart Park phase in British metalwork chronology (Needham *et al* 1997). While it seems likely that it predates the Boughton-Vénat complex, ie the main period of the currency of carp's-tongue swords in Britain (875–800 BC), it is important to

remember that a small number of 'transitional' carp's-tongue swords have been found in typical Boughton-Vénat hoards. Five of the relevant hoard assemblages are French finds, but the Grays Thurrock I hoard from Essex provides an example of the inclusion of a carp's-tongue sword with 'transitional' hilt in a British Boughton-Vénat assemblage (Brandherm & Moskal-del Hoyo 2014, 26, note 61). So far, no carp's-tongue swords with 'transitional' hilts are attested in any hoards of the Wilburton-Blackmoor phase.

Assessment of manufacture, use and damage

The casting of the sword appears to be poor quality. Large air bubbles visible in the breaks indicate high porosity of the metal, and the irregular definition of the ribs probably relates to the way the metal filled the mould or else reflects imperfections already present in the ceramic mould. The corroded state of the sword makes it difficult to identify conclusive signs of use in combat such as notches or nicks in the edges. However, any casting sprues or flash have been removed. It would therefore appear that the sword was prepared for use; if genuine, the possible remains of the scabbard further imply that it was functional pre-deposition.

The nature of the breaks indicates that much of the fragmentation of the sword was probably accidental or occurred after deposition. The refitting breaks of Fragments 1–2 and 4–5 probably occurred recently, judging by the fresh build-up of corrosion, and this may have resulted from anthropogenic processes (eg ploughing). By contrast, the breaks between Fragments 2–3 and 3–4 could be more genuinely ancient; it is uncertain whether these occurred accidentally or were deliberate, although two accidental fractures would seem unusual. Although there are no tool marks suggesting intentional fragmentation, experiments indicate that if hot when struck, deliberately fragmented metalwork may show no associated damage (eg tool marks or bending) (Knight 2019). However, the poor casting of the sword, particularly indicated by the large air bubbles visible in the break between Fragments 3 and 4, may have made it more prone to accidental breakage, perhaps while hot-working or through use. The bottom break (ie where the tip is missing) is also likely to be accidental, given its very porous appearance.

The nature of the bend at the hilt is similarly difficult to interpret. It is probably ancient damage, either as a consequence of stress on the blade through use or inflicted while removing the handle or after the handle was removed. The bend could not have occurred with the handle attached without also breaking the handle; the broken rivet hole in one shoulder could be related to this bend. Stress on the blade may also have caused the tip to break. Given the post-depositional nature of some of the fragmentation, it remains possible that the bend was caused after the sword was buried, but there is no corresponding surface damage on the object that one might expect if, for example, the sword was bent when struck by a plough.

On balance, the damage on the Swettenham sword does not strongly suggest that it was deliberately fragmented and decommissioned and, although in five fragments now, it is probable that the sword was buried complete, or else in only two, possibly three, pieces if some of the breaks are genuinely ancient; this pattern of breakage is more consistent with accidental damage pre-deposition, especially considering the poor casting quality. The possible evidence for a scabbard complicates the situation, as we are left to speculate that

the sword may have been damaged, possibly broken, but deposited in its scabbard, which seems unlikely. Alternatively, the organic wood-like remains do not in fact represent a scabbard at all, and instead comprise organic matter that has later adhered to the bronze.

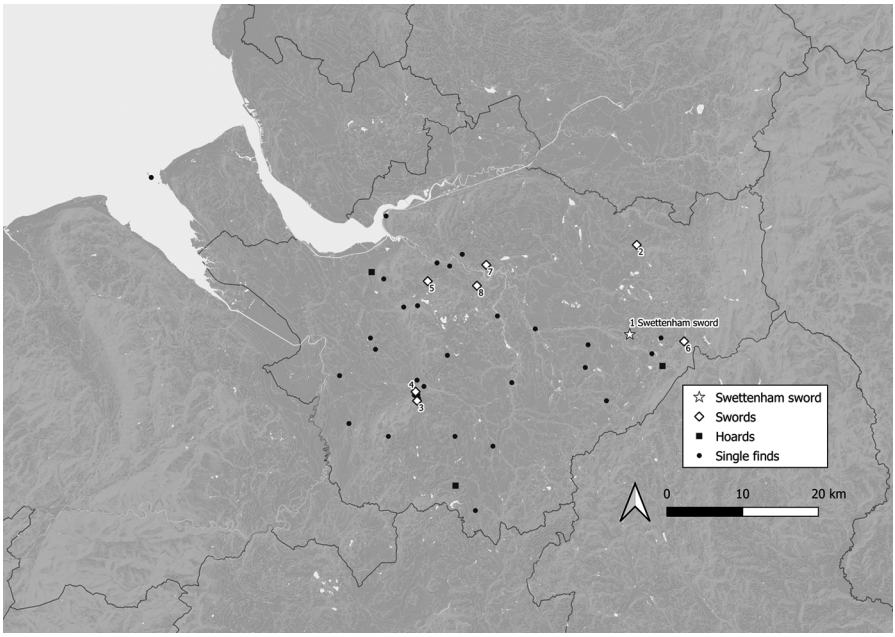
Discussion

The Swettenham sword represents a significant discovery for late Bronze Age Cheshire. Firstly, it is one of the most complete late Bronze Age swords from the county. In fact, swords are largely unknown from Cheshire, with none listed in previous surveys (eg Davey & Forster 1975; Colquhoun & Burgess 1988) except that by Longley (1987, 102) who refers to a 'bronze sword fragment' from Kingsley. Historic discoveries are known though, such as a complete Wilburton-type sword reportedly found at Alderley Edge in 1871 (Tindall 1995, 23). Other discoveries, mostly through metal detecting, largely comprise undiagnostic fragments, such as a deliberately bent and broken lower blade of a leaf-shaped sword from Weaverham (Herepath 2006) or a mid-blade fragment from the Beeston Castle metalworking assemblage (Needham 1993, 44, fig 33.1). One discovery of note is a hilt fragment of a carp's-tongue-type sword reported through the Portable Antiquities Scheme from Northwich (Illus III.3) (Oakden 2012); this fragment is broadly contemporary with the Swettenham sword (Table III.2; Illus III.2).

'Transitional' swords, such as that recovered at Swettenham, are most commonly found in north-western France, although they are also known from southern Iberia and Britain (Brandherm & Moskal-del Hoyo 2014, 5, fig 8). Only four finds of this sword type are listed

Table III.2 Late Bronze Age swords from Cheshire

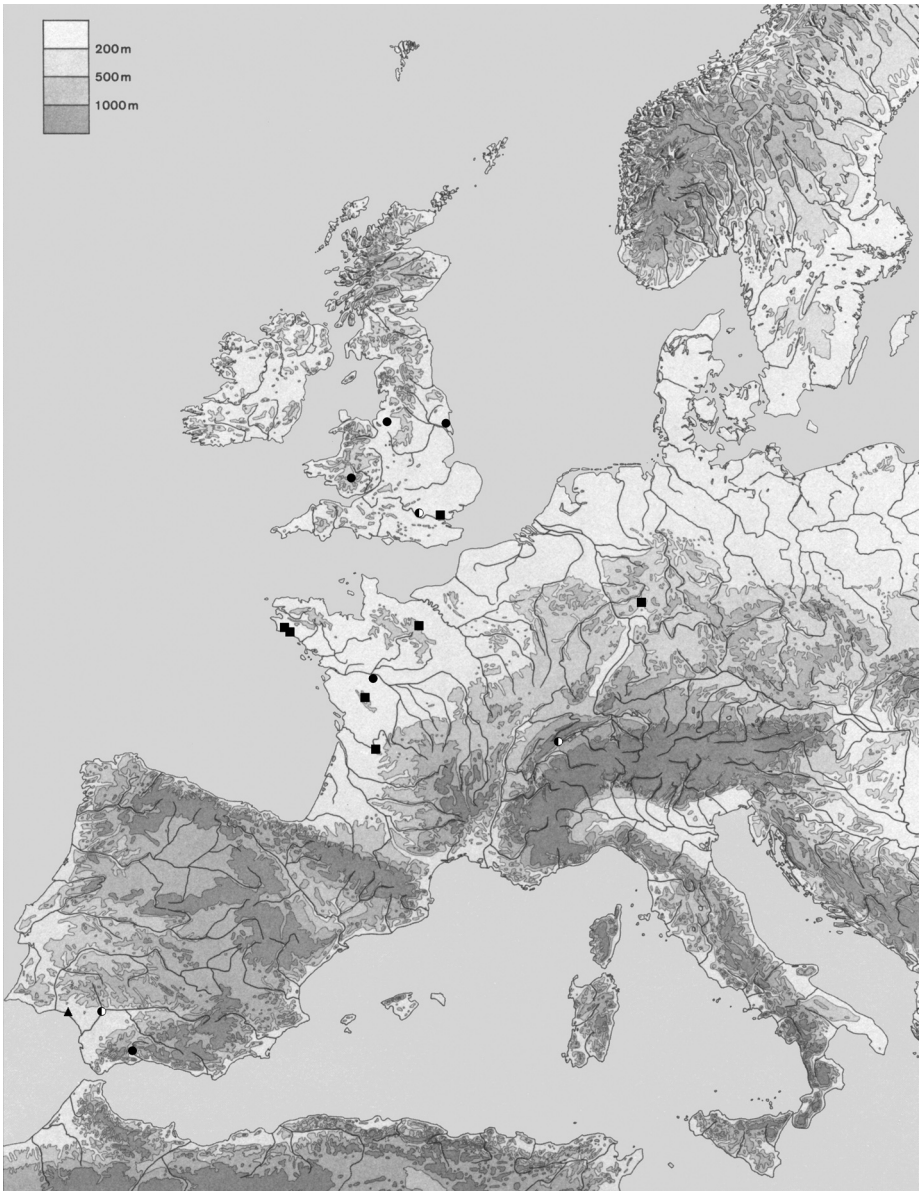
No	*Findspot*	*Type*	*Context*	*Date*	*Notes*	*Reference*
1	Swettenham	Transitional carp's-tongue	Single find	950/930–900/880 BC	In five refitting fragments	PAS LVPL-55FB97
2	Alderley Edge	Wilburton	Single find	1100–1000 BC	Complete	Tindall 1995, 23
3	Beeston Castle	Uncertain fragment	Metalworking assemblage	1000–800 BC	Blade fragment in assemblage with socketed axeheads and a spearhead, a knife, an ingot and other casting debris	Needham 1993
4	Beeston	Ewart Park	Single find	950–800 BC	Hilt and upper blade piece	Garner 2007
5	Kingsley	Uncertain fragment	Single find	1100–800 BC	Blade fragment	Longley 1987, 102
6	North Rode	Uncertain fragment	Single find	1100–800 BC	Two refitting fragments	PAS LVPL-5CCA41
7	Northwich	Carp's-tongue	Single find	950–800 BC	Hilt fragment	PAS LVPL-A22B26
8	Weaverham	Wilburton/ Ewart Park	Single find	1000–800 BC	Bent and broken lower blade	PAS LVPL-25C375



Illus III.2 Map of late Bronze Age metalwork from Cheshire *c* 1150-800 BC. (Scale 1/1000,000). Numbers refer to Table III.2.

Illus III.3 Carp's-tongue sword fragment from Northwich (PAS LVPL-A22B26). Image courtesy of the Portable Antiquities Scheme, licensed under CC BY-SA 4.0

from Britain: three single finds, from Llandetty (Breconshire), River Thames, Withernwick (Yorkshire), and one from the Grays Thurrock I hoard (Essex) (Brandherm & Moskal-del Hoyo 2014, appendix, list 16). The Swettenham sword thus represents only the fifth 'transitional' carp's-tongue sword known from Britain and the first from north-western England (Illus III.4).



Illus III.4 Map of carp's-tongue swords with 'transitional' hilt in western Europe. ● = single finds; ◐ = 'wet' single finds; ■ = hoards; ▲ = 'wet' multi-piece depositions

Carp's-tongue swords in general are rare in western Britain. Their main distribution is in hoards of the Boughton-Vénat complex and as single finds in south-eastern Britain and Atlantic France. However, they are increasingly encountered as fragments within hoards from south-west England and south Wales (*see* Brandherm & Moskal-del Hoyo 2014, appendix, list 21). This suggests a wider distribution of this object type than previously considered. In these areas the fragments are often incorporated into deposits that are less characteristic of the Boughton-Vénat complex. Although a single find, the nature of the breaks on the Northwich fragment suggest that it was deliberately fragmented and it was probably part of these more general fragmentation actions in areas on the periphery of the main distribution of carp's-tongue swords. Other than the examples from Northwich and Swettenham, no other carp's-tongue swords are presently known in the west Midlands or north Wales, which makes the discovery of a mostly complete sword at Swettenham even more noteworthy. Even if other metalwork characteristic of the Boughton-Vénat complex is considered, such as hog's-back knives, end-winged axeheads and bag-shaped chapes, there are few examples that can be readily identified. Single finds of a hog's-back knife from Bagillt, Flintshire (Oakden 2009a) and a bag-shaped chape from Trysull and Seisdon, Staffordshire (Burford 2019) are rare exceptions.

This raises the question of how and why the Swettenham sword came to be deposited in Cheshire and whether it fits within wider practices, such as those associated with Huelva- and Nantes type carp's-tongue swords. It is unclear if the sword is a local product or an import, but it could imply that late Bronze Age communities in this area had some connection with broader Atlantic traditions. The deposition of the sword as a single find is in keeping with the expected context for 'transitional' swords in Britain, albeit outside the typical distribution area. This is an important observation, as it suggests that the person or people who deposited the sword had a broader understanding of what was the appropriate treatment for the object at this time. Single finds of carp's-tongue swords elsewhere are generally recovered unfragmented (although they may be otherwise intentionally damaged, and this includes missing tips) (Brandherm & Moskal-del Hoyo 2014, 14; Brandherm *forthcoming*), which may strengthen the idea that the Swettenham sword was originally buried intact but damaged through use. By contrast, the fragmentation of the Northwich carp's-tongue sword suggests that any meaning attached to the type and origins of the sword had since been lost. Gibson's (2013, 81–5, figs 3.3, 3.4) analysis of the overall distribution and treatment of Atlantic later Bronze Age weapons (including swords and spears) highlights a concentration of swords mainly deposited complete and in predominantly dryland contexts in north Wales. Although this analysis includes swords deposited across the whole of the late Bronze Age, it emphasises the wider ideological structures within which the Swettenham sword was deposited.

Alternatively, we can consider how closely the deposition of the Swettenham sword fits within expected local depositional traditions (ie other contemporary metalwork deposited in Cheshire). Illustration III.2 highlights the relatively large number of late Bronze Age single finds from the county, with only three hoards known. The hoard from New Street, Congleton, not far from Swettenham, contained a lunate-opening spearhead, a barbed spearhead, two spear ferrules and a three-ribbed socketed axehead dating to *c* 1020–920 BC (Davey & Forster 1975, 125–9; Davis 2015, 190–1) and attests the deposition of weapons in the

area shortly before or around the time of the Swettenham sword deposition. The single finds predominantly comprise socketed axeheads and spearheads, and although previous surveys give the impressions of only complete examples being deposited (eg Davey & Forster 1975), recent discoveries reported through the Portable Antiquities Scheme are more commonly incomplete and often show signs of deliberate fragmentation; the single finds of swords are in a similar condition (Table III.2). Furthermore, a hoard from Helsby contained a socketed axehead plugged with a fragment of a socketed gouge (Thompson 1959, 79), again an act of deliberate decommissioning. The distribution of findspots, particularly single finds, suggests that waterways formed focal points for deposition, a trend that has been highlighted in other areas of Britain during the late Bronze Age (eg Yates & Bradley 2010; Dunkin *et al* 2020) and would repay further investigation in Cheshire. The position of Swettenham in a marshy area near a brook accords with this general practice.

There is a particular concentration of single finds around the Beeston area, including fragments of socketed axeheads, a hammer/punch, an ingot and a broken sword (Herepath 1999; 2000; Oakden 2009b; White 2019). This is especially significant in light of the evidence for non-ferrous metalworking at the late Bronze Age enclosure at Beeston Castle, indicated by four complete and incomplete socketed axeheads, a spearhead, a knife, a sword fragment and fragments of ingots, copper alloy lumps and other metallurgical waste (Needham 1993). In addition, fragments of ceramic crucibles and moulds, including a possible fragment of a sword mould, were discovered (Howard in Ellis ed 1993, 54–5; Needham 1993). Some of this activity may have been linked to nearby copper sources in the Peckforton Hills, specifically towards Bickerton Hill at the southern end of this ridge (Needham 1993, 48; Timberlake & Prag 2005, 16), although there is currently no evidence for prehistoric extractive industries in this area. The Swettenham findspot lies about seven miles south of Alderley Edge and about seventeen miles west of Ecton Hill, Staffordshire, both of which were exploited for copper in the early Bronze Age, although these sources were seemingly out of use by *c* 1600 BC (Timberlake 2009; Williams & Le Carlier de Veslud 2019). It is possible that some late Bronze Age depositions in Cheshire were linked to earlier mining activity, although this is difficult to determine. One intriguing connection is the Wilburton-type sword reportedly found at Alderley Edge in 1871 (Tindall 1995, 23), which may indicate that this remained an important location, although its provenance must be treated with some suspicion. Importantly, this is the only other complete sword known from Cheshire, but it was probably deposited about a century earlier than the Swettenham sword.

Conclusion

To conclude, the Swettenham sword is quite different in character from the other metalwork typically deposited in Cheshire in the late Bronze Age, between 1000 and 800 BC, in addition to falling on the fringes of the broader Atlantic carp's-tongue sword tradition. There is little suggestion from the archaeological record that swords were particularly common in the immediate area – although evidence is growing – and to own and deposit one was probably significant. Its deposition fits within broader traditions elsewhere in Britain and Europe but stands out in its local context. Swords are often seen as symbols of status and identity and perhaps would have conveyed stories of their owners or even possessed an individual identity (Pearce 2013). The Swettenham sword may have symbolised and expressed various connections or else been recognised as something outside the normal

circulation of metal objects. It was therefore buried according to the grander concept that reflected its affinities with Atlantic traditions and wider understandings. Moreover, if, as suspected, this sword was prepared and used prior to deposition, resulting in some damage, perhaps to the tip and hilt, this may have added to the biography of the weapon and contributed to the decision to eventually deposit it. Such interpretations are difficult to draw conclusively from the five fragments recovered from Swettenham, but the burial of a mostly complete sword, possibly in its scabbard, would have undoubtedly been an important event for the late Bronze Age communities living in Cheshire.

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Herepath, N 2000	*LVPL1167. Hammer.* https://finds.org.uk/database/artefacts/record/id/5688. Accessed 25-08-2020
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