# Bronze Age Metalwork from the Thames at Wallingford

### By ROGER THOMAS

# SUMMARY

A number of pieces of Bronze Age metalwork, dredged from the Thames at Wallingford in the later 19th century and in the early 1960s, are discussed. Manuscript sources appear to cast doubt on the integrity of the Wallingford Late Bronze Age 'hoard' now in the Ashmolean Museum. The character of the material, and its place in the Bronze Age of the Upper Thames valley are discussed. The reasons for the deposition of the metalwork in the river are considered, particularly in relation to the presence of a Late Bronze Age settlement site on the bank of the Thames below Wallingford. It is concluded that the metalwork is unlikely to have eroded from a settlement site.

## INTRODUCTION

The River Thames is well known as a prolific source of finds of Bronze Age metalwork. In the neighbourhood of Oxford, the reach of the river which has produced the most such material is that to the south of Wallingford Bridge. In the course of compiling a report on the Bronze Age riverside occupation site that lies on the west bank of this stretch of the Thames,' a study was carried out of the Bronze age metalwork which has been dredged from the river at Wallingford; the results of this study are presented here. A number of previously unpublished items are illustrated, and manuscript sources which appear to cast doubt on the integrity of the well-known Wallingford Late Bronze Age 'hoard' are discussed.<sup>2</sup>

#### THE RECOVERY OF THE MATERIAL

The material to be considered here was recovered during the course of two episodes of dredging to the south of Wallingford Bridge. The first was apparently taking place between the late 1850s and the early 1870s, and the second occurred in 1963–4.

There is some confusion about exactly how much metalwork was dredged up during the 19th century. The following pieces are extant, or accurately documented:

1.	Socketed axe	(Ashmolean	1896-1908	Pr.	372)
2.	Socketed knife	(Ashmolean	1896-1908	Pr.	373)
3.	Leaf-shaped spearhead	(Ashmolean	1896-1908	Pr.	374)

<sup>1</sup>R. Thomas, et. al., 'A Late Bronze Age Riverside Settlement at Wallingford, Oxon', Archaeol. Journ., forthcoming.

<sup>2</sup> I would like to thank Andrew Sherratt of the Ashmolean Museum, Oxford, Leslie Cram of Reading Borough Museum and Art Gallery and Mike Hall of Thames Water for their kind assistance with this note, and for permission to publish objects in their care. Thanks are also due to Mike Hall for executing the drawings of Nos. 16 and 17.

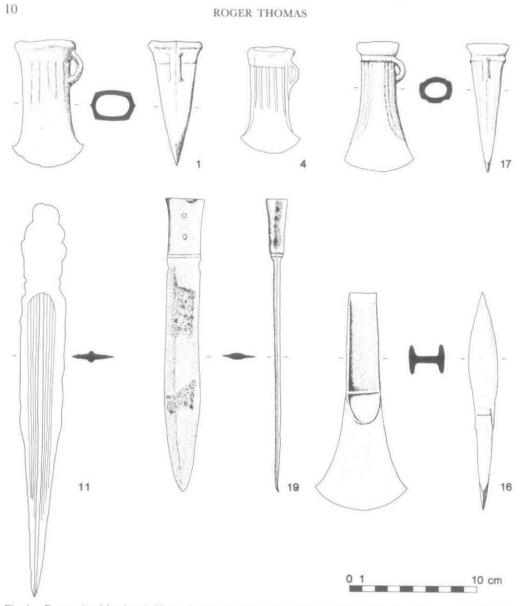


Fig. 1. Bronze Age Metalwork. No. 4 after a drawing in the Jesse King MSS, Ashmolean Museum, No. 11 after a drawing in the Manning MSS, Ashmolean Museum, Nos. 16 and 17 after drawings supplied by M.R.L. Hall, Thames Water. (Numbers refer to catalogue in text). Scale: 1:3.

These objects were presented to the Ashmolean in 1908 by Adml. Clutterbuck, son of the Rev. James C. Clutterbuck of Long Wittenham in whose collection they had been.<sup>3</sup>

The socketed axe contains a hand-written label:

<sup>1</sup> Ashmolean Museum Accession Register: Report of the Visitors to the Ashmolean Museum for the year 1908, 3.

Found in the bed of the River Thames a few yards below Wallingford Bridge. J. Clutterbuck. Celt and two Spearheads

This label is transcribed in the Ashmolean register with the note:

One of the spearheads is the (knive) dagger.

This must refer to the socketed knife, No. 2. This knife may reasonably be supposed to be one of two which were exhibited to the Society of Antiquaries in 1859:

(Meeting of 17th. March 1859)

The Rev J.C. Clutterbuck exhibited . . . two small knife Blades similar to one engraved in Archaeologia Vol xxxvi, p. 330, and a socketed celt, all of bronze, found in the Thames near Wallingford.<sup>4</sup>

What is presumably the second socketed knife is depicted in a water-colour drawing among the papers of Jesse King, a Berkshire antiquary, now in the Ashmolean.<sup>5</sup> One drawing shows two socketed knives (one identifiable as Pr. 373) and an iron spearhead of later date. Another shows a socketed axe which can be identified as Pr. 372, and another similar but smaller axe:

4. Socketed axe (Lost ?)

This drawing carries the caption:

Three Spears and two Celts found in the River Thames above [sic] Wallingford Bridge, in the possession of Rev. John [sic] Clutterbuck of Long Wittenham Berks

Thus it is possible that the label 'Celt and 2 Spearheads' in fact refers to the socketed axe and the two socketed knives. This would tally with a reference in Hedges' *History of Wallingford*:

In dredging the river here on the south side of the bridge some years ago, two bronze celts . . . as well as two bronze spearheads, were discovered and handed by Mr. John Drake, then the surveyor of the Thames, to the Rev. James Charles Clutterbuck . . . along with other relics.<sup>6</sup>

Thus the original discovery may have consisted of two socketed axes and two socketed knives, which King, Hedges and perhaps Clutterbuck seem to have mistaken for spearheads.

A drawing of the spearhead which now carries the number Pr. 374 was sent by Clutterbuck to J.Y. Akerman and exhibited to the Society of Antiquaries on April 8, 1869:

... A bronze spearhead of the plain leaf-shaped type, about  $7\frac{1}{4}$  inches long, with socket and rivet holes, found recently in dredging the bed of the Thames below Wallingford. The Rev. S. [*sic*] C. Clutterbuck ... observed in a letter accompanying it that

<sup>4</sup> Proc. Soc. Antiq. Lond. 1st ser. iv (1859), 303.

<sup>&</sup>lt;sup>5</sup> Ashmolean Museum, Department of Antiquities. I am grateful to Andrew Sherratt for drawing my attention to these drawings.

<sup>&</sup>lt;sup>6</sup> J. Hedges, History of Wallingford (1881), i, 148.

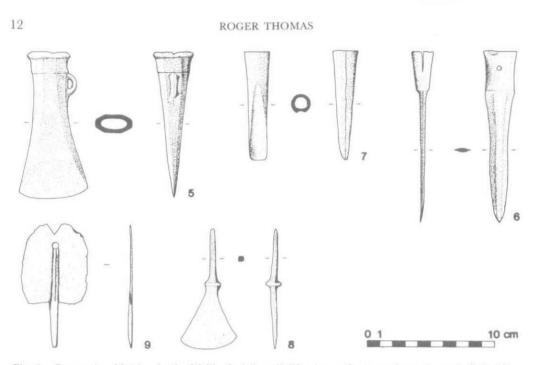


Fig. 2. Bronze Age Metalwork: the Wallingford 'hoard' (Numbers refer to catalogue in text). Scale: 1:3.

spearheads of a similar character and bronze celts had previously been found near the same place.<sup>7</sup>

The spearhead itself was exhibited at the Antiquaries, by Clutterbuck, on December 16, 1875.<sup>a</sup>

Thus the bronzes which Clutterbuck possessed from the Thames at Wallingford seem to have been two socketed axes, two socketed knives and a leaf shaped spearhead, of which only one axe, one knife and the spearhead passed to the Ashmolean.

The second major group of objects to be considered is that which constitutes Sir John Evans's Wallingford hoard. These are:

5.	Socketed axe	(Ashmolean 1927.2707)
6.	Socketed knife	(Ashmolean 1927.2708)
7.	Socketed gouge	(Ashmolean 1927.2709)
8.	Tanged chisel	(Ashmolean 1927.2710)
9.	Bifid razor	(Ashmolean 1927.2711)

The objects are labelled 'Wallingford 1871'. They were exhibited by Evans to the Society of Antiquaries in 1873, and are described in Evans's *Ancient Bronze Implements* where it is stated that they were found in the Thames at Wallingford.<sup>9</sup> (It is assumed that this hoard was found to the south of Wallingford Bridge; the apparent 'overlap' with the Clutterbuck finds (see below) suggests that this was almost certainly the case).

7 Proc. Soc. Antiq. Lond. 2nd ser. iv (1870), 280.

<sup>8</sup> Proc. Soc. Antiq. Lond. 2nd ser. vi (1876), 458.

<sup>9</sup> Proc. Soc. Antig. Lond. 2nd ser. v (1873), 425; J. Evans, Ancient Bronze Implements (1881), 128, Fig. 150 (socketed axe); 167, fig. 193 (tanged chisel); 206 (socketed knife); 219, fig. 269 (razor); 457, 466 (hoard).

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This 'hoard' raises some problems. On p. 128 of Ancient Bronze Implements, Evans states, for reasons that he does not give, that the axe in the hoard may be that mentioned in *Proceedings of the Society of Antiquaries* 1st. ser. iv, 303, i.e. that found with the two socketed knives and exhibited via Clutterbuck. The axe in question is not in fact either of those known to have belonged to Clutterbuck. However, this statement suggests both that Evans did not have any first-hand information on the discovery of the hoard, and that he believed that the hoard could have been recovered as early as 1859, although he himself perhaps did not acquire it until 1871 (the date on the labels).

The impression that Evans knew little about the origins of the hoard is reinforced by the fact that, although the axe in the hoard does not resemble either of Clutterbuck's, the second socketed knife illustrated by King closely resembles the knife in Evans' hoard, and is almost certainly to be identified with it. It seems that Evans did acquire material that had been in Clutterbuck's hands, but that he knew little about its discovery or earlier history. The annual report of the Ashmolean for 1908, recording the donation of the Clutterbuck finds to the museum, states:<sup>10</sup>

The objects probably formed part of the same hoard as those in the late Sir John Evans' Collection from the same site.

The basis for this statement is not, however, given, and it may well have been simply a supposition.

The situation is further complicated by a manuscript in Manning's collection of notes on the archaeology of the Oxford region, now in the Ashmolean Museum:<sup>11</sup>

## Wallingford XLIX S.E.

[Information from Tom Jones, dredger of Wallingford, 1895-6]

About 1869 there was dredged up near Wallingford bridge on the Oxfordshire side a box containing four bronze implements, one like a small battle axe, two in the shape of spears, and one in the shape of a flag (Perhaps refers to same find as Hedges Wallingford I, 148) About 1872 a bronze sword was dredged up at the same place; it was sold to J.K. Hedges Esq. of Wallingford Castle.

It is not clear what relation, if any, this find of a hoard bears either to Evans' 'hoard' or to the bronzes which came into Clutterbuck's possession; it is of course possible that this account, recorded almost 30 years after the event, is inaccurate or confused in some respects.

At any rate, leaving aside the question of how the 'Tom Jones' find relates to the bronzes now extant, the evidence presented above does make certain points clear. There is no primary account which refers unambiguously to the discovery of Evans's 'hoard'; Evans may have acquired the hoard some considerable time after its finding, and he seems to have known little about its discovery or former history; it appears that at least one item in the hoard passed through the hands of another collector before Evans acquired it.

Our conclusion must be that Evans's Wallingford 'hoard' cannot, for the present, be regarded as a genuinely associated find. This problem is one that is only likely to be resolved if further documentary evidence comes to light. (To the specific problems

<sup>&</sup>lt;sup>10</sup> Report of the Keeper of the Ashmolean Museum for the year 1908, 3.

<sup>11</sup> Ashmolean Museum, Department of Antiquities.

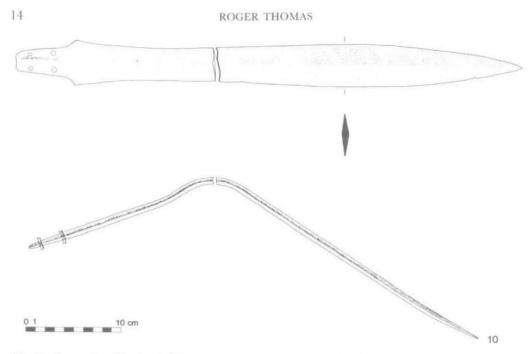


Fig. 3. Bronze Age Metalwork (Number refers to catalogue in text). Scale: 1:4.

associated with the Wallingford hoard must of course be added the difficulty of demonstrating actual association in the case of river finds; this point was raised with reference to the Wallingford finds by Pitt-Rivers as early as 1898.)<sup>12</sup>

Two finds now remain to be dealt with:

10. Leaf-shaped sword (Reading Museum 117.61).

The discovery of this sword, which must be the one referred to in Tom Jones's account above, is mentioned by Hedges:

In 1868, a bronze sword, double edged and of the usual leaf-shaped type, was dredged up from the river on the south side of the bridge, and brought to me.<sup>13</sup>

The sword became part of the collections of the Wallingford Castle Museum, and was transferred to Reading Museum in the early 1960s. It is now on loan to Wantage Museum.

11. Fluted dagger blade (Present location unknown).

This object is known only from a drawing among the Manning manuscripts. A caption on the drawing reads:

In a letter from Mr. W.R. Davies dated Dec. 1867 he states that about 5 years before a bronze dagger was found by the bridge; he sent me a sketch (Note 1910 from I.H. Powell; this tracing is from Davies' sketch.)

<sup>&</sup>lt;sup>12</sup> A.H. Pitt-Rivers, Excavations in Cranborne Chase (1898), iv, 23.

<sup>13</sup> Hedges, op. cit., i, 148.

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This item is discussed further below.

In addition to the finds discussed above, a number of bronzes were dredged up to the south of Wallingford Bridge in the early 1960s,<sup>14</sup> and are now in Reading Museum. Details of these are given below (Nos. 12–19).

## DESCRIPTION OF THE MATERIAL

The following section gives brief details of the typology and dating of the metalwork from the Thames at Wallingford, along with the principal published references to this material. Those pieces of which drawings have not been published elsewhere are illustrated, as are all the items from Evans' 'hoard'. Typological and chronological attributions are based principally on the schemes of Burgess<sup>13</sup> and O'Connor.<sup>16</sup>

- (Fig. 1, 1) Five-ribbed socketed axe (Ash. 1896–1908, Pr. 372) 'South Welsh' type, Ewart Park phase.<sup>17</sup>
- Socketed knife (Ash. 1896–1908, Pr. 373) 'Thorndon' type, Ewart Park phase.
- Leaf-shaped pegged spearhead (Ash. 1896–1908, Pr. 374) Probably Ewart Park phase.<sup>18</sup>
- 4. (Fig. 1, 4) Three-ribbed socketed axe (Location unknown) 'South Welsh' type, Ewart Park phase.<sup>19</sup>

Nos. 5-9 constitute Evans' 'hoard'20

- 5. (Fig. 2, 5) Faceted socketed axe (Ashmolean 1927.2707) Faceted axes date to the Ewart Park phase.
- 6. (Fig. 2, 6) Socketed knife (Ashmolean 1927.2708) 'Thorndon' type, Ewart Park phase.
- 7. (Fig. 2, 7) Socketed gouge (Ashmolean 1927.2709) Socketed gouges are common in hoards of the Ewart Park phase.
- (Fig. 2, 8) Tanged 'chisel' (Ashmolean 1927.2710) These implements are now seen as leather-working knives; this is an example of Roth's Type II.<sup>21</sup>
- (Fig. 2, 9) Bifid razor (Ashmolean 1927.2711) This is a member of Piggott's Class II. Such razors are found in Ewart Park hoards.<sup>22</sup>
- 10. (Fig. 3, 10) Leaf-shaped sword (Reading Museum 177.61) The sword has been bent, and has snapped. Ballintober type, Penard phase.

(Fig. 1, 11) Fluted dagger (Location unknown)
 12<sup>1</sup>/<sub>4</sub> inches long and 1<sup>1</sup>/<sub>2</sub> inches wide. The blade has a pronounced mid-rib with fluting on either side. The butt looks as if it may be damaged. There are no rivet-holes, but

14 Berks. Archaeol. Journ. 1xi (1964), 109; ibid. 1xii (1966), 75.

<sup>15</sup> C. Burgess, 'The Later Bronze Age in the British Isles and North-Western France', Archaeol. Journ. cxxv (1968), 1-45; C. Burgess, 'The Bronze Age' in British Prehistory – a New Outline (1974), ed. C. Renfrew, 165–232. <sup>16</sup> B. O'Connor, Cross-Channel Relations in the Later Bronze Age (1980).

17 V.C.H. Oxon. i, 248; S. Needham, The Bulford-Helsbury Manufacturing Tradition (1981), 62, No. 73.

<sup>18</sup> M. Ehrenberg, Bronze Age Spearheads from Berks, Bucks and Oxon (1977), 51, No. 134, Fig 21. (Hereafter cited as Ehrenberg, Spearheads.)

<sup>19</sup> V.C.H. Oxon. i, 248.

20 See footnote 10 for references.

<sup>21</sup> H. Roth, 'Ein Ledermesser der Atlantischen Bronzezeit aus Mittelfranken', Archäologisches Korrespondezblatt iv (1974), 37-47, No. 18.

<sup>22</sup> C.M. Pigott, 'The Late Bronze Age Razors of the British Isles', Proc. Prehist. Soc. xii (1946), 121-41, No. 39, Fig. 6.

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the blade may have been notched for re-hafting. The blade cross-section suggests that this weapon may be an example of Burgess and Gerloff's Group I dirks, dating to the early part of the Middle Bronze Age.<sup>23</sup>

12. Dirk (Reading 1088.64)

Burgess and Gerloff Group III, later Middle Bronze Age.24

 Barbed spearhead (Reading 1091.64) A Broadward spear of Burgess, Coombs and Davies' Type II. Broadward complex of the Ewart Park phase.<sup>25</sup>

- Rapier (Reading 1268.64) Burgess and Gerloff Group IV, late Middle Bronze Age (Penard phase).<sup>26</sup>
- Basal-looped spearhead (Reading 1270.64) Rowlands' Group 3, probably late Middle Bronze Age.<sup>27</sup>
- (Fig. 1, 16) Palstave (Reading 1271.64) Shield pattern type, early Middle Bronze Age.<sup>28</sup>
- 17 (Fig. 1, 17) Socketed axe (Reading 1272.64)
  A linear faceted axe of the Llyn Fawr phase.<sup>29</sup>
- Dirk (Reading 173.65) Burgess and Gerloff Group IV, late Middle Bronze Age (Penard phase).<sup>30</sup>
- (Fig. 1, 19) Large socketed knife (Reading 173.65) This knife is of 'Thorndon' type, but is much larger than most examples. Ewart Park phase.<sup>31</sup>

## DISCUSSION

The metalwork from the Thames to the south of Wallingford Bridge ranges chronologically from the early part of the Middle Bronze Age (Nos. 11, 16) to the very end of the Late Bronze Age (No. 17). These finds raise three questions for discussion: the nature of the material; the reasons for its deposition; and the place of the Wallingford finds in the Bronze Age of the Thames valley.

Within this group of bronzes, a clear distinction can be seen between the earlier and the later material. Those items which are assignable to the Middle Bronze Age are predominantly weapons: four rapiers, a basal-looped spearhead and a sword, as against only one tool of this period, a palstave. The Late Bronze Age material, on the other hand, comprises mainly tools: three socketed axes, a socketed knife and the five items in the hoard. The only Late Bronze Age weapons are a leaf-shaped spear and a barbed spear. As all of this material was recovered in the same fashion and under the same conditions, this is probably a genuine distinction.

<sup>23</sup> C. Burgess and S. Gerloff, The Dirks and Rapiers of Great Britain and Ireland (1981), 6.

<sup>24</sup> Berks. Archaeol. Journ. lxi (1964), 109; M. Rowlands, The Organisation of Middle Bronze Metalworking (1976), ii, 397, No. 1622; Burgess and Gerloff, op. cit., 48, No. 332, Pl. 40.

<sup>25</sup> Berks. Archaeol. Journ. lxi (1964), 109; Ehrenberg, Spearheads, 51, No. 135, Fig. 24; C. Burgess, D. Coombs, D.G. Davies, 'The Broadward Complex and Barbed Spearheads', Prehistoric Man in Wales and the West (1972), ed. C. Burgess and F. Lynch, 245, No. 17, Fig. 30.

<sup>26</sup> Berks. Archaeol. Journ. 1xii (1966), 75; Rowlands, op. cit., ii, 397, No. 1623; Burgess and Gerloff, op. cit., 81, No. 645, Pl. 84.

<sup>27</sup> Berks Archaeol. Journ. 1xii (1966), 75; Ehrenberg, Spearheads, 51, No. 133, Fig. 15; Rowlands, op. cit., ii, 382, No. 1435.

28 Berks. Archaeol. Journ. 1xii (1966), 75; Rowlands, op. cit., ii, 292, No. 324.

29 Berks. Archaeol. Journ. Ixii (1966), 75.

<sup>30</sup> Berks. Archaeol. Journ. 1xii (1966), 75; Rowlands, op. cit., ii, 397, No. 1624; Burgess and Gerloff, op, cit., 76, No. 594, Pl. 78.

<sup>31</sup> Berks. Archaeol. Journ. 1xii (1966), 75.

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This contrast in the Wallingford finds is part of a more general pattern in the region. Late Bronze Age metalwork, particularly weaponry, is scarce in the Upper Thames valley, relative to that of the Middle Bronze Age. For instance, eleven rapiers and four early swords have come from the valley above Goring, but only three later swords (R. Thomas, Ph.D research in progress). This contrasts markedly with the considerable quantities of metalwork, including much weaponry, deposited in the lower reaches of the valley in the Late Bronze Age.<sup>32</sup> Thus the changing character of the river finds from Wallingford may be a reflection of the fact that in the Late Bronze Age the Upper Thames was no longer obtaining or producing (or at any rate no longer depositing) the more elaborate items, or much metalwork at all. This suggests a degree of isolation from the systems of metalwork production and exchange that were clearly flourishing in the lower part of the valley at this time. It is obviously significant in this context that Barrett has suggested, on the basis of the ceramic sequence, that the Upper Thames may not have been densely settled at this time.<sup>33</sup>

This point leads on to a consideration of the Wallingford area's significance for Bronze Age activity in the Upper Thames as a whole. Wallingford exhibits the largest concentration of Bronze Age metalwork in the Upper Thames (in addition to the finds described above, there are a number of other items from the district).<sup>34</sup> Thus it may be that Wallingford occupied an intermediate position, in terms of access to metalwork as well as geographically, between the upper and lower parts of the valley.

The presence at Wallingford of a Late Bronze Age riverside settlement<sup>35</sup> is of obvious interest in this context. As was noted above, Barrett has suggested that there may have been something of a hiatus in settlement in the Upper Thames in the later Bronze Age,<sup>36</sup> and we have seen that this may also be reflected in the metalwork. Starting towards the end of the Late Bronze Age, however, and continuing into the Iron Age, there was apparently a regeneration of settlement in the Upper Thames, with a large number of new sites being founded.<sup>37</sup> On the evidence of both its pottery and its metalwork, the Wallingford site is one of the earliest of these settlements.

The site lies on the west bank of the Thames, about 1.4 km. below Wallingford Bridge. It consists of an occupation layer, visible in the river bank for a length of about 40 m. From this layer has come pottery, animal bone, flints and bronze metalwork. The pottery and metalwork finds suggest a date in the later part of the Ewart Park phase of the Late Bronze Age (9th–8th century BC) for this occupation.<sup>38</sup>

The presence of a settlement site on the river-bank at Wallingford, adjacent to a reach of the Thames from which much Bronze Age metalwork has been dredged, is relevant to the problem of how the metalwork was deposited. There has recently been considerable discussion of the reasons for the presence of so much metalwork, particularly weaponry, in the Thames.<sup>39</sup> One hypothesis which has been advanced by a number of writers is that metalwork found in rivers has eroded out of riverside settlements. The Wallingford site,

<sup>32</sup> M. Ehrenberg, 'The Occurrence of Bronze Age Metalwork in the Thames: an Investigation', Trans. London. Middx. Archaeol. Soc. xxxi (1980), Fig. 1.

<sup>33</sup> J. Barrett, 'The Pottery of the Later Bronze Age in Lowland England', Proc. Prehist. Soc., xlvi (1980), 308, 315.
 <sup>34</sup> Ashmolean Museum, Reading Museum.

35 R. Thomas, et. al., 'A Late Bronze Age Riverside Settlement at Wallingford, Oxon.', forthcoming.

36 J. Barrett, op. cit., 308, 315.

<sup>37</sup> J. Barrett and R. Bradley, 'The Later Bronze Age in the Thames Valley', in Settlement and Society in the British Later Bronze Age (1980), ed. J. Barrett and R. Bradley, 259.

<sup>38</sup> R. Thomas, et. al., op. cit.

<sup>39</sup> R. Bradley, 'The Interpretation of Later Bronze Age Metalwork from British Rivers', *Int. Journ. Naut. Archaeol.* viii (1979), 3-6; M. Ehrenberg, op. cit., 1-15; J. Barrett and R. Bradley, op. cit., 261-3; S. Needham and C. Burgess, 'The Later Bronze Age in the Lower Thames Valley: the Metalwork Evidence', in *Settlement and Society in the British Later Bronze Age* (1980), ed. J. Barrett and R. Bradley, 442-9.

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where pieces of metalwork were actually recovered after a collapse of part of the river bank, has been cited several times in support of this hypothesis.<sup>40</sup>

In this context, it is worth drawing attention to the contrast between the metalwork from the settlement and that from the river. The settlement finds from Wallingford are small and fragmentary pieces (as are those from other Bronze Age settlement sites), whereas the river finds are generally much larger pieces and are in complete condition. (It should also be pointed out that the Wallingford settlement is over a kilometre to the south of Wallingford Bridge, and thus a considerable distance downstream of the point at which the metalwork apparently dredged up).

Since the river finds are largely of types not found on settlements, it seems unlikely that they are derived from settlement erosion. This leaves one with the possibilities of accidental losses, or deliberate 'votive' deposition. This is not the place to discuss this topic at length, but the Wallingford material does provide two specific points of interest. Firstly, it is worth noting that the hoard described by 'Tom Jones' (see above, p. 13) was said to have been contained in a wooden box. Other instances of this are known in the British Bronze Age, for instance the hoard from Edington Burtle, Somerset.<sup>41</sup> Items in a preserved organic container are unlikely to have eroded out of a settlement context. Secondly, the Ballintober sword had been broken in half by bending, apparently in antiquity. Quite a number of British Bronze Age swords have been treated in a similar fashion: such deliberate damage may be an aspect of 'ritual' deposition.<sup>42</sup>

<sup>40</sup> R. Bradley, op. cit., 4; M. Ehrenberg, *Spearheads*, 60; M. Ehrenberg, op. cit., 11; J. Barrett and R. Bradley, op. cit., 261; S. Needham and C. Burgess, op. cit., 445.

M. Rowlands, The Organisation of Middle Bronze Age Metalworking (1976), ii, 255, No. 111.

<sup>42</sup> e.g. E.A. Martin, 'A Late Bronze Age Sword from Brandon', Proc. Suffolk Inst. Archaeol. and Hist. xxxiv (1980), 281-2.