

A small Late Bronze Age ribbed socketed axe from Bryn Pydew, Sir Conwy

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This small axe was discovered in Bryn Pydew, Sir Conwy (SH 808 794). The date and circumstances of its initial discovery are not known but the object was said to have been retrieved from a wall under circumstances that were not recorded. The axe was subsequently bequeathed to the Great Orme Bronze Age Mine at Llandudno and is displayed as part of its collection of prehistoric metal artefacts.

The axe (Figs 1–2) is a very small, complete example of a Late Bronze Age socketed axe with well defined ribs represented on both body faces. The object has a roughly rectangular body with an expanded blade characterised by a shallow convex cutting edge and terminating in well-developed blade tips. The socket end has a substantial everted collar below which is a marked horizontal moulding. The body has well defined face edges that outline the ribbed decoration on the body. Roughly parallel sided ribs develop from below the horizontal moulding and extend the length of the body to a point above the blade; three complete ribs are represented on one face, whilst on the other, one rib is ill defined and fails to extend to the full extent of the other three. The aperture to the socket is circular but the collar rim is ovoid and thickens markedly above the sides. Internal haft ribs are not observed and all signs of casting runnels have been removed. The side casting seams on the body have not, however, been obliterated. All traces of a clay core within the socket have been removed. A single loop is attached below the collar and proportionately its robustness is in marked contrast to the small size of the axe. The object is well preserved with relatively smooth, green and brown patinated surfaces and it has been carefully cast and finished, although the poorly defined ribs on one face prove the exception. The axe has the following dimensions: length, 60mm; mouth, 22 × 16mm; cutting edge, 39mm; weight, 102g.

The axe conforms in most of its details with Yorkshire group axes as defined by Schmidt and Burgess (1981, 223), but deviates from the norm by having four ribs on one face instead of the three normally associated with the type. The small size of the object also places it within an atypical category, a feature that will be further discussed below. The centre of distribution of Yorkshire axes is in south east Yorkshire and Lincolnshire and extends southwards to East Anglia (Schmidt and Burgess *ibid.*, pl. 130). The type is comparatively rare in western Britain and only a small number are recorded from Wales (Savory 1958, fig. 17, map 11). In northern Wales variant forms of the Yorkshire type are more common in the north east, but westwards the distribution thins out and the present axe, along with examples from Ysbyty Ifan (Williams 2003), Bodwrog in Anglesey, Chwilog in Llŷn and Llanegryn in Meirionnydd (Lynch 1991, 336–8.), may be considered as representative of the type. In southern Wales, Yorkshire type and variant axes are present in the Llangwm, Monmouthshire and Llantwit Major hoards (Appendix, Ribbed Socketed Axes) but are otherwise very rare in this region. Yorkshire type axes belong to the Ewart Park metalworking phase corresponding to Needham's (1996) Period 4 phase of the Late Bronze Age dated to between *c.* 950–750 BC.

Discussion

Small socketed axes form an uncommon category amongst British Late Bronze Age metal types. The present discussion will focus on representative examples in the two ribbed groups of Yorkshire and South Wales, with additional reference to Dowris bag-shaped and diminutive forms from south central England.

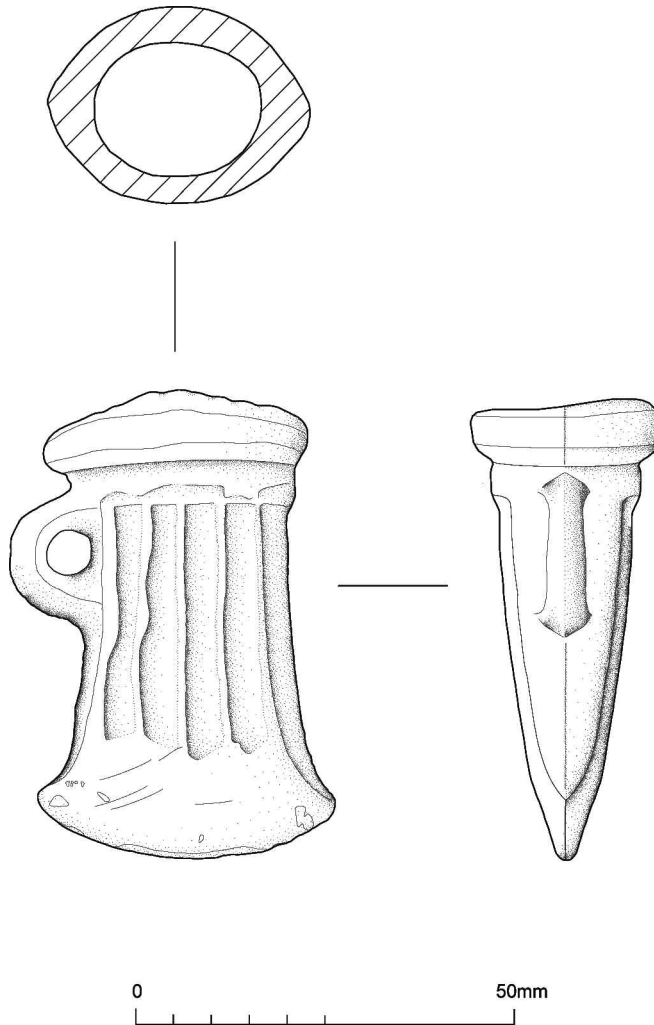


Fig. 1. The Bryn Pydew axe.

Representative examples belonging to the two ribbed groups and the Dowris group are noted in the preliminary schedule (Appendix). It is, however, not easy to fix a specific size by which a small axe can be distinguished apart from the general mass of socketed axes. In this context the length of the object may be considered as the most significant index, but when the length index is applied to the individual socketed axe groups above, a decisive cut off point cannot be established between 55 and 70mm (Fig. 3 a–d). The diminutive axe group from south central England (Fig. 3a) may form an exception and will be discussed first. This small group, with a bias to Wiltshire in its distribution, has been described by Robinson (1995). They are characterised not only by their small size but also by their material composition and chronological context. The axes are poorly cast, are generally wedge shaped with straight edged blades ending in rounded tips and lack collars or mouldings on the socket end. The socket itself is often a small rounded hole which does not penetrate the length of the object and they are very



Fig. 2. Two lifesize views of the Bryn Pydew axe. *Photograph: Tanya Berks.*

poorly finished. They have proved difficult to date and whilst they undoubtedly emulate the concept of the Bronze Age socketed form, and may even be associated with Bronze Age midden sites such as Potterne in Wiltshire, they are also present on Roman sites. Robinson has argued (*ibid.*, 61) that such axes may have been used as good luck amulets or votive objects since, size and technological details rule out any form of utilitarian utilisation.

Robinson (*ibid.*, 60) formally referred to these axes as ‘miniature’, a taxonomic identity that must henceforth be respected, although it might have been more appropriate to call axes below 45mm ‘diminutive’, reserving ‘miniature’ for axes under 65mm, such as the Bryn Pydew example, and designating axes between 65–90mm as ‘standard’ and axes above 90mm as ‘large’. The very small non functional axes from Wiltshire must not therefore be mistaken with the axes that form the subject of the present discourse to which Robinson (*ibid.*, 60) applied the rather nebulous term ‘model’ axes. All such axes conform in every detail of manufacture, finish, and form to the norm that distinguishes the typological group to which they may belong.

Small axes of the Bryn Pydew type, although rare, are perhaps more common than had hitherto been anticipated in axes belonging to the two ribbed groups. They are, accordingly, widely distributed throughout the country and have no apparent single area of concentration. They are represented singly and form part of hoards. Associations in hoards include utilitarian objects, such as tanged sickles, gouges, palstaves and various other types of socketed axes, and weapons that include spearheads, swords and a rapier. A rare association includes cauldron staples and a ring (Kilkerran, Ayrshire). Small axes are particularly well represented with the ‘bag shaped’ Dowris and Dowris axes (Fig. 3b) a group that is distinguished by squat forms where the largest specimens rarely exceed 80mm in length and where the length/width ratio is approximately 2:1. The bag shape is further accentuated by the roundness of the body and the splaying of the blade. In the present sample of 70 axes, examples below 70mm in length account for 41% of the total.

How does one attempt to interpret these small axes? And for what purpose were such ‘useless’ objects (for non-comprehending twenty-first-century eyes) made in the first place? First, one must establish that small axes are not slipshod versions of their larger kindred, for as the data in Figure 3 illustrate they form an integral part of the socketed axe series. Second, whichever interpretation may be presented, it will be

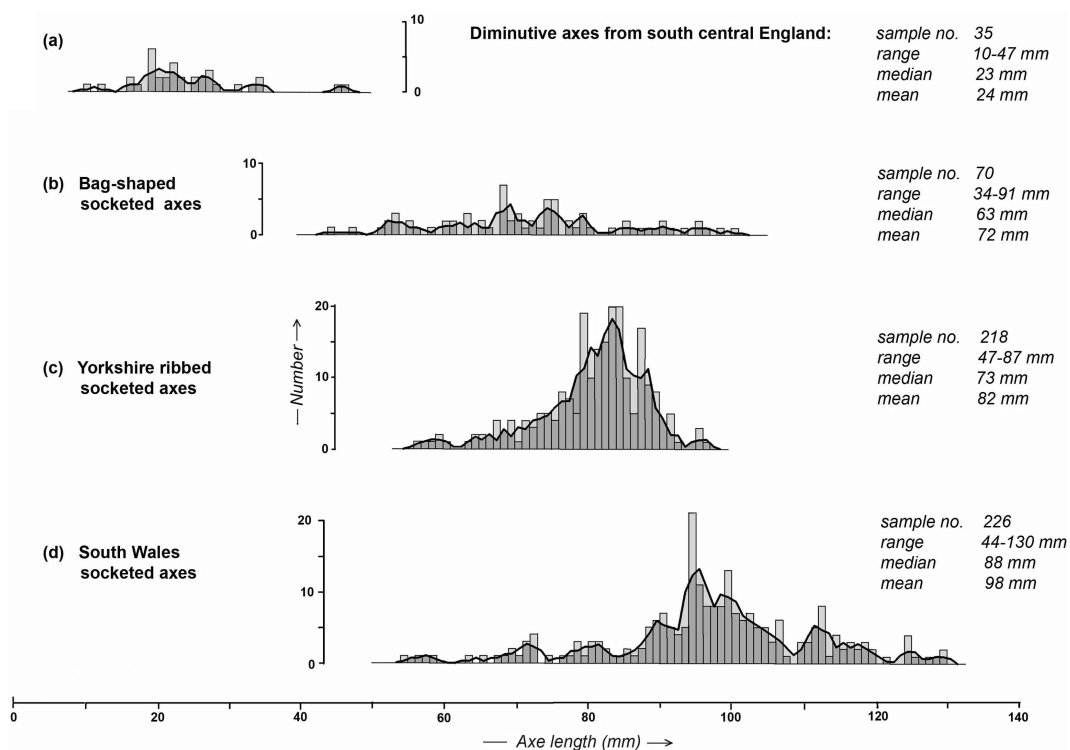


Fig. 3. Histogram of actual numbers and running averages based on length index of four groups of socketed axes: **a** – diminutive axes from south central England (based on Robinson 1988); **b** – bag shaped socketed axes (based on Schmidt and Burgess 1981; Pearce 1983); **c** – Yorkshire ribbed socketed axes (based on Schmidt and Burgess 1981; Pearce 1983; Savory 1980; Davey 1973); **d** – South Wales ribbed socketed axes (based on Schmidt and Burgess 1981; Pearce 1983; McNeil, 1973; Briggs and Williams, 1995; Savory 1980; National Museum Wales, Portable Antiquities Scheme archive).

thwarted by the fact that the true function of socketed axes remains as unknown and untested today as it was to Sir Arthur Evans approximately 125 years ago (Evans 1881). Of all metal types in the Late Bronze Age repertoire, socketed axes are the most abundantly represented object accounting, for example, for approximately one half of the Late Bronze Age collection in the Amgueddfa Cymru – National Museum Wales (Savory 1980) or for 41% of the Late Bronze Age metalwork from south-western Britain (Pearce 1983). They are considered to be versatile, multi-purpose, utilitarian tools—axes, adzes, wedges, mauls, or even ard tips or mattocks—but the specific practical function attributable to each type cannot be established.

Size cannot be used as an index of function. It could be suggested that a small axe might have been made for a child, as a token to identify a particular role, or to establish a special custom or occasion, or indeed to be valued as a treasured toy. Yet, it is remarkable that an extended assemblage of juvenile objects cannot be recognised alongside the small axes in the Late Bronze Age repertoire. However, at an earlier stage in the Bronze Age, objects that may have been made specifically for a child are purported to have existed in the archaeological record. The objects in question relate to a series of diminutive stone battle axes that are known mainly from Scotland and Wales. Such axes have been catalogued, discussed

and interpreted by McLaren (2004) with particular reference to the battle axe discovered with two accompanying Food Vessel urns and the inhumed remains of a five to eight year old child in a short stone cist at Doune, Perth and Kinross in Scotland. A similar association of a slightly larger battle axe with the cremated remains of a nine year old child formed the primary burial in the Foel Cairn at Garthbeibio, Powys (Wheeler 1923). A third child burial with a diminutive axe and a collared urn may have been present in a stone lined pit at Kirkcolm, Dumfries and Galloway, although the association of the assemblage can not be fully authenticated because of the disturbed nature of the find. All other axes are found as single un-associated examples to which must now be added a small battle axe from Bwlchderwin, Pantglas, Gwynedd (Williams 1992). McLaren (*op. cit.*, 301) in her discussion of these objects concludes that they probably served a symbolic function in a burial which ‘seems to reflect the adult world but in miniature’. It is unlikely that a funerary function, particularly with reference to a child, can be referred to the small bronze axes discussed in this note since in the Late Bronze Age any form of burial rite is practically unknown. However, the notion that the axe may be viewed as a symbol of reverence can be further examined below.

It has been established in the survey of length (Fig. 3b–d) that small axes represent the lower end of a gradational scale within which they do not form a separate entity. The results, however, raise interesting questions relating to the preferred lengths of axes in the various groups referred to in the survey. Each of the three groups referred to have a core block. Thus, Yorkshire type axes have a preferred length index of between 70 and 90mm with priority to examples at 80 to 85mm (Fig. 3c); axes below 70mm account for 6% of the sample totalling 218 examples. In contrast South Welsh/ Stogursey axes have a much greater length span ranging from 55 to 130 mm with the preferred index between 90 to 105mm (Fig. 3d); only 3.5% of the sample of 226 axes fall below 70mm in length. In Dowris type bag shaped axes (Fig. 3b) the core lies between 65 to 80mm but with a significant number below 65mm, although the preferred length of the group lies between 65 to 80mm (Fig. 3d). It is not the intention of this article to enquire further into the reasons that may cause these apparent regional and/or typological variations, other than to comment that they may reflect in part the unidentified utilitarian function of the socketed axe as a tool or implement. The tight grouping of the Yorkshire axes might suggest a more specific utilitarian function which may also apply to the Dowris group, whilst a much broader and less specific function could be attributed to the South Welsh group. But practical function may not be the only reason to influence length variation. It has become apparent that some of the larger axes in the South Wales/Stogursey group, particularly those associated with hoards from south-eastern Wales, contain such a high percentage of lead as to render them too soft for utilitarian use (Lodwick, pers. com.). The supposition is therefore that the symbolic value of the axe was far greater than its utilitarian worth, an interpretation that could be equally applied to the small axes under review at the other end of the length index scale. In the particular case of the Bryn Pydew axe it is more likely that it fulfilled a practical purpose in keeping with the more utilitarian function of Yorkshire group axes in general.

Conclusion

The present discussion has drawn attention to a group of Late Bronze Age socketed axes of small size of which the Bryn Pydew axe is a fine representative example. Such axes have been described in the context of Late Bronze Age metallurgy with particular reference to the closer definition of the type on the basis of their length index. It is concluded that small axes do not represent a distinct entity but represent the lower bracket within a progressive series that identify most types of socketed axes by their length index.

In attempting to interpret the function of such small axes their utilisation as practical utilitarian tools cannot be dismissed, particularly with reference to the Yorkshire and Dowris axes, although identifying to each a specific function remains highly hypothetical. It is also possible that small axes may have been

made as juvenile play objects, although there is little evidence to support this notion in the context of the Late Bronze Age in Britain. Finally, the possible symbolic function of the small axe is entertained although, as in the speculations above, there is no explicit archaeological evidence to support such a hypothesis. The case for the use of small axes in a ritual or symbolic context rests on the knowledge that a number of large axes of South Wales/Stogursey type were non functional since they have been alloyed with such high levels of lead as to render them too soft for practical use. One can therefore speculate that such axes were produced for possible ritual use, a hypothesis that might also be applied to the small axes under review. The power of the axe is indeed a potent symbol in British prehistory with its earliest manifestation in the burial and/or ritual destruction of stone axes in the Neolithic, its association in the guise of stone battle axes with Early Bronze Age cist burials as documented above, and its persistence into the early Roman period in the form of miniature votive axes as cited in the foregoing discussion. Whilst not discounting the use of small axes as utilitarian tools it is equally possible that such examples, including the object from Bryn Pydew, could also be referred to as objects of ritual and reverence.

Acknowledgments

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APPENDIX PRELIMINARY SCHEDULE OF MINIATURE AXES

Note that the absence of axes from certain areas may signify incomplete acquaintance with the material culture rather than a genuine regional absence.

RIBBED SOCKETED AXES

Byn Pydew (Sir Conwy)

Type: Yorkshire

Associations: single find

Size: length 60mm; mouth 22 × 16mm; blade width 39mm; weight 102g

Reference: present article

Kilkerran Dailley (Ayrshire)

Type: Yorkshire

Associations: hoard – 9 socketed axes, 2 cauldron staples and ring, sword

Size: length 59mm; mouth 24 × 36mm; blade width 43mm

Reference: Schmidt and Burgess 1981, nos 1365/1383

Llantwit Major (Vale of Glamorgan)

Type: Yorkshire?

Associations: hoard – 1 palstave, 8 socketed axes, 2 spearheads, 1 tanged sickle

Size: length 63; mouth 29 × 34mm

Reference: Savory 1980, no. 281 (7)

Thornton le Dale (Yorkshire)

Type: Yorkshire

Associations: single find

Size: length 58mm; mouth 23 × 23mm; blade width 43mm

Reference: Schmidt and Burgess 1981, no. 1489

Sproatley (E.R. Yorkshire)*Type:* Yorkshire*Associations:* hoard – 12 socketed axes, 1 late palstave*Size:* length 61mm; mouth *c.* 26mm; blade width 40mm*Reference:* Schmidt and Burgess 1981, no. 1517**Ulverston** (Lancashire)*Type:* Yorkshire*Associations:* single find*Size:* length 66mm; mouth 23 × 25mm; blade width 44mm*Reference:* Schmidt and Burgess 1981, no. 1571**Horsehope Manor** (Peeblesshire)*Type:* Yorkshire*Associations:* hoard – 1 socketed axe, mountings for harness/vehicle*Size:* length 64mm; mouth *c.* 23mm; blade width 43mm*Reference:* Schmidt and Burgess 1981, no. 1364**Eigg** (Invernesshire)*Type:* Yorkshire*Associations:* single find*Size:* length 68mm; mouth 27 × 27mm; blade width 40mm*Reference:* Schmidt and Burgess 1981, no. 1368**Winmarleigh** (Lancashire)*Type:* Yorkshire*Associations:* hoard – 5 socketed axes of Yorkshire type, 1 socketed axe of Gillespie type, 2 spearheads, 1 tanged knife, found in oak box*Size:* length 68mm; mouth 26 × 28mm*Reference:* Schmidt and Burgess 1981, no. 1404**Leppington** (Yorkshire)*Type:* Yorkshire*Associations:* hoard – 5 socketed axes of Yorkshire type*Size:* length 65mm; mouth 28 × 28mm*Reference:* Schmidt and Burgess 1981, no. 1421**Westow** (Yorkshire)*Type:* Yorkshire*Associations:* hoard – 10 socketed axes of Yorkshire type*Size:* length 65mm; mouth 23 × 25mm; blade width 42mm*Reference:* Schmidt and Burgess 1981, no. 1448**North Tyne Area?** (Northumberland)*Type:* Yorkshire*Associations:* single find*Size:* length 68mm; mouth 24 × 28mm; blade width 37mm*Reference:* Schmidt and Burgess 1981, no. 1495**Warter** (Yorkshire)*Type:* Yorkshire*Associations:* single find*Size:* length 65mm; mouth 25 × 27mm; blade width 48mm*Reference:* Schmidt and Burgess 1981, no. 1562**Roxby** (Lincolnshire)*Associations:* hoard*Size:* length *c.* 57 mm*Reference:* Davey 1973, no. 312**Caythorpe** (Lincolnshire)*Associations:* hoard*Size:* length *c.* 60mm*Reference:* Davey 1973, no. 366**Wick Park, Stogursey** (Somerset)*Type:* Yorkshire – 2 axes*Associations:* hoard – 20 socketed axes, 40 socketed frags, 2 palstaves, 3 socketed gouges, 3 socketed knives, 1 chape, sword hilt and frags, 8 spearheads, ingots/casting jets/bronze cake*Size:* i) length 58mm; ii) length 64mm*Reference:* Pearce 1983, vol. 2, no. 746b

Kincardineshire*Type:* South Wales*Associations:* single find*Size:* length 55mm; mouth 25 × 29mm*Reference:* Schmidt and Burgess 1981, no. 1572**Somerset***Type:* South Wales*Associations:* single find*Size:* length 66mm*Reference:* Pearce 1983 (ii), no. 835**Rudry, Caerphilly** (Caerphilly County Borough)*Type:* South Wales*Associations:* single find*Size:* length 57.4mm*Reference:* National Museum Wales/Portable Antiquities Scheme, B596C4**Marshfield, Newport** (Newport City Council)*Type:* South Wales*Associations:* single find*Size:* length 59.5mm*Reference:* National Museum Wales/Portable Antiquities Scheme, E 97AE5**Penwyllt, Ystradgynlais** (Powys)*Type:* South Wales*Associations:* hoard – 5 South Wales socketed axes*Size:* length 68mm*Reference:* Savory 1980, no. 284**Allt Gelli Felen, Myddfai** (Carmarthenshire)*Type:* South Wales*Associations:* hoard – 6 South Wales socketed axes, 1 socketed axe*Size:* length 69mm*Reference:* Briggs and Williams 1995

DOWRIS AND DOWRIS-TYPE AXES

Ballimore, Kilfinan (Argyllshire)*Associations:* hoard – 7 socketed axes, 7 spearheads, 2 swords, 1 tubular object*Size:* length 55mm; mouth 26 × 29mm; blade width 43mm*Reference:* Schmidt and Burgess 1981, no. 1165/1149A**West of Scotland***Associations:* single find*Size:* length 53 mm; mouth c. 28mm; blade width 33mm*Reference:* Schmidt and Burgess 1981, no. 1166**Douglas Burn, Yarrow** (Selkirkshire)*Associations:* single find*Size:* length 55mm; mouth 26 × 27mm; blade width 38mm*Reference:* Schmidt and Burgess 1981, no. 1167**Scotland ?***Associations:* single find*Size:* length 47mm; mouth 18 × 25mm; blade width 37mm*Reference:* Schmidt and Burgess 1981, no. 1169**Holytown ?** (Lanarkshire)*Type:* Variant Newton*Associations:* single find*Size:* length 58mm; mouth 23 × 26mm; blade width 39mm*Reference:* Schmidt and Burgess 1981, no. 1170**Scotland***Type:* Variant Newton*Associations:* single find*Size:* length 53mm; mouth 21 × 32mm; blade width 43mm*Reference:* Schmidt and Burgess 1981, no. 1172

Aberdeenshire*Type:* Variant Newton*Associations:* single find*Size:* length 52mm; mouth 29 × 33mm; blade width 42mm*Reference:* Schmidt and Burgess 1981, no. 1173**Scotland***Type:* Variant Kilkerran*Associations:* single find*Size:* length 51mm; mouth 23 × 33mm; blade width 47mm*Reference:* Schmidt and Burgess 1981, no. 1184**Bonar-Bridge** (Sutherland)*Associations:* single find*Size:* length 52mm; mouth 22 × 26mm; blade width 38 mm*Reference:* Schmidt and Burgess 1981, no. 1185**Doone, Kilmadock** (Perthshire)*Associations:* single find*Size:* length 44mm; mouth 20 × 22mm; blade width 36mm*Reference:* Schmidt and Burgess 1981, no. 1186**Scotland ?***Associations:* single find*Size:* length 60mm; mouth 26 × 26mm; blade width 44mm*Reference:* Schmidt and Burgess 1981, no. 1187**Whitby** (N. R. Yorkshire)*Associations:* single find*Size:* length 53mm; mouth 22 × 27mm; blade width 47mm*Reference:* Schmidt and Burgess 1981, no. 1188**Cornwall***Associations:* single find*Size:* length 60mm, blade width 48mm

Pearce 1983 (ii), no. 182

East Hemsworth Wichampton (Dorset)*Associations:* single find*Size:* length 63mm, blade width c. 50mm*Reference:* Pearce 1983, vol. 2, no. 516**Somerset***Associations:* single find*Size:* length 61mm, blade width 55mm*Reference:* Pearce 1983, vol. 2, no. 833

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