The Intentional Destruction and Deposition of Bronze Age Metalwork in South West England (Volume 3 of 3)

Submitted by Matthew Giuseppe Knight to the University of Exeter
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I certify that all material in this thesis which is not my own work has been identified and that no material has previously been submitted and approved for the award of a degree by this or any other University.

Signature: …… ……..

Volume 3

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APPENDIX B

A CATALOGUE OF BRONZE AGE METALWORK FROM THE PORTABLE ANTIQUITIES SCHEME FOR SOUTH WEST ENGLAND

B.1 Introduction

This catalogue lists a sample of finds recorded on the Portable Antiquities Scheme (PAS) online database up until 28th March 2017 following the rationale presented in Section 7.2.1. Some PAS finds are not recorded here due to the poor quality or absence of a photo, or because they have been deemed unlikely to be Bronze Age in date, or because the spatial data is insufficient. Furthermore, some finds recorded through the PAS have not been documented in the online database despite having a PAS number (e.g. the Mylor hoard) and thus do not feature here. Finally, as details are largely reliant on what is recorded through the database, the information is variable. Often dimensions are recorded without a note regarding which part of the object it refers to; 'thickness' of a palstave for instance clearly refers to the flange breadth in some cases and the blade thickness in others. Consequently, these dimensions have been omitted here unless the area of the object being referred to can be clearly identified. The finds are ordered by county and four-figure grid references are provided following regulations around the PAS data. The PAS numbers can be searched and accessed via www.finds.org.uk.

Key

* = indicates only the parish is known, not the precise findspot.

Dimension Abbreviations:

L = Length
W = Width
Th = Thickness
Bl = Blade
B = Butt
St = Stop
Fl = Flange
Sh = Shoulder
Br = Breadth

D = Depth
H = Height
Wt = Weight
Ext = External
Int = Internal
Diam = Diameter
n/o = Not observable
n/a = Not applicable

Sock.Diam.Ext = External socket diameter (width x height)
Sock.Diam.Int = Internal socket diameter (width x height)

B.2 CORNWALL

PAS-F001 Blisland

Grid Ref.	SX 09 73	Altitude (m)	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An incomplete palstave was found about 10cm down in hard grassland while metal-detecting.		
Reference(s)	Knight et al. 2015, 29, No.2, Pl.21; PAS CORN-CA0B11.		

Object Type and Description	Palstave – poss. Gr.III or South-western. This an incomplete palstave with a broad triangular blade and a slightly curved cutting-edge.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	51-75%	**Details**	As-cast blade, broken below the stop.
Dimensions (mm)	L.82; Bl.W.59; Bl.Th.19; Wt.192.38g.		
Patina/Corrosion	Mottled brown patina/corrosion.		
Manufacture/Use	As-cast. This palstave has seen very little working and the casting seams survive down both sides. The break shows that this is quite a poor casting with lots of air hollows. There is reported hammering at the broken end, suggesting this might have been reused post-breakage.		
Damage	This palstave has broken in antiquity across the thickest part of the blade just below the stop ridge. There are no associated marks and the breakage is almost certainly the result of poor casting, perhaps occurring during working. **Breakage**: W.22; Th.19.		

PAS-F002 Breage III

Grid Ref.	SW 62 26	Altitude (m)	54
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2016, five inches down in grassland.		
Reference(s)	PAS CORN-10D5E6.		

Object Type and Description	Socketed axe – type uncertain. This is the lower blade of a socketed axe, with a rectangular section and a narrow blade. The cutting-edge is rounded and blunt as a result of post-depositional processes.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Lower blade.
Dimensions (mm)	L.36; Bl.W.40; Th.14.5; Wt.62.1g.		
Patina/Corrosion	Dark green patina, mostly obscured by corrosion and light green bronze disease.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion. It is likely this axe was used, but wear on the axe is likely linked to post-depositional processes.		
Damage	This is the lower blade of a socketed axe, broken below the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: W.39; Th.14.5.		

PAS-F003 Breage IV

Grid Ref.	SW 61 27	Altitude (m)	55

☑ Dryland	☐ Wetland	☐ Uncertain
Find circumstances	A casting jet was found while metal-detecting in 2016, one inch below undisturbed grassland.	
Reference(s)	PAS CORN-13BCC9.	

Object Type and Description	Casting jet. This is an oval casting jet with two conical sprues.		
Location	Finder	**Period**	Bronze Age
Completeness	n/a	**Details**	Casting waste.
Dimensions (mm)	L.34.4; W.16; H.25; Wt.31.05g.		
Patina/Corrosion	Mottled green/brown corrosion.		
Manufacture/Use	Casting waste.		
Damage	Broken during the casting process.		

PAS-F004 Callington

Grid Ref.	SX 37 69	**Altitude (m)**	
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2009 about ten inches below the surface in recently ploughed soil.		
Reference(s)	Davis 2015, 88, No.480, Pl.53; Knight et al. 2015, 30, No.8, Pl.28; PAS CORN-740B97.		

Object Type and Description	Plain pegged spearhead (Type 11A) This is flame-shaped spearhead with a circular midrib. There are no remains of peg holes in the broken socket.		
Location	Finder	**Period**	Penard-Wilburton
Completeness	76-99%	**Details**	Blade edges damaged and broken across the socket.
Dimensions (mm)	L.87; Bl.W.20; Bl.Th.12; Wt.34.32g.		
Patina/Corrosion	Brown corrosion.		
Manufacture/Use	Uncertain due to extensive corrosion. There is a hole in the lower midrib on one face, which has been attributed to corrosion damage.		
Damage	This spearhead has suffered erosion and fragmentation of the blade wings, which is likely the result of corrosion and post-depositional damage. The socket has broken off above the peg holes and has been partially crushed, with a shallow indentation in one face of the socket. Images are not clear enough to accurately observe the state of the breakage, but it appears to be consistently corroded with the rest of the spearhead. This would indicate this is antiquated damage, rather than the result of recent ploughing, though this cannot be discounted.		

PAS-F005 Camborne II

Grid Ref.	SW 64 39	**Altitude (m)**	109
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2015 about 5-6 inches below the surface in a field referred to as the ‘round field’ suggesting it might be the site of an Iron Age settlement.		
Reference(s)	PAS CORN-8149A2.		

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of a sword, with a lozenge-section, though no evidence of bevelled edges. It tapers slightly towards one end, suggesting it may have been towards the lower blade.

Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.69.6; W.35.2; Th.5.8; Wt.62.5g.		
Patina/Corrosion	Green patina on one face and extensive corrosion on the opposite face.		
Manufacture/Use	Difficult to tell due to incompleteness. The PAS report suggests that the broken edges may have been “trimmed in order to re-use the weapon as a tool such as a razor or scraper”.		
Damage	This sword has broken at both ends in antiquity, with consistent patination, though no associated marks.		

PAS-F006 Egloshayle

Grid Ref.	SW 98 74	**Altitude (m)**	14
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2015, about 4 inches below the surface.		
Reference(s)	PAS CORN-F6BDEC.		

Object Type and Description	Early short-flanged axe. This is a low-flanged axehead with a slight transverse bevel and flanges that stop above the blade. It has a rounded butt and straight parallel sides that flare out to a short blade (c.35mm) with a worn, rounded cutting-edge.		
Location	Finder	**Period**	MA VI Arreton-Acton Park
Completeness	76-99%	**Details**	Worn but complete.
Dimensions (mm)	L.81.5; Bl.W.35; Bl.Th.17; Wt.149.2g.		
Patina/Corrosion	Mottled brown/green corrosion.		
Manufacture/Use	Prepared and used. There is no evidence of casting material and the overall axe is very worn. The cutting-edge is short, asymmetrical and blunt, suggesting extensive use and reworking.		
Damage	None.		

PAS-F007 Gweek

Grid Ref.	SW 70 26	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot was found while metal-detecting in 2016 about six inches below the surface in undisturbed grassland.		
Reference(s)	PAS CORN-3B10A7.		

Object Type and Description	Plano-convex ingot. This is a piece of a copper alloy ingot with a flat underside and sloping upper surface, indicating it originally belong to a large plano-convex ingot. Compositional analysis was conducted via XRF and demonstrated low levels of tin (1.4%).		
Location	Finder	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Central piece, broken on all sides.
Dimensions (mm)	L.72; W.72; Th.35; Wt.509.3g.		
Patina/Corrosion	Green corrosion.		
Manufacture/Use	Raw material – lots of large casting hollows but not uncommon for ingots.		
Damage	This ingot piece has broken on all sides in antiquity, from near the centre of the original object. No associated marks are visible on the photos, but large casting hollows are visible, as is common.		

PAS-F008 Gwithian-Gwinear I

Grid Ref.	SW 60 36	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot was found while metal-detecting in 2012 about six inches below the surface in ploughed soil.		
Reference(s)	Knight et al. 2015, 32, No.30; PAS CORN-BD3DD5.		

Object Type and Description	Plano-convex ingot. This is a sub-triangular fragment from the edge of a copper alloy ingot with a flat underside and curved upper surface, indicating it originally belong to a large plano-convex ingot.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.63; W.83; Th.27; Wt.468.8g.		
Patina/Corrosion	Brown corrosion.		
Manufacture/Use	Raw material. This piece has been well-cast, with few casting hollows.		
Damage	This ingot piece has broken on two sides in antiquity No associated marks are visible on the photos, and the PAS record suggests that the ingot appears worn, indicating the breakage was not fresh upon deposition. **Breakage**: Th.27.		

PAS-F009 Gwithian-Gwinear II

Grid Ref.	SW 59 40	**Altitude (m)**	68
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2015 within six inches below the surface in a ploughed field.		
Reference(s)	PAS CORN-EF36FD.		

Object Type and Description	Socketed axe – type uncertain. This is the lower blade of a socketed axe, with a rectangular section and a narrow blade. The cutting-edge is rounded and blunt probably as a result of post-depositional processes.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Broken at the socket aperture.
Dimensions (mm)	L.36; Bl.W.35; Wt.55.12g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion. It is likely this axe was used, but wear on the axe is likely linked to post-depositional processes.		
Damage	This is the lower blade of a socketed axe, broken just above the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: Th.11.7.		

PAS-F010 Illogan

Grid Ref.	SW 67 43	**Altitude (m)**	79
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2014 about six inches below the surface in ploughed soil.		
Reference(s)	PAS CORN-EE9D5D.		

Object Type and Description	Class I or II socketed gouge. This is an incomplete socketed gouge with a circular socket, and narrow blade that tapers to a slightly curved cutting-edge.		
Location	Finder	**Period**	Ewart Park
Completeness	76-99%	**Details**	Fragment missing from the socket.
Dimensions (mm)	L.43; W.12; Sock.Diam.Ext.10; Wt.17.35g.		
Patina/Corrosion	Pale green and brown corrosion with some pale green bronze disease.		
Manufacture/Use	Prepared and possibly used. The casting seams have been worked and the cutting-edge appears to be worn and nicked, indicating use.		
Damage	A fragment has broken away from the mouth of the socketed gouge, extending down one side of the object. This break occurred in antiquity and there are no associated marks or casting flaws visible in the photo.		

PAS-F011 Landulph

Grid Ref.	SX 42 63	**Altitude (m)**	59
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An incomplete flat axe was found while metal-detecting in 2014 about six inches below the surface.		
Reference(s)	PAS CORN-3207B3.		

Object Type and Description	Flat axe – Class 3/4? This is the lower blade of a flat axe with an expanded, curved cutting-edge. The edges of the axe have been slightly hammered into low flanges and the cutting-edge is bevelled. It is likely the butt would have been narrow and there may have been a low transverse bevel.		
Location	Finder	**Period**	MA IV Aylesford
Completeness	26-50%	**Details**	Lower blade and cutting-edge.
Dimensions (mm)	L.64; Bl.W.66; Th.9.5; Wt.170.57g.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Prepared and used. This axe appears to have been prepared for use with a bevelled cutting-edge. The cutting-edge is slightly asymmetrical, and blunt, with several nicks. There is a casting flaw in the surface of the axe on one face and they are present in the break.		
Damage	This axe has broken across the middle of the blade in antiquity. The break looks slightly worn, suggesting it may have continued in use after breakage. The break has no associated marks, but there are several casting flaws.		

PAS-F012 Ludgvan

Grid Ref.	SW 50 33	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2011 about five inches below the surface.		
Reference(s)	Knight et al. 2015, 33, No.37; PAS CORN-F29E04.		

Object Type and Description	Socketed axe – type uncertain. This is a broad, crescentic cutting-edge of a socketed axe. The cutting-edge is uneven as a result of post-depositional processes.		
Location	Finder	**Period**	Late Bronze Age

Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.18; Bl.W.41.5; Wt.18.77g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion. It is likely this axe was used, but wear on the axe is likely linked to post-depositional processes.		
Damage	This is the cutting-edge of a socketed axe broken at the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: Th.8.		

PAS-F013 Madron I

Grid Ref.	SW 47 33	**Altitude (m)**	121
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An axe piece was found while metal-detecting about 150mm down in soft silty soil in a ploughed field.		
Reference(s)	PAS CORN-183F23.		

Object Type and Description	Low-flanged axe (Class 5?) This is the lower blade of a small axe with the remains of low flanges extending onto the blade and an expanding crescentic cutting-edge. There are four transverse grooves separated by five ridges on one face, spread between the flanges close to the break. There are the faint remains of the same decoration on the opposite face. These range in length from 8-32mm and are each about 4mm wide. It has been suggested these are destructive but the regular spacing and fine nature suggests they were decorative. The axe has broken below any possible transverse bevel. The overall form of the axe is suggestive of Needham's Class 5, dating to the Arreton period.		
Museum Ref.	Finder	**Period**	MA VI Arreton
Completeness	26-50%	**Details**	Lower blade only.
Dimensions (mm)	L.58; Bl.W.51.5; Th.11; Fl.Br.10.5 (surv.); Fl.H.1; Wt.103.4g.		
Patina/Corrosion	Some dark brown patina, across both faces, but interrupted with green corrosion pitting, causing delamination.		
Manufacture/Use	Difficult to tell. Due to the corroded nature, it is difficult to identify definite signs of preparation and use. It is likely that the flanges were hammered up and the cutting-edge had been worked to shape. The ridge and grooves are consistently patinated indicating these were deliberate decoration.		
Damage	The axe has broken unevenly in antiquity across the middle of the blade, through the flanges. **Breakage**: W.24.9; Th.10.6. The break is consistently patinated/corroded and there are at least two macroscopic casting inclusions present in the break, which would have influenced the breakage. The ridge and grooves are situated very close to the break, raising the possibility that this was a deliberately destructive act, with the grooves representing failed strikes. However, it is more likely that the axe may have broken while incising the decoration.		

PAS-F014 Madron II

Grid Ref.	SW 47 32	**Altitude (m)**	100
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Two non-joining sword fragments were found while metal-detecting in Rosemorran in 2016. The fragments were about 10cm down in pasture/grassland.		
Reference(s)	PAS CORN-3B62D1.		

Additional Notes	The similar style and patination of the fragments might indicate they once belonged to the same object.

PAS-F014a

Object Type and Description	Ewart Park sword – possibly Carp's Tongue. This is a fragment of the shoulders of a sword. The shoulders are rounded with a rivet hole in each one. The surviving hilt displays a prominent rounded midrib that extends down onto the upper blade creating a biconvex section. Corrosion obscures any indicators of grooves along each side that would determine if this sword was of the Carp's Tongue tradition.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Shoulder fragment, broken at both ends.
Dimensions (mm)	L.38.4; Th.9.7; Sh.W.46.2; Wt.44g.		
Patina/Corrosion	Dull bronze patina, largely obscured by green corrosive build-up.		
Manufacture/Use	Difficult to tell. Signs of preparation and use are difficult to determine from this piece, but elements of manufacture can be observed. The shoulders are slightly asymmetrical, as are the rivet holes, which would have been functional. The breaks show the metal to be very porous, which suggests a poor casting.		
Damage	This fragment has been broken at both ends, separating it from the sword blade and hilt tang. Corrosion across the breaks indicates this was done in antiquity. **Hilt breakage**: W.27.9; Th.9.1. This break has occurred below the hilt tang at the point of widening for the shoulders. It shows signs of high porosity in the metal at a macroscopic level, which would have influenced the breakage. Additionally, one face has two small oblique indentations below the break on the midrib, one below the other; these appear to be consistent with the bronze patina and it is possible these represent chisel marks. **Blade breakage**: W.32.4; Th.9. This break has occurred below the shoulders, as they curve towards the upper blade. Porosity is also visible in this break. There is a possible indentation just above this break on the same face as the marks associated with the hilt breakage; however, this indentation is covered by corrosion and it is difficult to determine if it might be related to corrosion damage.		

PAS-F014b

Object Type and Description	Ewart Park sword – possibly Carp's Tongue. This is a mid-blade fragment of a sword, with bevelled edges and a prominent rounded midrib creating a biconvex section. There are no grooves down either side of this midrib, suggesting it is not a Carp's Tongue sword, though the midrib is a suggestive feature.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment, broken at both ends.
Dimensions (mm)	L.47.6; W.28.6; Th.7.8; Wt.42g.		
Patina/Corrosion	Dull bronze patina, largely obscured by green corrosive build-up.		
Manufacture/Use	Prepared and used. The edges of this blade have been hammered and bevelled and were likely sharpened, though corrosion obscures much of the detail. Much like F014a, this piece shows macroscopic signs of porosity in the breaks suggesting a poor casting. The blade edges are uneven and chipped, some of which appears to be consistently corroded and thus might be linked to use, particularly a small u-shaped notch on one edge. Abrasion of the edges does mean some of this may be the result of corrosion.		
Damage	This fragment has been broken at both ends. Corrosion across the breaks indicates this was done in antiquity. There is some evidence of hammering on the blade faces, which might be linked.		

	Breakage 1: W.27.2; Th.8. This break has occurred across the blade and shows signs of high porosity in the metal at a macroscopic level, which would have influenced the breakage. **Breakage 2**: W.25.2; Th.7.3. This break has occurred across the blade and shows signs of high porosity in the metal at a macroscopic level, which would have influenced the breakage.

PAS-F015 Madron III

Grid Ref.	SW 44 30	**Altitude (m)**	74
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed tool was found while metal-detecting in 2016 three inches below the surface.		
Reference(s)	PAS CORN-B51CDB.		

Object Type and Description	Socketed tool – possibly a chisel. This is a socketed tool with straight, parallel sides, converging to a narrow, rounded cutting-edge, with a sub-rectangular section.		
Location	Finder	**Period**	Taunton-Penard?
Completeness	51-75%	**Details**	Socket missing and broken down one face.
Dimensions (mm)	L.56; W.12; Wt.25.6g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Difficult to tell but probably prepared and used. The cutting-edge is quite worn and abraded, but this might be the result of post-depositional damage.		
Damage	The socket mouth has broken away in antiquity and this fragmentation has extended down one face of the chisel. There are no signs of associated marks or casting flaws. The PAS record notes plough damage to the surface and thus some of the damage might be related to post-depositional processes.		

PAS-F016 Madron IV

Grid Ref.	SW 47 32	**Altitude (m)**	95
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An uncertain blade fragment was found while metal-detecting in 2016 about 10 cm below the surface.		
Reference(s)	PAS CORN-D0690C.		
Additional Notes			

Object Type and Description	Blade – object uncertain. This is a roughly trapezoidal blade fragment with a sub-triangular section, meaning the object thins towards the upper edge. The PAS records this as a potential sickle, but it appears to be too thick. It is difficult to identify precisely what object this fragment belongs to.		
Location	Finder	**Period**	Bronze Age
Completeness	0-25%	**Details**	Mid-section fragment.
Dimensions (mm)	L.31.5; W.21.3; Th.6.3; Wt.15.3g.		
Patina/Corrosion	Pale brown patina with pale green corrosion around the edges.		
Manufacture/Use	Difficult to tell.		
Damage	This fragment has broken from a larger object in antiquity, though there are no signs of casting flaws or associated marks.		

PAS-F017 Madron V

Grid Ref.	SW 44 30	**Altitude (m)**	88

☑ Dryland	☐ Wetland	☐ Uncertain
Find circumstances	An ingot fragment was found while metal-detecting in 2015 about 2 inches below the surface in a ploughed field.	
Reference(s)	PAS CORN-F588DE.	

Object Type and Description	Plano-convex ingot. This is a large fragment of an ingot with a flat underside and domed upper surface, indicating an originally plano-convex form.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Central fragment broken on all sides.
Dimensions (mm)	L.42; W.36; Th.28; Wt.179.88g.		
Patina/Corrosion	Dark green and brown corrosion, with some light green patches of corrosion.		
Manufacture/Use	Raw material – the ingot appears to have been well-cast with no casting hollows visible on the surface or in the breaks.		
Damage	This ingot piece has broken on all sides in antiquity, from near the centre of the original object. There are no associated marks or casting flaws.		

PAS-F018 Marazion I

Grid Ref.	SW 52 31	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 1997 about 6 inches below the surface on cultivated land.		
Reference(s)	Knight et al. 2015, 34, No.46, Pl.26; PAS CORN-30BC82.		
Additional Notes	A possible rapier fragment was found in the same field nine years later (PAS-F019).		

Object Type and Description	Sword – poss. Ewart Park. This is a rounded tip fragment of a sword with a biconvex section. The section is indicative of the Ewart Park type, though the rounded nature of the tip is unusual as it appears to be a deliberate shape, rather than worn.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.47; W.38; Th.7.5; Wt.52.84g.		
Patina/Corrosion	Mottled green and brown patina.		
Manufacture/Use	Difficult to tell due to incompleteness. The surviving edges look slightly worked and hammered.		
Damage	This tip fragment has broken straight across the lower blade in antiquity. There are no associated marks and there do not appear to be any casting flaws in the break. **Breakage**: W.38; Th.7.5.		

PAS-F019 Marazion II

Grid Ref.	SW 52 31	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2006 about 6 inches below the surface on cultivated land.		
Reference(s)	Knight et al. 2015, 34, No.47, Pl.26; PAS CORN-021D57.		
Additional Notes	A sword fragment was found in the same field nine years earlier (PAS-F018).		

Object Type and Description	Blade – poss. rapier? This is an incomplete narrow fragment of blade, with a lozenge-section and a raised midrib on both faces, indicating it once belonged to a rapier.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.56.6; W.19; Th.5; Wt.22.18g.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion damage.		
Damage	This is a fragment of a narrow blade broken at both ends in antiquity. Corrosion makes it difficult to identify any associated marks or casting flaws.		

PAS-F020 Mevagissey

Grid Ref.	SX 00 44	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2010 about 10 inches below the surface on cultivated land.		
Reference(s)	Knight et al. 2015, 35, No.52, Pl.14; PAS CORN-FD2517.		

Object Type and Description	Palstave – Gr.III or SW. This is the triangular blade of a palstave with a broad, largely straight cutting-edge. There are the remains of a midrib terminating just below the breakage point, and the sides are slightly flanged.		
Location	Finder	**Period**	Taunton-Penard
Completeness	26-50%	**Details**	Blade, broken below the stop.
Dimensions (mm)	L.60; Bl.W.51; Th.12; Wt.121.68g.		
Patina/Corrosion	Largely covered by coppery corrosion.		
Manufacture/Use	Difficult to tell due to corrosion, but seemingly prepared after casting.		
Damage	This palstave has broken across the mid-blade, below the stop, in antiquity. Corrosion makes it difficult to identify any associated marks or casting flaws.		

PAS-F021 Padstow

Grid Ref.	SW 91 77	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Five objects were found within the same ploughed field while metal-detecting in 2005. The objects were found at varying depths, with one having been found on the surface, while the deepest was an ingot fragment found about 14 inches down. It is unlikely the five objects are associated, but have been grouped here for convenience.		
Reference(s)	Knight et al. 2015, 35, Nos.57-59, Pl.4; PAS CORN-199400, 2005 T110; CORN-C76CD4; CORN-431AF8; CORN-27DEC1; CORN-281757.		

PAS-F021a

Object Type and Description	Gold object. This is a small fragment of gold strip with flanged sides. Compositional analysis is indicative of a Bronze Age date, though the form is undiagnostic.		
Location	RCM	**Period**	Bronze Age
Completeness	0-25%	**Details**	Fragment.

Dimensions (mm)	L.12.6; W.8; Th.2; Wt.1.53g.
Patina/Corrosion	Dull gold.
Manufacture/Use	Difficult to tell due to incompleteness, but it appears the sides have been deliberately shaped.
Damage	This fragment has been deliberately broken at both ends in antiquity. At one end the break is uneven, while at the other, the fragment has been compressed and it appears to have been deliberately broken using a chisel or blunt object. The overall piece is bowed slightly towards this later break.

PAS-F021b

Object Type and Description	Flat axe – type uncertain. This is a rounded butt fragment of a flat axe, with straight diverging sides, possibly Class 3 or 4.		
Location	Finder	**Period**	MA IV Aylesford?
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.59.3; B.W.41; Th.11; Wt.105.35g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This flat axe has broken across the hafting end in antiquity, leaving only the tip of the butt. There are no associated marks visible, but there is no image of the break to identify casting flaws. **Breakage**: W.41; Th.4.		

PAS-F021c

Object Type and Description	Socketed axe – poss. south-eastern. This is a mouth fragment of a socketed axe representing about a third of the socket rim, with the remains of a rounded, single moulding collar. The surviving piece indicates a square or sub-rectangular mouth. It is possible this piece belonged to a south-eastern axe.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mouth fragment.
Dimensions (mm)	L.16.7; W.28.2; Th.5.2; Wt.12.37g.		
Patina/Corrosion	Extensive corrosion.		
Manufacture/Use	Difficult to tell due to corrosion, but the remains of a sprue stump are still visible on the socket. The extent to which this has been worked is uncertain, but it is possible this axe saw limited preparation.		
Damage	The socket mouth of this axe has broken away in antiquity. Corrosion obscures any indicators of associated marks or casting flaws.		

PAS-F021d

Object Type and Description	Flanged axe – type uncertain. This is the corroded remains of a narrow flanged axe. It is difficult to determine any further diagnostic features, but it possibly belongs to the short-flanged class.		
Location	Finder	**Period**	Early-Middle Bronze Age
Completeness	26-50%	**Details**	Mid-blade section, heavily corroded.
Dimensions (mm)	L.67.4; W.26; Th.14; Wt.87.59g.		
Patina/Corrosion	Extensive green corrosion.		
Manufacture/Use	Uncertain due to corrosion.		
Damage	The blade of this axe has broken away, as well as the butt, either in antiquity or post-deposition through corrosion. It is difficult to determine due to the corrosion.		

PAS-F021e

Object Type and Description	Ingot. This is a small irregularly-shaped copper alloy lump. It likely represents an ingot.		
Location	Finder	**Period**	Bronze Age.
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.28.7; W.21; Th.17; Wt.31.05g.		
Patina/Corrosion	Green patina/corrosion.		
Manufacture/Use	Raw material.		
Damage	This fragment has broken on all sides from a large object. There are no associated marks but small casting flaws are visible in the photo. As the object has not been properly cleaned, it is difficult to determine further indicators.		

PAS-F022 Paul I

Grid Ref.	SW 46 26	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A gold rod fragment was found while metal-detecting in 2006 about 5 inches below the surface.		
Reference(s)	Knight et al. 2015, 36, No.62; PAS CORN-B6B241, 2006 T550; Treasure Annual Report 2005-6, 17, No.4.		

Object Type and Description	Gold ornament. This is a short, three-flanged rod of gold with a triangular section. It is loosely twisted and bent into a rough circle, with one surviving circular-section, expanded terminal.		
Location	RCM 2008.32.2	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Twisted, bent fragment.
Dimensions (mm)	L.59; Th.3.5; Wt.4.75g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Difficult to tell. The PAS record suggests the terminal is unfinished.		
Damage	This fragment has been broken from a larger object in antiquity. It is possible the original object was already twisted, but the rod has been bent into a distorted shape suggesting this act was deliberate.		

PAS-F023 Paul II

Grid Ref.	SW 46 25	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2006 on the surface of cultivated land.		
Reference(s)	Knight et al. 2015, 36, No.63; PAS CORN-4E8A63.		

Object Type and Description	Socketed tool. This is an incomplete socketed tool, with a narrow straight-sided blade leading to a rounded cutting-edge. The body is sub-rectangular in section. It is possibly a chisel.		
Location	Finder	**Period**	Taunton-Penard
Completeness	26-50%	**Details**	Broken unevenly across the object, through the socket.
Dimensions (mm)	L.56; W.24.6; Th.13.6; Wt.35.75g.		
Patina/Corrosion	Brown corrosion across the object causing surface delamination.		
Manufacture/Use	Difficult to tell due to corrosion, but the casting seams of the object appear to have been prepared. The cutting-edge is slightly bevelled, and rounded and worn, suggesting this object was used.		

Damage	This chisel has broken unevenly across the middle of the object, through the socket in antiquity, with breakage extending further down one face than the other. There are no associated marks or casting flaws, but corrosion obscures much of the detail.

PAS-F024 Penzance I

Grid Ref.	SW 45 29	**Altitude (m)**	62
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot was found while metal-detecting in 2015 about 3 inches below the surface on cultivated land.		
Reference(s)	PAS CORN-A863F7.		
Additional Notes			

Object Type and Description	Plano-convex ingot. This is a roughly circular ingot with a plano-convex section.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	Small fragments missing from edges.
Dimensions (mm)	L.67; W.54; Th.12; Wt.150.34g.		
Patina/Corrosion	Brown corrosion and patches of light green bronze disease.		
Manufacture/Use	Raw material – casting hollows present in the surface, but not uncommon for ingots.		
Damage	Small sections have broken from the edge of this ingot in antiquity, likely influenced by casting hollows. Otherwise this ingot is largely complete.		

PAS-F025 Penzance II

Grid Ref.	SW 46 31	**Altitude (m)**	59
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot piece was found while metal-detecting in 2008 about 2 inches below the surface in clay on a building site where foundations had been dug to 6 feet already.		
Reference(s)	PAS CORN-F4B411.		

Object Type and Description	Plano-convex ingot. This is a fragment of an irregularly-shaped copper alloy lump, with a rhomboidal section, indicating a plano-convex form.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.72; W.45; Th.36; Wt.415.85g.		
Patina/Corrosion	Mottled dark green and brown patina, with patches of light green bronze disease.		
Manufacture/Use	Raw material – relatively well-cast but with large casting hollows visible in the breaks.		
Damage	This ingot fragment has broken unevenly on all sides in antiquity. There are no associated marks, but significant casting hollows.		

PAS-F026 Perranzabuloe II

Grid Ref.	SW 78 55	**Altitude (m)**	72
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot was found while metal-detecting in 2016 about 6 inches below the surface in a ploughed field.		
Reference(s)	PAS CORN-0931DE.		

Object Type and Description	Plano-convex ingot. This is a fragment of an irregularly-shaped copper alloy lump, with a rhomboidal section, indicating a plano-convex form.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.73; W.54; Th.31; Wt.369.25g.		
Patina/Corrosion	Mottled dark green and brown patina, patches of light green bronze disease.		
Manufacture/Use	Raw material – lots of large casting hollows visible in the breaks and in the surfaces.		
Damage	This ingot fragment has broken unevenly on all sides in antiquity. There are no associated marks, but significant casting hollows.		

PAS-F027 Polperro

Grid Ref.	SX 20 51	**Altitude (m)**	85
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2015 about 3 inches below the surface in ploughed soil.		
Reference(s)	PAS CORN-FE2E0D.		

Object Type and Description	Sword – poss. Ewart Park. This is a blade fragment with a lozenge-section and a raised, but flattened, midrib. There is a small semi-circular notch in one end, which could be the remains of a rivet holes, which may indicate this blade fragment was reworked/reused.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.76; W.34.3; Th.8.7; Wt.72.15g.		
Patina/Corrosion	Green patina with patches of light green corrosion.		
Manufacture/Use	Prepared and used. This blade fragment appears to have been worked and prepared for use, though details of use-wear are difficult to determine due to the abraded cutting-edges. A notch in one end is suggestive that the blade fragment was reworked after breakage, perhaps as a razor or knife.		
Damage	This sword has broken at both ends in antiquity, though no associated marks can be identified. A photo of one end possibly shows some small casting hollows, which may have influenced the breakage.		

PAS-F028 Riviere Farm, Hayle

Grid Ref.	SW 56 38	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2007 about five inches below the surface in ploughed soil.		
Reference(s)	Knight et al. 2015, 36, No.67; PAS CORN-C5C0B5.		

Object Type and Description	Type Welby socketed axe (Southern English) This is a rim fragment of a socketed axe with a biconical mouth moulding, below which the tops of at least four vertical ribs can be seen. It is likely this axe once had six or seven ribs. The PAS record regards this as a “South Welsh/Stogursey” type axe, but this is an inaccurate assessment.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Rim fragment.
Dimensions (mm)	L.23; W.19.3; Th.7.3; Wt.9.99g.		

Patina/Corrosion	Mottled green/brown corrosion.
Manufacture/Use	Difficult to tell due to incompleteness, but the socket mouth appears to have been worked.
Damage	This is a fragment of the mouth of a socketed axe, broken on three sides in antiquity. There are no associated marks or casting flaws.

PAS-F029 Sennen

Grid Ref.	SW 37 26	**Altitude (m)**	102
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Three objects were found separately within the same ploughed field while metal-detecting at different times. A socketed axe fragment was found in 2011 about 5 inches down, while two ingot fragments were found in roughly the same location as each other, but on separate occasions in 2013. Both were about 10 inches below the surface. The relationship between these objects is unclear, but it seems the two ingots may have been associated at least.		
Reference(s)	Knight et al. 2015, 36, 38, Nos.72, 73, 97; PAS CORN-214B63; CORN-131C45; CORN-CDBF61.		

PAS-F029a

Object Type and Description	Socketed axe – type uncertain. This is a mouth and collar fragment of a socketed axe with a deep rounded collar and a horizontal rib set below this. The upper stump of a side-loop also survives. The fragment probably belonged to a Type Welby or south-eastern axe.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Socket mouth fragment.
Dimensions (mm)	L.36; W.34.6; Th.6; Wt.39.86g.		
Patina/Corrosion	Brown patina and patches of light green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, but the remains of casting seams are visible suggesting this was not fully prepared for use.		
Damage	A fragment of the socket mouth and collar has broken away from the side of a socketed axe in antiquity. There are no associated marks or casting flaws.		

PAS-F029b

Object Type and Description	Plano-convex ingot. This is an irregularly-shaped copper/copper alloy ingot fragment with a flat underside and a curved upper surface.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.60; W.54; Th.25.4; Wt.289.7g.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Raw material – lots of casting hollows, but not uncommon for ingots.		
Damage	This ingot piece has broken on all sides in antiquity. No associated marks are visible on the photos, but large casting hollows are visible, as is common.		

PAS-F029c

Object Type and Description	Plano-convex ingot. This is an irregularly-shaped copper/copper alloy ingot fragment with a flat underside and a curved upper surface.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.37; W.23; Th.30; Wt.96.65g.		
Patina/Corrosion	Dark green patina in places, but largely green corrosion.		

Manufacture/Use	Raw material – lots of casting hollows, but not uncommon for ingots.
Damage	This ingot piece has broken on all sides in antiquity, from near the centre of the original object. No associated marks are visible on the photos, but large casting hollows are visible, as is common.

PAS-F030 St. Agnes II

Grid Ref.	SW 73 51	**Altitude (m)**	100
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An axe fragment was found while metal-detecting in 2015 about 4 inches below the surface in a ploughed field.		
Reference(s)	PAS CORN-6C605C.		

Object Type and Description	Flat axe – Class 3 or 4. This is a slender rounded butt fragment of a flat axe.		
Location	Finder	**Period**	MA IV-MA V Willerby
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.50; Th.9; B.W.27; Wt.61.12g.		
Patina/Corrosion	Pale green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion.		
Damage	The butt of a flat axe has broken away in antiquity, straight across the septum. There are no associated marks or casting flaws. **Breakage**: W.31; Th.9.		

PAS-F031 St. Clement

Grid Ref.	SW 84 45	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed tool was found while metal-detecting in 2012 about 3 inches below the surface in woodland near a tree, c.2 feet from a Victorian wall and 5 feet from an undated possible midden.		
Reference(s)	Knight et al. 2015, 30, No.11, Pl.30; PAS CORN-42EF37.		

Object Type and Description	Square-socketed tool. This is an incomplete, straight-sided slender blade with a square-socket, thinning to a curved edge. The cutting-edge slightly expands.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Broken at the socket mouth.
Dimensions (mm)	L.85.6; Bl.W.16; Th.13.6; Wt.68.39g.		
Patina/Corrosion	Mottled brown and green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting seams have been removed and the cutting-edge has been hammered out. It is now asymmetrical, which may be due to ancient wear, but could also be attributable to corrosion damage.		
Damage	The socket mouth of this chisel has broken away in antiquity, though there are no associated marks or casting flaws.		

PAS-F032 St. Columb Major

Grid Ref.	SW 90 63	**Altitude (m)**	70
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2004 on cultivated land in the same field as two Medieval silver hammered coins.		

Reference(s)	Knight et al. 2015, 30, No.12, Pl.24; PAS CORN-6CB647.

Object Type and Description	Socketed axe – type uncertain. This is the lower blade of a socketed axe, with a slightly flaring curved cutting-edge and the remains of a sub-rectangular socket.		
Location	RCM 2004.8	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge.
Dimensions (mm)	L.42.1; Bl.W.49.6; Wt.84g.		
Patina/Corrosion	Olive green patina; pale green corrosion causing surface delamination around the edges.		
Manufacture/Use	Difficult to tell due to incompleteness, but the casting seams appear to have been worked and prepared. The cutting-edge is worn and slightly asymmetrical, but it is difficult to attribute this to use rather than post-depositional processes.		
Damage	The socketed axe has broken across the blade, just above the socket aperture in antiquity, leaving only the cutting-edge and lower blade. There are no associated marks or casting flaws. **Breakage**: Th.11.9.		

PAS-F033 St. Enoder

Grid Ref.	SW 90 56	**Altitude (m)**	86
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A faceted axe was found while metal-detecting in 2010 about 3 inches below the surface on cultivated land in loamy soil.		
Reference(s)	Knight et al. 2015, 31, No.19, Pl.23; PAS CORN-60E6C4.		

Object Type and Description	Type Meldreth socketed axe. This is a six-faceted socketed axe, with the remains of a raised collar and a side-loop set below it. The blade is broad with a curved cutting-edge and the surviving socket is sub-rectangular.		
Location	Finder	**Period**	Ewart Park
Completeness	76-99%	**Details**	Socket mouth broken.
Dimensions (mm)	L.101; Bl.W.53; Wt.175.69g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Prepared and used. The casting seams have been filed down on both sides and the cutting-edge has been hammered out. Hammer marks are still visible on both faces, and the cutting-edge is slightly asymmetrical. Abrasion to the edge makes it difficult to identify specific signs of wear.		
Damage	The socket mouth has fragmented away from this axe in antiquity and the side-loop has broken, leaving only stumps. There are no associated marks or casting flaws.		

PAS-F034 St. Erth II

Grid Ref.	SW 54 33	**Altitude (m)**	26
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An axe fragment was found while metal-detecting in 2015 about 7 inches below the surface in a ploughed field.		
Reference(s)	PAS CORN-7E0A41.		

Object Type and Description	Flat axe. This is a corroded, sub-rectangular flat axe butt with diverging straight sides.		
Location	Finder	**Period**	Early Bronze Age
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.50; W.32; Th.8; Wt.57.22g.		

Patina/Corrosion	Thick green corrosion.
Manufacture/Use	Difficult to tell due to corrosion.
Damage	This is a butt fragment of a flat axe that has broken away in antiquity. There are no visible associated marks or casting flaws.

PAS-F035 St. Keverne

Grid Ref.	SW 78 22	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An axe mould was found while field walking in 2008.		
Reference(s)	Knight et al. 2015, 33, No.33, Fig.1; PAS CORN-031000; Treasure Annual Report 2008, 61, No.51.		

Object Type and Description	Socketed axe mould. This is the lower half of one valve of a bivalve greisen stone mould for casting a ribbed socketed axe. The negative shows the tips of four ribs, indicating this was used to cast Type Welby axes. The mould is semi-circular in section, with a flat base and the remains of what looks like a loop. Just below the edge of the blade there is a small circular depression with a fragment of copper alloy still embedded in the stone mould. Furthermore, Peter Northover has commented that “the matrix for the cutting-edge looks a little asymmetric; perhaps a worn axe had been used as a pattern”.		
Location	Finder	**Period**	Ewart Park
Completeness	26-50%	**Details**	Half of one mould.
Dimensions (mm)	L.96; W.99; Th.68; Wt.1000g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared and used. This mould has been carefully prepared and used to cast socketed axes.		
Damage	This half of the bivalve mould has broken in half, presumably in antiquity. There are no associated marks or casting flaws.		

PAS-F036 St. Levan

Grid Ref.	SW 36 23	**Altitude (m)**	83
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A hoard of 53 metal objects was found while metal-detecting in 2015 about 12 inches below the surface in a put that was about 12 inches in diameter in a previously ploughed field. Two fragments of ingots were found either side of the pit at about a distance of 15 yards each. An excavation of the area took place in early 2016 by Cornwall Archaeological Unit. The size of the pit and compacted nature of the hoard indicates it may have been deposited in a container. This might be supported by a possible piece of leather found in a cavity of one of the ingots.		
Reference(s)	PAS CORN-E8DF11, 2016T20; Ratcliffe-Warren et al. 2016.		
Additional Notes	Images of some of the unconserved objects are available on the PAS website and I am grateful to Neil Wilkin and Anna Tyacke for supplying the treasure report and details of this otherwise unpublished hoard.		

PAS-F036a

Object Type and Description	Socketed axe – type uncertain. This is an incomplete socketed axe with a sub-rectangular socket and an expanding curved cutting-edge. The socket mouth is missing, and only one side-loop stump survives. There is the lower half of two different ribbed decorations on both faces. On one face there are

	two slightly converging lateral ribs, which do not meet; on the other face, there are two curved lateral ribs which do converge and form a narrow shield shape. This latter decoration is off-centre and at a slight angle so the shield pattern is not symmetrical. This motif is unusual and at present has no comparisons, except perhaps the design on the mould from Tremough.		
Location	BM	**Period**	Ewart Park
Completeness	51-75%	**Details**	Body and edge surviving.
Dimensions (mm)	L.88; Bl.W.51.5; Wt.236.41g.		
Patina/Corrosion	Brown patina, patches of pale green corrosion.		
Manufacture/Use	Difficult to tell. The casting seams appear to have been worked and the cutting-edge may have been prepared for use. It is possibly asymmetrical from wear, though this could be the result of post-depositional processes. The poorly formed decoration is indicative that this may have been a failed casting or a practice piece.		
Damage	The upper blade and socket mouth of this axe is absent and the metal surrounding this break is out-turned and cracked. It is unclear at present whether this represents a failed casting or deliberate damage. However, the worked casting seams might indicate this was deliberately inflicted, perhaps through the insertion of something into the socket.		

PAS-F036b

Object Type and Description	Socketed axe – type uncertain. This is the upper body of a square-socketed axe with a flat mouth and lipped collar that tapers into the body. Three ribs start below the collar, in line with the start of the side-loop and slightly converge. The PAS records five ribs, but only three can be seen on the photo and Ratcliffe-Warren et al. only note three. The PAS record also note it as a 'Stogursey' variant, but while it possesses the typical lack of collar, it lacks the diagnostic features of converging ribs starting high on the axe and the side-loop originating from the collar.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Socket mouth and upper body.
Dimensions (mm)	L.36; Sock.Diam.Ext.36x34; Wt.59.49g.		
Patina/Corrosion	Green-brownish patina, patches of corrosion.		
Manufacture/Use	Uncertain. The casting material has been partially worked, though not completely removed; the socket mouth appears to be worked.		
Damage	The axe has broken unevenly through the upper blade, leaving the socket mouth and side-loop intact, but causing cracking around the sides. There are no associated marks or casting flaws. **Breakage**: W.28; Th.21.		

PAS-F036c

Object Type and Description	Ribbed socketed axe – type uncertain. This is a mid-body fragment of a socketed axe with the remains of three, possibly five, ribs.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-body fragment.
Dimensions (mm)	L.30; W.21; Th.3.5; Wt.7.32g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a mid-body fragment of one face of a socketed axe broken on all sides. There are no associated marks or casting flaws, but it appears distorted.		

PAS-F036d

Object Type and Description	Socketed tool – type uncertain. This is a fragment of a socketed tool with no diagnostic features.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-body fragment.
Dimensions (mm)	L.30; W.21.5; Th.5; Wt.15.58g.		
Patina/Corrosion	Green patina and corrosion; one face more corroded than the other.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a mid-body fragment of one face of a socketed axe broken on all sides. There are no associated marks or casting flaws.		

PAS-F036e

Object Type and Description	End-winged axe. This is an incomplete mid-section of a winged axe, with a side-loop surviving intact and the remains of two wings seemingly folded over.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-body fragment.
Dimensions (mm)	L.46; W.29; Wt.79.63g.		
Patina/Corrosion	Green patina/corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a fragment of a winged axe, broken at both ends through the wings, so the butt and blade are missing. The side-loop is intact however, and three of the four wings largely survive. There are no associated marks or casting flaws. **Butt breakage**: Th.6. **Blade breakage**: Th.4.		

PAS-F036f

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of a sword blade with bevelled edges and a thick, biconvex section. The PAS record suggests that this and F035g might have once been part of the same sword, but they are considered two separate objects by Ratcliffe-Warren et al. The weight is recorded as 154.59g, which seems very heavy for a fragment of this size.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.45; W.35; Th.9; Wt.154.59g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared and possibly used. The edges of this blade have been hammered and bevelled and look like they have been sharpened. There is some edge damage on one edge in particular, but it is difficult to tell if this is ancient or post-depositional.		
Damage	This fragment has broken at both ends in antiquity, and the overall object has suffered transverse bending, particularly towards one of the breaks. A photo of the break associated with the bending also shows one small casting hollow, though no other casting flaws.		

PAS-F036g

Object Type and Description	Blade – poss. hog-back knife. This is a semi-rectangular fragment with a rounded end and a flattened midrib. The object has a biconvex section. The PAS record suggests that this and F035f might have once been part of the same sword, but Ratcliffe-Warren et al. suggest this belonged to a hog-back knife.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.40; W.45; Th.8; Wt.35.5g.		

Patina/Corrosion	Green/brown patina/corrosion.
Manufacture/Use	Difficult to tell due to incompleteness though the rounded tip appears to be deliberately shaped.
Damage	This is the tip of a blade broken straight across the blade in antiquity. There are no associated marks or casting flaws. **Breakage**: W.45.

PAS-F036h

Object Type and Description	Knife – poss. hog-back. This is an incomplete sub-rectangular razor with at least one, if not two, cutting-edges and the remains of a rivet/peg hole at one end. It is biconvex in section.		
Location	BM	**Period**	Ewart Park
Completeness	26-50%	**Details**	Mid-blade piece.
Dimensions (mm)	L.49; W.41.45; Th.5.5; Wt.60.17g.		
Patina/Corrosion	Brown patina with corrosive lumps.		
Manufacture/Use	Difficult to tell, but the cutting-edge appears to have been worked and sharpened.		
Damage	This piece has broken across the rivet hole at one end and across the blade at the other, leaving a large mid-section of the razor. There are no associated marks or casting flaws.		

PAS-F036i

Object Type and Description	Razor – poss. hog back knife. This is an incomplete trapezoidal razor with a single cutting-edge along the longest side and half a circular perforation on the shorter parallel side.		
Location	BM	**Period**	Ewart Park
Completeness	76-99%	**Details**	Upper edge and one side broken.
Dimensions (mm)	L.51; W.33; Th.7; Wt.43.82g.		
Patina/Corrosion	Brown/green patina.		
Manufacture/Use	Difficult to tell, but the cutting-edge appears to have been worked and sharpened.		
Damage	This razor has broken unevenly across the upper edge in antiquity through the perforation. One side of the razor has across broken away straight down the length of the razor, again in antiquity. There are no associated marks or casting flaws.		

PAS-F036j

Object Type and Description	Casting jet. This is a conical casting jet with the remains of two converging central sprue stumps.		
Location	BM	**Period**	Ewart Park
Completeness	n/a	**Details**	Casting waste.
Dimensions (mm)	W.46; Wt.117.19g.		
Patina/Corrosion	Brown patina, corrosive lumps.		
Manufacture/Use	Waste from casting process.		
Damage	This was broken from an object after casting.		

PAS-F036k

Object Type and Description	Casting jet. This is an oval conical casting jet with roughly central sprue.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Casting waste.
Dimensions (mm)	W.29.5; Wt.45.69g.		
Patina/Corrosion	Green/brown patina.		
Manufacture/Use	Waste from casting process.		

Damage	This was broken from an object after casting.

PAS-F036l

Object Type and Description	Casting jet. This is an ovoid casting jet or 'plug' with a large central cylindrical sprue, which is stepped.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Casting waste.
Dimensions (mm)	L.50; W.25; Wt.116.80g.		
Patina/Corrosion	Brown patina, green corrosive lumps.		
Manufacture/Use	Waste from casting process.		
Damage	This was broken from an object after casting.		

PAS-F036m

Object Type and Description	Ingot. Incomplete copper alloy ingot fragment, which seems to have been formed out of two flat pieces. The smaller thinner piece is irregularly-shaped and has been fused to the bottom of a larger, thicker semi-rectangular piece.		
Location	BM	**Period**	Ewart Park
Completeness	Uncertain	**Details**	"Incomplete".
Dimensions (mm)	L.74; W.60; Th.43; Wt.706g.		
Patina/Corrosion	Dark green patina in places, but largely green corrosion.		
Manufacture/Use	Raw material – lots of casting hollows, cracks and pits noted.		
Damage	Uncertain. The piece is described as potentially being two pieces fused together, though details of damage and/or completeness are not noted.		

PAS-F036n

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with a sub-triangular profile and a curved original edge.		
Location	BM	**Period**	Ewart Park
Completeness	26-50%	**Details**	Edge piece.
Dimensions (mm)	L.94; W.49.5; Th.51.5; Wt.594g.		
Patina/Corrosion	Dark green patina in places, but largely green corrosion.		
Manufacture/Use	Raw material – lots of casting hollows, but not uncommon for ingots.		
Damage	This ingot piece has broken from the edge of an ingot, though no further details are given.		

PAS-F036o

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment; trapezoidal section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.39; W.31.5; Th.35; Wt.204.64g.		
Patina/Corrosion	Green-brown patina.		
Manufacture/Use	Raw material – smooth surface, but casting hollows in the breaks.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036p

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with a sub-rectangular section and a curved original edge.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.59; W.57; Th.26; Wt.313g.		

Patina/Corrosion	Green-brown patina.
Manufacture/Use	Raw material – lots of casting hollows and pits, but not uncommon for ingots.
Damage	This ingot fragment has broken from the edge of an ingot in antiquity, though no further details are given.

PAS-F036q

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with a flat bottom and slightly sloping upper surface.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.72; W.39; Th.28; Wt.315g.		
Patina/Corrosion	Green-brown patina.		
Manufacture/Use	Raw material – lots of casting hollows and pits, but not uncommon for ingots. Ratcliffe-Warren et al. note: “One edge has a smooth, slightly rounded recess maybe left by an object melted into the ingot.”		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036r

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with a plano-convex section and a curved original edge.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.64; W.56.5; Th.25.		
Patina/Corrosion	Green-brown patina.		
Manufacture/Use	Raw material – some casting hollows and pits. Ratcliffe-Warren et al. comment: “The surfaces of the edges are rough and pitted with cavities and recesses. Two of these recesses seem relatively smooth and may have been left by an object melted into the ingot.”		
Damage	This ingot fragment has broken on all but one side in antiquity.		

PAS-F036s

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with an original edge and plano-convex section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.64; W.52; Th.25.5; Wt.246.85g.		
Patina/Corrosion	Green-brown patina.		
Manufacture/Use	Raw material – lots of cavities and creases in the surfaces and larger hollows in the breaks.		
Damage	This ingot fragment has broken on all but one side in antiquity.		

PAS-F036t

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with an original edge and plano-convex section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.50.5; W.42; Th.22; Wt.124.12g.		
Patina/Corrosion	Green-brown patina.		
Manufacture/Use	Raw material – lots of large casting hollows and recesses in the breaks, but not uncommon for ingots. Ratcliffe-Warren et al. note: “…near the top of the ingot there are two small circular, saucer-like objects with a cavity or some space around them (both protrude		

	from the side of the fragment when viewed from above, though one further than the other). These may be two rivet-like objects that have not melted into the ingot".		
Damage	This ingot fragment has broken on all but one side in antiquity.		

PAS-F036u

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy ingot fragment with an original edge and triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.36.5; W.33.5; Th.17.5; Wt.52.8g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Raw material.		
Damage	This ingot fragment has broken on all but one side in antiquity.		

PAS-F036v

Object Type and Description	Plano-convex ingot. Sub-triangular copper alloy ingot fragment; plano-convex section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.38; W.25.5; Th.19; Wt.55.94g.		
Patina/Corrosion	Dark brown patina, patches of green corrosion.		
Manufacture/Use	Raw material – small casting hollows.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036w

Object Type and Description	Plano-convex ingot. Sub-rectangular copper alloy ingot fragment; rectangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.27.5; W.24.5; Th.21; Wt.70.93g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – several casting hollows.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036x

Object Type and Description	Ingot – poss. plano-convex. Sub-triangular copper alloy ingot fragment; triangular section.		
Location	BM	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.61; W.40; Th.21; Wt.128.68g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – several casting hollows and pits on the surface and larger hollows in the breaks. Ratcliffe-Warren et al. note: "On one edge near the bottom a small, round, dark green rivet-shaped object can be seen with some space around it, which may be an object that has not melted into the ingot properly".		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036y

Object Type and Description	Ingot – poss. plano-convex. Sub-rectangular copper alloy ingot fragment; sub-triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.43; W.35; Th.17.5; Wt.89.72g.		

Patina/Corrosion	Dark green-brown patina, patches of green-brown corrosion.
Manufacture/Use	Raw material – large casting hollows in the surface.
Damage	This ingot fragment has broken on all sides in antiquity.

PAS-F036z

Object Type and Description	Ingot – poss. plano-convex. Sub-rectangular copper alloy ingot fragment; sub-triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.35; W.25; Th.19; Wt.71.26g.		
Patina/Corrosion	Green patina, patches of green corrosion.		
Manufacture/Use	Raw material – rough and pitted with large air bubble and cavities.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036aa

Object Type and Description	Ingot. Sub-triangular copper alloy ingot fragment; sub-rectangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.36; W.29.5; Th.17; Wt.48.90g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material – rough and pitted with large air bubble and cavities.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036bb

Object Type and Description	Ingot – poss. plano-convex. Irregularly-shaped copper alloy ingot fragment; triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.40; W.28.5; Th.23; Wt.64.32g.		
Patina/Corrosion	Green patina, patches of pale green and brown corrosion.		
Manufacture/Use	Raw material.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036cc

Object Type and Description	Ingot. Irregularly-shaped copper alloy ingot fragment; rectangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.38.5; W.29.5; Th.14; Wt.67.02g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material – a few casting hollows and pits in the surface.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036dd

Object Type and Description	Ingot. Irregularly-shaped copper alloy ingot fragment with three straight edges and one more rounded one and a sub-rectangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.37; W.36; Th.11; Wt.46.99g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – rough and pitted surface with numerous cracks and air bubbles.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036ee

Object Type and Description	Ingot. Irregularly-shaped copper alloy ingot fragment.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.29.5; W.27; Th.27.5; Wt.34.73g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – possibly protrusions representing objects that have no fully melted into the ingot.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036ff

Object Type and Description	Ingot – poss. plano-convex. Sub-square copper alloy ingot fragment; sub-triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.27; W.31; Th.17; Wt.38.86g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – one prominent casting hollow and various air bubbles.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036gg

Object Type and Description	Ingot. This is a small irregularly-shaped “pellet” of a copper alloy ingot fragment.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.27.5; W.14; Th.11.5; Wt.15.71g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material.		
Damage	Uncertain.		

PAS-F036hh

Object Type and Description	Ingot. Sub-triangular copper alloy ingot fragment.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.23.5; W.20; Th.20; Wt.22.18g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material – cracked.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036ii

Object Type and Description	Ingot. Small, elongated and rough fragment of a copper alloy ingot, with one relatively flat surface.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.39; W.22; Th.17; Wt.38.64g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – large elongated cavity on one side.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036jj

Object Type and Description	Ingot. Irregularly-shaped copper alloy ingot fragment with one smooth and flat face.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.38; W.18; Th.21; Wt.41.07g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various casting hollows and pits visible on the surface.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036kk

Object Type and Description	Ingot – poss. plano-convex. Sub-triangular copper alloy ingot fragment; triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.35.5; W.27; Th.17; Wt.41g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material – various casting hollows, cracks and pits.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036ll

Object Type and Description	Ingot. Sub-rectangular copper alloy ingot fragment with two relatively flat surfaces.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.29; W.22; Th.17; Wt.45.56g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various casting hollows, cracks and pits.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036mm

Object Type and Description	Ingot. Irregularly-shaped copper alloy ingot fragment.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.40; W.28.5; Th.9; Wt.26.92g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material – one elongated cavity and several smaller casting pits.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036nn

Object Type and Description	Ingot. Small, irregularly-shaped copper alloy ingot fragment.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.32; W.29; Th.14; Wt.39.22g.		
Patina/Corrosion	Dark green-brown patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various casting hollows, cracks and pits.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036oo

Object Type and Description	Ingot. Small irregularly-shaped pellet fragment of a copper alloy ingot.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.24; W.24; Th.16; Wt.20.88g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various pits and cracks.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036pp

Object Type and Description	Ingot. Small irregularly-shaped pellet fragment of a copper alloy ingot.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.21; W.18.5; Th.13; Wt.21.82g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various small casting hollows.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036qq

Object Type and Description	Ingot – poss. plano-convex. Small irregularly-shaped copper alloy ingot fragment; sub-triangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.27; W.26; Th.14; Wt.33.74g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various casting hollows and pits in all surfaces.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036rr

Object Type and Description	Ingot. Small sub-triangular copper alloy ingot fragment with one relatively flat surface.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.31; W.21; Th.14; Wt.28.68g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – surfaces are rough and pitted.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036ss

Object Type and Description	Ingot – poss. plano-convex. Flat fragment of an irregularly-shaped copper alloy ingot; plano-convex section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.46.5; W.38; Th.18.5; Wt.149.57g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – the upper surface is very smooth and flat, which might be part of a flat metal object that has not totally melted. The opposite surface is rough and pitted.		
Damage	This ingot fragment has broken on all sides in antiquity, but there is an edge that bends down the side slightly, which could be linked to the breakage.		

PAS-F036tt

Object Type and Description	Ingot – poss. plano-convex. Irregularly-shaped copper alloy ingot fragment.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.35; W.29; Th.15; Wt.68.71g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – rough and pitted surfaces. Ratcliffe-Warren et al. note: “The fragment has a very flat, smooth upper surface that is trapezoidal in shape, which may be part of a flat metal object that has not completely melted into the ingot. There are three clear edges to this flat ‘sheet’, where the object was fragmented, with two of them being particularly sharp.”		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036uu

Object Type and Description	Ingot. Large irregularly-shaped flat fragment of a copper alloy ingot fragment; rectangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.55; W.53; Th.27; Wt.362g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various casting hollows and pits. Ratcliffe-Warren et al. note: “There are four clear edges to this flat ‘sheet’ which seems to lie on top of the rest of the ingot. Though attached to it, this flat sheet seems to be part of a flat metal object that has not completely melted into the ingot.”		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036vv

Object Type and Description	Ingot – poss. plano-convex. Relatively flat, irregularly-shaped fragment of a copper alloy ingot; sub-triangular or plano-convex section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.39; W.31.5; Th.11; Wt.59.46g.		
Patina/Corrosion	Dark green-brown patina.		
Manufacture/Use	Raw material – rough and pitted surfaces.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036ww

Object Type and Description	Ingot. Small, relatively flat, irregularly-shaped copper alloy ingot fragment; sub-rectangular section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.34.5; W.22; Th.9; Wt.24.91g.		
Patina/Corrosion	Dark brown-green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – various casting hollows and pits. Ratcliffe-Warren et al. note: “One edge is smoother and on one side it almost seems sheet-like, with a rugged edge slightly folded down over a large cavity. This could very tentatively be part of a flat, folded metal object that has not completely melted into the ingot.”		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036xx

Object Type and Description	Plano-convex ingot. Sub-rectangular copper alloy ingot fragment; plano-convex section.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.44; W.25; Th.17.5; Wt.73.29g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – rough and pitted surfaces. Ratcliffe-Warren et al. notes some flat areas and protrusions, which may represent objects that have not fully melted into the ingot.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036yy

Object Type and Description	Ingot. Flat irregularly-shaped copper alloy ingot fragment; sub-rectangular section and a flat upper surface.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.28; W.22.5; Th.10; Wt.30.34g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	Raw material – rough, pitted and cracked surfaces. The flat surface may represent an object that has not completely melted into the ingot.		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036zz

Object Type and Description	Ingot. Irregularly-shaped copper alloy ingot fragment with one relatively flat surface, two straight edges and one rounded edge. One side of this ingot is covered in a mineralised organic material.		
Location	BM	**Period**	Ewart Park
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.41; W.33; Th.27; Wt.96.73g.		
Patina/Corrosion	Dark green-brown patina, patches of a darker green/brown corrosion.		
Manufacture/Use	Raw material – rough surfaces with various casting flaws.. Regarding the flat surface, Ratcliffe-Warren et al. note: “it is clearly part of flat object that has not completely melted into the object, as it seems to lie on top of the rest of the ingot, with one of the straight edges and the rounded edge clearly visible.”		
Damage	This ingot fragment has broken on all sides in antiquity.		

PAS-F036a3

Object Type and Description	Ingot. Flat oval, disc-shaped copper alloy ingot.		
Location	BM	**Period**	Ewart Park
Completeness	Uncertain	**Details**	Complete?
Dimensions (mm)	L.53.5; W.45; Th.6.5; Wt.70.96g.		
Patina/Corrosion	Dark grey/black patina on one surface and green-brown patina on the opposite face. Some brown-red corrosion lumps.		
Manufacture/Use	Raw material – rough surfaces, with minor pitting.		
Damage	Uncertain.		

PAS-F037 St. Minver Lowlands I

Grid Ref.	SW 94 75	**Altitude (m)**	25
☑	☐	☐	

Dryland	Wetland	Uncertain
Find circumstances	A socketed axe fragment was found while metal-detecting in 2015 about 3 inches below the surface in ploughed soil.	
Reference(s)	PAS CORN-52EF32.	

Object Type and Description	Socketed axe – type uncertain. This is the narrow blade of a socketed axe with a rectangular socket section and a rounded, blunt cutting-edge.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.36; W.30; Wt.31.97g.		
Patina/Corrosion	Pale brown corrosion causing surface delamination.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion. The casting seams appear to have been filed down and prepared and the worn cutting-edge may be the result of ancient use or could be post-depositional.		
Damage	This is the lower blade and cutting-edge of a socketed axe broken unevenly above the socket aperture in antiquity. There are no associated marks or casting flaws.		

PAS-F038 St. Minver Lowlands II

Grid Ref.	SW 93 77	**Altitude (m)**	18
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot fragment was found while metal-detecting in 2015 about 6-8 inches below the surface on cultivated land.		
Reference(s)	PAS CORN-CFAF67.		

Object Type and Description	Plano-convex ingot. This is a triangular lump of copper alloy with a plano-convex section.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.68.3; W.57.7; Th.30.3; Wt.302.7g.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Raw material – lots of casting hollows particularly in the breaks.		
Damage	This ingot has broken along two edges in antiquity. There are no associated marks but there are lots of casting hollows in the breaks, which likely assisted the breakage.		

PAS-F039 St. Teath

Grid Ref.	SX 06 80	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while clearing topsoil in a garden before 1996 about 4 inches below the surface.		
Reference(s)	Knight et al. 2015, 37, No.75, Pl.26; PAS CORN-55C363.		

Object Type and Description	Blade – type uncertain. This is the tip fragment of a blade with a triangular-section, created by a central ridge along one face of the blade. The PAS note this as a dagger, but the abraded nature of the object means it is better considered simply as a blade.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.45; W.27.4; Th.8; Wt.29.55g.		
Patina/Corrosion	Brown/grey corrosion.		

Manufacture/Use	Difficult to tell due to corrosion damage but the edges appear to be bevelled.
Damage	This is a tip fragment of a blade broken straight across the lower blade in antiquity. There are no associated marks, but the break reveals several casting hollows.

PAS-F040 St. Winnow

Grid Ref.	SX 11 57	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2003 about 9-10 inches below the surface in ploughed soil.		
Reference(s)	Knight et al. 2015, 38, No.86, Pl.26; PAS CORN-AAAAB3.		

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade section of a sword with a lozenge section and bevelled edges.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.24.1; W.32.8; Th.6.8; Wt.19.52g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared and used. The edges of the blade have been hammered and bevelled and presumably sharpened. There is edge damage along both edges, but it is uncertain from the photos whether this is related to use or post-depositional processes.		
Damage	This is a fragment of sword that has broken at both ends in antiquity. There are no obvious associated marks, but there are possible hammer marks on both faces and minor casting flaws are visible in the breaks.		

PAS-F041 Treen, St. Levan

Grid Ref.	SW 39 22	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot fragment was found while metal-detecting near Treen in 2016. It was found about 15cm down in ploughed soil.		
Reference(s)	PAS CORN-3B4CCE.		
Additional Notes	This findspot is close to the coast.		

Object Type and Description	Plano-convex ingot. This is an edge piece of a large ingot with a flat underside and a domed upper surface creating a roughly wedge-shaped profile. It has been broken on three sides to create a roughly square piece.		
Location	Finder	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Edge piece.
Dimensions (mm)	L.99.1; W.93.8; Th.33.9; Wt.1755g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Lots of casting hollows in the ingot, but this is common for this object type. There is a large, roughly oval, bubble on one face, which could potentially represent a socket that has been melted into the ingot. The XRF data indicates this ingot is largely copper, which would add some doubt to the possibility of this ingot having been melted from other objects.		
Damage	The ingot appears to have been broken on three sides to separate it from a larger piece in antiquity. All breaks contain casting hollows and are consistently patinated. There are no associated marks. **Breakage**: Max.Th.32.7.		

PAS-F042 Tregoney I

Grid Ref.	SW 92 44	**Altitude (m)**	35
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2003 in a cultivated field.		
Reference(s)	Knight et al. 2015, 37, No.77; PAS CORN-312AA6.		

Object Type and Description	Sword – poss. Ewart Park. This is the lower blade of a sword tapering towards a rounded tip with a lozenge section.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.62.7; W.21.2; Th.8.6; Wt.38.77g.		
Patina/Corrosion	Brown patina and patches of light green corrosion.		
Manufacture/Use	Difficult to tell due to corrosion.		
Damage	This is a sword fragment that has broken across the lower blade in antiquity. There are no associated marks, but the break reveals several small casting flaws.		

PAS-F043 Tregoney II

Grid Ref.	SW 92 44	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot was found while metal-detecting in 2005 during a controlled investigation of the site. The ingot was found at a depth of up to 90cm in silty clay topsoil.		
Reference(s)	Knight et al. 2015, 37, No.76; PAS CORN-CCB7D1.		

Object Type and Description	Plano-convex ingot. Irregularly-shaped copper alloy lump; trapezoidal section.		
Location	HER, Cornwall.	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.42; W.36; Th.17; Wt.64.61g.		
Patina/Corrosion	Green/brown corrosion.		
Manufacture/Use	Raw material – numerous casting hollows visible in the breaks.		
Damage	This fragment has broken on all sides from a larger piece. There are no associated marks but numerous casting flaws in the breaks.		

PAS-F044 Tywardreath and Par

Grid Ref.	SX 08 55	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave blade was found while metal-detecting in 2011 about 10 inches below the surface in ploughed soil.		
Reference(s)	Knight et al. 2015, 37, No.80, Pl.14; PAS CORN-4FF3A0.		

Object Type and Description	Palstave – Gr.III or South-western. This is a broad triangular blade of palstave with a curved cutting-edge. At the breakage across the blade there is the remains of a converging V-rib decoration.		
Location	Finder	**Period**	Taunton-Penard
Completeness	26-50%	**Details**	Lower blade.
Dimensions (mm)	L.60.5; Bl.W.52.5; Th.15; Wt.189.95g.		
Patina/Corrosion	Mottled green corrosion.		

Manufacture/Use	Difficult to tell but the casting seams appear to have been prepared and the blade has possibly been worked. It is difficult to tell if the asymmetry of the cutting-edge is due to extensive use or post-depositional abrasion.
Damage	This palstave has broken across the blade below the stop in antiquity. There are no associated marks or casting flaws.

B.3 DEVON

PAS-F045 Awliscombe I

Grid Ref.	ST 13 01	**Altitude (m)**	102
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Three sword fragments were found while metal-detecting in 2014.		
Reference(s)	PAS DEV-F0ED0B.		
Additional Notes	Full details of this hoard are not available at present, but I have briefly examined the hoard and Mr Tom Cadbury has very kindly provided photos. Dimensions of the fragments are not known at present.		

PAS-F045a

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of sword, with a biconvex section and tapering towards one end, indicating the tip of a sword. It does not refit with the other fragments, but likely belongs to the same sword.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Lower blade fragment.
Dimensions (mm)	L.53.7; W.33.9; Th.7.3.		
Patina/Corrosion	Green patina, but corrosive delamination around the edges.		
Manufacture/Use	Difficult to tell, but likely prepared and used. There is no evidence of hammering or bevelling on this fragment, but the other two fragments show signs of preparation.		
Damage	This fragment has broken at both ends in antiquity. There are no associated marks or casting flaws.		

PAS-F045b

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of sword with a biconvex section. It refits with F045c, and is likely from the same sword as F045a.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.55; W.30.7; Th.6.7.		
Patina/Corrosion	Green patina, but corrosive delamination around the edges.		
Manufacture/Use	Prepared and possibly used. The surviving edges show signs of bevelling and the blade seems to have been hammered.		
Damage	This fragment has broken at both ends in antiquity. There are no associated marks or casting flaws.		

PAS-F045c

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of sword with a biconvex section. It refits with F045b, and is likely from the same sword as F045a.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.54.2; W.27; Th.5.7.		

Patina/Corrosion	Green patina, but corrosive delamination around the edges.
Manufacture/Use	Prepared and possibly used. The surviving edges show signs of bevelling and the blade seems to have been hammered.
Damage	This fragment has broken at both ends in antiquity. There are no associated marks or casting flaws.

PAS-F046 Awliscombe II

Grid Ref.	ST 13 01	**Altitude (m)**	116
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting.		
Reference(s)	PAS SOM-77666B.		

Object Type and Description	Socketed axe – type uncertain. This is a cutting-edge fragment of a socketed axe with a narrow, slender blade and no visible decoration. The cutting-edge is straight and unexpanded, with the remnants of a sub-rectangular socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.59.11; Bl.W.59.11; Wt.84.08g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Difficult to tell, but the casting seams appear to have been worked. The cutting-edge is rounded but shows no signs of use.		
Damage	This is fragment has broken just above the socket aperture in antiquity. There are no associated marks or casting flaws.		

PAS-F047 Aylesbeare

Grid Ref.	SY 04 91	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2008.		
Reference(s)	Knight et al. 2015, 39, No.104; PAS DEV-105E82.		

Object Type and Description	Gr.III palstave. This is a narrow palstave with the remains of low flanges and a side-loop in line with a sub-rectangular stop. The blade is triangular and there is a faint midrib extending down half of the blade.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Flanges fragmentary; blade tip broken away.
Dimensions (mm)	L.129.		
Patina/Corrosion	Mottled brown and green corrosion.		
Manufacture/Use	Difficult to tell but the casting seams appear to have been prepared.		
Damage	One blade corner, the side-loop and portions of the flanges have all fragmented away either in antiquity or as a result of corrosion. It is difficult to make any further assessment from the photo.		

PAS-F048 Berry Pomeroy

Grid Ref.	SX 83 61	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2008.		
Reference(s)	Knight et al. 2015, 45, No.167; PAS DEV-1BDABS.		
Additional Notes	This is incorrectly recorded in Knight et al. as coming from Stoke Gabriel. The findspot lies on the parish boundary.		

Object Type and Description	Plain pegged spearhead (Type 11) This is the lower blade and socket of a pegged spearhead with a circular socket. Too little survives of the blade wings survive to accurately determine whether the blade was flame or leaf-shaped.		
Location	Finder	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Lower blade and socket.
Dimensions (mm)	L.49; Bl.W.28; Sock.Diam.Ext.20; Wt.19.52g.		
Patina/Corrosion	Mottled green and brown patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and the spearhead appears to have been polished. It is difficult to identify signs of use though.		
Damage	This spearhead has broken unevenly across the lower blade and through the circular midrib in antiquity. There are no associated marks or casting flaws.		

PAS-F049 Bigbury

Grid Ref.	SX 66 46	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2010 about 5 inches below the surface in ploughed soil.		
Reference(s)	Knight et al. 2015, 39, No.110, Pl.30; PAS CORN-319C01.		

Object Type and Description	Class I or II socketed gouge. This is a small incomplete socketed gouge with a circular socket with a simple mouth moulding, and a narrow, asymmetrical cutting-edge.		
Location	Finder	**Period**	Ewart Park
Completeness	76-99%	**Details**	Broken unevenly down the socket mouth on one side.
Dimensions (mm)	L.61; Bl.W.20; Wt.31.49g.		
Patina/Corrosion	Mottled brown and green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting seams appear to have been worked and the cutting-edge is worn and asymmetrical, which could be linked to extensive use.		
Damage	The socketed gouge has broken at the socket mouth and down one side, in antiquity, though it is difficult to identify details accurately from the photos. This break has occurred unevenly, causing a greater material loss on one side than the other. There are no associated marks or casting flaws.		

PAS-F050 Bovey Tracey

Grid Ref.	SX 83 73	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2010.		
Reference(s)	Knight et al. 2015, 40, No.115, Pl.30; PAS DEV-6FF9E5.		

Object Type and Description	Bar chisel. This is a square-section bar that tapers and flattens to a chisel blade at one end.		
Location	Finder	**Period**	Early-Middle Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.51.3; Bl.W.9.6; Th.8.8; Wt.24.31g.		
Patina/Corrosion	Mottled green/brown patina/corrosion.		
Manufacture/Use	Difficult to tell due to poor photo.		
Damage	None.		

PAS-F051 Braunton

Grid Ref.	SS 49 36	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2012 about 75cm below the ploughsoil.		
Reference(s)	Knight et al. 2015, 40, No.116, Pl.21; PAS DEV-07F6B5.		

Object Type and Description	Later short-flanged axe. This is an unlooped axe with high lozenge-shaped flanges that rise from below the butt and extend slightly onto the upper blade. There is a low u-shaped stop/transverse ridge, which sits lower than the flanges. The flanges have been hammered over at the stop and the blade expands to a flared crescentic cutting-edge.		
Location	Finder	**Period**	Acton Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.141.		
Patina/Corrosion	Mottled green/brown corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material appears to have been worked and the flanges have been hammered, suggesting preparation for hafting. It is difficult to identify signs of use from the photo but the cutting-edge has probably been hammered and worked.		
Damage	None.		

PAS-F052 Bridford

Grid Ref.	SX 80 86	**Altitude (m)**	278
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A flat axe was found while metal-detecting in 2013.		
Reference(s)	Knight et al. 2015, 40, No.118, Pl.21; PAS DEV-987893.		

Object Type and Description	Flat axe – Class 3/4? This is the lower blade of an axe with a broad, crescentic cutting-edge with flared tips. There is no evidence of decoration, flanges or median bevel on the surviving piece.		
Location	Finder	**Period**	Early Bronze Age MA III-MA V?
Completeness	26-50%	**Details**	Lower blade and cutting-edge.
Dimensions (mm)	L.52; Bl.W.50.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell but the cutting-edge appears to have been hammered and worked.		
Damage	This axe has broken across the middle of the blade in antiquity, though there are no associated marks or visible casting flaws. The PAS notes that the break is worn, suggesting the axe continued in circulation after the break. **Breakage**: W.26; Th.8.		

PAS-F053 Buckland-Tout-Saints I

Grid Ref.	SX 76 46	**Altitude (m)**	123
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2015.		
Reference(s)	PAS DEV-C93172.		

Object Type and Description	Side-looped spearhead (Gr.6). This is a flame-shaped spearhead with a long conical socket, with side-loops set about halfway along. The blade has a prominent midrib creating a lozenge section, and there appears to be a small amount of wood remaining inside the socket.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Tip missing.
Dimensions (mm)	L.117.4.		
Patina/Corrosion	Green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and the spearhead was likely worked, though corrosion obscures any details of this. The wood surviving in the socket indicates the spearhead was set on a shaft, even if it was not used.		
Damage	The tip of this spearhead has broken in antiquity. There are no associated marks or casting flaws.		

PAS-F054 Buckland-Tout-Saints II

Grid Ref.	SX 75 45	**Altitude (m)**	65
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2015.		
Reference(s)	PAS DEV-C9D5FD.		

Object Type and Description	Socketed axe – type uncertain. This is the lower blade of a narrow socketed axe with a sub-rectangular socket and a straight, unexpanded cutting-edge.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Lower blade and cutting-edge.
Dimensions (mm)	L.42; Bl.W.38.		
Patina/Corrosion	Brown patina, with some surface delamination.		
Manufacture/Use	Difficult to tell due to incompleteness. The core has become misaligned during casting, causing the socket walls to be unevenly thick.		
Damage	The cutting-edge of the axe has broken unevenly in antiquity above the socket aperture. There are no associated marks, but the misaligned core likely caused a weakness in the structure of the axe. **Breakage**: Th.15.5.		

PAS-F055 Cadeleigh

Grid Ref.	SS 90 09	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	PAS DEV-339832.		

Object Type and Description	South-western palstave. This is a looped palstave with a broad triangular blade and a slightly curved cutting-edge. High angular flanges rise from the butt and descend sharply to the stop, which is sub-rectangular. A side-loop is set above it. A midrib extends about halfway down the blade on both faces and the blade sides are slightly raised.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.139.5; Bl.W.54.		

Patina/Corrosion	Brown patina.
Manufacture/Use	Prepared and possibly used. The casting material has been largely removed and worked and the cutting-edge shows evidence of hammering, bevelling and possibly sharpening. The cutting-edge is chipped and nicked, which could be related to use.
Damage	None.

PAS-F056 Chagford II

Grid Ref.	SX 70 88	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe was found in 2004 during a landscaping project at a hotel. The soil in which the axe was found had been brought from Chagford.		
Reference(s)	Boughton 2015, 49, No.204; Knight et al. 2015, 40, No.120, Pl.22; PAS DEV-8101B6.		

Object Type and Description	Sompting socketed axe (Kingston variant). This is a large heavy square-socketed axe with a thick upper mouth moulding and a thin horizontal rib moulding set below this, from which the side-loop originates. Four sets of two vertical ribs adorn each face. The cutting-edge is splayed and crescentic. Boughton states that “all four pairs [of ribs] terminate in a pellet surrounded by a circlet”, but it is difficult to see this level of detail on the PAS photo.		
Location	Finder	**Period**	Llyn Fawr
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.127; Wt.466g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared. It is difficult to identify further signs of use but the cutting-edge appears to have been hammered out.		
Damage	None.		

PAS-F057 Chardstock

Grid Ref.	ST 27 06	**Altitude (m)**	244
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting.		
Reference(s)	PAS SOM-54C26E.		

Object Type and Description	Side-looped spearhead (Gr.6) This is a possibly leaf-shaped spearhead with a circular conical socket and narrow side-loops set close to the socket mouth. The blade has a prominent midrib creating a lozenge section.		
Location	Finder	**Period**	Taunton
Completeness	76-99%	**Details**	Tip and side-loop broken; one blade wing damaged.
Dimensions (mm)	L.105.16; Bl.W.18.87; Sock.Diam.Ext.17.63; Wt.47.62g.		
Patina/Corrosion	Mottled green patina/corrosion.		
Manufacture/Use	Difficult to tell. The PAS record notes that casting “ribs” (presumably seams) are visible along the sides of the spearhead, which might indicate this is has been left as-cast, though it is more likely that the ribs have been ground, but not removed.		
Damage	The tip of this spearhead and part of one blade wing have fragmented in antiquity, as has one of the side-loops. The blade edges have abraded and are fragmented, which is likely a result of post-depositional processes, though the PAS record comments that		

	these are older breakages. There are no associated marks or casting flaws, but these might be obscured by corrosion.

PAS-F058 Colyton

Grid Ref.	SY 22 92	**Altitude (m)**	142
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS DEV-669688.		

Object Type and Description	Transitional palstave. This is a heavily worn narrow-bladed blade, with fragmentary low flanges that rise from below the butt to the stop. The stop is sub-rectangular and there is no side-loop or adornment on the blade. The blade appears to be quick thick.		
Location	Finder	**Period**	Penard
Completeness	76-99%	**Details**	Fragmentary butt and flanges.
Dimensions (mm)	L.93.		
Patina/Corrosion	Green patina and surface delamination.		
Manufacture/Use	Difficult to tell. It appears any casting material has been removed, but the overall palstave is quite thick and rounded, with the blade seemingly unworked. It is difficult to say anything further from the photo.		
Damage	There is some material loss around the butt and the flanges of this palstave and one corner of the blade has broken away. It is uncertain when these breaks occurred, but it seems that at least some of the damage occurred in antiquity. There are no visible associated marks or casting flaws.		

PAS-F059 Culmstock

Grid Ref.	ST 10 13	**Altitude (m)**	113
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A flat axe was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS SOM-05539E.		

Object Type and Description	Flat axe – type uncertain. This is a small trapezoidal flat axe with a thin, rounded cutting-edge, thickening towards the middle and thinning again towards the butt. It is possible the small nature of this axe indicates it have been reworked from a broken fragment.		
Location	Finder	**Period**	Early Bronze Age
Completeness	76-99%	**Details**	Butt damaged.
Dimensions (mm)	L.49.37; Bl.W.38.14; Bl.Th.5.72; Wt.43.21g.		
Patina/Corrosion	Mottled brown-green patina.		
Manufacture/Use	Prepared and possibly used. The cutting-edge and butt seem to have been thinned, presumably by hammering and for the intention of use. The cutting-edge is asymmetrically worn, but there is no evidence of further use-damage visible from the photo however.		
Damage	The butt of this axe has suffered some uneven material loss in antiquity. There are no associated marks or casting flaws.		

PAS-F060 Denbury Down, Denbury and Torbryan

Grid Ref.	SX 82 68	**Altitude (m)**	-

☑ Dryland	☐ Wetland	☐ Uncertain
Find circumstances	A socketed axe was found while metal-detecting in 2008 on cultivated land.	
Reference(s)	PAS DEV-698151.	

Object Type and Description	Socketed axe – type uncertain. This is a broad, crescentic cutting-edge fragment of a socketed axe.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.62.1; Bl.W.26.7.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and possibly used. The cutting-edge appears to have been worked and prepared for use and there is some edge damage in the form of nicks, which could be the result of use or post-depositional damage.		
Damage	The cutting-edge has broken from a socketed axe at the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: Th.13.7.		

PAS-F061 Denbury and Torbryan

Grid Ref.	SX 82 68	**Altitude (m)**	83
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2013.		
Reference(s)	Knight et al. 2015, 46, No.178, Pl.30; PAS DEV-6434DF.		

Object Type and Description	Class III socketed gouge. This is a socketed gouge with a plain, flat-topped circular socket and a flaring cutting-edge.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.90; Bl.W.35.		
Patina/Corrosion	Mottled green-brown patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared. It is difficult to identify further signs of use but the cutting-edge appears to be slightly abraded, which could be the result of use or post-depositional processes.		
Damage	None.		

PAS-F062 Exeter II

Grid Ref.	SX 96 94	**Altitude (m)**	44
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A casting jet was found while metal-detecting in 2005.		
Reference(s)	Knight et al. 2015, 41, No.133; PAS DEV-E6A317.		

Object Type and Description	Casting jet. This is a roughly conical casting jet with two sprue stumps.		
Location	Finder	**Period**	Bronze Age
Completeness	n/a	**Details**	Casting waste.
Dimensions (mm)	L.20.46; W.20.93; Wt.13.15g.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Casting waste.		
Damage	Broken during the casting process.		

PAS-F063 Exmouth

Grid Ref.	SY 02 84	Altitude (m)	134
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe fragment was found while metal-detecting in 2014.		
Reference(s)	PAS DEV-86EA3A.		

Object Type and Description	Flanged axe or palstave. This is a narrow butt fragment of a flanged axe or palstave. Flanges rise gently from the butt end, but the fragment is too small to determine if they are full palstave flanges, or whether they remain low and form part of a flanged axe such as an Arreton axe.		
Location	Finder	**Period**	Early-Middle Bronze Age
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.48; W.25; Th.14; Wt.23.77g.		
Patina/Corrosion	Mottled brown corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	The butt has broken away from a flanged axe in antiquity, though the corrosion obscures evidence of associated marks or casting flaws.		

PAS-F064 Holne

Grid Ref.	SX 70 69	Altitude (m)	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	Knight et al. 2015, 41, No.136, Pl.26; PAS DEV-A6FA73.		

Object Type and Description	Sword – poss. Ewart Park. Slightly tapering, mid-blade sword fragment with a lozenge section.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.33; W.19; Th.4.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Difficult to tell due to incompleteness. The photo possibly shows some edge damage, but it is unclear.		
Damage	This is a mid-blade fragment of a sword broken at both ends in antiquity. There are no associated marks or casting flaws visible on the PAS photo.		

PAS-F065 Ivybridge

Grid Ref.	SX 63 56	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2011.		
Reference(s)	PAS DEV-265F11.		

Object Type and Description	Gr.III palstave. This is an unlooped, broad-bladed palstave with short, low flanges rising from the septum to the stop. The stop is sub-rectangular and there is no decoration on the blade.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Flanges fragmentary.
Dimensions (mm)	Not known.		
Patina/Corrosion	Dark brown patina, pale brown corrosion causing surface delamination.		

Manufacture/Use	Difficult to tell but the casting material appears to have been removed and prepared, and the rounded cutting-edge is slightly asymmetrical and seemingly worn.
Damage	The flanges of this palstave seem to be slightly fragmentary, but this could be linked to post-depositional processes.

PAS-F066 Lewtrenchard Valley I, Lewtrenchard

Grid Ref.	SX 46 86	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2001 near the River Lew.		
Reference(s)	Knight et al. 2015, 41, No.140; PAS DEV-670D23.		
Additional Notes	A second palstave was found about 600m to the east along the river in 2004 (PAS-F067).		

Object Type and Description	Gr.I palstave. This is an unlooped palstave with high flanges and a u-shaped stop. The blade is undecorated and flares to a crescentic cutting-edge.		
Location	Finder	**Period**	Acton Park
Completeness	76-99%	**Details**	Minor material loss at the cutting-edge.
Dimensions (mm)	L.253; Bl.W.52; B.W.20.		
Patina/Corrosion	Dark reddish brown patina with some surface delamination.		
Manufacture/Use	Difficult to tell, but the casting material has been removed and it seems the cutting-edge was probably worked.		
Damage	One blade tip and part of the cutting-edge has fragmented away, though it is unclear whether this is antiquated or the result of post-depositional processes.		

PAS-F067 Lewtrenchard Valley II, Lewtrenchard

Grid Ref.	SX 47 86	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2004 near the River Lew.		
Reference(s)	Knight et al. 2015, 41, No.141, Pl.19; PAS DEV-6624A1.		
Additional Notes	Another palstave was found about 600m to the west in 2001 (PAS-F066).		

Object Type and Description	Gr.III palstave. This is an unlooped palstave with a broad, triangular blade and a curved cutting-edge. From the available photo, it is unclear whether the flanges are high or low, but it seems they are most likely low and rise to a u-shaped stop. A midrib extends from below the stop about a third of the way down the blade and is set over a shallow depression in the blade.		
Location	Finder	**Period**	Taunton
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.113; Bl.W.41; B.W.15; Wt.202g.		
Patina/Corrosion	Mottled green and brown patina.		
Manufacture/Use	Difficult to tell, but the casting material has been removed and presumably prepared. It seems the cutting-edge was probably prepared and there are numerous chips visible in the edge, but these could be post-depositional.		
Damage	None.		

PAS-F068 Littlehempston I

Grid Ref.	SX 80 62	**Altitude (m)**	25
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2000 on cultivated land.		
Reference(s)	PAS DEV-17C701.		
Additional Notes	The field overlooks the River Dart. This fragment was found in the same field as a blade fragment (PAS-F069) and a rapier hilt was subsequently found in another area of the field in 2011 (PAS-F070).		

Object Type and Description	Socketed axe – type uncertain. This is a curved cutting-edge fragment of a socketed axe.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	Not known.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to poor photo.		
Damage	This is the cutting-edge of a socketed axe seemingly broken below the socket aperture, as the PAS classes this as a possible palstave fragment, indicating that a socket could not be identified. There are no visible associated marks or casting flaws.		

PAS-F069 Littlehempston II

Grid Ref.	SX 80 62	**Altitude (m)**	30
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2000 on cultivated land.		
Reference(s)	PAS DEV-17DF94.		
Additional Notes	The field overlooks the River Dart. This fragment was found in the same field as an axe fragment (PAS-F068) and a rapier hilt was subsequently found in another area of the field in 2011 (PAS-F070).		

Object Type and Description	Blade – poss. sword. This is a tapering mid-blade fragment of a double-edged blade with a pronounced midrib. It could belong to a sword or a dagger. The photo provided by the PAS is too poor for an accurate identification.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	Not known.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to poor photo.		
Damage	This is a mid-blade fragment of a bladed implement. It is difficult to identify any associated marks or casting flaws from the photo.		

PAS-F070 Littlehempston III

Grid Ref.	SX 80 62	**Altitude (m)**	32
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A rapier fragment was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	PAS DEV-17E6C0.		
Additional Notes	The field overlooks the River Dart. This fragment was found in the same field as an axe fragment (PAS-F068) and a sword fragment		

	(PAS-F069), which has been found in different areas within the field in 2000.

Object Type and Description	Rapier – poss. Gr.IV? This is a hilt and upper blade fragment of a rapier with a slight projecting tang at the butt and the remains of at least one notch. The hilt is too fragmentary to accurately identify the type of rapier, but it was likely trapezoidal.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Hilt fragment.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Difficult to tell due to poor photo.		
Damage	The rapier has broken across the upper blade in antiquity and the surviving hilt has suffered abrasion and fragmentation, possibly antiquated, but more likely to have occurred post-deposition. The photo does not allow clear identification of the nature of the breaks, but it appears the upper blade is slightly bent, which may be associated with the damage.		

PAS-F071 Loddiswell I

Grid Ref.	SX 71 47	**Altitude (m)**	59
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed hammer was found while metal-detecting in 2015.		
Reference(s)	PAS DEV-A7DFBD.		

Object Type and Description	Type 1 socketed hammer. This is an unlooped socketed hammer with a thick, circular socket mouth and straight parallel sides terminating in a rounded hammer end. Through the corrosion the remains of a raised double V rib decoration can be seen below the socket moulding, with one V set below the other.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.60; W.26; Wt.162g.		
Patina/Corrosion	Extensive green corrosion.		
Manufacture/Use	Difficult to tell due to corrosion.		
Damage	None.		

PAS-F072 Loddiswell II

Grid Ref.	SX 71 49	**Altitude (m)**	95
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS DEV-CA1D09.		

Object Type and Description	Blade – uncertain. This is a long narrow piece of metalwork, with a raised, rounded midrib present on both sides. The PAS records this as a “spearhead” but it is very thin and lacks a socket. It is more likely it belonged to a blade, but from the photo it is difficult to determine exactly what object this once belonged to.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Blade fragment.
Dimensions (mm)	L.65.3; W.15.18; Th.5.52.		
Patina/Corrosion	Dark green patina.		

Manufacture/Use	Difficult to tell due to poor photo.
Damage	This fragment has broken from a larger object in antiquity. The edges are quite fragmentary and seems to be bowed slightly in places. It is unclear to what extent these represent the original edges. The overall object shows no signs of bending however and it is difficult to pick out any other associated marks or casting flaws.

PAS-F073 Lower Frittiscombe, Stokenham

Grid Ref.	SX 80 94	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Two gold rings were found while metal-detecting in 1999.		
Reference(s)	Treasure Annual Report 1998-9, 13-14, No.10, Fig.10.		

PAS-F073a

Object Type and Description	Gold penannular ring money. This is a solid gold penannular ring with flat terminals.		
Location	PCMAG	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	W.4; Ext.Diam.15; Wt.9g.		
Patina/Corrosion	Unknown.		
Manufacture/Use	Prepared. Further details unknown.		
Damage	None.		

PAS-F073b

Object Type and Description	Gold penannular ring money. This is a solid gold penannular ring with flat terminals.		
Location	PCMAG	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	W.3; Ext.Diam.14; Wt.4.16g.		
Patina/Corrosion	Unknown.		
Manufacture/Use	Prepared. Further details unknown.		
Damage	None.		

PAS-F074 Newton Abbot I

Grid Ref.	SX 83 68	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A hoard of 6 ingots was found while metal-detecting across a field in 2007. A seventh was found slightly north of the other ingots. Although not found within a single deposit, their similarity to each other means they have been considered a hoard.		
Reference(s)	PAS DEV-AE5C01, 2008 T307.		
Additional Notes	The ingots are recorded as documented in the PAS record. Individual photos are not available for the hoard and thus it is difficult to determine specific details or correlate specific ingot with specific details.		

PAS-F074a

Object Type and Description	Bun-shaped ingot. This is a large piece of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.83; W.60; Th.26; Wt.583g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		

Manufacture/Use	Raw material with casting hollows.
Damage	This piece has broken on all sides in antiquity.

PAS-F074b

Object Type and Description	Bun-shaped ingot. This is a large piece of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.80; W.54; Th.20; Wt.542g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F074c

Object Type and Description	Bun-shaped ingot. This is a large piece of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.78; W.44; Th.20; Wt.460g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F074d

Object Type and Description	Bun-shaped ingot. This is a large piece of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.104; W.74; Th.30; Wt.869g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F074e

Object Type and Description	Bun-shaped ingot. This is a fragment of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.58; W.50; Th.18; Wt.308g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F074f

Object Type and Description	Bun-shaped ingot. This is a fragment of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.59; W.41; Th.19; Wt.280g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F074g

Object Type and Description	Bun-shaped ingot. This is a large piece of a copper/copper alloy bun-shaped ingot.		
Location	RAMM	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.61; W.73; Th.27; Wt.718g.		
Patina/Corrosion	Light green patina with red-brown corrosion.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F075 Newton Abbot II

Grid Ref.	SX 84 71	**Altitude (m)**	54
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS DEV-D63087.		

Object Type and Description	Socketed axe – uncertain. This is the lower body and cutting-edge of a socketed axe. The cutting-edge is slightly expanded and curved.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Lower body fragment.
Dimensions (mm)	L.57; W.39.		
Patina/Corrosion	Pale green corrosion.		
Manufacture/Use	Difficult to tell but it seems the casting material has been removed and the cutting-edge may have been worked.		
Damage	The axe has broken unevenly across the lower body in antiquity with extensive material loss down one face, but leaving the cutting-edge intact. There appear to be no associated marks or casting flaws, but some of the protruding metal sections are slightly bowed. This could have occurred post-deposition though.		

PAS-F076 Otterton I

Grid Ref.	SY 08 84	**Altitude (m)**	54
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Seven ingots were found while metal-detecting in 2013 on cultivated land within 20m of each other at a depth of about 15cm. They therefore likely constitute a dispersed hoard.		
Reference(s)	PAS DEV-ED41D1, 2013 T196; Wootton 2013a.		
Additional Notes	A second hoard of ingots was found less than 200m west of this hoard (PAS-F077). It is unclear how they relate to each other. The ingots are recorded as documented in the PAS record. Individual photos are not available for the hoard and thus it is difficult to determine specific details or correlate a specific ingot with specific details. I am grateful to Neil Wilkin for supplying the treasure report for this otherwise unpublished hoard.		

PAS-F076a

Object Type and Description	Plano-convex ingot. Piece of copper/copper alloy ingot with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.78; W.60; Th.28; Wt.550g.		
Patina/Corrosion	Mottled green patina.		

Manufacture/Use	Raw material with casting hollows.
Damage	This piece has broken on all sides in antiquity.

PAS-F076b

Object Type and Description	Plano-convex ingot. Roughly triangular piece of copper/copper alloy ingot with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Broken on all sides.
Dimensions (mm)	L.94; W.77; Th.34; Wt.750g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This piece has broken on all sides in antiquity.		

PAS-F076c

Object Type and Description	Ingot. Roughly sub-circular fragment of ingot with a rectangular section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.58; W.52.5; Th.25.5; Wt.450g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F076d

Object Type and Description	Plano-convex ingot. Roughly triangular ingot fragment with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.55; W.43; Th.25; Wt.300g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F076e

Object Type and Description	Ingot. Roughly rectangular ingot fragment with a rectangular section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.33.5; W.32.5; Th.13; Wt.c.125g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F076f

Object Type and Description	Plano-convex ingot. Roughly semi-circular ingot fragment with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.51; W.32.5; Th.17.5; Wt.c.125g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F076g

Object Type and Description	Ingot. Roughly triangular ingot fragment with a rectangular section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.39.5; W.33; Th.15; Wt.c.100g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken on all sides in antiquity.		

PAS-F077 Otterton II

Grid Ref.	SY 08 84	**Altitude (m)**	56
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A hoard of twelve ingots was found while metal-detecting in 2013 in a stubble field. The largest fragment was found at a depth of c.55cm, while the others were discovered at a depth of c.25cm. All fragments were found within 2m of each other.		
Reference(s)	PAS DEV-7B8877, 2013 T643; Wootton 2013b.		
Additional Notes	Another hoard of ingots was found less than 200m east of this hoard (PAS-F076) earlier in 2013. It is unclear how they relate to each other. I am grateful to Neil Wilkin for supplying the treasure report for this otherwise unpublished hoard.		

PAS-F077a

Object Type and Description	Plano-convex ingot. Roughly triangular ingot fragment with a plano-convex section and one original curved edge.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Edge fragment.
Dimensions (mm)	L.103; W.60; Th.28; Wt.550g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along two sides in antiquity.		

PAS-F077b

Object Type and Description	Plano-convex ingot. Roughly triangular ingot fragment with a plano-convex section and one original curved edge.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Edge fragment.
Dimensions (mm)	L.54; W.36; Th.17; Wt.151g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along two sides in antiquity.		

PAS-F077c

Object Type and Description	Plano-convex ingot. Roughly triangular ingot fragment with a plano-convex section and one original curved edge.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Edge fragment.
Dimensions (mm)	L.71; W.49; Th.23; Wt.263g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along two sides in antiquity.		

PAS-F077d

Object Type and Description	Plano-convex ingot. Roughly square ingot fragment with a plano-convex section and one original curved edge.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Edge fragment.
Dimensions (mm)	L.61; W.56; Th.22; Wt.363g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along two sides in antiquity.		

PAS-F077e

Object Type and Description	Plano-convex ingot. Roughly triangular ingot fragment with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.36; W.31; Th.14; Wt.64g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077f

Object Type and Description	Plano-convex ingot. Roughly triangular ingot fragment with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.34; W.31; Th.15; Wt.57g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077g

Object Type and Description	Plano-convex ingot. Roughly square ingot fragment with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.27; W.20; Th.10; Wt.25g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077h

Object Type and Description	Plano-convex ingot. Roughly square ingot fragment with a plano-convex section and a protrusion at one corner.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.38; W.26; Th.14; Wt.53g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077i

Object Type and Description	Plano-convex ingot. Roughly square ingot fragment with a plano-convex section.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.40; W.30; Th.21; Wt.97g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077j

Object Type and Description	Ingot. Small roughly triangular copper alloy lump, with a D-shaped section. It possibly represents an ingot.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.32; W.34; Th.15; Wt.36g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077k

Object Type and Description	Ingot. Small roughly square copper alloy lump, with a plano-convex section. It possibly represents an ingot.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.36; W.32; Th.23; Wt.89g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F077l

Object Type and Description	Plano-convex ingot. Small roughly square copper alloy lump, with a plano-convex section. It possibly represents an ingot.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	Uncertain	**Details**	Fragment.
Dimensions (mm)	L.32; W.28; Th.15; Wt.63g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Raw material with casting hollows.		
Damage	This is a fragment broken along all sides in antiquity.		

PAS-F078 Otterton III

Grid Ref.	SY 08 84	**Altitude (m)**	20
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An awl was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS PUBLIC-D2660E.		

Object Type and Description	Single-pointed awl. Square-section copper alloy bar tapering to a circular point.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.82; W.6; Th.6; Wt.94g.		

Patina/Corrosion	Dark green patina.
Manufacture/Use	Prepared and possibly used. The awl is slightly bowed along its length, which could be use-related, or the result of post-depositional processes.
Damage	None.

PAS-F079 Ottery St. Mary II

Grid Ref.	SY 08 98	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe and a piece of slag were found separately in the same area of the same field while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 42, Nos.151, 152; PAS DEV-6D4737; DEV-580D37.		
Additional Notes	The slag is not definitely Bronze Age but has been included here due to its potential relationship with the socketed axe.		

PAS-F079a

Object Type and Description	South Welsh socketed axe. This is a narrow socketed axe with a thick single mouth moulding and three converging vertical ribs originating from this moulding. Similarly, the side-loop is situated at the mouth moulding. The blade expands slightly to a flared curved cutting-edge. Although the slender nature is not typical, the other features of this axe indicate it belongs to the South Welsh tradition, though probably an early incarnation. There is no description or photo of the socket, but one would anticipate it to be square or sub-rectangular.		
Location	Finder	**Period**	Penard-Wilburton
Completeness	76-99%	**Details**	Broken side-loop and damage to socket mouth.
Dimensions (mm)	L.94.56; Bl.W.38.41.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Difficult to tell from the photo. It seems that some of the casting material has been removed, though some might remain.		
Damage	The side-loop has broken, leaving two stumps, and the axe has suffered material loss to one side of the socket mouth. Further details cannot be observed on the photo.		

PAS-F079b

Object Type and Description	Metallurgical waste. Small lump of casting waste or slag. It is not definitely Bronze Age.		
Location	Finder	**Period**	Uncertain
Completeness	n/a	**Details**	Casting waste.
Dimensions (mm)	L.33.3; W.21.13; Th.17.56; Wt.31.24g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Metallurgical waste.		
Damage	Metallurgical waste.		

PAS-F080 Ottery St. Mary III

Grid Ref.	SY 08 98	**Altitude (m)**	71
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An ingot fragment was found while metal-detecting in 2013 about 8 inches below the surface in a stoney soil level in pasture.		
Reference(s)	Knight et al. 2015, 42, No.153; PAS CORN-BBA3C1.		

Object Type and Description	Plano-convex ingot. Large trapezoidal fragment of copper ingot; plano-convex section.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.70; W.48; Th.21; Wt.243.15g.		
Patina/Corrosion	Dark green patina and patches of coppery red corrosion.		
Manufacture/Use	Raw material – numerous casting hollows in the surface and breaks.		
Damage	This ingot has broken along two edges in antiquity. There are no associated marks, but several large casting hollows that would have influenced the break.		

PAS-F081 Sticklepath

Grid Ref.	SX 64 94	**Altitude (m)**	206
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2016.		
Reference(s)	PAS SOM-B6F9F7.		

Object Type and Description	South-western palstave. This is a looped, broad-bladed palstave with high, angular flanges, a triangular blade and a straight cutting-edge. The narrow side-loop overlaps a u-shaped stop and there is a prominent tapering midrib extending from below the stop ridge and ending about halfway down the blade towards the cutting-edge.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	One blade tip broken.
Dimensions (mm)	L.144.7; Bl.W.54.43; B.W.17.86; Fl.Br.34.07; Wt.339g.		
Patina/Corrosion	Dark brown patina in patches; pale brown surface delamination.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, and there is a shrinkage hollow in the septum on one face. Other signs of use are difficult to identify.		
Damage	One blade tip has broken off in antiquity and the cutting-edge is fragmentary, though there are no associated marks or casting flaws indicating this probably the result of post-depositional processes.		

PAS-F082 Stoke Gabriel I

Grid Ref.	SX 89 57	**Altitude (m)**	37
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two ingot fragments were found about 1.5m apart while metal-detecting in 2011 about 10cm below the surface.		
Reference(s)	Knight et al. 2015, 40, No.123; PAS DEV-D9F1E2, 2011 T441.		
Additional Notes	Findspot is incorrectly recorded as Churston Ferrers in Knight et al.		

PAS-F082a

Object Type and Description	Plano-convex ingot. This is a semi-circular fragment of ingot with a plano-convex section.		
Location	Torquay Museum	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.74.5; W.62.5; Th.c.31.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material – casting hollows visible in the break.		
Damage	This ingot has broken along two edges in antiquity. There are no associated marks, but several large casting hollows that would have influenced the break.		

PAS-F082b

Object Type and Description	Plano-convex ingot. This is a roughly oval fragment of ingot with a plano-convex section.		
Location	Torquay Museum	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Edge fragment.
Dimensions (mm)	L.92.5; W.90; Th.c.32.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Raw material – casting hollows visible in the break.		
Damage	This ingot has broken along two edges in antiquity. There are no associated marks, but several large casting hollows that would have influenced the break.		

PAS-F083 Stoke Gabriel II

Grid Ref.	SX 85 57	**Altitude (m)**	11
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2016.		
Reference(s)	PAS DEV-FC253B.		
Additional Notes	The findspot is at the confluence of a tributary of the River Dart.		

Object Type and Description	Socketed axe – type uncertain. This is a slightly flared, curved cutting-edge fragment of a socketed axe, though there are no further diagnostic features.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.32.31; Bl.W.39.98; Wt.30.9g.		
Patina/Corrosion	Dark brown and green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared and some of the wear on the cutting-edge might be attributable to ancient use, rather than post-depositional abrasion.		
Damage	The cutting-edge has broken away unevenly at the socket aperture in antiquity, leaving a protruding section of metal up one side of the axe. There are no associated marks or casting flaws. **Breakage**: Th.9.78.		

PAS-F084 Talaton III

Grid Ref.	SY 06 98	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2005 on cultivated land.		
Reference(s)	Knight et al. 2015, 45, No.169, Pl.16; PAS SOMDOR-BA5606.		

Object Type and Description	Gr.III palstave. This is a looped, broad-bladed palstave, with the remains of low flanges rising from the butt to the stop. The blade is triangular and the cutting-edge is curved. The side-loop is broken and sits above the sub-rectangular stop; there appears to be a shallow V-shaped depression below the stop on at least one of the faces.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Side-loop broken; cutting-edge damaged; fragmentary flanges.
Dimensions (mm)	L.132; Bl.W.42.1; B.W.19; St.W.27.8; Wt.230.16g.		
Patina/Corrosion	Dark green patina heavily pitted with light green corrosion.		

Manufacture/Use	Prepared and possibly used. The casting material has been largely worked, though the seams are still visible. The cutting-edge has probably been hammered out and prepared for use, though this is difficult to tell from the photo. Some of the cutting-edge damage might be linked to ancient use.
Damage	This palstave has suffered a series of damages to the flanges, cutting-edge and side-loop. These damages appear to be a combination of ancient and post-depositional processes. There are no visible associated marks or casting flaws.

PAS-F085 Tawstock

Grid Ref.	SS 58 24	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave fragment was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	PAS DEV-618BF7.		

Object Type and Description	Palstave – type uncertain. This is a butt fragment of a palstave with the beginnings of flanges rising from the butt end. There are no further diagnostic features.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.145; W.12.5.		
Patina/Corrosion	Mottled green/black patina and corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, but the casting material has been removed from the surviving fragment.		
Damage	The butt has broken away from the palstave in antiquity. There are no associated marks or casting flaws.		

PAS-F086 Tower Hill, Barnstaple

Grid Ref.	SS 57 32	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2004 on cultivated land.		
Reference(s)	Knight et al. 2015, 39, No.106; PAS DEV-D908B5.		

Object Type and Description	Plain pegged spearhead (Type 11) This is the circular socket and central body of a spearhead, with very little surviving of the blade wings.		
Location	Finder	**Period**	Late Bronze Age
Completeness	51-75%	**Details**	Blade wings missing; socket damaged.
Dimensions (mm)	L.100; Sock.Diam.Ext.17x12; Wt.40.16g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but seemingly prepared. There is a small casting hole in one face of the spearhead.		
Damage	The blade wings of this spearhead have fragmented away, partly as a result of post-depositional process. Additionally, the socket mouth has suffered material loss extending up one face of the spearhead. There are no associated marks or casting flaws, though there is a notch in one face.		

PAS-F087 Thurlestone Beach II, Thurlestone

Grid Ref.	SX 66 42	**Altitude (m)**	-

☐ Dryland	☐ Wetland	☑ Uncertain
Find circumstances	A spearhead was found by chance while walking on Thurlestone Beach in 2007.	
Reference(s)	Davis 2015, 159, No.1135, Pl.103; Knight et al. 2015, 45, No.173, Pl.31, Fig.6; PAS DEV-2B4697.	
Additional Notes	Several other spearheads have been found on Thurlestone Beach (PCMAG-F005) and a hoard of material is currently going through the treasure process (PAS-F088). It is possible this material represents a series of deposits or a dispersed hoard.	

Object Type and Description	Hollow-bladed spearhead (Type 12A). This is the lower half of a large flame-shaped spearhead with small projecting barbs at the base of the lozenge-section blade. The circular socket is pegged with holes close to the base of the barbs.		
Location	Finder	**Period**	Wilburton-Blackmoor
Completeness	51-75%	**Details**	Lower half only.
Dimensions (mm)	Not known.		
Patina/Corrosion	Brown patina and green corrosion.		
Manufacture/Use	Difficult to tell, but possibly prepared for use. There is no casting material surviving around the socket, but there are numerous large casting holes in one of the blade faces.		
Damage	This spearhead has broken straight across the middle of the blade in antiquity leaving the lower blade and socket largely intact. The blade edges have abraded, which is likely the result of post-depositional processes. There are no associated marks or casting flaws near the break.		

PAS-F088 Thurlestone

Grid Ref.	SX 67 42	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Several pieces (at least 9) of Bronze Age metalwork, largely consisting of spearheads, have been find either by chance or by metal-detecting at Thurlestone over several years. This material is currently going through the treasure process and full details are currently unavailable.		
Reference(s)	Knight et al. 2015, 45, No.172, Pl.31; PAS DEV-9CAEBA; DEV-FFEE44; DEV-2D0387.		
Additional Notes	Finds that were previously considered as single finds are now being incorporated into this entry, causing some confusion. It is possible that the material recorded as part of PCMAG-F005 and PAS-F088 might at some point also be considered part of this assemblage. I had the opportunity to view some, if not all, of the material considered within this entry, but full details are not available so only a brief description of each piece is included here.		

PAS-F088a

Object Type and Description	Barbed spearhead (Type 15A) This is the tip and upper blade of a large lozenge-section spearhead with wide blade edges with a stepped bevel. This is Knight et al.'s No.172b and was found about 30m away from PAS-F088b. There is some speculation that the two pieces come from the same spearhead, but the pieces do not refit.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Tip and upper body piece.
Dimensions (mm)	L.170; W.44.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		

Damage	The spearhead has broken unevenly across the upper body and through the socket hollow in antiquity. The overall piece is transversely bent and twisted and there is a semi-circular material loss at the break on one face, which could be linked to the breakage of the spearhead. However, the post-depositional effects of the sea, for instance, cannot be discounted.

PAS-F088b

Object Type and Description	Barbed spearhead (Type 15A) This is the lower blade and socket of a large lozenge-section spearhead with wide blade edges with a stepped bevel. This is Knight et al.'s No.172a and was found about 30m away from PAS-F088a. There is some speculation that the two pieces come from the same spearhead, but the pieces do not refit.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Lower blade and socket.
Dimensions (mm)	L.160; W.64; Th.25.		
Patina/Corrosion	Mottled green patina and corrosion.		
Manufacture/Use	Difficult to tell but casting material appears to have been removed and prepared.		
Damage	The spearhead has broken unevenly across the middle of the body and through the socket hollow in antiquity. Additionally, the blade wings have suffered some fragmentation and the socket mouth is fragmented and partially crushed. It is possible some of this damage is deliberate, though the post-depositional effects of the sea cannot be discounted.		

PAS-F088c

Object Type and Description	Barbed spearhead (Type 15A) This is the tip and upper blade of a large lozenge-section spearhead with wide blade edges with a stepped bevel.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Tip and upper body.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green patina and corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	The spearhead has broken straight across the upper body and through the socket hollow in antiquity. There are no associated marks or casting flaws.		

PAS-F088d

Object Type and Description	Barbed or Plain pegged spearhead (Type 11 or 15A) This is a mid-blade piece of a large lozenge-section spearhead with wide blade edges with a stepped bevel. There are the remains of clay coring still embedded in the body.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Upper body, tip missing.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green patina and corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	The spearhead has broken unevenly across the middle of the body and across the upper blade so the tip is missing. These breakages occurred in antiquity and there are no associated marks or casting flaws.		

PAS-F088e

Object Type and Description	Barbed or Plain pegged spearhead (Type 11 or 15A) Fragmentary mid-blade piece of a large lozenge-section spearhead.

Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Body, tip missing.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green patina and corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This spearhead has broken across the lower body and the upper blade towards the tip in antiquity. These breaks have occurred unevenly, leaving protruding sections of metal and there are several cracks across the body. Additionally, the blade edges are absent and abraded. These damages are potentially deliberate, or possibly linked to post-depositional processes.		

PAS-F088f

Object Type and Description	Barbed or Plain pegged spearhead (Type 11 or 15A) This is the majority of a blade of a large lozenge-section spearhead.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Body, tip missing.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green patina and corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This spearhead has broken unevenly across the lower body and straight across the upper blade towards the tip in antiquity. Additionally, the blade edges are absent and abraded. These damages are potentially deliberate, or possibly linked to post-depositional processes.		

PAS-F088g

Object Type and Description	Spearhead – type uncertain. This is the tip of a lozenge-section spearhead.		
Location	Uncertain	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Tip only.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green patina and corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This spearhead tip has broken straight across the upper blade in antiquity, through the hollow body. The blade edges have either abraded or been removed. These damages are potentially deliberate, or possibly linked to post-depositional processes.		

PAS-F088h

Object Type and Description	South Welsh socketed axe. This is a short, incomplete socketed axe with three converging lateral ribs on one face and stumps of a side-loop on one side. There are the remains of a thick, flat-topped single mouth moulding.		
Location	Uncertain	**Period**	Ewart Park
Completeness	51-75%	**Details**	One blade face absent.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Difficult to tell due to corrosion.		
Damage	The axe has split vertically in antiquity with one face having been completely removed and the side-loop has broken. There are no associated marks or casting flaws.		

PAS-F088i

Object Type and Description	Blade – type uncertain. This is a mid-blade fragment of an uncertain object, but likely originates from a sword blade due to the biconvex section.

Location	Uncertain	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	Not known.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This blade fragment has broken at both ends in antiquity. There are no associated marks or casting flaws.		

PAS-F089 Wembury

Grid Ref.	SX 53 49	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A gold ingot was found while metal-detecting in 2005 on cultivated land.		
Reference(s)	Knight et al. 2015, 46, No.181; PAS DEV-5B7171, 2005 T123; Treasure Annual Report 2005-6, 24, 34.		
Additional Notes	Although not definitely Bronze Age, the composition of this piece is compatible with the period and possible parallels are noted on the PAS record. A similar 'finger' ingot is known from Ystradowen, Vale of Glamorgan, with a very similar weight (28.5g) and has been suggested as a blank for a Class B1 bracelet (Gwilt et al. 2005, 47-48; Needham 1990b, 149).		

Object Type and Description	Gold ingot. This is a narrow, ovoid piece of gold with a roughly D-shaped section.		
Location	PCMAG	**Period**	Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.50; W.8; Th.7; Wt.26.22g.		
Patina/Corrosion	Dull gold.		
Manufacture/Use	Raw material.		
Damage	The overall piece is dented and the surfaces are irregular, which is likely to be a combination of the original casting and post-depositional damage.		

PAS-F090 Yarcombe

Grid Ref.	ST 23 10	**Altitude (m)**	238
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2015 on cultivated land. A large piece of flint or chert was found partially covering the axe.		
Reference(s)	PAS DEV-37645F.		

Object Type and Description	Gr.I? palstave. This is an unlooped palstave with high, leaf-shaped flanges that rise from the butt to the height of the stop. There is a shallow depression below the rectangular stop on each face, and the blade is broad with a flared crescentic cutting-edge.		
Location	Finder	**Period**	Acton Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Not known.		
Patina/Corrosion	Murky green patina.		
Manufacture/Use	Difficult to tell due to the poor photo, but the casting material appears to have been removed and prepared, and the cutting-edge was likely hammered out and worked.		
Damage	None.		

PAS-F091 Devon III

Grid Ref.	-	Altitude (m)	236
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A decorated gold sheet fragment was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS DEV-46BB26.		
Additional Notes	The exact findspot of this fragment is known, but is considered broadly as “Devon”.		

Object Type and Description	Sheet gold. This is a crumpled fragment of roughly rectangular decorated gold sheet. The top and bottom margins of this piece appear to have been the original edges, while the left and right edges are torn, suggesting this was part of a longer narrow band. The decoration is embossed and consists three sets of three horizontal ribs, with two rows of circular bosses in between, some of which had dimples pressed into their centres. The following description has been taken from the PAS record as this level of detail could not be observed from the photo: Close to one of the margins there “are two perforations either side of a jagged tear, through which gold wires have been threaded; these seem to be of flattish and not rounded section. A third perforation, also threaded with gold wire, can be seen near to the torn edge of the piece and at a similar distance from the true edge.” The overall piece lacks parallels at present and is only tentatively dated to the Bronze Age as the composition is comparable. It is suggested that the decoration is more akin to that from the Continent than from Britain during this period.		
Location	BM	**Period**	Uncertain
Completeness	0-25%	**Details**	Torn and crumpled sheet.
Dimensions (mm)	L.50.6; W.46.4; Th.0.42; Wt.17.18g.		
Patina/Corrosion	Dull gold.		
Manufacture/Use	Prepared and possibly used. This was clearly once part of a finely prepared object, with the sheet having been hammered out and embossed. The perforations with gold wires might be indicative of use or possibly repair. However, any evidence of use is now obscured.		
Damage	This sheet has been torn at both ends from a larger object and bowed and deformed. It is difficult to tell how much of this is deliberate in antiquity or post-depositional. It is probably a combination of both.		

B.4 DORSET

PAS-F092 Askerwell

Grid Ref.	SY 52 93	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2008 on cultivated land.		
Reference(s)	PAS DOR-422514.		

Object Type and Description	Low-flanged axe (Class 4A?) This is an axe with low hammered flanges starting from the butt and extending towards the cutting-edge. The butt is narrow and rounded with diverging sides that flare out to a broad, curved cutting-edge,

	which is bevelled on both faces. The axe is thin at the butt and cutting-edge, thickening at the centre with a faint transverse bevel.		
Location	Finder	**Period**	MA IV Aylesford-MA V Willerby
Completeness	76-99%	**Details**	Damage to cutting-edge and sides.
Dimensions (mm)	L.121.27; Bl.W.60.47; Th.11.32; Wt.256g.		
Patina/Corrosion	Dark green patina with patches of light green corrosion.		
Manufacture/Use	Prepared and possibly used. The axe looks like it has been well-prepared and polished, with the cutting-edge having been bevelled. However, damage to the edge means further signs of use-wear cannot be identified.		
Damage	The axe has suffered material loss to the cutting-edge and along the sides. This is related to corrosion and post-depositional processes.		

PAS-F093 Bere Regis I

Grid Ref.	SY 82 96	**Altitude (m)**	56
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2017.		
Reference(s)	PAS DOR-1F4D7C.		

Object Type and Description	Side-looped spearhead (Gr.6) This is a spearhead with a circular conical socket tapering to a narrow, flame-shaped blade. Two narrow, asymmetrical loops are positioned about halfway along the socket, and the blade has a prominent midrib creating a lozenge section.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Damaged blade edge.
Dimensions (mm)	L.104.02; Sock.W.Ext.14; Sock.W.Int.12.5; Wt.42.89g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, but it is difficult to identify any signs of use. The side-loops are asymmetrically cast and one hole is almost closed up from filling with metal.		
Damage	A portion of one blade wing on the upper blade is missing. The break appears to be consistently patinated, but there are no associated marks or casting flaws.		

PAS-F094 Bere Regis II

Grid Ref.	SY 82 96	**Altitude (m)**	66
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A knife was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS DOR-761B1C.		

Object Type and Description	Tanged knife. This is an incomplete tanged and riveted, double-edged knife blade. The tang is sub-rectangular and gently expands in a continuous line to the shoulders of the blade before tapering inwards towards the tip. A central circular rivet hole is positioned above the shoulders. There is a notch in one edge just below the rivet hole – it is unclear whether this constitutes damage or was a functional element. The blade has a biconvex cross-section.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	51-75%	**Details**	Lower blade missing.
Dimensions (mm)	L.83.47; W.20.11; Th.2.95; Wt.20.54g.		
Patina/Corrosion	Green patina intermitted with pale green delamination and corrosion.		

Manufacture/Use	Prepared and possibly used. Any casting material has been removed and prepared, and the blade edges appear to be slightly worked and bevelled. There is various damage along the blade edges, some of which is clearly post-depositional, but some notches might be use-related.
Damage	The lower blade and tip of this knife have broken off, presumably in antiquity, though there is no photo of the break to confirm this. There are no associated marks on the faces of the blade, but it is unknown whether there were any casting flaws in the break.

PAS-F095 Bournemouth

Grid Ref.	SZ 14 91	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A hoard of seven palstaves was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Knight et al. 2015, 47-48, No.206; PAS LVPL-2588F5, LVPL-2599D7, LVPL-25A796, LVPL-25BFD5, LVPL-25CEB5, LVPL-25B355, LVPL-2574F4, 2011 T589.		
Additional Notes	The palstaves are recorded under individual PAS numbers.		

PAS-F095a

Object Type and Description	Gr.III palstave (Werrar variant). This is an unlooped palstave with leaf-shape flanges rising above the height of the stop before gently sloping down to the blade. The blade is broad and crinoline with a slightly curved cutting-edge. The flanges form a deep u-shaped stop ridge. However, there is no further decoration on the blade. Although the flanges rise above the height of the stop they are not particularly high, with a breadth of approximately 30mm (judging from the photo). This type closely aligns with Rowlands' Werrar type. This is LVPL-25CEB5.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.170.06; Bl.W.53.52; Wt.423.4g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, but it is difficult to identify signs of use-wear from the photo.		
Damage	None.		

PAS-F095b

Object Type and Description	Gr.III palstave. This is a looped palstave with low flanges rising up from the butt to the height of the stop before descending steeply onto the blade. The blade is broad and triangular, with a curved cutting-edge. A side-loop overlaps the rectangular stop ridge and there is a midrib extending down about half of the blade. This is LVPL-25BFD5.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Material loss from cutting-edge and butt.
Dimensions (mm)	L.162.62; Bl.W.61.32; Wt.425.5g.		
Patina/Corrosion	Reddish-brown patina with green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, but it is difficult to identify signs of use-wear from the photo.		

Damage	The palstave is largely complete apart from two small fragments that have broken away: one from the cutting-edge and one from the butt. These appear to have occurred in antiquity.

PAS-F095c

Object Type and Description	Norman-type palstave. This is an unlooped palstave with low flanges rising up from the butt to the height of the stop before descending steeply onto the blade. The blade is broad and crinoline, with a curved cutting-edge. The stop ridge is u-shaped and there are four short ribs extending down the blade. This palstave has Norman affinities. This is LVPL-25B355.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.149.42; Bl.W.47.92; Wt.374.4g.		
Patina/Corrosion	Brown patina with green encrustations and corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been largely prepared, though not totally removed, particularly towards the butt end. It is difficult to identify signs of use-wear from the photo.		
Damage	None.		

PAS-F095d

Object Type and Description	South-western palstave. This is a looped palstave with high angular flanges rising up from the butt above the height of the stop before descending steeply to the stop. The blade is broad and triangular, with a flaring curved cutting-edge. A side-loop sits above the sub-rectangular stop ridge and there is a midrib extending down most of the blade. This is LVPL-25A796.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.137.42; Bl.W.53.06; Wt.305.7g.		
Patina/Corrosion	Green patina with extensive patches of corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has largely been removed and prepared, and the cutting-edge appears to have been hammered out and probably worked. However, it is difficult to identify signs of use-wear from the photo.		
Damage	None.		

PAS-F095e

Object Type and Description	Gr.III palstave. This is an unlooped palstave with low oval flanges rising up from the butt to the height of the stop. The blade is broad and crinoline, with a slightly curved cutting-edge. The stop is sub-rectangular and there is a faint midrib extending down the blade. This is LVPL-2599D7.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.139.86; Bl.W.50.5; Wt.209.5g.		
Patina/Corrosion	Brown patina with green encrustations/corrosion.		
Manufacture/Use	Some preparation – unfinished? The casting seams have largely been prepared, but not totally removed and it appears that the blade is thick and totally unworked.		
Damage	None.		

PAS-F095f

Object Type and Description	Gr.III or South-western palstave.

	This is a broad, flared triangular blade of a palstave with the remains of shallow midrib. The overall blade is asymmetrical and possibly as-cast. This is LVPL-2588F5.		
Location	Finder	**Period**	Taunton-Penard
Completeness	26-50%	**Details**	Blade only.
Dimensions (mm)	L.63.19; Bl.W.54.99; Wt.141.6g.		
Patina/Corrosion	Brown patina with green encrustations.		
Manufacture/Use	As-cast. This axe appears to have had no post-casting preparation undertaken and may represent a mis-cast. The blade shape is uneven and asymmetrical and the casting seams survive along the sides. The breakage may thus be related to the casting process.		
Damage	This palstave has broken across the thickest part of the blade below the stop in antiquity. There are no associated marks but the casting appears to be poor in the break. **Breakage**: Th.14.15.		

PAS-F095g

Object Type and Description	Gr.I or Gr.III palstave. This is a fragment of a palstave with the remains of a u-shaped stop ridge and a shallow curved shield depression in the surviving upper blade, indicative of an early form of palstave. There are two side-loop stumps on one side. It is difficult to identify a palstave type from the fragment. It could conceivably belong to a Gr.I palstave, based on the decoration, though the PAS records draws comparisons with Rowlands' Type Birchington (Gr.III in the present thesis). This is LVPL-2574F4.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Upper blade fragment.
Dimensions (mm)	L.33.28; W.20.69; Th.20.18; Wt.76.6g.		
Patina/Corrosion	Very well preserved with original dark brown patina and some green incrustations.		
Manufacture/Use	Difficult to tell due to incompleteness, but the surviving sides indicate worked casting seams.		
Damage	This palstave has broken across the upper blade and across the stop ridge in antiquity. Additionally, the side-loop has broken. There are no associated marks, but the stop ridge break is heavily encrusted with small stones and green corrosion. It is possible some of this might be original casting flaws.		

PAS-F096 Bradford Peverell

Grid Ref.	SY 63 93	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe piece was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	PAS DOR-36BA57.		

Object Type and Description	Socketed axe. This is an incomplete socketed axe with a narrow sub-rectangular body, expanding to a slightly curved cutting-edge.		
Location	Finder	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Lower body piece.
Dimensions (mm)	L.55.79; Bl.W.41.11; Wt.84.14g.		
Patina/Corrosion	Mottled brown/green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, and the cutting-edge appears to have been hammered thin. Signs of use are difficult to identify though, due to corrosion.		

Damage	This axe has broken across the middle of the body in antiquity, through the socket hollow. There are no associated marks or casting flaws.

PAS-F097 Bryanston II

Grid Ref.	ST 87 05	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A knife was found while metal-detecting in 2012 less than 25cm below the surface on cultivated land.		
Reference(s)	Knight et al. 2015, 48, No.209, Pl.26; PAS DOR-FAC625.		

Object Type and Description	Tanged knife. This is an incomplete tanged and riveted, double-edged knife blade. The tang is sub-rectangular and gently expands to angular shoulders of the blade before tapering inwards along the blade towards the tip. An off-centre circular rivet hole is positioned above the shoulders. The blade has a biconvex cross-section. Dr. Dot Boughton has commented that this may be a reworked dagger or dirk.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	51-75%	**Details**	Lower blade missing and damage to tang.
Dimensions (mm)	L.73.38; W.18.83; Th.4.01; Wt.18.66g.		
Patina/Corrosion	Dark grey/black patina with patches of green corrosion.		
Manufacture/Use	Prepared and possibly used. Any casting material has been removed and prepared, and the blade edges appear to be slightly worked and bevelled. There is various damage along the blade edges, some of which is clearly post-depositional, but some notches might be use-related.		
Damage	The lower blade and tip of this knife have broken off, presumably in antiquity, though there is no photo of the break to confirm this. There are no associated marks on the faces of the blade, but it is unknown whether there were any casting flaws in the break. Additionally, part of the tang has fragmented away.		

PAS-F098 Buckland Newton I

Grid Ref.	ST 67 06	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed tool was found while metal-detecting in 2013.		
Reference(s)	Knight et al. 2015, 48, No.210; PAS DOR-EE8574.		

Object Type and Description	Socketed axe/chisel. This is a slender square-socketed tool, tapering to a narrow curved cutting-edge. Below the socket rim there is a curvilinear decoration on each of the faces and sides. Three concentric curved lines adorn the two faces, while there are only two concentric curved lines on the sides.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.98.36; Sock.Diam.Ext.26.40x24.67; Sock.Diam.Int.16.65x16.59; Wt.135.72g.		
Patina/Corrosion	Dark brown patina, though extensive patches of green corrosion and surface delamination.		
Manufacture/Use	Prepared and possibly used. The casting material has been completely removed and prepared, and the cutting-edge has probably been hammered and worked. However, corrosion obscures		

	any signs of use-wear, though the rounded nature of the edge suggests it was well-worn.
Damage	None other than corrosion delamination.

PAS-F099 Buckland Newton II

Grid Ref.	ST 69 05*	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An axe/chisel was found while metal-detecting in 2002.		
Reference(s)	Knight et al. 2015, 48, No.211, Pl.21; PAS SOMDOR-7B3C43.		
Additional Notes	The exact findspot is not known, so the grid reference provided is for the parish only.		

Object Type and Description	Flanged axe/chisel. This is an incomplete small tool with low, straight flanges and a low stop that slopes up onto a slightly expanded blade with a crescentic cutting-edge. The nature of the flanges is indicative of a palstave, but parallels for the overall form are uncertain.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	76-99%	**Details**	Butt broken.
Dimensions (mm)	L.51.82; W.22.54; Th.9.03.		
Patina/Corrosion	Patches of dark brown patina, but largely brown corrosion causing delamination.		
Manufacture/Use	Difficult to tell, but there is no visible casting material and the cutting-edge appears to be asymmetrical and worn.		
Damage	The butt has broken off, presumably in antiquity, though this could be the result of corrosion damage. There are no visible associated marks, and no picture of the break to identify casting flaws.		

PAS-F100 Buckland Newton III

Grid Ref.	ST 69 05*	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2009.		
Reference(s)	Knight et al. 2015, 48, No.212; PAS DOR-AC80C0.		

Object Type and Description	South Welsh socketed axe. This is a rim fragment from the face of a three-ribbed socketed axe with a single collar moulding from which three parallel vertical ribs descend. The proximity of the ribs to the socket mouth indicate this belonged to a South Welsh socketed axe. A photo is not provided on the socket mouth, but this would help confirm this.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Rim and upper body fragment.
Dimensions (mm)	L.35.83; W.22.11; Th.5.57; Wt.12.86g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a fragment of the socket collar and part of one face of a socketed axe, broken along two sides in antiquity. There are no associated marks or casting flaws.		

PAS-F101 Burton

Grid Ref.	SZ 18 95	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	

Find circumstances	A flat axe was found by chance in 2004 on cultivated land.
Reference(s)	PAS SOMDOR-C71623.

Object Type and Description	Broad Migdale flat axe (Class 3) This is a large thin-butted flat axe with a broad blade and crescentic cutting-edge. The butt is wide and rounded and there is a slight transverse bevel towards the middle of the axe.		
Location	Finder	**Period**	MA III Migdale
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.158; Bl.W.87.39; Th.13.15; Wt.502g.		
Patina/Corrosion	Olive green patina, with light green corrosion delamination.		
Manufacture/Use	Prepared and used. The cutting-edge has been hammered and bevelled on both faces and is heavily asymmetrical suggesting extensive wear and resharpening.		
Damage	None.		

PAS-F102 Cann

Grid Ref.	ST 86 21	**Altitude (m)**	148
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2016.		
Reference(s)	PAS WILT-46374E.		

Object Type and Description	Gr.III palstave. This is an unlooped palstave with low flanges rising from the butt to a plateau at the height of the u-shaped stop. There is a shallow U-shaped depression below the stop ridge and the blade is relatively narrow, but flares to a cutting-edge. There are three short lateral parallel ribs on the septum just above the stop ridge.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Minor material loss at the cutting-edge.
Dimensions (mm)	L.128.35; Bl.W.41.60; Bl.Th.22.86; B.W.23.10; Wt.263g.		
Patina/Corrosion	Green patina/corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, but further signs of use-wear are difficult to identify. It is possible the damage to the cutting-edge is use-related.		
Damage	A fragment of the cutting-edge has broken away, possibly in antiquity or post-deposition. This could be use-related or linked to corrosion. There are no associated marks or casting flaws.		

PAS-F103 Cerne Abbas I

Grid Ref.	ST 66 00	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Three fragments of metalwork were found while metal-detecting in 2009 in a cultivated field. The objects were all recovered from a depth less than 25cm, but the relationship between them in unclear. They have been disclaimed as 'Treasure' and are grouped here as a potential scatter.		
Reference(s)	Knight et al. 2015, 48-49, No.217; PAS DOR-360023; DOR-35EBE4; DOR-360553.		

PAS-F103a

Object Type and Description	Ribbed socketed axe – Type Welby? This is a rim fragment of a socketed axe with a rounded collar moulding and second moulding below this, from which three parallel

	vertical ribs descend. Part of the corner survives indicating the socket was sub-rectangular or possibly sub-square. It is likely this axe belongs to the southern ribbed tradition (Type Welby).		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Rim fragment.
Dimensions (mm)	L.36.92; W.24.79; Th.8.07.		
Patina/Corrosion	Dark green patina; patches of green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a corner fragment of the socket of a socketed axe, broken away along two edges in antiquity There are no associated marks or casting flaws.		

PAS-F103b

Object Type and Description	Palstave – type uncertain. This is a rounded butt fragment of a palstave with the beginnings of the flanges.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.19.08; W.23.27; Th.7.03.		
Patina/Corrosion	Dark grey/black patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This fragment has broken away across the septum of a palstave in antiquity There are no associated marks or casting flaws.		

PAS-F103c

Object Type and Description	Axe? This is a quadrangular fragment of copper alloy with a rectangular section and a tapering edge. It possibly belonged to the cutting-edge of an axe, though further diagnostic features are lacking.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.11.63 W.13.83; Th.5.52;		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a fragment of possibly a cutting-edge broken away in antiquity. There are no associated marks or visible casting flaws.		

PAS-F104 Cerne Abbas II

Grid Ref.	ST 66 02	**Altitude (m)**	129
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2002 on cultivated land.		
Reference(s)	Knight et al. 2015, 49, No.218; PAS SOMDOR-BC0AA2.		

Object Type and Description	Spearhead – probably pegged (Type 11). This is the lower blade and socket of spearhead though with no indicators of side-loops or peg holes. The socket is circular, and the base of the blade indicates it was originally leaf-shaped. It seems likely this was originally a plain pegged variety.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	26-50%	**Details**	Lower blade and upper socket.
Dimensions (mm)	L.30.65; W.18.79; Th.12.62; Wt.13.02g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, though further indicators of use are not discernible.		

Damage	The spearhead has broken straight across the lower blade and across the socket in antiquity. There are no associated marks or casting flaws.

PAS-F105 Cerne Abbas III

Grid Ref.	SY 67 99	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2008 on cultivated land.		
Reference(s)	Knight et al. 2015, 49, No.219; PAS SOM-6E7416.		

Object Type and Description	Socketed axe – type uncertain. This is an angular fragment from the blade of a socketed axe. There are no further diagnostic features.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Body fragment.
Dimensions (mm)	L.35.4; W.22.2; Th.9.5; Wt.27.4g.		
Patina/Corrosion	Mottled green and yellow corrosion.		
Manufacture/Use	Uncertain due to incompleteness.		
Damage	This is a fragment of socketed axe, broken away from the body/blade in antiquity. There are no associated marks or casting flaws.		

PAS-F106 Charminster II

Grid Ref.	SY 68 94*	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A gold strip was found while metal-detecting in 2004 a few inches below the surface in a field of stubble.		
Reference(s)	Knight et al. 2015, 49, No.221; PAS DOR-173265, 2006 T380; Treasure Annual Report 2005-6, 24, No.35.		

Object Type and Description	Gold ornament – pendant? This is a cigar-shaped strip of gold sheet with sub-square terminals and a circular perforation through one end. The two long edges are asymmetrical, with one being more bowed than the other. Despite currently lacking any parallels, the form and composition is consistent with a Bronze Age date.		
Location	BM	**Period**	Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.73.7; W.12.1; Th.0.5; Wt.4g.		
Patina/Corrosion	Dull gold.		
Manufacture/Use	Prepared and used. The gold sheet has been hammered and shaped, with striations evidencing prehistoric working. The perforation was created by pushing through the sheet, possibly with a rotary action. It is considered to have been a well-used object.		
Damage	None. There is no evidence this strip had been rolled or bent, though it has suffered some minor distortion to the surface, probably through a combination of ancient use and post-depositional processes (e.g. soil warping).		

PAS-F107 Cheselbourne

Grid Ref.	ST 75 00	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	

Find circumstances	A spearhead was found while metal-detecting in 2013.
Reference(s)	Knight et al. 2015, 49, No.222, Pl.27; PAS DOR-30E216.

Object Type and Description	End-looped spearhead (Type 2B). This is a small flame-shaped spearhead with side-loops situated close to the socket mouth. The socket is oval and tapers inwards towards the blade, which has an oval section and narrow wings.		
Location	Finder	**Period**	MA VI Arreton
Completeness	76-99%	**Details**	Both side-loops broken; socket mouth damage.
Dimensions (mm)	L.67.87; W.22.05; Th.14.59; Wt.25.98g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, though further signs of use are difficult to identify. The broken side-loops could be related.		
Damage	Both side-loops have broken in antiquity, leaving only stumps and the socket mouth is uneven and fragmented, which also appears to be antiquated. The socket mouth damage is likely to have been accentuated by post-depositional processes. There are no associated marks or casting flaws.		

PAS-F108 Chettle

Grid Ref.	ST 94 13 (village centred)	**Altitude (m)**	75
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	Knight et al. 2015, 49, No.223; PAS DOR-C367E2.		

Object Type and Description	Tanged chisel. This is a small, flat trapezoidal chisel blade with a thin, narrow tapering tang. The cutting-edge is broad and curved and rises in a crinoline fashion to the blade-tang junction. The tang has a rectangular cross-section and tapers to a point.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.44.43; W.17.92; Th.2.81; Wt.6.44g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and used. The object appears to have been worked and was likely used in antiquity. It is slightly bowed and the cutting-edge is worn and slightly asymmetrical, which are all features like to be the result of use.		
Damage	None other than a slight bowing/transverse bending of the overall object, which could be relate to use or post-depositional warping.		

PAS-F109 Chickerell I

Grid Ref.	SY 64 81*	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two gold neckrings were found while metal-detecting in 1999 in a ploughed field. The rings were “interlinked but not ‘nested’, 18-20 inches below ground surface, in clay” (Woodward 2000, 145).		
Reference(s)	Knight et al. 2015, 49, No.224; Treasure Annual Report 1998-9, 12-13, No.7, Fig.7; P.J. Woodward 2000; 2002.		
Additional Notes	The findspot lay in a valley, above the spring line, though the exact grid reference is not described in any of the references. Other material from the Neolithic to the Romano-British period has also been recovered from the site, including lithics, pottery and		

	Romano-British metalwork and coins. Further investigation of the site through aerial survey, magnetometry and test-pitting revealed a possible hut and terrace, dated to the Late Bronze Age/Early Iron Age via pottery. Later excavations identified a triple ring monument constructed in the Late Neolithic/Early Bronze Age, which was incorporated into the later Bronze Age hut and terrace. It is possible the neckrings were deposited as part of the occupation.

PAS-F109a

Object Type and Description	Gold neck ring. This is a gold penannular ring with a thick, crescentic section and trumpet-shaped terminals with circular flat ends.		
Location	DCM	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Ext.Diam.192; W.26; Wt.716.34g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Prepared – possibly unfinished. The neckring appears to be largely finished, but they are hammer marks on the inside and casting flaws on the outside, indicating this may be unfinished.		
Damage	None.		

PAS-F109b

Object Type and Description	Gold neck ring. This is a gold penannular ring with a concave D-shaped section and trumpet-shaped terminals with circular flat ends.		
Location	DCM	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Ext.Diam.172; W.14; Wt.399.91g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Prepared – possibly unfinished.		
Damage	The neckring is slightly distorted, which is likely the result of plough damage.		

PAS-F110 Chickerell II

Grid Ref.	SY 65 85	**Altitude (m)**	54
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Three fragments of three different socketed axes were found while metal-detecting in 2014 on cultivated land. Their exact relationship to each other is uncertain (e.g. a closed deposit or a scatter).		
Reference(s)	PAS DOR-A0720E; 2014 T960.		
Additional Notes	It seems these pieces were found in the same field or nearby the spearhead pieces from Chickerell (PAS-F111), but these were submitted as two separate treasure cases.		

PAS-F110a

Object Type and Description	Socketed axe – type uncertain. This is a mouth fragment of a socketed axe with a single collar moulding.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Rim fragment.
Dimensions (mm)	L.22.66; W.14.9; Th.4.1; Wt.5.3g.		
Patina/Corrosion	Green/brown patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the remains of a casting seam is visible.		
Damage	This is a fragment of the socket mouth of a socketed axe, broken in antiquity; no associated marks or casting flaws.		

PAS-F110b

Object Type and Description	Socketed axe – type uncertain. This is a fragment of the mouth and plain upper body of a socketed axe with a double collar moulding; the upper moulding is thicker.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Rim and upper body fragment.
Dimensions (mm)	L.39.39; W.26.41; Th.6.46; Wt.24.77g.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the remains of a casting seam is visible.		
Damage	This is a fragment of the socket mouth and upper body of a socketed axe, broken in antiquity; no associated marks or casting flaws.		

PAS-F110c

Object Type and Description	Socketed axe – type uncertain. This is a mouth fragment of a socketed axe with a double collar moulding.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Rim fragment.
Dimensions (mm)	L.26.72; W.15.09; Th.4.75; Wt.7.24g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the remains of a casting seam is visible.		
Damage	This is a fragment of the socket mouth of a socketed axe, broken in antiquity; no associated marks or casting flaws.		

PAS-F111 Chickerell III

Grid Ref.	SY 65 85	**Altitude (m)**	54
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two pieces of spearhead were found associated while metal-detecting 2014 on cultivated land. The exact relationship between the two pieces is unclear.		
Reference(s)	PAS DOR-A094DD; 2014 T961.		
Additional Notes	It seems these pieces were found in the same field or nearby the socketed axe fragments from Chickerell (PAS-F110), but these were submitted as two separate treasure cases.		

PAS-F111a

Object Type and Description	Basal-looped spearhead (Type 8?) This is the lower blade and socket of a basal-looped spearhead with narrow basal loops. Although incomplete, the blade was probably leaf-shaped. The socket is circular and tapers up to the base of the blade. The PAS records notes that this spearhead is in two pieces, but the two separate pieces cannot be observed on the photo.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Lower blade and socket, possibly in two pieces.
Dimensions (mm)	L.96.39; Wt.61.84g.		
Patina/Corrosion	Brown patina, patches of corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, though signs of use and preparation of the blade are difficult to identify.		
Damage	This spearhead has broken unevenly across the lower blade in antiquity. There are no associated marks or visible casting flaws.		

	Part of the socket has fractured and partially cracked. The cause of this is unclear.

PAS-F111b

Object Type and Description	Spearhead – type uncertain. This is a tip fragment of a spearhead with a broad midrib and wide blade wings. Further diagnostic features are not present.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.25.98; W.17.21; Th.6.45; Wt.5.13g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, though the tip seems to be sharp.		
Damage	This is a tip fragment broken unevenly from the upper blade of a spearhead in antiquity. There are no associated marks or visible casting flaws.		

PAS-F112 Compton Abbas II

Grid Ref.	ST 86 18	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Davis 2012, 107, No.673, Pl.37; Knight et al. 2015, 50, No.238; PAS SOMDOR-33F9A1.		

Object Type and Description	Side-looped spearhead (Gr.6) This is an incomplete fragment of a side-looped spearhead with the remains of the blade-socket junction and the upper stumps of the side-loops. The surviving socket is circular and tapers towards the base of the blade, though there are no further diagnostic features. It is indicative of a group 6 spearhead.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Upper socket fragment.
Dimensions (mm)	L.41.7; W.14.94; Th.13.51; Wt.12.61g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the casting material appears to have been removed and prepared.		
Damage	This spearhead has broken unevenly at the blade-socket junction and across the socket through the side-loops in antiquity. While the break across the blade is relatively straight, the break through the socket is stepped and there are protruding sections of metal. There are no associated marks or casting flaws.		

PAS-F113 Compton Abbas III

Grid Ref.	ST 86 18	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 50, No.239, Pl.24; PAS SOMDOR-F9B3B8.		

Object Type and Description	Socketed axe – type uncertain. This is a lower blade fragment of a socketed axe with a flared crescentic cutting-edge. There are no further diagnostic features.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.

Dimensions (mm)	L.32.63; W.59.23; Wt.89.96g.
Patina/Corrosion	Dark green patina.
Manufacture/Use	Prepared and possibly used. The cutting-edge appears to have been hammered and worked and the cutting-edge is slightly uneven with small dents and chips, which could be related to use.
Damage	This cutting-edge has broken unevenly across the socket aperture in antiquity. There are no associated marks or casting flaws.

PAS-F114 Compton Abbas IV

Grid Ref.	ST 86 18	**Altitude (m)**	
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2004 on cultivated land.		
Reference(s)	Knight et al. 2015, 50, No.240, Pl.30; PAS SOMDOR-C4C660.		

Object Type and Description	Bar chisel. This is a narrow, slender copper alloy bar with a rectangular profile that tapers to a flat, slightly curved edge at one end. On the flat sides a groove runs along the object, which is central on one side, but offset to one side on the other, creating a triangular profile. It is similar in form to some Bronze Age chisels from Norfolk, though precise parallels are uncertain.		
Location	Finder	**Period**	Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.53.52; W.6.02; Th.4.4; Wt.7.66g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and possibly used. This object appears to have been worked for use and the chisel end seems worn, indicating use.		
Damage	None.		

PAS-F115 Compton Abbas V

Grid Ref.	ST 86 18	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2008 on cultivated land.		
Reference(s)	PAS DOR-BFD933.		

Object Type and Description	Tanged chisel. This is a chisel with a slender rectangular-section tang that expands with concave sides to a broad triangular blade with a damaged cutting-edge. There is no collar or stop present.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	Damaged cutting-edge.
Dimensions (mm)	L.64.35; W.20.38; Th.1.01; Wt.10.11g.		
Patina/Corrosion	Mottled green/grey corrosion.		
Manufacture/Use	Difficult to tell, but possibly used.		
Damage	The cutting-edge of this chisel has suffered uneven material loss, possibly in antiquity. There are no associated marks or visible casting flaws so it is difficult to know how to attribute this damage. The PAS record notes this object is “curved”, which could be use-related or the result of post-depositional processes.		

PAS-F116 Fontmell Magna

Grid Ref.	ST 86 18 (village centred)	**Altitude (m)**	-
☐	☐	☑	

Dryland	Wetland	Uncertain
Find circumstances	A gold strip was found while metal-detecting in 2002.	
Reference(s)	Knight et al. 2015, 50, No.244; PAS 2003 T30; Treasure Annual Report 2003, 16, No.1, Fig.1.	

Object Type and Description	Gold ornament. This is a small fragment of a narrow gold strip with multiple embossed longitudinal ribs running along the strip. One original squared-off terminal survives. Comparable examples are known north-west Europe.		
Location	DCM	**Period**	Bronze Age
Completeness	0-25%	**Details**	Strip fragment.
Dimensions (mm)	L.39; W.10.2; Th.0.2; Wt.1.7g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Prepared and possibly used. The object has clearly been finely made.		
Damage	One end of the strip has been torn or broken from the rest of the object and has suffered some thinning, possibly from hammering. This has caused some deformation in the form of the strip.		

PAS-F117 Frampton I

Grid Ref.	SY 63 96	**Altitude (m)**	117
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS WILT-004CC7.		
Additional Notes	Between 2015 and 2016, six objects (PAS-F117-122) have been recovered from across two fields separated by a road with the furthest two finds being 500m apart. All objects date broadly to the Middle-Late Bronze Age. It is possible they constitute a scatter or a dispersed assemblage.		

Object Type and Description	Socketed axe – type uncertain. This is a lower blade fragment of a socketed axe with a broad, crescentic cutting-edge. There are no further diagnostic features.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.14.4; W.45.95; Wt.15.4g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used. The cutting-edge appears to have been hammered and worked and the cutting-edge is slightly uneven with small dents and chips, which could be related to use.		
Damage	This cutting-edge has broken unevenly across the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: W.43.1; Th.6.25.		

PAS-F118 Frampton II

Grid Ref.	SY 63 96	**Altitude (m)**	108
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A copper alloy arrowhead was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS WILT-8171F0.		
Additional Notes	See PAS-F117.		

Object Type and Description	Barbed and tanged arrowhead. This is a copper alloy barbed and tanged arrowhead, with a very low midrib, creating a low lozenge-section.		
Location	Finder	**Period**	Penard
Completeness	76-99%	**Details**	Damage to tang.
Dimensions (mm)	L.26.85; W.19.2; Th.2; Wt.2.54g.		
Patina/Corrosion	Grey/green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and the damage to the tang may have occurred through use.		
Damage	There is some minor material loss to the tang of this arrowhead, which appears to have occurred in antiquity. There are no associated marks or casting flaws.		

PAS-F119 Frampton III

Grid Ref.	SY 63 96	**Altitude (m)**	111
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS WILT-FF82BC.		
Additional Notes	See PAS-F117.		

Object Type and Description	Class I socketed gouge. This is a socketed gouge with a circular, flat-topped socket. The sides are straight and slightly tapering towards a straight cutting-edge with a kidney-shaped section.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.47.91; Bl.W.9; Sock.Diam.Ext.13.4; Wt.19.58g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared and the cutting-edge is slightly abraded, which could be linked to use.		
Damage	None.		

PAS-F120 Frampton IV

Grid Ref.	SY 63 96	**Altitude (m)**	94
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS WILT-6416A6.		
Additional Notes	See PAS-F117.		

Object Type and Description	Ribbed socketed axe – type uncertain. This is a mouth fragment of the corner of a socketed axe with a thick single collar mould that steps onto the body. There is the remains of a single vertical rib visible, which was likely one of three. The corner indicates this was a sub-rectangular socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Socket fragment.
Dimensions (mm)	L.24.4; W.33.77; Th.5.53; Wt.13.54g.		
Patina/Corrosion	Pale grey/green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the socket mouth seems to have been prepared and a casting seam is visible, but seems to have been filed down.		

Damage	This is a socket and rim fragment broken down two edges in antiquity. There are no associated marks or casting flaws.

PAS-F121 Frampton V

Grid Ref.	SY 63 96	**Altitude (m)**	110
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave piece was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS WILT-B88605.		
Additional Notes	See PAS-F117.		

Object Type and Description	Palstave – type uncertain. This is a narrow, undecorated blade of a palstave, with a slightly expanded worn and rounded cutting-edge. It is possible this belonged to a later form of palstave, possibly a Transitional type.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	26-50%	**Details**	Lower blade.
Dimensions (mm)	L.43.68; Bl.W.26.58; Wt.37.31g.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, and the cutting-edge is asymmetrical and worn, which could be use-related.		
Damage	This palstave has broken across the upper blade below the stop ridge in antiquity. There are no associated marks or visible casting flaws. **Breakage**: W.18.9; Th.8.75.		

PAS-F122 Frampton VI

Grid Ref.	SY 63 96	**Altitude (m)**	94
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A chisel fragment was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS WILT-BCBB58.		
Additional Notes	See PAS-F117.		

Object Type and Description	Chisel – type uncertain. This is a chisel blade fragment, roughly trapezoidal in plan and with a broadly oval cross-section. Part of the straight cutting-edge survives, but none of the probable tang.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Blade fragment.
Dimensions (mm)	L.33.35; W.45.6; Th.4.9; Wt.26.15g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the cutting-edge seems to have been hammered thin.		
Damage	The upper blade and one blade tip have broken away, presumably in antiquity. There are no associated marks or casting flaws.		

PAS-F123 Gussage All Saints II

Grid Ref.	SU 00 10	**Altitude (m)**	69
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A gold sheet fragment was found while metal-detecting in 2013 on cultivated land.		

Reference(s)	PAS DOR-AC5494, 2013 T428.

Object Type and Description	Gold sheet. This is a roughly ogival fragment of gold sheet or ribbon with the seemingly original long sides tapering to a rounded terminal. This object has no definite parallels, but the composition and form is broadly conducive with a Bronze Age date.		
Location	BM	**Period**	Bronze Age
Completeness	0-25%	**Details**	Ribbon fragment.
Dimensions (mm)	L.35; W.11; Th.0.5; Wt.1.82g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Difficult to tell but hammered out and roughly prepared.		
Damage	This strip has broken from a larger object, possibly in antiquity. The overall strip is creased and distorted, which may indicate prehistoric damage, or the effect of post-depositional processes.		

PAS-F124 Iwerne Courtney (or Shroton)

Grid Ref.	ST 85 13	**Altitude (m)**	69
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A short-flanged axe was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS DOR-5D7F46.		
Additional Notes	This findspot lies close to the parish boundary with Iwerne Minster and the five objects recorded from the latter parish (PAS-F125-129) all lie with an adjacent field and are all within 700m of each other. All finds can be broadly dated to the Middle Bronze Age.		

Object Type and Description	Early short-flanged axe. This is an axe with leaf-shaped flanges extending past a low sloping stop ridge and onto the upper blade. There is a side knob on each side of the stop. The cutting-edge is flared and crescentic.		
Location	Finder	**Period**	Acton Park
Completeness	76-99%	**Details**	Minor butt damage.
Dimensions (mm)	L.129.12; Bl.W.53.11; Wt.295g.		
Patina/Corrosion	Reddish-brown patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared and the cutting-edge seems to have been worked and bevelled. There are small chips along the edge which appear to be indicators of use-damage.		
Damage	This palstave is complete apart from some minor material loss at the butt, which could be use-related or the result of post-depositional effects.		

PAS-F125 Iwerne Minster I

Grid Ref.	ST 85 13	**Altitude (m)**	62
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2013.		
Reference(s)	Knight et al. 2015, 54, No.265, Pl.18; PAS DOR-8D4C40.		
Additional Notes	Five objects have been found within the same field area between 2013 and 2017 (PAS-F125-129), as well as find in Iwerne Courtney close to the parish border (PAS-F124). All of these finds fall within a 700m stretch and broadly date to the Middle Bronze Age.		

Object Type and Description	Transitional palstave. This is a narrow-bladed, looped palstave with low flanges rising from the septum below the butt to the height of the stop. The stop is sub-

	rectangular and steeply descends to the upper blade, which is adorned by a single midrib, which extends about halfway down. The blade is triangular and expands to a straight cutting-edge. A side-loop sits above the stop.		
Location	Finder	**Period**	Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.175.88; Bl.W.48.88; Bl.Th.17.85; Wt.537g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared. The casting material has been removed and prepared. There are no signs of use.		
Damage	None.		

PAS-F126 Iwerne Minster II

Grid Ref.	ST 85 14	**Altitude (m)**	62
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 less than 25cm below the surface on cultivated land.		
Reference(s)	PAS DOR-727748.		
Additional Notes	See PAS-F125.		

Object Type and Description	Gr.I palstave. This is an unlooped palstave with low, leaf-shaped flanges that extend past a low stop ridge to form a U-rib on the upper blade, which then extends as a low midrib. The blade is broad and flares to a crescentic cutting-edge.		
Location	Finder	**Period**	Acton Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.151.22; Bl.W.65.06; Wt.420g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared and used. The casting material has been prepared and largely removed. Hammer marks are visible on the cutting-edge, creating a bevel on both faces and the cutting-edge is asymmetrical suggesting wear and resharpening.		
Damage	None.		

PAS-F127 Iwerne Minster III

Grid Ref.	ST 85 14	**Altitude (m)**	63
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two spearhead pieces were found while metal-detecting in 2017.		
Reference(s)	PAS DOR-029EBA.		
Additional Notes	See PAS-F125.		

Object Type and Description	Side-looped spearhead (Type 6D) This is two refitting pieces of an ogival-bladed spearhead with a side-looped socket. The blade has a prominent midrib creating a lozenge-section and the socket is circular. The side-loops are small and narrow. There appears to be some wood surviving in the socket.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Mostly complete in two refitting pieces.
Dimensions (mm)	L.149.7; Bl.W.26.2; Th.12.1; Wt.42.86g.		
Patina/Corrosion	Olive green patina with patches of green corrosive build-up.		
Manufacture/Use	Prepared and used. The casting material has been removed and prepared and the blade edges have been hammered and bevelled. There are a series of notches and chips in the blades edges, which are likely a combination of use-damage and post-depositional		

	processes. The break reveals that the spear was well-cast, and the wood still in the socket shows it was hafted.
Damage	The spearhead has broken into two refitting pieces in antiquity across the blade-socket junction, which is the narrowest part of the spearhead. The socket mouth has also suffered uneven fragmentation. There are no associated marks or casting flaws, but the thin nature of the broken elements suggests this may have been accidental.

PAS-F128 Iwerne Minster IV

Grid Ref.	ST 85 14	**Altitude (m)**	62
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two spearhead pieces were found while metal-detecting in 2017.		
Reference(s)	PAS DOR-DC23F5.		
Additional Notes	See PAS-F125.		

Object Type and Description	Side-looped spearhead (Type 6B or 6C) This is two refitting pieces of a flame-bladed spearhead with a side-looped socket. The blade has a circular midrib and socket. The side-loops are quite large.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Mostly complete in two refitting pieces.
Dimensions (mm)	L.167.9; Bl.W.27.52; Th.11.43; Wt.69.07g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Prepared and used. The casting material has been removed and prepared. There are a series of notches and chips in the blades edges, which are likely a combination of use-damage and post-depositional processes. The break reveals that the spear was well-cast.		
Damage	The spearhead has broken into two refitting pieces in antiquity just below the blade-socket junction, which is the narrowest part of the spearhead. One side-loop has also broken and is missing because of this break. There are no associated marks or casting flaws, but the thin nature of the broken element suggests this may have been accidental.		

PAS-F129 Iwerne Minster V

Grid Ref.	ST 85 14	**Altitude (m)**	62
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead tip was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS DOR-F3B877.		
Additional Notes	See PAS-F125.		

Object Type and Description	Spearhead – probably side-looped (Type 6) This is the tip and upper blade of a narrow spearhead blade. The original blade was probably originally flame-shaped or possibly ogival, and it was likely socketed and side-looped, similarly to the other two spearheads found nearby (PAS-F128-129). The blade has a prominent midrib, creating a lozenge section and flat blade wings.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.59.09; Wt.14.49g.		
Patina/Corrosion	Dark brown patina.		

Manufacture/Use	Difficult to tell due to incompleteness, but the blade edges have suffered some material loss, which could be use-related.
Damage	This is the tip of a spearhead broken across the upper blade in antiquity. There are no associated marks or casting flaws. **Breakage**: W.18.7; Th.9.04.

PAS-F130 Little Bredy

Grid Ref.	SY 59 88	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Two palstaves were found while metal-detecting in 2009 on cultivated land.		
Reference(s)	Knight et al. 2015, 55, No.270, Pl.10; PAS DOR-FD23F7, DOR-FD33F3, 2009 T567.		

PAS-F130a

Object Type and Description	Gr.II palstave. This is an incomplete looped palstave with low, leaf-shaped flanges that extend past the rectangular stop and down the blade edges. The blade is triangular and expands to a slightly curved cutting-edge. A side-loop overlaps the stop ridge, and a midrib extends down half the blade.		
Location	Finder	**Period**	Acton Park-Taunton
Completeness	76-99%	**Details**	One blade tip missing.
Dimensions (mm)	L.132.09; Bl.W.47.23.		
Patina/Corrosion	Dark grey patina with patches of light green corrosion.		
Manufacture/Use	As-cast. The casting material is still prominent and this axe has been largely left unworked.		
Damage	One blade tip has broken off either in antiquity or post-deposition. It is now covered by corrosion.		

PAS-F130b

Object Type and Description	Gr.III or South-western palstave. This is two refitting pieces of a looped, broad-bladed palstave. The flanges are too fragmentary to define their original shape, but the blade is broad and triangular with a midrib, indicating the palstave is a Gr.III or South-western type. Stumps of a side-loop sit above the sub-rectangular stop.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Two refitting pieces broken across the flanges.
Dimensions (mm)	L.139.69; Bl.W.48.91.		
Patina/Corrosion	Dark grey patina with large patches of light green corrosion.		
Manufacture/Use	Prepared. The casting seams have been prepared but not completely removed. The palstave is too damaged to identify any signs of use. The break reveals that the palstave was poorly cast.		
Damage	The palstave has broken into two refitting pieces in antiquity across the flanges and the septum above the stop. The flanges have largely fragmented away and the cutting-edge and butt have suffered some material loss. It is likely the refitting break is the result of poor casting, while the other damages might be linked to post-depositional processes.		

PAS-F131 Lyme Regis

Grid Ref.	SY 34 93	**Altitude (m)**	98
☐ Dryland	☐ Wetland	☑ Uncertain	

Find circumstances	A flat axe piece was found while metal-detecting in 2013 on cultivated land.
Reference(s)	Knight et al. 2015, 55, No.273, Pl.14; PAS DEV-892904.

Object Type and Description	Flat axe (Class 4) This is the lower blade of a broad flat axe, with diverging sides and a curved cutting-edge.		
Location	Finder	**Period**	MA IV Aylesford
Completeness	26-50%	**Details**	Lower blade and cutting-edge.
Dimensions (mm)	Uncertain.		
Patina/Corrosion	Green patina, pitted with corrosion.		
Manufacture/Use	Difficult to tell, but probably prepared for use.		
Damage	This axe has broken straight across the middle of the axe in antiquity. There are no associated marks, but the casting appears to be uneven.		

PAS-F132 Maiden Newton

Grid Ref.	SY 59 97	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2007.		
Reference(s)	Knight et al. 2015, 55, No.274; PAS SOM-6D7E72.		

Object Type and Description	Socketed axe – type uncertain. This is the lower blade of a thin socketed axe with straight expanding sides and a straight cutting-edge. It is possible this belongs to a Type Portland axe. The patina appears to be slightly silvery, which would support this.		
Location	Finder	**Period**	Late Bronze Age-Early Iron Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.32.3; Bl.W.32.9; Wt.12.8g.		
Patina/Corrosion	Murky green, possibly silvery patina.		
Manufacture/Use	Difficult to tell, but the axe appears to be unprepared, with the remains of casting seams still visible down the sides.		
Damage	This axe has broken unevenly across the lower body, above the socket aperture, in antiquity. There are no associated marks or casting flaws. **Breakage**: Th.8.6.		

PAS-F133 Milborne St. Andrew II

Grid Ref.	SY 79 96	**Altitude (m)**	104
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A gold ring was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS DOR-0A6139, 2015 T809.		

Object Type and Description	Gold ring-money. This is a small gold penannular ring with striped banding. It has a circular section and the terminal ends are flat.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Diam.Ext.15.69x14.96; Th.5.36; Wt.10.3g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F134 Minterne Magna

Grid Ref.	ST 65 04	**Altitude (m)**	161
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A dirk fragment was found while metal-detecting in 2003 on cultivated land.		
Reference(s)	Knight et al. 2015, 56, No.279, Pl.26; PAS SOMDOR1737.		
Additional Notes	This object is only drawn – there is no photo.		

Object Type and Description	Dirk? This is an upper blade piece of a narrow blade with a notched hilt tang. It is considered a dirk on the PAS record.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	26-50%	**Details**	Upper blade.
Dimensions (mm)	L.42.77; W.17.81; Th.3.05; Wt.8.61g.		
Patina/Corrosion	Unknown.		
Manufacture/Use	Difficult to tell.		
Damage	This blade has broken across the upper blade, possibly in antiquity. The drawing does not depict any associated marks or casting flaws.		

PAS-F135 Nether Compton

Grid Ref.	ST 60 16	**Altitude (m)**	48
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A razor was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 56, No.281, Pl.29; PAS SOMDOR-123F91.		

Object Type and Description	Ha C razor. This is a crescent shaped single-edged blade with a thicker back edge, tapering to a thinner cutting-edge. There is a hole in each corner of this back edge. This razor is typically of Hallstatt C and can be considered to straddle the Late Bronze Age-Early Iron Age period.		
Location	Finder	**Period**	Late Bronze Age-Early Iron Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.21.95; W.61.86; Th.2.95; Wt.14.31g.		
Patina/Corrosion	Dark brown patina, pitted with corrosion.		
Manufacture/Use	Prepared and used. The blade has been sharpened and is abraded, partly by corrosion, but some of the damage could be use-related.		
Damage	None.		

PAS-F136 Near Poole, Lytchett Minster and Upton

Grid Ref.	SY 96 94	**Altitude (m)**	24
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 61, No.338, Pl.18; PAS DOR-27AD88.		

Object Type and Description	Gr.I palstave. This is an unlooped palstave with high flanges that rise from the butt above the height of the stop and descend to the blade. There is a shallow depression below a sub-rectangular stop. The blade is broad

	and very crescentic, leading Dr. Dot Boughton to suggest it may have Continental affinities. It appears to be an earlier form.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.126.09; Bl.W.54.29; Wt.537g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared.		
Damage	None.		

PAS-F137 Near Sherborne, Castleton

Grid Ref.	ST 64 16	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A torc fragment was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Burnett 2013, 194; Knight et al. 2015, 57, No.291, Pl.26; PAS SOM-5E0AB6.		

Object Type and Description	Ribbon twisted torc. This is a fragment of a copper alloy twisted ribbon, bent into a crescent forming part of a neck ring or bracelet.		
Location	Finder	**Period**	Taunton
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.64.8; W.8; Th.2; Wt.8.28g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Prepared and possibly used. This ribbon has been twisted and bent into shape, presumably for use.		
Damage	This fragment has broken at both ends across the ribbon twists in antiquity. There are no associated marks or casting flaws.		

PAS-F138 Okeford Fitzpaine

Grid Ref.	ST 80 13	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 56, No.282; PAS SOMDOR-E38574.		

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of a sword, with a biconvex section, though no evidence of bevelled edges.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.44.9; W.26.9; Th.5.9; Wt.32.3g.		
Patina/Corrosion	Mid-dark green patina in patches, with corrosion causing surface delamination.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This sword has broken at both ends in antiquity, with consistent patination, and the overall piece is transversely bowed slightly.		

PAS-F139 Osmington

Grid Ref.	SY 72 83	**Altitude (m)**	53
☑ Dryland	☐ Wetland	☐ Uncertain	

Find circumstances	A gold ring was found while metal-detecting in 2015 on cultivated land.
Reference(s)	PAS DOR-18E227, 2013 T383.

Object Type and Description	Gold ring-money. This is a small gold penannular ring with striped banding. It has a circular section and the terminal ends are flat.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Diam.Ext.19.02x17.08; Th.6.45; Wt.9.6g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F140 Overcompton

Grid Ref.	ST 59 16	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two socketed axe fragments were found nearby while metal-detecting in 2007. It is suggested that although they do not refit, they may have been part of the same axehead.		
Reference(s)	Knight et al. 2015, 56, No.283; PAS SOM-6D0A27.		

PAS-F140a

Object Type and Description	Socketed axe – type uncertain. This is a socket mouth and corner fragment of a socketed axe with a double moulded collar, with a thicker upper moulding. There is no evidence for any ribs.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Socket fragment.
Dimensions (mm)	L.42.3; W.28.5; Th.5.4; Wt.27.7g.		
Patina/Corrosion	Olive green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, though the socket mouth appears to have been prepared.		
Damage	This is a socket and rim fragment broken down two edges in antiquity. There are no associated marks or casting flaws.		

PAS-F140b

Object Type and Description	Socketed axe – type uncertain. This is a body fragment of a socketed axe, with a single rib visible. It has a similar thickness, patina and condition, which leads Ben Roberts to suggest it was one part of the same axe as PAS-F140a.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Body fragment.
Dimensions (mm)	L.21.1; W.20.1; Th.4.1; Wt.5.7g.		
Patina/Corrosion	Olive green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a body fragment of one face of a socketed axe, broken on all edges in antiquity. There are no associated marks or casting flaws.		

PAS-F141 Owermoigne

Grid Ref.	SY 76 85	**Altitude (m)**	66
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A dagger was found while metal-detecting in 2016.		
Reference(s)	PAS DOR-E5B0C6.		

Object Type and Description	Camerton-Snowshill dagger (Series 5D) This is an incomplete dagger with a curved heel and a row of four rivet holes following the heel curve with two either side of the centre. Three of the four holes are intact and the two central holes contain rivets *in situ*. There is an omega-shaped hilt mark and three parallel lateral grooves extend down the blade either side of a pointillé decorated midrib.		
Location	Finder	**Period**	MA VI Arreton
Completeness	51-75%	**Details**	Lower blade missing and damage to the heel.
Dimensions (mm)	L.100.05; H.W.50.9; Wt.97.95g.		
Patina/Corrosion	Olive green patina, with extensive green corrosion build-up.		
Manufacture/Use	Prepared and used. The dagger was carefully decorated and presumably prepared for use, with the rivets and hilt mark indicating it was either deposited with a handle or the handle was removed before deposition.		
Damage	This dagger has broken across the middle of the blade in antiquity so the lower blade and tip are absent. Also, one corner of the heel has fragmented away. There are no associated marks visible, but the extensive corrosion down one side likely affected the fragmentation of the heel. Without viewing the blade breakage, it is unclear what was the effect of this.		

PAS-F142 Piddletrenthide

Grid Ref.	ST 73 00	**Altitude (m)**	142
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A knife fragment was found while metal-detecting in 2005 on cultivated land.		
Reference(s)	Knight et al. 2015, 56, No.285, Pl.30; PAS SOMDOR-FFE225.		

Object Type and Description	Hog-back knife. This is a roughly triangular tip fragment of a triangular, perforated knife (commonly called a hog-back knife). The remains of a central perforation are present in the form of a notch.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.31.31; Th.6.47; Wt.15.99g.		
Patina/Corrosion	Dark green patina with green corrosion build-up.		
Manufacture/Use	Prepared and possibly used. The edges are bevelled and were likely worked. There is little evidence of use-damage, but the knife was probably used and may have broken through usage.		
Damage	This is a fragment of one of the three tips of a hog-back knife, broken through the central perforation and two of the edges in antiquity. There are no associated marks or casting flaws.		

PAS-F143 Portesham I

Grid Ref.	SY 61 86	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl was found while metal-detecting in 2003.		
Reference(s)	Knight et al. 2015, 56, No.287, Pl.29; PAS SOM-B251B3.		

Object Type and Description	Single-pointed awl. This is a rectangular section copper alloy bar, which tapers to a flat tang at one end and a conical point at the other.		
Location	Finder	**Period**	Middle-Late Bronze Age

Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.51.2; W.6.2; Th.4.9; Wt.5.1g.		
Patina/Corrosion	Brown patina/corrosion.		
Manufacture/Use	Prepared and possibly used. The point is very worn and rounded, indicating extensive use.		
Damage	None.		

PAS-F144 Portesham II

Grid Ref.	SY 63 86	**Altitude (m)**	172
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	Two refitting pieces of spearhead were found at different times while metal-detecting in 2016 on cultivated land. One piece has been treated by the finder and thus the patina is different.		
Reference(s)	PAS DOR-9A6EE6.		

Object Type and Description	Side-looped spearhead (Type 6) This is an incomplete spearhead in two refitting pieces, with a circular conical socket, tapering to a leaf or flame-shaped blade. Narrow lozenge-plate side-loops are situated about halfway along the socket.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	In two refitting pieces; damage to blade wings and socket.
Dimensions (mm)	L.139.68; W.22.04; Wt.85.67g.		
Patina/Corrosion	Dark green patina on the socket piece, while pale brown patina on the upper piece, with patches of light green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared, and it is possible that some of the damage to the blade wings is use related. There is a large hole in one face of the socket, which could be a casting flaw, though see below.		
Damage	The spearhead has broken into two refitting pieces in antiquity across the blade-socket junction, which is the narrowest part of the spearhead. There are no associated marks in close proximity to the break, and there is no photo of the break to assess casting flaws. The socket mouth has also suffered uneven fragmentation, and the blade edges are heavily deteriorated. The socket also has a hole in one face, which could be a casting flaw, but there is also a crack extending around the socket, suggesting this may have been damage inflicted later.		

PAS-F145 Powerstock

Grid Ref.	SY 73 84	**Altitude (m)**	108
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A torc fragment was found while metal-detecting in 2014.		
Reference(s)	PAS DOR-FACB19, 2014 T494.		

Object Type and Description	Flange-twisted torc. This is a small mid-section fragment of a gold, flange-twisted torc or bracelet, with three or four flanges.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Cut at both ends.
Dimensions (mm)	L.26.26; W.9.78; Th.8.71; Wt.6.34g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Prepared and possibly used.		

Damage	This is a mid-section piece of torc, which has been deliberately cut at both ends. One end in particular is compressed shows a possible chisel mark.

PAS-F146 Poxwell

Grid Ref.	SY 73 84	**Altitude (m)**	108
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A gold ring was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS DOR-F80E39.		

Object Type and Description	Gold ring-money. This is a small gold penannular ring with three broad bands of paler silver rich gold on the inner edge. It has a circular section and the terminal ends are flat.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Diam.Ext.19.1x17.91; Th.6.06; Wt.8.8g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F147 Rampisham

Grid Ref.	ST 55 02	**Altitude (m)**	144
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2016.		
Reference(s)	PAS DOR-28154A.		

Object Type and Description	Arreton axe (Class 5C?) This is a flanged axe with a long hafting end and straight diverging sides. The butt is rounded with low flanges extending to the expansion of the blade to a broad crescentic cutting-edge.		
Location	Finder	**Period**	MA VI Arreton
Completeness	100%	**Details**	Complete but worn.
Dimensions (mm)	L.96.19; Bl.W.43.64; Th.11.4; B.W.22; Wt.131.04g.		
Patina/Corrosion	Green patina, some surface pitting.		
Manufacture/Use	Prepared and used. The casting material has been removed and prepared, and the cutting-edge is asymmetrical, indicating it has been resharpened and reworked. There is no further evidence of use however.		
Damage	None.		

PAS-F148 Shillingstone

Grid Ref.	ST 84 09	**Altitude (m)**	132
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Two rapiers were found at the same farm prior to 2003, though the finder is now deceased and exact details are not known.		
Reference(s)	PAS WILT-8CBFA4.		

PAS-F148a

Object Type and Description	Gr.III rapier.

	This is a fragmentary rapier in six refitting pieces, with a long slender lozenge-section blade and an incomplete trapezoidal hilt with the remains of two notches. The fragments are labelled F148a.1-6, starting with the hilt fragment and ending with the tip fragment.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Mostly complete but in six refitting fragments.
Dimensions (mm)	F148a.1: Sh.W.63.47 – further details not given. F148a.2: L.129.16; W.20.77; Th.7.37. F148a.3: L.77.64; W.16.92; Th.6.51. F148a.4: L.41; W.13.07; Th.5.43. F148a.5: L.15.28; W.11.05; Th.5.15. F148a.6: L.46.45; W.11.67; Th.5.19.		
Patina/Corrosion	Smooth dark green patina on one face and heavily pitted rough Dark green patina on opposite face.		
Manufacture/Use	Prepared and possibly used. The presence of rivets indicates the rapier was hafted, while the surviving blade edges appear to show signs of hammering and bevelling. Although there is extensive abrasion along the rapier edges, there appears to be several notches and chips that could be use-related.		
Damage	This rapier has broken into six refitting fragments, which is a combination of post-depositional processes and intent causing fragmentation. Only two breakages are noted as “old”, but it is not qualified what this means exactly. Here it is considered this refers to ancient breaks. Additionally, the blade edges have been damaged, probably as a result of post-depositional processes, and the tip is deformed. Only the damage that is not the result of corrosion is noted here. **Deformed tip**: The tip of the rapier has a slightly longitudinal bend (c.5 degrees) and the edges are very unevenly, as though serrated. The exact details are unclear, as is the cause, but it could be the result of burning or deformation during use or breakage. **F148.2-3 Breakage**: The rapier has broken across the upper blade in antiquity, which is possibly deliberate. Fragment F148.2 is transversely curved along its length, which is likely linked to the breakage. **F148.5-6 Breakage**: W.11.67; Th.5.19. This is a break across the lower blade, separating the tip from the rest of the rapier. There are no apparent associated marks, but it is described as being an “old break”.		

PAS-F148b

Object Type and Description	Gr.III rapier. This is a fragmentary lower blade and tip of rapier in three refitting pieces, with a long slender blade. The blade has a prominent midrib with two flanking ribs, and a broadly lozenge-shaped section. The fragments are labelled F148b.1-3, starting with the mid-blade fragment and ending with the tip fragment.		
Location	Finder	**Period**	Taunton-Penard
Completeness	26-50%	**Details**	Lower blade in three refitting fragments.
Dimensions (mm)	F148b.1: L.131.72; W.23.34; Th.7.29. F148b.2: L.135.66; W.21.17; Th.7.11. F148b.3: L.156.65; W.23.36; Th.11.86.		
Patina/Corrosion	Smooth dark green patina on one face and heavily pitted rough Dark green patina on opposite face.		
Manufacture/Use	Prepared and possibly used. The presence of rivets indicates the rapier was hafted, though the lack of a hilt indicates caution should be taken with this assessment. The surviving blade edges appear to		

	show signs of hammering and bevelling, and there appears to be several notches and chips that could be use-related.
Damage	The rapier has broken into a minimum of four fragments, three of which surviving and are refitting. A photo of the uppermost breaks shows it is consistently patinated indicating it occurred in antiquity, though there are no associated marks or casting flaws. Only one of the breaks (F148b.2-3) is described as deliberate, while the other seems to be attributed to post-depositional or post-recovery processes. **F148b.2-3 Breakage**: The rapier has broken across the lower blade, separating the tip from the blade. The PAS records notes that the blade has "bent out of shape and snapped" at this point, indicating possible intent.

PAS-F148c

Object Type and Description	6 rivets. Six rivets survive loose with the rapiers, though it is unclear to which rapier they originally belonged. The rivet are cylindrical plug rivets, with hammered ends.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	One broken, five complete.
Dimensions (mm)	Max L.21.44; Max.Diam.19.21.		
Patina/Corrosion	Dark green and brown patina.		
Manufacture/Use	Prepared and used. These rivets were presumably used for securing hafts onto the rapiers.		
Damage	One small rivet has an uneven ancient break at its terminal, but no further details are provided. It is likely this is use-related.		

PAS-F149 Sixpenny Handley

Grid Ref.	ST 96 14	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A gold sheet fragment was found by chance in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 57, No.292; PAS SOMDOR-635644, 2006 T514.		

Object Type and Description	Gold ornament. This is a small fragment of gold sheet, shaped into a tongue-shaped terminal at one end and torn at the other. Towards the end of the terminal, an off-centre perforation has been made, pushed through from one side. It might have originally been part of a pendant of clothing adornment. Although exact parallels are difficult to identify, the composition and overall form is conducive with a Bronze Age date.		
Location	DCM 2009.137	**Period**	Bronze Age
Completeness	0-25%	**Details**	Heavily deformed and torn at one end.
Dimensions (mm)	L.38.4; W.10.5; Th.0.5; Wt.1.63g.		
Patina/Corrosion	Dull gold.		
Manufacture/Use	Difficult to tell due to poor condition, but the perforation indicates it was prepared and used.		
Damage	This is a fragment of a larger sheet gold ornament, which has been torn at one end and the overall piece is crumpled and bent. There is also material loss and deformation to the long sides. It is likely that much of this damage was caused post-deposition (e.g. soil warping, plough damage), but it is possible some was deliberate in antiquity.		

PAS-F150 Stinsford I

Grid Ref.	SY 70 93	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting in 2012.		
Reference(s)	Knight et al. 2015, 58, No.303, Pl.23; PAS DOR-A1DEC8.		

Object Type and Description	Type Blandford axe. This is a faceted socketed axe with eight facets and a circular socket. Around the socket mouth is a double collar moulding, with a thicker upper moulding and thinner lower moulding, from which a side-loop originates. There is a faint midrib extending down about three quarters of the axe, and a flanking rib on either side following the lines of the facets. The axe gently expands to a straight cutting-edge.		
Location	Finder	**Period**	Llyn Fawr
Completeness	100%	**Details**	Complete, but damage on one face.
Dimensions (mm)	L.108.03; Bl.53.1; Wt.146.83g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	As-cast. The axe shows no signs of worked and there are two sprue stumps surviving on the socket.		
Damage	The axe is complete and largely undamaged apart from a circular cracked depression on one face towards the cutting-edge. This is almost certainly post-depositional or recovery damage.		

PAS-F151 Stinsford II

Grid Ref.	SY 72 93	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2012.		
Reference(s)	PAS DOR-A21C97.		

Object Type and Description	Plain pegged spearhead (Type 11A) This is a flame-shaped spearhead with a pegged circular socket. The midrib of the spearhead is circular.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	Minor socket damage.
Dimensions (mm)	L.128.55; Bl.W.30.10; Wt.77.18g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared and the blade wings have possibly been hammered and worked. There are at least three nicks or chips in the blade wings (two on one side, one on the other), which potentially indicate use. The PAS record also notes a dent at the base of the wings, which is difficult to observe on the photos. This could also be use-related, or possibly post-depositional damage.		
Damage	This spearhead is largely undamaged apart from some minor material loss at the socket. There are no associated marks or casting flaws.		

PAS-F152 Sturminster Marshall I

Grid Ref.	SY 93 99	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An axe fragment was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	Knight et al. 2015, 58, No.304; PAS HAMP-3D44F6.		

Object Type and Description	Axe – poss. palstave. This is a corroded roughly rectangular copper alloy fragment, with the possible beginnings of flanges at the sides, suggesting this might be a palstave butt fragment.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Fragment.
Dimensions (mm)	L.26.5; W.20; Th.6.55; Wt.13.92g.		
Patina/Corrosion	Light green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This fragment has broken from a larger object in antiquity. There are no associated marks or casting flaws.		

PAS-F153 Sturminster Marshall II

Grid Ref.	SY 93 99	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	Knight et al. 2015, 58, No.305, Pl.24; PAS HAMP-3CA7C5.		

Object Type and Description	Socketed axe – poss. South-eastern or Type Welby. This is the lower blade of a socketed axe, with a crescentic cutting-edge with flared tips. It is indicative of a South-eastern or Welby type.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.59.7; Bl.W.28.9; Wt.64.41g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the cutting-edge seems to have been worked and there are small chips in the edge, which could be use-related.		
Damage	This is the lower blade of a socketed axe, broken at the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: Th.14.4.		

PAS-F154 Sturminster Newton

Grid Ref.	ST 76 15	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS SOM-6BBF8D.		

Object Type and Description	Blade – type uncertain. This is a narrow double-edged mid-blade fragment, tapering to one end, indicating it is from the lower blade of an implement, towards the tip. The blade has a biconvex cross-section. It seems most likely to be from a sword blade or possibly a rapier.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.31; W.13.8; Th.3.3; Wt.5.51g.		
Patina/Corrosion	Mottled brown patina, pitted with green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a mid-blade fragment broken at both ends in antiquity. There are no associated marks or casting flaws.		

PAS-F155 Tarrant Hinton I

Grid Ref.	SY 72 83	**Altitude (m)**	53
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A gold ring was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	Knight et al. 2015, 57-58, No.302, Pl.26; PAS DOR-D914C7, 2013 T229.		

Object Type and Description	Gold ring-money. This is a small gold penannular ring with striped banding or gold and silver-rich gold. It has a circular section and the terminal ends are flat.		
Location	DCM 2013.46	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Diam.Ext.16.53x17.23; Th.5.99; Wt.8g.		
Patina/Corrosion	Dull gold.		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F156 Tarrant Hinton II

Grid Ref.	ST 93 11*	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2009.		
Reference(s)	Knight et al. 2015, 58, No.306, Pl.26; PAS DOR-3B9600.		

Object Type and Description	Blade – type uncertain. This is an irregular quadrangular fragment of a blade, with a pronounced angular edge, which might be the shoulder of a hilt. Below this potential shoulder is a bevelled edge. The opposite edge is fragmented. It is possible this is part of a trapezoidal hilt of a dirk.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Blade fragment.
Dimensions (mm)	L.42.81; W.22.40; Th.2.06; Wt.6.98g.		
Patina/Corrosion	Dark grey/black patina with patches of light green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, though there appears to have been deliberate working of the blade.		
Damage	This is a blade fragment, broken at both ends and along one long edge. Along the long edge is an area of deliberate flattening, with a small notch below this, which could be related to the breakage.		

PAS-F157 Tarrant Hinton III

Grid Ref.	ST 93 10	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl/punch was found while metal-detecting in 2012-2013 less than 25cm below the surface on cultivated land.		
Reference(s)	Knight et al. 2015, 58, No.307, Pl.30; PAS HAMP-19D7F2.		

Object Type and Description	Awl/punch. This is a conical point with an inset circular tang at its base; it probably represents an awl or punch. The object lacks analogues from South West England at present, but probably dates to the Late Bronze Age.		
Location	Finder	**Period**	Late Bronze Age?

Completeness	76-99%	**Details**	Tang broken.
Dimensions (mm)	L.43.77; W.8.12; Th.6.62; Wt.8.02g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and used. The point is quite rounded and worn, suggesting extensive use.		
Damage	The tang has broken off in antiquity, leaving only a short stump at the base of the point. There are no associated marks or casting flaws.		

PAS-F158 Tarrant Hinton IV

Grid Ref.	ST 91 11	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Two refitting pieces of a palstave were found while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 58, Nos.308, 309; PAS DOR-96BD97.		

Object Type and Description	Transitional palstave. This is a narrow-bladed, looped palstave in two refitting pieces, with the remains of low flanges rising to the stop. The blade expands to a curved cutting-edge and there is no adornment on either face. The remains of a side-loop overlap a sub-rectangular stop.		
Location	Finder	**Period**	Penard
Completeness	51-75%	**Details**	Broken above the stop in two refitting pieces; damage to blade and butt.
Dimensions (mm)	L.139; Bl.W.32; Wt.298g.		
Patina/Corrosion	Mottled green and grey corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, but it seems the casting material has been prepared.		
Damage	This palstave has broken into two refitting pieces in antiquity through the flanges, septum and side-loop, above the stop. Furthermore, the flanges have largely fragmented away and the palstave has suffered material loss at the butt and the lower blade. The refitting break is described as “worn and abraded”, suggesting it is antiquated and the other damages appear to be consistently corroded and likely represent a combination of ancient damage exaggerated by post-depositional processes. There are no associated marks or visible casting flaws.		

PAS-F159 Tarrant Hinton V

Grid Ref.	ST 93 11*	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A copper alloy bar was found while metal-detecting in 2009.		
Reference(s)	PAS DOR-35BD00.		

Object Type and Description	Bar chisel. This is a narrow copper alloy bar with a sub-square section, tapering and flattening to one end, forming a chisel-like form.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.37.17; W.4.86; Th.4.16; Wt.3.67g.		
Patina/Corrosion	Mottled green and brown patina.		
Manufacture/Use	Prepared and possibly used. The chisel end appears worn.		
Damage	None.		

PAS-F160 Tarrant Hinton VI

Grid Ref.	ST 93 10	Altitude (m)	72
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An axe fragment was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS BH-834EB6.		

Object Type and Description	Flanged axe or palstave. This is a rounded butt fragment of a flanged axe or palstave. The beginnings of flanges rise gently from the butt end, but the fragment is too small to determine if they rise to full flanges like those seem on palstave, or whether they remain low and form part of a flanged axe such as an Arreton axe.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.24; W.27.2; Th.8.8; Wt.16.82g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	The butt has broken away from a flanged axe in antiquity, though the corrosion obscures evidence of associated marks or casting flaws.		

PAS-F161 Tarrant Monkton II

Grid Ref.	ST 93 08*	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2007.		
Reference(s)	PAS DOR-C0AF45.		

Object Type and Description	Tanged and collared chisel. This is an incomplete chisel with the remains of triangular blade, set below a biconical moulding; the upper moulding is thicker and forms a collar. Above this is a thick, rectangular section tapering tang.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	Damage to tang and cutting-edge.
Dimensions (mm)	L.35.99; W.11.55; Th.7.36; Wt.5.48g.		
Patina/Corrosion	Green corrosion.		
Manufacture/Use	Difficult to tell due to corrosion and incompleteness.		
Damage	The blade has broken at an angle, removing the cutting-edge in antiquity. The end of the tang has also broken away. There are no associated marks or casting flaws.		

PAS-F162 Tarrant Rawston

Grid Ref.	ST 91 06	Altitude (m)	101
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 58, No.314, Pl.30; PAS DOR-6DF7F6.		

Object Type and Description	Single-pointed awl. This is a rectangular-section copper alloy bar, tapering to a circular point at one end and a flattened tang at the other. There is a short, wide groove on the faces of the tang, which the PAS record suggests indicates the potential use of this object as a gouge.		
Location	Finder	**Period**	Middle-Late Bronze Age

Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.84.49; W.5.7; Th.4.45; Wt.11.25g.		
Patina/Corrosion	Dark green patina pitted with light green corrosion.		
Manufacture/Use	Prepared and possibly used. The point still looks sharp.		
Damage	None.		

PAS-F163 Tarrant Rushton

Grid Ref.	ST 93 04	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2007 less than 25cm below the surface on cultivated land.		
Reference(s)	Knight et al. 2015, 58, No.316, Pl.30; PAS DOR-1AEA74.		

Object Type and Description	Socketed gouge, poss. Thorney Down. This is a socketed gouge with a circular socket tapering to a narrow curved end, with a shallow groove up one face.		
Location	Finder	**Period**	Late Bronze Age-Early Iron Age
Completeness	76-99%	**Details**	Minor socket damage.
Dimensions (mm)	L.52.75; Sock.Diam.Ext.13.16x12.88; Wt,16.7g.		
Patina/Corrosion	Grey/silver patina, with mottled green corrosion.		
Manufacture/Use	Difficult to tell but worked casting seams are visible along each side.		
Damage	There is minor material loss at the socket mouth, but further details of this are unclear.		

PAS-F164 “Tarrant Valley”

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A large lunula piece and a smaller fragment were found while metal-detecting in 2014 on cultivated land. Another terminal fragment, believed to belong to the same lunula was found in 2015, though exact circumstances are not given.		
Reference(s)	Knight et al. 2015, 58-59, No.317, Fig.8; PAS DOR-2198F8, 2014 T257, 2015 T870.		
Additional Notes	The grid reference and parish are protected for this findspot.		

Object Type and Description	Provincial lunula. This is a gold Provincial-type lunula in three pieces, labelled accordingly: F164.1: Large piece, comprising about three quarters of the lunula, including one terminal; F164.2: Small crumpled fragment. F164.3: Terminal fragment. A description of each is provided below: **F164.1**: The terminal is a sub-square, with a pronounced wide midrib, set at a right angle to the lunula. The edges of the crescent body are adorned with three parallel incised grooves, following the shape of the crescentic. The main body is otherwise plain. Towards the surviving terminal is a series of incised bands of decoration, including cross-hatching, transverse lines and triangles. A full description is available on the PAS record. **F164.2**: A small fragment was found during fieldwork on the findspot, which appears to join with F164.1. The triple groove decoration is visible on the outer edge.

	F164.3: This is a terminal fragment and upper crescent of the same style as that seen on F164.1. This fragment is heavily damaged however, making an exact comparison difficult. It does not refit.		
Location	DCM	**Period**	Early Bronze Age
Completeness	76-99%	**Details**	Roughly complete in three pieces, two of which refit.
Dimensions (mm)	F164.1: L.142; Ext.W.180; Band W.46.27; Th.0.3; Terminal L.17.7; Terminal W.18.1; Terminal Th.1; Wt.71.63g. F164.2: L.43.4; W.38.14; Th.0.52; Wt.9.61g. F164.3: L.66.65; W.19.26; Th.0.57; Wt.9.56g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared. This lunula has been carefully decorated and prepared. It was presumably used, but signs of use are not observable.		
Damage	This lunula has broken into three pieces, two of which refit. Piece F164.1 is torn and bent at the break. Fragment F164.2 is torn and folded at both ends and along the inner edge, while Fragment F164.3 is twisted twice, torn and distorted. It is difficult to accurately assess whether the damage inflicted is the result of post-depositional processes (e.g. ploughing) or deliberate damage in the past. It is possible that it is a combination of both. It is difficult to envisage how F164.3 might become twisted twice through industrial processes, nor how F164.2 might be folded. However, without further examination, this damage must be categorised cautiously.		

PAS-F165 Warmwell

Grid Ref.	SY 75 85	**Altitude (m)**	47
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2000.		
Reference(s)	Knight et al. 2015, 60, No.324, Pl.26; PAS SOMDOR1124.		

Object Type and Description	Blade – type uncertain. This is a narrow double-edged mid-blade fragment, tapering towards a broken tip at one end. The blade has a biconvex section, though the midrib is flat. It is probably from a sword or possibly a rapier.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Lower blade fragment.
Dimensions (mm)	L.55.42; W.20.2; Th.3.5.		
Patina/Corrosion	Unknown.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a lower blade fragment broken at both ends, presumably in antiquity. The record describes that the fragment is slightly bent though this is not depicted on the drawing.		

PAS-F166 West Knighton

Grid Ref.	SY 74 89	**Altitude (m)**	64
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2013.		
Reference(s)	Knight et al. 2015, 60, No.325, Pl.26; PAS DOR-B4D511.		

Object Type and Description	Carp's Tongue sword. This is a mid-blade fragment of a double-edged blade with a rounded midrib, flanked by a pair of lateral grooves.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.52.06; W.33.81; Th.8.6; Wt.43.78g.		
Patina/Corrosion	Pale green patina.		

Manufacture/Use	Difficult to tell, but the edges may have been prepared.
Damage	This is a mid-blade fragment, broken at both end in antiquity. There are no associated marks, but in at least one of the breaks, a high degree of porosity can be observed.

PAS-F167 Weymouth III

Grid Ref.	SY 71 83	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A gold ring was found while metal-detecting in 2012.		
Reference(s)	PAS DOR-D93B80, 2012 T684.		
Additional Notes	The findspot is close to the south coast.		

Object Type and Description	Composite ring money. This is a gold-plated penannular ring with a copper alloy core. It has an oval cross-section and narrows slightly towards the flat-ended terminals, of which only one survives undamaged.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	One terminal damaged.
Dimensions (mm)	Diam.Ext.14.4x14.11; Th.4.27; Wt.3.63g.		
Patina/Corrosion	Dull gold.		
Manufacture/Use	Prepared and possibly used.		
Damage	The gold plating at one terminal is compressed and slightly torn. This could easily be linked to post-depositional damage.		

PAS-F168 Weymouth IV

Grid Ref.	SY 66 84	**Altitude (m)**	23
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 1999 on cultivated land.		
Reference(s)	Knight et al. 2015, 60, Pl.26; PAS SOMDOR197.		

Object Type and Description	Spearhead – type uncertain. This is the tip of a spearhead, with a prominent central ridge, creating a lozenge-section. The narrow nature of the tip indicates this may have come from a flame-shaped blade. There are no further diagnostic features.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.33.41; W.15.43; Th.7.22; Wt.8.21g.		
Patina/Corrosion	Unknown.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	The tip of a spearhead has broken off, presumably in antiquity. There are no associated marks or casting flaws depicted on the drawing.		

PAS-F169 Wimborne St. Giles

Grid Ref.	SU 01 18	**Altitude (m)**	114
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A chape was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS DOR-6844E1.		

Object Type and Description	Chape.

	This is a tongue-shaped chape, tapering from a wide biconvex opening, to an oval knob at the base. The knob has a central perforation at the bottom and there is a peg hole through both faces of the chape, which retains a rivet. The rivet is not photographed but apparently retains tinning on the terminals.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.34.45; W.20.22; Wt.9.35g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and used. The casting material has been removed and prepared, and the presence of a rivet indicates it was used.		
Damage	None.		

PAS-F170 Winfrith Newburgh I

Grid Ref.	SY 80 85	**Altitude (m)**	32
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS DOR-A09E8A.		

Object Type and Description	Spearhead – type uncertain. This is the tip of a spearhead, with a prominent central ridge, creating a lozenge-section. The narrow nature of the tip indicates this may have come from a flame-shaped blade. There are no further diagnostic features.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.24.1; W.11.4; Th.7.1; Wt.4.11g.		
Patina/Corrosion	Dark black patina and corrosion pitting.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	The tip of a spearhead has broken off in antiquity. There are no associated marks or casting flaws.		

PAS-F171 Winfrith Newburgh II

Grid Ref.	SY 80 85	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	PAS DOR-F18347.		

Object Type and Description	Tanged and collared chisel. This is a chisel with a square-section tang, tapering to a rounded end, and an oval conical collar. The blade is roughly triangular.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	Damage to cutting-edge.
Dimensions (mm)	L.99.12; W.24.56; Wt.35.32g.		
Patina/Corrosion	Brown patina with patches of green corrosion.		
Manufacture/Use	Prepared and possibly used.		
Damage	The cutting-edge has fragmented, possibly in antiquity, leaving an uneven edge. This might be attributable to use-damage or post-depositional deterioration. There are no associated marks or casting flaws.		

PAS-F172 Winterbourne Steepleton II

Grid Ref.	SY 61 89*	**Altitude (m)**	-

☐ Dryland	☐ Wetland	☑ Uncertain
Find circumstances	A razor was found while metal-detecting in 2008 on cultivated land.	
Reference(s)	Knight et al. 2015, 60, No.332; PAS DOR-7FBCE8.	

Object Type and Description	Racloir triangulaire. This is an incomplete “razor”, which was probably originally triangular. The complete surviving edge is bevelled and thinned, as are the remains of the other two edges. There also appears to be an aperture just above the blade. O’Connor (2008 in DOR-7FBCE8) comments that the edges are still too thick to be considered a razor and thus places it as a racloir triangulaire.		
Location	DCM 2008.48	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Lower piece.
Dimensions (mm)	L.53.65; W.25.33; Th.9.97; Wt.17.75g.		
Patina/Corrosion	Olive green patina.		
Manufacture/Use	Prepared. The edges have been hammered and worked to produce a bevel.		
Damage	This is the lower half of a triangular razor, broken across the middle in antiquity. There are no associated marks or casting flaws.		

PAS-F173 Winterbourne Steepleton III

Grid Ref.	SY 61 90	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2003 on cultivated land.		
Reference(s)	PAS SOMDOR-9A65F5.		
Additional Notes	This fragment and a socketed axe (PAS-F174) were recovered separately from the same field in close proximity. It is uncertain how they relate to each other.		

Object Type and Description	Socketed axe – type uncertain. This is the cutting-edge and lower blade of a socketed axe. The cutting-edge is slightly flaring and curved, and there are the remains of a sub-rectangular socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge.
Dimensions (mm)	L.27.91; Bl.W.40.01; Wt.31.08g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the casting seams appear to have been worked and prepared. The cutting-edge is worn and slightly asymmetrical, but it is difficult to attribute this to use rather than post-depositional processes.		
Damage	The socketed axe has broken across the blade, just above the socket aperture in antiquity, leaving only the cutting-edge and lower blade. There are no associated marks or casting flaws.		

PAS-F174 Winterbourne Steepleton IV

Grid Ref.	SY 61 90	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting in 2003 on cultivated land.		
Reference(s)	PAS SOMDOR-9AC505.		
Additional Notes	See PAS-F173.		

Object Type and Description	Socketed axe – type uncertain. This is a narrow, incomplete socketed axe, with a rectangular section, and a slightly flaring curved cutting-edge. There is the lower half of a raised V-rib on the surviving upper body, presumably extending from the socket moulding.		
Location	Finder	**Period**	Late Bronze Age
Completeness	51-75%	**Details**	Lower body, broken across the upper body.
Dimensions (mm)	L.71.04; W.35.51; Wt.97.34g.		
Patina/Corrosion	Mottled brown/grey patina.		
Manufacture/Use	Prepared. The casting material has been prepared and largely removed, but further signs of preparation or use and difficult to identify.		
Damage	This axe has broken across the upper body in antiquity, leaving the lower body and cutting-edge. The break is uneven, with a series of large step fractures visible, but there are no associated marks or visible casting flaws.		

PAS-F175 Woodlands

Grid Ref.	SU 02 10	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A tanged knife was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	PAS SUR-608AC8.		

Object Type and Description	Tanged knife. This is an incomplete double-edged blade that tapers in to a straight, sub-rectangular tang. The overall object is quite thin.		
Location	Finder	**Period**	Late Bronze Age
Completeness	51-75%	**Details**	Upper blade and tang.
Dimensions (mm)	L.101.9; W.21.9; Th.2.53; Tang Th.1.24; Wt.24.92g.		
Patina/Corrosion	Bronze patina.		
Manufacture/Use	Prepared. There are no signs of use.		
Damage	This knife has broken across the middle of the blade, presumably in antiquity. The break has a slightly transverse bend associated, but no other marks.		

PAS-F176 East Dorset I

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A gold band was found while metal-detecting in 2014 on cultivated land. It was found about 6 inches down in the topsoil. The gold band was found folded/rolled up in the ground and was unrolled upon discovery and then rolled up again before it was presented to the FLO.		
Reference(s)	PAS DOR-52C762, 2014 T256.		
Additional Notes	The exact findspot and parish is known, but is protected.		

Object Type and Description	Gold band. This is an incomplete plain gold band with a tapering unperforated terminal at one end. The band has been folded over itself four times.		
Location	Finder	**Period**	Bronze Age
Completeness	Uncertain	**Details**	Broken across one end.
Dimensions (mm)	L.61; W.5.5; Th.0.25; Terminal W.3; Wt.3g.		
Patina/Corrosion	Gold.		
Manufacture/Use	Difficult to tell.		

Damage	This band has broken at one end in antiquity, possibly deliberately, and rolled prior to deposition.

PAS-F177 East Dorset II

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A tanged blade was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS DOR-FCCD7E.		
Additional Notes	The exact findspot and parish is known, but is protected.		

Object Type and Description	Tanged knife/dagger. This is a copper thin, complete triangular blade, tapering to a point at one end, but expanding to rounded shoulders at the other, which taper in to a slender tang with a rounded terminal. The blade has a rectangular cross-section and there is curved hilt mark near the tang.		
Location	Finder	**Period**	MA I/II
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.93.02; W.21.09; Th.1.37; Wt.8.93g.		
Patina/Corrosion	Pale green corrosion.		
Manufacture/Use	Prepared. The hilt mark indicates this object was handled and possibly used in antiquity.		
Damage	None.		

PAS-F178 North Dorset

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A pin was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 59, No.318, Pl.26; PAS SOMDOR-839ED2.		
Additional Notes	The exact findspot and parish is known, but is protected.		

Object Type and Description	Quoit-headed pin. This is an incomplete quoit-headed pin, with a circular section tapering shaft, and a lozenge-section ring head. Neither the shaft, nor the ring are complete. The following decoration is recorded on the pin: “The proximal end of the shaft and the remaining parts of the head are decorated with lateral incised lines front and back and also around the exterior pointed face of the head. The lines are longer on the shaft and where the shaft and head and here are range in two lines (one on each side) angled inwards to form a chevron pointing away from the head (the design is repeated front and back). On the head the lines are short and cut across the points of the lozenge shaped cross section.”		
Location	Finder	**Period**	Taunton
Completeness	51-75%	**Details**	Ring and shaft broken.
Dimensions (mm)	L.149.76; W.29.57; Wt.25.34g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used. The pin has been neatly decorated and was probably used.		
Damage	About two thirds of the ring head has broken away in antiquity, as has the lower shaft and point. There are no associated marks or visible casting flaws with the ring breakage, but the shaft is bent at the point of breakage, indicating this was linked. **Ring Breakage**: W.3.37; Th.4.45. **Shaft Breakage**: W.4.5.		

PAS-F179 West Dorset (Bradford Peverell)

Grid Ref.	-	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A torc fragment was found while metal-detecting in 2003.		
Reference(s)	Knight et al. 2015, 48, No.208; PAS DOR-324B57, 2003 T19; Treasure Annual Report 2003, 17, No.3, Fig.3.		
Additional Notes	The findspot is known as “West Dorset”, though the findspot has also been published as “Bradford Peverell”.		

Object Type and Description	Yeovil-type torc. This is a fragment of a four-flange twisted gold bar, broken across the middle of the torc at one end, and across the plain terminal at the other.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Broken and folded.
Dimensions (mm)	L.24; Th.8; Terminal Th.5; Wt.12.95g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared and possibly used.		
Damage	This fragment has been broken from a larger torc in antiquity and the surviving terminal has also broken off. The surviving fragment has been folded over so the broken ends meet. There are no associated marks or casting flaws.		

PAS-F180 Dorset VI

Grid Ref.	-	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS DOR-98A038.		
Additional Notes	The exact findspot and parish is known, but is protected.		

Object Type and Description	Thorney Down socketed gouge. This is a socketed gouge with a circular socket tapering to a narrow curved end, with a shallow groove up one face.		
Location	Finder	**Period**	Llyn Fawr
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.45.6; Sock.Diam.Ext.12.2x10.7; Wt.16.44g.		
Patina/Corrosion	Dark grey/green patina with pale green corrosion.		
Manufacture/Use	Uncertain? Possibly as-cast.		
Damage	None.		

PAS-F181 Dorset VII

Grid Ref.	-	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chape was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS DOR-BD9AED.		
Additional Notes	The exact findspot and parish is known, but is protected.		

Object Type and Description	Bag-shaped chape. This is a bag-shaped chape with an oval opening, concave sides and rounded base. There is a perforation through each face, each of

	which still retains a small rivet. The perforations are decorated with ten concentric circles.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.36.16; W.16.94; Th.12.5; Wt.15.97g.		
Patina/Corrosion	Grey patina.		
Manufacture/Use	Prepared and used. The casting material has been removed and prepared, and the piece has been carefully decorated. The rivets *in situ* indicate it was used.		
Damage	None.		

PAS-F182 Dorset VIII

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An anvil was found while metal-detecting in 2015 deeper than 25cm below the surface on cultivated land.		
Reference(s)	PAS PUBLIC-B21001.		
Additional Notes	The exact findspot and parish is known, but is protected.		

Object Type and Description	Complex anvil. This is a complete anvil with “a working face, punching hole, a beak and a lengthy swage”.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Not known.		
Patina/Corrosion	Olive green patina.		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F183 Dorset IX

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl was found in 2009, presumably while metal-detecting, though no find circumstances are given and no further findspot information is provided.		
Reference(s)	PAS DOR-A9EBD3.		

Object Type and Description	Awl. This is a copper alloy bar with a conical point at one end, with at least two or three longitudinal grooves or notches incised into the base of the cone. Below the cone is an inset tang, which has a slight collar before tapering and flattening to a rounded end. Two faces of the tang have been flattened, creating facets.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.37.78; W.4.71; Th.4.51; Wt.2.18g.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Prepared and possibly used. The point is rounded and worn.		
Damage	None.		

PAS-F184 Dorset X

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	

Find circumstances	A palstave was found in 2008, presumably while metal-detecting, though no find circumstances are given and no further findspot information is provided.
Reference(s)	Knight et al. 2015, 59, No.322, Pl.21; PAS DOR-C5DF32.

Object Type and Description	Palstave – poss. Gr.I? This is a small unlooped palstave with high, oval flanges that rise from the septum below the butt and plateau at the height of the stop. The stop is sub-rectangular and the blade is short and thick, with a flared crescentic cutting-edge. There is no adornment on either face. The form of the palstave is unusual, largely because the blade is much shorter and thicker than would normally be expected; it is possible it has been reworked. The overall style is indicative of an early date in the palstave tradition (e.g. Acton Park or Early Taunton).		
Location	Finder	**Period**	Acton Park-Taunton
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.86.13; Bl.W.35.56; Fl.Br.25.09; Wt.159.75g.		
Patina/Corrosion	Black patina, with brown corrosion pitting.		
Manufacture/Use	Prepared and possibly used. The casting material has been largely removed and prepared, while the cutting-edge seems to have been hammered out and probably worked. The edge is slightly asymmetrical, which could indicate wear and resharpening, while the PAS records notes that the flanges on one face appear more worn.		
Damage	None.		

PAS-F185 Dorset XI

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A knife was found in 2001, presumably while metal-detecting, though no find circumstances are given. The finder could not remember the findspot when asked.		
Reference(s)	Knight et al. 2015, 61, No.344, Pl.29; PAS SOMDOR-A082F6.		

Object Type and Description	Tanged knife. This is a thin double-edged blade that tapers down from a sub-rectangular tang. The blade appears to have a narrow flat midrib along both faces, and narrows to a rounded end.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.141.15; W.21.87; Th.3.9; Tang L.22.5; Tang W.14.22; Wt.49.87g.		
Patina/Corrosion	Dark brown/black patina with green corrosion patches.		
Manufacture/Use	Prepared and possibly used. The blade edges have likely been hammered and prepared, though it is difficult to observe this in the photos. The edges have several nicks and notches along the blade, some of which might be use-related.		
Damage	The knife is complete, but transversely bowed along its length. This could be the result of soil warping due to the thin nature of the blade.		

PAS-F186 Dorset XII

Grid Ref.	-	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead tip was found in 2006, presumably while metal-detecting, though no find circumstances are given and no further findspot information is provided.		
Reference(s)	Knight et al. 2015, 61, No.343; PAS SOMDOR-CA5753.		

Object Type and Description	Spearhead – Type uncertain This is the tip of a spearhead blade with a rounded midrib. The original blade was probably once leaf or flame-shaped, and the spearhead was likely socketed and pegged,		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.29.8; Wt.9.09g.		
Patina/Corrosion	Olive green patina with some green corrosion surface delamination.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is the tip of a spearhead broken across the upper blade in antiquity. There are no associated marks or casting flaws. **Breakage**: W.20.69; Th.6.67.		

B.5 SOMERSET

PAS-F187 Ashill

Grid Ref.	ST 31 16	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An axe fragment was found while metal-detecting in 2009 on grassland/heathland.		
Reference(s)	Knight et al. 2015, 62, No.354; PAS SOM-CA4312.		

Object Type and Description	Socketed axe – type uncertain. This is the cutting-edge and lower blade of a socketed axe. The cutting-edge is slightly curved.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.37.33; Bl.W.34.34; Wt.66.71g.		
Patina/Corrosion	Patches of green patina, but largely delaminated.		
Manufacture/Use	Difficult to tell due to incompleteness and surface delamination, but the casting seams appear to have been prepared. The cutting-edge is worn and there is some minor material loss, but it is difficult to attribute this to use rather than post-depositional processes.		
Damage	The socketed axe has broken across the blade, at the socket aperture in antiquity, leaving only the cutting-edge and lower blade. There are no associated marks or casting flaws. **Breakage**: Th.13.34.		

PAS-F188 Axbridge

Grid Ref.	ST 43 54	**Altitude (m)**	68
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A ring was found while metal-detecting in 2016 on grass/heathland.		
Reference(s)	PAS SOM-36B525.		

Object Type and Description	Double-coiled finger ring. This is a copper alloy bar with an oval cross-section that has been coiled twice into a ring. The bar tapers slightly to plain sub-rectangular terminals.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Ext.Diam.28.48; Int.Diam.19.25; Th.4.27; Wt.23.74g.		
Patina/Corrosion	Dark green patina with occasional pitting.		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F189 Backwell I

Grid Ref.	ST 49 69	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A sickle was found while metal-detecting in 2011 on cultivated land. The sickle is in two refitting pieces, but it is not noted whether the sickle was in two pieces when found.		
Reference(s)	Knight et al. 2015, 71, No.443, Pl.30; PAS GLO-32DD84.		

Object Type and Description	Sickle. This is an incomplete curved sickle blade in two refitting pieces with a thick dorsal ridge and a thin cutting-edge. The blade tapers to a flat end, though it is unclear whether this is deliberate or if the tip has broken off. The back of the sickle is flat, creating a roughly wedge-shaped section. The ridge continues onto the hafting end of the sickle with no sign of a tang or hafting knobs.		
Location	Finder	**Period**	Taunton
Completeness	51-75%	**Details**	Blade in two refitting pieces; material loss at the cutting-edge.
Dimensions (mm)	L.116; W.26.		
Patina/Corrosion	Grey patina with patches of green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and poor photo.		
Damage	This sickle has broken into two refitting pieces, possibly in antiquity, and there is a large semi-circular notch of material loss at the break. It is also possible that the tip has broken off. There are no visible associated marks or casting flaws, but it is difficult to accurately tell from the photos.		

PAS-F190 Backwell II

Grid Ref.	ST 49 70	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A knife was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	PAS GLO-C54785.		

Object Type and Description	Tanged knife. This is a leaf-shaped blade, with narrow angular shoulders and a tang with two side notches. The tang tapers slightly to a rounded butt. The blade appears to have a biconvex or low lozenge-section and narrows to a rounded tip.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	76-99%	**Details**	Damage to blade edges.
Dimensions (mm)	L.134; W.28; Th.4.3; Wt.48.95g.		
Patina/Corrosion	Brown patina with patches of green corrosion.		
Manufacture/Use	Difficult to tell but possibly prepared and used. The damage to the blade edges might in part be related to this, but see below. It has possibly been reworked from an earlier object, such as a dirk or rapier.		
Damage	The knife has suffered post-depositional erosion of the blade edges, and is transversely bent about halfway down the blade (c.5-10 degrees). The bending could also be the result of post-depositional processes or could be linked to use.		

PAS-F191 Backwell III

Grid Ref.	ST 49 70	**Altitude (m)**	17

☐ Dryland	☐ Wetland	☑ Uncertain
Find circumstances	A palstave was found while metal-detecting in 2012 on cultivated land.	
Reference(s)	PAS GLO-1E0845.	

Object Type and Description	Gr.III palstave. This is an unlooped palstave with low lozenge-shaped flanges, rising to a height slightly above the stop ridge before descending to the stop. The stop ridge is sub-rectangular and there is a shallow early shield depression in the upper blade. The blade expands to a broad crescentic cutting-edge. It is difficult to accurately place this palstave, as the decoration suggests an early date (e.g. a Gr.I palstave), though the nature of the flanges is indicative of Gr.III palstaves. It likely dates to the early Taunton period.		
Location	Finder	**Period**	Acton Park-Taunton
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.143; Bl.W.56; Wt.335.5g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been removed and prepared and the lower blade has been heavily bevelled. The cutting-edge is chipped in place, which could be use-related.		
Damage	None.		

PAS-F192 Brewham I

Grid Ref.	ST 74 36	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found by chance near Brewham Lodge.		
Reference(s)	Knight et al. 2015, 63, No.363, Pl.21; PAS SOM-77FCF6.		
Additional Notes	The grid reference is approximate and the details on the PAS are recorded from the photograph only.		

Object Type and Description	Arreton flanged axe (Class 5) This is an incomplete axe with low flanges that extend along the sides and onto the blade as it expands to a crescentic cutting-edge.		
Location	Finder	**Period**	MA VI Arreton
Completeness	76-99%	**Details**	Butt broken.
Dimensions (mm)	L.c.69; W.c.40.		
Patina/Corrosion	Dark brown patina, with pale brown surface delamination and patches of pale green corrosion.		
Manufacture/Use	Prepared and used. It is difficult to tell from the photograph, but the cutting-edge seems heavily worn and asymmetrical indicating extensive use.		
Damage	The butt has broken, possibly in antiquity. There are no associated marks.		

PAS-F193 Brewham II

Grid Ref.	ST 73 32	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 on grass/heathland.		
Reference(s)	Knight et al. 2015, 63, No.364, Pl.19; PAS SOM-EC8867.		
Additional Notes	Three palstaves were found while metal-detecting across several fields (PAS-F193, PAS-F199 and PAS-F200). Although they do not		

	constitute a hoard, they have been flagged up on the PAS record as potentially part of a depositional landscape.

Object Type and Description	Gr.III palstave This is a looped palstave with the remains of low flanges and a broad triangular blade with a curved cutting-edge. The side-loop overlaps a u-shaped stop and the PAS record notes a midrib on both faces, though this is difficult to see in the photos.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Cutting-edge and butt damage; side-loop broken.
Dimensions (mm)	L.136.4; Bl.W.47.8; Wt.284g.		
Patina/Corrosion	Green patina pitted with corrosion.		
Manufacture/Use	Prepared and possibly used. There is a shrinkage hollow in the septum on at least one side and the PAS records other casting hollows. The casting material has been worked and largely removed and the blade has possibly been hammered out and bevelled. It is difficult to ascertain, but some of the edge damage might be use-related.		
Damage	The cutting-edge is uneven and has suffered some material loss, which may be the result of use or post-depositional processes. The butt and side-loop have broken in antiquity.		

PAS-F194 Brewham III

Grid Ref.	ST 71 35	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Knight et al. 2015, 63, No.365, Pl.26; PAS SOM-A2D9D1.		

Object Type and Description	Side-looped spearhead (Gr.6) This is an incomplete spearhead with the remains of two side-loops about halfway along an oval socket. The surviving blade is narrow and was originally quite small, though the original form is uncertain. The blade has a prominent midrib creating a lozenge section.		
Location	Finder	**Period**	Taunton-Penard
Completeness	51-75%	**Details**	Tip and side-loops broken, socket damaged.
Dimensions (mm)	L.55.5; W.12.7; Th.13.2; Wt.12.56g.		
Patina/Corrosion	Dark brown patina with patches of green corrosion and delamination.		
Manufacture/Use	Difficult to tell due to extensive erosion of the object through post-depositional processes, but presumably prepared and used.		
Damage	The tip of this spearhead has broken off and the lower socket has fragmented unevenly. Additionally, the side-loops have broken on both sides, leaving only stumps. There are no associated marks or casting flaws, and the damage has been overall attributed to plough damage. This is supported by the lack of consistent patination.		

PAS-F195 Bristol (Eastville)

Grid Ref.	ST 61 75	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	PAS GLO-DCE180.		

Object Type and Description	Socketed axe – poss. south-eastern. This is a thin socketed axe with an oval socket mouth and a double collar moulding, with a side-loop originating from the lower moulding. The blade is plain and gently expands to a straight cutting-edge. The axe is complete but seemingly mis-cast, making it difficult to identify. It most closely aligns with the south-eastern type.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete, mis-cast.
Dimensions (mm)	L.98; W.39; Sock.Diam.Ext.25x20; Wt.113.04g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	As-cast. This axe has not been worked and has two large casting hollows in one side. The casting flash down each side is also quite pronounced and the blade has not been expanded.		
Damage	None.		

PAS-F196 Carhampton

Grid Ref.	ST 00 43	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An axe fragment was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	Knight et al. 2015, 63, No.369; PAS SOM-163940.		
Additional Notes	This findspot is near the north coast.		

Object Type and Description	Flanged axe or palstave. This is the lower blade of an axe with the remains of low flanges down the sides near the break. The blade is quite broad, indicative of a palstave, though there is no indicator of a stop. The piece is quite abraded, but the cutting-edge appears to have been crescentic.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Lower blade.
Dimensions (mm)	L.33.62; W.35.43; Th.8.5; Wt.30.1g.		
Patina/Corrosion	Brown corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion.		
Damage	This axe has broken across the blade in antiquity, through potentially the thickest part of the axe. Corrosion obscures any potentially associated marks.		

PAS-F197 Charlcombe

Grid Ref.	ST 74 68	**Altitude (m)**	227
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	PAS GLO-E7DB52.		

Object Type and Description	Socketed axe – type uncertain. This is a short, almost bag-shaped, socketed axe with a sub-rectangular socket mouth and a single thick collar moulding. The side-loop is positioned just below the socket mouth on the moulding, and two widely-spaced vertical parallel ribs extend from below the moulding on both faces; there is no evidence of a third rib. The blade quickly flares to a crescentic cutting-edge, which has been heavily bevelled. It is difficult to find parallels for this axe. In many ways it is similar to South Welsh axes, but this axe is much better prepared. It possibly has some affinities with the Yorkshire type, which are comparable in terms of size and widely spaced ribs.

Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.61; W.44.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been prepared and largely removed and the cutting-edge has been heavily hammered and bevelled. There is possible use-damage to the cutting-edge, but this is difficult to tell from the photos.		
Damage	None.		

PAS-F198 Charlton Horethorne

Grid Ref.	ST 68 22	**Altitude (m)**	109
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A knife was found while metal-detecting in 2016.		
Reference(s)	PAS SOM-BCDC68.		

Object Type and Description	Tanged and riveted knife. This is an incomplete tanged and riveted knife with a leaf-shaped blade, with a biconvex section, a square tang with a roughly circular rivet hole, and rounded shoulders.		
Location	Finder	**Period**	Ewart Park
Completeness	76-99%	**Details**	Tip broken.
Dimensions (mm)	L.91.84; Bl.W.18.29; Bl.Th.2.84; Wt.14.03g.		
Patina/Corrosion	Pale brown patina with green corrosion delamination.		
Manufacture/Use	Difficult to tell, but probably prepared and used. The blade edges have suffered extensive erosion, meaning details of use-wear are obscured.		
Damage	The tip has broken and the blade is transversely bent. The blade has suffered transverse bending at the mid-blade (c.8 degrees) and the broken tip is slightly bent and twisted. This could have happened post-deposition due to the thin nature of the blade at this point (0.4mm).		

PAS-F199 Charlton Musgrove I

Grid Ref.	ST 73 32	**Altitude (m)**	-
☐ Dryland	☑ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	Knight et al. 2015, 63, No.372, Pl.18; PAS SOM-F04C95.		
Additional Notes	See PAS-F193. Thick iron pan on the palstave suggests it may have been deposited in a wetland situation.		

Object Type and Description	Gr.III palstave. This is a looped palstave with the remains of low flanges and a broad triangular blade with a curved cutting-edge. The side-loop is positioned above a sub-rectangular stop and there appears to be a shallow depression below the stop on the upper blade. The PAS record notes a low midrib, which is difficult to identify on the photos.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Side-loop broken; flanges fragmentary; butt damage.
Dimensions (mm)	L.134.6; Bl.W.50; St.D.27.1; Wt.266g.		
Patina/Corrosion	Mottled green corrosion.		

Manufacture/Use	Prepared and possibly used. The casting material has been largely removed, and there is a faint bevel present on the blade. However, further signs of working and wear is obscured by corrosion.
Damage	The flanges of this palstave are fragmentary and there is minor material loss at the butt, which occurred in antiquity. The side-loop is also broken, but it is difficult to tell when this occurred.

PAS-F200 Charlton Musgrove II

Grid Ref.	ST 73 32	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	Knight et al. 2015, 63, No.373, Pl.17; PAS SOM-BED917.		
Additional Notes	See PAS-F193.		

Object Type and Description	Gr.III palstave. This is a looped palstave with low flanges rising from the butt to the stop and a broad triangular blade with a curved cutting-edge. The side-loop is positioned above a rectangular stop and there is a shallow depression below the stop on the upper blade on one face.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	One flange fragmentary and broken side-loop.
Dimensions (mm)	L.129.4; Bl.W.39.2; St.D.24.8; Wt.258g.		
Patina/Corrosion	Extensive green corrosion.		
Manufacture/Use	Prepared. The casting material has been prepared and largely removed. It is difficult to identify further signs of use due to corrosion.		
Damage	One flange is fragmentary as result of corrosion, and the side-loop is broken.		

PAS-F201 Chedzoy II

Grid Ref.	ST 33 37	**Altitude (m)**	4
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A sword fragment was found while metal-detecting in 2005 on cultivated land.		
Reference(s)	Knight et al. 2015, 64, No.377, Pl.26; PAS SOMDOR-E6A6F1.		
Additional Notes	Chedzoy is a low-lying wetland area, that was probably marshland during the Bronze Age.		

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of a sword, with a low lozenge-section and a flattened midrib, though no evidence of bevelled edges.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.46.16; W.28.34; Th.5.28; Wt.28.96g.		
Patina/Corrosion	Mid-dark green patina.		
Manufacture/Use	Difficult to tell due to incompleteness. The midrib is quite flat and may have been hammered.		
Damage	This sword has broken at both ends in antiquity, with consistent patination, though no associated marks.		

PAS-F202 Chewton Mendip I

Grid Ref.	ST 60 53	**Altitude (m)**	-
☐	☐	☑	

Dryland	Wetland	Uncertain
Find circumstances	A spearhead tip was found while metal-detecting in 2010 on cultivated land.	
Reference(s)	Knight et al. 2015, 64, No.379; PAS SOM-DCCED7.	

Object Type and Description	Spearhead – type uncertain. This is a tip fragment of a spearhead with a slight midrib, creating a lozenge section. The fragment is quite narrow indicating the original blade may have been flame-shaped.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.27.21; W.15.65; Th.2.87; Wt.3.38g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a tip fragment broken unevenly from the upper blade of a spearhead in antiquity and is now very worn, obscuring any potential casting flaws or associated marks.		

PAS-F203 Chewton Mendip II

Grid Ref.	ST 60 54	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A miniature socketed axe was found while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 64, No.380, Pl.24; PAS GLO-095477.		

Object Type and Description	Miniature socketed axe. This is a small object in a simple form of a socketed axe, with an oval socket and large circular side-loop at the mouth. This object may date between the Late Bronze Age to Romano-British period.		
Location	Finder	**Period**	Uncertain
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.18; W.13; Th.7; Wt.3.11g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and there is a non-copper alloy substance in the socket, which may be part of a hafting system.		
Damage	None.		

PAS-F204 Chilcompton I

Grid Ref.	ST 63 50	**Altitude (m)**	199
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 64, No.381, Pl.28; PAS GLO-FF6DB7.		

Object Type and Description	Side-looped spearhead (Gr.5?) This is a side-looped spearhead with a leaf-shaped blade and the remains of side-loops close to the socket mouth. The socket is circular and extends as a circular midrib onto the blade.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	76-99%	**Details**	Side-loops and tip broken.
Dimensions (mm)	L.116; Bl.W.30; Th.19; Wt.58.82g.		
Patina/Corrosion	Green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed, and above the side-loop on both sides is a small rectangular hole, which is presumably residual from the		

	casting process (e.g. where a pin was inserted to hold the coring in place. Corrosion obscures are features of use-wear.
Damage	The tip has broken off the upper blade, which could be ancient or the result of corrosion. Additionally, both side-loops have broken, leaving only stumps.

PAS-F205 Chilcompton II

Grid Ref.	ST 63 50	**Altitude (m)**	202
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 64, No.382, Pl.26; PAS GLO-FF53F7.		

Object Type and Description	Blade – probably a sword. This is a mid-blade fragment of a double-edged implement, considered to be a knife on the PAS record. The blade has a rounded midrib, flanking by a groove on each side and an overall biconvex section, indicating it is more likely a fragment of sword.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.35; W.26; Th.7; Wt.24.35g.		
Patina/Corrosion	Olive green patina with patches of pale green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This blade has broken at both ends in antiquity, with consistent patination, though no associated marks. There is at least one visible casting flaw in the break.		

PAS-F206 Churchill

Grid Ref.	ST 46 60	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	PAS GLO-E7BBF5.		

Object Type and Description	Palstave, probably Gr.III. This is an unlooped palstave with a broad blade that flares to a crescentic cutting-edge with tips at right angles to the blade. The stop is rectangular and there appears to be shallow side knobs on either side. Below the stop is a shallow sub-triangular depression on the upper blade on one face, and a semi-circular depression on the opposite face. The flanges rise from the septum below the butt, though their exact form is unclear from the photos available. The photos suggest that the flanges were low, though the PAS record notes them as “high”; it should be noted that details of this record were made from an emailed photograph.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.163; W.68.		
Patina/Corrosion	Brown patina with small patches of green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and seemingly removed, and the cutting-edge has probably been hammered out, though signs of this are difficult to tell from the photos. The cutting-edge is very slightly asymmetrical, which could be use-related, but otherwise the cutting-edge looks devoid of nicks and chips.		
Damage	None.		

PAS-F207 Clutton, Cameley

Grid Ref.	ST 62 58	**Altitude (m)**	126
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in or before 2006 on cultivated land.		
Reference(s)	PAS GLO-F4D481.		

Object Type and Description	Gr.III palstave. This is a looped palstave with a broad triangular blade, with a slightly curved cutting-edge. The flanges rise in a convex curve from the septum below the butt to a slight plateau at the height of the stop. The side-loop is positioned below the sub-rectangular stop and there is no evidence of decoration on the blade. The flanges seem to fall within the 'low' classification, but it is difficult judge the exact breadth of the flanges and they could be Gr.IV. The PAS notes the "thickness" of this palstave as 27mm, which likely refers to the thickness of the stop, indicating this is most likely Gr.III.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Flanges fragmentary.
Dimensions (mm)	L.152; Bl.W.51.		
Patina/Corrosion	Dark green corrosion.		
Manufacture/Use	Difficult to tell due to corrosion, but the casting material has been worked and largely removed.		
Damage	This palstave is mostly complete, but the flanges are slightly fragmentary, which is likely a result of corrosion.		

PAS-F208 Compton Dando

Grid Ref.	ST 62 67	**Altitude (m)**	83
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A knife was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS GLO-71F6AF.		

Object Type and Description	Blade – probable knife. This is an incomplete narrow double-edged blade in two refitting pieces. It has a biconvex section with bevelled blade edges. One end tapers towards a broken tip, while the opposite end has broken below any possible hilt or tang. It is likely this was part of a knife.		
Location	Finder	**Period**	Late Bronze Age
Completeness	51-75%	**Details**	Broken blade in two refitting pieces.
Dimensions (mm)	L.110; W.25; Th.4; Wt.48.2g.		
Patina/Corrosion	Green patina with green corrosion abrasion around the edges.		
Manufacture/Use	Difficult to tell due to incompleteness, but possibly preparation indicated by the thinned edges.		
Damage	This blade has broken into multiple pieces, presumably in antiquity. The tip is absent, as is any indication of a hilt or tang. The blade has broken into two refitting pieces across the upper blade. No note is made whether any of these damages are recent or ancient. However, the blade is transversely curved in both directions, creating a wave-like shape. The tip breakage is associated with a slight bend, while the uppermost break has a prominent transverse bend around 30 degrees. The refitting breakage occurred close to these bends, but does not appear to be directly associated so may be post-depositional.		

PAS-F209 Curry Rivel

Grid Ref.	ST 38 24	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2008 on cultivated land.		
Reference(s)	Knight et al. 2015, 64-65, No.385; PAS SOM-256407.		

Object Type and Description	Bar chisel. This is a narrow copper alloy bar with a sub-rectangular section, tapering and flattening to one end, forming a chisel-like form.		
Location	Finder	**Period**	Bronze Age
Completeness	76-99%	**Details**	Broken at bar end.
Dimensions (mm)	L.52.8; W.6.5; Th.4.3; Wt.6.5g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Prepared and possibly used. The chisel end appears worn and the chisel is bowed along its length, which could be use-related.		
Damage	The chisel has broken at one end, probably in antiquity.		

PAS-F210 Doulting

Grid Ref.	ST 64 45	**Altitude (m)**	278
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 65, No.387, Pl.19; PAS SOM-0F85D7.		

Object Type and Description	Flanged axe. This is a narrow-bladed, unlooped axe, with the remains of very low flanges that merge into the stop ridge, though it is difficult to tell the form of the stop from the photo. The blade expands slightly to a curved cutting-edge and the overall object is very thin. Just below the stop is a protrusion on each side, known as lugs or 'trunnions'.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.123.4; Bl.W.26.8; Wt.111g.		
Patina/Corrosion	Dark brown patina with mottled green corrosion.		
Manufacture/Use	Difficult to tell, but the cutting-edge is asymmetrical, which could be linked to wear and there is no sign of casting material.		
Damage	None.		

PAS-F211 Downhead

Grid Ref.	ST 67 46	**Altitude (m)**	242
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed hammer was found by chance in 2016 on cultivated land.		
Reference(s)	PAS SOM-B048D1.		

Object Type and Description	Type 1 socketed hammer. This is a slender, square-socketed hammer, with thick socket walls. It is weighted towards the hammer face, which is uneven, rounded and appears well worn.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.86.11; W.27.55; Wt.250g.		
Patina/Corrosion	Mottled green patina/corrosion.		

Manufacture/Use	Prepared and used. The casting material has been worked and removed and the hammer end appears to be heavily worn.
Damage	None.

PAS-F212 East Coker

Grid Ref.	ST 54 13	**Altitude (m)**	52
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	Knight et al. 2015, 65, No.388; PAS SOM-2660B4.		

Object Type and Description	Blade – type uncertain. This is a mid-blade fragment of a double-edged implement with a biconvex section and a broad flattened midrib. The blade is quite slender, but the original form is uncertain and the PAS record suggests it was once part of a knife or rapier.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.38.9; W.13.5; Th.3.8; Wt.7.58g.		
Patina/Corrosion	Dark green patina, largely delaminated with pale green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, but the blade edges may have been worked.		
Damage	This is a fragment of a blade, broken at both ends in antiquity. There are no associated marks or casting flaws.		

PAS-F213 Evercreech

Grid Ref.	ST 65 37	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 1990 on cultivated land.		
Reference(s)	PAS SOM-4756B5.		

Object Type and Description	Plain pegged spearhead (Gr.13 Filleted). This is the tip and upper blade of a spearhead with a thick, circular midrib, flanked by a cast fillet (alternatively rib) on either side. This is only the second filleted spearhead known from south west England, with the first from the Wick Park hoard.		
Location	Finder	**Period**	Wilburton-Ewart Park
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.90.8; W.27.5; Th.11.5.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Difficult to tell from the photo, but the edges are bevelled and may show signs of use.		
Damage	This spearhead has broken across the upper blade in antiquity so only the tip and upper blade survives. There are no associated marks or casting flaws. **Breakage**: W.27.5; Th.11.5.		

PAS-F214 Glastonbury II

Grid Ref.	ST 50 38	**Altitude (m)**	77
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A flat axe was found while metal-detecting in 1999.		
Reference(s)	Knight et al. 2015, 65, No.390, Pl.17; PAS HAMP111.		

Object Type and Description	Developed flat axe (Class 4) This is an axe with low hammered flanges and a transverse median bevel. The butt is narrow and rounded and the sides gently diverge to a broad curved cutting-edge.		
Location	Finder	**Period**	MA IV Aylesford
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.128; Bl.W.68; Wt.282g.		
Patina/Corrosion	Pale green corrosion.		
Manufacture/Use	Prepared and possibly used. It is difficult to tell due to extreme surface delamination, but there appears to be no casting material surviving and the cutting-edge has been hammered and bevelled. There is possibly some slight asymmetry of the blade and one tip appears to be more rounded than the other.		
Damage	None.		

PAS-F215 Hemington

Grid Ref.	ST 76 54	**Altitude (m)**	124
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	An incomplete socketed axe was found while metal-detecting in 2013.		
Reference(s)	Knight et al. 2015, 65, No.391; PAS WILT-71FCB7.		

Object Type and Description	Socketed axe – poss. Sompting Variant Tower Hill. This is a fragment of the upper body and side of a socketed axe, with a small circular side-loop surviving intact. The body is plain and there is the remains of a deep, plain collar moulding. The surviving section of corner indicates a square or rectangular body, which would indicate a Sompting type.		
Location	Finder	**Period**	Llyn Fawr
Completeness	0-25%	**Details**	Upper body and side fragment.
Dimensions (mm)	L.43.9; W.25.9; Wt.9.77g.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Difficult to tell due to incompleteness. A casting seam is visible down the side, which may have been worked.		
Damage	This socketed axe has broken unevenly down one face and around the side in antiquity, through the socket walls, but the side-loop survives intact. There are no associated marks or visible casting flaws. **Breakage**: Th.2.7.		

PAS-F216 Holford

Grid Ref.	ST 16 41	**Altitude (m)**	-
☐ Dryland	☑ Wetland	☐ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Knight et al. 2015, 65, No.382, Pl.30; PAS SOM-63A847.		
Additional Notes	The PAS records states: “The area this axe came from is very level with many drainage ditches and streams and, despite modern agricultural drainage work, still suffers from occasional flooding.” Comments on this object have been provided by Brendan O’Connor.		

Object Type and Description	Taunton-Hademarschen axe, variant. This is a slender, unlooped socketed axe with an oval socket, rather than the typical square mouth. The body slightly expands to a

	straight cutting-edge, and the mouth is defined by a shallow rounded moulding. This is a variant of the standard Taunton-Hademarschen axe and dates to the Ewart Park phase. The mouth is covered by iron pan build up, but the axe was x-rayed revealing wood preserved in the socket, suggesting an originally wetland deposit.		
Location	Finder	**Period**	Ewart Park
Completeness	76-99%	**Details**	Blade tips missing.
Dimensions (mm)	L.104.8; Bl.W.29.4; Sock.Diam.Ext.30.3x24.6; Wt.143g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Difficult to tell due to corrosion, but presumably prepared and used.		
Damage	This axe is largely complete, but the tips of the blade have fragmented away as a result of corrosion.		

PAS-F217 Horrington Hill, Wells

See WEL-F003.

PAS-F218 Ilchester I

Grid Ref.	ST 52 24	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Knight et al. 2015, 65, No.394; PAS SOMDOR-3396D3.		
Additional Notes	Another spearhead fragment (PAS-F219) was found while metal-detecting in the same field. It is possible they were once associated objects that have since been dispersed.		

Object Type and Description	Spearhead – type uncertain. This is a mid-blade fragment of a socketed spearhead, tapering to one end, indicating it has broken from the upper blade. The blade has a prominent midrib, creating a thick lozenge section.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.42.2; Th.7.8; Wt.13.58g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Difficult to tell but seemingly prepared.		
Damage	This fragment has broken at both ends in antiquity across the upper blade of a spearhead. There are no associated marks or casting flaws. **Tip breakage**: W.9.4. **Mid-blade breakage**: W.17.2.		

PAS-F219 Ilchester II

Grid Ref.	ST 52 24	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 1996 on cultivated land.		
Reference(s)	Knight et al. 2015, 65-66, No.395; PAS SOMDOR-3396D3.		
Additional Notes	See PAS-F218.		

Object Type and Description	Spearhead – type uncertain. This is an upper blade fragment of a narrow-bladed spearhead, with a rounded midrib. There are no further diagnostic features.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Broken across mid-blade and tip missing.

Dimensions (mm)	L.56.05; Th.9.56; Wt.19.48g.
Patina/Corrosion	Olive green patina.
Manufacture/Use	Difficult to tell due to incompleteness.
Damage	This fragment has broken across the upper blade of a spearhead in antiquity and the very tip has broken away. There are no associated marks or visible casting flaws. **Breakage**: W.14.26.

PAS-F220 Keynsham

Grid Ref.	ST 64 69	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting between 2009 and 2010 on cultivated land.		
Reference(s)	PAS GLO-55A002.		

Object Type and Description	Socketed axe – type uncertain. This is a corner fragment of the cutting-edge of a socketed axe, with possibly faceted sides.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Corner fragment of cutting-edge.
Dimensions (mm)	L.25; W.18; Th.11; Wt.12.93g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but the casting material seems to have been worked.		
Damage	This is a blade tip fragment of the cutting-edge of a socketed axe, broken just above the socket aperture and through the blade in antiquity. There are no associated marks or casting flaws.		

PAS-F221 Kingsdon I

Grid Ref.	ST 52 25	**Altitude (m)**	19
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A chisel was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	Knight et al. 2015, 66, No.400, Pl.30; PAS SOM-589161.		

Object Type and Description	Tanged chisel. This is a chisel with a slender rectangular-section tang that expands with concave sides to a triangular blade with a slightly damaged cutting-edge. There is no collar or stop present.		
Location	Finder	**Period**	Late Bronze Age
Completeness	76-99%	**Details**	Damaged cutting-edge.
Dimensions (mm)	L.58.9; Bl.W.17.5; Th.5.8; Wt.14.16g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Difficult to tell, but possibly used.		
Damage	The cutting-edge of this chisel has suffered minor material loss, possibly in antiquity or through post-depositional processes.		

PAS-F222 Kingsdon II

Grid Ref.	ST 51 24	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Knight et al. 2015, 66, No.401, Pl.29; PAS SOM-D995B1.		

Object Type and Description	Single-pointed awl. This is a rectangular-section copper alloy bar that thickens at the centre and tapers to a circular point at one end. The opposite end tapers to a blunt, rectangular-section tang.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.44.2; Diam.4.7; Wt.3.51g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Prepared and possibly used.		
Damage	None.		

PAS-F223 Kingsdon III

Grid Ref.	ST 50 26	**Altitude (m)**	69
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2014.		
Reference(s)	PAS WILT-997445.		

Object Type and Description	Socketed axe – type uncertain. This is a mouth and collar fragment of a socketed axe with a shallow rounded collar. The remains of the corner indicate the socket was probably sub-rectangular. No further diagnostic features survive.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Socket mouth fragment.
Dimensions (mm)	L.24.02; W.16.81; Th.10.71; Wt.8.47g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	A fragment of the socket mouth and collar has broken away from the side of a socketed axe in antiquity. There are no associated marks or casting flaws.		

PAS-F224 Langford Budville

Grid Ref.	ST 11 22*	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe was found while gardening in 2007.		
Reference(s)	Knight et al. 2015, 66, No.402, Pl.24; PAS SOM-C03882.		

Object Type and Description	South-eastern socketed axe. This is an incomplete socketed axe with the remains of a sub-rectangular mouth and collar moulding adorned with four horizontal linear mouldings. The side-loop survives below the break. The axe is otherwise plain and the body slightly expands to a curved cutting-edge.		
Location	Finder	**Period**	Ewart Park
Completeness	76-99%	**Details**	Socket incomplete.
Dimensions (mm)	L.89.8; Bl.W.50.7; Wt.274g.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Prepared and used. The casting material has been worked and largely removed and the cutting-edge appears to be blunt and is heavily asymmetrical suggesting extensive reworking.		
Damage	About two-thirds of the socket mouth has fragmented in antiquity, but there are no associated marks.		

PAS-F225 Langport

Grid Ref.	ST 42 26	**Altitude (m)**	-

☐ Dryland	☐ Wetland	☑ Uncertain
Find circumstances	A razor was found while metal-detecting in 2006.	
Reference(s)	Knight et al. 2015, 66, No.401, Pl.29; PAS SOMDOR-00AC13.	

Object Type and Description	Razor. This is an incomplete, roughly leaf-shaped blade with fragmentary edges and tip. It is described as a 'knife' on the PAS record, but is most likely the blade of a leaf-shaped tanged razor.		
Location	Finder	**Period**	Late Bronze Age
Completeness	51-75%	**Details**	Blade piece, with fragmentary edges.
Dimensions (mm)	L.83.7; W.25.3; Th.2.3; Wt.15.84g.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Difficult to tell due to fragmentary nature.		
Damage	If this blade possessed a tang it has broken off, either in antiquity or post-deposition. The edges are uneven and fragmentary, which may reflect a combination of antiquated and post-depositional damage. Further details are difficult to identify from the photo.		

PAS-F226 Long Ashton

Grid Ref.	ST 55 70	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	PAS GLO-B7F8D3.		

Object Type and Description	Socketed axe – type uncertain. This is a broad, curved cutting-edge of a socketed axe; no photos or descriptions are available of the shape of the surviving socket. There are no further diagnostic features.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.19; W.38.		
Patina/Corrosion	Pale brown patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is the cutting-edge of a socketed axe broken above the socket aperture in antiquity. There are no associated marks visible of the photographed face.		

PAS-F227 Martock

Grid Ref.	ST 45 17	**Altitude (m)**	53-57
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	Two fragments of a socketed axe and a blade were found in the same field while metal-detecting in 2017 on cultivated land. The finds were found several months apart, but see Additional Notes.		
Reference(s)	PAS SOM-3670EC; SOM-9C5F54.		
Additional Notes	On 3rd April 2017 (i.e. after the cut-off for this catalogue), the two objects were submitted for consideration as Treasure under the PAS number: SOM-215024. Mr Wil Partridge (pers. comm. 20/04/2017) comments "Once we had created the records and seen how close the two find spots were together it was decided to put them through treasure as a potential hoard to be safe."		

PAS-F227a

Object Type and Description	Socketed axe – type uncertain. This is a narrow lower blade and slightly curved cutting-edge of a socketed axe, with the remains of a sub-rectangular socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.37.4; W.10.4; Wt.30.64g.		
Patina/Corrosion	Pale green corrosion causing surface delamination.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is the cutting-edge of a socketed axe broken unevenly above the socket aperture and through the lower body of the axe in antiquity. There are no associated marks, but a photograph of the break shows that the metal is quite porous.		

PAS-F227b

Object Type and Description	Blade – poss. sword. This is a narrow mid-blade fragment of a double-edged implement, with a biconvex section and a flattened midrib. It probably belonged to a sword.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.12.9; W.14.2; Th.4.1; Wt.2.81g.		
Patina/Corrosion	Green corrosion.		
Manufacture/Use	Difficult to tell due to corrosion and incompleteness.		
Damage	This fragment has been broken at both ends in antiquity.		

PAS-F228 Milborne Port II

Grid Ref.	ST 67 20	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 66, No.405, Pl.29; PAS SOMDOR-CE2E67.		

Object Type and Description	Single-pointed awl. This is a circular section copper alloy bar, which tapers to a flat tang at one end and a conical point at the other.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.56.09; Diam.3.41; Wt.3.2g.		
Patina/Corrosion	Mottled green/brown patina.		
Manufacture/Use	Prepared and possibly used. The awl is transversely bent about 20 degrees, at the transitional point from the main body to the tapering tang, which is probably linked to use.		
Damage	Complete, but transversely bent – see above.		

PAS-F229 Minehead

Grid Ref.	SS 97 46	**Altitude (m)**	18
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave fragment was found by chance in 2015.		
Reference(s)	PAS SOM-63A448.		

Object Type and Description	Palstave – type uncertain. This is a fragment of a palstave with the remains of a u-shaped stop ridge and no indication of decoration on the upper blade. There is

	the lower stump of a side-loop on one side. It is difficult to accurately identify this type of palstave from the fragment.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Upper blade fragment.
Dimensions (mm)	L.57; W.27.8; Th.20.4; Wt.103.92g.		
Patina/Corrosion	Patches of brown patina; mostly delaminated with pale green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, but the surviving sides indicate worked casting seams.		
Damage	This palstave has broken across the upper blade and across the stop ridge in antiquity. Additionally, the side-loop has broken. There are no associated marks.		

PAS-F230 Misterton II

Grid Ref.	ST 44 08	**Altitude (m)**	86
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A pin was found while metal-detecting in 2015-2016 on cultivated land.		
Reference(s)	PAS SOM-1EC49B.		

Object Type and Description	Quoit-headed pin. This is an incomplete pin with a circular ring-head, with flat faces and a circular section shaft, which tapers to a break.		
Location	Finder	**Period**	Taunton
Completeness	51-75%	**Details**	Broken across the shaft.
Dimensions (mm)	L.50.35; Head Diam.Ext.27.93; Head Diam.Int.15.73; Shaft Diam.5.41; Wt.9.77g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and possibly used.		
Damage	This pin has broken across the shaft in antiquity. There are no associated marks or casting flaws. **Breakage**: W.2.17.		

PAS-F231 Mudford

Grid Ref.	ST 56 19	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A gold sheet fragment was found while metal-detecting in 2005 on cultivated land.		
Reference(s)	Knight et al. 2015, 66, No.407, Pl.26; PAS SOMDOR-D3E8B7; Treasure Annual Report 2005-6, 20, No.13.		

Object Type and Description	Gold ornament. This is a small piece of sheet gold, which is roughly ogival in plan, tapering to a rounded terminal at one end. The sheet has been perforated through the terminal end, and the long edges have been flattened. It is possible it was an ear ornament.		
Location	TTNCM 111/2006	**Period**	Middle Bronze Age
Completeness	Uncertain	**Details**	Strip/sheet fragment.
Dimensions (mm)	L.21.2; W.9.5; Th.0.5; Wt.0.86g.		
Patina/Corrosion	n/a		
Manufacture/Use	Difficult to tell, but seemingly prepared for use, having been hammered and pierced.		
Damage	This fragment is distorted and has been torn across the lower edge. The overall object is slightly warped and the damages are probably a combination of ancient damage and post-depositional processes.		

PAS-F232 Nailsea, Wraxall and Failand

Grid Ref.	ST 48 71	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flat axe was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Knight et al. 2015, 72, No.459, Pl.14; PAS LANCUM-6A0ED6; WAW-5E5FB8.		
Additional Notes	This object has been recorded twice under two different records with different dates of discovery, but with the same spatial and dimensional data indicating it is the same axe.		

Object Type and Description	Flat axe (Class 3?) This is a small sub-triangular flat axe with a slightly curved cutting-edge. The sides of the axe are straight, rather than concave, and the butt is rounded. The patches of blue corrosion could indicate this axe has a pure or high copper composition.		
Location	Finder	**Period**	Early Bronze Age
Completeness	76-99%	**Details**	Complete, but broken into two refitting pieces post-recovery.
Dimensions (mm)	L.117.99; Bl.W.55.95; Th.8.08; Wt.182g.		
Patina/Corrosion	Mottled grey/green patina, with patches of blue corrosion.		
Manufacture/Use	Prepared and possibly used. The cutting-edge is slightly asymmetrical, suggesting wear.		
Damage	One blade tip has broken off post-recovery and survives refitting. Additionally, the axe is transversely curved/bowed along its length, but it is difficult to know how to attribute this damage.		

PAS-F233 Near Spaxton, Spaxton

Grid Ref.	ST 22 37	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave fragment was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	Knight et al. 2015, 70, No.433; PAS SOM-9810A6.		

Object Type and Description	Palstave – type uncertain. This is a butt fragment of a palstave with the beginnings of flanges rising from the butt end. There are no further diagnostic features.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	0-25%	**Details**	Butt fragment.
Dimensions (mm)	L.28.6; W.21.7; Th.10.2; Wt.23.4g.		
Patina/Corrosion	Dark green patina in patches; largely surface delamination.		
Manufacture/Use	Difficult to tell due to incompleteness, but the casting material has been removed from the surviving fragment.		
Damage	The butt has broken away from the palstave in antiquity. There are no associated marks or casting flaws.		

PAS-F234 North Petherton II

Grid Ref.	ST 29 29	**Altitude (m)**	33
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead piece was found while metal-detecting in 2014 on cultivated land.		

Reference(s)	PAS SOM-028812.

Object Type and Description	Spearhead – probably plain pegged (Type 11) or possibly basal-looped (Gr.8). This is the upper blade and tip of a socketed spearhead with a rounded midrib and flat blade wings. The surviving curve of the wings indicate this was probably a flame-shaped blade and the socket was probably circular with either peg holes or basal loops.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	26-50%	**Details**	Upper blade and tip piece.
Dimensions (mm)	L.68.2; W.27.8; Th.12.3; Wt.27.48g.		
Patina/Corrosion	Brown patina with patches of green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness, but the edges appear to have been bevelled slightly.		
Damage	This spearhead has broken unevenly across the blade and through the socket hollow in antiquity. The break is described as “worn” and there are no associated marks or casting flaws.		

PAS-F235 Norton Malreward

Grid Ref.	ST 60 66	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe was found by chance in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 67, No.411; PAS GLO-57A477.		

Object Type and Description	Type Welby socketed axe. This is a ribbed socketed axe with straight sides flaring to a curved cutting-edge and a sub-rectangular socket. There are three vertical ribs on both faces below a deep, rounded collar moulding, from which the side-loop originates. It is incorrectly classified as a Yorkshire type on the PAS record.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.90; Bl.W.42; Wt.241.65g.		
Patina/Corrosion	Brown patina, with patches of pale green corrosion causing surface delamination.		
Manufacture/Use	Prepared and used. The casting material has been worked and largely removed, and vertical striations are visible along the cutting-edge indicating use and reworking.		
Damage	None.		

PAS-F236 Norton Sub Hamdon

Grid Ref.	ST 46 15	**Altitude (m)**	36
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2013 on grassland.		
Reference(s)	PAS SOM-207369.		

Object Type and Description	Blade – type uncertain. This is a tip fragment of a slender double-edged blade with a thin biconvex section. It probably belongs to a sword, but could also be a rapier or knife.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Tip fragment.
Dimensions (mm)	L.51.8; W.17.55; Th.3.4; Wt.10.34g.		
Patina/Corrosion	Green patina.		

Manufacture/Use	Difficult to tell due to incompleteness, but slightly bevelled at the blade edges.
Damage	The tip of a blade has broken off in antiquity. There are no associated marks or casting flaws. **Breakage**: W.17.55.

PAS-F237 Otterhampton I

Grid Ref.	ST 25 43	**Altitude (m)**	-
☐ Dryland	☑ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2007.		
Reference(s)	Knight et al. 2015, 67, No.414; PAS SOM-7F28E7.		

Object Type and Description	Sword – poss. Ewart Park. This is a mid-blade fragment of a sword, with a lozenge-section, though no evidence of bevelled edges.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.18.7; W.29.4; Th.6.4; Wt.12.8g.		
Patina/Corrosion	Olive green patina.		
Manufacture/Use	Difficult to tell due to incompleteness, but no signs of bevelling or working on the edges.		
Damage	This sword has broken at both ends in antiquity, with consistent patination, though no associated marks or casting flaws.		

PAS-F238 Otterhampton II

Grid Ref.	ST 25 42	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An awl was found while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 67, No.413, Pl.29; PAS SOMDOR-E51C44.		

Object Type and Description	Single-pointed awl. This is a square section copper alloy bar, which tapers to a flat tang at one end and a conical point at the other.		
Location	Finder	**Period**	Bronze Age
Completeness	76-99%	**Details**	Damage to tang.
Dimensions (mm)	L.60.1; W.4.7; Th.4.6; Wt.5.2g.		
Patina/Corrosion	Mottled green/brown patina.		
Manufacture/Use	Prepared and possibly used. The point is still very sharp.		
Damage	There is some minor material loss at the tang end, which is likely post-depositional.		

PAS-F239 Portbury I

Grid Ref.	ST 49 75	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A pin was found while metal-detecting in 2011 on cultivated land.		
Reference(s)	Burnett 2014, 138; PAS GLO-439E61.		

Object Type and Description	Picardy pin. This is a complete pin with a hollow, circular head, within which a stone would have been set. The area around the head has been incised with short, vertical grooves. The shaft tapers in slightly, before expanding to a swollen shaft, which is adorned with a horizontal rib and groove decoration in a band covering the swelling.

	Below the swelling the shaft tapers in again and there is a small circular side-loop, before the shaft continues to a tapered, circular-section point.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	100%	**Details**	Complete, but bent.
Dimensions (mm)	L.170; Diam.6; Wt.22.11g.		
Patina/Corrosion	Dark green patina.		
Manufacture/Use	Prepared and used. The pin has suffered two bends along the undecorated section of lower shaft, meaning the tip is at approximately a 90-degree bend to the head of the pin. This is possibly use-related.		
Damage	The pin is complete, but bent. It is uncertain whether this is deliberate, use-related (see above), or post-depositional damage.		

PAS-F240 Portbury II

Grid Ref.	ST 49 74	**Altitude (m)**	25
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A razor was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS GLO-3912E5.		

Object Type and Description	Single-edged razor. This is a roughly triangular blade with a broad, crescentic cutting-edge and a wide, straight tang set above it.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.35; W.41; Th.3; Tang W.9; Wt.13.17g.		
Patina/Corrosion	Brown patina, pitted with corrosion.		
Manufacture/Use	Difficult to tell, but seemingly prepared.		
Damage	None.		

PAS-F241 Portishead

Grid Ref.	ST 46 76	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed knife was found while metal-detecting in 1999 in woodland.		
Reference(s)	PAS GLO-5E5633.		
Additional Notes	The findspot is on the north coast and may have been wetland in the Bronze Age.		

Object Type and Description	Socketed hooked knife. This is a socketed knife, with a roughly circular, pegged socket and an ogival blade that has been intentionally transversely bent over to create a hooked blade.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.102; Bl.W.27; Bl.Th.4; Sock.Diam.Ext.22x21; Wt.71.98g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Prepared and used. The casting material has been worked and largely removed and the blade has been deliberately bent over for a functional purpose. Striations have identified on the inside of the blade indicate working or wear.		
Damage	None.		

PAS-F242 Queen Camel

Grid Ref.	ST 58 24	Altitude (m)	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 68, No.422, Pl.25; PAS SOM-AF89B5.		
Additional Notes	The findspot is close to the River Cam.		

Object Type and Description	Blade – poss. dirk/rapier. This is a slender mid-blade fragment of a double-edged blade that tapers towards one end, indicating it is from the lower blade towards the tip. The blade has a slight biconvex section, and the PAS record suggests this is from a dirk or rapier, probably as result of the narrow blade.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.21.6; W.11.9; Th.1.8; Wt.1.9g.		
Patina/Corrosion	Brown patina on one face and dark brown/black patina on the opposite face.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This blade has broken at both ends in antiquity, with consistent patination, though no associated marks or casting flaws. The darker patina on one face may be the result of burning.		

PAS-F243 Saltford

Grid Ref.	ST 67 66	Altitude (m)	67
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS GLO-F02B7D.		

Object Type and Description	Socketed axe – type uncertain. This is the lower body of a socketed axe with a broad, curved cutting-edge fragment, and the remains of a sub-rectangular/oval socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.38; W.52.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared and possibly used. The cutting-edge appears to have been worked and prepared for use and there is some minor denting along the edge, which could be the result of use.		
Damage	This is the lower body and cutting-edge of a socketed axe broken unevenly through the body above the socket aperture in antiquity. There are no casting flaws visible in the break, but one face is bowed, indicating a depression that is otherwise not visible on the photographs. This suggests the axe was hammered to breakage. **Breakage**: Th.15.		

PAS-F244 Selwood I

Grid Ref.	ST 81 48	Altitude (m)	105
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 67, No.416, Pl.15; PAS WILT-BEF273.		

Object Type and Description	Gr.III palstave. This is an unlooped palstave with low oval flanges rising from the butt to a sub-rectangular stop ridge. There is a U-rib enclosing a shallow depression on the upper blade on both faces, and the blade shape is broad and triangular, with a slightly curved cutting-edge.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Slight fragmentation at flanges and cutting-edge.
Dimensions (mm)	L.142.3; Bl.W.61.68; B.W.25.08; Fl.Br.30.28.		
Patina/Corrosion	Green patina and corrosion across the object and patches of blue discolouration.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed, and the cutting-edge is slightly asymmetrical.		
Damage	The palstave is complete, but the flanges and cutting-edge have suffered minor material loss as a result of corrosion.		

PAS-F245 Selwood II

Grid Ref.	ST 79 44	**Altitude (m)**	98
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 67, No.417, Pl.19; PAS SOM-A636D3.		

Object Type and Description	Gr.III palstave. This is an unlooped palstave with the remains of low flat flanges rising from the butt to a sub-rectangular stop ridge. Although described as “plain” there appears to be the faint remains of a shallow depression below the stop on the face photographed. The blade shape is broad and expands to an incomplete crescentic cutting-edge.		
Location	Finder	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Cutting-edge and flanges damaged.
Dimensions (mm)	L.147.4; Bl.W.51.4.		
Patina/Corrosion	Brown patina and patches of surface delamination; pale green corrosion in places.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and evidence of hammering and a double bevel can be seen towards the surviving cutting-edge.		
Damage	One corner of the cutting-edge has broken post-deposition, probably as a result of corrosion. The break is covered in pale green corrosion, indicating that this is a recent break. Additionally, at least one of the flanges has fragmented and there is some material loss at the butt. These are also likely the result of post-depositional processes.		

PAS-F246 Selwood III

Grid Ref.	ST 79 44	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 on grassland.		
Reference(s)	Knight et al. 2015, 67, No.418, Pl.19; PAS SOM-1DE687.		

Object Type and Description	Transitional/Late palstave. This is an incomplete, unlooped narrow-bladed palstave with low flanges rising from the butt to a sub-rectangular stop. It is unclear whether the flanges reached the height of the stop or stopped below

	the full height. In plan, the sides of the palstave are largely straight from the butt down onto the upper blade and only slightly expands to a curved cutting-edge at the lower blade. There is no adornment on either face. It is unclear if there was originally a side-loop.		
Location	Finder	**Period**	Penard-Wilburton
Completeness	76-99%	**Details**	Cutting-edge and flanges fragmentary.
Dimensions (mm)	L.97.3; Bl.W.29.3 (surv.); Wt.146g.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Prepared and possibly used, but difficult to tell due to corrosion. The casting seams have been worked and largely removed and shrinkage hollows are present in the septum on both faces. The blade is too corroded to identify signs of a bevel or use.		
Damage	One corner of the blade has fragmented away, perhaps in antiquity, but more likely as a result of corrosion. Similarly, the flanges have fragmented and the butt is also damaged, though the record suggests these might be older breakages.		

PAS-F247 Shepton Beauchamp

Grid Ref.	ST 39 17	**Altitude (m)**	49
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An uncertain object was found while metal-detecting in 2016.		
Reference(s)	PAS SOM-2867B7.		

Object Type and Description	‘Moustache’-shaped object. This is an unusual copper alloy object with an unknown use/function at present. The description is taken from the PAS record, as terminology has yet to be established for describing this object: “The object consists of a pair of drooping ovoid elements with pointed outer tips, hence 'moustache' shaped. These ovoids are decorated with multiple grooves running down the body of each ovoid but stopping before the tip… In the centre of the two drooping ovoids is a plain band running around the waist of the object, this band is triangular in profile with a flat top and sides narrowing until the ovoids meet at the base. On the underside is a deeply recessed oval hole making this central band hollow.” The current dating of this object spans the Middle Bronze Age to Iron Age period.		
Location	Finder	**Period**	Middle Bronze Age-Iron Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.32.3; W.10.5; Th.16.3; Wt.13.79g.		
Patina/Corrosion	Pale green corrosion.		
Manufacture/Use	Uncertain due to unknown function of the object. It appears to have been prepared for use and the decoration is worn, which may indicate a long use life.		
Damage	None.		

PAS-F248 South Petherton I

Grid Ref.	ST 44 16	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2012 on cultivated land.		
Reference(s)	Knight et al. 2015, 70, No.429, Pl.15; PAS SOM-FBE8E4.		

Object Type and Description	Arreton axe (Class 5). This is a narrow flanged axe with low oval flanges rising from the butt and extending along the length of the axe until the blade expands to a flaring crescentic cutting-edge. There is a possible median bevel.		
Location	Finder	**Period**	MA VI Arreton
Completeness	76-99%	**Details**	Cutting-edge abraded.
Dimensions (mm)	L.78.9; Bl.W.34.5; Bl.Th.12.9; B.W.18.2; Fl.H.1.7; Wt.102.37g.		
Patina/Corrosion	Pale green corrosion pitting; dark green patina surviving in patches.		
Manufacture/Use	Difficult to tell. There is no evidence of casting material, suggesting this has been prepared, but corrosion to the blade means any signs of use-wear is obscured. The cutting-edge is asymmetrical, but it is difficult to determine if this is use-related or post-depositional erosion.		
Damage	None.		

PAS-F249 South Petherton II

Grid Ref.	ST 43 17	**Altitude (m)**	-
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead piece was found while metal-detecting in 1999 on cultivated land.		
Reference(s)	Knight et al. 2015, 70, No.430; PAS SOMDOR132.		
Additional Notes	Knight et al. have duplicated this spearhead as both their No.430 and No.470.		

Object Type and Description	Spearhead – poss. side-looped (Gr.6). This is the incomplete blade of a socketed spearhead. The blade is small, with a prominent midrib creating a lozenge-section along the centre of the blade. The edges are fragmentary, but the original blade shape was either leaf or flame-shaped. The form of the blade means it was probably once part of a side-looped spearhead. **N.B.** The weight recorded by the PAS is 3.95g, which is almost certainly a mistake.		
Location	Finder	**Period**	Middle Bronze Age
Completeness	26-50%	**Details**	Blade piece, fragmentary edges.
Dimensions (mm)	L.30.8; W.12.55; Th.7.74.		
Patina/Corrosion	Unknown.		
Manufacture/Use	Difficult to tell from the drawing.		
Damage	The blade has broken unevenly above the blade-socket junction and the edges have fragmented away. As these observations are based on a drawing, it is impossible to know whether this occurred in antiquity or not. No associated marks are depicted.		

PAS-F250 South Petherton III

Grid Ref.	ST 44 14	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A sword blade was found in late 2010 and the refitting hilt was found in 2011 in the same cultivated field while metal-detecting.		
Reference(s)	Knight et al. 2015, 70, No.431, Pl.25; PAS SOM-FBC596.		

Object Type and Description	Ewart Park sword. This is the hilt and upper blade of a sword in two refitting pieces with stepped, bevelled edges and a rounded lozenge section. The hilt has a fishtail shaped terminal and angular shoulders above a straight ricasso. There is a hilt slot in the tang and a rivet hole in

	each shoulder though neither are broken through and are present as depressions, suggesting the sword was unfinished.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Hilt and upper blade in two refitting pieces: F250.1: Hilt piece. F250.2: Blade piece.
Dimensions (mm)	Overall: L. c.170; W.37.7; Sh.W.50; Terminal W.34.2; Bl.Th.10.7; Wt.223.07g. F250.1: L.116; Wt.138g. F250.2: L.155; Wt.185.07g.		
Patina/Corrosion	Brown patina; patches of green corrosion delamination.		
Manufacture/Use	Some preparation – unfinished. The casting material has been worked and largely removed around the hilt, though the hilt slot and rivet holes have not been broken through, suggesting preparation is not complete. However, there are a series of notches and chips along the blade edges, which could be interpreted as use-related, though probably occurred post-deposition.		
Damage	This sword has broken into a minimum of three pieces, though the nature of these breaks is debatable, and the blade piece has suffered some transverse bending. **Lower breakage**: W.27.8; Th.7.6. The lower most breakage has occurred across the middle-lower blade and is patinated with a pale green/cream corrosion, which is inconsistent with the rest of the patina, but this is not too unusual and is suggestive of an old breakage. There are no associated marks or casting flaws. **Bending**: There is a slightly transverse bending along the blade piece, which may or may not be related to the lower breakage. There is a scratch on one blade face breaking through the patina and revealing the bronze underneath. This damage roughly corresponds with the bend and thus the bend is most likely to be post-depositional. **Refitting breakage**: The sword has broken straight across the upper blade, above the ricasso and below the shoulder. Both breaks are patinated with a similar pale cream corrosion to the lower breakage, though with slightly less green corrosion. There are no associated marks or casting flaws. **A Note on the Interpretation of the Breakages**: Due to consistent corrosion on the surface of the blade faces across the refitting breakage, the PAS record suggests that the pieces have broken post-deposition and were originally deposited as a single piece. While this is plausible, this does not explain how the lower breakage is also patinated similarly, unless there is another piece that has yet to be recovered. What might be more likely is that the refitting break is ancient and the pieces were deposited together, which would explain the consistent corrosion on the surface, and the more limited corrosion in the refitting break than the lower break.		

PAS-F251 South Petherton IV

Grid Ref.	ST 45 15	**Altitude (m)**	23
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A casting jet was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS SOM-6E3802.		

Object Type and Description	Casting jet. This is a trifoliate-shaped object, with a slightly convex upper side and a sprue of metal extending from each foil on the underside. Each sprue is triangular in cross-section and one ends in a rounded

	tip, while the other two are broken. It almost certainly represents a casting jet, though for an unknown object, and is consistent with the Bronze Age.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	n/a	**Details**	Casting waste.
Dimensions (mm)	L.24.95; W.23.38; Th.16.32; Wt.15.23g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Casting waste.		
Damage	Broken during the casting process.		

PAS-F252 Stocklinch

Grid Ref.	ST 37 16	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	Knight et al. 2015, 70, No.434, Pl.28; PAS SOM-649A51.		

Object Type and Description	Basal-looped spearhead (Gr.8). This is a basal-looped spearhead in two pieces, with a flame-shaped blade with a lozenge-section midrib and low blade ribs. The socket is circular and the basal loops have flattened plates. It is not noted whether the two pieces refit.		
Location	Finder	**Period**	Taunton
Completeness	76-99%	**Details**	Largely complete, two pieces, possibly refitting. F252.1: Blade; F252.2: Socket.
Dimensions (mm)	L. c.134; Bl.W.45.48; Bl.Th.17.66; Sock.Diam.W.22.68; Wt.224.68g. F252.1: L.150.82; Wt.145.34g. F252.2: L.83.09; Wt.79.34g.		
Patina/Corrosion	Green patina and blue azurite corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been largely removed and the loop plates have been hammered. The spearhead blade is noted as being “worked” and there are “Parallel scratch marks that appear to be the result of working… in several places”.		
Damage	The spearhead has broken into two presumably refitting pieces (though this is not explicitly stated) across the blade-socket junction in antiquity. The breaks are patinated, though there are no associated marks or casting flaws.		

PAS-F253 Stogursey

Grid Ref.	ST 22 44	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A gold ornament was found while metal-detecting in 1999 on cultivated land. It was found with, or close to, a scattered hoard of 1096 3rd Century AD Roman coins.		
Reference(s)	Knight et al. 2015, 70, No.435, Pl.26; Needham 2011, Tables 22 and 23, Fig.44; O’Connor 2004, 208, 211, Fig.18.2; PAS IARCH-8C20F8; Treasure Annual Report 1998-9, 10, No.1.		
Additional Notes	This object was observed previously during data collection for the updated corpus of metalwork (Knight et al. 2015), but was not viewed during the course of this thesis.		

Object Type and Description	Gold basket ornament.

	This is a thin sheet of gold that had been rolled tightly but has now been unrolled and survives in two pieces. The description here is taken from the Treasure Annual Report: “A small parcel of tightly folded and very thin sheet gold. Unfolding would probably reveal a plaque of oval shape, with a gently tapering tang projecting from one side. Where the original edge of the plaque is visible, it is seen to carry inset decoration comprising three rows of lightly punched dots and one light groove in between the outer two rows. There are traces of a further very light groove crossing the centre of the plaque in line with the tang.”		
Location	BM 2000.7.1.	**Period**	Early Bronze Age
Completeness	76-99%	**Details**	In two pieces, broken through the basket.
Dimensions (mm)	L.19.5; W. c.29; Wt.1.08g.		
Patina/Corrosion	n/a		
Manufacture/Use	Prepared and possibly used. The object was finely worked and decorated.		
Damage	This object was deposited rolled into five layers in antiquity. It has since been unrolled and survives in two pieces, broken through the basket at two right angles, suggesting it may have been cut, or has broken along creases. There are numerous vertical creases which may suggest it had been folded in the past.		

PAS-F254 Ston Easton I

Grid Ref.	ST 61 53	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A button was found while metal-detecting in 2009 on cultivated land.		
Reference(s)	Knight et al. 2015, 71, No.437, Pl.26; PAS GLO-585315.		

Object Type and Description	Looped button. This is a circular conical button with a concave base in which a loop is attached.		
Location	Finder	**Period**	Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Diam.18; Th.17; Wt.9.12g.		
Patina/Corrosion	Olive green patina.		
Manufacture/Use	Seemingly prepared and possibly used.		
Damage	None.		

PAS-F255 Ston Easton II

Grid Ref.	ST 63 53*	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2006 on cultivated land.		
Reference(s)	Knight et al. 2015, 71, No.438, Pl.30; PAS GLO-5856D2.		

Object Type and Description	Class I or II socketed gouge. This is an incomplete socketed gouge with the remains of a circular socket and deep, slightly stepped collar moulding. The cutting-edge is curved and abraded with a kidney bean section.		
Location	Finder	**Period**	Ewart Park
Completeness	51-75%	**Details**	Split down the socket.
Dimensions (mm)	L.56; Bl.W.12; Diam.Ext.15; Wt.18.68g.		
Patina/Corrosion	Mottled green and brown corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked but is still quite prominent at the seams. The cutting-edge is quite		

	thick and there are limited signs for working, but this might be obscured by corrosion.
Damage	Much of the socket of this gouge has broken away in antiquity and there is material loss down the sides and back face of the gouge, as though it has split. There are no associated marks or casting flaws.

PAS-F256 Stratton-on-the-Fosse

Grid Ref.	ST 65 49	**Altitude (m)**	187
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	Knight et al. 2015, 71, No.439; PAS SOM-E3DB14.		

Object Type and Description	Socketed axe – type uncertain. This is the lower body of a socketed axe with a rounded, curved cutting-edge.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	L.24.6; Bl.W.43.3; Wt.42.86g.		
Patina/Corrosion	Pale green corrosion.		
Manufacture/Use	Difficult to tell due to incompleteness and corrosion. The casting seams appear to have been filed down and prepared and the worn cutting-edge may be the result of ancient use or could be post-depositional.		
Damage	This is the lower blade and cutting-edge of a socketed axe broken unevenly at the socket aperture in antiquity. There are no associated marks. **Breakage**: Th.12.9.		

PAS-F257 Tickenham I

Grid Ref.	ST 46 72	**Altitude (m)**	38
☐ Dryland	☑ Wetland	☐ Uncertain	
Find circumstances	A miniature socketed axe was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS GLO-BBC741.		
Additional Notes	The findspot is just south of the north coast, but this was probably not visible. The area was almost certainly wetland in the Bronze Age.		

Object Type and Description	Miniature socketed axe. This is a small object in the form of a socketed axe, with a thick oval socket and large semi-circular side-loop below the collar. The collar is defined by a double-moulding of two grooves extending around the circumference. The lower body flares to a short, wide crinoline blade with a slightly curved cutting-edge. It is larger than many 'miniature' socketed axes, but is still very small compared to typical forms. This object may date between the Late Bronze Age to Romano-British period.		
Location	Finder	**Period**	Uncertain
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.44; W.16; Th.33; Wt.38.26g.		
Patina/Corrosion	Green corrosion.		
Manufacture/Use	As-cast? Any casting material appears to have been worked and removed, though the cutting-edge seems to be uneven and unworked. Additionally, several casting hollows are visible across the body of the axe.		

Damage	None.

PAS-F258 Tickenham II

Grid Ref.	ST 46 72	**Altitude (m)**	42
☐ Dryland	☑ Wetland	☐ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS GLO-C6F5C4.		
Additional Notes	The findspot is just south of the north coast, but this was probably not visible. The area was almost certainly wetland in the Bronze Age.		

Object Type and Description	Spearhead – type uncertain. This is a mid-blade fragment of a spearhead with a rounded midrib and the remains of leaf or flame-shaped blade wings.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.34; W.36; Th.8; Wt.15.63g.		
Patina/Corrosion	Mottled green patina.		
Manufacture/Use	Difficult to tell due to incompleteness and poor photo.		
Damage	This spearhead fragment has broken unevenly above the blade-socket junction and across the upper blade in antiquity. The breaks are consistently patinated and there do not seem to be any associated marks or casting flaws, though the photos are unclear.		

PAS-F259 Timsbury I

Grid Ref.	ST 66 58	**Altitude (m)**	135
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A blade fragment was found while metal-detecting between 2013-2014 on cultivated land.		
Reference(s)	PAS GLO-06D7B5.		

Object Type and Description	Blade – type uncertain. This is a mid-blade fragment of a double-edged implement with a biconvex section. There is no edge bevelling and it is difficult to know whether this was part of a sword, knife or other bladed implement.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.16; W.26; Th.4; Wt.6.96g.		
Patina/Corrosion	Green patina, heavily pitted.		
Manufacture/Use	Difficult to tell due to incompleteness. There is no visible evidence for hammering or bevelling of the blade.		
Damage	This blade has broken at both ends in antiquity, with consistent patination, though no associated marks or casting flaws. **Breakage**: W.26; Th.4.		

PAS-F260 Timsbury II

Grid Ref.	ST 66 58	**Altitude (m)**	134
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed knife fragment was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS GLO-B7DA21.		

Object Type and Description	Thorndon knife. This is a fragment consisting of the blade-socket junction of a socketed knife. The surviving socket is oval and the sides slightly taper in, which would have continued to be concave. The blade-socket junction is marked by a step onto the blade. The blade has a roughly lozenge cross-section and has a broad, raised and flattened midrib, flanked by two further ridges that define the edge bevels.		
Location	Finder	**Period**	Ewart Park
Completeness	0-25%	**Details**	Blade-socket fragment.
Dimensions (mm)	L.42; W.32; Th.10; Wt.30.74g.		
Patina/Corrosion	Dark brown patina, delaminated in patches.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and removed and the blade seems to have been worked, though this is difficult to tell due to incompleteness.		
Damage	The knife has broken into at least three pieces in antiquity, across the upper blade and unevenly through the socket, below any peg holes. There are no associated marks or casting flaws.		

PAS-F261 Tintinhull

Grid Ref.	ST 49 19	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe was found by chance in about 1970.		
Reference(s)	Knight et al. 2015, 71, No.442, Pl.22; PAS SOMDOR-AC9124.		
Additional Notes	The exact findspot is uncertain.		

Object Type and Description	South Wales socketed axe. This is an incomplete ribbed axe with a sub-rectangular socket mouth and a thick, flat topped collar, consisting of a single moulding that tapers on the upper body. Below the collar are three vertical, parallel ribs on each face and a side-loop is set at the top of the collar. Although distorted now, the cutting-edge would have been slightly expanded from the straight sides of the body, with a curved edge.		
Location	Finder	**Period**	Ewart Park
Completeness	51-75%	**Details**	Material loss to one side of the body; slightly longitudinal bending.
Dimensions (mm)	L.100.85; Bl.W.50.39; Wt.236g.		
Patina/Corrosion	Dark green patina, patches of pale green corrosion.		
Manufacture/Use	As-cast. Prominent casting seams are still present along the surviving side and the four sprue stumps on the socket mouth have not been removed.		
Damage	This socketed axe has suffered significant material loss to one side, extending as an uneven fracture and cracking onto one face, and as a large semi-circular breakage on the other face. The cracking extends across one face and the lower body and cutting-edge is slightly bent longitudinally (c.10 degrees) out of line with the rest of the axe. The damage appears to be consistently patinated, but it is difficult to determine this from the photo. Without handling the object or further knowledge of the find context, it is impossible to tell whether this damage is intentional or post-depositional.		

PAS-F262 Trudoxhill

Grid Ref.	ST 77 42	**Altitude (m)**	89
☑ Dryland	☐ Wetland	☐ Uncertain	

Find circumstances	A spearhead was found while metal-detecting in 2015 on cultivated land.
Reference(s)	PAS SOM-DB1205.

Object Type and Description	Side-looped spearhead (Gr.6). This is a narrow flame-shaped spearhead with a circular, conical socket, with narrow, flattened side-loops set about halfway along. The blade has a prominent rounded midrib creating a rounded lozenge section.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete, but blade edges chipped.
Dimensions (mm)	L.122.35; Bl.W.24.42; Bl.Th.13.32; Wt.69.77g.		
Patina/Corrosion	Mottled dark brown patina with patches of green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked, but the seams are still visible along the socket. The blade has suffered a series of chips and dents, which could be use-related, but the inconsistent corrosion would suggest they are the result of post-depositional erosion.		
Damage	See above.		

PAS-F263 West Crewkerne

Grid Ref.	ST 42 11	**Altitude (m)**	82
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2016 on cultivated land.		
Reference(s)	PAS SOM-61850E.		
Additional Notes	The object has been recorded on the PAS through photos only and thus no dimensions are available.		

Object Type and Description	Gr.III or Gr.IV palstave. This is a looped palstave with leaf-shaped flanges that rise from the butt and plateau at the height of the stop. These flanges appear to be quite high and thus would fall within the Gr.IV category, but this cannot be accurately determined from the photo. The side-loop overlaps a sub-rectangular stop. There is a narrow, shallow triangular depression on the upper blade on at least one face. The blade is broad and triangular with a slightly curved cutting-edge.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Unknown.		
Patina/Corrosion	Pale green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and the blade shows signs of having been hammered and bevelled. Signs of use are difficult to identify from the photo, though the cutting-edge may be asymmetrical and seems to have suffered a series of nicks and chips, which might be use-related.		
Damage	None.		

PAS-F264 Weston-in-Gordano

Grid Ref.	ST 44 74	**Altitude (m)**	86
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A spearhead was found while metal-detecting between 2013-2014 on cultivated land.		
Reference(s)	PAS GLO-F69302.		

Additional Notes	The findspot is close to the north coast and may have been wetland in the Bronze Age.

Object Type and Description	Side-looped spearhead (Gr.6). This is a leaf-shaped spearhead with a long circular, conical socket, with side-loops set about halfway along. The blade has a prominent midrib creating a lozenge section.		
Location	Finder	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.104; Bl.W.25; Bl.Th.19; Sock.Diam.16; Wt.47.45g.		
Patina/Corrosion	Mottled brown patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and removed and the blade has possibly been prepared for use. The PAS record notes that the midrib has been flattened and filed towards the tip to the form the point. The blade edges are slightly nicked and abraded, but this is likely due to post-depositional processes, rather than use.		
Damage	None.		

PAS-F265 Westbury-sub-Mendip

Grid Ref.	ST 50 50	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2004 on cultivated land.		
Reference(s)	Knight et al. 2015, 71, No.445; PAS SOMDOR-04B2B7.		

Object Type and Description	Socketed axe – type uncertain. This is a broad, crescentic cutting-edge fragment of a socketed axe with the remains of a sub-rectangular socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Cutting-edge fragment.
Dimensions (mm)	Bl.W.50.15; Wt.51.11g.		
Patina/Corrosion	Mottled green and brown patina.		
Manufacture/Use	Prepared and possibly used. The cutting-edge appears to have been worked and prepared for use and there is some edge damage in the form of nicks, which could be the result of use or post-depositional damage. The cutting-edge is slightly asymmetrical.		
Damage	The cutting-edge has broken unevenly from a socketed axe just above the socket aperture in antiquity. There are no associated marks or casting flaws. **Breakage**: Th.13.54.		

PAS-F266 Whitelackington

Grid Ref.	ST 35 16	**Altitude (m)**	27
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2012 on cultivated land. In 2015 a socketed hammer was about 25 feet from where the palstave had been found. Due to ploughing in the field, it is considered that these objects might represent a dispersed deposit of associated or hoarded items.		
Reference(s)	Knight et al. 2015, 72, No.449, Pl.16; PAS SOM-1F7EE4, SOM-9AAFF3, 2014 T637.		
Additional Notes	This findspot lies in the valley of the River Isle, overlooking the river to the north. It is uncertain whether this was an area of wetland in the Bronze Age.		

PAS-F266a

Object Type and Description	Gr.III palstave. This is a looped palstave with oval flanges that rise from the butt to above the height of the stop and slope back down towards the stop; the breadth of the flanges does not qualify it as a south-western type, however. The side-loop sits just above a u-shaped stop and there is a midrib that extends down the blade, flanked by shallow triangular depressions. The blade is broad with a flared crescentic cutting-edge.		
Location	Finder	**Period**	Acton Park-Penard
Completeness	76-99%	**Details**	Minor butt damage.
Dimensions (mm)	L.115.9; Bl.W.45.8; Fl.Br.30.4; Wt.278g.		
Patina/Corrosion	Mottled green corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and the edge appears to have been hammered and bevelled though corrosion obscures much of the detail. Casting hollows and air bubbles are visible in the septum and stop on both faces.		
Damage	The butt has suffered minor uneven material loss either in antiquity or post-deposition. There are no associated marks or casting flaws. The cutting-edge is abraded and slightly fragmentary from corrosion.		

PAS-F266b

Object Type and Description	Type 1 socketed hammer. This is a short, square-socketed hammer with a deep, flat collar that steps on the body. The body tapers slightly towards a broad, convex hammer end.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.60.7; Bl.W.24.2; Bl.Th.17.5; Sock.Diam.Ext.26.1x24.9; Sock.Diam.Int.17.8x16.5; Wt.145g.		
Patina/Corrosion	Grey green patina with pale green corrosion in patches.		
Manufacture/Use	Prepared and possibly used. There is no surviving casting material present, suggesting preparation, but it is difficult to tell due to corrosion. Surviving patina shows striations along the length of the hammer, further indicating preparation and the hammer was probably used.		
Damage	None.		

PAS-F267 Whitestaunton I

Grid Ref.	ST 26 11	**Altitude (m)**	157
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS SOM-2B70A5.		
Additional Notes	The findspot is in the River Yarty valley.		

Object Type and Description	Transitional or Late palstave. This is an incomplete narrow-bladed palstave, with the remains of a u-shaped stop and a slightly expanding blade.		
Location	Finder	**Period**	Penard-Wilburton
Completeness	26-50%	**Details**	Blade broken across the stop ridge.
Dimensions (mm)	L.83.7; Bl.W.24.1; St.D.17.5; St.W.17.8; Wt.71.17g.		
Patina/Corrosion	Extensive brown corrosion.		
Manufacture/Use	Difficult to tell due to corrosion.		

Damage	This palstave has broken just above the stop ridge, through the flanges in antiquity. The flanges have completely fragmented away and the corrosion has severely damaged much of the surviving piece, removing most the cutting-edge. There are no visible associated marks.

PAS-F268 Whitestaunton II

Grid Ref.	ST 26 10	**Altitude (m)**	143
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A palstave piece was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS SUR-7E53A6.		

Object Type and Description	Transitional or Late palstave. This is an incomplete narrow-bladed palstave, with the remains of a u-shaped stop and a slightly expanding blade with a curved cutting-edge. However, further diagnostic details cannot be identified due to incompleteness and corrosion.		
Location	Finder	**Period**	Penard-Wilburton
Completeness	26-50%	**Details**	Blade, broken at stop ridge.
Dimensions (mm)	L.69.78; Bl.W.25.78.		
Patina/Corrosion	Brown corrosion.		
Manufacture/Use	Difficult to tell due to corrosion.		
Damage	This palstave has broken across and through the stop ridge in antiquity. This is related to a large shrinkage hollow present in the stop and upper blade.		

PAS-F269 Wigborough, South Petherton

Grid Ref.	ST 44 15	**Altitude (m)**	31
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A socketed gouge was found while metal-detecting in 2015 on cultivated land.		
Reference(s)	PAS SOM-DA3D7B.		

Object Type and Description	Class I or IIa socketed gouge. This is an incomplete, narrow socketed gouge with slightly tapering sides and a slightly curved cutting-edge. Although it no longer survives, the socket was likely circular.		
Location	Finder	**Period**	Ewart Park
Completeness	26-50%	**Details**	Lower blade.
Dimensions (mm)	L.39.13; Bl.W.10.44; Wt.23.12g.		
Patina/Corrosion	Dark green-brown patina with patches of pale green corrosion causing surface delamination.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and removed and the cutting-edge is slightly worn.		
Damage	The gouge has broken across the body above the socket aperture in antiquity. There are no associated marks or casting flaws, though the metal appears to be slightly porous. **Breakage**: W.15.14.		

PAS-F270 Winford

Grid Ref.	ST 54 61	**Altitude (m)**	86
☑ Dryland	☐ Wetland	☐ Uncertain	

Find circumstances	A dirk was found while metal-detecting in 2016 on cultivated land.
Reference(s)	PAS GLO-7EFE1A.

Object Type and Description	Gr.II dirk. This is a slender ogival blade with a trapezoidal hilt with a rounded heel and two rivet holes with rivets *in situ*. There are two side notches above slightly protruding shoulders, which taper onto the blade. The blade has a low biconvex section.		
Location	Finder	**Period**	MA VI Arreton-Taunton
Completeness	76-99%	**Details**	Post-depositional damage to blade edges.
Dimensions (mm)	L.197; W.41; Wt.89.71g. Rivet: L.16; Diam.9.		
Patina/Corrosion	Light green patina.		
Manufacture/Use	Prepared and possibly used. The dirk was fitted with a handle and seemingly prepared. Much of the damage to the blade edges is attributable to post-depositional processes (see below), but some of the nicks or chips might be use-related.		
Damage	The blade edges have suffered extensive material loss on both edges in the form of nicks and chips and the overall blade is transversely bent about 20-30 degrees. **Blade edge damage**: The most severe chips and nicks on the blade edges are inconsistently corroded, indicating they have occurred post-deposition, though whether this is the result of plough damage or corrosion is unclear. **Transverse bending**: The blade has transversely bent from the upper blade down towards the tip in a gradual curve. The cause of this bend is uncertain. There is no break in the patina or other damage that might indicate the blade was bent post-deposition by being struck by a plough. It seems this object bent pre-deposition, though whether this was an accident, use-related or intentional is unclear.		

PAS-F271 Witham Friary I

Grid Ref.	ST 74 41	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A rapier fragment was found while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 72, No.453; PAS WILT-117235.		

Object Type and Description	Gr.IV rapier. This is a mid-blade fragment of a very narrow rapier with a flat midrib, indicating it belongs to the Gr.IV class.		
Location	Finder	**Period**	Taunton-Penard
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.22.3; W.16.2; Th.3.8; Wt.7.2g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This is a mid-blade fragment that has been broken at both ends in antiquity. There are no associated marks or casting flaws.		

PAS-F272 Witham Friary II

Grid Ref.	ST 74 41	**Altitude (m)**	128
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A spearhead fragment was found while metal-detecting in 2009 on cultivated land.		

Reference(s)	Knight et al. 2015, 72, No.454; PAS WILT-8E0680.

Object Type and Description	Spearhead – type uncertain. This is a mid-blade fragment of a socketed spearhead, tapering to one end, indicating it has broken from the upper blade. The blade has a rounded midrib, creating a thick circular section.		
Location	Finder	**Period**	Middle-Late Bronze Age
Completeness	0-25%	**Details**	Mid-blade fragment.
Dimensions (mm)	L.31.34; Wt.20.3g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Difficult to tell but seemingly prepared.		
Damage	This fragment has broken at both ends in antiquity across the upper blade of a spearhead. There are no associated marks or casting flaws, but the lower breakage appears to have occurred at the socket aperture. **Mid-blade breakage**: W.30.18; Th.9.07.		

PAS-F273 Witham Friary III

Grid Ref.	ST 74 39	**Altitude (m)**	109
☑ Dryland	☐ Wetland	☐ Uncertain	
Find circumstances	A socketed axe fragment was found while metal-detecting in 2014 on cultivated land.		
Reference(s)	PAS WILT-DEDFC6.		

Object Type and Description	Socketed axe – type uncertain. This is a corner fragment of a socket mouth of socketed axe. There are the remains of a rounded collar, but no other diagnostic features.		
Location	Finder	**Period**	Late Bronze Age
Completeness	0-25%	**Details**	Socket fragment.
Dimensions (mm)	L.20.05; W.21.4; Wt.15.56g.		
Patina/Corrosion	Green patina.		
Manufacture/Use	Difficult to tell due to incompleteness.		
Damage	This fragment has broken away from the socket mouth in antiquity. There are no associated marks or casting flaws.		

PAS-F274 Wiveliscombe I

Grid Ref.	ST 07 28	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2011.		
Reference(s)	Knight et al. 2015, 72, No.456, Pl.21; PAS SOM-5F6BB5.		

Object Type and Description	Later short-flanged axe. This is an unlooped axe with the remains of low oval flanges that rise from the butt and extend above a low u-shaped ridge and depression, representing an early form of stop. The blade is broad and flares to a crescentic cutting-edge.		
Location	Finder	**Period**	Acton Park
Completeness	76-99%	**Details**	Flanges fragmentary.
Dimensions (mm)	L.136; Bl.W.56.8; B.W.24.8; Fl.Br.24.8; Wt.329g.		
Patina/Corrosion	Pale green patina, patches of brown corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and the blade has seemingly been hammered out and probably worked. It is difficult to identify signs of use from the photos.		

Damage	Three of the flanges have fragmented and are absent and the cutting-edge has suffered some material loss. All of this is attributable to post-depositional processes.

PAS-F275 Wiveliscombe II

Grid Ref.	ST 09 26	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2007 on cultivated land.		
Reference(s)	Knight et al. 2015, 72, No.457, Pl.18; PAS SOM-1E8616.		

Object Type and Description	Later short-flanged axe. This an unlooped axe with flanges rising from the butt to a high angle, before descending onto the blade, over a low u-shaped stop ridge. The blade is broad and flares out to a crescentic cutting-edge. There is a rounded side knob on each side of the palstave, just below the stop.		
Location	Finder	**Period**	Acton Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.155; Bl.W.66.2; Wt.426g.		
Patina/Corrosion	Dark olive green patina.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and the blade has seemingly been hammered out and probably worked. There is a shrinkage hollow visible in the septum. The cutting-edge is asymmetrical with a series of dents visible. It is uncertain whether these dents relate to use or post-depositional actions.		
Damage	None.		

PAS-F276 Wraxall and Failand

Grid Ref.	ST 50 70	**Altitude (m)**	22
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	An incomplete socketed axe was found while metal-detecting in 2013 on cultivated land.		
Reference(s)	PAS GLO-BC1BC7.		
Additional Notes	The findspot is near natural springs in a low-lying river valley and may have been wetland in the Bronze Age.		

Object Type and Description	Socketed axe – type uncertain. This is an incomplete socketed axe with a plain, straight body and straight cutting-edge and the remains of a sub-rectangular socket.		
Location	Finder	**Period**	Late Bronze Age
Completeness	26-50%	**Details**	Lower body and cutting-edge.
Dimensions (mm)	L.88; Bl.W.37; Wt.115.33g.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Uncertain. There is no prominent casting material suggesting it may have been worked, but there are no further signs of preparation of the blade or cutting-edge. It is possible this is uncast.		
Damage	This socketed axe has broken unevenly through the body in antiquity. The breakage has removed much of the upper body at a sharp angle and the surviving side has bowed longitudinally as a result of the breakage. There are no associated marks or casting flaws.		

PAS-F277 Wrington I

Grid Ref.	ST 46 62	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A hoard of three objects was found on the side of a ditch while metal-detecting in 2011 on pasture land.		
Reference(s)	Knight et al. 2015, 72, No.460, Pl.13, Fig.12; PAS PAS-9B2032.		

PAS-F277a

Object Type and Description	Gr.IV palstave. This is a looped palstave with high flanges rising from the butt and plateauing at the height of the stop. The side-loop sits below the rectangular stop ridge and there are three ribs extending from below the stop on the upper blade and converging to form a trident shape. The blade expands to a flared, curved cutting-edge.		
Location	WESTM 2013.6	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.163.54; Bl.W.60.43; Wt.520.6g.		
Patina/Corrosion	Pale brown patina.		
Manufacture/Use	Prepared – no signs of use. The casting material has been worked and largely removed and the blade has been hammered out.		
Damage	None.		

PAS-F277b

Object Type and Description	Gr.IV palstave. This is a looped palstave with high flanges rising from the butt and plateauing at the height of the stop. The side-loop sits below the sub-rectangular stop ridge and there is the faint remains of a midrib extending from below the stop on the upper blade and flanked by two shallow depressions. The blade expands to a flared, curved cutting-edge.		
Location	WESTM 2013.6	**Period**	Taunton-Penard
Completeness	76-99%	**Details**	Minor damage to the cutting-edge.
Dimensions (mm)	L.162.6; Bl.W.61.48; Wt.492.8g.		
Patina/Corrosion	Pale brown patina.		
Manufacture/Use	Prepared – no signs of use. The casting material has been worked and largely removed and the blade has been hammered out.		
Damage	There is minor chipping on the cutting-edge, which is likely linked to post-depositional actions.		

PAS-F277c

Object Type and Description	Socketed hammer. This is a socketed hammer with a roughly oval socket and a thick rounded collar moulding that steps down onto the upper body. Below the collar at two V-shaped ribs, one set inside the other, and the body tapers outwards very slightly to a broad, slightly convex, heavy hammer end. There is a protruding spike on one side of the hammer. It is difficult to classify this hammer within Fregni's (2014, 81ff.) typology as the decoration and presence of a spike is unusual.		
Location	WESTM 2013.6	**Period**	Taunton-Penard
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.72.58; Bl.W.27.97; Wt.153.1g.		
Patina/Corrosion	Dark brown patina and patches of corrosion.		
Manufacture/Use	Prepared and possibly used. The casting material has been worked and largely removed and the hammer end appears to be worn.		
Damage	None.		

PAS-F278 Wrington II

Grid Ref.	ST 47 62	**Altitude (m)**	-
☐ Dryland	☐ Wetland	☑ Uncertain	
Find circumstances	A flanged axe was found while metal-detecting in 2002 on cultivated land.		
Reference(s)	PAS GLO-8B8AC6.		

Object Type and Description	Arreton axe (Class 5). This is a large axe with a narrow butt and low flanges extending along the length of the butt before the blade greatly flares out to a large crescentic cutting-edge. There is a slight transverse bevel towards the centre of the axe and both faces are adorned with incised decoration below this bevel, consisting of six horizontal bands of zig-zagged lines, with an additional four bands above and below of alternating zig-zagged or hatched decoration. The side of the flanges are slightly rippled, but are otherwise undecorated.		
Location	Finder	**Period**	MA VI Arreton
Completeness	100%	**Details**	Complete.
Dimensions (mm)	Bl.W.87. No further details.		
Patina/Corrosion	Dark brown patina.		
Manufacture/Use	Prepared – no signs of use. The casting material has been worked and removed and the cutting-edge has been extensively bevelled with flared tips.		
Damage	None.		

PAS-F279 Yatton

Grid Ref.	ST 44 67	**Altitude (m)**	-
☐ Dryland	☑ Wetland	☐ Uncertain	
Find circumstances	A socketed axe was found while metal-detecting in 2010 on cultivated land.		
Reference(s)	PAS GLO-FD1266.		
Additional Notes	The findspot is close to the coast and may have been wetland in the Bronze Age.		

Object Type and Description	Type Welby socketed axe. This is a small socketed axe with a sub-rectangular socket and a deep, flat collar moulding that steps down on the upper body. The side-loop is positioned below this collar and three converging vertical ribs adorn the body, extending about three quarters of the way down the blade. The body expands to a flared crescentic cutting-edge.		
Location	Finder	**Period**	Ewart Park
Completeness	100%	**Details**	Complete.
Dimensions (mm)	L.69.24; Bl.W.39.23.		
Patina/Corrosion	Brown patina.		
Manufacture/Use	Prepared – no signs of use. The casting material has been worked and largely removed, though the overall casting of this object is noted as being very poor, with lots of casting bubbles in the surfaces. Signs of use are difficult to identify but the cutting-edge was probably hammered out.		
Damage	None.		

APPENDIX C

PILOT EXPERIMENTS

C.1 Introduction

Ahead of the destructive experiments presented in Chapter 4, a series of pilot experiments were conducted to explore some of the factors that influence destruction, specifically breakage and fragmentation. These experiments were largely opportunistic and consequently lack structured designs, aims and recording processes, though they were conducted with specific research questions in mind. The Bronze Age replica objects upon which the damage was inflicted were gifted to this project by different individuals and experimental institutions that were worked with in 2015 and 2016, resulting in a varied set of tests. Neil Burridge proffered unwanted and/or miscast objects that were experimented with in Pilot Experiments 1, 2, 4 and 5, whilst the sword in Pilot Experiment 3 was fragmented as part of a public display with Claude Cavazzuti and the team of metalcasters at Montale Terramare open-air archaeological park in Italy. Consequently, these preliminaries are not systematic and cannot be considered scientific. However, they were valuable in generating hypotheses for the subsequent destruction experiments.

C.2 Pilot Experiment 1

The initial aims of these exploratory experiments were to understand: the ease with which an object could be broken; what might influence this; and what marks this might leave. In early 2015, work was undertaken with Neil Burridge at the Ancient Technology Centre, Cranborne. An unheated as-cast tin-bronze dagger was subjected to a series of strikes using a large quartzite stone. Fragments of bladed implements are frequently found in the archaeological record, though methods for assessing how these became broken are limited.

The dagger was positioned prone on a platform stone with the tip end projecting over the edge of the stone by approximately two inches. The dagger was held in place and the projecting end was struck with the stone. This

immediately caused transverse bending and required only four hits to remove the tip of the dagger.

Following this, the dagger was moved so the broken end was projecting a similar distance over the platform stone. Strikes to this thicker section of dagger were completely ineffective causing no damage. Under the advice of Neil Burridge, the dagger was then arranged across two platform stones so the desired breaking point (i.e. one of the thickest sections across the midrib towards the hilt) was positioned over a crevice. Striking the dagger became more tactical in this situation requiring strikes in one spot followed by turning the dagger over and striking in the same position on the opposite face, before turning the dagger over and repeating. This method caused plastic deformation as the dagger transversely bent back and forth at a single point until the structure of the metal was weak enough to fragment and the dagger was reduced to two further pieces (Fig.C.1).

Several elements were discerned from this initial undertaking:

1. Even a small increase in the thickness of the object had a massive effect on the ease with which it could be broken – the first fragment broke at approximately 4mm thick, whilst the second fragment was 9mm thick. Although anticipated, the impact of thickness was greater than expected, necessitating a change in tactic and altering the way in the object could be broken.

Fig.C.1: The broken dagger in Pilot Experiment 1 (source: Author)

2. Striking with a stone hammer did not produce significant marks that would be archaeologically visible (Fig.C.2). Unexpectedly, very few marks, such as hammer blows or surface depressions, were left on the surface of the metal. The metal suffered surface scratches but nothing that one might be able to identify as conclusively destructive in the archaeological record.
3. Cold-striking tin-bronze causes associated bending of the material. Whilst there were no marks of the tool used, transverse bending was caused during both fragmentation processes, though this was more extreme for the thinner fragment than for the thicker piece. Notably, the process of repeatedly bending the dagger in both directions to cause breakage was not evident on the resulting fragments (Fig.C.3).
4. A small portion of the bronze is lost upon fragmentation. The broken pieces of this dagger do refit but it is apparent that small pieces have been lost during fragmentation, which could explain why so many fragments in hoards do not refit.

Fig.C.2: The breakage point of the dagger in Pilot Experiment 1 showing no impact mark (source: Author)

C.3 Pilot Experiment 2

Another area of interest was the deliberate bending of a sword. Recent experiments demonstrated that bending a sword was a potentially complicated process (Bietti Sestieri et al. 2013, 167-9), contrasting with the more typical view that “snapping of a sword blade across the knee” could be done easily (Moyler 2007, 150). The initial standpoint was thus simply: was a sword ductile enough to bend across the knee?

This was tested on an unworked, miscast, leaded-bronze Ha C sword. This sword possessed a series of casting flaws, namely air hollows extending through the blade, as well as the metal having bled into the support rod slot, causing a misshapen object. Nonetheless, it was possible apply force to both ends of the sword and transversely fold it over the author’s upper thigh (Fig.C.3). The folding process required adjusting where the stress was applied gradually over a small area to reduce the chance of the sword breaking. The sword was successfully bent into a rough u-shape without fragmenting (Fig.C.4).

Although this process demonstrated the ease with which one could perform this destructive action, a variety of factors much be considered.

1. Bronze, as a material, work hardens, allowing less flexibility in the microstructure, and thus it may not be possible to so easily bend a *worked* sword blade, at least not without breaking it.
2. Distributing the pressure applied to the sword during bending was clearly beneficial to the process, in terms of achieving a bending without breakage (as identified by Giardino and Verly in Bietti Sestieri et al. 2013, 167-9). However, standardising the force applied, where to apply it, and how quickly requires careful consideration.

Fig.C.3: Bending the as-cast sword over the author's thigh in Pilot Experiment 2 (source: Author)

Fig.C.4: The resulting 'u-shaped' bend of the sword in Pilot Experiment 2 (source: Author)

3. The force applied to the bronze in this experiment relied on the researcher's own personal strength; it would be interesting to understand the exact forces involved.
4. It is also likely that the form of the object (e.g. shape, thickness etc.) will impact how prone the object is to bend; a spearhead, for instance, will probably react differently to a sword blade.
5. Finally, the composition no doubt impacted the ability of this miscast sword to bend this way. The metallography of tin-bronzes and leaded tin-bronzes causes varying microstructures based on the relative proportions of the materials (see Section 3.3.1).

Exploring the aspect of bending objects fully clearly requires a range of experiments tackling numerous qualities of different objects, and is far more complex than simply bending it over one's knee.

C.4 Pilot Experiment 3

In June 2015, the researcher spent a day with experimental bronze casters at the Montale Terramare open-air archaeological park**,** during which there was the opportunity to discuss various aspects of the properties of bronze and fragmentation in general. The bronze casters were keen to emphasise the effective nature of breaking bronze when it had been heated. The team frequently perform public demonstrations of sand-casting Bronze Age objects, particularly swords. Following the casting, the casters then break down the object for remelting in the crucible to be cast into another object. I was invited to be part of this process, which was very simple.

A leaded bronze sword was placed, as-cast, into a fire and heated until approximately 500°C (Fig.C.5). It should be noted that 500°C is a guesstimate made by the casters. No exact temperature measurements are recorded and instead the team rely on the rough time the object has been in the fire and the dull-red colour of the object to judge the temperature. The sword was then removed, placed on a stone platform, and struck with a wooden hammer, which fragmented the sword into smaller pieces that then fit back into the crucible (Fig.C.6). When offered the opportunity to explore this, it was possible to use a variety of different hammers to fragment the sword, including stone, antler, and wood (Fig.C.7). The effect of each tool was the same, with little force required to break the sword.

Occasionally, the sword needed to be returned to the fire to increase the temperature again, but this seemed to be the key factor in whether the sword broke or not.

Fig.C.5: Heating swords in the furnace in Pilot Experiment 3 (source: Author)

Fig.C.6: Sword fragments in Pilot Experiment 3 (source: Author)

Fig.C.7: Fragmenting a sword with an antler hammer in Pilot Experiment 3 (source: Author)

Three things could be taken away from this experiment:

1. A bronze object is easier to fragment while hot, than while cold.
2. When broken hot, no discernible marks are left on the sword, and in this experiment, there was also no associated bending.
3. The nature of the tools used is not important – instead the temperature of the object is a deciding factor. This can be judged by colour and experience, but the exact temperature has yet to be explored.

C.5 Pilot Experiments 4 and 5

The final two pilot experiments were conducted at Butser Ancient Farm in April 2016 to build upon Pilot Experiment 3, and better understand the temperatures at which bronze swords would fragment. Two swords were generously provided by Neil Burridge of different styles and compositions. The first, a Ewart Park sword, was a low-leaded tin bronze (2% Pb; 8% Sn), while the second, a Wilburton sword, was a tin bronze (Sn 12%). Both swords were left as-cast, with the Ewart Park sword retaining thick casting flash down all sides, and the Wilburton sword with the casting sprue attached to the tip.

A temperature probe attached to a closed kiln and each sword was placed individually into the kiln to heat up. Each sword was supported above the

charcoal and the temperature probe was positioned just above the blade of the sword. Following the estimates made by the Montale team, the aim was to heat the first sword (the Ewart Park) to approximately 550°C.

At 556°C, the sword was removed from the kiln; it was red-hot towards the tip, but still a dull grey colour at the hilt. This uneven distribution of temperature indicated that the sword had been heated unevenly and it was hypothesised that one would be able to fragment the tip, but not the hilt. The key aim was thus to break as much of the sword as possible. Little force was required to fragment this sword using an oak wooden baton and it was possible to break the whole object following a single heating into eight uneven pieces (Fig.C.8). The inconsistency of sizes was no doubt due to inexperience, but this experiment again demonstrated the lack of associated marks visible on fragmented pieces, and, like Pilot Experiment 1, the slight loss of bronze at each fragmentation.

The Wilburton sword, however, was more complex. The aim was to lower the temperature to see how greatly this affected the ease of fragmentation. The sword was heated to approximately 514°C, though did not become red-hot and when struck, it only bent. The sword was slightly quenched and then bent back into shape using a series of hammer blows and returned to the kiln. It was heated to 558°C, but again was not red-hot and did not break under hot-striking. This second attempt was partially tainted by inexperience using the tongs to hold the sword, which may have allowed time for the sword to cool. The strikes instead caused severe bowing of the blade; this was not corrected.

Fig.C.8: Fragments of the leaded-bronze sword used in Pilot Experiment 4 (source: Author)

On the third attempt, the sword was heated to c.560°C and the handle was struck repeatedly, causing bending and eventually fragmentation. Three small fragments of the hilt and lower blade were broken off the sword (Fig.C.9). Finally, the temperature was raised to 650°C to see if this would allow an easier fragmentation. Eventually, the sword was broken into a further five pieces, but the sword was severely deformed and bent in the process (Fig.C.10). It is noteworthy that most of the fragments broken off this sword were more consistent in shape and size than those produced while fragmenting the Ewart Park sword.

These two pilot experiments pose a series of interesting points.

1. Both swords lost small sections of metal during fragmentation, supporting what was observed in Pilot Experiment 1.
2. Controlling the size of the fragments produced requires some skill.
3. The composition of the material is as detrimental as the temperature to how and why these objects break. At 550°C, a leaded tin-bronze sword could be broken, while it was necessary to raise the temperature to 650°C to break a tin-bronze sword. This observation had been suspected

Fig.C.9: Hilt fragments of the tin-bronze sword in Pilot Experiment 5 (source: Author)

Fig.C.10: The resulting fragments of the tin-bronze sword in Pilot Experiment 5 (source: Author)

due to the effect of lead on the microstructure of bronze, but it had not been expected that it would so severely impact the result.

4. Whilst no tool marks were left on either sword, it might be possible to estimate that broken tin-bronze objects are more likely to demonstrate signs of bending associated with the breakage.

Further exploration of the effects of temperature and composition are necessary.

C.6 Conclusions

These pilot experiments are by no means systematic, but were undertaken as a result of the opportunities that arose and the result of the metalcasters worked with. Important aspects were elucidated that ultimately helped shape the aims of the destructive experiments detailed in the main body of the thesis (see Section 4.11).

APPENDIX D

THE EXPERIMENTAL PRODUCTION OF REPLICAS

D.1 Introduction

This appendix provides an extended discussion on the production of the socketed axeheads, spearheads and swords that were utilised in the destruction experiments in Chapter 4. All objects were produced by Neil Burridge, an experienced metalcaster.

D.2 Socketed Axeheads

Four socketed axeheads were commissioned to test the research aims presented in Section 4.7.1, though Neil Burridge produced eight in total to ensure a high likelihood of successful castings. These were based upon an incomplete example from the St Buryan hoard, Cornwall (Fig.D.1; RCM-F035a). The Royal Cornwall Museum kindly provided a cast of the axe from which Neil Burridge was able to reconstruct a model. The axes were cast in four different sand moulds based on this model in three different compositions. Details of the individual replicas are presented in Table D.1, alongside a discussion of the archaeological example chosen for reproduction, the selected compositions, and the post-casting processes undertaken.

D.2.1 The St Buryan Axe

The axes were produced based upon a largely complete Type Welby/Southern English socketed axe example from the St. Buryan hoard, Cornwall (RCM-F035a**;** Fig.4.4). This axe was selected for several reasons. Firstly, the hoard dates to the Ewart Park phase (1000-800BC), when deliberate destruction of material was a common practice (Turner 2010a); alongside the Welby axe, the hoard also includes a fragmented socketed axe broken across the lower blade, and nine ingot fragments. The Welby axe has broken from the socket mouth down one blade face. It is 103.5mm long, 51.2mm wide at the cutting edge, and its surviving weight is 310g. A second key reason was the availability of a cast

replica of this object offered by the Royal Cornwall Museum, which enabled an accurate metal replica could be produced. Finally, the slight damage sustained to the St. Buryan axe (i.e. the split down one face) is likely accidental, rather than deliberate. When cast, it appears the socket core was slightly misaligned, causing the socket walls to be thinner on one side than the other. The axe has broken through this thinner side, which is suspected to be accidental breakage

Table D.1: Details of the axes produced, following basic preparation after casting. The weights of the axes with and without their casting jets is presented. The details of the St. Buryan axe are presented underneath.

Mould No.	**Axe No.**	**Dimensions (mm)**					
		Length	*Blade Width*	*Socket Diameter External*	*Socket Diameter Internal*	*Weight (g) with casting jet*	*Weight (g) without casting jet*
1	1.1	103.5	50	43.4x40.2	30.2x27.8	-	256
2	1.2*	104.3	49.8	43.9x40.1	-	328	-
3	1.3	103.4	49.6	44x40.3	29.3x28.2	-	246
4	1.4	104.1	49.9	43.7x40.1	28.9x28.7	322	238
1	1.5	103.9	50.9	43.8x40.8	28.9x26	371	273
2	1.6	103.6	49.6	43.1x40.4	29.6x28.4	341	267
3	1.7	105	50.4	43.8x40.7	28.9x27.5	-	301
4	1.8	104.1	50.2	43.8x40.5	29.3x29.1	-	286
St. Buryan Axe		103.5	51.2	46.7 (width only)	32.2 (width only)	-	310

*This axe was left as-cast, with the casting jet still attached.

through use. This means that the axe form would be appropriate for assessing the likelihood of an axe breaking through accident, as well as intent.

The replicas closely resemble the size of the St. Buryan axe, with only 3-4mm difference in both length and blade width. The weight, however, varies, and all are 9-72g lighter than the original. This variation might be accounted by the difference in compositions, but is more likely to do with the casting process and the degree to which the metal filled up the mould around the core as well as the shrinkage of the metal as it cooled.

The St. Buryan axe has been analysed using X-Ray Fluorescence (XRF) spectroscopy and interpreted by Peter Northover, providing results of 83.37% copper, 15.02% tin, 0.975% lead, plus minor elements (Tyacke 2012). All metallurgical compositions are by weight unless otherwise specified.

Fig.D.1: The St Buryan socketed axe (source: Author courtesy of the Royal Cornwall Museum)

D.2.2 Compositions

Compositional analyses have been undertaken of numerous socketed axes across Britain and Ireland, though at present there is no comprehensive collection of analyses. Peter Northover (n.d.) has conducted the most thorough investigation of the metallurgy of Bronze Age artefacts in South West England. Table D.2 presents this data, whilst Figure D.2 summarises the lead-tin percentages of 39 axes, with the individual types colour co-ordinated. Lead and tin percentages have been highlighted here rather than minor elements, which would have only limited effect on the overall performance of the metal by comparison. Higher tin percentages will increase the hardness, but also the brittleness of bronze, while lead lowers the overall tensile strength and ductility, making it more likely to break (Section 3.3.1).

The axes sampled vary greatly in the percentages of tin and lead, and chronologically span the Bronze Age. Despite this, a cluster of 24 axes analysed (61.5%) possess between 6-14% tin and 0-8% lead. One undifferentiated three-ribbed axe and one Type Welby were analysed by Northover, both falling within this cluster. Clearly, this sample is not sufficient to make any generalisations, though other Ewart Park phase axes have been highlighted, the majority of which also fall within this cluster.

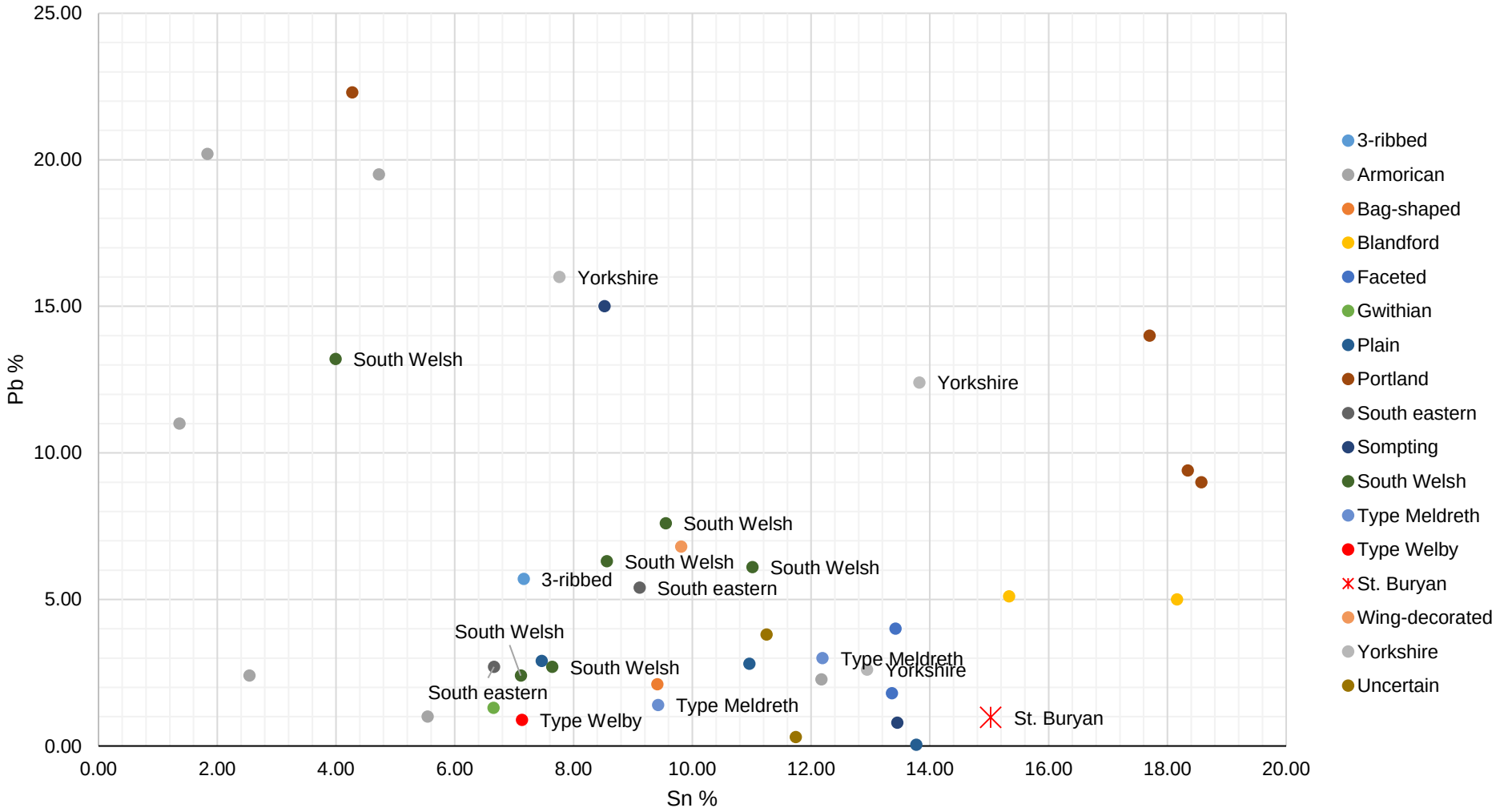
Table D.2: The known compositions of socketed axes in South West England, organised by type. This is previously unpublished data of analyses conducted by Peter Northover and is presented here with his permission.
"Pearce No." relates to Pearce (1983). LBA = Late Bronze Age; EP = Ewart Park; LF = Llyn Fawr.

Thesis No.	Northover No.	Findspot	Axe type	Period/ phase	Mus. Ref. No.	*Metal Percentages (by weight)*											Pearce No.
						Cu	Sn	As	Sb	Pb	Co	Ni	Fe	Ag	Au	Zn	
TTNCM-F058e	Ta 9	Stogursey	3-ribbed	EP	51B (81)	86.71	7.16	0.08	0.12	5.70	tr	0.09	tr	0.14	tr	-	746a
n/a	Tr 25	Gwinear	Armorican	LF	No ref.	94.88	2.54	**0.03**	-	2.40	-	0.07	-	0.02	0.06	-	60c
n/a	Tr 26	Gwinear	Armorican	LF	No ref.	93.18	5.54	0.10	-	1.00	-	**0.04**	tr	**0.04**	**0.10**	-	60d
n/a	ASH 62	Carn Brea	Armorican	LF	NC359	85.12	12.17	0.09	0.15	2.27	-	0.09	0.03	0.08	-	-	129b
PCMAG-F004o/p	PLY 1	Mountbatten	Armorican	LF	291.11	74.85	4.72	0.74	0.08	19.50	0.01	0.07	tr	0.03	tr	-	281c
PCMAG-F004o/p	PLY 3	Mountbatten	Armorican	LF	37.73	77.53	1.83	0.42	-	20.20	tr	0.02	-	tr	-	-	281b?
RCM-F025	Tr 11	Newlyn	Armorican	LF	No ref.	86.33	1.36	0.84	0.28	11.00	0.02	0.11	-	0.06	-	-	115
n/a	Ta 65	Wellington	Bag-shaped	LBA	1761	88.22	9.41	0.09	0.02	2.10	tr	0.06	tr	0.04	0.06	-	769
DCM-F037b	Dor 29	Thorney Down III	Blandford	LF	1952.36.5	75.79	18.16	0.28	0.25	5.00	0.03	0.27	tr	0.14	-	**0.08**	407d
DCM-F037e	Dor 30	Thorney Down III	Blandford	LF	1952.36.4	78.65	15.33	0.40	0.17	5.10	0.01	0.27	tr	**0.07**	-	-	407e
n/a	ASH 46	?Somerset	Faceted	LBA	1927.2630	84.37	13.36	0.23	0.04	1.80	0.08	0.07	0.05	-	tr	-	827
RAMM-F006	Ex 31	Bovey Tracey	Faceted	LBA	198/1961	80.02	13.42	0.79	0.80	4.00	tr	0.14	**0.05**	0.66	**0.12**	tr	189a
TTNCM-F027	Ta 37	Loxton Hill I	Gwithian	LBA	22C	89.71	6.65	0.64	0.84	1.30	0.04	0.58	0.05	0.16	**0.03**	-	678
n/a	ASH 43	Nr Plymouth	Plain	LBA	1927.2625	86.10	10.96	0.14	Tr	2.80	-	-	tr	tr	-	tr	284
n/a	ASH 49	?Bristol	Plain	LBA	1927.2634	85.14	13.77	0.32	0.06	0.04	0.04	0.61	0.02	-	-	-	829
PCMAG-F004m	PLY 10	Mountbatten	Plain	LBA	No ref.	89.34	7.46	0.08	0.08	2.90	-	0.07	tr	0.07	tr	-	281a
n/a	Dor 24	Eggardon	Portland	LF	1884.2.3	71.40	18.57	0.90	-	9.00	0.01	0.05	tr	0.05	tr	0.02	336
n/a	Dor 25	Eggardon	Portland	LF	1884.2.2	71.29	18.34	0.76	-	9.40	0.04	0.08	tr	0.09	-	-	336
n/a	Dor 26	Eggardon	Portland	LF	1884.2.1	72.71	4.27	0.62	Tr	22.30	0.03	0.02	0.01	0.04	tr	-	336
n/a	Dor 27	Eggardon	Portland	LF	1884.2.4	67.67	17.70	0.43	-	14.00	0.05	0.04	0.05	0.02	-	0.04	336

ASH-F014	ASH 47	Worlebury Hill	South eastern	EP	1927.2656	90.06	6.66	0.34	0.05	2.70	tr	0.08	tr	0.07	0.04	-	776g
RAMM-F008	Ex 30	Broad Down (Barrow C),	South eastern	EP	A340	84.66	9.11	0.31	0.27	5.40	0.01	0.09	tr	0.11	-	0.04	236
PCMAG-F004	PLY 11	Mountbatten	Uncertain	LF?	253.18	84.45	11.25	0.21	0.08	3.80	0.01	0.10	tr	0.10	-	-	281
PCMAG-F004	PLY 5	Mountbatten	Uncertain	LF?	254.18	87.00	11.74	0.64	Tr	0.30	0.08	0.14	tr	0.07	0.03	-	281
DCM-F026	Dor 33	Milborne St. Andrew I	Sompting	LF	1884.8.1	85.19	13.45	0.25	0.20	0.79	0.01	0.11	-	-	-	-	421
TTNCM-F021b	Ta 38	Ham Hill	Sompting	LF	22B	75.79	8.52	0.37	0.12	15.00	tr	0.12	**0.02**	**0.03**	tr	**0.03**	748c
n/a	Dor 36	Sydling St. Nicholas	South Welsh	EP	1940.4.1	90.03	7.11	0.19	0.10	2.40	0.02	0.08	0.01	0.06	tr	-	446
n/a	Dor 44	Dorset	South Welsh	EP	1902.1.10	82.21	9.55	0.25	0.19	7.60	-	0.13	tr	0.07	tr	-	558
TTNCM-F058r	Ta 6	Stogursey	South Welsh	EP	56B (85)	82.69	11.01	0.15	Tr	6.10	0.02	0.01	-	0.02	-	-	746a
TTNCM-F058t	Ta 7	Stogursey	South Welsh	EP	50A	81.85	3.99	0.71	Tr	13.20	0.03	0.17	tr	0.02	tr	0.03	746a
TTNCM-F058o	Ta 8	Stogursey	South Welsh	EP	49B (80)	84.17	8.56	0.74	0.04	6.30	0.01	0.02	0.01	0.04	0.11	-	746a
TTNCM-F058n	Ta 10	Stogursey	South Welsh	EP	52B	89.07	7.64	0.26	0.12	2.70	0.02	0.08	0.01	0.07	**0.03**	-	746a
DCM-F015	Dor 35	Fordington II	Meldreth	EP	1917.2.1	88.60	9.42	**0.17**	0.16	1.40	0.02	0.10	0.02	0.05	0.03	0.03	393
TTNCM-F058y	Ta 20	Stogursey	Meldreth	EP	62B (83)	84.31	12.19	**0.27**	0.07	3.00	0.03	0.03	0.02	0.08	-	tr	746c
n/a	ASH 58	?Bristol	Welby	EP	1927.2631	91.67	7.13	**0.1**	0.09	0.89	-	0.07	tr	0.05	-	tr	828
n/a	Dor 34	Fifehead Neville	Wing-decorated	LBA	1896.3.1	82.79	9.81	0.23	0.14	6.80	0.01	0.13	-	0.09	tr	tr	388
n/a	Bs 8	Sea Mills	Yorkshire	EP	E3869	75.85	7.76	0.16	0.13	16.00	-	0.08	0.02	-	-	-	604
n/a	Ta 40	Somerset	Yorkshire	EP	21C	84.02	12.94	0.16	0.08	2.60	tr	0.09	0.01	0.10	tr	-	832
TTNCM-F023d	Ta 41	Hayne	Yorkshire	EP	82A	73.63	13.82	0.08	0.03	12.40	0.01	-	tr	0.03	-	-	700d
RCM-F035a	n/a	St. Buryan*	Welby	EP	-	83.78	15.02	-	0.05	0.98	-	-	0.1	-	-	0.08	7a**

*The axe from St. Buryan was analysed using XRF spectroscopy and as such the range of data available differs from the other analyses. Additionally, the copper percentage represents only the remaining balance and it is likely that other minor elements are present within the composition.
**This number relates to Knight *et al*. (2015), rather than Pearce (1983).

Fig.D.2: The tin-lead (Sn-Pb) ratio in socketed axes in South West England with Ewart Park phase axes labelled (source: Author using data from Table D.2)



The composition of the St. Buryan axe does not conform to the main cluster, with an uncharacteristically high level of tin. The high tin percentage, however, might be explained by the method of analysis used. As XRF is a non-intrusive analysis, it only records the relative composition of the surface of the object. This can often be influenced by any corrosion products that might build up. Depending on the depositional conditions, different metallic elements may build up or “leach out” of the original metal. This might result in a high build-up of copper salts, or tin oxide on the surface, resulting in a skewed surface composition, that does not reflect the original composition when cast (Northover pers. comm. 2016; Piccardo et al. 2007; Robbiola et al. 1998**)**. It is more likely that the tin percentage may have thus been closer to 12-14%, with tin enrichment caused by the depositional situation (cf. Piccardo et al. 2007; Robiola et al. 1998). Further variability in metal compositions might occur from the extensive reduction and recycling that was ongoing in the Late Bronze Age. More intrusive analysis would potentially highlight the true metallurgical composition of the St Buryan axe. Unfortunately, this observation regarding the XRF data was only highlighted after the production of the axes and thus the compositions produced do not account for the probable discrepancy in the analysis. Consequently, three axe replicas were cast with a composition of 84% copper, 15% tin and 1% lead to maintain a close comparison with the source material (Axes 1.1-1.3).

Five further axes were cast comprising two additional compositions. Three axes were produced with 8% tin and 2% lead (Axes 1.4-1.6), while two were produced with 8% tin and 4% lead (Axes 1.7-1.8). These compositions have been chosen as generalised comparisons for socketed axeheads of the Late Bronze Age. As the largest portion of damaged and destroyed metalwork occurs in the Ewart Park phase (1000-800 BC), only axes dating within this period were subjected to a mean analysis, providing a sample of 14 (excluding St. Buryan). Most of the other axes date to the Llyn Fawr period, which often possess abnormally high or low lead or tin contents, which would skew the resulting average. The mean composition for South West socketed axes analysed from the Ewart Park period is 8.90% tin and 6.21% lead.

As Neil had limited experience casting with percentages of lead over 1%, we made the decision to experiment with two different lead percentages (2% and 4%). While these are both less than the average and it would have been

preferable to match the higher lead average, safety concerns dictated a slightly lower percentage of lead. Moreover, these percentages are closely comparable with some of the archaeological examples. The tin percentage, meanwhile, was standardised at 8%, which is similarly comparable with numerous Ewart Park finds, though less than the calculated average. This decision was made by Neil Burridge who was familiar with casting 8% tin bronzes and wished to maintain a standard he had knowledge of to allow experimentation with the lead content. While an 8% tin-bronze is likely to balance the properties of bronze by raising hardness without becoming too brittle (see Fig.3.2), it is possible the proportions of lead would demonstrate a noticeable difference in the overall tensile strength of the material, when subjected to destructive processes. The three sets of compositions chosen thus offered a spectrum of different bronze properties that provided a set of varied results when the objects were subjected to destructive actions.

D.2.3 Casting

Four sand moulds were used to produce the eight axes all based off the same resin model (Fig.D.3). Two successful castings were produced from each mould, though there were slight variations. Firstly, the core was not standardised and was built for each individual axe based on what was right for the mould. This means that the sockets in some axes might be deeper than others, or the walls thicker for some than others – this might also account for the weight variation in the axes.

Additionally, while it was possible to take a second casting from each mould (due largely to the properties of the sand used), the moulds were slightly damaged during removal of the first casting (e.g. small bits of sand chipped away). What this meant, was that parts of the mould needed mending with small bits of sand, or was simply left as it was. This caused the second castings to ‘bleed’ (i.e. the unwanted leaking of metal within the mould) more around the casting seams, creating more casting flash, particularly towards the blade edge and around the socket mouth. All castings were undertaken on the same day in the same conditions and details of the different axes are detailed here:

Fig.D.3: The eight replica axes produced (1.1-1.8) comprising 3 different compositions (source: Author)

- **Axes 1.1-1.3:** Axes 1.1-1.3 were cast using 1000g of metal (150g tin, 11g lead, and 849g copper). The tin and lead were added to the crucible first as this allows them to alloy together better, and then the copper was added. A potential downside of this is that the tin and/or lead might evaporate out (Neil Burridge pers. comm.). Wang and Ottaway (2004, 6), for instance, added lead to their alloys just before they were ready to pour to reduce the potential lost through evaporation. The high tin content resulted in a silvery finish on the axes.
- **Axes 1.4-1.6:** Initially, 1000g of metal was also prepared for axes 1.4-1.6 (80g tin, 21g lead, 899g copper), but Neil Burridge suspected this would not be enough after axes 1.4 and 1.5 were cast so a further 100g of metal (8g tin, 2g lead, 90g copper) of the same composition was made up and added to the crucible. This appears to have affected the

composition of Axe 1.6 which is noticeably more pearlescent than Axes 1.4 and 1.5, perhaps because the metal did not mix as well, or cooled at a slower rate. However, all three axes are distinctly more golden in colour than axes 1.1-1.3.

- **Axes 1.7-1.8:** 700g of metal was melted for these final two axes (56g tin, 28g lead, 616g copper). The colour is again distinctive from the other compositions, with the surface golden but duller.

  What was most interesting from this process was the appearance of the axes after casting (Fig.D.4). It is possible to identify which axe possessed which composition based purely on the surface colour, which has been noted as a key method for identifying compositions (e.g. Kim *et al*. 2006; Kuijpers 2014, 89ff.). Indeed, Kuijpers (2014, 89ff.) used colour as a key characteristic for his perceptive categories, which indicate how a metalworker might identify the composition they were working.

Fig.D.4: Replica Axes 1.2 (15% Sn; 1% Pb) (left) and 1.4 (8% Sn; 2% Pb) (right) demonstrating the difference in colour caused by composition. The higher tin content in Axe 1.2 means it has a slightly more silvery appearance, whereas Axe 1.4 is more yellow. (source: Author)

It is also worth considering the casting jets and material in this process. The axes were casting through pouring cups with four runners, which comprised a large portion of the weight of the axes (Table D.1). Although this data was only collected for four of the axes, it offers a good impression of the weight of metal lost in the casting jets.

None of the axes were quenched after casting, which affects the internal phases and overall metallurgy, as described in Section 3.3.1. Metallographic study would allow a better interpretation of this.

D.2.4 Post-casting processes

Most of those socketed axes found damaged or destroyed show signs of having been prepared and used. Consequently, the casting material of the socketed axes (i.e. the flash down each side of the axe and the casting sprues) was removed, which involved using a chisel to remove the sprues and grinding the socket mouths and sides to produce a smooth edge. However, to limit the variables involved in these experiments, the axes were otherwise left as-cast, with no further working (e.g. hammering, polishing or sharpening). Although this contrasts with the archaeological artefacts, the limited research conducted into the use and destruction of socketed axes meant it was important to focus on fewer variables (e.g. temperatures to which the axes are heated; or the tools used to break the axes), which would have been complicated by varying degrees of working and use. This approach was similarly adopted by Roberts and Ottaway (2003) who avoided hammering their socketed axes to limit variability of hardness factors in their use experiments.

D.3 Swords

Four Ewart Park swords were produced during this research. They were cast in two sand moulds in two different compositions by Neil Burridge, though based on the same original model. Two of the swords (2.1 and 2.2) were prepared for use with hilts attached. Details of the individual swords are presented in Table D.3, alongside a discussion of the archaeological example chosen for reproduction, the selected compositions, and the post-casting processes undertaken.

D.3.1 The St Erth Hoard I sword

The four swords were based upon an incomplete Ewart Park sword from St Erth Hoard I, Cornwall (Fig.D.5; RCM-F037a). This hoard contains 27 pieces of broken metalwork, four of which refit to form the hilt and upper blade of a sword. The remaining fragments comprise socketed axe fragments, a socketed gouge fragment, a Gündlingen sword fragment, and numerous ingot fragments. The material in this hoard dates to the Ewart Park phase (c.1000-800 BC), though the Gündlingen fragment may suggest a deposition date in the 8th century BC. A second Late Bronze Age hoard and two pieces of goldwork (RCM-F038-F040) were also found nearby, establishing an interesting context.

The sword fragments refit to a surviving length of approximately 285mm and a combined weight of 304g, though much of the sword is absent, and the surviving pieces are corroded and abraded. A complete example thus had to be reconstructed by Neil Burridge based on a thorough observation of the surviving pieces, as well as complete examples. The decision to replicate this incomplete example, rather than a complete one was partly due to the availability of the material for study, as well as the surviving evidence that this sword had been deliberately fragmented, offering the opportunity to test methods for reproducing comparable damage.

The resulting dimensions of the replicas are slightly larger than anticipated (Table D.3), but are nonetheless suitable. The shoulder and hilt dimensions exceed the size of the surviving St. Erth pieces, which allows for material lost through post-depositional erosion and corrosion damage. The length of the sword was estimated by Neil Burridge, but is larger than many of the surviving complete examples from South West England (e.g. that from Pole Sands, Devon: RAMM-F038), but is comparable to an incomplete Ewart Park

Fig.D.5: The St. Erth Hoard I sword (RCM-F037a) (source: Author courtesy of the Penlee House Gallery and Museum)

Table D.3: Details of the replica swords at different stages of their production.
*n/o: not observable. L = Length. Bl = Blade; W = Width; Th = Thickness; Fl. Br. = Flange Breadth; Sh. W. = Shoulder Width; Wt. = Weight.

Sword No.	Condition	Dimensions (mm)						
		L.	Bl. W.	Bl. Th.	Hilt W.	Fl. Br.	Sh. W.	Wt. (g)
2.1	As-Cast	649	46.3	7.6	38.8	9.1	53.3	742
	Preparation pre-handle (edge-grinding, cold-hammering, casting sprue and flash removed, polishing/working)	628	46.2	7.5	38	9.1	52.8	701
	With handle, sharpened	660	45.5	7.5	38	9.1	52.8	778
2.2	As-Cast	676	45.6	7.5	39.6	9.6	55.3	752
	Preparation pre-handle (edge-grinding, cold-hammering, casting sprue and flash removed, polishing/working)	626	44.8	7.5	38.1	9	52.6	704
	With handle, sharpened	658	44.8	7.5	38.1	9	52.6	774
2.3	As-Cast (casting sprue removed)	630	45.6	7.6	40.7	8.9	54.1	722
2.4	As-Cast (casting sprue removed)							
St. Erth Hoard I	Incomplete, in 4pc.	c.285	n/o*	9.2	38.2	7.7	40	304

sword from Cranborne, Dorset (BM-F016), which is only 40mm shorter and missing its tip.

The example from St. Erth Hoard I is largely characteristic of the Ewart Park type, possessing a fishtail terminal; a slightly flanged, bulging hilt; rounded shoulders; and two rivet holes in the tang, and one in each shoulder. It aligns well with the Western Step 2 classified by Colquhoun and Burgess (1988, 66ff.). However, this is also an interesting example of a Ewart Park sword due to its slightly stepped and flattened midrib, which is typically more rounded. This design feature does not affect the overall form of the sword though, and may simply reflect an individual variation.

The fragmentation of the sword bears no associated marks, such as impact marks or bending, which is typical of many sword fragments. From the pilot experiments, it can be suggested that this is because the sword was broken when hot, but by trying to replicate the fragmentation of an archaeological example, which was broken in certain places, the potential for controlling the damage inflicted upon the sword can be explored.

D.3.2 Compositions

Northover (1988) presented a broad compositional analysis of typologically, and geographically, diverse swords. Much of the metal used at this time was likely recycled material from the Continent, though the finds from Stogursey,

Somerset, indicate some metal of British origin was being utilised at the time (Northover 1988, 138). Northover (ibid.) states that “such metal would probably be a low-lead bronze with 8-12% tin and with arsenic the only impurity above 0.1%”. However, further exploration of this within the South West sword compositions is difficult due to the limited number of Ewart Park swords analysed. Northover (n.d.) has analysed 17 swords from this region, of which only six can conclusively be determined as Ewart Park (see Table D.4). Table D.4 summarises these six objects only, and their tin-lead ratios are presented in Figure D.6. This sample of only six objects cannot be deemed representative. It is, however, noticeable in Figure D.6 that there is a narrow range in the tin percentage for five of the six swords (8.46-9.02%), which suggests a preferred percentage of tin. Lead, on the other hand, offers less insight, with one sword seemingly possessing no lead whatsoever (BCMAG-F006), while another contains 15.90% (TTNCM-F058u3). However, three of the swords possess lead within the range 1.30-2.80%. These examples were used to inform decisions about the composition of the replica swords. Neil Burridge initially produced two swords (2.1 and 2.2) composed of 9% tin and 1% lead, with the remainder being copper. Low lead percentages were undertaken due to safety concerns around utilising lead, while also aligning with the general data from the region. Low level impurities (e.g. arsenic and nickel) were not included in the compositions, as they would have limited effect on the resulting material and would have raised manufacturing costs. While working with Neil Burridge, he also produced two further swords of the same style (2.3 and 2.4), but with 8% tin and 2% lead, which he generously donated to this project. This allowed the opportunity to see if there was any noticeable difference in the minor change in composition, while also allowing some cross-comparison between the socketed axes and the swords.

Following the analysis of this research, it transpired that the St. Erth hoard had been metallurgically analysed in an unpublished report by Peter Northover (n.d.). Multiple analyses were taken for each object and then averaged; the results for the St. Erth sword fragments are presented in Table D.5.

Table D.4: The known compositions of Ewart Park swords in South West England (source: Northover 1988; n.d.)

Thesis No.	Northover's Sample No.	Provenance	Object	Mus. Ref. No.	Cu	Sn	As	Sb	Pb	Co	Ni	Fe	Ag	Au	Zn	Pearce No.
ASH-F006	Ash 57	Devon	Ewart Park sword	1927.2381	90.12	8.46	tr	-	1.30	0.02	0.03	Tr	0.07	-	-	325
BCMAG-F005	Bs 1	Bristol Bridge	Lower blade of Ewart Park sword	F2169	90.65	8.91	0.20	0.11	-	0.02	0.09	0.02	-	-	-	606
RAMM-F040	Ex 35	Pole Sands	Ewart Park sword	574/1911	87.66	9.02	0.13	0.13	2.80	0.03	0.13	Tr	0.03	0.03	0.04	265
TTNCM-F058t3	Ta 5	Stogursey	Ewart Park hilt	68B (36)	82.56	10.25	0.31	0.19	6.50	0.01	0.10	Tr	0.08	tr	tr	746j
TTNCM-F058u3	Ta 16	Stogursey	Ewart Park hilt	68C	73.61	8.99	0.48	0.53	15.90	tr	0.15	Tr	0.24	0.10	-	746i
TTNCM-F058x3	Ta 22	Stogursey	Ewart Park hilt	38.68.A	87.82	8.76	0.31	0.22	2.50	tr	0.13	0.02	0.24	tr	-	746j?

Fig.D.6: The tin-lead ratio in Ewart Park swords from South West England (source: Author from Table D.4)

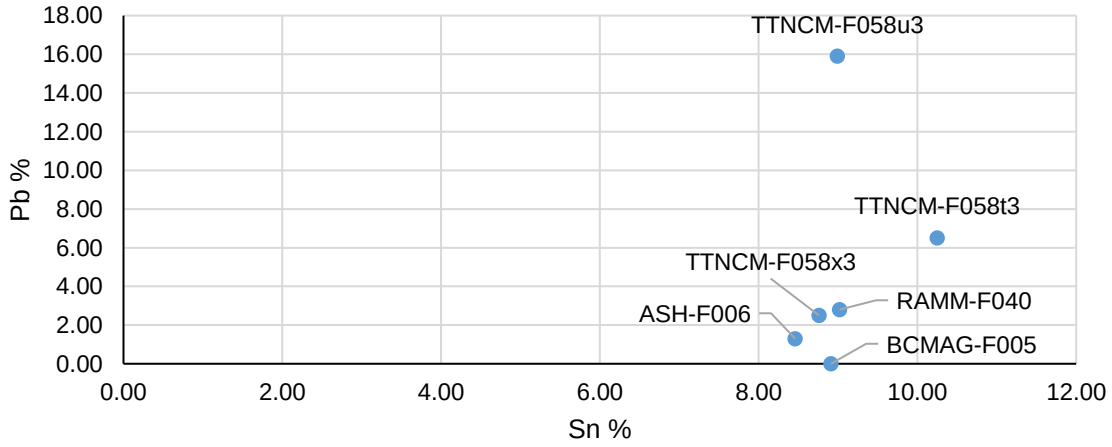


Table D.5: Compositional details of the St Erth Hoard I sword fragments (source: Northover n.d.)

Northover No.	Thesis No.	Object	Element (% by weight)														
			Fe	Co	Ni	Cu	Zn	As	Sb	Sn	Ag	Bi	Pb	Au	Cd	S	Al	Si
Tr 351/Mean	RCM-F037a.1	Sword hilt	0.02	0.02	0.07	88.44	0.01	0.05	0.09	10.74	0.04	0.02	0.45	0.01	0.02	0.00	0.00	0.01
Tr 352/Mean	RCM-F037a.2-3	Sword blade	0.02	0.01	0.08	85.25	0.02	0.05	0.03	13.34	0.00	0.01	0.89	0.05	0.00	0.19	0.01	0.05
Tr 353/Mean	RCM-F037a.4	Sword fragment	0.01	0.02	0.05	89.68	0.00	0.03	0.01	9.89	0.00	0.01	0.23	0.01	0.00	0.02	0.01	0.03

As can be seen, the St. Erth sword was produced of a predominantly tin-bronze, with around 10% tin present, but with less than 1% lead. This means that the compositions selected for the replicas sword have a tin percentage that is too low, and a lead percentage that is too high. While this might affect the results of producing comparable marks on the replicas with the originals, this does not diminish the relevance of the results for comparison with other archaeological specimens of a closer metallurgical composition.

D.3.3 Casting

An artificial sword model was produced by Neil Burridge ahead of casting, which was used to press a negative into a bivalve (two-part) sand mould. For each sword, 1000g of metal was melted in a crucible, in the appropriate weight ratios, with tin and lead added first, and poured into the mould. Each cast was successful, without casting flaws (Fig.D.7). However, Swords 2.3 and 2.4 demonstrated a more uneven flow of the metal along the blade, which may be related to the slight difference in composition. Alternatively, these two swords were cast on a separate occasion to Swords 2.1 and 2.2 and it may be that different external conditions (e.g. colder air) affected the casting.

D.3.4 Post-casting processes and preparation

Northover (1988, 131-132) detailed a general manufacturing process for swords, including the removal of casting jets and runners, followed by the grinding, polishing and overall working of the blade. It is rare to encounter a sword that has been left as-cast, with none of the examples studied from South West England indicative of having received no working at all. Swords 2.1 and 2.2. were thus prepared for use. The casting jet and runners were removed from Swords 2.1 and 2.2 using a steel

Fig.D.7: The as-cast Swords 2.1 and 2.2 out of the moulds (source: Author).

hammer, and an electric grinder was used to remove any casting flash. The surfaces were then sanded and polished using medium and fine-grain sandpaper to remove any casting material that survived. The swords edges were hardened by cold-working, to produce bevelled edges comparable to those seen on archaeological examples (Fig.D.8). Neil Burridge has devised a mechanism for performing this task, whereby the blade is placed between two square-section steel bars set up like a hammer and anvil; the blade is guided through this set-up as the upper bar is struck from above with a hammer to create an impact on both sides of the blade. This technique, although clearly inaccurate due to its steel components, produces an archaeologically comparable edge that has yet to be achieved by traditional approaches (e.g. Bridgford 2000); thus, following Molloy (2006, 177-8), it is possible to argue that perhaps the overall principles of the technique may have some archaeological substance, although not in materials. The edges were not annealed and the central rib was left as-cast and unworked. This decision was made because evidence of hardening along the flat of the blade is difficult to identify and consequently leaving the blade unhardened reduced the potential effect of this variable.

Rivet holes were then drilled in preparation for attaching a hilt. Selecting, producing, and fastening a sword hilt could constitute a whole series of separate experiments, so for this project, hilts were produced according to Neil Burridge's usual technique. While metal hilts on Ewart Park swords are known, they are rare, and none have ever been found in South West England, so an organic handle was appropriate. The hilt was produced from commercial ash

wood, and was formed of two shaped hilt plates that fitted either side of the metal hilt of the sword (Fig.D.9). A section of wood projected from each hilt plate above the hilt terminal onto which a pommel could be fitted using a mortise and tenon joint. The hilt plates were secured to the sword tang using copper rivets. The use of ash is well-documented in prehistory making it appropriate for this replica, though other types of wood, and other types of organic material would also have been appropriate. Similarly, evidence for pommels is widespread, though variable, with much of the evidence surviving in the form of metal hilts, and slight projections on hilt terminals (see various examples in Colquhoun and Burgess 1988). A key feature of pommels is that they greatly improve the balance of the sword, which will be useful during the use-experiments prior to destruction.

Fig.D.8: One of the edges of Sword 2.1 following hammering (source: Author).

Fig.D.9: Swords 2.1 and 2.2 with the hilts drilled and the ash hilt plates prepared for attachment (source: Author).

Finally, in preparation for use, the edges were sharpened using a silicon carbide sharpening stone to create a broad convex edge, which, following Molloy (2006, 193), would make the blade more resistant to damage. Only the lower blade of the sword was sharpened from the widest part of the blade to the tip because many of the swords studied tend to show greater evidence of this feature.

D.4 Barbed Spearheads

Three barbed spearheads were produced based upon the incomplete examples from the Bloody Pool hoard, Devon. These artefacts were handled and studied courtesy of the RAMM museum, Exeter, and Neil Burridge produced a complete model based on the surviving pieces. Three replicas were cast in two sand moulds. Two of the spearheads (3.1 and 3.2) were hafted with an ash shaft. Details of the individual spearheads are presented in Table D.6, alongside a discussion of the archaeological example chosen for reproduction, the selected compositions, and the post-casting processes undertaken.

D.4.1 The Bloody Pool Spearheads

In 1854, a hoard of spearheads and ferrules was discovered in a bog on Dartmoor called the “Bloody Pool” (Pearce 1983, No.295; Tucker 1867, 120-122). Three barbed spearheads were represented by five fragments, alongside an incomplete late pegged spearhead, and four ferrule fragments. The hoard has been dated to the Blackmoor phase of the Late Bronze Age (c.1020-920 BC; Davis 2015, 190-191) and it is suspected that the spearheads were deliberately broken. The watery context in which it was deposited contributes to the potential significance of this activity.

Table D.6: Details of the spearheads produced, following basic preparation after casting. L = Length; Bl = Blade; W = Width; Th = Thickness; Sock.Diam. = Socket Diameter; Ext. = External; Int. = Internal; Wt. = Weight; w/o = without.

Spear No.	Dimensions (mm)						
	Length	Bl. W.	Bl. Th.	Sock. Diam. Ext	Sock. Diam. Int.	Wt. (g) w/o core	Wt. (g) w/ core
3.1	291	71	19	26.1x26.2	21.6x21.9	497	574
3.2	291	71.5	19.6	26x25.9	21.4x21.1	460	529
3.3	290	70.2	19.6	26.3x26.5	21.8x21	511	-

Due to the incomplete spearhead fragments, a complete example was reconstructed by Neil Burridge based on a thorough observation of the surviving pieces, as well as complete examples. The fragments of barbed spearhead that were lost were estimated to have represented a spearhead 352mm long (Tucker 1861, 161), though Davis (2015, 181) notes that of the 16 complete surviving spearheads the mean length is 265mm, with the longest being 289mm, from Congleton, Cheshire. Because the estimated length of the missing spearhead from Bloody Pool is doubtful, a spearhead was produced based on the surviving dimensions of the Bloody Pool examples (e.g. blade width and thickness), but with an overall length of the Congleton example to accommodate the possibility that the missing spearhead did in fact represent a large version.

The resulting dimensions of the replicas are slightly larger than anticipated, due to difficulties in casting these objects (see Section D.3.3). The replica blades were about 6-7mm wider and 4-5mm thicker than the originals; nonetheless, these dimensions do have archaeological comparisons (e.g. a barbed spearhead from Speen, Berkshire; Davis 2015, No.1320). A significant difference, however, is the weight of the replicas, which ranges from 460-511g. The heaviest recorded barbed spearhead is from Speen weighing 397g (ibid.), making the replicas up to 114g heavier than the heaviest known artefact. This, again, results from issues of casting, and the large size of the spearhead. However, this should not be detrimental to understanding deliberate damage.

D.4.2 Composition

There has been limited metallurgical investigation of barbed spearheads, but compositional analysis of the surviving Bloody Pool spearheads has been undertaken by Northover (n.d.). The barbed examples demonstrated a low lead percentage (1% and 2%), an average tin content (9.64% and 10.53%), and limited other minor elements, possibly indicating a production using local materials. All three replicas were thus produced with a composition of 87% copper, 11% tin and 2% lead. This composition allows a direct comparison with the archaeological artefact.

D.4.3 Casting

An artificial model of a spearhead was produced by Neil Burridge ahead of casting and this was used to press a negative into a bivalve sand mould.

Replicas of barbed spearheads have never been produced before and thus some difficulties were encountered in attempting casting.

The spears were cast through the sockets, rather than through the tip, which appears to have been how the originals were cast (Neil Burridge pers.comm.). The blade walls of the Bloody Pool spearheads are thin (c.1mm), which means that during casting, the core had to fill the majority of the mould, while allowing space for the metal to fill the void, which in some places was less than a millimetre. The difficulties of this can be observed in the casting flaws in Spearheads 3.2 and 3.3 (Fig.D.10). These have occurred where the core moved during casting and blocked the flow of metal. Similar complications have been encountered in the production of other large spearheads (Roland Williamson pers. comm.).

Additionally, each spearhead was cast in a different mould, with an individual core, which accounts for variations in the casting flaws and completeness of the spearheads, as well as the weight. As I was interested in having relatively complete specimens, cores made from modern clay were used for casting, to enhance the chances of obtaining a full casting; these were removed after casting. However, as one of the Bloody Pool spearheads still has its core left *in situ*, archaeologically comparable coring material was made up and packed into Spearheads 3.1 and 3.2 after casting and left to dry. This core material was made from 50% clay, and equal parts sand and dried horse manure. Although it would have been ideal to have incorporated this core from the beginning, it was doubtful that successful castings would be obtained, and as my experiments ideally required complete specimens, a compromise was made.

D.4.4 Post-casting processes and preparation

The casting material of the spearhead replicas was removed in the same manner as the swords and axes, and the socket mouth was ground to a flat surface. Peg holes were drilled into the side of each socket close to the tips of the barbs, as seen on the originals.

Fig.D.10A: Spear 3.1 at the top, cast without flaws, with Spear 3.2 underneath showing two casting flaws in the blade wall towards the tip (source: author's photo)
Fig.D.10B: Spear 3.3 showing a long casting hollow through the blade walls down the midrib (source: author's photo)

Fig.D.11: The edge of a Bloody Pool spearhead (RAMM-F005a) showing evidence of working and material loss (source: author's photo courtesy of the RAMM, Exeter)

Analysis of the Bloody Pool fragments indicated evidence of similar preparation, including grinding and polishing (Fig.D.11), but it was difficult to identify whether the blade edges had been prepared for use. There is significant material loss to the edges of the originals, which may be the result of use-wear, but this is equally likely the result of post-depositional corrosion or abrasion damage.

The use of barbed spearheads has been highly debated. Evans (1881, 339) disregarded their potential as "fishing spears" due to their size, but suggests instead they may have been used to hunt larger game. Atkinson (pers. comm. in Ehrenberg 1977, 23), however, suggests that they may have been suitable for very large fish, such as sturgeon. Burgess et al. (1972, 227), conversely, contested that the association between these spearheads and watery contexts does not support a hunting function. Instead, they proposed the spears may have possessed a ceremonial or ritual purpose (ibid.). Richard Davis (2015) argues for this latter view also.

There is little suggestion that they may have been combat implements, though if they had a practical use it would likely have been as a thrusting or throwing implement. No experiments have been conducted to test these

theories, and little attention has been paid to the evidence of use present on the barbed spearheads, which occasionally show signs of edge damage.

Due to this uncertainty, the spearheads were left largely unworked. The edges were ground to remove excess casting, but were not work-hardened or sharpened. Similarly, the blade faces were sanded with fine and medium grain sandpaper to remove any mould material (e.g. burnt sand). This reduced the number of variables involved in preparation, without compromising the archaeological evidence.

D.4.5 Hafting

Despite the lack of edge working, it was decided that at least one of the spears should be subjected to minor use-experimentation (see below) and thus the spearheads required hafting. As with attaching a hilt to the swords, however, this could constitute its own series of experimentation and debates around this process necessitates a broader discussion.

At least six prehistoric complete spearheads with shafts are known from Europe currently (Hooper and O'Connor 1976, 35-36). The shortest shaft is 143cm and three are approximately 2.5m, indicating the large size of at least some spears. None of these are barbed spearheads, however, so these shaft lengths can only be approximated here with caution. Previous experiments with other spear types have utilised shafts at lengths of 78cm (Anderson 2012, 83-84), 150cm (Anderson 2012, 83-84; Davis pers.comm.), and 180cm (Molloy 2006, 190), which have been shown to be effective. A shaft of at least 150cm long thus seemed appropriate, especially given the larger size of the barbed spearheads.

Determining the wood that should be used for the shaft is similarly problematic. Early twentieth century analysis of wood remains found in spearheads have shown that shafts are usually made from ash, or sometimes pinewood (Greenwell and Brewis 1909, 467), though only one barbed spearhead has been found with wood and subsequently analysed. At Park Wood, Ruislip, London, a Type III barbed spearhead was discovered with a short piece of ashwood shaft still in the socket (Cotton 1986, 5; Davis 2015, No.1375); this is consistent with wood found in other types of spearheads, though oak is also relatively common (see examples in Coles et al. 1978, 34-42). Previous spear experiments have also favoured ash (Anderson 2012, 83-4;

Davis pers. comm.). As wood from a Type I spearhead has not been analysed, it becomes necessary to rely on other contemporary examples.

Further issues arise in how one might attach the shaft. The short socket is disproportionate to the blade length and consequently is considered insecure (Ehrenberg 1977, 22). Furthermore, many still retain their clay core inside the long shaft, including the Bloody Pool and Thurlestone Beach examples, which would limit how far the shaft could be inserted (Bartlett and Hawkes 1965, 371). Metal pegs still *in situ* on the Bloody Pool examples indicate how the shaft was secured.

Bartlett and Hawkes (1965) suggested that a projecting wooden butt might have been socketed into the spearhead with a projecting tang that attached to a shaft by a thong that would become loose once the spearhead had been thrown and penetrated the target. They also proposed a shaft length of approximately five or six feet long for Bronze Age spearheads (ibid. 371), though considering the much longer examples recovered from across Europe on smaller spearheads, there is the potential for the shaft to have been much greater in length. Ehrenberg (1977, 22), however, considers the “wooden butt” theory unlikely due to the square section of the pegs inside the socket, which, drawing on personal communication with Atkinson, she considers makes it more likely the shaft was split-ended and inserted into the socket for use as a harpoon. The hafting method thus appears linked to how one considers the spear might have been used. It was therefore very difficult to determine how one should haft these spearheads.

Drawing on the above considerations, a commercial ashwood cylindrical shaft was produced two metres long and about two centimetres in diameter at its thickest (Fig.D.12). One end was tapered to slot into the socket of the spear, which was inserted about fifteen centimetres, and secured by hammering a peg with the same composition as the spearhead through the peg holes and the shaft to hold it in place (Fig.D.13). This relatively simple hafting method has been tested in previous experiments (e.g. Anderson 2012), and minimises the complexities of those suggested by Bartlett and Hawkes (1965) and Ehrenberg (1977). The opposite end of the shaft was tapered to improve the overall shape. The final weight of the spearheads dictated this slightly, as the heavier weight necessitated a greater length of the shaft to improve the balance of the overall

spear. This may have also been corrected by attaching spear ferrules, which would repay further experimentation.

(left) **Fig.D.12:** Spears 3.1 and 3.2 hafted on 2m long ash shafts (source: author's photo)
(above) **Fig.D.13:** Spear 3.1 with tapered shaft inserted and pegged into the spearhead (source: author's photo)

APPENDIX E

TYPOLOGIES OF METALWORK FOR SOUTH WEST ENGLAND

E.1 Introduction

This appendix presents a summary of the various typologies used for different object types and how they reconcile with each other within South West England. For many objects, this poses little problem as widely accepted typologies have been used for many years with little contention (e.g. Colquhoun and Burgess' (1988) typologies of swords; or Burgess and Gerloff's (1981) definitions of dirks and rapiers).

Some typologies are, however, constantly evolving, or are in the process of reassessment, which means some of the literature appropriated here has yet to become common nomenclature. Boughton (2015), for instance, has recently refined the typology for Late Bronze Age and Earliest Iron Age socketed axes, readdressing the typology by Schmidt and Burgess (1981), even contravening commonly assumed chronological distinctions (e.g. Sompting axes might now be considered part of the Earliest Iron Age, rather than Late Bronze Age). Similarly, though of a less complicated nature, Burgess et al.'s (1972) classification of barbed spearheads (Types I-IV) has been reduced by Davis' (2015) to two types (Type 15A and 15B). The quality of these recent works nonetheless means it is best practice to incorporate this new terminology, though emphasises the need for a table that demonstrates how it all links together.

For consistency, the typology posed by Pearce (1983) underpins many of the typologies presented here as it specifically addresses the material from South West England; however, Pearce's typology has also been refined and critiqued according to more recent studies. The objective here is to present a summary of the typological structure applied within this thesis, rather than to construct a new set of typologies, though refinements have been made to existing typologies to make them more applicable to this project. Only those elements of typological schemes that are relevant to the artefacts from the South West are described here rather than a complete regurgitation of British

and European typological schemes. First, Pearce's (1983) overarching typology is addressed, before object-specific typologies are presented.

E.2 Pearce's (1983) Typology

In her 1983 corpus, Susan Pearce ambitiously presented a synthesis of all objects from all periods and defined a typology to cover all objects. In some cases, she appropriated previous typologies (e.g. Gerloff's 1975 dagger typology), but for others (e.g. rapiers) she presented her own terminology. Similarly, for axes and swords she used commonly accepted terminology of regional variations based on prior studies (e.g. Yorkshire socketed axes, or Ewart Park swords). In most cases she applied simple descriptive terms to define objects, such as "ribbed bracelets", "late pegged spearheads", or "three-ribbed socketed axeheads". While for the nature of her task this offered a means for grouping like objects together, there is often little clarification of the different forms of each of these objects, or a link to any specific dating system, making it difficult to determine how one might identify a later form from an earlier form or how one might distinguish different types of the same object.

An example of this can be seen in her definition of palstaves, which draws on Smith's (1959a) classification of low-flanged from high-flanged forms. Smith (1959a) distinguished early low-flanged palstaves from those common in south-western Britain, where the flanges have a breadth of "often 1 ½ inches or more high" (ibid., 168); these high-flanged palstaves are regarded as the south-western form. Pearce (1983), however, presented both a high-flanged palstave type and a south-western type, though offered no means for distinguishing one from the other. This thus makes it difficult to utilise this typology. This issue is addressed further below.

Pearce's typology, nonetheless, has the benefit of having already been applied to many of the objects studied here, and thus the object-specific tables presented below reference the terms originally used in her corpus alongside more recent typologies; in situations where no new typology or terminology exists, Pearce's typology has been applied until a new typological structure emerges.

E.3 Axes

A major issue in structuring the typology of the south-western material is the classification of axes. As mentioned above, Pearce's (1983) typology for axes combined a series of different approaches drawing on specific regional types (e.g. Migdale flat axes or South Wales socketed axes) combined with basic descriptions of axe forms (e.g. thin-butted axes or shield pattern palstaves). Whilst a study of the axes falling within these groups often makes it clear what defines each typological form, her description of the groups was sparse making it difficult to accurately apply her terms to new forms.

By far the most comprehensive survey of British Bronze Age axes is that by Schmidt and Burgess (1981), which presented a catalogue of Bronze Age axeheads from Northern Britain. As noted above, this work has already undergone some reinterpretation, but it is still largely used to classify axes across Britain, particularly as part of the Portable Antiquities Scheme (PAS). A synthesis of all Southern British axes is still lacking (though see Needham 1983; 1990a; 1993; 2018; Rowlands 1976), making Schmidt and Burgess' typology appropriate as a base structure from which to work. Axes have been separated into four broad categories: Flat and flanged axes; Palstaves; Middle-Late Bronze Age socketed axes; Late Bronze Age-Earliest Iron Age socketed axes. Additional axes that do not fall within these categories, such as winged axes, are presented in an additional section.

E.3.1 Flat and Flanged Axes

Flat and flanged axes dating to the Early Bronze Age have been classified according to Needham's (1983; 2018) typology, which established defining features dividing classes of axes based on metrical calculations. This has provided resolution of types that were previously quite broad (e.g. Types Migdale, Killaha and Arreton; Harbison 1969; Pearce 1983; Schmidt and Burgess 1981). The *Class* system employed by Needham in 1983 has since been updated (Needham 2018) and this latter typology is utilised here. All Early Bronze Age flat and flanged axes known from South West England were classed in Needham's (1983) original synthesis and it is possible to continue this classification with any discoveries made since. For the purposes of the present thesis, however, divisions into the overarching classes is sufficient so the metrical analysis conducted by Needham has largely not been followed;

sub-classes are only applied when classification is clear or can be achieved from the standard measurements taken during the course of the data collection.

For instance, Needham (2018) divides relative butt width (RWB and RWB') into three overarching categories (broad, medium, and narrow), which are achieved by calculations involving the width of the butt (WB) relative to the width of the cutting edge (WE) and the overall length of the axe (L). As these are all standard measurements that have been taken, it was be possible to subdivide the axes under study where necessary. However, other measurements, such as the width at the middle of the axe (W2) and the length of the body (LB), which could be used to determine the expansion of the haft end (EH), have not been taken (see Needham 2018 for a full description of his metrical analysis.

Early Bronze Age axes show a transition from copper to bronze and from flat to flanged forms; defining features include the height of flanges, shape of the sides, width of the butts and cutting edges, which offer a typological structure (Figs.E.1; E.2). The association of axes with other material and with burials means that a firm chronology can be established for the development of axe forms. Due to the diversity of Flat and Flanged axe types, only those applicable for the South West are presented here with a summary of key distinguishing features (Table E.1).

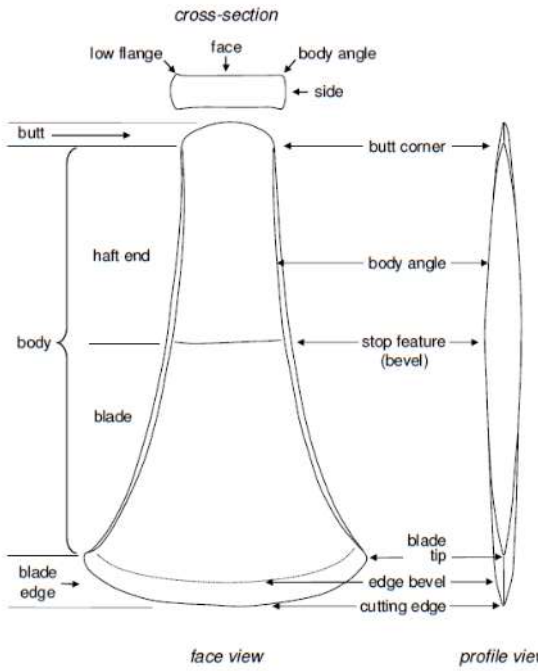


Fig.E.1: Terminology for different parts of flat/flanged axes (source: Needham 2018, Figure 1)

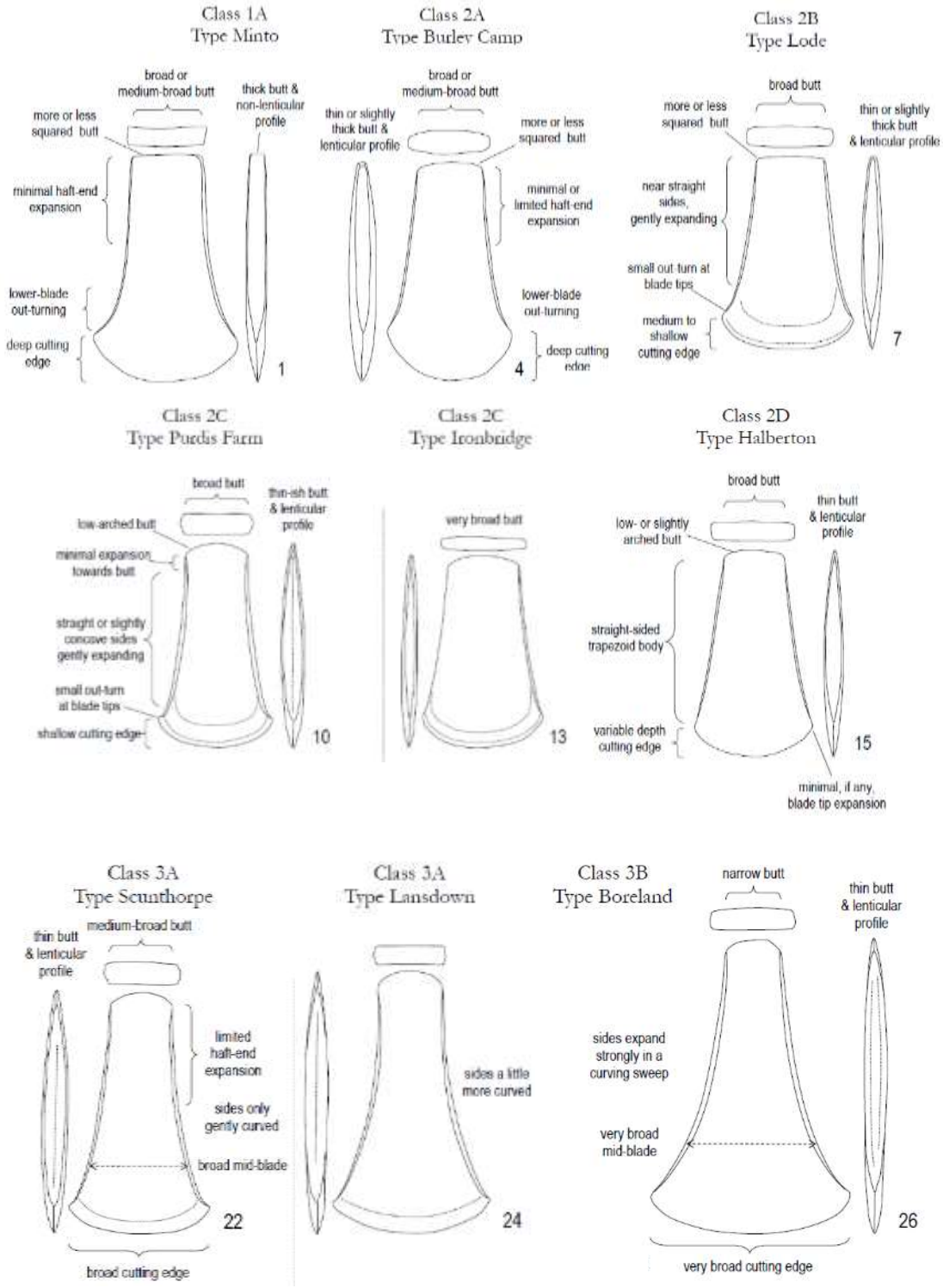


Fig.E.2: The typological series of Chalcolithic and Early Bronze Age flat and flanged axes in south-western England adapted from Needham (2018). Numbers refer to Needham's catalogue. (source: Needham 2018, Figures 17-31)

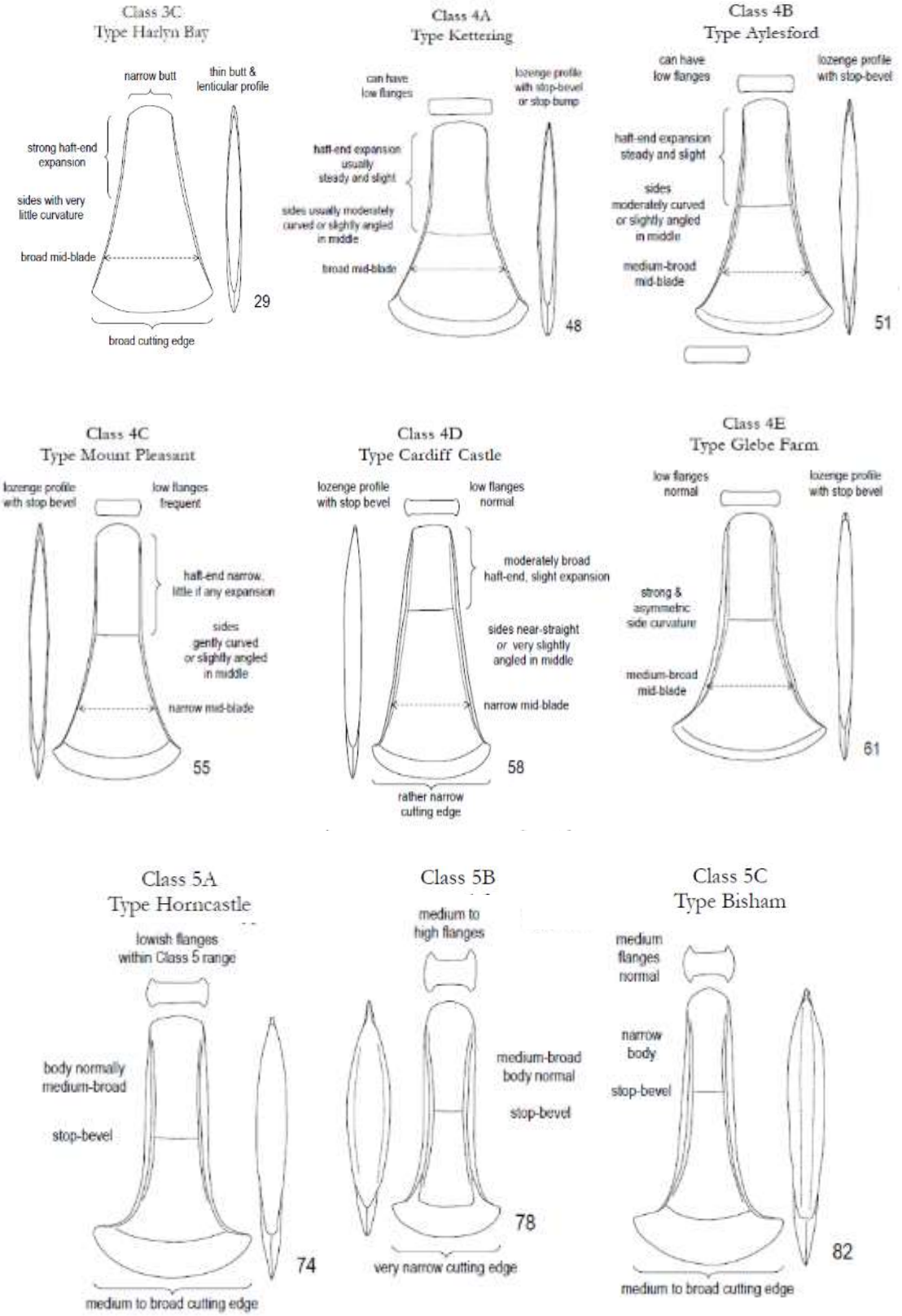


Fig.E.2 *continued*.

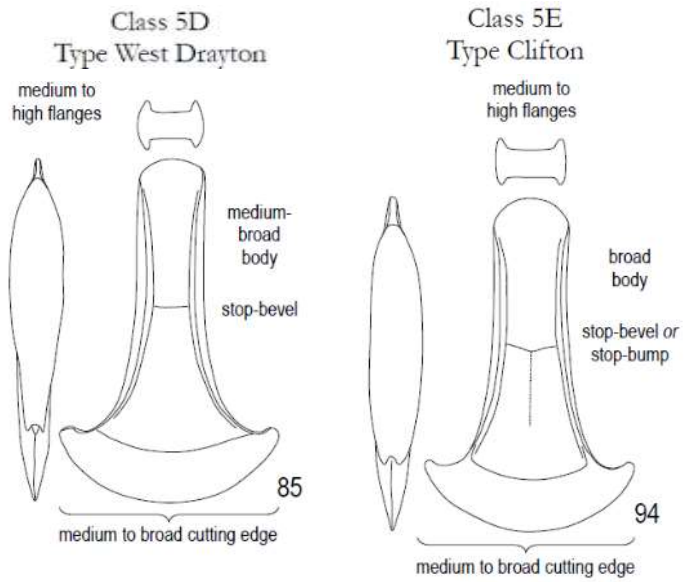


Fig.E.2 *continued*.

Table E.1: A summary of Needham's (1983; 2018) typology for flat and flanged axes, reconciled with Schmidt and Burgess' (1981) and Pearce's (1983) typologies.

Phase	Schmidt/ Burgess	Pearce	Needham	Key Features
MA I/II	Types Castletown Roche/ Pitlochry; Growntown/ Milton Moss; Lough Ravel/ Minto	Thick-butted	*Class 1*	Parallel-faces; broad to medium butt width; almost always made of copper
			1A (Type Minto)	Sub-square or slightly arched butt; parallel-sided body, with marginal expansion following by flaring to deeply curved cutting edge.
	Type Ballybeg/ Roseisle	Thick-butted/ Thin-butted	*Class 2*	Lenticular side profile; broad butt; thin rounded butt or slightly thicker flatter butt; edge bevels.
			2A (Type Burley Camp)	Similar shape to 1A.
			2B (Type Lode)	Similar shape to 1A and 2A but shallower cutting edge; sometimes second bevel above edge bevel.
			2C (Types Purdis and Ironbridge)	Near trapezoidal body; gently curved sides; types distinguished by butt widths; arched butts
			2D (Type Halberton)	Trapezoidal; near straight sides; less arched butt than 2C.
MA III	Type Migdale	Broad Migdale	*Class 3*	Lenticular side profile; narrower butt width than Class 2; generally in bronze rather than copper; later forms may have low flanges.
			3A (Types Scunthorpe and Lansdown)	Medium-broad butts; Type Scunthorpe = gently curving sides; Type Lansdown = parallel haft end that gives way to curved sides that flare to the blade tips.
	Type Killaha	Killaha	*3B (Type Boreland)*	Broad cutting edge (width = two-thirds the overall length)

		Slender Migdale	*3C (Type Harlyn Bay)*	Trapezoidal shape; slightly concave sides from very narrow, low arched butt; shallow cutting edge.
MA III-MA V	Type Scrabo Hill	Broad/Slender Migdale	*Class 4*	Lozengic side profile; stop bevel; generally low flanges; curved/angled sides.
			4A (Type Kettering)	Broad blade.
			4B (Type Aylesford)	Medium-broad mid-blade width; near straight sides at haft end; sides diverge from median bevel in straight line; low flanges frequent; shallow cutting edge; barely expanded blade tips.
	Type Bandon		*4C (Type Mount Pleasant)*	Similar shape to 4B but narrower blade.
		Small developed	*4D (Type Cardiff Castle)*	Asymmetrically curved sides; narrow mid-blade; narrow cutting edge.
			4E (Four types not applied here)	Strongly flared lower blade; crescentic cutting edge; strong out-turn of blade tips; relatively narrow mid-blade.
MA VI	Types Balbirnie and Arreton	Arreton	*Class 5*	Well-developed flanges (c.1.5mm); curved sides expanding at the blade tips; arched butts, sometimes pointed; almost always a stop bevel.
			5A (Type Horncastle)	Long-flanged (flanges that extend down the hafting end, but not to the blade tips); low to moderately arched butt; expanded but not recurved blade tips.
			5B (Three types not applied here)	Small implements; narrow cutting edges.
			5C (Type Bisham)	Slender body width.
			5D (Type West Drayton)	Medium body width.
			5E (Type Clifton)	Broad body width.

E.3.2 Middle Bronze Age Flanged Axes and Palstaves (Table E.2)

Determining a typological structure for Middle Bronze Age axes, specifically palstaves, is slightly more complex however. Needham's (1983) scheme ends with the development of Arreton flanged axes, which possess long flanges extending down the length of the blade. Flanges become shorter in the transition to the Acton Park phase (c.1600 BC) and steadily develop distinctive transverse bevels and stops, that are eventually incorporated in the characteristic palstave form.

Table E.2: A summary of Schmidt and Burgess' (1981) typology for flanged axes and palstaves reconciled with Pearce's (1983) typology. One new type and one new variant are inserted in bold.

Phase	Pearce	Schmidt/ Burgess	Key Features
MA VI Arreton-Acton Park	Haft-flanged/ Wing-flanged	*Early short-flanged*	Developed flanged axes; heightened flanges; low bevel or stop; occasional decoration on upper blade.
		Type Bannockburn	Narrow haft ends; often low flanges (c.10mm); transverse bevel; crescentic shaped rib at blade expansion; deep, broad crescentic-shaped blade.
		Type Cragg Wood	Shield-pattern; straight or rounded butt; angular flanges.
		Type Kirtomy	No shield ornament; optional stop; overall slender form; variety of blade expansions.
Acton Park-Taunton	Haft-flanged/ Wing-flanged	*Later short-flanged*	Developed flanged axes; heightened flanges; low bevel or stop; occasional decoration on upper blade.
		Type Cargill	Convex flanges; plain blade; slender; parallel-sided hafting end; restricted blade expansion.
Taunton-Penard		*Type Balcarry*	Sloping stop rising up to a bevel line connecting the lower end of the flanges; angular flanges; flanges turn in over the septum.
PALSTAVES			
Acton Park-Taunton	Early shield pattern	*Gr.I (Primary shield pattern)*	Short high-angled flanges; shallow depression, raised moulding or panel; unlooped; narrow blade; wide cutting edge.
		Gr.II (Early midribbed)	Lower flanges often extending down the blade sides; midrib; unlooped; narrow blade; crescentic cutting edge.
Acton Park-Penard	Low-flanged	*Gr.III (Low-flanged, broad-bladed)*	Low flanges; variable decoration; optional loop; broad blade; wide cutting edge.
Taunton-Penard	High-flanged South-western	***NEW: Gr.IV (High, plateaued flanges)***	As above but high flanges that plateau at the height of the stop.
	South-western Crediton	*South-western* ***NEW: Crediton***	As above but lozenge or oval section flanges rising up and back down sharply.
Penard	Double-looped	*Twin-looped*	Low flanges; two side-loops; narrow blade.
Penard-Wilburton	Transitional	*Transitional*	Low flanges; typically midribbed; looped; narrow blade and butt.
Wilburton-Ewart Park	Late	*Late*	As above, but stop ridge usually higher than the flange; often plain or three short vertical ribs.

One of the initial approaches to Middle Bronze Age axes is presented by Smith (1959a) who distinguishes earlier haft-flanged and wing-flanged axes from low and high-flanged palstaves (the latter being more commonly referred to as ‘south-western’ palstaves), as well as later ‘transitional’ and ‘late’ palstave types. This system has formed the basis for many of the palstave typologies tackled since.

Rowlands’ (1976) presented a holistic structure for grouping classes of Middle Bronze Age axes, and indeed other forms of objects. This axe typology relied on separating firstly, flanged axes from palstaves, and then broad-bladed palstaves from narrow-bladed palstaves, with each type further broken down according to the presence/absence of decoration and loops, the nature of the flanges and the overall size (Rowlands 1976, 22-40). This is largely influenced by Butler’s (1963) classification system which also separated broad-bladed and narrow-bladed palstaves. Rowlands implemented a numerical system of classes and sub-groups to define flanged axes and palstaves. This numerical system, however, has not been widely used and Pearce’s (1983, 27-31) palstave typology adopted only elements of it, defining different forms according to a mixture of Butler’s (1963) Class I and II system, as well as Rowlands’ classes (though by name rather than number), and supplemented by descriptive names based on the presence/absence of loops and the height of flanges, the problems of which have already been touched upon. Indeed, some of the types listed in her typological scheme are not referred to within her main corpus (Pearce 1983, 31).

The problems surrounding palstave typologies are immediately clear; as Schmidt and Burgess noted “a conclusive typology of the palstaves can really only be expected after the publication of a completely illustrated corpus of the material from southern Britain, and, indeed, northern France” (1981, 10). Schmidt and Burgess’ (1981) palstave typology largely builds on the studies by Smith (1959a), Butler (1963) and Rowlands (1976), but is restricted by the relatively small number of palstaves in northern Britain. They distinguished flanged axes, firstly by the length of the flanges (namely long-flanged vs. short-flanged axes but with no precise measurements given) and then by associations indicating typology and the narrowing of the blade, defining an Early Short-flanged (Fig.E.3(1-3)) and a Later Short-flanged type (Fig.E.3(4-5)).

Fig.E.3: The sequence of Middle Bronze Age flanged axes and palstaves. Early short-flanged axes: 1) Type Bannockburn; 2) Type Cragg Wood; 3) Type Kirtomy. Later short-flanged axes: 4) Type Cargill; 5) Type Balcarry. Palstaves: 6) Group I; 7) Group II; 8) Group III. (source: adapted from Schmidt and Burgess 1981).

However, the subjectivity of this distinction is acknowledged (Schmidt and Burgess 1981, 76).

This characterisation of “short-flanged” axes is applied here, replacing Smith/Pearce’s terminology of “wing-flanged” and “haft-flanged”. This is because Schmidt and Burgess (1981) developed sub-types within their classification, which is useful here to identify trends in distribution. At least five sub-types from the northern distribution of flanged axes are present in the South West. However, it became clear when applying this terminology that there are several examples that do not conform. Rather than constructing a new typology for these flanged axes, those that could not be categorised are simply considered “short-flanged”. This axe form originates out of the Arreton phase flanged axes and continues to the Penard phase, alongside palstaves.

Schmidt and Burgess’ (ibid.) palstave groups are separated according to the form of the blade and flanges, as well as the presence of the loops and specific decorative features, which is in line with previous typologies. The earlier

palstaves are broken down into Groups I, II and III (Fig.E.3(6-8)), and South-western, followed by Transitional, Double-looped and Late palstaves. This typological system has been mostly appropriated here due to the relatively well-defined typological and chronological sequence that still largely applies today, as well as the broad groupings that allow newer discoveries to be defined. Schmidt and Burgess (ibid.) present types and variants within their groups, though these have not been applied here except where a clear example or variant can be defined. An additional group (Group IV) has been included here to accommodate a typological distinction highlighted by Schmidt and Burgess, as well as a variant of the south-western group. For clarity, an overview of the palstave types and key characteristics is presented here.

Group I (Primary Shield Pattern) encompasses the earliest forms of palstaves, dating predominantly to the Acton Park phase, largely identifiable by short, high angled flanges, accompanied by a shallow depression, raised moulding, or raised panel below the stop. These are always unlooped and have a narrow blade expanding to a wide cutting edge (ibid., 117). It should be noted that in South West England there is evidence that the use of this type extended into the Taunton phase. For instance, a Group I palstave was found associated with South-western palstaves in the St. Tudy hoard (RCM-F042). Group II (Early Midribbed) palstaves are chronologically and typologically similar to Group I, but have a midrib extending down the blade, rather than a shield pattern, and the flanges are generally lower, often extending as raised sides down the blade. The blades remain narrow, but expand to strongly curved or crescentic cutting edges, sometimes possessing recurved tips (ibid., 125-126). Again, this group is always unlooped. Schmidt and Burgess (ibid.) present at least three variants distinguished according to the length of the midrib and raised sides, as well as the curve and bevel or chamfer of the blade (ibid.).

Group III (Low-flanged, Broad-bladed) palstaves are the most common palstaves identified in Britain. As the name indicates, they are defined by low flanges that do not rise above the stop ridge, and a broad blade, with a wide cutting edge. Examples from South West England indicate that the breadth of the ‘low’ flanges is usually less than 30mm, with Smith (1959a, 167) defining the height of low flanges above the septum as “rarely… more than 1/2 inch (and often less)” (c.12mm); almost all low-flanged palstaves in South West England are 10mm or less. Three main blade forms are noted; the first two (triangular

and crinoline) typically have unexpanded, straight edges, while the third form is a broad blade with a curved edge, often crescentic, with blade tips. Schmidt and Burgess (1981, 128-129) have shown that a side-loop is an optional feature, not a chronological one, and the decoration on the blade is equally variably, encompassing shield patterns, midribs, and trident forms. The authors list eleven types within this group, and variants within these groups. These are differentiated according to combinations of blade shape, decoration, the nature of the flanges and the presence of a loop. It is difficult to place Group III palstaves chronologically, but their main currency appears to be within the Taunton phase, with its origins in the preceding Acton Park phase and evidence of continuation into the Penard phase (ibid., 129-131).

Of particular importance to the present study is the South-Western group of palstaves (Fig.E.4). These are essentially identical to Group III palstaves with regards to the broad blade, optional side-loops and variable adornments. However, they differ due to their high flanges, defined by Smith (1959a, 168) as being “1 ½ inches of more high” (c.38mm) clearly referring to the flange breadth rather than the height above the septum, which is usually 11mm or more; the flange height thus demonstrates some overlap with Group III. The breadth as defined by Smith is accurate for many South-Western palstaves, but excludes a large number that meet the overall South-Western form, but fall short of these dimensions. Consequently, this threshold is lowered here due to the large number of palstaves that are South-Western, but have a flange breadth of about 33-34mm. Schmidt and Burgess (1981) accepted Smith’s breadth definition, but note that for a true South-Western type: “The flanges must not only be high, but must continue to rise above the stop to the highest point, from which they angle sharply downwards” (ibid., 141-142). This creates flanges that have a lozenge-shaped side profile. They distinguish between palstaves with high flanges that possess this trait and those that have high flanges that do not rise above the stop ridge and instead plateau at the height of the stop.

Fig.E.4: A South-Western palstave (source: Author courtesy of South West Heritage Trust (Museums Service)

Due to the limited number of the South-Western group in northern Britain, Schmidt and Burgess (1981, 142) comment on this typological variation of flange form, but do not offer a distinguishing group. Clearly simply labelling all high-flanged palstaves as “South-Western” is inadequate, especially given that earlier Group I palstaves also have high flanges, whilst flange form and shape is variable. As such, here high-flanged palstaves outside of the Group I variety are separated into two groups: Group IV (High, plateaued flanges) and Group South-Western. These two groups differ from Group III only in terms of flange height and form; in all other aspects, they have the same variability of blade shape, decoration and side-loops.

Group IV encompasses those palstaves noted by Schmidt and Burgess that possess high flanges though lack the lozenge shape characteristic of South-Western types (Fig.E.5). The flanges typically start from the butt or just below the butt and rise steeply before plateauing at a height equal to, or slightly more than the depth of the stop. This creates a ‘leaf-shaped’ side profile and typically the overall flange breadth is not more than 1-2mm greater than the stop depth. This group is uncommon in South West England, and few of these palstaves were studied during the course of this research, with the majority being identified in the Taunton Workhouse hoard (TTNCM-F053); nonetheless the flange breadth tends to be lower than many of the South-western examples, with a breadth that ranges from 31mm to approximately 36mm. The distribution pattern of this group in South West England is confined to Somerset, but Schmidt and Burgess (1981, 142) note that palstaves of this form have a distribution pattern that extends more broadly across Britain. A recent example

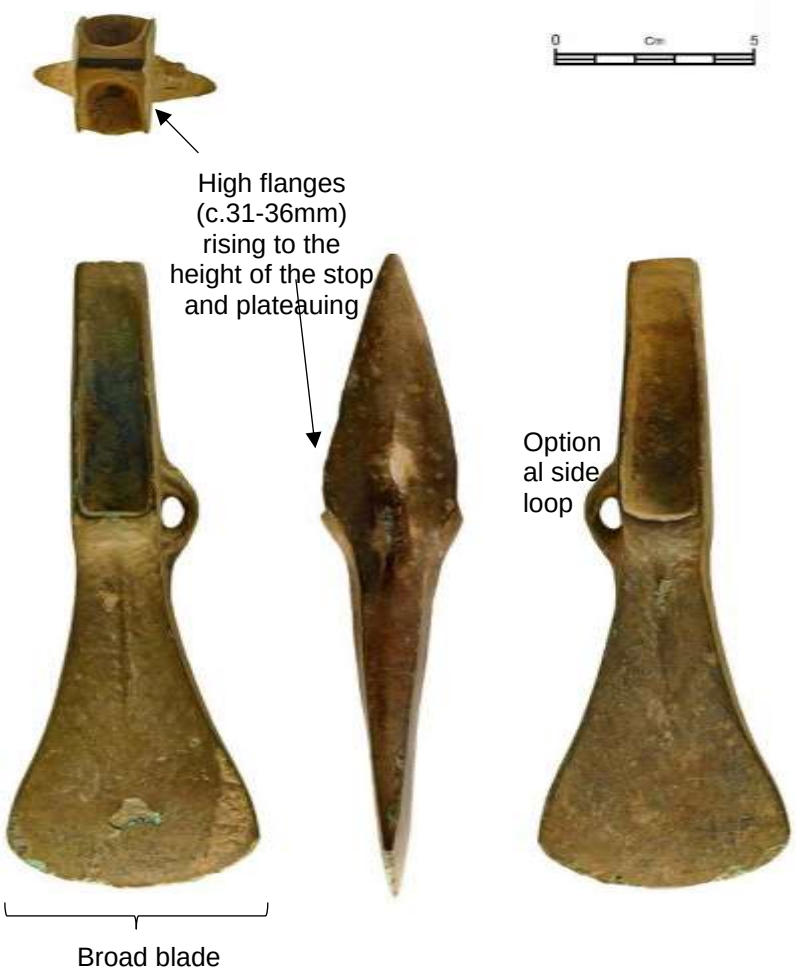


Fig.E.5: A Group IV palstave (source: Author courtesy of PAS/Trustees of the British Museum)

has also been recovered from Llanfrynach in Wales (Knight 2017). More work needs doing to further clarify this typological grouping.

The South-Western palstave group is densely concentrated in Devon, Dorset and Somerset (see Fig.6.7). The group is defined here by any palstave with a flange breadth of approximately 33mm or more (equal to a flange height of roughly 11mm above the septum). These flanges can rise from the butt or below the butt to a breadth approximately 3mm more than the stop depth, before sharply descending to the stop and the upper blade. This typically creates a lozenge shape in side profile, but there are examples of more rounded or oval forms which decline more gently to the stop.

Within the South-Western group, a distinctive variant can be identified: Variant Crediton (Fig.E.6). This variant is defined in both Rowlands' (1976) and Pearce's (1983) monographs, possessing distinctively high angular flanges that extend onto the blade to form a V-shaped rib. Additionally, they are almost always unlooped and possess a crinoline blade shape, usually with a straight or slightly curved cutting edge. Currently, the only known example of a looped Variant Crediton palstave is seen in the Plumley hoard, Devon (RAMM-F038c). The flanges of South-western palstaves start below the butt, sloping sharply upwards above the height of the stop and then back down again to the stop, creating a distinctive lozenge side profile; the breadth of the flanges is often in excess of 40mm. It is named after an example in the Crediton hoard, Devon (ASH-F004a) maintaining consistency with Pearce's and Rowlands' works, but the main distribution of this variant is in Cornwall and partly in Devon (Rowlands 1976, Map 8), suggesting a regional development of the South-Western type.

The high flanges of the Groups IV and South-Western seem to originate from the Group I palstaves, but the main currency for these palstaves is in the Taunton phase, as evidenced by the numerous Somerset hoards consisting of these palstaves associated with other tools and ornaments (e.g. Taunton Union Workhouse, Sherford, and Edington Burtle). The Variant Crediton palstave in the hoard of its namesake was found alongside a transitional palstave, suggesting that South-Western palstaves held currency into the Penard phase, but examples in later hoards are rare.

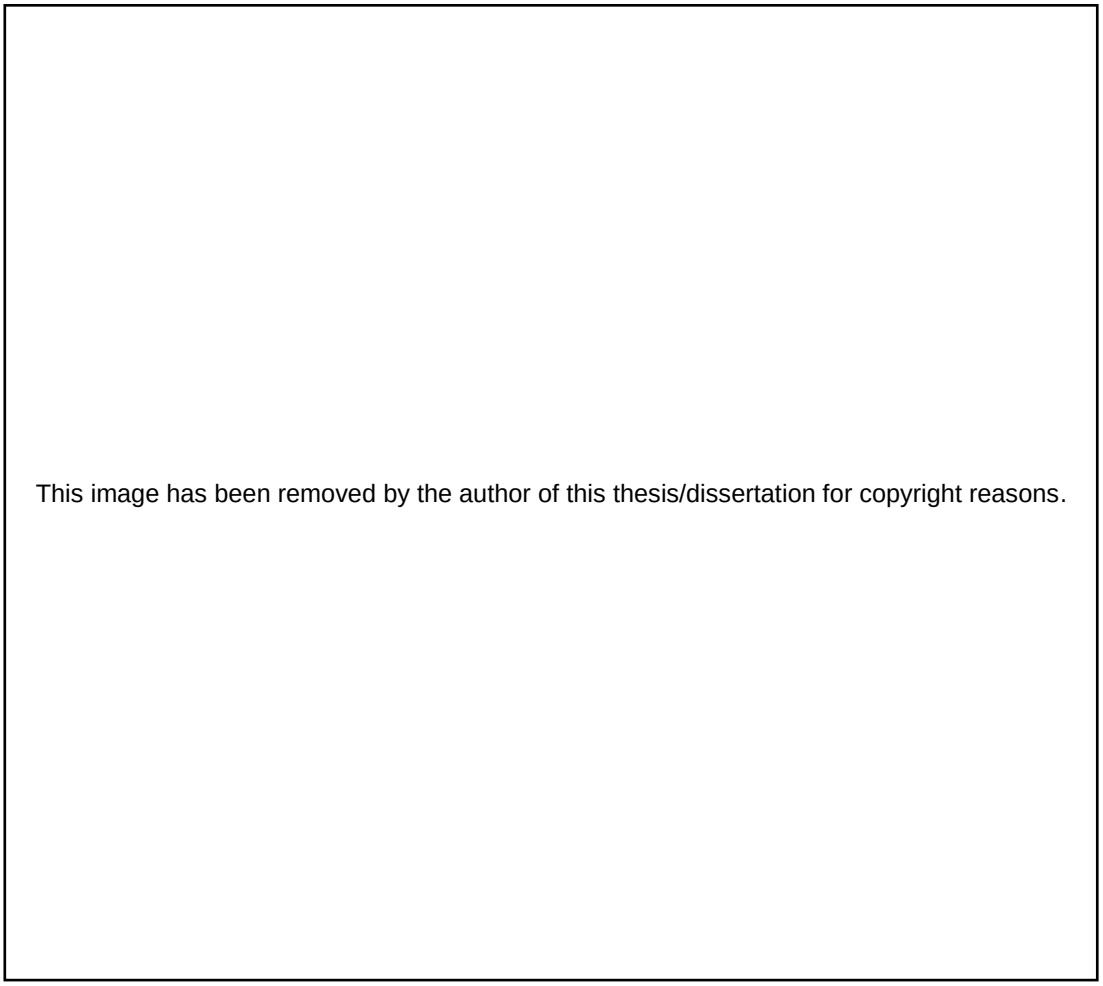


Fig.E.6: A Crediton variant South-Western palstave (source: Author's adaptation of Smith 1959b, GB.45)

The Groups I-IV and South-Western palstaves comprise the main types produced, dominating much of the Middle Bronze Age. Further typological refinements can inevitably be made, but for the purposes of this thesis, the typology presented is sufficient. The remaining palstave types, dating from about 1200 BC onwards are more broadly accepted and thus require only brief consideration.

Palstave types in the Penard-Ewart Park phases (c.1275-800 BC) fall within a series of narrow-bladed implements. The Transitional group defined by Smith (1959a), and clarified by Schmidt and Burgess (1981, 145-146), is characterised by a narrow butt and blade, the presence of a side-loop, and low flanges that extend in a straight slope from the butt to the stop ridge, creating an elongated lozenge side profile of the whole palstave. The blade is typically adorned with a midrib.

Transitional palstaves were succeeded by Late palstaves, which maintain a narrow form, but are distinguished largely by the nature of the flanges, which are low and often start below the butt, sloping towards the stop ridge, but the stop ridge is higher than the flanges (Schmidt and Burgess 1981, 158-160; Smith 1959a, 167-168). These palstaves are usually looped, but unlike the Transitional group are often plain or adorned by three short vertical ribs below the stop. Six types and variants have been defined and the main currency falls within the Wilburton period, though with some examples in the Ewart Park phase (Schmidt and Burgess 1981, 160-163).

Finally, double-looped palstaves (alternatively referred to as 'Twin-looped') warrant brief mention, because although they are a more typical Iberian form, several are known from South West England, predominantly in Somerset as both single finds and in hoards (Childe 1939). This final type was a development in the Penard phase and is characterised by a narrow-bladed form and a side-loop either side of the stop.

These final three groups have limited distribution in South West England, though occur in a variety of contexts, signifying the influence of other areas. The palstave typology presented here is necessarily detailed, due to the lack of a comprehensive structure that might be applied to South West England with any readiness. As the aim was never to establish a conclusive typology, the work presented here should be seen as an approach on which to build in the future.

E.3.3 Middle-Late Bronze Age Socketed Axes (Table E.3)

A comprehensive typology of the socketed axes of southern Britain is still lacking, and it is beyond this thesis to attempt such a task. Schmidt and Burgess (1981) produced a thorough assessment of those types found in northern Britain, which forms the basis of the typology here, but regional variation inevitably means that in some aspects their typology does not necessarily incorporate all of the elements of southern British socketed axes. Regionally distinctive types (e.g. Yorkshire, South Welsh, South-eastern) have long been accepted, but problems occur with axes with more general features. Needham (1990a; 1993) has, to a certain extent, attempted to rectify the situation with a classification system for application to southern Britain, though this lacks completion and thus the terminology utilised by Schmidt and Burgess has largely been adopted here. Types not applicable to the South West (e.g.

Types Everthorpe and Gillespie) have not been presented, and one generic supplementary type utilised by Pearce has been used here 'three-ribbed' for those axes that have three ribs, but do not conform with types established so far.

Table E.3: A summary of Schmidt and Burgess' (1981) typology for Middle-Late Bronze Age socketed axes reconciled with Needham's (1990a; 1993) and Pearce's (1983) typologies.

Phase	Pearce	Needham	Schmidt and Burgess	Key Features
Taunton-Penard	Taunton	-	*Taunton-Hademarschen*	Square mouth; long, narrow, square to rectangular body; small loop; concave sides; slightly curved cutting edge.
Penard-Wilburton	Stogursey	-	*Gwithian*	Square socket; flat collar; long straight form; unexpanded blade; three parallel or converging ribs; slender loop.
Ewart Park	Faceted	Class D (Faceted)	*Meldreth Variant Aylsham Variant Eaton (Fig.E.7(2))*	Round/oval socket; trumpet-shaped collar; combination of one or multiple collar mouldings, grooves and/or steps; slender faceted body (6-12 facets).
	South-eastern	Class A (South-eastern)	*South-eastern (Fig.E.7(1))*	Square/sub-square socket; rounded collar with double collar mouldings; side-loop originating from the lower collar; decorated or plain.
	Yorkshire	-	*Yorkshire*	Square socket; horizontal collar moulding; loop below collar; three widely spaced vertical parallel ribs;
	Stogursey	Class C (Stogursey)	*South Wales (Fig.E.7(3))*	Large square socket; four sprue stumps usually present on broad flat collar; loop originates from the lip of the collar; three parallel or converging ribs; often as-cast or poorly worked.
	-	Class B (Southern-English)	*Welby (see Fig.4.9)*	Rounded or sub-rectangular sockets; double collar mouldings; side-loop originating from the lower collar; three or more vertical ribs; straight or crescentic cutting edge.
	Three-ribbed	-	-	Unclassified axes with three vertical ribs; rounded or square socket; variety of collar mouldings.

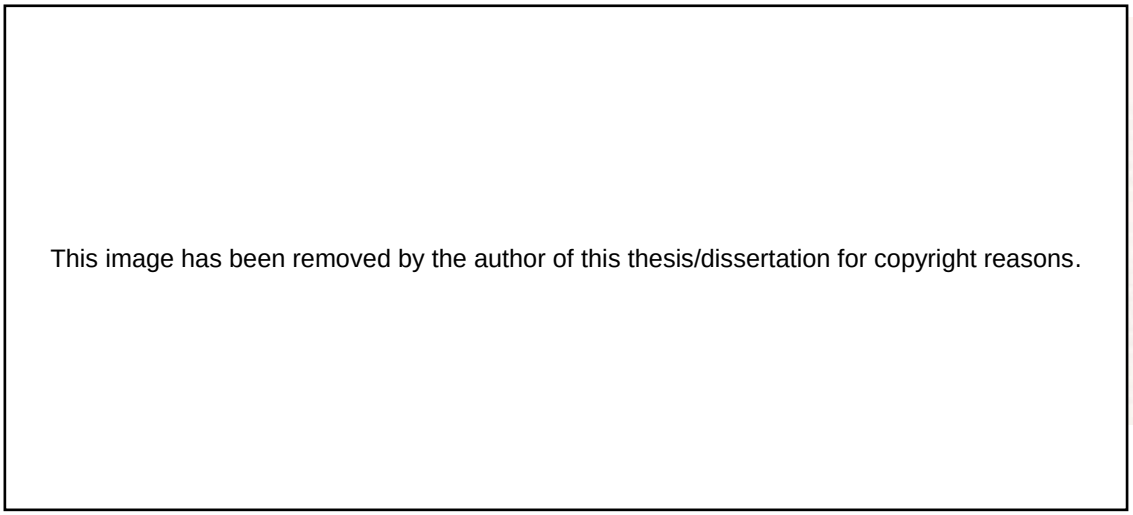


Fig.E.7: Socketed axe types. **1.** South-eastern; **2.** Type Meldreth, Variant Easton; **3.** South Wales (source: Needham 1990a, 29, 39, 42, Figs.2, 7, 8)

A further issue surrounds dating socketed axes. A great number fall within the Ewart Park phase of the Late Bronze Age, while others might be readily identified as falling within the Taunton and early Penard phases of the Middle Bronze Age, but axes that can be conclusively dated to the intermediary period (Penard-Wilburton) are rare. Schmidt and Burgess (1981, 175-180) present a series of axes that might be considered from this period, though as Needham (2017) highlights, one of the key issues is the lack of associations that might help identification. It must thus be presumed that some of the Late Bronze Age axes presented here likely held currency earlier than the Ewart Park phase. Needless to say, a reassessment of socketed axes would be hugely beneficial.

E.3.4 Late Bronze Age-Earliest Iron Age Socketed Axes (Table E.4)

Boughton (2015) recently assessed the situation of later socketed axes, determining a separate classification system for those typically considered to date to the latest Bronze Age periods, and placing them instead in the Earliest Iron Age i.e. the Llyn Fawr period (c.800-600 BC). Consequently, the later types presented by Schmidt and Burgess (e.g. Sompting and Armorican) are now outdated and have been refined. Boughton's (2015) typology, including her variants, has been applied here, as it is particularly pertinent to South West England, where there are concentrations of certain types (e.g. Portland and Blandford types in Dorset).

Table E.4: A summary of Boughton's (2015) typology for Earliest Iron Age socketed axes reconciled with Schmidt and Burgess' (1981) and Pearce's (1983) typologies.

Phase	Schmidt/ Burgess	Pearce	Boughton	Key Features
Ewart Park-Llyn Fawr	-	-	*Transitional*	Round or square socket; often rib-and-pellet; narrow crescentic cutting edge.
	Sompting	Sompting	*Sompting > Cardiff II > Figheldean > Tower Hill*	Back-to-front or square socket; rib-and-pellet or plain; straight or crescentic cutting edge.
Llyn Fawr	Armorican	Armorican	*Armorican*	Back-to-front or square socket; long body; narrow blade; plain; straight cutting edge; often as-cast.
	-	Linear faceted	*Portland (Fig.E.8)*	Round/oval socket; rib-and-pellet; as-cast.
	-	Linear faceted	*Blandford (Fig.E.9)*	Round/oval socket; linear-decorated; as-cast.

Fig.E.8: Portland Type socketed axe (source: Author courtesy of the British Museum)

Fig.E.9: Blandford Type socketed axe (source: Author courtesy of the British Museum)

E.3.5 Additional Axes

Final consideration must be given to those relatively anomalous axes that occur infrequently not only in South West England, but also Britain as a whole.

E.3.5a Miniature Axes

Very small versions of more common larger axe types (e.g. flat or socketed axes) are increasingly being recovered and identified as such, particularly with the involvement of the Portable Antiquities Scheme. Schmidt and Burgess (1981, 247) note two socketed examples, while the PAS online database lists at least twelve. To these an example from Gussage All Saints 20, Dorset (PRIV-F004) and Chewton Mendip II, Somerset (PAS-F204; Fig.E10) can be added. While the dating of these is uncertain, they are increasingly being identified as part of a Late Bronze Age-Earliest Iron Age tradition (*contra*. Robinson 1995) and ongoing research is establishing typological frameworks (Sharples 2016). Within this thesis, however, they will simply be classed only as miniature axes.

Fig.E.10: A miniature socketed axe from Chewton Mendip II, Somerset (source: image courtesy of the PAS/Trustees of the British Museum)

E.3.5b Winged Axes

Winged axes, defined by their high hammered flanges, often folded over, can be reduced to two basic forms: median-winged and end-winged. Both have their origins in European traditions, with median-winged axes dating to the Penard phase, while the end-winged form appears from the late Wilburton phase and has its main currency in Britain in the Carp's Tongue tradition in south east England (Schmidt and Burgess 1981, 114-115). A median-winged axe was possibly recovered from Williton, Somerset (Knight et al. 2015, No.451) but are otherwise unknown as yet in South West England. End-winged axes, or fragments of, are on the other hand increasingly known, though the number still remains under ten.

E.4 Tools and Equipment (Table E.5)

This section presents the numerous metal objects might be best described under the overarching term: tools and/or equipment. This includes objects that likely had a utilitarian function, and may have had a variety of uses. The extent to which typologies have been created for different objects varies, so each object type has been discussed briefly individually, which is synthesised in Table E.5. The one exception is razors, which have been subjected to multiple revisions and an adapted typology has been created for the purpose of this

thesis (Table E.6). The tools are arranged alphabetically and largely date from the Middle Bronze Age onwards.

E.4.1 Anvils

Bronze Age anvils are very rare. Ehrenberg (1981) presented six anvils known from Britain, of which one was from Flax Bourton, Somerset. However, this was shown to be a fake, albeit possibly modelled on a real example (Pearce 1983, 45). An anvil has recently been recovered from Dorset (PAS-F182). Ehrenberg separated anvils into three types: Simple, Beaked and Complex. The recent discovery is a Complex type. Anvils date to the Middle-Late Bronze Age.

E.4.2 Awls

Awls are small bars of copper or bronze tapering to a point at one or both ends. The point forms the basis for differentiating forms here. Thus, awls are classed as either:

- Single-pointed; or
- Double-pointed (Fig.E.11).

Awls appear in the earliest stages of the Bronze Age and continue in use throughout the period. Awls thus display a great variety in size and form, and are often dated according their associations. Awls have been divided here according to whether they are single-pointed, or double-pointed, though it is important to note other characteristics, such as the section shape (either round or square), the nature of the mid-section junction, which might be ridged or collared, and the form of the tang. Typically, double-pointed awls occur in the Early Bronze Age and single-pointed awls from approximately 1700 BC onwards (Pearce 1983, 42). Single-pointed awls during the Middle and Late Bronze Age typically have a round-section point, and a square or rectangular section tang, which may taper to a flattened end (Rowlands 1976, 48).

Table E.5: A summary of the typologies applied to copper alloy tools and equipment found in south-western England, reconciled with the typology applied by Pearce (1983) where appropriate.
EBA = Early Bronze Age; MBA = Middle Bronze Age; LBA = Late Bronze Age; EIA = Earliest Iron Age

Object Type	Date/Phase	Pearce	Thesis Typology	Key Features
Anvils	M-LBA	-	*Simple*	One or more work surfaces and possibly a spike to secure it.
			Beaked	A work surface and one or two 'beaks'; possible spike.
			Complex	More than one beak or spikes, allowing it to be mounted in different positions.
Awls	EBA	Double-pointed	*Double-pointed*	Small, round-sectioned awls tapering to a point at both ends.
	M-LBA	Single-pointed	*Single-pointed (Fig.E.11)*	Round or square-sectioned awls, tapering to a point at one end and a bar or flattened tang at the other.
Bugle-shaped objects	LBA	Bugle-shaped objects	*Bugle-shaped objects*	Tubular or flat; variety of terminal forms; slot in tubular variety.
Chisels	E-MBA	Plymstock	*Bar*	Solid square-section bar, tapering to a flattened chisel end.
	M-LBA	Sparkford	*Tanged*	Flat chisel blade, often expanded with a curved edge, tapering with concave edges to a slender rectangular tang with a pointed or rounded end.
	M-LBA (Taunton phase onwards)	Socketed	*Socketed*	Unlooped, socketed tools with a flattened, often curved, blade. Wide collars, square or rectangular-section sockets, sometimes decoration.
	LBA (Ewart Park phase)	-	*Socketed mortising*	Short, slender socket with a thick, flat, slender leaf-shaped blade, narrowing to a rough point.
	LBA	Elaborated with stop	*Tanged and collared (Fig.E.12)*	Thinned, triangular chisel blade, below a thick projecting oval or circular collar separating the blade from the tang; tang is typically square or rectangular-section and tapers to a flattened, rounded end.
Flesh-hook	LBA (Ewart Park phase)	Flesh-hook	*Class 3*	Two or three pronged; various shaft-prong unions, either with bobbin or U-form; elegant butt ferrule.
Knives	M-LBA	Tanged	*Tanged*	Slender double-edged blades with a projecting tang, without a perforation
	M-LBA	Tanged	*Tanged and riveted*	Slender double-edged blades with a projecting tang and one or two holes in the tang for rivets.
	LBA (Ewart Park phase)	Socketed	*Socketed (Thorndon)*	Leaf-shaped, double-edged blade; oval socket with concave sides; rivet hole typically through the faces of the socket, rather than the sides.
		Hog-back	*Hog-back*	Trapezoidal, sub-rectangular or triangular typically with a single cutting edge; perforated towards the upper edge.
		-	*Triangular perforated*	Triangular shape with a triangular perforation at the centre or towards one point; typically thicker at the centre tapering to thinner edges.

Sickles	M-LBA (Taunton phase onwards)	Knobbed	*Knobbed*	Occasionally ridged blade; single or double protruding knob(s) present on the hafting end.
			Double-knob (Fig.E.14)	Two knobs arranged linearly at the haft.
	LBA	Tanged	*Tanged and riveted*	Projecting tang, sometimes separated from the blade by a rib; sometimes dorsal ridge; notches or rivet holes in the tang.
Socketed Gouges	LBA (Wilburton-Ewart Park)	Socketed gouges	*Class I*	Plain mouth; narrow blade.
			Class IIa	Deep collar; narrow blade.
			Class IIb	Ribs or incised lines around the mouth.
			Class III	Small squat form; wide, splayed cutting edge; with or without mouth mouldings; never ribbed.
	EIA (Llyn Fawr)		*Thorney Down (Fig.E.15)*	Slender, tapering to a very narrow cutting edge; shallow groove; unfinished; circular or oval back-to-front socket.
Socketed hammers	M-LBA (Taunton phase onwards)	-	*Type 1*	Offset faceted face; heavy head; square or round cross-section.
			Type 1a (Fig.E.16)	Offset faceted face; long, narrow head; rectangular cross-section.
Vessels/Cauldrons	M-LBA (Penard phase onwards)	Sheet/cast bronze vessels	*Cauldron Class A*	Constructed of three sheets riveted together with flat (rather than projecting) rivets; inturned, narrow and plain rim.
			Class A0	Proto-form of cauldron.
			Class A1	Generally large and globular outline; handles show three-ribbed half-tube; three neck corrugations.
			Class A2	Smaller, more conoidal outline; three-ribbed tube with side flanges; two neck corrugations.
	LBA-EIA (mainly Llyn Fawr)		*Cauldron Class B*	Constructed from minimum of five sheets riveted together with flat rivets; everted, wider and decorated rim.
			Class B1	Constructed from up to eleven sheets; conical rivets; nearly all constructed of five tiers.
			Class B2	Constructed of fewer sheets in fewer tiers; dome-headed rivets; concentric ribs around the rim; handle attachments fixed by pegs, rather than cast on.

Fig.E.11: A single-pointed awl from Kingsdon II, Somerset (PAS-223) (source: image courtesy of the PAS/Trustees of the British Museum)

E.4.3 Bugle-shaped objects

Bugle-shaped objects have a tubular or flat shaft with a broad loop set below (O'Connor 1980, 194-195). The tubular form has a large slot in the tube and typically this might 'bulge' towards the centre before narrowing to unexpanded or trumpet-shaped terminals. They broadly date to the Late Bronze Age, but have their main currency in the Ewart Park phase. The exact function of these objects is unclear, but they are generally considered to have been some form of strap fitting, an idea that may be supported by the 'buckle' from St. Michael's Mount, which incorporates a flat bugle-shaped object (see Section E.6.10b).

E.4.4 Chisels

Chisels are characterised by a flattened, often expanded, blade at one end and a variety of hafting forms at the opposite end. The earliest forms comprise a square-section bar tapering to a flattened blade (e.g. the example from the Plymstock hoard), while the latest forms develop slender tapering tangs and wide, curved blade, separated by a thick projecting oval or circular stop, referred to as a 'collar' (e.g. at Gussage St. Michael 2). They may also be socketed.

In 1983, twelve examples of chisels were known across the South West (Pearce 1983). This has since nearly tripled to 35 examples. Pearce (1983, 42-43) presented four forms of bar and tanged chisels (Fig.E.12), plus a socketed type. Rowlands (1976, 44-45), meanwhile, presented four types including a socketed form. Both typologies contain the 'lugged' or 'trunnion' type identified by Butler (1963, 124-126), which does not appear in the South West. Additionally, Rowlands (1976, 44-45) presented 'flanged' chisels, which are a common Middle Bronze Age form, but which have yet to occur in a south-western context. Furthermore, the typology presented by Pearce was not then

applied to her dataset. Consequently, neither typology has been adopted here, and chisels have been classified on a descriptive basis, according to their hafting form. Of particular note, is a rare chisel form that has been identified at Gussage St. Michael 2, where two non-refitting fragments of a possible socketed mortising chisel have been discovered. Table E.5 offers a basic description and indicates the rough chronology.

Fig.E.12: A tanged and collared chisel from Gussage St Michael 20 (PRIV-F042a) (source: Author courtesy of Martin Green)

E.4.5 Flesh-hooks

Flesh-hooks are hook-pronged implements that are presumed to have been associated with feasting activities (Needham and Bowman 2005). The most recent British flesh-hooks were initially classified by Jockenhövel (1974 in Needham and Bowman 2005), which was updated by Needham and Bowman (2005), who classified flesh-hooks according to key features such as the number and nature of the prongs and the form of the butt. Flesh-hooks predominantly date to the Late Bronze Age, but have their origins in the Penard phase of the Middle Bronze Age. Only one flesh-hook is known from the South West, from the Lulworth hoard, Dorset (DCM-F025r). This example falls within Needham and Bowman's Class 3: Elaborate socketed flesh-hooks – double or triple prong.

E.4.6 Knives

Bronze Age knives occur in a variety of forms from the Early Bronze Age onwards, though the earliest forms tend to be classified as ‘knife-daggers’. A comprehensive typology for this object type has not yet been established (though see Hodges 1956, 38-39). Hodges (1956, 38) presented four types of socketed knives, though of these only the Thorndon type is known in the South West. Other types relevant to Britain, northern France and the Low Countries have been presented for the later Bronze Age by O’Connor (1980), though many types are not relevant to south-western England. Consequently, knives have been divided largely according to Pearce (1983, 44) following overall form and hafting technique (see Table E.5), though with additions based on recent discoveries.

E.4.7 Razors (Table E.6)

Razors are single- or double-edged blade implements that occur from about 2000 BC onwards and continue in use to a varying degree into the Iron Age. The style and form of razors thus changes quite significantly and the study of British razors has been undertaken and reassessed repeatedly, especially by comparison with the other tools listed here. Thus, a separate table bringing together various typologies has been created (Table E.6).

The initial classification scheme proposed by Piggott (1946) for Late Bronze Age razors, and subsequently updated by Butler and Smith (1956), was appropriated by Pearce (1983, 44-46) for studying the south-western material. However, razors across western Europe were reclassified by Jockenhövel (1980); this is the scheme that is largely followed here. Most recently Needham (2015b) has reclassified some of what Jockenhövel considered razors, as part of his Series 7 daggers. Due to the absolute chronology attributed to Needham’s (2015b) scheme (see Table E.8), any razors/knives that falls within the Series 7 group are not classed using Jockenhövel’s typology. This, however, does highlight the problematic terminology surrounding what might be defined as a razor, knife or dagger.

Jockenhövel’s typology is a combination of descriptive classes, emphasising specific combinations of features and named types. To avoid lengthy attributions, Jockenhövel’s descriptive classes have been simplified or abbreviated here (Table E.6). Razors dating from the Early to Late Bronze Age in South West England are all double-edged and often possess a leaf or oval

shaped blade with a projecting tang (Fig.E.13). Single-edge razors develop in the transitional Hallstatt period (c.800-700 BC), coinciding with the Llyn Fawr phase in Britain. Relatively few razors are known from the South West, though the number is steadily increasing; only those classes relevant to the South West are presented here.

Fig.E.13: An incomplete Type Feltwell razor from Camerton, Somerset (BM-F028c) (source: Author courtesy of the British Museum)

E.4.8 Saws

Saws are long, rectangular, thin pieces of bronze, with one serrated long edge and often perforated at one end. Only one example has so far been recovered from South West England, at Lanherne house, Cornwall (Pearce 1983, 94a). This dates to the Taunton-Penard phase.

E.4.9 Sickles

Sickles are single-edged tools with a curved blade, tapering to a typically rounded tip, with three main variations at the hafting end. Consequently, sickles can be broadly divided into:

- Tanged and riveted;
- Knobbed; and
- Socketed.

Some sickle blades may be rib along the centre of the blade, or may possess a prominent dorsal ridge along the outer edge. Socketed sickles have yet to be found in the South West, but several tanged and knobbed examples are known,

Table E.6. A summary of the razor typologies reconciling those presented by Piggott (1946), Butler and Smith (1956) and Pearce (1983) with Jockenhövel's (1980) classification and presenting an abbreviated typology used in this thesis.

Date	Piggott/Butler & Smith/ Pearce	Jockenhövel	Thesis Typology	Key Features
Early Bronze Age (MA V-MA VI 1850-1500 BC)	Class 1a/b	Double-edged with wide, perforated tang	*Tanged, perforated*	Oval-blade; integrated perforated tang.
	Class 1a/b	Double-edged with long oval/leaf-shaped blade and tang > Variant I undecorated > Variant II decorated	*Tanged* *> Variant I* *> Variant II*	Slender oval/leaf-shaped blade tapering in to a slender tang > Variant I: undecorated > Variant II: with a cast midrib or incised decoration
Middle Bronze Age (Taunton 1400-1275 BC)	Class 2 (bifid)	Double-edged, tanged with V-notch in upper blade	*Tanged, bifid*	Broad blade with curved edges that taper in to a slender projecting tang; V-shaped notch at the top of the blade creating a bifid appearance
Middle-Late Bronze Age (Taunton onwards)	Class 2 (bifid)	Other double-edged, tanged, with V- or U-shaped notch	*Other bifid*	Tanged; curved double-edged notched blade; for those British razors that do not fit within a specific type
Late Bronze Age (Wilburton 1120-900 BC)	Class 2	Type Boutigny/Isleham	*Type Boutigny/Isleham*	Broad double-edged notched blade; onset tang extending onto the lower blade.
Late Bronze Age (Wilburton-Ewart Park 1120-800 BC)	Class 2	Type Feltwell	*Type Feltwell (Fig.E.13)*	'Maple-leaf-shaped' blade; tanged; with or without cast midribs; V-shaped notch and circular cut-out just below notch.
Late Bronze Age-Earliest Iron Age (Ewart Park-Llyn Fawr (800-600 BC)	Class 3	Type Havré	*Type Havré*	Double-edged, oval blade, circular or triangular cut-out at centre; narrow tang with large perforated terminal.
Earliest Iron Age (Llyn Fawr)	Class 3	Type Feldkirch	*Type Feldkirch*	Single-edged, trapezoidal blade; thickened upper blade; two projecting loops; inset perforations below the thickened upper edge (often rectangles and/or circles)

with a particular concentration in Somerset (Fox 1941; Pearce 1983, 45; Smith 1959a). There are three variations of knobbed sickles based on the form of the knob (round knob; elaborated knob; and double-knob (Fig.E.14)) as identified by Fox (1941), though only elaborated knob and double-knob sickles are known from the region.

Fig.E.14: A double-knobbed sickle from Sparkford (TTNCM-F051b) (source: Author courtesy of South West Heritage Trust (Museums Service)

E.4.10 Socketed Gouges

Socketed gouges are small tools with a circular or oval socket, usually flat-topped, with a range of collar styles. The body is typically narrow and usually expands to a curved blade with a distinctive groove that begins at the mid-body and widens to the cutting edge. These occur from the Wilburton phase onwards, but there has been little consideration of the typology of such objects. Coombs (1971, 251ff.; 2001, 288) presented a four-category typology based on the shape and style of socketed gouges in south-east England (see Table E.5). Chronologically it is difficult to distinguish the occurrence of different types of gouges, meaning this classification has been used here predominantly to identify stylistic distribution patterns.

However, a specific type of socketed gouge should be noted in addition to Coombs' typology. A small, slender form of socketed gouge exists with a distribution almost totally confined to Dorset, occurring in both hoards and as single finds (Fig.E.15). These gouges most commonly possess an oval 'back-to-front' socket (though this may also be circular), with a narrow, plain collar, and a body that tapers towards a narrow, rounded cutting edge, with a shallow groove

on one face that often extends along the length of the object. These gouges are usually unfinished and unused, sometimes with the clay core still *in situ*, and bearing prominent casting seams extending along the sides and around the cutting edge, and the remains of sprue stumps still present on the socket. They also have a silvery surface, similar to Blandford and Portland axes. This type of gouge was noted by Boughton (2015, 182ff.), but not named. Here this type shall be classed as 'Thorney Down' due to the occurrence of five of this type in the hoard. Due to its associations with Earliest Iron Age axes, it can be accurately placed in the Llyn Fawr period.

Fig.E.15: A Thorney Down type socketed gouge from Thorney Down III (DCM-F037h) (source: Author courtesy of Dorset County Museum)

E.4.11 Socketed Hammers

Socketed hammers are those objects which are socketed and possess a broad, blunt end capable of being utilised as a hammer or punch. Until recently, only two socketed hammers were known from South West England, of which one lacked a definite context other than having been purchased in Bristol (Pearce 1983, No.837). Discoveries through the PAS have increased this number in recent years to six known examples. Fregni (2014. 81ff.) has recently

conducted a comprehensive study of socketed hammers across Britain. She developed a typology based on the form of the hammer faces, building on Coombs' (1971, 275-276) initial division of types. Socketed hammers date from the Middle Bronze Age (Taunton phase) onwards, but are most common in the Late Bronze Age. The south-western examples generally fall within Fregni's Type 1 and 1a classes (Fig.E.16); consequently, her rarer classes (Types 2-5) have not been presented here.

Fig.E.16: A Type 1 socketed hammer from Whitelackington, Somerset (PAS-267b) (source: image courtesy of the PAS/Trustees of the British Museum)

E.4.12 Vessels/Cauldrons

Bronze Age and Iron Age copper alloy sheet vessels have been recently assessed by Gerloff (2010), encompassing a broad development of cauldron and bucket classes, based upon “the overall shape and size of the vessels, the form of the neck, the type of rim reinforcement, style of riveting and the number of sheets used in the vessel’s construction” (ibid. 332). No complete vessel has yet been recovered from South West England, though they occur as fragments at numerous sites (e.g. Mount Batten, Devon, and Cadbury Castle, Somerset). At Chard, Somerset, two ring and staples from a cauldron were recovered, though otherwise ring handles are absent from the region. Gerloff (2010) showed that cauldrons likely have their origins in the Penard phase of the Middle Bronze Age and continued in use throughout the Late Bronze Age and Iron Age. Building on previous typologies, cauldrons have been divided into a series of classes and sub-divided within those. Only those types present in the South West are described here.

E.5 Weapons and Martial Equipment

This section presents copper alloy objects that might be considered ‘weapons’ or associated with warrior equipment in South West England. Typologies for swords and rapiers are well-established, whilst daggers and spearheads have recently been re-evaluated and thus require a fuller discussion.

E.5.1 Arrowheads

Arrowheads produced in copper alloy occur infrequently, but four are now known from South West England (Fig.E.17). The earliest forms mimic the stone varieties and thus barbed and tanged bronze arrowheads emerge, followed by socketed varieties in the later Bronze Age. Exact dating for these objects is uncertain within the South West as none have so far been found in associations.

Fig.E.17: A copper alloy barbed and tanged arrowhead from Frampton II, Dorset (PAS-F118) (source: image courtesy of the PAS/Trustees of the British Museum)

E.5.2 Daggers (Table E.7)

The dominant typology of Early Bronze Age daggers has traditionally been Gerloff's (1975) scheme, based on the material from Wessex. This was adopted by Pearce (1983) and still holds currency in much of the literature. However, an alternative, broader typo-chronological scheme has recently been proposed by Needham (2015b) drawing on radiocarbon dates and he has consequently proposed seven *Series* for defining daggers. Here, Gerloff's typology has been used to define daggers for consistency with previous corpora; however, Needham's classification system has also been applied as a secondary categorisation as it allows a firmer method for dating many artefacts and is likely to eventually supersede Gerloff's classification. It is Needham's chronology that is presented here alongside Gerloff's typology, though only in broad chronological order due to the considerable overlap in types. Table E.8 offers the more precise chronological spans as described by Needham (2015b). There are inevitably some problems in aligning Gerloff's and Needham's schemes, but much of this is accounted for in the discussion by Needham (2015b). It should also be noted that Jones and Quinnell (2013) recently conducted a series of radiocarbon dating of cremated bones associated with four daggers in barrows

from Devon and Cornwall. The dates acquired from Huntshaw 2, Devon (RAMM-F025; Fig.E.18) suggest that the Camerton-Snowshill series (Series 5D) may have dated earlier than previously anticipated, overlapping with the Armorico-British A series. This is contrary to the chronology presented by Needham (2015b) and thus it should be considered that these chronologies are still open to refinement.

Fig.E.18: The Camerton-Snowshill/Series 5D dagger from Huntshaw 2, Devon (RAMM-F025) (source: Author courtesy of RAMM, Exeter)

A key amendment in Needham's classification is the refined definitions for Gerloff's (1975) 'knife-daggers'. Needham (2015b) highlights issues with the term 'knife-dagger', which has also applied to objects otherwise termed knives, razors and razor-knives (e.g. Jockenhövel 1980) and instead uses the term 'small-bladed implements', defined by their size (under 110mm). Needham's (2015b) types and sub-types depend on variables of rivets, blade shapes, blade sections and the presence of a midrib, making it overall difficult to reconcile Gerloff's rather broader categories; where possible this has been presented.

Overall, both Gerloff and Needham present numerous sub-types for different daggers, which rely on variations of different features; these are only described where appropriate to the south-western material, and Table E.7 should not be taken as comprehensive of the range of material across Britain.

Table E.7: A summary of Needham's (2015b) typology for daggers, reconciled with Gerloff's (1975) typology.

Phase	Gerloff/Pearce	Needham	Key Features
MA I-III	*Tanged copper daggers*	*Series 1: tanged daggers/knives*	Flat blade; always copper; flat tang; occasional rivet-hole/notch; variations defined by Needham according to hilt securing mechanism and tang shape.
Late MA II-MA III	*Flat riveted daggers*	*Series 2: Butt-riveted flat daggers*	
	Type Butterwick	2A Butterwick	Broad, flat blade; rounded riveted butt; linguate outline; bevelled cutting edges; three rivets set in line with the heel of the blade; generally c.120mm long.
	Variant Garrowby	2B Garrowby	As above, but broader and stouter.
	Type Milston, Variant East Kennet	2C Milston	Long, broad, tongue-shaped blade; often numerous rivets in line with the heel; three rivet holes and any further were set into notches; slightly peaked butt; omega-shaped hilt marks; blade generally 14-17 cm long.
Late MA III-MA V	*Armorico-British A (Type Winterbourne Stoke)*	*Series 3*: Thin lenticular-section daggers 3A Winterbourne Stoke 3B Raund	Triangular blade; no midrib; straight heel; six rivets; blade lined by two or three grooves; flat section; omega-shaped hilt mark.
MA IV-MA V	-	*Series 4: Ribbed flat-bladed daggers*	
	Armorico-British B (Type Cressingham)	4A Towthorpe	Triangular blade; prominent, well-defined, slightly rounded or angular midrib; omega-shaped hilt; straight heel; six slender peg rivets; blades mostly lined by three grooves; flat section.
Late MA III-MA V	*Group Ridgeway*	4B Mauldslie	Flat blade; clearly defined midrib; no grooves; variously shaped heels; two or three rivet holes.
Late MA III-MA V	*Type Sproughton*	4D Blackwaterfoot	Flat blade; three spaced ribs converging towards the tip; rounded heels; omega-shaped hilt mark.
MA VI	-	*Series 5: Thick-bladed daggers*	

	Group Plystock-Totland	5A Totland 5B1 Plymstock	Thick bladed; median thickening flanked by a shallow groove or a low, well-defined midrib flanked on each side by a broad hollow. Needham's types are distinguished by the thickness of the mid-blade and the presence of blade furrows.
	Armorico-British C (Variant Winterborne Came)	5C2 Bourbriac	Ogival outline; straight or slightly rounded heel; six rivet holes; omega-shaped hilt mark; three or four parallel grooves along the blade edges; biconvex section.
	Type Snowshill	5D Camerton-Snowshill (Fig.E.17)	Rounded butt; three rivet holes; convex section; grooves extend along length of the blade; sometimes pointillé-decorated midrib.
	Type Camerton	5D Camerton-Snowshill	Trapezoidal to flat-curved butt; two rivet holes and central rivet notch; grooves extend over 4/5 of the blade length; biconvex section; sometimes pointillé-decorated midrib; typically not as broad as Type Snowshill.
	Type Hammersmith	5E1 Hammersmith	Thickened midrib; rounded butts; small rivet holes; omega-shaped hilt marks; occasionally grooves along the blade; rib and/or step-mouldings.
MA III-MA VI	*Knife-dagger*	*Series 1, 6 and 7*	Bladed implements under about 100-110mm.
	Flat-riveted knife-dagger	1B and C (riveted knife sized tanged flat blade) and varieties of Series 6 and 7	Triangular outline; flat blades; two/three rivet holes; straight or slightly curved hilt mark.
	Knife-dagger with midrib	Varieties of Series 6 and 7	Like flat-riveted daggers but with well-defined midrib.
MA III-MA VI	-	*Series 6: Tanged small blade implements*	
	-	6A	Broad tang; almost always a single rivet; various blade sections; sub-types distinguished by tang/blade junction
	-	6B	Narrow tang; no rivet; various blade sections; sub-types based on blade shape.
MA IV-MA VI		*Series 7: Butt-riveted, small blade implements*	Small blade; riveted butt; Shallow, broad hilt plate; often straight hilt mark, though sometimes omega-shaped.
	Flat-riveted knife-dagger	7A	Flat or thin blade section.
	Knife-dagger with midrib	7B	Midribbed blade of varied width and profile; flanking flat or furrowed wings.
		7C	Lenticular or lozengic blade section.

Table E.8: A table outlining the key dates for Needham's (2015) dagger *Series*.

Needham's Type	Broad period/phase	Dating
Series 1: Early group 1A1-3	MAI/II (Early Chalcolithic)	*c.*2450/2400-2300 cal BC
Series 1: Later group 1A4-6; 1B1-6; 1C1-3; 1C6	MAI/II (Later Chalcolithic)	*c.*2300-2200/2150 cal BC
Series 1: Transitional types 1C4-5.	MA II-III (Chalcolithic/Early Bronze Age)	*c.*2200-2100 cal BC
Series 2: 2C; 2F1	MA II-III	2200-2050 BC
Series 2: 2D; 2E; 2F2	MA III	2150-1950 BC
Series 2: 2A; 2B; 2F3	MA III	2100-1900 BC
Series 3: 3A	Late MA III-MA V Willerby	c.2100-1725 BC
Series 3: 3B	MA IV Aylesford-MA V Willerby	1950-1725 BC
Series 4: 4A	MA IV Aylesford-MA V Willerby	1950-1725 BC
Series 4: 4B-D	Late MA III-MA V Willerby	c.2100-1725 BC
Series 5: 5A-D	MA VI Arreton	c.1725-1500 BC
Series 5: 5E1-3	MA VI Arreton	c.1650-1500 BC
Series 6	MA III-MA VI Arreton	c.2150-1500 BC
Series 7	MA IV Aylesford-MA VI Arreton	1950-1500 BC

E.5.3 Dirks and Rapiers (Table E.9)

Dirks and rapiers have been grouped together here following Burgess and Gerloff (1981). Both have slender blades, either ogival, parallel-side or tapering, with a flat butt or hilt-plate and either notches or rivet holes (ibid. 4). Distinguishing between these two object types is thus difficult, and the principle distinction has been the length of the blade (e.g. at 30cm long a blade is classified as a rapier, rather than a dirk) (ibid. 4-5). There have been no major amendments of these definitions and the typology devised by Burgess and Gerloff (1981) separating rapiers and dirks into four major *Groups* has largely been accepted into the broader nomenclature. Key types are presented, but variants of these types have not been described due to difficulties in accurately applying the slight distinctions highlighted by Burgess and Gerloff.

Table E.9: A summary of Burgess and Gerloff's (1981) typology for dirks and rapiers, reconciled with Pearce's (1983) typology.

Phase	Pearce	Burgess/ Gerloff	Key Features
Arreton-Acton Park	Early	*Group I*	Rounded midrib, bordered by grooves, ribs and/or channels; trapezoidal, or near-trapezoidal, butt; usually two rivet holes; generally between 20-30cm long; variants based on blade section and presence/absence of grooves, ribs and channels.
Arreton-Taunton	Lozenge-section	*Group II (Fig.E.19(1))*	Flattened lozenge cross-section; plain or bevelled edges; generally plain blades; trapezoidal butts with two rivet holes; generally 200-400mm long; variants based on proportions of the butt and blade.
		Type Taplow	As above, but four rivets set into a low rounded butt; two rivets in rivet holes and two in side notches.
		Type Littleport	As Gr,II, but angular trapezoidal butt with slightly concave sides and prominent out-turned (horned) shoulders.
Taunton-Penard	Triple arris	*Group III (Fig.E.19(2))*	Triple arris blade (i.e. median ridge flanked by two further ridges); ridged or fluted cross-section; trapezoidal butts; two rivet holes; generally over 300mm long.
		Type Surbiton	As above, but trapezoidal to squareish butt with four rivets; two in two rivet holes and two in side notches; generally 400-500mm long.
		Type Wandsworth	As Gr.III, with pronounced angular butts and sharply defined shoulders; generally 400-500mm long.
		Type Lissane	As Gr.III, with low, wide butt; generally fluted blades.
End of Taunton- Penard	Flat rib	*Group IV (Fig.E.19(3))*	Flattened or slightly rounded blade-section; riveted or notched butts; either large trapezoidal butts reminiscent of Gr.III (archaic butts), or small butt with rivet holes set between corner and shoulder; broad ogival or long slender blades;
		Type Appleby	As above, but smaller butts; generally 300-400mm long; riveted; variants according to butt shape.
		Type Stuntney	As Gr.IV, with well-formed trapezoidal butts with semi-circular rivet notches in the side of the butt.
		Type Cutts	As Gr.IV, with "constricted butts" (i.e. deeply indented side-notches; sloping prominent shoulders; leaf-shaped blade; typically Irish.

Fig.E.19: Rapiers from South West England. **1.** A Gr.II rapier from Avonmouth Docks, Bristol (BCMAG-F001); **2.** A Gr.III rapier from the Crediton hoard, Devon (ASH-F004c); **3.** A Gr.IV rapier from the Crediton hoard (ASH-F004d) (source: Author courtesy of Bristol City Museum and Art Gallery and Ashmolean Museum)

E.5.4 Swords (Table E.10)

The typology of swords for Great Britain was comprehensively studied by Colquhoun and Burgess (1988) in their PBF volume (Fig.E.20). Whilst the volume of material has increased since the late 1980's, there has only been limited reassessment (e.g. Burgess 2012b; Brandherm and Moskal-del Hoyo 2014) largely to bring the British sequence in line with the one for Atlantic Europe. Most variants defined by Colquhoun and Burgess (largely for Wilburton and Ewart Park type swords) have not been presented here, as few variations are identifiable in the study region, but it is important to note that the form of hilt may help determine a more refined typology of sword types. Only those sword types found in South West England are presented here.

E.5.5 Chapes

Chapes are objects that were attached to the end of a scabbard for swords and/or daggers. They are produced in copper alloy and come in two key forms: tongue-shaped and bag-shaped. Tongue-shaped chapes date throughout the Late Bronze Age (1100-800 BC), while bag-shaped chapes date solely to the Ewart Park/Carp's Tongue phase (c.900-800 BC).

Tongue-shaped chapes are slender hollow objects, often lozenge-sectioned, with a wide concave mouth than tapers to a narrow oblong butt (Fig.E.21(1)). A variety of decoration occurs, but cast longitudinal ribs typically adorn the faces.

Bag-shaped chapes are much smaller and possess a convex base and a concave mouth, defined by a rib (Fig.E.21(2)); the faces may be perforated and decorated with incised adornment (O'Connor 1980, 190-191).

E.5.6 Shields

Only one shield is known from South West England: the Milsoms Corner shield, Somerset (TTNCM-F031). This is a Yetholm-type shield and can be broadly dated to the Penard phase of the Middle Bronze Age, but may extend into the early Wilburton phase of the Late Bronze Age (Uckelmann 2012, 49). Yetholm shields are relatively large, ribbed and bossed shields.

Table E.10. A summary of Colquhoun and Burgess' (1988) typology for swords, reconciled with Pearce's (1983) typology.

Phase	Pearce's Typology	Colquhoun and Burgess' Typology	Key Features
Penard	Rixheim – rod-tanged	*Rod-tanged*	Long rod projecting from hilt; variations in blade shape, section and length.
	Ballintober	*Ballintober*	Leaf-shaped blade; flattened lozenge-section; rectangular hilt; rivet holes; blunted ricasso.
	Chelsea	*Variant Chelsea*	As above, but with flat/gentled rounded mid-section and bevelled edges.
	Early native flanged-hilted	*Teddington*	Wide, heavy, straight-sided blade; straight, widely-splayed shoulders; deeply curved ricasso; hilt slot and shoulder rivet holes.
Penard-Wilburton	-	*Limehouse (Fig.E.20(1))*	Long, leaf-shaped blade; widely splayed, convex (U-shaped) shoulders; lozenge-section; high flanges on hilt; rivet holes or slot; rarely blade grooves.
Wilburton	Wilburton (and Wilburton/Saint Nazaire)	*Wilburton (and variants) (Fig.E.20(2))*	Slender leaf-shaped blade; wide-splayed shoulders; flattened lozenge-section; short curved ricasso notches; simple flared hilt terminal; large rivet holes and slots; variants dependent on form of hilt.
Ewart Park	Ewart Park	*Ewart Park (and variants) (Fig.E.20(3))*	Leaf-shaped blade; gentled rounded mid-section; generally rivet holes; steeply-pitched, usually straight shoulders; short, straights ricasso notches; fan-shaped hilt terminals; variants dependent on form of hilt.
	Carp's Tongue	*Carp's Tongue*	Straight, parallel-sided blade narrowing sharping to a 'carp's tongue' point; wide T-shape hilt terminal; wide hilt tang; short straight shoulders; short vertical ricasso; rounded midrib defined by single grooves following the outline of the blade from just above the tip; slotted or riveted tang; riveted shoulders.
Ewart Park-Llyn Fawr	Gündlingen	*Gündlingen*	Long narrow leaf-shaped blade; broad, rounded mid-section, separated by a groove or channel from the bevelled edge; short, wide-splayed shoulder; ricasso notches; tip is usually blunt; rectangular pommel piece of terminal.

Fig.E.20: Swords from South West England. **1.** A Limehouse sword from Harlyn Bay, Cornwall (BM-F002); **2.** A Wilburton sword from West Cornwall (ASH-F004) **3.** A Ewart Park sword from Cranborne I, Dorset (BM-F016) (source: Author courtesy of Ashmolean Museum and British Museum)

Fig.E.21: Late Bronze Age chapes. **1.** A tongue-shaped chape from Chedzoy I, Somerset (TTNCM-F011); **2.** A bag-shaped chape from St Michael's Mount, Cornwall (NT-F001n) (source: Author courtesy of South West Heritage Trust (MS) and National Trust).

E.5.7 Spearheads (Table E.11)

Pearce's (1983) typology for spearheads was broadly descriptive of different and built on previously typologies by Greenwell and Brewis (1909) and Ehrenberg (1977). However, large numbers of spearheads were grouped under single classifications (e.g. 'side-looped' or 'late pegged'), without consideration of the subtleties of different forms. This has been comprehensively addressed by Richard Davis (2012; 2015; Fig.E.22A, B) who has recently published a complete typology of British Bronze Age spearheads, comprising 18 Groups with numerous sub-groups. Davis (2012; 2015) divides spearheads according to various elements in the form of the spearheads, such as the shape of the blade (e.g. flame-shaped; leaf-shaped etc.), the form of the loop plates, the depth of the socket aperture, and the profile of the midrib. This typology aligns with the current chronological scheme, though is still being incorporated into the broader literature. Consequently, Davis' typological scheme has been applied here,

alongside Pearce's original typology. Only those spear types found in South West England are presented here, with the main group and then the relevant sub-type indicated and described. The groups have been ordered chronologically. It should be noted that due to the specificity of some of the divisions, only one or two examples of some types are known from the South West.

Table E.11. A summary of Davis' (2012; 2015) typology for Bronze Age spearheads reconciled with Pearce's (1983) typology.

Phase	Pearce	Davis	Key Features
Arreton	Tanged	*Gr.1 Tanged* 1A Lozenge midrib 1B Curved midrib	Triangular-shaped blade; long tang with rivet hole at the end; various decoration.
	End-looped	*Gr.2 Early socketed* 2B Looped	Lozenge-shaped midrib; short shaft aperture that extends to the base of the blade; loops set next to socket base or below middle of the socket.
Acton Park	Side-looped/Socket-looped	*Gr.3 Ribbed kite blade* 3B Flat blade	Kite-shaped blade with ribbed wings; side-loops; socket aperture extends about halfway up the midrib.
	Side-looped	*Gr.5 Wide blade*	Wide blade with a smooth curve from the blade-socket junction to the tip; flattened lozenge side-loops; short midrib about halfway up the blade; various midrib forms (e.g. circular, lozenge).
Taunton	Basal-looped	*Gr.8 Incorporated basal-looped* 8A Flame 8C Leaf	Loops sets into the base of the blade; predominantly lozenge midrib, but sometimes circular; variations in blade shape, presence of blade ribs, and decoration.
Taunton-Penard	Side-looped	*Gr.6 Developed side-looped* 6A Flame, bevelled 6B Flame, flat blade, lozenge plates 6C Flame, flat blade, narrow plates 6D Ogival 6E Leaf	Side-loops halfway up the socket; huge variability in all other attributes, including blade shape, loop form, midrib shape and length, blade ribs, and length of socket.
	Side-looped	*Gr.7 Special side-looped* 7B Loops below blade 7D Large	Side-loops; variety in loop positions and configurations; generally longer than Gr.6 spearheads; variations in blade form, including those that appear to mimic contemporary rapier blades.
Penard	Basal-looped	*Gr.9 Projecting basal-looped* 9A Flame	Loops set at base of blade, but projecting below the blade wings; variations in blade

		9B Triangular	shape, presence of blade ribs, midrib shape, and decoration. 9A considered to be transitional type between Group 8 and Groups 9B and 9C.
	Lunate-opening	*Gr.10 Protected-looped*	Loops set in the lower blade, adjacent to the midrib and distanced from the blade base; loops typically protected by a vertical flange; midrib circular; flame or leaf-shaped blade; typically heavy with thick blades and thick-walled sockets.
Penard-Llyn Fawr	Late pegged	*Gr.11 Generic* 11A Flame-shaped blade 11B Wide blade base 11C Leaf-shaped blade 11F Barrel-shaped socket 11G Bullet tip	Generally “elliptical” blade; pegholes in socket; variations according to blade shape, size and socket shape. Huge number of this type across Britain, with a long chronological span. 11F: Defined by a socket line which expands from the midrib as usual, but turns inwards or becomes parallel at the socket base, creating a ‘barrel’ shape. 11G: Defined by the blade turning inwards just before the tip to create a ‘bullet’ shape.
Wilburton	Late pegged	*Gr.12 Hollow blade* 12A Flame-shaped blade	Hollow-bladed; no midrib; pegged socket; lozenge-section; typically flame-shaped blade.
Wilburton-Ewart Park	Late pegged	*Gr.13 Fillets*	Fillets running along the blade alongside the midrib; pegged socket; variations in blade size, midrib form and decoration.
Blackmoor-Ewart Park	Barbed	*Gr.15 Barbed* 15A Long blade	Long, offset blade base forming projecting barbs; wide blade; low oval midrib and aperture; parallel-sided blade that curves inwards to the tip; thin blade walls; short pegged socket; single bronze peg often associated.
Wilburton-Ewart Park	Lunate-opening	*Gr.16 Blade Openings* 16B Lunate	Openings within the blade, typically half a circle, facing the midrib, termed a ‘lunate’, but can also include circles, slots and triangles; variations in presence of fillets, decoration, blade shape and openings. 16B: Filleted or plain blade; sometimes barbed. Typically dating to the Blackmoor phase.
		Gr.18 Miscellaneous 18C Facetted Midrib 18D Continental	Miscellaneous spearhead types. Dating is uncertain. 18C: Facetted midrib. Rare form (only 7 known in Britain). 18D: Spearheads with a continental form and thus are probably imports.

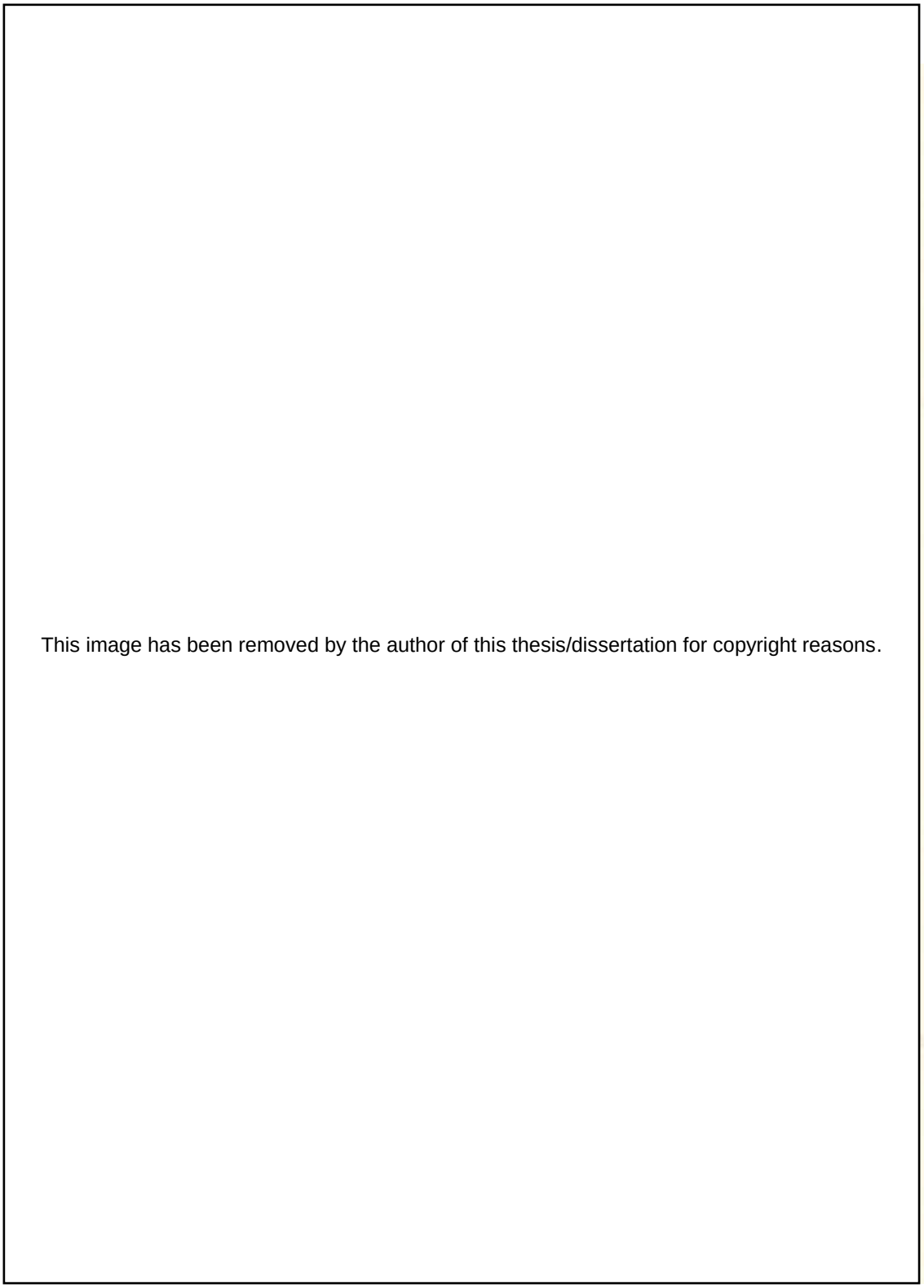


Fig.E.22A: Davis' (2012; 2015) spearhead Types 1-10 (source: Davis 2015, 20, Fig.5)

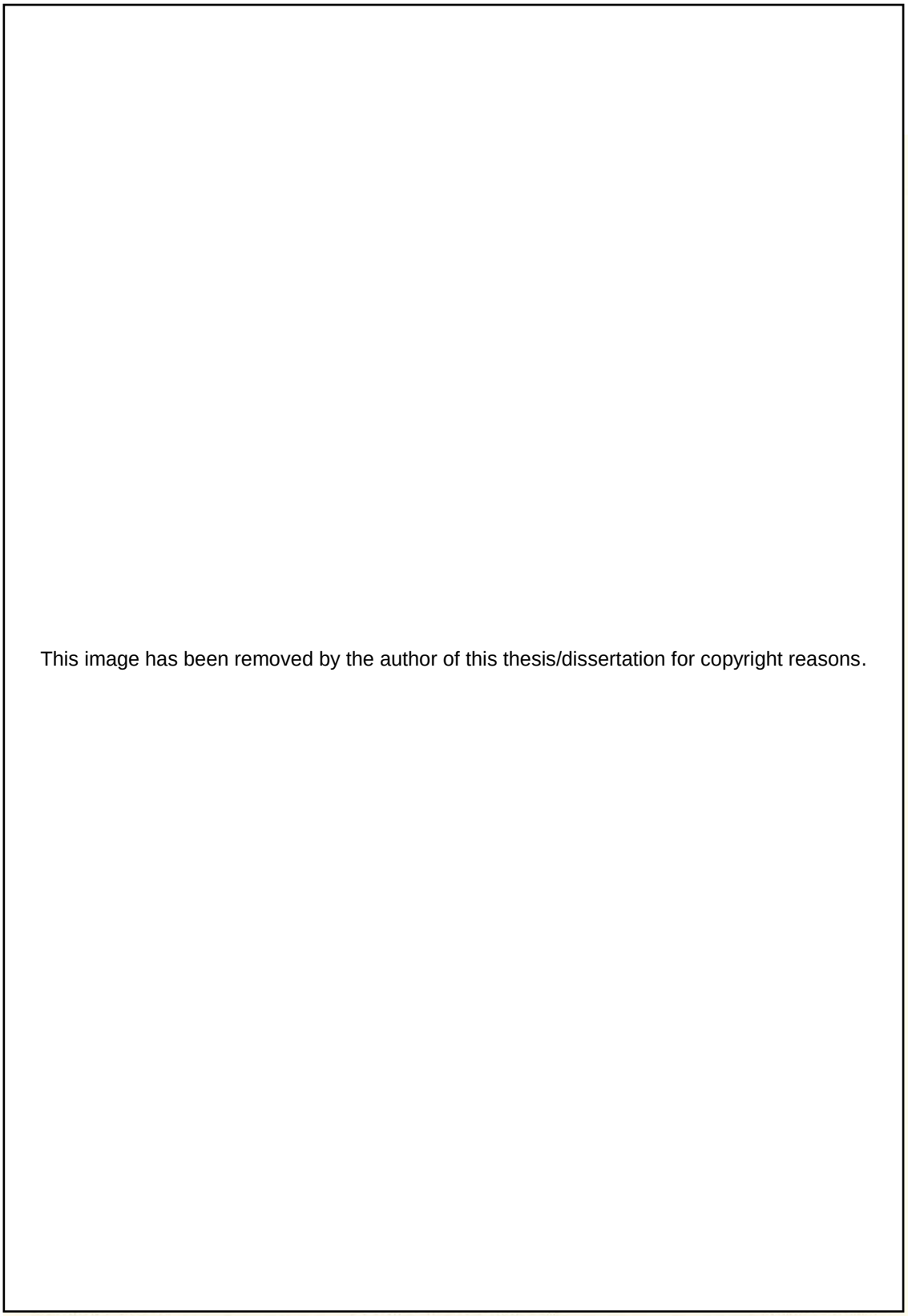


Fig.E.22B: Davis' (2012; 2015) spearhead Types 11-17 (source: Davis 2015, 21, Fig.6)

E.6 Copper Alloy and Gold Ornaments (Table E.12)

A broad variety of objects are encompassed within the 'ornament' category. 'Ornament' is taken to include any object that could have served the purpose of adornment usually on an individual, but also possibly animals, structures or in other situations. Many object types and variants are represented by only one or two examples from the region and in some cases few examples exist across the country. These objects are thus either grouped under broader object types, or categorised under 'Miscellaneous' or 'Gold ornament' to avoid establishing too many categories with only one or two examples. The most comprehensive study of gold types across Britain and Ireland was published by Eogan (1994; though also see Taylor 1980), which is largely followed here. Meanwhile, copper alloy ornaments have yet to receive any overarching synthesis and thus object- or period-specific must be relied upon (e.g. Davies 2012).

E.6.1 Beads

Copper alloy and/or gold Bronze Age beads are rare and may come in a variety of forms. Here a bead is distinguished from a 'ring' if it is less than 15mm in diameter; this serves only as a subjective parameter and should not be taken as a functionalist assessment of these objects which may have been adornments, fittings, or served another purpose. Gold beads are known infrequently throughout the Bronze Age, while copper alloy beads are a feature of the Late Bronze Age to Earliest Iron Age. These may have a variety of forms and cross-sections, though at present no precise terminology exists and so the different forms will be applied with descriptive terminology. Almost all copper alloy beads known from South West England come from the site at Gussage St. Michael (PRIV-F019; Fig.E.23), while gold beads are known from Beerhackett and Puddletown, both Dorset (Pearce 1983, Nos.337g and 439b). A single tin bead was recovered alongside shale, amber and ceramic beads in the Whitehorse Hill cist burial dating to the Early Bronze Age (Jones 2016).

Table E.12: A summary of the typologies applied to copper alloy/gold ornaments found in south-western England, reconciled with the typology applied by Pearce (1983) where appropriate.
EBA = Early Bronze Age; MBA = Middle Bronze Age; LBA = Late Bronze Age; EIA = Earliest Iron Age

Object	Date	Pearce	Thesis Typology	Key Features
Beads	E-MBA	Tubular	*Tubular*	Thin tube of sheet metal
	M-LBA	Biconical	*Biconical*	Sheet bead with longitudinal ridge, creating biconical form (i.e. two opposing open cones back-to-back)
	LBA-EIA	-	*Bead (E.23)*	Small, complete rings; varying section forms; typically less than 15mm diameter.
Bracelets/Armrings (copper alloy)	MBA (Taunton-Penard phase)	Bar twisted	*Bar-twisted (Fig.E.25)*	Penannular; solid bar; twisted; plain hooked terminals.
		Ribbon twisted	*Ribbon-twisted*	Penannular; thin ribbon; loosely twisted; hooked terminals.
		Penannular bossed	*Type Norton Fitzwarren (Needham 1989a)*	Penannular; hollow punched bosses; ribbed decoration.
		Ribbed	*Type Ramsgate (Needham 1989a)*	Penannular; multiple longitudinal ribs along the length of the exterior; plain inner surface.
		Miscellaneous	*Type Liss (Needham 1989a)*	Penannular or annular; various cross-sections; panelled geometric pattern.
		Miscellaneous	*Other*	Bracelets/armrings that do not fit within other classes
	M-LBA	Bar bracelets (D-section/ lozenge-section/ round-section); expanded terminal; plain wire	*Davies' Classes 1A-6D (Fig.E.24)*	Penannular; D-section, lozenge-section or round-section bronze bar or wire; variety of terminal forms.
Bracelets/ Armrings (gold)	M-LBA	Expanded solid terminal/ Armrings with coiled terminals	*Davies' Classes 1A-6D*	Penannular; variety of cross-section shapes; variety of terminal forms.
		Plain looped	*Plain looped*	Annular round-section wire folded over and bent into a roughly circular penannular form with looped terminals.
	MBA (Penard phase)	-	*Bar, triangular-section*	Penannular; triangular cross-section.
		-	*Doubled-and-hooked bar/ribbon*	Penannular bar or ribbon folded over to create one looped terminal; tapering hooked ends.
Buttons	M-LBA	Conical	*Conical*	Conical head; under-loop.
	LBA-EIA	-	*Looped*	Thin, flat head; under-loop.

Gold ornaments	EBA (2500-2000 BC)	-	*Basket-shaped ornament*	Flat oval plate curved longitudinally with tang/hook projecting from one side; often highly decorated with pointillé between embossed lines.
	LBA	Dress-fastener	*Dress-fastener*	Penannular; round-sectioned bar; large hollow terminals.
Lunulae	EBA	Classical	*Classical*	Largest form; wide, thin sheet; small terminals; intricate motifs.
		Provincial	*Provincial (Fig.E.26)*	Thick sheet; crescentic terminals with barbs; comparatively sparse adornment of lines and dots.
Pins	EBA (MA VI Arreton)	Bulb-headed	*Bulb-headed*	Straight shaft, tapering to a point; head is formed of a hollow 'bulb'.
		Ring-headed	*Ring-headed*	Straight shaft, tapering to a point; head is formed of multiple rings.
	MBA (Taunton-Penard)	Swollen shaft Side-looped	*Picardy (and Picardy-related)*	Slender; swollen shaft; often side-looped.
	MBA (Taunton)	Quoit-headed	*Quoit-headed*	Typically large circular ring heads; long thick shafts; lozenge or round section.
		Double spiral-headed	*Double spiral-headed*	Straight shaft; split at head into two strips that are bent into downward spirals.
	MBA (Taunton)	-	*Wheel-headed (Fig.E.27)*	Circular ring head with ribs across the head forming a cross.
	LBA (Ewart Park)	-	*Globular-headed*	Straight or tapering shaft; solid roughly spherical or bulb-shaped head.
	LBA-EIA (c.800-500 cal. BC)	Swan's neck	*Swan's neck*	Recurved shaft; unexpanded head terminal.
	LBA-EIA	-	*Nail-headed*	Circular/round section head; flat or slightly convex or concave head.
Rings (Copper alloy)	M-LBA (Taunton phase onwards)	Ribbed finger ring	*Ribbed finger ring*	Cast ribbed bars, curved into a ring.
		Coiled finger ring	*Coiled finger ring*	Round or rectangular section bar coiled twice or three times into a ring.
		Wire finger ring	*Wire finger ring*	Twisted or untwisted Wire bent into a ring.
		-	*Annular*	Small, complete rings; varying section forms and size.
Rings (Gold)	MBA (Taunton phase)	-	*Composite*	Small, penannular; flat terminals; ribbed appearance; formed of stacked two or three smaller rings giving figure of 8 cross-section.
	LBA	-	*Penannular gold rings*	Small, penannular; flat terminals.

			Class 1a (Fig.E.28B)	Plain solid gold bar.
			Class 2a	Plain gold-plated with copper alloy core.
			Class 3	Striped with silvery gold wire inlaid circumferentially into gold core.
			Class 3a (Fig.E.28A)	Broad stripes.
			Class 3b	Fine stripes.
	LBA	-	*Lock ring (Fig.E.29)*	Wires soldered together to form conical face plates curved around a central structural strip or tube.
Torcs (Copper alloy and Gold)	MBA (Taunton-Penard)	Bar twisted	*Bar twisted (Fig.E.29)*	Produced in bronze and gold from a solid, usually square-sectioned, bar repeatedly heated and twisted and bent into a penannular form; typically plain hooked terminals.
		Ribbon/Ribbon-twisted	*Ribbon-twisted*	Thin ribbon of bronze/gold loosely twisted; plain hooked terminals.
		Flanged	*Flange-twisted*	Produced only in gold; three or four-flanged bar of gold twisted and sometimes coiled.
		-	*Doubled-and-hooked bar/ribbon*	Penannular bar or ribbon folded over to create one looped terminal; tapering hooked ends.
		-	*Bar, triangular-section*	Penannular bar; untwisted or only loosely twisted; triangular cross-section.
Miscellaneous (Copper alloy)	LBA (Ewart Park phase)	-	*Buckle*	Incised decorated two piece buckle; roughly rectangular; triangular teeth; flattened bugle-shaped object incorporated.
		Decorative plaque	*Decorative plaque*	Thin bronze plates with incised and cast ornamentation, often rectangular with circular or semi-circular cut-outs.
Miscellaneous (Gold)	EBA (MA VI Arreton)	"Wessex Culture" Cup	*Cup*	Cup with a ribbed/corrugated body and decorated with rows of pointillé; handle riveted to one side.
	EBA	"Wessex Culture" Lozenge Plate	*Lozenge Plate*	Lozenge gold plate with incised decoration.
	MBA (Taunton phase)	"Wessex Culture" Sun Disc	*Disc (Fig.E.31)*	Gold sheet disc on a bronze backing; heavily decorated with repoussé.

Fig.E.23: A selection of beads from Gussage St Michael 2 Main Cluster (PRIV-F019) (source: Author courtesy of Martin Green)

E.6.2 Bracelets/Armrings

Bracelets or armrings are the most numerous ornament type in the Bronze Age. Determining at what point a bracelet might be considered an armring, or vice versa, seems to largely be a null point, with little criteria nor common nomenclature having been established in the literature (cf. Pearce 1983, 48-9). Davies (2012, 29) used modern definitions of armrings from internet retailers to establish a threshold diameter range for this object type of 54-76mm. However, the terminology serves only to distinguish the items in modern terms or from a subjective viewpoint; there is of course no reason why some items might not have adorned other parts of the body (e.g. legs) or that penannular rings of 60mm might not have functioned as bracelets or bangles. As such, the terms are taken alongside each other here and used according to the published material to maintain consistency. A distinction is made between gold and copper alloy bracelets.

Currently there is no comprehensive typology for Bronze Age bracelet or armring forms. Pearce (1983) presented a broadly descriptive typology of bracelets, while several authors have categorised individual types and variations for both Middle Bronze Age and Late Bronze Age bracelets (e.g. Butler 1963; Eogan 1994; Hook and Needham 1989; Needham 1989a, 35-37; O'Connor 1980, 80-89, 206f.; Rowlands 1971b). However, the most overarching typology has recently been established by Alex Davies (2012) in his unpublished Masters thesis (see Fig.E.24).

Davies' typology encompassed a broad range of Late Bronze Age and Early Iron Age bracelets based on their section shape and terminal form,

	Terminals						
Cross-Section			Rounded/Oval	'D' Shaped	Lozenge/Square	Flat/ Rectangular	'C' Shaped
		Type	A	B	C	D	E
Needham Eogan	Evenly Expanded Hollow (cupped)	1	Class A Variety 11 and 12 **Type 1A**	- - **Type 1B**	- - **Type 1C**	- - **Type 1D**	- - **Type 1E**
Needham Eogan	Evenly Expanded Solid	2	- Variety 6, 8 and 10 **Type 2A**	- Variety 5 and 9 **Type 2B**	Class E Variety 6 **Type 2C**	Class B1 Variety 1 **Type 2D**	- - **Type 2E**
Needham Eogan	Outwardly Expanded Hollow (cupped)	3	- Variety 12 **Type 3A**	Class D - **Type 3B**	- - **Type 3C**	- - **Type 3D**	Class C* - **Type 3E**
Needham Eogan	Outwardly Expanded Solid	4	- Variety 7 **Type 4A**	- Variety 9 **Type 4B**	- - **Type 4C**	- - **Type 4D**	Class C Variety 3 **Type 4E**
Needham Eogan	Unexpanded	5	- - **Type 5A**	- - **Type 5B**	- - **Type 5C**	- - **Type 5D**	- - **Type 5E**
Needham Eogan	Coiled	6	N/A	N/A	N/A	Class B2 Variety 2 **Type 6D**	N/A

Fig.E.24: Davies' (2012) Table 1, presenting the defining features of his typology for Late Bronze Age/Early Iron Age bracelets and how they correlate with the classes published by Hook and Needham (1989a) and Eogan (1994).

making it adaptable. It is applicable to both bronze and gold bracelets, though it only accounts for bar bracelets and has yet to be applied to a specific regional analysis. Nonetheless, it has been utilised here to group Late Bronze Age bar bracelet styles.

Middle Bronze Age bracelets are more diverse, incorporating a variety of decorative properties and possessing a wider variety of forms other than 'bar bracelet' (Fig.E.25). As such, Davies (2012) typological scheme has been applied to Middle Bronze Age plain bar bracelets, but the remainder have been classed according to Pearce's typology and any associated published literature (e.g. Needham's (1989a, 35-37) classification for ribbed and decorated bracelets). The huge variety of forms is particularly emphasised by the material from Priddy, Somerset, which includes bar bracelets of triangular cross-section, which do not feature in Davies' (2012) table. This type has thus been classed separately. Clearly, a typological scheme for Middle Bronze Age bracelets is required. Only those varieties of bracelet that have been found in South West England have been listed here.

Fig.E.25: A Middle Bronze Age bar-twisted bracelet from the Taunton Union Workhouse hoard, Somerset (TTNCM-F053t) (source: Author courtesy of South West Heritage Trust (Museums Service).

E.6.3 Buttons

Buttons occur infrequently in south-western England with only five known so far. Four of the five may be defined as 'conical', defined by the cone shape of the head; this type often has a loop on the underside and may date as early as the Taunton phase of the Middle Bronze Age, though occurs in contexts in the Late Bronze Age (O'Connor 1980, 199). The fifth button known from the South West has a flat head and an underloop (PRIV-F030) – this type is simply referred to as a 'looped button' here and can be dated broadly to the Late Bronze Age-Early Iron Age transition.

E.6.4 Gold ornaments

E.6.4a Basket-shaped ornament

These objects are made of a flat oval plate curved longitudinally with a tang/hook projecting from the centre of one side. They are often highly decorated with rows of lightly punched dots (pointillé) between embossed lines (Murgia et al. 2014). The only example from South West England is from Stogursey, Somerset (PAS-F254; see Section 8.2.2).

E.6.4b Dress fastener

Dress fasteners are predominantly found in Ireland, though an example has been found near Landewednack, Cornwall (Pearce 1983, 413, No.79). These are penannular ornaments with a slender round-section bar and large terminals that are evenly expanded and hollowed (Eogan 1994, 88); these are sometimes referred to as ‘trumpet’ terminals.

E.6.5 Lunulae

Lunulae are flat, crescentic-shaped gold sheets that bear incised decorative motifs. Three well-established types are known: Classical, Unaccomplished and Provincial (Taylor 1980, 28-34; Eogan 1994, 30-33), which are followed here. Lunulae date to the Early Bronze Age and are predominantly found in Ireland. Examples are rarely found in Britain, though four are now known from Cornwall, and one from Dorset (Fig.E.26), representing the Classical and Provincial types.

Fig.E.26: A provincial lunula from Tarrant Valley, Dorset (PAS-F164) (source: image courtesy of the PAS/Trustees of the British Museum).

E.6.6 Pins

A broad range of pins occur during the Bronze Age in South West England (Pearce 1983, 46-7). Few occur in the Early Bronze Age in the region, largely associated with burials and typically dating to the Wessex periods (Gerloff 1975, 249-251). Pins become more frequent and diverse in the Middle and Late Bronze Ages. Terminology for pins is relatively well-established, particularly for the Late Bronze Age, and terms are used here following key assessments (e.g. Davies 2012; Eogan 1974; O'Connor 1980).

Most pins are defined by the character of the head, though in some cases the section of the shaft is accounted for. Some types are represented by only one or two types (e.g. the wheel-headed pin from Gussage St. Michael 2 South IX, Dorset: PRIV-F029; Fig.E.27), which can be considered a foreign intrusion. Other types have a number of variants, but only those found in South West England are presented here, such as swan-neck pins, which are found with 'sunflower' or forward-facing disc-heads in Scotland or ring-heads in other parts of Britain (Davies 2012, 38).

Fig.E.27: Two fragments of a wheel-headed pin from Gussage St Michael 2 South IX (PRIV-F029) (source: Author courtesy of Martin Green)

E.6.7 Rings (copper alloy)

E.6.7a Finger rings

Finger rings are typically penannular and are, as the name implies, appropriately sized for a finger (or toe). Three sub-categories of finger rings are known from South West England, following definitions by Pearce (1983, 48). They are produced from a bar or wire of bronze and often coiled. Finger rings are found from the Middle Bronze Age (c.1400 BC) onwards.

E.6.7b Annular rings

Annular rings are separated here as the function of these objects is less clear. Annular rings vary in size and form, with some being ribbed, while others are plain. Any ring with a diameter smaller than 15mm is considered a ‘bead’ (see above). Annular rings from the South West have been found associated with Ewart Park-Llyn Fawr material. It is possible that they represent clothing adornment or horse harness fittings. It should be noted that this classification is not designed to encompass larger vessel ring handles.

E.6.8 Rings (gold)

E.6.8a Composite rings

Composite rings are penannular rings that have been formed from two or three rings welded on top of each other, creating a thick ribbed appearance. They date to the Middle Bronze Age and have been found in Devon, Dorset and Somerset.

E.6.8b Penannular gold rings

These small gold penannular rings typically have a circular cross-section and flat terminals and may be plain or decorated in a variety of ways (Fig.E.28; Eogan 1994; Meeks et al. 2008). They have traditionally been referred to in a variety of ways, including ring-money, hair rings and bullae (Taylor 1980, 64-66; Eogan 1994, 89), though the functional implications of these terms mean they are now more broadly referred to as penannular gold rings (Varndell 2001; Meeks et al. 2008; Gwilt et al. 2014).

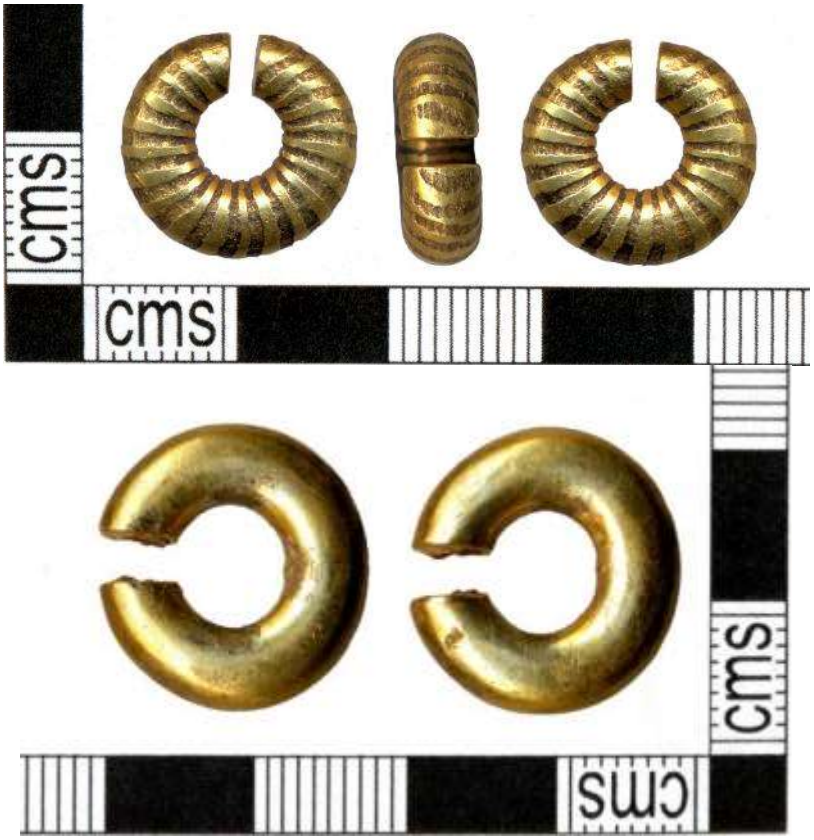


Fig.E.28A: A Class 3a penannular gold ring from Milborne St Andrew II, Dorset (PAS-F134)
Fig.E.28B: A Class 1a penannular gold ring from Poxwell, Dorset (PAS-F147) (source: images courtesy of the PAS/Trustees of the British Museum)

These objects developed as early as the Penard phase of the Middle Bronze Age and continued in production throughout the Late Bronze Age (Meeks et al. 2008). They are predominantly found in Ireland and southern England (Eogan 1994, Fig.42; Meeks et al. 2008), though an increasing number have been found recently from South West England. They may be produced from a solid gold bar, or else gold sheet/foil wrapped around a lead, copper alloy or clay core. They are often inlaid with electrum (high silver gold) creating a banded effect. The typological scheme presented by Meeks et al. (2008) is utilised here.

E.6.8c Lock Rings (following Eogan 1994, 89)

These are circular penannular ornaments of triangular cross-section, with a gold tube at the centre (Fig.E.29). They are produced from either gold sheet forming conical face plates, or from gold wires soldered together to form the face plates, which are then held by a binding strip along the outside. These face plates are curved around the tube, but do not meet at the terminals. The former method of

Fig.E.29: A lock-ring from Galhampton, Somerset (TTNCM-F017) (source: Author courtesy of South West Heritage Trust (Museums Service)

production is typically used outside of Ireland, while the latter is used in Ireland. However, the only example known from the South West comes from Castle Cary, Somerset (TTNCM-F017), and is produced using the Irish technique.

E.6.9 Torcs/Neckrings

A torc is a large penannular bar of metal, presumed to have adorned an individual around the neck (Fig.E.30); alternatively, they are referred to as neck rings (e.g. the two from Chickerell, Dorset). Torcs occur in both copper alloy and gold, and can be divided into three main categories (following Pearce 1983, 48, 49-50), though the gold material in particular has been subjected to much analysis (Taylor 1980; Eogan 1994). Torcs have their main currency in the Middle Bronze Age, dating to the Taunton-Penard metalworking phases, though examples are known from the Late Bronze Age.

Fig.E.30: Two bar-twisted torcs from Holywell, Evershot, Dorset (BM-F030) (source: Author courtesy of the British Museum)

E.6.10 Miscellaneous Copper Alloy

There are a variety of items that are either represented by only one or two examples or else do not fall comfortably within a broader category. The entirety of miscellaneous copper alloy objects from South West England are not listed here, but two of the key objects are presented.

E.6.10a Decorative plaques

Fragments of a decorative plaque have been found associated with the Lulworth hoard, Dorset (DCM-F035l-o; see Fig.9.47). Plaques of this nature are relatively rare, but comparative examples are known from the Cassiobridge Farm hoard, Hertfordshire (Coombs 1979, 208, Fig.11.6) and Boughton Malherbe, Kent (Adams 2016, 52, Fig.9).

E.6.10b Buckle

A unique object was recovered from the St. Michael's Mount hoard, Cornwall (NT-F001o; see Fig.9.28), which is considered here to represent a buckle or horse-fitting. It currently has no parallels, but incorporates features of other objects, such as a flattened bugle-shaped element; this may indicate that bugle-shaped objects (Section E.4.3) were in fact strap fittings.

E.6.11 Miscellaneous Gold

As with the Miscellaneous copper alloy objects, only key gold objects are listed here.

E.6.11a Cup

Gold cups were produced from a single gold sheet, with a ribbed/corrugated body and decorated with rows of pointillé. These are only two examples of gold cup known from Britain and Ireland: one is from Rillaton, Cornwall, while the other is from Ringlemere, Kent, though they are not contemporary (Needham et al. 2006). Needham et al. (2006, 60-61) have dated the Rillaton cup to the Arreton metalworking phase (c.1750-1550 BC).

E.6.11b Lozenge Plate

The lozenge plate found in the lavish Clandon barrow, Dorset (Pearce 1983, No.508b) represents a plate of gold adorned on one face with incised decoration. The gold covering on the associated macehead also indicates the unique nature of this deposit.

E.6.11c Disc

The decorated gold disc on a copper alloy backing from Lansdown Links, Somerset (BM-F031a; Fig.E.31) is the only one of its kind at present (Eogan 1994, 65). Although fragmentary it has been reconstructed to display the extensive ornamentation. The disc has been dated to the Taunton phase of the Middle Bronze Age.

Fig.E.31: The remains of the gold covered copper alloy disc from Lansdown Links, Somerset (BM-F031) and a replica (source: Author courtesy of the British Museum)

E.7 Summary of Typologies

This appendix has presented an overview of the typological schemes appropriate for South West England. Although the focus of this thesis is not a typological one, this task was necessary to help structure the metalwork in a meaningful way during data collection. As the last application of typologies to this dataset was in 1983 (Pearce 1983), this required updating. This update, however, has also highlighted the need for a concentrated study and re-evaluation of some of the material, such as South-Western palstaves and socketed gouges. Such an undertaking is unfortunately beyond the confines of this present research, but would be beneficial for better understanding metalwork in South West England.