

TITLE Identification of Organic Material Associated with Metal Objects from West Heslerton, Yorkshire. AML site No 436.

AUTHOR Jacqui Watson

DATE May 1984

ABSTRACTS

Identification report on organic material associated with Anglian cemetery goods, C6th and possibly early C7th. Includes a report on the metal content of a copper alloy awl by P.Wilthew.

KEYWORDS

Mineral preserved, organic material, iron, copper alloy, knife, spearhead, shield, tool, buckle, sword, bucket, cup, bowl, horn, leather, bone, sheepskin, Anglian, C6th, early C7th.

THIS REPORT IS LEVEL III

THE INFORMATION IN THIS REPORT IS PROVIDED ON THE UNDERSTANDING THAT ITS AUTHOR WILL BE CONSULTED IF THE INFORMATION IS TO BE EDITED FOR ANY FURTHER PUBLICATION. SUCH CONSULTATION SHOULD ALSO INCLUDE PROVISION OF PROOFS FOR CHECKING AT ALL STAGES IRRESPECTIVE OF WHETHER ALTERATIONS HAVE BEEN MADE TO THE ORIGINAL TEXT, AS WELL AS FORMAT, LAYOUT, AND FRAMEWORK WITHIN WHICH ANY CONDENSED VERSION IS TO APPEAR, ESPECIALLY IF ATTRIBUTION IS TO BE MODIFIED.

Summary

105 metal objects from the site have been examined for traces of mineral preserved organic material on them. A catalogue of all the items looked at follows.

The largest group was 31 knives of which 25 had traces of mineral preserved horn handles, plus 2 others which may have been horn or bone. Of the remaining 4 one has a bone handle and another a wooden one, 2 did not have any identifiable organic material on their tangs. 14 of these knives had traces of mineral preserved leather sheaths and one possibly of an animal pelt(WH 81 2B 96AL).

The 10 spearheads were hafted with various woods: Hazel, Alder, Ash, Willow or Poplar.

There were 4 shields (represented by their fittings) from the site of which 3 were made of Lime and the other of Willow or Poplar. 3 of them also showed signs of having been covered with leather originally.

There is only one sword from the site and this has a composite horn hilt, and a lime scabbard lined with fleece.

4 copper alloy cup or bowl mounts had remains of wood with them which were identified as Maple, Alder, and Willow or Poplar. The sections preserved indicate that all four items are fragments of lathe-turned vessels (Morris, 1982).

Both the iron and copper alloy bound buckets were made of Yew staves, a common wood for this type of object.

MORRIS, C., (1982) "Aspects of Anglo-Saxon and Anglo-Scandinavian Lathe Turning.", WOODWORKING TECHNIQUES BEFORE AD 1500, Ed S.McGRAIL, BAR International Series 129.

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE:..... WEST HESLERTON (DATE:

SHEET: 1

AM No	SEM Stub	Photo No	Description and Report	Ref No
830487	A264	104:9	Mineral preserved wood in spearhead socket: <u>Salix.sp</u> (Willow) or <u>Populus.sp</u> (Poplar).	WH TS 74 A/Z
			104:9 Transverse section of mineral preserved wood in spearhead socket. Mag.c.100x.	
830488			Mineral preserved organic on knife tang: probably horn.	WH 79 A77 1366
830489			Mineral preserved organic on knife tang: possibly horn.	WH 79 B7
830490			Mineral preserved organic on knife tang: probably horn or bone.	WH 79 B15
830491			Mineral preserved organic on knife tang: probably horn.	WH 79 B10
830492			Mineral preserved organic on knife tang: probably horn or bone.	WH 79 B17
830493	A265		Mineral preserved wood on tool tang: <u>Alnus.sp</u> (Alder).	WH 81 2B 96 BC

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

WEST HESLERTON
SITE: (DATE:

SHEET: 2
.....

AM No	SEM Stub	Photo No	Description and Report	Ref No
830494	A281		Mineral preserved wood on knife tang: <u>Salix.sp</u> or <u>Populus.sp.</u>	WH 80 B10 AV 52
830495	A282	105:3,4	Iron knife with preserved organic material - traces on tang are probably bone. Preserved hair at the tang end of blade could be the remains of a pelt sheath.	WH 81 2B 96 AL
			105:4 Cross-section of animal skin on knife blade. Mag.c.100x.	
			105:3 Cast of hair in iron salts. Mag.c.100x.	

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

WEST HESLERTON
 SITE: (DATE:

SHEET: ³

AM No	SEM Stub	Photo No	Description and Report	Ref No
830496	A266 A283	114:3	<p>Organic material preserved on shield handgrip - wood: possibly <u>Tilia.sp</u> (Lime).</p> <p>Organic material preserved between the wood and iron of grip is possibly the remains of leather.</p> <div> </div> <p>114:3 Possible leather preserved between the wood and iron of shield grip. Mag.c.30x.</p>	WH B68 AD

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON..... (DATE:

SHEET: 4

AM No	SEM Stub	Photo No	Description and Report	Ref No
830497	A267	104:10-13	<p>Mineral preserved wood on shield stud: probably <u>Tilia.sp</u> .</p> <div> </div> <p>104:10 TLS of mineral preserved wood from shield stud showing vessels with spiral thickening. Mag.c.300x.</p> <p>104:13 TLS of mineral preserved wood showing multiseriate ray. Mag.c.300x.</p>	<p>WH B68 AV</p> <div> <p>6B 80</p> </div>

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

WEST HESLERTON
 SITE: (DATE:

SHEET: 5

AM No	SEM Stub	Photo No	Description and Report	Ref No
830498	A284		Mineral preserved organic material on knife tang: horn, possibly sheep or goat.	WH 2B 75 AB
830499	A268		Mineral preserved wood from spearhead/ferrule socket: probably <u>Corylus.sp</u> (Hazel).	2B 84 AF 6B 8F
830500	A269	104:14	Mineral preserved wood from spearhead socket: probably <u>Alnus.sp.</u>	2B 75 AA
			104:14 TLS of mineral preserved wood showing two vessel casts with a scalariform perforation plate between them. Mag.c.1000x.	
830501	A270	104:15	Mineral preserved wood from spearhead socket: <u>Alnus.sp.</u>	2B 84 AE
			104;15 RLS of mineral preserved wood showing vessel with scalariform perforation plate. Mag. c.1000x.	

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:

SHEET: 6

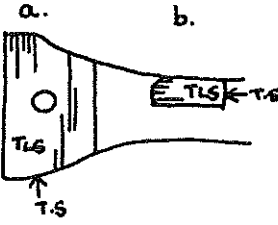
AM No	SEM Stub	Photo No	Description and Report	Ref No
830502	A271	104:16	Mineral preserved wood on shield stud: probably <u>Tilia.sp.</u> 104:16 TS of mineral preserved wood from shield stud showing ray nodding at annual ring. Mag. c.300x.	2B 84 AD
830503	A272	104:17	Mineral preserved wood from spearhead socket: <u>Fraxinus.sp</u> (Ash). 104:17 TLS of mineral preserved wood from spearhead socket showing storied multiseriate rays. Mag.c.100x.	B85 AL
830504	A273	104:18	Copper alloy preserved wood from cup mount: probably <u>Acer.sp</u> (Maple).	WH 80 B10

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:

SHEET: ...?.....

AM No	SEM Stub	Photo No	Description and Report	Ref No
830505	A274		Mineral preserved wood from spearhead socket: <u>Corylus.sp.</u>	B85 AK
830506	A275 A277	104:19, 20	Mineral preserved wood from shield handgrip - a: possibly <u>Tilia.sp.</u> b: possibly <u>Tilia.sp.</u> <div style="text-align: center;">  </div>	B85 AG
830507	A278		104:19 TLS of mineral preserved wood from shield showing vessel with spiral thickening. Mag.c.300x. Mineral preserved wood from reverse of shield stud: probably <u>Tilia.sp.</u> There is possibly leather preserved between the wood and head of the stud.	B85 AC

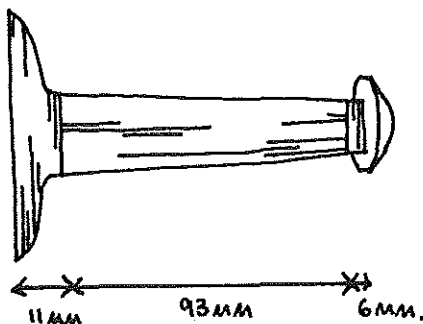
ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:

SHEET: 8

AM No	SEM Stub	Photo No	Description and Report	Ref No
830508	A286	110:8-10	Mineral preserved organic on knife tang: horn, possibly cattle.	B85 AN
			110:9 Longitudinal section of mineral preserved horn on knife tang. Mag.c.300x.	
830509	A279		Copper alloy preserved wood from cup repair: <u>Acer.sp.</u>	WH 78 77 1364
830510	A285		Mineral preserved organic material associated with sword - Hilt: all three components are probably horn. The grain of the grip lies along the length of the tang, and in the case of the pommel and guard lies perpendicular to it.	WH 81 2B85 AM



ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:

SHEET: 9

AM No	SEM Stub	Photo No	Description and Report	Ref No
830510	A280			WH 81 2B85 AM
	A393	112:6,7 114:8-10	Scabbard: wood is <u>Tilia.sp</u> (samples taken from underside of sword as shield was lying on top of sword in the grave.) Scabbard has fleece lining.	
	A394	112:8-10 113:1-3		
			112:6 TS of mineral preserved wood from sword scabbard showing ray nodding at annual ring. Mag.c.100x.	
			114;10 RLS of mineral preserved wood from sword scabbard showing vessels with spiral thickening. Mag.c.300x.	

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:

SHEET: 10

AM No	SEM Stub	Photo No	Description and Report	Ref No
830510			<p>113:2 Cross-section of mineral preserved sheepskin lining from scabbard, showing residual hairs with bracts and casts of hair surfaces. Mag.c.300x.</p> <p>112:10 Longitudinal section of mineral preserved sheepskin showing residual hairs and casts. Mag.c.300x.</p>	<p>WH 81 2B85 AM</p>
832927			<p>Mineral preserved organic on knife tang: possibly horn.</p>	<p>1A 1979 31 DC</p>
832928			<p>Iron fragment with mineral preserved spun threads.</p>	<p>1A 1979 50 AA</p>

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON..... (DATE:

SHEET: ...11.....

AM No	SAM Stub	Photo No	Description and Report	Ref No
832929			Iron buckle with possible mineral preserved leather passing through loop.	1A 1979 50 AE
832930			Iron nail, no identifiable organic material remaining.	1A 1979 51 AB/651
832931			Iron objects covered in mineral preserved textile.	1A 1979 51 AC/653
832932			Iron objects covered in mineral preserved textile and leather.	1A 1979 51 AD/654
832933			Small iron buckle with mineral preserved textile.	1A 1979 51 AH/659
832934			Mineral preserved organic on knife tang: probably horn.	1B 1979 3 AA
832935	A399	113:8	<p>Iron shield boss and grip - wood: probably <u>Salix.sp</u> or <u>Populus.sp</u>. Possible leather is preserved between the wood and iron on the rim of the boss. Grip bound with thin strips of leather.</p> <p>113:8 RLS of mineral preserved wood from reverse of shield grip, showing vessels with simple perforation plates and large crss-field pits. Mag. c.300x</p>	1B 1979 3 AB/254

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:)

SHEET: 12

AM No	SEM Stub	Photo No	Description and Report	Ref No
832936			Mineral preserved wood in spearhead socket: <u>Fraxinus.sp</u> from mature timber.	1B 1979 3 AC/25
832937			Iron buckle, no identifiable organic material remaining.	1B 1979 7 AA/24
832938			Mineral preserved organic on knife tang: probably horn.	1B 1979 8 AS/26
832939			Iron tweezers, no identifiable organic material remaining.	1B 1979 17 AE
832940			Iron nail, shank covered in fragments of mineral preserved textile.	1B 1980 101 AC/2
832941			Mineral preserved organic with iron pin: fragments of textile.	1B 1980 101 AE/5
832942			Iron brooch or buckle pin with a few mineral preserved spun threads.	1B 1980 101 AF/6
832943			Fragment of iron preserved textile.	1B 1980 101 AR/6
832944			Iron buckle with mineral preserved leather over pin and passing through buckle.	1B 1980 101 AT/66
832945			Iron stud: fibres around shank are probably roots.	1B 1980 103 AB/3
832946			Length of large linked iron chain, no identifiable organic material remaining.	1B 1980 104 AA/4

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

WEST HESLERTON
 SITE: (DATE:)
 SHEET: 13

AM No	SEM Stub	Photo No	Description and Report	Ref No
832947			Mineral preserved organic on iron knife - on tang, probably horn; on blade possible leather sheath and fragments of textile.	1B 1980 104 <input type="checkbox"/> AL <input checked="" type="checkbox"/> 39
832948			Mineral preserved organic on iron object is horn, so this is probably part of a knife tang.	1B 1980 104 <input type="checkbox"/> AT <input checked="" type="checkbox"/> 4
832949			Mineral preserved wood on nail shank: <u>Fraxinus</u> .sp.	1B 1980 104 <input type="checkbox"/> AV <input checked="" type="checkbox"/> 4
832950			Fragment from iron buckle: mineral preserved textile with possible leather.	1B 1980 105 <input type="checkbox"/> AX <input checked="" type="checkbox"/> 3
832951			Part of iron chain, no identifiable organic material remaining. X-ray A5127.	1C 1978
832952		464 <input type="checkbox"/> AS <input type="checkbox"/> AT		
832961		<input type="checkbox"/> BB		
832953			Curved iron binding with no identifiable organic material remaining.	1C 1978 464 <input type="checkbox"/> AU
832954			Tiny fragment of badly fired pottery.	1C 1978 464 <input type="checkbox"/> BK
832955			Mineral preserved wood on reverse of iron binding: <u>Taxus</u> .sp (Yew). X-ray A5127.	1C 1978
832956		464 <input type="checkbox"/> AV <input type="checkbox"/> AW		
832957		<input type="checkbox"/> AX		
832958			Iron binding with chain link, no identifiable organic material remaining. X-ray A5127.	1C 1978
832959		464 <input type="checkbox"/> AY <input type="checkbox"/> AZ		
832960		<input type="checkbox"/> BA		

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

WEST HESLERTON
 SITE: (DATE:)
 14
 SHEET:

AM No	SEM Stub	Photo No	Description and Report	Ref No
832962			Fragment of leather with the impressions of three rivets, possibly from a buckle.	1C 1978 464 BE
832963			Fragment of copper alloy buckle pin with no identifiable organic material remaining.	1C 1978 464 BF
832964			Fragments of organic material, probably leather.	1C 1978 464 BG
832965			Fragments of organic material, probably leather.	1C 1978 464 BH
832966			Mineral preserved organic on knife tang: horn, possibly sheep or goat. Preserved leather sheath on blade.	1C 1978 464 BL
832967			Iron binding with some small fragments of mineral preserved softwood, possibly <u>Taxus.sp.</u>	1C 1978 464 BM
832968			Mineral preserved wood on reverse of iron binding: <u>Taxus.sp.</u>	1C 1978 464 BN
832969			Mineral preserved wood on riveted binding: <u>Taxus.sp.</u>	1C 1978 464 BP
832970			Mineral preserved wood on iron stud: <u>Taxus.sp.</u>	1C 1978 464 BR
832971			Copper alloy awl or pin: composition of metal - the object has a gold rich layer on a corroded core. It may have been gold	1R 1982 273 CB

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:)

SHEET: 15

AM No	SEM Stub	Photo No	Description and Report	Ref No
832971	A406		<p>plated bronze, but it was not mercury gilded (which was the usual technique in the C7th). Alternatively it may have been debased gold, possibly with an enriched surface, in which case its present condition would be due to burial effects. P.T.Wilthew.</p> <p>Associated wood: possibly <u>Alnus.sp</u> or <u>Corylus.sp</u>.</p>	1R 1982 273 CB
832972			<p>Fragments of mineral preserved organic material including horn, leather and bone - possibly the remains of an iron knife.</p>	2B 1981 55 AA
832973			<p>Iron buckle with copper alloy plates, covered in layers of mineral preserved organic material. The belt is preserved with the leather passing through the buckle loop, and between the buckle plates. Beneath the buckle and belt are several folds of a fine textile, and beneath that possibly skin. Overlying the buckle is a layer of coarse textile.</p> <div> <p>The diagram shows three views of the buckle assembly. The left view shows a cross-section of the buckle with labels for 'fine textile', 'possible leather', 'copper alloy buckle plate', and 'leather'. The middle view shows a side profile of the buckle with labels for 'possible skin' and 'coarse textile'. The right view shows another cross-section with labels for 'fine textile', 'copper alloy buckle plate', and 'leather between buckle plates'. A scale of 1:1 is indicated at the bottom.</p> </div>	2B 1981 55 AG

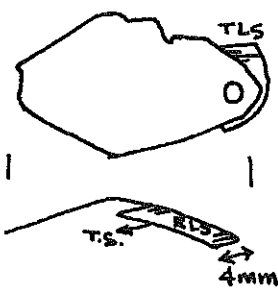
ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:)

SHEET: 16

AM No	SEM Stub	Photo No	Description and Report	Ref No
832974			Mineral preserved organic on knife tang: possibly horn. Preserved leather on knife blade.	11 AA 1982 7 AE
832975			Staves of copper alloy bound bucket: <u>Taxus.sp.</u>	
834743			Shield boss: mineral preserved wood, probably <u>Tilia.sp.</u> Possible preserved leather between the wood and rim of boss.	WH 81 2B 85 AM
834744	A362		Mineral preserved organic material associated with copper alloy brooch: compressed and degraded textile rather than leather.	HE 2 AA
834745			Mineral preserved organic on knife tang: horn, possibly cattle. Remains of leather sheath on blade.	HE 2 AB
834746			Curved copper alloy mount attached to wood with copper alloy rivets - probably the remains of a lathe-turned cup or bowl, with a thickness at this point of 4mm. Wood: <u>Alnus.sp.</u>	HE 2 AD



ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON..... (DATE:)

SHEET: ..17.....

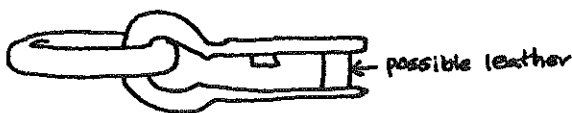
AM No	SEM Stub	Photo No	Description and Report	Ref No
834747	A397	113:4	Iron knife - mineral preserved horn on tang, with remains of possible leather sheath on blade.	HE 4 AT
			113:4 Longitudinal section of mineral preserved horn from knife tang. Mag.c.30x.	
834748			Iron knife - mineral preserved horn on tang, with remains of possible leather sheath on blade.	HE 6 AI
834749			Iron knife - mineral preserved organic on tang is possibly cattle horn. Remains of possible leather sheath on blade.	HE 9 BQ
834750			Iron knife with no identifiable organic material remaining.	HE 10 BG
834751	A365		Copper alloy preserved organic material - bone and possibly leather.	HE 12 CJ
834752			Iron knife - mineral preserved horn on tang, with remains of possible leather sheath on blade.	HE 12 DF

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:

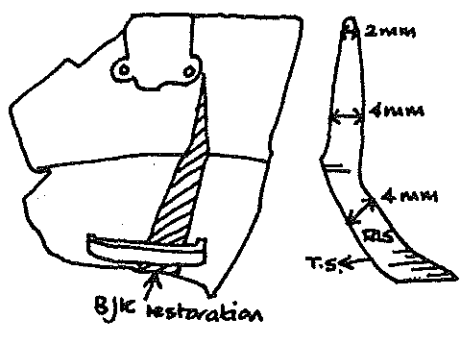
SHEET: 18

AM No	SEM Stub	Photo No	Description and Report	Ref No
834753	A363	114:4	Preserved organic from copper alloy purse mount is possibly leather.	HE 12 DM
			114:4 Longditudinal section of preserved leather from copper alloy purse mount. Mag.c.100x.	
834754	A361	111:17	Organic material from reverse of copper alloy stud is probably leather.	HE 14 CS
834755			Copper alloy buckle with possible leather between plates and passing through loop.	HE 14 CW
834756			Iron knife - mineral preserved organic on tang is possibly cattle horn. Remains of possible leather sheath on blade.	HE 14 CX
834757			Iron harness fitting with possible traces of leather. 	HE 14

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON (DATE:
SHEET: 19

AM No	SEM Stub	Photo No	Description and Report	Ref No
834758			Iron knife with mineral preserved horn on tang.	HE 16 DJ
834759	A366	111:9	Mineral preserved organic from reverse of copper alloy wrist clasps: mixture of leather and textile.	HE 16 DO
834760			Fragment of wooden bowl with copper alloy mount and repair. Wood: <u>Salix.sp</u> or <u>Populus.sp</u> .	HE 16 DP
			 <p>The diagrams show a cross-section of a wooden bowl fragment on the left, with a label 'BJK restoration' pointing to a repair. To the right is a curved object, possibly a knife blade or spearhead, with measurements: a top width of 2mm, a middle width of 4mm, and a bottom width of 4mm. A label 'T.S.' with an arrow points to the bottom edge of the curved object.</p>	
834761	A364	111:8, 10, 11	Mineral preserved organic material: possibly compressed textile with roots having grown through it.	HE 16 DS
834762			Iron knife - no organic traces on tang, but possible mineral preserved leather on blade.	HE 17 DV
834763	A395		Mineral preserved wood from spearhead socket: <u>Corylus.sp</u> .	HE 17 DZ
834764			Iron knife - mineral preserved horn on tang, with remains of possible leather sheath on blade.	HE 21 EC

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON..... (DATE:

SHEET: ...20.....

AM No	SEM Stub	Photo No	Description and Report	Ref No
834765			Iron knife - mineral preserved horn on tang, with remains of possible leather sheath on blade.	HE 22 ED
834766	A396		Mineral preserved wood from spearhead socket: possibly <u>Salix.sp</u> or <u>Populus.sp</u> .	HE 22 EJ
834767			Mineral preserved organic on knife tang is probably cattle horn.	HE 25 EO
834768			Iron knife - mineral preserved horn on tang, with remains of possible leather sheath on blade.	HE 43 FR
834769			Iron knife with mineral preserved horn on tang.	HE 44 GC
834770	A360		Mineral preserved organic material from reverse of copper alloy wrist clasps is bone.	HE 46 GP
834771			Organic material associated with cruciform brooch: mainly roots which have grown through some very degraded textile.	HE 46 GT
834772			Iron knife - mineral preserved organic on tang is possibly cattle horn. Remains of possible leather sheath on blade.	HE 48 FZ
834773			Iron spearhead - no wood remains in socket.	WH 77

ANCIENT MONUMENTS LABORATORY

MATERIAL PRESERVED ORGANIC

SITE: WEST HESLERTON..... (DATE:

SHEET: .21.....

AM No	SEM Stub	Photo No	Description and Report	Ref No
834833	A398	113:5-7	<p>Organic remains from around copper alloy brooch: fragments of bone and seeds- <u>Juncus.sp</u> (Rush).</p> <p>113:7 Rush seed preserved by proximity to copper alloy brooch. Mag.c.100x.</p>	HE 10 BH