

AN ARCHAEOLOGICAL INVESTIGATION

**In connection with Time Team, Yaverland Manor Farm, Isle of
Wight**

By Kevin Trott

On behalf of:

**Time Team
Channel 4
Co. Matt Williams
L-p Archaeology
The Old Brewery
91 Brick Lane
London
E1 6QL**

18th July 2006

**Kevin Trott
137 Staplers Rd,
Newport,
Isle of Wight
PO30 2DP**

Tel: 07963 308383

NON-TECHNICAL SUMMARY

This report results from work being undertaken as part of the Time Team series for Channel 4 Television. Kevin Trott has compiled the report for Channel 4 Time Team programme, Isle of Wight County Archaeological Centre and Mrs Monck of Yaverland Manor. The report draws upon a field-walking, metal detecting and geophysical surveys and a sample excavation that was undertaken over five days. This work confirmed the presence and extent of an extensive archaeological site that was previously discovered by the author in 1998 during the installation of a raw sewage main at Yaverland, Sandown, Isle of Wight. The surveys and excavation identified some useful evidence for the occupation of this site from the Bronze Age to the late-Roman period. A single ring ditch associated with a Bronze Age burial mound was highlighted alongside a set of substantial ditches associated with an extensive Iron Age settlement. The late Roman building evaluated in 1998 was investigated further alongside a set of postholes.

Location and Scope of Work

Between the end of September and early October 2001 Time Team and the Isle of Wight Archaeological Centre combined resources with local Island groups to undertake an archaeological field-walking and metal detecting survey. Following initial results a targeted geophysical survey was implemented that culminated with the excavation of eleven trenches on land that was subject to previous archaeological investigation to the north of Yaverland Manor, Sandown, Isle of Wight (Fig 1). It was during the installation of a sewage pipe in 1998 that the author uncovered a substantial Iron Age and Roman/tentative post-Roman site (Trott 2002, 11-36).

The nearby Brading Roman Villa site managed by Neville Carr and a board of Trustees suggested to Time Team that the Yaverland site could be territorially connected with Brading Roman Villa situated on the western shore of Brading Haven. A production team contacted the County archaeologist Ruth Waller and the author to discuss the feasibility of making an archaeological programme with the evidence gained from the 1998 excavations at Yaverland and the nearby location of Brading Roman Villa.

The outcome of the discussions concluded that Ruth Waller would organise a community involvement with a field walking/metal detecting survey of the field prior to and during the filming of the archaeological investigation. Frank Basford and Rebecca Loader would compile the initial results of the field walking and metal detecting survey that would in turn, highlight areas for GSB Prospection to undertake a targeted geophysical survey.

Geology and Topography

The Yaverland site is centred on SZ 61636 8625 on the eastern and southern slopes of a small hill that is located to the north of the hamlet of Yaverland near Sandown, Isle of Wight. To the west of the site on the western tapering slope of the hill lies the reclaimed land that was once flooded to form Brading Haven. This flooded haven would have surrounded three sides of the hill to form a promontory that encompassed

the site at Yaverland. The geology of the area comprises of chalk of the Cretaceous; sands and loams of the Eocene; and marine and river gravel alluvium. Natural and plough-derived hill-wash (colluvium) from the adjacent slope of Culver Down is also present. The majority of the archaeological area investigated is situated on the chalk.

Archaeological and Historical Background

The contents of the local Sites and Monuments Record (SMR) demonstrate that the Yaverland site lies within an area of land known to contain archaeological remains. The Isle of Wight SMR records seven archaeological sites within a 1km zone of the site. These known sites include an alleged Bronze Age barrow (PRN: 1124), a scatter of late Neolithic or Bronze age flint work (PRN: 3273) and a Prehistoric settlement site of Mesolithic/Neolithic date and a late Iron Age to early Romano-British salt production site at Redcliff (PRN: 1126). A Roman gully and a scatter of associated metalwork have been recovered to the north east of the site (PRN: 3273). Spot finds of a Greek silver coin from Redcliff Beach (PRN: 2320), an alleged Roman coin hoard from Yaverland (PRN: 1176) and Roman pottery from a deposit of chalk hill wash at Culver (PRN: 1353) are also recorded in the vicinity. Following the filming and transmitting of the Time Team programme the author was made aware of three Roman coins that were discovered on the adjacent down land at Culver. The finder allowed the author to send the coins to Dr. Malcolm Lyne who compiled a report (awaiting permission from finder to inform SMR). A further local resident of Brading showed the author a bronze palstave, a large bent cloak pin and two human femur fragments. These items were apparently located near an old quarry on the north-western slope that lie's to the north-west of Trench 10, a middle Bronze Age date should be suggested for these items/burial.

Aims and Objectives

To survey the entirety of the field that contained the archaeological site located in 1998. The area would be systematically field-walked by 350 local residents and local groups including the Natural History and Archaeological Society. Vectis Searchers would conduct a detailed systematic metal detecting survey under the directorship of Tom Winch and Frank Basford. The field-walking and metal detecting survey would be directed by Ruth Waller under the umbrella of a 'community archaeology project' co-ordinated by the staff of the Isle of Wight County Archaeological Centre.

Time Team would co-ordinate the following:

To establish the presence/absence of archaeological remains indicated in the 1998 excavations paying particular attention to any Iron Age and Roman period activity.

To determine the extent, condition, nature, character, quality and date of any archaeological remains present.

To establish the ecofactual and environmental potential of any archaeological deposits and features encountered under the guidance of Dr. Robert Scaife.

To appraise the likely impact on any surviving archaeological deposits, if appropriate to make suggestions for a mitigation strategy or where areas contain archaeology of National importance the recommendation for preservation *in situ*.

Excavation Methodology

Scope of fieldwork: The evaluation excavation consisted of eleven-machine excavated trenches (Fig 2) ten of these (Trenches 2-11) were aligned across geophysical anomalies and Trench 1 was excavated to identify the surviving archaeology contained within the original 1998 sewage pipeline. Three mechanical excavators fitted with toothless buckets removed the plough soil under close archaeological supervision.

The site director Michael Aston and Programme director Timothy Taylor oversaw the three days of filming, the five days of field investigation was conducted and organised by Ruth Waller. The field walking was organised by Frank Basford and Rebecca Loader with help from temporary staff from the Isle of Wight Archaeological Centre. The metal detecting survey was jointly co-ordinated by Tom Winch of Vectis Searchers and Frank Basford from the Isle of Wight Archaeological Centre.

The excavated trenches were cleaned by hand and sample sections were recorded and drawn at a scale of 1:20 and 1:50. All trenches were photographed using colour slide and black and white print.

All works were undertaken in accordance with both the IFA's *Standards and Guidance: for an archaeological evaluation* and current health and Safety legislation.

Finds: The field walking and metal detecting surveys along with the excavated trenches (1 to 11) produced archaeological finds. The finds were recovered by hand during the course of the survey and excavation and bagged by grid-square or context.

Environmental Evidence: Bulk samples were taken from certain deposits within the excavation, a core sample was obtained using a Russian/Jowsey peat corer in the adjacent waterlogged marsh (SZ: 616 866) to ascertain if the inlet sandwiched between Culver Down and the site was tidal. Test samples for diatoms were taken from this profile. (This report is still in preparation and will be published elsewhere by Dr. Robert Scaife).

Field-Walking and Metal Detecting Survey

Soils and Ground Conditions: Generally the weather was good with only one day hampered with heavy rain. The ground conditions were good as the field had been harvested and only stubble remained, a light covering of weeds between the stubble several areas contained a dense covering of weeds and were omitted for the duration of the allotted time. Overall this did not hamper the overall field-walking programme that has been superseded in recent years.

Organisation: Ruth Waller, Frank Basford and Rebecca Loader co-ordinated over 350 local Island residents, schools and Societies that took part in the 'Yaverland Community Archaeological Project'. Organised sets of field-walkers and a single member of Vectis Searchers were grouped into individual 20m grids that encompassed a large portion of the field, providing approximately 120 collection units. A further team were based nearby to process the recovered artefacts and systematically plot their findings and allow the geophysical team to survey areas that contained significant artefacts.

Results: The aim of the survey was the total recovery of all archaeological material from all available land encompassing the original 1998 pipeline. By grouping and dating the recovered material, it was hoped to gain an outline of the settlement activity recorded in 1998. On the basis of this information, recommendations for selective geophysical survey were implemented. The conclusions of the 1998 excavations suggested a rural late Iron Age settlement that culminated with a late Roman masonry building/structure of some status (Trott 2002, 35).

The field walking and metal detecting survey produced several distributions of late Iron Age and Roman pottery and metalwork (Fig.15-21), although few building material and ceramic tile was encountered. Most of the finds were heavily plough-abraded and the metalwork displayed corrosion from modern pesticides and fertilisers. A few fragments of medieval pottery and tile were present along with large quantities of brick and peg-tile. The field-walking collection failed to produce significant quantities of prehistoric flint implements although following the completion of the survey several flint tools were seen suggesting the in-experience of the field-walkers to recognise worked flint.

Discussion: The 350 participants of the field-walking survey along with Vectis Searchers covered an area of approximately 8000sq.m with 420sq.m producing artefacts of some antiquity. The rapid nature of the survey and the experience of the field team failed to recognise all of the archaeological material that the field contained when compared with a team of experienced archaeologists surveying a similar piece of ground. Also the individual find-spots relating to the vast majority of the metalwork found by the Vectis Searchers was withheld from the author as this report was being compiled. These individual items are reported below and the locations of these items are held with the Isle of Wight County Archaeological Centre. Putting aside the experiences of individuals and institutions, the results concerning the late Iron Age and Roman periods reflected the underlying archaeological features and deposits encountered within the 1998 and 2001 excavations.

Geophysical Survey

By: John Gater and Chris Gaffney

Just less than 1 ha of detailed gradiometer survey was undertaken in two areas, together with a small area of resistance survey. (GSB Prospection 2001)

The gradiometer survey has produced mixed results. In the main survey area data were severely affected by a pre-existing buried metal pipe, running alongside the plastic water pipe. However, several broad ditch type anomalies were noted through no particular pattern could be established. Resistance survey identified anomalies

suggestive of possible structural remains, but excavation revealed these to be naturally occurring chalk outcrops.

A small survey to the north-west of the main area of investigation produced a very weak, sub-circular, magnetic anomaly that proved on excavation to be prehistoric in date.

Evaluation Results

Distribution of Deposits: The plough soil and subsoil's were consistently present in all 11 trenches although their thickness did vary slightly. The underlying sediments and deposits associated with the archaeology were exposed in all the investigated trenches. The natural chalk was encountered in all exposed trenches.

Trench 1 (Fig. 3,4 & 5)

Trench 1 was machine excavated to investigate the 1998 pipe trench. The aim of this trench was to locate the late Roman structure and Post-Roman posthole features to identify their overall ground plan and clarify if further associated structures could be associated with the 1998 findings.

The earliest features recorded were sealed under black silt 110 this consisted of a ditch 106 and gully 134. Ditch 106 was aligned northeast by southwest and could be traced for a distance of some six metres, its width measured 1.80m. In profile this feature had steep sloping sides resembling a 'v' shaped ditch. The fill 103 consisted of dark-brown friable silt that contained a large deposit of winkle shells, late Iron Age and Early Romano-British pottery and a single translucent annular bead (see specialist report below). Gully 134 was similarly aligned to ditch 106 and was recorded some sixteen metres to the north of ditch 106. The gully was not fully excavated and the pottery recovered from its light brown silty fill 134, suggested a similar date to ditch 106. A noticeable piece of pottery recovered from the fill of this gully consisted of a cut-down Dressel 2-4 Campanian amphora sherd.

During the excavations of 1998 a small trench was aligned over a late Roman structure, it was this structure that was subject to the recent investigations. A large trench was hand excavated across this feature to ascertain the nature of this structure, as excavation progressed it was evident that this structure was a free standing building of late Roman date. A hard packed cobble layer 107 was identified as the floor of this structure this was encompassed with a single course of flint and Bembridge Limestone rubble wall 116. To the west of 107 a mortar floor 137 was identified with the remains of a western stone built wall. The floor of 107 was sealed with dark brown firm silt 109 into which a large quantity of occupational and industrial material was recovered (see below). A further trench was excavated to identify the northern limits of this building it was noticed that a large square post-hole 122 was aligned on the termination of the stone wall suggesting it could represent a door post, this is also supported with the discovery of an iron latch-lifter and key. The packing of the post-hole 111 contained broken tegulae fragments and a single pottery sherd. The overall length of this building measured 8.30m and its width 4.80m. The northern portion of this building was covered with several deposits of silt 113-117. The external area of the building consisted of crushed chalk 123 except in the south east corner where mid-

brown friable silt 105 was recorded suggesting a pre-building feature, a Cu-alloy pin was recovered from the cleaning layer of this feature (see below).

Two deposits containing late Roman occupational debris were excavated to the north of the building. Spreads 120 and 126 were excavated to a depth of 0.18m and a modest collection of pottery, shell and bone were recovered. Spread 120 also produced a second Cu-alloy pin.

A group of post-holes situated in the northern portion of this trench indicated the latest group of features to be represented on the whole site. These post-holes were certainly part of a group of post-holes recorded in the 1998 investigations; a single sherd of 'chaff-tempered' pottery was recovered from the fill 128 of post-hole 129. Abraded sherds of Roman pottery were recovered from the fills (121 and 124) of post-holes 122 and 125. The stratigraphical relationships of post-holes 128, 130 and 132 suggest all six posts are contemporary.

Trench 2 (Fig 6 & 7)

Trench 2 was situated up-slope to the west of Trench 1 and was excavated based on a high resistance reading on the geophysical survey. The trench was machine excavated to a depth of 1.30m where a stone rubble feature 204 was uncovered. This feature consisted of a compact layer of flint nodules and large greensand fragments the nature in relation to its function is unclear as a moderate assemblage of late Iron Age ceramics were found on its undulating surface. To the north east of this feature a series of seven post-holes (207, 209, 213, 215, 217, 219 and 220) and a hearth 211 were exposed. Each post-hole measured around a metre in diameter and was packed with a medium brown firm silt, in plan the post-holes were circular or sub-circular and in section they all had steep sides with rounded bases. A modest assemblage of late Iron Age and early Romano-British pottery was recovered alongside other occupational debris and a single royal-blue glass bead.

Trench 3 (Fig.8)

Trench 3 was excavated to explore a high resistance reading on the geophysical survey. The trench was excavated to a depth 1.50m it was during the excavation of this trench that the geophysical anomaly was encountered within Context (302). This turned out to be a discarded iron harrow blade. The trench was essentially sterile of any archaeology apart from three closely spaced narrow linear slots (304, 305 and 306), the fills of these features consisted of a mixed chalky-brown silt of (301) and a denser chalky rubble of (302). A single abraded Vectis ware pottery fragment was found in Context (302). These three linears are likely to represent ploughing scars. The hard packed chalk Colluvium of (303) was recorded at a depth of 1.10m from the excavated surface and within the upper part of this deposit a sherd from Dressel 2-4 amphorae was excavated.

Trench 4 (Fig.8)

Trench 4 was opened up over a geophysical anomaly that failed to materialise. The chalky plough soil (401) was machined in 0.20m spits to a depth of 0.85m; no archaeological material or features were located in this trench. Following the completion of the field walking survey this trench was utilised to re-bury discarded material from the survey.

Trench 5 (Fig. 9)

Trench 5 was centred over two broad ditch type anomalies that turned up in the geophysical survey. A trench measuring 37m in length by 1m in width was machine excavated to expose the plans of these two ditch features. The main ditch (522) was extended in width to 3m to recover stratified artefacts. The two ditches were aligned north south and were both different in plan and section, although not contemporary in date. Ditch (522) was probably the earliest ditch profile and may relate to a rampart up-slope (now landscaped to the topography of the hill). The surviving profile of the ditch of U-shaped section 5.80m wide. The distance from the crest of the suspected toe of the rampart to the bottom of the ditch would have been in the order of 5.70m measured up the slope. The surviving depth from the latest fill of the ditch to its base now measures 2.30m.

It seems that the ditch was excavated in the middle Iron Age period with calcined-flint tempered pottery and metal working waste being excavated from within the chalk rubble deposits (506) and (515). The section taken through the ditch showed that it was composed of many tips of chalk rubble and gravel, much of the lower deposits finely broken up by weathering. A certain periodicity was apparent in its structure with the rather coarser chalky material situated in the base and lower eastern slope of the ditch merging up to a finer chalky deposit on the western ditch slope. The finer chalky deposits were inter-dispersed with fine gravel silts. The simple explanation of these fills suggests that each eroded surface represents the interval of time between ditch silting and possible clearance. The tipping profiles of ditch silts suggest that the majority of the slumps or deposits of chalk rubble resulted from a slump from a rampart on the western lip on the ditch; without considerably more excavation it is impossible to ascertain if a rampart existed with a box-frame construction. The sealing chalky ditch fills of (509, 510) and (511) contained pre-Flavian ceramics and a sherd of Dressel 2-4 amphorae with a possible contents mark displayed on its outer surface.

The shallow ditch (503) situated down-slope of ditch (522) measured 5.10m in width and in profile resembled a shallow U-shaped section 1m in depth. The upper fill (502) consisted of a light grey-brown friable chalky-clay that sealed a chalk rubble fill of (504). The sherds of pottery excavated from within (502) indicate an early-first-century AD date for this feature.

Trench 6 (Fig.10)

Trench 6 was excavated as a test trench to examine the archaeological potential of the field to the north of the area investigated. The trench measured 3m in length and 1.30m in width. At a depth of 0.29m the chalk bedrock (602) was encountered suggesting the thin deposit of plough soil (601) has been subject to continued arable cultivation resulting in the loss of soil down slope. No archaeological features or material was recovered from this trench.

Trench 7 (Fig.10)

Trench 7 was situated up-slope from Trench 6 and was excavated for the same reasons as described above. The plough soil (701) was consistent with Trench 6 that sealed hard clay chalky subsoil (702) that contained a post-medieval iron nail; this deposit was 0.30m thick. Pale clay with chalk fragments was encountered under (702). This deposit (703) was 0.40m thick that was situated on the chalk bedrock (704).

Trench 8 (Fig.10)

Trench 8 like Trenches 6 and 7 was opened up-slope from the previous two for the same investigative reasons no archaeology was found or encountered. The plough soil (801) was consistent to Trenches 6 and 7. The subsoil deposit in Trench 7 was also encountered (802) that sealed the chalk bedrock (803).

Trench 9 (Fig.11)

Trench 9 was situated as a set of two trenches set at right angles to encompass an earthwork terrace and ditch anomalies seen on the geophysical survey. The plough soil (901) was removed to a depth of some 0.30m to expose an old ploughsoil (902) containing slate and oyster shell, this overlay pale grey silty clay (904) that resembled a ditch fill containing burnt flint, the upper part of this deposit indicated signs of ridge and furrow. This ditch was assigned a cut number (905) that truncated a terrace (906); unfortunately the excavator failed to record on plan or in section the location of these two contexts and the chalk bedrock (907). The section orientated east west contained a pale grey silty clay-chalk its consistency suggested that this deposit (903) was an old hill wash that was not fully excavated to its true depth.

Trench 10 (Fig.12)

Trench 10 was excavated over the site of a suspected ring-ditch that appeared in the geophysical survey, the isolated nature of this anomaly, together with its location on a topographic high, suggested it was a possible Bronze Age barrow. A trench 5.20m in length and 2.50m in width was machined to expose east west aligned ditch cut into the natural chalk bedrock. The ditch was sealed with plough soil (1001) at a depth of 0.22m. The ditch (1005) measured 1.30m in width and 0.70m in depth, and contained three fills. The lowest fill (1004) consisted of a rubble chalk with fine silt and flint fragments; this in turn was partly overlain by a thin deposit of ash and chalk-silt (1003) that produced a flint scraper and charcoal. This deposit and (1004) was sealed with a silty chalk rubble (1002). The overall dimensions of the ring ditch would have encompassed an area of some 15m.

Trench 11 (Fig.13&14)

Trench 11 was aligned over the ditch anomalies also recorded in Trench 5. The area stripped by machine measured 11.10m in length and 5.40m in width. Upon removal of the plough soil (1101) the fills of the ditch were encountered at a depth of 0.32m, this consisted of a dark brown silty clay containing a large quantity of oyster shells where a complete crouched burial (1103) was encountered orientated east west. Several ditch fills were recorded but not excavated to any depth, these deposits (1104) and (1106) contained late Iron Age ceramics, animal bone and oyster shells. Two possible re-cuts could be assigned as (1105) and (1107), without excavation to any depth these re-cuts must remain unresolved.

THE ARTEFACTUAL EVIDENCE

The Field-walking and Metal Detecting Survey

A small assemblage of artefactual material was retained from the field-walking survey. The modest assemblage collected in the field by the volunteers was assessed and preliminary identified, a record of the artefacts and its related grid square (Fig 15-

21) was made by Rebecca Loader of the Isle of Wight County Archaeological Centre and modern material and building debris were discarded within the backfill of Trench 4.

The metalwork discovered during Vectis Searchers metal detecting survey was identified and grid positioned by Frank Basford of the Isle of Wight County Archaeological Centre.

The Pottery

By Malcolm Lynn

Introduction

The field-walking survey produced 230 sherds (1711 gm.) of late Iron Age, Roman, medieval and post-medieval pottery sherds.

Methodology

This material was quantified by numbers of sherds and their weights per fabric. None of the pottery per period was large enough for quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (Orton 1975).

| Square | Fabric | Form | Date-range | No. of sherds | Weight in gm. |
|--------|--------|--------------|--------------|---------------|---------------|
| 1A | C.2 | | L.I.A-AD.400 | 1 | 4 Abraded |
| | F.4A | Dr. 27 | AD.43-110 | 1 | 1 |
| | C.7 | | | 1 | 2 |
| | M.1 | | | 3 | 7 |
| 1C | C.10 | Ev. Rim jar | L.I.A | 1 | 10 |
| 1D | C.1B | | | 3 | 36 |
| | C.12 | | L.I.A-AD. 60 | 1 | 2 |
| | M.1 | | | 1 | 2 |
| 1F | C.1A | | | 1 | 4 Abraded |
| | C.1B | Storage jar | | 1 | 26 Abraded |
| | F.4A | | AD.43-110 | 1 | 2 |
| 1G | C.1 | | | 1 | 11 |
| | C.3 | | AD.270-400 | 1 | 1 Abraded |
| | F.1 | Mortarium | AD260-400 | 1 | 8 Abraded |
| | M.1 | Cooking pot | AD1200-1500 | 1 | 4 |
| 2A | C.1A | | | 3 | 10 |
| | C.1B | | | 3 | 42 Fresh |
| 2B | C.1 | Bead rim | L.I.A-AD70 | 5 | 42 |
| | C.X | Jar | AD70-100 | 1 | 6 |
| | F.1 | | AD.260-400 | 2 | 2 |
| 2C | C.1A | Jar | | 4 | 10 |
| | MISC | | | 1 | 2 |
| 2D | C.1B | Ev.rim | AD.200-330 | 1 | 8 |
| | C.0 | Overwey | AD.325-420 | 1 | 4 |
| | F.1 | | AD. 260-400 | 1 | 2 Abraded |
| 2E | C.1A | | | 1 | 4 Abraded |
| | C.1B | | | 1 | 1 Abraded |
| | C.0 | Hook-rim jar | AD.325-420 | 1 | 6 Abraded |
| | F.8 | Closed | AD.260-400 | 1 | 4 Fresh |
| | F.X | | | 1 | 1 |

| | | | | | |
|-------|-------------|----------------|--------------|----|------------|
| 2G | C.1A | | | 5 | 38 |
| | C.1B | Dog-dish | AD.200-330 | | |
| | | Necked-jar | AD200-330 | 8 | 30 Abraded |
| | C4 | | AD.260-400 | 1 | 2 |
| | F.X | | | 1 | 1 |
| | M.1 | Cooking Pot | AD1200-1500 | 1 | 2 |
| 2H | C.1B | | | 3 | 18 Abraded |
| | C.1C | | AD.250-350 | 3 | 10 |
| 3A | C.1B | | | 2 | 12 Abraded |
| | C.2 | Bead-rim | | 11 | 73 |
| | C.4 | | AD.260-400 | 1 | 6 |
| 3B | C.1A | Form 7 bowl | L.I.A-AD70 | | |
| | | Form 1 platter | L.I.A-AD50 | | |
| | | Form 4 jar | L.I.A-AD100 | | |
| | | Necked jar | | 13 | 192 |
| | C.1B | Misc jar | AD.50-200 | 9 | 84 |
| | F.X | Closed | AD.50-150 | 1 | 2 |
| | Saxo-Norman | | AD800-1150 | 1 | 4 |
| | MS.3 | | AD450-750 | 1 | 1 |
| | M.1 | Cooking-pot | AD1200-1500 | 1 | 12 |
| | MISC | | | 1 | 2 |
| 3C | C.18 | Jar | | 6 | 58 |
| | C.2 | Ev-rim | AD200-400 | 2 | 6 |
| 3D | C.1A | Jar | | 1 | 18 |
| | C.1B | Jar | | 1 | 22 |
| | C.1C | Ev.rim | AD250-350 | 1 | 10 |
| 3E | MIA 9 | | | 1 | 2 Abraded |
| | C.1A | | | 3 | 22 |
| | C.1B | | | 5 | 30 |
| | C.4 | Ev.rim | AD260-400 | 2 | 10 |
| | Saxo-Norman | | AD800-1150 | 1 | 12 |
| 3F | C.1B | Bead-rim | L.I.A-AD70 | 3 | 76 |
| 3G | C.1B | Jar | | 13 | 100 |
| | C.1E | | L.I.A-AD60 | 1 | 20 Abraded |
| | C.2 | | | 1 | 2 |
| | C.3B | Jar | AD270-400 | 3 | 26 |
| | C.4 | Jar | AD260-400 | 6 | 18 |
| | F.1 | | | 25 | 167 |
| 4A | C.1A | Form 7 bowl | L.I.A-AD70 | 3 | 30 |
| | C.1.B | Closed | L.I.A-AD70 | 6 | 74 |
| | C.X | Jar | | 1 | 12 |
| 4B | MIA 2B | | | 1 | 12 |
| | C.1B | Jars | | 6 | 39 |
| | C.2 | Jars | | 4 | 4 |
| | Post-Med | 1500-1700 | | 1 | 2 Abraded |
| 4B/4H | C.1A | Jar | | 1 | 14 |
| 4D | C.1B | | | 3 | 24 |
| 4E | C.1B | | | 1 | 4 |
| 4F | C.1 | Ev.rim | AD50-200 | 5 | 66 |
| | F.4A | | AD43-140 | 1 | 8 |
| | Saxo-Norman | | AD.800-1150 | 1 | 4 Abraded |
| | M.1 | | AD.1250-1500 | 1 | 8 |
| 5B | C.1A | | | 1 | 6 Abraded |
| | C.1B | | | 5 | 35 Abraded |
| 5E | C.3 | | AD270-400 | 1 | 6 Abraded |
| | M.1 | | AD1350-1500 | 1 | 2 |
| 5F | MIA 2B | | | 1 | 4 |
| | C.1A | Form 20 bowl | AD150-300 | 2 | 5 |

| | | | | | |
|-----|-------------|-------------|-------------|---|-----------|
| | C.4 | Bowl | AD260-400 | 1 | 10 |
| 5H | C.1 | Ev-rim | AD100-200 | 4 | 14 |
| | C.2 | Bowl | AD120-400 | 2 | 30 |
| 7C | M.1 | Cooking-pot | AD1200-1350 | 2 | 12 |
| 7E | M.1 | Cooking-pot | AD1200-1350 | 1 | 12 |
| 8D | C1B | | | 1 | 4 |
| | M.1 | | | 3 | 7 |
| 10B | M.1 | Cooking-pot | AD1200-1500 | 1 | 12 |
| 10D | C1.A | | | 1 | 14 |
| | M.1 | Cooking-pot | AD1200-1550 | 2 | 8 |
| 10F | M.1 | | AD1200-1350 | 2 | 2 |
| 11D | M.1 | | AD1200-1350 | 1 | 4 Abraded |
| | MISC | | | 1 | 4 |
| 11E | Post-med | | AD1500-1900 | 2 | 12 |
| 12E | Saxo-Norman | | AD800-1150 | 1 | 6 |
| | M.1 | | AD1200-1500 | 1 | 4 Abraded |
| | Post-med | | AD1600-1900 | 5 | 36 |

Table 1: Pottery concordance

Fabrics

The fabrics for each period were identified using a x8 magnification lens with built in metric scale in order to determine the natures, forms, sizes and frequencies of added inclusions. Finer fabrics were additionally examined using an x30 magnification pocket microscope with artificial illumination source. The fabric codings are the same as those used for the pottery from previous excavation (Lyne 2002) with the amendments and additions that are listed in the pottery from the excavation (see below).

Catalogue of Pottery from the Field-Walking Survey

Middle Iron Age

MIA 2B Handmade black fabric with profuse ill-sorted up-to 2.00 mm. calcined flint filler.

Late Iron Age and Roman

C1 Vectis ware (Tomalin 1987). This group of fabrics dominates most pottery assemblages from the Island between the late Iron Age and the early fourth century. The Yaverland material can be subdivided as follows:

C1A Black Vectis ware with profuse 0.20 to 0.50 mm irregular quartz filler.

C1B Brown Vectis ware with similar fabric.

C1C Newnham Farm Vectis ware (Lyne forthcoming A). Most of the sherds retrieved from this production site near Ryde are from third to early fourth century forms and in silt-sized to 30 mm quartz tempered black Vectis ware fabric variant with light buff-grey core. A few waster sherds are first-to-second century in date and indicate earlier pottery production as well. This is a minority fabric at Yaverland, never exceeding 10% of any assemblage.

C1D Brown Vectis ware with occasional up to 0.50 mm flecks of shell. A rare fabric at Yaverland.

C2 Durotrigian/BB1 fabric group (Brown 1987, Farrar 1973). Durotrigian and succeeding Romanised BB1 fabrics from around Poole Harbour are quite rare but persistent at Yaverland.

C3 Hampshire Grog-Tempered Ware (Lyne 1994). Vessels in this group of late Roman fabrics were produced in the northern part of the Island and in coastal areas opposite between c.AD 250 and 400+. The following two fabric variants can be distinguished at Yaverland.

C3A Handmade grog-tempered ware fired brown to black with profuse up to 2.00 mm camouflaged grog filler.

C3B Similar fabric but with profuse up to 2.00 mm off-white siltstone and orange grog filler.

C4 New Forest grey ware (Fulford 1975, 89-104). Variable wheel-turned grey ware with profuse colourless quartz sand filler and, in some cases, very fine black ferrous inclusions as well c.AD 260-400+.

C10 Handmade grey ware with profuse up to 2.00 mm crushed calcined flint filler and fired polished black.

C12 Patchy buff/orange/grey-black fabric with profuse up to 0.50 mm quartz (mostly in the 0.10 to 0.30 mm range) and sparse up to 3.00 mm crushed calcined flint filler. Similar to a late Iron Age? Rowlands Castle fabric from West Sussex (Lyne forthcoming B).

CO Miscellaneous oxidised coarse wares.

CX Miscellaneous Grey wares

Fine

F1 Oxidised cream New Forest fabric 1A (Fulford 1975, 24) with red to brown colour-coat.

F4A South Gaulish Samian.

F8 New Forest reduced Fabric 1A (Fulford 1975, 24).

FX Miscellaneous fine wares.

Middle Saxon

MS.3 Chaff-tempered ware (also early Saxon).

Medieval

M.1 Quartz-Tempered Ware.

THE SMALL FINDS

Roman Military Equipment

The presence of items of 3rd century military equipment recovered during the metal detecting survey suggests that the industrial activity associated with the similarly-dated building in Trench 1 may have been associated with military supply.

Fig.22.2 Rectangular cu-alloy belt buckle. Paralleled at Richbrough in context dated c.AD.270-300 (Lyne 1999, Figs. 32 and 33). PRN: 3353. MD 4.

Fig. 22.3 Small rectangular cast belt plate with cut-out corners. Probably 3rd century in date (Oldenstein 1976, Tafel 59-60). PRN: 3353. MD 57.

Fig. 22.4 Fragment of cu-alloy sheeting belt plate of 3rd century type (Oldenstein 1976, Tafel 80). PRN: 3353. MD 33

Fig: 22.5 Rectangular iron buckle. Not closely dateable but could be late Roman (Oldenstein 1976, Tafel 78, 1041) PRN: 3353. MD 1.

Fig:22.6 Fragment from openwork cu-alloy casting. Possibly from military horse harness fitting similar to 4th century example from South Shields (Allason Jones and Miket 1984, 3.672). PRN: 3353. MD 26.

Post-Medieval Military Equipment

The following items from the metal detecting survey suggests that the field may have been used for exercises by the 19th century garrison of the gun batteries on Culver Cliff situated a short distance to the east.

Fig: 22.7 A 19th century cu-alloy Royal Ordnance Artillery uniform button with three cannons (Cunliffe and Garratt 1994, P1.L.VI-19). PRN: 3353.65

A badly crushed Royal Engineers cap badge (PRN: 3353. MD 72).

Fig: 22.8. Fragment from another cu-alloy button with central star. PRN: 3353. MD 54.

Fig: 22.9. Deformed lead musket shot (PRN: 3353. MD 7)

Lead musket shot (PRN: 3353. MD. 8)

A number of plain metal buttons of 17th to 19th century date were also retrieved during field walking and could be either military or civilian in origin (PRN: 3353. MD.13, 16, 45, 48 and 50).

The Roman Industrial Activity

The previous excavations conducted in 1998 (Trott 2002) produced ample evidence for industrial activity within the late Roman building, involving the working of copper, lead, iron and glass. The 2001 excavations produced further evidence of such activities but mainly in the form of items recovered during the metal detecting survey and these are listed in Table 2 below.

| Identification No | Description |
|-------------------------|----------------------------|
| PRN: 3353. MD 5 | Lead scrap |
| PRN: 3353. MD 4 | Cu-alloy scrap |
| PRN: 3353. MD 8 | Lead scrap |
| PRN: 3353. MD 22 | Cu-alloy casting fragment |
| PRN: 3353. MD 28 | Cu-alloy casting fragment |
| PRN: 3353. MD 36 | Cu-alloy scrap |
| PRN: 3353. MD 47 | Cu-alloy casting fragment |
| PRN: 3353. MD 49 | Lead scrap |
| PRN: 3353. MD 59 | Cu-alloy scrap |
| PRN: 3353. MD 68 | Cu-alloy casting fragment |
| PRN: 3353. MD 70 | Cu-alloy casting fragment |
| PRN: 3353. Grid 4D | Iron tap slag x 2 |
| PRN: 3353. Grid 5E | Cu-alloy casting fragment |
| PRN: 3353. Grid 2F | Iron tap slag |
| PRN: 3353. Grid 3G | Lead scrap and copper slag |
| PRN: 3353. Grid 2H | Iron tap slag |
| PRN: 3353. Unstratified | Lead steelyard weight |

Table 2: Metal working debris concordance

Fig:22.10. Lead weight with the remains of its iron loop for suspension. The weight is 48.3gm. A sextans weighed the equivalent of 54.6gm and, if one allows for the effects of corrosion, loss of the iron loop etc, the original weight of this piece must have come fairly close to this figure. PRN: 3353. MD 21.

Net Sinkers

Six lead net sinkers were recovered from the metal detecting survey in 2001.

Fig:22.15. Perforated circular lead weight with indentations on its upper surface.

PRN: 3353. MD 12

Fig:22.16. Cylindrical Lead weight. PRN: 3353. MD 14.

Fig:22.17 Conical lead weight. PRN: 3353. MD 55.

Fig:22.18 Bun-shaped lead net sinker. PRN: 3353. MD 58.

Fig:22.19 Conical lead weight. PRN: 3353. MD 64.

Fig:22.20 Circular, perforated lead weight. PRN: 3353. MD 69.

Post-Medieval Belt and Shoe Buckles

Fig:23.32. Fragment from an elaborately-decorated pewter shoe buckle (Cunliffe and Garratt 1994, P1. LIV-28). c.AD. 1760-1790. PRN: 3353. MD 34

Fig:23.33. A U-shaped cu-alloy buckle. PRN: 3353. MD 18

Fig:23.24. Broken iron shoe buckle. PRN: 3353. Spoil from around Trench 1.

Miscellaneous Items

Fig:23.35 Cu-alloy spoon of late Roman date. Most Roman spoons have round, pear-shaped or mandolin-shaped bowls but that of this specimen is oval. The handle is broken and distorted. PRN: 3353. MD 35.

Fig:23.36 Length of cu-alloy binding. Binding of this type is quite common on Roman sites (Crummy 1983, 4108-4110): the tight rolling precludes its use as shield-binding. PRN: 3353. MD 39.

Fig:23.37 A smaller fragment of similar cu-alloy binding. PRN: 3353. MD 9.,

Fig:23.38 Cu-alloy pulley. PRN: 3353. MD 6.

Fig:23.39 Fragment of cu-alloy casting. Possibly Roman and hacked from a platter as scrap metal. PRN: 3353. MD 46.

Fig:23.40 Fragment from cu-alloy sheet-metal pendant. Possibly Roman. PRN: 3353. MD 30.

Fig:23.41 Decorative cast cu-alloy brooch fragment. The style suggests a medieval or later date. Large highly decorated brooches are known from the 14th century contexts in London and elsewhere (Egan and Pritchard 1991, 259). PRN: 3353. MD 63.

Fig: 23.45 Post-Medieval lead hop-token with initials AM on one obverse and CD on the reverse. PRN: 3353. MD 43.

The Iron Age Coin

The metal detecting survey at Yaverland yielded an incomplete counterfeit stater with lead core and one surviving silver plated surface. The surviving face is a reverse depicting a prancing horse facing left with a lyre beneath its front legs (fig.22.1). The coin reverse copies that on an early imported gold coin of the defaced die-type (Van Arsell 1989, Type 33.1) dated to c.125-100 BC and probably originally gilded, with

the lead core intended to bring its weight up to something approximating to that of gold.

The genuine coins are believed to have been minted by the Caletes of North Eastern Gaul and owe their name to their obverse dies bearing the head of Apollo being mutilated with a chisel. Such coins are rare in Britain and restricted to the South-East of Britain, extending as far west as the borders of Sussex and Hampshire. Van Arsdell has suggested that the defaced obverse dies may indicate that part of the tribe of the Caletes had rebelled and migrated to Britain at some time during the late second century BC (Ibid. p.5).

The Roman Coins

The metal detecting survey at Yaverland produced 14 Roman coins and 3 Post-medieval coins from the ploughsoil sealing the buried archaeology. A single coin was found in the spoil from Trench 1. The exact location of these coins in relation to the area surveyed has been recorded by staff of the Isle of Wight County Archaeological Centre. Regretably the author has been unable to gain this data for this report so it can be cross-reference with the field-walking data.

| Context | Reign | Denom. | RIC No | Date | Module | Condition | S.F.Ref |
|----------|-------------------------------------|----------|--------|----------|--------|-----------|---------|
| U/S | Domitian | As | | 87 | | V.F | 25 |
| U/S | Gallienus | Ant. | | 253-268 | 18mm | | 35 |
| U/S | Victorinus | Ant. | | 268-270 | 18mm | E.F | - |
| U/S | Victorinus | Ant. | | 268-270 | 18mm | | 20 |
| U/S | Radiate | | | | 19mm | V. Worn | 31 |
| U/S | Barb. radiate | | - | 270-286 | 15mm | | 61 |
| U/S | Barb. radiate | | - | 270-286 | 16mm | V.worn | 62 |
| U/S | Barb. radiate | | - | 270-286 | 15mm | Worn | 71 |
| U/S | Carausius | Ant | - | 286-293 | | Worn | 35 |
| U/S | Carausius | Ant | - | 286-289 | 21mm | | 35 |
| U/S Tr.1 | Irregular. 1 std Gloria Exercitus | Nummus | - | 336-340 | 14mm | | |
| U/S | Irregular 1 std Gloria Exercitus | Nummus | - | 336-340 | 13mm | | 204 |
| U/S | Hse of Valentinian Gloria Romanorum | Nummus | - | 364-378 | 16mm | | 32 |
| U/S | Illegible | | | Roman | 25mm | Worn flat | 19 |
| U/S | 18 th cent | Farthing | | | | V. Worn | 56 |
| U/S | Victoria | Penny | | 1862 | | V. Worn | 15 |
| U/S | Illegible | | | Post-med | 22mm | Worn flat | 40 |

Table 3: Coin concordance.

The number of coins are rather small for any kind of meaningful analysis: loss before the mid 3rd century tends to be much smaller than that during the late Roman period on most sites and the near absence of early Roman coins at Yaverland may simply be due to the small total of all Roman coins from the site. Two peaks in coin supply during the periods 259-294 and 330-364 at Yaverland are characteristic of most sites with continuous occupation during the late Roman period: the presence of a nummus of Valentinian II indicates continued activity until at least the last decades of the 4th century.

The Excavation

A large assemblage of artefactual material was recovered from the Yaverland site. This material included worked flint and stone, fired clay, bone, shell, glass and metalwork. The quantity of artefacts would relate to long period use of this settlement site.

The Worked Flint

By John Winch

A total of forty-seven pieces of flint were discovered from within fourteen contexts. The style of the pieces would suggest that they are either late Neolithic or early Bronze Age items.

| Context | No. of Flints | Burnt Flint | Tools/F lakes | Core | Comments |
|---------|------------------|----------------|------------------|------|--|
| 102 | 5 | 0 | 5 | 0 | 4 waste flakes and a smashed flint flake. |
| 103 | 2 | 0 | 2 | 0 | 2 waste flakes, 1 flake has 70% of its cortex present and has post-burial damage. |
| 104 | 1 | 0 | 0 | 0 | 1 large fossil echinoid from the upper chalk, this example has mortar adhering to its surfaces. |
| 105 | 1 | 0 | 1 | 0 | 1 small waste flake |
| 109 | 7 | 0 | 4 | 0 | 1 pebble, 1 cortical flake with gloss on the reverse; 1 waste flake; 1 small rough flake retouched at its distal edge to form a small concave scraper; 1 small rough flake retouched on its right side to form a working edge. |
| 120 | 2 | 0 | 2 | 0 | 1 cortical flake and 1 smashed flint flake. |
| 121 | 1 | 0 | 2 | 0 | 1 waste flake. |
| 124 | 2 | 1 | 1 | 0 | 1 nodule of burnt flint; 1 small flint flake. |
| 126 | 1 | 0 | 1 | 0 | 1 flint flake retouched at distal end to form a scraper with small triangular grooving point. |
| 204 | 10 | 0 | 10 | 0 | 2 smashed chert lumps; 5 waste flakes; 2 smashed flint flakes; 1 retouched flake to form a side and end scraper. |
| 501 | 1 | 0 | 1 | 0 | 1 smashed flint flake. |
| 502 | 0 | 1 | 0 | 0 | 1 burnt flint |
| 902 | 3 | 0 | 3 | 0 | 1 retouched flake on the right side to form a scraper with a small triangular grooving point. |
| 904 | 2 | 1 | 1 | 0 | 1 nodule of burnt flint; 1 waste flake. |
| 1003 | 8 | 0 | 8 | 0 | 6 waste flakes; 1 cortical flake; 1 end scraper (this assemblage has a chalky/calcite deposit adhering to the |

| | | | | | |
|--------------|-----------|----------|-----------|----------|----------------|
| | | | | | struck faces). |
| Total | 44 | 1 | 42 | 0 | |

Table 4 Flint work concordance

The Stone Artefacts

by David Tomalin

Rotary Quern (3353.102): Two conjoining fragments of a lower stone with central hourglass perforation and irregular base. The grinding surface is concave rising to a well-peaked centre. The stone belongs to the Lower Greensand Series and is composed of a fine grained quartz sandstone containing some 20% particles of limonitised glauconitic. Common filled worm casts resemble the products of the Lodsworth quarries near Petersfield but this Isle of Wight example differs by virtue of its grey matrix and the lack of the distinctive green tint that usually characterises those particular querns. Diameter 0.37m. Rim thickness 0.25-0.35m.

Threshold Stone (3353.109a): A truncated block with two well-worn edges and two others showing relatively recent break. The upper surface of the stone is very well smoothed and the under surface is scalloped and weathered in a manner of beach erosion. Common open gastropod casts can be seen. A typical example of the Binstead facies of the Bembridge Limestone formation. This stone occasionally employed in Iron Age times and very commonly used in Romano-British contexts in villa walls and in sculpted objects such as querns, altars and Milestones. At Yaverland, this block would have been very well suited to the lining of a doorway.

General Stone Fragments:

Two spalls of coarse brown shale; probably from a local beach source (3353.109b).

Spall of local Greensand (3353.204).

Tabular fragments of fossiliferous sandstone showing no evidence of artificial shaping. The matrix resembles Tilgate stone and is probably from a local Wealden source (3353.210).

Oval beach-worn sliver of fine thin-bedded sandstone. Probably from a local coastal exposure of the wealden Series. A thin natural palette-shaped piece possibly carried From the beach and utilised for some special purpose (3353.218).

Three freshly broken (and one burnt) but unworked fragments of localised fossiliferous sandstone showing profuse remains of *lamelibranchs* (3353.502).

Fragment of fossiliferous sandstone probably from the local Wealden Series (3353.506).

A fragment of grey limestone from the Bembridge Limestone Formation bearing open closed casts of small gastropods. The fragment shows a weathered edge and some fresh breaks but no evidence of artificial shaping (3353.507).

Small-unworked fragment of local ferruginous sandstone. Its coarse and poorly mixed

content of rounded quartz grains closely resembles the residual stone outcrops adjoining the Roman villa at Combley near Arreton, although this is not an exclusive local source for this stone (3353.904).

The Industrial Activity

by Tim Jones

The evidence for industrial activity

The previous excavations in 1998 (Trott 2002) produced ample evidence for industrial activity within the late Roman building, involving the working of copper, lead, glass and iron. The 2001 excavation produced further evidence for such activities within the Roman building and from within the fills of the Iron Age ditches.

Two pieces of furnace lining or hearth lining in an extremely friable condition was inspected from Context (109). Two small fragments of medium density slag from smithing activities were recovered from Context (121). An iron billet was recovered from the floor of the late Roman building (109), the piece showed signs that the smith had started to work the iron and subsequently abandoned it probably due to its impurities that caused it to break during working. The surviving trapezoidal shaped un-worked end has dimensions, 0.27m top, 0.32m bottom, 0.28m in height, comparable to the flat end of the Iron Age Houghton Down billet, 0.31m square, (Crew, 2000, fig 6.53, p110). Although due to breakage it is impossible to determine original length or end shape.

The small quantities of metal working debris present and the lack of large quantities of hammer scale make it unlikely that any major industrial scale iron working was being carried out in the late Roman building at Yaverland. The extremely friable nature of the furnace/hearth lining from Context (109) suggests some nearby metalworking was taking place, since it is unlikely to have travelled far. If Hodges (1976) suggestion that the site of an old forge can be shown by the presence of iron too brittle to work is accepted then the presence of the broken, partially reworked billet in Context (109) is further good evidence of on site iron working. However, the closest parallels to this billet are from the Iron Age or early Roman periods (Crew, 2000) suggesting that this metalworking debris may be re-deposited from the late Iron Age levels. Although small quantities of hammer scale was found in Context (109) it would suggest that the metalworking took place on an infrequent basis within the late Roman structure.

Three pieces of iron working debris were recovered from the upper fill of the Iron Age ditch (Context 501). The first item consists of a medium density iron slag with one flat edge suggesting it is from the edge of a hearth and is probably smithing slag. The slag consists of small fragments of corroded Fe mixed in with some flux slags and fired clay containing carbonised chaff remains. The second item derives from a small piece of furnace/hearth lining. The third example is part of a hearth bottom; the upper cooling surface of the slag is topped with fired clay. The bottom has the fired clay remains of the hearth lining which contains a large quantity of carbonised chaff remains.

The middle fill (515) of ditch (522) produced a piece of smelting slag. The sample has a flat side with fired clay adhering to it, probably the furnace lining, which shows

evidence of chaff remains. The slag is highly vitrified and contains crushed chert and flint. Depth of slag within the furnace exceeds 0.50m. The upper surface appears to have cooled in contact with a wooden object, which supports the identification as smithing slag from a non slag-tapping furnace (Salter, 1987).

The lower ditch (503) produced a single piece of smithing slag from Context (502). The large number of small pieces of Fe. Suggests by morphology that it is from a hearth bottom. A single piece of un-diagnostic slag containing crushed chert and flint was recovered from the upper fill of the Iron Age ditch (1101).

Despite the small size of the sample, less than 1kg for the totality of the late Iron Age contexts, Iron working was undoubtedly being carried out on or in the vicinity of the Yaverland site in the late Iron Age. If the author's identification of the slag from Context (515) is supported then the potential exists for Yaverland to have had a local importance to the iron trade. Since, while smithing may have been carried out on most if not all-late Iron Age sites on a small scale, smelting was restricted to specialised sites (Salter, 1991). If the non slag-tapping furnace were in use this would explain the paucity of lighter slags from the site. The slag that was produced may have been ground-up to use as part of the finishing process for the smithed iron if ethnographic studies can be relied on, e.g. Brown's (1995) work on traditional Kenyan iron working.

The apparent absence of hammer scale and welding droplets in Iron Age contexts suggests that the smithing hearth bottoms are not deposited *in-situ*. This would support the theory that the distribution of pieces in several contexts and the small quantities involved suggest that the metalworking debris may have been deliberately placed for votive/proprietary reasons as suggested by Salter for Iron Age sites (2001) based on African ethnographic studies. These same ethnographic studies (e.g. Brown, 1995) suggest that if residual metalworking debris were uncovered in a later period similar rites would be observed. Hence, what the author believes to be the re-deposition of late Iron Age material in certain Roman contexts. Hammer scale was recovered in Context (109) along with the billet suggesting metalworking took place in-frequently within the late Roman structure.

Non-Ferrous Metalworking

One piece of crucible approximately 45 x 35 x 12 mm was excavated from within Context 526. The piece is slightly concave and the inside contained several prills of Cu-alloy of a size range of 0.25 to 3mm in diameter, which Bayley (1990) considered diagnostic of crucibles. The fabric contains a large quantity of sand as per crucibles. The fabric contains a large quantity of sand as per crucibles from Silchester (Northover & Palk, 2000) chosen to improve the refractory properties of the crucible. This fragment appears to have been subjected to greater heat on the outside than the inside due to the greater degree of vitrification on the external as opposed to the internal surface.

The piece from Context 526 does suggest on site that Cu-alloy casting on at least the one occasion. Its form is compatible with triangular crucibles used in the late Iron Age and Roman periods at Hengistbury (Northover, 1987). However, the method of heating the metal whereby the outer surface of the crucible becomes hotter than the metal inside it is characteristic of the earlier Iron Age at Danebury and has been

superseded by the supposed date of deposition of the Yaverland example (Northover, 1991). Therefore, it is possible that the crucible fragment is a redeposited example from earlier workings.

The Small Finds

The Nails

by Malcolm Lyne

The 2001 excavations produced 64 nails and fragments of nails from the various trenches. As with the 149 nails from the previous 1998 excavation, most of these are clenched through extraction from timber and concentrated on the Late Roman building in Trench 1. The form make-up of the nails from the earlier excavation of this building has already been shown to be abnormal, in that the normally overwhelmingly predominant Manning's Type 1B variety (1985) made up less than half of the examples from the site and were supplanted by Types 3 and 5 with two-dimensional heads or no heads at all. The new material associated with the Roman building (47 nails) has a slightly higher percentage of Type 1B nails (55%) but still includes abnormally large numbers of the Types 3 and 5 varieties.

Twenty-four nails of Manning Type 1B were recovered, the sizes ranged from 25-40mm (34%) and 50-70mm (45%). Ten examples of Manning Type 5 were also recovered to add to the total count of sixty-four recovered from the previous excavation. The two length clusters of 30-40 and 50-60mm previously associated with the nails of this type from Yaverland are still well-defined and continue to account for 42 and 30% of the assemblage respectively.

Miscellaneous Constructional Fittings

Fig: 22.12. Part of an iron key. IWCAC: 3353.120.

Fig: 22.13. Iron latch-lifter of very common type and paralleled at Brading (Tomalin 1987, F.10), Verulamium (Manning 1972, Fig. 68. 73), Colchester (Crummy 1983, 4144) and numerous other places. IWCAC: 3353. 109.

Fig: 22.14. Iron drop-hinge of Manning Type 1 (1972). IWCAC: 3353.120.

Articles of Personal Adornment

Fig: 22.21. Distorted Cu-alloy armlet of Clarke Class D2 (1979). IWCAC: 3353. 109.

Fig: 22.22 Cu-alloy armlet of Clarke Class C1a (1979) with expanding fastening. Paralleled at Newport Villa (Tomalin 1987, E.15, 16). IWCAC: 3353. 109. 94.

Fig: 22.23. Two stand Cu-alloy cable armlet of Clarke Type A1a. (1979) IWCAC: 3353. 105.

Fig: 22.24. Fragment from three-strand cable bracelet of Clarke Type A2a (1979). IWCAC: 3353. 102.

Pins

Fig: 23.25. Cu-alloy pin with decorated biconical head. Probably an import from North-East Gaul. This pin type later developed into a much larger and elaborately

decorated from which was current in coastal areas between the seine and Elbe between c. AD. 390 and 500 (van Es 1967). Pins similar to the Yaverland example are in the unpublished small finds from Richborough and there is an example from Canterbury (Garrard 1995, Fig. 424-272). IWCAC: 3353.105.

Fig: 23.26. Cu-alloy pin with bun-shaped head. Paralleled at Wanborough and elsewhere in contexts ranging in date between AD. 160 and 325 (Hooley 2001, Fig. 40-150). IWCAC: 3353.120.

Fig: 23.27. Fragment from Cu-alloy pin. IWCAC: 3353.110.

Brooches

Fig: 23.28. Cu-alloy Centre Boss brooch with silver wash surviving on underside and decayed shale jewel. Similar in design to an example from Thetford in Norfolk (Hattat 1985, 640). Also paralleled at Wanborough (Hooley 2001, Fig. 26-138) and Canterbury (Mackreth 1995, Fig. 409-107). 3rd century. IWCAC: 3353.102.

Rings

Fig: 23.29. Cast cu. Alloy ring with diamond cross-section. IWCAC: 3353. 102.

Beads

Fig: 23.30. Fragment from small bead of Guido Group 6 (1978, 66) in royal-blue glass. The type has a very long life from c.600 BC to AD. 1000. Roman examples tend to come from 'native' sites with a low level of Romanisation. IWCAC: 3353. 206. Similar beads from a single necklace have been recovered from the nearby Redcliff Site (PRN: 1126).

Fig: 23.31. Translucent annular Guido Class 5 bead (1978, 52) in pale green glass with opaque yellow discontinuous band. C. 200 BC-AD. 50+. IWCAC: 3353. 103.

Miscellaneous items

Fig: 23.43. Iron ball; possibly a weight. IWCAC: 3353. 109.

Fig: 23.44. Broken iron handle. IWCAC: 3353. 109.

Fig: 23.45. Fragment iron spur of probable Medieval or post-medieval date. IWCAC: 3353. 901.

The Bronze Age Pottery

by David Tomalin

Two very small body sherds were recovered from Context 1003 in the Yaveland ring-ditch. These measure 21mm and 17mm at their maximum horizontal intercepts. One sherd comes from a thin-walled beaker composed of an evenly fired oxidised fabric. In fracture, this contains some sparse evenly fired particles of grog. The external surface shows a few residual indentations from a horizon line of decoration, which has been seemingly executed with a toothed tool.

The second sherd comes from another thin-walled beaker. This shows a small-oxidised area of the external surface, which is devoid of decoration. This superficial

oxidisation gives way to a reduced texture, which characterises some 90% of the thickness of the sherd. Here, in fracture, some 7% of fine comminuted shell temper can be seen. These inclusions have a particle size mode set around 0.8mm. This method of tempering is not common in beaker pottery and is certainly uncommon in the Isle of Wight. Both sherds are far too small to allow any meaningful calculation of vessel size, form or style although it is writer's view that both were of that modest size which is commonly associated with funerary choice.

If the context of these two sherds is contemporary with the construction of the ring ditch, then the entire monument would seem compatible with a circular funerary structure erected during the 3rd millennium or early 2nd millennium BC. If the context of the sherds comes from a plough-disturbed level within the ring ditch, then it would seem reasonable to suppose that this pottery owes its survival to a long period of protection in an old soil horizon of a funerary context which has been formerly concealed beneath a central mound or an annular internal bank.

The aggregated evidence offered by absolute dates for British Beaker pottery could place these vessels anywhere within the general ambit of *circa* 2600 *cal.* BC to 1800 *cal.* BC (Kinnes *et al*, 1991; Thomas, 1999). Termed in slightly more conservative language, this time span can be placed 'within the third quarter of the third millennium to within the 2nd quarter of the 2nd millennium' BC (Case 1991).

The Iron Age and Roman Pottery

by Malcolm Lyne

Introduction

The thirteen trenches yielded 1247 sherds (13450 gm.) of pottery that ranged in date from the late Iron Age to early post-Roman period.

Methodology

All of the assemblages were quantified by numbers of sherds and their weights per fabric. None of these assemblages were large enough for quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (Orton 1975). That from Context 109 was however combined with that from the equivalent contexts in the earlier excavations (Contexts 19 and 21) in order to create a larger and therefore more reliable assemblage for such quantification.

Fabrics

Fabrics were identified using a x8 magnification lens with built in metric scale in order to determine the natures, forms, sizes and frequencies of added inclusions. Finer fabrics were additionally examined using a x30 magnification pocket microscope with artificial illumination source. The fabric codings are the same as those used for the pottery from the previous excavation (Lyne Forthcoming A) with the following amendments and additions:

Middle Iron Age

MIA 2A. Handmade black fabric with profuse up-to 1.00 mm. calcined-flint filler

MIA 2B Handmade black fabric with profuse ill-sorted up-to 2.00 mm. calcined flint filler

MIA 7 Handmade brown-black fabric with sparse up-to 2.00 mm. calcined flint filler

MIA 8 Handmade black fabric with profuse 0.10 to 0.50 mm. multi-coloured quartz filler

MIA 9 Handmade black fabric with sparse up-to 0.50 mm. calcined flint filler.

Late Iron Age and Roman

Coarse

C 1E Handmade black Vectis ware variant with profuse up-to 0.30 mm. multi-coloured quartz and sparse up-to 2.00 mm. calcined flint filler

C.3C Hampshire Grog-Tempered ware variant with additional very-fine quartz sand filler.

C.3D Coarse grog-tempered and oxidised Hampshire Grog-Tempered ware storage-jar variant

C.14 Handmade black fabric with profuse silt-sized quartz and occasional 0.20 mm. quartz and 2.00 mm. grog inclusions.

Fine

F.4A South Gaulish Samian

F.4B Central Gaulish Samian

The Assemblages

Middle Iron Age – Pre Flavian

Assemblage 1 From the successive fills of Ditch 522 in Trench 5 (Contexts 506, 507, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 523, 524 and 525).

The lowest fill in this massive ditch to produce any pottery was Context 515, although 519 beneath did yield a lump of fired clay. There are two sherds from 515: a fresh jar fragment in grey-black fabric MIA 8 with profuse up-to 0.30 mm. multi-coloured quartz filler and a thick-walled fragment from a closed form in a brown/black fabric MIA 2A variant with additional occasional 2.00 mm. soft red grog

Context 511 produced a single burnt Dressel 1A amphora sherd in Italian Feldspathic 1 fabric fired pink with grey external margin (130-50 BC). The sherd bears a black paint symbol of two concentric circles: no parallels have been found for this at present although a wider research is still in progress.

Upper fill context 506 yielded a further nine sherds (84 gm.) of pottery, comprising seven fragments in the early Vectis ware variant C.1E, one in fabric C.1B and one in Fabric MIA.7: a large lump of fired clay furnace lining was also recovered. Two rim sherds are present:

Fig.26.1. Tomalin Form 4 bead-rim jar (1987) in black fabric C.1E with polished exterior.

Fig.26.2. Similar rim but with undercut bead in similar fabric.

A further 35 sherds (582 gm.) of pottery were recovered during the machining out of the fills of the ditch, as well as two lumps of briquetage and seven fragments of copper slag. The pottery includes two small sherds from a bead-rim jar in Vectis ware variant C.1A and fragments from the following vessels:

Fig.26.3-4 Two bead rims in Durotrigian Black-Burnished ware fabric C.2.

The pottery indicates that the ditch was dug during the Middle-to-Late Iron Age transition and continued to receive rubbish during the Late Iron Age.

Assemblage 2. From the fills of Ditch 503 in Trench 5 (Contexts 502 and 504). The primary silting in this feature (Context 504) yielded one lump of fired clay but the upper fills produced 36 fresh sherds (866 gm.) of pottery, comprising 23, 11 and one sherd respectively in Vectis ware fabric variants C.1A, 1B and 1E. A small sherd in Fabric C.14 is also present as is a further lump of fired clay. Fragments from the following four vessels are present:

Fig.26.5. Bead-rim jar of Tomalin Form 9 (1987) in black Vectis ware variant C.1A.

Ext.rim diameter 150 mm. Late-Iron Age –c.AD.70

26.6. Another, smaller, example in similar fabric.

26.7. Necked-jar of Form 10 in similar fabric. Ext.rim diameter 190 mm.

26.8. Greater part of platter of Tomalin Form 1 in similar fabric. Ext. rim diameter 190 mm. Platters of CAM 2 form in Terra Nigra were imported into Britain from Gallia Belgica during the period 10BC – AD.50 and widely copied in a variety of native grog-tempered and other fabrics. C.0-AD.50.

Deposition during the early-first-century AD is indicated for this assemblage.

Assemblage 3. From the midden in Trench 2 (Context 204).

The 59 sherds (642 gm.) of pottery from this feature consist overwhelmingly of fragments of vessels in early Vectis ware variants C.1D and 1E (95%) and include the following:

Fig.26.9. Bead-rim storage jar in patchy orange-brown/black Fabric 1E. Ext. rim diameter 200 mm.

26.10. Hole-mouthed pot of Thompson Type C3 (1982) in black Fabric 1E with external polish. Ext.rim diameter 120 mm.

26.11-12. Small bead-rim jars of Tomalin form 9 in similar fabric. Ext.rim diameter 130 and 140 mm. respectively.

26.13. Carinated jar of Tomalin form 5, but without decoration, in similar fabric. Ext. rim diameter 160 mm. c.AD.50-100

26.14. Bead-rim beaker of ?Tomalin form 2 in similar fabric. c.AD.0-80

Fragments from the following two vessels are also present:

Fig.26.15. Bead-rim jar in sandy Hardham grey ware fabric C.11 with profuse up-to 0.20 mm. quartz filler. Ext. rim diameter 160 mm. Bead-rim jars of similar slack profile and in similar fabric come from pre-Flavian contexts at the Cattlemarket site (Down 1989, Fig.21.1,13) and elsewhere in Chichester. c.AD.43-70

26.16. Bead-rim beaker in pink-cored black Hardham London ware. Ext. rim diameter 90 mm. c.AD.50-100

A pre-Flavian c.AD.40-70 date seems to be indicated for this assemblage.

Assemblage 4. From the fill of Post hole 215 in Trench 2 (Context 214).

Most of the post-holes associated with midden 204 in Trench 2 produced very small pottery assemblages: Posthole 209 yielded 12 fragments, 211 yielded eight and 217 produced five pieces. Post hole 215, however, yielded 85 fragments (635 gm.) of

well-sorted pottery; which was thought suitable for quantification by numbers of sherds and their weights per fabric:

| Fabric | No. of Sherds | % | Weight in gm | % |
|--------------|---------------|------|--------------|------|
| MIA 3 | 1 | 1.2 | 10 | 1.6 |
| MIA 7 | 2 | 2.4 | 6 | 0.9 |
| C.1A | 30 | 35.3 | 120 | 18.9 |
| C.1B | 36 | 42.4 | 390 | 61.4 |
| C.1E | 7 | 8.2 | 36 | 5.7 |
| C.9 | 2 | 2.4 | 12 | 1.9 |
| C.11 | 1 | 1.2 | 8 | 1.3 |
| C.12 | 4 | 4.7 | 48 | 7.6 |
| C.14 | 1 | 1.2 | 4 | 0.6 |
| F.4A | 1 | 1.2 | 1 | 0.2 |
| Total | 85 | | 635 | |

Table 5 Pottery concordance

As with assemblage 3, this one has a great preponderance of Vectis ware (86% by sherd count): the one difference is that the early sand and flint variant C.1E is in a minority here, whereas it was totally predominant in the midden assemblage. This in turn suggests that this assemblage is later in date; a notion supported by the presence of two fragments of Rowlands Castle ware, one of Hardham grey ware and one from a South Gaulish Samian vessel of uncertain form. The Vectis ware includes fragments from two bead-rim jars of Tomalin form 9 in variant C.1A and from two everted-rim jars in the same fabric: a rim sherd from a bowl of form 7 in Vectis ware variant C.1E is also present (L.I.A.-AD.100). Most of the material is heavily broken up and abraded but four fresh sherds from the following vessel are present:

Fig.26.17. Bead-rim jar in black fabric C.12. Ext.rim diameter 170 mm. Paralleled in the pre-Flavian ditch on the Cattlemarket site in Chichester (Down 1989, Fig.21.3,52).

c.AD.70-400.

Assemblage 5. From the occupation horizons within the Late Roman industrial building in Trench 1 (Contexts 109, 110 and 111).

The 540 sherds (6352 gm.) of pottery from these contexts do not include enough rim fragments for quantification by EVEs but, when combined with the pottery from the equivalent contexts in the earlier excavations (Lyne Forthcoming A, Contexts 19 and 21), can be so quantified. As was noted concerning the pottery from Contexts 19 and 21, there are significant quantities of second and early-third century pottery present: the late third to early fourth century pottery is distinguished from this in the table below by being put in italics.

| Fabric | Jars EVE | Bowls EVE | Dishes EVE | Beakers EVE | Store jars EVE | Others EVE | Total | % |
|--------|-------------|--------------|---------------|----------------|-------------------|---------------|-------|------|
| C.1A | 0.83 | 0.38 | 0.23 | | 0.09 | 0.15 Flagon | 1.68 | |
| | 0.21 | | | | | | 0.21 | 3.8 |
| C.1B | 2.00 | 0.38 | 0.09 | | 0.12 | 0.07 | 2.66 | |
| | 0.26 | 0.08 | 0.05 | | 0.15 | | 0.54 | 9.8 |
| C.1C | 0.47 | 0.31 | 0.03 | 0.10 | | | 0.91 | 16.5 |
| C.1D | | | 0.06 | | | | 0.06 | 1.1 |

| | | | | | | | | |
|---------|-------|-------|-------|-------|------|----------------|-------|------|
| C.2 | 0.20 | | | | | | 0.20 | |
| | 0.14 | 0.08 | 0.18 | | | 0.07 Lid | 0.47 | 8.5 |
| C.3A | 0.28 | | | | 0.03 | | 0.31 | 5.6 |
| C.3B | 0.21 | 0.07 | | | 0.05 | | 0.33 | 6.0 |
| C.3D | | | | | 0.02 | | 0.02 | 0.4 |
| C.4 | 0.74 | 0.35 | 0.23 | 0.10 | | | 1.47 | 25.7 |
| C.6 | | 0.14 | | | | 0.21 Mortaria | 0.35 | 6.3 |
| C.8 | 0.10 | | | | | | 0.10 | |
| C.9 | | | | | 0.05 | | 0.05 | |
| C.10 | 0.05 | | | | | | 0.05 | |
| C.11 | 0.15 | | | | | | 0.15 | |
| C.12 | 0.03 | | | | | | 0.03 | |
| C.0 | | | 0.05 | | | | 0.05 | |
| C.X | 0.26 | | 0.05 | | | | 0.31 | |
| Tot.ces | 5.93 | 1.79 | 0.97 | 0.20 | 0.51 | 0.50 | 9.90 | 83.7 |
| F.1 | | | | 0.42 | | | 0.42 | 7.6 |
| F.4B | | 0.09 | 0.26 | | | 0.11 Dr 33 | 0.46 | |
| F.5 | | | | | | 0.06 Mortarium | 0.06 | |
| F.7 | | 0.03 | | | | | 0.03 | 0.05 |
| F.8 | | | | 0.20 | | | 0.20 | 3.6 |
| F.X | | 0.06 | | 0.20 | | | 0.26 | 4.6 |
| MORTS | | | | | | 0.17 | 0.17 | |
| Total | 5.93 | 1.97 | 1.23 | 1.02 | 0.51 | 0.84 | 11.50 | |
| | 51.6% | 17.1% | 10.7% | 8.9% | 4.4% | 7.3% | | |
| | 41.8% | 20.2% | 9.9% | 18.4% | 4.5% | 5.1% | | |

Table 6: Pottery concordance

The late third to fourth century element in the assemblage from the earlier excavation was too small for independent quantification by EVEs but is now large enough, at a 5.53 Estimated Vessel Equivalent, for so doing. This shows the New Forest kilns to be the largest single pottery supplier after AD.250 (43%): grey kitchen wares were by far the most significant imports from that source but parchment ware bowls and mortaria and colour-coat beakers are also present in small quantities.

Vectis ware from a variety of sources make up nearly three-quarters of the second and early-third-century element in the assemblage but less than one third of that in the later material: this late Vectis ware is mainly from the Newnham Farm production site (17%) only seven kilometres to the north of Yaverland (Lyne Forthcoming B).

Hampshire Grog-Tempered ware began to replace Vectis ware during the late third century and accounts for 12% of the late material in the assemblage. This is quite a small percentage by Island standards and re-inforces the suspicions aired in the report on the pottery from the previous excavations that the building did not last long into the fourth century.

The pottery includes fragments from a beaker of Fulford's type 27 (1975 c.AD.260-340) in fabric F.1 fired cream with red colour-coat, Central Gaulish Samian forms Dr.31 (c.AD.150-200), Dr.33 (c.AD.120-200) and Dr.37 (c.AD.120-200), BB1 dishes of third century type and the following vessels additional to those published previously (Lyne Forthcoming A, Fig.-.29-43):

Fig.26.18. Cut down Dr.2-4 amphora in orange-brown Campanian black sand fabric fired cream. Context 109

- 26.19. Everted rim jar of Tomalin type 14 (1987) in brown Vectis ware fabric C.1B. Ext.rim diameter 120 mm. c.AD.250-350. Context 109
- 26.20. Narrow-necked jar in similar fabric. Ext.rim diameter 140 mm. Context 109
- 26.21. Flanged bowl of Tomalin type 20 in polished brown Vectis ware fabric C.1B. Ext.rim diameter 220 mm. Context 109
- 26. 22. Incipient beaded-and-flanged bowl in polished black Newnham Farm Vectis ware. c.AD.250-350. Context 109
- 26.23. Refired everted-rim jar of Fulford type 30.7 (1975) in New Forest grey ware.
Ext.rim diameter 180 mm. c.AD.260-400. Context 109
- 26.24. Bowl of Fulford type 89 (Ibid.) in rough white New Forest parchment ware. c.AD.270-400. Context 109
- 26.25. Mortarium of Fulford type 102 in New Forest parchment ware. Ext. rim diameter 240 mm. c.AD.300-380. Context 109
- 26.26-28. Storage-jars in dirty buff-grey Vectis ware fired brown with profuse up-to 0.30 mm. quartz filler and finger-impressed rims. Context 109
- 26.29. Handle fragment in black Vectis ware fabric C.1A. Context 109
- 26.30. Small diameter bowl or crucible fragment in brown Vectis ware fabric C.1B.Context 109

No further ceramic evidence for occupation post-dating the destruction of the industrial building was encountered during these excavations (Lyne Forthcoming B, Fig.-.44-54).

THE CERAMIC BUILDING MATERIAL AND AGGREGATES

by KevinTrott

Opus Signinum: Two fragments of Roman pink concrete called *opus signinum* were excavated within a single context (Context 210). The fabric was macroscopically analysed and are similar if not identical to the two fragments recovered from Contexts 19 and 61 in the 1998 excavations (Trott 2002, 30).

Tile: During the 1998 excavations a small quantity of tile was recovered from several different functional tiles within several Roman contexts. The excavations during 2001 produced a further small sample of tile consisting of Tegula and Imbrex fragments. The tile fragments were recovered from four contexts (102, 109, 110 & 120) and the combined weight totalled 2.3kg. All three fabrics encountered in the 1998 excavations were identified in the 2001 assemblage (Trott 2002, 31). A single Type 2 Tegula flange from Context 109 cross-joined with a Tegula fragment from Context 21 recovered in the 1998 excavations.

The Fired Clay

Daub: Various samples of daub were recovered from four contexts (114, 204, 205 & 504) at Yaverland. The fragments were all in the same orange/red sandy fabric as recorded in the 1998 excavations and all derive from late Iron Age contexts.

Loom Weights: Fourteen fragments from eight contexts (103, 109, 110, 127, 214, 504, 526 & 1101) were excavated during the 2001 excavations. At least six fragmented fired clay loom weights were recovered from Context 109 the remainder

of the fragments suggested in their fabric descriptions that each context represented a single loom weight. The macroscopic analysis identified they were made from coarse sandy clay with 10% quartz sand. No fragments could be cross-joined although the diagnostic pieces resembled Hengistbury Head Type 2 and Maiden Castle Type 1 weights with the usual perforated suspension holes (Poole 1987, 167 & Wheeler 1943, 294).

Briquetage: Thirteen briquetage fragments from eight contexts (102, 103, 109, 110, 120, 205, 502 & 526) were examined from the 2001 excavations. The fragments mainly consisted of vessels/containers although a single kiln bar fragment was found within Context 502. Three briquetage fragments consisting of two individual shelves and a container were excavated from within Context 109. During the excavations in 1998 ten further fragments were recovered from late Iron Age and Roman contexts. The Briquetage recovered in the 2001 excavations was similar in fabric and texture to those fragments recovered from similar dated contexts in 1998 (Trott 2002, 31). The overall briquetage assemblage from the site at Yaverland would indicate that salt brine was certainly boiled in or around the Iron Age settlement and later Roman structure, there is no indication in relation to the site at Redcliff (PRN: 1126) whether salt was collected for local use or for a wider consumption outside the Yaverland/Redcliff environs.

THE ZOOLOGICAL AND BOTANICAL REMAINS

THE HUMAN BONE REPORT

By Rebecca Redfern

A single human burial (1103) in the form of a crouched burial was encountered within Trench 11 and orientated east-west. The burial was placed within a late Iron Age filled-in ditch that contained a large assemblage of oyster shells and a few late Iron Age pottery sherds. A radiocarbon date of cal 1958+₋28 BP (53AD) was obtained from this individual. Although the surviving skeleton was well preserved although incomplete due to post-mortem taphonomic damage (medieval and modern ploughing activities). Observations were made for age (Schour and Massler 1941), sex (Henderson 1984), stature (Trotter 1970), metrical analyses, morphology, and any abnormalities. A detailed inventory of the bones present are held in the archive.

The human remains presented for consisted of an adult male skeleton. The skeleton was fairly well preserved (I_2), although incomplete due to post-mortem taphonomic damage.

The elements presented consisted of; cranium - frontal (left and right), parietal (right and left), temporal (right), sphenoid (right), zygomatic (left and right), maxilla (right) and mandible (right and left); left patella, right acetabulum, left humerus (proximal epiphysis-distal epiphysis), right humerus (proximal 1/3 - distal epiphysis), left radius (proximal 1/3 - distal epiphysis), right radius (proximal epiphysis -middle 1/3 and distal epiphysis), left ulna (proximal epiphysis-distal epiphysis), right ulna (proximal epiphysis - distal epiphysis), left femur (distal epiphysis), right femur (proximal epiphysis - distal epiphysis), left tibia (proximal epiphysis - distal epiphysis), right tibia (proximal epiphysis - distal epiphysis), left fibula (proximal 1/3 - middle 1/3), right fibula (proximal epiphysis - distal epiphysis). Right hand - scaphoid, lunate,

triquetral, pisiform, capitate, hamate, metacarpals 1-4, four proximal, five intermediate and five distal phalanges. Left hand - scaphoid, lunate, pisiform, trapezium, trapezoid, hamate, metacarpals 1- 3, five proximal, four intermediate and three distal phalanges. Right foot - calcaneus, talus, cuboid, navicular, 1st-3rd cuneiform, 1-5 metatarsals, one proximal, three intermediate and one distal phalanges. Left foot - calcaneus, talus, cuboid, navicular, 1st - 3rd cuneiform, 1-5 metatarsals and one proximal phalange. Also two sesamoid bones.

Dentition - 3,5,6,11,13,27,26,23,22,18,17. Both arches have periodontal disease, wear and calculus and caries is present in three teeth (3,17,18). A healing abscess is present on 1.

Sex Determination - Unfortunately, due to post-mortem activity no sexual characteristics were still present for observation on the pelvis. Therefore, only the skull could be used to determine sex, which was found to be male based on - right mastoid process (4), right supraorbital margin (4) and glabella (4).

Age Determination - Unfortunately, due to post-mortem activity no areas used for assessing age changes were available for observation. Therefore, tentively, wear stages generated on British material has been used, which assigns age to being between 33-45 years (Brothwell 1994:72).

Levels of preservation permitted measurements to be taken on the following elements - orbits, frontal, mandible, humerus, radius, ulna, femur, tibia, fibula and calcaneus.

Palaeopathology - Pacconian pits are present parallel to the sagittal suture on the ectocranial surface of the right parietal. Preliminary osteophytic growth was present on the distal epiphysis of the left 1st metacarpal and left and right hand phalanges (they also had developed muscle markers on the posterior aspect). Squatting facets are present on the tibiae. The femora have a prominent linea aspera. The right femur has ossified muscle tissue present on the anterior to the posterior surface of the surgical neck. Prominent osseous deposit is present on the anterior aspect of the rim on the head, and on the superior surface to the fovea capitis. The bone is micro-porotic, and three oblique 'lines' of ossified muscle is present on the anterior-lateral surface of the proximal 1/3. These changes are the result of osteo-arthritis. Osteo-arthritic changes are also present on the right acetabulum. Both orbits showed evidence of healed cribra orbitalia, indicating that the male had recovered from an earlier anaemic status. The right femur had healed periosteal reaction on the diaphysis, whereas the tibiae had healed lamellar to sclerotic periosteal reaction. These bone changes indicate a recovery from a non-specific infection. The right radius has an osteochondritis dissecans fracture to the proximal epiphysis, this occurred due to micro-fracture which is caused by trauma to the ligament and muscles (Apley and Solomon 2000:202-3).

THE ANIMAL BONE

By Kevin Trott

A small quantity of animal bone was recovered from the 2001 excavations at Yaverland. A variety of features were uncovered which ranged in date from the middle Iron Age to the late Roman period. Although the assemblage of animal bone is

small as with the 1998 assemblage there is a bias in the fact that there was a limited programme of sieving by Time Team of contexts exposed on the site and the material retained for study consists of larger animal bones.

A total of 346 fragments of animal bone were examined. Of which 211 are identifiable (Table 6). The majority of the remains came from late Roman features. The remainder of the assemblage were recovered from middle and late Iron Age contexts.

| | Middle Iron Age | Late Iron Age | Early Roman | Late Roman | Total |
|----------------|-----------------|---------------|-------------|------------|-------|
| Bird | | | | 3 | 3 |
| Cow | 25 | 18 | 6 | 87 | 136 |
| Horse | 1 | 1 | | 1 | 3 |
| Pig | | | | 4 | 4 |
| Red deer | 3 | | | 3 | 6 |
| Sheep | 2 | 6 | 12 | 39 | 59 |
| Unidentifiable | 7 | 14 | 2 | 93 | 116 |
| Grand Total | 38 | 39 | 20 | 229 | 327 |
| % Identifiable | 81.6 | 64 | 90 | 59.4 | 64.5 |

Table 7 Animal bone concordance

Middle Iron Age

A total of 41 fragments of identifiable animal bone came from features dated to the middle Iron Age period. Most belong to domestic mammals with cattle, sheep, horse and deer represented. Cattle appear the most numerous taxa, especially if the fragments in mammal size categories are considered. Almost all major meat bones are represented within the cattle bone assemblage and the same bone types were recorded in the sheep, horse and red deer assemblages.

Late Iron Age-Early Roman

A small collection of animal bone fragments (n=39) came from features dated through the late Iron Age and early Romano-British periods. Nearly all the major domesticates except pigs are represented although this time cattle still dominate the overall faunal assemblage with sheep more equally represented.

Late Roman

The majority of faunal remains recovered from the Yaverland site (n= 242) were found within features dated to the late Roman period. All the major domesticates are represented with cattle still dominating the overall assemblage with fewer sheep elements present. Pig and horse were represented and red deer. Three bird bones were recovered from Context 109 and these came from two galliforms.

Discussion and interpretation

The animal bone assemblages from individual occupational phases are too small to provide conclusive evidence of past activities, apart from indicating the types of animals present. The lack of sieving by the excavators failed to identify if any smaller

mammals, birds and fish were present compared with the recently excavated material from the nearby Brading Roman Villa (Trott in prep).

The overall assemblage from all periods of occupation at Yaverland represents several periods of domestic waste. Clearly, meat from the major domesticates (cattle and sheep) was a major source of protein from the middle Iron Age, the presence of horse and deer illustrating the varied nature of the diet. The lack of pig bones in Iron Age contexts within the site compared with other sites in Hampshire and beyond suggests based on the faunal evidence that the occupants of the site may have been of a lower agrarian economy or status.

Evidence for a varied diet is also seen in the late Roman period with the addition of pig and domestic fowl. The bone assemblage retained from the 1998 excavations was examined in relation to the material recovered in 2001. The faunal material from the 1998 excavations (Contexts 19, 21 & 31) was reviewed with the material from the 2001 excavation. Contexts 109 and 120 were related contexts to Contexts 19, 21 & 31, several long bones and cross-joints from the five contexts hints at organised waste disposal around the late Roman structure. The variation in body part representation that exists between cattle and sheep also suggests that butchery practices varied according to the animal size, with the beef removed from the bone prior to cooking whereas lamb/mutton appears to have been served on the bone.

THE LAND MOLLUSCS

By Gavin Hoe

During the excavation at Yaverland several large land molluscs were recovered by hand from six contexts on the site (204, 208, 502, 506, 902 and 110). Regrettably off the eleven samples taken by Time Team staff only three samples were eventually recovered from the Isle of Wight County Archaeological Centre. The three samples processed by Dr. Robert Scaife (103, 109 and 502) identified five fragments of *Cepaea hortensis* from Context (502) from three individual species. Samples from Contexts (103) and (109) did not produce any land molluscs.

The remainder of the land mollusc's assemblage was recovered during the hand excavation and are tabularised below.

| Species | 110 | 204 | 208 | 506 | 902 |
|-------------------------|-----|-----|-----|-----|-----|
| | | | | | |
| <i>Helix aspersa</i> | 1 | 1 | | | 5 |
| <i>Cepaea hortensis</i> | | 6 | 1 | 1 | 1 |
| <i>Cepaea nemoralis</i> | | 2 | 1 | 1 | |

Table 8 Land mollusca concordance

The small assemblage of land molluscs was recovered from sealed contexts and represents the three species that were present during the relevant dated contexts and also the species is a good indicator of localised habitat and overall distribution.

The earliest context (506) derived from a middle Iron Age ditch [522] where a single *Cepaea hortensis* and *Cepaea nemoralis* were recovered. These two species of related land molluscs are widely distributed and occupy woods, scrub, grassland and coastal

dunes. Context (502) produced three *Cepaea hortensis* from the fill of the early 1st century A.D. ditch [503]. A single *Helix aspersa*, six *Cepaea hortensis* and two *Cepaea nemoralis* were recovered from the fill of a post-hole [207] and midden deposit (204) dated to around 40-70 A.D. The *Helix aspersa* recovered from Context (204) is a large common snail and was introduced from Southern Europe by the Romans as a source of food (Wardhaugh 1989, 9), this species is widely distributed and occupy most environmental areas and hibernate and congregate in rocky areas or natural crevices. A single fragment from a *Helix aspersa* was recovered from a layer (110) within the late Roman structure. The final group of land molluscs were recovered from a medieval buried plough-soil (902), the molluscs recovered consisted of five *Helix aspersa* and a single *Cepaea hortensis*.

The land molluscs recovered from Yaverland were all probably native species that naturally occurred in and around the Yaverland site. The presence of a small number of land molluscs within the early Romano-British midden (204) suggests the midden was used on a regular basis for the disposal of organic food refuse that would have attracted the nocturnal molluscs.

THE MARINE MOLLUSCS

By Simon Bray

Introduction

Samples of marine molluscs from the Yaverland site (SZ613863) on the Isle of Wight were assessed for the community composition as an indication of the habitat from which they were sourced. Temporally the samples consisted of molluscan fauna used for food following human foraging in the Iron Age and the Roman periods. The Yaverland site is now part of the body of the Isle of Wight, but at the time of inhabitation (2000 years ago) it has been suggested that the site was on an island separate to the main body of the Isle of Wight. Whilst it is not possible to fully identify the nature of the shores on the Yaverland Island, some indication through species habitat preference will provide information on the palaeoenvironmental conditions and the foraging preferences of the human inhabitants.

As a food resource, molluscs are generally available all year round, are often well preserved and there is usually little doubt that they were brought to a site by human activities (Deith, 1985). With this in mind sample assessment consisted of, where possible, identifying the mollusc shells to species level to provide an indication of foraging preference, examining the best preserved, utilising these as indicators of habitat and looking for signs of predation activities e.g. tool use. As mentioned the assemblage can be used to indicate the dominant species being collected by humans for food at the time but in addition, the community of shells can, to some extent, be utilised to indicate the habitat from which they were collected.

Methods

Samples were divided into their Iron Age and Roman contexts. The numbers were noted and where adequate identifiable markings or shell structure survived, the contents of each sample bag identified to species level. These were then measured, using a 1 mm vernier gauge, to assess general preferred size or to give an indication of whether foraging results were not optimal following over utilisation of resource or

from other restricting factors such as tidal level. Where possible or practicable, relative abundance was also considered, as species abundance is often a reasonable indicator of predominant habitat type. In addition the species potential as a food source, and the range of sizes found within each sample were identified. If samples were not worn extensively, where useful, some idea of the general age of specimens when they were removed from the shore was also assessed.

Two samples of *Littorina littorea* (Context 103) contained large numbers of the gastropods mixed with pebbles, gravel and clay. The contents of these bags were placed on a wet bench and coned and quartered to provide a sub-sample, which was used to quantify shell size. Sub-samples were washed and dried then measured as previously described.

Results

Late Iron Age Samples

As individual contexts for each sample number were not available (since these were from a homogenous level), results from the contents of bags were amalgamated to provide overall values for each species. Species richness was greater in samples from the Late Iron Age and abundance was greater than that of Late Roman samples. The matrix of species used for food consisted of oysters (*Ostrea edulis*) common cockles (*Cerastoderma edule*) and the edible periwinkle (*Littorina littorea*). In addition some samples also contained common limpets (*Patella vulgata*) and the less common china limpet (*P. ulyssiponensis* formerly known as *P. aspera*). Finally, the remnants of one common mussel (*Mytilus edulis*) and one chequered carpet shell (*Tapes decussatus*) were also present.

| Species | Abundance (DAFOR) | Mean Width | Width Range | Mean Height | Height Range | Protein Value per 100g |
|-------------------------------|-------------------|------------|-------------|-------------|--------------|--|
| <i>Ostrea edulis</i> | D | 59.4 | 21.9-1005.5 | 61.5 | 32.4-93.9 | 10.3g |
| <i>Littorina littorea</i> | A | NA | NA | 25.8 | 21.1-29.9 | 15.4g |
| <i>Cerastoderma edulis</i> | F | 25.74 | 11.4-34.4 | 28.98 | 18.4-36.4 | 21g |
| <i>Patella vulgata</i> | F | 37.59 | 28-54.1 | 17.21 | 9.7-35.3 | NA. But limpets twice calorific value of <i>O.edulis</i> (Wickham-Jones, 2003) |
| <i>Patella ulyssiponensis</i> | O | 26.92 | 25.8-28.8 | 9.5 | 6.1-15 | NA |
| <i>Mytilus edulis</i> | R (one only) | NA | NA | NA | NA | 21.1g |
| <i>Tapes decussatus</i> | R (one only) | NA | NA | NA | NA | 16g (generic from clams) |

Table 9 Marine mollusca (late Iron Age) concordance

Table 9 summarizes the size ranges and provides an abundance measure on the DAFOR (Dominant, Abundant, Frequent, Occasional, rare) scale. Note the presence of only one *Mytilus edulis*, which commonly resides on moderate to very exposed rocky shores. This initially suggests that foraging was carried out on a less exposed habitat.

The remains of left and right valves of *Ostrea edulis* dominated the sample though both *L. littorea* and *C. edule* were well represented and in relatively good condition. Visual inspection of samples did not provide any information on tool use for most species though one large limpet (Context 1102) had a regular square hole in the shell, which may have been created by a tool used to lever it from the substrate.

The two bags of sub-sampled *L. littorea* (Context 103) were first visually inspected and bag two appeared to be dominated by smaller individuals. Measured results showed this to be the case (Fig 24) and a Kolmogorov Smirnov z test was carried out to establish whether the population curves were significantly different. Results showed a significant difference ($P < 0.01$) and a further Kruskal Wallis test on median population shell height was also significant ($p < 0.01$) (Fig 25). In addition, bag one contained the remnants of four *C. edule* and two poorly preserved small littorinids, possible *L. saxatilis*, which are not noted as a food source.

Though worn, a growth ring assessment (Gorbushin, 1993, 2002) suggested that the sample assemblage one animals were in general two to 3 years older than the bag two sample though this result must be treated with caution. However, if accurate this may be due to over-use of the resource in one location, or, if the growth ring result is inaccurate, that food was sourced from a different height on the shore or possibly an alternative shore where growth was less prolific.

Late Roman Sample

The Late Roman assemblage contained the same species assemblage as the Late Iron Age sample though abundance in all classes was less and *M. edulis* and *T. decussates* were not found. Table two provides a summary of shell and abundance measures for these specimens.

Romans had a predilection for *Ostrea edulis* (edible oyster) (Scaife, per comm., 2004) and this species, the main shellfish food resource, dominated the molluscan remains from this level though they were not as abundant as in the Late Iron Age. Interestingly, of the others species present it was noticeable that the *L. littorea* were very large specimens suggesting a choice motivated by size rather than need to forage for them. Limpets and *C. edule* are relatively rare and with a diet appearing to be dominated by the relatively easy to collect oysters, this may reflect a minimisation of collection effort, as both require greater time and energy to accumulate. Limpets are hard to retrieve from the shore and again two individuals have holes punched through the shell top though these are round. This again may be due to tool use though holes through the top would not be ideal and this may be due to predation marks. Unlike the Late Iron Age sample, statistical comparison within Roman species was not necessary as no comparable groups within the samples were present.

| Species | Abundance (DAFOR) | Mean Width | Width Range | Mean Height | Height Range | Protein Value per 100g |
|-------------------------------|-------------------|------------|-------------|-------------|--------------|---|
| <i>Ostrea edulis</i> | D | 56.8 | 26.2-82.8 | 62.3 | 39-93.4 | 10.3g |
| <i>Littorina littorea</i> | F | NA | NA | 26.47 | 17.3-30.4 | 15.4g |
| <i>Cerastoderma edulis</i> | F | 26.7 | 23.3-31.5 | 29.54 | 20.6-36.8 | 12g |
| <i>Patella vulgata</i> | F | 30.1 | 21-40.1 | NA | NA | NA. But limpets twice calorific value of <i>O. edulis</i> (Wickham-Jones, 2003) |
| <i>Patella ulyssiponensis</i> | O NB: Two only | 37.15 | 16-17.2 | 16.6 | 36.5-37.8 | NA |

Table 10 Marine mollusca (Late Roman) concordance

Temporal comparison

The abundance of shells in the Late Roman sample did not allow for robust comparison for temporal variation except for *O. edulis* and *L. littorea*. Comparisons for Late Iron Age and Late Roman *O. edulis* sizes showed no significant temporal variation between mean shell lengths used for food. Conversely as was noted visually *L. littorea* from the Roman samples were significantly greater in shell height ($p < 0.001$) than Late Iron Age though the species was less abundant in the Roman sample therefore the comparison was unbalanced.

Habitat indications and use of resource

Ostrea edulis

An aim of this work is to provide information on the shore habitat from which the species present were collected. The dominant species in both samples was *Ostrea edulis* (the European oyster) and there was no significant difference between shell sizes recorded in the two samples. *O. edulis* is a native British species and is found on the lower eulittoral shore to sub littoral up to depths of 80 m. Occurring southerly from the Mediterranean to Norway in the north. Following a veliger (sail bearing) larval stage *O. edulis* attaches to the chosen substrate by means of exuded calcareous cement and therefore this permanent fixative ensures that the growing oyster attains the form of the colonized habitat. Developing into the recognisable bivalve they feed by filtering out algae and organic matter from the water column. *Ostrea edulis* shells develop in shape and size as result of their immediate environment and therefore 'exhibit a great variability size and other characteristics' (Winder, 1991). Generally *O. edulis* occurs in dense beds in creeks and estuaries, being able to tolerate lower salinities (Winder, 1991), grows sub-littorally. It is commonest in the south east and west of the UK (Yonge, 1949; Hayward *et al.*, 1996). Hayward *et al.* (1996) suggest that animals can regularly grow up to 97 mm and often larger than this.

As can be seen from tables one and two the molluscs in these samples ranged up to this size though the mean shell height values were both in the region of 60 mm. The molluscs in both the Late Iron Age and Late Roman samples had fairly regular shell shapes and had not developed into the convoluted forms that can be seen in this species. Size ranges were generally similar and the broad spectrum of shell in the samples shows that collecting of young to adults occurred. Overall the oysters in both samples appear to have been collected from a relatively smooth shore with minimal

influence from harder substrata. Though it is possible that oysters may have been imported for consumption at Yaverland (Scaife, pers comm., 2004) the suggested tidal inlet morphology of the islands north shore may have been relatively sheltered. This would have provided a muddy and gravel substrate with variable salinity in which oysters would thrive. The south shore, consisting of high Cliffs is unlikely to have supported large numbers of *O. edulis*, nor would it have been easy to forage upon. 100

Littorina littorea

The edible periwinkle (*Littorina littorea*) is a highly adaptable species and can be found around all UK coasts' among small stones, on gravel, soft mud and rarely on sand' (Winder, 1991). They can tolerate low-moderate and slightly exposed habitats and have also evolved to be tolerant of lowered salinity. *Littorina* species are polymorphic developing both shell and foot size as a result of wave exposure influence (Trussel *et al.* 1993; Trussel, 1997). Greater wave exposure generally leads to smaller animals with, relative to shell size, a larger foot. This enables firmer attachment to the substrate and the smaller profile minimises the risk of being swept offshore into a more predator rich environment (Trussel, 1997). Larger individuals are usually present on the lower shore (Winder, 1991) as their size is not limited by food availability and as they are not immersed for long periods, desiccation is minimised. However, Kemp and Bertness (1984) reported that *L. littorea* morphology can also be influenced by population density and where they are dense, elongated shells develop with a more globose phenotype from densely populated shores.

The winkles in these samples did not temporally differ in shell size. However, Context 103 showed variation between the two groups measured. The relative scarcity of *L. littorea* in the Roman samples suggests that this species was little utilized as a food source. It may be that the human population density on the Yaverland site was less than Iron Age times allowing the use of abundant oysters and minimising the need to resort to winkles. *L. littorea* requires considerable effort to remove from the shell but all shells were intact suggesting that rather than tools boiling water was used to extract them (Mannino and Thomas, 2001). The impact of human foraging on shell size abundance has been previously investigated (e.g. Mannino and Thomas, 2001) and a reduction in mean *L. littorea* shell size due to over harvesting previously recorded (Winder, 1991). The *L. littorea* found in Context 103 show a significant change in mean shell size from large to smaller animals in bag two. As suggested above, this may be due to over harvesting. However, some caution should be applied as with polymorphism smaller animals may be found on more wave-exposed locations or from foraging higher up the eulittoral zone. Age assessment of the samples suggests that the bag two specimens are younger therefore perhaps from an over harvested site, but samples were worn and this cannot be relied upon. Over-harvesting is also a modern phenomenon, with low abundances and smaller overall size reported by Quigley *et al.* (1998).

Cerastoderma edule

The common cockle (*Cerastoderma edule*) is widely distributed and common around much of the UK. The species inhabits soft mud to sand and stony gravel and lies buried in the substrate by up to 50mm (Winder, 1991). Tolerant of lower salinities they inhabit the mid to extreme lower eulittoral and can be found in dense beds. Cockles are still widely collected for food by means of a blunt rake that is pulled over

the substrate revealing the animal. The species was frequent in both samples though not highly represented perhaps reflecting the effort required to obtain them.

On open coast cockles can grow up to 50 mm (Hancock and Franklin, 1972) but the Iron Age and Roman examples here both show mean shell height in the region of 30 mm (Tables 9 and 10). Estuarine examples tend to be smaller (Winder, 1991) and the examples here may be indicative of that habitat. Cockle remains have been found in Brading Marshes (Scaife, in prep, pers comm., 2004) and further work may establish whether these were the brackish water variant (*Cerastoderma glaucum*) which would provide further detail on the nature of the local environment. Overall, with the relative difficulty of collecting from the sediment of mud habitats, the small moderate size of those in the samples and abundant oysters on the surface, this may be why cockle numbers are relatively limited.

Limpet species

Despite their toughness when alive, limpet shells do not survive well after being discarded into middens (e.g. Manino and Thomas, 2001). The examples here were generally worn or damaged though attempts have been made to quantify and identify all examples to species level. The limpets found in both samples do not tolerate low salinity. *P. vulgata* is common around UK shores from mean low to mean high water its northerly distribution is from Norway to the Mediterranean. *P. ulyssiponensis* has its northern limit in the Shetland Isles and is rare or absent on the east coast from the Isle of Wight to the Humber Estuary. It prefers open exposed shores inhabiting the lower eulittoral, or pools and gullies.

Often described as 'famine food' (Wickham-Jones, 2003) they are not utilised in the UK in modern times, but are still used as a food source in, for example Portugal and the Azores. Limpets require hard substrate on which to attach suggesting that the foraging area here may have been a mixture of mud and gravel with occasional large cobbles and rocks. The southern Isle of Wight shore at Yaverland today consists of variable beds of sandstone's and clays. Sandstone reefs are exposed on the shore (e.g. Horse Ledge at Sandown) and limpets can be found on these. Limpets are relatively easy to remove from their shells and provide high meat yields. However they are difficult to collect being firmly attached and may have been present in low numbers in the assemblage due to the need to foray further a field. Work has shown that once collected, lower processing costs (removal from shell) mean that such species may be consumed near the point of collection whereas those which require greater handling, e.g. *L. /ittorea* and *O. edulis* would be returned to the home base where they can be worked on at leisure (Manino and Thomas, 2001). The limpets here may have been collected from southern exposed shores, which would explain the presence of *P. ulyssiponensi* and the overall low abundance (eaten before the foragers returned). Occasional specimens had regular holes in them and limpet shells have been reported as being used in jewellery (Wickham-Jones, 2003) though this report is not qualified to take this suggestion further.

M. edulis and Tapes decussatus

A widely distributed and common species, *Mytilus edulis* is a bivalve filter feeder, which attaches itself to a suitable hard substrate by strands known as byssus threads. *M. edulis* is a relatively flexible species providing suitable substrate is available. It can

inhabit rocks within estuary mouths, cobbles on muddy beaches to rocky substrate on moderately to exposed shores. They can tolerate lowered salinity from direct freshwater influence by shutting valves when the tide is low (Wilson *et al.* 1983). Usually found in dense beds or clumps, the presence of one individual here suggests limited supply or that those harvested were not returned to the home site. However, as they generally require boiling to be removed, it seems likely that they were not an abundant resource for this community.

T. decussatus was again represented by one individual, which was highly fragmented. The species can grow up to 75 mm and inhabits sand, muddy gravel or clay. Generally present on the lower shore in the shallow sub-littoral it is found on southerly shore of Britain to the Mediterranean and NW Africa (Yonge, 1949). Highly regarded for its taste, it is still prepared in modern times particularly around Galicia in northern Spain. Salinity tolerance proved difficult to identify, but general reference to its presence in estuaries suggests that the species can tolerate lowered salinity but the extent of this capability would require further research.

Conclusions

Both samples contained the same species representation bar the presence of one *M. Edulis* and one *T. decussates* in the late Iron Age species assemblage. Differences between population shell sizes within samples were not considered as data were pooled to represent the two time periods. This is with the exception of *L. littorea* from Context 103 (late Iron Age) where statistical tests showed that the two samples taken within this gully has significantly different population shell sizes with those from sample two being smaller.

The size difference suggests that over use of the resource may have resulted in foragers having to resort to younger age classes for food. Alternatively littorinids may have been sourced from higher on the same shore, during a tidal period where the water did not recede sufficiently to obtain larger individuals (neap tides) or that foraging took place on a less sheltered location where polymorphism resulted in smaller individuals. However, age assessment, though rudimentary due to worn shells, suggests that the second bag generally contained younger animals. The large littorinids found in the Roman sample indicate that either the resource was not being heavily used or that they were from a different location.

The presence of numerous relatively smooth shelled *O. edulis* on both samples showed that the main shellfish diet for both periods at Yaverland consisted of this species. In addition its dominance in the Roman sample demonstrates the preference for edible oysters. Oyster shell size samples did not differ in size between the two time periods. Foraging on lower gravely muddy shores appears to have yielded large numbers of oysters and it may be that continued searching for more difficult to obtain (c. *edule*, and *T. decussatus*) and more difficult to handle (*L. littorea*) may not have been considered worthwhile with the presence of abundant oysters. Though the oysters have not achieved maximum-recorded sizes those present show a preference for young to fully formed adults. The smooth nature of the shell suggests that the oysters have not formed around a heterogeneous substrate and it is more likely that they were obtained from a low energy, gravel, or muddy habitat, which was available to the

north of site; now in Brading marsh. This is backed up with the presence of the other species preferring this environment, i.e. *C. edule* and *T. decussatus*.

Finally, limpet species were present particularly *P. vulgata*, which can inhabit a variety of shores at differing levels providing a modicum of suitable substrate is present. Conversely, *P. ulyssiponensis* requires lower shore habitats and prefers moderate to exposed wave action. This may indicate that foraging parties traveled away from sheltered northern shores and foraged on southern exposed sites where limpets were removed and may have been eaten on site or brought back to the home site for food or possibly decoration. *M. edulis* was only found in one sample (Late Iron Age), but was too fragmented to assess. The lack of any example other suggests that this species was not a major contributor to the diet here, possibly due to unfavorable habitat on both southern and northern shores.

The majority of foraging for shellfish at Yaverland appears to have been undertaken on relatively sheltered locations. When the site was an island in its own right several inlets are suggested to have been present on the northern shore (Fig. 1) and these would have proven suitable for the species assemblage discovered. There does not appear to be a general switch in diet between the two periods investigated here with *O. edulis* being the majority of the shellfish diet. Within the late Iron Age sample, possible over utilisation of *L. littorea* may have led to smaller shell sizes being eaten. This may be due to greater numbers of inhabitants in Late Iron age times which required the use of species generally harder to deal with. Conversely, by the late Roman period the population at the site may have diminished, negating the need for the use of less rewarding species and thus, accounts for the relative paucity of shellfish remains when compared to Late Iron Age samples.

THE CHARRED PLANT REMAINS

By Robert Scaife

Preliminary examination of plant remains from this site was undertaken as part of Seaclean Wight Waste Water Pipelines (Scaife 2002 and in prep.). Initially it was anticipated that rich assemblages of charred plant remains might be obtained from the range of contexts, primarily ditches and pits which were identified and excavated. These span a wide date range from the middle Iron Age to the late Roman period. As such it was hoped that data relating to the local agrarian economy might be obtained adding to our knowledge of the Islands agrarian history. Whilst some charred cereal and weed seed remains were recovered, quantities were disappointingly small. However this preliminary examination suggested that there was potential for further excavations. This occurred under the auspices of a Time Team excavation in 2001, which allowed further contexts to be examined. Several bulk samples were taken under the guidance of the original site director Kevin Trott; these were subsequently taken from the site and stored by staff from the Isle of Wight County Archaeological Centre. The recovery of the bulk samples in 2003 was problematic and only three sampled contexts could be located from the original eleven taken during the excavation in 2001.

This report details the limited and bias findings of this archaeobotanical investigation of the Yaverland site.

Sampling for environmental remains followed guidelines laid down by English Heritage (2002). Bulk samples of up to (20 litres) were taken during the original 1998 excavations and during the 2001 Time Team investigations. The samples recovered were processed using a flotation tank with flots collected on nested sieves down to 0.5mm. The residues were also examined for any archaeological/artefactual materials. The charred plant remains were sorted and identified under a low power stereo-microscope (Wild M3c.) at magnifications to x40. There were insignificant quantities of other environmental evidence (charcoal and molluscs).

A total of eleven samples were taken in 2001 and by 2002 only three were recovered by the author. The three samples examined of which two produced limited quantities of charred plant remains. These comprise largely charred cereal grain remains and very occasional chaff debris. The finding of such charred crop and other plant remains is to a large extent a matter of chance since preservation by charring clearly depends on the deliberate or accidental burning of the plant material. This may, for example, be the burning and disposal of cereal chaff in pits and ditches. Thus, absence of a plant type does not necessarily imply that it was not present locally. However, continued studies of the remains of crop and associated weed plants have enabled a sound picture of regional agrarian economy to be built up. For Southern England this work goes back to the pioneer studies of Clement Reid who examined Roman remains from Silchester. Subsequently the pioneer studies of Jessen and Helbaek (1947) and Helbaek (1952) established the changing pattern of prehistoric arable agriculture. Relative to this study of Yaverland was the realisation that during the Iron Age and Romano-British periods, spelt wheat (*Triticum spelta* L.) had become the most important wheat variety used. The fact that this is a non-free threshing wheat that requires parching (heating in an oven) to release the grain prior to threshing and winnowing, results means that its remains are likely to be encountered through accidental burning. This similarly applies to the less common emmer wheat (*T. dicoccum*). Both taxa have been recovered although identification from grain alone is not possible, requiring glume bases for differentiation.

There are no substantial caches of charred grain or chaff remains such as might be expected where burnt waste and spoiled grain may have been dumped. It appears that all of the assemblages described are sporadic waste remains, which littered the site.

| Context | 502 | 103 | 109 |
|----------------------------|---------------|-------------|------------|
| Age | Late Iron Age | Early Roman | Late Roman |
| Cereal Grain | | | |
| <i>Triticum spelta</i> | 1 | 1 | 14 |
| <i>Triticum cf. spelta</i> | | | 1 |
| <i>Triticum unident.</i> | | | 8 |
| <i>Hordeum vulgare</i> | 1 | | 1 |
| <i>cf. Hordeum</i> | 1 | | |
| <i>Avena sp.</i> | 2 | | 2 |
| <i>Bromus/Avena</i> | | | 1 |
| Grain fragments | 34 | | 19 |
| Chaff Remains | | | |
| <i>Triticum spelta gb</i> | 1 | | 1 |

| Seeds | | | |
|-------------------------|---|---|---|
| <i>Poaceae</i> | 6 | 1 | |
| Brassicaceae | | 1 | |
| <i>Vicia/Lathyrus</i> | | | |
| <i>Rumex sp.</i> | | | 1 |
| <i>Plantago major</i> | | | 1 |
| | | | |
| <i>Corylus avellana</i> | | | 1 |

Table 11 Environmental concordance

The Iron Age Crops

As with the Roman remains below, there are few charred crop remains with a small number of spelt in ditch (502) and *Hordeum* (Barley). Similar dated features encountered in the 1998 excavations produced a range of crop types including spelt, wheat, rye and barley all of which were likely to have been cultivated and processed for consumption locally. Jessen and Helbaek (1944) and Helbaek (1952) showed spelt wheat (*T. spelta* L.) became particularly important from the Iron Age and this continued to be so into the Roman period.

The Roman Crops

The quantities of cereal grain and chaff remains recovered are higher than the Iron Age but are somewhat small. However, the crop assemblages are characteristic of the period and add to the Islands minimal evidence that agrarian practices were similar to the mainland. Spelt wheat (*Triticum spelta* L.) was the principal crop type with evidence from the early Roman period (Context 103) and late Roman (Context 109). In some cases (109) glume bases are present which confirm the presence of spelt rather than emmer wheat. This indicates the predominance of spelt as a crop during this period. This hexaploid, non-free threshing wheat requires 'parching' to aid release of the grain from the hull. Thus, recovery of such charred remains is most likely to have resulted from accidents during this process. The available evidence shows clearly, the strong reliance on spelt throughout the Iron Age and Romano-British periods (Helbaek 1952, Murphy 1977; Jones 1981; Scaife 1996; Scaife forthcoming). It is also important to note that in the case of spelt, there is some evidence that this crop may have been harvested and transported as whole ears to its place of consumption and possibly stored until its use (Jones 1981). Thus, cultivation may not have taken place near the site and whilst it is more conceivable that cultivation was taking place locally, it must also be considered that cultivation was being practiced on another farmstead. Thus there may be a distinction between producer and consumers with final processing for use taking place on the site of the latter. Other crops include *Avena* (oat) and *Hordeum vulgare* (barley).

Conclusions

The charred plant macrofossil remains recovered from the site although small in real number add to our knowledge of the Islands agrarian history. Typical for the Iron Age and Roman periods, is the importance of spelt wheat which may have been grown within the Yaverland site or transported from other producer sites and processed here. Absence of chaff in quantity suggests that waste material was disposed of in other localities or was not burnt. Recent work at Brading Roman Villa has suggested that Brading was also consuming cereals and like Yaverland it was importing the raw cereal for parching and consumption (Scaife in preparation).

DISCUSSION AND INTERPRETATION

Reliability of field investigation and interpretation

The overall findings of the Time Team excavation were informative in relation to the 1998 investigations and setting the archaeology within the wider local landscape. The aims of the excavation were to locate and understand the late Roman building encountered during the 1998 sewerage pipe laying operations conducted by Southern Water (Trott 2001). The input of resources by Time Team and the local involvement directed by the Isle of Wight County Archaeologist Ruth Waller far exceeded the aims that the original investigations set out to find.

The excavation discovered a portion of ditch associated with an early Bronze Age ring ditch located just off the horizon of the hill top, following its discovery and excavation a local resident of Brading reported to the author (who had informed unofficially the County Archaeologist in 2002) that a further Bronze Age burial possibly associated with a ploughed-out monument lie on the opposite side of the hill from the ring ditch sectioned within Trench 10. The scatter of prehistoric Flintwork recovered by the field-walking survey and from within later archaeological contexts indicates the possibilities of finding a late Neolithic or early Bronze Age settlement under the large amounts of colluvium that seems to collect within this area of Yaverland.

The settlement activity during prehistory probably continues either within this field or within the immediate environs of the investigated area. The first stratified indications of settlement continuity was indicated by sherds of middle Iron Age pottery found as residual items in later fills and deposits and within the large Ditch [515] located within Trenches 5 and 11. This ditch was discovered by the geophysical survey and respected a slight earthwork that had been recorded by local residents (Tom Winch Pers, Comms.). The earthwork has been seen by the author when certain light conditions and angle of sight prevail and this follows the eastern contours of the hill that once formed a promontory into the once flooded Haven at Brading. There are traces of this earthwork continuing along the western slope of the hill although agricultural ploughing has nearly obliterated the last traces that were last recorded during 2004.

This large ditch was sectioned within Trench 5 and the geophysical survey suggested it may have continued around the landward southern side following a second shallower ditch [503]. The successive fills of the ditches suggested they started to silt-up during the later part of the middle Iron Age and some of the fills suggest the ditch was maintained and continued to function as a defensive circuit around the promontory of the hill. The earth that was excavated from within this ditch was probably used to create a rampart of some five metres in height that combined with the ditches may suggest that Southern water and Time Team had discovered an unknown promontory hill fort of a type like those found at Heingistbury Head in Dorset or Brean Down in Somerset. Further excavation will need to focus on clearing a large area within the circuit of the ditch to discover if any structural post-holes or sleeper beams survive that are associated with the box frames that support the external ramparts.

Within the confines of the large ditch Trench 2 was excavated to establish if the late Roman building found down slope within Trench 1 continued at this location. The late Roman evidence was not found although a large corner of rubble (204) possibly the remnants of a floor were located yielding pottery and occupational material dating to the late Iron Age period. This feature was situated adjacent to a set of seven large post-holes that contained within its circumference a hearth. Both the rubble feature and the post-holes suggested they were of contemporary date and supported the idea that the seven post-holes represented a portion of an Iron Age round-house and ancillary rubble floor from a second rectangular structure.

Trench 1 also produced late Iron Age ceramics in association with a ditch [106] and gully [134] that were filled with occupational waste that included a glass bead and large quantities of marine mollusca. This ditch was probably associated with several similar dated ditches recorded during the 1998 excavation campaign. The ditch within Trench 5 contained deliberate fills containing similar dated pottery and this was also recorded within Trench 11 ditch fills.

Occupation continued probably up until the Roman conquest of A.D. 43 when around this time frame the ramparts and associated Ditches [503 / 522] were systematically slighted and re-profiled into the almost original hill profile. Following the infilling of this large ditch a crouched inhumation (1103) was interred into the oyster rich fills (1104 & 1106).

The original 1998 investigations produced linear drainage ditches that were consistent with a 1st to 2nd century date although the artefactual material indicated that the core settlement was situated some distance away. The 2001 Time Team excavations failed to locate any further 1st or 2nd century features or even artefactual material in later contexts. The focus of late Roman activity was centred within Trench 1 where the aims of the excavations had started.

Trench 1 eventually located the late Roman structure encountered during the 1998 excavations (Trott 2001) following a GPS error during the intervening years of the investigations. The hard packed cobble floor (107) was revealed with traces of the eastern wall that survived in a better condition during 1998. A single door post (122) was excavated situated along the northern side of this structure where an iron latch lifter was found in association. The western wall was defined as well as a thin veranda like room floored with rammed mortar (137). The southern limits were also clarified in conjunction with the 1998 results. The material recovered from within this building was similar to the quantities and variation discovered during the earlier investigations although a brooch, bronze pin and further bronze bracelets were discovered along with the unfinished clenched iron nails and metalworking debris. During the occupation of this building several midden deposits had accumulated to the north and these were recorded in 1998 and with midden (120 & 126) encountered in the Time Team investigations.

A set of six post-holes situated to the north of the late Roman building within Trench 1 were associated with the post-holes encountered during 1998. Although in plan they form a large rectangle the posts cut the natural chalk and their date is tentative based on the single early Saxon sherd recovered from (128) post-hole [129]. It is plausible that this rectangular structure is Saxon in date an Iron Age date cannot be ruled-out.

Significance

The excavation by Time Team revealed that this undulating agricultural field situated once on an Island adjacent to a much larger Island mass contained significant local and regional archaeology. The discovery of a ring ditch is important on a local scale and the probable hill fort was unexpected and regionally important, the Roman structure suggested it was associated with a much larger estate (possibly not with the nearby Roman villa at Brading) and the late military items recovered suggest the possibility that this building had its use in the possible re-cycling of metal objects whether domestic or functional. Since Time Team left the site the field has been subject to several field-walking and metal detecting surveys and whether the field will be subject to further work will depend on the results reported on here and with the change of land ownership and its function for the future.

Site reliability and archive

The compiling of this report has taken several years (approximately 5 years) due to numerous internal and external problems encountered by the author, Time Team and the County Archaeologist. The archive sent to the author was regrettably incomplete and a great deal of comparisons to the original Video Text film footage and site/personal photographs and videos have been consulted even digitised to accurately amend these post-excavation errors.

The artefactual material has shown signs of contamination and even jumbling of recorded material from separate contexts. One example was even filmed (but not aired) showing pottery from Context (109) turning up in a processed Context (120) assemblage (Malcolm Lyne pers, comms.). The cut down Dressel 2-4 amphora sherd Recorded as a Context (109) find was originally found and filmed / photographed as it was being excavated from Context [134] (gully). These few artefactual problems were escalated when the author was not allowed the metalwork plots from the metal-detecting survey in order to make comparisons with the pottery finds, also the external specialist (Malcolm Lyne) was not able to borrow certain metal objects for study outside of the Isle of Wight County Archaeology Centre, so special arrangements had to be made to rectify this needless problem that incurred additional funds..

Of the eleven environmental samples recovered only three were made available for Dr. Robert Scaife to process and report on, resulting in the biased environmental report. Also the crouched inhumation suffered a contamination during the original radiocarbon analysis and amendments to a re-calibration could only be done in the last few weeks of June 2006.

Overall these highlighted problems are but a few of the on-going problematical background that the author and related specialists have had to deal with, in order that the author could compile this document prior to a full amalgamated site report to be published next year.

BIBLIOGRAPHY

- Allason-Jones, L., Milet, R. 1984 *The Catalogue of small finds from South Shields Roman Fort*, Soc Antiq Newcastle upon Tyne Monogr Ser No. 2
- Apley AG and Solomon L 2000. *Concise System of Orthopaedics and Fractures*. London: Arnold.
- Brothwell D. 1994. *Digging Up Bones*. London: British Museum Press.
- Buikstra JE and Ubelaker DR. (eds.), 1994. *Standards for data collection from human skeletal remains. Proceedings of a seminar at The Field Museum of Natural History Organized by Jonathan Haas*. Arkansas: Arkansas Archaeological Survey Research Series No.44.
- Clarke, G. 1979 *Pre-Roman and Roman Winchester Part II. The Roman Cemetery at Lankhills*, Winchester Studies 3.
- Crummy, N. 1983 Colchester Archaeological Report 2: *The Roman small finds from excavations in Colchester 1971-9*. Colchester.
- Cunliffe, B., Garratt, B. 1994 *Excavations at Portchester Castle. Vol. 5. Post-Medieval* Oxford.
- Deith, M.R. (1985) *Seasonality from shells: An evaluation of two techniques for seasonal dating of marine molluscs*. In: Palaeobiological Investigations. Research Design, Methods and Data Analysis. Fieller, N.R.J., Glibertson, D.D. and Ralph, N.G.A. (Eds). Symposia of the Association for Environmental Archaeology No. 5B. BAR International Series 266.
- Down, A. 1989 *Chichester Excavations VI*, Chichester
- Egan, G., Pritchard, F. 1991 *'Medieval Finds from Excavations in London: 3. Dress Accessories c.1150-1450*. Museum of London
- Fulford, M.G. 1975 *New Forest Roman pottery: manufacture and distribution, with a corpus of the pottery types*, BAR Brit Ser 17, Oxford
- Garrard, I.P. 1995 'Other Objects of Copper Alloy and Silver', in Elder, J. (Ed.) *Excavations in the Marlowe Car Park and Surrounding Areas*, The Archaeology of Canterbury Vol.5, 1005-1065
- Gorbushin, A.M. (1993) Structure of the lines of winter growth interruption and their formation in the shells of *Hydrobia ulvae* (Gastropoda: Prosobranchia) in the White Sea. *Zoolicheskii Zhurnal*. 72, No. 11, 29-34
- Gorbushin, A.M. (2003) Ageing and Growth measurements.
<http://www.angelfire.com/sc/gorbushinlmethod1.html>. (Accessed 17th May 2004).
- GSB Prospectipon, 2001 *Geophysical Survey report 2001/103*
- Guido, M. 1978 *The Glass Beads of the Prehistoric and Roman Periods in Britain and Ireland*, Rep Res Comm Soc Antiq London 35.
- Hattat, R. 1985 *Iron Age and Roman Brooches. A second selection of brooches from the author's collection*, Oxford.
- Hancock, D.A. and Franklin, A. (1972) Seasonal changes in the condition of the edible cockle *Cardium edule* (L.). *Journal of Applied Ecology*, 9, 567-579.
- Hayward, P., Nelson-Smith, T. and Shields, S. (1996) *Sea Shores of Britain and Europe*. Harper Collins, London
- Henderson, J.D., n.d., *The Human Skeletal Remains: Carlisle, Blackfriars Street* Ancient Monuments Lab. Rep. 4350
- Kemp, P. and Bertness, M.D. (1984) Snail shape and growth rates: evidence for plastic shell allometry in *Littorina littorea*. *Proceedings of the National Academy of Sciences*. 81, 811-813

- Hooley, D. 2001 'Copper alloy and silver objects' in Anderson, A.S., Wachter, J.S., Fitzpatrick, A.P., *The Romano-British Small Town at Wanborough, Wiltshire*, Britannia Monogr Ser 19, 75-116
- Hull, M.R., Hawkes, C.F.C. 1987 *Corpus of Ancient Brooches in Britain. Pre-Roman Bow Brooches*, BAR Brit Ser 168.
- Lyne, M.A.B. 1999 'Fourth Century Roman Belt Fittings from Richborough', in *Journal of Roman Military Equipment Studies* 10, 103-114
- Lyne, M.A.B. Forthcoming A 'The Pottery', in Trott, K. Forthcoming, *Excavations on the Seaclean pipeline site at Yaverland* (Provisional title).
- Lyne, M.A.B. Forthcoming B 'The Pottery from Newnham Farm, Binstead'
- MacKreth, D.F. 1995 'The Pre-Roman and Roman brooches', in Elder, J. (Ed.) *Excavations in the Marlowe Car Park and Surrounding Areas*, The Archaeology of Canterbury Vol.5, 955-981
- Manning, W.H. 1972 'The Iron Objects', in Frere, S., *Verulamium Excavations Vol. 1*, Rep Res Comm Soc Antiq London No.28, 163-195
- Manning, W.H. 1985 *Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum*.
- Mannino, M.A. and Thomas, K.D. (2001) Intensive Mesolithic exploitation of coastal resources? Evidence from a shell deposit on the Isle of Portland (Southern England) for the impact of human foraging on rocky shore molluscs. *Journal of Archaeological Science*. 28, 1101-1114.
- Oldenstein, J. 1976 *Zur Ausrüstung römischer Auxiliareinheiten*, Bericht der Römisch-Germanische Kommission, 57, Mainz
- Orton, C.J. 1975 'Quantative Pottery Studies, Some Progress, Problems and Prospects', *Science and Archaeology* 16, 30-5.
- Schour, I. And Massler, M., 1941, 'The development of human dentition', *J. Amer. Dental Assoc.* 28, 1153-60
- Quigley, M.P. and Frid, C.L.J. (1998) *Draft management report: The ecological impacts of the collection of animals from rocky intertidal reefs*. (pp. 42). A report to English Nature from the Dove Marine Laboratory, Cullercoats, North Shields, Tyne and Wear, NE30 4PZ. Supported by the European 'LIFE' Programme.
- Reece, R. 1975 'The Coins', in Cunliffe, B. *Excavations at Portchester Castle. Volume 1: Roman*, Rep Res Comm Soc Antiq London 32, 188-197
- Scaife, R. (2004) Personal communication. Suggested north coast morphology of Yaverland Roman Villa island. Associated brackish water molluscan remains present in Brading Marshes.
- Thompson, I. 1982 *Grog-tempered 'Belgic' Pottery of South-eastern England*, BAR Brit Ser 108
- Trussel, G.C. (1997) Phenotypic plasticity in the foot size of an intertidal snail. *Ecology*. 78. No.4, 1033-1048
- Trussel, G.C., Johnson, A.S., Rudolph, S.G. and Glifillan, E.S. (1993) Resistance to dislodgement: habitat and size-specific differences in morphology and tenacity in an intertidal snail. *Marine Ecology Progress Series*. 100, 135-144.
- Tomalin, D.J. 1987 *Roman Wight. A Guide Catalogue to "The Island of Vectis, very near to Britannia"*, Newport
- Trott, K. 2002 *Archaeological Investigations at Yaverland and Ninham's Withybed and along the route of the Ventnor to Sandown and Bembridge to Sandown Waste Water Pipelines*, Southern Water (RPS Consultants)

- Trotter, M., 1970, 'Estimation of stature from intact long limb bones' in Stewart, T.D., (ed.), *Personal Identification in Mass Disasters*, 71-3
- Van Arsdell, R.D. 1989 *Celtic Coinage of Britain*. Spink
- Van Es, W.A. 1967 'Late Roman pins from Xanten/Dodewaard and Asselt', *Berichten van de Rijksdienst voor het Oudheidkundig Bodemonderzoek* 17, 121-128
- Wickham-Jones, C. (2003). The tale of the limpet (the shell fish with a 10,000 year history.) *British Archaeology*. 71,23.
- Wardhaugh, A.A. 1989 *Land snails of the British Isles* Aylesbury
- White, K.D. 1967 *Agricultural Implements of the Roman World*, Cambridge
- Wilson, C.M., Crothers, J.H. and Oldham, J.H. (1983) Realised niche: the effects of a small stream on seashore distribution patterns. *Journal of Biological Education*. 17 No. 1, 51-58.
- Winder, J.M. (1991) *Marine Molluscs*. In: Redeemed from the Heath. The Archaeology of the Wytch Farm Oil Field (1987-1990). (Cox, P.W. and Hearne, C.M. eds). Dorset Natural History and Archaeological Society. 9, 212-216.
- Yonge C.M. (1949) *The sea Shore*. Collins, London

Illustrations



Fig.1 Site location plan

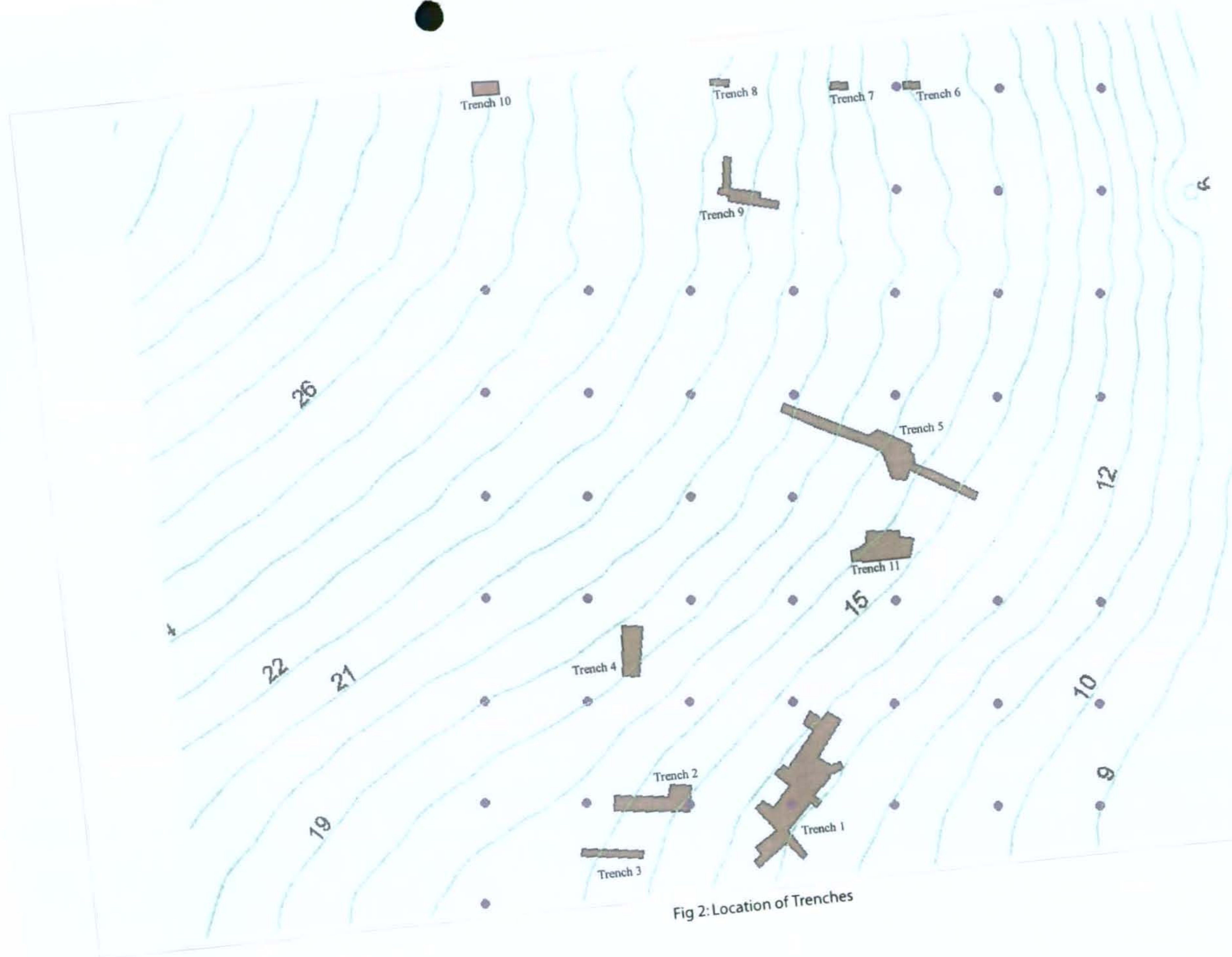


Fig 2: Location of Trenches

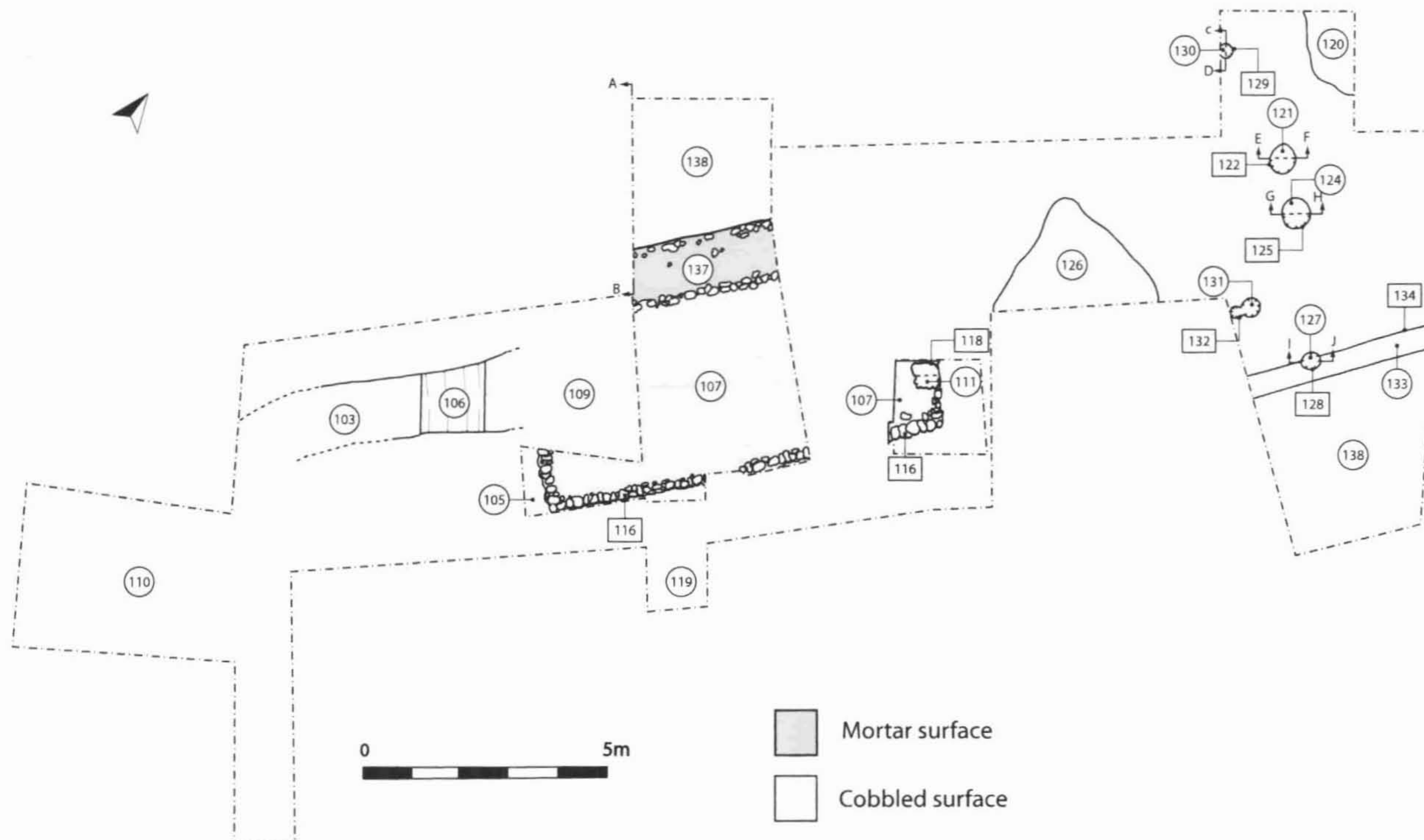


Fig 3: Trench 1 Plan

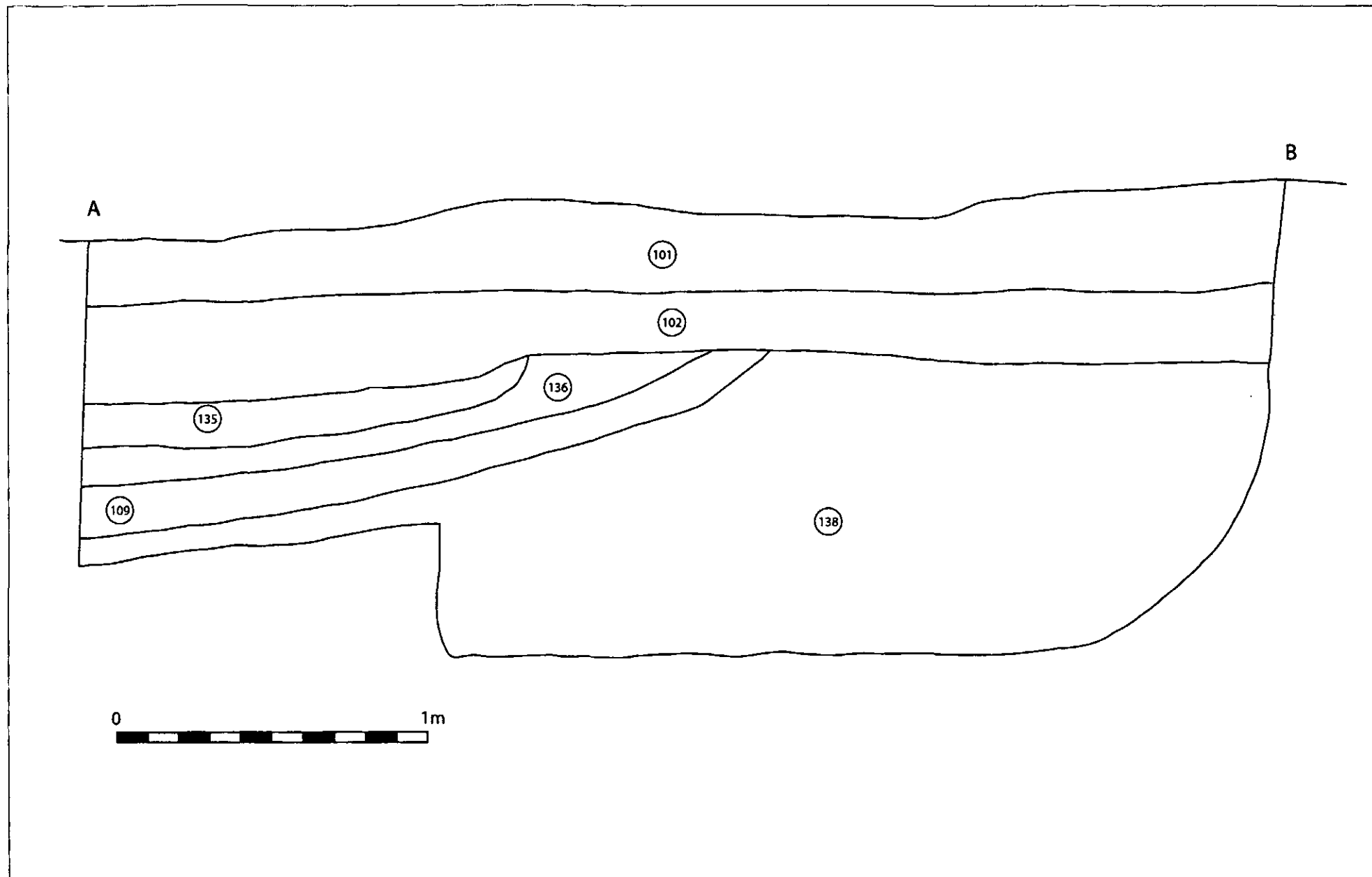


Fig 4: Trenches 1 Section AB

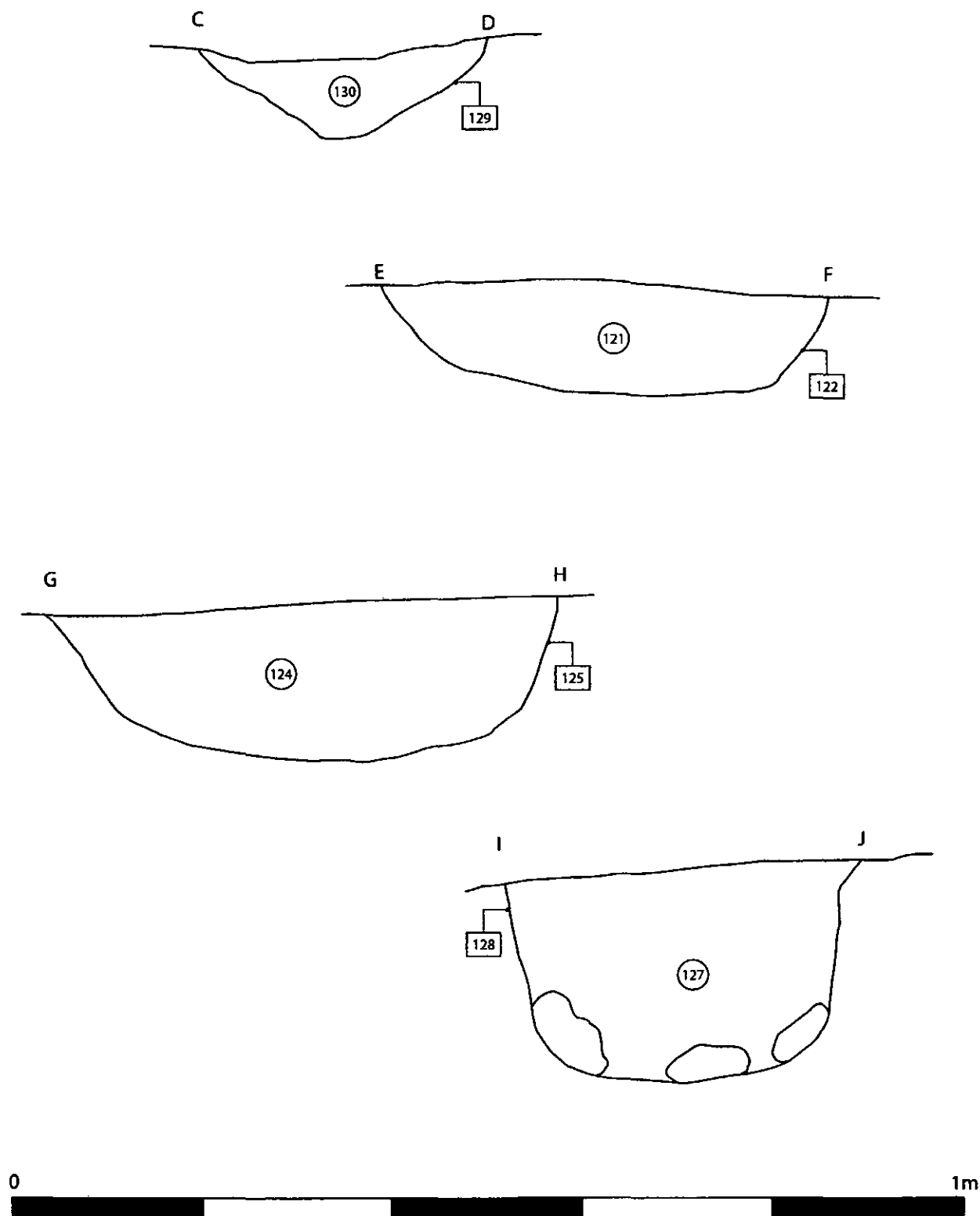


Fig 5: Trench 1 Sections CD, EF, GH & IJ

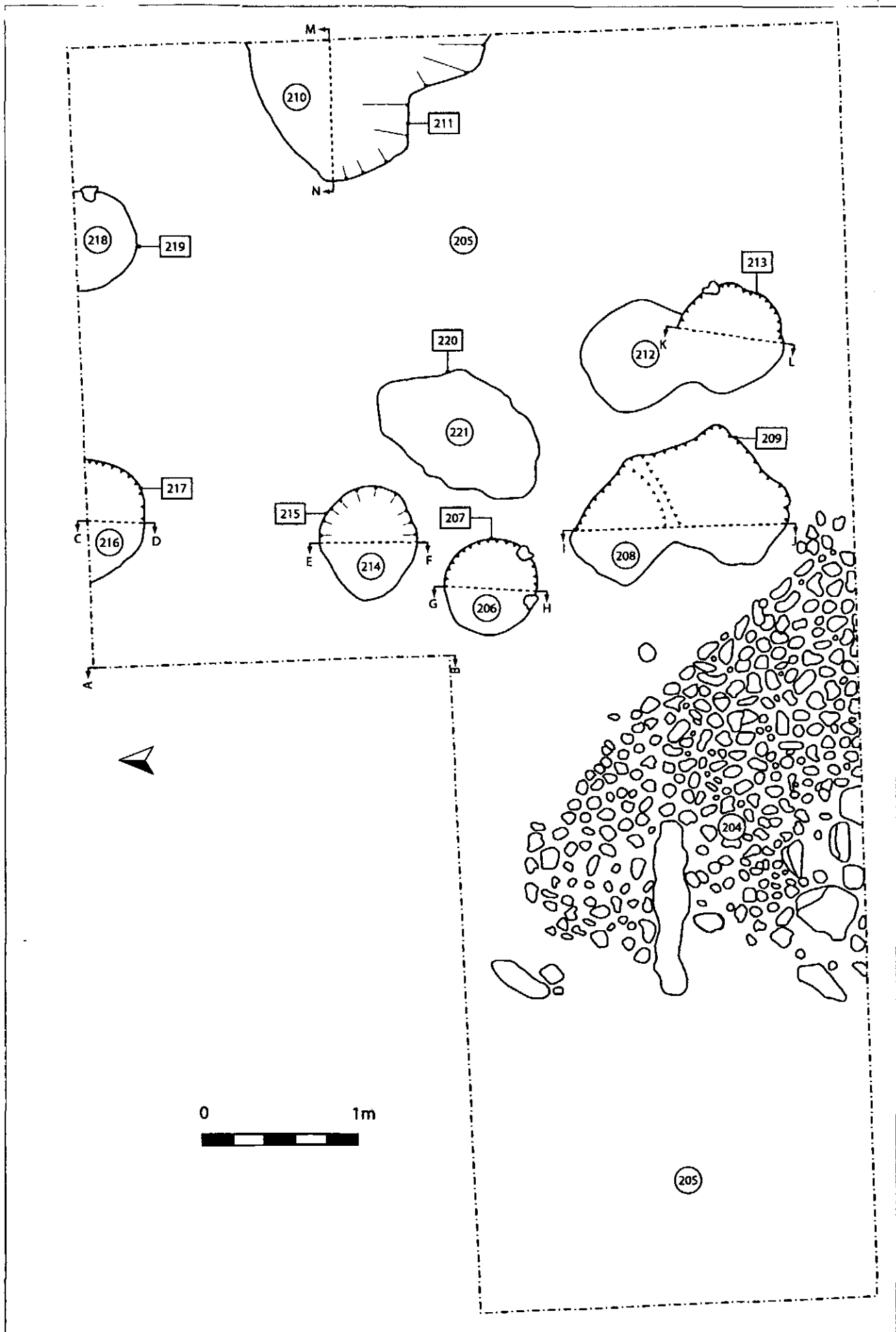


Fig 6: Trench 2 Plan

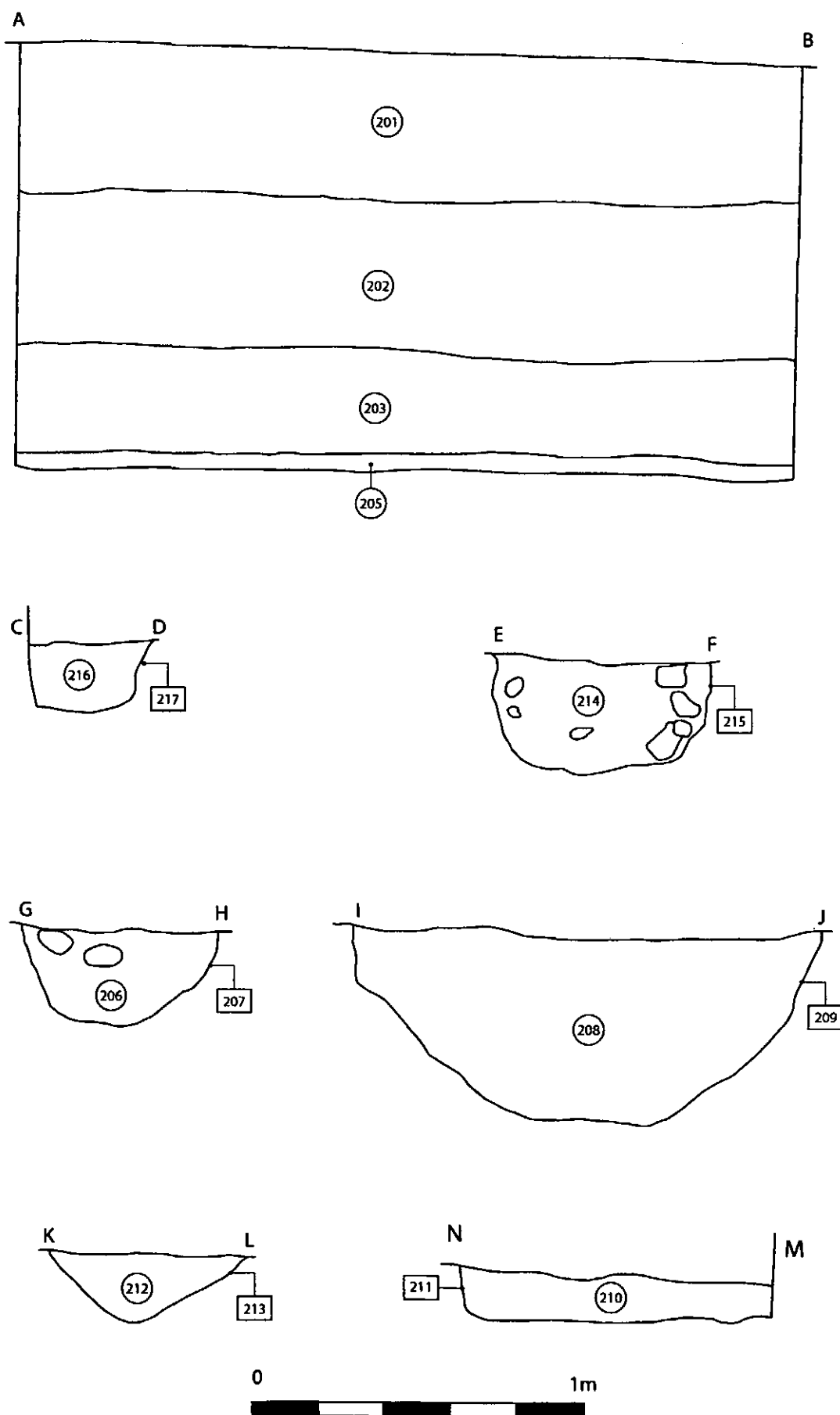


Fig 7: Trench 2 Sections

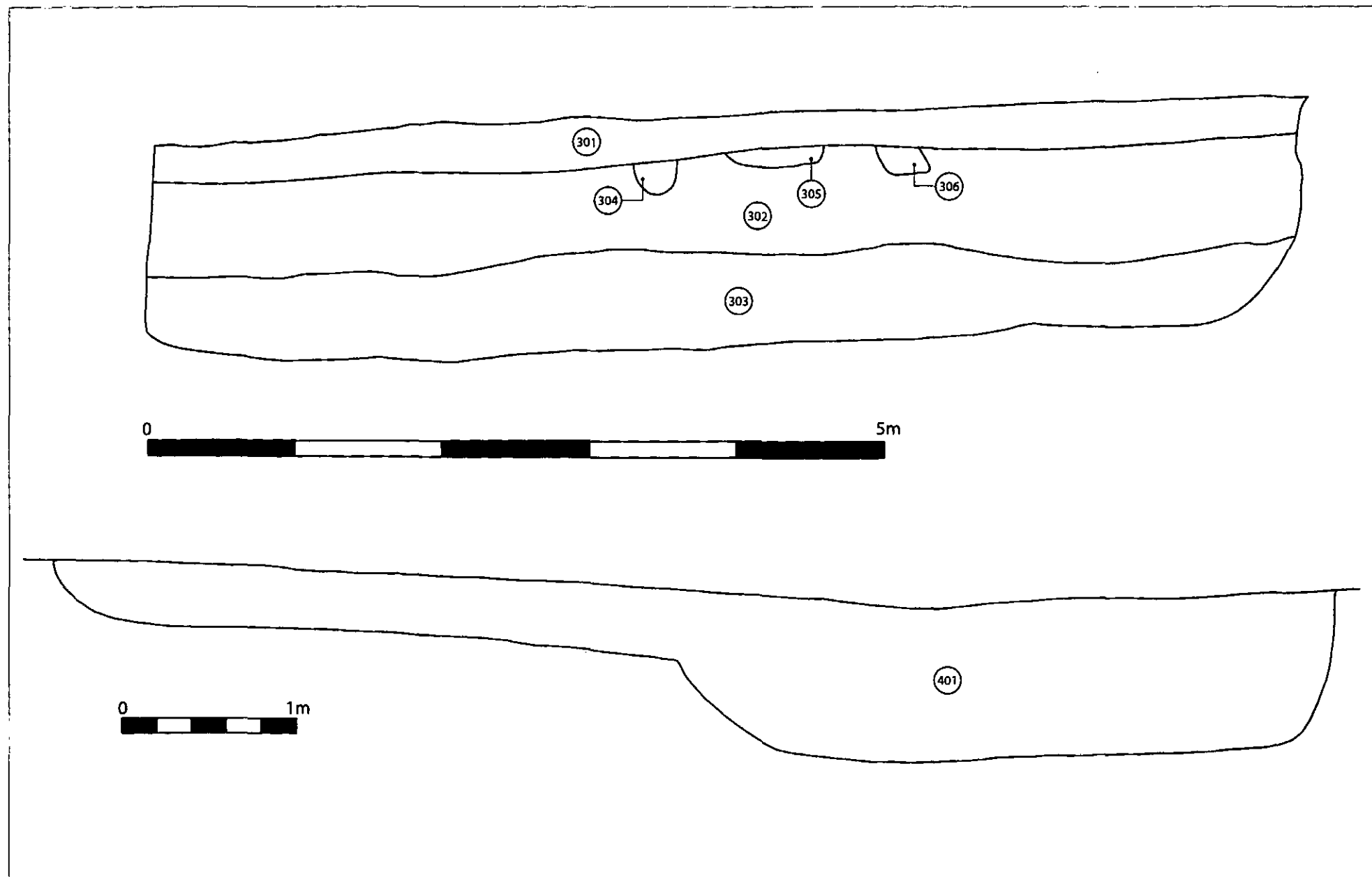


Fig 8: Trenches 3 & 4 Sections

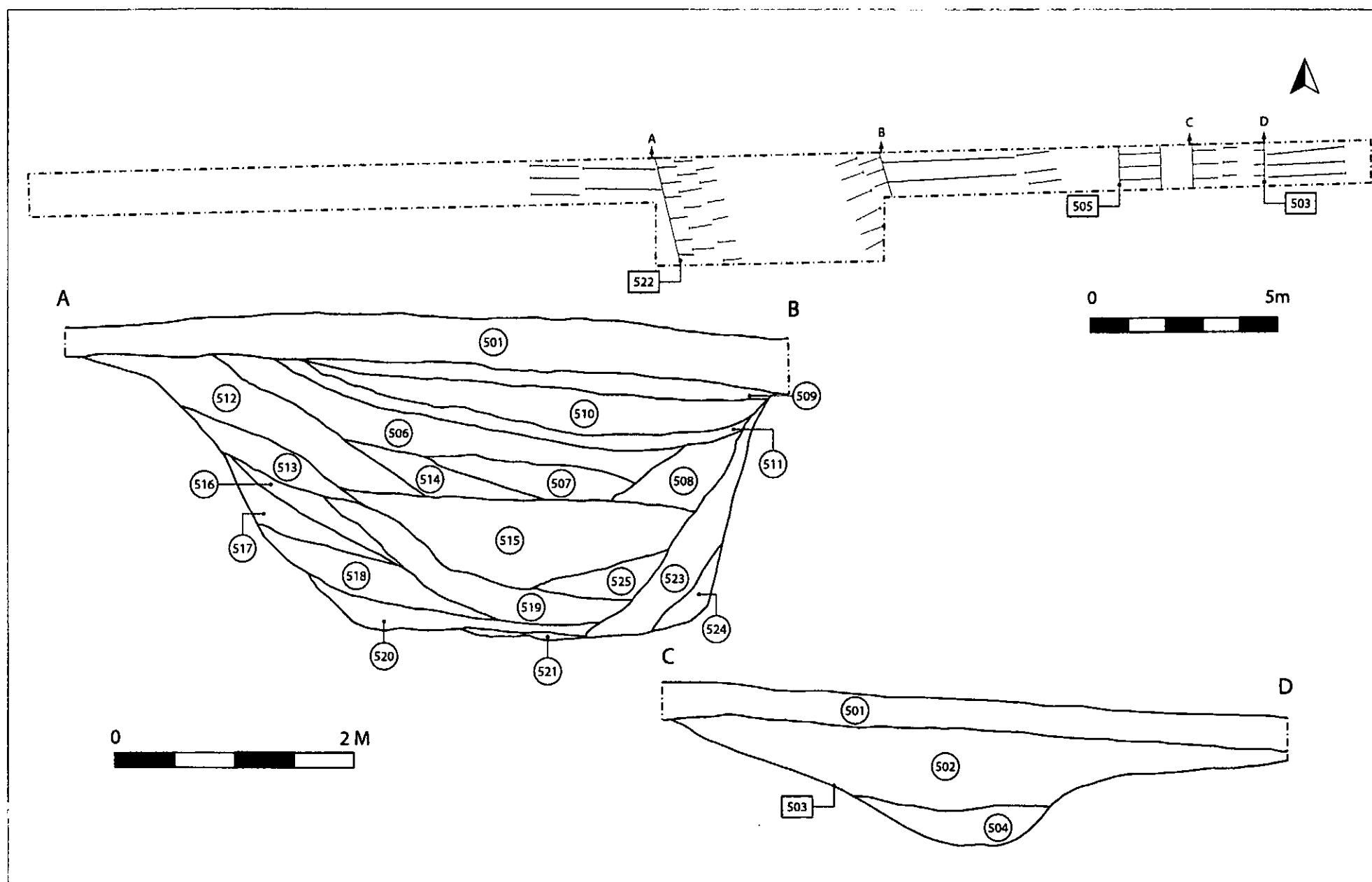


Fig 9: Trench 4 plan and sections

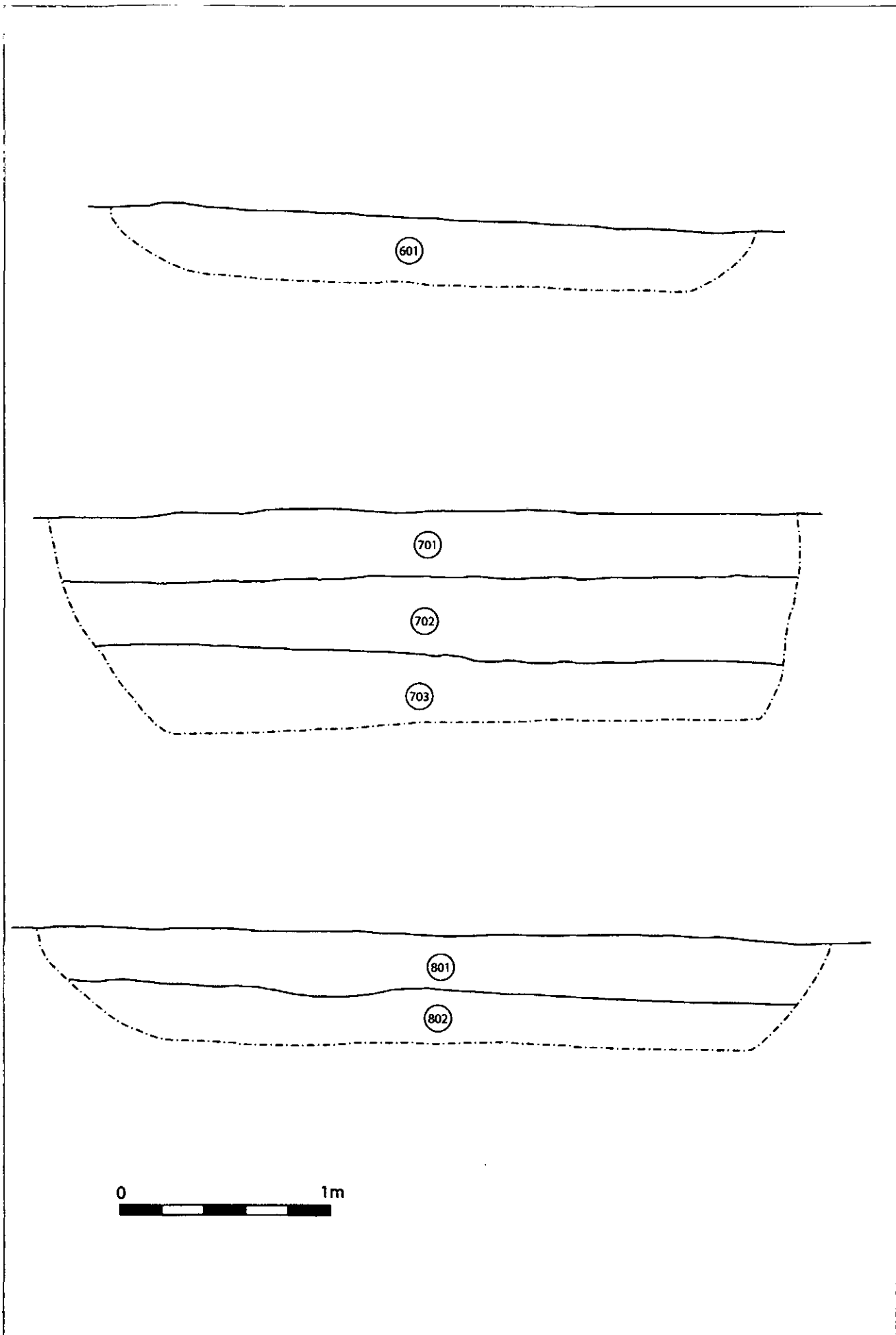


Fig 10: Trench 6, 7 & 8 Sections

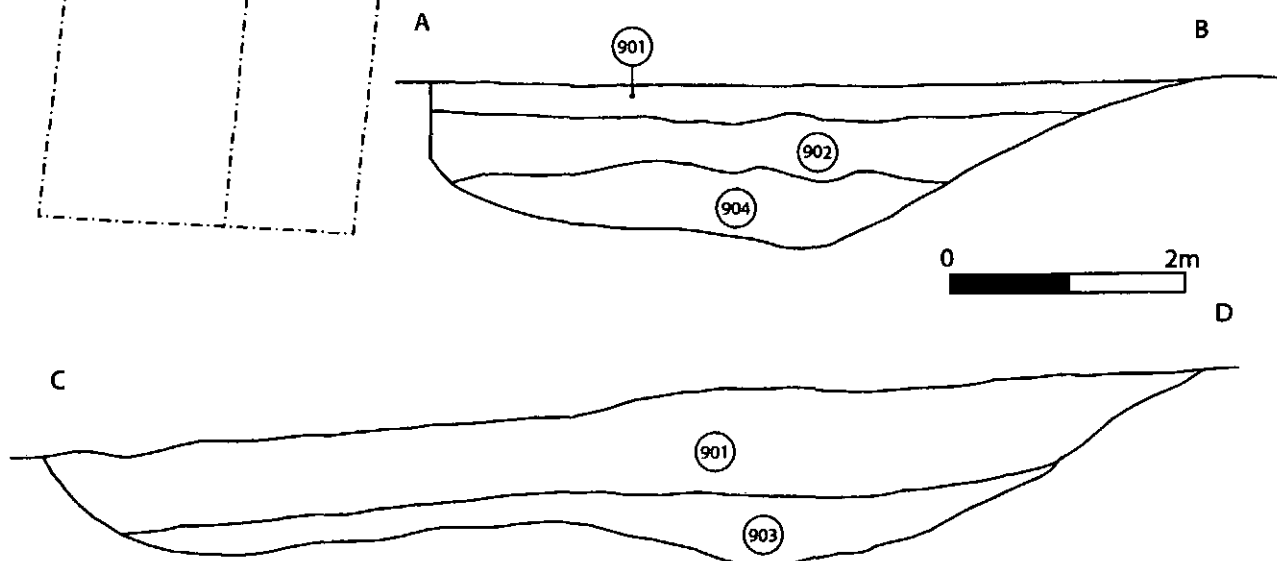
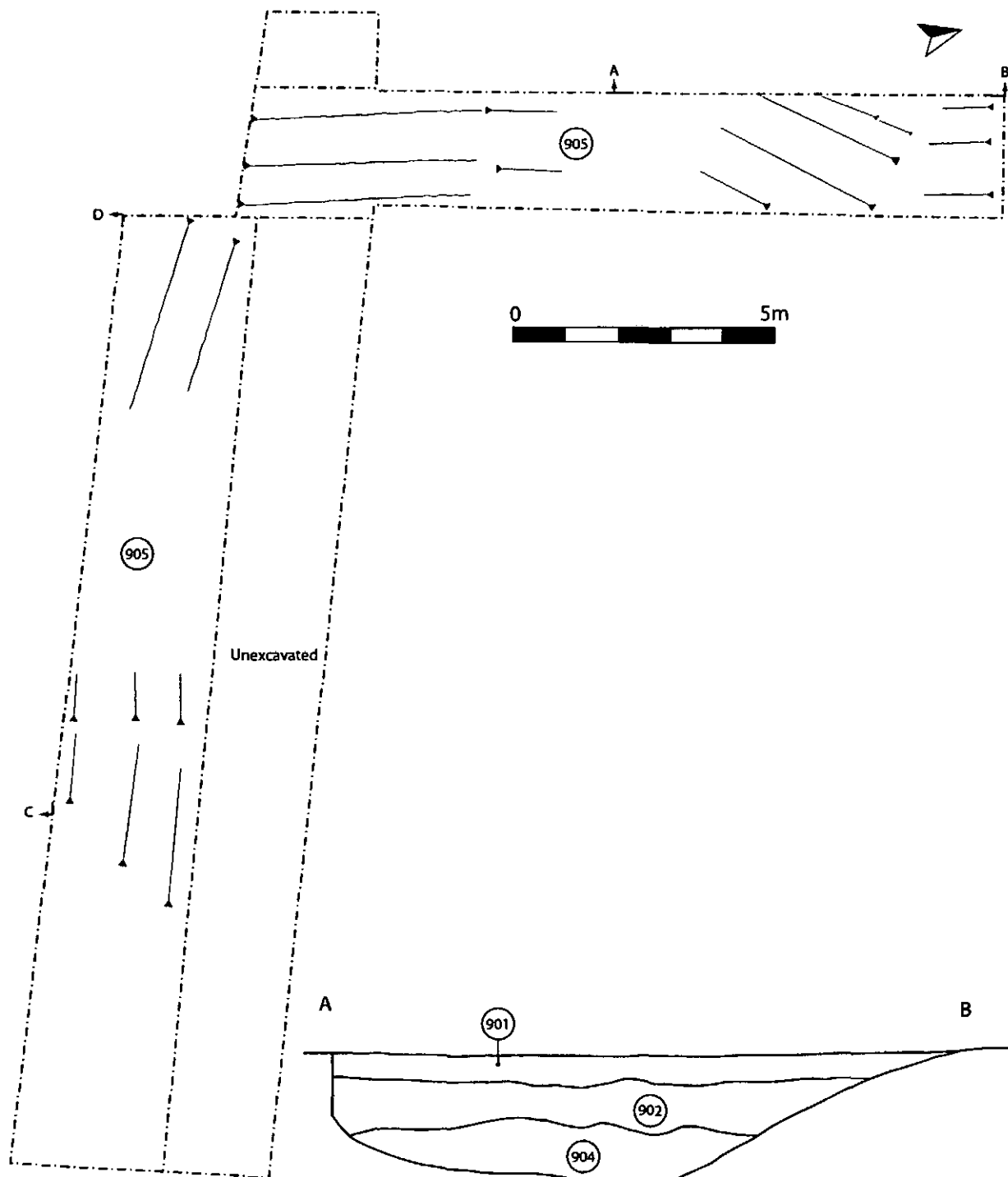


Fig 11: Trench 9 Plan and Sections

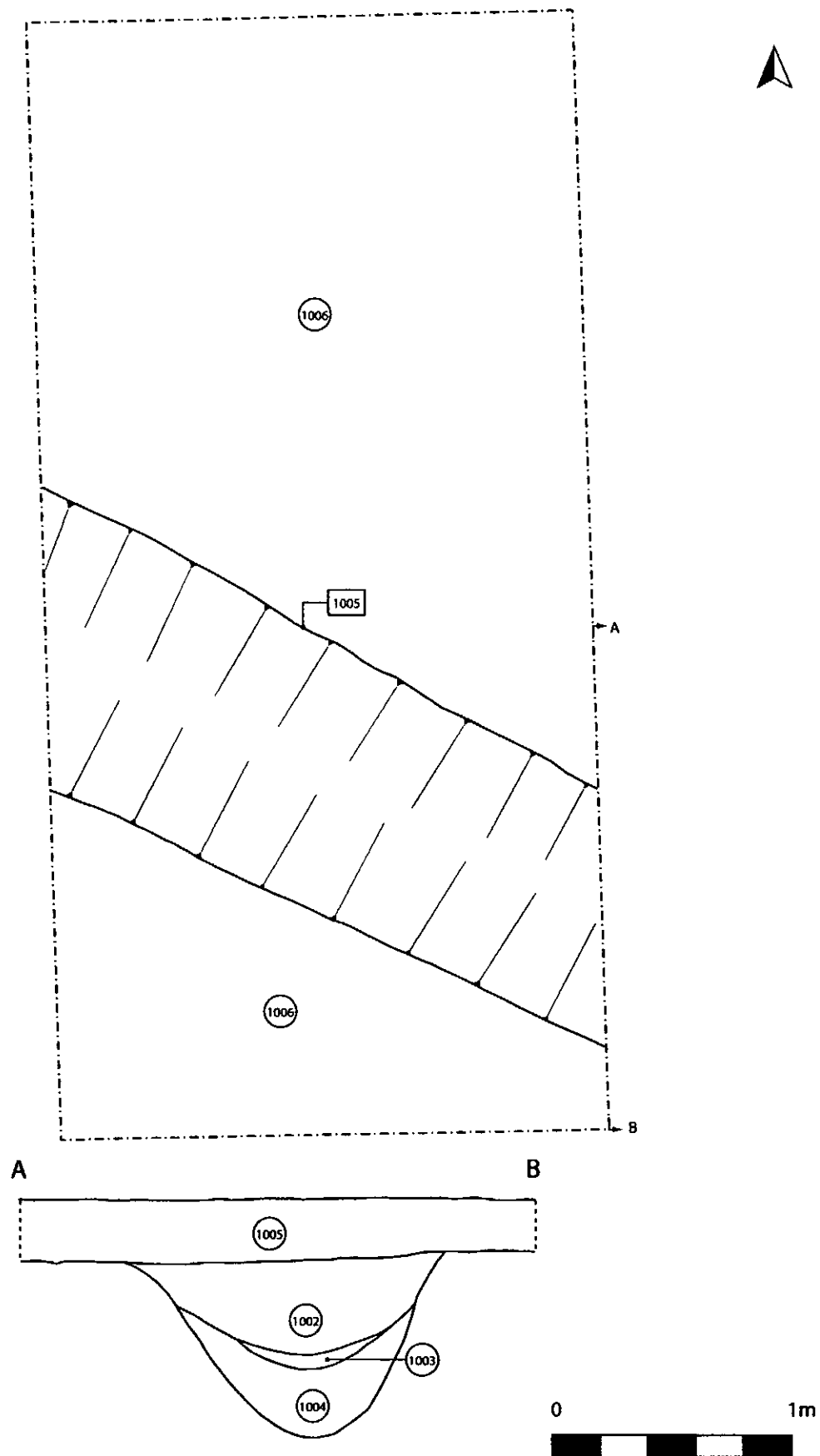


Fig 12: Trench10 Plan and Section

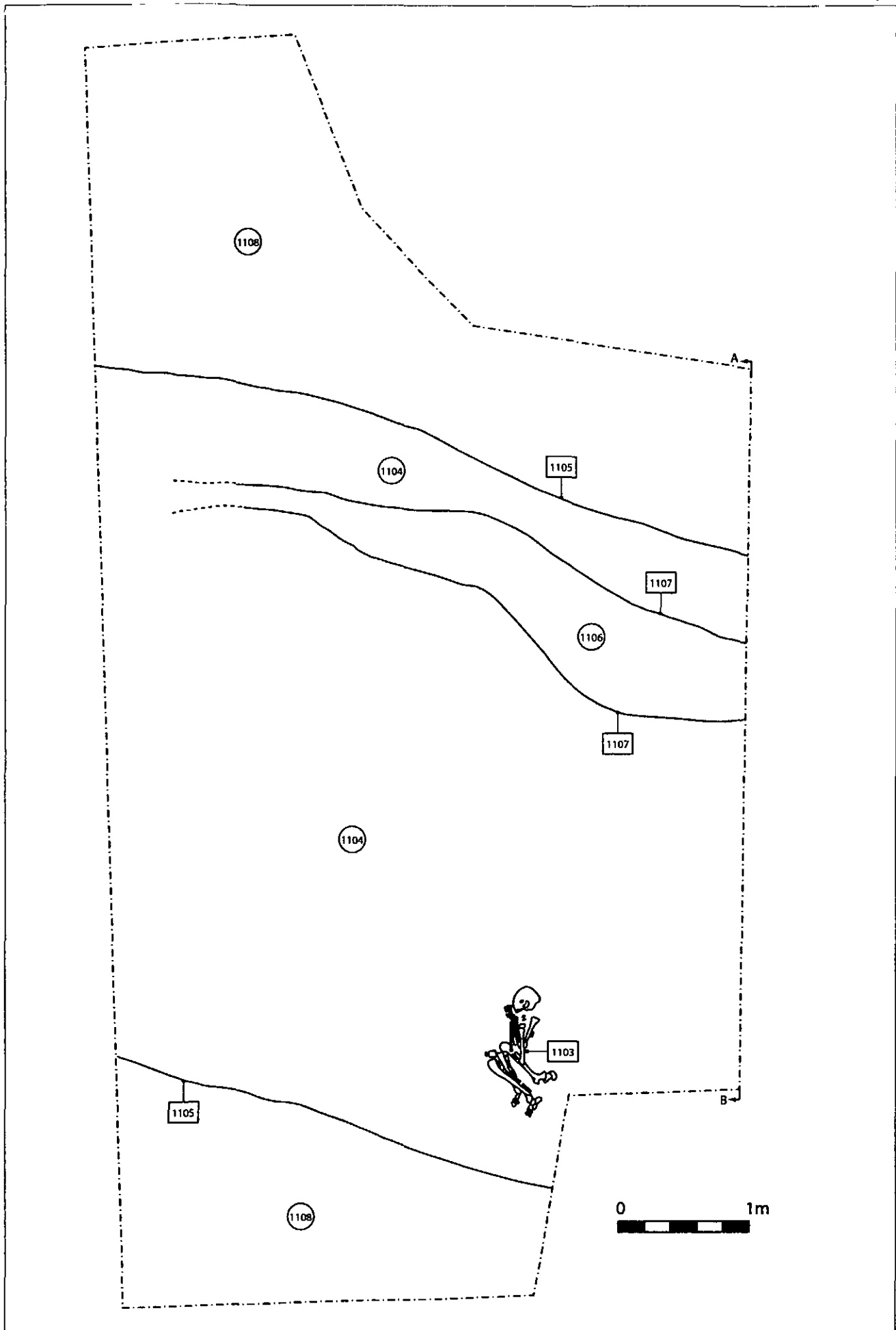


Fig 13: Trench 11 plan

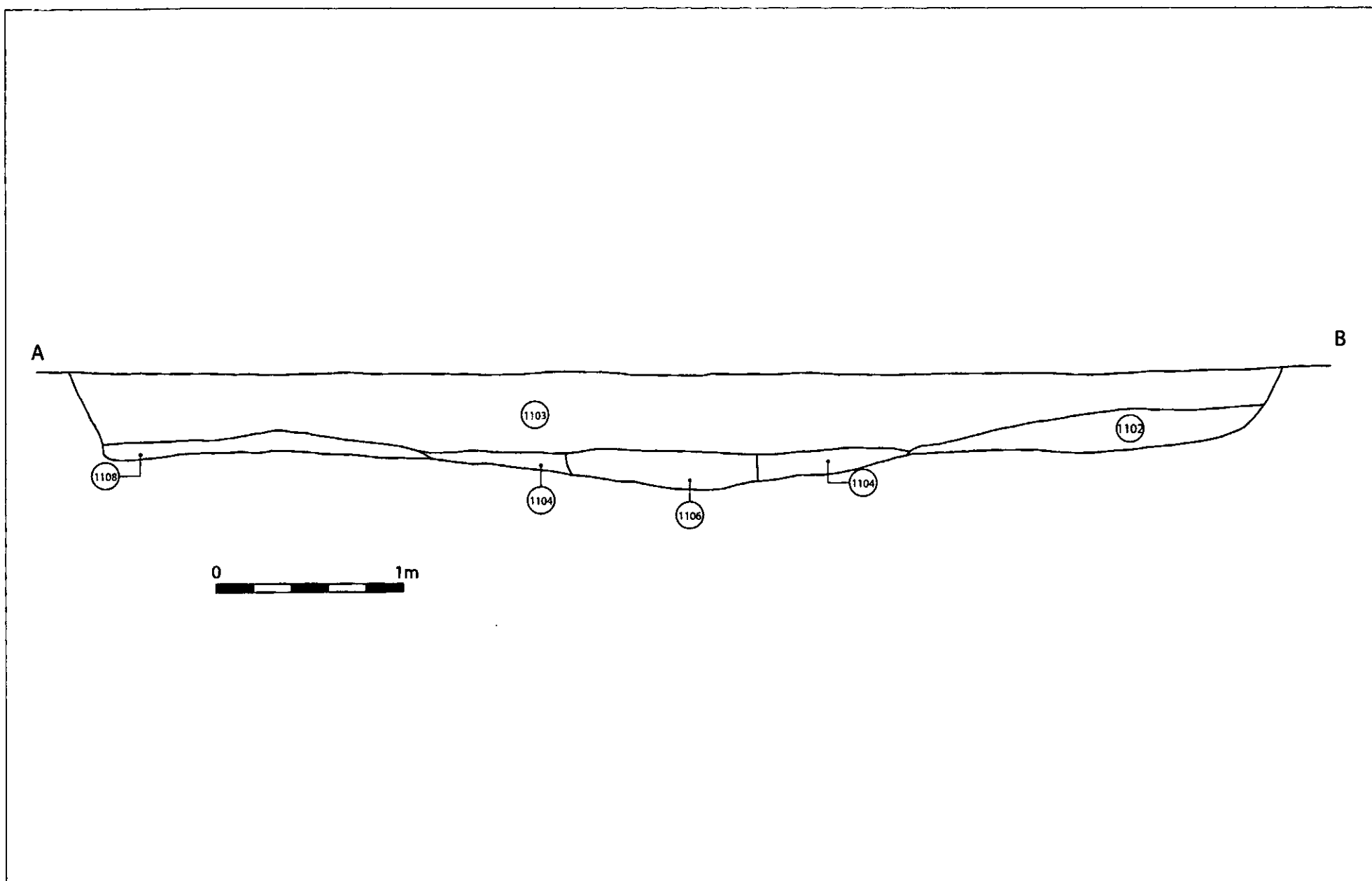


Fig 14: Trench11 section

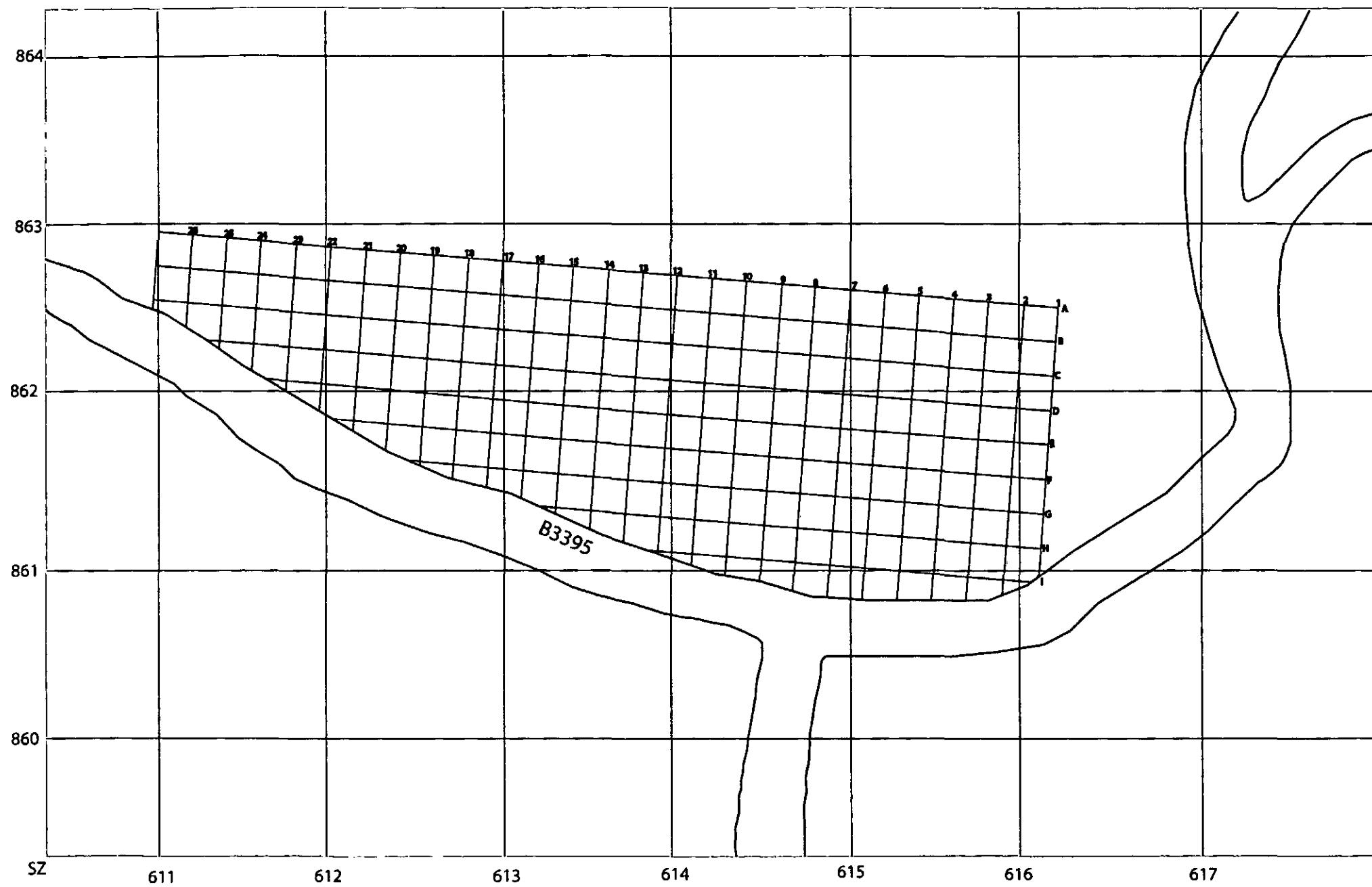


Fig 15: Location of field-walking grid

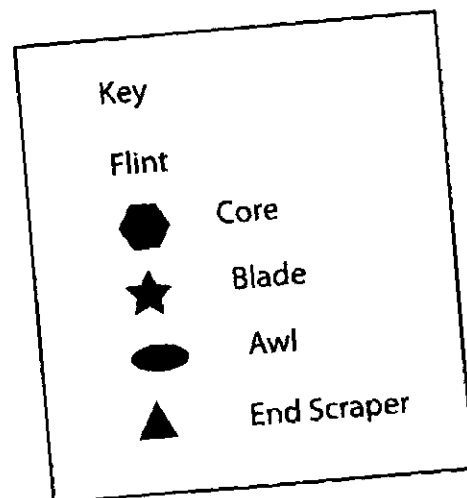
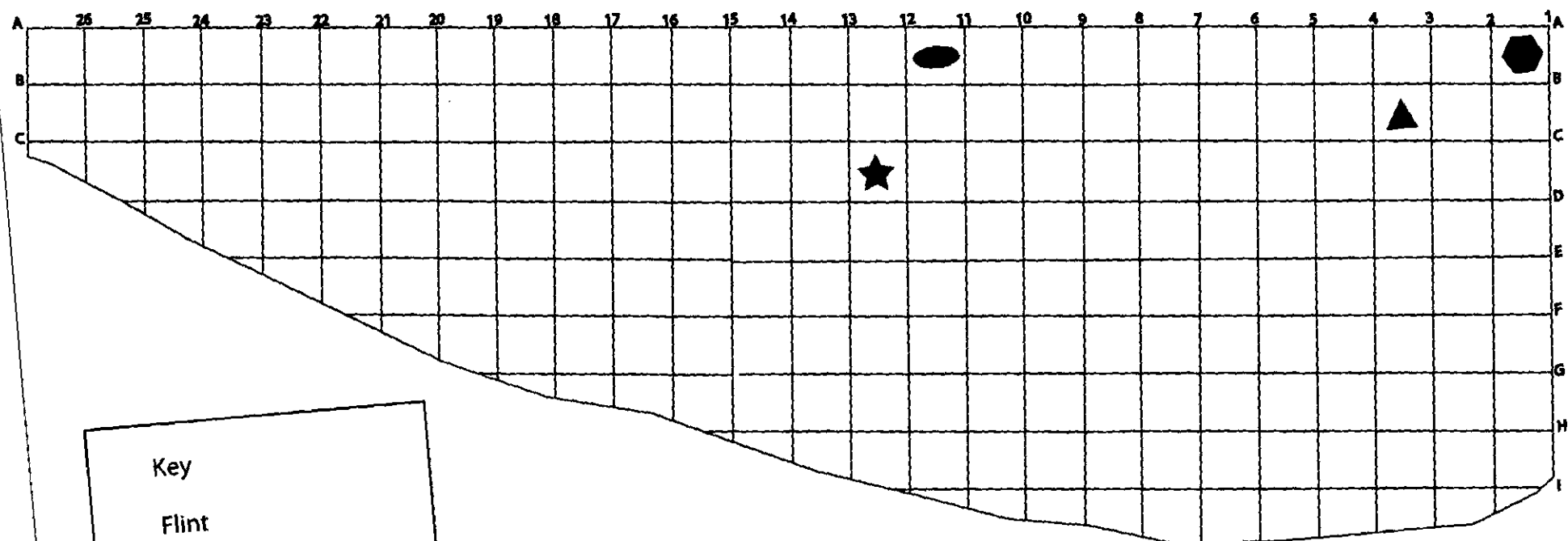
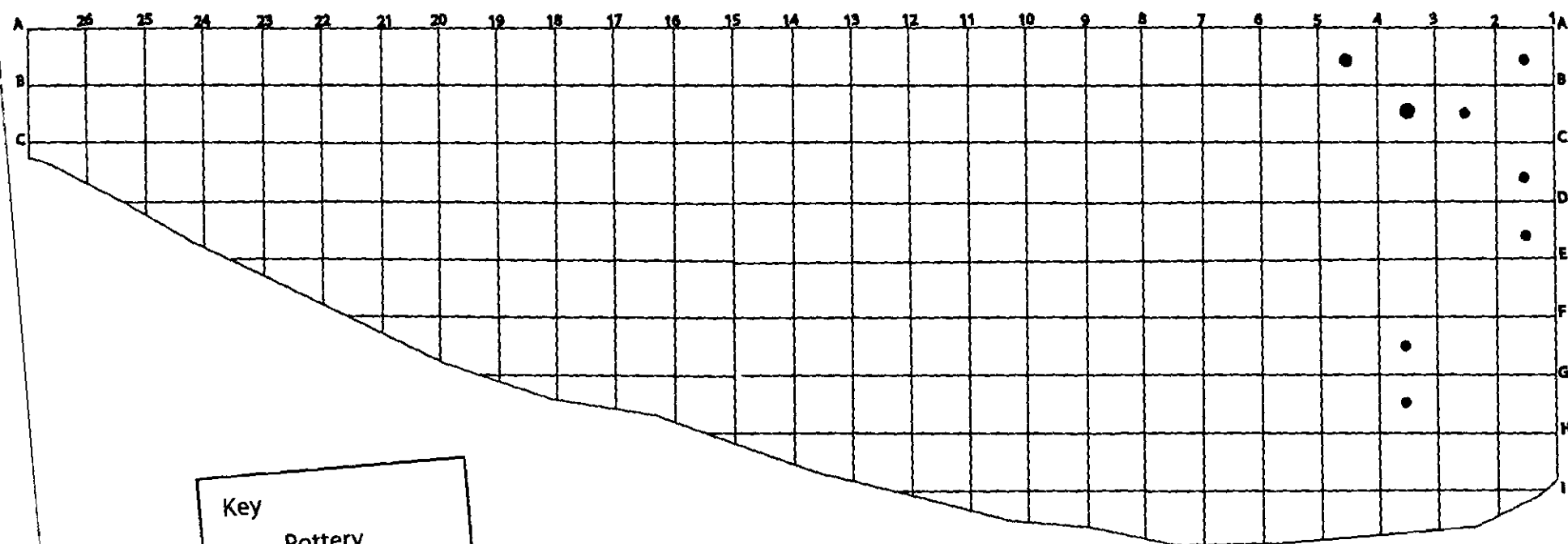


Fig 16: Distribution of Prehistoric material



Key

Pottery

- 1-5
- 6-10
- 11-15
- 16-20

Fig 17: Distribution of Late Iron Age material

Yaverland is to the right

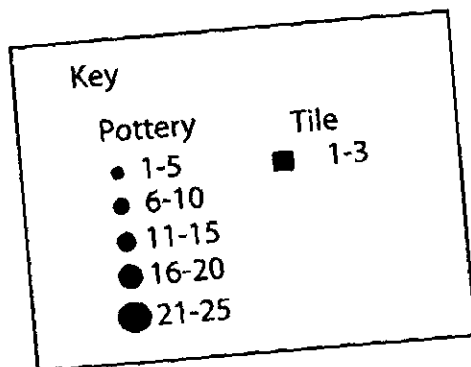
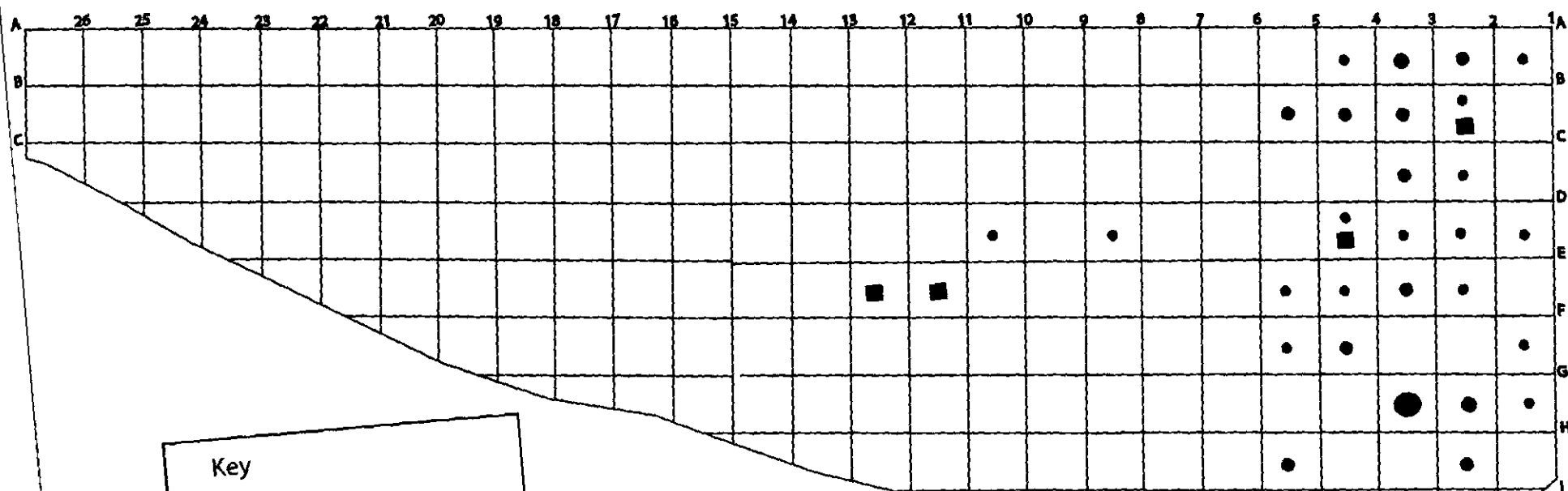
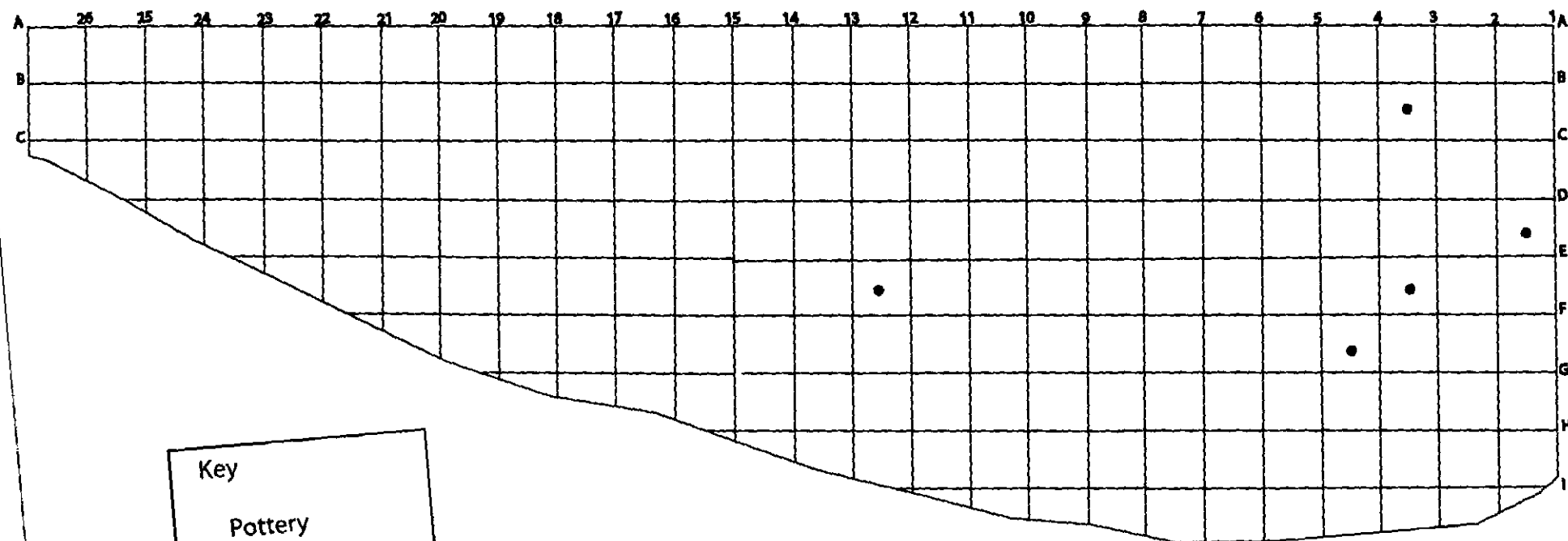


Fig 18: Distribution of Roman material

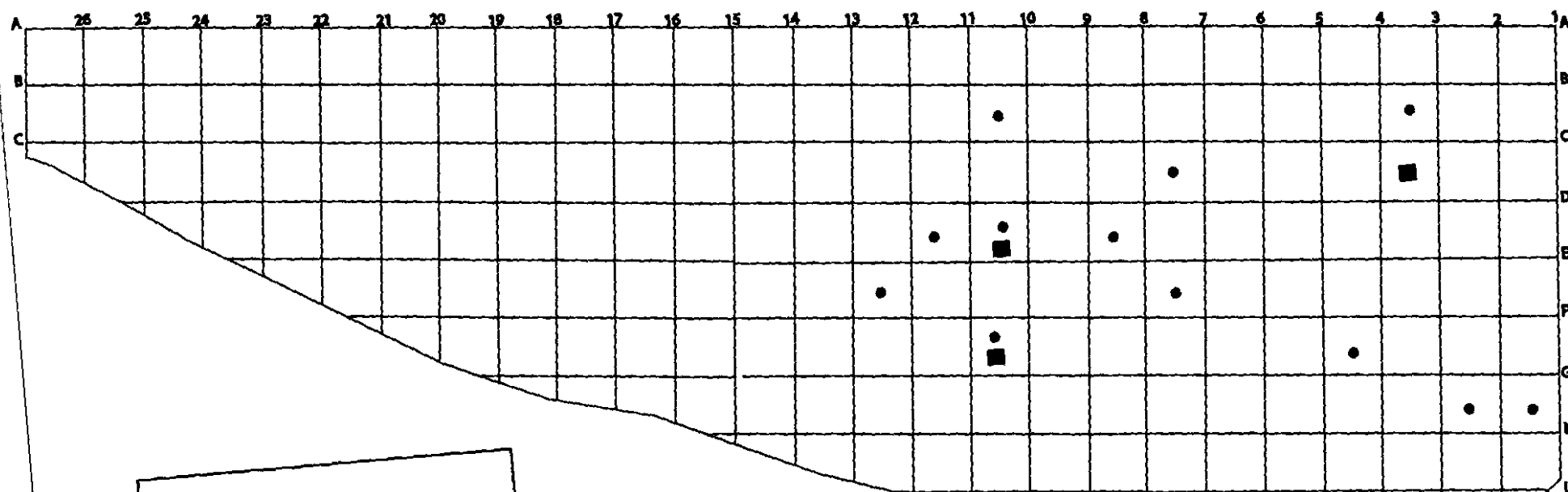


Key

Pottery

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25

Fig 19: Distribution of Saxo-Norman material



Key

Pottery

- 1-5
- 6-10
- 11-15
- 16-20
- 21-25

Tile

- 1-3

Fig 20: Distribution of Medieval material

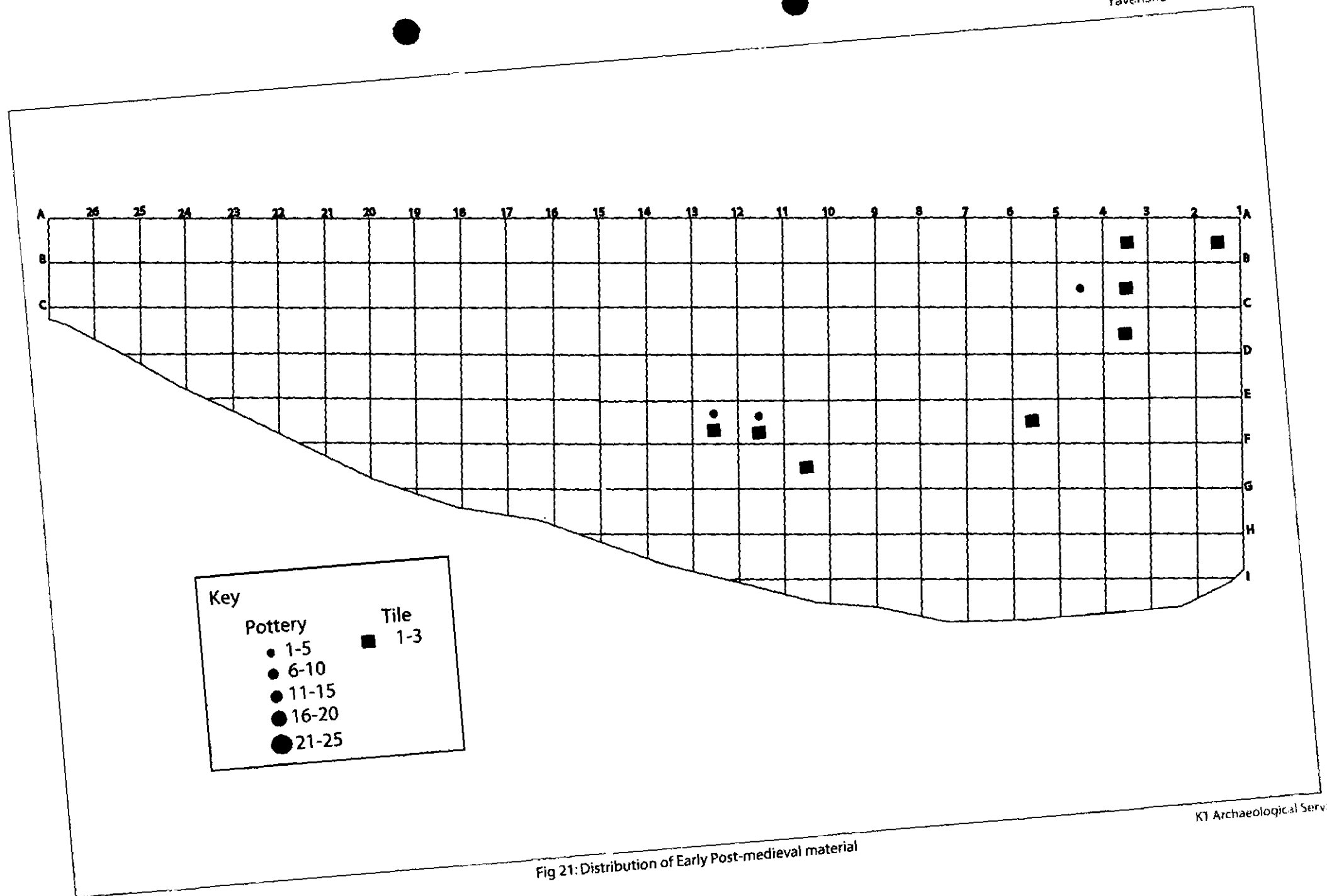


Fig 21: Distribution of Early Post-medieval material

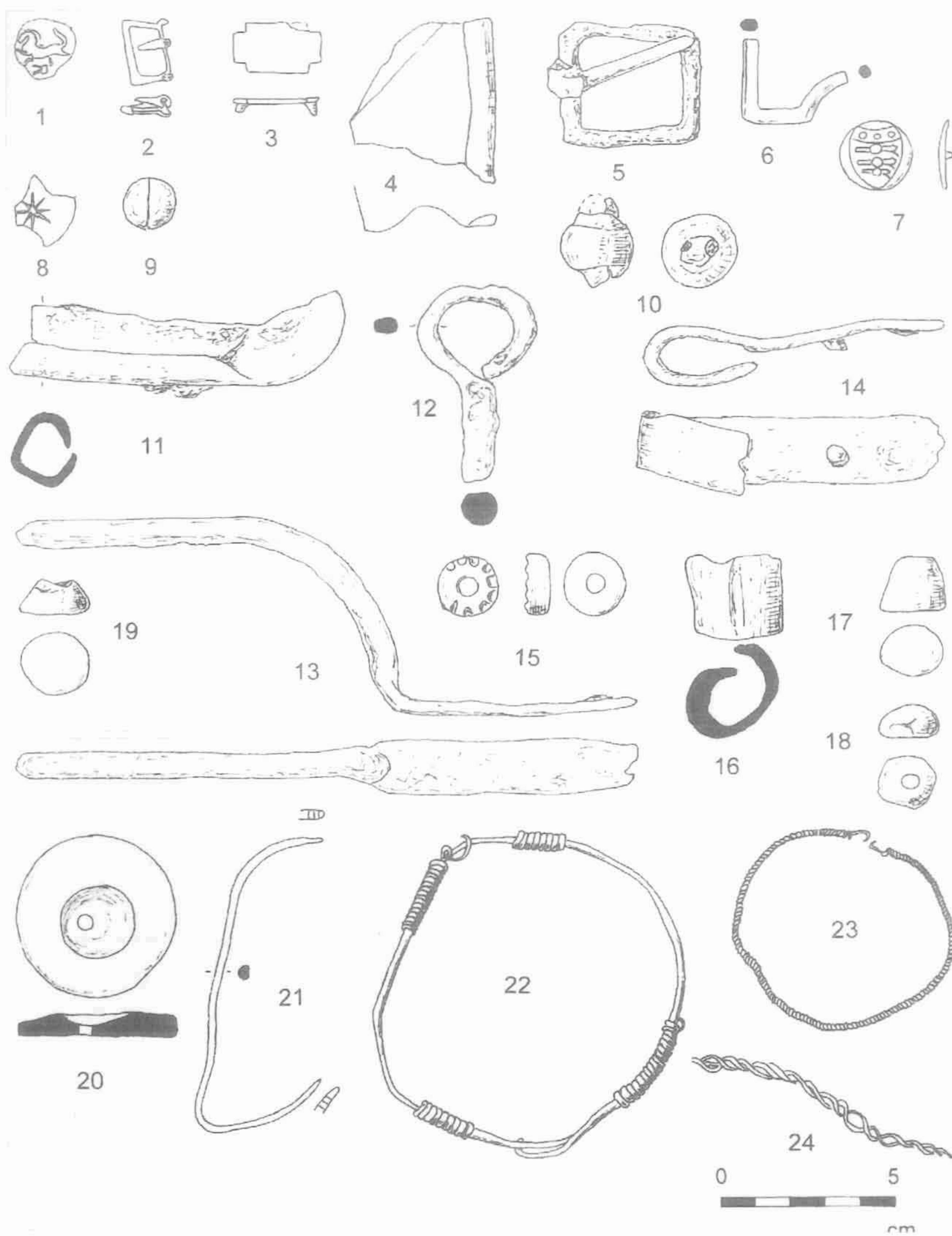


Fig 22: Metal artefacts

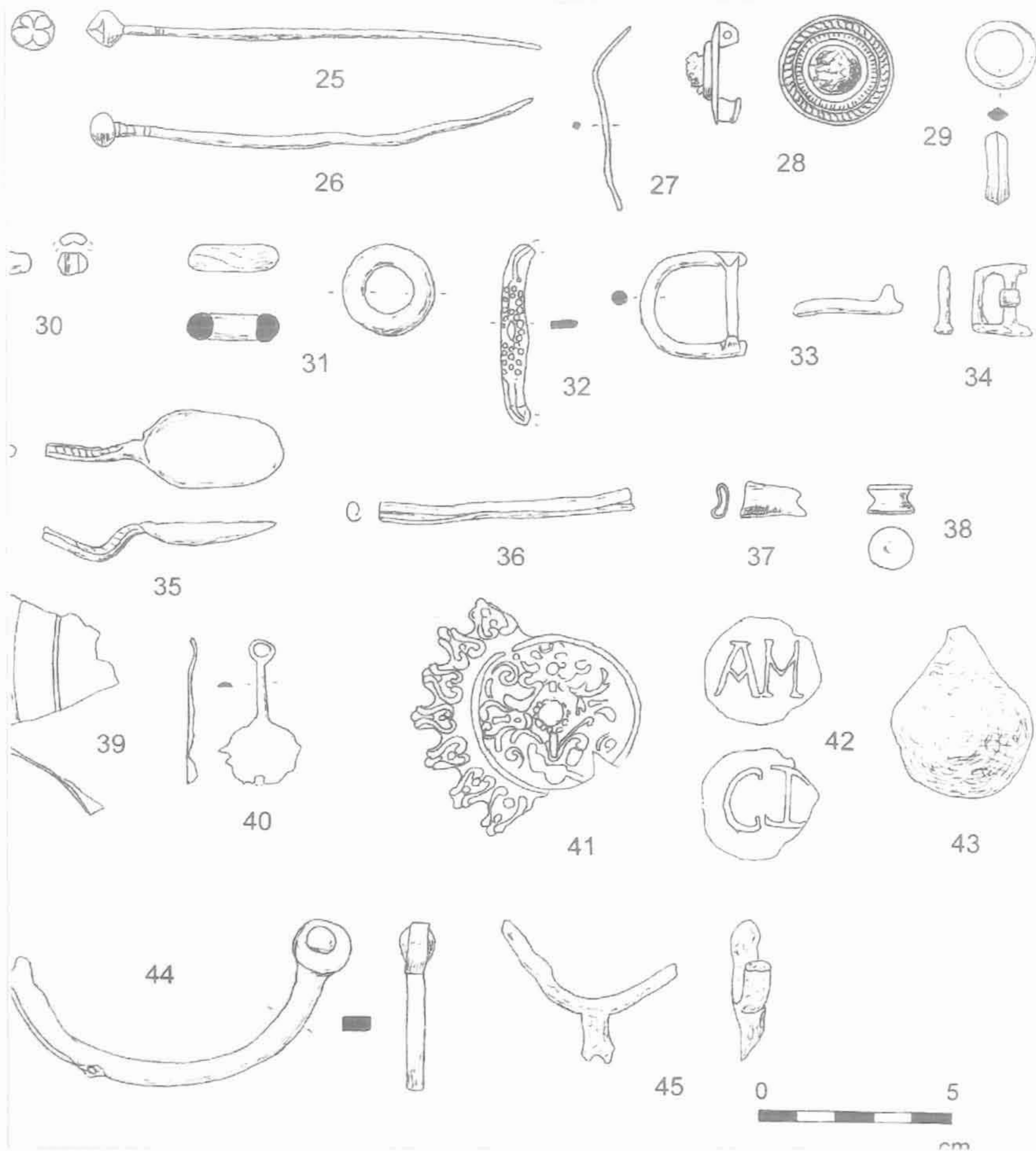


Fig 23: Metal artefacts

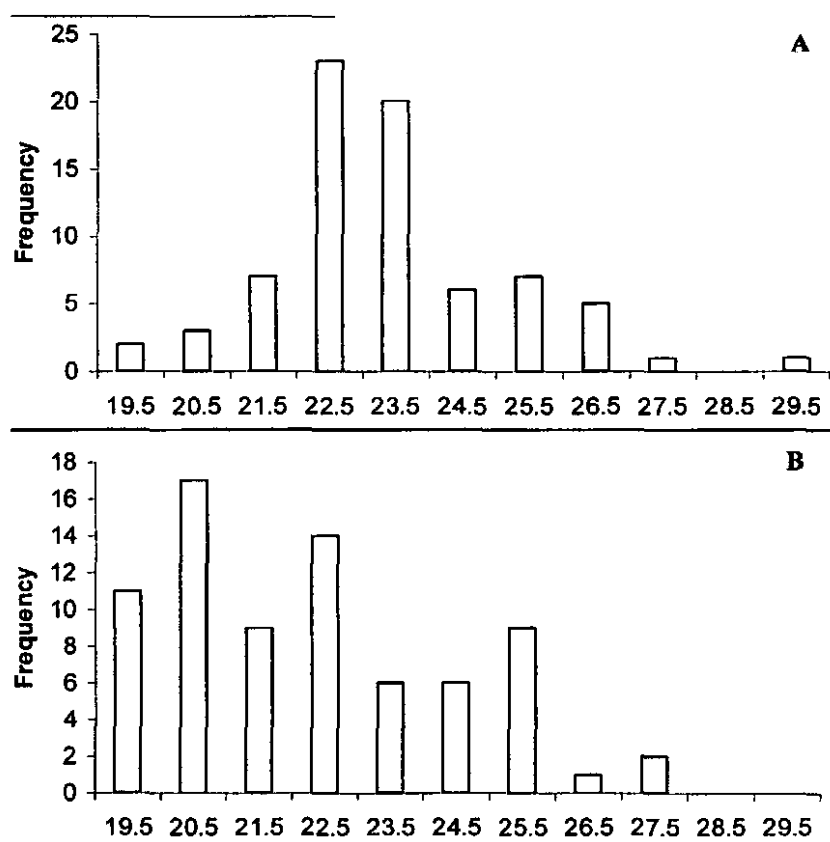


Fig. 24. Histogram of sample *L. littorea* Shell height Bag 1 A and Bag 2 B

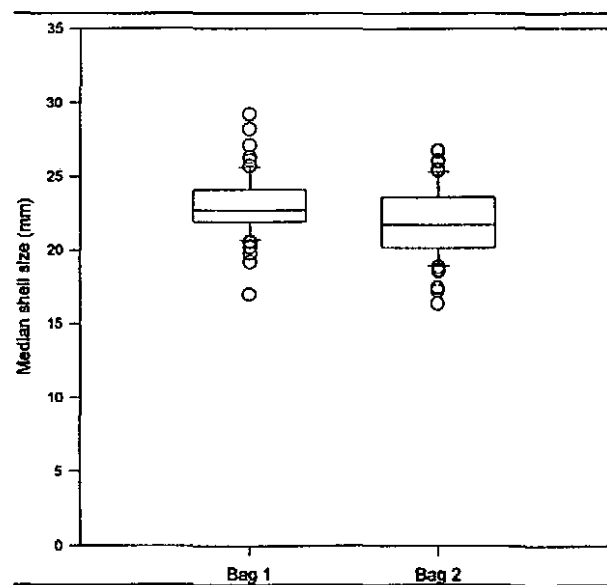


Fig 25. Median shell length for *L. littorea* Bag 1 and 2 context 103

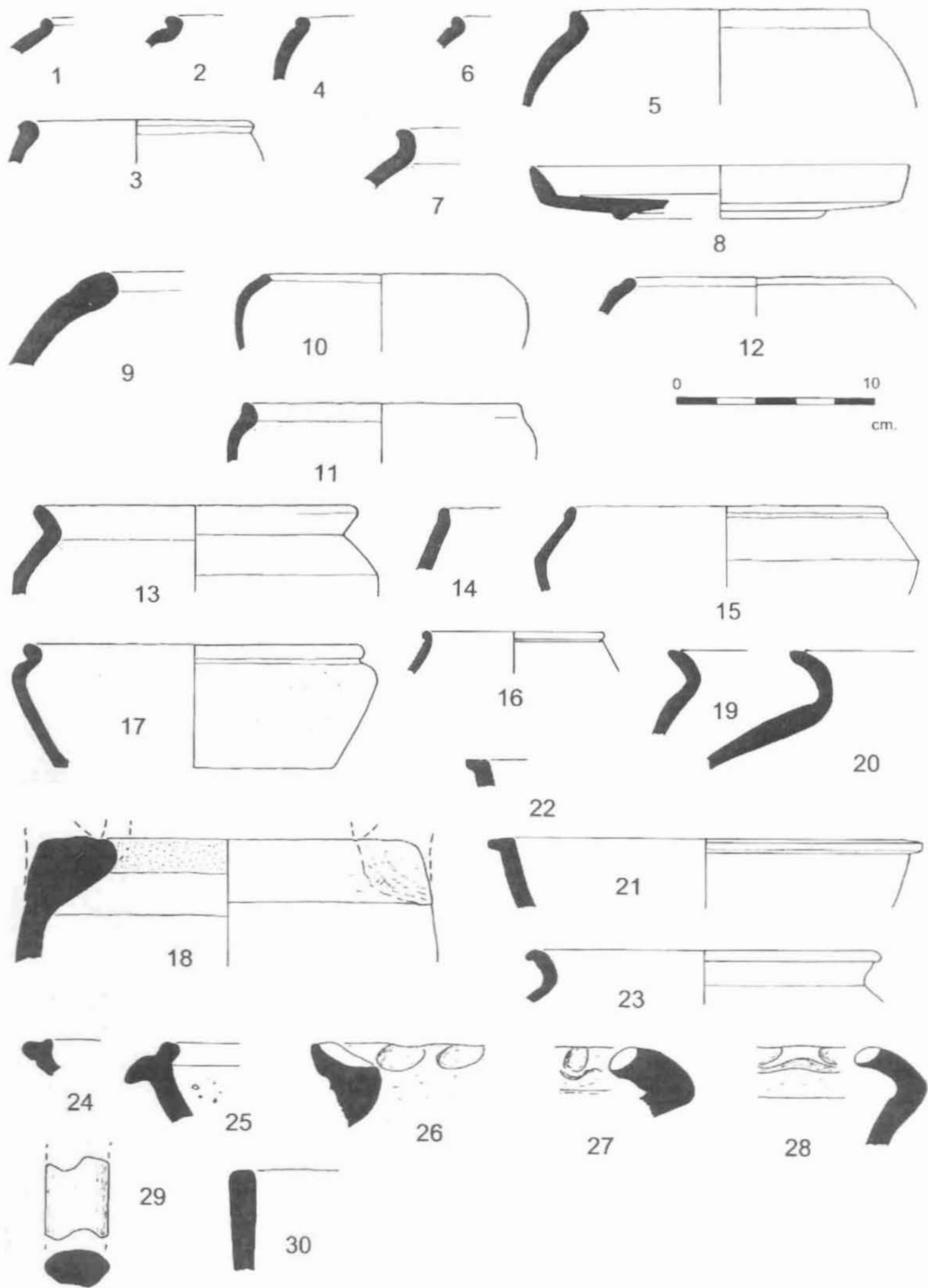


Fig 26: The ceramic artefacts