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**EXCAVATIONS AT WELWYN HALL, WELWYN,  
HERTFORDSHIRE**

**RESEARCH ARCHIVE REPORT**

Authors: Tom McDonald and Andrew Pearson Antony R. R. Mustchin (Editor)	
Illustrations by: Kathren Henry and Charlotte Davies	
NGR: TL 8430 6920	Report No. 4148
District:	Site Code: HAT 65
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Signed:	Date: October 2012

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**ARCHAEOLOGICAL SOLUTIONS LTD**

**98-100 Fore Street, Hertford SG14 1AB  
Tel 01992 558170**

**Unit 6, Brunel Business Court, Eastern Way,  
Bury St Edmunds IP32 7AJ  
Tel 01284 765210**

**e-mail [info@ascontracts.co.uk](mailto:info@ascontracts.co.uk)  
[www.archaeologicalsolutions.co.uk](http://www.archaeologicalsolutions.co.uk)**



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**OASIS SUMMARY SHEET**

<b>Project details</b>			
Project name	<i>Excavations at Welwyn Hall, Welwyn, Hertfordshire</i>		
Project dates (fieldwork)	<i>July – August 1995</i>		
Previous work (Y/N/?)	<i>Y</i>	Future work (Y/N/?)	<i>N</i>
P. number	<i>P169</i>	Site code	<i>HAT 65</i>
Type of project	<i>Post-Excavation</i>		
Site status			
Current land use	<i>Grounds of Welwyn Hall</i>		
Planned development	<i>Residential</i>		
Main features (+dates)	<i>Prehistoric: ditches, pits and a single posthole Roman (2<sup>nd</sup>-4<sup>th</sup> century AD): principally a robbed temple mausoleum within a temenos. Sub-Roman (late 4<sup>th</sup>-early 5<sup>th</sup> century): cemetery comprising 23 graves. Medieval/ post-medieval: pits and ditches, including a grubbed out hedge line.</i>		
Significant finds (+dates)	<i>Prehistoric: Struck flint (mostly Neolithic to late Bronze Age) Roman: Pottery (mostly 3<sup>rd</sup> to 4<sup>th</sup> century), Cu alloy objects (four bracelets and a penannular brooch), Fe nails, Fe axe head, Fe hook, Fe ?knife blade, metalworking residues, rubbing stone</i>		
<b>Project location</b>			
County/ District/ Parish	<i>Hertfordshire</i>	<i>Welwyn</i>	<i>Welwyn</i>
HER/ SMR for area	<i>Hertfordshire HER</i>		
Post code (if known)			
Area of site	<i>c. 1400m<sup>2</sup></i>		
NGR	<i>TL 232 164</i>		
Height AOD (max/ min)	<i>72-80m</i>		
<b>Project creators</b>			
Brief issued by	<i>Hertfordshire County Council, County Archaeology Office (HCC CAO)</i>		
Project supervisor/s (PO)	<i>Paul Hutchings (Fieldwork), Tom McDonald (Post-Excavation)</i>		
Funded by	<i>Haslemere Estates</i>		
<b>Bibliography</b>			
Full title	<ul style="list-style-type: none"> <li>- <i>Welwyn Hall, Welwyn. Archaeological Evaluation Report</i></li> <li>- <i>Welwyn Hall, Welwyn, Phase II. Archaeological Evaluation Report</i></li> <li>- <i>Welwyn Hall, Welwyn. An Archaeological Excavation</i></li> <li>- <i>A Project Design for the Publication of Archaeological Excavations at Welwyn Hall, Welwyn, Hertfordshire</i></li> </ul>		
Authors	<i>Tom McDonald (Antony Mustchin - Editor)</i>		
Report no.	<i>4148</i>		
Date (of report)	<i>October 2012</i>		

## **EXCAVATIONS AT WELWYN HALL, WELWYN, HERTFORDSHIRE**

### **RESEARCH ARCHIVE REPORT**

#### **1 INTRODUCTION**

1.1 This report comprises the research archive for excavations at Welwyn Hall, Welwyn, Hertfordshire (centred on NGR TL 232 164; Fig. 1) carried out by Hertfordshire Archaeological Trust (HAT, now Archaeological Solutions Ltd) between July and August 1995. It has been compiled in accordance with EH MAP 2, Section 7 and Appendix 6. It follows the Phase I and Phase II Evaluation Reports (Havercroft and Godwin 1991; Walker 1995), the Excavation Report (McDonald 1995) and the post-excavation Assessment and Updated Project Design (McDonald 1996).

1.2 The report includes background information and archaeological descriptions of each of the recorded phases (Sections 2.2-2.9) followed by analytical reports which have arisen from post-excavation analysis (Section 3) and an overall discussion (Section 5). A 'reconstruction' of the temple-mausoleum is presented in Section 4. Tabulated descriptions of the skeletons within Area B and a concordance of finds are included as appendices.

#### **2 SITE NARRATIVE**

##### **2.1 Overview**

Between September 1991 and February 1995, Hertfordshire Archaeological Trust (HAT, now Archaeological Solutions Ltd) carried out two phases of archaeological evaluation at Welwyn Hall, Welwyn, Hertfordshire (NGR TL 232 164) (Havercroft and Godwin 1991; Walker 1995; Fig. 1). The investigations were conducted in advance of proposed residential re-development and on behalf of Haslemere Estates. Subsequent to the evaluation, an excavation was undertaken during July and August 1995 (McDonald 1995).

The Excavation was undertaken in accordance with a brief issued by Hertfordshire County Council, County Archaeology Office (HCC CAO) (dated 19/05/95) and aimed to investigate three areas (A-C) encompassing archaeological features revealed by the Phase I and II evaluations and forerunning work:

- A. The Roman, Saxo-Norman and post-medieval archaeology revealed within Phase I Trench 5 and Phase II Trench 2
- B. The possible mausoleum identified during an earlier rescue excavation by Welwyn Archaeological Society
- C. The possible roadside ditch revealed within Phase I Trench 1

In all three areas, the topsoil and undifferentiated subsoil were stripped using a mechanical excavator fitted with a toothless ditching bucket under close archaeological supervision. Archaeological features were cleaned, planned and photographed. General site photographs were taken throughout the duration of the fieldwork. Environmental samples were taken from appropriate features and random soil samples were taken to check the retrieval of finds by the excavators.

### **2.1.1 Background**

#### *Description of the Site*

The site is situated in the parish of Welwyn (NGR TL 232 164), a short distance to the north-west of Welwyn Garden City centre. The site sits between the 72 - 80m contours on the western side of the Mimram valley overlooking its floodplain (Fig. 2).

#### *Topography, Geology and Soils*

The geology of the area comprises plateau and river terrace drift. The soils belong to the Marlow series and are described as well drained and comprise fine loam over clay, with slowly permeable subsoil's, which are prone to seasonal waterlogging (Soil Survey of England and Wales, 1983).

Previous evaluation work by HAT (now AS) reported post-medieval/ modern levelling materials above archaeological deposits, overlain by topsoil and, in places, former garden soils (Havercroft and Godwin 1991; Walker 1995).

#### *Archaeological Background*

There is considerable evidence for Roman activity within the immediate vicinity of the current site and within the surrounding area. During the construction of the A1(M) a large villa was revealed at Dickets Mead. It comprised two buildings at opposing ends of a large walled enclosure which was located either side of a canal that once connected with the river Mimram (HHER<sup>1</sup> 1913). One of the buildings, a bath house, is now preserved below the A1(M) just north of Junction 6. The villa is thought to have been short-lived: it was constructed in the mid-3<sup>rd</sup> century AD and was apparently largely abandoned by c. 280 AD, although it appears to have partially retained a commercial or industrial role during the 4<sup>th</sup> century AD (Rook 1987). Bronze Age artefacts recovered during the excavations indicate prehistoric activity in the area. East of the A1(M) and north of Dickets Mead is Lockleys Roman Villa (HHER 1556). Excavations in 1937 revealed five building phases at this site dating from the Belgic period (50 BC – AD 50) to the late 4<sup>th</sup> century AD (Ward-Perkins 1938).

Welwyn is adjacent to a known Roman cemetery of considerable size (Rook 1973). Some 95 cremations dating from the late 1<sup>st</sup> to 2<sup>nd</sup> century AD were recorded during the construction of Link Road, immediately north of the current site, and additional burials have been excavated to the west at The Grange (HHER 1554). Further burials are recorded from the nearby St Mary's Churchyard (HHER 10902). The line

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<sup>1</sup> HHER – Hertfordshire Historic Environment Record

of the Roman road from Verulamium to Braughing (The Viatores 1964; route 21a) (HHER 4619) is thought to traverse the site, or to pass immediately to the south, continuing behind the Clock Motel and possibly along the line of Church Street. Other Roman finds from surrounding area include the site of a timber-lined well and associated finds at The Green (to the south-west) (HHER 6418) and a 3<sup>rd</sup> century coin hoard from the garden of 22 Glebe Road (to the west-south-west) (HHER 1787).

### Previous work

#### Rescue Excavations (1976-7)

Welwyn Hall has been the subject of small scale rescue excavations carried out by Welwyn Archaeological Society during 1976-7, in response to the construction of a new private road and car park (Rook *et. al* 1984). Despite truncation of the archaeological remains these former investigations encountered the corner of a substantial robber trench and recovered the plan of a possible mausoleum and its enclosure ditch. A major find from the excavations comprised numerous fragments of marble, including a number displaying worked surfaces. The marble was thought to be of Greek origin, based on isotopic analysis of the stone and on observable architectural traits, and probably belonged to a sarcophagus. Excavation of the enclosure ditch also revealed three Roman inhumation burials (Rook *et al.* 1984).

#### The Phase I Evaluation (Fig. 3)

In September 1991, nine trenches (5-13m x 1-2m) were cut by HAT in order to examine the area of the possible mausoleum; to locate the Roman road, if present; and to assess the remainder of the site for archaeological deposits.

Within Trench 2, a ditch interpreted by Rook *et al.* (1984) as the eastern flanking ditch of a mausoleum was relocated, but his northern ditch was not apparent. The lack of a return ditch suggested that the three inhumations (recorded by Rook, one of which dated to the 4th century) may not have been associated with the mausoleum. Within Trench 1, a ditch aligned north-west to south-east was interpreted as being the flanking ditch of the presumed Roman road. The lack of features within Trench 7 was tentatively interpreted as indicative of the northern berm of the Roman road. Trench 8, which overlay the projected southern berm and road make up, revealed heavy 19<sup>th</sup> century disturbance associated with the construction of the Hall. A small group of features within Trench 6 comprised a medieval pit immediately adjacent to an undated shallow gully or ditch. A second linear feature was cut by a small pit. With the exception of one medieval pit these features were undated.

#### The Phase II Evaluation (Fig. 3)

In February 1995, a second phase of evaluation was undertaken by HAT. Eight trenches (8-24m x 1.8m) were opened to depths of between 0.8m and 1.5m. The objectives of the evaluation were to better define the presence and alignment of the possible Roman road; to identify additional medieval features, if present; and to establish the site levels, in particular to identify the impact of 19th-century and later landscaping on the buried archaeological remains.

Trench 1, which overlay the eastern end of the projected (possible) Roman road, revealed a large undated quarry pit, over 5m wide and 2m deep. No evidence of the road was revealed. Trench 2 revealed two parallel ditches which cut the natural subsoil. One ditch contained late post-medieval finds, while the other yielded a small abraded (likely residual) Roman pot sherd. Trench 3, which overlay the western end of the projected line of the Roman road, also failed to reveal evidence of this feature. Two shallow undated features were recorded. Trenches 4 and 8 contained no archaeological remains. Trenches 5, 6 and 7 revealed late post-medieval ditches, drains and large pits. The evaluation found no trace of the Roman road, or any additional Roman or medieval features.

## 2.2 Phasing

Seven separate chronological phases of activity were identified (Table 1). The majority of this activity was dated to the Roman period (Phases 2-4), although earlier prehistoric and subsequent sub-Roman, medieval and post-medieval activity was also noted (Figs. 4-6).

CHRONOLOGICAL PHASE	PERIOD/ DATE RANGE
Phase 1	Prehistoric
Phase 2	Roman I (2 <sup>nd</sup> century AD)
Phase 3	Roman II (3 <sup>rd</sup> century AD)
Phase 4	Roman III (4 <sup>th</sup> century AD)
Phase 5	4 <sup>th</sup> to early 5 <sup>th</sup> century AD
Phase 6	Later medieval
Phase 7	Post-medieval/ modern

Table 1: Chronological phasing

## 2.3 Phase 1: Prehistoric (Figs. 4-7)

Within Areas A, B and C a small number of residual struck flints and burnt flints were found within the fills of 12 later features:

Area A: L1007, L1019, L1021, L1029 and L1034

Area B: L1027, L1108, L1111, L1124 and L1174

Area C: L1115, L1118 and L1126

Within Trench A the rounded terminals of two pairs of parallel, opposing ditches were revealed (F1041, F1050, F1052 and F1054). All four had flat bases and contained similar sterile deposits of mid-orange brown silts. Their function was not apparent. Gully F1052 was cut by Phase 2 Ditch F1018. A group of four pits (F1016, F1024, F1031 and F1047) were revealed. With the exception of Pit F1016 they were devoid of finds. Based on the similarity of their fills they may have been contemporary. All cut the natural gravels and three (F1016, F1024 and F1031) were truncated by Phase 4b Ditch F1006. Pit F1016 (2.20 x 2.20 x 0.30m<sup>2</sup>) underlay the west facing baulk of Trench A and contained a single fill (L1017) of loosely compacted gravel within a silt sand matrix. This material yielded six struck flints: a blade, four struck

<sup>2</sup> All negative feature measurements are given in the following format: length x width x depth



flakes and a flint chunk. The larger dimensions of Pits F1016 and F1024 are suggestive of quarrying.

Within Trench B, a group of four pits (F1078, F1082, F1084 and F1167) and a posthole (F1086) were revealed towards the north-western corner of the trench. None contained finds. The pits formed no coherent pattern, and two (F1082 and F1084) were intercutting. Pit F1082 (2.24 x 1.20 x 0.66m) was truncated by Pit F1084. It contained an orange/ brown friable sandy loam (L1083). Pit F1084 (2.6 x 1.8 x 0.68+m) was sub-circular and filled with a light brown sandy silt. Posthole F1086 (0.68 x 0.58 x 0.20m) was located east of Pit F1084 and contained a dark brown sandy silt deposit (L1087) which yielded four burnt flints and a small flint blade. The burnt flint may have been re-used as packing material. No post pipe or evidence of *in situ* burning was visible. Pit F1078 (2.24 x 1.20 x 0.66m) was located south of F1082 and F1084. The sides of this feature were almost vertical except for the south-western edge which was slightly shallower; the base was slightly concave. F1078 contained compact gravel within a dark brown silty loam matrix (L1088). Pit F1167 (1.20 x 1.20 x 0.12m) was revealed south of Pit F1078. It was filled by L1168, a dark greyish brown compact sandy loam with small sub-rounded flints. Two deep intercutting pits, F1194 (2.60 x 1.15 x 1.10m) and F1191 (2.35 x 2.35 x 1.10m) were beneath the southern baulk of Trench B. Both pits contained sterile silt fills. The larger dimensions of Pits F1084, F1191 and F1194 in Trench B may indicate some form of quarrying activity, comparable to that revealed within Trench A.

Within Trench C, irregular Pit F1138 (0.90 x 0.80 x 0.33m) was cut by Phase 5 Ditch F1126. The primary fill of F1138 (L1140) comprised a dark yellowish brown clayey silt with frequent rounded flint cobbles. The secondary fill of this feature was dark grey brown in colour and comprised frequent rounded flint pebbles, loosely compacted, within a matrix of sandy loam. Neither contained finds.

Residual struck flint was ubiquitous across the site. The small assemblage from Phase 1 features dates predominantly to the Neolithic/ Bronze Age. A large, rolled, pebble flake from F1175 is assigned to the Palaeolithic period.

#### **2.4 Phase 2: Roman I (2<sup>nd</sup> century AD) (Figs. 4 and 8)**

Including features recorded during earlier evaluation work (Walker 1995), only three archaeological features are assigned to Phase 2: two field ditches (F1018 and F103) and a pit (F105). The pottery from F1018 indicates abandonment/ backfilling at some point during the 2<sup>nd</sup> century AD, possibly associating it with the Lockleys villa estate. Finds of pottery (including Samian ware), animal bone and flecks of charcoal from this feature suggest possible domestic occupation somewhere in the vicinity.

Within Trench A, Ditch F1018 was revealed at the southern end of the trench, aligned east to west. The sides of this feature were steep and the ditch contained a mid-orange to light grey silt (L1019). F1018 cut Phase 1 Ditch F1052 and was itself cut by Phase 6 Ditches F1022 and F1028. L1019 contained coarseware pot sherds (3), abraded undecorated Samian ware (3 base sherds; South Gaulish fabric 37), and miscellaneous Central Gaulish sherds (7), all dated to the 2<sup>nd</sup> century AD. Other finds include struck flint flakes (7) and chips (3). A burnt animal bone fragment (shaft) was also found.

Evaluation Trench 3 (Phase II; Walker 1995) revealed a shallow pit (F105) and a linear ditch (F103), running parallel to Phase 2 Ditch F1018. These features contained an orange silty clay fill similar to L1019, possibly marking them as contemporary.

## **2.5 Phase 3: Roman II (3<sup>rd</sup> century AD) (Figs. 5, 6 and 9)**

By the middle of the 3<sup>rd</sup> century AD the area, which previously formed part of the agricultural estate of Lockleys Roman Villa (AD 120-300) (Webster 1969), obtained an elevated status with the construction of a substantial and richly-decorated temple mausoleum. The building occupied an elevated position overlooking the river Mimram, opposite the Roman town, within river floodplains and adjacent to the Roman road from Verulamium. Its precinct, like that found at the earlier Bancroft temple mausoleum (Williams and Zeepvat 1994), was defined by an enclosure ditch and possibly an associated earthen embankment delineating its temenos boundary.

The mausoleum may have been constructed by the owners of a second villa (titled Dickets Mead (Rook 1987), located some 250m west of Lockleys. It has been suggested by Susan Walker (after Rook *et al.* 1984) that Greek sculptors came to Welwyn at the turn of the 2<sup>nd</sup>/ 3<sup>rd</sup> centuries AD, to work for wealthy clients who had a taste for art more frequently associated with the villas of the Mediterranean.

Fragments of a marble statue possibly depicting Apollo and a sculpture relief of a horse or stag in the Greek tradition found at Dickets Mead, may well be the work of a Greek sculptor who perhaps lived and worked within the Welwyn complex. A Greco-Egyptian amulet made of haematite and engraved with a mixture of Judaic and Greek inscriptions, and two pottery sherds inscribed with Greek names in Latin characters (Meli(t)ine and Eutyches) found at Dickets Mead further suggest some direct link with the Mediterranean world.

Imported Greek marble fragments from a sarcophagus (Rook *et al.* 1984) and additional fragments from a wall panel or panels robbed from the mausoleum compare with those 3<sup>rd</sup>-century marble fragments found at Dickets Mead. With the exception of Pit F1121, the absence of contemporary Phase 3 features, pottery or artefacts indicates that the building stood in near isolation, as observed at Bancroft. The mausoleum was of short duration and was robbed of much of its fabric by the 4<sup>th</sup> century. It was superseded by field enclosures and a late 4<sup>th</sup> century cemetery. Rook (1987) suggests that the Dicket Mead villa was deserted c. AD 345+ and robbed out by the 4<sup>th</sup> century.

### *The Mausoleum* (Figs. 5 and 12-15)

The footprint of the mausoleum was much truncated.

### The Foundations

The foundations were unusual, comprising wide conjoining trenches (F1063) set out in the form of an extended rectangle (12.60 x 10.80m externally), with the long axis orientated north to south. Internally, two platforms of undisturbed natural gravel were recorded, set 3.1m apart. The northern platform measured 5.00 x 3.30m; the

southern platform measured 4.90 x 2.30m. The depth of the trenches from the level of their truncation was >0.38m.

Although common to the building, the raft-like foundation trenches differed in width, the northern trench measured 2.90m and the southern trench measured 0.90m (east to west); the shorter eastern, central and western trenches connecting the longer pair (oriented north to south) measured 2.90m, 3.10m and 2.90m respectively.

The foundation trenches displayed steep/ near-vertical sides and irregular undulating bases. In cross section, they appeared quarried out in a pit-like fashion. During the excavation, the natural ground surface was observed to be heavily concreted and difficult to puncture. The foundation material (L1065), common to all trenches, was compacted clay containing medium to large, sub-angular and sub-rounded flint cobbles. Larger rounded cobble stones had been selectively positioned along the base of the foundation trenches.

### The Outer Walls

The most complete section of wall was revealed on the south-western side of the building. Other sections of wall were only partially preserved and the remainder was either wholly robbed or had been removed during the earlier rescue excavation (Rook *et al* 1984) and/ or during the construction of the car park. The surviving footings indicated a rectangular building constructed on the cardinal points of the compass. They were laid (mortared) directly onto the foundations (see above). The wall comprised closely-bonded sub-rounded and sub-angular flint set within a light greyish-brown lime-based mortar. A large fragment of white tabular limestone was cemented into the front (eastern) wall with *opus signinum* (broken pieces of tile set within mortar). The eastern and western walls (M1064a and M1050a) were 10.60m long (internally) and were 1.20m wide. The return walls (M1050b and M1050c) were 8.00m (internally) and were 0.90m wide.

### The Cella

An internal wall footing (M1064b, c and d) in common with the eastern, front wall (M1064a) formed a sub-square room or *cella* measuring 4.97 x 4.65m (internally). The northern (M1064d) and western (M1064c) walls were only partially preserved.

The walls encircled the northern platform of natural gravel along three sides. Remnants of a sub-floor were recorded overlying the 'natural' (L1149); this surface continued southwards abutting the internal face of wall M1064b. The sub-floor comprised moderate quantities of sub-angular and sub-rounded flint cobbles/ pebbles set within compacted clayey loam (50mm deep). Lenses of reddish clay were visible throughout. The clay was more prevalent towards the south-eastern corner of the room; fragments of clay daub and a spread of collapsed mortar overlay the floor to the east.

Only fragments of the internal western wall (M1064c) survived. It thought to be of similar dimensions to eastern Wall M1064a which was less than 1.18m wide. In

comparison, the northern and southern walls were of a slightly lesser construction; the more complete southern wall (M1064b) measured less than 1.10m wide.

### The Ambulatory

The northern and western walls were inset (0.80 to 0.90m) from the external walls, forming a narrow pavement or *ambulatory* on three sides. The floor of the pavement (L1134) comprised a sub-base of mortar with overlying remnants of *opus signinum* on two sides. The *opus signinum* was pinkish-red in colour (no surviving face was visible) and contained moderate inclusions of chalk, lime and crushed tile. An entranceway through the southern end of Wall M1064a was recorded, in addition to a second entranceway leading to the *cella* from the southern pavement. A third entrance was recorded in the western end of Wall M1050c. A fourth entrance through the northern end of Wall M1064 is tentatively conjectured.

### Ante-rooms

Two parallel cross walls (M1145 and M1146), aligned north to south, revealed within the south side of the building are interpreted as representing the footprint of two small rectangular rooms. The eastern wall (M1146) had been robbed of its footings and the western wall only survived in a vestigial form. The westernmost room was the smaller, measuring 1.80 x 2.46m (internally); the larger room measured 2.20 x 2.65m (internally).

### External Pavement

The remains of a cement pavement (M1148) (contemporary with the internal ambulatory pavement and its sub-base) were further revealed butting the outer face of frontal Wall M1064a. Its sub-base, comprising fragments of white and yellow mortar, plaster and stucco, was overlain by patches of *opus signinum* and measured >0.10m deep.

### Temenos

Within the north-western corner of Area B, a wide ditch (F1142) was interpreted as the western side of a *temenos* associated with the mausoleum. The ditch was 2.30m and 0.80m deep, and was revealed running north to south through the trench. The northern termination of this feature (F112) was previously recorded in Phase 1 Evaluation Trench 5. The ditch contained a single fill of sandy clay loam (L1141). The finds from F1142 (=F112) comprise Nene Valley Colour Coat pottery, a sherd from a 4<sup>th</sup>-century Hadham reduced, plain rimmed dish with horizontal tooling on the exterior and an Fe nail (SF65).

A second north to south aligned ditch (F1123), revealed some 38m to the west of F1142 (=F112), is thought to represent a section of the eastern temenos. The same ditch was recorded within Phase 1 Evaluation Trench 2. It measured 2.00m wide by 0.55m deep and had a similar profile to Ditch F1142 (=F112). It contained two fills, a sterile mid-greyish brown, compact clay loam (L1128), sealed by a post-abandonment (Phase 4a) material (F1124; described below).

### Possibly Associated Features

A large sub-circular pit (F1121), measuring 1.38 x 2.76 x 0.33m was revealed within Area C; this feature was truncated by F1113, a re-cut of Phase 4d enclosure Ditch F1116 (see below). F1121 was thought to have been associated with the mausoleum. The primary fill of this feature comprised mid-brown orange, loose silt sand (L1122). The secondary fill (L1125) belonged to Phase 4a (see below).

## **2.6 Phase 4: Roman III (4<sup>th</sup> century AD) (Figs. 4, 6 and 10)**

This phase of activity is split into five sub-phases (a-e), associated with the decline and subsequent robbing of the Phase 3 mausoleum and a shift in land use towards agriculture.

### *Phase 4a*

This sub-phase represents the decline of the 3<sup>rd</sup> century temple mausoleum and its subsequent robbing. The latter is contemporary with the abandonment and robbing of the nearby Dickets Mead villa.

The uppermost fill (L1124) of Phase 3 eastern *temenos* Ditch F1123 (Trench B), contained pottery and structural debris associated with the robbing of the mausoleum; residual struck flint (a retouched notched flake or scraper) was also encountered. The pottery comprises ten sherds from a single smallish coarse jar, probably Hadham, dating between the 2<sup>nd</sup> and 4<sup>th</sup> centuries AD. The building material includes 20 Roman brick fragments.

An irregular sub-circular pit (F1174), measuring 1.20 x 0.90 x 0.64m, was revealed along the western edge of Trench B. The pit had near-vertical sides and a flat base. It contained redeposited gravel within a dark brown, silt matrix (L1175). Finds from F1174 comprise a single horse (*Equus caballus*) bone, tile (3 fragments; 206g), tufa (3 fragments) and two residual struck flints (probably Palaeolithic). It is likely that the structural debris relates to the robbing-out of the temple mausoleum.

The upper fill of Phase 3 Pit F1121 (L1125) in Trench 3 yielded similarly robbed-out material. Finds from Fill L1125 comprise animal bone, 3<sup>rd</sup> to 4<sup>th</sup>-century pottery (the lower half of a smallish, coarse (probably Hadham) jar with a restricted base), 51 fragments of Roman brick and tile, an Fe pulley and hook (SF62) and burnt flint. Mould (*this report – The Fe Objects*) states that the pulley and hook are comparable to a 1<sup>st</sup>-century example from Hod Hill and a late Roman example from the Lakenheath Hoard. These would have been used to lift heavy objects during construction work and, along with an axe head (SF64) from L1115 (below) could have been associated with either the construction or demolition of the temple building.

Part of a large (possible) pit (F1132) was found extending beyond the eastern limit of Area C. This feature was >0.81m deep and contained three consecutive fills (L1135, L1136 and L1133). Primary Fill L1135 comprised mid-orange brown, silt sand, and contained fragments of Roman brick and tile (probably derived from the robbing of the temple mausoleum). The secondary fill (L1136) was a loosely compacted and

sterile mid-greyish brown sandy loam. The uppermost fill of F1132 (L1133) belonged to Phase 5 and is described below.

#### *Phase 4b*

This sub-phase represents a change in land use with the site reverting back to an agricultural function, denoted by the cutting of two field boundary ditches (F1006 and F1107) revealed within Areas A and B. These boundaries were potentially associated with the re-emergence of the Lockleys Roman villa which Rook suggests may have been rebuilt during the late 4<sup>th</sup> century AD.

It appears that the mausoleum was still extant when one of the ditches was cut - Ditch F1107 terminates immediately in front of its west face. The occurrence of robbed building material within the silty fills of Ditches F1006 and F1107 suggests that the building was in fact robbed over a prolonged period, and continued to be robbed after the abandonment of the enclosure ditches (see Phase 4c).

Ditch F1006 was revealed within Area A. It had a V-shaped profile and cut Phase 1 Pits F1016, F1024 and F1031. The sides of F1006 were sharply cut and showed little sign of erosion, suggesting that it had been backfilled quickly. Its fill, a mid-grey brown sandy silt clay (L1007), yielded fragments of robbed building material, animal bone, an Fe hobnail (SF2) and a residual struck flint flake. The ditch was cut by Phase 6 Posthole F1014 and two Phase 5 cemetery features (F1031 and F1035). The animal bone comprises 12 horse teeth and 29 fragments of unidentified bone which include cattle (*Bos taurus*)/ horse-sized shaft fragments.

Ditch F1107 (=F1098) within Area B was cut on a similar east to west alignment to Ditch F1006 (above). Its western end appeared to turn to the south west extending beyond the limits of the excavation. The single fill (L1099=1108) of this feature contained two residual pottery sherds, 30 Roman brick/ tile fragments (1853g) and three fragments of tufa (derived from the robbing of the temple mausoleum), a fragment of cattle metacarpal and a single burnt flint. The ditch was cut by two Phase 5 cemetery features F1096 and F1110. The pottery sherds cross-join and are of a coarse gritty greyware, probably 2<sup>nd</sup> century in date. Imbex, tegula and brick have been identified within the building material.

#### *Phase 4c*

Sub-phase 4c was represented by the cutting of a probable enclosure ditch (F1116), which may have been contemporary with the ditches described above, thus representing a hiatus in the robbing of the mausoleum.

Large enclosure Ditch F1116 (1.52m+ wide by 0.42m deep) was revealed within Area C. It was orientated north-west to south-east, turning south-west, with a rounded terminus. It cut Phase 3 Pit F1121 which contained building material derived from the robbing of the temple mausoleum. This feature had steep sides and a flattish base. The primary fill (L1117) comprised a mid-greyish brown, loose, silty sand. The secondary fill also comprised a mid-orange brown, silt sand; neither yielded finds.

#### *Phase 4d*

This sub-phase was defined by the recutting of Phase 4c enclosure Ditch F1116. This re-cut contained two fills (L1114 and L1115). The primary fill (L1114) comprised a mid greyish brown loose sandy loam and was devoid of finds. The terminus of a narrow gully (F1119) also cut F1116 and may have been contemporary with its recutting. F1119 was also produced no finds.

#### *Phase 4e*

This sub-phase represents the abandonment of the possible enclosure (Phase 4c and 4d; above) and further robbing of the temple mausoleum, including the marble panel(s).

The secondary fill of F1113 (L1115), revealed within Area C, represents abandonment/ closure of this enclosure ditch. L1115 yielded five abraded 4<sup>th</sup>-century pot sherds, abundant building material (derived from the robbing of the temple mausoleum), a horse molar (and further unidentifiable animal bone) and a complete axe head. The robbed-out material includes 127 fragments of Roman tegula and brick, worked stone, tufa and two fragments of marble relief (SF66) similar to those fragments derived from a sarcophagus found in 1977 (Rook *et al.* 1984). The axe head (SF64) is of a common Roman form and may have been associated with the pulley and hook from Phase 4a (see above).

### **2.7 Phase 5: 4<sup>th</sup> to early 5<sup>th</sup> century AD** (Figs. 5, 6 and 11)

Phase 5 represents the final phase of Roman occupation. Evidence of metal working (Phase 5a) was revealed within Area C, and a small cemetery (Phase 5b) was revealed within Area B. The temple mausoleum continued to be robbed during the 'cemetery period' - numerous fragments of Roman brick and tile were found within the grave backfills. Lydion and tegula tile fragments from the mausoleum were reused as liners and/ or pillows within some of the graves.

#### *Phase 5a – Industrial Activity*

The uppermost fill of Phase 4a Pit F1132 (L1133) contained a single pottery sherd, fragments of building material (brick and tile derived from the robbing of the temple mausoleum), an Fe knife blade (SF63), 27 fragments of animal bone and 32 pieces of slag. The pottery is 4<sup>th</sup>-century Oxidised Hadham ware. Mould (*this report – the Fe Objects*) notes that the knife blade is of Anglo-Saxon/ Anglo-Scandinavian type and parallels examples from Coppergate, York and other sites dating to the post-Pagan period (late 8<sup>th</sup> to 9<sup>th</sup> century AD). The type appears to have a long history, however, possibly dating from the late Roman period (Ottaway 1992, 563). Jaques (*this report – the animal bone*) notes that the bone assemblage, comprising cattle, sheep/ goat (*Ovis aries/ Capra hircus*) and pig (*Sus scrofa*), is very poorly preserved and shows signs of canid gnawing.

Immediately west of F1132 a short narrow slot (F1126; 5.40 x 2.76 x 0.81m) with rounded butt ends was revealed. It cut Pits F1138 and F1130. The primary fill of this feature (L1129) comprised a layer of medium-sized, rounded flint cobbles (10-

80mm in diameter) compacted within a matrix of dark greyish silt clay. The secondary fill (L1127) comprised a compacted layer of (possibly) powdered charcoal containing an Fe nail, 3 charred animal bone fragments, 4 pieces of slag and frequent burnt flint. The bone fragments comprise cattle (scorched) and goat.

A pair of circular postholes (F1150 and F1157), were revealed close to Slot F1126 and are thought to have been contemporary. Both had similar dimensions and contained similar dark greyish brown fills; neither contained finds.

#### *Phase 5b – The Cemetery*

Phase 5b comprised a cemetery of 23 grave cuts, from which 21 skeletons, variously preserved, were excavated (Figs. 5 and 16-18). This small cemetery was revealed immediately west of the robbed Phase 3 temple mausoleum. The burials were laid out in loose rows (orientated north to south). Two graves, F1165 and F1100, were truncated by later graves. All of the burials, excepting Skeleton SK1074, were orientated east to west. SK1074 was orientated south-west to north-east. L1070 was re-deposited within Grave F1069, containing SK1074. All the articulated skeletons were laid in a supine position. A high status male burial (F1152) was revealed adjacent to the main group, and may have been a focus for the cemetery. The grave was enclosed within a small penannular ditch (F1096). Grave F1160, which contained grave goods, was located immediately to the west and may have been contemporary. Five graves (F1026, F1059, F1089, F1100 and F1165), likely representing an earlier phase of burial activity, contained coffin nails and grave goods. Grave F1089 contained a decapitated male skeleton. Nine graves (F1089, F1092, F1103, F1110, F1155, F1170, F1183, F1186 and F1189) represented a later phase of burial, post-dating graves F1152 and F1160. Three of these (F1103, F1110 and F1186) contained decapitated skeletons, and Graves F1092 and F1103 cut earlier burials. Human bone was found within the backfill of three graves (F1092 [possibly child], F1155 [possibly adult] and F1183 [possibly juvenile]).

#### Individual Description of Inhumations (Figs. 5 and 16-18)

##### Grave F1183 (Fig. 5)

Probable grave cut, orientated east to west. No bone survived. The grave measured 1.60 x 1.50 x 1.05m, narrowing towards the base. Residual finds comprise Roman brick and tile within the grave fill (L1184).

##### Grave F1026 (Fig. 16)

Grave F1026 contained a partial female skeleton (SK1030), aged 35 years with much post-mortem damage. The grave cut measured 2.40 x 0.90 x 0.60m (from the surface of the natural gravel), narrowing towards the base. The skeleton was laid central to the grave, in a supine position, orientated north-north-east to south-south-west. The legs were slightly twisted southwards, the feet placed tightly together, and the hands were laid over the pelvis. Although no trace of a coffin stain was apparent, 16 Fe nails (10 of Manning's Type 1b) were found around the body. Surviving wood grain on the nails, identified as oak (*Quercus*), suggests a plank thickness of c. 15-26mm. A worn Dorset Black-Burnished 1 flange rimmed dish, incomplete when buried and re-used as a grave good, was placed alongside the



upper right femur. The dish was inverted with the broken edge facing inwards towards the skeleton. Three residual struck flints, comprising two cores and a flint chip, were found within the grave fill (L1027). Nineteen medieval and post-medieval plain roof tile fragments, 5 modern pot sherds and a fragment of glass were retrieved from the upper part of L1027.

Grave F1059 (Fig. 16)

Grave F1059 contained a substantially complete female skeleton (SK1061), aged 45+ years but with much post-mortem damage. The grave measured 2.10 x 0.82 x 0.43m, narrowing towards the base. SK1061 was laid along the southern edge of the grave cut, orientated north-north-east to south-south-west, in a supine position. The upper body was slightly twisted northwards with the legs laid out straight, the right foot twisted slightly inwards. Both arms were folded inwards with the hands clasped across the pelvis. The cervical vertebrae showed signs of osteoarthritis and degenerative disc disease; the thoracic vertebrae showed signs of osteophytosis (see Waldron, *this report – Pathology of the Burials*).

Although no coffin stain was evident, two Fe nails (Manning Type 1b) found along the southern side and western end of the grave cut probably indicate the use of a coffin. Five hobnails found along the base of the feet indicate the original presence of shoes/ boots. Thirteen fragments of Roman tegula tile (287+g) were laid across the skeleton. Residual finds from Grave Fill F1060 comprise two sherds of Coarse Reduced wares, one of which is possibly pre-conquest in date (see Going, *this report – The Roman Pottery*) and 33 small fragments of (possibly) Roman brick and tile (505g).

Grave F1066 (Fig. 16)

F1066 contained skull fragments, including the occipital bone, of an adult skeleton (SK1068) situated towards the eastern end of the grave cut; the individual would have been orientated north-north-east to south-south-west. No other bone survived. A small Cu alloy bracelet adapted for a small child and re-used as a grave good was found 0.18m south of the skull. The grave was small (1.80 x 0.80 x 0.43m) and narrowed towards the base. The grave fill (L1067) contained five fragments of Roman brick (490g).

Grave F1069 (Fig. 16)

F1069 measured 2.35 x 0.87 x 0.65m and narrowed towards the base. It contained the fragmentary remains of an adult skeleton with much post-mortem damage (SK1071), aged 45+ years. SK1071 was laid in a supine position towards the southern side of the grave, orientated north-north-east to south-south-west. The lower legs came together (feet missing) and the arms were crossed over the chest (right over left). The skull had suffered from some disarticulation and was misaligned slightly to the south. Grave goods comprised a small Hadham ware funnel-necked beaker, 17 sherds (c. 50-60%) of a Hadham ware bowl and a single featureless body sherd (also Hadham ware). Two juvenile chicken/ pheasant (*Gallus gallus/ Phasianus colchicus*) bones, likely from the same individual, were also present. The grave fill (L1070) contained the partial remains (re-interred) of a male skeleton, aged

45+ years (SK1070). The skull, most of the vertebral column and the majority of hand and foot bones of this second skeleton were missing. Residual finds from L1070 comprise 27 fragments of Roman brick and tile (638g).

Grave F1072 (Fig. 16)

Grave F1072 contained the incomplete skeleton (SK1074) of a female with considerable post-mortem damage, aged 25 years and orientated east-west. The skeleton was laid along the northern side of the grave in a supine position with the feet together. The left upper arm was straight and the lower arm was turned inwards over the pelvic region. The grave cut measured 1.85 x 0.76 x 0.80m, narrowing towards the base. Grave goods comprised individual pot sherds from four vessels: a Nene valley colour coat funnel necked beaker, a Samian drinking cup and two Hadham grey ware closed form jars (one oxidised; see Going, *this report – The Roman Pottery*). Residual finds comprise six fragments of Roman brick (386g).

Grave F1076 (Fig. 16)

This grave contained a fragmentary female skeleton (SK1075) with much post-mortem damage, orientated east to west. It was laid centrally in a supine position with the legs coming together, straight arms and the skull facing north-west. The grave measured 2.35 x 0.87 x 0.70m, narrowing towards the base. Eleven sherds from an Oxidised Hadham ware vessel were deliberately placed within the grave cut (see Going, *this report – The Roman Pottery*). Six fragments of animal bone were placed along the southern edge of the grave and comprise four sheep/ goat bones, a goat metacarpal and the mandible of a pig. Residual finds from the grave fill (L1077) comprise 49 fragments of Roman brick and tile (2479g). One fragment of imbrex appeared painted grey-black and one piece of tegula was shaped into a rough circle (see Zeepvat, *this report – The Brick and Tile*).

Grave F1079 (Fig. 16)

F1079 contained the partial skeleton (SK1081) of a female with much post-mortem damage, aged 45+ years, orientated east to west. The skeleton was laid centrally within the grave in a supine position. The lower arms were turned inwards overlying the pelvis (left over right) and the feet were together with the left foot turned slightly outwards. The bones displayed evidence of bilateral cribra orbitalia – a condition possibly related to iron deficiency anaemia (see Waldron, *this report – Pathology of the Burials*). Two sherds of Oxidised Hadham ware and a sherd of Hadham grey ware had been deliberately placed within the grave. The pottery comprised a two-ribbed handle sherd probably from a three-handled bowl jar, a sherd from an externally burnished necked jar and a small body sherd from a vessel finished with lattice tooling or burnish. The grave measured 2.50 x 1.20 x 0.48m, was stepped along its southern edge and narrowed towards the base. Grave Fill L1080 yielded 15 small fragments of residual Roman brick and tile (467g).

Grave F1089 (Fig. 16)

Grave F1089 contained the virtually complete, well preserved skeleton (SK1091) of a male aged 45+ years and 1.55m tall. SK1091 was orientated east to west and was

laid in a supine position, head decapitated, towards the eastern end of the grave cut. The lower arms were turned inwards, crossing left over right, with the right hand laid over the central pelvic area and the lower left arm extended towards the right hand side of the pelvis. The decapitated skull was placed centrally between the balls of the feet, facing north-west and overlying part of the left foot. Both feet were slightly twisted inwards to the right. Osteoarthritis was evident on the lower thoracic vertebrae and osteophytosis was recorded on the lower thoracic and lumbar vertebrae. An incomplete Nene Valley colour coat funnel-necked beaker, re-used as a grave good, was placed adjacent the right foot of the skeleton. A rubbing stone with a smoothed grinding surface was placed adjacent to the left shoulder and a large, rounded water worn pebble with a naturally-formed central hole was placed adjacent to the inner left thigh. An Fe nail to the right of the skeleton may indicate the former presence of a coffin. The grave measured 2.30m long by 1.00m wide and narrowed towards the base. The grave fill (L1090) contained three residual sherds, one shell-tempered and two of Oxidised Hadham ware, perhaps from flagons (see Going, *this report – The Roman Pottery*). Fourteen fragments (433g) Roman brick and tile including tegula were also found.

Grave F1092 (Fig. 16)

A small, deep (possible) child grave (F1092) cut the western end of Grave F1102. No bone survived. The grave measured 1.40 x 0.75 x 1.05m and narrowed towards the base. Residual finds from Grave Fill L1093 comprise 50 fragments of Roman brick and tile (5389g), including a fragment of Bessalis tile incorporating a possible dog paw print. None of the brick fragments present were mortared; one fragment was possibly painted grey-black.

Grave F1100 (Fig. 16)

Grave F1100 was cut by Graves F1092 and F1103. This truncated feature contained the incomplete skeleton (SK1102) of a male aged 35 years (1.66m tall) displaying considerable post-mortem damage. SK1102 was laid in a supine position towards the centre of the grave (western end), orientated north-east to south-west. The arms were laid alongside the body and the feet were together. The grave measured 2.40m long by 1.20m wide and narrowed towards the base. A small balsamarium-like vessel, re-used as a grave good, was found adjacent to the right pelvis. A pair of leather shoes/ boots had been placed adjacent to the right femur. The remains of the shoes/ boots comprised 96 hobnails with mineral-preserved leather surviving on the nail shanks. Twenty one nails, 13 of Manning Type 1b located either side of the inhumation and enclosing both grave goods, indicated the use of a coffin; mineral-preserved wood (oak) survived on nine of the nail shanks. The grain pattern indicates coffin boards some 24-27mm thick. Residual finds from Fill L1101 comprise 68 fragments of Roman brick and tile (4607g), some imbrex, and 7 fragments of tufa.

Grave F1103 (Fig. 16)

This grave contained the substantially intact skeleton (SK1105) of an east to west oriented female aged 35 years and 1.57m tall. The remains were laid in a supine position (head decapitated) at a slight diagonal to the grave cut. The lower right arm

was turned inwards diagonally across the stomach area and the left arm was turned inwards, overlying the inner left hand side of the pelvis. The legs were apart and the skull was placed slightly overlying the lower left leg (facing south-west). F1103 measured 2.15 x 1.13 x 0.70m, narrowing towards the base.

Grave goods comprise seven pot sherds (see Going, *this report – The Roman Pottery*): two from the base of a shell-tempered pot and five sherds of Oxidised Hadham ware, probably from a large flagon. Six large fragments of Roman brick (13,643g), all lydion, were found re-used as token liners within three corners of the grave. A quantity of tile stood on end against the base of the grave cut. Residual finds from Fill L1104 comprised 66 fragments of Roman brick and tile (9540g) and 2 fragments of tufa.

Grave F1110 (Fig. 17)

Grave F1110. It contained the partially complete skeleton (SK1112) of a female, aged 35+ years, orientated north-east to south-west. SK1112 was laid in a supine position (head decapitated). The angle of the right leg to the grave suggests that the upper body was twisted slightly southwards, and the remains of the feet also appear turned to the south. The skull had been placed next to the right heel, on its right side facing north-west. The grave measured 2.45m long by 1.20m wide and narrowed (from the machined level) towards the base. Grave Fill L1111 yielded a residual flint flake (5g), a residual sherd of black burnished ware (c. 140-170 AD), 1 fragment of animal bone (1g), 5 pieces of tufa and 16 fragments of Roman brick.

Grave F1155 (Fig. 17)

This feature comprised an adult-sized grave cut; no bone survived. F1155 measured 1.80 x 2.00 x 0.70m (from the surface of the natural gravel. Residual finds from Fill L1156 comprised fragments of Roman brick and tile (not retained).

Grave F1160 (Fig. 17)

This grave contained the very incomplete skeleton (SK1169) of an individual aged 25 years. The grave cut measured 2.17 x 0.90 x 0.90m and narrowed at towards the base. SK1169 was oriented north-east to south-west in a supine position on the north-west side of the cut. A Cu alloy wire bracelet (SF75) with sliding knots, re-used as a grave good, had been placed adjacent the left inner thigh. Residual finds within the grave fill (L1161) comprise 13 fragments of Roman tegula (287g).

Grave F1162 (Fig. 17)

F1162 contained the fragmentary remains of an adult skeleton (SK1164), aged 45+ years, orientated east to west. Three pottery sherds of Oxidised Hadham ware may have been placed deliberately within the grave cut (see Going, *this report – The Roman Pottery*). They comprised two sherds from a closed form (possible) jar and a single rim sherd. The grave cut was irregular in plan measuring 2.20 x c. 0.95 x 0.42m. It is possible that the grave contained a second inhumation (a juvenile or infant) along its southern edge as the cut extended some 0.35m along the base.

Residual finds from Grave Fill L1163 comprise 55 fragments of Roman brick and tile, including tegula (2111g).

Grave F1165 (Fig. 17)

Grave F1165 contained the partial skeleton (SK1173) of a 1.71m-tall adult male. SK1173 was laid along the south-eastern edge of the cut in a supine position, orientated east-west. The left arm was extended along the line of the body and the lower right arm was turned inwards over the pelvic region. The feet were together with the knees turned slightly inwards. The skull lay on two large fragments of imbrex tile, a third unidentifiable fragment overlay the right ankle. A vessel and dish, re-used as grave goods, were placed over the lower part of the left foot. They comprised a narrow-necked pedestal jar of Oxidised Hadham ware and a plain-immed vertically-sided dish of a Hadham greyware. Two groups of hobnails found near the feet indicate that the body was wearing shoes/ boots at the time of burial. Seventeen nails representing the outline of a coffin were also revealed along both sides of the grave cut. Eight of the nails were of Manning's Type 1b, seven of which resembled coffin nails from other graves at the site. Mineral-preserved oak survived on ten of the nail shanks and suggest that the coffin boards were 27-30mm thick. The grave cut measured 2.35 x 1.00 x 0.60m and narrowed towards the base. Residual finds from Grave Fill L1166 comprise 3 fragments (745g) of Roman brick.

Grave F1170 (Fig. 17)

This grave contained the substantially complete (but poorly preserved) skeleton of a female (SK1182), aged 35 years and 1.68m tall. SK1182 was laid centrally within the grave in a supine position, orientated east to west. The left arm was laid by the side and the right lower arm was turned inwards across the chest. The feet were together and the legs appeared twisted slightly northwards; the skull faced upwards. F1170 was disturbed by root action and Tree Bole F1176. Residual finds from this grave comprise 32 fragments of Roman brick, mainly small in size and all undiagnostic.

Grave F1180 (Fig. 17)

Grave F1180 contained the skull and long bone fragments of a juvenile (SK1185) aged eight to ten years and orientated east to west. The grave cut measured 1.90 x 0.67 x 0.30m deep, narrowing towards the base. A lightly engraved, Cu alloy penannular brooch (SF96), a bracelet (SF97) and a fragment of a second bracelet (SF98) were re-used as grave goods and placed at the west end of the grave. The complete bracelet, decorated along its outer face with a dot and circle pattern, was that of a child. Two clusters of hobnails found within and around the copper alloy grave goods indicate that the body was wearing shoes/ boots when buried; the brooch and bracelets appeared to have been placed over or around the feet. Residual finds from the grave fill (L1181) comprise 14 small fragments of Roman brick and tile (166g) and an Fe nail (probably from a coffin). Three, possibly medieval, conglomerations of small interlinking Fe rings were also found towards the western end of the grave.

Grave F1186 (Fig. 17)

This grave contained the partial remains of a male skeleton (SK1188), aged 45+ years and oriented east to west. The head was decapitated and placed adjacent the lower left leg (facing west). The body had suffered from some disarticulation as the right femur was located towards the east end of the grave; the lower legs which appeared to be articulated were misaligned to the grave. It is probable that the body was placed with the upper body lying centrally within Cut F1186 and the legs twisted to the north-west. F1186 measured 2.57 x 1.05 x 0.62m and narrowed towards the base. Residual finds from the Fill L1187 comprise 18 small fragments of Roman brick and tile (926g) and two sherds of Oxidised Hadham ware (one from an imitation Drag f.38 bowl and the other of uncertain form).

Grave F1189 (Fig. 17)

This grave contained the very fragmentary remains of an adult skeleton (SK1193), aged 45 years. SK1193 was laid centrally within the cut and orientated east to west. A large fragment of lydion brick appeared to have been laid across the upper part of the skull. The grave measured 2.15 x 0.80 x 0.35m. Residual finds from Grave Fill L1190 comprise an abraded body sherd of Oxidised Hadham ware (from a flagon or jar) and ten fragments of Roman brick and tile (50g).

Grave F1152 (Fig. 18)

Grave F1152 was encircled by an open-ended horseshoe-shaped ditch (F1096) and contained the incomplete skeleton of an adult male (SK1154), 1.76m tall. The remains were oriented east to west towards the centre of the grave cut and displayed considerable post-mortem damage. The arms were laid side by side and the feet were together. Three vessels, re-used as grave goods, were placed around the feet. Two comprise Oxidised Hadham ware vessels: a common bowl-jar form and a narrow-necked globular jar. The third vessel comprises six joining sherds from a small-rimmed dish in Nene valley colour coat which had been deliberately broken within the grave (see Going, *this report – The Roman Pottery*). The grave measured 2.30 x 1.10 x 0.84m and narrowed towards the base. Grave Fill L1154 contained residual finds of Roman brick and tile. The encircling ditch (F1096) measured 13.00 x 1.15 x 0.18m and yielded six small fragments of Roman brick and tile.

## 2.8 Phase 6: Later medieval

This phase was sparsely represented and comprised a ditched field boundary (F1022=1020) in Area A, superseded by a fenceline of 6 Postholes (F1002, F1004, F1009, F1013, F1014 and F1039).

## 2.9 Phase 7: Post-medieval/ modern

This phase relates to activity within the grounds of Welwyn Hall. A linear ditch (F1028) was recorded traversing Area A and cutting Ditches F1022 (Phase 6) and F1018 (Phase 2). Two postholes (F1033 and F1037) cut Ditch F1028.

The eastern end of a large (possible) pit (F1035) was revealed on the western side of Area A. A second large pit (F1043) was revealed to the north of Pit F1035. A linear ditch/ gully (F1056) traversed the eastern end of Area A. A shallow crescent-shaped pit within Area B (F1094) cut Phase 5a penannular Ditch F1096.

### 3 SPECIALISTS' FINDS AND ENVIRONMENTAL REPORTS

#### 3.1 The Roman Pottery

*Chris J. Going*

##### 3.1.1 Roman Pottery from the Burials (Phase 5b)

###### Grave 1026

1026.1 (Fig. 19.01)

*Dorset Black-Burnished 1*. Flange-rimmed dish (as Gillam 1968, type 228). Exterior smoothed and wiped. There is no line burnish on the exterior of the vessel, as is usually the case with this form. Worn, and now slightly mud-stained. The underside of the base has a post-firing graffito comprising two intersecting strokes forming a St Andrew's cross. There is a second graffito consisting of three notches on the base/ side wall. Approximately 30% of the rim is missing. The break is not fresh and it is clear from the grave plans that this vessel was incomplete when buried. Date: Probably post-mid-4th century AD. Weight: 676g. Fill L1030. SF11.

###### Grave 1059

1059.1-2 (Not illustrated)

*Coarse reduced wares*. Sherd is from a closed form in a grog-tempered, wheel-thrown fabric, possibly of pre-Conquest date. A sherd from a second, larger closed form in a similar, though coarser fabric was also found.

###### Grave 1069

1069.1 (Fig. 19.02)

*Oxidised Hadham ware*. Rather squat little funnel-necked beaker. This is not a very common Hadham form. The neck and body are decorated with all over burnish with marked linear tooling. The base is smoothed. Not slipped. The fabric is rather grittier than the norm for fine wares and unusual in a vessel of this form and size. The vessel is c. 90% complete with a section of rim missing (the break is old). The vessel has suffered post-depositional crushing which may mask damage inflicted as part of the burial ritual. Fill L1070. SF41.

1069.2 (Fig. 19.03)

*Oxidised Hadham ware*. Seventeen sherds (c. 50-60%) of a Hadham ware bowl-jar with extensive horizontal burnish externally over deeply-tooled chevrons with vertical strokes between. The basic decorative repertoire is W I Roberts' A2 *schema* (Roberts 1982, 15). The vessel is encrusted with a patchy ?lime scale deposit. 4<sup>th</sup> century AD. Fill L1070.

1069.3 (Not illustrated)

*Oxidised Hadham ware*. Featureless body sherd from an uncertain form. Fill L1070.

### Grave 1072

1072.1 (Not illustrated)

*Nene valley colour-coated ware*. Single sherd in a buff fabric with a coppery-brownish colour coat and piped decoration applied *en barbotine*. The sherd comes from a vessel similar to, but slightly larger than, that found in Grave F1089 (No. 1089.1), thus its dimensions are probably as Howe *et al.* (1981, fig. 6.50). Fill L1073.

1072.2 (Not illustrated)

*Hadham Grey ware*. Body sherd of a large closed form with a girth-groove and angled tooling in the form of a St Andrew's cross. This common decorative motif can be seen on form A 10 of Roberts' (1982) Romano-Saxon pottery corpus. There is, of course, nothing 'Saxon' about it. Fill L1073.

1072.3 (Not illustrated)

*Oxidised Hadham ware*. Featureless body sherd from a closed form, probably a jar. Fill L1073.

1072.4 (Not illustrated)

*Samian*. Drag *f.* 33, CG, Antonine. Freshly broken sherd including part of the very worn footring of a drinking cup. Fill L1073.

The four vessels, described above, all came from the fill of Grave F1072 (L1073). It is clear that none of them are the remains of a once-intact grave good, but instead were originally 'placed' in the grave fill as sherds. Pottery sherds have complex ritual significance. Two properties made them suitable as grave offerings: they were regarded as tokens of luck, and as a metaphor for the brevity of human life.

### Grave 1076

1077.1 (Not illustrated)

*Oxidised Hadham ware*. Eleven sherds from a jar form. 88gr. Grey core, bright orange margins and surfaces which are finished with horizontal burnish leaving faceting marks. The form may be similar to the vessel from Grave F1152 (No.1152.2; SF67), but the base is plain and less reflexed. No rim sherds were found. Fill L1077.

### Grave 1079

1079.1 (Fig. 19.04)

*Oxidised Hadham ware*. Two-ribbed handle sherd from a large, probably bead rimmed bowl-jar. The form, which appears usually to have had three handles, is rare. Examples are known from the production site at Bromley Hall Farm (Barr unpublished; Roberts 1982, plate 17). It is also known in Nene valley colour coated ware at Great Casterton in Rutland (Howe *et al.* 1981, fig. 7.78), and at Colchester. Where found is generally late (post c. AD 370). Fill 1080.



1079.2 (Not illustrated)

*Oxidised Hadham ware*. Sherd of a necked jar, burnished externally. Type cannot be identified due to fragmentation. Probably later 3<sup>rd</sup> century+ AD. Fill L1080.

1079.3 (Not illustrated)

*Hadham grey ware*. Small body sherd, black exterior, pale grey core and fracture, mid-grey inner surface. The form is unclear but the vessel was finished with a lightly burnished lattice. Probably 3<sup>rd</sup> to 4<sup>th</sup> century AD. Fill L1080.

The above three sherds (with a combined weight of 56g) all came from the fill of Grave F1079 (L1080), and like the sherds from Grave F1072, were probably placed by mourners as the grave was being backfilled.

### Grave 1089

1090.1 (Fig. 19.05)

*Nene valley colour coat*. Fragmentary, incomplete (c. 70% present) funnel-necked beaker in a thin, buff fabric with a chocolate-coloured slip. The sherd is decorated on the slip with tendril and berry motifs in piped white slip applied *en barbotine*. The form resembles Howe *et al.* (1981), fig. 6.49. The vessel is probably of later 3<sup>rd</sup> to early 4<sup>th</sup> century AD date. The pot was probably buried incomplete but intact, though has been crushed, probably in the grave. Fill L1090. SF42.

### Grave F1100

F1100.1 (Fig. 19.06)

*Coarse reduced ware*. Small *balsamarium*-like vessel in a fairly fine reduced ware. The exterior of the vessel is greyish-black. It is smoothed all over and horizontally burnished. The form is hard to parallel closely. The vessel lacks a rim (broken off in antiquity). The base has iron staining, perhaps from contact with a piece of grave furniture. Probably not a Hadham product. Fill L1101. SF48.

### Grave F1103

F1103.1 (Not illustrated)

*Shell-tempered ware*. Two abraded base sherds from a shell-tempered storage jar. Date uncertain. Fill L1104.

F1103.2. (Not illustrated)

*Oxidised Hadham ware*. Five pieces (two sherds and three chips) from a large closed form, probably a fairly large flagon. The exterior is decorated with burnished lines showing more darkly than the remainder of the pot. These are less obviously smoothed and burnished. Fill L1104.

The above two vessels appear, like those from Graves F1072 and F1079, to have been deposited in the grave fill as sherds, rather than whole vessels, and for similar reasons (see above). The grave was lined with *tegula* fragments and paving tiles from the demolished mausoleum and appears to have been of 4<sup>th</sup> century date.

### Grave 1110

F1110.1 (Not illustrated)

*Black Burnished 2.* Bead-rimmed dish sherd (as the Camulodunum f. 37) with basal chamfer and lightly tooled burnish lattice decoration. c. AD 140-70. Residual. Fill L1111.

### Grave 1152

1152.1 (Fig. 19.07)

*Oxidised Hadham ware.* The industry's common bowl-jar form, slipped, decorated with horizontal burnish all over. The interior is left rough with light wheelmarking. The base has been cut from the wheel and smoothed. Buried intact, but one sherd missing from the wall. When decorated with 'Romano-Saxon' motifs, this form becomes a variant of the well-travelled Roberts (1982) Type A bowl, recorded widely across the east/ south-east of England. As in this case, the form is usually undecorated. Fill L1153. SF68.

1152.2 (Fig. 19.08)

*Oxidised Hadham ware.* Complete (save for a chip on the rim), narrow-necked globular jar. This precise form is not closely paralleled but this is not significant - a wide variety of jars with grooved upper parts are known in the *Hadham* repertoire. Decorated with horizontal burnish overall. Does not appear to have been slipped. Knife-smoothed base. Flame-marked exterior. Fill L1153. SF67.

1152.3 (Fig. 19.09)

*Nene valley colour coat.* Six joining sherds from a very small flange rimmed dish with a small, delicately-moulded rim. Very worn base and foot, one V-shaped sherd missing from the side. The vessel looks as if it has seen a great amount of use - the rim is nicked and chipped, as is the base side wall. The exterior of the vessel is very flaked, the interior less so. Fill L1153. SF70.

The above pottery suggests a *terminus post quem* of the second half of the 4th century AD for the burial, the actual interment date being probably in the 5th century AD. These vessels were placed 'above and around' the feet of a coffined inhumation (Fig. 18).

### Grave 1162

1162.1 (Not illustrated)

*Oxidised Hadham ware.* Two sherds in a good finish, from a closed form (probably a jar). The sherds are small, so the vessel form is unclear. Fill L1163.

1162.2 (Not illustrated)

*Oxidised Hadham ware.* Rim sherd from an open form with a round bead rim. Possibly from a large handled bowl of Roberts' (1982 plate 17) form B20.3, as is the vessel from Grave F1079 (1079.1, Fig. 19.04). Fill L1163.

The above two sherds may have been placed in the grave fill. The form (1162.2) is probably late and may place the grave in the latter half of the 4th century AD.

### Grave 1165

1165.1 (Fig. 19.10)

*Oxidised Hadham ware*. Narrow-necked pedestal jar (the form is the Cam f. 296: Hull 1963, 186 and fig. 104). The rim down to the base of the neck is burnished horizontally overall, beneath which is a zone of vertically applied all-over burnish - this change in direction which is a Hadham trademark. The vessel had been buried intact but recently broken. The rim is not cracked or chipped. On the upper body there is a distinct band of contact abrasion some 3-5mm in width which may have been caused by some kind of lid, although no trace of any cover was found. The underside of the pedestal base is inscribed with an arrow-like *graffito* (Fig. 19.09). The mark is probably of apotropaic significance, or less likely, a blundered 'A'. Further examples of the form are known from inhumation burials at Pishiobury, near Sawbridgeworth, (unpublished) and Ford Street, Braughing (both Hertfordshire), and in neighbouring Essex at Ardleigh, and Colchester, where dating (where determined) is mainly 4<sup>th</sup> century. SF94.

1165.2 (Fig. 19.10)

*Hadham grey ware*. Plain-rimmed, vertical-sided *dish*, burnished overall. The interior is somewhat carelessly, and no doubt rapidly, burnished with coarse parallel strokes in bands on the opposite floor margins and at right angles to the main floor. Complete bar a single missing rim sherd. SF95.

### Grave 1186

1186.1 (Not illustrated)

*Oxidised Hadham ware*. Sherd of an imitation Drag f.38 bowl (S+); bead-tipped flange. Possibly 4<sup>th</sup> century AD. Fill L1187.

1186.2 (Not illustrated)

*Oxidised Hadham ware*. One sherd of uncertain form. Fill L1187.

### Grave 1189

1189.1 (Not illustrated)

*Oxidised Hadham ware*. Body sherd from a closed form flagon or jar. Slightly abraded edges. Exterior burnished. 3<sup>rd</sup> century+ AD. Fill L1190.

### Other Pottery

#### *Grave 1089*

F1090.2 (Not illustrated)

*Shell-tempered ware*. Base sherd from a jar. Abraded. Probably from a 1<sup>st</sup> or 2<sup>nd</sup> century AD vessel and thus residual. Fill L1090.

F1090.3 (Not illustrated)

*Oxidised Hadham ware*. Two oxidised, abraded body sherds from two closed forms, perhaps flagons. Probably 2<sup>nd</sup> to 3<sup>rd</sup> century AD and thus also likely residual. Fill L1090.

### 3.1.2 Pottery from the non-Grave Features (Fig. 20)

#### Phase 3

##### *Ditch 1142* (Fig. 20.01)

*Hadham grey ware*. Plain-rimmed dish. Single sherd, giving complete form profile. The vessel has the characteristic tip-tilted rim of the Hadham version of this common type. The vessel was finished with a horizontal burnish overall, applied with broad strokes. A fairly characteristic Hadham type. Slightly abraded. Probably mid to late 4<sup>th</sup> century AD. Fill L1141.

#### Phase 4a

##### *Pit F1121* (Fig. 20.02)

*Coarse reduced ware*. Single sherd with burnished line decoration. Possibly from a very thick floored dish. Possibly 4<sup>th</sup> century AD. Fill L1125.

##### *Ditch F1123, secondary Fill L1124* (Fig. 20.03)

*Coarse reduced ware (probably Hadham)*. Lower half of a jar with a restricted, turned base. The exterior of the lower body is smoothed and the mid-body burnished. The fairly worn and chipped base suggests that the vessel was old when discarded. Probably a jar of 3<sup>rd</sup> 4<sup>th</sup> century AD date.

#### Phase 4b

##### *Ditch F1107* (Not illustrated)

*Reduced ware*. Two featureless, joining sherds from a closed form. Probably 2<sup>nd</sup> century AD or later in date. Fill L1108.

#### Phase 4d

##### *Ditch F1113, secondary Fill L1115* (Not illustrated)

*Oxfordshire colour coat*. Very abraded sherd from an open form, probably a bowl.

*Miscellaneous Oxidised ware*. Two very abraded sherds, form(s) unclear.

*Miscellaneous Reduced ware*. Body sherd. Very abraded, form unknown.

The presence in Fill L1115 (F1113) of the abraded Oxfordshire ware sherd suggests that the feature was open beyond the mid-4th century AD, and perhaps substantially later.

#### Phase 5a

##### *Pit F1132* (Fig. 20.04)

*Oxidised Hadham ware*. Small flange-rimmed dish sherd with a very small rim. Tooled burnish both internally and externally. 4<sup>th</sup> century AD. Fill L1133.

### 3.1.3 Discussion

## Cemetery Pottery

### Origins and Dating

In origin, the assemblage is typical of this part of Hertfordshire, the overwhelming majority of the vessels being products of the Hadham kilns. These are in one basic fabric, either fired in reducing conditions or to a bright oxidised finish. Reduced vessels were rare and represented by 1072.2, 1079.3, and 1165.2. Oxidised vessels comprise 1069.1-2, 1072.3, 1076.1, 1079.1-2, 1090.3, 1103.2, 1152.1-2, 1162.1-2, 1165.1, 1186.1 and 1189.1.

Despite Hadham's dominance locally, other industries are represented, principally in the beaker range. This vessel class was seldom produced in the Hadham kilns and when made there, was often done poorly (see Grave F1069, above). The small number of beakers in the assemblage are mostly superior Nene Valley products. Interestingly, these vessels (in Graves F1072 and F1089) are probably 3<sup>rd</sup> or early 4<sup>th</sup>-century products, embellished with thinly-piped *en barbotine* decoration; a technique largely superseded towards the middle of the 4<sup>th</sup> century by white overslip painting. Products of other industries include a flanged rimmed bowl in BB1. This fabric reappears in this region at some point around the middle of the 4<sup>th</sup> century AD, following a prolonged absence. Some shell-tempered vessels were noted, but these are represented only by sherds and are not necessarily late products of the Harrod potteries.

### Dating

Ditch F1107, interpreted as an agricultural feature, provides a probable date for the cemetery because it was cut by Grave F1110 and the northern half of a small ditch which enclosed Grave F1152. Pottery from F1107 suggests that it was open in the later 3<sup>rd</sup> or 4<sup>th</sup> century AD, signifying a mid to late 4th century date for the earlier phase of cemetery.

Matters now become more complex. It is clear from their highly worn state that some of the better-preserved grave-goods may pre-date their interment by a substantial margin. Possibly similar ancient vessels at Welwyn include the BB1 dish from Grave F1026 (1026.1), which has clearly seen protracted use and is clearly a relic. Grave F1072 produced a small sherd of an Antonine *Drag f 33* cup. Although the sherd is freshly broken the vessel itself has clearly seen generations of wear. It is possible that the vessel was intact up to the moment it was broken to provide a sherd for casting into the burial fill. The flange-rimmed dish in Nene Valley colour coat from Grave F1152 (1152.3) had also clearly seen a great deal of use before its 'ritual' destruction and its incorporation in the grave fill, and, if the *terminus post quem* suggested for the cemetery is fairly accurate the Nene Valley colour-coat beaker from Grave F1090 (1090.1) must also have been of a substantial age at the point of interment.

Similarly old vessels were identified in the cemetery at Butt Road, Colchester, Essex (Going 1993). There, it became clear that several pottery vessels were considerably older than the interments in which they were found. One vessel was perhaps 50-80 years old when it was buried; others were 100-150, nearly 200, and probably well

over 200 years old when buried (*cf* Butt Road Graves 70, 170, 395/6; 533, 542; *ibid.* 1993, 49).

All of the burials at Welwyn *could* belong to the 4<sup>th</sup> century AD, but this is unlikely. The very paucity of either *intact* or fresh pottery implies that the cemetery was the burying place of a community who felt that, while pottery of some kind was an appropriate funerary offering, only the oldest, most worn out pottery would do, or rather more probably, that when these burials were being dug *contemporary* pottery was not available. The use of the cemetery extended well beyond the end of the formal Roman era.

### Pottery as Grave Goods

It has been suggested that the bulk of the interments at Welwyn Hall probably dated to the 5<sup>th</sup> century AD and that the pottery placed in them was chosen not from new stock, but from broken but still 'recognisable' vessels, or from *relic* items that survived into the middle of the 5<sup>th</sup> century or later.

Following the evidence concerning decapitated burials and the interment of hobnailed footwear amassed by Watts (1993, 194-5) it is accepted that this was a pagan cemetery, and that the intact or nearly complete pottery vessels buried in the graves can be regarded as straightforward grave goods (Table 2 gives an indication of the state of preservation of the pottery in the various graves). The vessels include conventional jar forms, such as 1152.1. Some less common forms are represented; sherds of large multi-handled vessels (1079.1, 1162.2) were found in the backfills of Graves F1079 and F1162. It is possible that these may be the broken remnants of vessels used communally for ritual feasts at the graveside.

Grave	Complete Vessel	Largely Complete	Sherd/ Frags.
1026		1026.1 (BB1 dish)	
1059			1060.1-2
1069	1069.1 (Had)	1069.2 (Had R/S bowl)	
1072			1072.1-4
1076			1076.1
1079			1079.1-3
1089		1090.1 (NVCC Bkr)	1090.2-3
1100		1100.1 (COAR VC)	
1103			1103.1-2
1110			1110.1
1152	1152.1-3		
1162			1162.1-2
1165	1165.1-2		
1186			1186.1-1
1189			1189.1

Table 2: Completeness of the pottery from the burials

The meaning of the sherds in the fills of Graves F1073, F1076, F1079, F1089, F1100, F1103, and F1162 is vaguer. Site plans show that few of the burials (with the exception of Grave F1110, which cut Ditch F1107) cut ceramic-bearing features of Roman date, suggesting that this pottery must either have been derived from the Roman topsoil, or been deliberately thrown into the grave backfills. The abraded sherds from the fills of Graves F1059 and F1110 can be interpreted either way.

However once the cemetery was established secular debris is unlikely to have been disposed of there, and it is probable that most of the pottery found was deposited intentionally.

### References

Gillam, J. P. 1968, *Types of Roman Coarse Pottery Vessels in Northern Britain*, Oriol Press, Newcastle upon Tyne

Going, C. J. 1993, 'Roman Pottery', in Crummy, N., Crummy, P. and Crossan, C. *Excavations of Roman and Later Cemeteries, Churches and Monastic Sites in Colchester, 1971-88*, Colchester Archaeological Report 9, 44-9

Howe, M. D., Perrin, R. and Macreth, D. 1981, *Roman Pottery from The Nene Valley: a guide*, Peterborough City Museums Occasional Paper No. 2

Hull M. R. 1963, *The Roman Potters' kilns of Colchester*, Society of Antiquaries Research Report 21

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Watts, D. 1993, 'An Assessment of the Evidence for Christianity at the Butt Road Site', in N., Crummy, P. and Crossan, C. *Excavations of Roman and Later Cemeteries, Churches and Monastic Sites in Colchester, 1971-88*, Colchester Archaeological Report 9, 192-202

### 3.2 The Stone Objects (Fig. 21-22) Emma Harrison

Forty two fragments of stone were recovered from the site, weighing 22,963g. Of these, two fragments of stone (6076g) are worked, and 30 (5515g) are fragments of tufa. Of the latter, several larger fragments are faced but the majority (generally small in size) show slight or no signs of working. The tufa was recovered from nine features: six graves (F1059, F1092, F1100, F1103, F1110 and F1162), two ditches (F1108 and F1113) and one pit (F1174). All of these features are dated between the late 4<sup>th</sup> and early 5<sup>th</sup> centuries AD.

The tufa is thought to be derived from the robbing of the mausoleum. Due to its lightness, where available, tufa was used as a vaulting material (Williams 1971, 174-5), often in bath suites as with the complex layout of the temple mausoleum at Bancroft (Williams and Zeepvat 1994).

A single fragment of very fine tabular limestone (imported to the site) was reused within Wall Foundation M1063 of the temple mausoleum (set in *opus signinum*).

Two of the worked fragments of stone comprise (i) a small fragment from a quern or rubbing stone retrieved from Ditch F1113 (Fig. 21.01), and (ii) a large complete rubbing stone reused as a grave good within Grave F1089 (Fig. 21.02). The latter has one flat, smoothed grinding surface and is roughly lozenge-shaped, measuring

350mm long, 150mm wide and 70mm deep.

### References

Williams, J. H. 1971, Roman building-materials in South-East England, *Britannia* 2, 166-95

Williams, R. J. and Zeepvat, R. J. 1994, *Bancroft. A Late Bronze Age/ Iron Age Settlement, Roman Villa and Temple-Mausoleum*, Buckinghamshire Archaeology Society Monograph Series No. 7

### 3.3 The Marble Fragments

*Paul Woodfield*

The fragments comprise nine pieces of white and cream-coloured fine grained marble, previously identified as of Pentelic type<sup>3</sup>. They are additional to those 19 fragments found by Rooke in 1977.

All the pieces are fragmented and eroded – largely by groundwater following burial. Marble is a soluble and friable material; the surfaces are now ‘sugary’ as is often found in marble of Greek origin, and the breaks, including those clearly of age, are difficult to distinguish from the worked surfaces. The nine pieces submitted are labelled 1-9 (Table 3).

Most, if not all of the pieces, would appear to come from one, or at the most, two subject panels. Numbers 1, 2, 4, 6 and 7 are very white in colour and would seem to be from one panel, whilst 3, 5, 8 and 9 are more creamy in colour and are possibly from a second panel, although the colour variation may simply result from differences in the burial environment. The fragments originally formed one or more uniface slabs, with carving in three-quarters round on the front, raised over a basic field thickness which varies between 25 and 35mm. The reverse side is clearly distinguishable by pecking in diagonal lines by a mason’s point. There is no clear single piece that represents the edge of the panel(s), nor indeed any useful indication as to how the panels, if there were more than one, were assembled.

The quality of the work was obviously originally very high, and it is clearly imported work produced in the Mediterranean region, if not more precisely in Greece. The Marble is worked without any significant degree of undercutting, and there is no indication of the use of a drill. The lack of undercutting sets this group apart from the Rook *et al.* (1984) collection, where undercutting is said to be heavy (*ibid.* 159).

The subjects represented by the present group appear to be a series of human figures in three-quarter relief, some fully draped, and others wearing a tunic and boots leaving a section of leg visible. The figures must have originally been approximately 1.0 to 1.4m high, judging from the scale of the drapery. Although the representation of boots may suggest a military figure, they are worn in other contexts by gods such as Hercules, Diana and Vulcan.

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<sup>3</sup> Report on scientific analysis by Dr M. L. Coleman of the IGS (*Britannia* 1984).



Piece	Notes	
1	115 x 75mm, field thickness 24mm <sup>4</sup>	This piece has two vertically placed rounded features, probably legs close together, on each of which there is a slight indication of a vertical groove, probably the vertical division of a leather boot, although there are no corroborative lace holes <sup>5</sup> .
2	60 x 78mm	This piece joins the assumed top of piece 1 and continues the 'leg' theme upwards for a short distance.
3	218 x 153mm, field 30mm at the top, 25mm below	This, the largest piece, clearly portrays drapery of a high calibre of execution, raised over the field. Superimposed on the drapery is a curious mammalian-like creature, its front end raised up on ridged 'legs' towards the drapery. If it does represent an animal, then it is curiously elongated vertically, perhaps suggesting perspective. There is no head but the state of preservation makes it inconclusive as to whether there had been one, and the back curves up stopping short of the position of the raised tail. The quality of the work displayed on the drapery rules out the possibility that it is a provincial rendering, but it is difficult to identify the object as anything else.
4	65 x 123mm, field 24mm	This piece is very eroded, but appears to have been largely flat with two raised 'knobs', the field rising slightly at the lower end.
5	72 x 195mm	This piece seems to represent part of a rounded thigh, which appears as an asymmetrical half-round on the lower section against the field, 35mm thick. The rounded section ends at a raised section, the face of which is mostly broken and weathered. On the back, there is a concretion, not of mortar, but of calcium carbonate, which presumably was deposited in a natural fissure, prior to loss.
6		This small piece clearly depicts folds of drapery, the face of which has broken away in part.
7	100 x 50mm, thickness 35mm	Sculpted piece, raised to a slight peak at the centre.
8	95 x 55mm	This is the only piece that displays what is probably a panel edge. One curved and one straight rib originate at a raised point near the edge (slightly hollowed out probably by weathering). A fine horizontal ridge, like a margin, against the edge would appear to be natural.
9	113 x 66mm, field 20mm	This has a clearly three dimensional worked face, but is very worn, and is indistinguishable.

Table 3: Catalogue of marble fragments

Imported Marble is known from most of the more prestigious sites of southern England, and is normally sculpted in the round and imported in a finished state, the subjects usually being scenes of gods or the Imperial family. The present group is more unusual in being three-quarter round set against a background field.

### References

Rook, T., Walker, S. and Denston, C. B. 1984, 'A Roman Mausoleum and Associated Marble Sarcophagus and Burials from Welwyn, Hertfordshire', *Britannia* 15, 143-62

<sup>4</sup> The dimensions given here are the maximum size, and are noted for identification purposes. The width is given first followed by the height.

<sup>5</sup> Those pieces found previously by Rook *et al.* (1977) are similarly described but are not available for direct comparison.

### 3.4 The Brick and Tile

Robert J. Zeepvat

95.36kg of brick and tile was recovered, of which 4.49kg (4.7%) was of post-Roman date (this material has been omitted from the following comments). The remainder is Roman was found in 49 contexts. The assemblage represents a c. 40% sample of the total tile revealed during the excavation. The assemblage is rather small for statistical analysis, bearing in mind the presence of a substantial masonry building on the site, and the fact that a complete *tegula* weighs on average about 4.0kg, and a *lydion* nearly 7.0kg. Only twelve contexts produced more than 2kg of tile: these were related to the building (M1064 and M1148), to the graves fills (L1077, L1093, L1101, L1104, L1106, L1111 and L1163), and to certain other features (Ditch F1113 and Pits F1132 and F1178).

With the exception of a near-complete unstratified *lydion*, and two samples of tile from the backfill of the 1976/ 1977 excavations, all the tile recovered came from securely stratified contexts, largely within a 30m radius of Building 1, which has been provisionally dated to the second century. In general terms, the less precise dating of the tile accords with that of the pottery. Most of the tile-producing contexts that have been spot-dated were allocated to the later Roman period (eg. the fills of the grave cuts). Assuming the building to be the primary source of tile on the site, these contexts can therefore be seen to contain residual deposits of tile, or in some instances (e.g. Grave Lining L1106) as secondary use of tile.

Of the identifiable tile fragments, by far the most common type present is structural tile (referred to in Table 4 as 'brick'). This category includes, in ascending size order, the *bessalis*, *pedalis*, *lydion*, *sesquipedalis* and *bipedalis* (Brodrigg 1987). Since the first three types are normally of a similar thickness, as are the last two, it is difficult to distinguish between these types unless large pieces are recovered. Of the few more complete pieces recovered, all appear to be *lydion*. Grave Lining L1106 consisted of large pieces of reused *lydion*, and pieces of an almost complete *lydion* were recovered from an unstratified context. It is quite possible that, based on this evidence, much of the more fragmentary 'brick' derived from tile of this type. Only two brick fragments (Contexts L1093 and L1137) have been positively identified as *bessales*.

Other tile types identified in the assemblage are roof tiles, *tegulae* and *imbrices*. Totally absent from the assemblage are box-flue and voussoir tiles (*tubulus*, *tubulus cuneatus*). Roof tile appears in far smaller quantities in the assemblage than brick.

The assemblage was found to contain two principal fabric types. Both have a reddish-orange paste, well-fired, with few inclusions, and are differentiated only by the quantity of sand they contain. These types are referred to in Table 4 as 'sandy' and 'non-sandy'. Also present, but in smaller quantities, is a hard well-fired biscuity fabric, purple-red, with a small amount of ironstone, and occasional pebbles.

During the excavation, a sampling strategy was adopted for brick and tile. For smaller fragments, a sample approximating to 20% of the total recorded was kept, while for the larger more diagnostic pieces some 40-50% was retained. Since the range of information that can be obtained from small tile fragments is far more limited

than that from larger fragments, this is not seen as creating a bias in analysing the assemblage.

Context	Weight (g)	Tile present
-	?	Roman. Near-complete <i>lydion</i> , 400 x 310 x 30. Hard well-fired biscuity fabric, purple-red, with small amount ?ironstone, and occasional pebbles. Slightly curved section - firing distortion? Shallow 'step' on smoothed face edges - caused by mould? Flat notch at centre of one end, post-moulding, possibly made by tool for lifting it out of mould. Used - mortar on both faces.
L1977	159	Roman. <i>Imbrex</i> , sandy fabric, ?unused. Brick, 35mm thick, mortar on both faces.
L1005	159	Roman? Small unidentified fragments, sandy and non-sandy fabrics.
L1007	474	Roman. Two brick frags, rest small, unidentified. Sandy and non-sandy fabrics. Also some fired clay/ daub.
L1021	123	Roman (residual). Unidentifiable fragments, sandy and non-sandy fabrics.
	136	Roman. Brick, 40mm thick, sandy fabric.
L1060	505	Roman? Fragments too small to identify.
L1061	287 + SF37	Roman. <i>Tegula</i> , sandy fabric. Rest too small to identify.
L1064	13993	Roman. Largely brick, 40mm thick. One piece with stepped edge (see unstrat) and twin concentric semi-circular fingertip signature. 1 piece with upturned edge (broken) - not <i>tegula</i> . Many fragments broken in antiquity; mortar on broken edges.
L1065	564	Roman. <i>Tegula</i> , sandy fabric; ? <i>bessalis</i> , similar fabric to unstratified <i>lydion</i> .
L1067	490	Roman. all brick, sandy fabrics
L1070	638	Roman? Unidentifiable fragments, sandy and non-sandy fabrics.
L1073	386	Roman. Brick, all small fragments, non-sandy fabrics.
L1077	2479	Roman. <i>Imbrex</i> , non-sandy; brick, one frag ?painted (grey/black). No mortar present. <i>Tegula</i> fragment shaped into rough circle: suggested by excavator to be stopper.
L1080	467	Roman. Small unidentifiable fragments, sandy and non-sandy fabrics.
L1090	433	Roman. <i>Tegula</i> : remainder all small unidentifiable fragments.
L1093	5389	Roman. <i>Bessalis</i> , non-sandy, with print of ?small dog paw. Large amount of brick - none with mortar. 1 frag possibly painted - grey/ black.
L1097	86	Roman. All small unidentifiable fragments.
L1099	58	Roman. All small unidentifiable fragments.
L1101	4607	Roman. Lots of small unidentifiable fragments, mainly brick, also some <i>imbrex</i> , sandy and non-sandy fabrics.
L1104	9540	Roman. <i>Imbrex</i> , non-sandy, mortar on surface. Also brick, mainly small pieces.
L1106	13643	Roman. Six large fragments of brick, probably all <i>lydion</i> . All have mortar on both faces, and are between 280-300mm wide. One piece has and twin concentric semi-circular fingertip signature. Backs of 3 fragments have abundant hay/ straw impressions, and burnt fragments of hay/ straw inclusions.
L1108	1795	Roman. <i>Imbrex</i> , <i>tegula</i> , brick, sandy and non-sandy fabrics. None with mortar adhering.
L1111	2820	Roman. Brick, non-sandy fabric, no mortar. Fragments slightly abraded.
L1115	8395	Roman. <i>Tegula</i> and brick. Also, lots of small abraded fragments, no mortar present. Sandy and non-sandy fabrics.
L1124	622	Roman. All small fragments brick.
L1125	1626	Roman. <i>Imbrex</i> , <i>tegula</i> , brick. All smallish fragments. One fragment with fingertip signature noted above. Sandy and non-sandy fabrics.
L1133	5889	Roman. All small abraded fragments of brick, sandy and non-sandy fabrics.

L1135	202	Roman. Fragment of brick, sandy fabric: remainder small and unidentifiable.
L1137	1776	Roman. <i>Bessalis</i> , sandy fabric, mortar on both faces.
L1148	4165	Roman. Brick, sandy and non-sandy fabrics, mortar on broken faces.
L1161	1525	Roman. <i>Tegula</i> and brick, sandy and non-sandy fabrics, no mortar adhering.
L1163	2111	Roman. <i>Tegula</i> and brick, mainly smallish fragments. No mortar adhering.
L1166	745	Roman. Brick, coarse sandy fabric, with large flint inclusions. No mortar adhering.
L1171	960	Roman. Brick, mainly small unidentifiable fragments.
L1175	206	Roman. Two fragments <i>imbrex</i> , 1 unidentifiable fragment.
L1179	2268	Roman. Brick, same fabric as unstratified <i>lydion</i> . Mortar on broken faces.
L1181	166	Roman? All small unidentifiable fragments.
L1187	926	Roman. Some brick, lots of small unidentifiable fragments.
L1190	50	Roman. Unidentifiable small fragments.

Table 4: Catalogue of brick and tile

The assemblage contains no complete tiles: only one near-complete tile (*lydion*) can be reconstructed from pieces found together in an, albeit unstratified, context. The assemblage consists predominantly of small, often unidentifiable tile/ brick fragments, most of which are at least slightly abraded but free of mortar, and also of larger pieces, with largely unabraded edges and patches of mortar adhering to the tile faces and, occasionally, to broken edges. Quantities of small abraded fragments were found predominantly in the grave fills, and may represent construction debris left by the builders of the mausoleum, or perhaps waste from tile-robbing following its abandonment. Large fragments with mortar adhering to both faces were found lining Grave Cut F1103 (L1106): these had almost certainly been removed from tile bonding courses in the walls of Building 1. Fragments with mortar adhering to fresh broken faces were recovered from the floor of the apse in Building 1 (M1148), indicating that broken tile, possibly from other building operations in the construction of the Mausoleum, were being used as hardcore.

### 3.5 The Copper Alloy Objects (Fig. 23)

*Dr Glynis Lloyd Morgan*

Six copper alloy objects were recovered (Table 5), five of which are Roman in date and were found reused as grave goods within the cemetery. The fifth object (SF101) is modern. Those objects reused as grave goods comprise a bracelet adapted for the use of a small child (SF32; SK1068). From Grave Fill L1181 (F1180; SK1185): a bracelet with sliding knots (SF75); a penannular brooch with random hatched design (SF96); a decorated bracelet with eye and hook fitting (child-sized; SF97) and a fragment of a bracelet with plano convex section.

Feature	Notes
F1066	SF32, Ver Lab No. 0593 (Fig. 23.01) AE tiny bracelet with plano convex cross-section, adapted for use of a small child. Height 0.22mm, width 0.12mm, cross-section diameter 40.10mm.
F1160	SF75, Ver Lab No. 0594 (Fig. 23.02) AE bracelet with sliding knots made from AE wire, with c. 3 twists on one surviving side. The bracelet is made from a wire with square cross-section: c. 0.25mm. Present widest diameter of bracelet c.105mm, probably ?adult size.

		Present widest diameter of bracelet c.9.5mm. Now in c. five fragments, partially restored.
F1180	SF96, Ver Lab No. 0595 (Not Illustrated)	AE penannular brooch, width 47.0mm x 42.1mm. Pin now lost. Terminals folded back and lightly engraved. Depth 0.25mm; width 0.35mm. Random hatched design over upper surface with cross-section.
	SF97, Ver Lab No. 0596 (Fig. 23.03)	AE bracelet with eye and hook fitting (child size). Width 0.45mm; thickness 0.1mm; length c. 30.9mm. Decorated on the outer face with a dot and circle pattern with a lightly incised border on either side.
	SF98, Ver Lab No. 0597 (Fig. 23.04)	Fragment of a bracelet with a plano convex cross-section. Present length c. 9.66mm; width 0.13mm; depth 0.18mm. A little eroded in places but otherwise in good condition.

Table 5: Catalogue of copper alloy objects

### 3.6 The Iron Objects (Fig. 24)

#### *Quita Mould*

A small assemblage of iron was recovered from the excavations at Welwyn Hall comprising timber nails (66 examples) and hob nails (269 examples), principally from a series of 4<sup>th</sup>-5<sup>th</sup> century graves (Phase 5b). Four burials were found to have been in nailed coffins (Graves F1026, F1059, F1109 and F1165). One of the burials had been wearing shoes of nailed construction when interred (SK1173, Grave F1165). Another had a pair of nailed shoes placed alongside the body within the coffin (SK1102, Grave F1100) - a common burial practice amongst rural communities in the 4<sup>th</sup> century in southern Britain (Philpott 1991, 167). In addition, four objects were found, three from 4<sup>th</sup>-century features F1121, F1132, F1116 (SF's 62-4), the fourth (SF31) from post- medieval Pit F1035 (Phase 7). A catalogue of noteworthy iron objects is presented in Table 6.

A single hobnail (SF2) was found within Fill L1007 of V-shaped Ditch F1006 (Area A; Phase 4b).

Two nail shanks (SF5) and a small iron fragment were found in Fill L1021 of linear Ditch F1022 (=1020; Area A; Phase 6).

Timber nails were found in the fill of eight graves. Four contained either a single broken nail (SF29, F1089; SF46, F1092; SF99, F1180) or two nails only (SF49, F1100) and were residual in the fill. Similarly, residual hobnails occurred in two graves (one in F1026 and two in F1072).

Grave F1026 (SK1030) contained 16 nails comprising ten nails of Manning's Type 1b (1985, 134) with flat, round heads, and six broken shanks. The nails were found around the perimeter of the, apparently, undisturbed burial and mark the position of a coffin. The four complete examples ranged in shank length between 52 and 64mm [2-2½ inches] with a head length of 18-22mm. Minerally-preserved wood from the coffin was present on 12 of the nail shanks which could be identified as oak (*Quercus* sp.) on two examples (SF13 and SF20). The grain pattern preserved on three examples suggested that the coffin boards were between 15 and 26mm (just over half an inch to one inch) in thickness.

Grave F1100 (Coffin 1109) contained 21 nails, comprising 13 Type 1b nails and eight broken shanks (two of which were found amongst the group of hobnails recovered). The nails were aligned down the two sides of the grave, none surviving from either end of the coffin, one end of the grave had been intercut by Grave F1103. The three complete nails had shank lengths measuring between 56 and 69mm (2¼-2½ inches). Mineraally-preserved wood occurred on nine nail shanks, which on two examples (SF50 and SF59) could be identified oak. The grain pattern suggested that the coffin boards were 24-27mm thick. A group of 96 hobnails (SF49) were found situated by the right femur of the skeleton, with mineraally-preserved leather surviving, indicating that a shoe of nailed construction, probably a pair of shoes, had been placed in the coffin alongside the body.

Fill	Notes
L1172	Iron nail, SF87 (Fig. 24.01) Nail with flat, round head and square-sectioned shank. Manning type 1b (1985, 134). Complete. Slightly encrusted. Shank length 56mm, head length 18mm.
L1172	Iron nail, SF76 (Fig. 24.02) Nail with pointed, rectangular-sectioned shank flattening and expanding at the opposite end. Slightly encrusted. Shank length 60mm, head width 18mm.
L1181	Iron hob nail, SF99a (not illustrated) Nail with domed head and short shank with mineraally preserved leather from the shoe sole present. Complete. Shank length 12mm, head diameter 10mm.
L1181	Iron Chain, SF 99b (not illustrated) Interlinking small annular rings of round section. Slightly encrusted. Ring diameter 10mm.
L1133	Iron Knife, SF 63, Ver Lab No. 0605, X-ray 874 (Fig. 24.03) Small knife with rectangular-sectioned tang expanding to a blade with a kicked back which rises gently before dropping steeply to meet the straight edge at a pointed tip. Slightly encrusted. Almost complete (tang tip missing). Total length 87mm, blade length 58mm, width 14mm, back thickness 4mm.
L1115	Iron axe head, SF64, Ver Lab No. 0606, X-ray 874 (Fig. 24.04) Complete axe head with square poll, large oval eye and downward curving blade with a gently convex edge. Manning type 4 (1985, 15-16, fig. 3). Slightly encrusted. Length 132mm, edge width 65mm, poll 35 x 32mm, eye 30 x 20mm. Weight c. 510g.
L1125	Iron pulley and hook, SF62, Ver Lab No. 0604, X-ray 874 (Fig. 24.05) Round-sectioned hook with a straight stem taking a rectangular section before the U-shaped head. The two arms of the head are connected by a large rivet holding the revolving spindle. Almost complete. Slightly encrusted, Flaking. Length 188mm, head width 38mm.

Table 6: Catalogue of iron objects

Grave F1165 (Coffin 1172) contained 17 nails. Eight nails are of Manning's Type 1b (e.g. SF87); seven are of similar size to coffin nails found within other graves. A single smaller example was present (Sf 91) having a complete shank length of only 30 mm, however, being un-encrusted this may be intrusive to the context. Four nails had a shank which ended in a slightly expanded, laterally flattened end, without a head (SF76, SF83 and SF88); they would appear to be a distinct type rather than broken examples of more commonly occurring nails. Mineraally preserved wood was found on ten of the nail shanks and suggested a timber thickness of 27-30mm.

A large group of hobnails was recovered from the left and right foot of SK1173 (Grave F1165), indicating that the body had been wearing shoes of heavily nailed construction when buried (60 hobnails; SF93) from the left foot and 85 (SF92) from the right).

Skeleton 1061 within Grave F1059 had a scatter of five hobnails (SF33-6 and SF39) at the feet. Two Type 1b timber nails (SF38 and SF40) were found in a position suggesting they had originally come from a coffin. It would seem from the small quantity of both hobnails and coffin nails that the bulk of the nails from this grave were not recovered. However, the skeleton did not appear to have been significantly disturbed.

Within Grave F1180 a small quantity of hobnails (SF99 and SF100) were found in association with copper alloy bracelets re-used as grave goods. Amongst the hobnails (SF99a) was a broken nail shank. Three conglomerations of small interlinking annular rings (SF99b) with a diameter of 10mm, apparently from a length of chain, are deemed to be residual.

A broken Type 1b nail (SF46) and a fragment of iron apparently encrusted onto a coin (SF45) were found in the fill of Grave F1092.

A Type 1b timber nail (SF65) was found in the fill of the large boundary ditch (F1142) in Area B.

A small knife with a kicked back (SF63) was found in the uppermost fill (L1133) of a large, deep pit (F1132) in Area C. This style of knife is an Anglo-Saxon/ Anglo-Scandinavian type, apparently belonging to the post-Pagan period (late 8th-9th century onwards), and can be paralleled by finds from numerous contemporary sites including Coppergate, York (Ottaway 1992, 561-4). The type does appear to have a long history, however, perhaps extending back to the late Roman period (*ibid.* 563).

A complete axe head (SF64) was found in the secondary fill (L1115) of a recut of a shallow boundary ditch (F1116). The axe head, a common Roman form, was found associated with fragments of marble relief derived from the sarcophagus removed from the temple mausoleum.

A pulley and hook (SF62) was found in secondary Fill L1125 of shallow, circular Pit F1121 and is comparable to a 1<sup>st</sup> century pulley from Hod Hill and a late Roman example in the Lakenheath Hoard (Manning 1985, 138. plate 64 S1 and S2 [and parallels]). It would have been used to lift heavy objects in construction work and, along with the axe head (SF64), could have been associated with the construction, or possibly destruction, of the temple mausoleum, thus residual within its context.

A type 1b nail (SF74) was found in the secondary fill (L1127) of a short, narrow slot (F1126).

A Medieval nail, and three type 1b nails (SF3, SF24 and SF25) were found in the fill of Postholes F1004 and F1033, representing a boundary fence line in Area A. A paring chisel (SF31) including remains of a central tang and round-sectioned shoulder was found, along with a broken nail shank (SF29), in the fill of a shallow, circular pit (F1036).

## References

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### 3.7 The Metalworking Residues

*Dr Gerry McDonnell and Dr A Russell*

Most early metalworking processes generated waste slags, residues and other by-products. These can be classified into diagnostic residues, i.e. those characteristic of the process, such as tapped iron smelting slag, and non-diagnostic residues, which may have been generated by any high temperature process, for example vitrified hearth lining. Each metalworking process generates a range of residues that, as a group, are also characteristic of the process. Thus secondary copper working will have used crucibles and moulds, and have generated waste spills of metal and possibly a type of cinder. To confirm the presence of metalworking on an excavated site, the majority of the group of residues associated with the process must be recovered in quantity. However assessing, 'the quantity' is difficult, since they will relate to the amount of metal worked which will depend to some extent on geography, period and the nature of the site.

Many sites, commonly Roman and later, produce a background scatter of metalworking debris, usually iron smithing slags. These scatters probably derive from the use of the material for in-filling, levelling etc., or just natural scatter by disturbance of larger deposits. Metalwork residues from the site were examined, identified and weighed. Most would appear to have been generated by smithing activities, and have been categorised as follows:

**Smithing Slag** - randomly shaped lumps of slag: dense and vesicular showing, in the most part, a yellow-brown encrustation on the outside, but grey-black in colour where broken.

**Vitrified Hearth Lining** - black, glassy material, fairly light, sometimes with burnt clay adhering, formed by the reaction of the hearth lining with slag at high temperatures.

**Cinder** - highly vesicular, light black material, formed by high-temperature processes but not definitely ascribable to a particular activity.

A catalogue of recorded metalworking residues is presented in Table 7.

The quantity of slag within Fill L1133 (?Pit F1132) is larger than any other amount recorded on the site, and may indicate deliberate dumping. The morphology of the slag from Fill L1021 is such that it may have been generated during smelting



operations rather than smithing, but since it is an isolated find little significance can be placed upon it.

Context no.	Smithing slag (g)	Hearth lining (g)	Other
1021	76.4		
1125		4.0	
1127	304.4	38.3	
1133	2052.1		corroded iron 45.9
<b>Total</b>	<b>2432.9</b>	<b>42.3</b>	<b>45.9</b>

Table 7: Catalogue of metalworking residues

### 3.8 The Struck Flint

*Tom McDonald*

A total of 62 flints were recovered of which 11 are unworked and six are burnt. All of the flint is residual. The assemblage comprises: three cores, 23 struck flakes, eight blades, five retouched flakes, four chips and one lump. The retouched flakes comprise three notched flakes, one hollow flake and one notched flake/ scraper composite tool. The majority of the assemblage is abraded and patinated.

The raw material is a light grey - grey/ brown - dark grey nodular flint, some with cream-coloured cherty mottling. The flint is generally of good quality with few flaws. The assemblage is mainly derived from small flint pebbles/ nodules and was probably obtained from the site and/ or its immediate environs.

The assemblage dates between the Neolithic and late Bronze Age, with the exception of an abraded and patinated, broad Palaeolithic flake from Pit F1174 (L1175). No prehistoric pottery was found. The higher percentage of knapping flakes and the presence of cores may suggest that the site was the focus of tool manufacture as opposed to settlement.

### 3.9 The Animal Bone

*Deborah Jaques*

A small amount of animal bone comprising 95 small fragments (52 fragments from Area A, 11 from Area B and 32 from Area C) were recovered from 14 contexts, only two of which (L1007 and L1133) yielded more than 20 fragments. Eleven of the animal bone-bearing contexts comprised the fills of pits and ditches, whilst the remaining three (L1070, L1077 and L1111) were grave fills recorded within Area B. The date range represented by these deposits was broad (2<sup>nd</sup> century AD to post-medieval). However, those which could be more tightly dated were of 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> century AD date.

All the material was scanned, but most of the bones were either too few in number (i.e. five fragments or less), or too badly preserved, to warrant detailed recording.

Preservation varied, although most of the material was poorly preserved, appearing 'battered' and fragmented. Material from three contexts (L1044, L1070 and L1108) was scored as 'good' but constituted only seven fragments bone.

Most fragments represented the major domestic mammals i.e. cattle (*Bos taurus*), sheep/ goat (*Ovis aries/ Capra hircus*), pig (*Sus scrofa*) and horse (*Equus caballus*). Interestingly, two juvenile chicken/ pheasant (*Gallus gallus/ Phasianus* sp.) bones (femur and ulna), both almost complete and probably from the same individual, were recovered from late 4<sup>th</sup> century Grave Fill L1070. It is not uncommon to find the remains of domestic fowl in graves dating from the Roman period and they are usually interpreted as food offerings for the dead (Lauwerier 1983a, 1983b; Philpott 1991). This practice appears to have been widespread, with numerous examples known from Britain and mainland Europe, e.g. Saltersford, near Grantham (Dobney and Jaques 1994) and Nijmegen (Lauwerier 1988).

In conclusion, the overall preservation of the vertebrate remains was poor and suggestive of reworked or re-deposited material. A catalogue of the animal bone is logged with the site archive.

### References

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### 3.10 Pollen Analysis

*Dr Robert Scaife*

Pollen extracted from samples taken from the grave fills within Area B, were found to be poorly preserved and no detailed palaeoenvironmental reconstruction was possible, although a tentative pasture/ grassland habitat is suggested from slightly better preservation within Grave Fill L1060, Sample <1>.

### 3.11 The Charcoal

*Rowena Gale*

#### 3.11.1 Introduction

Charcoal from the fills of Pit F1132 and Ditch F1126, both late Roman features associated with Phase 5a industrial activity, was examined and identified.

### 3.11.2 Materials and methods

Samples <10> (F1126) and <11> (F1132) were examined. Both samples included large quantities of charcoal, these were sub-sampled as follows:

Sample <10> - 25%

Sample <11> - 50%

The charcoal was prepared for examination using standard methods: the fragments from each sample were fractured to expose fresh transverse surfaces and sorted into groups based on the anatomical features observed at x20 magnification using a hand lens. Representative fragments from each group were selected for further examination under high magnification. Freshly fractured surfaces were prepared in the transverse, tangential and radial planes. The fragments were supported in sand and examined using a Nikon Labophot incident-light microscope at magnifications of up to x400. The anatomical structure was matched to reference material. Where possible the maturity of the wood (ie. sapwood/ heartwood) was assessed.

### 3.11.3 Results

The results are summarised in Table 8. The anatomical structure of the charcoal was consistent with the taxa listed below. Classification follows *Flora Europaea* (Tutin *et al.* 1964-1980).

Aceraceae. *Acer* sp., maple

cf. Aquifoliaceae. *Ilex* sp., holly.

Corylaceae. *Corylus* sp., hazel

Fagaceae. *Quercus* sp., oak

Oleaceae. *Fraxinus* sp., ash

Rosaceae.

Pomoideae: *Crataegus* sp., hawthorn; *Malus* sp., apple

*Pyrus* sp., pear

*Sorbus* spp., rowan, wild service and whitebeam. These genera are anatomically similar.

*Sample <10>, Ditch F1126, Area C (3<sup>rd</sup>-4<sup>th</sup> century AD)*

The secondary fill (L1127) of Slot F1126 (which lay to the west of Pit F1132) was particularly rich in charcoal. The deposit also included iron slag, burnt flint, burnt bone and a ferrous nail. With the exception of a single piece of maple (*Acer*), the charcoal examined was oak (sapwood and heartwood). Some of the oak originated from young trees.

*Sample <11>, Pit F1132, Area C (4<sup>th</sup> century AD)*

Charcoal occurred in the upper fill of Pit F1132 in association with building material from the robbing of the temple mausoleum, animal bone and lumps of iron slag. It is probable that the charcoal was directly related to the slag and may represent furnace/ hearth fuel. The charcoal comprised a large quantity of narrow slivers mainly from oak (*Quercus* sp.) heartwood. The presence of fragments from slow-

grown timber suggests the use of trees from unmanaged 'natural' woodland, managed woodland usually being associated with fast-growing species. In addition to the oak, small amounts of hazel (*Corylus*), ash (*Fraxinus*), hawthorn type (Pomoideae) and probably holly (*Ilex*) were present.

#### 3.11.4 Discussion

It is likely, given the presence of slag, that the charcoal in these contexts represented fuel deposits from metal production/ working. In both instances oak (*Quercus*) appeared to have been the primary fuel used, with the addition of small quantities of material from other species. The use of heartwood was evident in both contexts and would have provided a denser and more energy efficient fuel than sapwood. The gross fragmentation of the charcoal prevented assessment of the age of the trees which supplied the timber. By implication, the presence of heartwood suggested that these may have been mature or semi-mature trees although this was by no means conclusive since the age at which heartwood develops in oak is extremely variable, sometimes occurring in trees less than 20 years old.

There was insufficient evidence to establish the type of woodland from which the fuel originated. Fast-grown trees/ poles from managed woodlands may have been used when their boles were wide enough to include significant heartwood; but fast-grown wood could have been the product of trees in relatively non-competitive natural woodland growing in optimal conditions. Slow-grown wood tends to indicate the use of fuel from a non-coppiced source. Both types of woodland may be implicated. It is possible that coppiced woodlands would have served the settlement.

#### 3.11.5 Conclusion

The identification of charcoal, probably from late Roman metallurgical fuels, indicated the predominant exploitation of oak (*Quercus* sp.). The fuel (almost certainly charcoal from metal-smelting/ working) was provided by timber which included a high proportion of heartwood. The source of the timber, i.e. from natural or managed woodlands, was not established, though growth patterns observed in the assemblage suggested the possibility that wood from both sources may have been used.

Feature No.	Sample No.	Feature Type	Species					
			<i>Acer</i>	<i>Corylus</i>	<i>Fraxinus</i>	<i>Ilex</i>	<i>Pomoideae</i>	<i>Quercus</i>
1126	10	Ditch	1	-	-	-	-	76h, 70s
1132	11	Pit	-	4	1	?1	1	90h, 19s

Table 8: Charcoal analysis - summary of results. Key: h, heartwood; s, sapwood. The number of fragments identified is indicated

#### References

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### 3.12 Pathology of the Burials

*Dr Tony Waldron*

#### 3.12.1 Introduction

Twenty-one skeletons (Table 9), in various states of preservation, were excavated. Each was examined in order to determine age and sex using standard anthropological techniques (Ferembach *et al.* 1980). Long bone and cranial measurements were taken in order to estimate height (Trotter 1970) and calculate skeletal indices, and any pathological change was noted.

<b>SK No.</b>	<b>Notes</b>
1030	<i>Partial skeleton with much post-mortem damage. Lacks vertebral column, shoulder girdle and many small bones of the hands and feet. Female (skull, pelvis), 35 years (dental wear).</i>
1061	<i>Substantial skeleton but with much post-mortem damage. Female (pelvis, skull), 45 + years (dental wear, pubic symphysis).</i>
1068	<i>Adult skeleton represented by skull fragments, including occipital bone.</i>
1070	<i>Partial skeleton with many post-mortem breaks. Lacks skull, most of the vertebral column and most of the bones of the hands and feet. Male (pelvis), 45 + years (dental wear, pubic symphysis); 1.70 ± 0.03 (right tibia).</i>
1071	<i>Fragmentary skeleton with much post-mortem damage and poor surface condition. Male (skull, pelvis), 45 + years (dental wear).</i>
1074	<i>Incomplete skeleton with considerable post-mortem damage. Lacks shoulder girdle, pelvis and hands; vertebrae represented only by fragments. Female (skull), 25 years (dental wear).</i>
1075	<i>Fragmentary adult skeleton with much post-mortem damage. Represented by skull, mandible and long bones. Female (skull).</i>
1079	<i>Adult skeleton (pelvic girdle and fragment of femoral head only). Female (pelvis).</i>
1081	<i>Incomplete skeleton with much post-mortem damage. Lacks vertebral column, clavicles and much of the pelvis. Female (skull, pelvis), 45 + years (dental wear).</i>
1091	<i>Virtually complete, well preserved skeleton. Male (skull, pelvis), 45 + years (dental wear, pubic symphysis); 1.55 ± 0.03 (both femurs and tibias).</i>
1102	<i>Incomplete skeleton with much post-mortem damage. Lacks shoulder girdles, vertebral column, feet and many small bones of the hands. Male (skull, pelvis), 35 years (dental wear); 1.66 ± (right radius).</i>
1105	<i>Substantially intact adult skeleton lacking most of cervical and all thoracic vertebrae. Female (skull, pelvis); 1.57 ± 0.04 (right femur and tibia).</i>
1112	<i>Partial skeleton lacking most of vertebral column, shoulder girdles, arms hands and pelvis. Female (skull), 35 years (dental wear).</i>
1154	<i>Incomplete adult skeleton with post-mortem damage. Lacks vertebral column, shoulder girdles, pelvis, hands and feet. Male (skull, humeral head); 1.76 ± 0.03 (right tibia).</i>
1164	<i>Fragmentary skeleton represented by skull fragments, teeth and fragments of leg bones with much surface damage. 45 + years (dental wear).</i>
1169	<i>Very incomplete adult skeleton represented by skull fragments, teeth and fragments of long bones. 25 years (dental wear).</i>
1173	<i>Partial adult skeleton lacking shoulder girdles, vertebral column and hands. Male (skull, pelvis); 1.71 ± 0.03 (left femur and tibia).</i>
1182	<i>Substantial skeleton in poor condition. Female (skull, pelvis), 35 years (dental wear); 1.68 ± 0.04 (right femur).</i>
1185	<i>Skull and long bone fragments of juvenile; 8 - 10 years (dental eruption and development).</i>
1188	<i>Skeleton represented by skull and leg bones only. Male (skull); 45 + years (dental wear).</i>
1193	<i>Very fragmentary adult skeleton represented by skull, teeth, and long bone fragments; 45 + years (dental wear).</i>

Table 9: Catalogue of Burials

### 3.12.2 Age and Sex

All skeletons except one were adults and sixteen of the adult skeletons could be assigned a sex; of these, eight were male and eight were female (Table 10). It was possible to assign an age at death to fourteen of the adult skeletons, including three which could not be sexed, but otherwise the age distribution was in no way unusual. Two of the individuals were comparatively young, aged 25 to 35 years at time of death, and four were aged between 35 and 45 years. A further eight were at least 45 years old at time of death. The only child in the assemblage was aged between 8 and 10 years, judging from the state of eruption of the teeth.

Age (years)	Sex		
	Male	Female	Unknown
<15			1
15 -			
25 -		1	1
35 -	2	2	
45 +	4	2	2
Unknown	2	3	1
<b>Total</b>	<b>8</b>	<b>8</b>	<b>5</b>

Table 10: Age and sex distribution

### 3.12.3 Height

An estimate of height was calculable for seven skeletons, five males and two females (Table 11). The heights of the males ranged from 1.55 to 1.76m (equivalent approximately to 5ft 1in to 5ft 9in); the heights of the two females were 1.57 and 1.68m (approximately 5ft 2ins and 5ft 6ins, respectively). These heights lie well within the range given for other Romano-British skeletons; for example, the heights of the large populations from Cirencester (Wells 1982) and Poundbury (Molleson, 1993) were as follows: Cirencester (Males: 1.48 - 1.85m; Females: 1.50 - 1.71m); Poundbury (Males: 1.60 - 1.82m; Females: 1.48 - 1.70m).

SK No.	Height (m)	
	Male	Female
1091	1.55	
1105		1.57
1102	1.66	
1182		1.68
1070	1.70	
1173	1.71	
1154	1.76	

Table 11: Skeleton height estimates

### 3.12.4 Skeletal indices

It is customary to calculate a number of skeletal indices in any population. The most common to be calculated are the cranial index, which describes the degree of roundness of the skull and the femoral and tibial indices. The last two describe the shape of the upper part of the shaft of the femur and tibia and there is some suggestion that this shape may vary somewhat from population to population and that it may also be influenced to some extent by activity (for further information, see Brothwell 1981, 87). These indices - the cranial index in particular - were frequently

used in the past as a means to characterise different racial groups and to study the migration of populations. The study of racial affinities has rather fallen out of vogue now, but even so, those derived for the present group are presented for completeness.

*Cranial index:* Only two skeletons (SK1081 and SK1112) had skulls from which the necessary measurements could be taken to calculate the cranial index and the results were 83.9 and 75.4, respectively, both falling within the normal range (Brothwell 1981, 87).

*Femoral and tibial indices:* The femoral index was calculated for nine skeletons and the tibial for eleven (results are presented in Table 12). Seven of the femoral indices were within the playmeric range (<85) and all the tibial indices were within the mesocnemic range ( $\geq 63$ ). As seems invariably to be the case, there was no correlation between the two indices which suggests that the shape of these two bones is likely to be determined by separate factors.

SK No.	Femoral index	Tibial index
1030	72.7	65.6
1061	65.1	
1070		72.9
1071	78.3	75.0
1081	71.8	72.6
1091	80.6	74.3
1102	85.9	67.6
1105	76.6	74.1
1112		69.7
1154	89.7	72.9
1173	81.5	77.1
1188		75.8

Table 12: Femoral and tibial Indices

### 3.12.5 Non - metric characteristics

There were a small number of non-metric traits in the group. One of the skeletons (1182) had a metopic suture of the skull. In this condition, the suture between the two halves of the frontal bone, which normally fuses in the first two years of life, remains unfused into adulthood. It is a relatively common condition, being found in about 8 - 10% of skeletal populations in this country (Brothwell 1981, 92). Two skeletons (SK1091 and SK1107) had extra ossicles in the lamboid sutures, another condition which is seen frequently in skeletal populations, and a third (SK1107) had a large ossicle at the lambda. There is some suggestion that the presence of these extra sutural bones may be under genetic control but authorities consider that they are caused by environmental stressors; their significance remains unresolved (see Brothwell (1981, 93) for further discussion). Finally, two skeletons (SK1070 and 1091) displayed os acromiale. In this condition, the final epiphyseal element of the acromion process of the scapula fails to unite with the rest of the bone during adolescence. Until recently, this anomaly has been considered to be developed in origin but further work has demonstrated a possible occupational element in its expression (Stirland, 1987).

### 3.12.6 Decapitation

Five of the skeletons (SK1091, SK1105, SK1112, SK1164 and SK1188) had been decapitated and were found with the skulls placed on or between the lower legs or feet. This practice was common during the late 3<sup>rd</sup> and 4<sup>th</sup> centuries and decapitated bodies have been found at other Romano-British cemeteries; they are mentioned at both Cirencester and Poundbury, for example. In none of the five cases from Welwyn Hall was there any skeletal evidence of beheading, other than the position of the skulls. In three cases (SK1105, SK1188 and SK1112) none of the cervical vertebrae below the third had survived and none of those present displayed cut marks. In the fourth case, only the first cervical vertebra was extant and this had no cut marks on it, nor would any realistically be expected since decapitation normally takes place at a much lower level (Harman *et al.* 1981).

### 3.12.7 Dental Health

From twenty adult skeletons it would be expected that a total of 640 teeth would be recovered (20 x 32). In fact, only 307 (48%) could be accounted for; 265 were *in situ*, 9 were un-erupted, 8 empty sockets were present and 25 had been lost during life.

Eight of the skeletons had dental disease (Table 13). They had either lost teeth during life, had dental caries, or dental abscesses. One skeleton (SK1071) had lost ten teeth during life and another (SK1112), nine; three other skeletons (SK1091, SK1105 and SK1188) had also lost teeth during life, but fewer in number. Five skeletons had evidence of dental caries (SK1071, SK1081, SK1169, SK1182 and SK1188) and three had dental abscesses (SK1081, SK1091 and SK1182); combinations of pathology were common, as can be seen from Table 13.

SK No.	Pathological Trait		
	Tooth loss	Dental caries	Dental abscess
1071	✓	✓	
1081		✓	✓
1091	✓		
1105	✓		
1112	✓		
1169		✓	
1182		✓	✓
1188	✓	✓	

Table 13: Dental pathology

### 3.12.8 Pathology

Only five of the skeletons showed any signs of pathology other than dental disease. This was probably due, at least in part, to the poor state of preservation displayed by many of the skeletons. Two of the skeletons (SK1061 and SK1091) had osteoarthritis, one (SK1070) had evidence of trauma to the ankle and two (SK1081 and SK1105) displayed other minor pathological traits.



### SK1061

This skeleton, a female of at least 45 years, had osteoarthritis of the cervical spine, the right first tarsometatarsal joint and the left acromioclavicular joint. In addition, the cervical spine showed evidence of degenerative disc disease and of osteophytosis affecting the thoracic spine. These changes are all extremely common in the skeleton and are all highly age related (Rogers and Waldron 1995).

### SK1070

This skeleton, a male of 45, displayed new bone growth around the right distal tibiofibular joint which was probably the result of a trauma. This joint is a syndesmosis, that is to say, it is held together by ligaments which may easily be torn as for example, when the ankle is twisted violently. When the ligaments are torn they may bleed and the resultant haematoma may calcify or ossify and this seems the most likely cause in this case.

### SK1081

This skeleton, a female of 45, displayed evidence of bilateral cribra orbitalia. This condition, in which small pits are seen in the roof of the orbit, is sometimes considered to be due to iron deficiency anaemia, although the evidence on which this supposition is based is tentative and is not clinically supported.

### SK1091

This skeleton, a male of at least 45 years, was the second to display osteoarthritis, in this case affecting the thoracic spine. The skeleton also exhibited osteophytosis of the lower thoracic and lumbar spine.

### SK1105

The only pathological change seen in this skeleton - an adult female - was the presence of Schmorl's nodes. These are indentations in the end plate of the vertebrae which are caused by the herniation of part of the central intervertebral disc (the nucleus pulposus). They usually cause no symptoms during life and are extremely common.

### 3.12.9 Conclusions

This small group of skeletons displayed no unusual demographic or pathological traits. The sex and age distributions were unremarkable and the heights of those individuals in which it could be estimated fell within the range of much larger Romano-British populations reported elsewhere. Dental disease was relatively common and two of the skeletons had osteoarthritis; one displayed evidence of trauma to the ankle.

Five of the skeletons had been decapitated, but unfortunately, no evidence of cut marks could be found and so the method of decapitation could not be determined.

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## 4 RECONSTRUCTION OF THE TEMPLE MAUSOLEUM (Figs. 14-15)

The plan of the structure at Welwyn Hall largely conforms to the recognisable layout of a Romano-Celtic temple-mausoleum, which in crude terms is based upon the design of a square (*cella*) within a larger square (*ambulatory*). However, whilst the plan can be established with reasonable confidence, any attempt to 'reconstruct' the superstructure - based solely on the heavily robbed foundations and a few architectural fragments - must be considered tentative. The more general problems of reconstructing ancient buildings for which there are very few surviving examples have been discussed elsewhere (e.g. Drury 1982), and specifically for temples by Muckleroy (1976) and Wilson (1980).

The Welwyn mausoleum is rectangular, a form created by the presence of two anterooms on the south side (see below). Such an arrangement is fairly unusual, as the majority of examples that are not square tend to have their long axis running from front to back. This plan is far from being unique however, and comparison can here be made with the Romano-Celtic temple excavated at Folly Lane, Verulamium. Niblett's (1999, 65) discussion of the latter notes several Gallic temples which had a similar plan and others can also be cited.

A significant variation in the design of the Welwyn mausoleum is that the ambulatory surrounded only three sides, the front wall of the building comprising the east wall of the cella and that of the anterooms. A parallel for this arrangement can be found at the late Roman temple of Mercury at West Hill, Uley (Gloucestershire; Ellison 1980).

Another unusual aspect of the Welwyn building is the extreme narrowness of the ambulatory. Normally such features are around half the width of the cella, but at Welwyn Hall the proportion varies between 1/8<sup>th</sup> and 1/10<sup>th</sup> of the cella width (0.7m to 1m). However, it may have only been present for aesthetic or visual purposes, although the passage giving access to the southern anterooms was clearly intended to be used. Muckleroy (1976) has argued that the exterior walls of the ambulatories of Romano-Celtic temples became fully enclosed as the Roman period advanced, although in the vast majority of cases too little survives to reach definite conclusions. If one accepts Muckleroy's arguments (as reiterated in his reconstruction of Bancroft) the *ambulatory* of the Welwyn Hall building, itself a late Roman structure, would have been covered by a pitched roof.

The foundations of two rooms south of the *cella*, forming part of the *ambulatory*, were thought to be contemporary to the rest of the structure, perhaps suggesting its dual function as temple and mausoleum. The eastern walls were punctuated, enabling access to the *cella*. The presence of faced tufa amongst the recovered building material implies that at least some of the 'entrances' were arched. The presence of these rooms removes the focus of the plan of the building from the square within a square form to one dominated by a single long axis. This may demonstrate a drift away from a centripetal plan, perhaps perhaps influenced by the classical temple model noted at Harlow (France and Gobel 1985), Avenches (Verzár 1978) and elsewhere, which has been discussed by Horne (1986). The presence of a pavement along the facade of the building (14m long) may have further amplified its length. This classical form is further evidence of the Greek influence displayed by the marble panel fragments (Woodfield, *this report – The Marble Fragments*) and sarcophagus (Rook *et al.* 1984).

The internal measurements of the *cella* (4.97 x 4.65m) are comparable to those of Wood Lane End, Hemel Hempstead (4.4 x 2.65m), Shorden Brae (c. 4.8 x 4.2m), Kingsholm (4.9m<sup>2</sup>), Angmering (6 x 5.6m) and Bancroft (4m<sup>2</sup>). The clay raft foundations of the Welwyn building are complex, and represent a departure from the normal local practice, where trenches were usually packed with flint or chalk. This seems to indicate that extra care was taken in the preparation of the foundations, presumably because a very substantial superstructure was intended. The considerable wall foundations of the *cella* and its external dimensions (7.11m) would also tend to support the conclusion that this structure was of significant height.

Neal (1983; 1984), when calculating the height of the Wood Lane End mausoleum, cited the example of the proportions of *cella* height to width from the Temple of Janus at Autun; the surviving height to width ratio of this structure is approximately 1 : 4. Using these proportions as a guide, the height of the Welwyn Hall *cella* could have been nearly 10m, excluding the roof. Such a figure would compare well with the reconstruction of the earlier temple mausoleum at Bancroft, for which a height of 12m was proposed (including the roof). Such figures must remain tentative however,

as evidence from extant Roman buildings shows there to be no precise correlation between foundation dimensions and superstructure height.

As is suspected for the majority of temple mausoleums (including the reconstructed examples at Wood Lane End and Bancroft), the *cella* walls were probably raised above the pitched roof of the *ambulatory*. It might also be suggested that the east-facing front wall comprised two levels, the lower level being that of the *ambulatory* return walls either side of the central section of the *cella* tower. The remains of the southern end of the frontal wall, as revealed during the watching brief, appeared to be slightly narrower in width than the central section of wall footing (the latter relating to the *cella*) which may have indicated a lesser wall height.

A second level is tentatively suggested by the comparatively thicker east and west walls of the *cella*, which may have supported floor joists. Stylistically the *cella* tower, with its frontal wall at two levels, lends itself to a second storey, with the lower line of the pitched *ambulatory* roof denoting the level of the upper floor space. Upper storeys were thought possible at both Wood Lane End and Bancroft.

The internal *cella* walls and ceiling appear to have been lined with white plaster, as both daub and plaster were recovered. Walker (in Rook *et al.* 1984) suggests that the undecorated back of the sarcophagus shows that it was set against a wall and also notes that the low relief of the back left side suggests that it may have been set in an alcove. It is likely that the sarcophagus was set centrally against the inner face of the frontal wall of the *cella*: no indication of an alcove survived in plan, but as the building was so heavily robbed this possibility is not discounted. The marble frieze depicting a mythological scene may have been fixed to the wall above the sarcophagus.

The sarcophagus has previously been compared by Rook *et al.* (1984) with those marble sarcophagi at Englefield Green and Clapton, which date to the 3<sup>rd</sup> century AD and the turn of the 3<sup>rd</sup> and 4<sup>th</sup> centuries AD. Rook *et al.* (1984) also suggest that the later date of the marble sculptures found at Welwyn may have had significance for the choice of marble rather than local stone, and may also explain why the deceased was buried in a sarcophagus rather than honoured with a statue, as was the case at earlier mausoleums such as Harpenden and Shorden Brae.

The floors of the *ambulatory* comprised pink coloured *opus signinum*. Although patches of *opus signinum* overlay a southern entrance to the *cella*, it did not continue into the interior of the *cella* itself. No evidence for the use of mosaics within the building was found. However, few Roman mosaics have been attributed to the 3<sup>rd</sup> century AD, and the mid-3<sup>rd</sup> century date attached to the marble sarcophagus by Rook *et al.* (1984) would place the building before the revival of mosaics in the 4<sup>th</sup> century AD (de la Bédoyère 1991).

The subfloor of the *ambulatory* and external pavement contained fragments of white and yellow plaster, fragments of thick white *stucco* and fragments of white faced *opus signinum*. Fragments of faced and painted plaster and white faced *opus signinum* were also recovered in the earlier investigations of the site (Rook *et al.* 1984).

The white faced *opus signinum* and thick white stucco within the makeup of the *ambulatory* may have been derived from the robbing of a nearby building. However, it is more likely that the material comprised the remnants of external rendering associated with the temple-mausoleum itself. As at Wood Lane End, it is suggested that the building was predominantly white. The structure would have been highly visible from the road and from the villas below.

As at other sites, Bancroft for example (Williams and Zeepvat 1994), it would appear that the precinct of the mausoleum was defined by an enclosure ditch. It is also possible that the up-cast material from the ditch was used to form an internal bank, thus avoiding the need to construct a *temenos* boundary wall. The precinct area must have been large, as neither return ditch was located within the excavated area. If, for the sake of argument, the enclosure ditch had been square, we could expect a precinct of some 38m x 38m.

The mausoleum would have been markedly off-centre within its precinct, being much nearer to the eastern boundary ditch (6m) than to the parallel ditch on the western side (23m). This arrangement would not be unusual: the Romano-Celtic temple near Folly Lane was similarly located within its own precinct (Niblett 1999). Rather more curious, however, is the fact that the external pavement (M1148), and entrance to the mausoleum was on the eastern side: the orientation of the building, as here reconstructed, would thus face outwards, rather than in towards the centre of the precinct.

## 5 DISCUSSION AND CONCLUSIONS

Although the vast majority of activity revealed on the site related to the Roman period, prehistoric activity was also recorded. These earlier finds are outlined in brief before discussion of the Roman evidence.

### 5.1 Prehistoric Activity

The finds from the site add to previous evidence of prehistoric activity from Welwyn. Except for the Palaeolithic flake from Pit 1174 (L1175), the residual struck flint recovered from Welwyn Hall is Neolithic to late Bronze Age in date (c. 4300 - 750 BC).

A number of Palaeolithic artefacts have been recovered from the district, albeit never in primary contexts, including a flint group from the Quality Hotel near the line of the A1(M) (SMR 1781) and a hand axe found in a garden on Mill Lane, some 300m to the south of the site (SMR 10392). Other flints of Palaeolithic and Mesolithic date have been recovered from an area around the old fulling mill, 800m to the north-west (SMR 2734; 2782) and during gravel extraction near the old workhouse to the south of the site (SMR 4162).

Later prehistoric evidence is present in varying quantities. Occasional finds of Neolithic and Bronze Age worked flint across the wider area attest to a certain degree of activity around Welwyn (SMR 2063; 9613) and several of the Roman sites around the town, including the Dicket Mead villa, have also yielded Bronze Age flints

(SMR 4164; Rook 1987). The cropmark of a Neolithic or Bronze Age circular enclosure c. 1km to the east of the site may represent the remains of a ploughed-out barrow, though this interpretation is unconfirmed.

The present site was favourably placed for habitation, occupying elevated ground overlooking the Mimram valley. Flint nodules could have been obtained from the Boulder Clay gravel terrace. As stated by McDonald (*this report – The Struck Flint*), the high percentage of knapping flakes and the presence of cores suggests that the site was a production area, rather than the focus of settlement. The terminal points of two opposing double ditches/ gullies (F1041, F1050, F1052 and F1054) within Area A may have represented a boundary or enclosure. Pits F1016, F1031, F1041 and F1047, located towards the centre of the two opposing ditches/ gullies, may have been contemporary. F1016 was apparently a quarry pit and yielded struck flint flakes.

Although there is evidence for settlement in Welwyn dating from the Middle Iron Age (found c. 900m to the south-west on the site of the Queen Victoria Memorial Hospital; Murray 1993), no Iron Age activity was apparent on the current site.

## 5.2 Roman Welwyn

Remains of the Late Iron Age, and more particularly of the Roman period at Welwyn, form one of the densest concentrations in Hertfordshire. Finds have been reported for several centuries, and as early as the 1740's cremation vessels had been exhibited as curiosities by the Society of Antiquaries (SMR 1791; Page 1971). Amongst the most spectacular discoveries were three 'chieftain burials' from Prospect Place (for which Welwyn is the 'type site'), representing some of the richest late Iron Age/ early Roman graves discovered in Britain.

The Welwyn complex of remains comprises late Iron Age and Roman material scattered around the modern village and its environs. It includes villas and burials together with industrial and agricultural activity. Roman material has also been recovered from Welwyn Garden City, 3km to the south-east, and indeed there is widespread evidence for late Iron Age and (to a lesser extent) Roman rural settlement, industrial areas and cemeteries in the area between the rivers Mimram and Lea (Niblett 1995, 61; Rook 1968).

At present the evidence lacks sufficient coherence to ascertain whether Welwyn was a nucleated community (i.e. a small town) or a number of villa estates with workers' settlements nearby. The evidence from both modern excavations and the many scattered antiquarian reports relating to Roman Welwyn has been collated by Rook (1987).

There is evidence for activity on both sides of the Mimram, and Rook points to four locations where substantial domestic buildings have been detected. Three are some distance from the road - the villas at Lockleys and Dicket Mead (500m to the south, on the east and west sides of the Mimram respectively), and a site at Rollswood (1km to the north), where finds of building material and other debris suggests a farmstead or villa. Both the Lockleys and Rollswood sites occupy valley-slope locations, typical of the setting of many high status Roman dwellings in the region

(see for example Hunn 1994; 1995). The Dicket Mead villa, situated immediately next to the river and on its floodplain, is rather atypical in this respect. The fourth area of buildings lies immediately next to the road, near to the western bank of the Mimram on the present Manor House site. The structures here have yet to be investigated but are clearly substantial, whilst rubbish pitting and other finds from the same area also indicate domestic occupation. A villa at this location is a distinct possibility.

Several cemeteries have also been identified. That on the western side of the Mimram around Prospect Place (including the 'Chieftain burials') began in the Belgic period and continued into the Roman era. Other mortuary areas are also known, for example the imprecisely-located 'gravel pit' site (Rook 1987, fig. 28 site 8), and a newly discovered series of burials in the south-western part of the modern village at School Lane (Murray 1993), once again adjacent to the Roman road. The main cemetery, however, is that around the Grange, which lies immediately to the south-west of the Welwyn Hall site (Rook 1973; Westell 1931). Some 4,000 cremation burials have been recorded here, whilst a large number of inhumations have also been observed between the Grange and the church c. 100m further to the south-west. It is unclear whether settlement extends into this area, east of the Mimram and north of the road: some tile has been recovered, but this may perhaps relate to the robbing of the mausoleum rather than indicating the presence of another building in the vicinity.

### 5.3 *The site*

The present site does not appear to have been in use during the late Iron Age. Early Roman activity is also notably lacking; even evidence of occupation during the 2<sup>nd</sup> century AD was scarce, the only features comprising a field ditch and a single pit. Despite the proximity of the large cremation cemetery at the Grange, the lack of features - and certainly the absence of early burials - on the present site is not entirely surprising. One would expect the site of the mausoleum to have respected the area of the earlier cemetery (in use from early Roman period, through to the latter half of the 2<sup>nd</sup> century and perhaps extending into the 3<sup>rd</sup> century); it was probably deliberately placed a little way from this area.

The field ditch may have been associated with the Lockleys villa site, though this remains tentative. It is notable however, that the ditch was neither parallel with, or at right angles to the projected line of the Roman road, assuming that the road does indeed follow Church Street. The relationship of these two features is, therefore, uncertain.

The present excavations have further illuminated the plan of the Welwyn mausoleum, first prepared by Rook *et al.* (1984), although as discussed above, the reconstruction of the superstructure must remain tentative. However, the obvious scale and grandeur of this building are clearly indicative of both status and wealth, and it would have constituted a highly obvious landmark.

Ownership of the mausoleum and, by inference, the relationship of this structure to other Roman buildings around Welwyn, is an interesting question. Although tenuous perhaps, there are clear parallels with the Dicket Mead villa, both in terms of the

Greek influences apparent on both sites, and in terms of their broad contemporaneity (see Table 14).

The presence of an imported Greek marble panel(s) and fragments of a sarcophagus, all sculpted in the Greek style, may well indicate the Greek connections of the individual for whom the mausoleum was built. The choice of a sarcophagus for one's burial is in itself an expression of taste for Greek culture (see for example Strong 1976), but whether in this case it denotes Greek ethnicity, or merely a taste for Greek culture, cannot be established. Rook (1978) has already drawn attention to the Greek influences evident in some of the finds from the Dicket Mead villa. This site has produced various items reflecting Greek or eastern Mediterranean cultural traits: a Graeco-Egyptian amulet, two pot sherds inscribed with Greek names, and two fragments of marble sculpture (*ibid.*). The latter items, carved in Greek marble (probably Pentelic and Parian), exhibited the same level of expert Mediterranean workmanship that was evident in the fragments recovered from Welwyn Hall during both Rook's (1976-77) excavations and the present investigations.

For Greeks to be living in Welwyn is perfectly plausible. Birley (1979), mostly relying on epigraphic evidence, cites examples of Greeks in Roman Britain ranging from high officials and the curial class, down to merchants, craftsmen and country dwellers. Ward-Perkins (1976; 1980) also discusses the emigration of master sculptors from the Mediterranean to other profitable market areas, where they were to set up workshops. As sarcophagi and sculpture is generally accepted to have travelled in a partially-finished state, the Greek workmanship apparent on the marble fragments from Welwyn Hall and Dicket Mead might indicate presence of such artisans in the Welwyn area.

The connection between the mausoleum and Dicket Mead is further supported by the chronologies of these sites, and also by what is known of the history of the Lockleys villa. Ward-Perkins (1938), the excavator of Lockleys, outlined a chronology that extended from the 'Belgic' (late Iron Age) period through to c. AD 340. Five houses were suggested to have been present, built consecutively on the same site, two in the Belgic period and three in the Roman era (Table 14). However, a re-interpretation of the pottery and coin evidence from the site by Webster (1969) has led to the proposal of a radically different scenario. Doubt is cast on the existence of both Belgic houses and on the presence of substantial buildings on the site during the 1<sup>st</sup> to 3<sup>rd</sup> centuries AD. In Webster's interpretation, Ward-Perkin's first two Roman houses (c. AD 60-150 and c. AD 150-300 respectively) are instead attributed to a single phase dating from around AD 300.

Excavation at Dicket Mead (Rook 1987) has demonstrated that the villa buildings were built after AD 200 and were subject to alteration at some date from AD 280. Abandonment and subsequent demolition of the complex occurred from c. AD 345, although occupation continued in a reduced form into the late 4<sup>th</sup> century.

The Welwyn Hall mausoleum has been broadly dated in this report to the 3<sup>rd</sup> century AD. However, this interpretation rests almost entirely on the iconography and workmanship of the marble sarcophagus, which was suggested by Walker (in Rook *et al.* 1984) to be a product of the first half of the 3<sup>rd</sup> century. Neither Rook's original



investigation of the building or the present excavations produced any independently datable evidence to support this proposed date.

<b>Lockleys</b> (Ward-Perkins' interpretation)	<b>Lockleys</b> (Webster's interpretation)	<b>Dicket Mead</b> (Rook 1987)
c. AD 0-25, first Belgic house.	Casual Belgic occupation.	c. AD 200+, construction of the stone villa buildings.
c. AD 25-60, second Belgic house.	c. AD 50-120, a timber phase on or near the site of the later buildings.	c. AD 280+, alterations to the villa buildings .
c. AD 60-150, first Roman house.	c. AD 300, stone house, destroyed c. 340.	c. AD 345+, desertion and subsequent demolition.
c. AD 150-300(?), second Roman house, destroyed by fire.	c. AD 340-375, final phase .	c. AD 345-late 4 <sup>th</sup> cent., limited occupation of the site.
c. AD 340-375, third Roman house.		

Table 14: Suggested chronologies for the Welwyn villas (based on Webster 1969, 245)

However, assuming that the mausoleum did indeed date to the earlier 3<sup>rd</sup> century, a link to the Dicket Mead villa would once again seem to be implied. According to Webster's re-interpretation of Lockleys (which is by no means certain) major activity did not occur there until the early 4<sup>th</sup> century, although he does acknowledge the possibility of an earlier 'timber phase' on or near the site of the later buildings. This would tend to leave Dicket Mead as the prime high-status site in the vicinity for which a mausoleum would be required, although as the date and character of the building complexes at Rollswood and the Manor House have yet to be established, such a statement remains tentative.

In discussing the 'ownership' of the mausoleum, one is still left with the issue of its curious orientation, which corresponds to neither the suspected line of the Roman road, or to either of the two villas to the south. The proposed entrance to the mausoleum faces east, away from the known area of settlement around Welwyn. This contrasts markedly with the situation that can be observed for certain other temple-mausolea in the region: the Gallows Hill temple on the edge of the Cambridgeshire Fen, for example, shares the same orientation as the Reach villa 1km to the north-west, a structure to which it clearly relates (Malim *et al.* 1996, 111-4, fig. 47).

Despite its high status character, the mausoleum was a short-lived monument, being initially robbed out some time during the 4<sup>th</sup> century AD. Its demolition could perhaps have taken place in tandem with the abandonment and robbing of the Dicket Mead Villa, or with the destruction by fire of the Lockleys villa. It is certainly hard to envisage the mausoleum being allowed to fall into disrepair before such a point, still within sight of the deceased's ancestors who may have continued to live nearby. It is fair to assume that its destruction occurred after the departure of the family to whom it belonged.

The mausoleum was still standing when the land was given over to fields (perhaps connected to the apparent re-emergence of the Lockleys villa during the latter half of the 4<sup>th</sup> century AD). This is demonstrated by the fact that the footprint of the mausoleum was respected by Phase 4 Ditch F1107. Robbing of the mausoleum appears to have ceased for a short period, as fills of later field ditches are devoid of

building material. The explanation for such a cessation is not immediately apparent but whatever the cause, demolition commenced again during the late 4<sup>th</sup> century and the mausoleum continued to be robbed down to its foundations well into the early 5<sup>th</sup> century AD.

Sometime during the late 4<sup>th</sup> century AD it appears that industrial activity comprising smithing was undertaken nearby the study area, although the character and extent of this activity has yet to be properly established. The three burials revealed by Rook during 1976-7 were thought at the time to have been associated with the mausoleum, but the present excavations have shown this not to be the case. These graves in actual fact were part of a larger cemetery, probably of the late 4<sup>th</sup> or early 5<sup>th</sup> century, which comprised over 20 burials. It is quite likely that the cemetery was associated with nearby industrial activity. This cemetery cannot be considered to be directly associated with the mausoleum, which had been substantially robbed by the time that the first bodies were interred (and indeed fragments of tile from the roof were re-used within some of the graves as liners or pillows). However, the location of the cemetery, immediately adjacent to the mausoleum, might suggest that the site was still considered to be, or remembered as being, of ritual significance. A higher status grave, enclosed by a small horseshoe-shaped ditch may have been the focus for the cemetery.

The pagan character of the inhumations is clear. The internment of decapitated burials finds parallels from the late 3<sup>rd</sup> or early 4<sup>th</sup> century, possibly continuing into the early 5<sup>th</sup> century, both regionally (e.g. Baldock and Dunstable) and more widely (e.g. in Dorset and Northamptonshire). The deposition of boots or hobnails within graves is also a widespread practice, and is one that spans the entire Roman period in Britain (Liversidge 1968). Interpreting such rituals is extremely difficult however. No pattern can be discerned to explain why only four – and these particular four – bodies were subject to decapitation. All were mature adults, but this does not differentiate them from the majority of other burials in the cemetery. Many decapitated burials are of women, as at Guilden Morden, Cambridgeshire (Lethbridge 1936) and Kimmeridge, Dorset (Calkin 1948), but at Welwyn Hall males and females are equally represented. The evidence reported herein does little to expound the reasons for this practice.

By the time that the cemetery was in use, the landscape around Welwyn must have been extensively altered. The abundant activity apparent on both sides of the river was greatly scaled down, with the villas at Lockleys and Dickets Mead now defunct. Pollen from grave F1160 suggests that the area of the cemetery had, by that date, reverted to open pasture.

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## APPENDIX 1 DESCRIPTION OF SKELETONS WITHIN AREA B

SK No.	Orientation	Disarticulated	Articulated	Supine	Survival	Skull	L Arm	R Arm	L Leg	R Leg	Feet	Coffin	Shroud	Packing	Grave Goods
1030	NE-SW	-	Y	Y	P	Facing NW on right side	Above pelvis region	Above pelvis region	Straight	Straight	Together	Y	N	N	Y
1061	NE-SW	-	Y	Y	P	Facing upwards	Bent at elbow, crossed to right	Bent at elbow, crossed to left	Straight	Straight	Together	Y	N	N	Y
1068	NE-SW	-	Y	Y	P	Fragment	Decayed	Decayed	Decayed	Decayed	Decayed	N	Y	N	Y
1071	E-W	-	Y	Y	P	Facing S on left side	Bent at elbow, crossed to right	Bent at elbow, crossed to left	Straight	Straight	Missing	N	Y	N	Y
1074	W-E	-	Y	Y	P	Facing S on right side	Side	Side	Straight	Straight	Together	N	Y	N	Y
1075	E-W	-	Y	Y	P	Facing N on right side	Side	Side	Straight	Straight	Decayed	N	Y	N	Y
1081	E-W	-	Y	Y	P	Facing upwards	Bent at elbow, crossed to right	Bent at elbow, crossed to left	Straight	Straight	Together	N	Y	N	Y
1091	E-W	-	Y	Y	P	Between feet; facing N on right side	Bent at elbow, crossed to right	Bent at elbow, crossed to left	Straight	Straight	Missing but would have been apart	N	Y	N	Y
1102	E-W	-	Y	Y	P	Facing N on right side	Side	Side	Straight	Straight	Missing but would have been apart	Y	N	N	Y
1105	E-W	-	Y	Y	P	Between feet; facing W on right side	Side	Side	Straight	Straight	Apart	N	N	Y	N
1112	E-W	-	Y	Y	P	Above right foot; facing W on right	Decayed	Decayed	Straight	Straight	Apart	Y	N	N	Y

						side										
1154	E-W	-	Y	Y	P	Articulated though badly crushed	Side	Side	Straight	Straight	Decayed but would have been together	Y	N	N	Y	
1164	W-E	-	Y	Y	P	Facing N	Side	Crossed left	Decayed	Decayed	Decayed	N	Y	N	N	
1169	E-W	-	Y	Y	P	Facing W on right side	Side	Side	Straight	Straight	Decayed but would have been apart	Y	-	-	Y	
1173	E-W	-	Y	Y	P	Articulated though badly crushed	Crossed right over pelvis	Crossed upper left	Straight	Straight	Apart; grave goods placed over left foot	Y	-	-	Y	
1182	E-W	-	Y	Y	P	Facing S on left side	Side	Crossed left over chest	Straight	Straight	Together	N	Y	N	N	
1185	E-W	-	Y	Y	P	Fragment	-	Decayed	Decayed	Decayed	Decayed	N	Y	N	Y	
1188	SW-NE	-	Y	Y	P	Against lower left leg; Facing S on left side	Decayed	Side	Straight	Straight	Decayed	N	Y	N	N	
1193	E-W	-	Y	Y	P	Fragment	-	Decayed	Straight	Straight	Decayed	N	Y	N	Y	
1196	-	Y	Y	Y	P	-	-	-	-	-	-	-	-	-	Y	

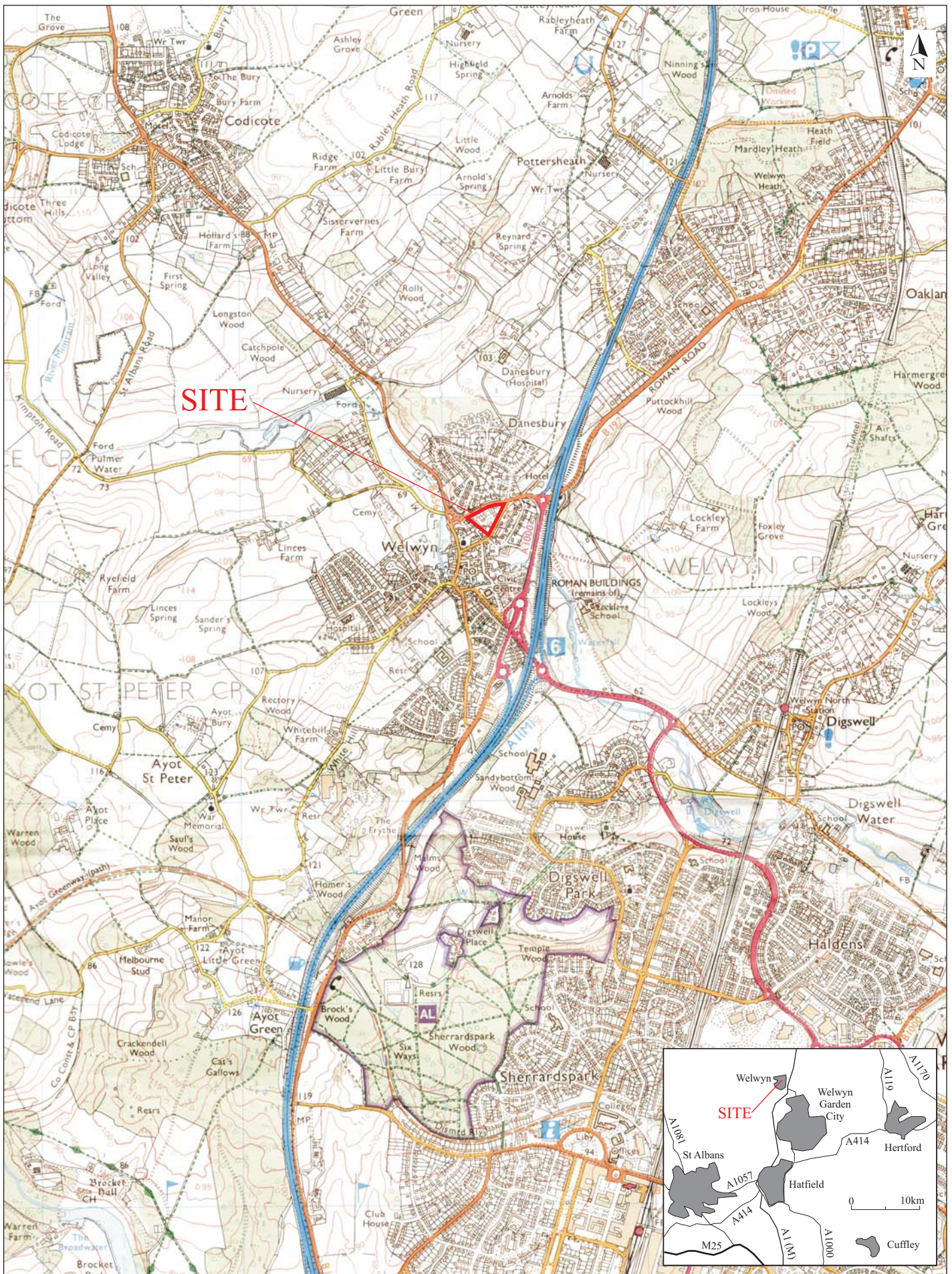
## APPENDIX 2 CONCORDANCE OF FINDS

Context/ Area	Description	Coordinates	Spot Date	Pottery	CBM	Human Bone	Other
Unstratified	-	-	-	-	4 tile frags (SF1)	-	-
Building 1/ B	-	-	-	1 sherd	2 tile frags	-	-
1005 A	Fill of Posthole F1004	203.4/416.2	?Modern	1 sherd	4 tile frags	-	1 Fe nail (SF3), 1 clay pipe stem frag
1007 A	Fill of Ditch F1006	200/412	-	-	8 brick/ tile frags	-	1 Fe hobnail (SF2), 39 animal bone frags, 1 flint flake
1008 A	Fill of Posthole 1009	204.05/413.3	3 <sup>rd</sup> century +	2 sherds	13 brick/ tile frags 37 plaster frags	-	3 glass frags (SF26-27)
1010 A	Fill of Posthole F1011	2005/400	-	-	-	-	1 clay pipe stem frag
1012 A	Fill of Posthole F1013	202.36/418.6	Post-medieval	1 sherd	-	-	-
1017 A	Cut of ?Pit	202.36/418.6	2 <sup>nd</sup> century +	1 sherd	-	-	6 flint flakes
1019 A	Fill of Ditch F1018	201.6/401	2 <sup>nd</sup> century	3 sherds 10 samian	-	-	1 animal bone frag, 10 flint flakes
1021 A	Fill of Ditch F1020	206.04/407.59	-	-	6 brick/ tile frags	-	3 Fe frags (SF5-6), 1 animal bone frag, 1 flint flake
1023 A	Fill of Ditch F1022	204/413	-	-	1 tile frag	-	-
1027 B	Fill of Grave F1026	262.25/407.75	Modern	5 sherds	19 tile frags	-	1 Fe hobnail, 1 glass frag, 4 flint flakes
1029 A	Fill of Ditch F1028	206.04/407.59	?Post-medieval	1 sherd	14 brick/ tile frags	-	6 animal bone frags, 3 glass frags, 2 flint flakes, 3 charcoal frags
1030 B	SK in Grave F1026	262.25/467.95	4 <sup>th</sup> century (?later)	1 vessel (SF11)	-	1 SK	16 Fe coffin nails (SF7-10 and SF12-23), 2 glass frags
1034 A	Fill of Posthole F1033	206.35/408.37	-	-	3 tile frags 1 plaster frag	-	2 Fe nails (SF24-25), 11 glass frags, 1 flint flake
1036 A	Fill of Pit F1035	195/410	Modern	2 sherds	10 brick/ tile frags	-	1 Fe nail (SF29), 1 Fe object (SF31), 1 clay pipe stem frag, 2 glass frags (SF28 and SF30)
1040 A	Fill of Posthole F1039	206.05/409.43	-	-	3 tile frags	-	-
1044 A	Fill of modern Pit F1043	190/410	Medieval + post-medieval	22 sherds	23 brick/ tile frags	-	1 Cu alloy fitting, 6 animal bone frags, 13 clay pipe frags, 5 glass frags, 1 charcoal frag
1046 A	Fill of Ditch F1045	220.8/416	-	-	2 tile frags	-	-
1060 B	Fill of Grave F1059	262.5/405.5	Late Iron Age/ Roman	2 sherds	33 brick/ tile frags	-	1 burnt flint, 3 stone frags
1061 B	SK in Grave F1059	262.5/405.5	-	-	13 tile frags (SF37)	1 SK	5 Fe hobnails (SF33-36 and SF39), 2 Fe nails (SF38 and SF40), 7 tufa frags
1062 B	Building 1	-	-	-	-	-	1 large quartz lump
1064 B	Mortar and flint wall within Cut F1063	281.4/404.5	-	-	91 brick/ tile frags 4 brick frags 2 mortar frags	-	2 stone frags
1065 B	Clay layer within Building 1	275/405	-	-	6 brick/ tile frags	-	-
1067 B	Fill of Grave F1066	206.9/408.5	-	-	5 brick/ tile frags	-	-
1068 B	SK in Grave F1066	206.9/408.5	-	-	-	4 skull frags	1 Cu alloy bracelet (SF32)
1070 B	Fill of Grave F1069	265.73/413.34	Late 3 <sup>rd</sup> century	2 vessels (SF41)	27 brick/ tile frags	1 SK	2 animal bone frags
1071 B	SK in Grave F1069	265.73/413.34	-	-	-	1 SK	-
1073 B	Fill of Grave F1072	264.35/415.36	4 <sup>th</sup> century	3 sherds 1 samian	6 brick/ tile frags	-	-



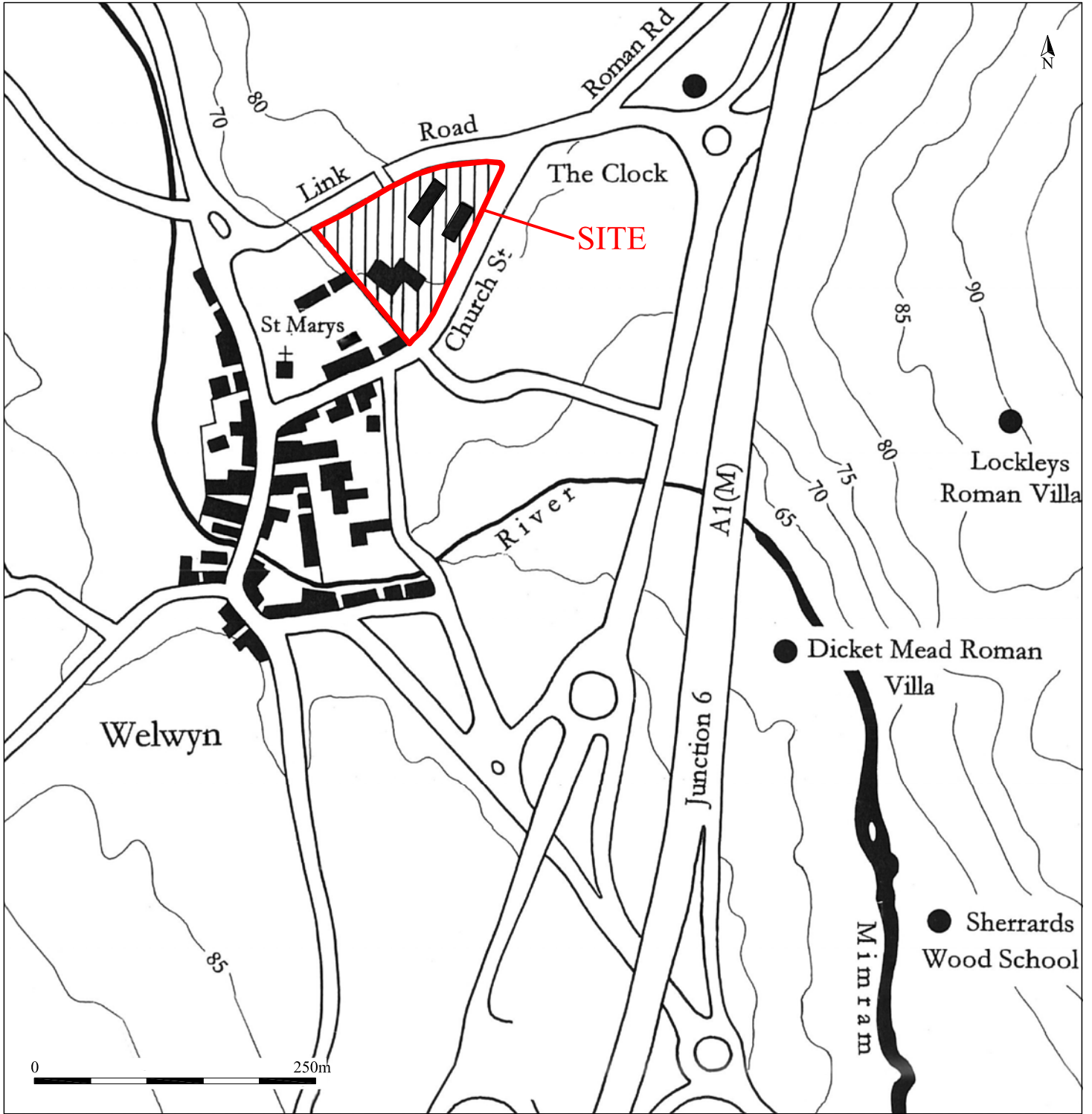
1074 B	SK in Grave F1072	264.35/415.36	-	-	-	1 SK	2 Fe hobnails
1075 B	SK in Grave F1076	260.7/411.65	-	-	-	1 SK	-
1077 B	Fill of Grave F1076	260.7/411.65	Late 3 <sup>rd</sup> century +	11 sherds	49 brick/ tile frags 1 plaster frag	-	6 animal bone frags
1079 B	Grave cut	265.68/412.25	-	-	-	7 frags	-
1080 B	Fill of Grave F1079	265.68/412.25	AD 350 +	3 sherds	15 brick/ tile frags	-	-
1081 B	SK in Grave F1079	265.68/412.25	-	-	-	1 SK	-
1087 B	Fill of Posthole F1086	254.15/420	-	-	-	-	4 burnt flints, 1 struck flint
1090 B	Fill of Grave F1089	262.91/416/89	Late 3 <sup>rd</sup> to early 4 <sup>th</sup> century	1 vessel (SF42) 3 sherds	14 brick/ tile frags	-	1 Fe nail (SF43), 1 rubbing stone (SF44)
1091 B	SK in Grave F1089	262.91/416/89	-	-	-	1 SK	-
1093 B	Fill of Grave F1092	261.5/410	-	-	50 brick/ tile frags	-	2 Fe nails (SF45 and SF46), 1 tufa frag, 1 flat pebble, 1 stone object (SF47)
1095 B	Fill of modern linear feature F1094	261.6/398.5	Modern	4 sherds	8 brick/ tile frags	-	-
1097 B	Fill of penannular Ditch F1096	262/401	-	-	6 brick/ tile frags	-	-
1099 B	Fill of Ditch F1098	265/403	2 <sup>nd</sup> century	1 sherd	10 brick/ tile frags	-	-
1101 B	Fill of Grave F1100	262.88/410.4	3 <sup>rd</sup> century +	1 vessel (SF48)	68 brick/ tile frags	-	96 hobnails and frags (SF49), 7 tufa frags
1102 B	SK in Grave F1100	262.88/410.4	-	-	-	1 SK	-
1104 B	Fill of Grave F1103	263.52/411.01	3 <sup>rd</sup> century +	7 sherds	66 brick/ tile frags	-	2 tufa frags, 1 stone frag
1105 B	SK in Grave F1103	263.52/411.01	-	-	-	1 SK	-
1106 B	Lining of Grave F1103	263.52/411.01	-	-	7 tile frags	-	-
1108 B	Fill of Ditch F1107	266.7/403.3	2 <sup>nd</sup> century +	2 sherds	20 brick/ tile frags	-	3 animal bone frags, 1 burnt flint, 3 tufa frags
1109 B	-	262.48/410.4	-	-	-	-	22 coffin nails and frags (SF50-61)
1111 B	Fill of Grave F1110	266.7/403.3	AD 140-170 (residual)	1 sherd	16 brick/ tile frags	-	1 animal bone frags, 5 tufa frags
1112 B	SK in Grave F1110	266.7/403.3	-	-	-	1 Sk	-
1115 C	Secondary fill of Ditch F1113	301.4/388.9	4 <sup>th</sup> century	5 sherds	127 brick/ tile frags	-	1 Fe axe head (SF64), 5 animal bone frags, 10 struck flints, 1 burnt flint, marble relief frags (SF66 and SF73), 1 worked stone frag, 1 tufa frag
1118 C	Secondary fill of Ditch F1116	303.3/89.85	-	-	-	-	2 struck flints
1124 B	Secondary fill of Ditch F1123	286.48/416.88	3 <sup>rd</sup> to 4 <sup>th</sup> century	10 sherds	20 brick/ tile frags	-	1 struck flint
1125 C	Fill of Pit F1121	298/388.2	?4 <sup>th</sup> century	1 sherd	51 brick/ tile frags	-	1 Fe hook (SF62), 2 animal bone frags, 1 burnt flint, 1 piece of slag
1127 C	Fill of Ditch F1126	305.6/392	-	-	-	-	1 Fe nail (SF74), 3 animal bone frags, abundant charcoal, 4 pieces of slag, 4 burnt flints
1133 C	Tertiary fill of Pit F1132	306.5/395.9	?4 <sup>th</sup> century	1 sherd	80 brick/ tile frags 1 mortar frag	-	1 Fe ?kinfe blade (SF63), 27 animal bone frags, 1 burnt flint, 32 pieces of slag
1135 C	Primary fill of Pit F1132	307.3/396.2	-	-	5 brick/ tile frags	-	-
1137 B	Mortar and tile surface on W wall (Building 1)	275/403	-	-	9 brick/ tile frags	-	-
1141 B	Fill of Ditch F1142	246.21/420.51	4 <sup>th</sup> century	1 sherd	-	-	1 Fe nail (SF65)
1148 B	Apse floor (Building 1)	282/405	-	-	25 brick/ tile frags 1 mortar frag	-	-

1149 B	Inner Floor (Building 1)	279/405	-	-	18 daub frags	-	-
1153 B	Fill of Grave F1152	262/400.9	AD 340-370	3 vessels (SF67-72)	-	-	-
1154 B	SK in Grave F1152	262/400.9	-	-	-	1 SK	-
1161 B	Fill of Grave F1160	257.85/399.08	-	-	13 tile frags	-	11 Cu alloy bracelet frags (SF75)
1163 B	Fill of Grave F1162	204/409.7	Late 3 <sup>rd</sup> century	3 sherds	55 brick/ tile frags	-	1 stone frag
1164 B	SK in Grave F1162	264/409.7	-	-	-	1 SK	-
1166 B	Fill of Grave F1165	261.73/414.15	3 <sup>rd</sup> century +	4 sherds and 2 vessels (SF94 and SF95)	3 brick frags	-	85 Fe hobnails and frags (right boot; SF92) 61 Fe hobnails and frags (left boot; SF93)
1169 B	SK in Grave F1160	257.85/399.08	-	-	-	1 SK	-
1171 B	Fill of Grave F1170	268/411.25	-	-	38 brick/ tile frags	-	-
1172 B	Coffin in Grave F1165	261.73/414.15	-	-	-	-	19 Fe coffin nails and frags (SF76-91)
1173 B	SK in Grave F1165	261.73/414.15	-	-	-	1 SK	-
1175 B	Fill of Pit F1174	257.8/411	-	-	3 tile frags	-	1 bone frag, 2 struck flints, 3 tufa frags
1179 B	Fill of Pit F1178	268/406.5	-	-	12 brick/ tile frags	-	-
1181 B	Fill of Grave F1180	261.61/413.39	-	-	14 brick/ tile frags	-	17 Fe hobnails, 1 nail and 3 frags (all SF 99), 5 Fe hobnail frags (SF100), 1 Cu alloy bracelet (SF96), 3 Cu alloy bracelet frags (SF97), 1 Cu alloy wire frag (SF98), 1 stone frag
1182 B	SK in Grave F1170	268/411.2	-	-	-	1 SK	-
1185 B	SK in Grave F1180	261.16/413.39	-	-	-	2 bags	-
1187 B	Fill of Grave F1186	266.8/400.7	Late 3 <sup>rd</sup> to 4 <sup>th</sup> century	2 sherds	18 brick/ tile frags	-	-
1188 B	SK in Grave F1186	266.8/400.7	-	-	-	1 SK	-
1190 B	Fill of Grave F1189	264.99/401.47	3 <sup>rd</sup> century +	1 sherd	10 tile frags	-	1 lump of ?clay
1193 B	SK in Grave F1189	265.98/401.53	-	-	-	1 SK	-

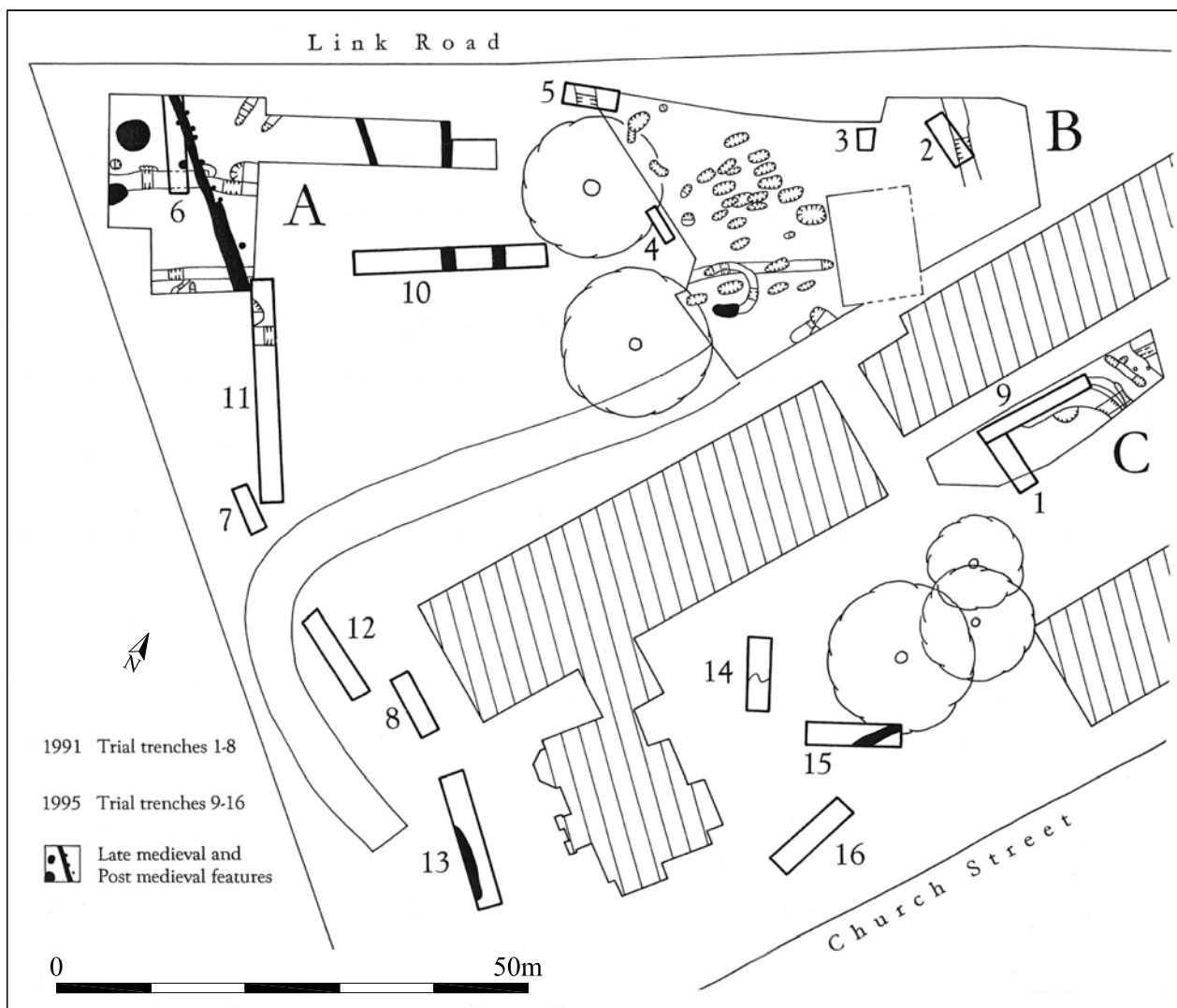


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**Fig. 1 Site location plan**  
 Scale 1:25,000 at A4



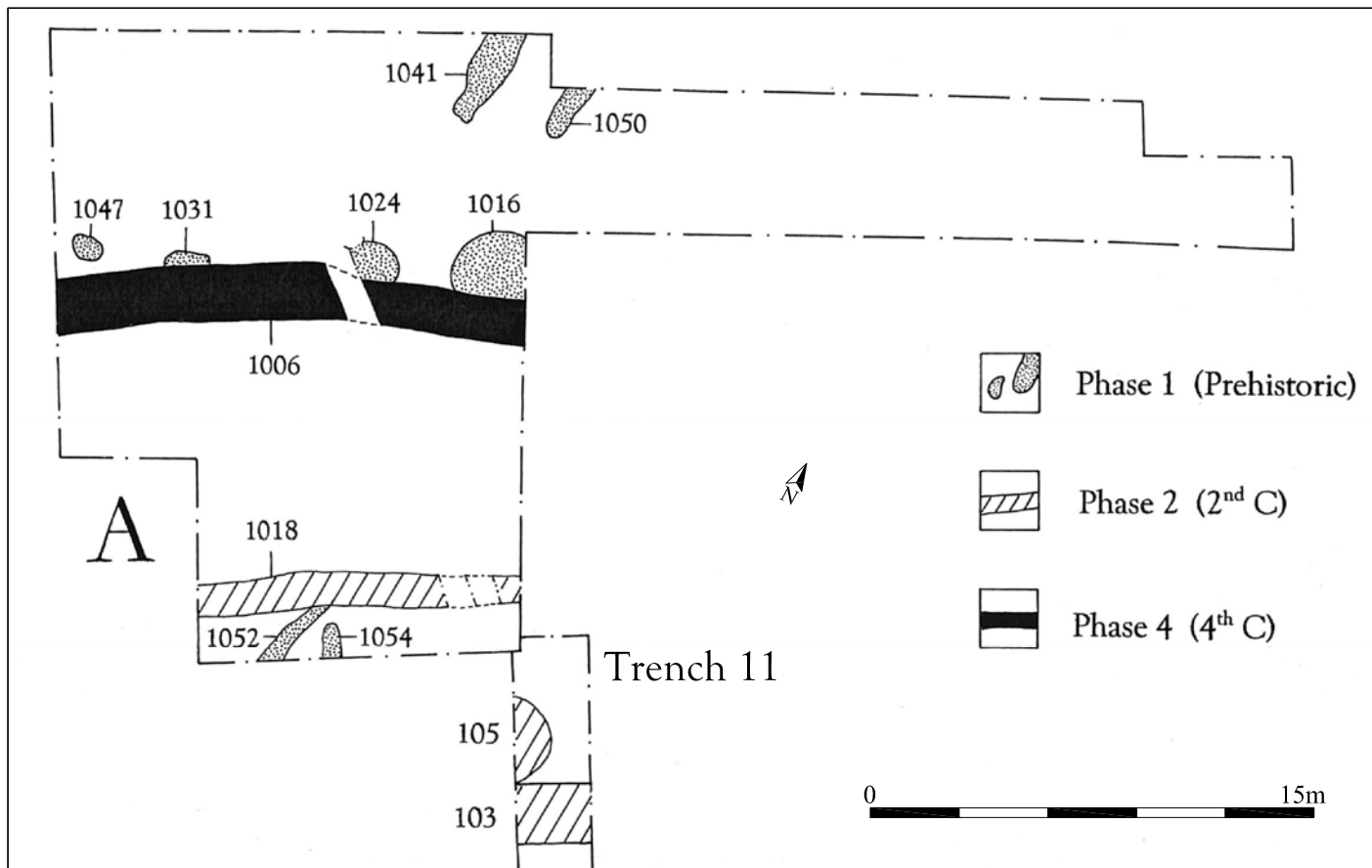
Archaeological Solutions Ltd  
**Fig. 2 Detailed site location plan**  
Scale 1:500 at A4



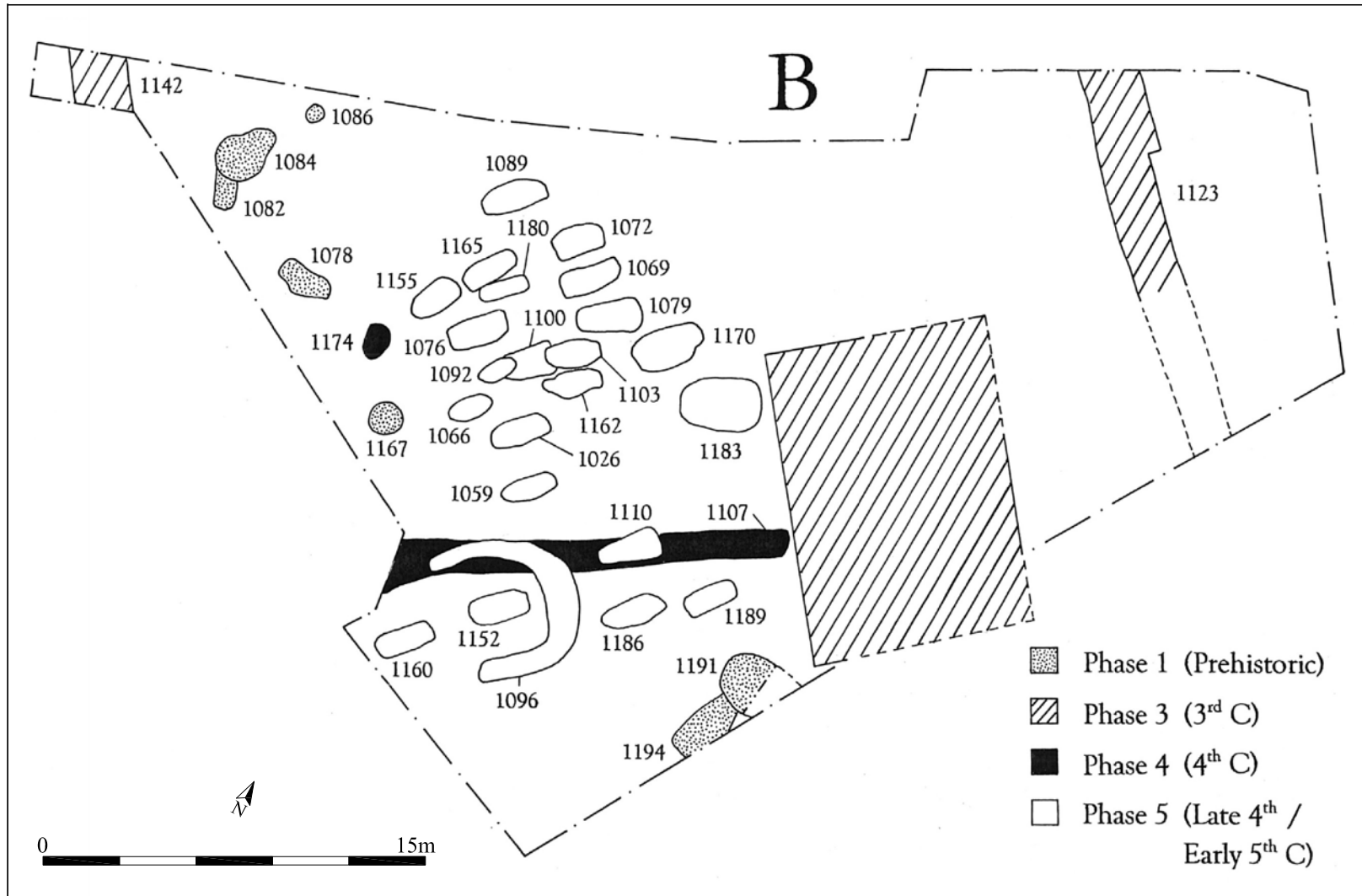
*Archaeological Solutions Ltd*

**Fig. 3 Composite plan of the evaluation and excavation**

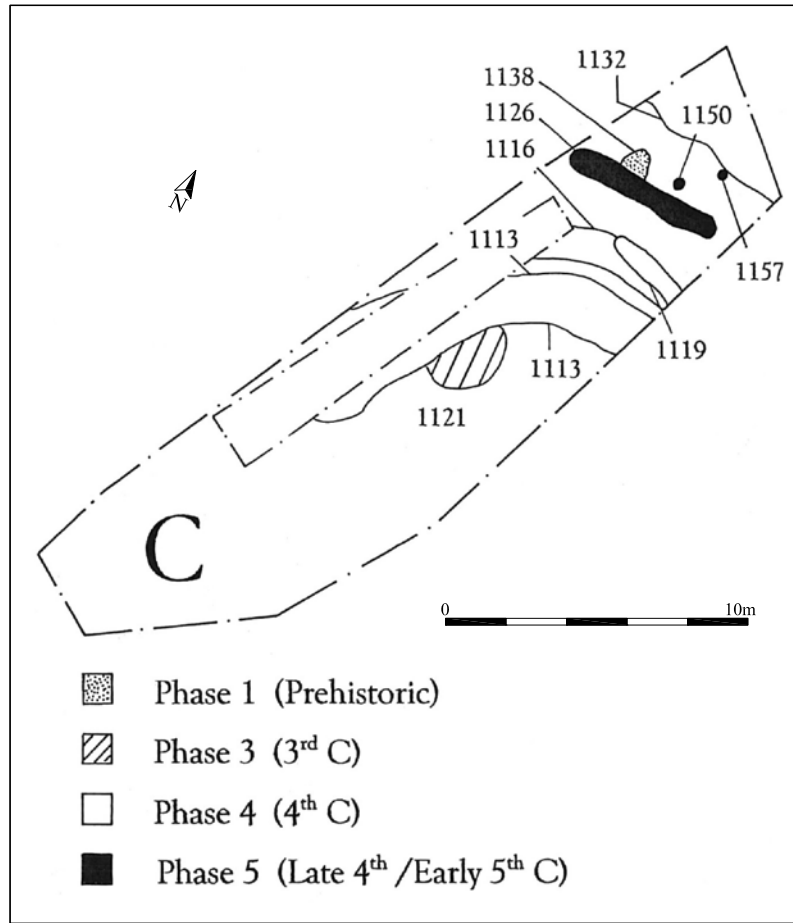
Scale 1:750 at A4



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**Fig. 4 Area A - all phase plan**  
 Scale 1:250 at A4

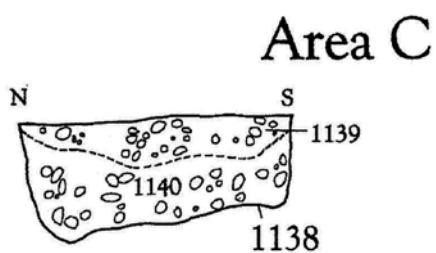
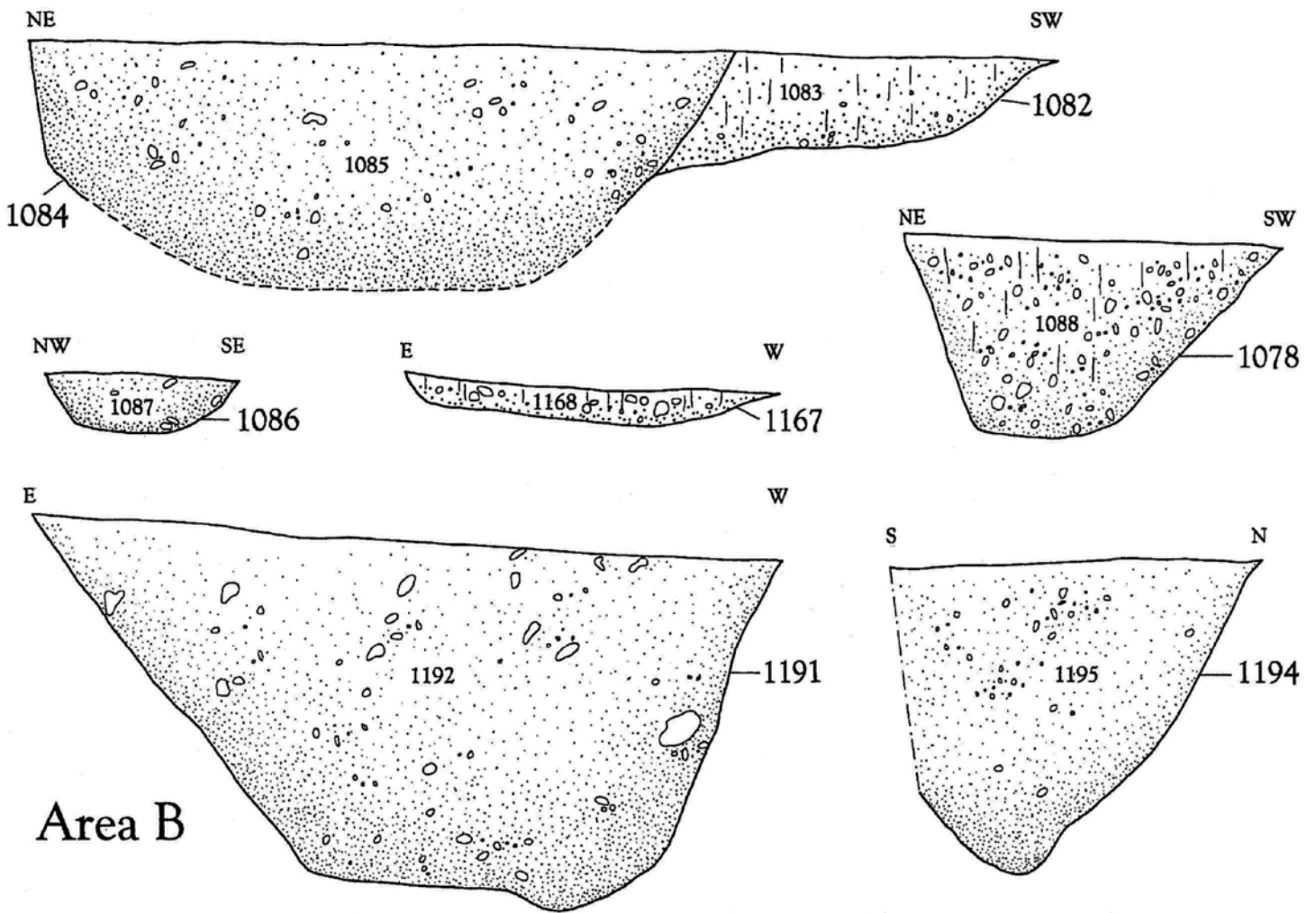
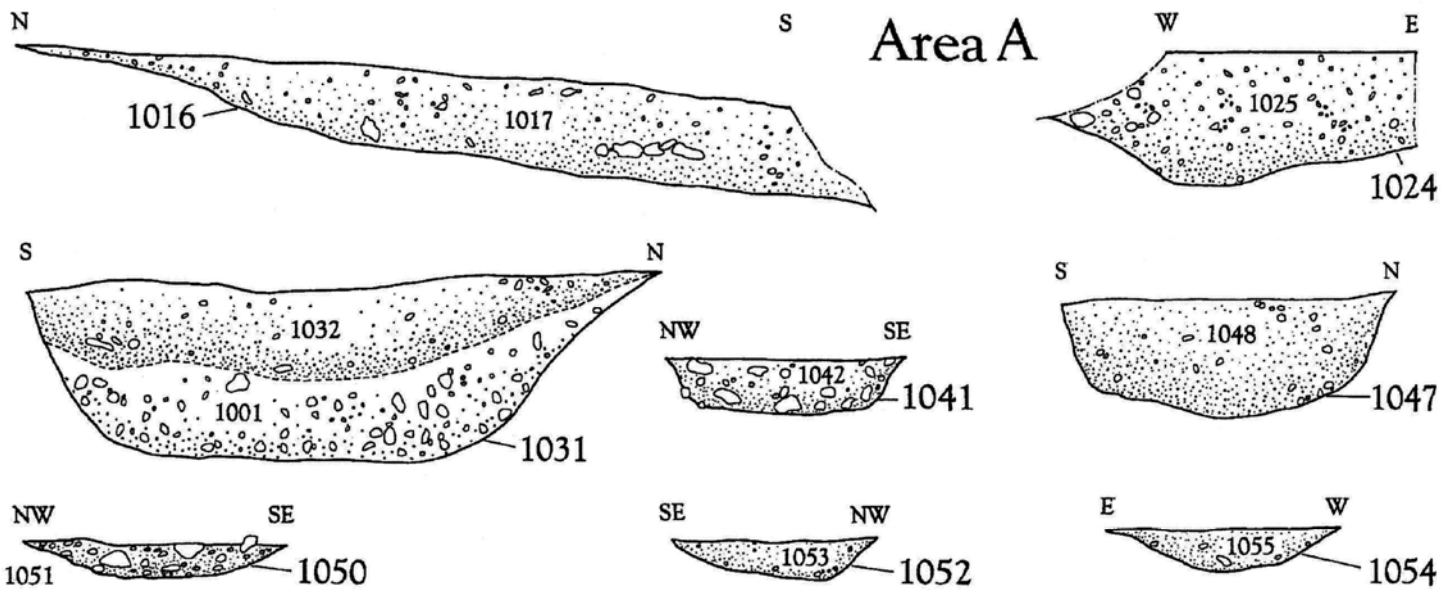


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**Fig. 5 Area B - all phase plan**  
 Scale 1:250 at A4



<i>Archaeological Solutions Ltd</i>
<b>Fig. 6 Area C - all phase plan</b>
Scale 1:250 at A4

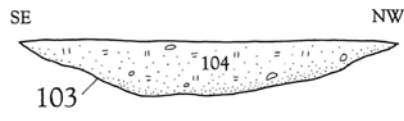




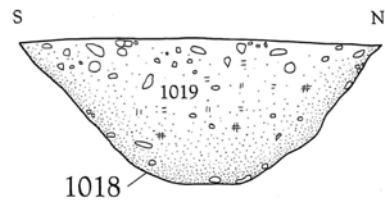
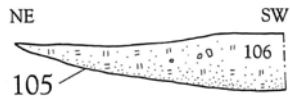
- |            |            |            |
|------------|------------|------------|
| Silt       | Sandy Silt | Sandy Loam |
| Silty Loam | Clay Silt  | Gravel     |

0 2m

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**Fig. 7 Phase 1 sections**  
 Scale 1:25 at A4



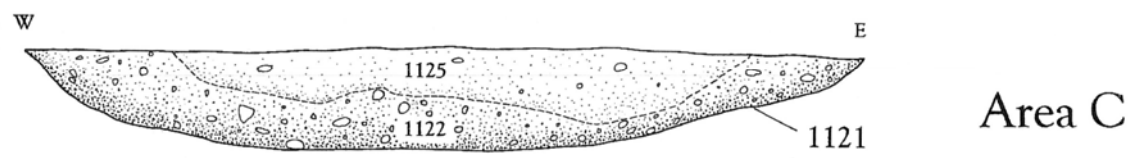
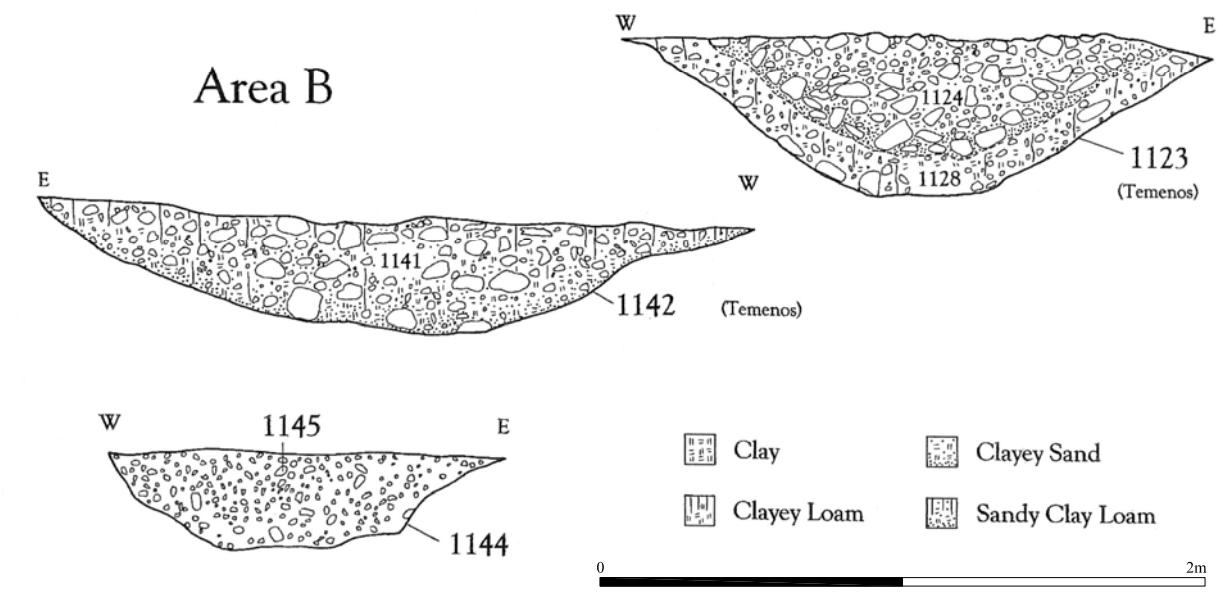
Trench 11



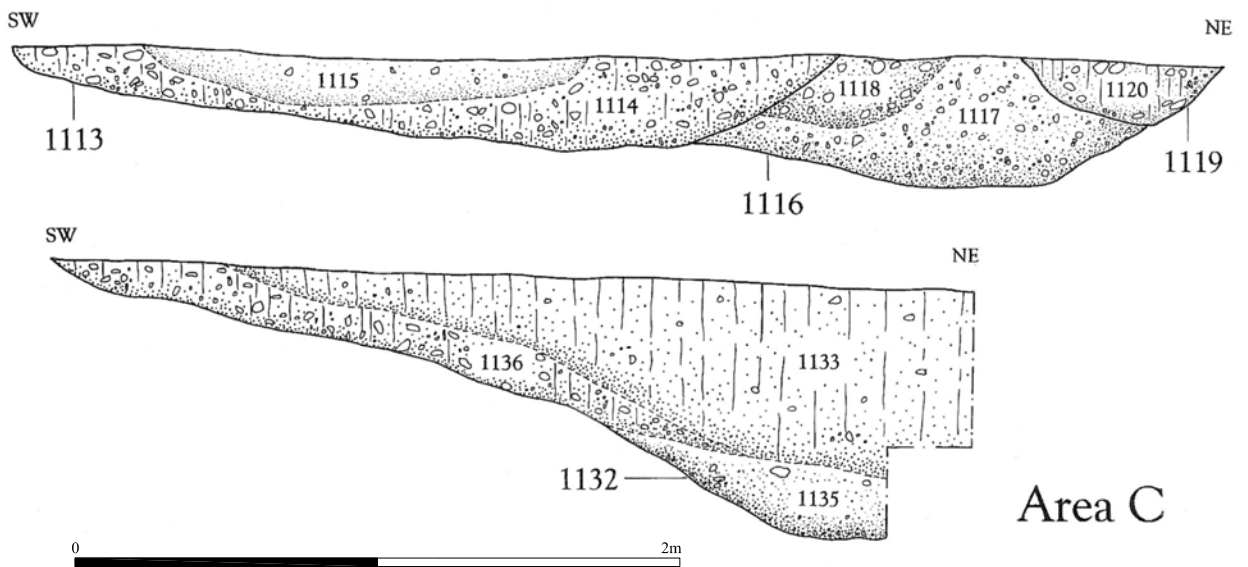
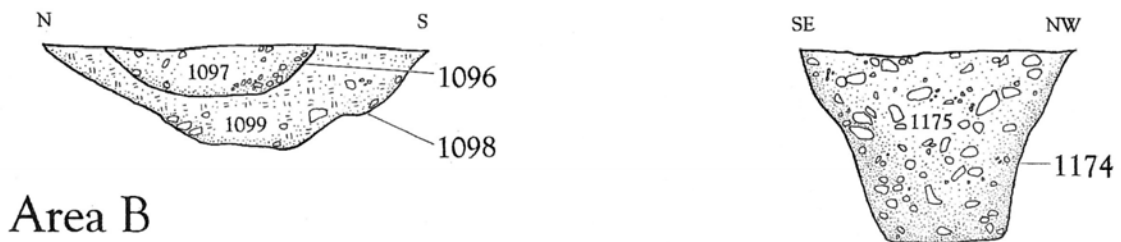
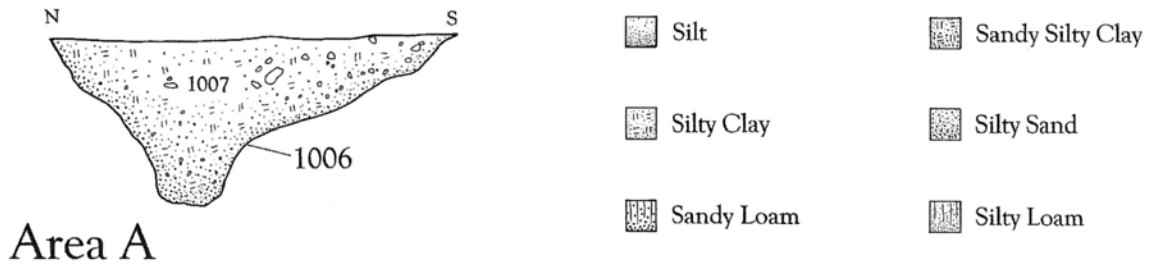
Area A

 Silty clay   
  Charcoal

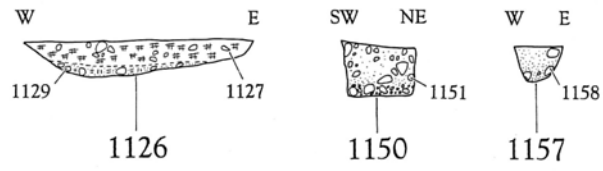




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**Fig. 9 Phase 3 sections**  
 Scale 1:25 at A4



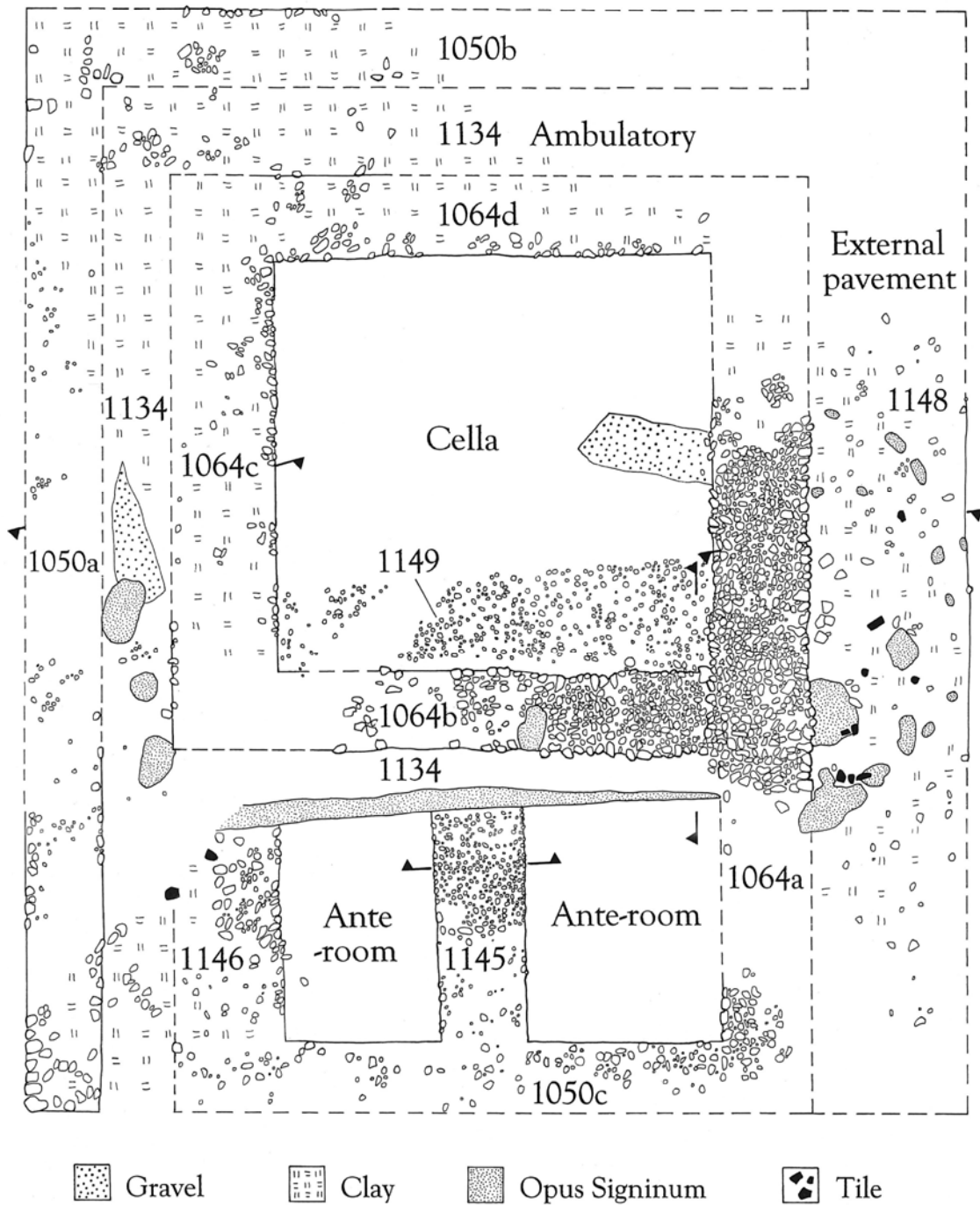
Archaeological Solutions Ltd  
**Fig. 10 Phase 4 sections**  
 Scale 1:25 at A4



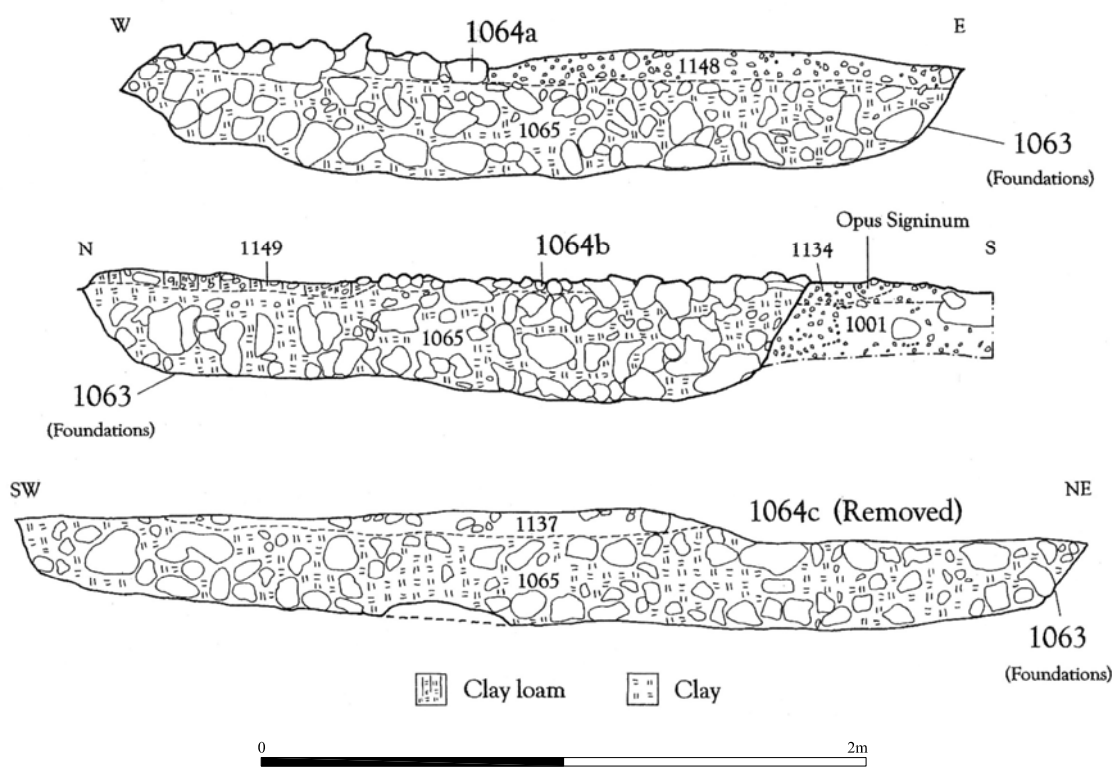
Silt
  Silty Clay
  Charcoal

Area C





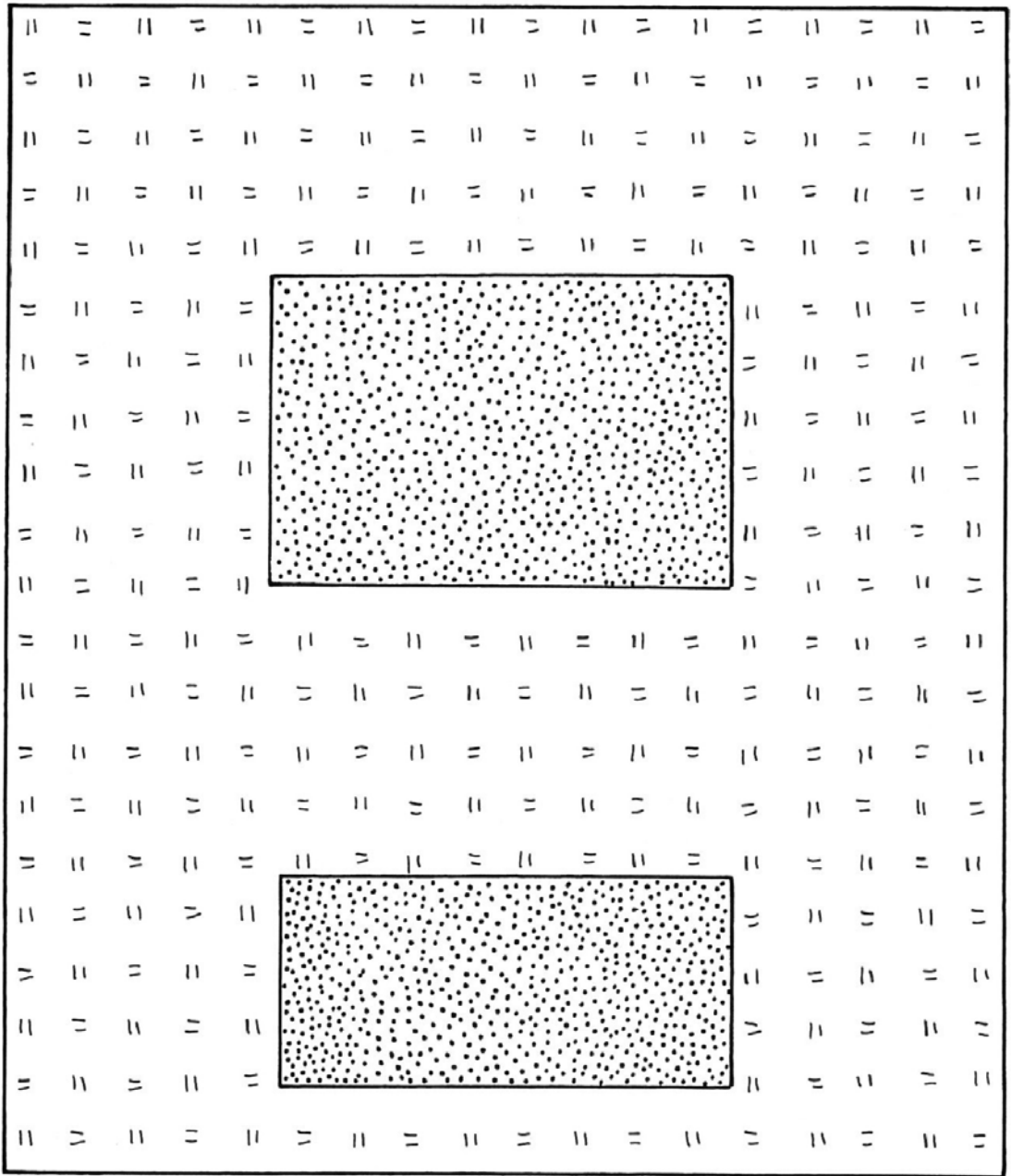
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**Fig. 12 The mausoleum - plan**  
 Scale 1:75 at A4



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**Fig. 13 The mausoleum - sections/ elevations**

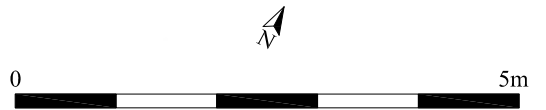
Scale 1:25 at A4



Clay



Gravel

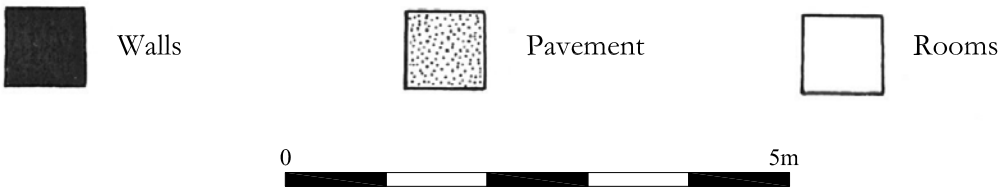
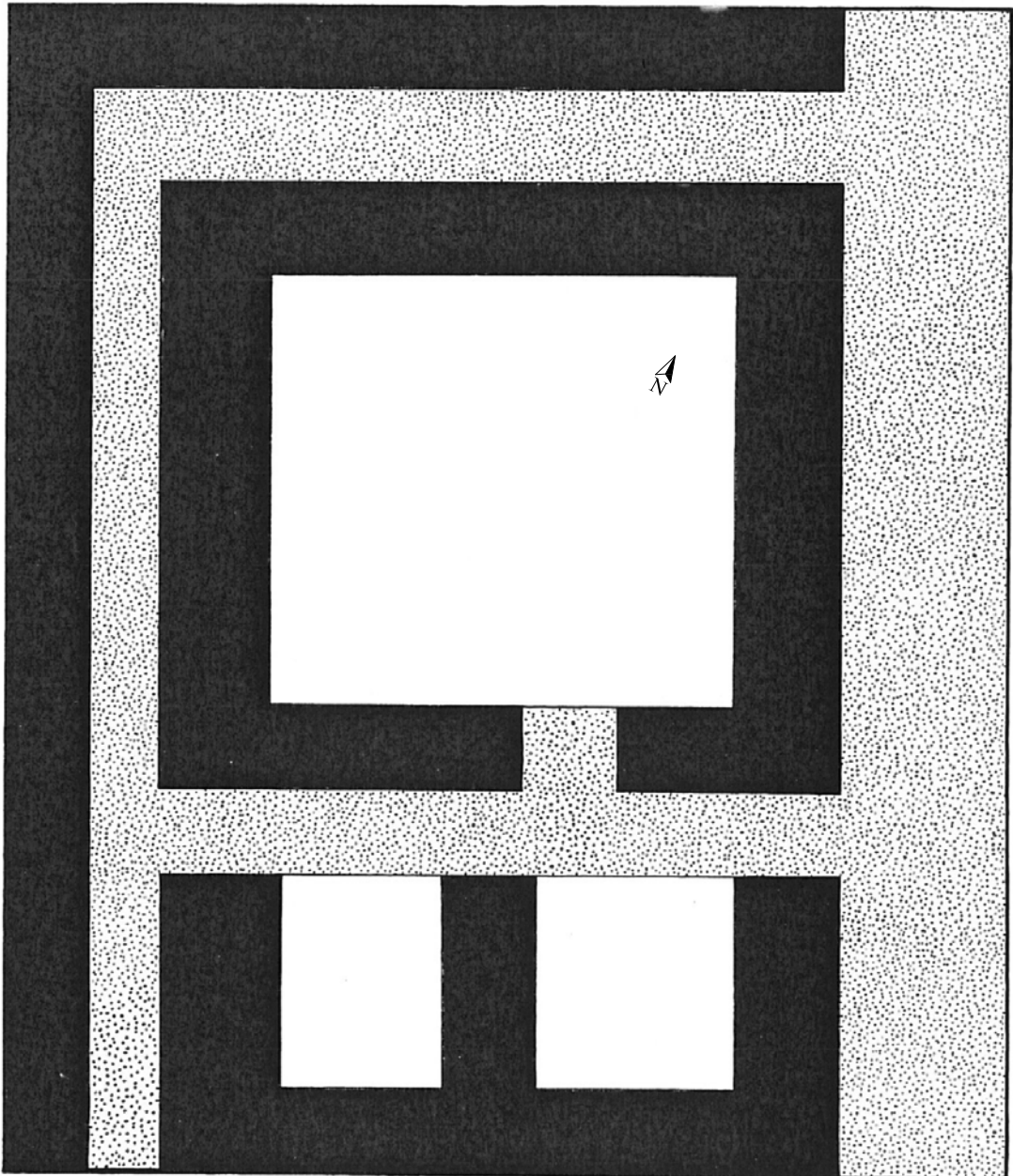


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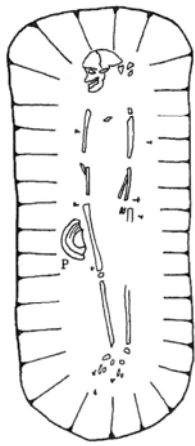
**Fig. 14** Reconstruction plan of the mausoleum features

Scale 1:75 at A4

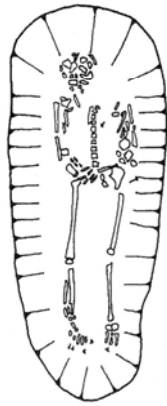




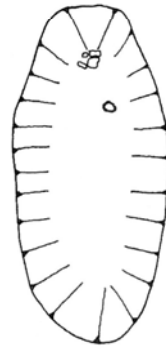
*Archaeological Solutions Ltd*  
**Fig. 15** Reconstruction plan of the mausoleum  
Scale 1:75 at A4



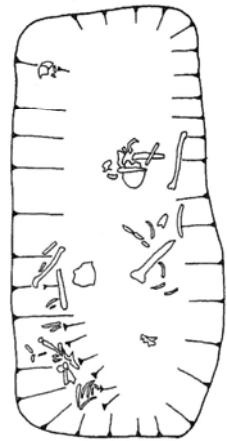
G1026 S1030



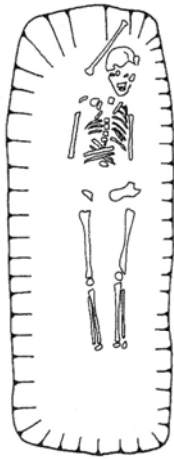
G1059 S1061



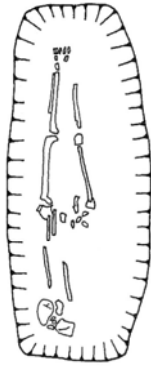
G1066 S1068



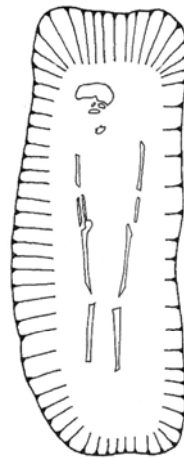
G1069 S1070



G1069 S1071



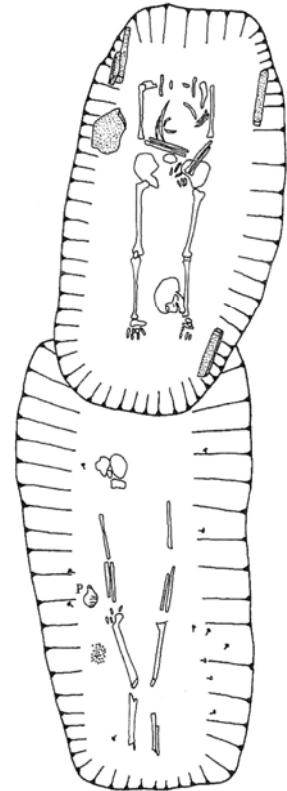
G1072 S1074



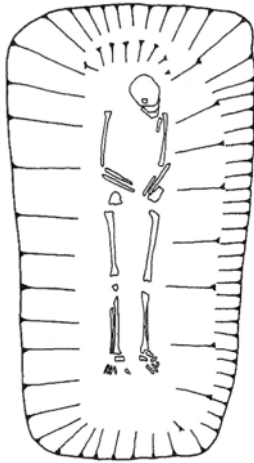
G1076 S1075



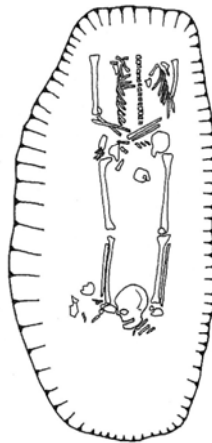
G1103 S1105



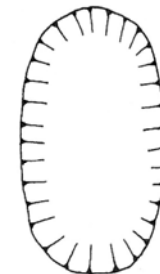
G1100 S1102



G1079 S1081

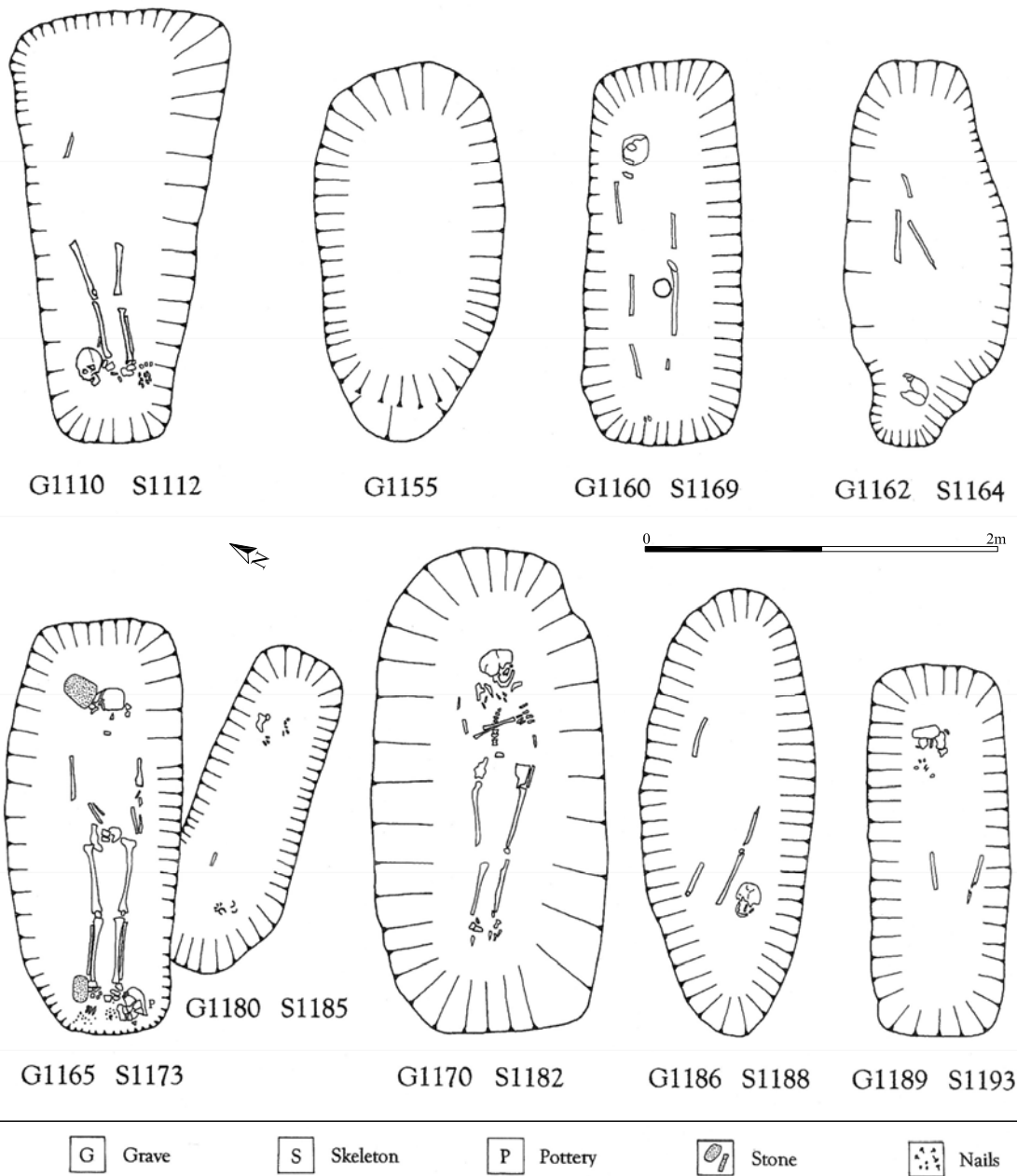


G1089 S1091



G1092

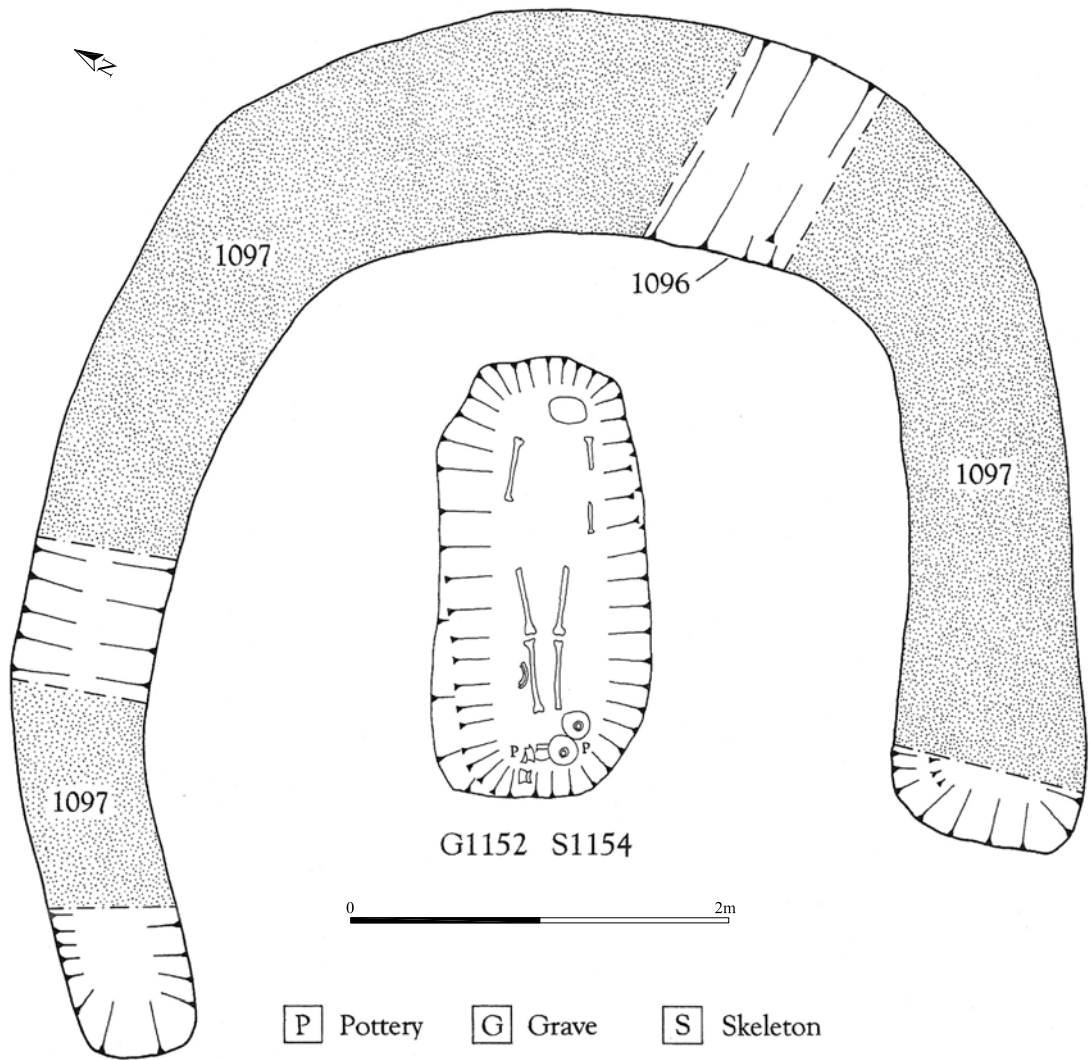
- Grave
- Skeleton
- Pottery
- Stone
- Nails



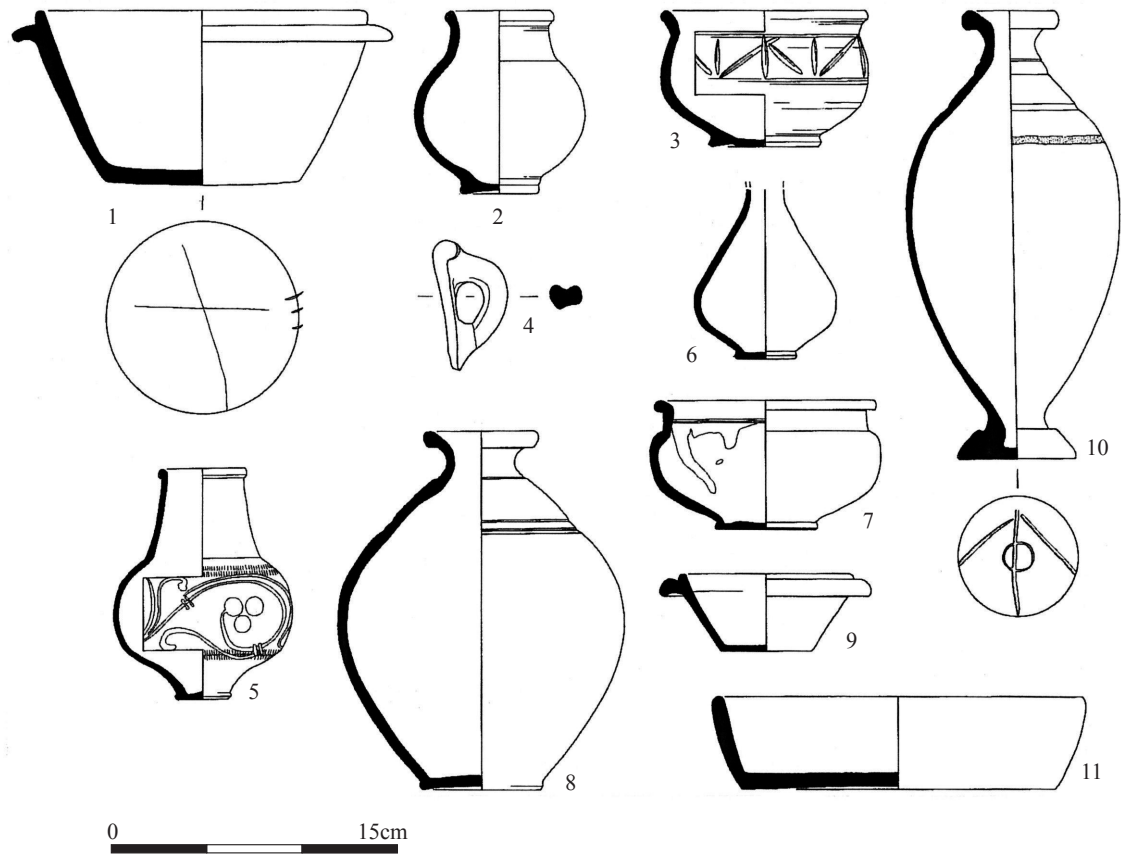
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**Fig. 17 The cemetery graves**

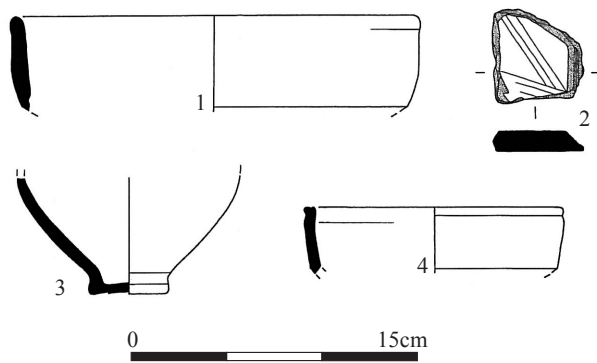
Scale 1:40 at A4



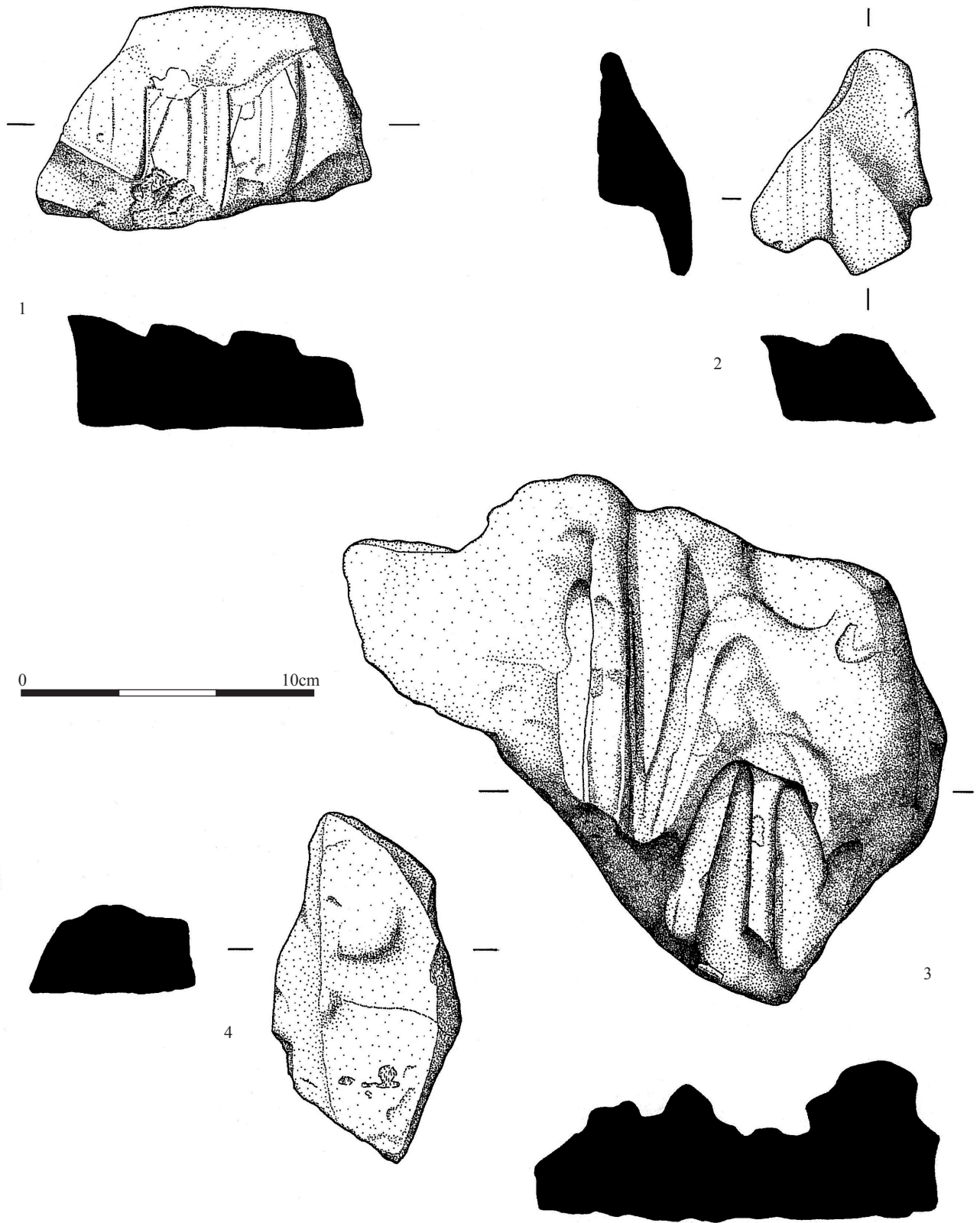
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**Fig. 18** The cemetery graves  
 Scale 1:40 at A4



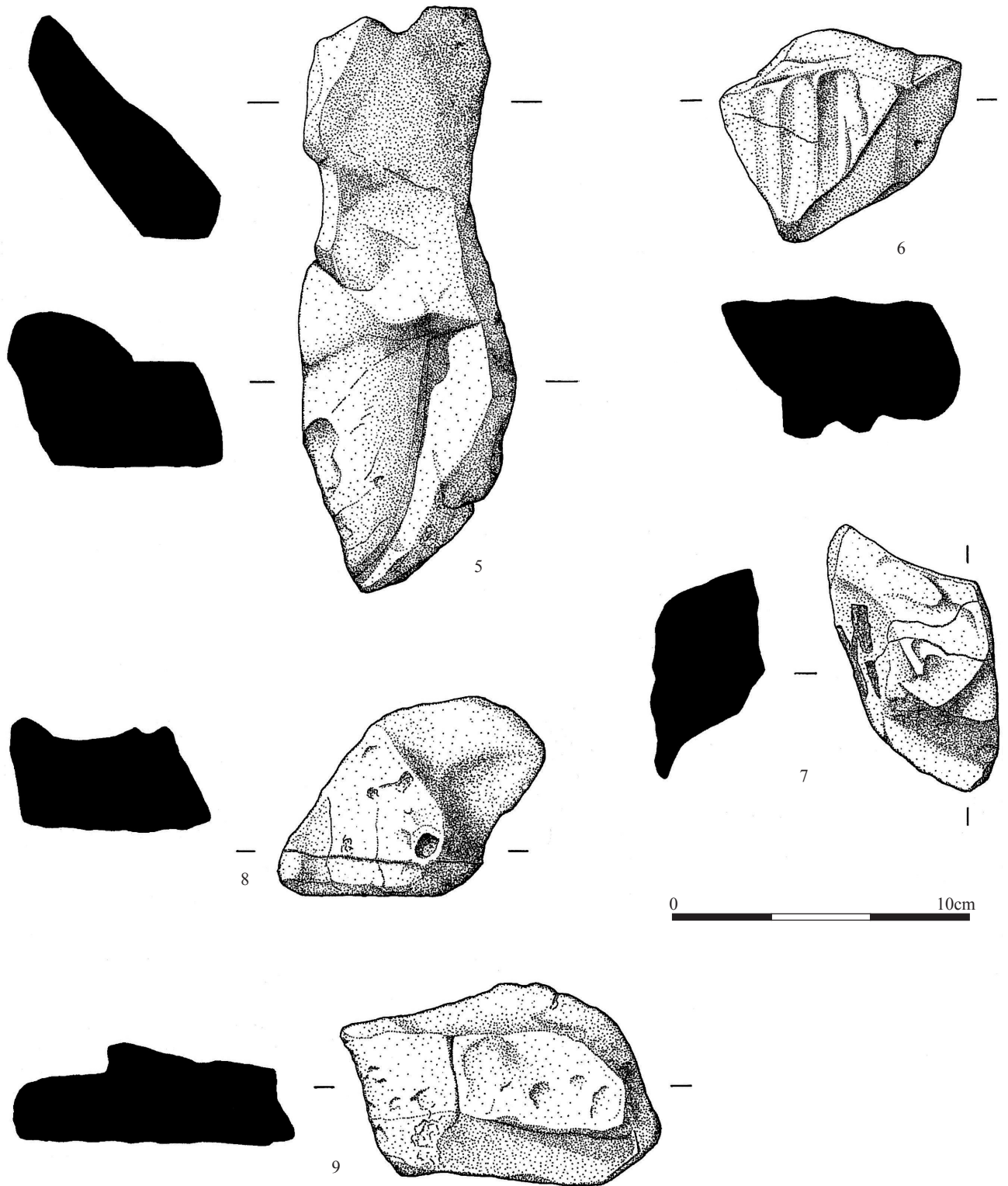
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<b>Fig. 19 Roman pottery from the burials</b>
Scale 1:4 at A4



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<b>Fig. 20 Roman pottery from non-grave features</b>
Scale 1:4 at A4

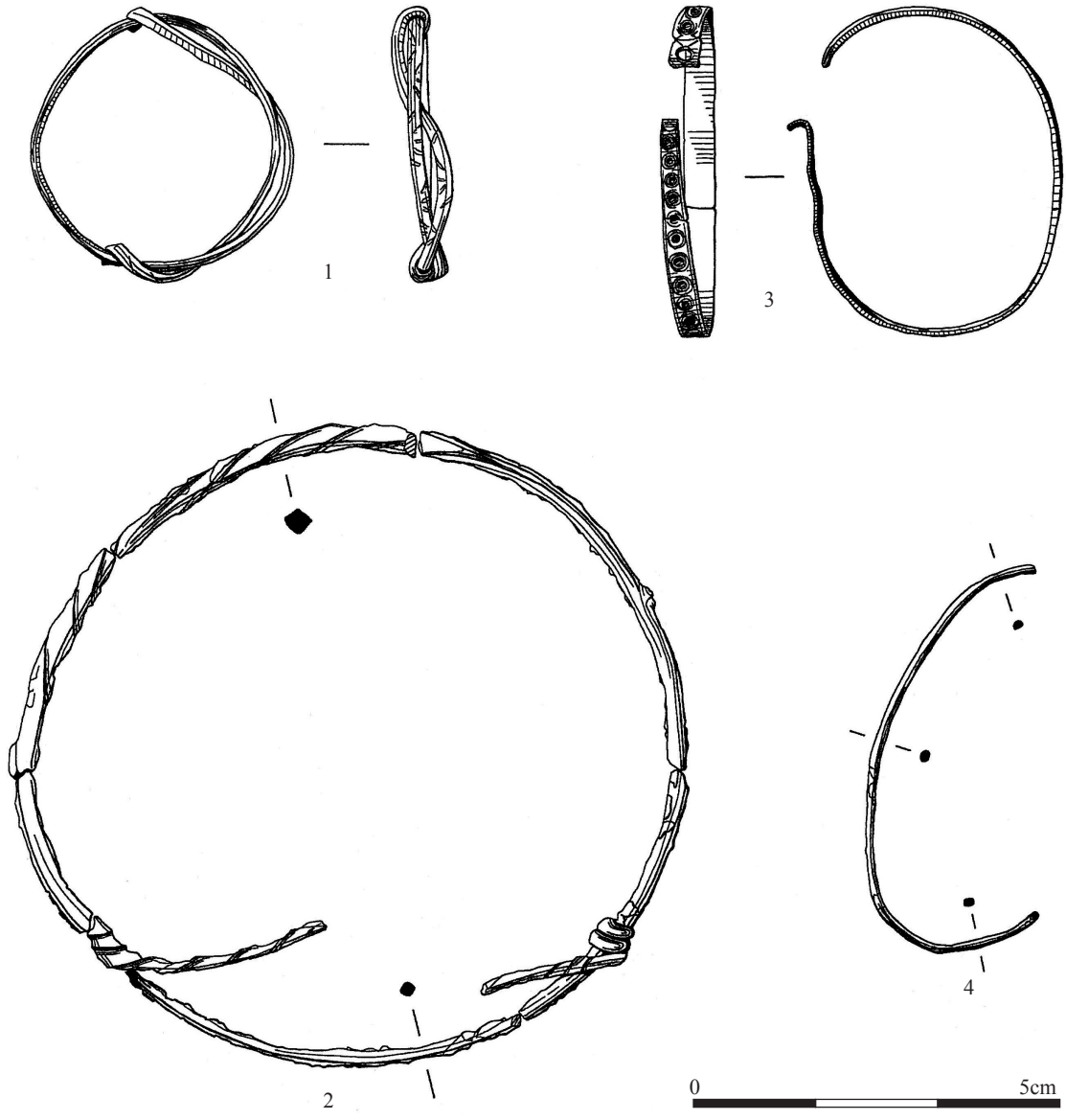


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**Fig. 21** The stone objects  
Scale 1:1 at A4

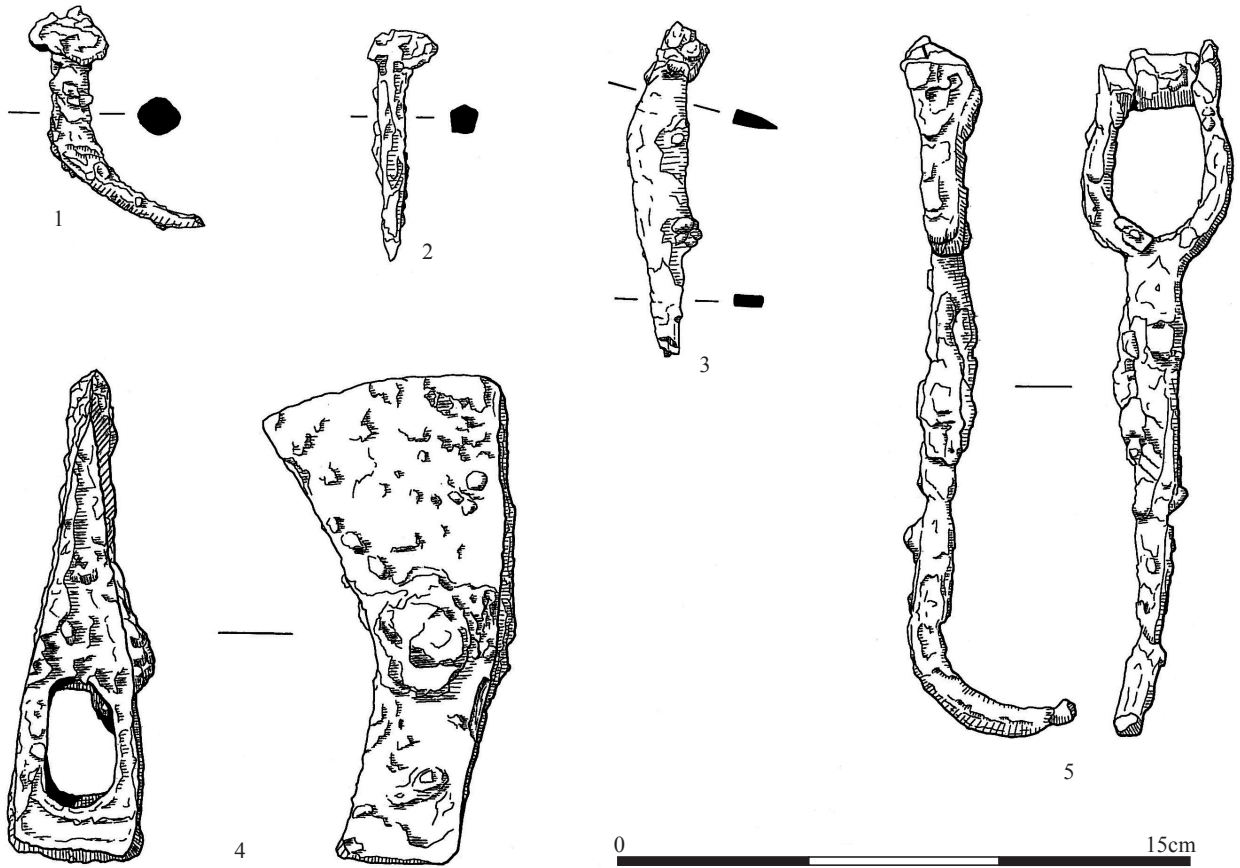


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<b>Fig. 22</b> The stone objects
Scale 1:1 at A4





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**Fig. 23** Copper Alloy objects  
Scale 1:2 at A4



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Fig. 24 Iron objects  
Scale 1:2 at A4