

Archaeological excavations at the Garrison sports pitch, Circular Road North, Colchester, Essex (Abbey Field)

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CAT Report 138

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1 Introduction

This report describes the results from an excavation and watching brief on the site of a Roman cemetery at the Garrison sports pitch in Circular Road North, Colchester, Essex (Abbey Field). The investigation was prompted by the proposed replacement of the original grassed pitch with an artificial 'Astroturf' surface, laid on a deep bed of graded stones. Preparations for the new pitch involved reducing the ground to predetermined depths of up to 600mm, as well as trenching for the installation of new floodlighting and drainage.

2 Archaeological background

Large Roman cemeteries are known from the south and west sides of Colchester. The main distribution of cemeteries covers a broad area extending east from St Clare Road for 2.5 km, across Abbey Field as far south as the Sobraon Barracks, and south-east to the modern Mersea Road cemetery. Within this area lie an unknown number of individual cremation and inhumation cemeteries variously ranging in date from the 1st century to the late Roman period. A detailed description and discussion of Colchester's Roman cemeteries may be found in *Roman Colchester* (Hull 1958) and more recently in *CAR 9* (Crummy *et al* 1993).

In 1925, a total of twenty-eight cremation burials were recorded when this part of Abbey Field was originally levelled for sports purposes (Essex Sites and Monuments Record or ESMR 12384), including eight within the site for the new pitch (Fig 1). Another cremation burial was found in 1931 when goal-posts were being erected (Colchester Museum report 1932). The top of the burial lay only four inches from the surface. A Roman kiln and rubbish-pit were discovered at the NAAFI (now the Arena Leisure Centre) in 1946 (ESMR 13232).

3 Archaeological investigation

3.1 Summary

The archaeological investigation took place in three stages:

1. An evaluation by geophysical survey and exploratory trenching, carried out in December 1999 and January 2000.
2. Excavations for the new pitch in February and March 2000.
3. A watching brief on the contractor's trenches for installation of drains, floodlighting and other peripheral services, which commenced in March and continued until May 2000. The floodlighting was also installed around a neighbouring football pitch, which involved observation of an additional 270m of cable trenches to the north-east of the new pitch.

In the exploratory stage 1, the results from the magnetometer survey (Appendix: CAT Report 54) were adversely affected by metal fencing and buried service cables and pipes. The trenching revealed one cremation burial, grave F2 (Fig 2), which is described in section 4.1.1 below.

3.2 Pitch excavations

The existing pitch was gradually stripped by machine using a toothless digging bucket until the engineer's reduced formation level for the new pitch was reached. Archaeologically significant features revealed at higher levels in the course of the stripping were excavated manually. Generally, features first exposed at the very limit of excavation were not excavated unless they were thought to be vulnerable to damage from works for the new pitch.

The final excavated depths were as follows:

- north corner: 33.84m OD
- west corner: 34.03m OD
- east corner: 33.77m OD
- south corner: 34.29m OD

3.3 Overall stratigraphy

Over most of the site, removal of the modern turf and topsoil deposits associated with the sports pitch revealed a thick layer of earlier topsoil (Layer or L22). Underlying L22 were localised areas of cover loam (L23), above natural silty sand (L24). The Roman features were cut from within L22, which had been stripped to varying extents for the creation of the sports ground in the 1920s.

Adherence to a fixed excavation depth meant that the natural L24 was only exposed at the northern end of the site, where in places it remained partly masked by the layers L22 and L23. In the central and southern areas, the stripping did not extend beyond L22. In Figure 3, the apparent scarcity of graves to the south-east is not representative of their true distribution: deeper service trenches in this region encountered graves Feature or F200 to F204, none of which were discernible from the reduced pitch level.

4 Results

4.1 Roman features

4.1.1 The graves

In total, 72 graves were investigated. An additional seven features, possibly graves, were noted at the limits of excavation but not examined further. In many instances, the upper part of the grave had been damaged or removed completely by post-Roman to modern activity. Light scatters of charcoal flecks were common components of the grave fills. In the grave descriptions, charcoal is referred to only where it is a more distinct component in the grave fill.

Grave F2 (evaluation trench)

A small circular pit with a centrally-placed upright grey ware jar (6). Soil within the jar contained cremated bone at various levels (8-13), and also an iron nail (7). A fragment of flagon neck (5) was recovered from the grave fill.

Grave F20

A small circular pit with a centrally-placed upright flagon (21). Cremated bone was scattered throughout the grave fill, and glass vessel fragments (25) were found near the base of the flagon. The flagon did not contain cremated remains.

Grave F21

An oval pit with a pot (185) at the southern end. A cluster of cremated bone together with iron nails lay immediately to the north side of the pot base and a light scatter of cremated bone extended across the remainder of the fill. A copper-alloy armlet (37) lay in the upper part of the fill.

Grave F22

A 30cm-wide pit of unknown length, cut by a modern pipe-trench (F53) at its northern end. No pottery was found in the undisturbed part of the grave. However, two sherds (190), possibly Hadham ware, were found in modern fill at the junction with F53 and are probably associated with F22. Cremated bone was scattered throughout the fill. Other inclusions were a coin (38), which lay in the upper level, and two iron objects (894, 188).

Grave F23

Only the bottom 7cm of this feature survived later heavy disturbance. The grave appears to be a circular pit, containing a bowl (represented by the base 47), with cremated bone scattered in the fill. Four iron nails (48, 967) were also recovered from the fill.

Grave F24

A square, flat-bottomed grave. Iron nails lay in each corner and elsewhere in the lower fill (62, 115, 896, 954), suggesting a wooden box which would have occupied the entire bottom of the grave. A cluster of forty nails (116) was also found in the centre of the feature. Also within the lower fill were parts of two pottery vessels (62, 114) and a scatter of cremated bone.

Grave F25 (plan: Fig 5)

A sub-rectangular grave pit containing a box represented by iron nails (43-46) close to each corner and elsewhere in the lower fill (87-101). Within the box outline were two coins (70), a beaker (65), and a cluster of jewellery in the north-east corner. The jewellery consisted of a jet bead necklace (61, 71, 72, 75, 76, 83, 86), a shale armlet (79), a copper-alloy armlet (80), a glass and jet bead armlet (73, 74, 77), and two jet bear amulets (78, 82). Cremated bone was recovered from soil within the beaker and also from the lower fill of the grave.

Grave F26

A small circular pit containing two pots, with one (53) compressed into the crushed body of the other (52). Cremated bone (54, 56, 726, 870) and iron nails (56, 57, 727, 869) were found both in the grave fill and in the soil extracted from pot 52. It was not possible to determine the relationship between F26 and the adjoining grave F32.

Grave F27 (Plate 2)

A sub-rectangular pit containing a box represented by nails around the sides and elsewhere in the lower fill (175, 206-213, 215-220). A beaker (174, 222) and a miniature vessel (194) lay within the box outline. Cremated bone was found in soil in the base of the beaker and scattered in the fill.

Grave F28

A small circular pit with a centrally-placed jar (42) containing cremated bone (720).

Grave F29

This feature appears to be a grave, heavily disturbed by later activity, with its contents dispersed over an area of approximately 2m. Finds possibly associated with this feature include fragments representing two jars (195, 196), tile and iron objects, and a small quantity of vitrified clay. None of these can be positively attributed to the grave.

Grave F30

A sub-rectangular pit with a mixed sandy loam fill with a high content of charcoal. Cremated bone was scattered throughout the fill, also occasional pot sherds (584, from several different vessels), iron nails, and a small quantity of vitrified clay.

Grave F31

A small circular pit with a miniature vessel (50) resting on its side in the centre of the feature. The pit fill contained a scatter of cremated bone (51, 908).

Grave F32

A small circular pit with a miniature grey ware vessel (59) resting on its side next to a pewter vessel (60). The miniature pot (59) contained cremated bone (230, 807).

Grave F33

Parts of a dish and large jar (67) with no discernible grave pit. Cremated bone was recovered from soil within the jar.

Grave F34

A cluster of pottery fragments and nails at the south side of ditch F49, this appears to be a grave which has been heavily disturbed by post-medieval activity. Peg-tile and slate occur in the immediate vicinity.

Grave F35

A small sub-rectangular pit containing a crushed beaker (107). Cremated bone was recovered from the grave fill and from soil adhering to the beaker. Iron nails (107) were also scattered in the fill.

Grave F36

A small circular pit with a centrally-placed upright jar (108, 109). The soil within the jar contained an intact glass unguent bottle (790), placed at an angle with its bottom approximately 7cm above the base of the pot. Cremated bone was also found at and below the level of the glass vessel. No cremated bone occurred in the general grave fill.

Grave F38

A heavily-disturbed grave represented by a small area of discoloured charcoal-rich soil with a scatter of pottery fragments, nails (134), and tile. Clay tobacco-pipe stem was found in the upper level of the feature. This burial lies within the bounds of the enclosure F45/F57/F103 and it cuts post-hole F105.

Grave F39 (Plate 3)

A small circular pit containing a centrally-placed upright jar (164) covered with a broken inverted dish (121). Soil within the jar contained cremated bone and one nail (714). The grave fill included several iron nails (171) and a number of pot sherds (165, 169, 171).

Grave F40

A disturbed grave adjoining and with an indeterminate relationship to grave F38. The fill contained scatters of pottery (136, 141, 751, 753), iron (130, 135, 136, 754), and a single fragment of tile (756). This burial lies within the bounds of the enclosure F45/F57/F103 and cuts a post-hole F105.

Grave F41

An irregularly-shaped pit with a charcoal-rich fill containing cremated bone, nails (343, 344), and fragments of a dish (345). Disturbed by an animal burrow.

Grave F42

A cluster of pottery sherds ranging from Roman to post-medieval (131, 133, 146, 147), burnt bone (probably animal), and nails and other metal objects (123, 125, 127, 129, 132, 133, 146, 147), all within a small area of charcoal-rich soil. Other finds from this heavily-disturbed feature (131,133) included 19th-century clay tobacco pipe and nails which are probably of similar late date.

Grave F43

A small circular pit containing a beaker (157) and a crushed inverted jar. The pit fill contained two nails and animal bone fragments (145).

Grave F44

A heavily-disturbed pit with charcoal-rich fill containing a crushed jar (168). Cremated bone was recovered from soil within the jar base (1077) and from the surrounding pit fill (163, 857), which also contained iron nails (860). This pit cuts slot F113.

Grave F46

A small circular pit with a centrally-placed jar (137) containing cremated bone (773). Cut by a modern post-hole F119.

Grave F66

A small circular pit with a centrally-placed jar (154, 156). Cremated bone was found within the jar and throughout the grave fill.

Grave F71

A circular pit with a centrally-placed jar (177) containing cremated bone.

Grave F72

A circular pit with a centrally-placed jar (317, 229) covered with a brick lid (227). The jar was crushed, and iron nails (232, 318) were scattered in the grave fill. The soil within the jar contained one nail (760) and a quantity of cremated bone. Cremated bone was also present in the grave fill.

Grave F73

A circular pit with a centrally-placed jar (191) containing cremated bone.

Grave F74

Heavily disturbed by animal activity, all that survived of this feature was a small depression and part of a pot base.

Grave F75

A circular pit with a centrally-placed jar (217, 225) containing cremated bone. Cut by a modern post-hole F123.

Grave F78 (unexcavated)

Possibly a grave, this feature was represented by a sub-rectangular area of charcoal-rich soil.

Grave F80

A circular pit containing a centrally-placed jar (251) with a bowl (250) placed upright on top. No cremated remains were recovered from this grave.

Grave F81

A circular pit with a centrally-placed jar (235) containing cremated bone.

Grave F82

A circular pit with a small step in the cut for the south side. Standing on the step was an upright jar (249). Soil within the jar contained cremated bone and one iron nail (774). An unidentified stone or glass disc (240) lay in the pit fill immediately west of the jar.

Grave F84

A pit with a sub-rectangular outline and curved bottom, surviving to a depth of 48cm. The fill contained approximately 255 iron nails (290-302, 304-305, 324-334, 346-360, 381-422, 435-455, 459-479, 485-491, 493-502, 514-533, 535-541, 543-545, 547-559, 564, 566, 568-575, 591, 593, 601-613, 624-628) and 23 hobnails (361-362, 377-380, 456-458, 492, 546). The nails were too closely packed within the fill to distinguish any

overall pattern to their distribution, but, from the varying thickness of surviving wood traces, they appear to be derived from a number of wooden objects. The hobnails, possibly footwear, lay at levels from 36cm to 45cm above the bottom and tended to form two groups, each to either side of the centre of the long axis of the grave pit. Pottery (322, 368, 480, 563) representing at least two vessels lay scattered at depths down to approximately 36cm from the pit bottom and in most instances lay in localised charcoal-rich parts of the fill. The lowest find, a nail, was recorded 22cm above the bottom of the feature. Only a small quantity of cremated bone (5 g) was found, from a single findspot 37cm above the bottom. The absence of finds in the bottom of the pit, together with the incidence and the distribution of the contents, suggests that the material was dumped rather than resulting from steady decomposition and collapse of intact grave furnishings within the pit.

Grave F85 (plan: Fig 6)

A disturbed sub-rectangular pit with a charcoal-rich lower fill containing a crushed beaker (316). A total of 29 nails (269-273, 275-278, 280, 306-312, 337-342, 370-375) lay around the edges and scattered across the charcoal-rich area, indicating a wooden box. A small quantity of cremated bone was recovered from within the area of the charcoal and nails. The north-west corner of the grave was cut by a modern post-hole F156.

Grave F86

A disturbed circular pit with a centrally-placed jar (139, 140). The jar contained cremated bone, and also a (?)post-medieval copper-alloy object (843) which appears to be intrusive.

Grave F88

A circular pit with a centrally-placed jar (204) containing cremated bone.

Grave F89

A circular pit with a centrally-placed jar (221) containing cremated bone.

Grave F90

A heavily-disturbed area containing a crushed lower half of a jar (286). Immediately east of the pot base was a cluster of hobnails (284). In the soil within the fragmented outline of the jar were scatters of cremated bone and hobnails (810-817). This area was cut by pit F154.

Grave F91 (unexcavated)

Probably a grave, this feature was represented by a sub-rectangular area of charcoal-rich soil in the heavily-disturbed region immediately east of grave F90. One iron nail was noted in the fill.

Grave F92 (unexcavated)

A possible grave, this feature was represented by a fragment of *imbrex* within a small area of charcoal-rich soil. It was not investigated further since the remainder of the feature lay beyond the limit of excavation.

Grave F93 (Plate 4)

A disturbed rectilinear pit with iron nails (363-365, 367) close to the sides in the lower eastern part of the feature. The fill contained a scatter of cremated bone and pottery fragments representing small parts of three vessels (366). Indeterminate relationship to grave F157.

Grave F94

A rectilinear pit with a charcoal-rich fill containing a general scatter of charcoal and cremated bone, with a greater concentration of both materials at the eastern end of the feature. A total of nine iron nails lay at the sides and within the fill (482-484, 510-512, 882, 910). No pottery was found in this grave.

Grave F95

A circular pit with a centrally-placed jar (167). The soil within the jar contained a second jar base (769) and cremated bone.

Grave F96

A circular pit with a centrally-placed jar (158, 166, 172) containing cremated bone. Cut by a post-medieval/modern post-hole F118.

Grave F97

A small sub-rectangular pit with a charcoal-rich fill containing cremated bone. No pottery was found in this feature.

Grave F99 (unexcavated)

This feature was represented by fragments of bone within a small area of charcoal-rich soil. It was not investigated further since the remainder of the feature lay beyond the limit of excavation.

Grave F100

Cut and very heavily disturbed by the modern feature F122. A circular pit containing fragments of a jar (193), most of which was recovered from the fill of the later F122.

Grave F101

A heavily-disturbed area containing a crushed pot base (181), with cremated bone in the soil adhering to its inner surface. The base was inset into the ground and appeared to be *in situ*, although no cut for a pit was discernible.

Grave F102 (unexcavated)

This feature was represented by fragments of pottery within a small area of charcoal-rich soil. It was not investigated further since the remainder of the feature lay beyond the limit of excavation.

Grave F104

A cluster of sherds representing at least one pot (178), which appeared to be *in situ*. No cut for a pit was discernible in this heavily-disturbed feature.

Grave F109

This feature was heavily disturbed by a modern pipe-trench (F56). The surviving part consisted of a small area of charcoal and cremated bone.

Grave F115

A sub-rectangular pit with a charcoal-rich lower fill surrounding a jar (246, 764). Both the grave fill and the soil within the pot contained cremated bone.

Grave F116 (unexcavated)

Probably a grave, the uppermost part of this feature was represented by fragments of pottery and bone. It was not investigated further since the remainder of the feature lay beyond the limit of excavation.

Grave F140

An oval pit with a charcoal-rich fill containing a scatter of cremated bone, two nails (688), and burnt pottery fragments (689). This feature is only tentatively interpreted as a grave: an alternative interpretation suggested by its proximity to a heavily burnt area (F37) is discussed below (section 4.1.2).

Grave F145 (revealed in contractor's cable trench)

A jar (252, 901) containing cremated bone.

Grave F153 (revealed in contractor's cable trench)

A pit with a centrally-placed large jar (289) containing cremated bone, charcoal, and one iron nail (784).

Grave F157 (Plate 4)

A circular pit with a disturbed fill containing pottery fragments (423, 854), cremated bone, and several burnt stones. Indeterminate relationship to grave F93.

Grave F158

A circular pit containing a centrally-placed jar (508, 741, 743) covered with an inverted bowl (507). The jar appears to have been filled with soil, then topped with pebbles at the level of the neck of the pot. Cremated bone was recovered at all levels of the pot fill.

Grave F160

An irregularly-shaped pit, possibly two features, with iron nails at intervals around the eastern side (576-581, 588, 589). The fill contained a cluster of cremated bone and pottery fragments (583), and also scatters of pottery (561, 582, 638) representing at least four vessels in total.

Grave F164

A circular pit with a centrally-placed jar (428, 509, 835) containing cremated bone and one iron nail (837).

Grave F171 (Plate 5)

A sub-rectangular pit with a charcoal-rich fill, disturbed at the eastern end. Iron nails lay around the edges of the eastern half and scattered in the lowest 10cm of the fill (618, 619, 623, 634, 636, 637, 640-644, 649-653). Cremated bone, vitrified clay, and a small quantity of pottery (615, 616, 633) lay scattered in the fill.

Grave F176

A circular pit with a centrally-placed jar (503, 506, 701, 704) containing cremated bone. One iron nail was also found in the pot fill (707).

Grave F185

A circular pit holding a jar (562) containing cremated bone. Fragments of a bowl (731), which had possibly been used as a lid, were found in the grave fill and in the upper soil fill of the jar.

Grave F186

A circular pit containing a cluster of crushed pottery representing a beaker (630) on top of a dish (631). No cremated bone was recovered from this feature.

Grave F193

A heavily-disturbed burial represented by a crushed jar (598, 599) containing cremated bone. One iron nail was recovered from soil within the jar (597).

Grave F199 (revealed in contractor's cable trench, part-excavated)

A disturbed pit with charcoal-rich fill from which several *tegula* fragments and part of a jar rim were recovered (655).

Grave F200 (revealed in contractor's drainage trench) (plan: Fig 7; Plate 6)

A rectangular cist constructed of five complete Roman Lydion tiles, forming a lid and lining for the four sides. The cist contained a large jar (662) capped with an inverted bowl (659), with an upright dish (658) on top of the bowl. Two small flagons (660, 661) and a clay lamp (668) stood beside the jar in the bottom of the grave. The soil within the large jar contained cremated bone and one small nail (888).

Grave F201 (revealed in contractor's drainage trench, largely unexcavated)

A burial represented by the edge of a pit, in which a quantity of cremated bone and one iron nail (666) were exposed.

Grave F202 (revealed in contractor's drainage trench)

A heavily-disturbed burial represented by a scatter of pottery (669) and iron nails (670).

Grave F203 (revealed in contractor's drainage trench)

A partly-exposed pit, the contents included a mixing palette (673), nails (672), and sherds representing a miniature grey ware jar and bowl (671).

Grave F204 (revealed in contractor's drainage trench) (plan: Fig 8)

A disturbed sub-rectangular pit. The grave goods included three coins (691, 694, 695) and at least four pots (680-684). Iron nails were confined to the eastern half of the grave, including four (675, 686, 696, 698) which were probably *in situ* against the south-east side of the grave pit. If representative of the dimensions of a single wooden box, the nail distribution suggests that all but the two larger vessels may have been contained within the box. Bone fragments were recovered from soil adhering to the inner parts of the beaker sherds (681), and also from the grave fill and from soil within the miniature vessel (683).

Grave F205

Cut (or possibly dumped) into the fill of F52, this feature was represented by a charcoal-rich deposit containing a large number of iron nails (1000-1005, 1007, 1008-1037, 1040-1045) which appeared to be randomly distributed. Also scattered in the fill were cremated bone, animal bone (1039), and beaker fragments (1007).

Grave F207a/F207b (revealed in contractor's lighting post-pit)

A complex and poorly-defined feature which extended beyond the limits of the contractor's trench. The exposed part consisted of a deep charcoal-rich deposit (F207a) above a relatively clean sandy loam which may be an earlier pit or grave fill (F207b). Finds from F207a included scattered cremated bone, several iron nails (1050-1052), and pottery fragments representing several different vessels (1049). F207b contained pottery (1055, 1073) and a nail (1056).

Grave F211a/F211b (revealed in contractor's cable trench) (plan: Fig 9)

Partly exposed in a narrow contractor's trench, this feature consisted of a jar (1064) covered with a *tegula* fragment (1065; F211a). To the north of the jar there was a probable box represented by a charcoal-rich area with well-defined straight edges, within which were nails (1066-1071) and cremated bone (F211b). Cremated bone was also recovered from soil within the jar. It was not possible to establish whether this feature represents one or two separate burials. The overall outline seems to suggest two, but there was no sign of a cut between them.

4.1.2 Other features

The following features appear either to be contemporary with or to pre-date the cemetery.

?Trackway

Two north-south ditch-like features, F58 and F120, may indicate a trackway approximately 8m in width. No metalling was discernible in the exposed area between these features.

Enclosure

Adjoining the north-east side of the trackway there was a ditched enclosure, three sides of which were represented by the linear features F45, F57 and F103. The north side was 6m long and there was a 1m-wide gap, possibly an entrance, on the east side between F45 and F103. Within the north-west corner of the enclosure there were two burials (F38 and F40), both disturbed by post-medieval activity. Beneath the graves were a post-hole (F105) and an intercutting pit or post-hole (F110): it was not possible to establish the relationship between the two. Also within the known bounds of the enclosure were the unexcavated pits or post-pits F98, F114, F146 and F112; F112 was located 0.5m inside the (?)entrance.

Ditches

Early linear features include the parallel east-west ditches F70 and F111, together with F52 and north-south ditches F69 and F83. None of these linear features were excavated. However, the small number of datable surface finds from F69, F83 and F111 fell within a broad Roman date and included c 1st- to early 2nd-century pottery from F111, and samian ware, probably of 2nd- to early 3rd-century date, from F83. Unfortunately, the relationship between the fill of ditch F52 and the stratigraphically later grave F205 is inconclusive since it is possible that F205 was redeposited, rather than cut, into the fill of F52. In the area to the west of the trackway, a short stretch of a linear feature F172 was revealed at the limit of excavation. This may also represent an early ditch.

Hearth/pyre? F37

At the eastern edge of the site, excavation revealed an area of cover loam (L23) which had been heavily discoloured by intense heat. Approximately 0.5 sq m of the red-black burnt soil was exposed, the remainder extending beyond the limit of excavation. If evidence of a pyre, this burnt soil raises a question over the interpretation of the adjacent F140. A pit with scattered contents of burnt pottery, nails and cremated bone, F140 is tentatively interpreted as a grave, although its proximity to F37 and high content of charcoal in the fill might equally well represent sweepings from a pyre.

F108, F117

Small areas of stratigraphically early charcoal-rich soil which appeared at the depth limit of excavation and were not investigated further.

Slot F113

A 20cm-wide slot with a charcoal-rich fill. Located in an area heavily disturbed by later stripping, the slot survived to a depth of 5cm and was traced for a length of 60cm. Cut by, but possibly associated with, grave F44.

F147, F148, F149, F150

A line of four small pits or post-holes, of uncertain but possibly Roman date. F147 and F149 were paired, and the fill of F148 included a distinct charcoal content.

Structural features F208, F209, F210

Three structural features were noted in 22cm-wide trenches dug by the contractor for floodlight cables in the region to the north-east of the excavation (Fig 1). F208, an

east-west trench approximately 80cm wide, was filled with compacted mortar and appeared to bottom out at an overall depth of 60cm. Approximately 1.4m to the south of F208, a group of large mortared stones was partly exposed (F209). The feature continued beyond both sides of the contractor's trench and appeared to be on a similar east-west orientation to F208, although this is uncertain due to the restricted dimensions of the trench. At a spot approximately 35m to the east of F208, the cable trench revealed a second mortar-filled east-west trench (F210), approximately 80cm in width. F208 and F210 appear to be robber trenches, resulting either from the removal of two foundations on the same alignment or perhaps a single long stretch of wall foundation. The mortared stone F209 is assumed to be an undisturbed foundation, although too little was exposed to permit satisfactory interpretation of this feature.

4.2 Post-Roman to modern features

4.2.1 Ditch F49

The date of the broad ditch F49 (Fig 3) is uncertain. The only excavation within its bounds took place on a shallow feature F34, which contained grave contents displaced by post-medieval disturbance. In the absence of datable finds, F49 been tentatively attributed to the post-Roman period. However, an earlier date is possible, although stratigraphically the ditch would still post-date the trackway ditch F58.

4.2.2 Post-medieval features

Post-medieval features included a series of sub-rectangular pits (F61, F76, F77, F79, F121, F124, F125, F154), cut at varying angles across the north-central part of the site. Although the pits were not excavated, clay tobacco pipe and peg-tile were variously noted in the upper fills of F77, F79, F121, F124 and F154. Also belonging to the post-medieval period is F59, an unexcavated north-south ditch which contained peg-tile and clay tobacco-pipe stem in the upper level of its fill.

4.2.3 Modern activity

Modern activity was represented mainly by service trenches, stake and post-holes associated with the post-1920s ground use for sports and as a rehearsal area for the town's military tattoo.

5 Discussion

5.1 The Roman cremation cemetery

The picture to emerge from the investigations is fragmentary due to the need to stop short of full excavation for pitch-engineering reasons. At the earliest levels, the stripping revealed part of a mid to late Roman cremation cemetery which was in use until the latter half of the 4th century. Within this range, the dating evidence from the burials is generally too broad to distinguish a pattern of development, although a statistically small comparison between graves containing early to mid 2nd- to mid-late 3rd-century pottery (F24, F36, F39, F84, F160, F200) and the location of the later 4th-century grave F185 (and grave F85, if the pottery it contains is Oxford ware) shows all but F84 of the earlier group to be closer to the line of a possible trackway suggested by the ditches F58 and F120.

The datable material recovered from the unexcavated ditches or gullies F69, F70, F111, F83 and F172 points to a Roman origin, but is too limited to determine whether they represent divisions within the cemetery or belong to an earlier phase of Roman activity.

5.2 Types of burial

The burials fall broadly into three groups: inurned, with cremation boxes, and one cist. There were also 28 burials which could not be classified.

5.2.1 Inurned burials

There were 41 inurned burials: F2, F20, F21, F23, F26, F31, F32, F33, F36, F39, F43, F44, F46, F66, F71, F72, F73, F74, F75, F80, F81, F82, F86, F88, F89, F90, F95, F96, F100, F101, F115, F145, F153, F157, F158, F164, F176, F185, F186, F193, and F211a.

The commonest type of burial was in the form of an urn placed in a small pit (inurned). Lids were found *in situ* in five instances (inverted dishes were employed in F39, F158, F200; tile was employed in F72 and F211a), but the incidence of lids was impossible to establish since the upper parts of many urns were either missing or damaged. An upright bowl covered the top of the jar in F80, and bowl sherds, possibly from collapsed lids, lay within urns in F95 and F185. Nails were found among the soil within burial urns in a total of eleven graves, although they may be intrusive in two of the more disturbed examples. Whilst this may indicate the use of wooden lids, it is quite possible that they may have entered the urn among sweepings from the cremation pyre, since they lay in the lower levels of the urns in six of the eleven instances. Traces of coal were found among soils removed from urns, and the well-covered jar within the cist (F200) contained one nail (597) in soil 7.5cm above the bottom of the jar.

5.2.2 Burials with cremation boxes (F24, F25, F27, F85, F93, F160, F171, F204, F211b)

Clear evidence for the deposition of nailed wooden boxes was found in nine graves, where at least part of the original box outline was indicated by the positions of nails. Overall, however, nails in varying quantity were found in a total of forty-five graves (including seven where the only nails present were within the jar). Of these, sixteen (listed in the small finds report) contained nails in sufficient number to represent one or more collapsed boxes if all were from grave furnishings rather than wood burnt on the cremation pyre. Four of the graves (F25, F27, F204 and F211b) also contained pots from which cremated remains were recovered. Apart from a small cluster (F24, F25, F27) in the north corner of the site, the distribution of boxes appears to be random.

5.2.3 Cist (F200)

The discovery of a single example of a cist burial (described above, section 4.1.1) occurred in a deep drainage trench dug at the south-eastern edge of the site. Here, the depth of area excavation was at its shallowest, typically removing only 220mm of topsoil and stopping short of the level at which early features might be revealed. As a result, it remains an isolated find: its orientation shares the same north-south/east-west inclination as the majority of the sub-rectangular burials to the north, but otherwise nothing is known of its immediate surroundings in relation to the rest of the cemetery.

5.2.4 Unclassified burials

Most of the remaining twenty-eight unclassified burials were either too disturbed by post-Roman activity or the conditions of observation were too limited to permit reliable classification. Also in this category are three features notable for the unusual nature of their contents; these are all described more fully in section 4.1.1. F84 stands out for its extraordinarily high content of nails (255, some with no obvious signs of use) which appear to have been dumped in the grave. F140 is unusual in that it contained burnt pottery, possibly from the adjacent hearth F37. Finally, F30, a grave with pottery sherds and cremated bone distributed throughout the undisturbed lower fill, raises the possibility that its contents were deliberately broken up and scattered as part of the burial rite.

6 The finds

6.1 The Roman pottery by Stephen Benfield

This report summarises the pottery from the Roman cremation burials, though it also includes a report on the sherds of Colchester samian ware from the site which are of intrinsic interest. Vessel form (Cam) numbers refer to the Camulodunum Roman pottery type series (Hull 1958 & Hull 1963) and dating refers to that in *CAR 10*.

6.1.1 The pottery from the burials

The pottery from the burials is generally in good condition, though many of the larger vessels have been damaged or truncated and some surfaces have been abraded. The most common types of vessel represented are medium to large jars (Cam forms 268, 287-290 & 278), with lesser numbers of bowls (Cam forms 37 & 299), dishes (Cam forms 38, 39 & 40), beakers (Cam 408-410) and miniature vessels, while flagons are poorly represented from only three burials F20 and F200 (Cam 156) and F204 (Cam 396). Most burials contained either one or two pottery vessels, though grave F204 contained four and grave F200 contained five.

Dating

All of the pottery is generally datable to the early-mid 2nd to 3rd-4th century. The earlier, more closely dated vessels are black-burnished ware bowls, dishes and jars (Cam forms 37, 38, 40 & 278) and coarse oxidised ware flagons (Cam form 156). Most of these are probably local products from the Colchester kilns and can be broadly dated within the early-mid 2nd to mid-late 3rd century. Burials with pottery which can be dated within this period are grave F200 (contained in a tile cist), which is probably later 2nd-early 3rd century; grave F39, which is probably late 2nd-mid to late 3rd century; grave F36, which is of mid 2nd- to mid 3rd-century date; grave F24; and grave F84. However, there is no late Colchester colour-coat ware or samian (other than as rare residual sherds) from any of the burials and the fine wares are completely dominated by Nene Valley and Hadham products. This suggests that many, possibly the majority, of the burials post-date the early-mid 3rd century. Also it has been noted that the rouletting found on the vessel from grave 89 is popular in the 3rd century at Colchester (Going 1987, p 31, H35). However, clear late 4th-century Roman wares are also poorly represented. There are no certain products of the Oxford kilns, though the beaker from grave F85 may be an Oxford product and the shell-tempered rilled jar from grave F185 is of mid to late 4th-century date (*CAR 10*, p 497). Also the jar forms Cam 268 and Cam 287-290 which are present in many of the burials are not produced beyond the late 3rd-early 4th century. Overall the pottery from the burials is comparable to much of that found in the large deposit of pottery from the 'Mithraeum' (Hull 1958, pp 132-45) which is of 4th-century date but which contains a significant proportion of residual 3rd-century vessels.

Comments

Though many of the pots are not complete or are cracked and partially damaged, there was little indication of deliberate damage to vessels during the funerary rites, and probably most if not all of this can be attributed to post-depositional activities. Also there was little use of pots which would be considered sub-standard, either kiln seconds or waster vessels, though a few of these were present. Both pots from grave F84 were partly oxidised and were either badly fired, probably kiln seconds, or possibly had been burnt. The vessel from grave F122 was in an almost identical condition. Also clearly sub-standard is the vessel from grave F211 which had lumps of potting clay adhering to it before it was fired. The bowl from grave F158 is a distorted second, and the jar accompanying this was also slightly deformed. Also the jar from grave F81 has unintentional indentations and is possibly sub-standard. It is interesting to note that although rare, sub-standard vessels occur together in grave F84 and grave F158. The small numbers of poor-quality vessels can be contrasted with the predominantly early Roman (later 1st- to earlier 2nd-century) cremations excavated at Turner Rise to the north of the town (Benfield in Shimmin forthcoming). Here a substantial proportion of the grave pots were sub-standard, poorly-fired kiln seconds or wasters. This is not considered to be related to the differing dates of these two burial groups, and it suggests that the individuals buried in the two cemetery areas were of different social standing, those of Turner Rise belonging to the poorer section of the community. Also of interest are the grey ware miniature vessels from graves F27, F31, F32, F203 and F204 at Abbey Field. In graves F31 and F32 these were the only pots present. In grave F204, of the two colour-coat beakers present, one was a small example, and a face flagon was also present. The colour-coat beakers from graves F25, F43 and F85 are also smaller than average. It has been suggested that the small pots are associated

with burials of younger members of the community (children) and possibly this category includes face pots (CAR 9, pp 270-75).

6.1.2 Non-funerary pottery

Colchester samian ware

Amongst other non-funerary Roman pottery from the site, there were two sherds of Colchester samian ware which was produced in the mid-late 2nd century. The two joining sherds came from a pit (F207b) and are part of a decorated bowl of form Dragendorff 37. The figure types are all previously known, though the arrangement of these is not amongst the previously illustrated material (Hull 1963, figs 20-41).

The ovolo is that of 'Potter A' (Hull 1963, fig 40.96), and the decorative details are the gladiator pair (*ibid*, fig 39.9 & 40.10) in a panel formed of a rosette (*ibid*, fig 40.86) joined by zig-zag cordons (*ibid*, as fig 34.4). Part of a second decorative panel contains the lower half of the gladiator (*ibid*, fig 39.8, part of the pair fig 39.7 & 8). All of these are previously associated with 'Potter A', though in the list of figure types (*ibid*, pp 72-4), Hull attributes the rosette to 'Potter B'. However, in the illustrated material from the kilns this detail is clearly depicted on mould fragments and vessel fragments of 'Potter A' (*ibid*, figs 20-37), and the attribution to 'Potter B' appears to be an error.

Notes for Table 1

Vessel form numbers refer to the Camulodunum Roman pottery type series (Hull 1958 & Hull 1963). Letter fabric codes refer to CAR 10:

CH	oxidised Hadham ware
DJ	coarse oxidised and related wares
EA	Nene Valley colour-coat ware
EZ	other fine colour-coat wares, mostly white/buff
GA	black-burnished ware, category 1 (BB1)
GB	black-burnished ware, category 2 (BB2)
GX	other coarse wares, principally locally-produced grey wares
HD	shell-tempered and calcite-gritted wares
HZ	large storage jars and other vessels in heavily-tempered grey wares.

Form and fabric dates refer to CAR 10.

Table 1 Roman pottery from cremation burials.

Grave/F no	find	illustration	description
Grave F2	6	Fig 10	Cam 287-290, large jar with frilled rim, coarse grey ware (fabric GX). (neck of a flagon Cam 360/368 from Hadham (fabric CH) also found in grave fill, later 3rd-4th century).
Grave F20	21	Fig 10	flagon with narrow neck, coarse oxidised ware (fabric DJ), much of neck and mouth missing.
Grave F21	185	Fig 10	Cam 408-410 beaker, fabric pale orange-buff with pale grey core, deep brownish-red colour coat with painted paired diagonal lines framing painted scroll or feather-like motifs, Nene Valley product (fabric EA), second quarter of 3rd century-4th century.
Grave F23	191	not illustrated	almost certainly Cam 37 bowl, base only, black-burnished ware category 2 (fabric GB), early-mid 2nd to early 3rd century. (also rim sherds from Cam 268 jar, coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century)
Grave F24	62/114	not illustrated	fragments from 2 vessels: Cam 39B dish, black-burnished ware category 2 (fabric GB), early-Antonine to 3rd century, fragment from similar plain dish or small bowl, coarse grey ware (fabric GX), abraded.
Grave F25	65	Fig 10	Cam 395 pentice-moulded beaker, fabric pale slightly orange buff with pale grey core, dark brown colour-coat, probably a Nene Valley product (fabric EA), mid 3rd-4th century.

Grave F26a	52	Fig 10	base of vessel, brownish-red fabric with grey core near base, burnished, Hadham (fabric CH), late 3rd-4th century.
Grave F26b	53	Fig 10	Cam 288 fabric pale brownish-red, burnished surface streaked grey-brown, probably a Hadham product (fabric CH), late 3rd-4th century.
Grave F27a	222	Fig 10	probably CAM 408-410 type beaker, lower half of vessel only, fabric pale orange-red, dark grey colour-coat with white barbotine decoration, Nene Valley (fabric EA), second quarter of 3rd century-4th century.
Grave F27b	194	Fig 10	miniature vessel in coarse grey ware (fabric GX), slightly distorted.
Grave F28	42	Fig 10	jar in coarse grey ware (fabric GX) with bands of wave comb decoration.
Grave F29	196	not illustrated	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century. (also rim from Cam 273 large storage jar (fabric HZ), Claudian to 2nd/3rd century)
Grave F30	584	not illustrated	sherds from several different vessels, almost all coarse grey ware (fabric GX), includes 2 samian fragments, also Cam 37B bowl rim, black-burnished ware category 2 (fabric GB), late 2nd to third quarter of 3rd century.
Grave F31	50	Fig 11	miniature vessel in coarse grey ware (fabric GX)
Grave F32	59	Fig 11	miniature vessel in coarse grey ware (fabric GX)
Grave 33a	67	Fig 11	Cam 40A dish, black-burnished ware category 2 (fabric GB), Trajanic/Hadrianic to third quarter of the 3rd century
Grave F33b	67	not illustrated	body sherds from large jar, coarse grey ware (fabric GX)
Grave F35	107	Fig 11	base of beaker, pale orange-red fabric, dark brown colour-coat, Nene Valley product (fabric EA), mid 3rd-4th century
Grave F36	108	Fig 11	jar with burnished vertical lines, coarse grey ware (fabric GX), 2nd-3rd century
Grave F39a	164	Fig 11	Cam 277A jar in coarse grey ware (fabric GX), late 2nd-third quarter of the 3rd century.
Grave F39b	121	Fig 11	Cam 38B dish, black-burnished ware category 2 (fabric GB), late 2nd century to third quarter of 3rd century
Grave F39c	165/169/ 171	not illustrated	sherds: including samian (one burnt, second Drag 39 bowl East Gaulish, early 2nd-mid 3rd century), base from large heavily-tempered storage jar (fabric HZ)
Grave F40a	751	Fig 11	Cam 299 bowl with S-shaped profile, coarse grey ware (fabric GX), early Antonine-4th century
Grave F40b	753	Fig 11	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century.
Grave F41	345	not illustrated	fragments from dish in black-burnished ware category 2 (fabric GB), early 2nd-late 3rd century
?Grave F42	131/133	not illustrated	main pottery component post-medieval red earthenware (fabric 40), 16th-18th century, 2 sherds of Roman pottery: samian, and coarse grey ware (fabric GX)
Grave F43a	144	Fig 12	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century.
Grave F43b	157	Fig 12	Cam 408-410 beaker, fabric pale buff with orange-brown colour-coat (fabric EZ), second quarter of 3rd century-4th century
Grave F44	168	not illustrated	lower third of coarse grey ware jar (fabric GX) (fragment of samian from fill of grave, probably East Gaulish, early 2nd-mid 3rd century)
Grave F46a	137	Fig 12	large jar in coarse grey ware (fabric GX), rim missing
Grave F46b	137	Fig 12	jar in coarse grey ware (fabric GX), rim and neck missing
Grave F66	154/156	Fig 12	lower half of jar in coarse grey ware (fabric GX)
Grave F71	177	Fig 12	lower half of jar in coarse grey ware (fabric GX)
Grave F72	317	Fig 13	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century.
Grave F73	191	Fig 13	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century.
Grave F75	217	Fig 13	jar in coarse grey ware (fabric GX), rim and shoulder missing
Grave F80a	251	Fig 13	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century.

Grave F80b	250	Fig 13	Cam 316 bowl with flange (Drag 38 copy), orange-brown fabric, Hadham product (fabric CH) burnished, late 3rd and 4th century
Grave F81	235	Fig 13	Cam 287-290, large jar with frilled rim, coarse grey ware (fabric GX), slightly mis-shapen by shallow indentations on body and shoulder.
Grave F82	249	Fig 13	jar in coarse grey ware (fabric GX) with wave combed band, rim and shoulder missing
Grave F84a	480	Fig 14	Cam 268 jar in coarse grey ware (fabric GX), surfaces patchy orange and grey, possibly burnt or kiln second, early/mid 2nd-late 3rd/early 4th century.
Grave F84b	368	Fig 14	Cam 40 A/B dish, abraded, fabric orange-red and grey with traces of dark burnished surface, probably black-burnished ware category 2 (fabric GB), possibly burnt or kiln second, Trajanic/Hadrianic to third quarter of the 3rd century
Grave F85	316	Fig 14	Cam 408-410 beaker, small possibly miniature vessel, fabric reddish-brown, micaceous, with orange surface, second quarter of 3rd century-4th century
Grave F86	139	Fig 14	large jar in coarse grey ware (fabric GX)
Grave F88	204	Fig 14	lower half of jar, coarse grey ware (fabric GX)
Grave F89	221	Fig 14	lower half of jar with rouletted decoration, coarse grey ware (fabric GX), probably 3rd century
Grave F90	286	Fig 14	lower half of jar in coarse grey ware (fabric GX)
Grave F93	366	not illustrated	sherds from 3 vessels, fragment from mortaria base (fabric TZ), sherds in coarse grey ware (fabric GX)
Grave F95	769	Fig 15	jar in coarse grey ware (fabric GX), rim and neck missing (base of second grey ware jar in top of pot)
Grave F96	158/166	Fig 15	Cam 280 large narrow-necked storage jar, coarse grey ware (fabric GX), mid-late 2nd to 4th century
Grave F100		Fig 15	lid-seated jar, brownish-red fabric, abraded surfaces with traces of burning on exterior surfaces (fabric DJ)
Grave F101	178	not illustrated	possibly Cam 299 bowl with S-shaped profile, coarse grey ware (fabric GX), early Antonine-4th century
Grave F115	246/764	Fig 15	Cam 268 jar in coarse grey ware (fabric GX), early/mid 2nd-late 3rd/early 4th century.
Grave F116	267	not illustrated	sherd in coarse grey ware (fabric GX)
Grave F122	193	not illustrated	Cam 268 jar in coarse grey ware (fabric GX), surfaces patchy orange and grey, possibly burnt or kiln second, early/mid 2nd-late 3rd/early 4th century.
Grave F145	252	not illustrated	body sherds from jar in coarse grey ware (fabric GX)
Grave F153	289	Fig 15	Cam 287-290 type, large jar with notched shoulder, coarse grey ware (fabric GX).
Grave F157	423	not illustrated	Cam 37, sherds from base and side only, fabric black-burnished ware category 2 (fabric GB), Trajanic/Hadrianic-later 3rd century
Grave F158a	508/741	Fig 16	Cam 280 large narrow-necked storage jar, slightly distorted but not sufficient to be a kiln second, base broken through and loose with pot, coarse grey ware (fabric GX), mid to late 2nd-4th century
Grave F158b	743	Fig 16	Cam 299 bowl with S-shaped profile, burnished, distorted kiln second, coarse grey ware (fabric GX), early Antonine-4th century
Grave F160	561/582/160	not illustrated	fragments from at least 4 vessels: Cam 37/38A rim fragment, black-burnished ware category 2 (fabric GB), Trajanic/Hadrianic-late 2nd or early 3rd century, base of coarse grey ware jar (fabric GX), buff sherd probably from a flagon, coarse oxidised ware (fabric DJ)
Grave F164	509	Fig 16	large jar in coarse grey ware (fabric GX), rim and neck missing
Grave F171	616	not illustrated	sherd in coarse grey ware (fabric GX)
Grave F176	506	Fig 16	lower half of large jar in coarse grey ware (fabric GX)
Grave F185a	562	Fig 16	jar with grooved lines on shoulder in gritty coarse reduced ware with some shell fragments (fabric HD), mid-late 4th century
Grave F185b	731	Fig 16	Cam 299 type, bowl with S-shaped profile, coarse grey ware (fabric GX), early Antonine-4th century

Grave F186a	630	Fig 17	Cam 408-410 beaker, fabric pale orange-red with grey core, Nene Valley product (fabric EA), second quarter of 3rd century-4th century
Grave F186b	631	Fig 17	Cam 39A dish, black-burnished ware category 1 (fabric GA), early Antonine-4th century
Grave F193	598	Fig 17	jar in coarse grey ware (fabric GX) with band of wave comb decoration
Grave F200a	660	Fig 17	Cam 156 cupped ring-neck flagon, buff fabric (Fabric DJ), Hadrianic-early 3rd century.
Grave F200b	661	Fig 17	Cam 156 cupped ring-neck flagon, buff fabric (Fabric DJ), Hadrianic-early 3rd century.
Grave F200c	658	Fig 17	Cam 38A dish with lattice burnishing, black-burnished ware category 2 (fabric GB), Trajanic/Hadrianic to late 2nd or early 3rd century
Grave F200d	659	Fig 17	Cam 37A bowl with lattice burnishing, black-burnished ware category 2 (fabric GB), Trajanic/Hadrianic to late 2nd or early 3rd century
Grave F200e	662	Fig 17	Cam 278 jar with burnished lattice decoration, black-burnished ware category 2 (fabric GB), Hadrianic-mid 3rd century
Grave F203a	671	Fig 18	Cam 408-410 beaker, fabric pale red, dark grey colour-coat with white lattice slip decoration, Nene Valley (fabric EA), second quarter of 3rd century-4th century
Grave F203b	671	Fig 18	miniature grey ware jar (fabric GX)
Grave F203c	671	Fig 18	Cam 305 flanged bowl in coarse grey ware (fabric GX), very abraded, some traces of black coating ?slip or ?burnishing, third quarter of 3rd century to end of Roman period
Grave F204a	683	Fig 18	miniature vessel, coarse grey ware (fabric GX)
Grave F204b	682	Fig 18	Cam 408-410 beaker, fabric buff and pale red, dark brown colour-coat, Nene Valley (fabric EA), second quarter of 3rd century-4th century
Grave F204c	684	Fig 18	Cam 369 face flagon, fabric orange-brownish red with cream colour-coat (fabric MQ), remaining traces of coat appear banded, but also appears in fragments all over body of vessel, late 2nd-early 3rd to 4th century
Grave F204d	680/681	Fig 18	Cam 395 pentice-moulded beaker, fabric pale slightly orange buff with pale grey core, dark brown colour-coat, probably a Nene Valley product (fabric EA), mid 3rd-4th century
Grave F205	1007	not illustrated	Cam 407 tall ovoid folded beaker, pale orange-buff and pale grey fabric, Nene Valley product (fabric EA), second quarter of 3rd-4th century
?Grave F207	1049	not illustrated	sherds from several different vessels all represented by fragments, includes rims from 2 Cam 37A bowls, black-burnished ware category 2 (fabric GB), Trajanic-Hadrianic to late 2nd or early 3rd century, sherd from Nene Valley colour-coat vessel (fabric EA), early-mid 3rd to 4th century
Grave F211	1064	Fig 18	lower half of jar in coarse grey ware (fabric GX), lumps of rough potting clay adhering to and fired onto outside surface of vessel, possible kiln second

6.2 The cremation burials *by Alec Wade*

6.2.1 Summary of results

This is a summary of the results from the Abbey Field cremation analysis. A total of 13.208 kg of cremated bone was examined which derived from 62 numbered features (or layers) and some unstratified material.

The following table (Table 2) shows each of the deposits of cremated bone. It includes summarised data pertaining to the weight of the bone and the estimated age and sex of the individual where diagnostic information was present. It also shows the presence of any animal or bird bone identified in the cremation.

Table 2 Summary data for the cremation deposits.

Feature	Weight (g)	Urned?	Age	Sex	Animal bone present
U/S	145		Not old	-	Possibly some mammal bone?
L1	10		-	-	Fragments of large mammal bone.
L18	2		-	-	Fragment of large mammal bone.
F20	126	Soil sample	Not old	-	
F21	299		Young adult	-	
F22	220	Soil sample	Sub/young adult	-	Fragment of a pig radius? ©
F23	1	Soil sample	-	-	
F24	50	Urn	-	-	Fragment of bird bone? ©
F25	10	Urn	-	-	
F26	151	Urn	Not old	-	
F27	72	Urn	Child/juvenile?	-	Possibly fragments of bird or small mammal bone?
F28	228	Urn	Sub/young adult	-	Bird bone and possibly mammal bone.
F30	137		-	-	
F31	27	Soil sample	-	-	
F32	3	Urn	-	-	
F33	340	Urn	Sub-adult	-	Fragment of a pig radius? ©
F35	27	Urn	Not old	-	
F36	728	Urn	Sub/young adult	-	
F39	636	Urn	Sub/young adult	Male	
F41	27		-	-	
F42	7		-	-	Sheep/goat bone.
F43	12	Scatter	-	-	Fragment of a pig mandible.
F44	128	Urn	Sub-adult/adult	-	
F46	203	Urn	Adult	-	
F66	48	Urn	Younger adult	-	
F71	482	Urn	Younger adult	-	
F72	517	Urn	Sub-adult/younger adult	-	
F73	1055	Urn	Adult	Male	Humerus fragment from unidentified mammal? ©
F75	352	Urn	Sub-adult/younger adult	-	
F81	580	Urn	Sub-adult/adult	Female	Small mammal/bird bone?
F82	35	Urn	-	-	
F84	5		-	-	
F85	19	Urn	-	-	
F86	248	Urn	Sub-adult/younger adult	-	
F88	486	Urn	Sub-adult/younger adult	-	
F89	214	Urn	Sub-adult/adult	-	
F90	292	Urn	-	-	Large mammal femur fragment? ©
F94	142	Soil sample	-	-	
F95	293	Urn	Sub-adult/younger adult	-	
F96	249	Urn	Sub-adult/adult+	-	
F97	4	Soil sample	-	-	
F101	221	Urn	-	-	
F107	4	Surface	-	-	Large mammal rib or scapula fragment?
F109	1	Surface	-	-	
F115	217	Urn	Younger adult	-	
F140	41		Sub-adult/adult+	-	
F145 Note 1	36	Urn	Sub-adult/adult+	-	Possibly animal bone?
F153	626	Urn	Sub-adult/younger adult	-	
F157	38	Soil sample	-	-	
F158	571	Urn	Adult	-	
F160	2		-	-	
F164	1081	Urn	Sub-adult/younger adult	Male	Possibly animal bone (unidentified)?
F171	37	Surface	Sub-adult/younger adult	-	
F176	338	Urn	-	-	Fragment of large/medium mammal bone? ©
F185	291	Urn	-	-	
F193	11	Urn	Sub-adult/younger adult	-	

F200	478	Urn	Sub-adult/younger adult	-	
F201	8			-	
F204	12	Urn	Sub-adult?	-	Bird or small mammal bone. ©
F205	142		Sub-adult/younger adult	-	@
F206	14	Pit?		-	Large mammal vertebra or ulna fragment?
F207	72		Sub-adult/younger adult	-	@
F211	357	Urn	Sub-adult/younger adult	-	

Key

@ Associated animal bone recovered separately (see section 6.3).

© Cremated animal bone.

Note 1 The entry for F145 does not include a very small amount of unsorted material (finds number 700).

6.2.2 Notes

Minimum Number of Individuals present

In this analysis it would appear that each of the cremations is of a single individual only.

Age of Individuals

Age is easiest to determine in immature individuals (hence the perceived bias towards younger individuals in the table) and is dependent on both the quality and quantity of the remains.

It is normal practice to use broad-banded age categories. The divisions used in this summary are 'child' (5-12 years), 'juvenile' (12-16 years), 'sub-adult' (16–20 years) and 'adult' (20+ years). Additionally the categories of 'not old' and 'younger adult' are used where the ageing data was based upon the presence of open skull sutures (which begin to close from about 20 years of age).

Sex of individuals

The sexing of an intact skeleton is often uncertain and can only reliably be found in an adult subject. The principal areas for sexing are the skull and pelvis. In a cremation these parts are never found intact and in the case of the skull can be fragmented into hundreds of small pieces. Occasionally, however, diagnostic parts can be recognised which may yield an indication of the subject's sex.

Animal bone present

It is not uncommon to find pieces of animal bone included in a cremation deposit.

6.3 The animal bone report by Alec Wade

The excavation produced 170 pieces of animal bone weighing a total of 1.444 kg. The material was fragmented and in poor condition. Of the small amount of bone that could be identified, cattle was the most numerous with sheep/goat (no distinction) and pig also being present. Some of the material had been butchered or dog gnawed. Bone from F205 and F207 may be associated with cremation burials (however, the animal bone listed here was not cremated).

Table 3 Distribution of assemblage.

Finds number	Context	Number of pieces					Total pieces	Total weight (g)	Cut or chopped pieces	Dog-gnawed pieces
		Cattle	Sheep or goat	Pig	NCS					
2	F1	+			10	10	188			
34	U/S		1		17	18	74		1	
39	U/S		1			1	40	1		
68	L23	1				1	120	1	1	
110	L21	1+			9	10	220	2	3	
112	L21				5	5	34			
179	L21				7	7	6			
238	F121				4	4	18			
244	U/S	+			1	1	206	1	1	
268	U/S				3	3	56	3		
320	F87				16	16	30			
1039	F205	1+			83	84	288			
1053	F207	1		1	8	10	164	2	1	
Totals	-	4	2	1	163	170	1444	10	7	

Key

NCS = Non-Countable Specimen. The recording system used (Davis 1992) utilises a selective group of skeletal elements chosen for reliable identification and high information value. The remaining elements are recorded as Non-Countable Specimens. Where a species is also identified amongst the NCS material, it is indicated on the table by a '+' sign.

Table 4 Archive table.

FN	Context	Taxon	POSAC	NOP	Cut	Chop	Gnawed	Comments
2	1	NCS	NCS	10	0	0	0	Bos, LM+ (TI, VT, LBF?) unfused proximal joint on bos TI.
34	0	NCS	NCS	16	0	0	1	LM+, MM+ (VT, RB, LBF).
34	0	Ovis/Capra (sheep/goat)	Ischium	1	0	0	0	U/S
39	0	Ovis/Capra (sheep/goat)	Tibia-distal complete	1	1	0	0	U/S. Has very fine cuts on shaft.
68	1023	Bos (domestic cow)	Scapula	1	1	0	1	Not sure if gnawed. Has a fine cut across neck.
110	1021	Bos (domestic cow)	Metacarpal-distal complete	1	0	0	1	
110	1021	NCS	NCS	9	2	0	2	Bos+, LM+ (MC, LBF).
112	1021	NCS	NCS	5	0	0	0	LM+ (RB, VT).
179	1027	NCS	NCS	7	0	0	0	Unidentified (LBF?).
238	121	NCS	NCS	4	0	0	0	LM+ (RB, VT).
244	0	NCS	NCS	1	1	0	1	Bos+ (TI). Quite robust. Distal end is fused, but only a small part is present. May have a small cut or nick on it.
268	0	NCS	NCS	3	0	3	0	U/S finds. Pieces of a joint, perhaps an unfused distal femur epiphysis. Feels very light but I don't think it's human. LM+. May have been chopped through but some looks like excavation damage.
320	87	NCS	NCS	16	0	0	0	LM+ (VTF). Includes both unfused metaphysis and epiphysis.
700	145	NCS	NCS	1	0	0	0	Bag of dirt containing a few scraps of cremated bone?
1039	205	Bos (domestic cow)	Radius-distal complete	1	0	0	0	

1039	205	NCS	NCS	83	0	0	0	Bos+, LM+ (SC, LBF, RB). The bos scapula fragment is strongly ridged (muscled). Most of the small pieces look like pieces of scapula.
1053	207	Bos (domestic cow)	Metatarsal-distal complete	1	0	0	0	
1053	207	NCS	NCS	8	1	0	1	LM+ (LBF, SC, UNID).
1053	207	Sus (domestic pig)	Calcaneum-tuber calcis metaphysis	1	0	1	0	May have been chopped?

6.4 The small finds by Nina Crummy

This report is divided into four sections: first, grave goods, second, a list of grave pits containing nails from wooden cremation 'coffins', third, a post-medieval object from the topsoil, and fourth, an archive list of other material.

6.4.1 Grave deposits

All the coins from the site date to the mid 2nd century and are very worn. The large *aes* coinage of the 2nd century remained in circulation well into the 3rd century, but these pieces are likely to have been regarded as antique by the time the cemetery was in use. The consistency with which these coins have been deposited as ferryman's fees at Abbey Field is perhaps an indication of a common source, such as a family collection.

Feature 20

Not illustrated. (25/957). Twenty small sherds of very thin slightly self-coloured glass. None are from a rim. The degree of curvature on the largest suggests they come from a large vessel, perhaps a jar.

Feature 21

Fig 19, no 1; SF 3 (37). Copper-alloy penannular armlet with the terminals cut to snake's head form, and with a longitudinal band of fine incised chevron decoration defined by marginal grooves. The terminals are hollow behind. Internal diameter 62 by 40 mm, height 10 mm, 2 mm thick.

Snake armlets are a long-lived form, found in Britain throughout the Roman period, though by the 4th century the decoration had become very debased (*CAR 2*, fig 44, 1693). The debased decoration and height of this example, a Type Bii, suggests that it was probably made in the 3rd century, pre-dating the 4th-century preference for narrow bangles (Johns 1996, 109-111).

Feature 22

Not illustrated. SF 4 (38). *Sestertius* of Antoninus Pius, reverse *Annona*, as *RIC* (AP) 1893, c AD 151-2.

Feature 25

In this grave a nailed wooden box contained the cremated bone, a small pot, two coins, and a collection of jewellery. The latter, laid together in a pile in one corner of the box, consisted of a necklace of jet interlocking beads, a shale armlet, a copper-alloy armlet, and an armlet made up of threaded glass and jet beads and two jet bear amulets. The diameter of the armlets shows that the burial was that of a small child. The objects lay entwined in such a way as to suggest that either they had all been held together in one hand as they were placed in the box, or that they had been contained in a small bag or piece of cloth (*CAR 9*, 129).

Three necklaces similar to this one are known from Britain, from York, Chelmsford, and the Butt Road inhumation cemetery at Colchester ((RCHM 1962, 70, 143; Henig & Wickenden 1988, fig 73,14a-15; *CAR 2*, nos 807-900; *CAR 9*, table 2.55). Thirteen

beads of the same type also formed part of a necklace found at Cologne (Hagen 1937, 123, Type D15, Abb 1, top left). All belong to the 4th century, with the closest date for the form being provided by the Chelmsford necklace (Drury 1988, 49) and the grave from Butt Road, which can be placed on stratigraphic evidence and burial characteristics to later than AD 360 (CAR 9, table 2.55).

The Abbey Field jet bear amulets are complementary, one stepping forward on the right legs causing the head to swing left, the other stepping forward on the left legs with head swinging to the right. The distribution of jet bear amulets in Britain and on the Continent mirrors that of the necklace, with examples known from Malton (Yorkshire), York, and Colchester in Britain, and Cologne and Trier in Germany (Brushfield 1853; Corder 1948; May 1928, 277; Hagen 1937, Taf 29, Abb 1, J2, 1-2). The major distinction, however, between these pieces and those from Abbey Field, is size. The Abbey Field bears are 11 and 14 mm in length, the earlier finds are double this, averaging 23 mm in length.

The Malton and Yorkshire bears were, as here, found with the burials of children. The bear is a symbol of strength and vitality, and these amulets would have been credited with apotropaic powers, worn to ward off evil. They may have been worn by the children during their last illness, or may have been given at burial to protect them in the afterlife. The use of similar charms was noted in other 4th-century child graves at Butt Road (CAR 9, 137-41), and the Chelmsford *mansio* group of jet and shale objects that included a necklace similar to that from this grave also contained a jet figurine of a lion guarding a human head, interpreted as a protective amulet (Henig & Wickenden 1988, fig 73, 1).

The two worn *sestertii* deposited in the grave date to the middle of the 2nd century. Coins of this date or even earlier are not unusual in 4th-century graves. For example, the grave from Malton containing the jet bear was accompanied by a *denarius* of Caracalla (c 215-18), the York jet necklace similar to the one from F25 was accompanied by two coins, one dated to c 200, and Grave 278 at Butt Road, dated c 300/20-320/40, contained three coins, of Claudius I (43-64), of Julia Maesa (218-25), and of Hadrian (117-38), though in this case all the coins were amuletic, the two former pierced for suspension, the latter mounted in a silver frame with a suspension loop.

The box containing the grave goods and cremated bone measured approximately 0.30 by 0.35 m, and was at least about 0.20 m high. Most of the nails had been displaced as the box decayed, but those that appeared to be in their original position suggested that it had been simply made, with the end panels fixed to the side panels by four nails, one close to each corner, and the base plate and lid similarly attached.

Fig 19, no 2; SF 6 (61)/SF 8 (71)/SF 9 (72)/SF 12 (75)/SF 13 (76)/SF 19 (83)/SF 20 (86). Necklace composed of 127 small jet interlocking beads, diameter ranging from 7 to 8.5 mm, length from 2.5 to 3 mm. One example, from SF 19, is not cut on one face (Fig 19, no 2a). It is presumed to have been from one end of the necklace (cf Henig & Wickenden 1988, fig 73, 15), but may simply be a manufacturing fault.

Not illustrated. SF 16 (79). Plain shale armlet of oval section. Internal diameter 45 mm, section diameter 3.5-5 mm.

Not illustrated. SF 17 (80). Copper-alloy cable armlet, made up of four strands of wire and with a hook-and-eye fastening, the hook now damaged and separate. Internal diameter 42 mm in diameter, section diameter 3.5 mm.

Not illustrated. SF 10 (73). Square-section long cylinder bead of turquoise glass, fragmented *in situ*.

Fig 19, no 3; SF 11 (74). Tapering round-section jet cylinder bead with bead-and-reel mouldings. Length 35 mm, section 5.5-8.5 mm.

Fig 19, no 4; SF 14 (77). Two long jet cylinder beads, the ends grooved and collared, the centre globular and grooved. Lengths 20.5, 22.5 mm, centre 9.5 mm.

Fig 19, no 5; SF 15 (78). Jet bear amulet, modelled naturalistically, with the animal stepping forward with the right legs, causing the head to swing to the left. The muzzle is a prominent point, and the ears are slightly raised. A small base connects all four paws, and a perforation drilled through the fore and hind legs forms the thread hole. It measures 11 mm long, 6 mm wide, and 8 mm high.

Fig 19, no 6; SF 18 (82). Jet bear amulet, less well-cut than SF 15. This animal is stepping forward with the left legs, with the head swinging to the right, but the cut, or

perhaps the shape of the original block of jet, causes the swing to be exaggerated. Similarly, the head is less well-formed, and is almost feline, with flat ears and a blunt muzzle. The short body and massive shoulders, however, are clearly those of a bear. Slightly larger than its companion, this animal is 14mm long, 7mm wide, and 8mm high. Not illustrated. SF 7 (70). Two worn copper-alloy *sestertii*, a) Antoninus Pius, as *RIC* (AP) 1321, c AD 140-3/4, b) Faustina II, struck under Antoninus Pius, c 146-61.

Feature 32

Not illustrated. SF 5 (60) F32. Severely laminated and crazed fragments from a broken and decayed small pewter vessel, probably a cup or shallow dish. Diameter approximately 60-70 mm.

Feature 36

Fig 20, no 7. (790). Indented unguent bottle of blue-green glass, with the rim turned outwards, then folded over and flattened. The body has four long indents. The rounded base is flattened. length 121 mm.

This form is long-lived, though examples from Colchester are chiefly of late Roman date. One was deposited in an inhumation grave of probable 4th-century date in the Maldon Road cemetery (*CAR 8*, fig 9.13, 1252; *CAR 9*, 241, 243-4), with another from the town found in a lead coffin of late 3rd- or 4th-century date (Brailsford 1958, pl 12, no 5).

Feature 44

Not illustrated. (860). Footwear represented by 9 hobnails.

Feature 84

A large number of iron nails and hobnails from this grave may represent wooden furniture and footwear burnt on the pyre, but an alternative interpretation of these objects is that they may represent a blacksmith's or carpenter's stock.

A number of the nails were extremely well-preserved, perhaps those from the centre of clusters which consequently had little contact with the soil. Very few of the nails had any traces of wood remaining on them, and their close clustering within the grave, and the fairly free mixing of both nails and hobnails, certainly suggests that they do not derive from whole objects placed intact in the burial pit.

Some intact examples were neatly clenched, giving single or double board thicknesses ranging from 13 to 42 mm. They may have been passed through one board if used decoratively or to attach another fitting to wood, though obvious fittings such as hinges were absent, or through at least two boards if used in the construction of a piece of wooden furniture such as a box or cupboard. Clenched nails are unlikely to derive from stock unless recycled, in which case they would not be neatly bent but show signs of having been straightened so that they could be extracted.

Not illustrated. (361-2, 377-80, 456-8, 492, 546). At least 23 iron hobnails probably representing footwear.

Not illustrated. (290-302, 304-305, 324-334, 346-360, 381-422, 435-455, 459-479, 485-491, 493-502, 514-533, 535-41, 543-5, 547-559, 564, 566, 568-575, 591, 593, 601-613, 624-628). Approximately 255 iron nails probably representing a number of wooden objects, some perhaps from a cremation box.

Feature 90

Not illustrated. (284/812-13/815-18). Footwear represented by at least 87 hobnails, Manning Type 10, with domed head and generally clenched shaft. Average length 15mm.

Feature 200

Fig 20, no 8; SF 57 (668) F200. Complete well-modelled factory lamp with the channel running between the discus and the nozzle closed. There is a large perforated handle at the rear, and a lug set about two-thirds of the way down each side between handle and nozzle. The slope of the shoulder is matched on the nozzle, making the narrow channel a prominent feature. There is carbon residue around the outside rim of the nozzle. The discus has a mask set in the centre, now very worn and featureless. There

is a large filling hole below this. The fabric is smooth, with some very fine grit. It is fired to a pale orangey-brown and covered with a reddish-brown slip, fired black on the underside of the body and on the handle. No mica can be seen in the slip or the fabric, where exposed. The base is very worn, but appears to have been unmarked. Length 91 mm, height 42 mm.

Feature 203

Fig 20, no 9; SF 58 (673). Grave fill. Small palette of siltstone, with bevelled edges. Length 70 by 52 mm, 9 mm thick.

Stone palettes were used for grinding and mixing both cosmetics and medicines. There is a smooth worn rectangular patch on the under surface of this example, often that used for grinding (*CAR 2*, fig 61). The worn areas on other palettes are usually elliptical. One half of the upper surface has a series of fine striations across its width, which can may be made by careful regular slicing. All the edges show fine angled grooving, probably tooling marks, and on one long edge these marks are crossed by some deeper scored grooves, typical of those seen on hones from sharpening small knife points. Some palettes have edges worn by the sharpening of scalpels (Milne 1971, 171), and the occurrence of these features on this piece suggest that it was used by a doctor or salve-maker.

Feature 204

Not illustrated. SF 59 (691). Grave fill. *Sestertius* of Faustina I, as *RIC* (AP) 1509, c AD 141-61.

Not illustrated. SF 60 (694). Grave fill. *Sestertius* of Antoninus Pius, as *RIC* (AP) 1281, AD 138-61.

Not illustrated. SF 61 (695). Grave fill. *Sestertius* of Faustina II, reverse uncertain, c AD 146-75.

6.4.2 Grave pits with cremation boxes

A minimum of 12 nails is necessary to construct a box with an unnailed lid, 16 to construct one with a nailed lid. This is assuming one in each corner of the base to attach the side boards, one in each corner of two side boards to made the walls rigid, and, optional, one in each corner of the lid. Numbers lower than this need not preclude the presence of a box, the top of which may have been removed during machining. Forty-eight nails would be used if four were used along each side of the base and lid and along each side of two of the side boards. The numbers of nails given below as present in each grave are approximate.

F25:	20 nails
F27:	13 nails
F42:	31 nails
F45:	10 nails
F84:	255 nails, some possibly from a cremation box
F85:	29 nails
F90:	22 nails
F93:	6 nails
F94:	8 nails
F139:	8 nails
F160:	10 nails
F171:	20 nails
F204:	14 nails
F205:	43 nails
F207:	5 nails
F211:	10 nails

6.4.3 Topsoil find

Fig 21, no 10; SF 1 (23) L20. Topsoil. Copper-alloy smoker's pocket tongs, used to pick up smouldering tinder for lighting a pipe. The jaws are decoratively moulded and are hinged by a lug on one side which slots into a socket on the other and is fixed by an iron rivet, now missing. Tension was provided by an iron strip, also now missing, riveted to the terminal of one bar of the handle and resting against the base of the other bar. The terminal of the latter is in the form of a moulded tobacco stopper. The terminals of the jaws are in the form of elongated human hands. Above them the jaws form a circular grip, probably also for picking up tinder or small embers. Length 131 mm. A larger, iron version, of these tongs used to pick up embers was found at the site of Basing House, Hampshire and dated to the early 17th century (Moorhouse & Goodall 1971, fig 17,20).

6.4.4 Archive list of other material

Small finds

SF 56 (7) F2. Iron nail of Manning Type 1b, most of the head is missing. Length (bent) 65 mm.

SF 36 (117) F38. Grave fill. Small fragment of iron sheet, maximum dimensions 60 by 54 mm.

SF 37 (123) F42. Fill of disturbed grave. One end of an iron strap with parts of two long narrow nails for attachment to a wooden board. Length 50 mm, width 12 mm. Length of longest nail 18 mm. Probably post-medieval.

SF 38 (127) F42. Fill of disturbed grave. Small wire dress-maker's pin of late post-medieval or modern date. Length 23 mm.

SF 55 (128) F42. Fill of disturbed grave. Three fragments of clay tobacco pipe, two from a plain stem, one, decorated in relief, either from a bowl or stem. The decoration is of 19th-century style.

SF 45 (240) F82. Grave fill. A small disc from this grave cannot be identified. It appears to be made from with soft stone or decayed glass. It may not be a deliberate deposit.

SF 46 (281) F83. Ditch. Rectangular sheet of copper-alloy, curved along the short axis. Length 33 mm, width 18 mm. A separate small fragment (10 by 7 mm) is folded back along one edge.

SF 63 (843) F86. Intrusive in grave fill. Copper-alloy fitting fragment consisting of a rectangular plaque (one side missing) with a broken circular element on the centre of one long side and small dome-headed stud on the opposite side fixed through a semi-circular washer on the reverse. Probably post-medieval. Dimensions 38 by 34 mm.

SF 41 (150) F105. Pit. Curved and pointed iron object. The section at the broad end is a narrow rectangle, which increases in size to the centre of the curve, before tapering to a circular-section point.

SF 47 (314) F154. Pit. Shaft of a small wire pin, bent into a hook. The length suggests this is of medieval date. Length (bent) 31 mm.

SF 2 (29). Unstratified. Copper-alloy rectangular buckle with central bar and copper-alloy tongue. The frame is plain and has an angular profile. Length 35.5 mm, width 38 mm. Late medieval or post-medieval.

SF 50 (40). Unstratified. Three worn fragments of Mayen lava from a quernstone. Weight 281 g.

SF 62 (1). Trench 1, unstratified. Two worn fragments of Mayen lava. Weight 64 g.

Glass

(229) F72. Grave fill. Small convex sherd of blue-green glass. Possibly Roman.

(319) F155. Post-hole. Four sherds clear window glass. Modern.

Iron nails and bulk ironwork

Most find numbers contain a single nail or nail fragment. In the third column of the following table, numbers are given where more than one piece is present. Where broken *in situ*, a single nail may be represented by two find numbers.

Table 5 Nails from features.

Feature	Find	Number of nails/notes
F21	183	6
F22	894	
F23	48	5
	967	2
F24	62	2
	115	8
	116	40
	896	3
F25	43	SF 51
	44	SF 52
	45	SF 53
	46	SF 54
	87	SF 21
	88	SF 22
	89	SF 23
	90	SF 24
	91	SF 25
	92	SF 26
	93	SF 27
	94	SF 28
	95	SF 29
	96	SF 30
	97	SF 31
	98	SF 32
	99	SF 33
	100	SF 34
	101	SF 35
F26	57	2
	727	3
	869	2
F27	175	SF 42
	206	2
	208	
	209	
	210	
	211	
	212	
	213	
	215	
	216	
	218	
	219	
	220	
F29	201	possibly not a nail
	202	
	203	
	207	
F30	587	6 very small shaft fragments, perhaps hobnails
	594	
	595	
F34	105	also 1 fragment of sheet iron
F38	134	9
F39	171	5
	714	
F40	130	SF 39 ?nail
	135	SF 40 ?nail
	136	23
	754	
F41	343	3
	344	
F42	125	
	129	4
	132	13, some probably post-medieval or modern
	133	4
	146	8, some probably post-medieval or modern
	147	2

F43	145	2
F45	126	5
	143	2, plus 3 fragments of sheet iron
	153	4
F49	244	
F72	232	6
	760	
F77	432	
F82	774	
F84	290	
	291	
	292	
	293	
	294	
	295	
	296	
	297	
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	398	
	399	
	400	2
	401	
	402	neatly clenched, giving board thickness of 35 mm
	403	
	404	neatly clenched, giving board thickness of 18 mm
	405	
	406	
	407	
	408	
	409	neatly clenched, giving board thickness of 21 mm
	410	
	411	
	412	
	413	complete, length 82 mm, slightly bent
	414	
	415	complete, length 58 mm
	416	
	417	neatly clenched, giving board thickness of 41 mm
	418	
	419	neatly clenched, giving board thickness of 42 mm
	420	neatly clenched, giving board thickness of 28 mm
	421	
	422	
	435	
	436	
	437	2
	438	
	439	
	440	2
	441	clenched, giving board thickness of 15 mm
	442	
	443	
	444	
	445	2
	446	small, narrow shaft, length 20 mm
	447	
	448	
	449	
	450	2
	451	
	452	5
	453	neatly clenched, giving board thickness of 35 mm
	454	2
	455	2; 1 neatly clenched, giving board thickness of 27 mm; the other much larger, clenched, giving board thickness of 31 mm
	459	
	460	
	461	2
	462	
	463	
	464	
	465	
	466	
	467	
	468	
	469	
	470	
	471	
	472	2, clenched, giving board thicknesses of 16 & 24 mm
	473	
	474	
	475	

	476	neatly clenched, giving board thickness of 29 mm
	477	
	478	clenched, giving board thickness of 13 mm
	479	
	485	
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	493	
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	496	neatly clenched, giving board thickness of 34 mm
	497	
	498	
	499	
	500	
	501	
	502	
	514	5
	515	
	516	
	517	
	518	clenched, giving board thickness of 32 mm
	519	clenched, giving board thickness of 35 mm
	520	
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	559	
	564	17
	566	7
	568	2
	569	
	570	
	571	
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	573	
	574	
	575	
	591	neatly clenched, giving board thickness of 27 mm
	593	
	601	
	602	
	603	
	604	
	605	
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	607	
	608	
	609	
	610	
	611	
	612	
	613	
	624	
	625	
	626	
	627	
	628	
F85	269	
	270	
	271	
	272	
	273	
	275	
	276	
	277	
	278	
	280	
	306	
	307	
	308	
	309	
	310	
	311	
	312	
	337	
	338	
	339	
	340	
	341	
	342	
	370	
	371	
	372	
	373	
	374	
	375	
F90	283	22
F93	363	2
	364	2
	365	
	367	
F94	284	
	482	

	483	
	510	
	511	
	512	
	882	
	910	
F103	151	8
F107	431	long nail with small head (post-Roman?)
F108	335	3
F115	866	
	873	
F139	239	8
F140	2	
F151	266	
f155	784	
F160	576	2
	577	
	578	
	579	
	580	
	581	
	588	
	589	
	638	
F164	837	
F171	618	
	619	
	620	
	621	
	622	
	623	
	634	
	635	
	636	
	637	
	639	
	640	
	641	
	642	
	643	
	644	
	649	
	650	
	652	
	653	
F176	707	
F186	632	
F193	597	
F200	677	
	888	
F201	666	2
F202	670	5
F203	672	4
F204	193	
	674	
	675	
	676	
	678	
	679	
	680	
	686	
	687	
	692	
	697	
	698	
	846	
	887	
F205	1000	
	1001	

	1002	
	1003	
	1004	
	1008	
	1009	
	1010	
	1011	
	1012	
	1013	
	1014	
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	1016	
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	1018	
	1019	
	1020	
	1021	
	1022	
	1023	
	1024	
	1025	
	1028	
	1029	
	1030	
	1031	
	1032	
	1033	
	1034	
	1035	
	1036	
	1037	
	1040	
	1041	
	1042	
	1043	
	1044	2
	1045	
	2005	
	2026	
	2027	
F207	1050	
	1051	
+	1052	
	1056	2
F211	1060	
	1061	
	1062	2
	1066	
	1067	
	1068	
	1069	
	1070	
	1071	

Table 6 Nails from layers and unstratified contexts.

Find	Layer/Feature	Number/notes
122	L24	2
1	u/s T1	
120	u/s	2
138	L23	

Table 7 Other material.

Find	Layer/Feature	Identification
4	F4, T2	slag, post-Roman, 14 g
198	F29	vitrified clay, scraped up from pyre?, 116 g
586	F30	vitrified clay, scraped up from pyre?, 76 g
651	F171	vitrified clay, scraped up from pyre?, 184 g

6.5 Charred plant macrofossils and other remains: an assessment

by Val Fryer

6.5.1 Introduction

Excavations at the Roman cremation cemetery at Abbey Field were carried out by the Colchester Archaeological Trust. A number of graves were located, many of which contained cremations within various types of pottery vessel. Samples for the extraction of plant macrofossils were taken from grave fills (Table 8) and from the fills of the cremation vessels (Table 9).

6.5.2 Methods

For the purposes of this report, the excavator requested that only a representative number of the samples taken be processed and assessed to ascertain the density and condition of the plant macrofossils present. Accordingly, thirty-one of the eighty-four samples taken (36%) were processed. These included all the samples from the grave fills and samples from the fills of pots which were highlighted by the excavator as being of particular archaeological significance. All samples had been sieved on site prior to processing to extract the larger bone fragments.

The remaining soil was processed by manual water flotation/washover, collecting the flots in a 500 micron mesh sieve. The dried flots were scanned under a binocular microscope at low power and the charred plant macrofossils and other remains noted are listed on Tables 8 and 9. Modern contaminants including fibrous roots, seeds/fruits, arthropods and fungal sclerotia were present in all samples.

The non-floating residues were collected in a 1mm-mesh sieve and air-dried. All contained small fragments of burnt bone and have been retained for further specialist study.

6.5.3 Plant macrofossils

With the exception of charcoal fragments, plant macrofossils were extremely rare and generally very poorly preserved.

Single barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains were noted in sample 1 (F20) and F81 ((235)) respectively. Cereal chaff was not recovered.

Seeds/fruits and tuber fragments were only noted in thirteen (41%) samples. Common grassland weed species were predominant and included onion-couch (*Arrhenatherum* sp.), mallow (*Malva* sp.), persicaria/pale persicaria (*Persicaria maculosa/lapathifolia*), ribwort plantain (*Plantago lanceolata*), indeterminate grasses, knotgrass (*Polygonum aviculare*), and sheep's sorrel (*Rumex acetosella*).

Charcoal fragments were common or abundant in all samples. Other plant macrofossils included fragments of charred root, rhizome or stem, and indeterminate buds, seeds and tubers.

6.5.4 Other material

Fragments of black porous 'cokey' material and black tarry material were present or common in most samples. While some pieces may be cremation residues, most, along with the siliceous concretions, are probably derived from the combustion of organic materials, including straw/grass, at very high temperatures. Other materials included small fragments of burnt bone, vitrified material and small pieces of coal.

6.5.5 Discussion

Although seeds/fruits of grassland weed taxa are marginally more common in the grave fill samples (Table 8), the assemblages from both the grave deposits and pot fills are essentially the same, primarily consisting of charcoal, black 'cokey' and tarry material and burnt bone fragments. There appears to be no evidence of deliberate burial deposits and it is most likely that the bulk of the material is derived from dried grasses, grassland herbs and twigs which were probably used as kindling for the cremation pyres. Similar assemblages from cremation deposits are known from both pre- and post-Roman contexts.

6.5.6 Conclusions and recommendations for further work

In conclusion, with the exception of charcoal fragments, plant macrofossils were very rare. The assemblages appear to be indicative of the use of dry grass and grassland plants, etc as kindling for the cremation pyres. As none of the samples produced quantifiably viable assemblages, no further analysis is recommended.

Although only 36% of the samples originally taken were processed for this report, it appears unlikely that work on the remaining samples would greatly add to the above conclusions. All unprocessed material is from pot fills and, with only four exceptions, all the pot fills already studied contained only charcoal. Therefore, unless the excavator has any specific requests for further work, no further processing is recommended.

Key to Tables 8-9

x = 0–10 specimens
xx = 10–100 specimens
xxx = 100+ specimens
b = burnt
fg = fragment
pmc = possible modern contaminant

Table 8

Table 8 Environmental analysis of soil samples from grave fills.

Sample No.	1	4	5	6	7	7a	8	9	11	12	16	19	20	21
Finds No.	955	966	909	868	899	852	889	856	893	891	875	864	903	884
Feature No.	F20	F23	F31	F26	F24	F157	F25	F44	F22	F27	F153	F97	F193	F204
Cereals														
Cereal indet. (grain)											x		xcf	
<i>Hordeum sp. (grain)</i>	x													
Herbs														
<i>Arrhenatherum sp. (tubers)</i>	x										x			x
Chenopodiaceae indet.	x	x			x			x				x		
Fabaceae indet. (cotyledon frag.)	x													
<i>Malva sp.</i>						x								
<i>Medicago/Trifolium/Lotus sp.</i>		xcf												
<i>Persicaria maculosa/lapathifolia</i>														x
<i>Plantago lanceolata L.</i>														x
Small Poaceae indet.	x				xx						x			
Large Poaceae indet.														x
<i>Polygonum aviculare L.</i>					xx						x			x
Polygonaceae indet.		x			xx					x	x			xx
Other plant macrofossils														
Charcoal <2mm	xxx	xx	xx	xx	xx	xxx	xx	xxx	xx	xxx	xxx	xxx	x	xx
Charcoal >2mm											x	x		x
Charred root/rhizome/stem	x	x	x	x	x		x		x	x	xx			xx
Indeterminate buds								x			xx			x
Indeterminate seeds	x	x									x	x		
Other materials														
Black porous 'cokey' material	xx	xx		x	xx	x		xxx	x			x	x	xxx
Black tarry material	xxx	x	x	x	xx	x	x		x	x		x	x	x
Bone	xb		x xb	xb	x xb	x		xb	xxb	xxb	x xb			
Ferrous globules				x										
Small mammal/amphibian bones									x					
Small coal frags.	x	x					xcf	xcf					x	
Vitrified material	x				x				x		x			
Sample volume (litres)	7	3.5	1.25	4	1.5	4.5	1.5	4.25	4.5	1.5	3	2.5	0.25	5
Volume of flot (litres)	<0.1	0.2	<0.1	<0.1	<0.1									
% flot sorted	100%	100%	100%	100%	100%									

6.6 The tile by *Ernest Black*

6.6.1 Apart from the Lydion tiles, this assemblage represents tile scraps. There is no indication that a building employing tile stood in the vicinity.

Key

W = width

L = length

T = thickness

msd = maximum surviving dimensions

Unc. = identification uncertain

exthf = external height of flange

wf = width of flange

Measurements in millimetres.

6.6.2 GAC 1 (evaluation)

1. U/S, T 2 (3) I) fragment *tegula* flange. exthf 50, wf approx 30, T base approx 29. The profile of the flange is lightly concave with a flat top; there is a groove at the junction of the flange and the base and a band of trimming approx 22-26 adjoins the base on the exterior of the flange, ii) fragment brick, T35. iii) Unc., T 11, iv) fragment post-Roman tile, T 9, v) fragment *imbrex*, T 11-12, vi) fragment very abraded *tegula* flange; no original dimensions survive.
2. F1 T1 (2) fragment post-Roman tile with thumbmark, T approx 12.
3. F4 T2 (4) I) post-Roman, T 11 / 12, ii) Unc., T approx 17.
4. U/S T1 (1) Unc., T 11-13.
5. F16 (20) i) probable fragment *tegula* base, T 21, ii) Unc., T at least 25, iii) post-Roman tile, heavily burnt, T approx 11, iv) Unc., T at least 13.
6. L18 (8) i) fragment brick, T at least 42, ii) fragment post-Roman tile, T approx 11, iii) fragment brick heavily burnt and with brown glaze on upper surface and sanded base, T approx 20, iv) fragment brick, T25.

6.6.3 GAC 2 (excavation)

1. F20 (26) (959) one tiny scrap.
2. F29 (197) one fragment brick (T1-T37); one *tegula* flange; two x T28/29; four scraps; 1 x *tegula*.
2. F36 (109) Unc., T approx 14.
3. F40 (136) fragment brick/*tegula* base, T 29.
4. F40 (756) three conjoining flanges forming the edge of one brick with burning along one side and over break. W129, max surviving dimension L 124, T approx 30. One edge of the tile has a smoother finish and may have been formed by cutting through a tile of larger dimensions before firing. This does not seem to be a standard type of Roman tile.
5. i) F42 (147) Unc., T approx 16, ii) tiny fragment, Unc., T 11/12 so possibly post-Roman.
6. F45 (142) one *imbrex* fragment and three possible *tesserae* (all burnt); two scraps.
7. F49 (244) i) fragment *imbrex*, T 14/15 ii) fragment probable *imbrex*, T14, iii) fragment *tegula* base broken at junction with flange, T approx 25, iv) Unc., T approx 17.
8. F50 (242) i) two joining fragments daub, ii) Unc. T approx 20, iii) two fragments post-Roman tile T approx 10.
9. F51 (241) fragment post-Roman tile, T approx 10.
10. F52 (243) Unc., T at least 29.
11. F54 (245) Unc., heavily burnt, fragment, lighter than tile and hard.
12. F54 (245), i) fragment brick, T approx 35, possibly in (light brown) Eccles fabric, ii) corner fragment brick, T at least 34, in a different, soft (cream) fabric, iii) Unc., T 12, possibly post-Roman.
13. F59 (237) eleven scraps of tile and one of pot: two of the tiles are post-Roman; one is shaped like *tessera*, T approx 32.
14. F69 (430) fragment brick, T 34-38.
15. F71 (170) i) burnt fragment, T 7-8, either pot or post-Roman tile, ii) one scrap.
16. F72 (227) one large fragment brick (T 38).
17. F72 (229) one scrap.
18. F77 (432) post-Roman tile, T approx 10.
19. F79 (226) one (?) peg-tile.
20. F84 (480) one tiny scrap.
21. F88 (205) one scrap.

22. F92 (654) six fragments *imbrex* of which at least two join, T approx 15.
23. F103 (151) i) fragment brick, T approx 35, ii) five scraps, iii) fragment brick, T37. In section the clay can be seen to be 'layered' as in the Lydion tiles from F200.
24. F111 (433) i) Unc., T 15-16, ii) fragment brick with one edge, T 40-50.
25. F120 (234) one scrap; one brick fragment (T approx 31).
26. F120 (646) one scrap.
27. F121 (238) one (?) peg-tile fragment; (?) brick fragment (T29).
28. F124 (228) four scraps.
29. F127 (233) possible *tegula* base, T 19.
30. F199 (655) five *tegula* fragments (inc one flange); one scrap.
31. Five Lydion tiles were used to form a tile cist. The bases were sanded and the tops trimmed. The sides were generally trimmed though some sanding is present.
 - i) F200 (656) Almost complete with damage to one end. W 295-305, L 420, T 38-47. There is an oval 'signature' on the top surface and four small holes, as though made by stabbing a pointed stick into the tile. Two of these occupy the position of 'eyes' within the oval signature as if forming a face.
 - ii) F200 (657) nine flakes and fragments from i)-v).
 - iii) F200 (662) complete but broken into six fragments. W 288, L 420, T approx 38. There is a small semi-circular 'signature' at one end of the top surface. although trimmed about two-thirds of the surface has subsequently been lightly sanded. Much of the tile's original surfaces has grey/black staining as if burned.
 - iv) F200 (663) almost complete, damage at one end, W 288, L 418, T approx 35-40. There is semi-circular 'signature' at one end of the top surface.
 - v) F200 (664) almost complete tile in three fragments with one end and both corners of the other missing. W 285-288, max surviving dimensions L approx 413, T approx 40.
 - vi) F200 (665) complete. W 277, L 408, T 35-44. There is a semi-circular 'signature' at one end of the top surface.
32. F205 (1038) one brick fragment (T30); two brick/*tegula* base; *tegula* flange.
33. F206 (1047) i) fragment post-Roman tile, T 12-13, ii) Unc., T approx 16, iii) two scraps.
34. F207 B (1054) i) fragment brick, T 29, ii) fragment brick with one edge, burnt, T 30, iii) fragment *tegula* base, T approx 18, iv) fragment brick T 38, v) fragment brick, burnt, T incomplete: probably part of same tile as ii), vi) two scraps, vii) Unc., burnt T 27, viii) Unc., T approx 26, sanded on both surfaces - post-Roman?, ix) possibly fragment from *tegula* base, T approx 25.
35. F211 (1065) large fragment of *tegula* and flange (approx 400 x 200mm); two detached fragments of *tegula* base.
36. L20 (22) fragment *tegula* from close to bottom right corner, broken at the junction with cutaway section of flange, exthf approx 51-55, wf approx 30, T base approx 22-24. the profile of the flange slopes from the exterior to the interior and then drops vertically. There is a slight groove at the junction of the flange and base. The exterior surface of the flange has been trimmed for approx 18/19 above the base.
37. L21 (110) probable *tegula* base broken at junction with flange, some mortar on broken edges. T 18-19.
38. L22 (161) i) fragment *imbrex*, T approx 19, ii) fragment *tegula* flange broken off at start of the cutaway at bottom left corner, top surface slightly damaged; exthf approx 47, wf approx 28, T base ?approx 19, iii) one fragment pot.
39. L23 (68) fragment brick with one edge, msd approx 114 x 100, T 38-40.
L24 (122) one brick fragment (T approx 35), burnt.
40. U/S (32). i) fragment from near top left corner: nothing of the flange survives, T 23-25. ii) fragment brick with one edge, T approx 30-32.
41. U/S (33) i) fragment *tegula* base, with very damaged flange present for approx 85 with a width of only 13-14 and a max surviving height of 38. T base 18, underside of base partly trimmed and trimming of irregular height (>20) on the exterior of the flange adjoining the base. There is one complete and part of a second animal (?dog) print ii) fragment brick T approx 30.
42. U/S (176) fragment *imbrex*, T approx 14.

7 Abbreviations and references

7.1 Abbreviations

<i>CAR 2</i>	Colchester Archaeological Report 2 , <i>The Roman small finds from excavations in Colchester 1971-9</i> , by Nina Crummy
<i>CAR 8</i>	Colchester Archaeological Report 8 , <i>Roman vessel glass from excavations in Colchester, 1971-85</i> by H E M Cool & J Price
<i>CAR 9</i>	Colchester Archaeological Report 9 , <i>Excavations of Roman and later cemeteries, churches and monastic sites in Colchester, 1971-88</i> , by N Crummy, P Crummy, & C Crossan
<i>CAR 10</i>	Colchester Archaeological Report 10 , <i>Roman pottery from excavations in Colchester, 1971-86</i> , by R P Symonds and Sue Wade, ed by Paul Bidwell and Alexandra Croom
RCHM 1962	Royal Commission on Historical Monuments, <i>Eburacum, Roman York</i>
<i>RIC</i>	<i>Roman Imperial Coinage</i>

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8 Archive deposition

The excavation archive will be deposited with Colchester Museum for permanent retention under cover of museum accession code 2000-1.

9 Acknowledgements

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Carl Crossan, May 2001

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Plate 1 Overall view of the stripped site, view north-west.



Plate 2 Grave F27.



Plate 3 Grave F39 with lid removed, view north.



Plate 4 Graves F93 and F157, view east.



Plate 5 Grave F171, view north.



Plate 6 Grave F200 with lid removed, view south.

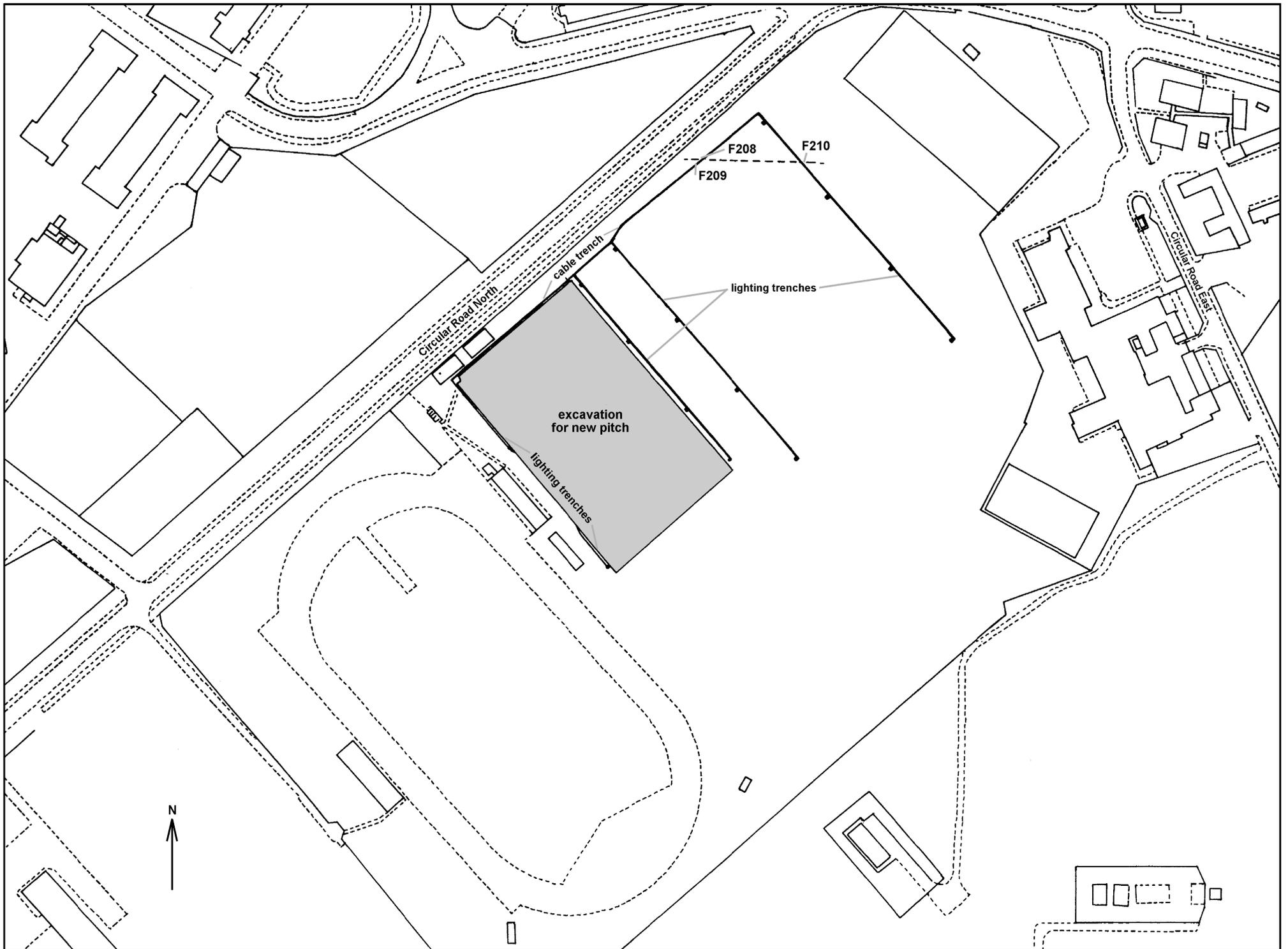


Fig 1 Site location, showing main excavation area and service trenches. Scale 1:1250.

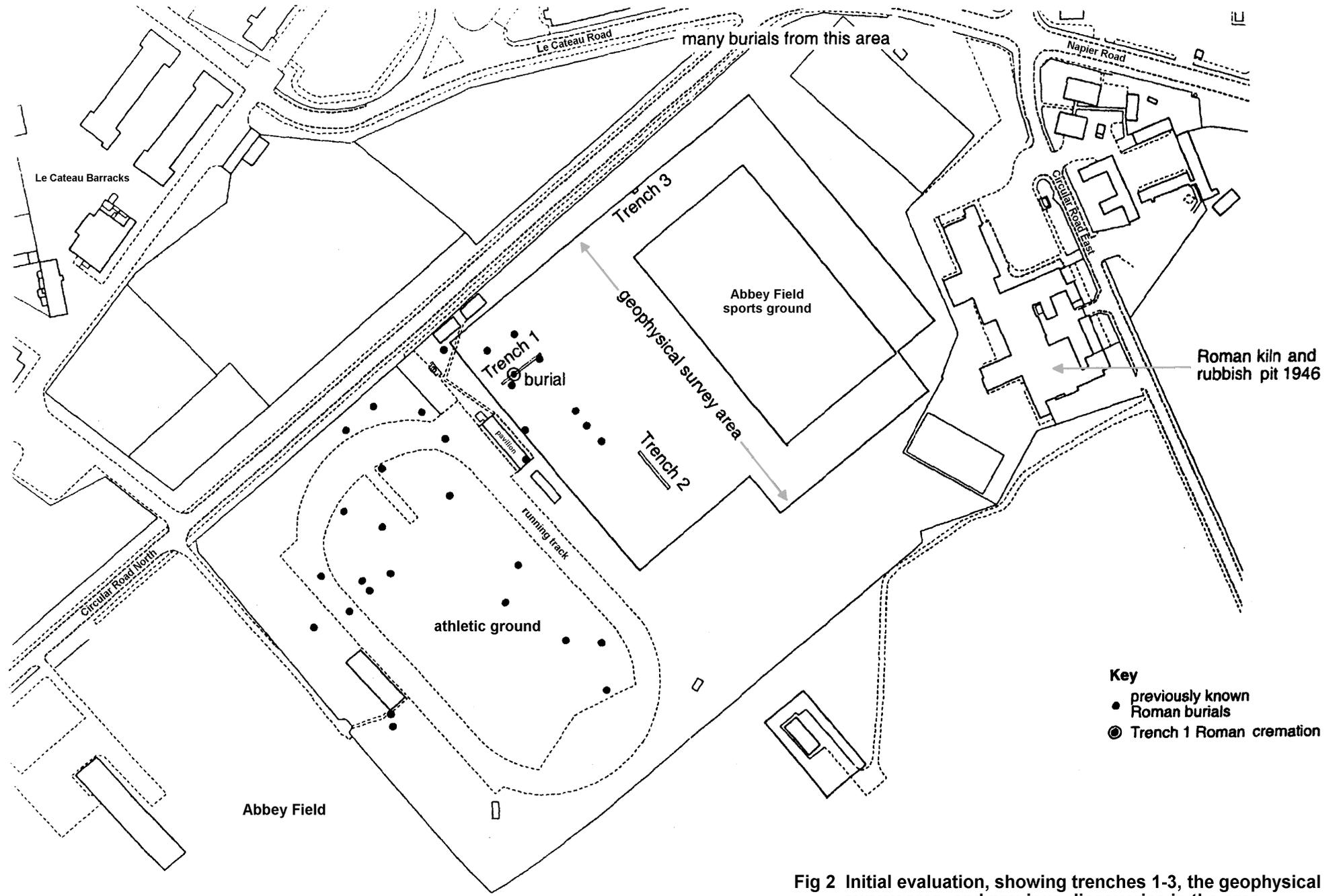


Fig 2 Initial evaluation, showing trenches 1-3, the geophysical survey area, and previous discoveries in the area. Scale 1:2500.

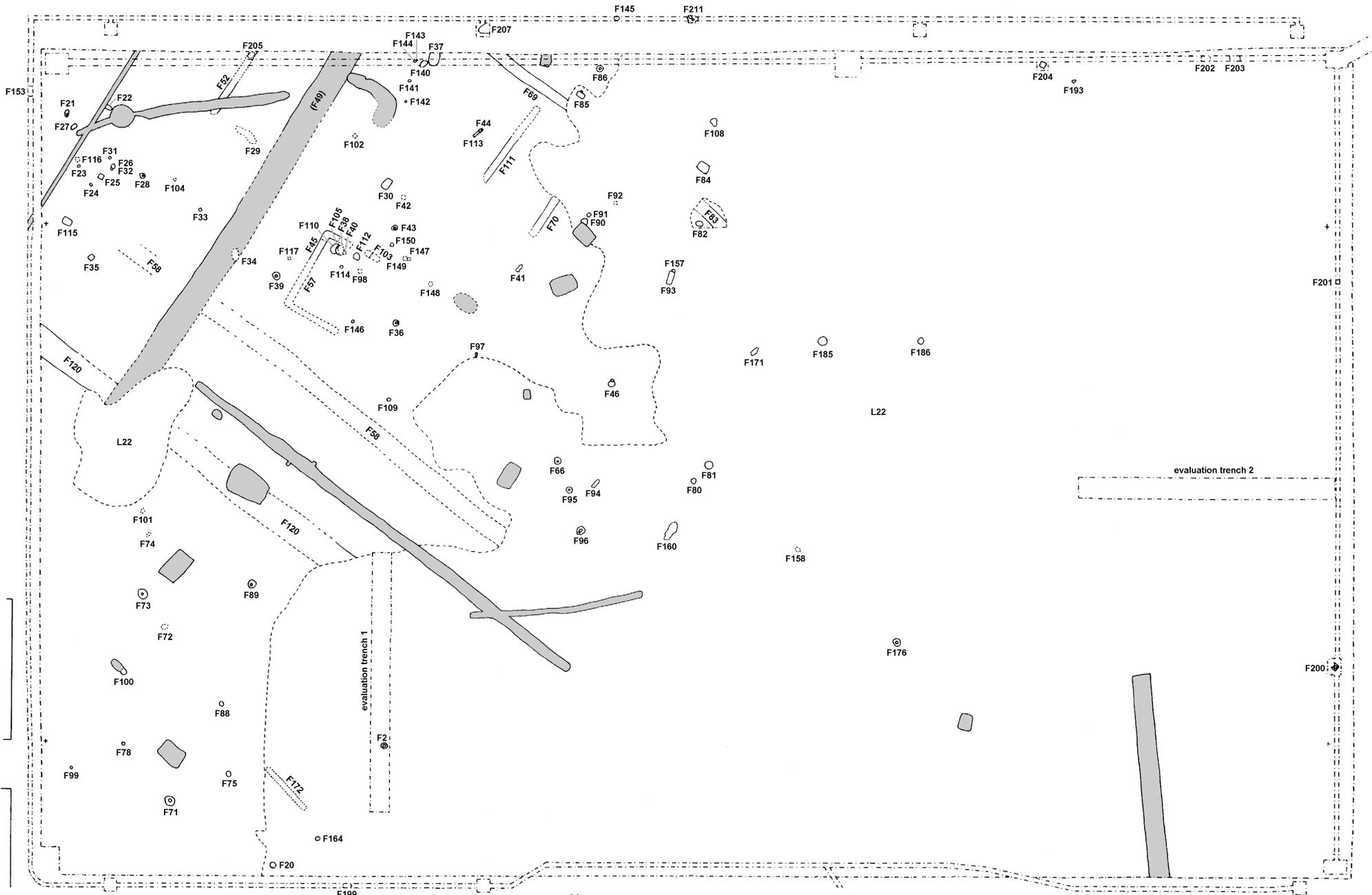


Fig 3 Roman features. Scale 1:250.

Key: later disturbance

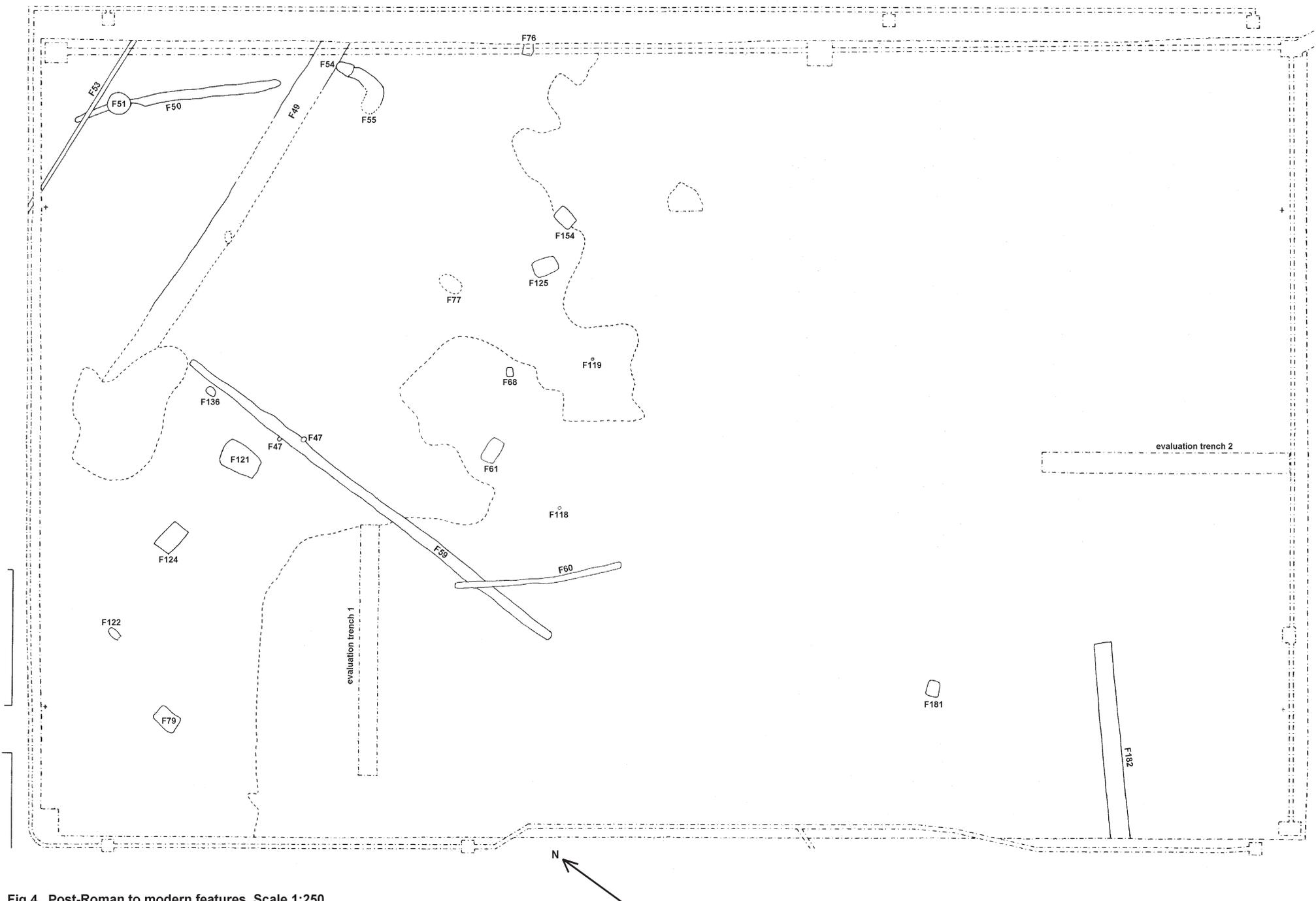


Fig 4 Post-Roman to modern features. Scale 1:250.

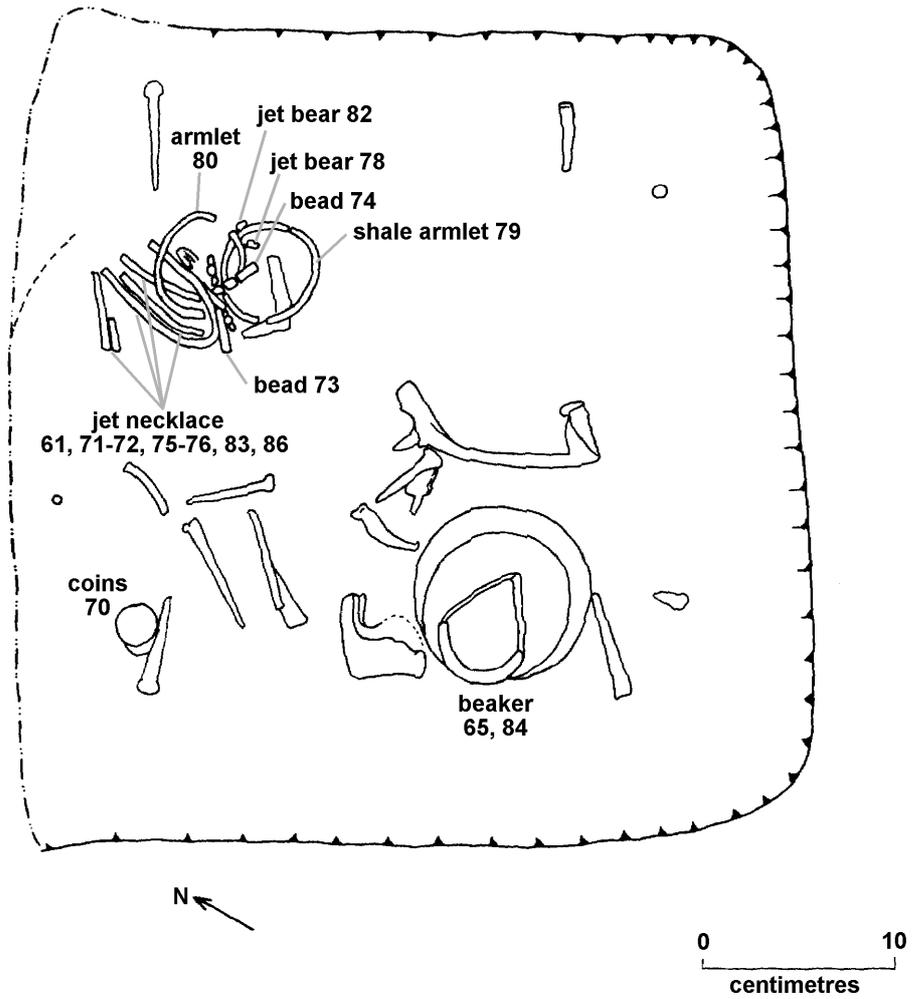


Fig 5 Grave F25.

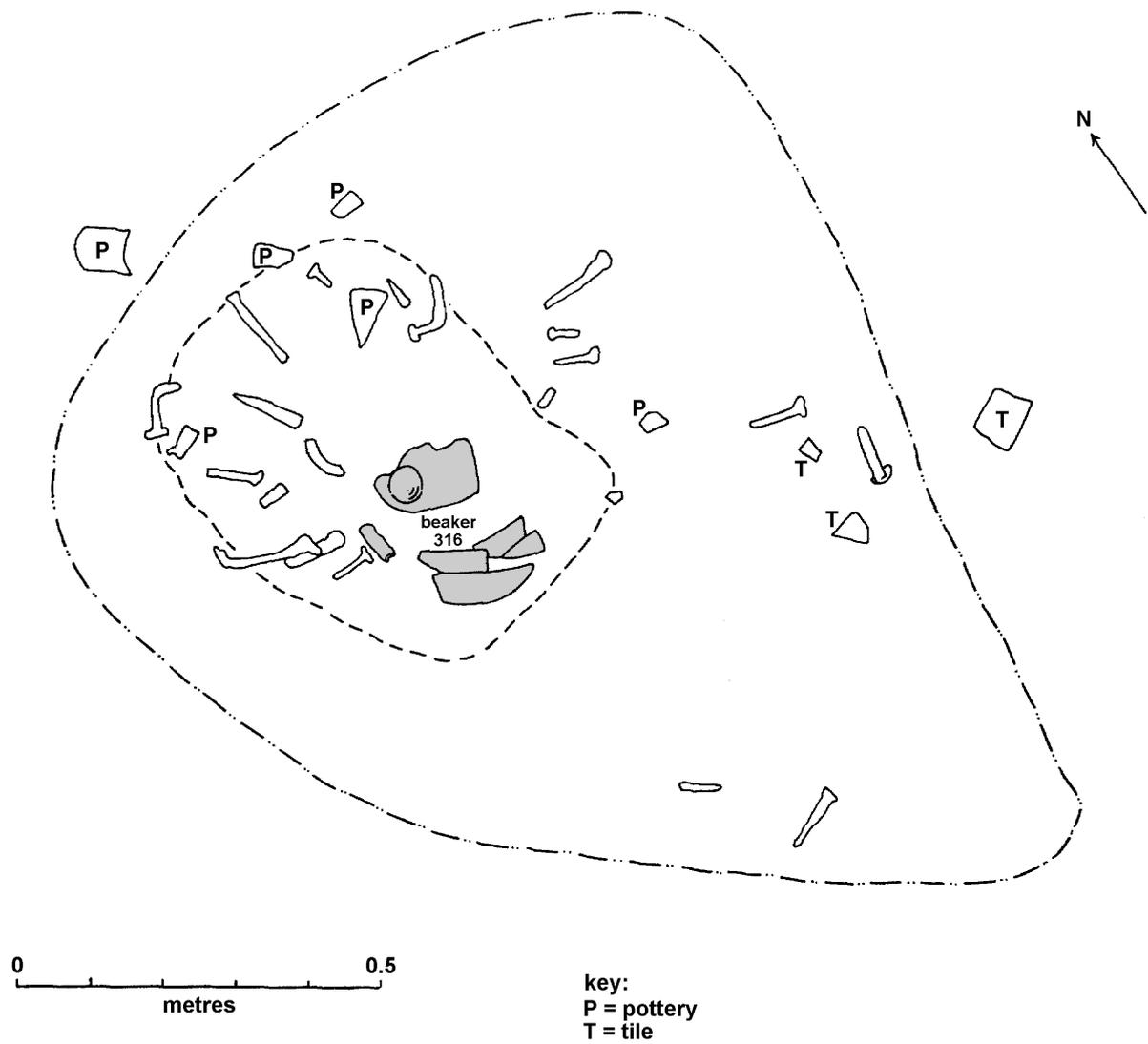


Fig6 Grave F85.

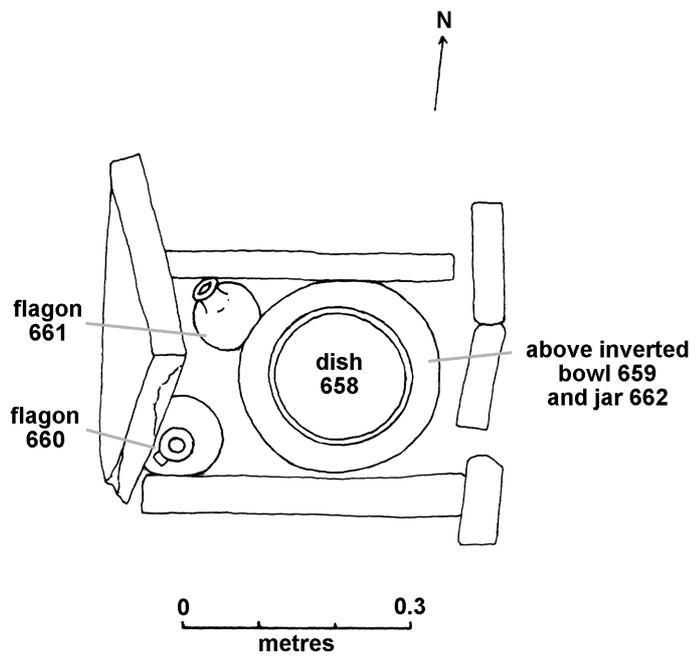


Fig 7 Grave F200 cist.

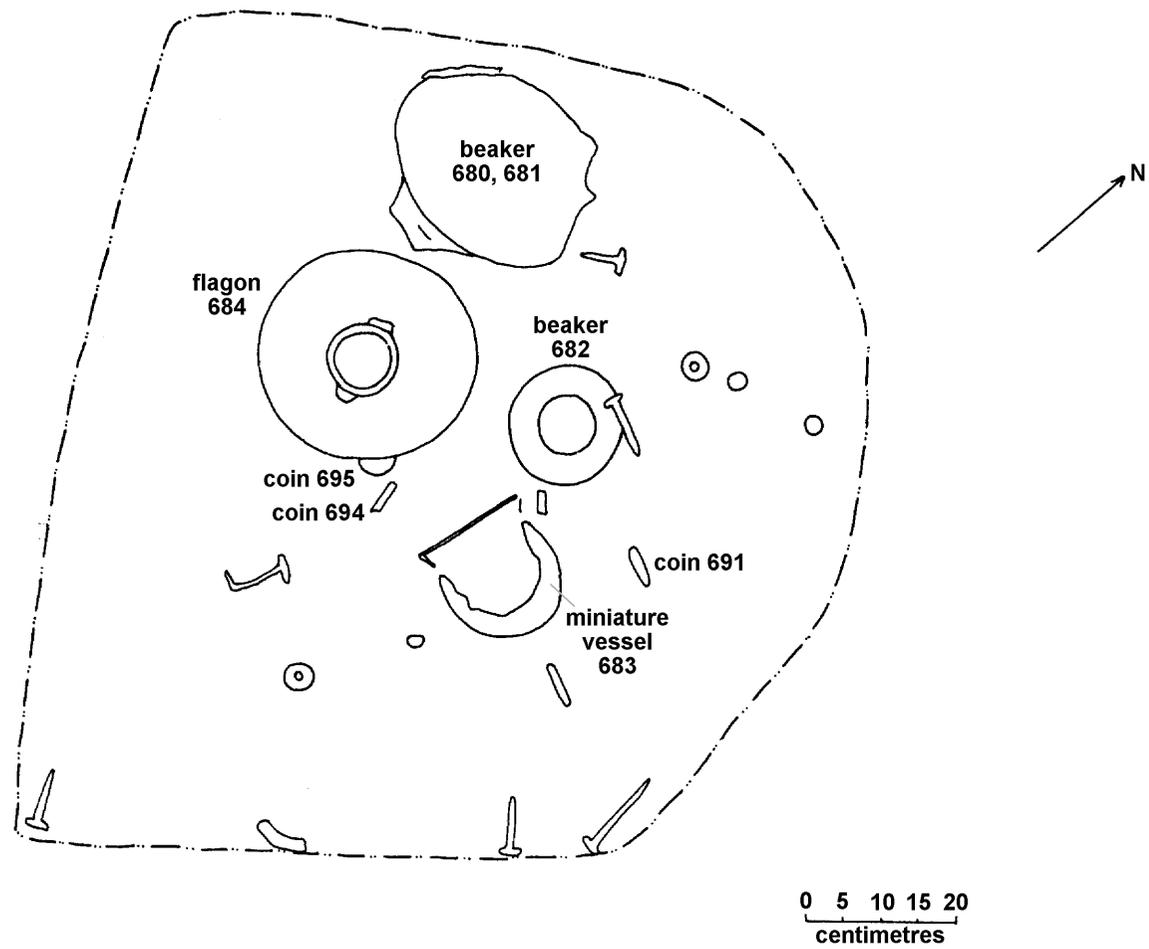


Fig 8 Grave F204.

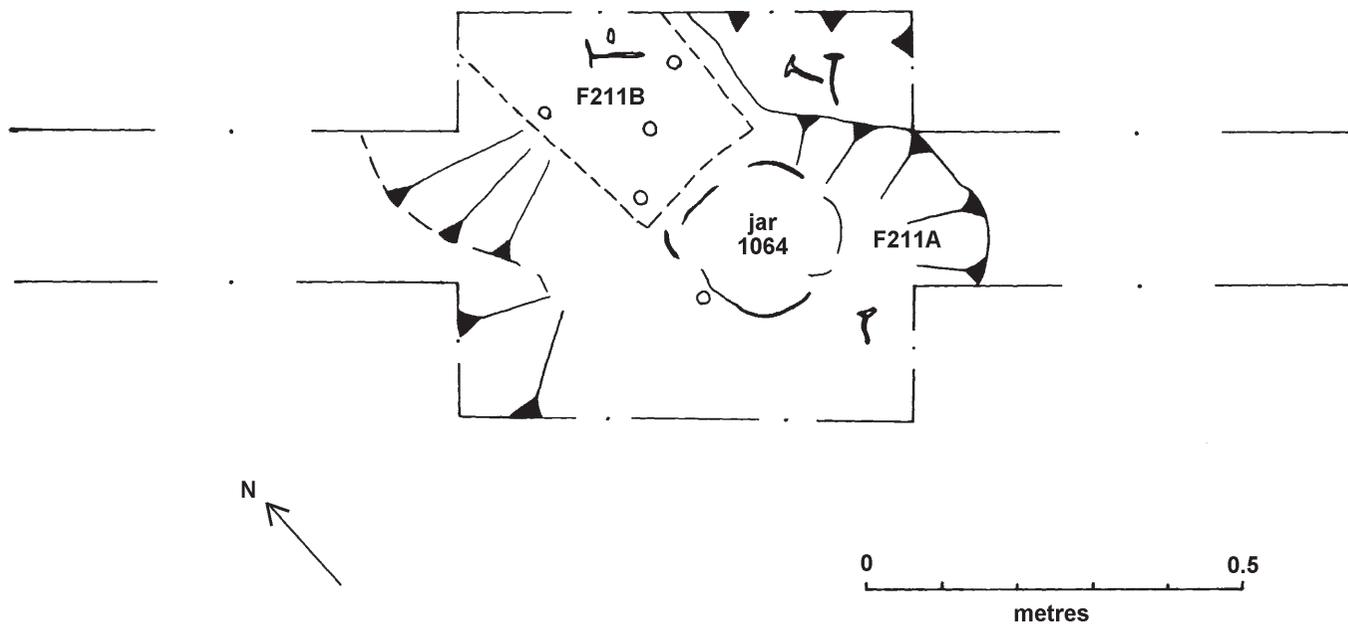
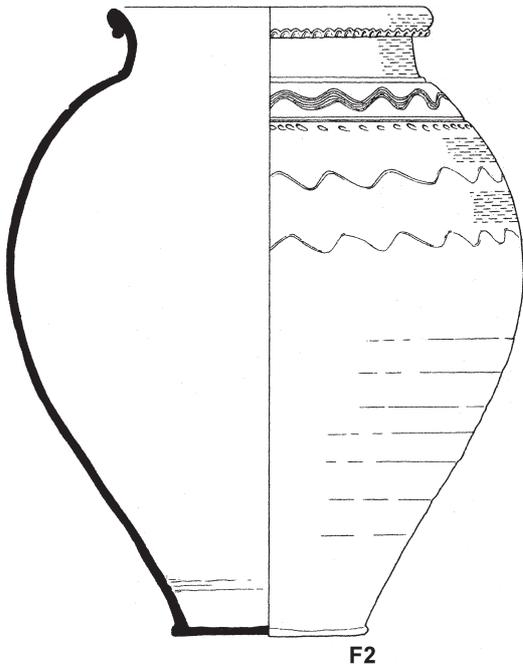
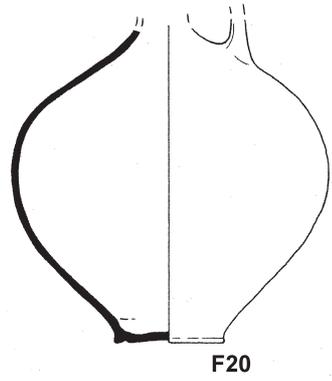


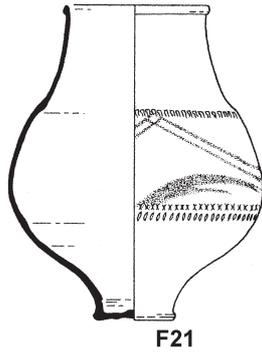
Fig 9 Grave F211A/F211B.



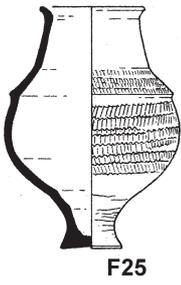
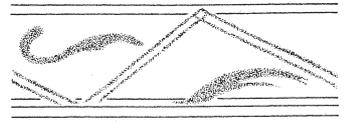
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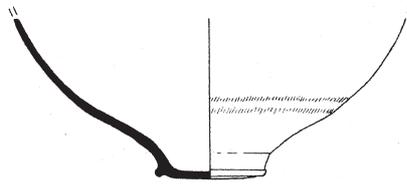
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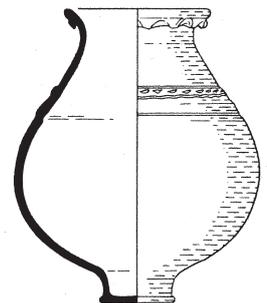
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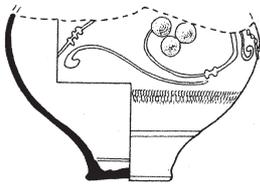
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F26a



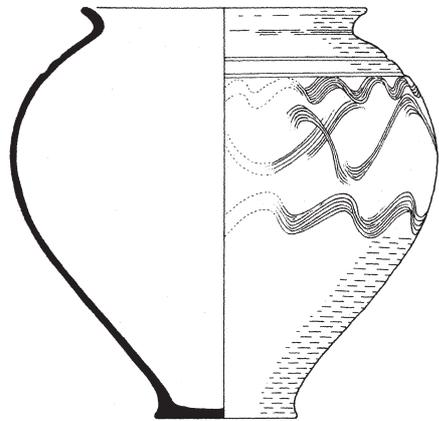
F26b



F27a



F27b



F28

Fig 10 Pottery from graves F2, F20, F21, F25, F26, F27, F28. Scale 1:4.

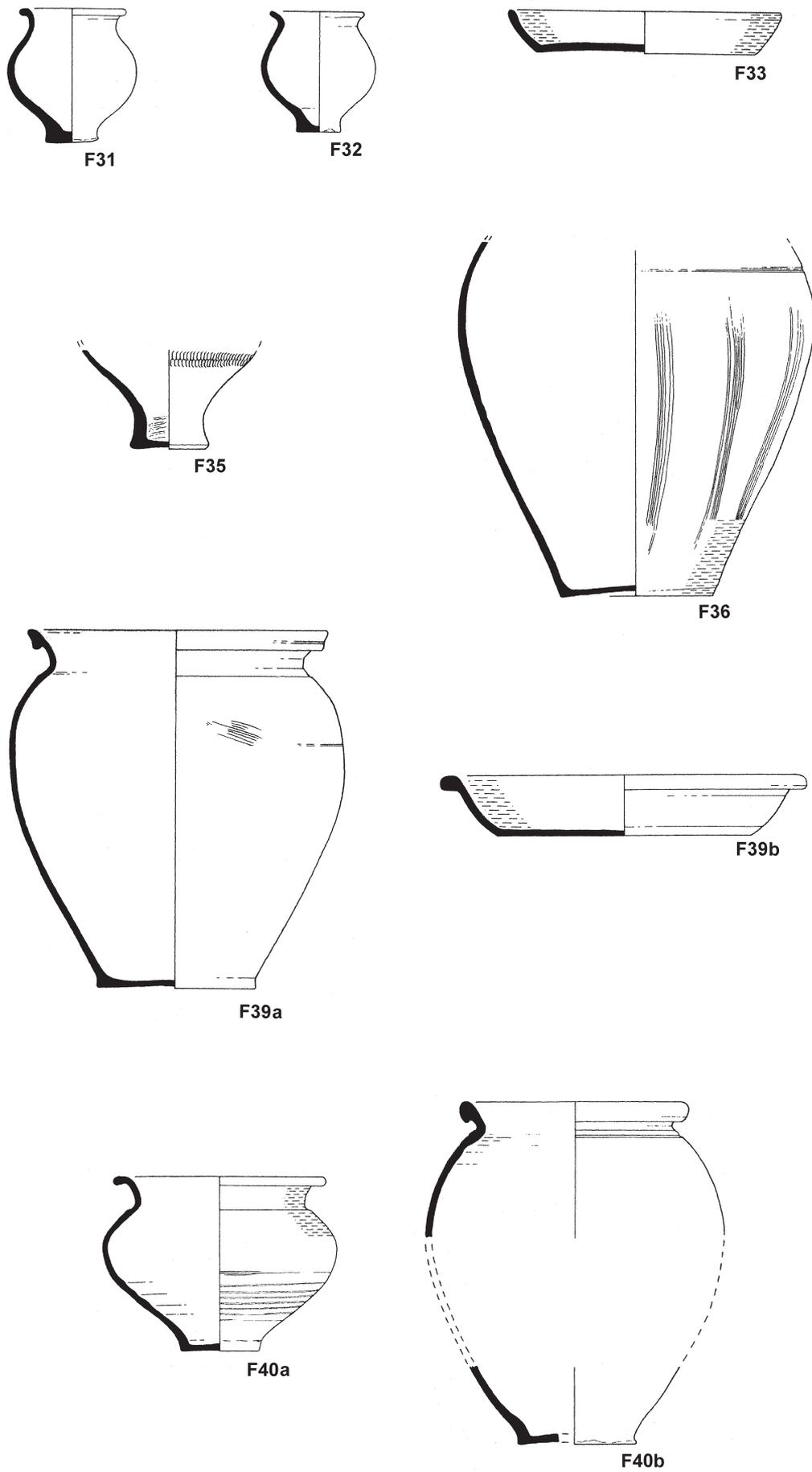
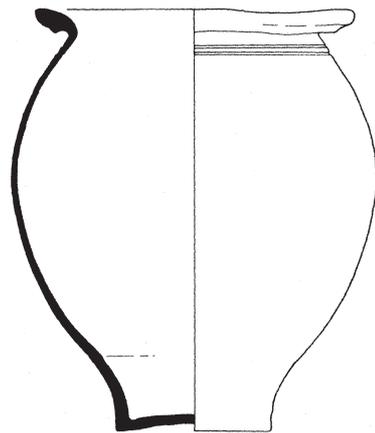
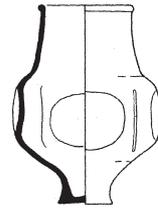


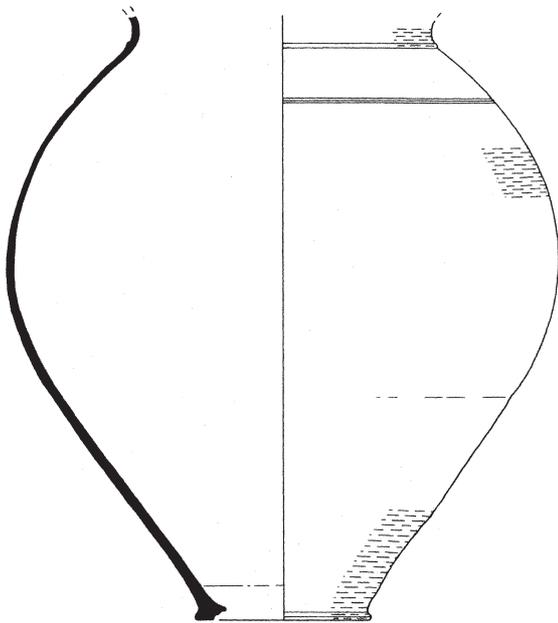
Fig 11 Pottery from graves F31, F32, F33, F35, F36, F39, F40. Scale 1:4.



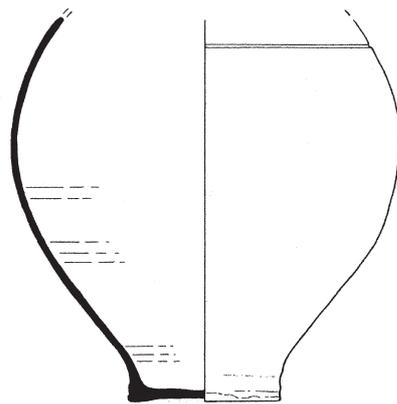
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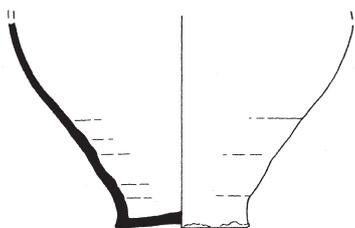
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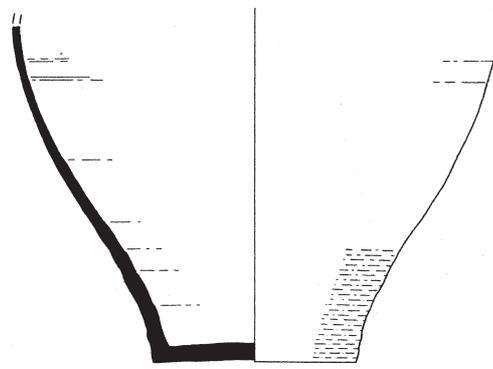
F46a



F46b



F66



F71

Fig 12 Pottery from graves F43, F46, F66, F71. Scale 1:4.

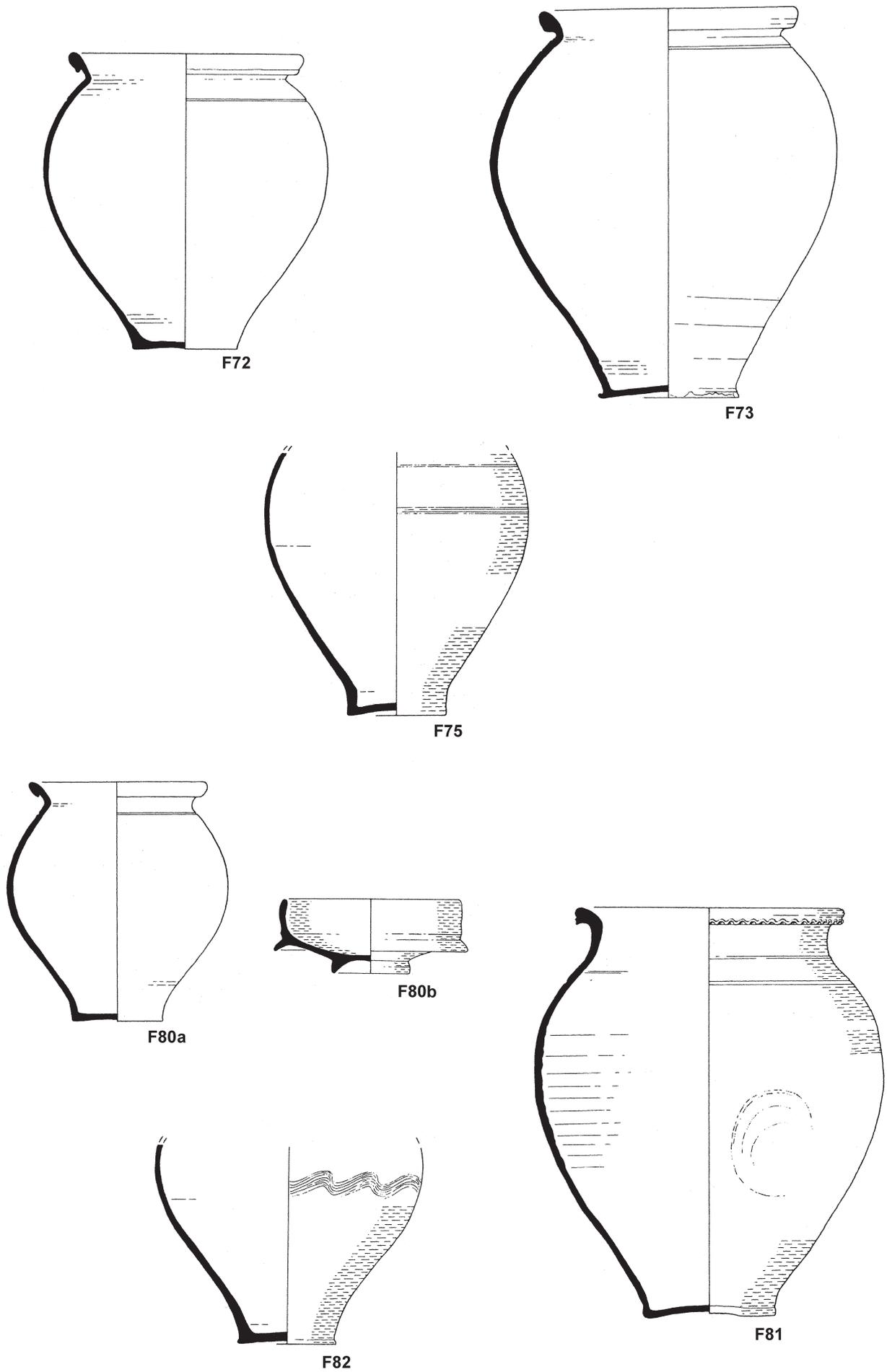
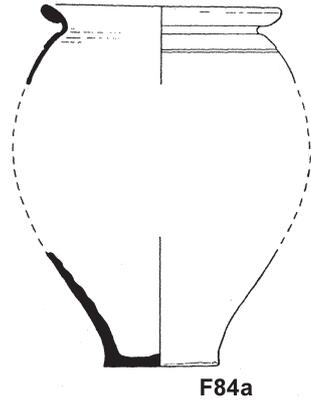
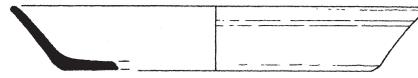


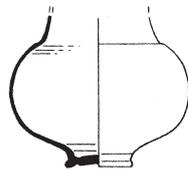
Fig 13 Pottery from graves F72, F73, F75, F80, F81, F82. Scale 1:4.



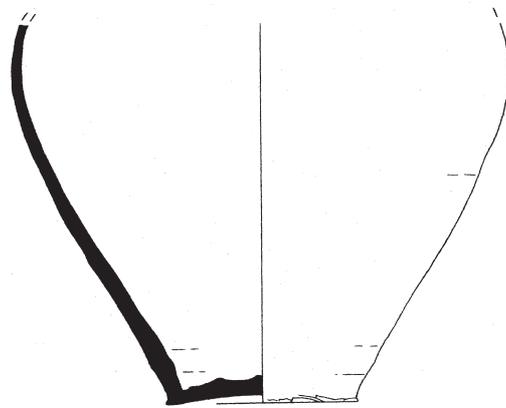
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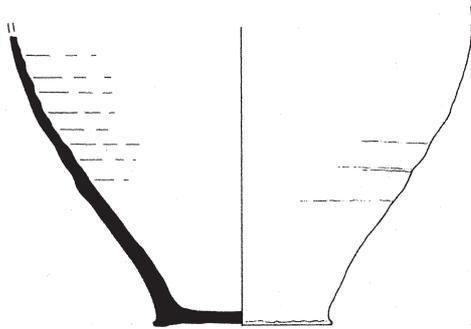
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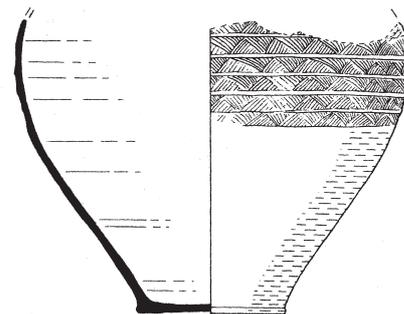
F85



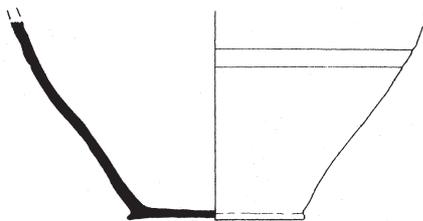
F86



F88



F89



F90

Fig 14 Pottery from graves F84, F85, F86, F88, F89, F90. Scale 1:4.

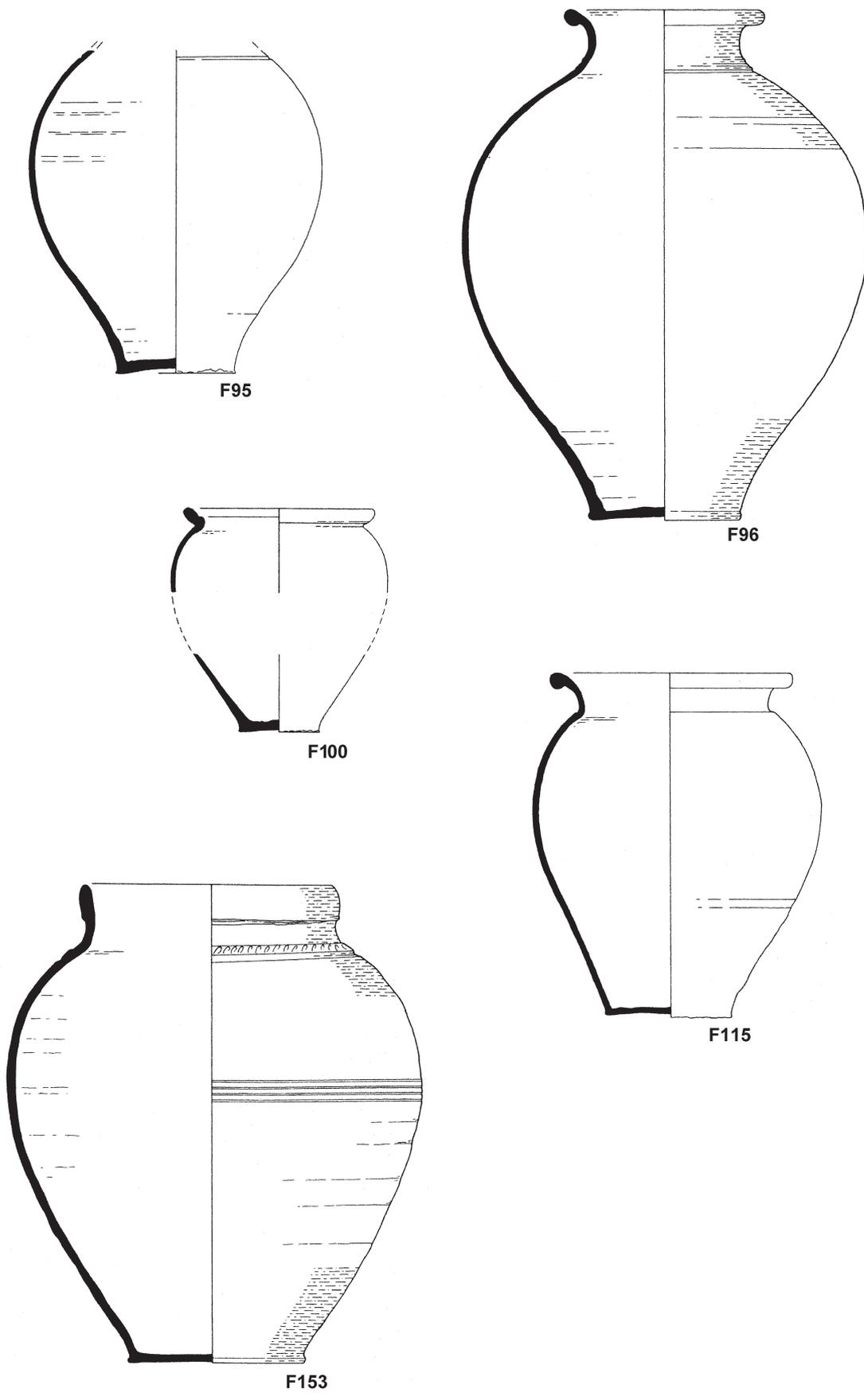


Fig 15 Pottery from graves F95, F96, F100, F115, F153. Scale 1:4.

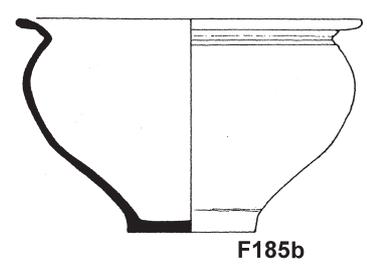
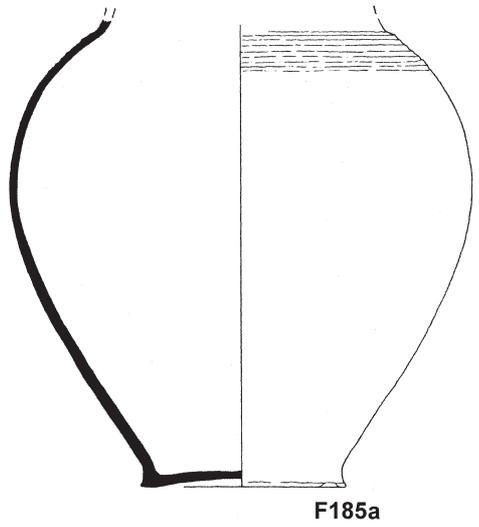
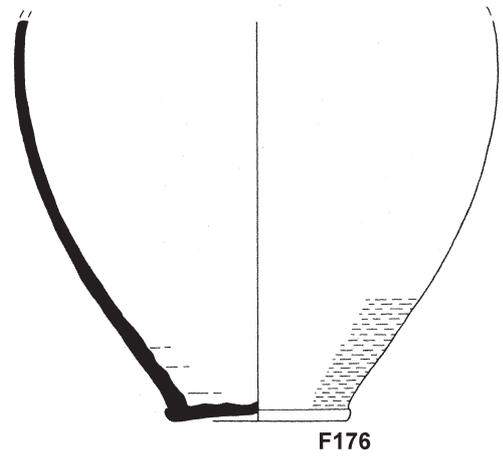
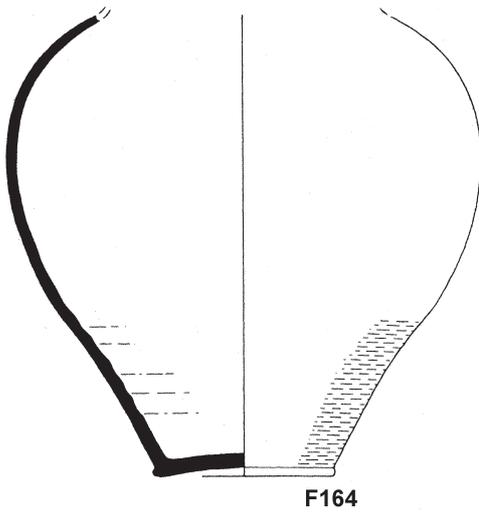
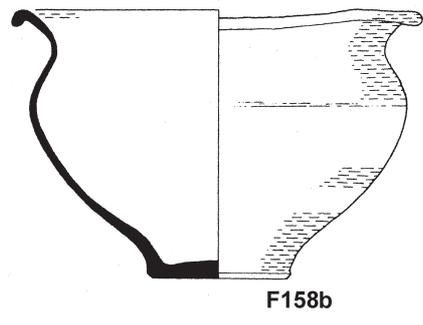
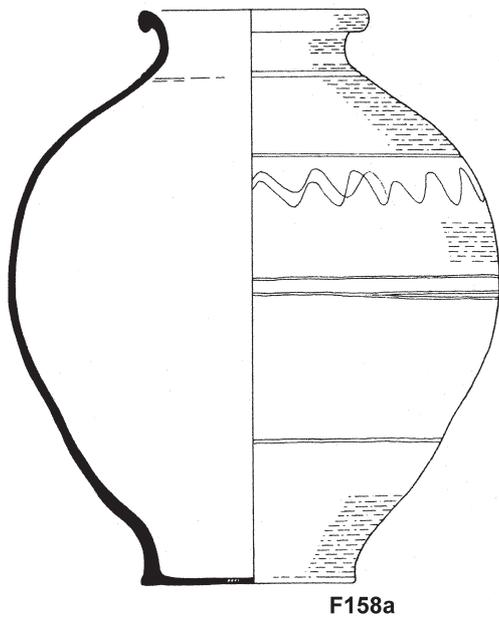
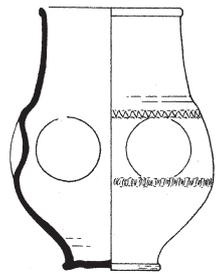
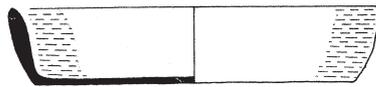


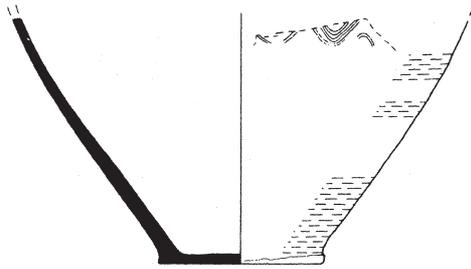
Fig 16 Pottery from graves F158, F164, F176, F185. Scale 1:4.



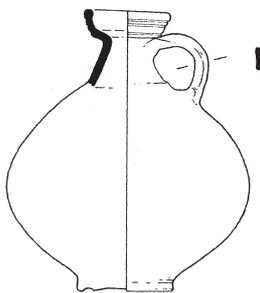
F186a



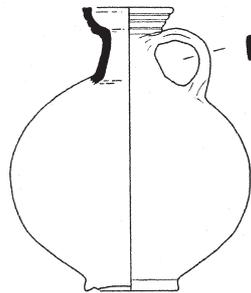
F186b



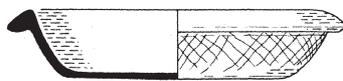
F193



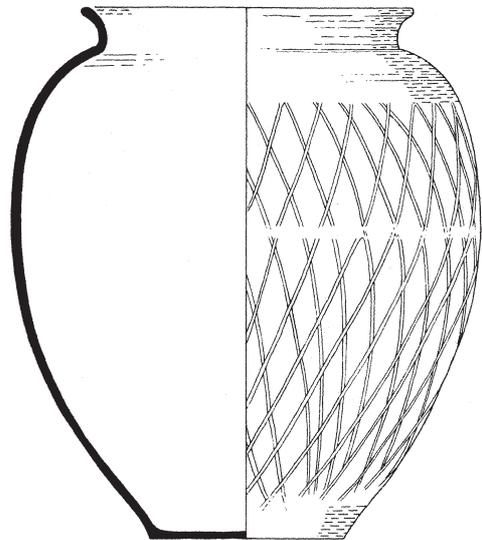
F200a



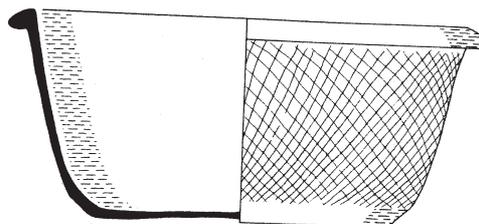
F200b



F200c



F200e



F200d

Fig 17 Pottery from graves F186, F193, F200. Scale 1:4.

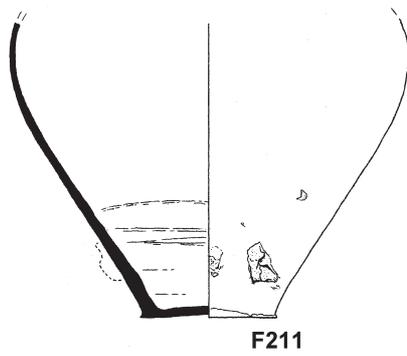
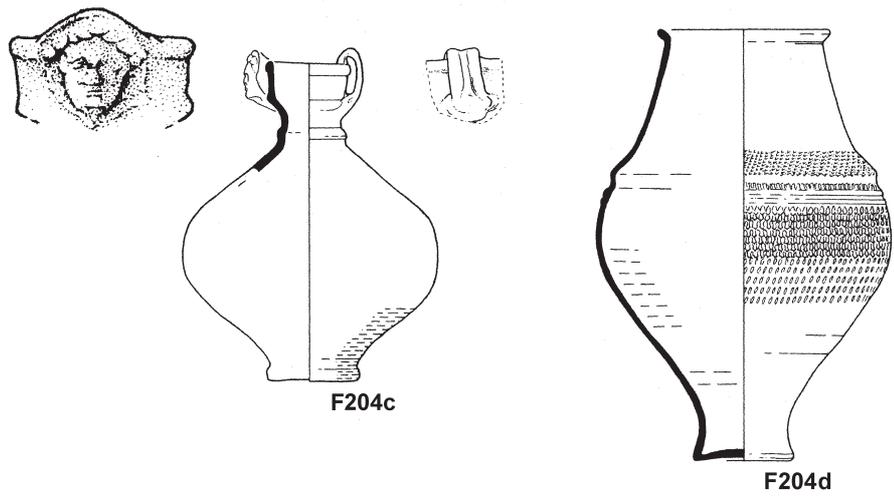
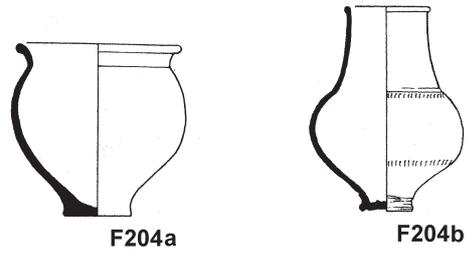


Fig 18 Pottery from graves F203, F204, F211. Scale 1:4, and F204c face at 1:2.

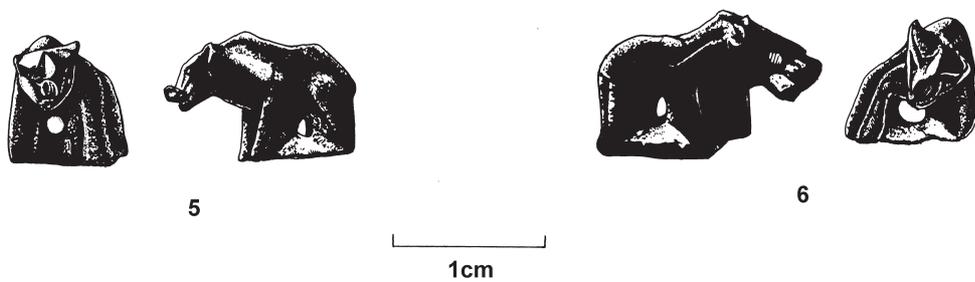
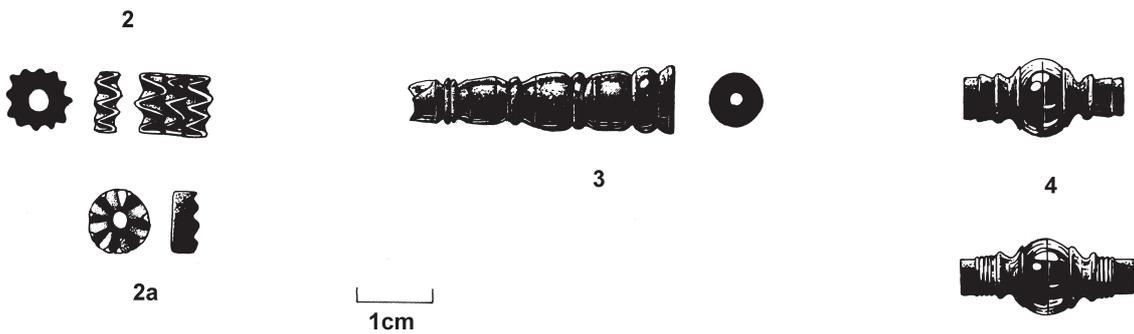
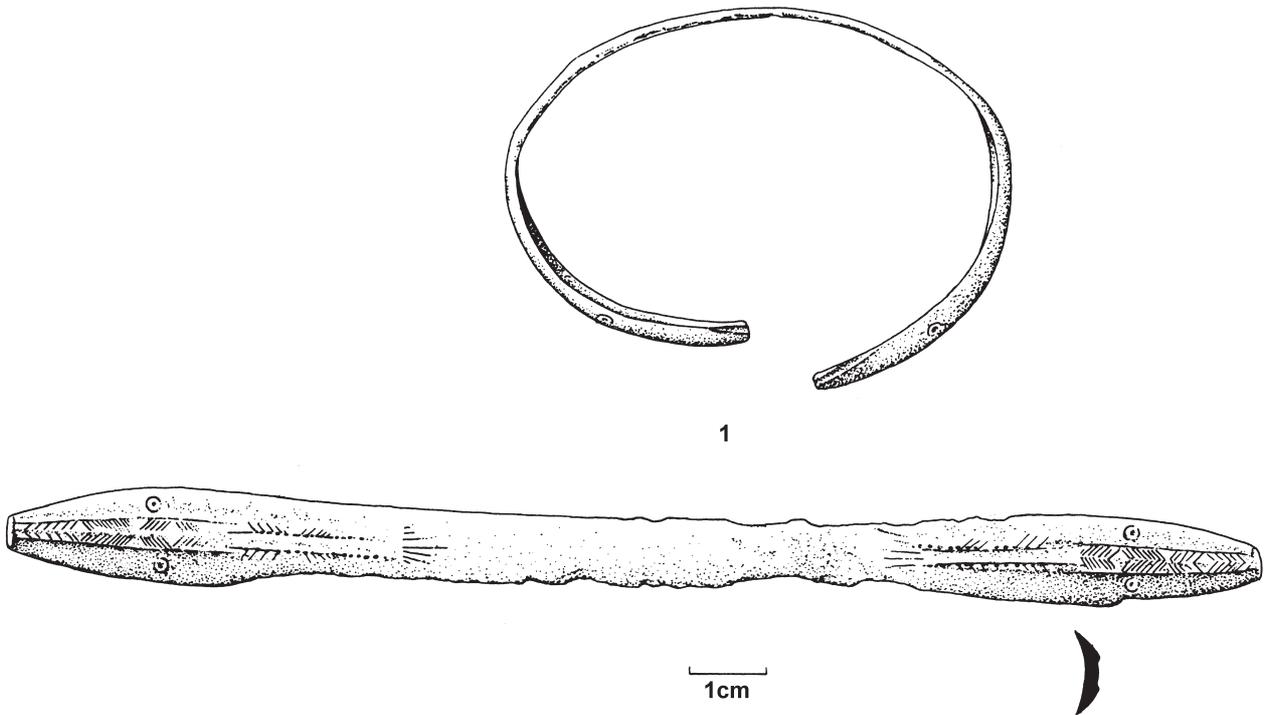
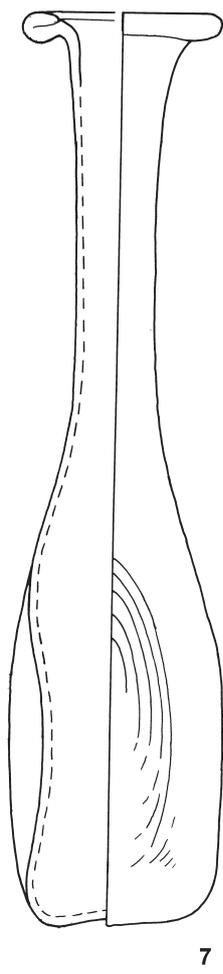


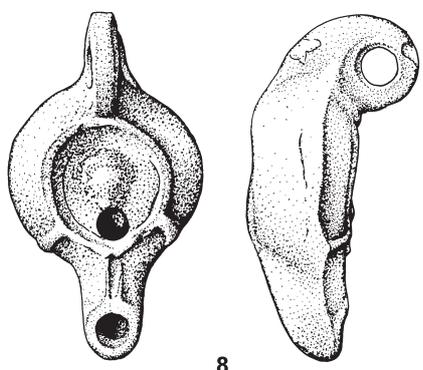
Fig 19 Small finds.

1 = SF3, 2 = SF19, 3 = SF11, 4 = SF14, 5 = SF18, 6 = SF15.



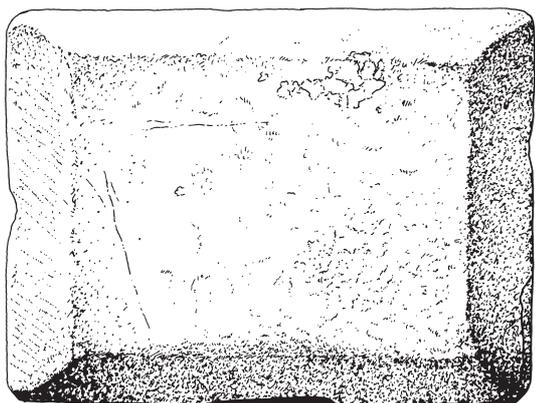
7

1cm



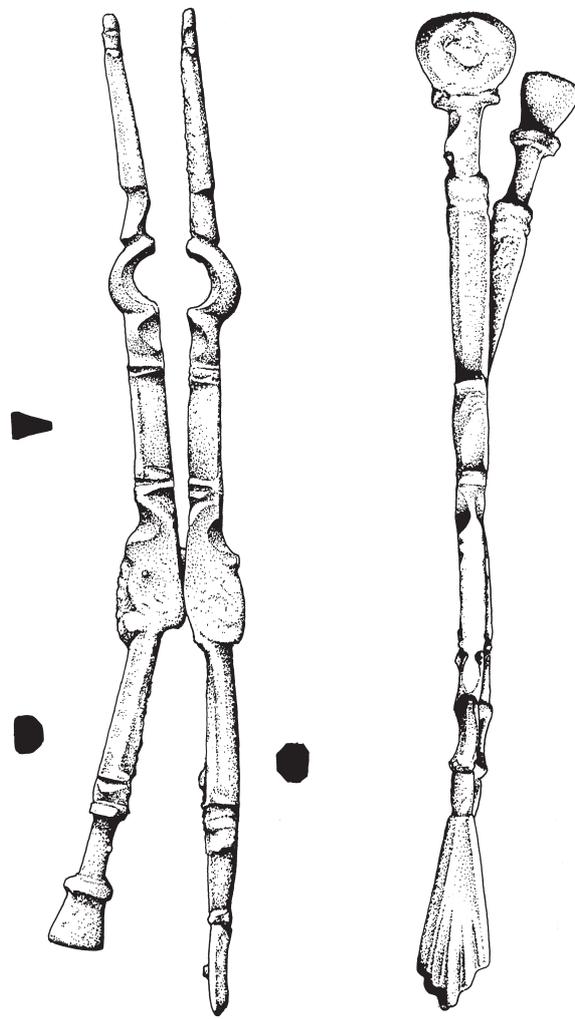
8

3cm



9

Fig 20 Small finds.
7 = from F36, 8 = from F200, 9 = SF58.



10

1cm

Fig 21 Small finds.
10 = SF1.

Appendix

CAT Report 54

**An archaeological evaluation
at the
Garrison Sports Ground,
Circular Road North, Colchester**

January 2000

**on behalf of
WS Atkins Consultants Ltd**

Principal planning ref.: G/COL/99/1411
CAT site code: GAR 2000
CAT project code: 00/1a
Colchester Museum accession code: 2000.1

COLCHESTER ARCHAEOLOGICAL TRUST



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Fig 3 Trench 2: plan and sections.
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Fig 5 F2 Roman cremation pot.

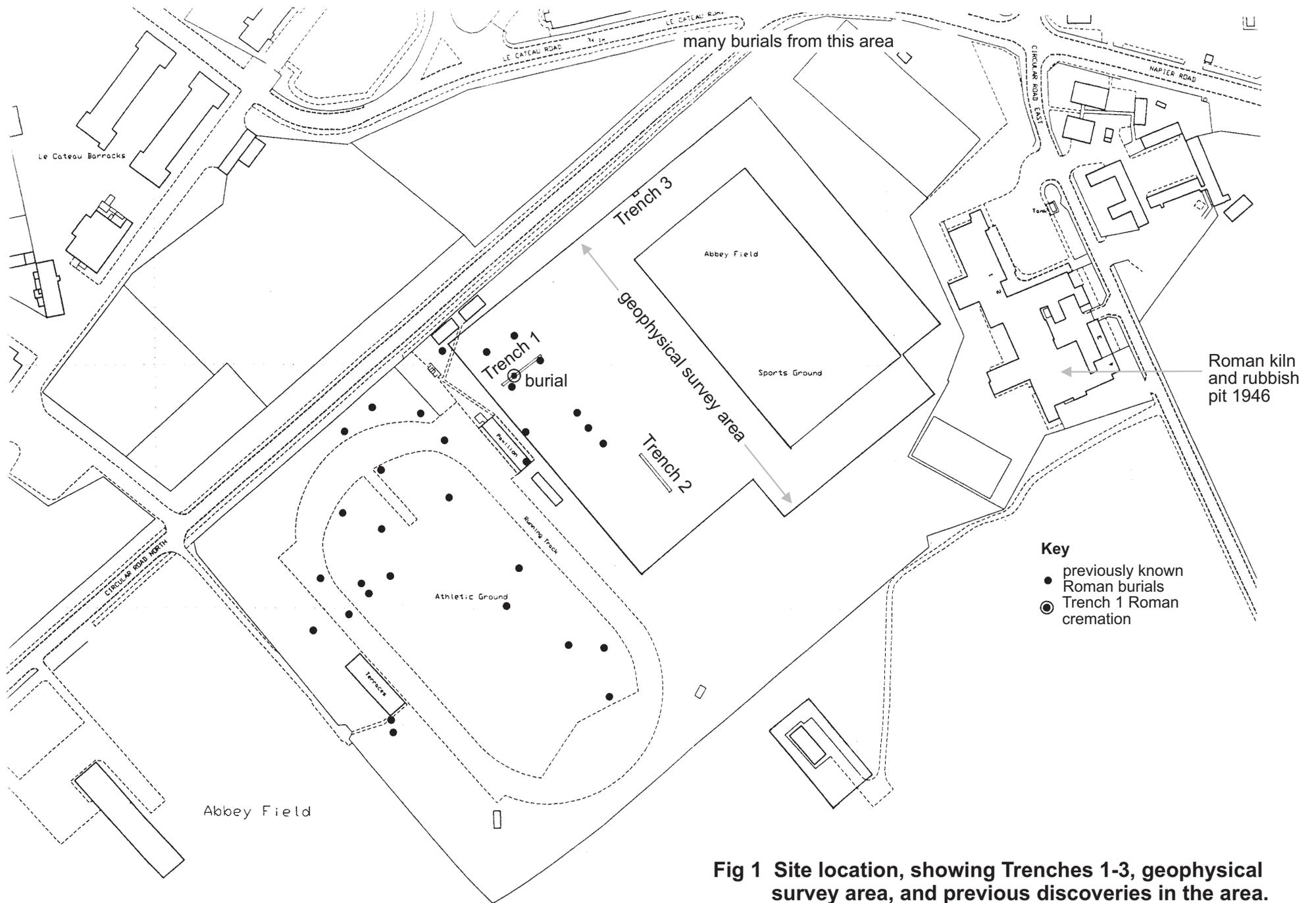


Fig 1 Site location, showing Trenches 1-3, geophysical survey area, and previous discoveries in the area.

An archaeological evaluation at the Garrison Sports Ground (Abbey Field), Circular Road North, Colchester, Essex

1 Summary

An archaeological evaluation by geophysical survey followed by three trial-trenches has revealed a Roman cremation burial, two medieval or post-medieval features, and several modern cuts, perhaps rugby-pitch drains. The level at which archaeologically significant deposits were found was only 350mm below modern ground-level, though there is reason to believe that in other areas it may be as little as 200mm.

The presence of a single cremation burial in a sample of less than 1% of the proposed development area indicates that many more burials could survive here. They will undoubtedly be affected by the proposed development work.

2 Introduction

- 2.1 This is the archive report on an archaeological evaluation by geophysical survey and trial-trenching on the site of a proposed all-weather sports pitch on land at the Abbey Field sports ground, Circular Road North, Colchester, Essex (centred on TL 9954 2441).
- 2.2 A preliminary geophysical survey was carried out in December 1999 by Peter Cott. Following discussion with the Archaeology Officer of Colchester Borough Council, trial-trenching was carried out on 7th January 2000 by the Colchester Archaeological Trust (CAT). Post-excavation work took place between 10th and 12th January 2000.
- 2.3 All fieldwork was done in accordance with a specification agreed with the Archaeology Officer of Colchester Borough Council.
- 2.4 This report mirrors standards and practices contained in Colchester Borough Council's *Guidelines for the standards and practice of archaeological fieldwork in the Borough of Colchester* (1996).

3 Archaeological background (Fig 1)

- 3.1 There are records of many Roman burials from this area. In 1925, twenty-eight were recorded when the ground was levelled for a sports ground (Essex Sites and Monuments Record or ESMR 12384). This is the area now corresponding with the athletics track and the south-eastern edge of the rugby pitch. Another cremation burial was found in 1931 when the goal-posts were being erected. The top of the burial was found at a depth of about four inches from the surface (Colchester Museum Report 1932). A Roman kiln and rubbish-pit were found at the NAAFI, now the Arena Leisure Centre, in 1946 (ESMR 13232).
- 3.2 Large Roman cemeteries are known from the south and west sides of Colchester, and Roman burials are the commonest archaeological find in the Garrison area. The Colchester cemeteries have recently been discussed (Crummy 1993), so only a few general points will be made here. The density of burials is demonstrated by the very high numbers recorded at the Butt Road police station site (approximately a thousand), at Le Cateau Barracks (several hundreds), and at the Artillery Barracks (100+). Their distribution is clearly shown by the fact that they spread right down over the Abbey Field as far south as the Sobraon Barracks and as far south-east as the modern Colchester Cemetery. The apparent patchiness of the distribution of recorded burials (eg hundreds at Le Cateau, but none at the Cavalry Barracks) may have more to do with the willingness of builders to report discoveries (and the diligence of local antiquarians in chasing up and recording the discoveries) than the actual distribution of burials. If it is true that the Cavalry Barracks, the Sobraon Barracks and the Colchester Cemetery are on the outskirts of the main concentration of Roman burials, then the Abbey Field must be firmly within it.

4 Aim

The aim of the evaluation was to locate, identify and assess the quality and extent of any surviving archaeological remains on the site, with particular reference to the many Roman burials previously recorded from the area.

5 The trial-trenches

5.1 Two twenty-metre long trial-trenches (Trench or T1, T2) were dug in the locations shown on Figure 1, using a mechanical digger (JCB), with a 1.5m-wide flat-edged ditching bucket. Later, a smaller test-pit (T3) was dug at a distance of 75m from T1 in order to confirm the depth of topsoil or other modern overburden observed in T1 and T2.

5.2 Trench 1 (Fig 2)

Machine clearance started at the SW end of T1. Initially, both the turf/topsoil (Layer or L1) and the subsoil (L2) were removed down to the natural (L3), a total depth of 60cm. In this cleared area, Feature or F1 was exposed. With hindsight, this could be seen in section cutting from a higher level, but it was not at all clear during machining. F1 was a rectangular cut, obliquely aligned to the trench. It was fully excavated, and its fill produced Roman tile, medieval or later peg-tile, and undated animal bone. It is therefore a medieval or post-medieval cut.

North of F1, the machining level was raised in such a way that the trench bottom was actually within L2 subsoil (Fig 2). A cut containing a pot (F2) was immediately visible at this level. F2 was a bowl-shaped pit 50cm in diameter and 32cm below site level when excavated. However, it must have been at least 40cm deep (if not a little more) to accommodate the whole profile of the contained pot. The cremation pot itself is described below (section 6.2). The fill of the pot produced the expected cremated bone, as well as the broken neck of a flagon and an iron nail. The whole group is dated to the late Roman period (by the flagon neck rather than the cremation pot).

There were no further features in the remaining part of the trench.

5.3 Trench 2 (Fig 3)

With the knowledge of the depth at which archaeological material was found in T1, this trench was initially machined down to 55cm below ground-level (within L2). At this level, F4-F9 were visible. F4 was a steep-sided rectangular cut, in some ways similar to F1 in T1. It was excavated down to 1m below modern ground, where excavation was abandoned. Its fill produced slate, coal, slag, peg-tile and post-medieval pottery, thereby dating it to post-medieval or modern.

F5 was a shallow feature cut by F4. It shared the same dark brown loamy fill. It is unclear whether it is associated with F4, but this is quite likely.

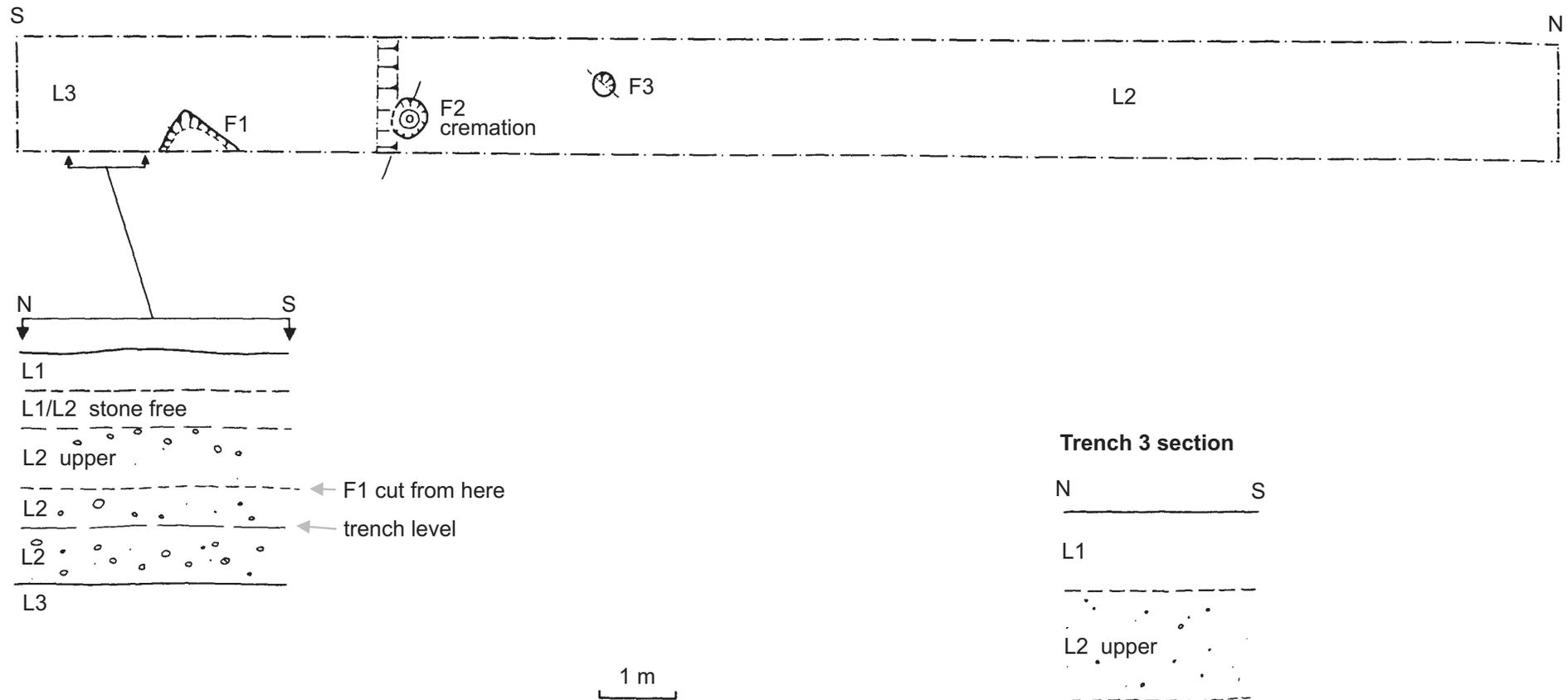


Fig 2 Trench 1 plan and section (top): Trench 3 section (bottom).

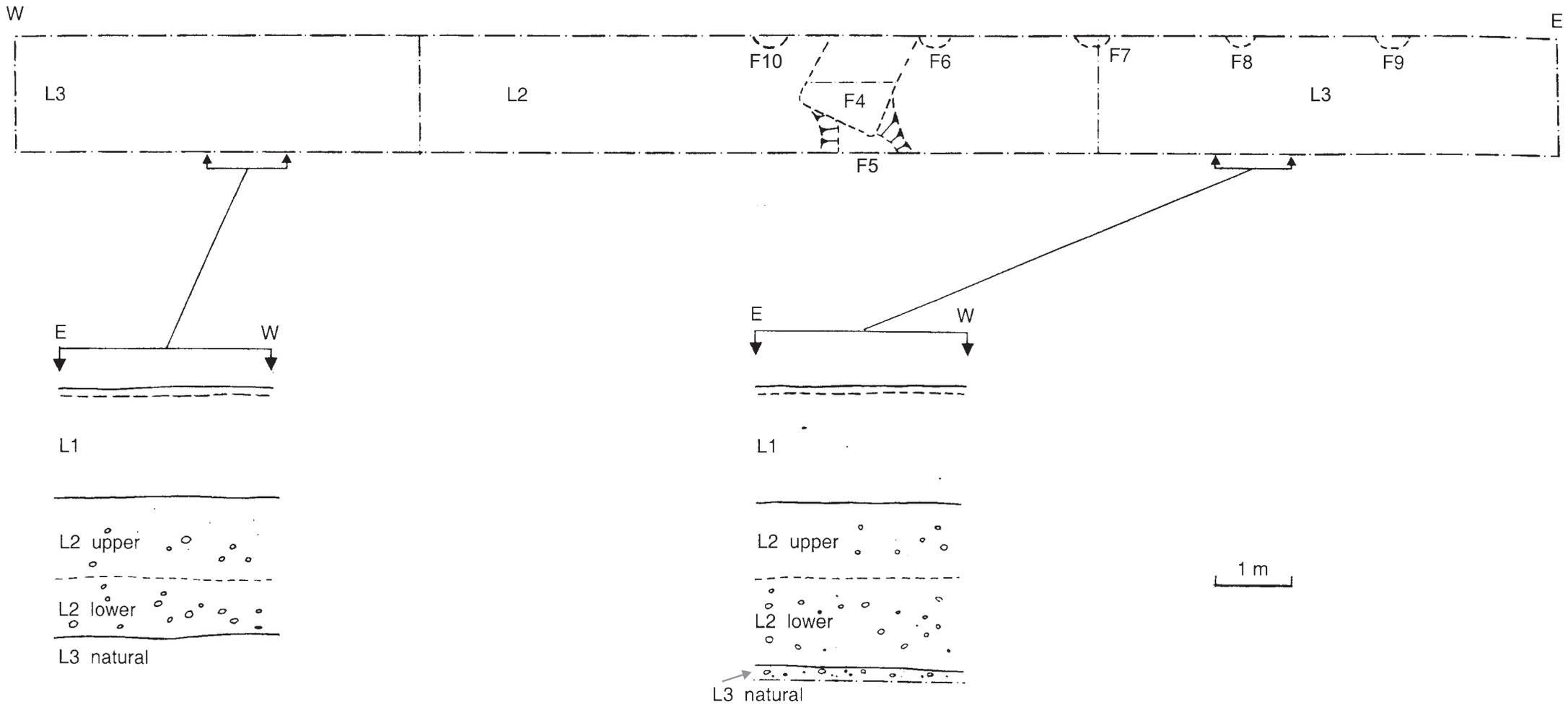
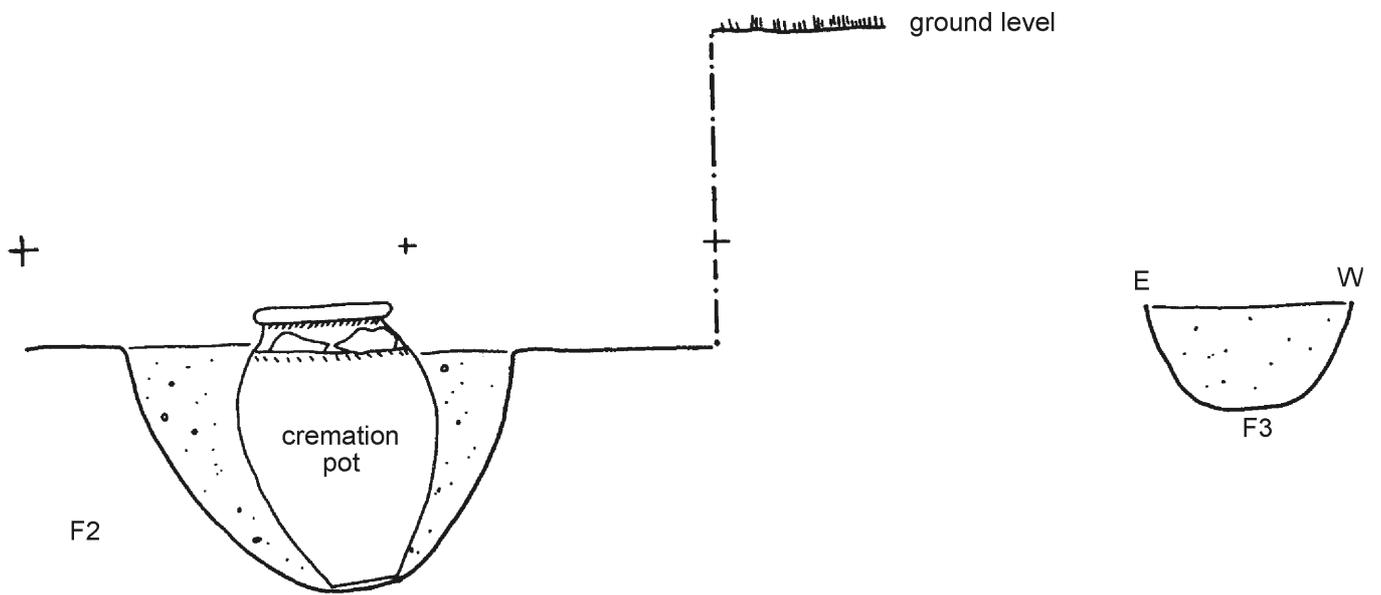
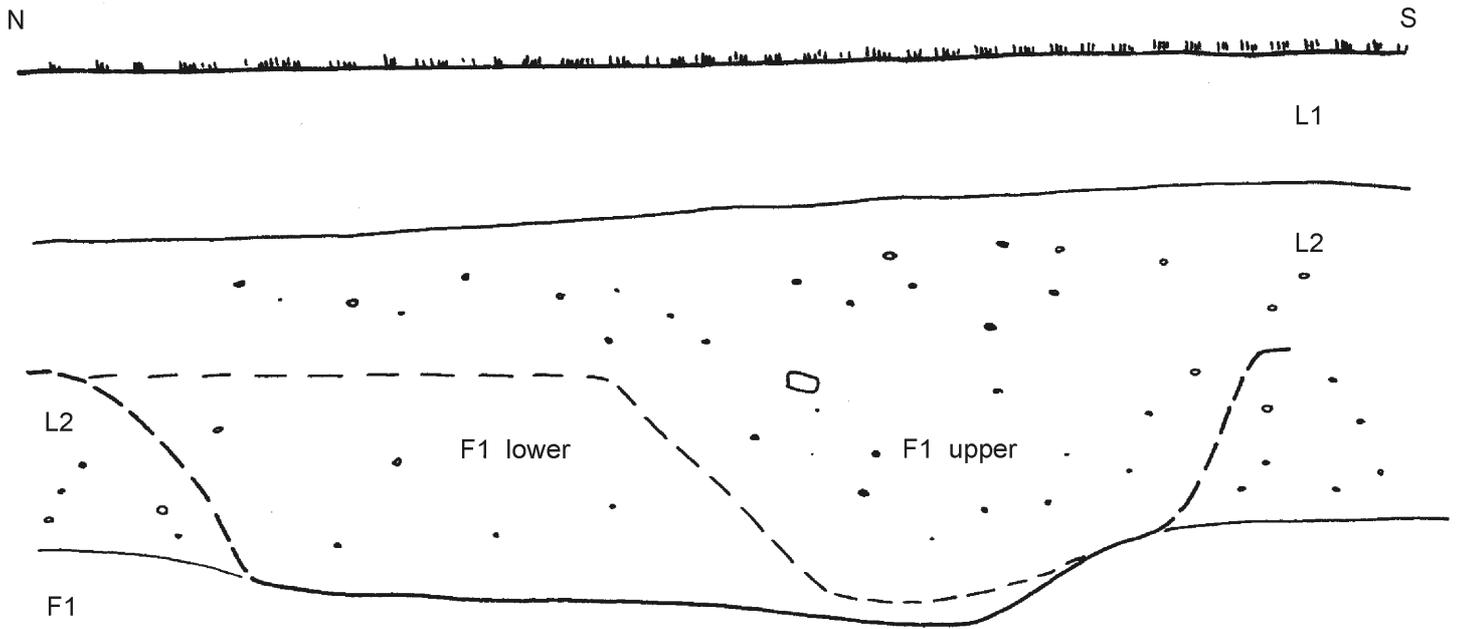


Fig 3 Trench 2 plan and sections.



50 cm

A horizontal scale bar with a double-headed arrow at each end, labeled '50 cm'.

Fig 4 Feature sections.

F6-F10 were seen cutting down from modern ground, typically to 0.7 or 0.9m below modern ground. They were filled with sand, and are most likely to be infilled post settings from a recent tattoo or similar event.

In order to test for the presence of features under L2, each end of the trench was machined down to natural (ie by removing L2 and exposing L3). No features were visible.

5.4 Trench 3 (Fig 2)

This trench, measuring 1.5m wide by 2m long, was positioned at a distance of 75m from T1 and T2 to confirm the general depth of soil cover over the site. In fact, the soil profile was the same as T1 and T2, with 20cm of topsoil (L1) over 50cm of dark brown subsoil (L2), over natural sandy gravel (L3).

No archaeological features or finds were seen.

6 The finds

6.1 Finds list

Weights are grammes. Medieval and later fabrics are after Cunningham (1985), and Cotter (forthcoming). U/s = unstratified.

Trench	Context	bag no	Quant	Weight	Description	Date
1	F1	2	3	140	Peg tile (1: 95 kept)	
1	F1	2	10	230	Proximal radius frags from large quadriped (<i>Bos, Equus?</i>)	
1	F1	2	2	35	indeterminate tile scraps (discarded)	
1	F2	5	4	55	Hadham ware flagon neck frags	mid-late 3rd or later
1	F2	6	1		cremation pot	
1	F2	7	1		iron nail	
1	F2	8			cremated bone	
2	F4	4	2	5	Coal	probably post-med
2	F4	4	1	15	Slag	?
2	F4	4	1	20	slate	medieval/post-med
2	F4	4	6	135	Peg tile (1: 55 kept)	medieval/post-med
2	F4	4	2	12	medieval pottery	
2	F4	4	3	15	Roman pottery	
2	F4	4	1	25	Roman tile	
2	F4	4	3	10	clay tobacco-pipe stem fragments	17th century or later
1	u/s	1	2	145	Burnt Roman brick (discarded)	
1	u/s	1	1	25	Wine bottle neck	18th-19th century
1	u/s	1	3	130	Peg-tile (discarded)	med/post-medieval
1	u/s	1	2	95	Medieval pot: 1 fabric 21a, 1 fab 20?	14th-16th century
1	u/s	1	4	390	Roman tile (1: 80 kept)	Roman
1	u/s	1	15	215	Roman pottery	Roman
1	u/s	1	1	5	Samian ware	Roman
1	u/s	1	2	70	Quern	Roman
1	u/s	1	5	50	Indeterminate animal bone frags (discard)	-
1	u/s	1	1	35	Iron object: bent nail, or hook?	?
2	u/s	3	1	1150	Greensand lump	
2	u/s	3	2	645	Tegula flange pieces	Roman
2	u/s	3	1	190	Tegula flat piece (discard)	Roman
2	u/s	3	5	535	Roman brick (1:135 kept)	Roman
2	u/s	3	2	100	Imbrex (1: 60 kept)	Roman
2	u/s	3	3	60	other Roman tile	Roman
2	u/s	3	5	225	Peg tile (1: 40 kept)	med/post-medieval
2	u/s	3	1	15	Burnt flint	possibly prehistoric
2	u/s	3	9	200	Roman pottery	Roman
2	u/s	3	2	50	Post-medieval pottery fabric 40 type	16th-19th cent
2	u/s	3	1	65	septaria	probably Roman

6.2 The Roman cremation pot by Stephen Benfield

Description

The pot from the cremation at the Garrison sports ground on the Abbey Field is a large coarse grey ware jar (*CAR 10*¹ fabric group GX: other coarse wares, principally locally produced grey ware), 34 cm tall with a maximum diameter of 28 cm. It is fractured around the rim and neck, but this clearly occurred during discovery and the pot until that point was intact. Immediately below the rim is a notched rather than frilled band, with a countersunk cordon at the base of the neck which is burnished. There is a further countersunk cordon below, and between these two cordons is a combed wave band. Just below the lower cordon on the shoulder of the vessel is a band of angle stab decoration above two burnished zones which alternate with a burnished wave pattern. The lowest part of the pot is burnished to approximately 9 cm above the base which has a small protruding footring. There is no clear *Camulodunum* (*CAM*²) Roman pottery type series form number, though jars with notched or frilled rims in fabric group GX are placed under *CAM* form 287-290 in *CAR 10* (Symonds & Wade forthcoming).

Discussion

The pottery form group *CAM* 287-290, which includes face pots as well as plain examples, is partly based on a decoration style and has a very broadly dated range, from the early Roman period to the 3rd century (*CAR 10*, pp 480-81), though the example here is clearly of mid-later Roman date. A very similar vessel to that from the Abbey Field sports ground is illustrated in *Roman Colchester* (Hull 1958, fig 65, no 63) and which came from the large group of pottery excavated from the fill of the 'mithraeum' in Castle Park, Colchester. Hull does not attribute it to any specific *CAM* form in his notes, describing it simply as a 'large urn' (Hull 1958, 137). The 'mithraeum' pottery deposit dates to the mid 4th century, though much of the pottery is residual and of 3rd-century date (*CAR 10*, 479). The top of a flagon from the Hadham kilns (*CAR 10*, fabric CH: oxidised Hadham ware) of *CAM* form 360/368 (flagon with a ledged rim) also came from the fill of the cremation feature. Oxidised Hadham products are recorded in small quantities from Colchester from the early-mid 3rd century, though it is most common in the 4th century, and several Hadham vessels of this form are also illustrated from the 'mithraeum' deposit (Hull 1958, fig 62). In respect of the dating evidence above, the cremation should probably date from the mid-late 3rd century.

¹ *CAR 10* refers to descriptions in Symonds & Wade 1999
² *CAM* refers to descriptions in Hull 1958



Fig 5 F2 Roman cremation pot.

6.3 The cremated bone by Alec Wade

The urned Romano-British cremation was found to contain the remains of an adult of small stature and undetermined sex weighing 1078 grams. Most parts of the body were present in the deposit from the head and arms to the lower legs, but no sets of paired limbs could be reliably identified (such as both a left and right humerus or femur for example). This fact, in conjunction with the low weight of the cremation, may suggest that the deposit does not represent a complete individual. Extremities such as the hands and feet were also poorly represented with only a couple of fragments being identified. A single fragment of animal bone (part of a pig's ulna) may also have been present in the deposit.

The age of the individual is partly suggested by the mature epiphyseal union noted on a fragment of a distal humerus and a proximal radius. This union usually occurs as a young adult. Although fragments of two teeth were recovered these were too damaged to provide information regarding the subjects age. It was not possible to establish the sex of the individual.

The colour of the bone was mid to light brownish white with some fragments displaying a charred black to bluish grey centre or cortex. Moderate to severe fissuring and distortion (related to extreme heat) was also noted in a small amount of the material. These conditions were most apparent in the bones of the upper arms, hips and legs.

The average size of the identifiable fragments is estimated at 30-40mm with a couple of exceptional femur and tibia fragments measuring up to 78 mm. The majority of the remaining fragments were in the 10-20mm or smaller range.

The identifiable fragments included:

<u>Skull</u>	Thirty pieces of skull ranging in size up to 42mm. Three pieces displayed open suture lines.
<u>Teeth</u>	Four fragments belonging to two teeth, a small molar and a pre-molar.
<u>Mandible</u>	A single fragment of mandible measuring 22mm.
<u>Vertebrae</u>	Twenty-eight fragments measuring up to 46mm in size. The cortex of two pieces was bluish-grey in colour. Three cervical vertebrae appeared to be unusually small in size compared with the other fragments recovered. However it was not clear if this variation was natural (perhaps exaggerated by shrinkage caused by the cremation activity) or evidence of a second individual represented in the deposit.
<u>Scapula</u>	Four pieces all from the right scapula measuring up to 38mm in size.
<u>Humerus</u>	Eight fragments of humerus ranging in size up to 34mm including part of a distal right articular joint. Several pieces were distorted or heavily fissured. The centres of two other pieces had bluish grey centres.
<u>Radius</u>	Two pieces including part of the fused proximal joint. The largest piece measured 40mm.
<u>Ulna</u>	A single possible fragment measuring 25mm.
<u>Ribs</u>	Two fragments of rib measuring up to 40mm. One piece was heavily fissured and distorted.
<u>Pelvis</u>	Four fragments of pelvis including part of the acetabulum. One piece was charred bluish-grey and another was heavily fissured and distorted.
<u>Femur</u>	At least fifteen fragments of diaphysis ranging up to 73mm in size. One piece identifiable as being from the left femur. Several pieces are charred black to bluish grey in their centres.
<u>Fibula</u>	Eleven pieces of diaphysis ranging in size up to 43mm. Three pieces were distorted and had bluish-grey centres.
<u>Tibia</u>	Five fragments of diaphysis, the largest of which was 78mm long. Most of the fragments were distorted and one piece was heavily fissured.
<u>Phalanges</u>	Two small pieces including an articular end.

7 Discussion and interpretation

The discovery of an intact Roman burial confirms that Roman cremation burials still survive here despite a number of them having been lifted (in 1925 and later) and despite the levelling of the ground for the sports pitch.

The burial is, of course, located in a previously known Roman cemetery. It belongs to Crummy's ³ Area H, and Rex Hull's ⁴ Abbey Field Cemetery, which together form the largest and most important cemetery area in Roman Colchester ⁵. Figure 1 of this report plots this burial against the previously known burials from the sports ground.

The circumstances of the discovery of the cremation pot (where the cut was not visible in the top of L2) would suggest that the original burial was made from higher up in L2, but subsequent disturbance has removed traces of the cut at that height. Whether this disturbance is due to agriculture, or the construction of the sports field is unclear.

Apart from the cremation burial, the presence on this site of Roman domestic debris (including pottery, bone, tile, brick and quernstone) is interesting. There are two ways to explain this - either there was some domestic activity here (perhaps before the area became a cemetery), or waste debris was dumped here from adjacent areas. It would perhaps be unusual to dump debris into an active cemetery area, so the idea that there was domestic activity here before the plot was taken over as a cemetery is the more attractive idea.

³ Crummy 1993, 259-60
⁴ Hull 1958, 255
⁵ Crummy 1993, 262

8 Acknowledgements

The geophysical survey was carried out by Peter Cott. Site work was supervised by Stephen Benfield, assisted by Colin Austin, Nigel Rayner and Philip Lomas. The project was monitored by Martin Winter for Colchester Borough Council. Report text and Figures by Howard Brooks. Thanks to:

- WS Atkins Consultants Ltd for commissioning the work
- Colchester Garrison for access and other assistance.

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10 Glossary

context	specific location on an archaeological site, especially one where finds are made
ESMR	Essex Sites and Monuments Record
feature	an identifiable thing like a pit, a wall, a drain, a floor; can contain 'contexts'
<i>imbrex</i>	Roman roof tile, fits over <i>tegula</i>
intrusive	early material out of place in a later context (eg a Coke bottle in a Roman pit)
medieval	from AD 1066 to Henry VIII
NGR	National Grid Reference
natural	geological deposit undisturbed by human activity
post-medieval	after Henry VIII and up to Victorian
prehistoric	the years BC, before Roman
quernstone	stone on which cereal grain is ground into flour
residual	an earlier object out of place in a later context (e.g. a Roman coin in a Victorian pit)
Roman	period from AD 43 to around AD 430
septaria	argillaceous sandstone used by Romans as the principal local building stone
<i>tegula</i>	Roman ceramic roof-tile
u/s	unstratified (no context)

11 Archive deposition

The finds and paper archive are held at Colchester Archaeological Trust, 12 Lexden Road, Colchester, Essex CO3 3NF, but both will be permanently deposited at Colchester Museum, under accession code 2000.1.

12 Site data

12.1 Site context list

Trench	Context	Description	Finds date	Context date
1	L1	topsoil	none	modern
1	L2	subsoil	Roman	Roman, disturbed later?
1	L3	natural sand / gravel	-	-
1	F1	rectangular cut	post-medieval	post-medieval
1	F2	cremation pot in cut	later Roman	later Roman
1	F3	small cut	none	unknown
2	L1	topsoil	none	modern
2	L2	subsoil	Roman	Roman, disturbed later?
2	L3	natural sand / gravel	-	-
2	F4	rectangular cut	post-med/modern	post-med/modern
2	F5	shallow cut	none	post-med/modern?
2	F6	sand-filled drain-hole	none	modern
2	F7	sand-filled drain-hole	none	modern
2	F8	sand-filled drain-hole	none	modern
2	F9	sand-filled drain-hole	none	modern
2	F10	sand-filled drain-hole	none	modern

12.2 Soil descriptions

Trench	Context	Description
1-3	L1	Turf over mid-dark grey brown slightly sandy loam. Occasional small/medium tile flecks.
1-3	L2	Dark brown sandy loam, common small and medium pebbles. Becomes sandier and orange towards the bottom, bottom 15cm are particularly sandy and orange. In some sections, this layer is split into the zones described.
1-3	L3	Clean natural sandy gravel.
1	F1 upper fill	10 yr 3/3 dark brown sandy loam with pebbles.
1	F1 lower fill	10 yr 5/4 yellowish brown sandy loam.
1	F2 fill	10 yr 4/4 dark yellowish brown sandy loam, occasional small pebble.
1	F3 fill	10 yr 4/4 dark yellowish brown sandy loam, occasional small pebble.
2	F4 fill	Dark brown sandy loam
2	F5 fill	Dark brown sandy loam
2	F6-10 fill	clean sand

10th-19th January 2000

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Appendix

Geophysical survey

by Peter Cott

GEOPHYSICS SURVEY REPORT

COLCHESTER BARRACKS SPORTS FIELD

Peter J. Cott

12th January 2000

Introduction.

A magnetometer survey was carried out on the Colchester Barracks Sports Field in December 1999 and January 2000 at the request of the Colchester Archaeological Trust.

The objective was to identify, if possible, any archaeological anomalies, particularly cremation burials, which would be subject to further investigation by the Trust before the area was redeveloped.

Site Description.

An area of about 1.5 hectares was marked out by the Trust. This area covered the whole of the Rugby pitch, and the edges of the football pitch. The Sports Field adjoins the south side of Circular Road North within the Colchester Barracks complex. The site plan is shown in Figure 1.

It was immediately obvious that the site contained a considerable quantity of modern iron objects, ranging from metal sockets set into the ground to metal circles and manhole covers. Some of these items are marked as small circles in Figure 1.

Method Employed.

The instrument used was a Geoscan FM18 Fluxgate Magnetometer, set to its most sensitive scale which allows readings down to 0.1 nanoTesla.

This instrument detects the minute changes in the earth's magnetic field close to the surface of the soil caused by the presence of certain artefacts. These include man-made ditches, kilns, fired pottery and ferromagnetic items of an archaeological nature. A response is also registered from other ferromagnetic materials such as drainage systems, agricultural iron and modern iron materials such as nails.

The area to be surveyed was divided into thirty-seven squares, each with sides of 20m. Readings were taken with the FM18 instrument at 0.5m intervals in the North-South direction, and at 1m intervals in the East-West direction. There were thus 800 readings per square.

The readings were downloaded into a laptop computer on site, and finally processed in a desktop computer at base. The computer program employed was InSite, from GeoQuest of Durham. This permits the operator to change the contrast of the plot, to match the gain of each square to its neighbours, and to produce a final plot of the complete survey.

The survey result is shown in Figure 2.

Discussion of the results.

From an inspection of Figure 2 it can be seen that there are four major drainage routes across the survey area, three of which were identified on the plan of services. The large black and white responses, such as those in squares 31 and 32 are caused by the modern iron artefacts referred to above. These large responses effectively blot out much of the area around them, so that any responses due small archaeological anomalies can be lost.

Much of the north-west corner of the plot is affected in this way, and this includes the magnetic response due to the metal fence around the pavilion on the west side of the ground. The fence on the south-east side of the field also produces a large response.

The small black line running through squares 8, 17 and 20 may represent a ditch.

In square 21 there is a double linear response running north-south, and this is associated with a much "busier" set of responses in this area than in the rest of the plot. This could be represent part of the foundations of a building, or a trackway with ditches either side.

There are four large irregularly-shaped responses in squares 29 and 30. Whist these seem to have the response due to metal, they are not the usual point source responses, and should be investigated.

To the north of the pipeline in square 30 there is a line of responses running north-south, but broadside to the alignment, which does not appear to have the appearance of a drainage pipe.

In square 33 there is the faint outline of an oval feature.

In many parts of the plot there are concentrations of small responses – squares 27 and 29 are examples of this. As the magnetic signature of a cremation burial is usually very small and localised, it is possible that some of these responses are archaeologically significant.

5. Conclusions.

No large archaeological feature has been identified in the survey results. However, a number of small anomalies have been mentioned in section 4, and these should be investigated further. The use of a metal detector would eliminate quickly those anomalies caused by modern iron fragments.

6. Acknowledgements.

Thanks are due to the Garrison Authorities for permission to survey the Sports Field, to the Colchester Archaeological Trust for marking out the survey area, and to Mr. M. Matthews for invaluable help during the survey.

END

Barracks Sports Field

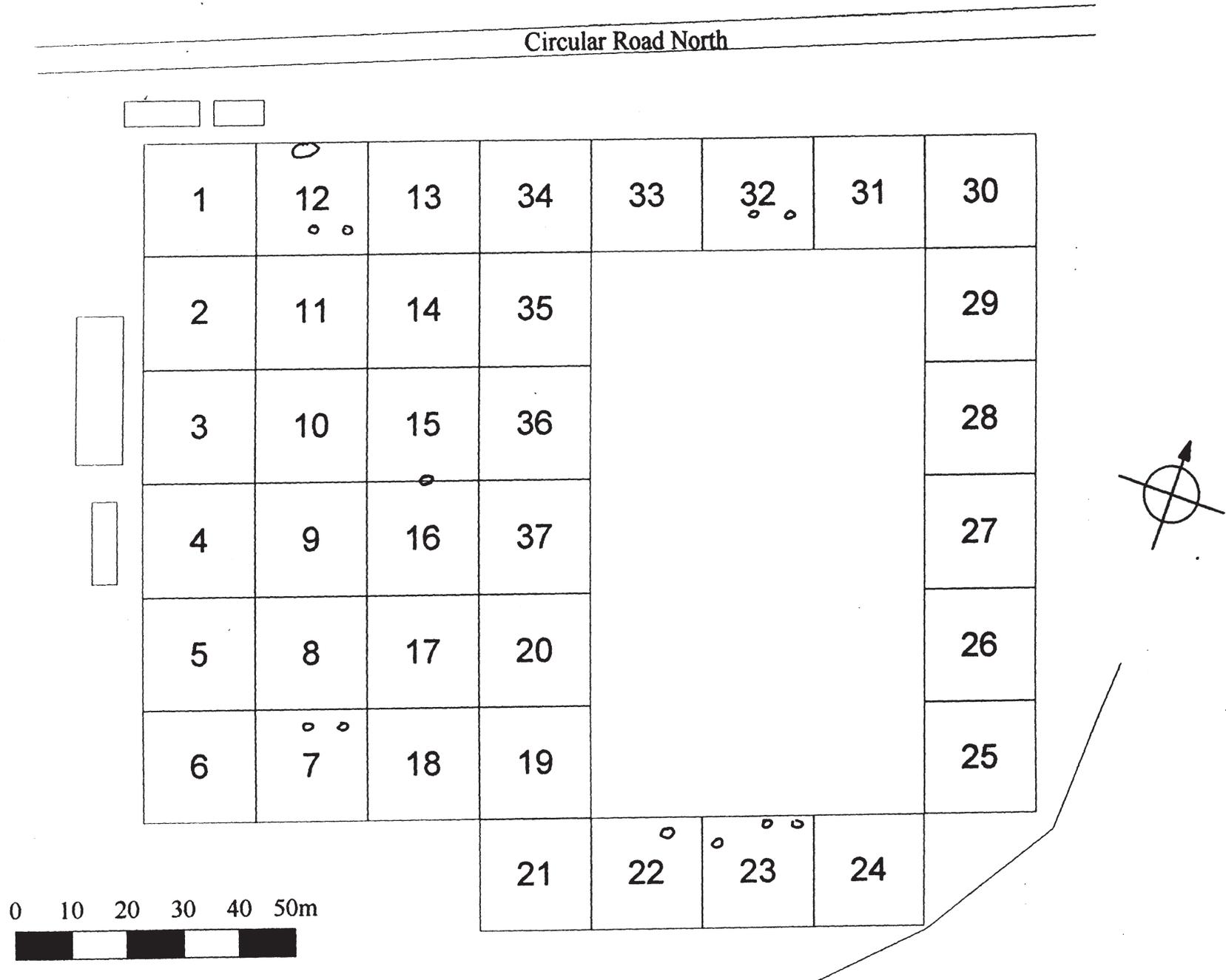


Figure 1

Circular Road North



Figure 2 RAW DATA

Barracks Sports Field

Circular Road North



Figure 2 SMOOTHED DATA