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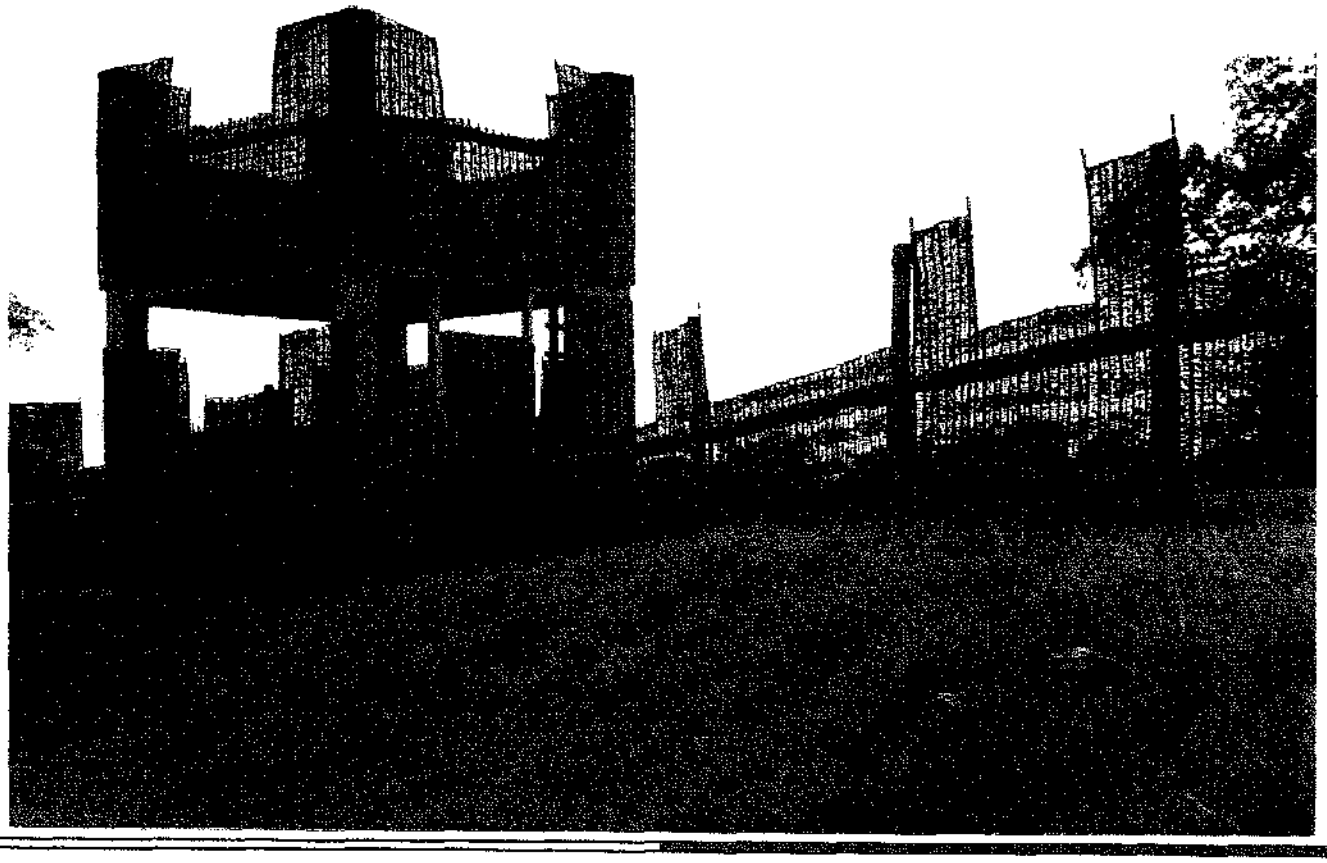
ARCHAEOLOGICAL EVALUATION 1999 AREA C



Birmingham University Field Archaeology Unit

Birmingham University Field Archaeology Unit
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Archaeological Evaluation 1999
Area C

by
Alex Jones

with contributions by
Lynne Bevan, Jane Evans, Annette Hancocks and Wendy Smith

For further information please contact:
Simon Buteux, Iain Ferris or Gwilym Hughes (Directors)
Birmingham University Field Archaeology Unit
The University of Birmingham
Edgbaston
Birmingham B15 2TT
Tel: 0121 414 5513
Fax: 0121 414 5516
E-Mail: BUFAU@bham.ac.uk
Web Address: http://www.bufau.bham.ac.uk

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AREA C

1.0: SUMMARY

This report describes the results of an archaeological evaluation conducted in advance of proposals for a new hospital development. The Area C evaluation involved the excavation of a total of 22 trial-trenches to the west and south of the complex of Roman forts at Metchley, Birmingham. The evaluation was undertaken in tandem with a desk-based assessment which also examined other areas affected by the proposals. The results of evaluation in Areas A and B are detailed in a separate report.

Trial-trenching outside the fort's western defences identified a pebble surface, probably adjoining the roughly east-west aligned road entering the fort's western gate. The other features identified by trenching comprised drainage and plot boundary ditches, and post-holes, some possibly defining fence alignments. Spreads of charcoal-rich soil were also deposited adjoining the pebble surfaces. These features and deposits together define a small extra-mural Roman settlement, located outside the western fort defences. The differing ditch alignments suggest more than one phase of activity. The pottery dating suggests the settlement may be Claudian-Neronian in date, broadly contemporary with Phases 1-2B at the Metchley forts. In addition to the Roman features, some features and disturbances of post-medieval date were recorded, together with more widespread evidence for recent dumping.

Trial-trenching adjoining the northern bank of the Bourne Brook identified a ditched boundary possibly defining the southern limits of an 18th-century hunting park.

2.0: INTRODUCTION

2.1: Background

This report describes the results of an archaeological evaluation of an area of overgrown land located to the south of Vincent Drive (hereafter called the site: centred on NGR. SP 041831, Fig. 1: Area C). Birmingham University Field Archaeology Unit was commissioned to undertake the evaluation by the University Hospital Birmingham NHS Trust in advance of a proposed hospital development. The evaluation was undertaken in accordance with the guidelines contained in Planning Policy Guidance Note 16 (Department of the Environment, November 1990), and Policy 8.36 of the Birmingham Unitary Development Plan. The methodology of the evaluation conforms to a Written Scheme of Investigation prepared by BUFAU (BUFAU 1999). The fieldwork and reporting has been undertaken in accordance with the 'Standard and Guidance for Archaeological Field Evaluation' (Institute of Field Archaeologists 1994).

The archaeological evaluations, and the more extensive desk-based assessment, consider all areas potentially affected by the hospital development proposals and together form the archaeological component of the environmental assessment of the proposed hospital development, which will be summarised in the Environmental Statement. The archaeological evaluation was concentrated within the western part of the defences and interior of the Roman forts (Areas A and B, Jones 1999a: Fig. 1), and also included land to the south of Vincent Drive, outside the fort defences (Area C), described in this report. Area C is defined on its northern and southern boundaries by Vincent Drive and the Bourne Brook respectively. Its western boundary is formed by a housing estate set in the angle between Vincent Drive and Harborne Lane, and the eastern area boundary follows part of the line of the western defences of the Roman forts and an existing property boundary to the south.

Details of the archaeological context of the forts and the surrounding area are contained in the archaeological assessment (Jones 1999b) and will not be repeated here. Briefly, although Area C is located wholly outside the Roman fort context, traces of outer military features, possibly including a western ditched annexe might be anticipated here. The flat, well-drained plateau in the northeastern corner of Area C, bounded on its eastern and western sides by stream-courses and by the fort defences respectively, was thought to provide a favourable location for a Roman civilian settlement associated with the occupation of the forts. The assessment also noted the potential of the zones adjoining stream-courses to be associated with burnt mounds of early prehistoric date. Finally, the southern boundary of a hunting park was thought to be located on the northern bank of the Bourne Brook.

For simplicity, in the following account it is assumed that the main axis of the forts is north-south, although the maps and drawings remain labelled with compass north. This report is illustrated with a selection of the plans and sections prepared during the fieldwork. Further details may be found in the archive, which it is proposed to deposit with Birmingham Museum and Art Gallery, subject to permission from the landowners.

2.2: Aims

The overall aim of the evaluation was to provide information concerning the extent, dating, survival and significance of the archaeological deposits potentially affected by the proposed development. The detailed aims of trial-trenching in Area C were as follows:

1) To test the areas adjoining stream-courses for evidence of prehistoric burnt mounds, or associated features and deposits.
2) To consider the evidence for a possible civilian settlement and/or a military annexe or other defensive features located to the west of the forts.
3) To assess the potential of any environmental data associated with datable deposits, paying particular attention to waterlogged, or possibly waterlogged, deposits.
4) To consider the evidence for post-medieval activity in the area, including any evidence for the post-medieval re-use of surviving Roman military features (e.g. ditches).

3.0: METHODOLOGY (Figs. 1-3)

Since no detailed layouts of the proposed hospital development were available, it was decided to target the trial-trenches as widely as possible within the areas of archaeological potential in Area C. Location of the trial-trenches was constrained by groups of trees, including former orchards, the subject of blanket Tree Preservation Orders, by the routes of live services, and also by the depth of modern dumped deposits in certain parts of Area C. Nevertheless, the trench plan was devised to provide as representative a sample of the buried archaeology as was possible, and also to attempt to establish the degree of sub-surface disturbance caused by the modern land-use.

Within Area C three areas of archaeological potential were selected for trial-trenching. The southern area, adjoining the northern bank of the Bourne Brook (Trenches C1-C4: Fig. 2), comprised a mostly flat plateau, with a band of trees adjoining the brook. The northeastern zone (Fig. 3) mainly comprised a plateau (Trenches C5-C8, C10, C19-C20) adjoining the fort's western defences, located to the east of two parallel stream-courses. The remainder of this zone comprised a natural, southwestern-facing scarp (Trenches C9, C11, C12/C14, C13/C15), partly masked by modern dumping. The northwestern area (Fig. 3) comprised a slightly raised plateau, also created by modern dumping, overlying the natural stream-channels and the adjoining valley (Trenches C16-C18).

In the northeastern zone the trial-trenches were dug in two stages. In the first stage the areas available for trial-trenching were sampled as widely as possible. In the second stage, further trial-trenches (C5 northern extension, C20, C19 and C21) were located around those already excavated, to provide additional details of the layout and extent of the Roman settlement.

Topsoil and modern make-up deposits in each trench were removed by a mechanical excavator with a toothless ditching bucket, working under archaeological supervision. Machining exposed the uppermost archaeological horizon or the subsoil, where it was safe to do so. The machined surface was then hand-cleaned and base-planned. All subsequent excavation was by hand, and involved the selective sampling of feature types sufficient to define their form and preservation, and to recover datable finds and environmental data. A metal detector was used as an aid for finds recovery. 20 litre samples for general biological analysis were collected from a selection of datable features, with particular attention being paid to waterlogged, or possibly waterlogged, deposits.

Area C was not suitable for alternative evaluation strategies, such as fieldwalking or geophysical survey, because of the dense vegetation and tree cover, the extent of the buried demolition rubble, and the depth of the overburden.

Recording was by means of pre-printed pro-formas for features and contexts. Contexts (comprising the topsoil, subsoil, overall layers and feature fills) were recorded in a four digit numerical sequence. Features (such as ditches, beam-slots, pits, post-holes and 'positive' features, such as pebble surfaces) were recorded in a three digit

numerical sequence, prefixed by an 'F'. Where several hand-excavated sections were dug through the same linear feature, these are distinguished not only by the use of different context numbers for the feature fills (even if apparently the same), but also by the use of a decimal suffix for each hand-dug section through the feature (e.g. F1504.01, F1504.02 etc.). Plans were prepared at scales of 1:20 and 1:50, and sections were drawn at scales of 1:10 and 1:20 as appropriate. The evaluation trenches were also recorded photographically. Trench locations were established with reference to the National Grid using a Total Station EDM.

4.0: RESULTS

4.1: Introduction

For simplicity in the following account Area C has been sub-divided into three zones, southern, northwestern and northeastern, which are described in turn. For clarity, details of those trenches where no features or deposits of archaeological significance were identified have been tabulated (Appendix 1). Details of datum heights, and the heights of archaeological features and the subsoil are also tabulated (Table 2). Description of the trial-trenching results is followed by a summary of the pottery dating evidence, and an interpretation section.

4.2: Objectives

Trenching in the southern Zone of Area C aimed to locate any prehistoric burnt mounds adjoining the Bourne Brook, and also to intercept the possible ditched boundary of a post-medieval hunting park. The northeastern zone was trial-trenched to test the potential of this area to contain the remains of Roman settlement, and/or of outer military defences to the adjoining forts. The northwestern zone of Area C was examined in an attempt to locate any prehistoric burnt mounds located adjoining the known stream-courses, and also to sample any associated stream-deposits.

4.3: Southern zone (adjoining Bourne Brook, Trenches C1-C4: Fig. 2)

Description

Trench C2 (S.1, Fig. 4) measured 16m by 1.6m, and was aligned approximately north-south. A layer of round, worn quartz pebbles (2104) was located at the southwestern end of the trench. This pebble deposit was overlain by clean yellow silt-clay (2105) at the southern end of the trench. This layer was cut by the southern edge of an east-west aligned ditch (F1100) which could not be fully excavated due to the high water-table. The ditch was backfilled with off-white silt-clay (2103). This deposit was truncated by the cut for a recent land-drain (F1101), whose backfill (2102) was sealed by the topsoil (2100) and by a layer of red clay (2100).

Details of Trenches C1, C1A, and C2-C4 (not illustrated) are tabulated (Appendix 1).

Interpretation

The layer of quartz pebbles (2104), located adjoining the modern course of the Bourne Brook, represents the base of a former stream channel. Overlying layer 2105 may be interpreted as an alluvial deposit. Ditch F1100 corresponds with the position and alignment of the southern hunting park boundary ditch, recorded on earlier editions of Ordnance Survey maps (1890, 1904, 1917). No dating evidence was recovered from the trench, with the exception of modern pottery fragments from the uppermost layers (2100-1).

4.4: Northeastern zone (Trenches C5-C15, C19-C21: Fig. 3)

In this section of the report the trenches are described from north to south.

Trenches C5 and C20 (Figs. 4-5)

Description

Trenches C5 and C20, together forming a T-shape, investigated the area immediately to the south of Vincent Drive. Trench C5 was 3.2m in width, and was extended to a total length of 30m. It was joined by Trench C20, which measured 1.6m by 15m. Trench C5 was aligned southwest-northeast, and Trench C20 was cut on a northwest-southeast alignment.

The natural subsoil, comprising a grey silt-clay (3809) in Trench 20, was recorded at 1.3m below the modern surface. The subsoil was cut by a shallow ditch (F2900), aligned approximately east-west, and also by a circular post-hole or pit (F2901). The gully was backfilled with grey-brown sand-clay (3804), and the pit was backfilled with red-brown-and-grey deposits of sand-clay (3805-8). The southern edge of a cut (F2902), backfilled with red clay, was recorded but not excavated at the northwestern end of the trench. The subsoil and the backfilled features in Trench C20 were sealed by dumped deposits (3800-3803, 3809: not illustrated) principally comprising brown soils and redeposited red clay subsoil.

The subsoil (2307), a grey silt, was exposed at the northeastern end of Trench C5 at a depth of 0.8m below the modern surface. The subsoil was overlain by a mottled layer of light grey sand (2325: Fig. 4, S.2-3), measuring up to 0.1m in depth. Towards the centre of the trench the upper infills of a natural palaeochannel (not illustrated in plan), aligned approximately northeast-southwest, were exposed during the excavation of a ditch (F1400, see below). The excavated palaeochannel infills comprised a black organic deposit (2320: S.4, Fig. 4), sealed by a banded deposit comprising alternate lenses of pink sand and gleyed white silt (2321).

Towards the centre of Trench C5 a narrow, northwest-southeast aligned ditch (F1402; S.2, Fig. 4) was cut through layer 2325, into the underlying subsoil. The ditch was backfilled with dark grey silt (2303). Layer 2325 was sealed by a deposit of yellow sand (2327: S.3), which was overlain by a deposit of mid-grey sand-silt (2326: S.2-3), flecked with charcoal, containing heat-shattered quartz pebbles. This deposit was

sealed by a layer of mixed and mottled orange-red-brown silt-sand (2329: S.2-3), flecked with charcoal.

Towards the southwestern end of the trench an irregular pebble surface (F1504.03), overlay the subsoil. The surface was truncated by later disturbances (2301, 2312). A broad, northeast-southwest aligned ditch (F1400.01, S.4, Fig. 4, F1400.02) was cut into the infilled palaeochannel (2320-1), and into the pebble surface. The ditch was irregular in profile, measuring a maximum of 5m in width and 0.6m in depth. It was backfilled with mottled orange-grey silt-clay (2308), sealed by a light grey silt-sand (2301). Layer 2301 was cut by two small circular pits or post-holes (F1403, F1407), both backfilled with grey silt (2309, 2319 respectively).

Three shallow, roughly north-south aligned disturbances (F1401, F1404 and F1408) were recorded in the northern half of the trench. The latter two features were cut into infilled ditch F1400.01. Further disturbances containing red clay (2301) and topsoil (2312) were defined cutting the pebble surface (F1504.03), but were not excavated. The backfilled features and deposits were sealed by the modern topsoil (2300), and by a layer of redeposited red clay (2311) recorded towards the southwestern end of the trench.

Pottery and dating evidence

The Roman pottery from Trench C5 was not diagnostic, with the exception of a flat-topped everted-rim jar/bowl recovered from layer 2329. A fragment of a glass pillar-moulded bowl dated to the second half of the 1st century was recovered from feature F1400 (2308). No Roman pottery was recovered from Trench C20. Features F2902 (Trench C20) and F1401 (Trench C5), and deposits 2300-1 and 2311-2 contained post-medieval pottery and glass.

Interpretation

Layer 2325 overlying the subsoil may be interpreted as a buried turf horizon.

Surface F1504.03 may be interpreted as part of the east-west aligned road exiting the fort's west gate, or of an adjoining pebble surface, also recorded in Trenches C6 and C19-C21 to the south (see below). The positioning and alignment of ditch F1400 suggest it may have formed a drainage ditch along the northern edge of the pebble surface, although the ditch is admittedly rather large to have fulfilled a purely drainage function. The ditch appeared to be cutting the pebble surface, although this may result from no more than a cleaning-out of the ditch silts. Ditch F2900 may have respected the alignment of ditch F1400 and the pebble surface. Features F1403 and F1407 cut into the backfill of ditch F1400, and feature F2901 to the north may have defined the positions of the timber uprights of a fence, post-dating the abandonment and infill of the roadside ditch.

Layers 2326, 2327, and 2329 located adjoining the northern edge of ditch F1400 may represent the *in situ* accumulation of occupation deposits, possibly incorporating debris including charcoal from adjoining hearths or ovens.

Unexcavated cut F2902 (Trench C20) corresponds with the position and alignment of the northeast-southwest aligned arm of an L-shaped ditched feature recorded on recent Ordnance Survey mapping adjoining the southern edge of Vincent Drive. Features F1401, F1402 and F1408 may be interpreted as ruts caused by the wheels of a mechanical excavator. Further features of similar origin were also found on a similar alignment in Trenches C6 and C10 to the south. Layers 2301, and 2311-2 are the result of modern dumping.

Trenches C6-C8, C10, C19, C21 (Figs. 4-5)

Description

Trenches C6, C7 and C10, each 3.2m wide, together formed a slightly inturned U-shape. Trenches C6 and C10 were aligned approximately east-west, and measured 22m and 11m respectively. Trench C7 was aligned approximately northwest-southeast, and measured 22m in length. Adjoining Trenches C19 and C21 measured 1.6m in width, and 9m and 7m in length respectively. Trench C8 measured a maximum of 16m by 3.2m.

The subsoil recorded in Trenches C6 and C7 comprised a grey-white silt-clay (2510), recorded at a depth of 0.8m below the modern surface. In the east of Trench C6 the subsoil (2510) was sealed by a layer of grey silt (2407, 2412: S.5, Fig. 4), which may be the same deposit, although separated by a modern disturbance. Layer 2407 was sealed by a shallow charcoal layer (2406). This deposit was overlain by a layer of mottled yellow-orange sand-silt (2408, 2411), again not contiguous, but probably originally the same deposit. A shallow, north-south aligned ditch (F1505) was cut through layer 2408, and into the underlying subsoil. The ditch was cut to a V-shaped profile, and was backfilled with brown sand (2405).

In the south of the trench was a compact pebble surface (F1504.01: S.6, Fig. 4) which overlay the subsoil. This surface comprised an area of close-set metalling (2404), also recorded in Trench C19 to the west (as F1504.02). In Trench C6 surface 2404 adjoined a band of loose small pebbles and fine gravel (2415). This layer was cut by a southwest-northeast aligned ditch (F1606.01: S.5), also recorded to the west (F1606.03: Trench C19). The ditch was dug to a U-shaped profile, and was backfilled with orange silt (2514), sealed by a deposit of grey clay-silt (2513), overlain by a mottled layer of brown-grey silt-sand (2512), including a quantity of fine gravel. To the south lay an approximately east-west aligned ditch (F1604). This ditch was dug to a U-shaped profile, and was backfilled with brown silt (2504). Backfilled ditches F1604 and F1606 were cut by a further ditch (F1603: S.7, Fig. 4), aligned northeast-southwest. It was cut to a stepped U-shaped profile, and was backfilled with grey silt (2503). A further ditch (F1513) was cut along the southeastern edge of part of the excavated length of feature F1603.02.

To the south of ditches F1603-4 were two intercutting pits or post-holes (F1600-1: S.8, Fig. 4), and an irregularly-shaped small pit or post-hole (F1602: all Trench C7). A further pit or large post-hole (F1900: Trench C10) was located further to the south.

Sealing the subsoil (2510) in Trenches C10 and C21 was a pebble surface (F1902.01, F1902.02), possibly aligned approximately north-south. Neither the full width or exact orientation of this surface could be recorded because of later disturbances (F1605.01: S.9, Fig. 4, F1605.02 and F1908.01). Towards the eastern end of Trench C10 a layer of orange-brown silt-sand (2809) overlay the subsoil (2510).

A number of later features or disturbances was also located in these trenches. A vertically-sided trench (F1507: S.5) was through deposits 2408-9, and 2411-2 in the east of Trench C6. Approximately north-south aligned features F1501-2 were cut into backfilled ditches F1603.03 and F1606.02. Disturbances F1500, F1503 and F1506 were cut into surface F1504 in Trench C6, and north-south aligned ditches F2801-2 were cut into the southward continuation of the same surface in Trench C19. Ditches F1605 and F1908 (both recorded in Trenches C10 and C21: S.9), adjoining surface F1902 were cut on slightly converging, north-south alignments. Ditch F1605 was cut to a stepped profile. Its lowest backfill comprised closely-set rounded pebbles (2508), sealed by compact orange clay (2509). Ditch F1908.01 was cut by a further disturbance (F1905). A further undefined feature (F1904), and a number of parallel, north-south aligned linear features (F1901, F1903, F1906-7) were recorded cutting through layer 2809 in the east of Trench C10. The backfilled features and deposits were sealed by the topsoil (2800) which incorporated patches of red clay.

A ditch (F1705: unexcavated) and a number of poorly-defined disturbances were tested by hand-excavation in Trench C8.

Pottery and dating evidence

Layer 2408 contained a sherd of Lyon Ware, and a samian bowl (South Gaulish, Dr 29 form) both pre-Flavian in date, and a number of coarseware sherds of 1st-century date, including 'native' wares. Layer 2412 contained pre-Flavian samian ware, a mortarium sherd paralleled by an example from the fort dated AD 50-80, and Severn Valley ware comparable with material from Phase 2B of the fort's occupation. Layers 2409 and 2415 contained amphora sherds of 1st-century date. The few fragments of Roman pottery recovered from Trench C10 were fragmentary and undiagnostic, mostly comprising 22 small sherds derived from pebble surface F1902.01. Features F1501-2, F1507, disturbances F1500, F1503, F1506, ditches F1605, F1908, and the topsoil contained post-medieval pottery and glass fragments.

Interpretation

The subsoil horizon exposed in these trenches was similar in composition to the subsoil recorded in Trenches C5 and C20 to the north. The buried turf horizon recorded in Trench C6 was equivalent to layer 2326 in Trench C5. Similarly, the overlying mottled grey-orange layer in Trench C6 (2408/2411) was equivalent to deposit 2329 recorded in the former trench. These deposits occurring in both trenches represent the *in situ* accumulation of material adjoining the pebble surfaces, or dumping. Layer 2809 sealing the subsoil in Trench C10 may be interpreted as colluvium, deposited towards the base of a west-facing slope.

The pebble surface recorded in Trench C5 (as F1504.03) was also recorded in Trenches C6, C7 and C19 (as F1504.01 and F1504.02). Measured between the innermost edges of ditches F1400 (Trench C5), and F1606 (Trench C6) the surface measured approximately 12m in width. This surface is almost certainly too broad to represent a road alone. Rather, excavated pebble surface F1504 may represent hardstanding adjoining a road which was not itself investigated. This interpretation is supported by the identification of a less closely-set pebble surface (layer 2415), incorporating fine gravel, towards its southern edge. This layer, which included a fine gravel wash, accumulated during the use of the road, was also incorporated within the uppermost fill of adjoining ditch F1606.01 (2512). Roughly parallel ditches F1400 and F1606 may be interpreted as roadside ditches, despite their dissimilarity in size and profile.

To the south of the pebble surface were recorded further roadside or boundary ditches (F1603, F1604) cut on differing alignments, possibly representing re-planning of the settlement area.

To the rear of the southern road frontage the feature density was more sparse. The features identified comprised pits or post-holes (F1600, F1601, F1603, F1900: Trenches C7 and C10), although no post-pipes could be recorded. By analogy with the suggested evidence for a possible fence to the north of the pebble surface (Trenches C5 and C20), the features recorded in Trenches C7 and C10 could have formed one or more fence-lines, positioned approximately at a right-angle to pebble surface F1504.

Pebble surface F1902 recorded in Trenches C10 and C21 corresponds approximately in position and alignment with a trackway mapped by the Ordnance Survey in 1890 and 1904. However, during hand-excavation a quantity of abraded Roman pottery was recovered from the surface, which could indicate that the surface was Roman in date. Given the widespread adoption of Roman road lines (e.g. the northern continuation of the *via decumana* between the northern fort defences and Metchley Park Farm) into the present century, it is possible to suggest that the excavated trackway may have been similarly re-used. Alternatively, the Roman pottery could be residual material.

Features F1501, F1502 and F1505 (Trench C6), F1901, F1903, F1906-7 (Trench C10) may be interpreted as wheel ruts, similar to the example recorded in Trench C5 (e.g. F1401). Feature F1507 in Trench C6 may be interpreted as a machine-cut trench, and converging features F1605 and F1908 adjoining surface F1902 may be interpreted as modern drains. A modern drain was recorded in Trench C8 (F1705), together with a number of probably associated disturbances (not described or illustrated).

Trenches C9, C11, C12/C14, C13/C15 (Fig. 3)

Description and interpretation

These trenches contained no features or deposits of archaeological significance, and no datable artifacts other than material of recent date was collected. Details of the stratigraphy may be found in Appendix 1. The subsoil horizons located in this zone

could suggest the presence of infilled palaeochannels. The considerable depth of modern overburden limited the areas available for investigation.

4.5: Northwestern zone (Trenches C16-C18: Fig. 3)

No archaeological features or deposits were found in this zone. Appendix 1 summarises the recorded stratigraphy. Alluvial deposits were found in this zone overlying the subsoil, but these deposits could not be tested by hand-excavation because of the depth of modern overburden, infilling the north-south aligned valley adjoining the stream-courses.

5.0: SPECIALIST REPORTS

5.1: Pottery by Jane Evans and Annette Hancocks

The composition of the Roman pottery assemblage is summarised in Table 1.

TABLE 1: Summary of the Roman pottery by sherd count

abric									*otal*
Trench/ Feature	*ayer*	*amian*	*ortaria*	*mphora*	*educed*	*xidised*	*hite*	*andmade*	
C5									
-	2325			1					**1**
F1400.01	2308					2	2		**4**
F1400.01	2316					2			**2**
-	2329			1		1			**2**
C6									
F1500	2400					2			**2**
F1504.01	2404					15			**15**
F1505	2405					4			**4**
-	2406	3				14	1	5	**23**
-	2408	1			3	56	1	3	**64**
-	2409			1		27			**28**
F1507	2410							1	**1**
-	2411			3					**3**
-	2412	4	1	5	7	55			**72**
F1504.01	2415	2		3		7			**12**
F1606.02	2420			4	1				**5**
C7									
F1601	2501	1				3			**4**
F1602	2502				1				**1**
-	2505					2			**2**
F1605.01	2508					1			**1**
F1606.01	2512		?1	1	1	7			**10**
F1606.01	2513			1					**1**
C10									
F1900	2800					8		1	**9**
F1902.01	2802					2			**2**
F1902.01	2803					20			**20**
F1904	2805					1			**1**
F1905	2806					3			**3**
F1908.01	2811					1			**1**
		11	**2**	**20**	**13**	**233**	**4**	**10**	**293**

Description

The evaluation produced 293 sherds of pottery, in fabrics similar to those found during earlier excavations at the site (Green *et al.* forthcoming). The more-closely datable imported wares indicated a pre-Flavian date for the main period of activity. These included: a South Gaulish samian bowl, form Dr 29; a samian form Dr 24/25 cup, a very abraded fragment of Lyon Ware; and characteristically-1st-century amphorae forms, including Dressel 20, and possibly a Campanian Dressel 1A fragment. The absence of diagnostic Flavian-Trajanic forms, for example rusticated jars, supported this date range. The assemblage was very fragmentary and abraded, and few form sherds were present. The bulk of the pottery could not, therefore, be dated precisely. The range of fabrics, however, was compatible with a 1st-century date. The majority of the assemblage comprised oxidised wares (233 sherds) with only a handful of reduced wares (13 sherds). The fine-wares were restricted to imported samian (11 sherds) with imported coarse-wares of mortaria (2 sherds) and amphorae (20 sherds) also present. A few native derived wares were also included,

comprising Malvernian tubby cooking pots; a sandy, handmade ware; and organic-tempered and grog-tempered wares.

Summary of the pottery by trench

Trench C5

Nine sherds in total were recovered from this trench with ditch F1400 producing little diagnostic material. A single oxidised flat-topped everted rimmed jar/bowl was recovered from layer 2329.

Trench C6

The largest group, comprising 231 sherds, came from this trench. A number of layers included some well-dated types. Layers 2408 and 2412 produced the best groups, including a number of the most diagnostic sherds. Layer 2408 contained a sherd of Lyon Ware and a South Gaulish samian Dr 29 bowl, both pre-Flavian in date. Coarse-ware forms included characteristically-1st-century types: a reeded-rim, grey ware bowl; a corrugated beaker or jar in a grog-tempered fabric; and rim sherds from two native-derived jars. Layer 2412 produced an early pre-Flavian samian Dr 24/25 cup and an oxidised Severn Valley Ware type flagon which may be compared with pottery from the fort's Phase 2B occupation (Green *et al.* forthcoming, fig. 28.F13). Other layers also provided good dating evidence. Layer 2409 contained a 1st-century Dressel 1A amphora sherd. Layer 2415 contained a Dressel 20 amphora rim of a broadly mid-1st-century type. Layer 2412 contained a mortarium rim similar to a type dated AD 50-80 from the earlier, 1967-9 excavations at the fort site (Green *et al.* forthcoming, fig 40.M16).

Trench C7

The small assemblage from Trench C7 (19 sherds) contained very little diagnostic material, apart from a Dressel 20 amphora sherd. Most of the material derived from the upper fill of ditch F1606 (2512).

Trench C10

The small assemblage from Trench C10 (36 sherds) contained very little diagnostic material. Notably, most of the material (22 sherds) derived from pebble surface F1902.01.

Significance

An assemblage of 293 sherds from an evaluation is comparatively large, especially when compared to the 1997 Area 6 excavations in the southeastern angle of the forts (Hancocks forthcoming) which produced 403 sherds. The soil conditions in Area C have badly affected most of the assemblages excavated at Metchley and this evaluation site is no exception. Much of the pottery is fragmentary and abraded. Despite this, however, there is some good dating evidence. The character of the

assemblage is somewhat ambiguous. It is not immediately identifiable as an assemblage from a settlement area. The presence of imported wares such as samian, Lyon ware and amphora are, perhaps, more characteristic of a military group. A number of 'native' types, including Malvernian ware, was also recovered from trial-trenching to the north of Vincent Drive (Trenches A2-3, Jones 1999a).

5.2: Other finds

A fragment of a blue/green pillar-moulded glass bowl dated to the second half of the 1st century was found in ditch F1400 (Trench C5).

Flint by Lynne Bevan

Two humanly-struck flint flakes were recovered, one of which was retouched. The retouched flake was of a grey-brown translucent flint (from Trench C7, feature F1602, 2502) and the unretouched flake was of a coarser, opaque yellow, with a chert-like appearance (from trench C10, feature F1900, 2800). Despite the differences in quality between the two materials used, a local river gravel origin is likely for both finds of flint, based upon the thin, compacted remnant cortex visible on both items.

While neither item is chronologically diagnostic, the broad, squat shape of the flakes is suggestive of a later prehistoric date, during the later Neolithic or in the early-to-later Bronze Age. This sample is too small to provide any information regarding settlement foci or activity areas during prehistory, beyond attesting to two individual episodes of flint-knapping which could have been separated by hundreds of years. It is worth noting that the retouched flake shows signs of utilisation, perhaps for cutting. Further work in the area might lead to the recovery of a larger, more meaningful assemblage.

5.3: Charred plant remains by Wendy Smith

Ditches F1400 (Trench C5) and F1606.01 (Trench C6), and layer 2408 (Trench C6) were sampled for charred plant remains. Processing and basic analysis of these samples was undertaken in order to establish if the features and the layer contained charred plant remains, other bio-archaeological remains, such as charcoal or bone, and also to establish the potential survival and significance of any charred plant remains present.

Method

The three samples were processed by bucket flotation. Flots (the material which floated) were sieved to 500 microns and the heavy residues (the material which did not float) were washed over a 1mm flexible nylon mesh. The flots and heavy residues were air dried and sorted at between x10 and x15 under a low-powered binocular microscope. Identifications were made rapidly and without consulting a reference collection and, therefore, should be considered provisional in all cases.

Results

The results for all three samples are listed in Table 2. The sample from layer 2408 did not contain any charred plant remains. The samples from features F1400 and F1606.01 both contained significant quantities of charcoal, however, in both cases the charcoal fragments were usually quite small-sized (i.e. 2mm or less in diameter). Only small amounts of charred plant remains were observed in these samples. Overall, the charred plant remains recovered did not occur in sufficient quantity in any of the samples to merit full archaeobotanical analysis.

Conclusions

On the basis of this evaluation, none of the deposits sampled shows much potential for charred plant remains. It may be that they were re-worked or have suffered later disturbance, which may have affected the preservation of the charred material. Should this area be excavated in advance of development, it is advised that sampling should be carried out of as many deposits as is possible, since most deposits are unlikely to produce enough charred plant material to merit full analysis. In addition, it is strongly recommended that no less than 20 litres of soil is collected for charred plant remains and, if feasible, the sample size should be increased to 30 litres. Increasing the sample size may improve the chances of recovering a sufficiently large assemblage of charred plant remains to merit full analysis. Analysis of archaeobotanical data may shed light on the food supply to the Roman forts and settlement at Metchley.

TABLE 2: The charred plant remains

Trench	*Feature*	*Context*	*Sample Volume*	*Comments*
C5	F1400	2301	20 L	**Flot:** ++ charcoal (all small sized fragments). Modern root and weed seed observed. One grain of hulled barley was observed. **Heavy Residue:** mainly pebbles. Small amount of charcoal observed. **Evaluation: POOR**
C6	-	2408	31 L	**Flot:** +++ charcoal observed (all small sized). Modern root and weed seeds. No charred plant remains observed. **Heavy Residue:** mainly pebbles and compacted nodules of soil that would not disaggregate easily. Small, heavily-worn pottery sherds observed. **Evaluation: POOR**
C7	F1606	2512	22 L	**Flot:** ++ charcoal. Some small sized charred weed seeds observed (possibly small *Fabiaceae*). Modern roots abundant. **Heavy Residue:** compacted clay-like material which would not disaggregate easily. Mainly pebbles. Small amounts of charcoal observed. **Evaluation: POOR**

In addition to sampling for charred plant remains, a small sub-sample of the waterlogged lower fill (2514) of ditch F1606.01 in Trench C6 was tested in the laboratory for the presence of waterlogged plant, pollen and insect remains, but none was found.

6.0: DISCUSSION

Possible relict stream-channels were represented by areas of buff-white silt subsoil one of which was partly investigated (2320-1: Trench C5). Possible alluvial deposits were recorded in the northwestern area (Trenches C16-C18). A possible buried turf horizon was also recorded (Trench C5, 2307; Trench C6, 2407).

6.1: Prehistoric

The two worked flint flakes recovered evidence some form of prehistoric activity in the area, not necessarily amounting to settlement. Further worked flint flakes have been found during previous investigations at the site (Sheratt forthcoming). No evidence was found of any prehistoric burnt mounds adjoining the streams within the northwestern zone of Area C, or elsewhere, because of the depth of the modern overburden.

6.2: Roman settlement (Figs. 4-5)

Prior to this evaluation the evidence for a Roman civilian settlement at Metchley was somewhat tenuous – comprising a group of unstratified copper alloy objects found during trenching in 1963 to the northwest of the forts, and a small quantity of finds of Roman date, but post-dating the supposed military abandonment of the forts around AD 75 (Jones forthcoming). Indeed, Crickmore (1984) doubted the existence of a settlement at the site. Clearly, the Roman military establishment at Metchley failed to provide the economic impetus for the establishment of a small town, such as those which developed at Alcester, Droitwich and Wall. Burnham and Wacher (1990, 8) defined criteria for the successful establishment of a such a civilian settlement. Firstly, it is necessary for the site to be capable of being assimilated easily into the pre-existing road network. Secondly, the site must have potential for growth within the existing socio-economic framework. Thirdly and finally, its military occupation must have been sufficiently long-lived to permit the establishment of such a dependant civilian community.

Recent fieldwork in the south Birmingham area has suggested that the forts may have been located at an important crossroads, with roads leading to Alcester, Droitwich and Wall, so the first criterion may have been fulfilled. The remaining criteria may not have been fulfilled except for a very short period of time, if at all. The military occupation of the site, between AD 48 and AD 75, was almost certainly interspersed with one or more abandonments. Moreover, the garrison of the Phase 2B stores-depot is suspected to have been small. Overall, the Roman military occupation of the Metchley site may have been too brief, and on too small a scale, to create the impetus for the development of a small town. Alcester probably developed around an existing *civitas* centre, while Droitwich may have prospered later because of its association with the salt industry. Wall was also a military foundation, which developed into a thriving community based on roadside trade. Continued civilian settlement, albeit on a smaller scale, is suggested adjoining the forts at Greensforge, Staffordshire extended possibly into the 4th century (Jones forthcoming). The proximity of the streams to the west could have made the settlement area vulnerable to flooding, which could be another possible cause of site abandonment.

In contrast, the pottery dating evidence from the newly-discovered Metchley settlement suggests that the site was abandoned in the 1st century. There was no evidence of pottery of possible post-AD 75 date, such as the rusticated jars of late-1st-early-2nd century date recovered from Phase 3 fort contexts (Hancocks forthcoming). Much of the coarse and fine wares recovered from the settlement was datable to the pre-Flavian period, which would suggest the settlement was broadly contemporary with Phases 1-2B of the fort's occupation. The pottery from the Roman settlement included coarse wares of 'native' origin, such as Malvernian ware, also located in the backfills of fort ditches to the north of Vincent Drive (Area A, Jones 1999a). The pottery from the Area C settlement also included imported fine wares, which may have been dumped within the settlement area during clearance of the forts' interior. No features of clearly military character were identified, with the possible exception of the pebble surfaces.

It is probable that the settlement was laid out alongside the east-west aligned road exiting the fort's western gate, and that the settlement extended for a distance of at least 60m outside the fort defences. Settlement features and associated deposits were mostly concentrated within the area adjoining the exposed pebble surfaces which probably adjoined the road. A second, north-south aligned road or track (F1902: Trenches C10 and C21) was recorded to the south of the main roadline, but the date of this southern road remains to be confirmed.

To the north of Vincent Drive (Area A, Jones 1999a) the land adjoining the western fort defences sloped to the west, and may have been less suitable for settlement, although pottery and copper alloy objects of possible civilian association have been found in this area. Recent trial-trenching in this area (Fig. 1) has been inconclusive, possibly because of the limited areas available for investigation, and also because of modern disturbances. Topographically, the southern limit of the settlement could have been formed by the gentle, southwest-facing slope in the area of Trenches C9 and C11. The westwards limit of the settlement could have been defined by the eastern side of the valley containing the streams to the west, in the area of Trenches C16-C17. The eastern edge of the settlement is presumed to have extended up to the fort defences, although the zone within 25m of the fort defences was heavily wooded, and not available for investigation. As presently defined, it is unlikely that the settlement extended over an area greater than approximately 0.7ha.

The main feature investigated in the settlement area comprised pebble surfaces (F1504, F1902), the former presumably located adjoining the main road entering the fort's west gate, previously exposed by St. Joseph and Shotton (1937). Ditches were identified along the northern and southern edges of the pebble surface. The northern ditch (F1400) was much broader, and may have had an ancillary function, such as an animal drinking trough or a quenching tank for use in metalworking, although none of these alternatives can be proven on the present evidence. The upper fill (2512) of the southern ditch (F1606) contained fine-grained gravel which may be interpreted as run-off material from the pebble surface, which suggests the surface continued in use after the ditch had become partly infilled.

One of the most important aspects of the trial-trenching was the identification of horizontal deposits adjoining both the northern and southern edges of pebble surface F1504. Significantly, the sequence identified on both sides of the surface was the same. These deposits may have been formed *in situ*, or they have been dumped along the edges of the pebble surface, either from elsewhere within the settlement, or even from within the fort interior.

Trial-trenching has also provided information concerning the settlement layout. The main alignment was represented by pebble surface F1504 and by associated drainage ditches (F1400 and F1606). Other ditches may have defined individual plot boundaries. Ditch F2900 was cut parallel with an adjoining ditch (F1400). Ditches F1603/F1513 and F1604 were cut on a different alignments. Ditches F2902 and F1604, both aligned east-west, could have been contemporary. Ditches F1402 and F1602/F1513 could have formed an approximate right-angle. Features F2901, F1403 and F1407 could have together defined the position of a fence-line, post-dating the

infilling and abandonment of ditch F1400. A similar fence-line could have been defined by features F1600, F1601 and F1602 to the south of the pebble surface. Insufficient of the overall plot arrangement was seen in the trial-trenches to establish an average plot width or depth. It is possible that pebble surface F1902 may have originally have been laid at an approximate right-angle to pebble surface F1504, forming another element of the Roman settlement layout, although it may not have been a continuous feature, since it was not recorded in the east of Trench C6.

A notable feature of the trial-trenching results was the absence of evidence for buildings. It is possible that any buildings were located away from the areas trenched. Alternatively, it is possible that the buildings could have been based on ground-fast beam-slots, which would leave little or no trace at excavation.

6.3: Medieval and post-medieval

No features or artifacts of medieval date were found. Evidence of post-medieval activity was limited to ditch F1100 (Trench C2) which may be interpreted as the southern boundary of the 18th-century hunting park. Recent activity in the Roman settlement area was limited to evidence of machine disturbance, causing tracks, and the dumping of redeposited subsoil.

7.0: SIGNIFICANCE AND SURVIVAL

7.1: Significance

The significance of the results may be summarised as follows:

- The Area C evaluation has provided the first clear evidence for a Roman civilian settlement associated with the Metchley Roman forts. This settlement is not only significant as the earliest settlement of Roman date within the Birmingham area, but is also the earliest archaeologically-investigated settlement within the Birmingham area.
- The evaluation has confirmed that the settlement area is largely undisturbed by later activity. Further investigation could provide a relatively unique opportunity to recover a near-complete ground-plan of the remains. The gazetter of such lowland settlements published by Sommer (1984) emphasises how few have been excavated, which perhaps further hightens the academic importance of the Area C settlement.
- The settlement probably belongs to the pre-Flavian period. Few such early settlements have been excavated to date. Such settlement in the Midlands are generally of Flavian or post-Flavian date, with the possible exception of Baginton.
- The settlement appears to be relatively small and compact, occupying perhaps up to 0.7ha. in extent. Excavation would provide an opportunity to contrast the chronology, morphology and economy of this settlement with other, larger-scale settlements.
- The potentially early date of the settlement highlights the academic importance of the study of the settlement economy, to provide an understanding of the presumed

symbiotic relationship between the fort and the related settlement, including analysis of the finds, principally pottery and the environmental data.

- Although no waterlogged pollen, plant remains or insects were found during the trial-trenching it is possible that more extensive investigation could lead to the recovery of such environmental data.
- Further excavation and research at the settlement could also contribute significantly to the established research programme at the adjoining forts, perhaps most notably through comparison of the pottery assemblages.
- The Society for the Promotion of Roman Studies (1985, Priorities for the Preservation and Excavation of Romano-British Sites) have noted that 'the interaction between the military enclave in the Pennines and elsewhere needs further exploration. This approach, treating fort, associated settlement and its immediately associated field systems as a single entity is almost wholly lacking (4.2.2.1), and that 'there is a need for a research-orientated strategy for the study of such settlements, irrespective of rescue threats or otherwise' (4.2.4).
- The importance of the site on a Birmingham basis should not be under emphasised. Roman archaeology is currently under-represented in the city. Further excavation at the settlement, followed by public presentation of the site, would contribute to the public appreciation of the early development of he city. The probable industrial or trading base of the Roman settlement provides a metaphor for the economy of present-day Birmingham.

7.2: Survival and the implications of development

The Roman settlement area was probably largely undisturbed from the time of its abandonment until the 18th-century. Antiquarian descriptions of the fort site highlight the damage caused by ploughing to the fort defences, and it may be that the adjoining settlement area was also ploughed at this time. The remains of orchards, dating perhaps to the inter-war years of the present century are the survivors of another land use. Aerial photographs of Area C and the results of trial-trenching indicate that quantities of material, including redeposited red clay subsoil were deposited on site in the 1960s (Trenches C5-C7 and C10, and also adjoining the northern bank of the Bourne Brook (Trenches C1-C4). The natural valley to the west of the settlement was also infilled at this time, and large quantities of demolition rubble were deposited to level up the southwest-facing scarp to the south of the settlement. Traces of the wheel-marks of the mechanical excavators employed in the 1960s earthmoving provide a reminder that the archaeological remains are vulnerable to such disturbances.

If the archaeological mitigation strategy for this part of the development involves preservation *in situ,* design details must specify that a sufficient depth of overburden/topsoil be left on the site to act as a 'buffer' between the buried archaeological deposits and the movement of heavy plant and machinery during development. Geotextile membranes may be usefully employed to separate new deposits from others. Additionally, attention should be paid to the possibility of damage to the archaeology caused by compression. Additionally, if no further archaeological excavation is to be undertaken on the site of the Roman settlement, resources should be provided by the Hospital Trust to enable a full programme of

post-excavation analysis of the evaluation results to be undertaken, leading to publication of the results in a recognised archaeological journal.

If 'preservation by record' is considered an acceptable mitigation strategy the extent of the open area excavation would need to be defined to include an area bordered on its northern side by Vincent Drive, to the west by the southern limit of Trench C8, and to the south by the southern corner of Trench C11, and on its eastern side by the western Phase 1-2 fort defences. This would amount to an area approximately measuring 70m north-south and east-west (see Fig. 3). The archaeological potential of the zone immediately outside this area should additionally be tested by the excavation of further, 5m wide trenches. All excavations would be followed by an approved programme of post-excavation analysis of the results, leading to publication in a recognised archaeological journal.

Any archaeological features or deposits in the zone immediately adjoining the western fort defences (outside the scope of the Area C trial-trenching) may have been sealed by colluvial deposits, which could have provided protection from sub-surface disturbances. However, this area is heavily wooded, and any below-ground archaeology in this zone could have been extensively disturbed by tree roots.

No evidence was found of burnt mounds or of associated features or stream-channel deposits in the northwestern zone, because of the depth of the modern overburden, Because of the depth of this overburden, it is possible that the proposed development may not penetrate below this made-up ground, in which case any underlying deposits may be preserved *in situ*.

When defining the appropriate mitigation strategy, the effects of the de-watering of organic deposits within, or associated with, archaeological features of prehistoric or Roman date should also be considered.

It is possible that further evidence may be found of the hunting park boundary ditch (Trench C2), although the area bordering the Bourne Brook has suffered considerable modern disturbance.

8.0: ACKNOWLEDGEMENTS

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9.0: REFERENCES

BUFAU. 1999. *Written Scheme of Investigation. Archaeological Evaluation: University Hospital NHS Trust.*

Burnham, B. C. and Wacher, J. 1990. *The Small Towns of Roman Britain.*

Crickmore, J. 1984. Romano-British Urban Settlements in the West Midlands. British Archaeological Reports, British Series 127.

Green, S. *et al.* forthcoming. The Area 1-5 Pottery, Jones, A. E. forthcoming.

Hancocks, A. forthcoming. The Area 6 Pottery, in Jones, A. E. forthcoming.

Jones, A. E. forthcoming. Roman Birmingham, Part 1. Excavations at Metchley Roman Forts 1963-4, 1967-9 and 1997. *Transactions of the Birmingham and Warwickshire Archaeological Society.*

Jones, A. E. in press. Greensforge.

Jones, A. E. 1999a. *University Hospital Birmingham NHS Trust. Archaeological Evaluation 1999.* Areas A and B. BUFAU Report No. 617.02.

Jones, A. E. 1999b. *University Hospital Birmingham NHS Trust. A Desk-Based Assessment 1999.* BUFAU Report No. 617.04

Rowley, T. 1967. Metchley Camp Cottages, Interim Report. *West Midlands Annual Archaeological News Sheet* 10, 4-5.

Rowley, R. T. 1968. Metchley, Birmingham: Interim Report. *West Midlands Annual Archaeological News Sheet* 11, 10-11.

Rowley, R. T. 1969. Metchley Roman Fort, Birmingham: Interim Report. *West Midlands Annual Archaeological News Sheet* 12, 24-5.

St Joseph, J. K. and Shotton, F. W. 1937. The Roman Camps at Metchley, Birmingham. *Transactions of the Birmingham and Warwickshire Archaeological Society* LVIII, 68-83.

Sheratt, A. forthcoming. The Flint in Jones, A. E. forthcoming.

Sommer, S. 1984. The Military Vici in Roman Britain. *British Archaeological Reports, British Series,* 129.

Webster, G. 1954. Further Investigations at the Roman Forts at Metchley. *Transactions of the Birmingham and Warwickshire Archaeological Society* 72-4, 1-4.

APPENDIX 1: DETAILS OF TRENCHES CONTAINING NO ARCHAEOLOGICAL FEATURES OR DEPOSITS

Layers are tabulated in the order in which they were deposited (i.e. earliest deposit is lowest in each trench). See Figs. 2-3 for trench locations.

Layer no	*Description*	*Interpretation*	*Depth*
S. ZONE	**(C1, C1A, C3, C4)**		
	All trenches 1.6m wide		
Trench C1	Orientation northeast-southwest. Length:5m		
1900	Topsoil	Alluvial origin	0.6m
1901	Yellow orange-sand inc. modern debris	Dumping	-
Trench C1A	Orientation: North-south Length: 5m		
1950	Topsoil	-	0.3m
1951	Red clay and brick debris	Dumping	1.2m
1952	Red-clay sand	Subsoil	-
Trench C3	Orientation: Northeast-southwest. Length: 11m.		
2200	Topsoil	Upper topsoil	0.5m
2201	Black, humic, silt-clay	Lower topsoil	0.3m
2202	Mottled, grey-yellow silt	Alluvium	0.3m
2203	Yellow-sand	Subsoil	0.8m below surface
Trench C4	Orientation: Northeast-southwest. Length: 4m.		
2000	Topsoil	-	0.2m
2001	Red clay with brick rubble	Dumping	-

N.E. ZONE	**(Trenches C9, C11, C12/C14, C13/C15)**		
Trench C9	Orientation: north-south. Size: 15m by 1.6m.		
2700	Brown sand-soil	Topsoil	0.3m
2701	Pink silt-clay	Dumping	0.3m
2702	Dark brown-black silt	Buried topsoil	0.4m
2703	Yellow sand-gravel	Subsoil	-
Trench C11	Orientation: northwest-southeast. Size: 10m by 1.6m.		
2900	Topsoil	-	0.2m
2901	Ash and modern debris	Dumping	0.7m
2902	Yellow-orange sand-gravel	Subsoil	-
Trench C12/C14	Orientation: mainly north-south. Max. length: 30m (forms a T-shape)		
3000	Topsoil	-	0.6m
3001	Red clay and modern debris	Dumping	1m
3002	Dark brown silt-clay	Original topsoil	0.4m
3003	Buff-white silt-sand	Subsoil	-
Trench C13/C15	Orientation: approximately north-south (widened to 4m at S. end). Max. length: 22m. Forms an L-shape.		
3100	Grey ash with modern debris	Dumping	1.2m
3101	Dark brown clay-silt	Topsoil	0.4m
3102	Buff-white sand-clay-silt	Subsoil	-

N.W. ZONE	(Trenches C16-C18)		
Trench C16	Orientation: northeast-southwest. Size: 10m by 2m.		0.2m
3400	Topsoil	-	0.8m
3401	Red-brown silt-clay	Alluvium?	0.3m
3402	Grey-orange sand	Subsoil	
Trench C17	Orientation: northeast-southwest. Size: 5m by 2m.		
3500	Loose, ashy topsoil	-	1m
3501	Clay and brick	Dumping	0.5m
3502-3	Grey-brown clay and brick	Dumping	1.3m
3504	Grey-brown clay	Alluvium	0.5m
3505	Yellow-grey sand-gravel	Subsoil	-
Trench C18	Size: 5m square.		
3600	Topsoil, inc. demolition rubble	Dumping	0.2m
3601	Grey-brown silt-clay	Dumping	0.8m
3602	Brown silt-sand	Dumping	0.2m
3603	Grey sand-clay and pebbles	Dumping	0.4m
3604	Mid-dark grey clay-silt	Alluvium	0.2m
3605	Grey-white sand-gravel	Subsoil	-
KEY:	*= deposit not bottomed		

APPENDIX 2: LEVEL DETAILS

All heights in metres AOD

DATUM VALUES (Fig. 4)

Section No.	Feature/s	Trench	Value
S.1	F1100, F1101	C2	124.79
S.2	F1402	C5	138.10
S.3	-	C5	138.10
S.4	F1400, F1403, F1407	C5	136.82
S.5	F1505, F1507	C6	137.97
S.6	F1504.03, F1606.01, F1506, F1500	C6	136.84
S.7	F1513, F1603.02	C6	137.05
S.8	F1600, F1601	C7	136.60
S.9	F1605, F1902.01, F1908	C7/C10	137.23

HEIGHTS of TRENCHES WITH ARCHAEOLOGICAL DEPOSITS (Averages)

Trench	Top of topsoil	Top of subsoil	
C20	136.71	135.41	
C5	138.03	137.21	
C6	137.37	136.74	
C7	137.28	136.50	
C10	138.05	137.17	

Note: pebble surfaces (Trenches C5, C6: F1504, 2-5 cm in depth; Trenches C7, C10 and C21, F1902, 2-4 cm in depth. For details of horizontal deposits adjoining the pebble surfaces see Fig. 4.

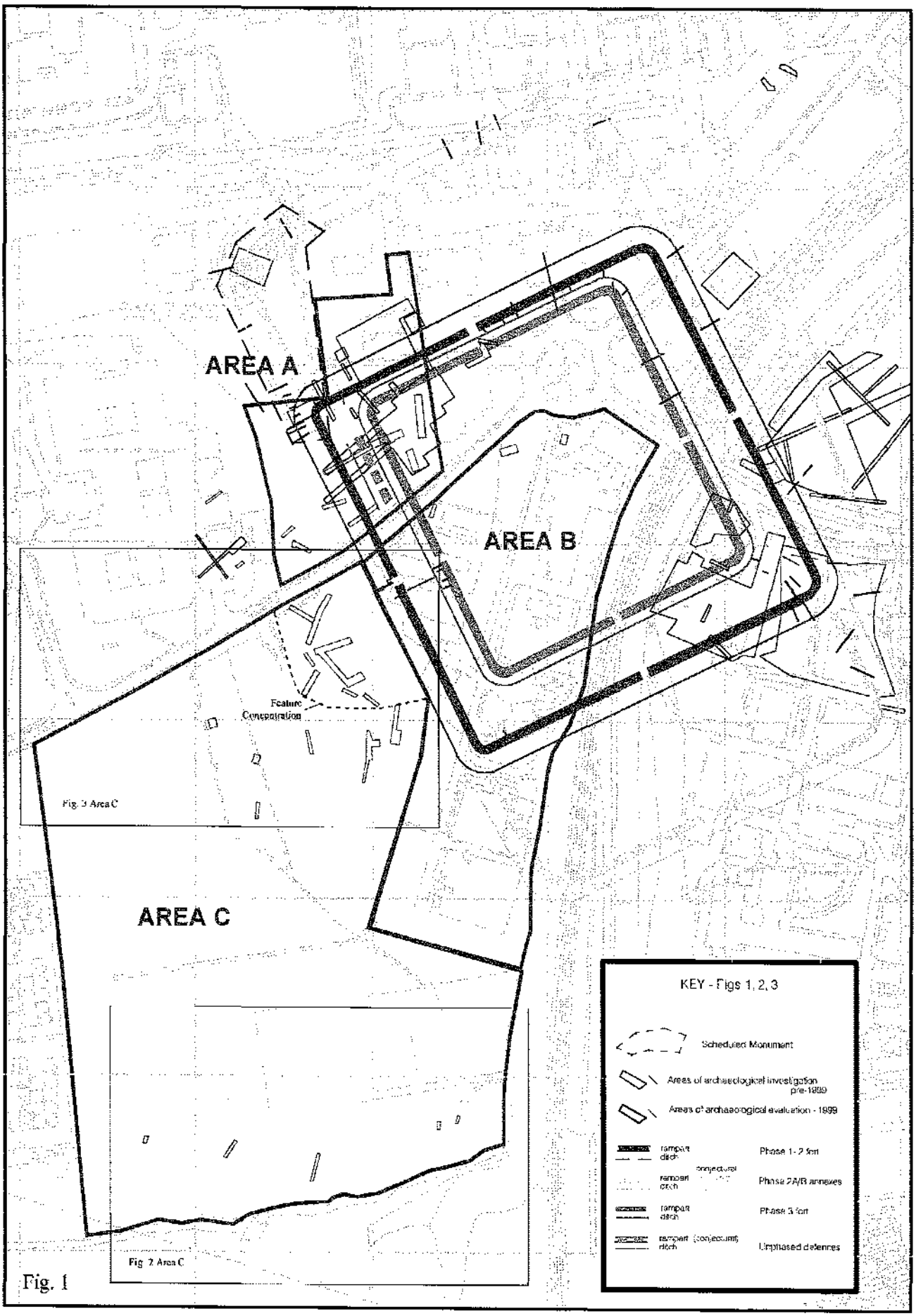
AREA A
AREA B
AREA C
Feature Concentration
Fig. 3 Area C
Fig. 2 Area C
KEY - Figs 1, 2, 3
Scheduled Monument
Areas of archaeological investigation pre-1999
Areas of archaeological evaluation - 1999
rampart ditch
Phase 1 - 2 fort
rampart ditch (conjectural)
Phase 2A/B annexes
rampart ditch
Phase 3 fort
rampart ditch (conjectural)
Unphased defences

Fig. 1

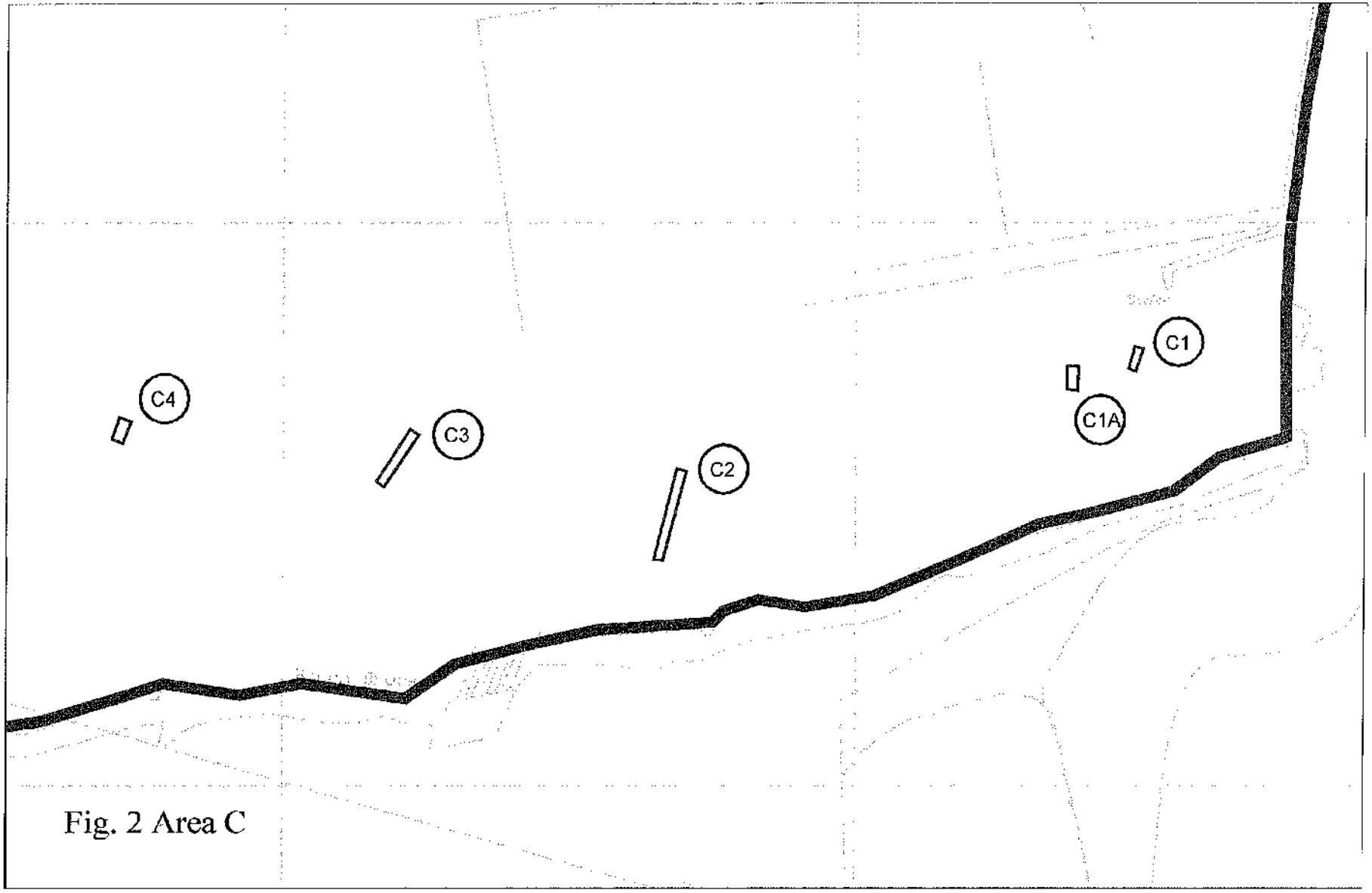

Fig. 2 Area C

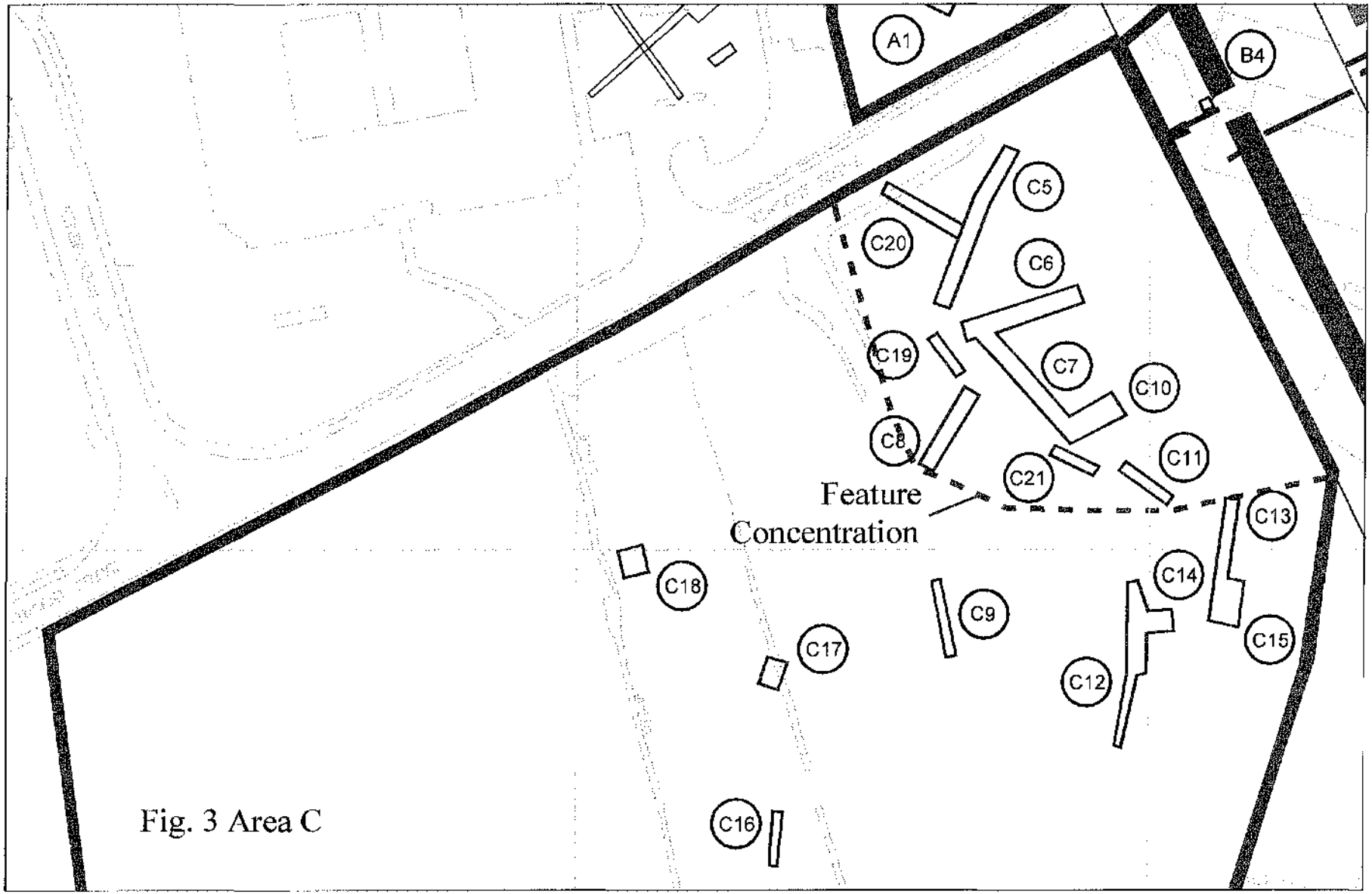
A1
B4
C5
C20
C6
C19
C7
C10
C8
C11
C21
Feature
Concentration
C13
C18
C14
C9
C15
C17
C12
C16

Fig. 3 Area C

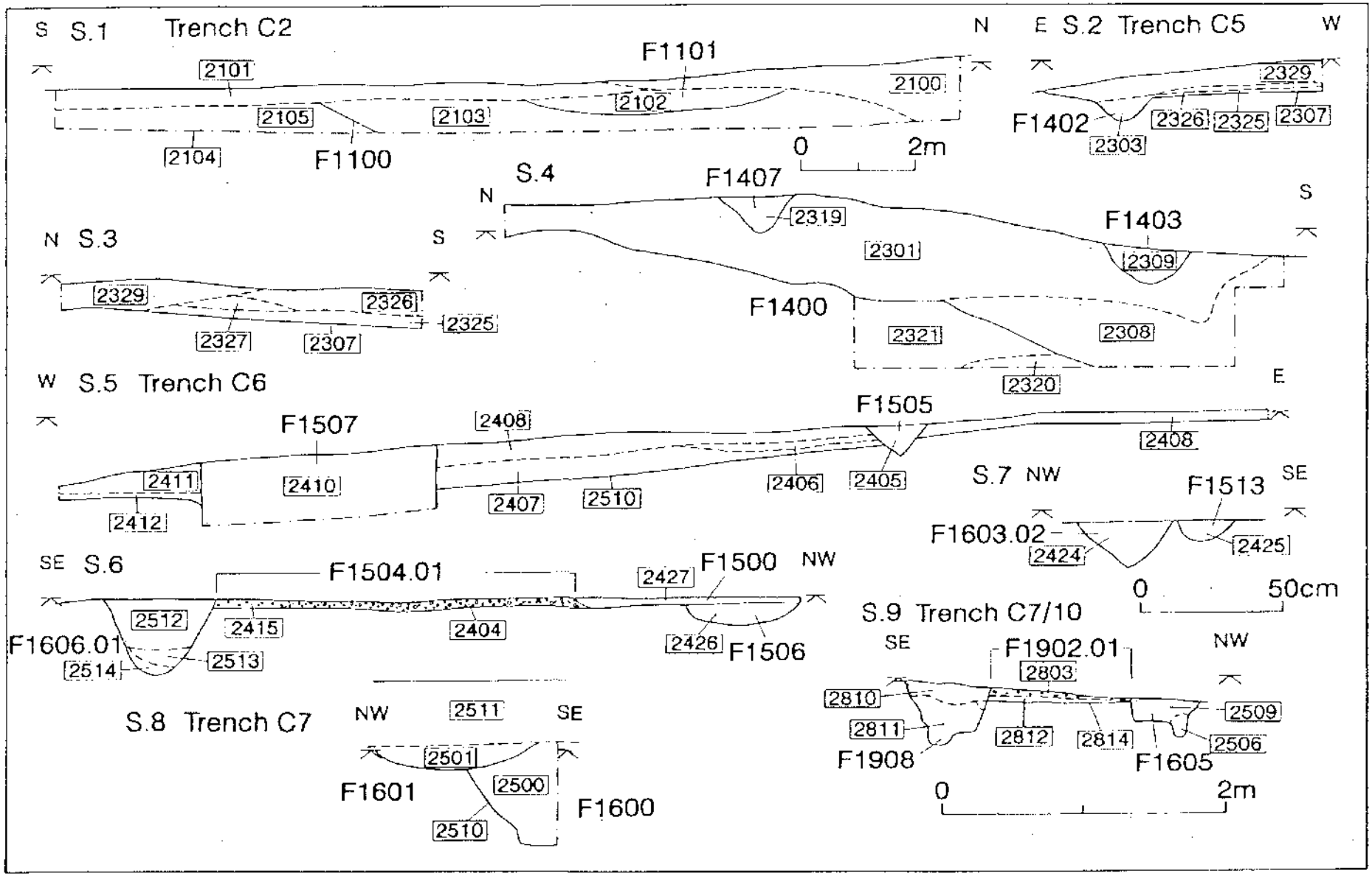
S S.1 Trench C2 N
F1101
2101
2100
2105
2103
2102
2104
F1100
0 2m
E S.2 Trench C5 W
2329
F1402
2326
2325
2307
2303
S.4
N
F1407
2319
S
F1403
2301
2309
N S.3 S
2329
2326
2325
2327
2307
F1400
2321
2308
2320
W S.5 Trench C6 E
F1507
2408
F1505
2411
2410
2408
2407
2510
2406
2405
2412
S.7 NW SE
F1513
F1603.02
2424
2425
0 50cm
SE S.6 NW
F1504.01
2427
F1500
2512
2415
2404
2426
F1506
F1606.01
2514
2513
S.9 Trench C7/10
SE NW
F1902.01
2803
2810
2509
2811
2812
2814
2506
F1908
F1605
0 2m
S.8 Trench C7
NW 2511 SE
2501
F1601
2500
F1600
2510

Fig.4

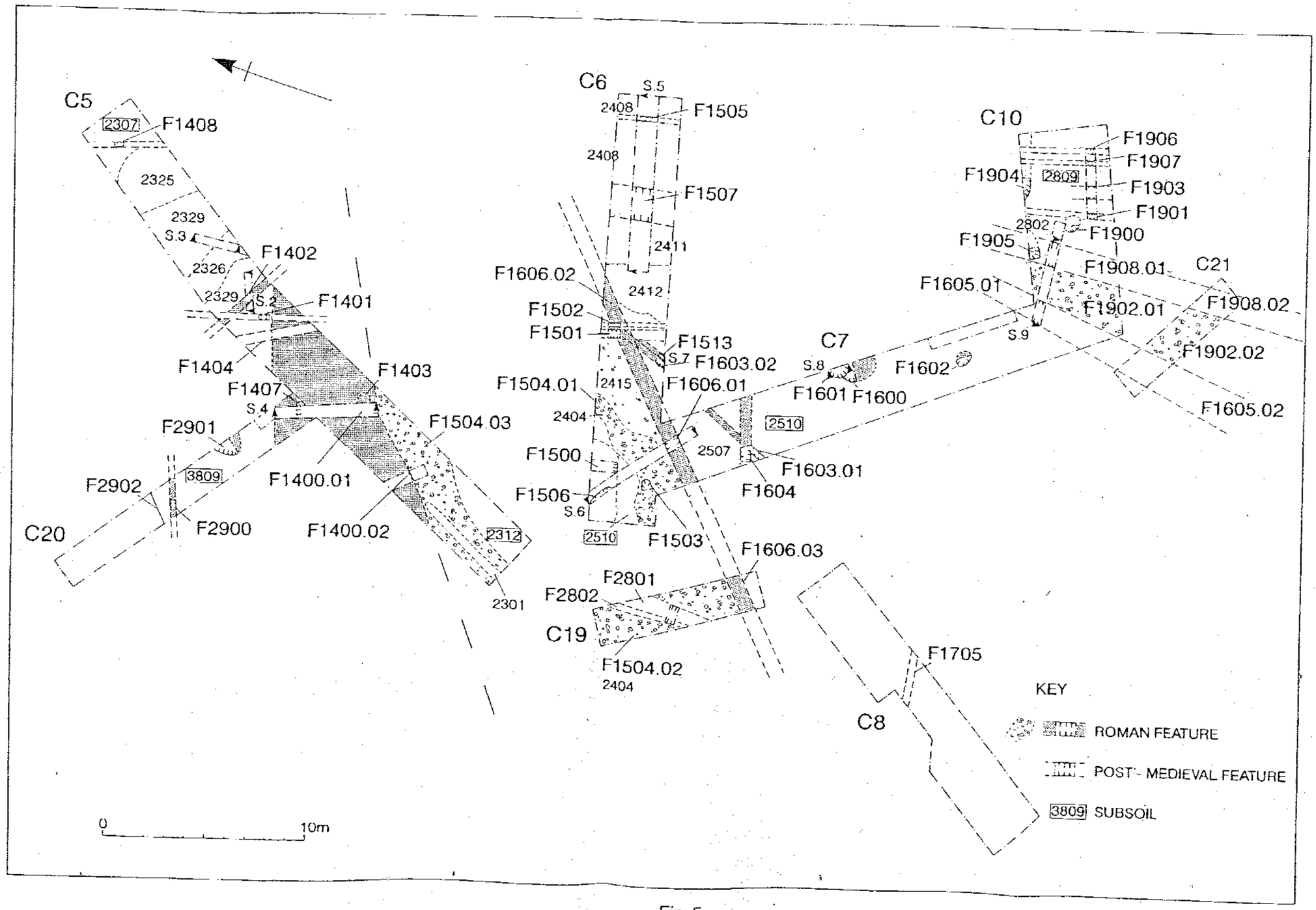
C5
2307
F1408
2325
2329
S.3
F1402
2326
2329
S.2
F1401
F1404
F1403
F1407
S.4
F2901
F1504.03
F1400.01
F2902
3809
F2900
F1400.02
C20
2312
2301
C6
S.5
2408
F1505
2408
F1507
2411
F1606.02
2412
F1502
F1501
F1513
S.7
F1603.02
F1504.01
2415
F1606.01
2404
2510
F1500
2507
F1603.01
F1506
S.6
F1604
2510
F1503
F1606.03
F2801
F2802
C19
F1504.02
2404
C10
F1906
F1907
F1904
2809
F1903
F1901
2802
F1900
F1905
F1908.01
C21
F1605.01
F1902.01
F1908.02
S.9
F1902.02
C7
S.8
F1602
F1601
F1600
F1605.02
F1705
C8
KEY
ROMAN FEATURE
POST- MEDIEVAL FEATURE
3809 SUBSOIL
0
10m

Fig.5