SALVAGE RECORDING OF A ROMANO-BRITISH SETTLEMENT AT NORTON-JUXTA-KEMPSEY, NEAR CROOKBARROW HILL: ARCHIVE REPORT

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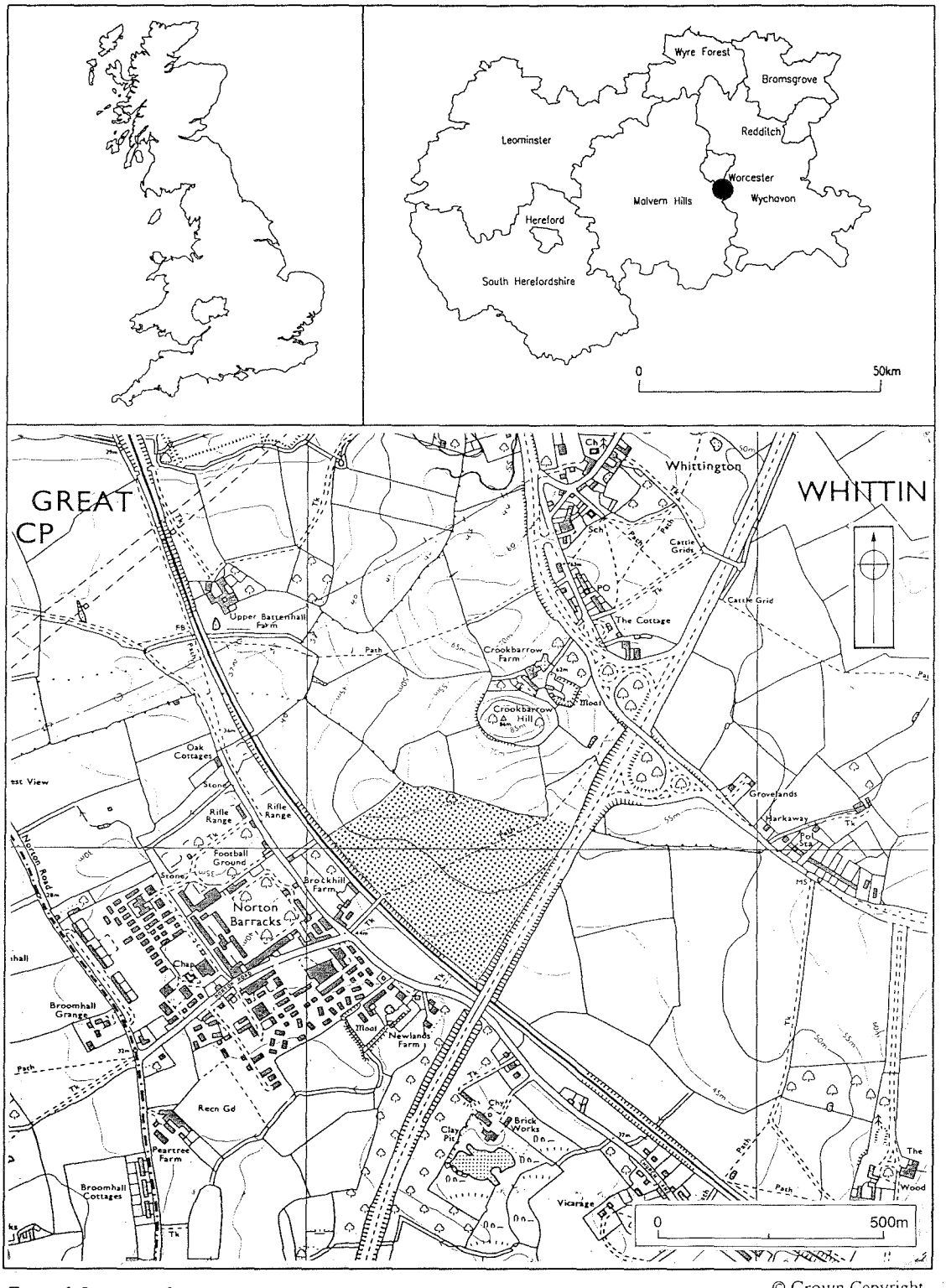


Figure 1: Location of site

Salvage recording of a Romano-British settlement at Norton-Juxta-Kempsey, near Crookbarrow Hill: Archive report

Robin Jackson, Derek Hurst and Elizabeth Pearson with illustrations by Carolyn Hunt and Steve Rigby

1 ## Summary

Salvage recording of a Romano-British rural settlement was undertaken at Norton-Juxta-Kempsey, a couple of kilometres to the south of Worcester. The site which was previously unknown was revealed during a watching brief maintained throughout the construction of a pipeline running from Strensham to Worcester. This formed part of one of a series of similar projects being undertaken by the County Archaeological Service on behalf of Severn Trent Water Limited during the construction of a major new water main running north to south across the County.

The site was only observed within the stripped corridor of the pipeline easement, however, it was clearly fairly extensive with deposits present over a stretch of about 250m. The ceramic assemblage indicated that the site had been occupied from the 2nd century through to the 3rd or early 4th century. Due to the limited area investigated it is difficult to establish the type of settlement represented. Though it can be said to be rural in character, it was not clear whether the site was a single farmstead or a more extensive settlement such as a hamlet or small village comprising a number of compounds containing houses, workshops and farm buildings. The extent of the area over which deposits were present probably argues in favour of one of the latter options.

The earliest activity was the laying out of metalled yards or trackways and a number of ditches probably representing enclosures or property boundaries. Rapidly following this was a period of activity characterised by iron working waste which was present in the fills of a series of ditches and gullies as well as a number of pits. In particular one pit contained an assemblage of material including iron slag and hammerscale, along with charcoal, coal and fragments of furnace lining which are consistent with iron smithing in the near vicinity. This activity was of particular interest, since although such activity is common on Roman rural sites, the nearby Roman town at Worcester is known to have been a major iron smelting centre in the 2nd and 3rd centuries. Here smithing evidence has rarely been uncovered and it seems likely that bloomery iron was being produced for finishing elsewhere. Although it is unlikely that the site at Norton would have been a major centre for the production of finished goods, it could have been an important local production centre and rural settlements such as this would undoubtedly have provided an important market for the iron from Worcester, having smithies for the production of the many small items required on a rural settlement.

Apart from iron working waste, pottery was also present which indicated domestic occupation nearby. The metalled surfaces appear to have remained in use throughout this phase of activity and may have remained in use into the final phase of occupation which was characterised by a number of rectangular posthole and timber slot buildings and associated features. Although iron

working waste was present in many of the deposits of this phase it is considered to be residual material and the buildings were more probably associated with domestic occupation or agricultural activity.

Associated environmental material was scarce, however, both emmer and spelt wheat grains and chaff were present along with weed seeds characteristically associated with cultivated ground. Local soils are suitable for modern arable cultivation and that this was an important activity in the Roman period is indicated by the presence of thin scatters of pottery in most fields in the area where archaeological work has been undertaken. Such scatters are consistent with manuring of arable land with domestic refuse.

The final area of interest lies in the association of the site with the nearby Crookbarrow Hill. This enigmatic feature is likely to be a distinctively shaped natural outcrop however its shape has possibly been enhanced and the presence of prehistoric and medieval activity, on its north and east sides, along with this Roman site immediately to its south indicate that the hill has provided a settlement focus over a considerable period of time.

2 Introduction

2.1 Background

Salvage recording was undertaken on a previously unknown Romano-British settlement in August and September 1992 (Fig 1). The site was revealed during the construction of a new water main running from Strensham to Worcester. The project was one of a series of similar projects undertaken by the County Archaeological Service of Hereford and Worcester County Council on behalf of Severn Trent Water Limited as part of a major programme of works to improve water supplies throughout the region.

The project took place within the framework for archaeological response established within a Code of Practice for Conservation, Access and Recreation issued by the Department of the Environment in July 1989, and attaching to the Water Industry Act 1991. Section 11, iv of the Code refers specifically to pipelaying and states that; "...where damage to features of archaeological interest is unavoidable, arrangements should be made for an appropriate level of investigation - by an appropriate conservation body, and subsequent publication of results."

Methodology was based upon practice established during previous projects which formed part of this programme (Dinn and Hemingway 1992; Dalwood 1992; Jackson and Hurst 1994; Jackson *et al* 1994a).

The project's first stage involved the collection of existing data from primary and secondary sources on the history, archaeology, geology and topography of the whole of the route of the pipeline. This was undertaken in advance of the fieldwork and was to provide a general background for the project and to enable any discoveries made during construction to be rapidly put into context. A watching brief was maintained during the stripping of topsoil from an easement 12m wide along the whole of the pipeline, and also during the excavation of parts of the subsequent pipetrench. In addition a contingency was available to facilitate more detailed salvage recording of any significant deposits revealed which could not be undertaken through the watching brief.

Archaeological deposits were recorded at a number of sites along the pipeline and artefacts recovered from the many of the fields which were examined. The overall results of the project are reported elsewhere (Jackson *et al* 1995a), this report details the results of investigations at one site, to the south of Crookbarrow Hill, at Norton-Juxta-Kempsey (HWCM 15350, OS 3200; NGR SO 873 520; Fig 1).

The site was initially recognised following topsoil stripping when the Core Team undertaking the watching brief observed pottery and charcoal rich deposits. Fieldwalking was undertaken and this along with preliminary investigation of a number of features indicated that significant deposits existed within the area of the easement, concentrating along the south side of the stripped area. Following negotiation with Severn Trent's Resident Engineer, Len Swift, a short programme of salvage recording was agreed using the Contingency Team.

2.2 Geology and topography

The site is situated at a height of about 50m OD, on a slight tongue of land extending to the south and slightly west of the distinctive local landmark of Crookbarrow Hill (Fig 2). The underlying geology is Mercian Mudstone (British Geological Survey, 1993, 1:50,000 series, England and Wales, Sheet 199), overlaid by soils of the Worcester Series and of the Whimple Association (Soil Survey of England and Wales, 1:50,000 series, Sheet 150, Soils of the Worcester and Malverns District). The Whimple Association soils cover most of the site and its surroundings. These are dark brown, slightly stony clay loam or silty clay loam soils with reddish subsoils (Beard *et al* 1986). They are moderately well drained, though subject to slight seasonal waterlogging. The Worcester Series lie to the north end of the site around the foot of, and covering, Crookbarrow Hill. They are reddish brown clayey soils with slightly mottled clayey subsoils subject to seasonal waterlogging. Both soils are suitable for modern arable cultivation with cereals and ley grass predominating, and autumn sowing being preferable to avoid damage to the soil structure. The better drained Whimple soils area also used for oilseed rape and potatoes.

Current landuse reflects these soils being arable, the stubble from a cereal crop having recently been ploughed back into the soil at the time of recording.

2.3 Archaeological background

The site which was previously unknown lies some 300m south of Crookbarrow Hill (HWCM 552; Fig 2) lying 2km to the south-east of Worcester. Crookbarrow Hill has been the subject of much debate regarding its origins (eg Dinn and Edwards 1991), however it remains an enigmatic site. It has been suggested at various times to be a barrow, a Neolithic monumental structure and a motte. Saxon chronicles record it as an ancient mound, however it has also been suggested that it is principally, if not wholly natural. Despite this some scarping of the sides may have occurred and whatever the case it forms a highly distinctive feature of the landscape and appears to have formed a focus for activity over a considerable period of time. Recent excavations immediately north-east of the hill have recorded prehistoric and Roman artefacts as well as the remains of a deserted medieval settlement (Fig 2; HWCM 10176, Derek Hurst pers comm). A Neolithic arrowhead (HWCM 10415) has been found at Crookbarrow Farm and occasional Roman finds

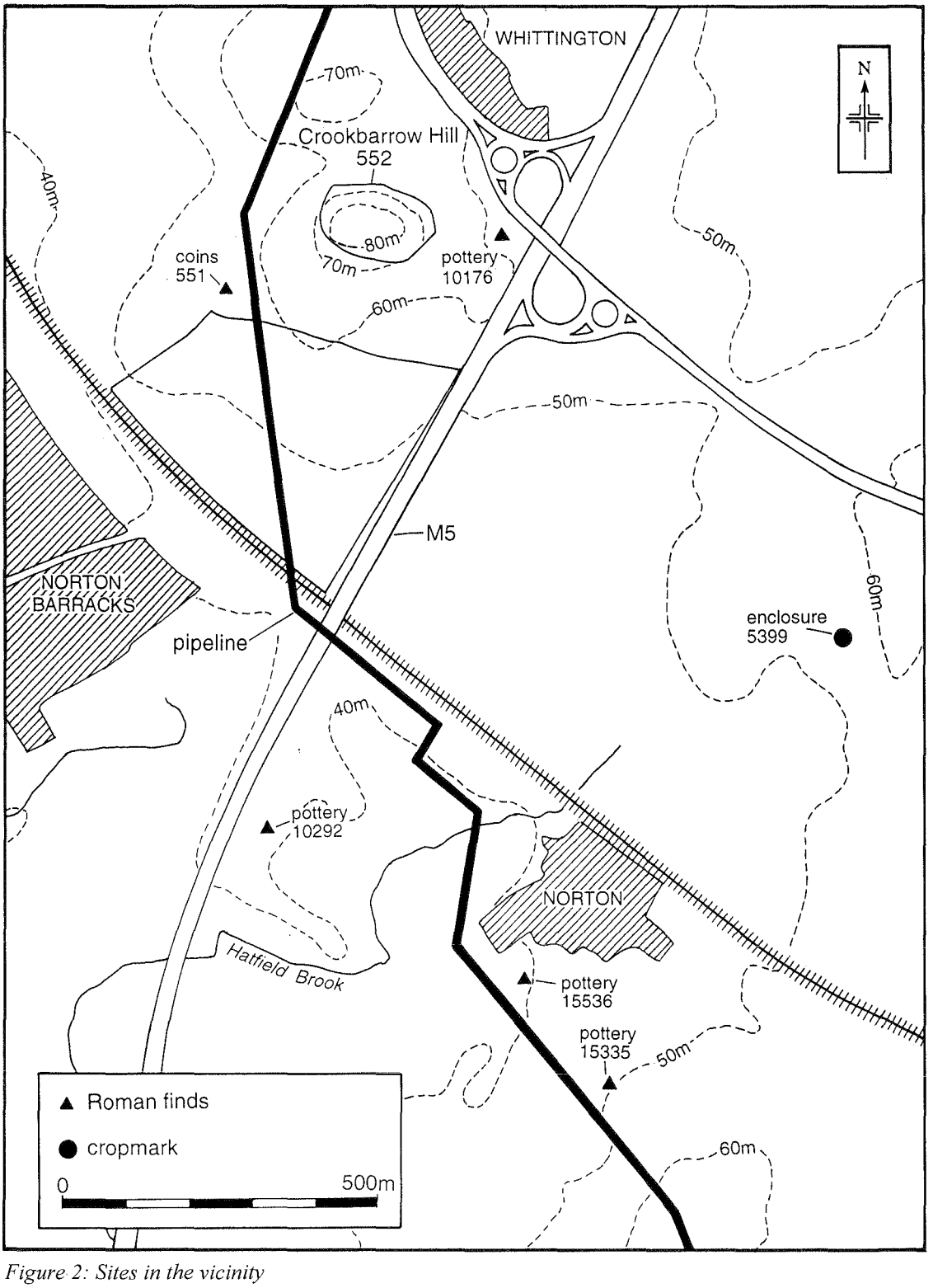


Figure 2: Sites in the vicinity

have also been recorded (HWCM 10292, a sherd of Roman pottery; HWCM 551, Roman coins; Fig 2). Two undated cropmarks are also known in the vicinity, which are likely to be of prehistoric or Roman date (HWCM 1367 and HWCM 5399; Fig 2).

Medieval activity is well attested in the area with moated sites at both Crookbarrow Farm and Newlands Farm (HWCM 963 and HWCM 7053) within 500m of the area of the site. Further moated sites lie within 1.5km (HWCM 1295, Middle Battenhall Farm; HWCM 2130, Upper Broomhall Farm). Other features of the medieval rural landscape are common with two fishponds at Middle Battenhall Farm (HWCM 3195, HWCM 3196), and many areas of ridge and furrow earthworks in the fields surrounding Crookbarrow Hill.

3 Methodology

The site at Norton-Juxta-Kempsey was identified during topsoil stripping, and fieldwalking of the stripped surface and sample excavation of a number of features was undertaken. The fieldwalking was undertaken on the basis of transects 5m apart with each transect only having a single stint which was equivalent to the full width of the topsoil strip. As described above this fieldwalking and sample excavation led to the use of the contingency to undertake salvage recording of the deposits revealed within the easement.

Salvage recording fell into two stages. The programme of construction on the pipeline meant that one area about 100m in length at the south of the field could be recorded over a period of several weeks. Here a strip about 5m in width was fenced off on the west side of the easement to allow vehicle access and storage of gravels and pipes ready for construction. Unencumbered access was available for salvage recording of the remaining 5-6m of the easement. To the north of this it was essential that pipelaying teams had access to the full width of the easement to enable pipe stringing, trenching and laying operations to proceed at the very earliest opportunity. Deposits were present over approximately 150m of this stretch of the easement and these were rapidly recorded over a period of five days in as much detail as possible leaving two weeks for more detailed recording of the area to the south (Fig 3).

Recording of the rapidly excavated northern section was largely undertaken through annotated 1:50 plans. Limited areas where features were readily visible were examined, and the extent of linear features was determined as far as was possible. Selected features were partially excavated to retrieve dating evidence and environmental samples. Within the remaining area it was possible to clean larger areas and obtain a more comprehensive plan of the deposits present, however due to the extents and range of deposits present it was still only possible to produce a partial record, and many features were only sampled excavated. Recording was undertaken following standard Service practice (County Archaeological Service Recording System 1988, as amended). The aim was to record a variety of features and deposits which would establish the range, character, date and extent of deposits across the site. It would also allow the significance, survival and condition of archaeological deposits to be assessed. Since only a narrow band of any site is destroyed by pipelaying such assessments facilitate the effective protection of the remaining areas of the site in the event of any future development which might affect it. Assessment of the significance of the site has been undertaken (Appendix 1)

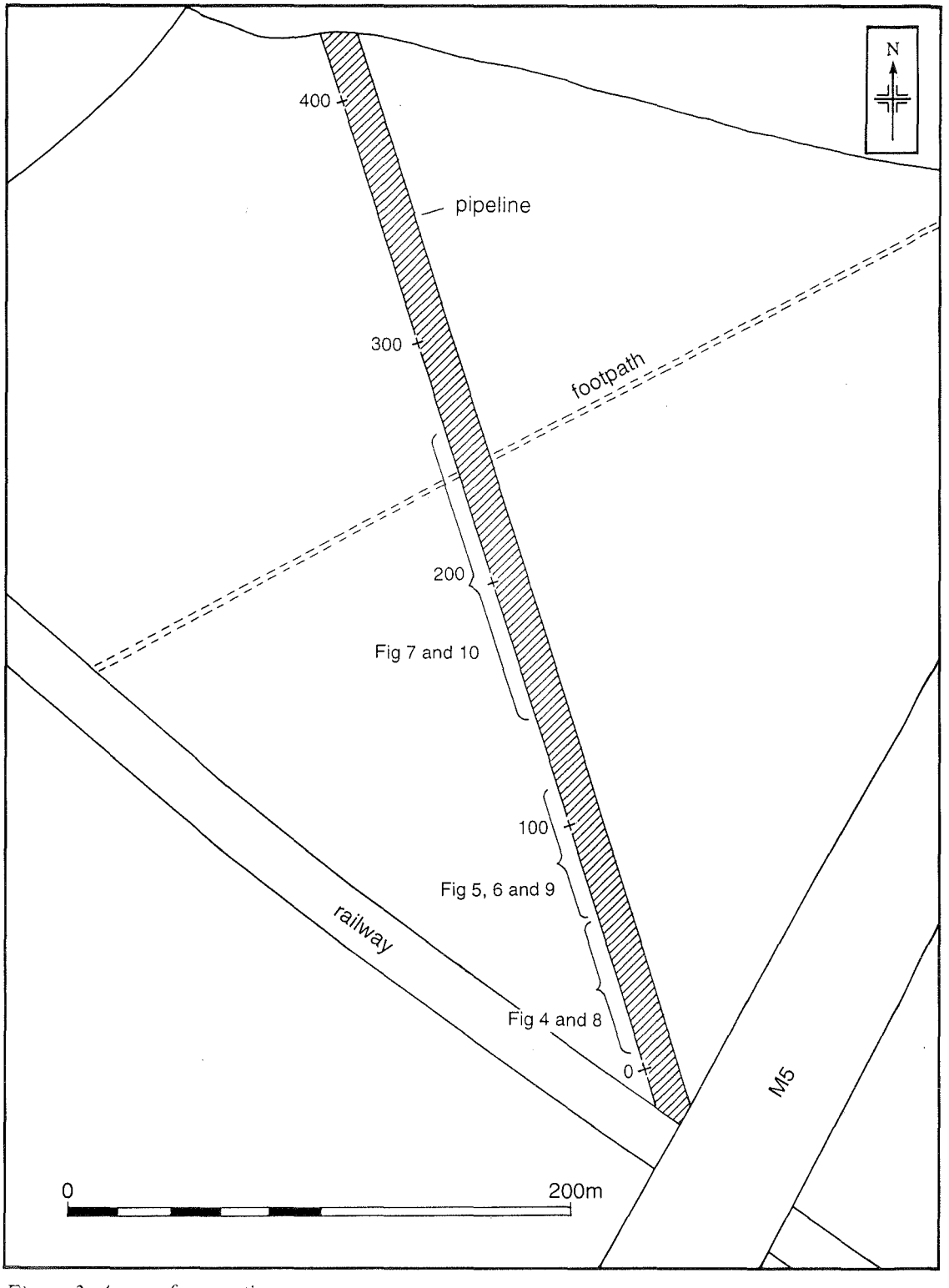


Figure 3: Areas of excavation

using the *Secretary of State's criteria for the scheduling of ancient monuments* (DoE 1990, Annex 4, Appendix 5).

Following completion of the fieldwork, preliminary processing of the data was undertaken. All records were checked and a provisionally phased matrix was produced. All artefacts were washed, marked, quantified and provisionally dated and selected environmental samples were sieved and sorted. Assessment of the results indicated that they were of sufficient importance to warrant further analysis. Consequently a programme of more detailed analysis leading to report production was proposed (County Archaeological Service 1993) which was accepted by Severn Trent.

The final phase of the project involved the analysis of the data recovered in the field and integration of those results with the background research. This report is the archive report for the site and presents the results of the project and summarises the background, methodology and aims of the work. A more concise report will be produced for the Transactions of the Worcestershire Archaeological Society for publication in 1996.

4 Structural analysis

The site sequence has been divided into three broad periods namely prehistoric, Roman and post-Roman, of which the Roman period represents the greatest level of activity at the site, and is the only period of occupation represented. This period has been divided into three phases through a combination of stratigraphic evidence, dating evidence and analysis of the character, distribution and alignment of features and deposits. An abbreviated description for each context is given in Table 1.

Groups of associated contexts were identified and linked to form Context Groups (eg CG 23). The text and illustrations in the report mostly relate to the Context Groups and an index of these and concordance to context number is included (Appendix 2). Context Groups generally comprise separately recorded sections of a ditch and its fills, or groups of associated postholes or pits. Although fills are mostly representative of disuse of features the stratigraphic sequence and dating evidence were not sufficiently complex to warrant division of use and disuse except in a few cases which are discussed in the analytical text. The absence of obvious silting deposits in the majority of linear features indicates that many features on site were probably short-lived, though of course cleaning-out and recutting should be allowed for. A matrix was produced of the Context Groups to illustrate the broad structural and relational sequence of the site (Table 3).

The first and second phases of Roman activity were not clearly separable through dating evidence (see below) and it seems likely that there is little division between the two. However the first phase is characterised by a series of metalled surfaces which include no iron slag in their construction. This suggests that they pre-date the iron working activity represented at the site which is largely associated with Phase 2 activity. The few features assigned to this phase either contain little or no iron working waste or are cut by Phase 2 activity. The surface continues in use into Phase 2 which is characterised by iron working waste in many of the fills and deposits. These largely relate to ditches or gullies, but a number of structural features and a large pit. The final phase of activity also includes many features containing iron working residues,

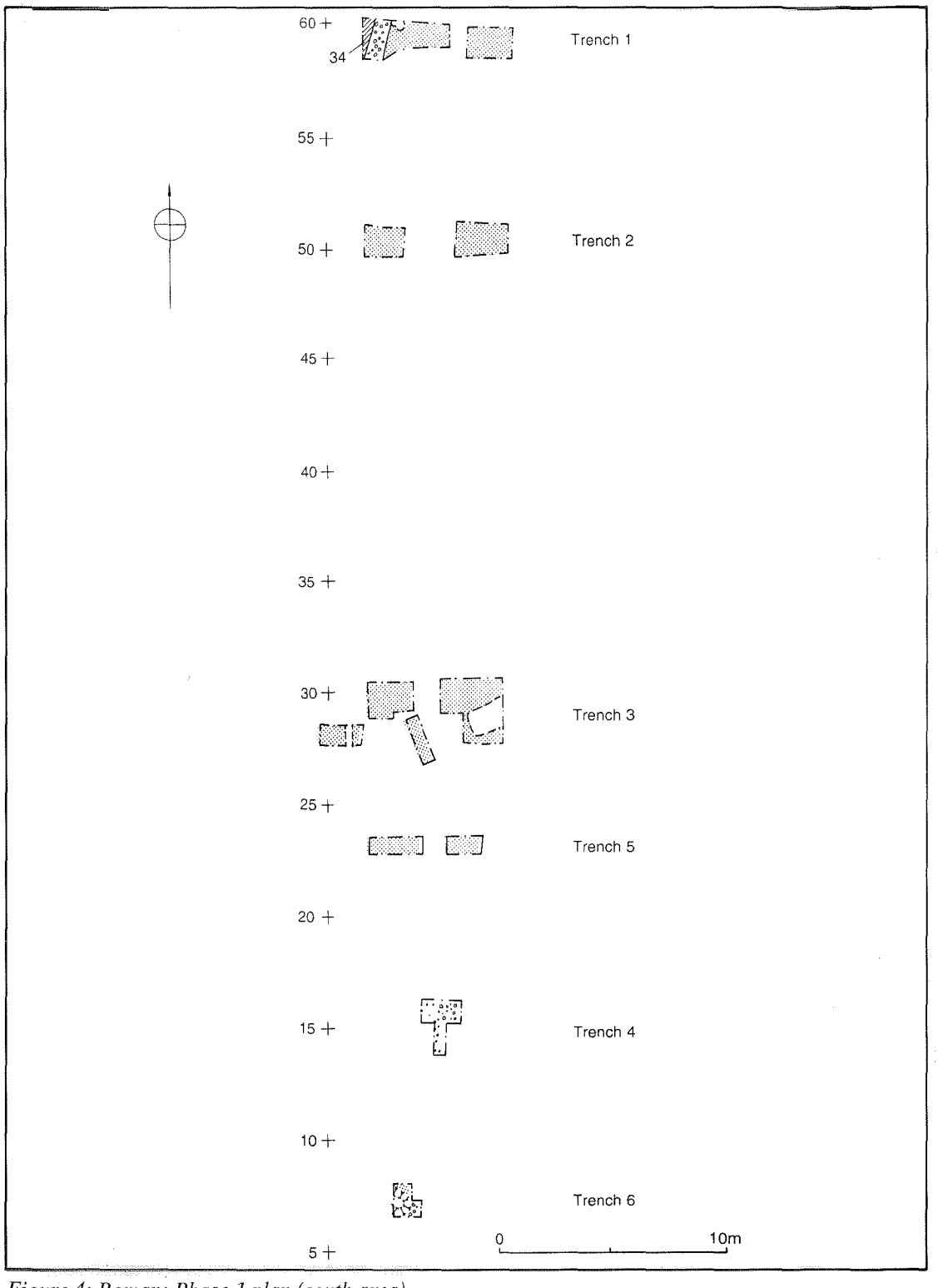


Figure 4: Roman: Phase 1 plan (south area)

however, the material is believed to be largely or wholly residual and the features are mainly structural in character.

4.1 **Prehistoric**

No prehistoric features were identified however a single flint, a blade flake, was recovered from the ploughsoil. This was not a readily datable item however such a flake is likely to be of Neolithic or earlier origin.

4.2 **Roman: Phase 1** (2nd century)

Context Groups 33, 34, 35, 36, 37, 38 and 39 (Figs 4 and 5)

This phase is principally characterised by a number of areas of metalling (CG 37, 38 and 39). These comprised small to medium sized pebbles rammed into a soil matrix to form thin but fairly compact and uniform surfaces. These occurred in the more intensively investigated area. The northern limit of these patches (CG 39) was not firmly established, though clearly the areas of metalling did not extend much beyond the observed extent in that direction (Fig 5). It had a shallow, north to south aligned step towards what may represent its original western limit. Beyond this the surface was generally less compact, perhaps having spread there during use or perhaps representing some consolidation of the ground flanking the surface. The east side was demarcated by a shallow, north to south aligned gully (CG 36), beyond which only a thin scatter of pebbles occurred which again may simply represent material trampled beyond the surfaces' original limits through use. The base of the gully also had a few small patches of metalling in it which are considered to be part of CG 39. The gully also had a number of north to south aligned gouges in its base, which may be wheel ruts.

A thin trampled layer (CG 26) sealed much of the surface and is considered to represent material accumulated on the surface during its use, or upon its abandonment. This was dated to Phase 2 and indicates that the surface remained in use into that phase (see below). The gully and depression flanking the metalled area were not filled until Phase 3 (CG 5) further supporting the continued use of the surface.

The second main patch (CG 38) lay just to the south but was not linked to that to the north possibly due to truncation or its having been worn away through use. The edges of this patch were generally irregular, or had been truncated or lay beyond the excavation limits. The west limit was largely truncated by a very poorly defined and dated, shallow depression, possibly a gully, of Phase 3 or later date. This obscured any edge or step which might have been present here however there is a general suggestion of a continuation of the line represented by the step forming the west limit of the northerly patch.

There were a number of other small irregular patches (CG 37) to the south and west of the more extensive spreads discussed above.

It was not possible to establish whether these areas of metalling had been irregular and patchy originally, had worn away through use in some areas, or if the patchiness was a result of truncation by recent ploughing.

To the south, two north to south aligned ditches were recorded neither of which included slag in their fills. The first of these (CG 35) was only observed over 0.45m and was truncated by the other Phase 1 ditch in this area (CG 34)

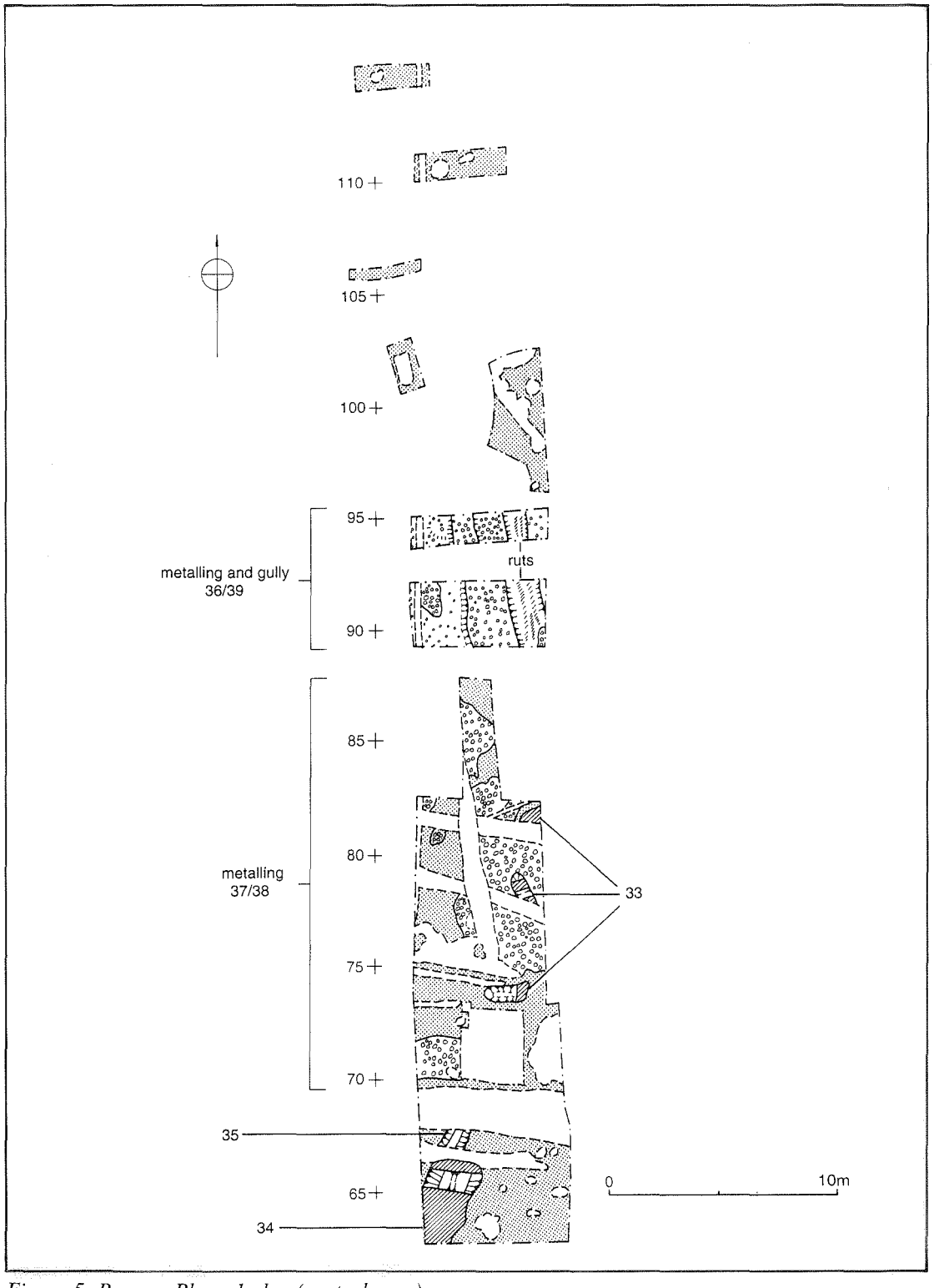


Figure 5: Roman: Phase 1 plan (central area)

and by a Phase 2 ditch (CG 27). Since it did not extend to the north, beyond the latter ditch, it must have terminated at about this point. This is supported by the fact that the other ditch (CG 34) also appeared to butt-end here. This was a more substantial feature, and probably replaced the earlier slighter ditch. It was over 2.00m in width but was only observed over 4m and extended beyond the excavated limit. This probably represents a major boundary, perhaps of an enclosure, however the limited extent observed means that the form of any such enclosure remains unknown. The base was somewhat irregular possibly indicating that the ditch had been recut on at least one occasion.

Centrally within the area occupied by the patches of metalling were three cut features (CG 33) of indeterminate function. Two of these were sub-oval in plan, while the third may have been similar but was truncated on its southern side by a later ditch. Two of them contained a slight quantity of iron slag however their function is unclear.

These metalled surfaces and associated features represent the earliest activity identified at the site and seem to have occurred prior to the commencement of iron working in the vicinity. A couple of the features do however include slight quantities of iron working waste and are inseparable through dating evidence. Thus they may be associated with preparation of the area prior to iron working and the very initial stages of such activity.

4.3 **Roman: Phase 2** (*c* AD 120 to early 3rd century)

Context Groups 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 and 32; Figs 6 and 7)

This phase is characterised by waste material from iron working which is present in many features (see below). The most obvious characteristic of the features apart from the iron working residues in their fills was the predominance of ditches and gullies on broadly east to west alignments (CG 27, 28, 29, 30, 31 and 32). Certain of these appeared to cut the Phase 1 metalled surfaces, but in one case the metalled surface, whilst cut across by the ditch (CG 32), appeared to camber slightly into the ditch supporting the evidence for the continued use of the metalled surface.

A compact, but thin, soil accumulation developed over the surface in patches (CG 26) and is considered to represent use or abandonment of the surface during this phase. Two further areas of soil (CG 25) have been assigned to this phase. They were sealed by the modern ploughsoil, overlaid the natural and were cut by Phase 2 features. In the case of the more substantial area (context 141) this included Phase 2 pottery. These soils may be remnants of the Roman ground surface surviving below the modern ploughsoil however these were not clearly defined and no plan was made of their extents. One of these soils (context 109) was cut by two Phase 2 features, a ditch (CG 24) and a short linear feature (CG 23) with rounded ends. The ditch ran north to south rather than east to west as did all other linear features in this phase. Although the north and south extents were not observed, some 6.5m of the ditch were recorded and its absence in surrounding areas suggests that in both directions it must terminate or return to run either east or west.

The largest of the east to west aligned ditches (CG 28) lay south of the main concentration of features containing iron working waste and just to the south

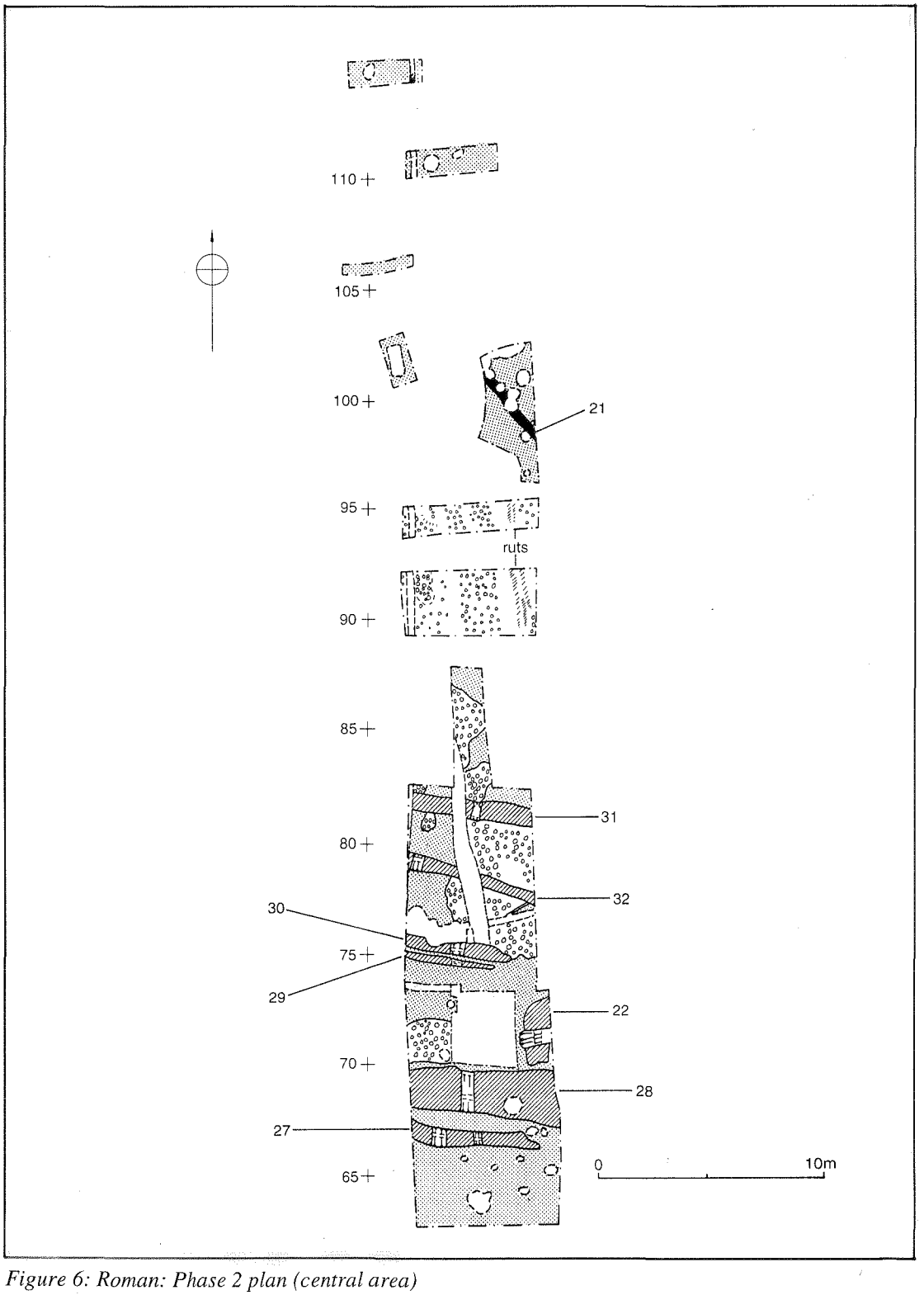


Figure 6: Roman: Phase 2 plan (central area)

of the metalled areas. This was a substantial feature, 2.25m in width and 0.72m deep. It extended beyond the limits of the excavation to both the east and west and probably formed a major boundary. This may have originated in Phase 1 and be contemporary with the large ditch (CG 34) which terminated immediately to the south of it, however its fill (context 223) was rich in iron working residues (1340g slag) whilst that of the other ditch was sterile. Thus although there is a possibility that they were contemporary in origin, this ditch clearly remained in use for considerably longer than that to the south and was not backfilled until Phase 2.

Immediately to the north of this was a substantial pit (CG 22), 0.60m in depth, and extending beyond the east limit of the excavation. This had a complex set of fills of varying composition. The base fill (context 183) was a compact brown clay, possibly representing a lining. However, this layer also included pottery and slag (1298g) and so may have been redeposited from elsewhere accounting for its rather mixed character. Overlying this was a thin layer of slag, charcoal and burnt clay with little soil in its matrix (context 169). Unfortunately the slag was not retained, however, other finds from this were of interest since they included *mortaria* and samian thus giving the deposits a mixed character. This lay beneath a layer of light grey-brown silty clay (context 168) which included some slag and fired clay and was sealed by a further slag rich layer (context 158). This latter layer was notable for hammerscale adhering to pottery within it and may be directly associated with metalworking activity (see below). The iron slag rich layers, which also contained fragments of highly fired clay, were identified on site as debris from iron working. The fired clay fragments possibly represented elements of a furnace lining and this pit was thus felt to be associated directly with ironworking. Post-excavation analysis has confirmed these initial impressions (see below), although it should be noted that the fills were generally mixed and included domestic pottery as well as ironworking residues. This may indicate that the pit was a rubbish pit into which material from a number of sources was dumped.

Although no furnaces or hearths were identified within the excavated area, the presence of hammerscale in several fills (contexts 158 and 183) of the pit and in other features, allied to the concentrations of slag, indicates that iron working activity was occurring immediately to the east of the excavated area. This is supported by the fact that three of the ditches had eastern butt-ends within the trench (CG 27, 29 and 30) suggesting that they may be respecting a particular area of activity lying to the immediate east of the excavated area.

To the north of this activity there was evidence for a structure (CG 21). This comprised a north-west to south-east aligned slot with a flattish base cut by a shallow posthole which is believed to be contemporaneous with the slot, or to slightly pre-date it. The extents of this were not established within the excavated area. No associated features were recorded but it was not possible to reconstruct any building plan from the excavated evidence. The alignment of this was reflected in a Phase 3 posthole structure (CG 16) which may represent a rebuild. Some considerable distance to the north a similarly aligned ditch or gully (CG 20) was observed over approximately 4.50m. No return or butt-end was recorded for this feature, however investigations beyond the observed extents established that it did not continue far in either direction on the same alignment.

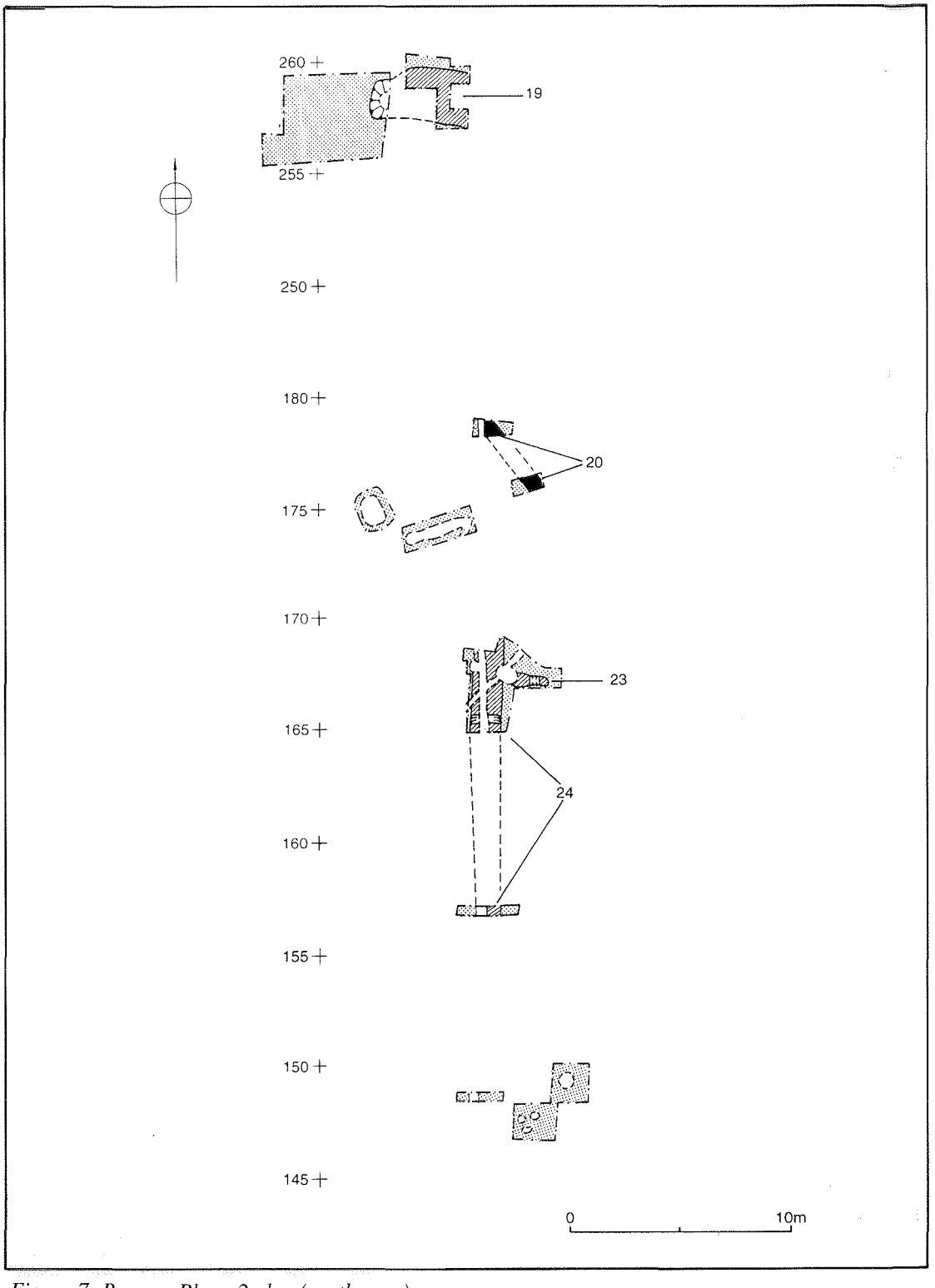


Figure 7: Roman: Phase 2 plan (north area)

Finally, at the far north end of the site, some considerable distance (80m+) from any other deposits observed, was a substantial feature (CG 19), possibly the end of an east to west aligned ditch or the west end of a large sub-rectangular pit. Its fills had certain similarities to that of the pit (CG 22) to the south. A dark grey brown silty clay with slag, charcoal and pebbles was overlaid by a mid-yellow brown clay with charcoal and pebbles but no slag. This was in turn overlaid by a fill almost entirely comprising iron slag and charcoal. As with the fills of the pit to the south there was a mixed character to these, with a considerable quantity and range of domestic pottery recovered (see below). Again this may be indicative of material from a range of sources being dumped into the feature.

4.4 **Roman: Phase 3** (3rd to early 4th century)

Context Groups 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 18; Figs 8, 9 and 10)

All of the Phase 2 ditches, pits and gullies had fallen out of use by the end of that phase with the exception of (CG 27) which appears to have backfilled in Phase 4 (CG 18), probably prior to the construction of a timber building in this part of the site (see below, CG 17). Phase 3 is characterised by a number of timber structures comprising post and stakeholes, two of which cut into the fills of the abandoned Phase 2 ditches and gullies. It is possible that the metalled surface remained in use some extent into Phase 3 since two of the structures identified lay to either side of it.

The first structure (CG 17) lay to the south and comprised twelve post and stakeholes on broadly north-east to south-west, and north-west to south-east alignments. These clearly represent a rectangular timber structure though its full plan was not definable due to the limits of the excavation. A reconstruction of the line of its north-east and south-west sides is tentatively suggested.

About 20m to the north of this a series of postholes on similar north-west to south-east alignments (CG 16) appear to represent a replacement of a Phase 2 structure (CG 21). Other postholes in the vicinity may reflect this alignment and are felt to be associated and form elements of a second rectangular timber structure. However, as with the one to the south only parts of this fell within the excavated area and no reconstruction of its plan can be attempted.

Further north two groups of structural features were identified (CG 15 and 14), of which the former had a suggestion of a north-east to south-west alignment of postholes reflecting the alignments of the structures to the south. The other group (CG 6) comprised a loosely associated group of postholes, an indeterminate cut feature and a short (2.25m) slot. These two groups of features are clearly associated with timber structures however building plans again cannot be reconstructed from the available evidence. Elements of two of the structures (CG6 and CG17) were cut by other, later Roman Phase 3 features, including other structural features (from CG10, see below) suggesting that there were two periods of activity in this phase.

Apart from the structures a number of other features are present. To the south end of the site the west end of a rectangular pit (CG 13) was recorded. This feature was distinctive having vertical sides and a flat base. A large flat stone appeared to be set into one corner of it at its base. There were two fills, a dark

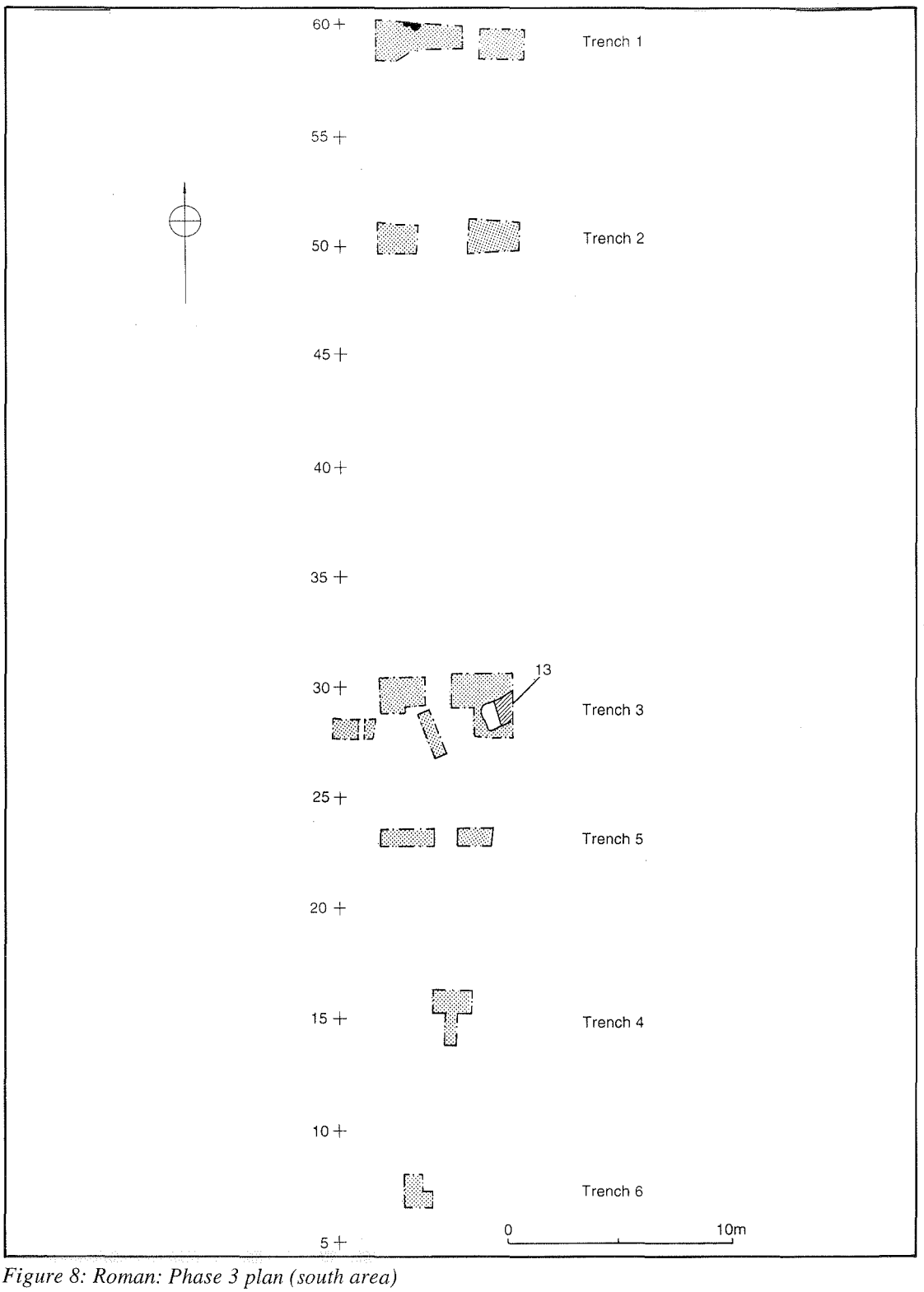


Figure 8: Roman: Phase 3 plan (south area)

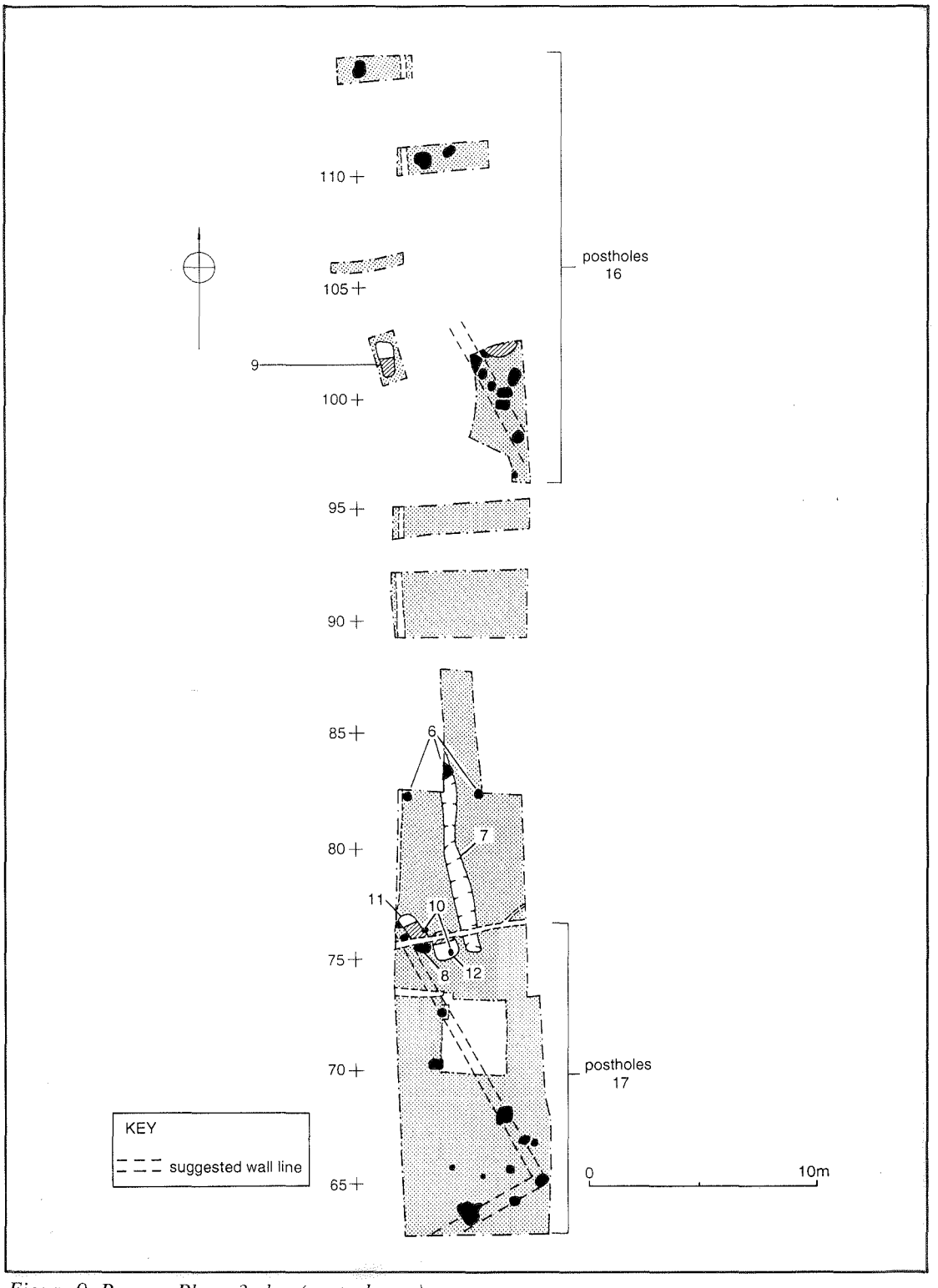


Figure 9: Roman: Phase 3 plan (central area)

black silty clay (context 248) and above it a light brown silty clay fill (context 246). The lower fill included cleanings from crop processing (see below) and was artefactually sterile. This may be the primary fill and reflect the use of the feature, perhaps as an organic waste pit associated with crop processing. It has been suggested that the stone slab in one corner may be all that is left of a stone floor to the feature and if this was the case would suggest that it may have required regular cleaning out and that this fill relates to its final use. The upper fill, in contrast, contained domestic material, and this is likely to represent secondary usage of the feature as a domestic waste pit.

Other features associated with this phase included two sub-rectangular but shallow pits (CG 11 and 12), two small postholes cutting these pits (CG 10), a deeper pit (CG 9) and a short slot (CG 8). Of these only one (CG 9) was of interest, having a clearly defined silty clay lining and a backfill. The lining suggests that the pit, which was 0.45m deep, may have had some specialist function perhaps as a soaking pit or tank, however the backfill did not provide any further indication as to function.

A north to south aligned shallow hollow (CG 7) may also be Phase 3 in date. It was sealed by Phase 3 soil deposits described below and although not clearly defined appeared to truncate a number of Phase 2 ditches and a Phase 3 posthole (part of CG 6).

Finally a soil (CG 5) accumulated over a large part of the south end of the site, filling into the gully running down the east side of the metalling, over the stepped hollow to its west and over the fill of the north to south hollow (CG 7). This extended across much of the metalled area and sealed the postholes of the structure to the south and other features in the main part of the site. This soil represents material accumulated across the settlement when occupation ceased and is felt to be late Roman in origin. It included small quantities of medieval and post-medieval material interpreted as having derived from manuring arable land with domestic refuse (see below) and thus suggesting that this deposit formed a ploughsoil.

4.6 Post-Roman

Context Groups 1, 2, 3 and 4

Towards the south end of the field near the motorway was a 2.50m wide ditch (CG 4) on an east to west alignment. This included post-medieval material and is believed to be a former field boundary backfilled when the motorway was constructed. A ceramic land drain (CG 3) and two plough furrows (CG 2) were also present. These features were sealed by a well mixed, silty clay loam ploughsoil (CG 1), some 0.25-0.30m thick, which extended across the whole of the investigated area.

5 Artefactual analysis

5.1 Introduction

5.2 Aims

The principal aims of the artefactual analysis are to date deposits on the site, and to identify the types and extents of activity, and range of economic contacts represented by artefactual material.

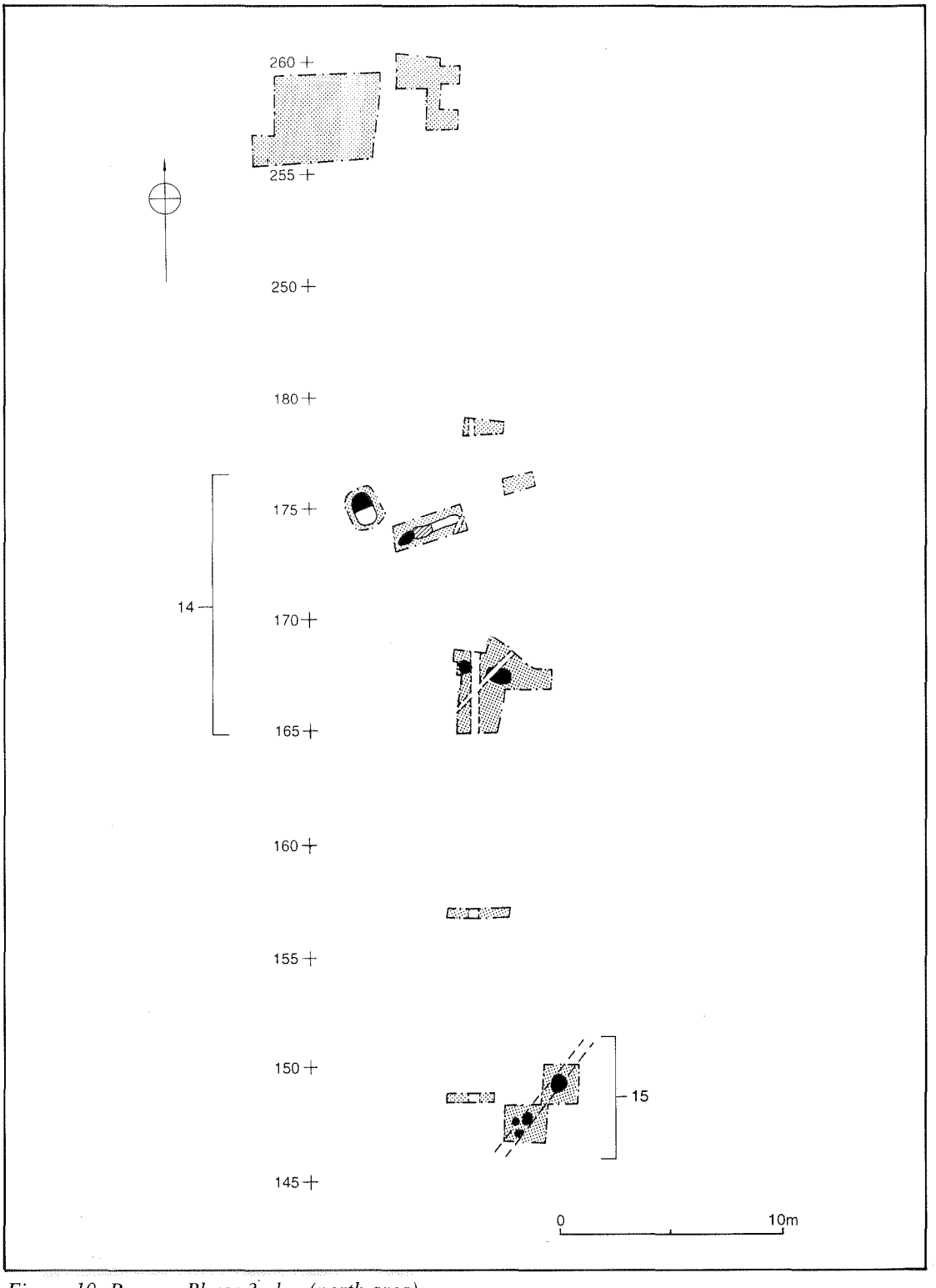


Figure 10: Roman: Phase 3 plan (north area)

5.3 Method

Salvage excavation
Finds were recovered by hand-retrieval and also within whole earth samples taken for environmental monitoring. Hand-retrieved finds were recorded by context on *pro forma* sheets (eg AS11/88). Quantification was by weight and count, where appropriate. Finds dating was used to provide *terminus post quem* dates for contexts. Pottery fabrics were identified with reference to a fabric type series maintained by the Service (Hurst and Rees 1992).

A detailed specialist report on the samian and the *amphora* sherd is held in the project archive.

A sub-sample (approximately 0.5kg) of the sieved sample residues was examined for finds. These finds have not been recorded in detail or quantified, except for in the case of hammerscale, and only the latter is included in the following report, unless otherwise stated.

Fieldwalking
A summary record was made of finds from fieldwalking of the area of the easement which was undertaken following topsoil stripping. This identified the artefact types, and period for each stint. Only the distribution of the Roman pottery was analysed.

5.4 Results and analysis

5.4.1 Salvage excavation

There was a total of 1311 sherds weighing 16.528kg (Tables 4 and 5). The majority (98.5%) of the pottery was of Roman date with the remainder of medieval and post-medieval date. Most non-pottery finds were also of Roman date. Artefacts are mainly discussed as a site assemblage (see discussion below) rather than phase, as the overall assemblage was not large. The dates defined for the phases are broad date ranges within which activity took place, and it is possible that activity only occurred during part, rather than throughout the span, of these date ranges.

Table 4 **Quantification of pottery**

Period	*sherd no*	*sherd weight*
Roman:1	19	0.124kg
Roman:2	391	6.902kg
Roman:3	273	3.408kg
Post-Roman	628	6.094kg

Roman: Phase 1 (2nd century)

Pottery
The assemblage comprised mainly Severn Valley ware (fabric 12), and was too small for any detailed analysis of fabric and form. None of the pottery was particularly datable, but the absence of any sherds datable to the 1st century suggests that this phase should be dated to the 2nd century at the earliest.

Table 5 **Quantification of principal Roman pottery fabrics (with percentages of overall Roman pottery assemblage)**

Fabric no	*Common name*	*Sherd count*	*%*
3	Malvernian handmade ware	110	8.5%
12	Severn Valley ware	968	75.0%
19	Wheelthrown Malvernian ware	30	2.3%
22	Black burnished ware type 1	73	5.7%
32	Hartshill/Mancetter ware	18	1.4%
33	Oxfordshire ware	2	0.2%
43	Samian	58	4.5%

Other finds
The remaining finds from this phase comprised residues from iron smithing. There was coal, iron smithing slag (Table 6), and a large fragment of a possible hearth bottom. There was also a small amount of hammerscale.

Table 6 **Quantification of ironworking slags**

Period	*Weight (kg)*
Roman:1	0.868
Roman:2	25.92
Roman:3	5.62
Post-Roman	29.38

Roman: Phase 2 (*c* AD 120 to early 3rd century)

Pottery
The phase assemblage comprised mainly Severn Valley ware (fabric 12; Fig 11, no 1), but there was a wider range of fabrics than in Phase 1, probably as a result of the assemblage being larger. Fabrics also include Malvernian handmade (fabric 3; eg a lid; Fig 11, no 7), grey ware (fabric 14), Black Burnished ware (fabric 22), samian (fabric 43; eg Fig 12, nos 1-2) from central Gaul (almost certainly all from Lezoux; B Dickinson pers comm), Dressel 20 *amphora* from southern Spain (Peacock and Williams 1986, class 25; D Williams pers comm), and Hartshill/Mancetter *mortaria* (fabric 32; eg Fig 11, nos 4-5). Forms included cooking pots, colander, mortaria, storage (amphora), and table wares (samian cups, dishes, bowls) ie a good range of domestic, and especially kitchen wares. The *amphora* had originally contained olive oil (D Williams pers comm).

Other finds
Iron working residues were well represented in this phase. There was furnace or hearth lining, and iron smithing slag, the latter being derived from many of the contexts of this phase. There was also fired clay, some with slag adhering, and, therefore, likely to have been part of a hearth. The largest amount of iron slag from the site came from the fills of the substantial pit (CG 22; *c* 20kg), which included some pieces of hearth bottom. Hammerscale was associated with several contexts, including the top and bottom fills of pit CG 22, with the top fill producing the densest concentration from the site. Coal was present in

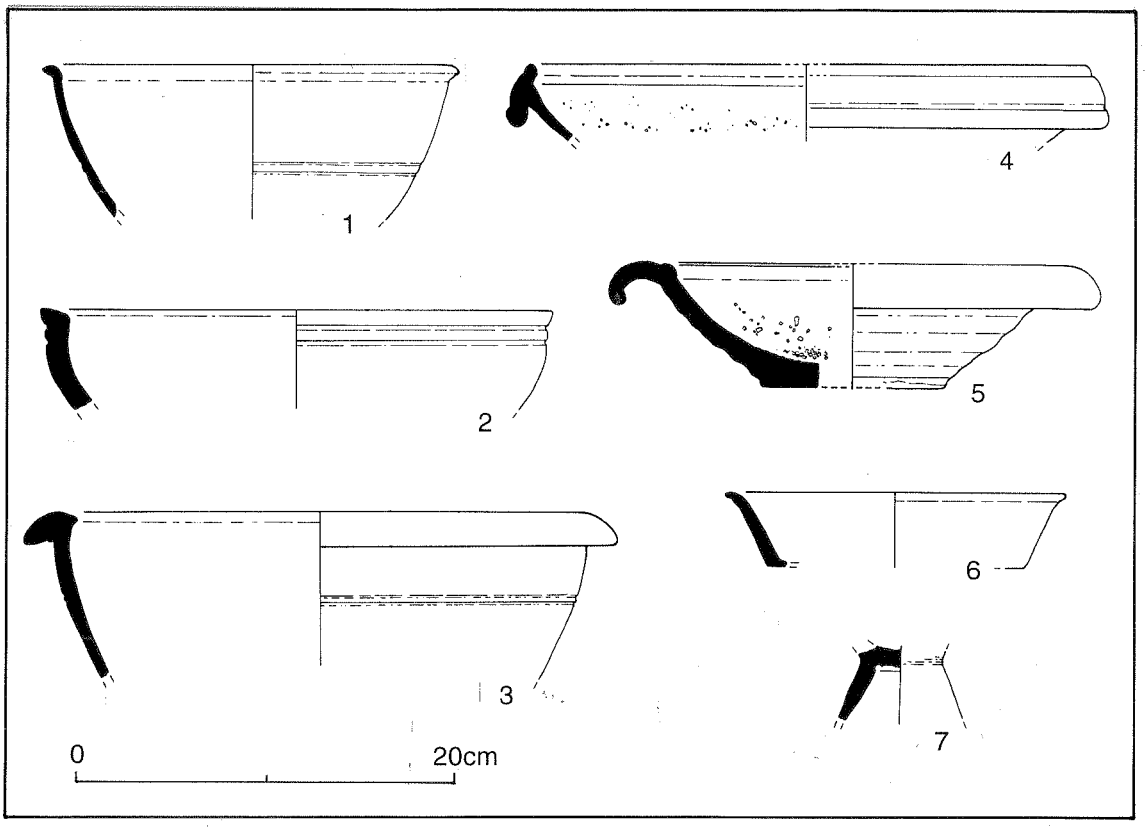


Figure 11: Roman pottery

Pottery (Fig 11)

1	Bowl (fabric 12); 158	Phase 2	5	Mortarium (fabric 32); 195	Phase 2
2	Bowl (fabric 12); 235	Phase 3	6	Dish (fabric 3); 100	Post-Roman
3	Bowl (fabric 12R); 144	Phase 2	7	Lid (fabric 3); 208	Phase 2
4	Mortarium (fabric 32); 144	Phase 2			

a number of contexts, including the pit. The only metal object was a nail fragment.

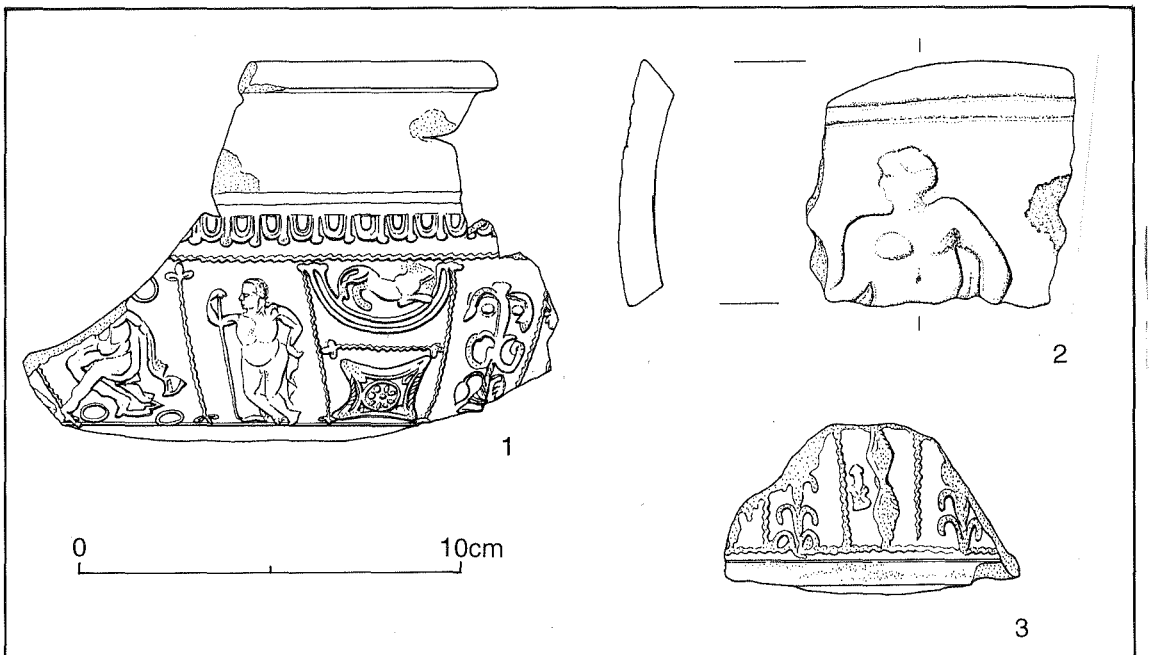
Domestic non-pottery finds comprised a rotary quern fragment, and flat ceramic plates (Fig 13, no 1; cf Hurst and Woodiwiss 1992, fig 46, no 1). The former was made from a Quartz Conglomerate, a type of stone used for querns at Beckford during the Roman period, where its source was suggested to be either the Forest of Dean, or the Trelleck and Penallt areas of Gwent (Roe nd, 6).

Dating

The evidence of some of the samian plain forms, such as dish 18/31R, and of the decorated ware (a bowl in the style Pugnus ii) shows that samian was in use on the site by the Hadrianic or early-Antonine periods, while the latest samian of this phase was certainly after *c* AD 160 (B Dickinson pers comm). This dating was compatible with most of the coarse wares, which, where more closely datable, were of 2nd century, or of 2nd to early 3rd century date. The Dressel 20 amphora is the commonest type found in Roman Britain, and was imported from shortly before the Roman Conquest until sometime after the middle of the 3rd century AD (Williams and Peacock 1983), the fabric of the Norton example being suggested to date towards the end of this period (D Williams pers comm).

Roman: Phase 3 (3rd to early 4th century)

Pottery
The range of pottery is similar in fabric and form to that described for Phase 2, however there is a greater amount of Malvernian wheel thrown ware (fabric 19), and the occasional sherd of Oxfordshire ware *mortarium* (fabric 33). An additional form was the flagon. The assemblage was too small for any inferences to be made from the absence of East Gaulish samian of the later 2nd and early 3rd century, either about the supply to this area, or the date when samian ceased to reach the site (B Dickinson pers comm).



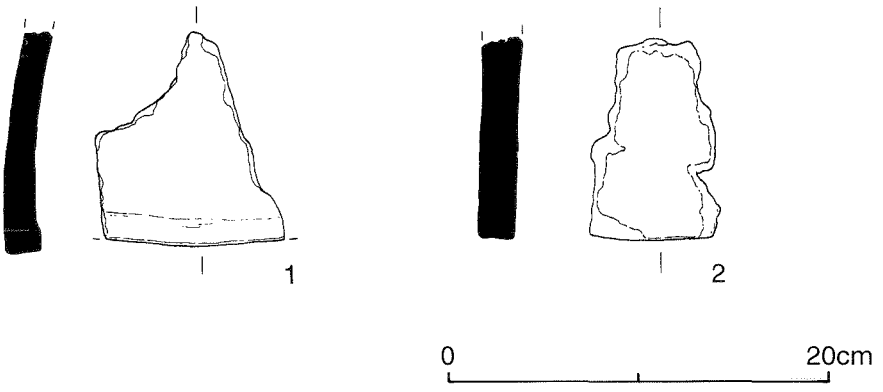
1	Bowl; 208	Phase 2
2	Figure decoration; 146	Phase 2
3	Bowl; 100	Phase 4

Figure 12: Samian ware

Dating
The rarity of Oxfordshire ware suggests that this phase does not extend much beyond the 3rd century. The absence of any samian later than that associated with phase 2 did not seem to be of significnace (see above).

Other finds
Iron smithing slags were found in many contexts of this phase, but the overall quantity was much lower than for Phase 2. In some cases the slag was associated with fired clay, and coal and hammerscale were also represented. Iron objects comprised two nail fragments, and other iron lumps.

As in the previous phase flat plates made from a Malvernian fabric of fabric 3 type (Fig 13, no 2) were also represented.



1	Circular flat plates in Malvernian fabric; 223	Phase 2
2	Another example; 123	Phase 3

Figure 13: Ceramic objects

Post-Roman

Most post-Roman finds were from contaminated Roman contexts such as the Roman (Phase 3) soil accumulation (CG 5), but there was one ditch (CG 4) associated with disuse datable to the 19th-20th century.

Unstratified finds ranged in date from an early prehistoric (flint) to post-medieval. Notable finds were Roman roof tile (*tegula*), and medieval floor tile.

5.4.2 **Fieldwalking**

The areas of greater Roman pottery density coincided generally with the densest concentrations of Roman features.

6 Environmental analysis

6.1 Introduction

There have been few opportunities to study environmental remains of Roman date from rural sites in Hereford and Worcester although in recent years there have been an increasing number of sites at which environmental sampling has been undertaken. These include, to the north, sites at Areley Kings (Dinn and Hemingway 1992) and Hoarstone Farm (Jackson *et al* 1994b); near Worcester sites at Retreat Farm, Grimley (HWCM 4503; Jackson 1991), and Church Farm Quarry, Holt (HWCM 4511; Edwards 1991); and to the south, sites such as at Strensham (HWCM 7708; Jackson *et al* 1995b) and Norton and Lenchwick (HWCM 2848; Jackson 1995c). Most of these have produced only sparse quantities of environmental remains, consisting mostly of occasional charred cereal grains. However, at Strensham and Norton and Lenchwick, the occurrence of charred cereal debris was more extensive, and a number of features were sufficiently rich in such debris to provide results of significance for this County.

In contrast, urban areas such as Worcester and Droitwich are the areas where environmental remains of Roman date have been intensively studied in the County. These remains have been preserved under a variety of conditions, the majority of which is archaeobotanical from rubbish or cess pits, providing information on diet and changing use of cereal crops. Sites such as Norton can potentially provide useful information for comparisons of diet and economy in rural and urban areas.

6.2 Methods

Fieldwork

A total of 32 contexts were sampled for biological remains, mostly from fills of pits or postholes and linear features, all dated to the Roman period (Table 7). On-site sampling strategies, processing and initial analysis of the environmental material was carried out by Clare de Rouffignac. The remaining analysis and collation of data was carried out by the author.

Table 7 **List of samples analysed**

Context No	Context description	Phase
101	fill of posthole	3
105	fill of slot	3
110	fill of ?slot	2
114	fill of posthole	3
116	fill of posthole	3
118	fill of posthole	3
120	fill of posthole	3
122	fill of posthole	3
124	fill of ?soaking pit	3
126	lining of ?soaking pit	3
133	fill of posthole	3
135	fill of posthole	3
139	fill of posthole	3
146	fill of pit/ditch	2
150	fill/layer	3
152	fill of posthole	3
154	fill of ditch	2
158	fill of pit	2
162	fill of posthole	3
164	fill of posthole	3
166	fill of ditch/gully	3
177	fill of ?slot	2
180	fill of posthole	2
183	fill of pit	2
186	fill posthole	3
200	fill pit/posthole	3
223	fill of ditch	2
227	fill posthole	3
235	fill of pit/posthole	3
239	fill of posthole	3
244	fill of indeterminate cut	1
248	fill of pit	3

Processing and analysis
Samples of approximately 5 litres were processed by flotation followed by wet-sieving using a siraf tank. The flot was collected on a 500µm sieve and the residue retained on a 1mm mesh. This allows the recovery of small items such as small animal bone, molluscs and plant remains.

The residues and flots were fully sorted for the major classes of biological remains. The plant remains were examined under a low-power EMT light microscope and identified using the County Archaeological Service modern reference collection and the Flora of the British Isles (Clapham *et al* 1987).

6.3 Results

Identifiable environmental remains were sparse in most contexts with the exception of one Phase 3 pit fill (context 248, CG 13) from which a moderately large assemblage of charred plant remains was recovered (Table 8).

Animal bone was rare despite the fact that the soil conditions are not notably acidic, and therefore, destructive to bone. Small, unidentifiable fragments of bone were recovered from wet-sieved samples and some fragments of mostly large mammal bone were hand-collected.

Seeds were preserved in small numbers in approximately half of the samples, probably as a result of the slight seasonal waterlogging which is common on the soils of the local area (Whimple 3 association, Soil Survey of England and Wales). For example, cleavers (*Galium aparine*), knotgrass *Polygonum aviculare* agg), fool's parsley (*Aethusa cynapium*), fat hen (*Chenopodium album*), fumitory (*Fumaria* sp.) and docks (*Rumex sp.*), although in some cases are catholic in their habitat preferences, are most likely to have been growing on cultivated or disturbed ground. Alternatively, they may have originated from cereal crop waste or manure in the near vicinity of the features.

Charred plant debris was sparsely distributed across the site in many features. Only one feature, the Phase 3 pit (CG 13, context 248) contained a concentration of such remains (see Table 8). Here, cereal grains, cereal chaff, weed grasses and other weed seeds were abundant. The main component of the assemblage is chaff of spelt wheat (*Triticum spelta*) and emmer/spelt wheat (*Triticum dicoccum/spelta*) in association with small weed seeds. A number of the cereal grains are identifiable as spelt wheat, along with other emmer or spelt wheat grains and barley (*Hordeum vulgare*). The weed component of the assemblage, which was almost as prominent as the chaff, was dominated by small grass grains and mayweed (*Tripleurum maritimum/inodorum*). Other weed species present were fat hen (*Chenopodium album*), sheep's sorrel (*Rumex acetosella* agg), field penny-cress (*Thlaspi arvense*) and unidentified legumes (Leguminosae sp indet). All these weed species are likely to be contaminants of the crop.

7 Discussion

A detailed discussion of the development of the site, of its form and layout and of specific buildings or structures within it is not possible due to the limited area which was available for recording. This has provided a north to south

Table 8 **The plant remains**

botanical name	common name	habitat	248 (CG 13)
Charred plant remains			
Triticum dicoccum/spelta grain	emmer/spelt wheat	F	2
glume base		F	>150
Triticum cf *dicoccum/spelta* grain	emmer/spelt wheat	F	1
Triticum spelta grain	spelt wheat	F	5
glume base		F	>50
rachis		F	2
Triticum sp. grain	wheat	F	9
Hordeum vulgare grain	barley	F	1
Triticum/Hordeum sp grain	wheat/barley	F	2
Cereal sp. indet. grain	cereal	F	18
coleoptile		F	3
Bromus sp	brome grass	AF	8
Avena sp.	oat	AF	1
Graminae sp. indet. grain	grasses	AF	>150
Thlaspi arvensi	field penny-cress	AB	1
Chenopodium album	fat hen	AB	1
cf Leguminosae sp indet	legume	AF	3
Rumex acetosella agg	sheep's sorrel	A	4
Triplurospermum maritimum/inodorum		mayweed	A 27
unidentified			3

Habitat key
A = cultivated ground
F = cultivar

strip of information across a Romano-British settlement which clearly occupies a much broader area than that observed. Information is therefore necessarily limited to that sector of the site traversed by the pipeline, however, it has been possible to develop a broad understanding of the chronological sequence and the character of occupation in this part of the site as well as some insight into the economy of the site.

The occupation sequence

Occupation appears to have commenced in the early 2nd century. A number of areas of metalled surface are among the earliest features identified. These surfaces appear to have remained in use for much of the period of occupation. A gully along the east side of one area of metalling and a number of what appeared to be wheel ruts in its base indicate that the surface was at one time used for wheeled transport, perhaps forming part of a trackway. Alternatively it could represent part of extensive metalled spreads forming yards. Metalled surfaces similar to those encountered here have been identified on many Roman sites, including locally as at Deansway where surfaces of 1st to 2nd century date were associated with agricultural activity and a number of early street surfaces (Dalwood *et al* 1992, 123-4). These pre-dated the major phases of ironworking at that urban site and in the case of the streets may have been elements of an area which was deliberately laid-out in preparation for ironworking. A similar situation seems likely here at Norton.

A substantial ditch to the south of these metalled surfaces probably represents a boundary and is likely to represent one side of an enclosure, however, the extents and plan of any enclosure could not be established. A couple of smaller features, shallow pits or hollows, were associated with this early activity and contained iron working waste in the form of slags.

Rapidly following on from this initial activity, and indivisible from it in dating terms, followed a phase of activity characterised by the presence of considerable quantities of iron smithing waste in many features. This activity was dated *c* AD 120 to early 3rd century. During this period the site has a clear southern boundary ditch beyond which there was little evidence of activity. To the north of this, the metalled surfaces seem to have remained in use but were divided up by a series of ditches or gullies. These probably provided drainage as well as forming boundaries dividing areas of the site into enclosures or areas of activity. Three of these had their eastern terminals within the excavated strip probably indicating that the areas they were defining lay to the west and that these were respecting activity of a different kind to the east. The latter activity may have been iron working as many of the fills of these features contained iron smithing waste and a large pit on the eastern edge of the excavated area was clearly associated with such activity. A possible timber structure, two ditches or gullies and a large pit or ditch with fills rich in both iron smithing waste and domestic refuse, all lay to the north of the main area. These indicated that activity in this period was extensive, extending across nearly 200m.

The metalled surfaces may have remained in use into the 3rd or early 4th century however the ditches or gullies appear to have fallen out of use and become silted up or been deliberately backfilled. Iron working also appears to have ceased by this time (see below). Artefacts from this phase suggest that activity on or near the excavated area may have been predominantly domestic in character. This is supported by the presence of at least two, and possibly more, timber buildings of rectangular plan and a pit backfilled with domestic

rubbish. Activity was again extensive with features dispersed over approximately 150m of the pipeline easement.

The buildings are of interest as they appear to be rectangular structures as opposed to roundhouses which are possibly the most common type across Roman Britain in the 1st and 2nd centuries (Hingley 1989). Roundhouses continue in use into the 3rd and 4th centuries in northern England and the far west, and also appear on some sites in southern Britain, however on most southern sites rectangular houses replace roundhouses. Such buildings have not often been encountered on rural sites in Hereford and Worcester where roundhouses have been more commonly identified, for example at Norton and Lenchwick (Jackson *et al* 1995c) and at Larford (Walker 1958). This may simply result from the fact that very few Roman rural settlements have been investigated in Worcestershire. Recent excavations on another part of the Strensham to Worcester Aqueduct, at Strensham, have identified one such rectangular structure of 3rd to 4th century date (Jackson *et al* 1995b), while a rectilinear aisled building was identified at Areley Kings a few years ago and was also of probable 3rd to 4th century date (Dinn and Hemingway 1992). These discoveries together with that from Norton suggest that the county may follow the general trend for lowland Britain.

The site appears to have been abandoned in the late 3rd or early 4th century when a soil developed over the metalled surfaces and filled into the remaining features. The area then appears to have reverted to agricultural use as indicated by the thin scatter of material of post-Roman date present within this soil and the modern ploughsoil (see below).

The artefactual assemblage
Deposits and artefacts were mainly of Roman date. Phase 1, defined on stratigraphic grounds, produced too few finds to be characterised artefactually in any detail, but the finds assemblage was not dissimilar in composition to that of Phase 2. It seems likely, therefore, that the domestic and industrial themes observable in Phases 2 and 3 are already present in Phase 1.

The origins of the site could be established with some certainty. There was no coarse pottery datable to the 1st century, and also no samian earlier than the Hadrianic period. This suggested that occupation commenced in the period of *c* AD 120-40.

The artefactual assemblage was both domestic and industrial in character. The domestic pottery was broadly typical of its period (Table 5; cf Norton and Lenchwick; Jackson *et al* 1995c, 13). The ironworking (see also below) was consistently indicative of smithing. Only one feature was identified that was likely to be directly involved in the smithing process. This pit (CG 22) contained several layers incorporating iron smithing slag, fired clay, and hammerscale. This may also indicate the presence of a iron smithing hearth in close proximity. Pieces of fired clay with slag adhering indicated that the hearth was constructed of clay. Roman depictions of smithing hearths show that the working area was at waist height (eg Manning 1976, 6, fig 4), and a hearth of this type may have been present at Norton.

Other artefacts included a number of flat plate fragments of Malvernian fabric. These are unlikely to have had any specialised industrial use as they occur on a variety of sites, only some of which have industrial activity (eg Droitwich; Hurst and Woodiwiss 1992, 64).

Activity at Norton extended into the 3rd century, but it remained unclear whether this continued into the 4th century. The latest pottery has a late 3rd to 4th century date range. In both cases it was associated with post-Roman finds, and some of the Roman pottery was abraded indicating that these late Roman contexts are liable to have been contaminated by later (presumably agricultural) activity. The amount of pottery dating to the late 3rd to 4th century was low suggesting that activity was petering out by the end of this phase. The absence of any definite Oxfordshire colour coated wares which can be expected in this area from the mid 3rd and into the 4th century certainly seems to support this dating of the Norton pottery.

The domestic character of the pottery assemblage continued into the 3rd century, and this may be the predominant theme of Phase 3, as no features were identified as directly associated with ironworking, and the amount of iron slag in Phase 3 was much lower (Table 6). This suggests that the ironworking residues of Phase 3 may be residual. Much of this material is from the fills of postholes and ditches, where residuality was likely.

Post-Roman finds are of medieval and later date, and are consistent with a background scatter deriving from manuring.

Ironworking
The evidence for ironworking at Norton was consistent with smithing, of which traces are found on many Roman sites, especially in a rural context. A similar range of residues was found, for instance, at the small Romano-British village at Catsgore in Somerset (Biek 1982).

The use of coal in association with the ironworking at Norton is notable. It seemed to be in common use here as it occurred in a substantial number of contexts, though often in very small fragments (<10mm) as observed in the sieved sample residues. Salway (1981, 631) indicates its widespread use in Roman Britain, citing its discovery in Chester, at forts in the north, in association with lead processing in Flintshire, and at villas in the south-west. The later include the small Romano-British village at Catsgore (Biek 1982, 125), and at the villa at Gatcombe in Gloucestershire (Greene 1986, 94). At Chester it was found in a late 1st to 2nd century context, while in the north the army used it for metalworking. This confirms earlier comments by Webster (1955) about the use of coal in Roman Britain, where a strong correlation with smithing/metal working was commented on. Coal is increasingly being found on Roman smelting sites (McDonnell 1995), and Tylecote (1962) has pointed that under oxidising conditions in the smithing hearth the sulphur content of coal does not cause problems, so that coal can be used in the later stages of the processing of iron. Major areas of ironworking using coal have also been identified at Wilderspool in Cheshire (Strickland 1995, 33).

The hammerscale at Norton was of both the flake and spheroidal types (Starley 1995), the former being associated with forging, and the latter with fire welding, and primary smithing of the bloom. Primary smithing of the bloom is most likely to have been carried out at the source site of the iron (Starley 1995), and in the case of Norton this is most likely to have been Worcester, and so the presence of spheroidal hammerscale at Norton may be indicative of fire welding.

Roman ironworking at Deansway in Worcester was almost exclusively smelting, and its main period of production has been dated to Deansway

period 4 (AD 120-240; McDonnell nd, 15). The Deansway material contrasts strongly with that from Norton as the former is mainly from iron smelting rather than smithing, though in at least one case there is clear evidence that some smithing was also carried on in Roman Worcester (site 4, period 5; McDonnell nd, 13). Dating of the ironworking at both Norton and Deansway (Worcester) suggests that both were contemporary. The main period of activity in Worcester coincides closely with the dating of the main period of the Norton ironworking. A similar date for the date of ironworking activity was also derived from Sidbury excavations in Worcester (McDonnell 1992, 83, table 6). This dating correlation suggests that there may be a close link between these iron-based activities at both Norton and Worcester.

Trade

Local and regional pottery wares predominated, but there were also some foreign imported wares from Gaul and *amphora* from Spain. The main type was Severn Valley ware probably produced in the Malvern area. Major regional industries to the north and the south were also represented (Mancetter/Hartshill, and the Dorset area respectively). These wide ranging trade links were typical of the trade in Roman pottery as evidenced at other rural sites in the region (see below).

The proportion of grey ware in the Roman pottery assemblage was much less than at Norton and Lenchwick, a site of similar date range (Jackson *et al* 1995c, 13). Here grey wares accounted for 12.6% of the Roman pottery assemblage, while at Norton this figure was 2.5%. This indicates a reduction in the quantity of grey ware used in Roman Worcestershire the further west sites are located.

The presence of coal and iron are also indicative of the wide ranging trading connections of Roman Norton. In the case of iron the direct economic connection is likely to be with Worcester as a source of iron bloom, while in the case of the coal, the source is unknown, though the south Shropshire coal field may be a possibility.

The environment

The distribution of environmental remains does not suggest intense domestic activity within the area excavated. However, the charred plant remains from one Phase 3 pit (CG 13, context 248) provide some indication that waste from an emmer or spelt wheat crop was burnt as a result of using crop waste as fuel for fires or kilns. As this is an isolated occurrence, it is not clear whether this is a result of large scale agricultural or small scale domestic activity. The quantity is certainly modest in comparison to the large amount of spikelet chaff material at Blackfriars, Worcester (Moffett 1987) and on many large Roman villa sites.

The assemblage from the pit is similar to the composition of fine-cleanings, a waste product formed during crop processing (Hillman 1981). This crop waste is most likely to have been burnt when used as fuel for fires. The high proportion of weed grasses is characteristic in charred plant assemblages from Romano-British sites. Moffett noted such assemblages at Deansway and Blackfriars, Worcester (Moffett forthcoming and Moffett 1987), suggesting that the grasses may indeed have been weeds of the cereal crop which were removed during the processing, or alternatively may seem to be associated with chaff waste because they were gathered for the same purpose (ie tinder and fuel).

It is interesting to note that these remains are slightly different in composition to other rich charred assemblages found at Strensham and Norton and Lenchwick. At both sites, although waste fractions of the crop such as chaff and weed seeds were predominant, cereal grains were also numerous. At the latter site, Pearson (in Jackson *et al* 1995c) reported on the remains associated with a kiln, the interpretation being that the assemblage represented waste resulting from drying spikelets of spelt wheat in the kiln, or that a clean grain product from the drying chamber had become mixed with cereal crop waste used as fuel. A similar interpretation is possible for assemblages found at Strensham, however, these are found in pits and ditches, and not directly associated with a kiln. These results are likely to reflect the recovery of cereal crop waste from different stages of the agrarian process, that is waste from the parching of crops in kilns, and burning of waste fractions from the later stages of processing. Acquiring more data, particularly in relation to kilns and hearths may provide valuable information on their role in agricultural and domestic activities.

Overview

The site was only observed within the stripped corridor of the pipeline easement, however, it was clearly fairly extensive with deposits present over a stretch of about 250m. The ceramic assemblage indicated that the site had been occupied from the 2nd century through to the 3rd or possibly early 4th century. Due to the limited area investigated it is difficult to establish the type of settlement represented. Though it can be said to be rural in character, it was not clear whether the site was a single farmstead or a more extensive settlement such as a hamlet or small village comprising a number of compounds containing houses, workshops and farm buildings. The extent of the area over which deposits were present probably argues in favour of one of the latter options.

The site would have formed an element of the rural settlement pattern around Worcester. Historically in the area around Worcester, and in the County as whole, few such sites have been investigated, though in recent years pipeline projects and other developments have regularly revealed Roman settlements such as the one at Norton. Despite this evidence remains highly fragmentary and there has been little opportunity for synthetic studies. As a result, few conclusions can be drawn except in that it is clear that rural settlement was extensive and that land was fairly intensively exploited in many parts of the County. Elsewhere when extensive surveys have been undertaken the patterns of Roman landscape and settlement have been demonstrated to be complex and considerable regional variation has been observed (Miles 1989). Thus considerably more work is required before an understanding can be developed of the local patterns of rural settlement and landuse.

The Norton site is unusual in the region as no other Roman sites have been discovered in Hereford and Worcester which reveal such extensive evidence for ironworking, except in Worcester and at Ariconium. Both the latter are towns and are mainly associated with iron smelting (Dalwood *et al* 1995; Burnham and Wacher 1990), while Norton was the scene of iron smithing. It seems likely that bloomery iron was being produced at Worcester for finishing elsewhere and although it is unlikely that the site at Norton would have been a major centre for the production of finished goods, it could have been an important local production centre. Settlements such as this would undoubtedly have provided an important market for the iron from Worcester having smithies for the production of the many small items required on farms and

other rural settlement. It is possible that other rural settlements in the area around Worcester may have had similar specialist economic functions, however, at present there is insufficient evidence to test such a model. Apart from the iron smithing, in other ways Norton was not dissimilar from other Roman sites of similar date in the region such as Norton and Lenchwick (HWCM 2848; see above), and Besford (HWCM 22500, Derek Hurst pers comm).

The Norton site is close to other sites around and on Crookbarrow Hill where Roman material has been discovered. Some of this material is poorly located, antiquarian finds (HWCM 551; Haverfield 1901, 219), however, more recently excavations of a medieval site in 1991 just to the north-east of Crookbarrow Hill revealed a thin scatter of Roman pottery (HWCM 10176; Derek Hurst pers comm). Roman pottery has also been recovered from south of the Norton site (HWCM 10292) and most recently work associated with general programme of works on the pipeline has recovered thin scatters of Roman material (HWCM 10335-6; Jackson *et al* 1995a). In the most part these are likely to result from the practice of manuring arable land with domestic refuse, a complex, but well attested, practice in Roman times as has been demonstrated by wide-scale surveys (eg Gaffney and Tingle 1989). An undated cropmark enclosure to the east (HWCM 5399) is likely to be of Iron Age or Roman date.

Local soils are suitable for arable cultivation and that this was an important activity in the Roman period is indicated by the presence of these thin scatters of pottery consistent with manuring of arable land with domestic refuse from most fields in the area where archaeological work has been undertaken. The environmental material recovered from the site was scarce however both emmer and spelt wheat grains and chaff were present along with weed seeds characteristically associated with cultivated ground and these support the presence of arable cultivation around the site.

The final area of interest lies in the association of the site with the nearby Crookbarrow Hill. The hill is likely to be a distinctively shaped natural outcrop however its shape has possibly been enhanced and the presence of prehistoric and medieval activity, on its north and east sides, along with this Roman site immediately to its south indicate that the hill has provided a focus over a considerable period of time around which settlement has developed.

In summary therefore the site represents a rural settlement, probably a farm or hamlet, dating from the 2nd century through to the 3rd or early 4th century when the site appears to have been abandonned. The main area of interest was the discovery of a substantial quantity of industrial waste indicating that iron smithing was an important activity at the site. It is suggested that the site may have been a local manufacturing centre supplying local farms and other rural settlements and using iron from the nearby town of Worcester, which was a major iron smelting town during the Roman period.

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8 Personnel

The project was led by Robin Jackson (Assistant Project Officer).

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The report was produced by Robin Jackson in conjunction with Derek Hurst (finds) and Elizabeth Pearson (environment).

The report illustrations were produced by Carolyn Hunt and Steve Rigby.

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10 Abbreviations

Numbers prefixed with "HWCM" are the primary reference numbers used by Hereford and Worcester County Sites and Monuments Record

SMR Sites and Monuments Record

HWCC Hereford and Worcester County Council

Appendix 1

Assessment of Significance

The significance of the deposits revealed through salvage recording at Norton-Juxta-Kempsey can be assessed using the *Secretary of State's criteria for the scheduling of ancient monuments* (DoE 1990, Annex 4; Appendix 3). This information can be used to facilitate future management of the site beyond the area within the easement removed through pipe trenching and salvage excavation.

The deposits have been considered in accordance with the descriptions provided for Romano-British rural settlements by the Monumnets Protection Programme: single monument class descriptions (1989) for Romano-British linear villages and farmsteads.

Period

The site represents a Romano-British rural settlement, either a farmstead, or a hamlet or small village. Deposits were generally not complex and residuality and disturbance were limited. The pottery assemblage is probably representative of this area at this date.

Rarity

Nationally Romano-British rural settlements are a relatively common site type and so nationally the site should not be regarded as having any great rarity value. However, in regional terms great variations have been observed where studies have been undertaken (Miles 1989). It represents one of only a few such sites positively identified to date in this part of the County and consequently is of significance to the development of an understanding of this type of settlement in the region. The identification of iron working activity on the site is also of regional interest as, despite the fact that such activity has often been encountered nationally on Roman rural settlements, this is the first time that iron working has been identified on a rural site of this period in the County.

Of the estimated potential total of 400 Romano-British rural sites within the County, only 118 have been identified and of these only 10 have had even limited archaeological excavation on them (figures based upon recent Monument Protection Programme assessment for the County and associated documentation - English Heritage 1989). It is therefore the case that in the County it is not known at present what the common Romano-British rural site types are and consequently what the rarity value of this site is.

Documentation

The site is documented through this report. This site is one of only a few Romano-British rural settlements to have been investigated in this County in recent years and thus the presence of a full site archive and report means that the documentation of the site is good.

Group value

The site is important as it is one of the first rural site to be investigated close to the Roman town of Worcester which has been fairly well investigated. Thus evidence of the economy of the site can provide a comparison with that for

Worcester, which must have provided an economic focus in the area, and can also be compared with evidence for economic links of rural settlements at greater distance from the town. The identification of iron smithing activity and the relationship of this activity to the iron smelting industry of Worcester is of particular interest.

The importance of the site is enhanced by the presence of a thin pottery scatter in the fields around which suggests that evidence for patterns of manuring with domestic refuse survives around the site.

This group value is further enhanced by association with a number of other rural sites of varying dates in the near vicinity, such as Crookbarrow Hill and the medieval and possible prehistoric occupation focussed around the hill.

Group value of the site is therefore medium to high.

Survival/Condition

Survival of deposits was good. Although no deeply stratified deposits were recorded this was due to the nature of the site rather than truncation of deposits. Although a degree of plough damage was recorded the survival of areas of metalling indicates that preservation of deposits is good.

Preservation of pottery was generally good. Preservation of charred seeds, although quantities were limited and preservation was variable, included well preserved material capable of providing information relation to function of structures and crop regimes. Waterlogged remains were not encountered due to ground conditions and no bones were preserved, probably due to local soil conditions.

The combination of fairly well preserved deposits in association with a well preserved and significant artefactual assemblage and an important ecofactual assemblage makes the site of great significance.

Although the deposits within the width of the pipetrench itself no longer survive and those within the wider stripped area of the pipeline easement have been affected by the construction of the pipeline, deposits beyond this area have not been affected by this work.

Fragility/Vulnerability

Archaeological deposits were revealed at a depth of between 0.15-0.25m below the modern ground surface. The presence of Roman pottery within the ploughsoil, and the scoring of the upper parts of Roman deposits with plough-furrows indicate that regular ploughing will gradually continue to erode the site. This erosion is likely to be exacerbated by the slight slope to the south. Any activity affecting the ground to a greater depth than the current ploughsoil will, depending upon the depth of that activity, cause either considerable damage or complete destruction of archaeological deposits.

Potential

The area of the site investigated was limited to the stripped area of the pipeline easement. Potentially deposits of equal importance and preservation survive to either side of the easement.

It is likely that such deposits would include elements relating to domestic and agricultural buildings as well as to the iron working activities at the site. These, along with associated artefactual and ecofactual remains would be of great importance to our understanding of the settlement and the rural economy of this area.

The value of the environmental material from this site lies in the potential for contributing to information useful for comparisons of diet and agricultural economy in rural and urban areas within the county. Changes in use of, for example, the type of cereal crops used from the Roman to post-medieval periods in this region are already apparent, but mostly from work on urban sites. The charred plant remains from this site show the continuing use of a non free-threshing wheat (spelt wheat) in the Roman period.

Diversity

Although only a few features were present within the excavated area, they were associated with good quality environmental and ecofactual remains. The diversity of the excavated remains although not high is moderate and within the remainder of the enclosure there is potential for further characteristic elements which if present would represent high diversity.

In conclusion, although sites of this type are relatively common nationally, this site is of considerable significance particularly within a local context where sites of this period and type are poorly understood. This importance is enhanced by the iron smithing activity represented at the site an by the good survival and condition of deposits associated with artefacts and charred plant remains.

The evidence relating to manuring practices in the form of artefact scatters in the surrounding fields increases the importance of the site since they indicate that there is survival of evidence relating to the use of the landscape within which the settlement was located.

Table 1 **Abbreviated context descriptions: HWCM 15350 Norton Roman site.**

Natural deposits			
182		Natural	Red brown natural clay marl.
Roman: Phase 1			
148	CG33	Fill	A dark brown silty clay with pebble, slag, pot and charcoal inclusions. Fill of 149.
149	CG33	Cut	Oval/linear cut, butt ended to north and truncated but clearly butt ending to south. 1.70m in length, 0.50m in width and 0.22m in depth. Never clearly defined during excavation. This may represent the action of something wearing down cobble layer 179 which it truncates.
151	CG39	Cut	Rectilinear cut 1.80m in length, 0.18m in width filled by 150 (Phase 3). Possibly part of a track eroding over a period of use to form a hollow-way. This may be a rutted area of the track since there were pebbles in its base.
161	CG36	Cut	Gully cut into natural. Flanking track 211 forming its east limit and possibly draining it.
170	CG39	Positive	Compact orange red sandy clay soil with abundant pebbles compacted into it. Probable remains of track surface damaged by recent ploughing.
179	CG38	Positive	Extensively metalled surface, moderately well constructed. Constructed of pebbles and limestone bedded into yellowish brown silt clay. Probably represents metalled yard. East extent not within excavated area but had irregular west side.
196	CG34	Fill	Compact silty clay fill grey brown in colour with pale red mottling. Inclusions recorded as pebbles, charcoal and stone. Fill of 197. Ditch backfill.
197	CG34	Cut	Linear feature, N-S aligned, observed over 4.00m and apparently butt ending at N though this had been truncated. Extended beyond excavated area to S. 2.10m in width. Filled by 196. Recorded as having an irregular base suggestive of its having been recut. Interpreted as a ditch possibly of an enclosure.
211	CG39	Positive	Orange red sandy clay layer abundantly embedded with pebbles. Below 210. Element of track surface.
212	CG39	Positive	Orange red sandy clay layer similar to 211. Element of track surface.
233	CG33	Fill	Yellow brown silty clay fill of 234.
234	CG33	Cut	Cut feature, only partially observed. Excavated element measured 1.10m x 0.70m x 0.11m filled by 233. Posthole or pit?
241	CG38	Positive	Intermittent stretch of cobbles comprising white, blue and red pebbles/cobbles set into a greenish yellow silty clay (natural). Interpreted as a track surface or yard area.
244	CG33	Fill	Grey/grey white loamy silt (with sand) with stone and charcoal inclusions. Fill of 245.
245	CG33	Cut	"Hourglass-shaped" feature filled by 244. 2.10m in length x 0.89m in width x 0.21m in depth.
251	CG37	Positive	Layer of rounded river washed pebbles compacted into dark red brown clay marl (natural). Interpreted as metalling. This was recorded from plans in post-excavation.
252	CG37	Positive	As 251.
263	CG35	Fill	Brown silty clay soil with rare charcoal inclusions. Fill of 264.
264	CG35	Cut	Ditch or gully, aligned N-S, 0.18m deep but much truncated and only observed over 0.45m.
Roman: Phase 2			
109	CG25	Layer	Layer observed over parts of the site. This may represent a soil

			trampled or accumulated over the earlier Phase 1 surfaces. Very similar to ploughsoil and subsoil but clearly cut by Roman features.
110	CG23	Fill	Red brown silty clay fill of 111.
111	CG23	Cut	Small linear feature, 1.60 x 0.50m with rounded butt ends. 0.38m deep. Interpretation uncertain though possibly a slot.
112	CG24	Fill	Fill of 113. A red brown silty clay (disturbed natural). Heavily disturbed by land drain 171/172.
113	CG24	Cut	Linear cut, extending for 6.50m N-S across the site, having stepped eastern side. No ends or returns were observed. possibly a boundary ditch.
141	CG25	Layer	Layer probably equals 109 but unlocated or described.
142	CG20	Fill	Fill of 143, observed over 4.50m. 0.63m in width, 0.34m deep. Sandy clay loam. Inclusions include charcoal and pebbles.
143	CG20	Cut	Linear cut, NW-SE aligned with single fill 142. Observed over 4.50m of its length. Further investigations suggest that it did not extend much further to either NW of SE suggesting that it may butt-end or turn away from its observed alignment. Ditch or slot
144	CG19	Fill	Same as 146. Covers three distinct fills seen in section following excavation by mechanical excavator. These were, firstly a very dark grey brown silty clay with charcoal, pebble and slag inclusions. Secondly a mid yellow brown clay with pebble and charcoal inclusions. Thirdly a fill comprised almost totally of charcoal and iron slag was observed. Fill(s) of 145.
145	CG19	Cut	This cut is the same as 147. An irregular sided feature 4.50m in length, 2.20m in width and 0.50m in depth filled by 144. Probably an industrial waste pit, or the butt end of a ditch.
146	CG19	Fill	Same as 144.
147	CG19	Cut	Same as 145 in profile, however butt-ends here.
154	CG32	Fill	Dark grey brown silty clay fill of 155. Recorded as containing pebbles and charcoal. Backfill.
155	CG32	Cut	Linear cut 0.25m in depth. Aligned approx E-W. Observed over 6.00m and extended beyond limits of excavation. Filled by 154. U-shaped profile. Probably a drainage ditch. Appeared to respect Phase 1 metalling.
158	CG22	Fill	Dark grey brown silty clay loam. Inclusions recorded as slag, pot, fired clay, charcoal and stone. Slag was abundant and was sampled. Upper fill of 159 probably iron production debris.
159	CG22	Cut	Pit only partly excavated and extending beyond the limits of the excavation. A slot was initially excavated (1.40m x 0.60m) and four fills were recorded (158, 168, 169 and 183). The remainder was rapidly removed within the excavation area under one context number for further finds retrieval (195).
167	CG27	Cut	E-W aligned linear feature, 6.0 x 0.75m butt ending to E and extending W beyond limits of excavation. 0.16m in depth. Filled by 166. Ditch or possibly a building slot. Backfilled in Phase 3 (CG18).
168	CG22	Fill	Light grey/brown silty clay fill 0.08m in depth. Inclusions recorded as burnt clay, charcoal and slag. Sandwiched between slaggy fills 158/169 in cut 159.
169	CG22	Fill	Dark grey/brown silty clay with slag, charcoal and burnt clay. Depth 0.04m. Fill of 159.
177	CG21	Fill	Yellow brown clay loam soil. Fill of 178.
178	CG21	Cut	Rectilinear flat based cut filled by 177. Shallow slot possibly structural.
183	CG22	Fill	Compact brown clay fill characterised by charcoal, slag and stones. Fill of 159. This context has been sampled for hammer scale and interpreted as a lining for the pit.
195	CG22	Fill	General number used for rapidly excavated block of fill in 159 and previously removed as fills 158, 168, 169 and 183.

208	CG31	Fill	Grey brown sandy clay loam characterised by charcoal, pebbles, pottery, bone and slag. Fill of 209.
209	CG31	Cut	Linear cut, aligned E-W. 5.50m in length but extending beyond limits of excavation. 0.80m wide and 0.40m deep. Filled by 208. Interpreted as a boundary ditch/property division.
210	CG26	Layer	Compact, brown loamy clay layer 0.02m in thickness. Possibly a trampled accumulation over part of the track surface (not illustrated).
215	CG30	Fill	Blue brown clay silt fill of 216.
216	CG30	Cut	Linear cut. E-W aligned. 4.90m in length. Butt end to east. No west limit observed. 0.70m in width and 0.17m in depth. Filled by 215. Gully/ditch.
217	CG29	Fill	Orange brown clay silt fill characterised by high stone content. Fill of 218.
218	CG29	Cut	Linear cut, observed over 1.40m, butt ending to the E and extending beyond limits of excavation to W. 0.38m in width and 0.11m in depth. Filled by 217. Ditch/gully.
223	CG28	Fill	Yellowish brown silty clay fill characterised by pebbles, charcoal, limestone, slag and pottery. Fill of 224.
224	CG28	Cut	E-W aligned cut feature. Extended beyond site limits in both directions. 4.0m length observed. 2.25m in width and 0.72m in depth. Filled by 223. Probably a boundary ditch.
229	CG21	Fill	Pink/grey clay fill. Includes small and large pebbles and is interpreted as redeposited natural backfilling cut 230.
230	CG21	Cut	Sub-oval cut with concave base 0.20m x 0.15m x 0.23m. Filled by 229. Stake/posthole pre-dating slot 178.
Roman: Phase 3			
101	CG14	Fill	Partially excavated fill of cut 102.
102	CG14	Cut	Cut, 1.50 x 0.90m, with single fill 101. 0.75m in depth, steeply sloping sides with a rounded break to base on the eastern side. No other sides of this feature were observed. Posthole?
103	CG14	Fill	Cobble packed fill of 104. Fill also contains rare charcoal flecks.
104	CG14	Cut	Posthole, 0.80 x 0.45 with single fill 103. 0.13m in depth. Sub-oval shape and steep sided indicating a posthole. Probably contemporary with 105/106 a slot. Part of a timber structure.
105	CG14	Fill	Fill of small slot 106. A very dark silty clay with abundant charcoal.
106	CG14	Cut	E-W aligned linear feature, 2.25 x 0.40m with single fill 105. 0.17m in depth with a rounded butt end to east and to west where there was a cobble packed posthole (105/106). This probably represents a beam slot and with the posthole forms an element of a timber structure.
107	CG14	Fill	Fill of 108. Characterised as a charcoal rich reddish brown silty clay.
108	CG14	Cut	Sub-oval cut, 1.10 x 0.65m (truncated by mole plough). Filled by 107. Possibly base of pit or posthole?
114	CG16	Fill	Fill of 115. Heavily truncated (probably by ploughing). Mid-brown silty clay with abundant charcoal flecks.
115	CG16	Cut	Sub-circular cut, 0.50m in diameter and 0.05m in depth filled by 114. Characterised by sloping sides and a rounded, concave base. Truncated posthole.
116	CG16	Fill	Fill of 117. Characterised as a mid brown silty clay. (Probably same as 260)
117	CG16	Cut	Truncated sub-circular cut. 0.80m in diameter and 0.08m deep

			filled by 116. Posthole. (Probably same as 256)
118	CG16	Fill	Fill of 119. Grey brown clay silt, abundant in charcoal.
119	CG16	Cut	Sub-circular cut, 0.90m in diameter and 0.30m in depth. Posthole.
120	CG16	Fill	Fill of irregular cut 121. Charcoal rich red brown clay silt.
121	CG16	Cut	Poorly defined sub-circular cut filled by 120. 0.90 x 0.70m and 0.05m deep. Irregular shape suggests that the feature has been disturbed. Probable posthole - ?post rocked or dug out to remove it.
122	CG16	Fill	Fill of 123. A light brown clay silt with occasional charcoal fleck.
123	CG16	Cut	Sub-circular cut, 0.65m in diameter and 0.25m in depth with a flat base. Filled by 122. Posthole.
124	CG9	Fill	Upper fill of cut 125. 0.40m deep. No soil description available. Interpreted in post-excavation as backfill of clay lined pit.
125	CG9	Cut	"Bathtub-shaped" cut, 1.50 x 0.55m and 0.45m in depth. Filled by 124 and 126, the latter being a clay lining. Possibly a soaking pit or some other industrial purpose.
126	CG9	Fill	Lower fill of pit 125. 0.05m deep. A yellow brown silty clay, probably a lining in order to waterproof the pit.
127	CG15	Fill	Fill of 128. A mid brown silty clay.
128	CG15	Cut	Sub-circular cut, 0.60m in diameter and 0.06m in depth. Filled by 127. Possible posthole - truncated?
131	CG15	Fill	Fill of 132. A mid brown silty clay.
132	CG15	Cut	Sub-circular cut, 0.25m in diameter and 0.04m deep. Possible posthole - truncated?
133	CG15	Fill	Fill of 134. Mid-brown silty clay.
134	CG15	Cut	Sub-circular cut, 0.40m in diameter and 0.10m in depth. Posthole?
135	CG15	Fill	Fill of 136. Mid-brown silty clay.
136	CG15	Cut	Sub-oval cut, 0.42 x 0.28m and 0.06m deep. Filled by 135. Posthole - truncated?
137	CG14	Fill	Dark grey brown silty clay fill, inclusions include pebbles and charcoal. Fill of 138.
138	CG14	Cut	Sub-oval cut, 0.60 x 0.38m and 0.11m in depth. Filled by 137. Posthole/post setting?
139	CG16	Fill	Fill of 140. A mid-grey silty clay with occasional charcoal and pebble inclusions.
140	CG16	Cut	Sub-oval cut, 0.80 x 0.55m and 0.24m in depth. Partially truncated to the east where the side was stepped. Filled by 139. Posthole.
150	CG5	Fill/layer	Grey brown loamy clay with occasional slag. Fills 151 (Phase 2). Probably a ploughsoil or natural accumulation filling disused gully 151.
152	CG10	Fill	Fill of 153. A grey/black clay silt with abundant charcoal.
153	CG10	Cut	Sub-circular cut, 0.40m in diameter and 0.04m in depth. Posthole - truncated?
156	CG11	Fill	Fill of 157. Light grey brown clayey silt. Inclusions include stone and charcoal.
157	CG11	Cut	Sub-rectangular cut, 1.2 x 0.65m and 0.09m deep. Filled by 156. Truncated pit.
160	CG5	Fill/layer	Grey brown loamy clay with pot, slag, charcoal and pebble inclusions. Equivalent to 150. Fills depression above the Phase 2 surface 170. Represents disuse of holloway.

162	CG17	Fill	Silty clay soil varying in colour from mid-grey brown to pale red brown. Inclusions of pebbles, charcoal, slag and hammerscale (?Fe). Fill of cut 163.
163	CG17	Cut	Sub-oval cut, 0.42 x 0.36m and 0.20m deep. Filled by 162. Posthole.
164	CG17	Fill	Fill of 165. Identical to 162.
165	CG17	Cut	Sub-circular cut, 0.49 x 0.40m, with a flat base. Filled by 164. 0.13m deep. Posthole.
166	CG18	Fill	Fill of Phase 2 ditch 167 (CG 27). Mid-grey brown silty clay with moderate pebble and charcoal and occasional slag and pot inclusions.
173	CG16	Fill	Dark grey brown clayey loam filling cut 174. Abundant charcoal inclusions recorded. Postpipe fill.
174	CG16	Cut	Flat based sub-rectilinear cut, 0.51m in length, 0.35m in width and 0.05m in depth. Filled by 173. Postpipe in 175/176. (Not illustrated)
175	CG16	Fill	Yellow brown clay loam fill of 176. Packing around post - represented by 173/174.
176	CG16	Cut	Sub-rectangular cut, 0.55 x 0.40m. 0.05m deep. Filled by 175. Posthole with packing fill 175 and postpipe 174.
180	CG17	Fill	Fill of 181. Similar to 162 and 164 though more gritty.
181	CG17	Cut	Sub-circular cut, 0.18m in diameter and 0.08m in depth. Filled by 180. Posthole.
184	CG17	Fill	Fill of 185. Light grey brown clayey silt. Included clay patches and stone.
185	CG17	Cut	Circular cut, 0.35m in diameter, 0.06m in depth. Filled by 184. Posthole.
186	CG10	Fill	Greenish black clay silt fill of 187.
187	CG10	Cut	Sub-circular cut, 0.20m in diameter, 0.02m in depth. Filled by 186. Posthole - truncated?
188	CG12	Fill	Dark brown and orange flecked clay silt fill of 189. Characterised by clay, charcoal and stone inclusions. Fill of 189.
189	CG12	Cut	Sub-rectangular cut, 1.00 x 0.82 x 0.08m. Filled by 188. Truncated pit?
190	CG8	Fill	Fill of 191. Grey brown silt clay characterised by stone inclusions.
191	CG8	Cut	E-W aligned linear cut, butt ends to E and extends beyond limits of excavation to W. 1.30m in length, 0.40m in width and 0.13m in depth. Filled by 190. Drainage and/or boundary ditch?
192	CG5	Layer	Yellowish brown silty clay with pebble, pot and charcoal inclusions. Overlies a series of features. Soil accumulation of uncertain origin - disuse? (Not illustrated).
193	CG7	Fill	Very poorly defined fill of 194. Dark brown silty clay with pebbles and charcoal. Backfill. Contained Roman pottery but not well dated and uncertain stratigraphically.
194	CG7	Cut	Ill-defined, N-S aligned cut filled by 193. Observed over approximately 8.00m. Truncated to S and faded out to N. 0.90m wide and 0.25m in depth. Possibly a ditch or gully. (See fill 193).
198	CG17	Fill	Fill of 199. Pale yellow brown silty clay with pebble, grit, hammerscale and pottery inclusions.
199	CG17	Cut	Sub-circular cut, 0.22m in diameter, 0.06m deep. Filled by 198. Posthole.
200	CG17	Fill	Fill of 201. Mid-grey brown silty clay with charcoal, pebble and grit inclusions.
201	CG17	Cut	Amorphous cut filled by 200. 1.16m in length, 1.05m in width

			0.41m in depth. Pit or large posthole.
202	CG17	Fill	Pale reddish grey brown silty clay fill of 203. Contains a high proportion of slag and charcoal near the surface. The lower parts contained redeposited red clay.
203	CG17	Cut	Sub-oval feature, 0.55m x 0. 46m x 0.46m. Vertical sided. Pit or large posthole.
204	CG17	Fill	Unexcavated fill of 205 - only observed in plan. Pale reddish grey brown silty clay with a high proportion of slag and charcoal.
205	CG17	Cut	Unexcavated, sub-circular cut, 0.34m in diameter. Filled by 204. Probable posthole.
206	CG17	Fill	Unexcavated fill of 207 - only observed in plan. Pale reddish grey brown silty clay with a high proportion of slag and charcoal.
207	CG17	Cut	Unexcavated, sub-circular cut, 0.47m in diameter. Filled by 206. Probable posthole.
219	CG6	Fill	Fill of 220. Dark greyish brown silty clay. Pebble, lias and charcoal inclusions.
220	CG6	Cut	Small, sub-oval cut, 0.42 x 0.24 x 0.37m. Filled by 219. Posthole.
221	CG16	Fill	Yellow brown clayey loam with occasional charcoal. Fill of 222.
222	CG16	Cut	Sub-oval cut, 0.30 x 0.25 x 0.06m. Filled by 221. Posthole.
225	CG16	Fill	Fill of 226. Dark brown/black loamy clay. Inclusions of pot, slag and charcoal.
226	CG16	Cut	Sub-circular cut, 0.30m in diameter, depth not recorded. Filled by 225. Posthole.
227	CG16	Fill	Fill of 228. Brown/black clay loam with slag and charcoal inclusions.
228	CG16	Cut	Sub-squarish cut, 0.37m across and 0.12m deep, with a flat base. Filled by 227. Posthole.
231	CG16	Fill	Grey brown clayey loam fill of 232.
232	CG16	Cut	Sub-oval cut, 0.12 x 0.10 x 0.09m. Filled by 231. Posthole. Not illustrated).
235	CG17	Fill	Orange brown clay silt fill of 236. Characterised by pebbles, stone, charcoal, slag and hammerscale inclusions. Iron manufacturing debris?
236	CG17	Cut	sub-circular cut, filled by 235. 0.80m in diameter and 0.47m in depth. Pit or posthole backfilled with iron production waste.
237	CG6	Fill	Dark grey silty clay fill of 238. Charcoal and pebble inclusions.
238	CG6	Cut	Butt end of E-W aligned rather linear cut. 0.76 x 0.30 x 0.18m. Filled by 237. Indeterminate though possibly ditch/gully. May be post-Roman - stratigraphy uncertain.
239	CG17	Fill	Grey brown clayey silt fill of 240. Inclusions included slag, charcoal and stone.
240	CG17	Cut	Sub-circular cut, filled by 239. 0.45m in diameter x 0.41m in depth. Posthole.
242	CG6	Fill	Brown silty clay fill of 243, including charcoal, red clay and pebbles.
243	CG6	Cut	Small cut, 0.67 x 0.33 x 0.10m. Filled by 242. Posthole or possibly linear feature? Cut Phase 1 surface.
246	CG13	Fill	Light brown silty clay upper fill of 247. Charcoal, lias, pottery and pebble inclusions.
247	CG13	Cut	Rectangular cut with vertical sides. Measured 1.15m wide and 0.51m deep. 1.70m long and extending beyond E limit of excavation. Filled by 246 and 248. Large flat stone set in one

			corner of the base. Rubbish pit?
248	CG13	Fill	Dark black silty clay lower fill of pit 247. Possibly cessy. Below 246. Included green lias slab.
255	CG16	Fill	Fill of 256. Partially described soil with abundant charcoal inclusions.
256	CG16	Cut	Shallow sub-oval cut filled by 255. Posthole.
257	CG16	Fill	Unexcavated fill of 258. Recorded as being similar to 255 and 227.
258	CG16	Cut	Unexcavated sub-rectangular cut. Full extents not revealed. 0.48m in width. Filled by 257. Posthole.
259	CG16	Fill	Fill of 260. Soil type and inclusions not recorded.
260	CG16	Cut	Sub-oval cut, 0.60 x 0.35m. Depth not recorded. Filled by 259. Posthole. (Not illustrated).
261	CG16	Fill	Silty clay fill of 262.
262	CG16	Cut	Fairly large sub-oval feature, 1.70 x 0.70m. Only observed in plan. Filled by 261. Pit or large posthole.
265	CG17	Fill	Unexcavated fill of 266. Dark grey brown silty clay with stone, charcoal and slag inclusions.
266	CG17	Cut	Unexcavated sub-circular cut, 0.35m in diameter. Filled by 265. Probably a posthole.

Post-Roman to modern

100	CG1	Layer	Silty clay loam topsoil/ploughsoil covering most features on the site. Well mixed and loose indicating regular ploughing and manuring. Drained by both land drains and mole ploughing.
129	CG2	Fill	Mid-brown silty clay fill of cut 130.
130	CG2	Cut	Linear cut filled by 129, recorded to a depth of 0.05m. Ploughfurrow from mole ploughing.
171	CG3	Fill	Undescribed fill of drain cut 172. Contained ceramic drainpipe.
172	CG3	Cut	Linear cut filled by 171. Drainage cut.
213	CG2	Fill	Grey brown loamy clay fill of 214. Ploughsoil element.
214	CG2	Cut	Linear groove running E-W across trackway. Observed over 4.50m, 0.14m wide and 0.03m deep. Probably associated with ploughing.
249	CG4	Fill	Dark grey brown silt clay fill of 250, with pebble, pot and charcoal inclusions. This fill was only partially excavated.
250	CG4	Cut	Linear feature observed over 10.00m. 2.50m wide and not fully excavated. Aligned roughly E-W. Interpreted as a field boundary. Backfilled by 249.

Trench 1 - Trial trench to determine southern extent of site. No finds. Probable continuation of Ditch 197 (Phase 1) on W side. Plough scored. Possible posthole (Phase 3?) cutting patchy pebble surface (Phase 1?).

Trench 2 - Trial trench to determine southern extent of site. Possible pit in SE corner.

Trench 3 - Trial trench to determine southern extent of site. Cut 247 (Phase 3) revealed.

Trench 4 - Trial trench to determine southern extent of site. Excavation of this trench revealed a soil to a depth of 0.19m, which was equivalent to 150. At the base of this, overlying natural was a spread of sand and pebbles. This was 0.04m thick. This may represent the remains of trackway or surface similar to 211.

Trench 5 - Trial trench to determine southern extent of site. Nothing observed.

Trench 6 - Trial trench to determine southern extent of site. Slight suggestion of thin metalling of pebble.

Table 2 **Context Group Index**

Context Group	Type	Contexts
Post-Roman		
1	Ploughsoil	100
2	Ploughfurrows	129/130, 213/214
3	Drain	171/172
4	Ditch	249/250
Roman: Phase 3		
5	Layer	150, 160, 192
6	Structure	219/220, 237/238, 242/243
7	Hollow	193/194
8	Slot	190/191
9	Pit	124/125/126
10	Structure	152/153, 186/187
11	Pit	156/157
12	Pit	188/189
13	Pit	246/247/248
14	Structure	101/102, 103/104, 105/106, 107/108, 137/138
15	Structure	127/128, 131/132, 133/134, 135/136
16	Structure	114/115, 116/117, 118/119, 120/121, 122/123, 139/140, 173/174, 175/176, 221/222, 225/226, 227/228, 231/232, 255/256, 257/258, 259/260, 261/262
17	Structure	162/163, 164/165, 180/181, 184/185, 198/199, 200/201, 202/203, 204/205, 206/207, 235/236, 239/240, 253/254, 265/266
18	Backfill	166
Roman: Phase 2		
19	Ditch/pit	144/145, 146/147
20	Slot	142/143
21	Structure	177/178, 229/230
22	Pit	158/159/168/169/183/195
23	Indeterminate cut	110/111
24	Ditch	112/113
25	Layer	109, 141
26	Layer	210
27	Ditch	167 (fill = CG18)
28	Ditch	223/224
29	Ditch	217/218
30	Ditch	215/216
31	Ditch	208/209
32	Ditch	154/155
Roman: Phase 3		
33	Indeterminate cuts	148/149, 233/234, 244/245
34	Ditch	196/197
35	Ditch	263/264
36	Ditch	161
37	Surface	251, 252
38	Surface	179, 241
39	Surface	170, 211, 212/151

Table 3 **Context Group matrix**