# Archaeological evaluation at Castlefield Quay, Manchester

*Partially excavated Roman well*

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# *1. SUMMARY*

The *University of Manchester Archaeological Unit* was commissioned by *C2C*, on behalf of *Castlefield Junction Partnership Ltd.*, to undertake an archaeological evaluation within a proposed development site situated in Castlefield, Manchester (NGR: SJ 832 976). This evaluation was implemented in accordance with a brief prepared by the Assistant County Archaeologist for Greater Manchester (GMAU).

This evaluation indicates that the predominant archaeological remains within the development area relate to both Roman occupation and 18th and 19th century industrial and residential use of this area of Castlefield.

The distribution of these remains also indicates that fairly substantial swathes of surviving Roman archaeology are found close to the corner of Beaufort Street and former Ivy Street, along the southern side of Bridgewater Street and beneath the Great Northern Railway and Cheshire Lines Committee viaducts. The remains include portions of the Roman fort and civil settlement, or *vicus*, and significantly these expand the known area of the Roman settlement south-eastwards, and provide new chronological evidence for the construction of the fort defences.

# *2. INTRODUCTION*

## 2.1. PREAMBLE AND CONTEXT

The *University of Manchester Archaeological Unit* (UMAU) was commissioned by *C2C*, on behalf of *Castlefield Junction Partnership Ltd.*, to undertake an archaeological evaluation within a proposed development site situated in Castlefield, Manchester (NGR: SJ 832 976). The development area is bounded on the south by the Rochdale Canal, on the east by Deansgate, on the north by Bridgewater Street, Collier Street and Beaufort Street and on the west by Duke Street, by the viaduct of the former Manchester South Junction & Altrincham Railway and by a boundary line south of that viaduct to the canal (Figure 1). Geologically, this area is situated on Sherwood Sandstone of Permo-Triassic date which is sealed in places by superficial deposits of reworked glacial sands and gravels deposited during the Late Glacial and immediate Post-Glacial period (Broadhurst pers comm.).

From previous archaeological work and early cartographic sources it is known that this area contains nearly half of the interior of Manchester's Roman fort and its outer defensive ditches (Arrowsmith 2004). Based on a number of archaeological excavations undertaken during the 1970s and 1980s, and on the results of recent excavations within Castlefield, it is probable that the area also includes parts of the Roman civil settlement, or *vicus*, which is known to have existed on the northern side of the fort.

The development area also contains a series of upstanding and below ground remains which have some relevance for understanding the industrialisation of Manchester during the 18th and 19th centuries. The visible remains include: the former Manchester South Junction & Altrincham Railway (MSJA) constructed between 1845 and 1849; two railway viaducts built for the Cheshire Lines Committee (CLC) in the 1870's and early 1890's; a further railway viaduct completed in 1898, which carried the Great Northern Railway (GNR) to the Great Northern Warehouse on Deansgate; and a canal arm linking the Rochdale Canal with 'Duke's Tunnel', whose construction could date to the late 18th century (Arrowsmith 2004).

## 2.2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The archaeological, documentary and cartographic evidence pertinent to the development area has recently been collated in *Castlefield, Manchester: An Archaeological Desk-Based Assessment* (Arrowsmith 2004). This document contains detailed descriptions of site topography and the relevant archaeological and historical evidence, and should be consulted in conjunction with the present report.

# *3. EXCAVATION*

## 3.1. METHODOLOGY

The archaeological evaluation was undertaken during May and June 2004 and formed an essential prerequisite to any planned development of the site. The aim of the work was to determine the extent, character and relative significance of archaeological remains across the development area. This, in turn, will provide an informed understanding of the impact of development proposals on the archaeology, enabling the formulation of an appropriate scheme of mitigation.

The excavation methodology and location of the evaluation trenches were designed and implemented in accordance with a brief prepared by the *Greater Manchester Archaeological Unit* (GMAU). During fieldwork, and after consultation with the Assistant County Archaeologist, the position of a number of trenches was modified, however, due to the spatial constraints beneath certain of the railway arches, or the presence of live services.

In total, twenty evaluation trenches were excavated in order to examine five potential areas (Areas A-E) of archaeological interest (Figure 2). Trench 1 was positioned in the Onward Workshops Site (Area A); Trench 5 was excavated at the corner of Beaufort Street and former Ivy Street (Area C); Trenches 2, 8, 14, 15, 16, 17, 18 and 19 were located within and outside the Bridgewater Street Arches (GNR viaduct & CLC viaducts N of Pioneer Quay) (Area D); Trenches 3, 6, 7, 11, 12, 13 and 20 were positioned within the former Southern & Darwent's Timber Yard (Area E); whilst trenches 4 and 10 were located close to Pioneer Quay (Area H). Twenty 2m by 2m test pits (TP1-20) were also excavated concurrent with the archaeological evaluation as part of the site geotechnical investigation. A significant number of these test pits revealed areas of surviving Roman archaeology and a brief discussion of these findings are contained in Appendix 1.

## 3.2. ARCHAEOLOGICAL RESULTS

### Area A: Onward Workshops Site

*Trench 1*

Trench 1 was located in a landscaped open space that originally formed the site of 19$^{th}$ century terraced housing, fronting Duke Street and the former Ivy Street. Following the demolition of these houses in the early part of the 20$^{th}$ century the site was then occupied by a building known as the Onward Workshops. Significantly, this site is located within the confines of the Roman fort and has been the focus of two archaeological excavations undertaken during the early 1950s and the late 1980s (Arrowsmith 2004).

In 1951 Professor Donald Atkinson of the University of Manchester undertook an excavation at an unknown location on the western side of Ivy Street and identified the footings for a number of stone barrack blocks, which sealed an earlier phase of timber built barrack blocks. In 1989-90 further archaeological excavation, by GMAU, was completed to the north of Trench 1 at the corner of Duke Street and Beaufort Street. Within this area, this excavation suggested a high degree of 19th and 20th century disturbance in the form of cellarage, modern intrusions associated with the Onward Workshops, and a probable area of 19th century gravel extraction. Deposits of undisturbed natural gravels were, however, identified and in one area these were cut by eight Roman pits. These pits contained material dating to the late 1st/mid 2nd century AD and it is generally assumed that they were positioned at the rear of the western rampart of the Period 1/2 fort (Arrowsmith 2004). Within the present context these findings are significant as they suggest the possibility of surviving Roman deposits within the area of Trench 1

Following the excavation of Trench 1 various features and deposits were identified, but these appeared to date emphatically to the 19th and 20th centuries (Figure 3). The more obvious features included six concrete stations for the Onward Workshops and brick walling that formed part of the 19th century terraced hosing. In the western half of the trench the concrete stations were found to lie above a deposit of rubble, extending to a depth of + 2 m, which marked the position of cellarage associated with 19th century terraced housing that originally fronted Duke Street. In the eastern half of the trench the concrete stations were also found to lie above re-deposited material, which contained both 19th century and late 1st/early 2nd century AD pottery. Within this area, this mixing of seemingly disparate artefactual material is indicative of an episode of backfilling, which in this instance probably relates to the reinstatement of a extensive area of 19th century gravel extraction.

**Area C: Corner of Beaufort Street and former Ivy Street**

*Trench 5*

Trench 5 was located within the interior of the fort in an area where Roeder (1899) reported the discovery of Roman finds during the digging of drains in 1899. This trench was also located immediately north of Solomon's Arches where an excavation by GMAU in the 1980s identified Roman buildings, floor levels, pits and road surfaces (Arrowsmith 2004). Moreover, a number of geotechnical test pits (TP2-4) were also excavated within Solomon's Arches, as part of the recent site investigation, and these appeared to confirm the results of this earlier excavation (Appendix 1).

With the excavation of Trench 5 a series of inter-cutting Roman features and deposits were located almost immediately beneath the modern paving slabs (Figure 4). These deposits extended to a depth of *c.* 1 m and include a small pit [06] and a post-hole [02/03], which truncated two earlier Roman deposits [05 & 11]. One sherd of Hadrianic Samian ware (AD117-38) was recovered from the fill [07] of the small pit [06], early-mid second century AD Black Burnished ware was associated with the post-hole, whilst a sherd of Flavian or Trajanic Samian ware (AD69-117) and late 1st/early 2nd century AD coarse ware sherds were associated with an underlying Roman deposit [05]. A small quantity of unstratified Samian ware, dating to the late

1st/2nd century AD, was also recovered from this trench and this broadly confirmed the date of these deposits.

**Area D: Bridgewater Street Arches**

*Trench 2*

Trench 2 was located beneath Arch No. 3 of the GNR viaduct, and across the suspected line of the defences of the Roman fort. Due to the spatial limitations beneath the arch this trench was excavated in three separate sections (2A-C) (Figure 5).

The southern half of the excavated area revealed structures and deposits of both Industrial and Roman date. The Industrial period remains included a drain, a metal pipe and two sections of *c.* 1 m wide red brick walling spaced *c.* 4.2 m apart. Furthermore, this walling enclosed a circular stone pad, with an approximate diameter of *c.* 1.5 m and a central metal fitting, that appeared to form the remains of a crane base. The position of this walling and crane base correspond with a square building denoted on the 1894 1:25" OS map that was presumably used for industrial purposes (*cf.* Arrowsmith 2004, fig. 7).

Significantly, these 19th century features also truncated a number of in-situ Roman deposits. These deposits included two phases of turf rampart visible in trenches 2A and 2C, associated with a sherd of Hadrianic or Antonine Samian ware (AD117-192), and the outer stone revetment wall of the Roman fort (Plate 1). Although the upper levels of this wall were partially truncated by one of the Industrial period brick walls and the crane base, both its constructional makeup and its relationship to the turf rampart were still discernable. The surviving portions of the wall consisted of a mortared sandstone rubble core set within a light grey clay, and this structure was contained within a construction cut that truncated the earlier turf rampart.

In contrast, the northern half of the excavated area had suffered a greater degree of truncation than the southern half due to the presence of a large 19th century 'scoop', which was observed in both Trench 2A and Trench 2B. Roman deposits were identified immediately to the south of this 'scoop', but these lay *c.* 1.8 m below the present ground surface. These deposits included two silty clay layers, which appeared to be associated with an east-west orientated line of faced and mortared sandstone blocks. Although without further excavation the interpretation of these blocks is difficult, it is possible that they represent the outer facing of the fort wall.

*Trench 8*

Trench 8 was located north of the GNR viaduct Arch No.4, in an area where it was suspected that evidence may exist for activity within the Roman civil settlement, or *vicus*. With the removal of the stone setts and their bedding material a relict Post-Roman plough soil was encountered, which contained a sizeable assemblage of Roman pottery. This pottery included Flavian/Trajanic (AD69-117) and Hadrianic/Antonine (AD117-192) Samian ware and late 1st/early-mid 2nd century AD coarse ware. Beneath this plough soil Roman occupation deposits were identified

consisting of silty clays and sands, an area of sandstone rubble and possible stake-holes (Figure 6).

*Trench 14*

Trench 14 was located beneath Arch No. 6 of the GNR viaduct and it was anticipated that in this area the outer line of the fort defences, and possibly evidence of *vicus* activity, might be encountered. Following excavation it became clear that, although a series of in-situ Roman deposits were present, these had suffered differing degrees of truncation (Figure 7). Within the majority of the trench this truncation appeared comparatively deep with in-situ Roman deposits lying *c.* 2 - 2.7 m below the present ground surface. These deposits consisted of a series of silts which probably represent a sequence of fills contained within the defensive ditches of the fort.

Close to the northern end of the trench the levels of truncation were considerably less. Here in-situ Roman deposits were identified, *c.* 1.7 m below the present ground level, which were partially sealed by a Post-Roman plough soil associated with one sherd of Hadrianic (AD117-138) Grey ware. In plan these deposits were indicative of activity within the *vicus* and appeared to comprise metalled surfaces [277 & 284], three pits [276, 281 & 283], a post-hole [278], a degraded sandstone wall [280] and two construction trenches [279 & 282], which might define two sides of a possible timber building. Coarse ware recovered from the surface of the Roman levels suggested a late 1st to mid 2nd century AD date range for occupation within this portion of the *vicus*.

*Trench 15*

Trench 15 was positioned in Owen's Court, a triangular cobbled yard located between the GNR and the CLC railway viaducts. In light of the recent discovery of *vicus* buildings on the eastern side of Deansgate, at the Beetham Tower site, it was suspected that similar features might exist within this area. Due to the existence of live services this trench was excavated in two separate sections (Trenches 15A & 15B; Figure 2).

Within Trench 15A in-situ Roman archaeology was identified *c.* 1 m below the present ground surface (Figure 8). A small box section was excavated through these deposits and these were found to fill a small V-shaped ditch [145] (Plate 2). This ditch was aligned approximately east-west, was *c.* 1.1 m deep and contained a series of silty clays and sands [114, 115, 148, 149, 150, 151, 152, 153 & 154], which were truncated by a smaller Roman feature [147]. The fills of the V-shaped ditch were associated with a single sherd of Hadrianic-early Antonine Samian ware and late 1st/2nd century AD coarse ware, whilst the smaller Roman feature [147] contained early-mid 2nd century AD coarse ware.

A similar pattern of survival was apparent within Trench 15B (Figure 8). From the western end of this trench for a distance of *c.* 11 m in-situ Roman deposits were present. In plan these included a *c.* 0.8 m diameter pit, which was cut through a layer of re-deposited natural gravel, and a *c.* 6 m wide, north-south aligned, ditch that was partially sealed at its eastern end by the remains of a degraded sandstone wall, or floor (Plate 3). From the surface of the Roman levels a small assemblage of Roman pottery

was also recovered. This assemblage included late 1st and 2nd century AD Samian ware and 2nd and early 3rd century AD coarse ware.

Within the remainder of Trench 15B the Roman levels were truncated by an area of cellarage filled with demolition debris. Although this demolition material was machine excavated to a depth of *c.* 2 m a cellar floor was not reached, which implies the presence of comparatively deep cellarage within this area. Analysis of the early cartographic sources indicates that this cellarage must be associated with a group of buildings that first appear on Green's map of 1787-94 (*cf.* Arrowsmith 2004, fig. 2).

*Trench 16*

Trench 16 was located within CLC railway viaduct Arch No. 21A and it was anticipated that here evidence for *vicus* activity might survive. With the removal of the Modern and Post-Medieval layers, in-situ Roman deposits were present, *c.* 1 m below the present ground surface, and these were sealed by a Post-Roman plough soil associated with late 1st and 2nd century Samian and coarse ware. The Roman features included a large, north-south aligned, ditch [159] and an area of sandstone rubble [166] (Figure 9). Although only the western side of this ditch was present within the evaluation trench, this ditch was detected in Trench 15B where it is was *c.* 6 m wide (pp.9). Test pit 20 also fell close to the eastern side of this ditch and indicated that in this area the ditch extended for a depth of *c.* 1m.

In order to ascertain the character of the ditch a small test slot was excavated on its western side to a depth of *c.* 1.2 m below the present ground surface (Figure 9; Plate 4). This slot indicated that the ditch had been cut through the natural sand and gravels and had been filled with a series of sands and clays [174, 175, 176, 177, 161, 178, 162, 179, 163 & 164]. These fills were associated with late 1st and 2nd century AD pottery suggesting that the ditch had probably been filled by the close of the 2nd century AD.

Close to the suspected centre of the ditch an area of sandstone rubble was also present. A test slot was excavated at its southern end and this indicated that the rubble was set within brown clay [167 & 168] and was contained within a construction cut [165], which truncated the upper fills of the large ditch [159] (Figure 9; Plate 5). The presence of this construction cut probably indicates that the sandstone rubble represents the remains of a heavily degraded and/or robbed Roman wall. Significantly, a number of pottery sherds were also found within the construction cut. Although the majority of these sherds dated to the late 1st and 2nd centuries AD, and were probably derived from the upper fills of the ditch, a single sherd of Black Burnished ware provided a *terminus post quem* for the construction of the wall falling during, or after, the 3rd century AD.

*Trench 17*

Trench 17 was positioned in CLC railway viaduct Arch No. 21B and it was suspected that in this area evidence for *vicus* activity might survive. Within the northern end of the trench in-situ Roman archaeology was present, *c.* 0.8 m below the present ground surface, and this was sealed by a Post-Roman plough soil (Figure 10). The identifiable features appeared to represent two clay packed pits or, post-holes, set *c.* 0.6 m apart which were cut through a layer of natural sand (Plate 6). Moreover, the southern pit

contained two sherds of early-mid 2nd century AD Samian ware. To the south of the post-holes a linear depression [157] was also identified, which extended *c.* 1.8 m below the present ground surface. This depression was filled with material very similar in character to the relict plough soil, which was associated with two sherds of early-mid 2nd century AD coarse ware, and had a number of sandstone blocks at its base. It is not clear, however, whether this feature represents a natural depression in the old ground surface, or an area of Post-Medieval truncation.

*Trench 18*

Trench 18 was excavated within CLC railway viaduct Arch No. 22A and as with those trenches in the adjacent arches (Trenches 16 & 17) and in Owen's Court (Trenches 15A & 15B), it was anticipated that evidence of *vicus* activity might survive in this area. Although some Post-Medieval disturbance was evident, in-situ Roman deposits were present, which were sealed by a Post-Roman plough soil (Figure 10). These Roman features were cut into natural deposits of sand and included a small circular pit [183] and two inter-cutting linear features [187 & 234], which might represent small ditches. The earliest of these features [234] ran north-east – south-west and this was cut by a larger linear feature [187], aligned east – west. Associated with the small pit [183] were five sherds of Roman coarse ware, one of which dated to the mid/late 2nd century AD, and a rotary quern fragment. A comparable assemblage of Roman coarse ware, dating to the mid/late 2nd century AD, was also retrieved from the surface of ditch 187.

*Trench 19*

Trench 19 was positioned beneath Arch No. 9 of the GNR viaduct in an area where it was anticipated that *vicus* activity might be encountered. With the removal of the modern overburden it became clear that in-situ Roman archaeology had survived, *c.* 1 m below the present ground surface, which was partially sealed by a relict plough soil (Figure 11; Plate 7). The in-situ Roman deposits included a layer of mottled white/yellow clay that extended along the length of the trench. In places, this layer contained high concentrations of comminuted charcoal suggesting that it might represent a clay floor which had been intentionally laid within the interior of a building. This possible floor was associated with two areas of sandstone that could represent degraded walls, and was also truncated by a number of other Roman features. At the southern end of the trench, for instance, a concentration of 21 stake-holes were observed cutting the clay floor, and these were located immediately west of two small pits. Close to the centre of the trench the clay floor was truncated by a rectangular cut, whilst in the northern half of the trench two circular pits and a linear cut were identified, which also truncated the floor level. A moderate sized assemblage of Roman pottery was recovered from the surface of these Roman levels dating to between the late 1st and mid 2nd century AD.

In an attempt to determine the depth of deposits, two small sondages were excavated at the northern and southern ends of the trench. The northern sondage indicated that a *c.* 0.2-0.3 m deep Roman occupation horizon [273] had accumulated above natural sand and this had been partially sealed by the clay floor level, which here was *c.* 0.1 m thick. Associated with this occupation layer was a single sherd of Samian ware dating to between *c.* AD75-100. Curiously, despite the difference in findspot and

preservation, this Samian sherd appeared to join with those sherds recovered from the Phase 2 rampart material [241 & 78] in Trench 7C (pp.12). Beneath the occupation layer [273] a small pit and a stake-hole were also identified, suggesting an earlier phase of activity within this area. The evidence from the southern sondage was largely comparable. Within this sondage a *c.* 0.3 m deep occupation horizon was identified that had also accumulated above natural sand.

**Area E: Southern & Darwent's Yard**

*Trench 3*

Trench 3 was positioned beneath the CLC railway viaduct within in an area which originally encompassed the outer defences of the Roman fort. Following excavation the more obvious features located within the trench appeared to date to the 19th century (Figure 12). These included a concrete machine bed and a series of brick walls aligned north-south and east-west which extended to a depth of between *c.* 1.9 m and *c.* 2.3 m below the present ground surface. These walls appeared to define areas of cellarage and this, along with the machine bed, probably formed part of a late 19th/early 20th century boiler house which is denoted on a 1907 map of the Roman fort (*cf.* Bruton 1909, folding map pl. 1; Arrowsmith 2004, fig. 9).

Although the construction of this building had probably truncated the majority of Roman deposits, a small area of grey silty clay was located within the western arm of Trench 3. This clay was found at a depth of *c.* 1.4 m below the present ground surface, extended for a depth of *c.* 1.2 m and lay above natural sand. Moreover, the location of this clay is found in an area where the inner ditch of the fort might fall and it is, therefore, conceivable that it represents a small pocket of surviving ditch silts.

*Trench 6*

Trench 6 was located beneath the CLC railway viaduct and within the interior of the Roman fort (Figure 13). Within this trench, the archaeological remains suggested that 19th century activity had destroyed any in-situ Roman deposits. These 19th century remains comprised the brick footings and construction cut of a building. These footings extended for a depth of *c.* 1.6 m below the present ground surface and were cut into a layer of re-deposited sand and gravel. This re-deposited layer contained both 19th century and Roman artefacts, sealed the degraded sandstone natural and probably represents material that was backfilled into an area of 19th century gravel extraction. On the basis of documentary evidence, this gravel extraction may date to *c.* 1828-30, and might link with the area of 19th century gravel extraction identified to the west at Solomon's Arches and the Onward Workshops.

*Trench 7*

Trench 7 was positioned beneath the CLC railway viaduct within an area that lies close to the north-east corner of the fort. Following excavation in-situ Roman deposits were identified in all arms of this trench, and these were found to lie between *c.* 0.35 m and *c.* 1 m below the present ground surface. Although areas of slightly deeper Post-Medieval truncation were present, such as close to the centre of the trench,

generally there appeared a high level of survival of Roman archaeology beneath this railway arch. Furthermore, the presence of Roman archaeology across a large portion of the arch was confirmed through the excavation of geotechnical test pit 15, which also contained in-situ Roman deposits and the complete base of a Cheshire Plains ware jar (Appendix 1).

The eastern arm of the trench (Trench 7B) exposed in-situ deposits which originally formed the eastern defences of the fort. Following the removal of the 19th century layers two areas of compact grey clay and mid yellow/brown silty clay, and an area of sandstone rubble were identified, which appeared to represent the remains of the fort rampart (Figure 14). In order to examine the nature of these deposits, a *c.* 0.7 m wide box section was excavated along the length of Trench 7B to a depth of *c.* 0.6 m below the surface of the Roman deposits (Figure 14). Although this box section failed to reach the base of the Roman deposits, it did prove invaluable as five probable phases of rampart construction could be discerned.

The Phase 1 rampart was defined by the decayed remains of carefully stacked turves [100], *c.* 0. 05 m thick, which were visible at the eastern end of the section. These turves appeared to form a turf revetment located at the rear of the Phase 1 rampart. During Phase 2 this turf rampart appears to have been expanded through the addition of further turves and clay [96, 97, 98 & 99]. The Phase 3 defences were then constructed over the denuded, and probably slighted, remains of the Phase 1 and Phase 2 ramparts. The evidence for the Phase 3 rampart was observed in the south facing section and consisted of a *c.* 0.2 m wide construction cut [113] for a timber bracing (95) located at the rear of this rampart, which was associated with three thin layers of clay [92, 93 & 94] that presumably formed the rampart base. To the west of the rampart bracing a *c.* 0.2 m thick deposit of orange gravel was also identified and this probably formed the *intervallum* road (*via sagularis*) associated with this phase of rampart. Sealing the Phase 3 *intervallum* road was a thin layer of charcoal [90] which, when taken in conjunction with the degraded condition of the Phase 3 rampart, might denote an episode of demolition (Phase 3B). The Phase 4 rampart was constructed over the slighted remains of the earlier Phase 3 rampart, partially truncated the Phase 1 rampart and comprised two deposits of light brown/pink clay [87] and light brown/grey clay [89]. Flavian/Trajanic Samian and coarse ware sherds were recovered from these deposits [89] and these provide a *terminus post quem* for the construction of the Phase 4 rampart dating to the late 1st/early 2nd century AD. To the west of, and associated with, these clay deposits was also a degraded sandstone wall which might represent the remains of an internal rampart revetment. At some stage, however, the Phase 4 rampart appears to have been slighted (Phase 4B) as a burnt layer [86] was identified, which partially sealed the rampart and its revetment wall. This layer was *c.* 0.1 m thick and could conceivably represent a layer of burnt scantlings associated with the deliberate destruction of the eastern rampart. Sealing this burnt layer was a further deposit of mid yellow/brown clay [85] that was associated with an area of sandstone rubble visible in the south facing section, and it is possible that these deposits represent a final phase of rampart construction (Phase 5). If this is the case it would then appear that, following the construction of the Phase 5 rampart, a post [104] and gully [107] were inserted at its rear (Phase 5B) (Plate 8). Furthermore, it is probable that the post acted as a timber revetment for the rampart, whilst the gully may mark the position of a drain, located between the rampart tail and *intervallum* road.

This sequence of rampart construction was also observed in the southern arm of Trench 7 (Trench 7C). Here in-situ Roman deposits were identified *c.* 0.35 m below the present ground surface and following excavation these were found to extend for a depth of + 2.5 m (Figures 15). At the extreme southern end of this trench the cut turves [100] of the Phase 1 rampart were clearly visible in plan and individually these measured *c.* 0.5 m by *c.* 0.3 m (Plate 9). Close to the base of the west facing section a layer of orange sand and gravel [267] was also identified, which probably represents the remains of the Phase 1 *intervallum* road. Beneath this road was a layer of grey silt [268] which may indicate the survival of an old ground surface.

Following the construction of the *intervallum* road, a square sided pit [55], measuring *c.* 2.2 by *c.* 2.2 m, was then cut at the rear of the Phase 1 rampart (Phase 1B). This pit contained two lower fills of silty clay [252 & 253] and an upper fill of re-deposited natural [251], suggesting that it had been intentionally backfilled after it had become choked with silt. Unfortunately, although this pit was excavated to a depth of *c.* 1.5 m, its total depth was not ascertained (Plates 10-12). It is likely, however, that it marks the site of a well, which is in someway comparable to the square sided Roman well excavated close to the western defences (Jones & Reynolds 1986).

At some point after the backfilling of the well a number of ovens then appear to have been constructed in this *intervallum* area (Phase 1C). Two oven bases were identifiable in the east and west facing sections as two areas of oxidised clay [81 & 135], which were sealed by Phase 2 rampart material. Associated with these features were distinctive layers of burning [80, 82, 125, 136 & 259] that both sealed and were sealed by the oven bases, indicating multiple firing episodes in this area of the *intervallum*. A single sherd of Cheshire Plains ware dating to the late 1st century AD was associated with one of these burnt layers [80]. Two ash pits were also located to the north and south of these ovens, which contained 'rake-out' material derived from the firing of the ovens. Although, due to Post-Medieval disturbance, only a small segment of the northerly ash pit [52] survived, it contained a *c.* 0.7 m deep deposit of charcoal and oxidised clay [67] (Plate 13). The southern ash pit [237] was cut into the top of the backfilled well [55] and similarly contained layers of 'rake-out' [245 & 246] which, in this instance, were associated with burnt bone and late 1st/early 2nd century AD coarse ware. Following their use as ash pits both features were then intentionally backfilled with silty clay [69, 238, 241, 242 & 243] and sands and gravel [239 & 240]. This backfilling appears to have occurred during the construction of the Phase 2 rampart particularly as two sherds of Samian ware, dating between *c.* AD75 – AD100, associated with backfilled material [241] in the southern ash pit, were part of a vessel whose remains were also located within a deposit [78] forming an element of the Phase 2 rampart. Moreover, the date of this backfilling was confirmed, in some measure, by the discovery of Samian and coarse ware, dating to the late 1st/early 2nd century AD from backfilled material [69] found within the northern and southern ash pits.

The Phase 2 rampart was identified in both the west and east facing sections of Trench 7C and, as in the eastern arm of Trench 7, it was composed of various layers of silty clay and degraded turf [77, 78, 79, 118, 122, 123, 124, 138, 141, 142 & 143]. Although a number of late 1st/early 2nd century AD Samain and coarse ware sherds were associated with the Phase 2 rampart, a *terminus post quem* for its construction

was provided by a single sherd of Black Burnished ware, manufactured during or after AD120, which was recovered from backfilled material contained [69] within the Phase 1 ash pit [52]. Intriguingly, a single sherd of Pre-Flavian Lyons ware was also associated with one of the Phase 2 rampart layers [138].

Sealing the Phase 2 rampart was a layer of compact orange sand and gravel (76/120), which probably marks the position of the Phase 3 *intervallum* road (Plate 14). It is possible that a small V-shaped cut [140] containing a mid brown silt was associated with this phase of activity. In the east facing section evidence for the Phase 4 *intervallum* road was also present. In this section, the Phase 4 *intervallum* road was composed of a layer of compact orange sandy grit [127] which sealed the Phase 3 *intervallum* road (Plate 14). Two layers of clay [128 & 139] may also be associated with this phase. Although there was no firm evidence for activity associated with the Phase 5 rampart, it is conceivable that a heavily truncated layer of orange sandy grit [139] might represent the base of the Phase 5 *intervallum* road.

In the northern arm of Trench 7 (7A) in-situ Roman deposits were found *c.* 1 m below the present ground surface (Figure 16). In plan these consisted of deposits of clay [47 & 49/64], a post-hole [51] and an area of sandstone rubble [48]. A small box section was positioned over the sandstone rubble in order to examine the character of the deposits in this area (Plate 15). Although natural sands and gravel were not reached, this box section did indicate that Roman deposits extended for a depth of + 0.6 m. In the west facing section the area of sandstone rubble appeared to form part of a demolition deposit defined by a mid brown silty clay [58] and a thin layer of burning [61]. These demolition deposits sealed a layer of orange sand and gravel [63] which might, on stratigraphic grounds, form part of the Phase 3 *intervallum* road. Beneath this metalled surface were two layers of mid brown clay [59 & 74], which could constitute occupation horizons associated with Phase 1 or 2 activity. A single sherd of Cheshire Plains ware dating to between the late 1st and early 2nd century AD was recovered from one of these clay layers [59].

Within the western arm of Trench 7 (7D) in-situ Roman deposits were found *c.* 1.4 m below the present ground surface (Figure 16). At the extreme western end of this trench the Roman deposits consisted of two adjacent layers of grey clay [44 & 45], which might represent a clay floor for a building situated within the interior of the fort. Moreover, to the east of this tentative floor level a *c.* 0.8 m wide linear feature [75] was identified, which appeared to form the construction cut for a wall associated with this possible building.

*Trench 9*

Trench 9 was located to the south of the CLC railway viaduct in an area where it was suspected the outer defences of the Roman fort might fall. Following excavation, although no in-situ Roman deposits were identified, Post-Roman and 19th century activity was evident (Figure17). The 19th century remains included the brick footings of a building and a large brick built culvert that probably formed an element of a building which is first denoted on the 1894 1:2500 OS map of the area (*cf.* Arrowsmith 2004, fig.7). The Post-Roman remains were confined to a relict layer of plough soil, sealing natural gravels, which was identified at the eastern end of the trench.

*Trench 11*

Trench 11 was located to the south of the CLC viaduct and formed an east – west cutting through the eastern defences and interior of the Roman fort (Figure 13). At the extreme eastern end of the trench an area of 19th century cellarage was encountered, which extended *c.* 2.8 m below the present ground surface. This cellarage appeared to form part of a building plotted on the 1894 1:25" OS map of the former timber yard, and this has probably destroyed any Roman deposits which might have existed in this area (*cf.* Arrowsmith 2004, fig.7). Immediately to the west of this cellarage, *c.* 2.6 m below the present ground surface, an area of silty clay was, however, present and this probably denotes the position of the inner defensive ditch of the Roman fort. A short stretch of the outer stone revetment wall of the fort also survived close to the eastern lip of this ditch. Although this wall was truncated by a storm drain and modern pit, a number of mortared sandstone blocks were discernable [62], *c.* 0.4 m below the present ground surface (Plate 16). The wall was also associated with an area of tumble [217], suggesting that at some point it had collapsed into the inner ditch. A single sherd of Flavian or Trajanic Samian ware (AD69-117) was recovered from beneath this tumble and provides a *terminus post quem* for the collapse of the wall.

In order to examine the depth and construction of the wall a small box section was excavated (Figure 20; Plate 17). This section indicated that the mortared sandstone blocks [62], forming the base of wall, extended for a depth of *c.* 0.5 m, were partially set within a layer of blue/grey clay [214], and were supported by a foundation composed of river cobbles and a deposit of brown clay [213]. This clay foundation [213] was *c.* 0.65 m deep and sealed natural sand and gravels.

Within the central portion of Trench 11 in-situ Roman deposits were also present although, as with the stone wall of the fort, these were partially truncated by modern services. These deposits were found *c.* 0.4 m below the present ground surface and included a layer of light brown clay and a *c.* 0.6 m wide sandstone wall [193], which appeared to mark the foundations of an internal building within the eastern portion of the fort (Plate 18). In order to establish the depth and character of this wall a small box section was excavated across its line (Figure 18). This box section indicated that the sandstone wall was set within a foundation of brown clay [194] and was contained within a *c.* 0.4 m deep construction trench [192]. It also indicated that this wall was a relatively late Roman feature since it cut through a series of silty clay layers, which appeared to form earlier occupation horizons (Plate 19). From the surface of the wall these horizons extended for a depth of *c.* 0.65 m and sealed natural sand and gravels.

To the west of the wall there were no discernable in-situ Roman deposits. Instead degraded natural sandstone was identified *c.* 1.5 m below the present ground surface, which further west was truncated by a number of red brick walls, drains and modern services. It is probable that the walling and drains formed part of a large building which is first plotted on the 1894 1:25" OS map of this area (*cf.* Arrowsmith 2004, fig. 7).

*Trench 12*

Trench 12 was positioned at the western end of Southern & Darwent's Yard within an area that falls inside the Roman fort (Figure 13). Following excavation no in-situ Roman deposits were identified, however, and the only archaeological features present included brick walling associated with a 19th century cellar. It is probable this cellar formed part of a large building which is first plotted on the 1894 1:25" OS map of this area (*cf.* Arrowsmith 2004, fig. 7).

*Trench 13*

Trench 13 was positioned to the west of Trench 12 and similarly no in-situ Roman deposits were evident (Figure 13). The trench appeared to contain a layer of re-deposited natural sealing weathered bedrock, which lay *c.* 1.8 m below the present ground surface.

*Trench 20*

Trench 20 was positioned to the south of Trench 11 and was located across the eastern defences and interior of the fort. In-situ Roman deposits were identified within this trench but these had been severely truncated by buildings and activity associated with the workings of the 19th/20th century timber yard (Figure 19). The Roman deposits were located between *c.* 1.5 m and *c.* 1.7 m below the present ground surface and included: a mid brown/grey clay marking the position of the inner defensive ditch of the fort; an area of sandstone fragments immediately to the west of the ditch, which might represent the base of the outer stone revetment wall of the fort; and a line of sandstone blocks, set with a mid brown clay, that may mark the position of a rearward stone revetment for the fort rampart.

**Area H: Pioneer Quay**

*Trench 10*

Trench 10 was positioned in a grassy open space adjacent to Pioneer Quay, in an area where Roman cemetery remains were discovered in 1849 during the reduction of ground levels (Arrowsmith 2004). Following excavation no in-situ Roman deposits were identified within this trench and degraded natural sandstone was encountered *c.* 0.4 m below the present ground surface.

*Trench 4*

Trench 4 was positioned on the southern side of the CLC railway viaduct arch No. 20. Within this trench two sides of a large circular, or oval, Roman pit [18] were located *c.* 0.4 m below the present ground surface (Figure 20). This pit was excavated to a depth of *c.* 0.8 m and contained a series of backfilled deposits [14, 15, 17 & 19], which contained late 1st/early-mid 2nd century AD Samian and coarse ware. It is possible that this pit was originally associated with Roman gravel extraction and was later backfilled with Roman detritus during the mid-late 2nd century AD.

## 3.3. SMALL FINDS

The Roman deposits identified within the development area were invariably associated with an assortment of Roman artefactual material. As part of the archaeological evaluation this material was quantified, assessed and where possible dated.

### Samian Ware

*Felicity Wild*

| Trench | Context | Form | Kiln | Date | Comment |
|---|---|---|---|---|---|
| 1 | Infill from 19th century gravel extraction | 37 | SG | c. AD80-110 | |
| 2 | From rampart material | Bowl probably 37 | CG | Hadrianic or Antonine | Rim fragment |
| 5 | 5 | 18 | SG | Flavian - Trajanic | Two sherds presumably same dish |
| 5 | 7 | Bowl | CG | Probably Hadrianic | Scrap burnt at one end |
| 5 | U/S | 37 | SG | *c.* AD80-110 | |
| 5 | U/S | 37 | SG | *c.* AD80-110 | |
| 5 | U/S | 67 | SG | Flavian - Trajanic | |
| 5 | U/S | 31 or variant | CG | Hadrianic or Antonine | Rim |
| 5 | U/S | Base of uncertain form | | | No sign of potters stamp. Possibly Curle 15? |
| 5 | U/S | | CG | Hadrianic or Antonine | |
| 5 | U/S | 18 | SG | Flavian - Trajanic | |
| 7C | 69 | 18 | SG | Flavian or Trajanic | |
| 7B | 89 | 37 | SG | Flavian - Trajanic | 2 sherds |
| 7C | 78 | 37 | SG | *c.* AD75-100 | Joins 253 below |
| 7C | 241 | 37 | SG | *c.* AD75-100 | 2 sherds join 78 above |
| 7C | 253 | 18 | SG | Flavian or Trajanic | |
| 8 | Plough soil | Ritt 12 or Curle 11 | SG | Flavian | |
| 8 | Plough soil | 18 | SG | Flavian or Trajanic | |
| 8 | Plough soil | 37 | CG | *c.* AD120-145 | |
| 8 | Plough soil | 37 | SG | Flavian - Trajanic | |
| 8 | Plough soil | 37 | SG | Flavian - Trajanic | |
| 8 | Plough soil | 37 | CG | Hadrianic or Antonine | Base |
| 11 | 217 | 18 | SG | Flavian or Trajanic | |
| 15 | 151 | 27 | CG | Hadrianic-Early Antonine | |
| 15 | Surface of Roman levels | 37 | CG | *c.* AD150-180 | |
| 15 | Surface of Roman levels | 37 | CG | Hadrianic or Antonine | Edge of decoration |

| Trench | Context | Form | Kiln | Date | Comment |
|---|---|---|---|---|---|
| 15 | Surface of Roman levels | 33 | CG | Antonine | 2 sherds |
| 15 | Surface of Roman levels | 18/31R | CG | Hadrianic-early Antonine | 2 sherds (base & rim) |
| 15 | Surface of Roman levels | 18 | SG | Flavian or Trajanic | |
| 16 | 161 | 37 | SG | *c.* AD75-100 | |
| 16 | 169 | 37 | CG | *c.* AD160-190 | Slightly burnt |
| 16 | 169 | 37 | CG | Probably Antonine | Rim fragment. Same bowl as 171 |
| 16 | 171 | 37 | CG | Probably Antonine | Same bowl as 169 |
| 16 | Plough soil | 29 | SG | *c.* AD65-85 | |
| 16 | Plough soil | 37 | CG | Antonine | |
| 16 | Plough soil | 37 | CG | Hadrianic or Antonine | Scrap with traces of decoration |
| 16 | Plough soil | Uncertain | CG | Hadrianic or Antonine | Scrap |
| 17 | Southern post-hole/pit | 27 | CG | Hadrianic-early Antonine | Rim |
| 17 | Southern post-hole/pit | 18/31R | CG | Hadrianic-early Antonine | Base |
| 19 | 273 | 37 | SG | *c.* AD75-100 | This sherd appears to join with those from Tr. 7C (241 & 78). |
| 19 | Surface of Roman levels | 18 (or 15/17) | SG | Probably Flaviain (or Trajanic) | Base |
| 19 | Surface of Roman levels | 18 | CG | Trajanic-Hadrianic | |
| 19 | Surface of Roman levels | 37 | Probably CG | Flavian or Trajanic | Traces of decoration |
| 4 | 15 | 27 | CG | Hadrianic-early Antonine | |
| 4 | 17 | 37 | CG | Hadrianic | 6 joining fragments with rivet holes, 2 containing traces of lead rivet |
| 4 | Surface of pit 18 | 37 | SG | *c.* AD80-110 | Rim fragment with traces of lead rivet |
| 4 | Surface of pit 18 | 37 | SG | Flavian-Trajanic | Base fragment |
| 4 | Surface of pit 18 | 37 | CG | Hadrianic | 2 fragments joining bowl from 17 |
| 4 | Surface of pit 18 | 37 | SG | Flavian-Trajanic | 1 rim sherd & 1 base sherd |
| 4 | 14 | 37 | CG | Hadrianic-early Antonine | Decorated scrap |
| 4 | Surface of pit 18 | Uncertain | CG | Hadrianic-early Antonine | |
| 4 | Surface of pit 18 | Uncertain | CG | Hadrianic-early Antonine | |

**Table 1. Catalogue of Samian ware.**

## Roman Coarse Ware

*Ruth Leary*

### Introduction

The pottery was examined in context groups and catalogued according to the Guidelines of the Study Group for Romano-British Pottery (Darling 1994) with the addition of sherd weight and rim % values. The fabrics were recorded in broad groups and the source suggested where appropriate. Reference was made to the National fabric Collection (Tomber & Dore 1998) and where appropriate the details of fabric variations were also recorded.

### Quantity and provenance

Five hundred and nineteen sherds of Romano-British pottery (39175g.) and three small fragments of fired\clay (25g.), possibly salt briquetage, were examined as part of the assessment. The quantities of pottery sherds recovered from the excavated areas and trenches are shown in Table 2, whilst a detailed breakdown of the material is contained within Appendix 2.

| Area | Trench | Context | No. of sherds | Weight |
|---|---|---|---|---|
| A Total | | | 7 | 61 |
| C Total | | | 83 | 727 |
| D Total | | | 80 | 1214 |
| E Total | | | 10 | 106 |
| H Total | | | 29 | 400 |
| | 5 | Levelling/rut Total | 1 | 24 |
| | 5 | Relict plough soil Total | 1 | 22 |
| | 8 | plough soil Total | 1 | 4 |
| | 8 | Plough soil horizon Total | 41 | 985 |
| | 14 | Arch 6 Total | 6 | 262 |
| | 14 | Arch 6 gully feature N section Total | 4 | 348 |
| | 14 | Arch 6 N most E-W trench plough soil Total | 1 | 145 |
| | 14 | Arch 6 N most segment pit fill Total | 2 | 28 |
| | 15 | 0 Total | 9 | 170 |
| | 15 | 115 in 145 Total | 13 | 259 |
| | 15 | 146 in 147 Total | 3 | 170 |
| | 15 | 151 in 145 Total | 3 | 106 |
| | 15 | 152 in 145 Total | 4 | 195 |
| | 15 | 153 in 145 Total | 9 | 810 |
| | 15 | US Total | 15 | 407 |
| | 16 | 168 Total | 14 | 202 |
| | 16 | 169 Total | 4 | 275 |

| Area | Trench | Context | No. of sherds | Weight |
|---|---|---|---|---|
| | 16 | 161 in 159 Total | 7 | 60 |
| | 16 | Plough soil Total | 5 | 180 |
| | 16 | Plough soil/cleaning layer Total | 9 | 127 |
| | 17 | 158 in 157 Total | 3 | 10 |
| | 17 | S most part exc pit Total | 1 | 6 |
| | 18 | 184 in 183 Total | 19 | 504 |
| | 18 | 188 in 187 Total | 2 | 38 |
| | 19 | From surface of Roman fill Total | 34 | 820 |
| | 7 & E | 59 Total | 1 | 20 |
| | 7a | 69 in 68 Total | 12 | 93 |
| | 7b | 87 Total | 2 | 10 |
| | 7b | 89 Total | 1 | 8 |
| | 7b | 105 in 104 Total | 2 | 2 |
| | 7b | 108 in 109 Total | 1 | 8 |
| | 7c | 55 Total | 1 | 81 |
| | 7c | 79 Total | 1 | 10 |
| | 7c | 80 Total | 1 | 15 |
| | 7c | 123 Total | 3 | 28 |
| | 7c | 138 Total | 12 | 39 |
| | 7c | 241 in 237 Total | 7 | 252 |
| | 7c | 245 in 237 Total | 9 | 101 |
| | 7c | 246 in 237 Total | 6 | 63 |
| | 7c | 254 in 237 Total | 1 | 64 |
| | 7c | 72 in 70 Total | 1 | 4 |
| | 7c | US Total | 1 | 17 |
| | Arch 3 | Central feature Exterior trench Total | 10 | 189 |
| | Arch 3 | Exterior trench stake hole Total | 1 | 1 |
| | | 152 in 145 Total | 1 | 12 |
| | | Relict plough soil Total | 3 | 37 |
| | TP15 | Total | 27 | 29625 |
| *Grand Total* | | | *524* | *39344* |

**Table 2. Coarse ware sherds recovered from the excavated areas and trenches.**

## Chronology

### *Fabrics*

A number of differing fabric groups were identified within the assemblage and these, along with the fabric codes are listed in Table 3. A more detailed description and chronology of the pottery is, however, found in Appendix 2.

| | |
|---|---|
| ?SALT | Briquetage? |
| AMP | Amphora, all Dressel 20. Olive oil amphora from Baetica, Spain. |
| BB1 | Black burnished ware category 1, Dorset |
| CGCC | Central Gaulish colour-coated ware. The rough cast wares are difficult to source and some may be local copies but most of the sherds compared well with Gaulish fabrics |
| CP1 | Fine, quartz tempered orange ware of Cheshire Plains type |
| CP1/CPW1 | Fine, quartz tempered orange ware with traces of white slip of Cheshire Plains type |
| CP1G? | Fine, quartz tempered orange ware with traces of possible glaze? of Cheshire Plains type |
| CP1W? | Fine, quartz tempered orange ware with traces of white slip of Cheshire Plains type |
| CP2 | Moderately sandy, quartz tempered orange ware of Cheshire Plains type |
| CP3 | Fine, quartz tempered orange ware with reddish surface of Cheshire Plains type |
| CT | Dark grey/brown vesicular ware with angular vesicles unlike shell. |
| Dr20 | Dressel 20 amphora |
| FL | White ware |
| FLA | White ware |
| FLA1 | White ware, very fine |
| FLA1/OB | White/buff ware, very fine |
| FLA2 | White ware, moderately sandy |
| FLA2/OBB1 | White/buff ware, moderately sandy |
| FLA4 | White ware, very sandy. Brockley Hill type fabric, St Albans |
| GR | Grey ware |
| GRA | Fine grey ware |
| GRA/B | Medium/fine grey ware |
| GRA1B | Fine grey ware with brown core |
| GRA2 | Fine grey ware |
| GRB | Medium sandy grey ware |
| GRB1 | Medium sandy grey ware |
| GRC | Gritty grey ware |
| IMB | Imbrex roof tile |
| LYONS | Lyons ware |
| MOR | Mortarium |
| OAA* | Fine orange/red ware |
| OAA1 | Fine orange/red ware |
| OAAW | Fine orange/red ware with traces of white slip |
| OAAW1 | Fine orange/red ware with traces of white slip |
| OAB* | Moderately sandy orange/red ware |
| OBA* | Fine buff wares |
| OBA1 | Fine buff wares |
| OBB1* | Moderately sandy buff wares |
| RHC | Roughcast ware |
| Roughcast ware | Probably Central Gaulish fabric 2 (Tomber & Dore 1978) |
| SALT/FC? | Briquetage or fired clay |
| SVC | Severn Valley charcoal tempered ware |

**Table 3. Fabric groups and codes.**

*It is possible that these groups may also be Cheshire Plains ware, but this can only be confirmed through a more detailed consideration of fabric and form

*Discussion*

The pottery assemblage comprised a small group of pre-Flavian/early Flavian types, a Flavian-Trajanic group and a Hadrianic to early Antonine group with a very small amount of third century AD pottery. The pre-Flavian pottery comprises six small

scraps from a Lyons ware rough cast beaker. Traditionally this ware has been dated to the pre-Flavian period, but Willis' (2003) work on its distribution in the Midlands and Northern Britain suggested that it continued to be imported in the Flavian period, where it was often associated with military installations (Willis 2003 *cf.* Monaghan 1997 where it is dated AD45-85; Tyers 1996, 150 noted in early Flavian deposits at York, Caerleon, Chester and Newstead). Other forms such as the platter decorated with radiating burnished lines and the flagons with outcurving triangular rims suggest a date in the 1st rather than the 2nd century AD, and are common types in pre-Flavian contexts with continued circulation in the Flavian period. Parallels can be found at Holt for some of the flagon types (Grimes 1930) and some of the fine wares compare with the Holt fabrics published by Tomber and Dore (1998 pl. 173, *cf.* OAA1 reddish wares).

The globular jars with short everted rims and shoulder grooves are typical of the Flavian-Trajanic period as are the rusticated jars, the roughcast beakers, flat-rim carinated bowl (*cf.* Marsh & Tyers 1978, type IV.A.3 dated AD 80-110) and beakers with barbotine dots of a type commonly found on ring and barbotine dot beakers (Marsh & Tyers 1978, type III.B.1 Flavian). The Brockley Hill flagon most probably arrived between *c.* AD 70-120 when Brockley Hill mortaria were being imported (*cf.* at Derby Hartley 1985, table 11).

The Hadrianic-early Antonine group is characterised by the arrival of BB1 and BB1 copies in grey ware, alongside rather coarser fabrics, and some Antonine types similar to Wilderspool products. Most of the BB1 jars had wavy line burnishing on the neck suggesting a date range not later than the mid 2nd century when this feature declined in use. In contrast the BB1 dishes and bowls were decorated predominantly with close cross-hatching of earlier date (*cf.* Gillam 1976, 68). The roller-stamped beaker, although in a fabric comparable to Cheshire Plains wares, is almost exactly matched by a roller-stamped vessel from Rossington Bridge of mid 2nd century date. It is possible that this vessel was made by a potter working in the North West who also worked at Doncaster. Brassington (1971, 59) mentions a different pattern of stamp rouletting at Derby which he had paralleled at Wilderspool. Some of the flagons resemble Wilderspool products and the flanged, hemi-spherical bowl can be paralleled there. Mortaria of Wilderspool and Wroxeter type have also been identified and at least one has the cut away spout typical of Raetian type mortarium, which dates to the first half of the 2nd century. A stamped mortarium rim may be of Wroxeter fabric and should be identified by Kay Hartley.

Very little Severn Valley ware was clearly identified, but a small number of sherds did have charcoal inclusions and this may suggest that they form an element of the recently identified charcoal-tempered Severn Valley ware (Evans *et al.* 2000, 26). Webster (1974, 92-4) dated the arrival of Severn Valley ware at Manchester to the mid/late 2nd century and nothing at Castlefield Quay would alter that dating. Although two sherds from BB1 jars with obtuse lattice decoration are present and indicate a 3rd century AD date, other types such as bead and flange bowls, late BB1 types and Nene Valley colour-coated wares are absent suggesting very little activity in the second half of the second century AD.

## Range and variety of material

*Fabrics*

The assemblage includes a wide variety of ware groups with imported wares including the Baetican olive-oil amphora, South and Central Gaulish samian, Lyons ware and Central Gaulish fine wares. The amount of traded coarse wares other than BB1 is relatively low comprising a small amount of Severn Valley ware, Brockley Hill flagon and Mancetter-Harthill mortarium, although the mortarium fabrics need further analysis. The bulk of the wares seem to be from the Cheshire Plains kilns. Some compare well with the products of the Holt kilns although a local, Manchester source is more probable, and some may be from the kilns at Wilderspool or in the same tradition. Two fragments from an apparently overfired and distorted grey ware flagon suggests local manufacture, and it is possible that these were produced at a local Roman pottery kiln, such as that discovered within the *vicus* at Tonman Street (Jones & Reynolds nd). Mortaria were tentatively identified from Wroxeter, Wilderspool and Mancetter-Hartshill, but specialist identification should be sought particularly for a stamped flange.

| Ware | No. of sherds | Weight | % of count | % of weight |
|---|---|---|---|---|
| Amphora | 39 | 2394 | 6.6% | 6.1% |
| BB1 | 46 | 583 | 7.8% | 1.5% |
| Brockley Hill flagon | 2 | 113 | 0.3% | 0.3% |
| Central Gaulish fine wares | 4 | 23 | 0.7% | 0.1% |
| Cheshire Plains | 118 | 30874 | 20.0% | 78.5% |
| Cheshire Plains (coarser) | 14 | 196 | 2.4% | 0.5% |
| Cheshire Plains (red surface) | 5 | 50 | 0.8% | 0.1% |
| Cheshire Plains white slip | 28 | 554 | 4.7% | 1.4% |
| CT | 6 | 29 | 1.0% | 0.1% |
| GRA | 66 | 835 | 11.2% | 2.1% |
| GRA/B | 4 | 50 | 0.7% | 0.1% |
| GRB | 74 | 1505 | 12.5% | 3.8% |
| GRC | 1 | 62 | 0.2% | 0.2% |
| IMB | 1 | 114 | 0.2% | 0.3% |
| LYONS | 6 | 3 | 1.0% | 0.0% |
| MORMH | 1 | 20 | 0.2% | 0.1% |
| MORW | 3 | 294 | 0.5% | 0.7% |
| MORWM | 9 | 437 | 1.5% | 1.1% |
| OAA | 12 | 110 | 2.0% | 0.3% |
| OAAW | 8 | 70 | 1.4% | 0.2% |
| OAB | 1 | 18 | 0.2% | 0.0% |
| OBA | 22 | 359 | 3.7% | 0.9% |
| OBB | 2 | 6 | 0.3% | 0.0% |
| SALT | 3 | 25 | 0.5% | 0.1% |
| SVC | 4 | 65 | 0.7% | 0.2% |
| White ware | 45 | 555 | 7.6% | 1.4% |
| SG samian | 29 | 0 | 4.9% | 0.0% |
| CG samian | 37 | 0 | 6.3% | 0.0% |
| Grand total | 590 | 39344 | 100.0% | 100.0% |

**Table 4. Fabric group quantification (excluding samian weights).**

*Forms*

The general composition of the assemblage is typical of a military site with a relatively large proportion of bowls, dishes and platters to jars and a high proportion of drinking vessels such as flagons and beakers. The low proportion of wide-mouthed jars and absence of narrow-necked jars reflect the date of the occupation which might have ended before these became dominant types in the potters' repertoire.

| Vessel type | Minimum Vessel count |
|---|---|
| Amphorae | 2 |
| Platters | 4 |
| Bowl/dish | 1 |
| Bowls | 5 |
| Dishes | 3 |
| Flagons | 13 |
| Beakers | 11 |
| Jars | 28 |
| Wide-mouthed jar | 2 |
| Mortaria | 10 |
| Lids | 2 |
| Total | 81 |

**Table 5. Quantification of vessels by vessel types by minimum vessel count, calculated using rim % values and form and fabric characteristics.**

## Roman Building Material

| Trench | Quantity | Context | Comments |
|---|---|---|---|
| 17 | 3 | 158 | 1 brick |
| 7C | 8 | 122 | 1 piece of moulded brick |
| 7A | 3 | 46 | *Tegula* |
| 8 | 23 | Plough soil | Including *tegula* & fired daub |
| 4 | 4 | 17 | Fired daub, brick & *tegula* |
| 19 | 8 | Surface of Roman levels | Including *tegula* |
| 4 | 19 | 14 | Misc |
| 11 | 1 | 217 | Mortar inclusions |
| 7B | 1 | In stone revetment | *Tegula* |
| 7A | 3 | 59 | Including *tegula* |
| 4 | 2 | 15 | *Tegula* |
| 4 | 1 | 14 | *Tegula* |
| 7B | 3 | 41 | *Tegula* |
| 7B | 1 | 87 | |
| 16 | 1 | 161 | |
| 16 | 1 | Surface of Roman levels | |
| 18 | 2 | 188 | *Tegula* |
| 7C | 2 | 245 | Including 1 piece of daub |
| 7C | 1 | 72 | |
| 5 | 1 | Surface of Roman levels | *Tegula* |
| 5 | 12 | 5 | Daub & brick |
| 5 | 1 | Levelling/rut | *Tegula* |
| 5 | 2 | 13 | |
| 1 | 5 | U/S | Brick & daub |

| Trench | Quantity | Context | Comments |
|---|---|---|---|
| 8 | 13 | Plough soil | |
| 15 | 4 | U/S | Including *tegula* |
| 16 | 2 | 168 | |
| 7C | 1 | 241 | |
| 15 | 3 | 146 | Including *tegula* |
| 15 | 3 | 152 | |
| 15 | 18 | 115 | *Tegula*, brick & daub |
| 7C | 3 | 67 | Brick |

**Table 6. Roman building material.**

## Worked Stone

| Trench | Quantity | Context | Comments |
|---|---|---|---|
| 7A | 1 | 46 | Sandstone |
| 19 | 1 | Surface of Roman levels | Pumice |
| 8 | 2 | Plough soil | Sandstone & Gritstone |
| 5 | 1 | Plough soil | Slate |
| 15 | 1 | 115 | Gritsone |
| 18 | 1 | 184 | Rotary quern fragment |

**Table7. Worked stone.**

## Roman Metal Artefacts and Industrial Waste

| Trench | Quantity | Context | Comments |
|---|---|---|---|
| 7C | 1 | 69 | Lead |
| 16 | 1 | 161 | Iron? |
| 16 | 1 | Surface of Roman levels | Iron nail |
| 7C | 1 | 245 | Possible iron nail |
| 19 | 1 | Surface of Roman levels | Iron? |
| 7C | 3 | 72 | Slag |
| 5 | 1 | 7 | Slag |
| 5 | 2 | 13 | Iron nail |
| 15 | 3 | Surface of Roman levels | Iron nails |
| 16 | 1 | 169 | Iron nail |
| 4 | 1 | U/S | Iron nail |
| 19 | 1 | Surface of Roman levels | Iron nail |

**Table 8. Roman metal artefacts and industrial waste.**

## Roman Glass Artefacts

| Trench | Quantity | Context | Comments |
|---|---|---|---|
| 16 | 1 | Surface of Roman levels | Glass fragment |
| 19 | 1 | Surface of Roman levels | Glass fragment |
| 7C | 1 | 72 | Glass fragment |
| 5 | 3 | 5 | Glass fragments |
| 5 | 1 | 7 | Glass fragment |
| 8 | 2 | Plough soil | Glass fragments |
| 6 | 1 | Re-deposited layer | Melon bead fragment |

**Table 9. Roman glass artefacts.**

## 3.4. PALAEOENVIRONMENTAL ASSESSMENT

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### Introduction

This section presents the results of plant macrofossil and faunal bone assessment of samples recovered from within the Roman fort. The objective of the assessments was to determine the palaeoenvironmental potential of the material and to make recommendations for further work.

### Plant Macrofossil Assessment

*Method*

Two samples were analysed as part of the assessment. The first sample [67] was 'rake-out' from a Roman military oven and the second sample [253] was from a Roman well located within the fort.

Five litres of each sample were manually floated and sieved through a 500 μm mesh. The residues were retained, described and scanned using a magnet for ferrous fragments. The flots were dried slowly and scanned at x 40 magnification for waterlogged and charred botanical remains. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services, University of Durham. Total numbers of remains per species were logged and the results were interpreted in their archaeological and palaeoecological contexts. Plant taxonomic nomenclature follows Stace (1997).

*Results and discussion*

The results from the assessment are presented in Table 10. No plant remains were present in [67] and only a charred barley grain and seed of ribwort plantain occurred in [253].

| **Context** | 67 | 253 |
|---|---|---|
| *Volume processed (ml)* | 5000 | 5000 |
| *Volume of flot (ml)* | 400 | 200 |
| *Volume of flot assessed (ml)* | 400 | 200 |
| *Residue contents (relative abundance)* | | |
| Hammerscale | 1 | 1 |
| Daub | 3 | 3 |
| *Flot matrix (relative abundance)* | | |
| Bone | - | 1 |
| Charcoal | 4 | 3 |
| *Charred remains (total counts)* | | |
| (c) *Hordeum vulgare* (Barley) | - | 1 |
| (x) *Plantago lanceolata* (Ribwort plantain) | - | 1 |

(c: cultivated plant; x: wide niche)
Relative abundance is based on a scale from 1 (lowest) to 5 (highest).

**Table 10. Contents of the residues and flots from Castlefield Quay (CQ04)**

Context [67] contained a large amount of charcoal which is unsurprising as the deposit was 'rake-out' from a Roman oven. Context [253] was retrieved from a well. The occurrence of charcoal and a charred barley grain and ribwort plantain seed may indicate that after the well fell into disuse, it was used for the disposal of domestic fuel waste.

**Faunal Bone Assessment**

*Results and discussion*

Preservation of the bone samples examined was extremely poor. The only species positively represented is cattle. Tooth enamel fragments were present in contexts [89] and [245]. A calcined ulna fragment was present in context [151] and an unburnt radius shaft in context [246].

**Recomendations**

Plant remains were poorly preserved in all of the contexts and so could not provide any information about the economy, agricultural practices or palaeoenvironment of the site. Therefore no further plant macrofossil work is recommended for any of the samples.

No further work is possible for the faunal bone assemblages.

# *4. DISCUSSION*

## 4.1. ARCHAEOLOGICAL SURVIVAL

The results of the archaeological evaluation suggest that the predominant archaeological remains within the development area form part of either Roman occupation, or 18th and 19th century industrial and residential development of the Castlefield area. Although temporally separated by some 1500 years these remains are diachronically linked, particularly as the survival of Roman archaeology is overwhelmingly conditioned by the form and nature of the 18th and 19th century remains. Generally, however, in-situ Roman deposits are scattered throughout the development area and are found at heights ranging between 31 m - 34 m O.D. (Figure 21; Table 11). The presence of these remains, the results of previous archaeological excavations and the recent programme of geotechnical test pitting, also allow potential areas of surviving Roman archaeology to be tentatively mapped across the development area (Figure 21).

| Trench | Area | Description | Min depth of in-situ deposits below present ground level | Max height of in-situ deposits above O.D. | Min depth of in-situ deposits |
|---|---|---|---|---|---|
| 2 | D | Fort defences | *c.* 0.8 m | 33.8 m | +0.6m |
| 3 | E | Fort defences | *c.* 1.4 m | 32.26 m | 1.2 m |
| 4 | H | *Vicus* | *c.* 0.4 m | 33.21 m | +0.7 m |
| 5 | C | Fort interior | *c.* 0.1 m | 33.12 m | 1 m |
| 7 | E | Fort defences & fort interior | *c.* 0.6 m | 33.8 m | +2.5 m |
| 8 | D | *Vicus* | *c.* 1 m | 33.23 m | +0.3 m |
| 11 | E | Fort defences & fort interior | *c.* 0.4 m | 33.46 m | 1 m |
| 14 | D | Fort defences & *vicus* | *c.* 1.5 m | 33.02 m | Unknown |
| 15 | D | *Vicus* | *c.* 1 m | 33.48 m | +1.1 m |
| 16 | D | *Vicus* | *c.* 0.5 m | 33.65 m | +0.6 m |
| 17 | D | *Vicus* | *c.* 0.8 m | 33.6 m | Unknown |
| 18 | D | *Vicus* | *c.* 0.8 m | 33.75 m | Unknown |
| 19 | D | *Vicus* | *c.* 0.8 m | 33.68 m | +0.4 m |
| 20 | D | *Vicus* | c. 1.5 | 31.86 m | Unknown |

**Table 11. In-situ Roman archaeology identified within the development area.**

### Western portion of the development area

In the western portion of the development area (Trenches 1, 5, 6, 12, 13 & western end of Trench 11) the below ground Industrial period remains comprise the footings and cellarage of 19th century buildings and an area of 19th century gravel extraction. These remains have, in turn, had an adverse affect on the Roman archaeology within this area. In the vicinity of Trench 1, for example, 19th century gravel extraction has destroyed any in-situ Roman archaeology which might once have existed. This gravel extraction appears to extend to the north of Trench 1 into an area examined during the late 1980's, as part of Onward Workshops excavations, and to the east, where a line of 19th century truncation was identified during the archaeological excavation of the southern portion of Solomon's Arches (Arrowsmith 2004). Moreover, a deep layer of

re-deposited natural was also identified in evaluation Trenches 6 and 13 in Southern & Darwent's Yard and this probably represents backfill contained within a further area of early 19th century gravel extraction. Although this backfilled layer was truncated by later 19th century cellarage, relating to buildings plotted on an 1894 OS map, it might conceivably link with those extraction areas identified to the east. Indeed, when combined these respective areas may mark the northern and eastern limit of a more extensive area of gravel extraction that probably dates between *c.* 1828-30, and which has largely destroyed the southern and central portions of the Roman fort.

Immediately to the north of this extraction zone, pockets of in-situ Roman archaeology do, however, survive and inevitably these will have some bearing on any proposed development within this area. These pockets include the unexcavated Roman remains found beneath Solomon's Arches and the Roman deposits identified within Trench 5. Taken together these remains suggest the presence of a small area of surviving Roman archaeology located close to the corner of Beaufort and former Ivy Street.

**Central portion of the development area**

In the central portion of the development area (Trenches 2, 3, 8, 9, 11, 14 & 20) the below ground remains comprise the footings and cellarage of 19th century buildings and, significantly, a comparatively large and coherent swathe of surviving Roman archaeology. Industrial period remains are found within Trench 2 and include the brick footings of a building, plotted on an 1894 OS map of the area, which partially truncate deposits forming the rampart and outer stone revetment wall of the Roman fort. To the south of this building, other Industrial period remains are largely confined to Trenches 3, 9 and the eastern end of Trench 11. These remains comprise the cellars and foundations of a large building, first plotted on an 1894 OS map, and a boiler house, which was originally located beneath the CLC viaduct (*cf.* Bruton 1909, folding plan pl. 1; Arrowsmith 2004, fig. 9).

The position of these buildings fall on the suspected line of the eastern defences of the Roman fort and it is probable that they have partially destroyed, or severely truncated, the defensive ditches which originally defined the outer boundary of the fort. Indeed, this truncation was confirmed in the western arm of Trench 3 and the eastern end of Trench 11 where isolated ditch silts were respectively identified *c.* 1.4 m and *c.* 2.6 m below the present ground surface. The truncation of the defensive ditches was not completely confined to this area of 19th century buildings. For example, within the southern and central portions of Trench 14 and the eastern end of Trench 20, although ditch silts were identified these were found between *c.* 2.7m and *c.* 1.7 m below the present ground surface. The below ground depth of these Roman deposits indicate that in these areas the original Roman ground levels were dramatically reduced during Post-Roman times.

In contrast, within the north-east corner of the fort there appears minimal Post-Roman disturbance, particularly within the area of Trench 7, and this must partially relate to the use of this railway arch as a timber store during the 19th and 20th centuries (*cf.* Bruton 1909, folding plan pl. 1; Arrowsmith 2004, fig. 9). Moving north and south of Trench 7 Roman deposits, although more heavily truncated, are also present in

Trenches 2, 11 and 20. Taken as a whole, the evidence from these trenches implies that a fairly substantial area of the fort still survives beneath the 19th century railway viaducts and within Southern & Darwent's Yard. The depth of these surviving deposits, where tested, is also stratigraphically significant and provides a valuable insight into the structural history of the fort rampart, *intervallum* and fort interior.

Aside from these remains relating to the fort, areas of in-situ archaeology also survive within the central portion of the development area, which provide evidence for occupation within the Roman civil settlement, or *vicus*. This evidence is found in Trench 8 and the northern end of Trench 14 at depths ranging between *c.* 1 m and *c.* 1.5 m below the present ground surface, and this may suggest that a significant area of surviving Roman archaeology is found fronting Bridgewater Street.

**Eastern portion of the development area**

The eastern portion of the development area (Trenches 4, 10, 15A, 15B, 16, 17, 18 & 19) also contains archaeological evidence dating to the Industrial and Roman periods. The Industrial period remains were identified at the eastern end of Trench 15B and comprise an area of cellarage which, based on the early cartographic sources, probably forms part of a building dating to the late 18th century (*cf.* Arrowsmith 2004, fig.2). Whilst this cellarage has undoubtedly destroyed any Roman deposits which might once have existed here, in-situ Roman remains are present to the west and south within Trenches 4, 15A, 16, 17, 18 and 19, providing evidence for activity within the Roman *vicus*. The survival of deposits within these trenches is certainly due to an absence of cellarage associated with the late 18th century buildings in this wider area and, in the case of Trench 19, due to the presence of the 'Grocer's Company's Yard'. This yard, which also dates from the late 18th century, is plotted on a number of early OS maps and appears to have sealed the earlier Roman archaeology, and remained relatively undisturbed until the construction of the GNR viaduct in 1898.

## 4.2. ARCHAEOLOGICAL SIGNIFICANCE

The areas of surviving Roman and Industrial archaeology are significant for two different, but interrelated, reasons, and these may have some influence on the nature and form of 21st century development and urban regeneration within the Castlefield area.

First, the results of the evaluation indicate that there is a significant and substantial archaeological resource contained within the development area. This, in turn, provides evidence for the origins, growth and later industrialisation of Manchester. Of particular significance, in this context, are the Roman archaeological remains which, in view of the general paucity of documentary or epigraphic data, represent the only viable resource for examining the early history and proto-urban development of Manchester. Although these remains are undoubtedly of regional importance it could also be argued that the archaeological deposits forming the remnants of the Roman fort have a slightly elevated significance. For instance, due to the destruction of the fort during the 18th and 19th centuries it is highly probable that the archaeological remains found within the development area form the last surviving vestiges of the fort interior and outer defences. Moreover, the last upstanding section of the fort wall found beneath a MSJ viaduct is a Scheduled Ancient Monument. Through virtue of

this designation this wall is a site of national importance and, though open to debate, its foundations, the associated rampart and portions of the fort interior located within the Southern & Darwent's Yard and beneath Arch No.3 of the GNR viaduct could also, by extension, share a similar national importance.

The archaeological remains discovered during the evaluation are also significant when considered in relation to those discoveries already made within Castlefield, as they considerably enhance understanding of both the Roman fort and *vicus*. The suspected form and chronology of the fort has been largely derived through archaeological excavations undertaken along the western and northern defences. Based on this evidence, particularly that derived from Duke Place (Jones & Reynolds 1986) and the Northgate (Walker 1986), a four period development of the fort has been proposed (Walker 1986, 141-3; *cf.* Arrowsmith 2004 for additions). In summary, the Period 1 fort (*c.* AD79-90) was probably square in plan, covering *c.* 1.2 ha and was constructed of turf and timber. During Period 2 (*c.* AD90-160) the fort rampart was strengthened, the north gate replaced and the defensive ditch system altered. The close of Period 2 witnessed the wholesale demolition of the fort and this is suspected to relate to the redeployment of the auxiliary garrison further north, following the decision by the emperor Antoninus Pius to reoccupy southern Scotland in the AD140's. During Period 3 (*c.* AD160-200) the fort was rebuilt in turf and timber, but was expanded on its western side, increasing its size to *c.* 2 ha. It is possible that this expansion was carried out in order to accommodate extra granaries, with the fort serving as a supply depot. In Period 4 (*c.* AD200-400) the defences of the fort were modified, with a stone wall fronting the turf rampart, whilst the wooden gates were reconstructed in stone. Significantly, the results from the recent programme of trial trenching over the fort defences allow this proposed chronological and structural sequence to be assessed. Within this context, the evidence obtained from Trench 7 holds particular relevance, as in contrast to the 'traditional' chronological scheme, the partial sectioning of the ramparts and *intervallum* may suggest that a slight modification to the phasing and chronology of the fort is required (Table 12).

The Phase 1 remains identified in Trench 7 comprise, for example, a turf rampart and to its rear a square-sided well, positioned in the *intervallum* area. At some point, this well was backfilled and this portion of the *intervallum* was occupied by a series of military ovens, which were positioned at the tail of the Phase 1 rampart. Pottery associated with the Phase 1 deposits dates broadly to the late 1$^{st}$/early 2$^{nd}$ century AD and it is probable, on stratigraphic grounds, that these remains form part of the Period 1 fort. Within Trench 7, during Phase 2, the eastern rampart was expanded through the addition of further turves and clay and this reconfigured rampart partially sealed the Phase 1 *intervallum* area. This expansion appears to correspond with the proposed strengthening of the Period 2 rampart at the Northgate which, it is argued, dates to either the end of the 1$^{st}$ century AD, or the beginning of the 2$^{nd}$ century AD (Walker 1986, 141). A sherd of Black Burnished ware recovered from a Phase 2 deposit [69] in Trench 7C indicates, however, that the strengthening of the eastern rampart must have occurred during, or after, AD120. It is also possible that this strengthening was a response, on part of the Roman garrison, to the abandonment of the outer defensives that originally defined the military annexe (pp. 31). The evidence from Trench 7 suggests that at some point the Phase 2 rampart was slighted and then, during Phase 3, a contracted turf and timber rampart and an associated *intervallum* road were constructed over its degraded remains. Although there is an absence of direct dating

evidence for both the slighting of the Phase 2 rampart and the construction of the Phase 3 rampart, it is conceivable that these phases correspond with the proposed destruction of the Period 2 fort, in *c.* AD140, and the construction of the enlarged Period 3 fort in the AD160s (*cf.* Jones & Reynolds 1986; Walker 1986).

| **Eastern Defences (Trench 7)** | **Date** | **Correlation with sequences proposed for the northern & western defences** |
|---|---|---|
| *Phase 1* - Construction of turf & timber rampart | Late 1st/early 2nd century AD | Period 1 |
| *Phase 1B* - Construction of well | | |
| *Phase 1C* - Construction of ovens | | |
| *Phase 2* - Expansion of rampart | Post AD120 | Period 2 |
| *Phase 2B* - Destruction of rampart | *c.* AD140s? | |
| *Phase 3* - Construction of turf & timber rampart | *c.* AD160s? | Period 3 |
| *Phase 3B* - Destruction of rampart | | |
| *Phase 4* - Construction of rampart with rear stone revetment | Late 2nd century AD? | ? |
| *Phase 4B* - Destruction of rampart | | |
| *Phase 5* - Construction of rampart | Late 2nd/early 3rd century AD? | Period 4? |
| Phase 5B - Insertion of rear timber rampart revetment | | |

**Table 12. Possible revised phasing and chronology of the fort defences.**

Following the construction of the Phase 3 rampart the eastern defences appear to have been destroyed and rebuilt on a number of further occasions. The Phase 3 rampart, for instance, was certainly slighted and a larger rampart, with an interior stone revetment, was constructed during Phase 4, over the denuded remains of the earlier rampart and partially over the Phase 3 *intervallum* road. Sealing the Phase 4 rampart was a further demolition deposit and layers of clay and sandstone. These, perhaps, suggest that the Phase 4 rampart was also destroyed and that later, during Phase 5, a further rampart was constructed, which at some point was furnished with an interior timber revetment and *intervallum* drain. Unfortunately, the precise dating of the Phase 4 and Phase 5 ramparts is not entirely clear. The artefactual remains associated with these ramparts were confined to late 1st/early 2nd century AD pottery sherds and it is likely that these represent residual material, which became incorporated into the later phase ramparts. It is also not clear how these later phases, evident in the eastern defences, correspond with the sequence of construction established for the northern and western defences. There appears, for example, two extra phases of rampart destruction and one extra

phase of rampart construction which have, to date, not been identified elsewhere within the fort. Presumably though, one of these phases must correspond with the construction of the outer defensive stone wall and stone gates of the fort that has been previously ascribed to Period 4, and chronologically viewed as Severan in date (Walker 1986, 142). Indeed, on sequential grounds, it is possible, although by no means certain, that the Phase 5 rampart with its interior timber revetment corresponds with this phase of refurbishment, which in this area involved the complete rebuilding of the fort rampart. If this is the case, the destruction of the Phase 3 rampart, the construction of the Phase 4 rampart, and its concomitant destruction, must fall temporally within the latter half of the 2nd century AD (Table 12).

Apart from the remains of the eastern rampart and *intervallum* a number of other archaeological deposits and features were identified during the evaluation that also form integral elements of the Roman fort. These features include truncated defensive ditches, the stone wall of the fort, wall lines for internal buildings positioned to the rear of the *intervallum*, a rearward stone rampart revetment and a number of backfilled pits. Unfortunately, although direct dating evidence for these components was in many instances lacking, it is probable that the backfilled pits identified in Trench 5 relate to the Phase 1/Period 1 or Phase2/Period 2 fort; the outer stone fort wall observed in Trenches 2, 11 and 20 to Period 4/Phase 5?; and the rearward stone revetment wall, observed in Trench 20, to the Phase 4 revetment remains identified in Trench 7 (Figure 22).

Outside of the Roman fort the evaluation detected extramural activity, which is probably connected with the Roman civil settlement, or *vicus* (Trenches 4, 5, 14, 15A, 15B, 16, 17, 18 & 19). Whilst these remains appear to largely conform to the evidence excavated elsewhere within the *vicus*, significantly they extend the known limits of this early settlement south-eastwards towards Knott Mill/Deansgate Station. In light of this evidence, the civil settlement now appears to cover a considerable area and this enhanced size certainly substantiates the claim that early Manchester was 'larger than any comparable Roman site in the Pennines' (Jones & Reynolds nd, 7).

Previous to the present evaluation, the size and character of the *vicus* has been established through a number of excavations located to the north and north-east of the fort. These include the excavations at White Lion Street in 1972 (Jones & Grealey 1974), Byrom Street area in 1977-78 (Jones & Reynolds 1978), a small area of the *vicus* examined as part of the Northgate excavations in 1981 (Walker 1986), and more recently the excavations at 73/83 Liverpool Road in 2001 (Connelly 2002) and at Barton Street in 2003/2004 (Gregory forthcoming). Taken together these excavations now present an emerging picture of Manchester's urban origins onto which the evidence from the present evaluation may be placed (Table 13)[1].

[1] Whilst the broad outline of the development of Roman Manchester can be partially reconstructed from these sources it is unfortunate that only a preliminary statement exists for the excavations directed by the late Professor Barri Jones in the Byrom Street area (Tonman Street, Eltoft Street, Severn Street and Byrom and Lower Byrom Street) (Jones & Reynolds nd). Following excavation, post-excavation funding was not available and as such the excavation archive and small finds, now held by the Manchester Museum, have never benefited from a complete and thorough analysis. The same is also true of the excavations undertaken by GMAU during the 1980s within the interior of the fort, at the Onward Workshops, Solomon's Arches and Duke Street. Again with a full and considered programme of post-excavation analysis these important sites would aid considerably in a wider assessment of Manchester's early history.

| ***Vicus* Development** | **Date** |
|---|---|
| Military annexe with defended settlement to the north | Late 1st/early 2nd century AD |
| Expansion of settlement south and east into the military annexe | Early/mid 2nd century AD |
| Abandonment of western *vicus* defences | |
| Construction of workshops, domestic and public buildings | |
| Construction of post-defined buildings in northern *vicus* | Late 2nd/early 3rd century AD |
| Deansgate wordsquare | |
| 'Urban' growth in eastern *vicus*? | |
| Decline of *vicus* | Late 3rd/4th century AD |
| Blocking of the north gate | |

**Table 13. Tentative scheme of *vicus* development at Manchester.**

During the late 1st century AD the area to the north of the fort appears to have been enclosed by a large military ditch system, which has been identified at 73/83 Liverpool Road, White Lion Street and Barton Street. In these areas this ditch system, which was originally described by Jones and Grealey (1974) as a temporary 'baggage enclosure', was backfilled by the early 2nd century AD. On reflection, this ditch system, which was presumably a component of the Period 1/Phase 1 fort, seems more akin to a military annexe, an enclosure that is often associated with auxiliary forts in the British Isles. Moreover, at 73/83 Liverpool Road this ditch certainly appears to have been maintained for some period of time, due to the presence of a single ditch re-cut. Here the ditch was also associated with a gully, which might represent the foundation trench for a timber palisade positioned parallel to the southern lip of the annexe ditch (*cf.* Connelly 2002, fig. 15).

The evidence obtained from the evaluation allows the form of this military annexe to be refined to some degree. It is likely, for instance, that the north-south aligned ditch identified in Trenches 15B and 16 links with the ditch system identified to the north-west at Barton Street, and forms the eastern section of the military annexe. Furthermore, when the position of these fragmentary ditch systems are plotted it is probable that they enclosed the sandstone promontory on which the fort was established (Figure 23). In terms of function, military annexes were usually constructed by the Roman military in order to protect military stores and workshops which could not, for reasons of space or safety, be placed within the fort proper. At Manchester the use of the annexe for industrial purposes is confirmed, in some measure, by the discovery of industrial features at the north gate dating to the late 1st century AD. These features included hearths, working floors, a cobbled yard and a clay mould, located outside of the Period 1/Phase 1 fort (Walker 1986, 33). Within this context, it is possible, therefore, that the occupation horizon [273] and earlier pit and stake-hole identified within evaluation Trench 19, which date to the late 1st century AD, might also relate to this type of military activity within the confines of the annexe.

Contemporary with this military enclosure was also a defensive ditch and palisade that ran north-north-east from White Lion Street to Tonman Street and beyond for an unknown distance (Jones & Grealey 1974; Jones & Reynolds nd). This boundary also fell into disuse by the early 2nd century AD and has been interpreted as a defensive line demarcating the western edge of the early *vicus* (Jones & Reynolds nd, 7). Although within the development area no evidence for this early phase of settlement was located, it appears that in the area of Tonman Street, to the north, property divisions were laid out, a series of pits were dug, that were used to either extract gravel or dispose of rubbish, and a large ditch was positioned parallel to the north gate road (Jones & Reynolds nd).

The early/mid 2nd century AD witnessed a dramatic change in the form of the *vicus* and this seems to have involved the construction of readily identifiable buildings and the expansion of the settled area southwards into the former military annexe. Moreover, it is possible that this expansion was permitted by the Roman garrison precisely because the *vicus* could now effectively perform many of the industrial functions, such as metalworking, which were previously undertaken by military personnel within the confines of the annexe.

The character of vernacular architecture associated with the *vicus* during this period is evident through discoveries made at White Lion Street, Tonman Street and Barton Street (Jones & Grealey 1974; Jones & Reynolds nd; Gregory forthcoming). These buildings were generally small in plan and were constructed of timber uprights set within post-holes, construction trenches, or in some cases wooden sleeper beams, and at least some were provisioned with a veranda. The function of these buildings also varied. A number appear to be emphatically linked to industrial processes, particularly metal working, and are probably best viewed as civilian workshops which supplied certain specialised products to the stationed garrison. These buildings usually contain a smithing hearth and have been identified at Barton Street, Tonman Street and White Lion Street. Close to these buildings, or on the outskirts of the *vicus*, are also other features indicative of Romano-British industrial processes. These include the early/mid 2nd century AD pottery kiln identified at Tonman Street, the possible fulling vat at 73/83 Liverpool Road and the industrial pits and associated features located at Barton Street and close to the north gate. Other timber buildings located outside of the fort served the commercial needs of the *vicus*, and these appear to have fronted the Roman road leading from the north gate of the fort. Whilst the exact trade associated with many of these buildings is not entirely clear, it has been argued that at least one, Building A at White Lion Street, functioned as a hostelry, which was replaced in later years by a series of Roman workshops (Jones & Grealey 1974, 50).

Apart from these small timber buildings the *vicus* probably also contained certain structures which are best viewed as public, or civic, buildings. Indeed, one of these civic buildings, constructed in both timber and stone, has recently been identified at Barton Street (Gregory forthcoming). This large building has two main periods of construction and in its final incarnation consisted of an internal timber room that was partially enclosed by a stone wall, which had a substantial timber colonnade at its western end. Preliminary analysis of the Samian ware suggests that this building might date to either the Hadrianic or Early Antonine period (F C Wild pers comm.). Its precise function is less certain, however, but the character of the architecture, small

finds and presence of an urned cremation burial next to the timber colonnade, may tentatively suggest that this building had certain religious connotations.

The results obtained during the evaluation now allow this phase of early/mid 2nd century AD occupation, to be extended south-eastwards towards the Roman road, whose course is now defined by Deansgate, and also to link with Roman domestic activity that has recently been identified at the Beetham Tower site. The identified remains are largely congruent with those identified in the northern *vicus* and comprise the Roman timber and stone buildings identified in Trench 19 and the northern end of Trench 14. To the south of these structures a small ditch, which probably formed a property boundary, may also be partially contemporary with these buildings as it had certainly been filled by the mid 2nd century AD (Trench 15A). To the south of this ditch the small pits identified in Trench 17 represent further evidence for activity dating to this phase of the civil settlement.

During the late 2nd/early 3rd century AD the civil settlement continued to flourish. Within the northern portion of the *vicus*, at Tonman Street, a number of buildings were constructed fronting the north gate road. Generally these buildings were constructed of timber uprights set within post-holes, although one building did have a 'sandstone sill-wall projecting onto the camber of the roadway' (Jones & Reynolds nd, 14). In plan these buildings appear somewhat larger than those earlier Roman timber buildings constructed during the early/mid 2nd century AD and one of the larger buildings (AA) had a central courtyard. Significantly, at Tonman Street the 'Deansgate Wordsquare', with its supposed Christian connotations, was also recovered from a rubbish pit associated with this phase of the settlement. At White Lion Street the late 2nd/early 3rd century AD buildings were similarly post-defined and were located adjacent to the main north gate road. In contrast to those buildings identified at Tonman Street, these buildings were used for industrial purposes and the numerous furnaces and smithing hearths surrounding them has lead to the suggestion that this area formed an 'industrial zone' to the north of the fort during this period (Jones & Grealey 1974, 67). Elsewhere in the *vicus* the settlement was probably expanded westwards, due to the discovery of a possible construction trench for a timber building and a plot division dating to the mid/late 2nd century AD, at 73/83 Liverpool Road (Connelly 2002).

On the eastern side of the *vicus* domestic, within the evaluation area, the settlement appears to have continued in use and was perhaps linked to a phase of 'urban' growth. Here the ditch of the earlier military annexe was completely backfilled by the later 2nd century AD and a number of mid/late 2nd century AD ditches and pits were cut to the north-west (Trench 18). The earlier extraction pit identified in Trench 4 was probably also filled with detritus by the later 2nd century AD. The area over the backfilled ditch was then occupied by a 3rd century AD structure of some description (Trenches 15B & 16).

The final phase of Roman settlement dates to the late 3rd and 4th centuries AD. Although the coin evidence indicates that the fort remained in use throughout this period, it is possible that the civil settlement was in a period of decline. The placement of a large defensive ditch beyond the fort's existing ditch systems, for example, effectively blocked the road leading to the north gate and may suggest that the northern *vicus* had been largely abandoned (Walker 1986).

The period following the Roman phase of settlement within Manchester is poorly understood and there appears a hiatus in the settlement record extending between the late Roman and early Medieval periods. Within Castlefield documentary evidence indicates that the area of the Roman settlement lay within Aldport Park during the Medieval and Post-Medieval periods. Whilst it is possible that tracts of this landscape contained woodland and heath, the discovery of a Post-Roman plough soil sealing the Roman levels in Trenches 8, 14, 15, 16, 17, 18 and 19, suggests that by the Post-Medieval period, at least, the area was given over to some form of cultivation.

# *5. CONCLUSION*

The results of the evaluation allow an informed picture of the surviving archaeological deposits to be mapped, to some degree, within the development area (Figure 22). These remains date to the 18th/19th centuries and the Roman period and constitute a significant archaeological resource.

## 5.1. ROMAN ARCHAEOLOGY

The majority of the identified Roman remains are certainly regionally important, although those relating to the fort defences in Southern & Darwent's Yard might also, through reference to the existing Scheduled Ancient Monument, be of national importance. These remains are located across the development area within the following key areas:

- Corner of Beaufort Street and former Ivy Street
- Central area of Southern & Darwent's Yard
- Area fronting Bridgewater Street
- GNR viaducts adjacent to Bridgewater Street
- Owen's Court, CLC Arches 21A, 21B and 22A
- Small area of Pioneer Quay

## 5.2. INDUSTRIAL ARCHAEOLOGY

The below ground Industrial period remains are similarly found across the development area, although in contrast to the Roman period remains these are, on the whole, of local significance. These remains include:

- 19th century terraced housing at Onward Workshops
- 19th century buildings beneath GNR Arch No.3
- 19th century buildings within Southern & Darwent's Yard
- Late 18th century cellarage in Owen's Court

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# *Appendix 1*

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| 1 | A (Onward Workshops site) | The trial pit was excavated to a depth of 1.27 m below the present ground surface. The foundation cut for the railway arch was observed measuring 0.9m in width. This cut through natural sand and gravel. At the western side of the trial pit the natural gravels had been cut into by landscaping of the area, also observed in evaluation trench 1. No in-situ Roman deposits were observed. | No | N/A | N/A | N/A |
| 2 | B (Solomon's Arches) | The trial pit was excavated to a depth of 1.2 m below the present ground surface. It was situated on a 1.14 m wide strip positioned between the arch wall and the open 1987 archaeological trench. The arch foundation cut spanned the width of this strip. Outside of the foundation cut the rest of the trial pit encroaches within the archaeological trench which was never fully excavated and the in-situ Roman deposits remain visible. The location of this trial pit was moved in order to avoid live services. | Yes | 1.2m | 32.46 m | c. +0.9 m |
| 3A | B (Solomon's Arches) | The trial pit was excavated to a depth of 1.2 m below the present ground surface. No in situ Roman remains were observed. However, Roman deposits are visible within the open archaeological trench to | No | N/A | N/A | N/A |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | | the west of the trial pit at a depth of c. 1.3m below the present ground level and therefore in-situ Roman deposits are likely to be encountered deeper than 1.2m within this trial pit. | | | | |
| 3B | B (Solomon's Arches) | The trial pit was excavated to a depth of 1.20 m below the present ground surface. The location of this test pit was moved c.1.50 m north in order to improve access and safety whilst hand digging. The foundations to the north of the trench are those of the metrolink lift building and were found to be concrete, protruding 0.48 m from the wall and to the excavated depth of 1.20 m . The foundation cut for this wall was 0.15 m away from the wall. To the western edge the backfill trench (Trench G) from previous archaeological work was identified. The western edge contained the vertical foundation cut for the arch wall, 0.67 m wide on the surface, cutting through Roman layers. The roman deposits included a spread starting at a depth of 0.95m and a linear feature showing at the final depth of 1.20m. As Roman deposits were observed it is presumed that in-situ Roman deposits are likely to be encountered deeper than 1.20m. | Yes | 0.95m | 33.38 m | |
| 4 | B (Solomon's Arches) | The trial pit was excavated to a depth of 1.2 m below the present ground surface. | No | N/A | N/A | N/A |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | | No in situ Roman deposits were observed. Natural sand and gravel was reached at 0.5 m below the current ground level. At the eastern side these natural deposits were cut by the 1.1m wide foundation trench for the arch and at the west by a now backfilled 1987 archaeological trench. | | | | |
| 5 | B (Solomon's Arches) | The trial pit was excavated to a depth of 1.26 m below the present ground surface. No in-situ Roman deposits were observed. Evaluation trench 2 uncovered Roman deposits at a depth of 0.8 m below the present ground level in this area which had been truncated in places by 19th century workings. As Roman deposits were not observed at this level it can be assumed that they have been truncated although the bases of the fort ditch system may remain at a deeper level. The arch foundation cut was not visible within 19th century backfill. | No | N/A | N/A | N/A |
| 6 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 1.2 m below the present ground surface. No in-situ Roman deposits were observed. Evaluation trench 2 uncovered Roman deposits at a depth of 0.8 m below the present ground level in this area which had been truncated in places by 19th century workings. As Roman deposits were not observed at this level it can be | No | N/A | N/A | N/A |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | | assumed that they have been truncated although the bases of the fort ditch system may remain at a deeper level. The arch foundation cut was not visible within 19th century backfill. | | | | |
| 7 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 3 m below the present ground level. No in-situ Roman deposits were observed. The foundation cut for the railway arch was not visible. The location of this trial pit was moved within arch 5 due to the presence of an outbuilding over the proposed position of original test pit. | No | N/A | N/A | N/A |
| 8 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 3.1 m below the present ground level. A deposit of mid grey sandy clay was identified associated with Roman pottery and this probably represents remains of the fort defences. | Yes | 1.4 m | 33.29 m | 1.6 m |
| 9 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 3 m below the present ground surface. A Roman deposit of sand and clay was observed at a depth of *c.* 1.6 m. This deposit was c. 1.3 m deep and probably represents a fill contained within the defensives of the Roman fort. | Yes | 1.6 m | 32.14 m | 1.3 m |
| 10 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 3 m below the present ground level. The Roman fills of the defensive ditch were identified c. 1.4 m below the present | Yes | 1.4 m | 33.03 m | 1.6 m |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | | ground surface and these were c. 1.6 m deep. | | | | |
| 11 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 3.1 m below the present ground surface. Disturbed Roman deposits were observed at a depth of c. 0.8 m. At a depth of 1.1m undisturbed in-situ Roman deposits were observed. These deposits continue for a depth of 1 m, below which are natural sands and gravels. | Yes | 1.1 m | 33.54 m | 1 m |
| 12 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 1.1 m below the present ground surface, at which point undisturbed natural sand and gravel was observed. This contained no Roman features. The gravel was cut by the foundation trench for the arch which measured 0.8 m in width. | No | N/A | N/A | N/A |
| 13 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 1.25 m below the present ground level, at which point no in situ Roman deposits were observed. The foundation cut for the railway arch was not visible. The location of this trial pit was moved into arch 11 in order to avoid live services. | No | N/A | N/A | N/A |
| 14 | D (Bridgewater Street Arches) | The trial pit was excavated to a depth of 0.3 m below present ground level, at which point work was stopped. Most of the trial pit covered an area of cellarage and a brick cellar wall which will have removed any Roman remains. Any | No | N/A | N/A | N/A |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | | deposits outside of this cellar, within the trial pit, will have been removed by the arch foundation trench and modern services. | | | | |
| 15 | E (Southern & Darwent's Yard) | Machine excavated to a final depth of 4 m. Cut for disused ceramic drain identified immediately below the surface and drain located at c.0.65 m. Cut for the arch wall identified at 1.55 m approximately 0.40 m in width. Wall foundations cease to be visible at a depth of 2.75 m. Roman deposits were identified at a depth of 1.20 m and continued to a depth of 2.30 m (possible wall and ditch). Natural sands and gravels can be identified from 1.50 m and continues to a hard compact sand layer at 4 m. It appears that the water table is located at c.4 m. | Yes | 1.20 m | 33.27 m | 1.1 m |
| 16 | E (Southern & Darwent's Yard) | Machine excavated to a final depth of 3.5 m. Cut for arch wall was identified immediately below the surface, and continued on to a depth of c.3.45 m. The foundations for the partition wall to the north of the trench are 0.3 m deep, stepped brick, lying on a large stone slab. Natural sands and gravels were identified from a depth of around 1.4 m | No | N/A | N/A | N/A |
| 17 | E (Southern & Darwent's | Machine excavated to a depth of 3.65 m below the present ground level. No Roman deposits were observed. | No | N/A | N/A | N/A |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | Yard) | Foundation cut for the arch wall was identified at 2.1 m and approximately 0.45 m in width. The wall steps out at a depth of 3.45 m and remains visible for the remaining 0.2 m of the test pit. Natural sands and gravels are identified at a depth of 2.1 m and continue for the remainder of the trench. | | | | |
| 18 | E (Southern & Darwent's Yard) | Machine excavated to a depth of 3.65 m below the present ground level. The foundation for the partition wall is 0.3 m deep and steps out by 0.15 m. This in turn rests on a large brick wall, 0.35 m in width, and 3 m deep. This brick wall is an earlier cellar, built before the retaining wall but after the arch wall. The foundation cut for the arch wall has been removed by later cellaring. The arch wall foundations step out at a depth of 3 m and continue to the excavated depth of 3.65 m. Natural sands and gravels are identified at a depth of 2.5 m below the ground surface and continue down to the base of the trial pit which is a very compact red sand. No Roman archaeology was identified. | No | N/A | N/A | N/A |
| 19 | E (Southern & Darwent's Yard) | Machine excavated to a depth of 3.3 m. Trial pit location moved 1.1 m to the north after initial 0.5 m was excavated to avoid concrete and brick cellars. No cut for the wall was apparent as it had been removed by subsequent building inside | No | N/A | N/A | N/A |

| Test Pit | Area | Comments | In situ Roman deposits | Minimum depth of in situ Roman deposits below present ground level | Maximum height of in situ Roman deposits above O.D. | Minimum depth of in situ Roman deposits |
|---|---|---|---|---|---|---|
| | | the arch. A stone slab for the cellar foundations was identified at a depth of 2.4 m. Below which were natural sands and gravels. The base of the trial pit was halted at 3.30 m where degraded sandstone bedrock was encountered. | | | | |
| 20 | D (Bridgewater Street Arches.) | Machine excavated to a depth of 4 m. The wall to the east of the trial pit, a partition wall, was found to have stepped out foundations sitting upon a concrete base, protruding 0.1 m from the wall. No foundations for the arch wall could be seen due to an earlier cellar wall. In-situ Roman layers, possibly the fill of a ditch were encountered at 1.05m below the present ground surface and continues for another 1 m. Below these layers is sand and gravel natural. The base is compact red degraded sandstone. | Yes | 1.05m | 33.47 m | 1 m |

# *Appendix 2*

Pottery by context quantified and spot-dated. Abbreviations: U=unabraded, M= moderately abraded, A=abraded, V=very abraded, RIM=rim sherd, R+B= rim and body sherd, BDY= diagnostic bodysherd, BDX= undiagnostic bodysherd, B+B= base and body sherd, BAS= bodysherd, FLG= flange, HA=handle.

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *A* | *1* | *0* | CPW1 | | 1 | 10 | V | BDY | | | Neck of flagon | | Similar to Wilderspool flagons Hadrianic-mid Antonine | | | |
| *A* | *1* | *Slot at s. end* | OBA | Very fine buff ware | 1 | 5 | A | BDX | | | Probably beaker | | | Likely to be L1-E2 but not secure dating | | L1-E2? |
| *A* | *1* | | GRA | | 1 | 9 | V | BDY | | | Open vessel? Dish | | | | | |
| *A* | *1* | *0* | CP1 | | 1 | 3 | A | BDX | | | | | | | | |
| *A* | *1* | *0* | CPW1? | | 1 | 20 | A | RIM | 12 | 17 | Cf. Hawkes and Hull 1947 172 | | | L1-E2 | | |
| *A* | *1* | *0* | FLA1/OB | Extremely fine but buff/cream | 1 | 4 | M | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *A* | *1* | *grey fill??* | CP1? | Rather unusual in having sparse but coarse quartz resulting in finer appearance | 1 | 10 | A | BDX | | | | | | | | ? |
| *C* | *5* | *2* | BB1 | | 13 | 142 | A | B+B | | | MB | Burnished acute lattice. | | Early to mid-2nd | | |
| *C* | *5* | *2* | CP1 | | 1 | 6 | A | BDX | | | | | | | | |
| *C* | *5* | *2* | GRA | Fine, smooth with black surfaces. Moderate fine quartz | 8 | 104 | U | B+B | | | base of jar | Burnished acute lattice. Thicker lines than BB1 | | | | |
| *C* | *5* | *2* | GRA | Fine, smooth with abraded grey surfaces. Moderate fine quartz | 1 | 5 | A | BAS | | | PLN | | | | | |
| *C* | *5* | *2* | GRB1 | | 2 | 11 | A | BDX | | | | | | | | 120ff, E-mid 2nd |
| *C* | *5* | *5* | CP1 | | 1 | 4 | V | RIM | 10 | 11 | Flagon with moulded rim as Hawkes and Hull 1947 no. 140 | | | L1 pos E2 | | |
| *C* | *5* | *5* | CP1 | | 1 | 2 | V | BDY | | | Small jar or *beaker* | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *C* | *5* | *5* | GRA | Fine grey wares | 2 | 17 | V | BDX | | | | | | | 1 sherd very flaked | |
| *C* | *5* | *5* | GRA | Fine grey wares | 1 | 4 | V | BDY | | | | Double groove | | | | |
| *C* | *5* | *5* | GRA | Fine grey wares | 1 | 3 | V | R+B | 16 | 5 | Probably a plain rim, curved wall platter but pos. lid. | | | L1-E2 | | |
| *C* | *5* | *5* | OBA1 | Very fine buff ware | 2 | 11 | V | BDY | | | Jar with shoulder groove and beginning of ?everted rim | | | L1-E2 type jar | | |
| *C* | *5* | *5* | OBA1 | Very fine buff ware | 1 | 33 | V | BDX | | | | | | | | Pre-Hadrianic, L1-E2 |
| *C* | *5* | *7* | CP1 | | 1 | 84 | V | BDY | | | Neck of wide-mouthed flagon with groove around base of neck | The distinct groove is visible on large flagon/flasks from Holt (Grimes 1930 fig. 68) | ?L1-E2 | | | Pre-Hadrianic, L1-E2 |
| *C* | *5* | *N half* | CP1 | | 14 | 50 | A | R+B | 12 | 14 | FA1 | Roller stamped decoration with circles and lines | Almost identical top examples from Rossington Bridge, Rigby 2001 fig. 44. A different type of stamp rouletting is found at Derby and Brassington (1971, 59) mentions also at Wilderspool but no reference. | Antonine, mid-2nd | | |
| *C* | *5* | *N half* | CPW1 | | 1 | 3 | A | BDX | | | | | | | | |
| *C* | *5* | *N half* | FLA | | 1 | 5 | A | BDX | | | | | | | | Mid 2nd |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C | 5 | *N half from light brown clay fill* | BB1 | | 1 | 6 | A | BDY | | | Dish or bowl | | | Had-Antonine | | |
| C | 5 | *N half from light brown clay fill* | BB1 | | 2 | 14 | A | BDY | | | Jar | Burnished acute lattice | | Had-Antonine | | |
| C | 5 | *N half from light brown clay fill* | GRA | | 5 | 10 | V | Scraps including a basal scrap | | | | | | | | |
| C | 5 | *N half of light brown grey fill* | Dr20 | | 1 | 64 | M | BDX | | | | | | | | Hadrianic-early Antonine |
| C | 5 | *N end* | CP1 | | 6 | 28 | A | R+B | 12 | 14 | beaker as B 1 N half | | | Antonine, mid 2nd | | |
| C | 5 | *N end* | GRA | As B Tr1 context 2 | 5 | 20 | U | BDX | | | | | | | | |
| C | 5 | *N end* | GRB1 | | 2 | 46 | A | B+B | | | Jar | | | | | |
| C | 5 | *N end* | GRB1 | | 6 | 20 | A | BDX | | | | | | | | |
| C | 5 | *N end* | GRB1 | | 1 | 10 | A | BDY | | | Jar | | | | | |
| C | 5 | *N end* | GRB1 | | 1 | 9 | A | BDY | | | Jar | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *C* | *5* | *N end* | GRB1 | | 1 | 6 | A | R+B | 9 | 9 | Jar with shoulder groove and short everted rim | | | Flavian-Trajanic form | | |
| *C* | *5* | *N end* | OAA | Orange with grey core | | | M | BDX | | | Concave bodysherd | | | | | Mid 2nd with possibly Flavian-Trajanic material incorporated |
| *C* | *5* | *S end* | OAA | V. fine red-orange ware with rare inclusions-mica and red/brown inclusions | 1 | 10 | V | BAS | | | Beaker or cup base | | | Uncertain but likely to be early | | ?Flavian-Trajanic |
| *D* | *8* | *Relict ploughsoil* | BB1 | | 1 | 8 | M | BDY | | | Jar | Acute lattice burnishing | | 120ff | | |
| *D* | *8* | *Relict ploughsoil* | GRA | Black surfaces as Area B trench 1 context 2 | 7 | 95 | M | BDY | | | Sherd from vessel with multiple cordons, large sherd with broad acute lattice burnishing (as Area B trench 1 context 2), | | | L1-E2 | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *8* | *Relict ploughsoil* | GRA | | 4 | 80 | M | R+B | 14 | 14 | Bulbous jar with short everted rim and zone of combed wavy line decoration below shoulder groove | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRA | | 1 | 17 | A | R+B | 14 | 15 | Jar with short everted rim and shoulder groove (not same as above) | | | L1-E2 | | |
| *D* | *8* | *Relict ploughsoil* | GRA2 | | 7 | 71 | A | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 10 | V | BDY | | | Jar with zone of combed wavy lines, fabric seems different to above | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 100 | M | BDY | | | Jar with burnished acute lattice around middle of body | | Copying BB1 jars | 2nd | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 69 | M | B+B | | | Simple jar base | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 2 | 31 | A | R+B | 15 | 5 | Jar with rebated sloping neck and short everted rim | | Cf Webster 1971 no. 103 stream deposit | L1-E2 | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 19 | V | R+B | 22 | 5 | Bowl/dish with grooved rim and groove near base of wall | | | L1-E2 | Possibly top of Dr 37 copy | Predominantly Flavian-Trajanic with one Hadrianic ff jar |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *8* | *Relict ploughsoil* | BB1 | | 1 | 26 | A | R+B | 12 | 20 | Jar with everted rim | Burnished wavy line on neck | Gillam 1976 no. 2 | Mid 2nd | | |
| *D* | *8* | *Relict ploughsoil* | BB1 | | 1 | 3 | V | BDX | | | | | | | Burnt | |
| *D* | *8* | *Relict ploughsoil* | CP1 | | 1 | 3 | V | BDY | | | Beaker | Roller stamped circles and linears | As B 1 North half | Mid 2nd | | |
| *D* | *8* | *Relict ploughsoil* | CPW1 | | 7 | 147 | V | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | CPW1 | | 1 | 4 | A | BDX | | | Thin walled - ? Beaker | | | | | |
| *D* | *8* | *Relict ploughsoil* | FLA2 | | 6 | 24 | V | BDX | | | Thick walled | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRA | | 1 | 33 | V | R+B | 10 | 8 | Small jar or beaker with slightly everted rim tip | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRA | | 1 | 26 | A | B+B | | | Simple jar base | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRA | | 5 | 30 | A | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB | | 1 | 14 | A | RIM | 18 | 14 | Everted rim jar with expanded tip, quite wide mouthed | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB | Black with fawn core, medium sandy | 4 | 21 | M | BDY | | | Cordoned sherd with burnished lattice decoration and bulging sherd with groove | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *8* | *Relict ploughsoil* | GRB | | 13 | 115 | V | BDY | | | Mostly undiagostic, one with cordon and one very curved sherd may be from indented vessel with medial horizontal groove | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 9 | V | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 21 | A | RIM | 12 | 24 | Jar with short everted rim | | | L1-E2 | | |
| *D* | *8* | *Relict ploughsoil* | MOR | White | | | | Flange | | | Bead and flange mortarium | | | 2nd | | |
| *D* | *8* | *Relict ploughsoil* | Roughcast ware | Pale cream-buff | 1 | 1 | V | BDY | | | Beaker roughcast | | Probably Central *Gaulish 2* | L1-E2 | | |
| *D* | *8* | *Relict ploughsoil* | OAA1 | Rather brown/red | 1 | 6 | V | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | OBA1 | Buff with pink core | 4 | 46 | V | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | OBA1 | | 1 | 4 | V | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | OBA1 | With pink core | 1 | 30 | V | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | OBB1 | | 1 | 2 | V | BDX | | | | | | | | Mid 2nd with earlier Flavian-Trajanic material |
| *D* | *8* | *Relict ploughsoil* | DR30 | | 1 | 149 | A | BDX | | | | | | | | E-mid 2nd |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *E* | *11* | *203* | GRC | | 1 | 62 | A | B+B | | | Simple jar base | | | | | |
| *E* | *7A* | *46* | CPW1 | | 1 | 8 | A | BDX | | | | | | | | |
| *E* | *7A* | *49/64* | CT | | 6 | 29 | M | BDY | | | Jar, probably handmade | | | 1st? | | |
| *E* | *7a* | *49/64* | GRB1 | | 2 | 7 | M | BDY | | | | | | | | ?1st |
| *H* | *4* | *U/S* | Brick | | 1 | 20 | V | BDX | | | Thick sherd -0 sanding visible | | | | | |
| *H* | *4* | *U/S* | GRB1 | Like grey BB1 | 1 | 13 | A | BDY | | | Jar | | | 120 ff | | 120 ff |
| *H* | *4* | *14* | BB1 | | 1 | 8 | M | BAS | | | Jar base | | | 120 ff | | |
| *H* | *4* | *14* | DR20 | | 2 | 34 | V | BDX | | | | | | | | |
| *H* | *4* | *14* | GRB1 | | 1 | 24 | V | B+B | | | Plain jar base | | | | Burnt/overfired | |
| *H* | *4* | *14* | GRB1 | | 1 | 13 | A | BDX | | | | | | | | |
| *H* | *4* | *14* | GRB1 | | 1 | 33 | M | R+B | 12 | 16 | Necked jar with bead rim | | | Probably Hadrianic - Antonine BB1 copy | | 120 ff |
| *H* | *4* | *15* | BB1 | | 2 | 20 | M | B+B | | | Jar | Burnished outside lower body | | Hadrianic - Antonine | | |
| *H* | *4* | *15* | GRA | | 1 | 10 | A | BDY | | | Barbotine dot beaker, large like those with barbotine circles | | Cf. Gillam 1970 no.68 | L1-E2 | | |
| *H* | *4* | *15* | GRB1 | | 1 | 12 | M | BDY | | | Rusticated jar | Linear rustication | | L1-mid 2 | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *H* | *4* | *15* | RHC | Orange with brown CC - Central Gaulish or local | 1 | 6 | A | BDY | | | Roughcast beaker with double groove on shoulder, possibly indented | | Cf. Gillam 1970 no.73 | L1-mid 2 | | Hadrianic-early Antonine |
| *H* | *4* | *17* | BB1 | | 1 | 5 | V | BDX | | | Probably jar fragment | | | 120ff | | |
| *H* | *4* | *17* | CPW1 | | 1 | 2 | V | BDX | | | | | | | | |
| *H* | *4* | *17* | FLA1 | Extremely fine | 1 | 3 | V | BDX | | | ?Import | | | | | |
| *H* | *4* | *17* | FLA2 | | 4 | 23 | V | BDY | | | ?Flagon | | | | | |
| *H* | *4* | *17* | FLA4 | Brockley Hill flagon | 1 | 25 | M | BDX | | | | | | | | |
| *H* | *4* | *17* | GRB1 | | 2 | 11 | A | BDX | | | | | | | | |
| *H* | *4* | *17* | OBA1 | | 1 | 7 | V | BDX | | | | | | | | Hadrianic-early Antonine but with earlier L1st-E2nd century material |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *H* | *4* | *Clean up S end* | MOR | Hard cream with buff/yellow slip and abundant quartz trituration, c. 1.5-2mm - similar to Wroxeter products | 3 | 126 | M | B+B | | | Base of mortarium | | | | | L1-Mid2? |
| *H* | *4* | *Clean up S end* | OBA | | 1 | 2 | V | scrap | | | | | | | | |
| *H* | *4* | *U/S* | CPW1 | With grey interior | 1 | 3 | V | Scrap | | | | | | | | |
| *C* | *5* | *Levelling/ rut* | BB1 | | 1 | 24 | U | R+B | 16 | 10 | Flat-rim bowl | Burnished intersecting arcs | Gillam 1976 no. 62-3 | Mid-late 2nd | | Mid-late 2nd |
| *D* | *8* | *Relict ploughsoil* | CP1 | | 1 | 22 | M | R+B | 12 | 13 | As B 1 N half | | | Antonine - mid 2nd | | Mid 2nd |
| *D* | *8* | *Relict ploughsoil* | GRB1 | | 1 | 4 | A | BDX | | | | | | | | |
| *D* | *8* | *Relict ploughsoil* | CP1 | | 2 | 43 | M | BDY | | | Jar with large pre-firing hole, 5mm across, possibly where inclusion has dropped out | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | 8 | *Relict ploughsoil* | CP2 | Sandy orange | 6 | 121 | V | BDX | | | | | | | | |
| D | 8 | *Relict ploughsoil* | CPW1 | | 1 | 90 | V | BDX | | | | | | | | |
| D | 8 | *Relict ploughsoil* | DR20 | | 1 | 199 | A | BDX | | | | | | | | |
| D | 8 | *Relict ploughsoil* | FL | Brockley-Hill | 1 | 88 | M | Handle | | | Single strap | | | | | |
| D | 8 | *Relict ploughsoil* | FLA | | 10 | 82 | A | BDX | | | | | | | | |
| D | 8 | *Relict ploughsoil* | FLA2 | | 3 | 65 | M | BDX | | | | | | | | |
| D | 8 | *Relict ploughsoil* | OAA | Pale orange with grey core | 1 | 9 | V | R+B | 18 | 6 | Plain flat lid | | | | | |
| D | 8 | *Relict ploughsoil* | OAA | As OAAW but no traces of slip | 3 | 63 | V | B+B | | | Thick sherds from plain base | | | | | |
| D | 8 | *Relict ploughsoil* | OAA | | 1 | 3 | V | BDY | | | Jar/beaker | Applied irregular lines ?rustication | | L1-E2 | | |
| D | 8 | *Relict ploughsoil* | OAAW | Pale pinkish traces of cream slip | 1 | 16 | V | R+B | 18 | 21 | Plain flat lid | | | | | |
| D | 8 | *Relict ploughsoil* | OAAW | As above | 2 | 22 | V | BDY | | | Probably from two vessels one with double grooves | | | | | |
| D | 8 | *Relict ploughsoil* | OAAW | | 2 | 12 | V | BDX | | | | | | | | |
| D | 8 | *Relict ploughsoil* | OBA | Pinkish | 2 | 148 | V | BDY | | | Wide-necked flagon with handle scar and 2-ribbed handle from ?same vessel | | | L1-E2 | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | 8 | *Relict ploughsoil* | OBA1 | | 3 | 6 | A | Scraps | | | | | | | | |
| D | 8 | *Relict ploughsoil* | SALT/FC? | | 2 | 18 | V | BDX | | | | | | | | L1-E2 |
| D | 14 | *Surface of Roman levels* | CP1 | Grey core | 1 | 22 | A | BDX | | | | | | | | |
| D | 14 | *Surface of Roman levels* | MOR | | 5 | 240 | M | B+B | | | Pinkish cream with mixed red/brown and quartz trituration grits - probably Mancetter-Hartshill pre-140 - or more probably one of the Wroxeter fabrics? | | | | | L1-M2 |
| D | 14 | *282* | Dr20 | | 4 | 348 | A | Neck | | | | | | E-M2 | | L1-m2 |
| D | 14 | *Relict ploughsoil* | GRB1 | | 1 | 145 | U | B+B | | | Jar | | | | | Probably Hadrianic ff |
| D | 14 | *276* | CP1 | | 2 | 28 | M | B+B | | | Footring base of jar | | | | | Probably pre-mid 2nd |
| D | 15B | *Surface of Roman levels* | BB1 | | 4 | 85 | M | Profile | 18 | 19 | Plain rim dish | Burnished acute lattice | Gillam 1976 no. 75 | Early to mid 2nd | | Early to mid 2nd |
| D | 15B | *Surface of Roman levels* | | | 2 | 35 | U | Profile | 18 | 12 | Grooved rim dish | Burnished all over | Gillam 1976 no. 72 | early 3rd | | early 3rd |
| D | 15B | *Surface of Roman levels* | | | 3 | 50 | M | BDY | | | Jar | Burnished obtuse lattice | Gillam 1976 no. 77 ff | 3rd ff | | 3rd ff |
| D | 15A | *115* | CP2 | | 2 | 19 | V | BDX | | | | | | | | |
| D | 15A | *115* | CP3 | | 1 | 7 | A | BDY | | | ?Jar or beaker | Dash rouletting | | | | |
| D | 15A | *115* | FLA2 | | 1 | 6 | M | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *15A* | *115* | GRA/B | Fairly fine | 3 | 42 | A | R+B | 14 | 20 | Necked jar with lipped rim | Single groove at base of neck | | | | |
| *D* | *15A* | *115* | GRB1 | | 3 | 54 | A | B+B | | | Simple jar base | | | | | |
| *D* | *15A* | *115* | GRB1 | | 1 | 29 | A | BDY | | | Rusticated jar | Nodular rustication | | L1st-mid 2nd | | |
| *D* | *15A* | *115* | GRB1 | | 1 | 35 | M | R+B | 14 | 20 | Necked jar with everted rim | Double groove at base of neck | | | | |
| *D* | *15A* | *115* | Wilderspool mortarium | | 1 | 67 | A | IRS | | | As 146 in 147 | | 1st half 2nd century | | Same as 146 in 147 | Hadrianic-early Antonine |
| *D* | *15A* | *146* | BB1 | | 1 | 16 | A | BDY | | | Jar | Burnished acute lattice | | Hadrianic - Antonine | | |
| *D* | *15A* | *146* | GRB1 | | 1 | 6 | M | BDY | | | closed vessel | single cordon | | | | |
| *D* | *15A* | *146* | Wilderspool mortarium | | 1 | 148 | A | R+B | 20 | 7 | Bead and flange mortarium with cut away spout *like Raetian* mortaria | | Cf. Hartley and Webster 1973, Fig. 11 no. 102 | 100-165 AD | Same as 115 in 145 | |
| *D* | *15A* | *151* | CP1 | | 1 | 64 | V | B+B | | | Simple jar base | | | | | |
| *D* | *15A* | *151* | CP3 | | 1 | 16 | A | BDY | | | closed vessel | | | | | |
| *D* | *15A* | *151* | FLA2/OBB1 | | 1 | 26 | A | HANDLE | | | 2-ribbed handle | | | | | |
| *D* | *15A* | *152* | DR20 | | 1 | 125 | A | BDX | | | | | | | | |
| *D* | *15A* | *152* | GRA | | 1 | 20 | V | R+B | 20 | 6 | Dish with grooved rim | Burnished outside | | Probably late 2nd | | |
| *D* | *15A* | *152* | GRA | | 2 | 50 | V | B+B | | | Jar/beaker base | | | | | Hadrianic-Antonine, probably Antonine |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *15A* | *153* | CP1 | Rather red | 1 | 41 | M | BDY | | | Jar | | | | | |
| *D* | *15A* | *153* | CP1 | | 3 | 23 | A | R+B | 11 | 7 | Small handled jar/bowl with short everted slightly dished rim | | | Probably L1-E2 | | |
| *D* | *15A* | *153* | DR20 | | 2 | 689 | M | R+B | 16 | 45 | DR20 cf. Martin-Kilcher type 28 | | | Mid 2nd | | |
| *D* | *15A* | *153* | DR20 | | 1 | 48 | A | BDX | | | | | | | | |
| *D* | *15A* | *153* | FLA2 | | 1 | 4 | A | B+B | | | Turned base of flagon | | | | | |
| *D* | *15A* | *153* | SVC | | 1 | 5 | A | BDX | | | | | Webster (1974) suggests arrives in Manchester mid-late 2nd | Mid-late 2nd | | Mid 2nd with earlier vessel |
| *D* | *15B* | *Surface of Roman levels* | AMP | | 2 | 96 | A | BDX | | | | | | | | |
| *D* | *15B* | *Surface of Roman levels* | CP1 | | 1 | 9 | A | BAS | | | Footring base | | | | | |
| *D* | *15B* | *Surface of Roman levels* | CP1? | With grey core | 1 | 18 | A | R+B | 16 | 4 | Bead and flange bowl | | | Hadrianic - Antonine | | |
| *D* | *15B* | *Surface of Roman levels* | CPW1/Wilderspool mortarium | | 1 | 70 | A | B+B | | | Mortarium, very worn | | | | | |
| *D* | *15B* | *Surface of Roman levels* | DR20 | | 4 | 76 | A | BDX | | | | | | | | |
| *D* | *15B* | *Surface of Roman levels* | DR20? | | 1 | 9 | V | BDX | | | | | | | | |
| *D* | *15B* | *Surface of Roman* | FLA2 | | 2 | 24 | M | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *levels* | | | | | | | | | | | | | | |
| *D* | *15B* | *Surface of Roman levels* | OBA1 | | 2 | 26 | A | BDX | | | | | | | | |
| *D* | *15B* | *Surface of Roman levels* | Wilderspool | Drab buff fabric with grey core and sparse quartz trituration grits | 1 | 79 | | | | | | | | | | *Hadrianic-Antonine* |
| *D* | *16* | *168* | BB1 | | 5 | 45 | V | BDY | | | Jar, heavily encrusted | Burnished obtuse lattice | | 3rd | | 3rd |
| *D* | *16* | *168* | BB1 | | 1 | 6 | M | BDY | | | Bowl/dish | Burnished acute lattice | | | | |
| *D* | *16* | *168* | CP1/CPW1 | | 3 | 24 | V | BDX | | | ?Traces of white slip | | | | | |
| *D* | *16* | *168* | FLA1 | | 1 | 4 | A | BDX | | | | | | 1-2 | | |
| *D* | *16* | *168* | FLA2 | | 1 | 103 | A | HANDLE | | | 2-ribbed flagon *handle* | | | 1-2 | | |
| *D* | *16* | *168* | OAAW1 | Reddish fine fabric with traces of white slip | 3 | 20 | A | R+B | 12 | 6 | Short everted rim beaker with unusual scratched lattice pattern - originally white slipped | | | ?L1-E2 | | Presence of BB1 sherds gives date in 3rd century at earliest but other material includes Flavian-Trajanic types |
| *D* | *16* | *169* | AMP | | 1 | 75 | M | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *16* | *169* | CP1 | | 1 | 21 | A | BDY | | | Jar? With cordon and groove | | | | | |
| *D* | *16* | *169* | GRB1 | | 1 | 65 | A | R+B | 20 | 14 | Bowl with flat rim | | | 2nd | | |
| *D* | *16* | *169* | IMB | | 1 | 114 | M | BDY | | | Imbrex tile fragment | | | | | Hadrianic-Antonine |
| *D* | *16* | *161* | CP1 | | 3 | 19 | V | R+B | | 1 | Bodysherds and ?beaker with very short everted rim | | | ?L1-E2 | | |
| *D* | *16* | *161* | CP2 | | 3 | 24 | V | Scraps | | | | | | | | |
| *D* | *16* | *161* | GRB | With brown core | 1 | 17 | A | BDX | | | | | | | | L1-E2? |
| *D* | *16* | *Relict ploughsoil* | MOR | Drab cream with darker surfaces - ?Wroxeter | 1 | 71 | U | FLANGE | | | Flange of bead and flange mortarium with stamped flange | | | E-mid 2nd | | |
| *D* | *16* | *Relict ploughsoil* | OAA1 | | 3 | 6 | V | BDX | | | | | | | | |
| *D* | *16* | *Relict ploughsoil* | DR20 | | 1 | 103 | M | BDX | | | | | | | | E-mid 2 |
| *D* | *16* | *Relict ploughsoil* | ? | Exceptionally fine greyish/ brown fabric | 1 | 10 | A | BDX | | | Burnished all over outside | | | | | |
| *D* | *16* | *Relict ploughsoil* | BB1 | | 1 | 16 | M | RIM | 16 | 10 | Necked jar with fairly upright neck and bead rim | Burnished wavy line on neck | Gillam 1976 no. 2 | Mid 2nd | | |
| *D* | *16* | *Relict ploughsoil* | BB1? | | 1 | 4 | V | BDY | | | Jar | burnished lattice decoration | | 120 ff | Burnt | |
| *D* | *16* | *Relict ploughsoil* | CP1 | | 3 | 78 | A | B+B | | | Jar | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *16* | *Relict ploughsoil* | GRB1 | | 1 | 9 | A | R+B | 10 | 8 | Small jar with short everted rim | | | L1-E2 | | |
| *D* | *16* | *Relict ploughsoil* | GRB1 | | 2 | 10 | M | BDY | | | Adjoining overfired sherds of neck of flagon with? Site of handle luting - extra layer of clay badly luted onto neck of vessel. The overfired feel of this piece suggests it is a waster | | | | | Early-mid 2nd |
| *D* | *17* | *158* | AMP | | 2 | 4 | V | scraps | | | | | | | | |
| *D* | *17* | *158* | CP1 | | 1 | 6 | V | BDX | | | | | | | | Early-mid 2nd |
| *D* | *17* | *S most part exc pit* | CPW?? | Sandy orange fabric with? White slip | 1 | 6 | v | Scrap | | | | | | | | ? |
| *D* | *18* | *184* | DR20 | | 3 | 48 | A | BDX | | | | | | | | |
| *D* | *18* | *184* | DR20 | | 9 | 227 | A | BDX | | | | | | | | |
| *D* | *18* | *184* | GR | Sandy grey ware with orange margins and grey core | 3 | 165 | V | B+B | | | Footring base of jar | | | | | |
| *D* | *18* | *184* | OBB1 | | 1 | 4 | V | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *18* | *184* | SVC | | 3 | 60 | V | R+B | 26 | 11 | Wide-mouthed jar with everted rim and shoulder groove | | | 2nd, Webster 1974 dates mid/late 2nd ff | | |
| *D* | *18* | *188* | GRB? | Grey exterior and core, white interior. Moderate medium quartz inclusions | 1 | 28 | A | RIM/FLANGE | 18 | 11 | Resembles mortarium flange with odd applied strip c. 5mm broad running from edge to rim. Misfired. | | | | This sherd has been misfired or burnt. The form is uncertain but a mortarium seems most likely - very odd. | |
| *D* | *18* | *188* | OAA1 | Reddish | 1 | 10 | A | BDY | | | Double horizontal groove and part of curvilinear groove | | | | | Mid-late 2nd |
| *D* | *19* | *Surface of Roman levels* | BB1 | | 1 | 32 | A | RIM | 14 | 17 | Necked jar | Burnished wavy line on neck | Gillam 1976 no. 3 | Mid 2nd | | |
| *D* | *19* | *Surface of Roman levels* | CP1 | Grey core and interior | 1 | 18 | V | BDX | | | | | | | | |
| *D* | *19* | *Surface of Roman levels* | CP1 | With buff core | 2 | 53 | A | BDX | | | Jar | | | | | |
| *D* | *19* | *Surface of Roman levels* | CP1W? | Buff core and inside, possible traces of slip | 1 | 116 | V | B+B | | | Turned jar base | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | 19 | *Surface of Roman levels* | Dr20 | | 2 | 56 | A | BDX | | | | | | | | |
| D | 19 | *Surface of Roman levels* | FLA | FLA2 with pink core and inner surface | 3 | 69 | V | BDX | | | ? Flagon near base or much abraded mortarium?? | | | | | |
| D | 19 | *Surface of Roman levels* | FLA1 | Pinkish | 1 | 12 | V | BDX | | | | | | | | |
| D | 19 | *Surface of Roman levels* | FLA2 | | 4 | 54 | A | BDX | | | | | | | | |
| D | 19 | *Surface of Roman levels* | GRA | | 1 | 5 | A | BDX | | | Same fabric as Area B Tr 1 context 2 | | | | | |
| D | 19 | *Surface of Roman levels* | GRA/B | | 1 | 8 | A | RIM | 14 | 6 | Necked jar with lipped rim | | | | Possibly same as jar in Tr15A (115) | |
| D | 19 | *Surface of Roman levels* | GRA1B | | 5 | 55 | M | R+B | 12 | 45 | Globular jar with short everted rim and subdued linear rustication | Subdued linear rustication | | ?Late 1st or pos E 2nd but looks early | | |
| D | 19 | *Surface of Roman levels* | GRB1 | | 2 | 217 | V | R+H | 9 | 100 | Double-handled jug with triangular, flat-topped rim | | Cf. Webster 1971 no. 100 from deposit dated 120 AD and earlier and predominantly Flavian-Trajanic | L1-E2 | | |
| D | 19 | *Surface of Roman levels* | GRB1 | | 1 | 9 | V | BDX | | | | | | | | |
| D | 19 | *Surface of Roman levels* | GRB1 | | 4 | 48 | A | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *19* | *Surface of Roman levels* | MOR | Off-white fabric with pale grey core and dirty white surface - Mancetter-Hartshill? | 1 | 20 | M | Flange | | | Flange of bead and flange mortarium | | | 2nd | | |
| *D* | *19* | *Surface of Roman levels* | Roughcast ware | Yellowish buff with grey core and brown CC | 1 | 14 | m | R+B | 12 | 16 | Bag beaker with grooved rim and shoulder groove - probably rough cast | | Probably Central Gaulish 2, Tyers 1996, 140 | Flavian-Trajanic | | |
| *D* | *19* | *Surface of Roman levels* | OAA1 | | 1 | 3 | A | BDX | | | | | | | | |
| *D* | *19* | *Surface of Roman levels* | OAB | Hard with moderate medium quartz in dark orange/red with grey core | 1 | 18 | A | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *19* | *Surface of Roman levels* | OBA1 | | 1 | 13 | V | BDX | | | | | | | | Flavian -Trajanic with some Hadrianic to early Antonine material. The absence of Severn Valley ware suggests pre-mid 2nd. |
| *E* | *7A* | *59* | CP1 | | 1 | 20 | A | RIM | 16 | 14 | Flat rim bowl with flat rim expanding at tip, slightly dished | | Belongs to reeded rim bowl series | L1-m2 | | L1-E2 |
| *E* | *7C* | *69* | BB1? | | 1 | 7 | A | BDY | | | Jar with burnished acute lattice | | | 120ff | | |
| *E* | *7C* | *69* | CP1 | | 7 | 29 | A | BDX | | | | | | | | |
| *E* | *7C* | *69* | CP1 | | 1 | 12 | A | RIM | 9 | 25 | Flagon with moulded rim as Hawkes & Hull 1947 140 | L1-E2 | | | | |
| *E* | *7C* | *69* | CP1G? | | 2 | 19 | M | BDX | | | | | | | One sherd has races of what looks like glaze under x30 | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *E* | *7C* | *69* | FLA2 | | 1 | 26 | A | B+B | Turned | | Flagon | | | | | Flavian-Trajanic with BB1 sherd of 120 AD ff |
| *E* | *7B* | *87* | CPW1 | | 1 | 4 | V | BDY | | | | | | | Burnt | |
| *E* | *7B* | *87* | FLA1 | | 1 | 6 | A | BDX | | | | | | | | Possibly Flavian-Trajanic |
| *E* | *7B* | *89* | FLA2 | | 1 | 8 | M | BDX | | | | | | | | 1-2 |
| *E* | *7B* | *105* | CP1 | | 2 | 2 | V | scraps | | | | | | | | |
| *E* | *7B* | *108* | CP1 | | 1 | 8 | V | BDX | | | Rather thick? Mortarium | | | | | |
| *E* | *7C* | *241* | GRA | Fine medium grey, slightly micaceous ware | 1 | 81 | U | Profile | | | Plain rim platter with internal step and burnished lines radiating out from centre of interior of base | | | Mid-late 1st | | Mid-late 1st though could occur in Flavian-Trajanic layers |
| *E* | *7C* | *79* | CP2 | | 1 | 10 | A | BDX | | | | | | | | |
| *E* | *7C* | *80* | CP1 | | 1 | 15 | A | RIM | 7 | 30 | Hawkes and Hull 1947 140 | | | L1 | | L1st |
| *E* | *7C* | *123* | CP1 | | 3 | 28 | A | BDX | | | | | | | | |
| *E* | *7C* | *138* | CGCC? | Buff with dark brown metallic CC | 1 | 2 | M | BDY | | | Beaker with notch rouletting | Rouletting | Unusual to have rouletting but this looks like early Central Gaulish ware | Flavian-Trajanic? | | Flavian-Trajanic |
| *E* | *7C* | *138* | CP1/CPW1 | | 4 | 26 | A | B+B | | | Footring base of platter | | | 1st | One sherd has ? white slip | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *E* | *7C* | *138* | CP2? | Coarser ware than usual | 1 | 8 | V | BDX | | | | | | | | |
| *E* | *7C* | *138* | LYONS | | 6 | 3 | A | scraps | | | Grooved rim beaker with sand rough casting | | | Pre-Flavian | | Pre-Flavian Lyons ware and Flavian-Trajanic |
| *E* | *7C* | *241* | CP1 | | 2 | 3 | V | scraps | | | | | | | | |
| *E* | *7C* | *241* | CP1 | | 1 | 164 | A | BAS | | | Simple jar base | | | | | |
| *E* | *7C* | *241* | CP1 | | 4 | 85 | A | BDX | | | | | | | | Probably L1-E2 |
| *E* | *7C* | *245* | CP1 | | 5 | 54 | A | BDX | | | | | | | | |
| *E* | *7C* | *245* | CP1 | | 1 | 11 | A | BAS | | | Platter or dish | | | L1-E2 | | L1-E2 |
| *E* | *7C* | *245* | CP1 | | 1 | 12 | A | RIM | 20 | 6 | Slightly everted rounded rim | | | | | |
| *E* | *7C* | *245* | CP3 | | 2 | 24 | A | BDX | | | | | | | | Probably L1-E2 |
| *E* | *7C* | *246* | CP1 | | 4 | 46 | M | BDX | | | | | | | Odd deposit on surfaces *including* break look like glaze in places but must be post-depositional | |
| *E* | *7C* | *246* | CP2 | | 1 | 14 | A | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *E* | *7C* | *246* | CP3 | As CP1 but with darker orange/red surface | 1 | 3 | U | BDX | | | | | | | | |
| *E* | *7C* | *254* | CP1 | | 1 | 64 | A | BAS | | | Plain jar base | | | | Odd deposit on surfaces including break *look like* glaze in places but must be post-depositional | Probably L1-E2 |
| *E* | *7C* | *72* | CP1 | | 1 | 4 | V | BDX | | | | | | | | Probably L1-E2 |
| *E* | *7C* | *US* | CP1 | | 1 | 17 | M | BDX | | | | | | | Traces of red/dark orange *surface* | Probably L1-E2 |
| *D* | *8* | *Central feature* | ?SALT | | 1 | 7 | V | BDX | | | | | | | | |
| *D* | *8* | *Central feature* | BB1 | | 1 | 11 | A | BDY | | | Jar | Burnished acute lattice | | 2nd | | |
| *D* | *8* | *Central feature* | DR20 | | 1 | 44 | A | BDX | | | | | | | | |
| *D* | *8* | *Central feature* | FLA2 | With orange interior | 1 | 7 | A | BDX | | | | | | | | |
| *D* | *8* | *Central feature* | GR | Grey with brown/buff core | 1 | 10 | V | BDX | | | | | | | | |

| *Area* | *Trench* | *Context* | Fabric Group | Fabric details | No. of sherds | Weight | Abrasion | Part | Rim D. | Rim % | Form | Decoration | Ref | Date | Other | Context dating |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *D* | *8* | *Central feature* | GRA | As Area B trench 1 context 2 | 1 | 16 | M | BDX | | | | | | | | |
| *D* | *8* | *Central feature* | GRA | White with grey surfaces | 1 | 35 | V | B+B | | | Small jar or beaker | | | | | |
| *D* | *8* | *Central feature* | GRA2 | | 1 | 19 | U | BDY | | | Jar with burnished zone | | | | | |
| *D* | *8* | *Central feature* | GRA2 | | 1 | 10 | M | BDY | | | Jar | Combed wavy line decoration | | | | |
| *D* | *8* | *Central feature* | GRB1 | | 1 | 30 | A | BDY | | | Jar | Burnished acute lattice | | | | Hadrianic-early Antonine |
| *D* | *8* | *stake hole* | CP1 | | 1 | 1 | V | tiny scrap | | | | | | | | ? |
| *D* | *15A* | *152* | OBA1 | | 1 | 12 | A | BDY | | | Body of globular jar with shoulder groove | | | L1-E2 | | L1-E2 |
| *D* | *8* | *Relict plough soil* | CPW1 | | 2 | 21 | A | BDX | | | | | | | | |
| *D* | *8* | *Relict plough soil* | OBA | | 1 | 16 | A | BDX | | | | | | | | |
| *E* | *TP15* | | CP1 | | 27 | 29625 | A | B+B | | | Simple base of jar | | | | | Probably L1-2 |

# *FIGURES*

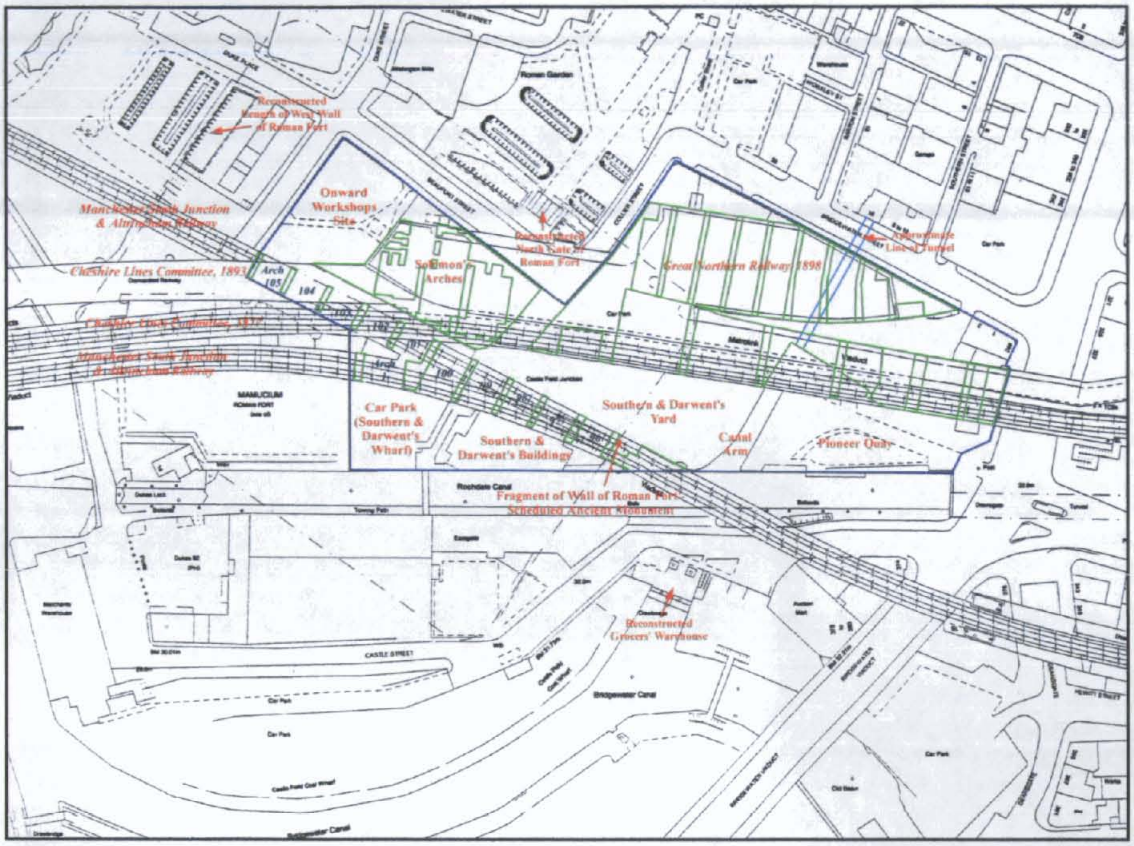



**Figure 1. Location map of the development area (reproduced from Arrowsmith 2004, fig.1).**

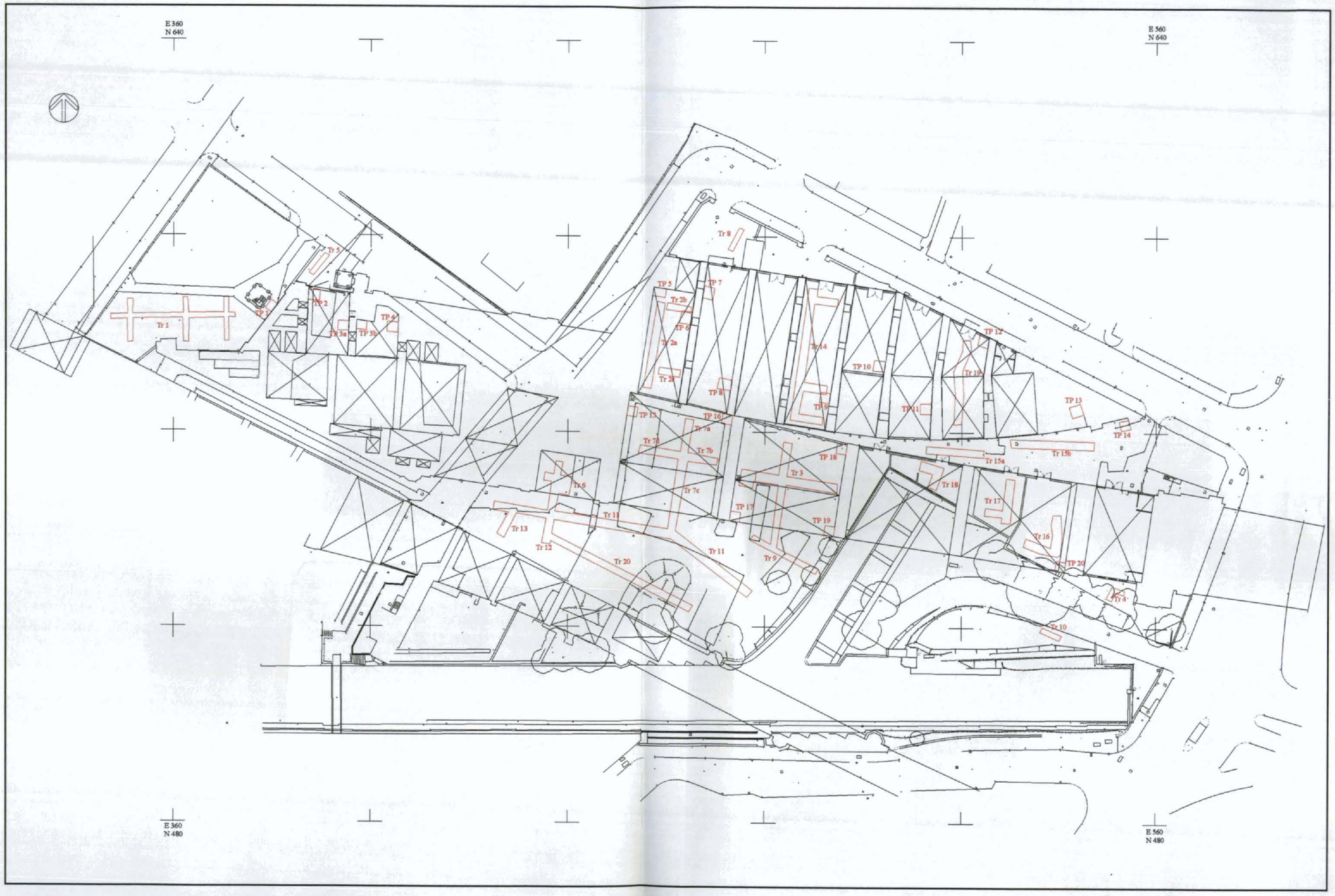



**Figure 2. Location of the evaluation trenches and geotechnical test pits.**

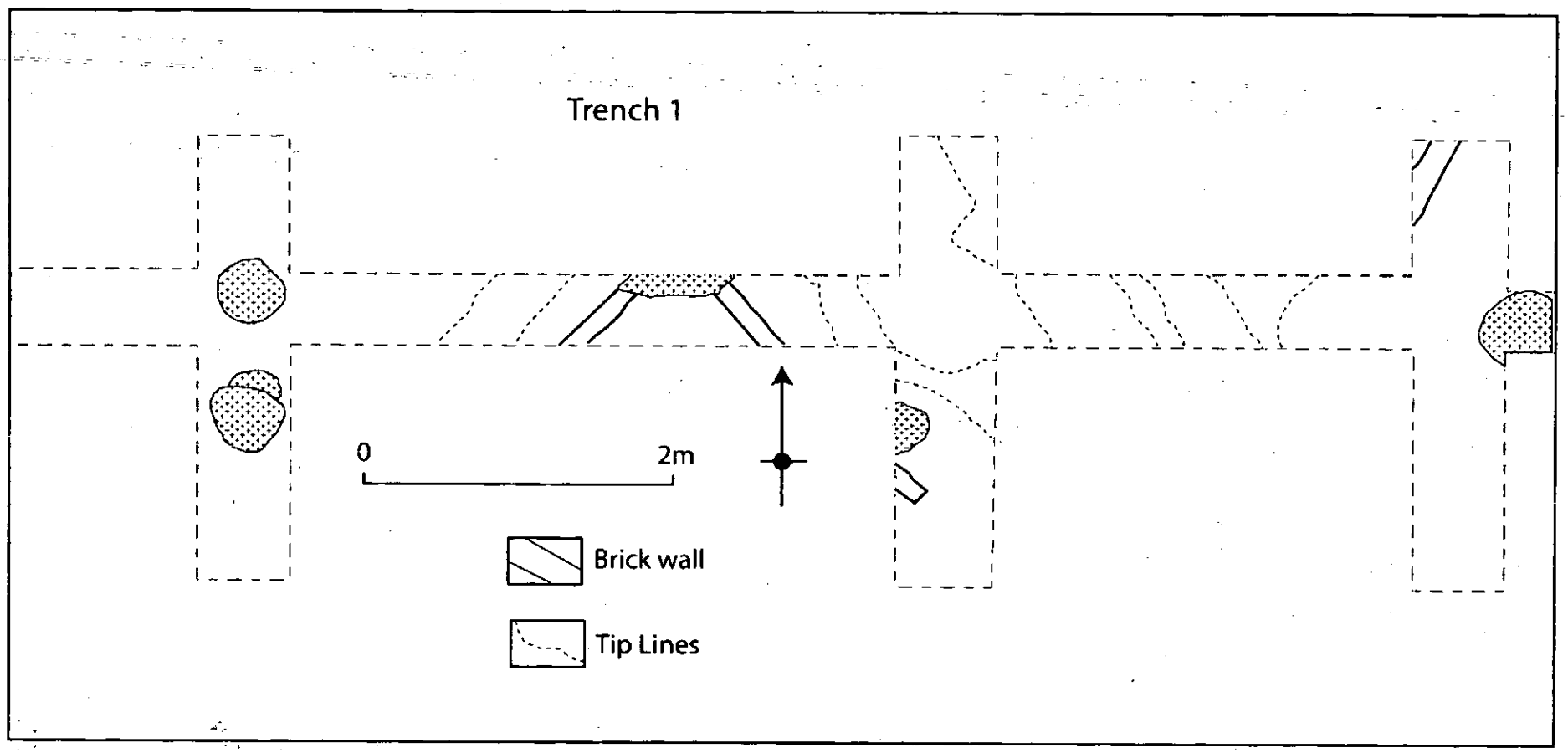



**Figure 3. Plan of Trench 1.**

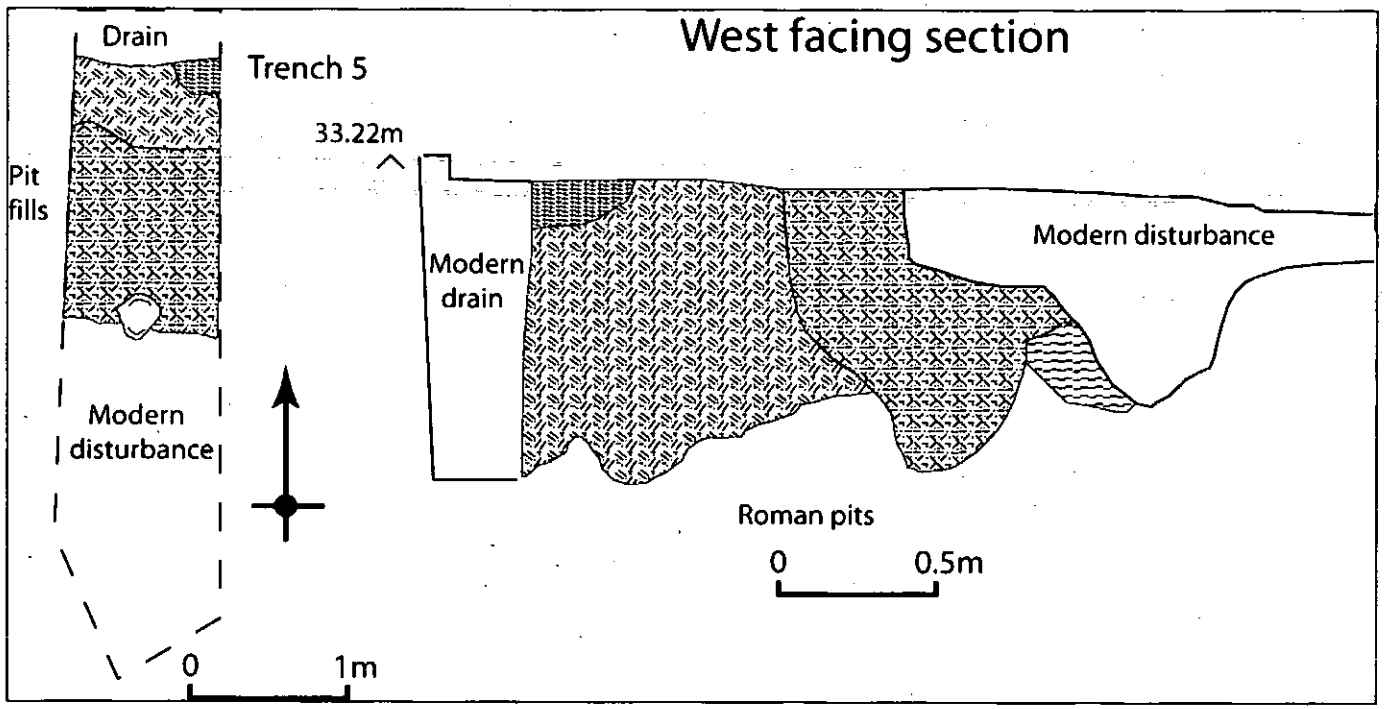



**Figure 4. Trench 5.**

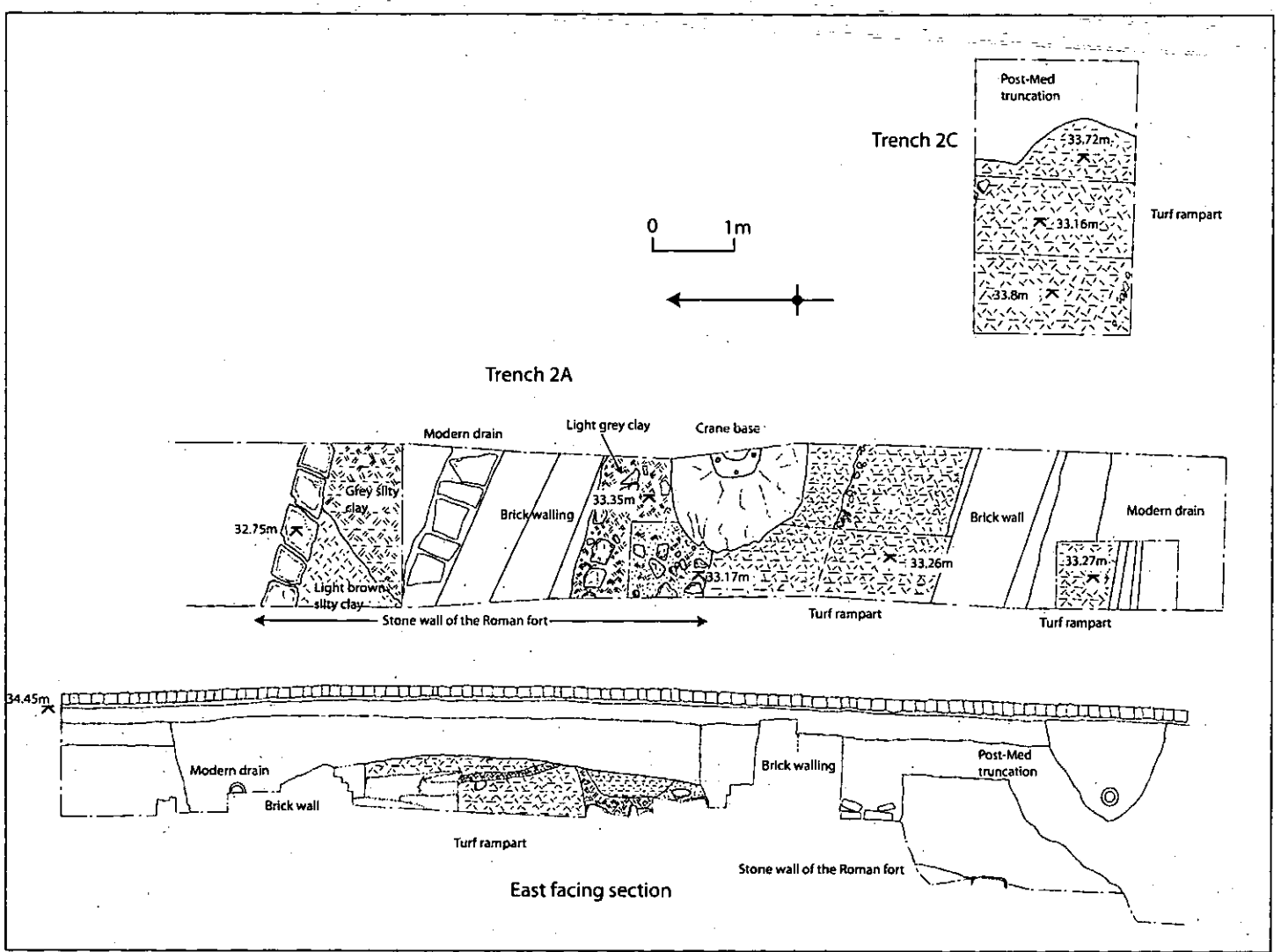



**Figure 5. Plan and section of Trenches 2A and 2C.**

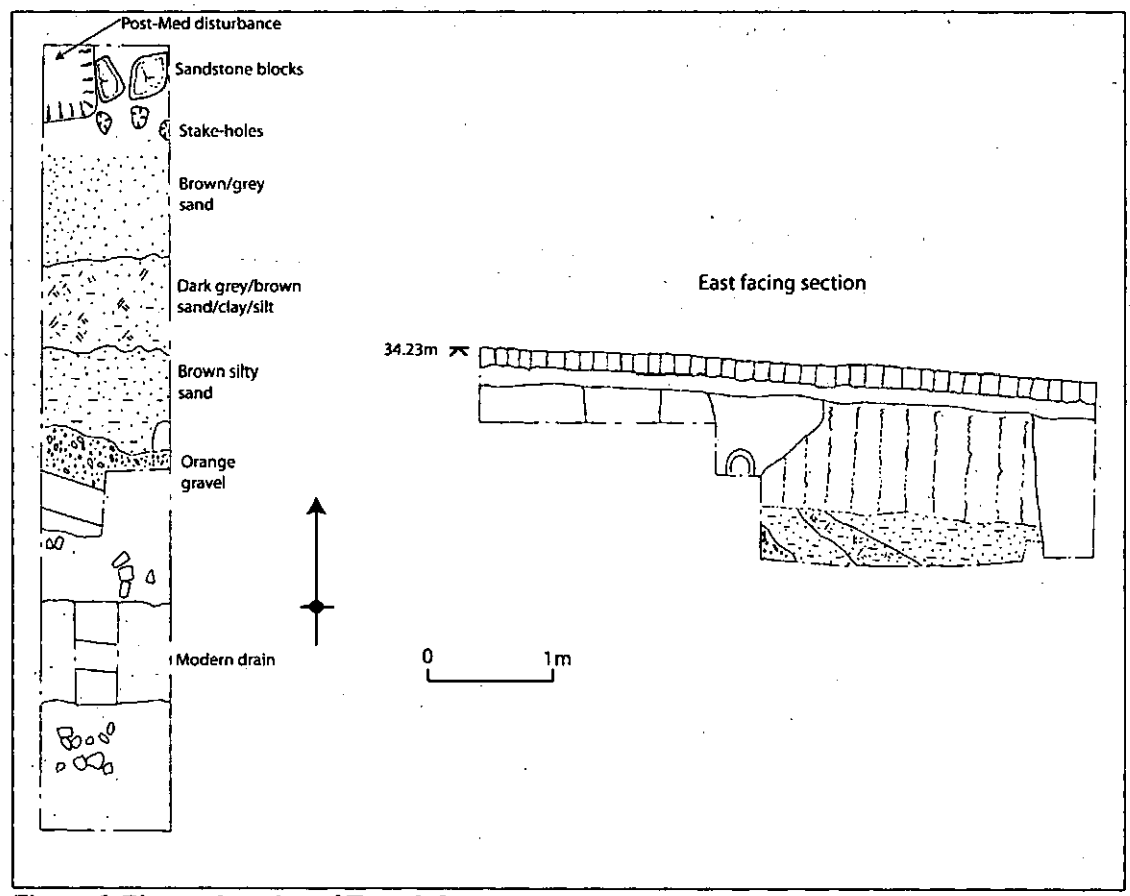



**Figure 6. Plan and section of Trench 8.**

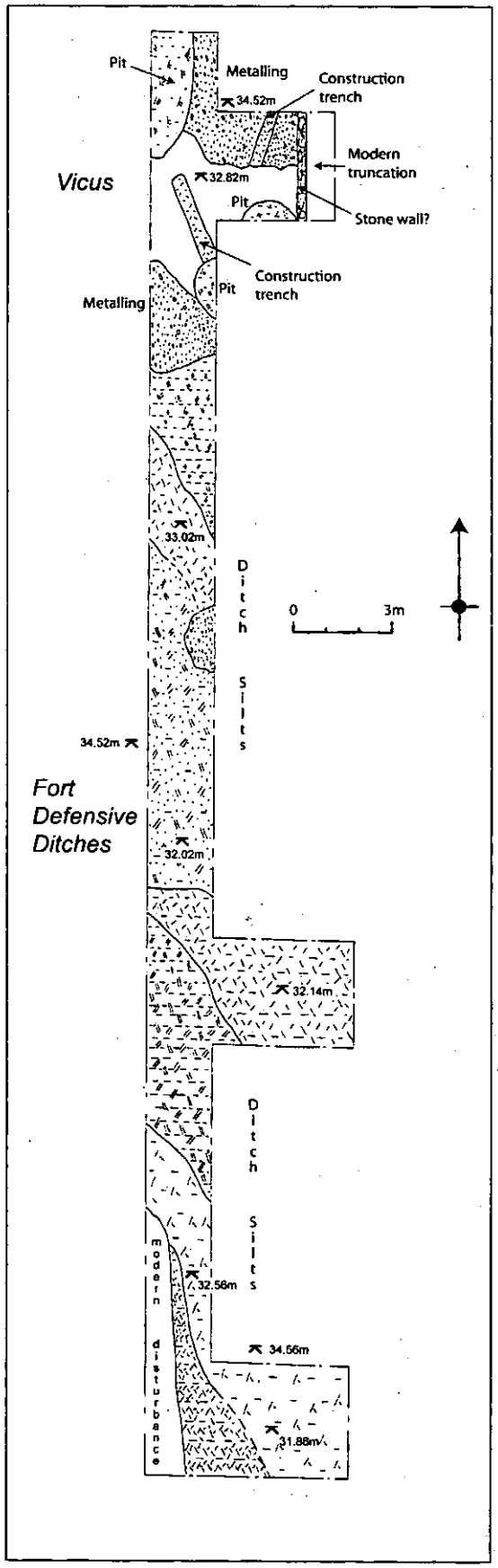



**Figure 7. Plan of Trench 14.**

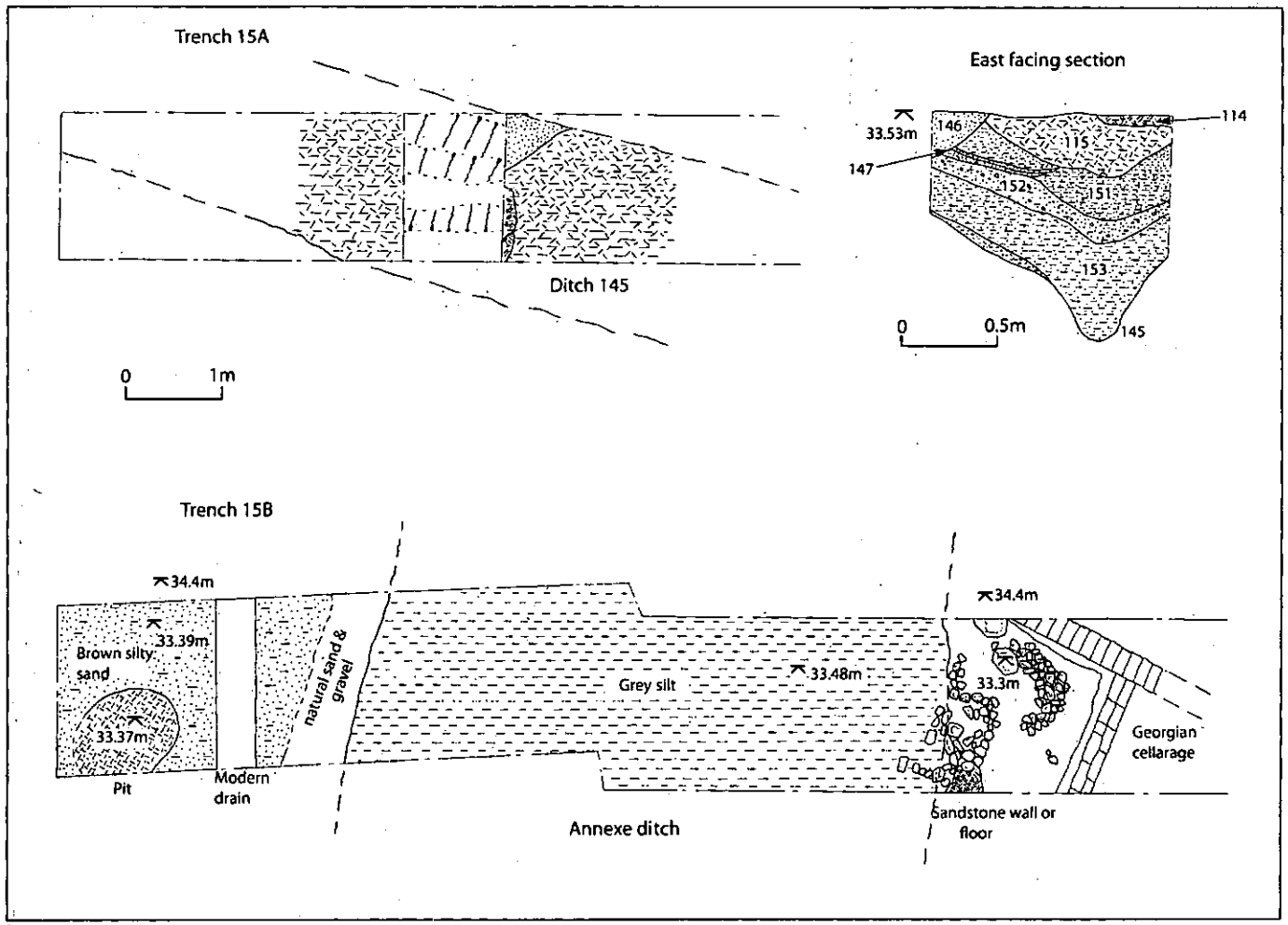



**Figure 8. Trench 15A and 15B.**

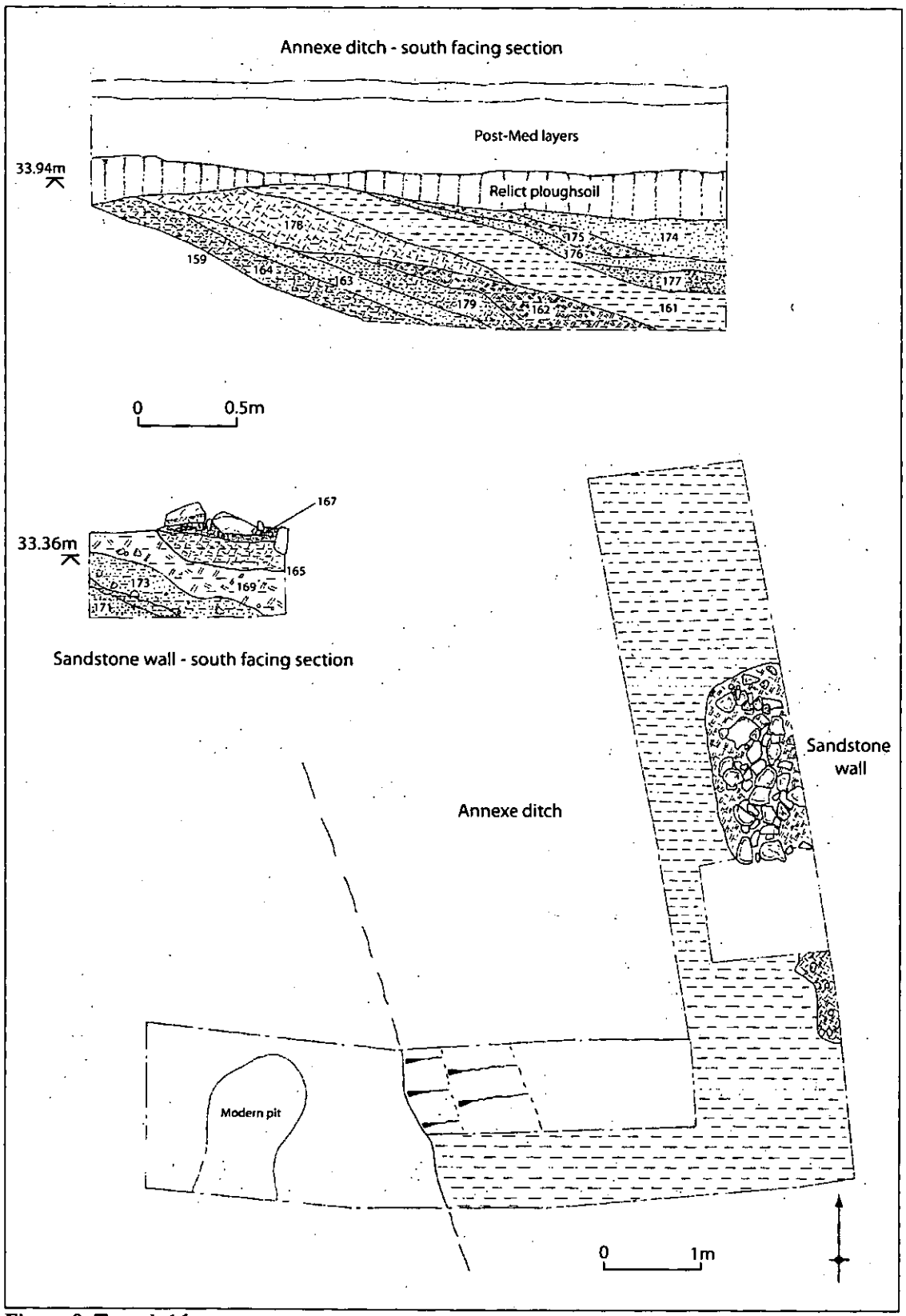



**Figure 9. Trench 16.**

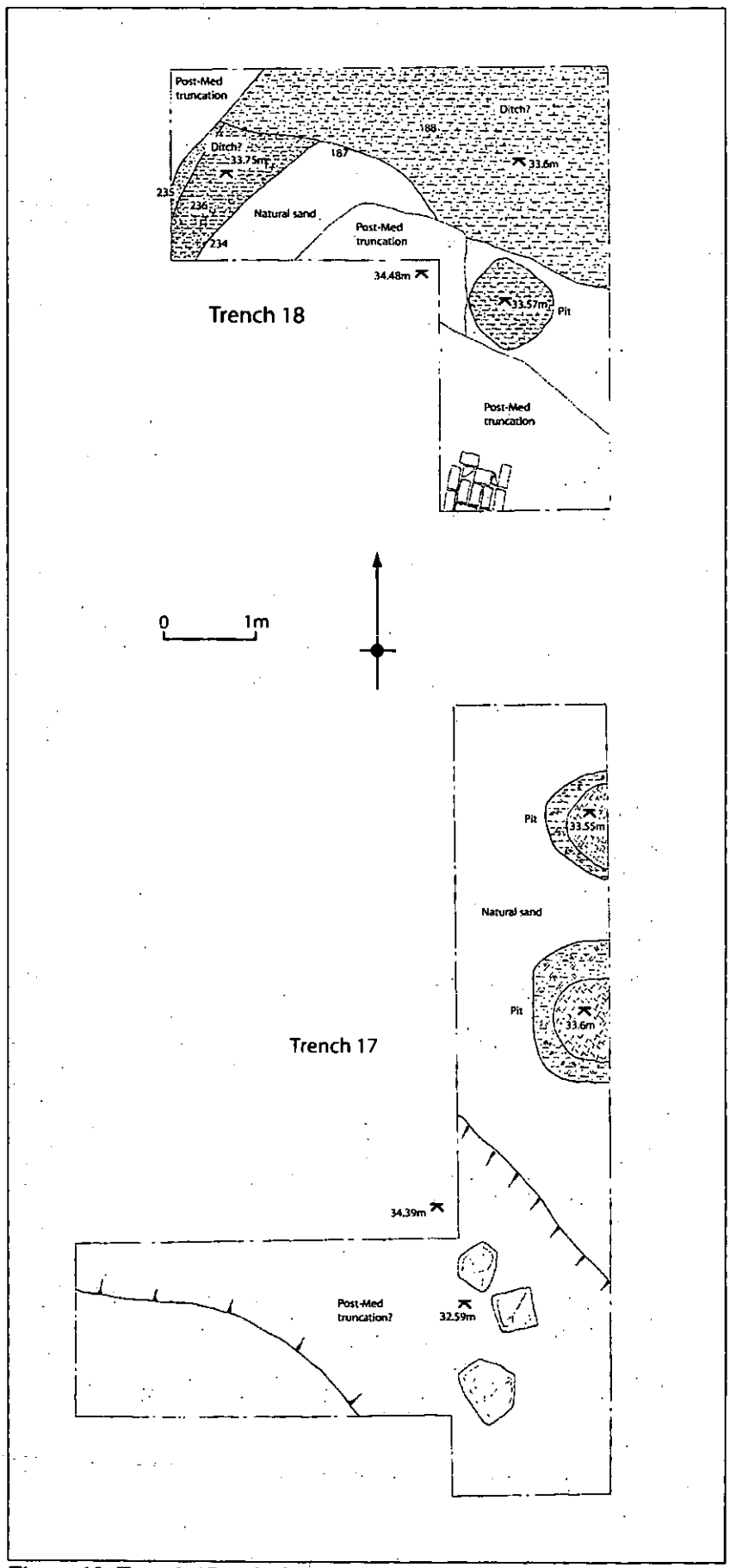



**Figure 10. Trench 17 and 18.**

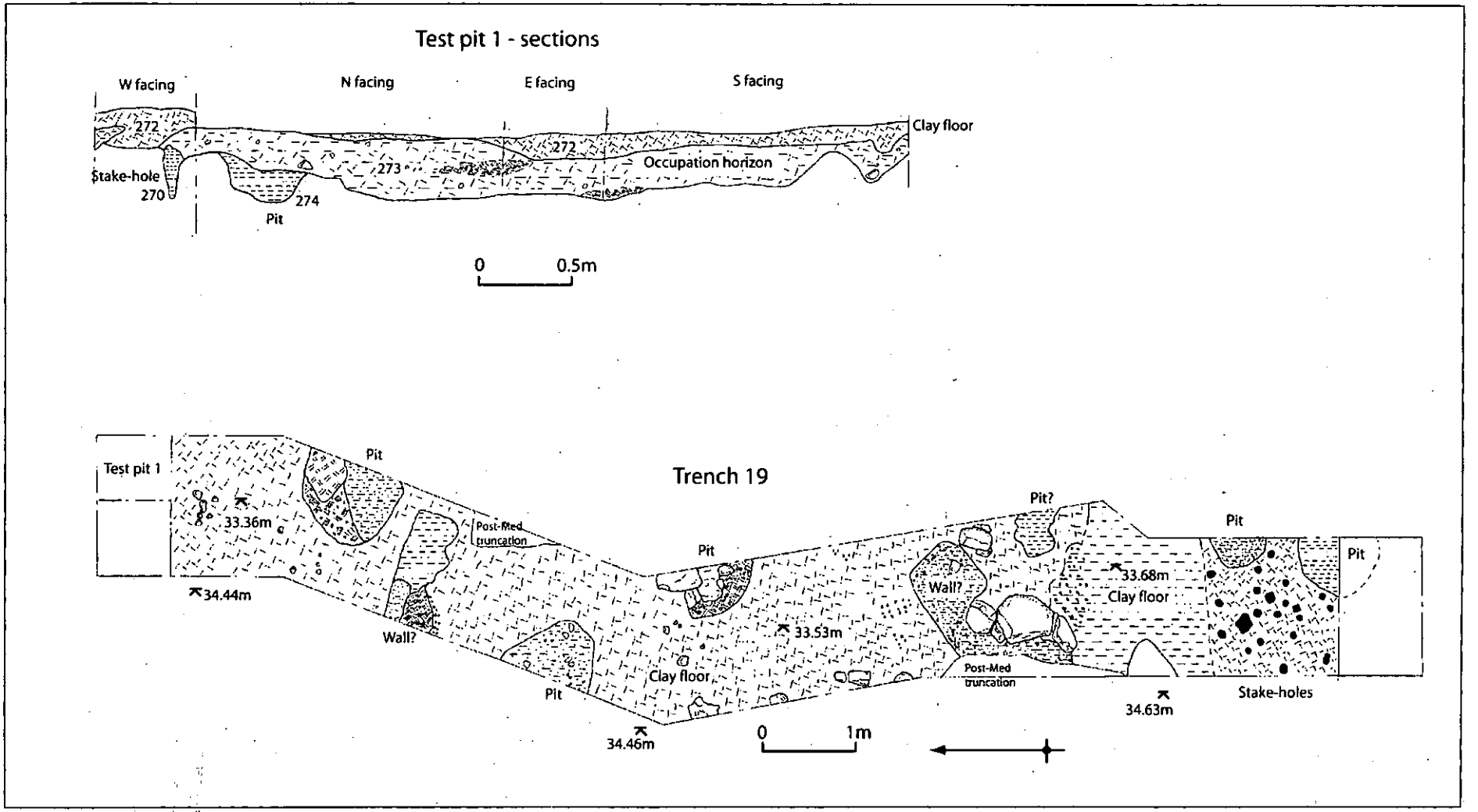



**Figure 11. Trench 19.**

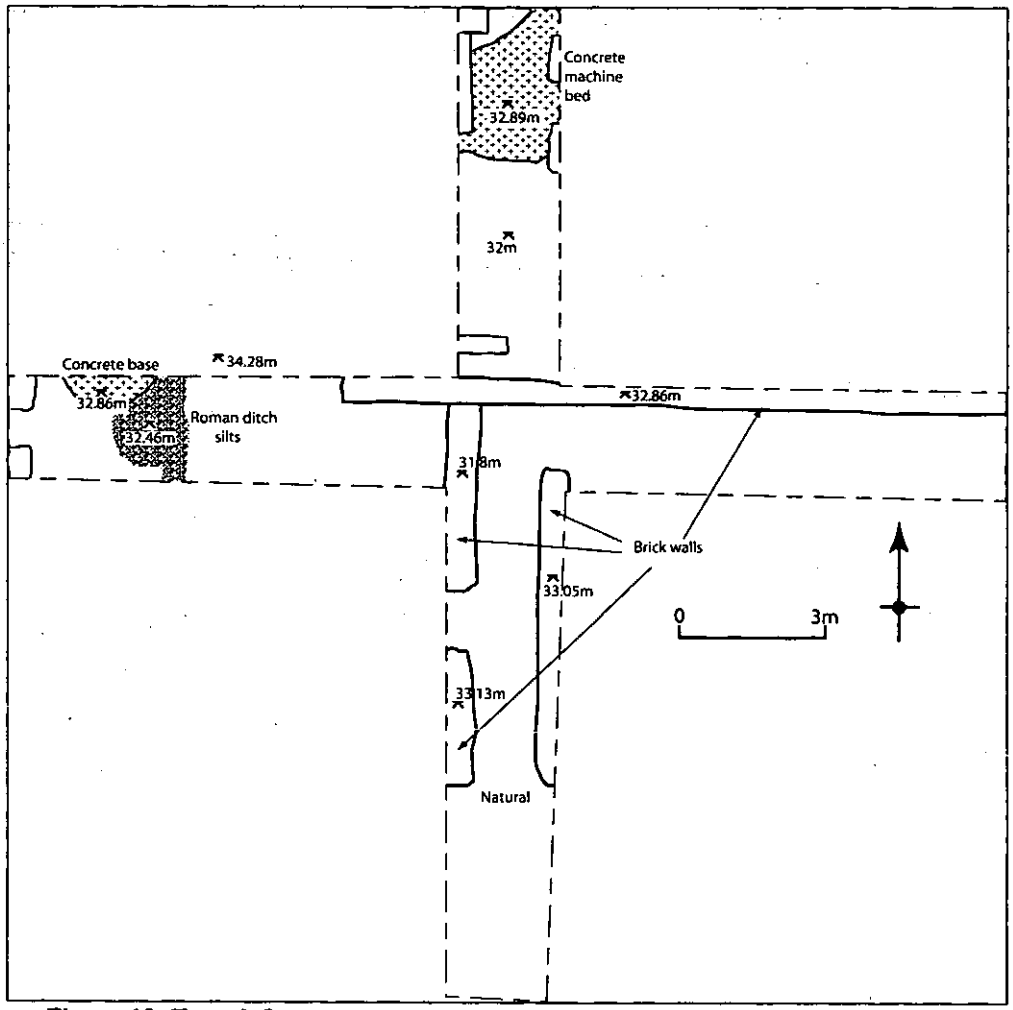



**Figure 12. Trench 3.**

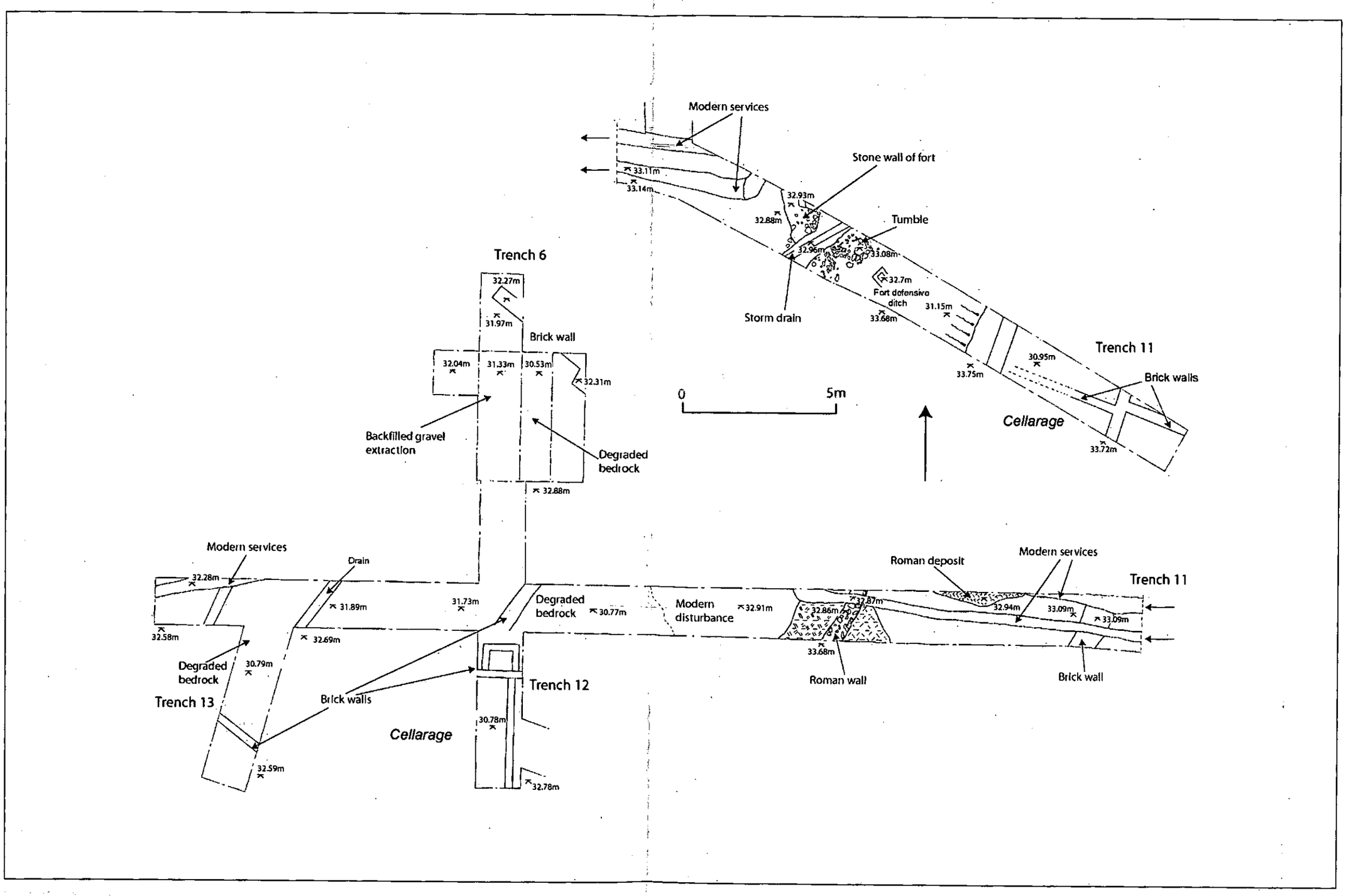



**Figure 13. Plan of Trenches 6, 11, 12 and 13.**

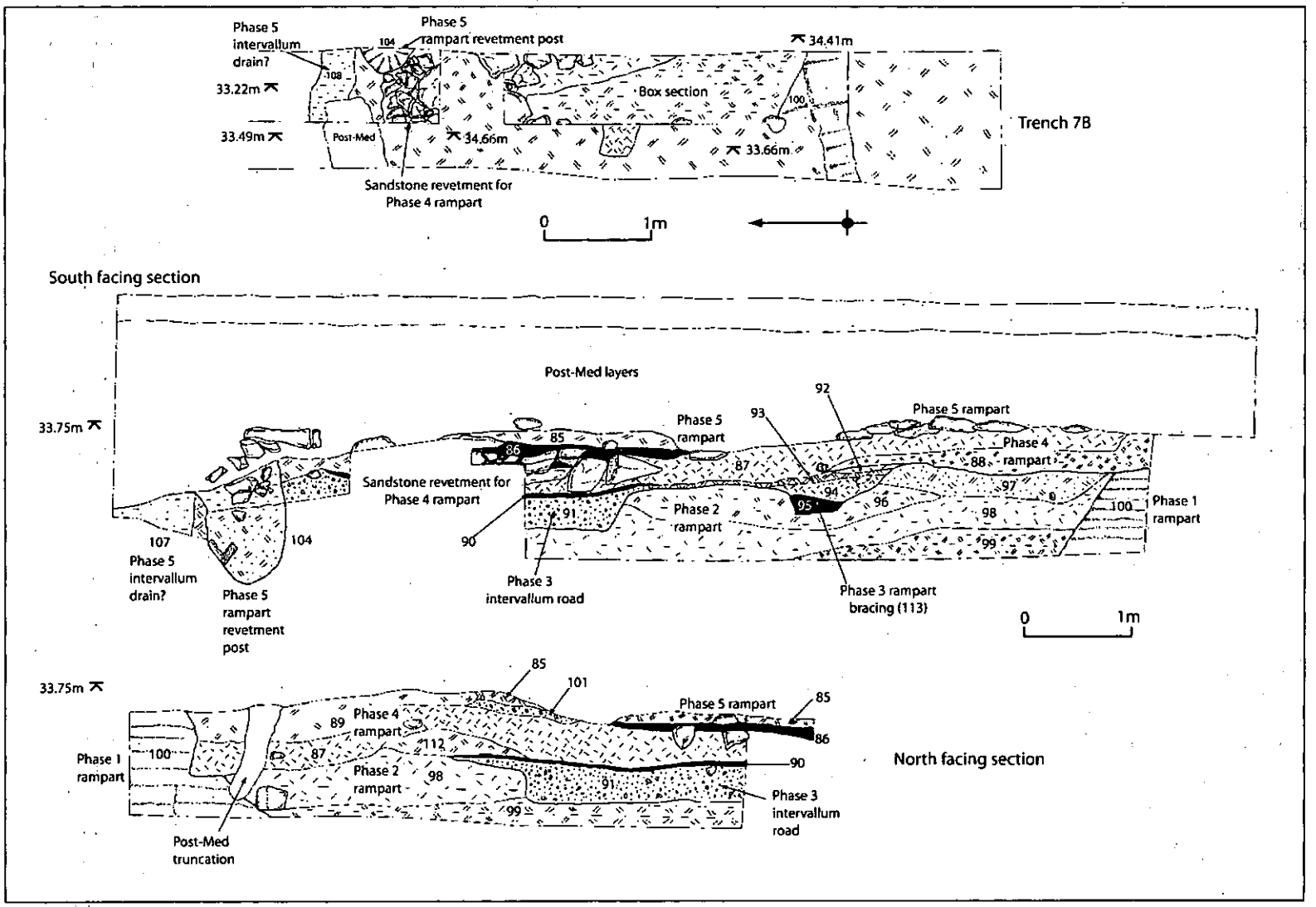



**Figure 14. Trench 7B.**

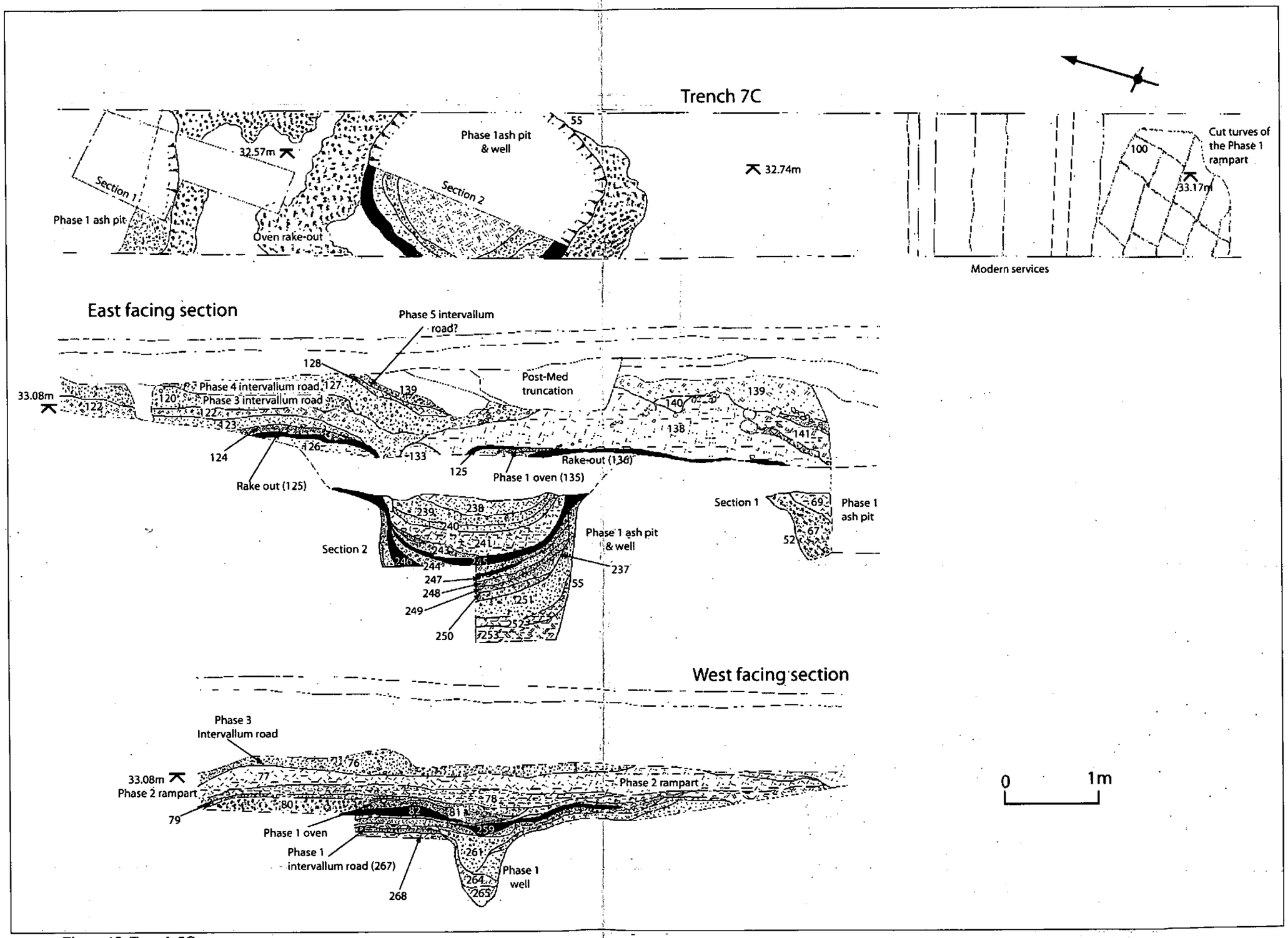



**Figure 15. Trench 7C.**

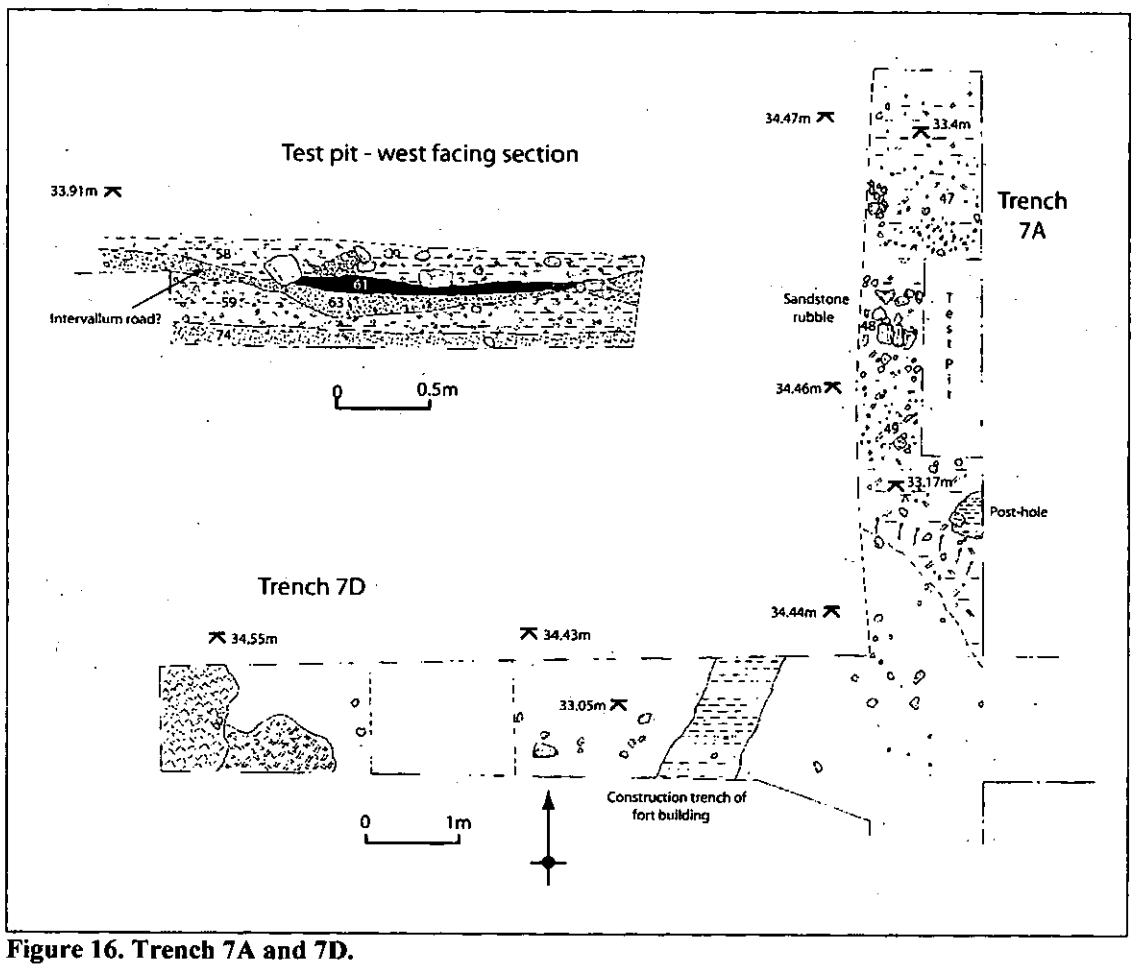



**Figure 16. Trench 7A and 7D.**

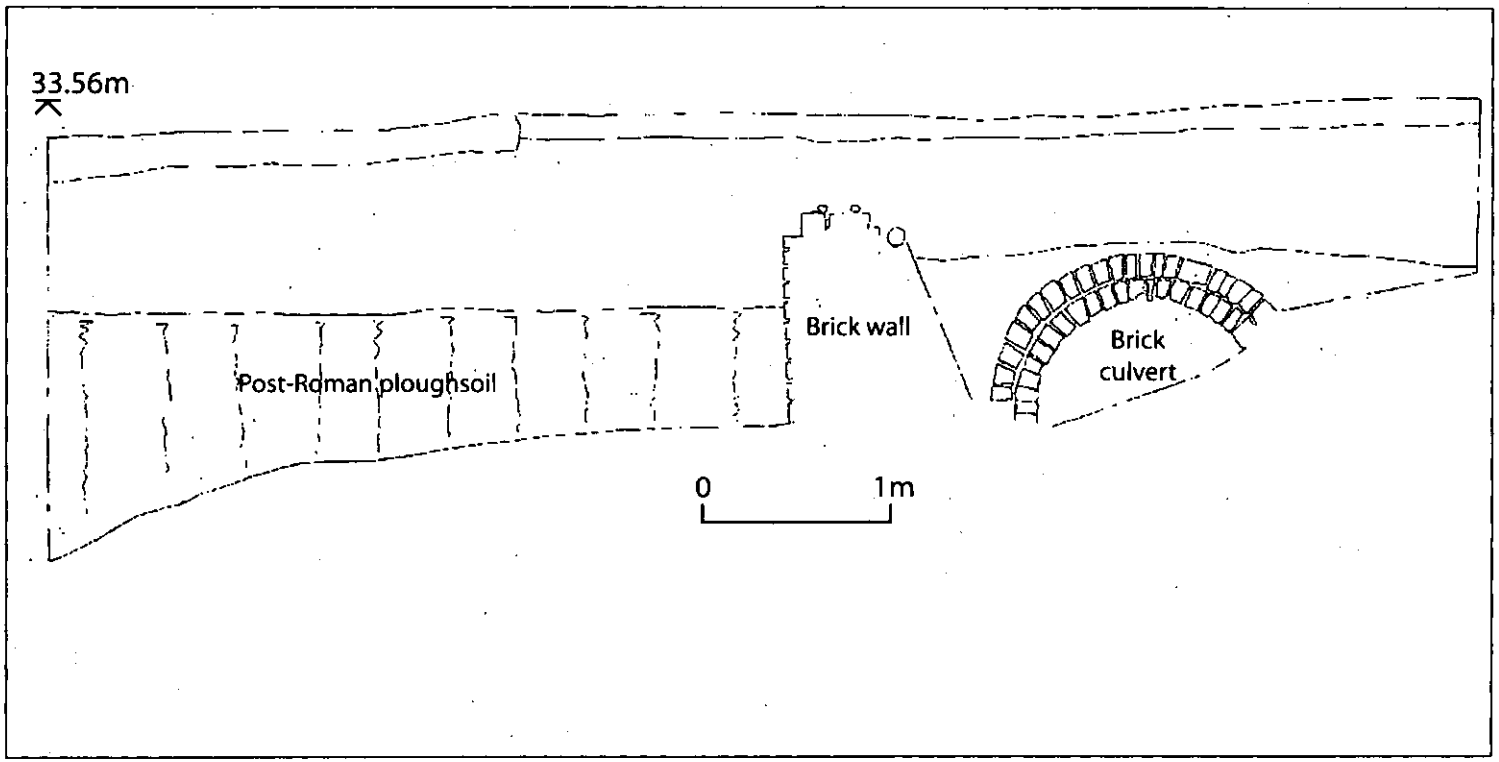



**Figure 17. Trench 9.**

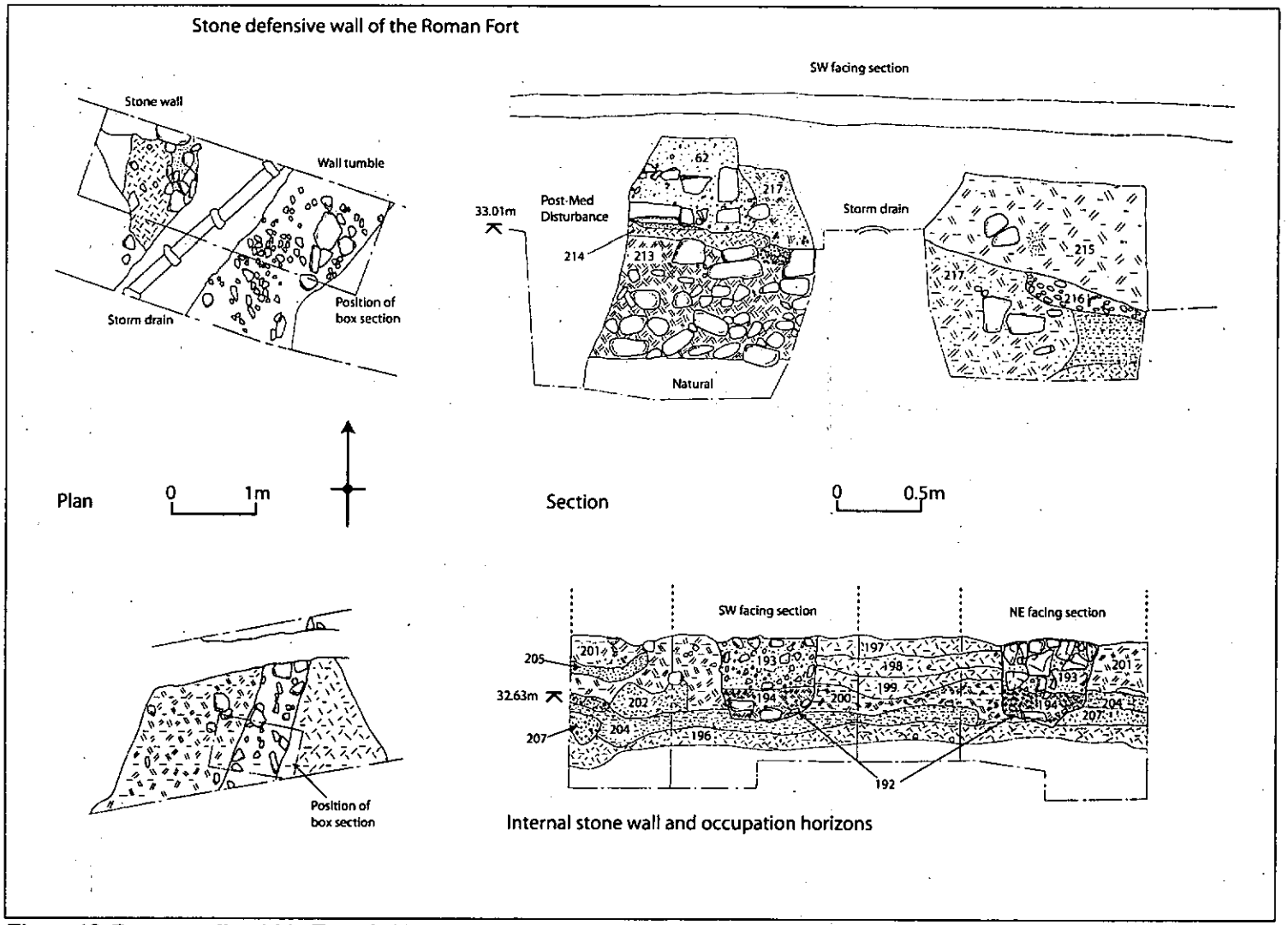



**Figure 18. Roman walls within Trench 11.**

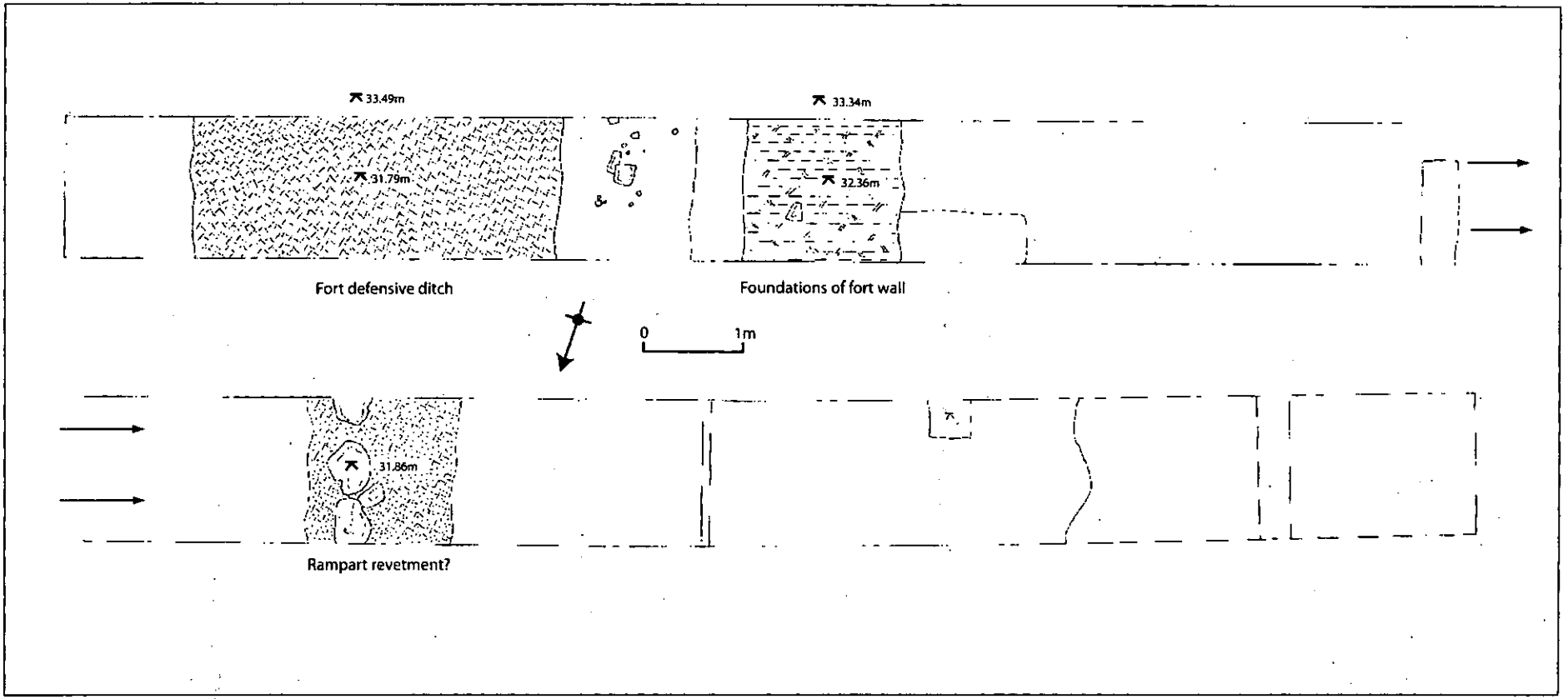



**Figure 19. Trench 20.**

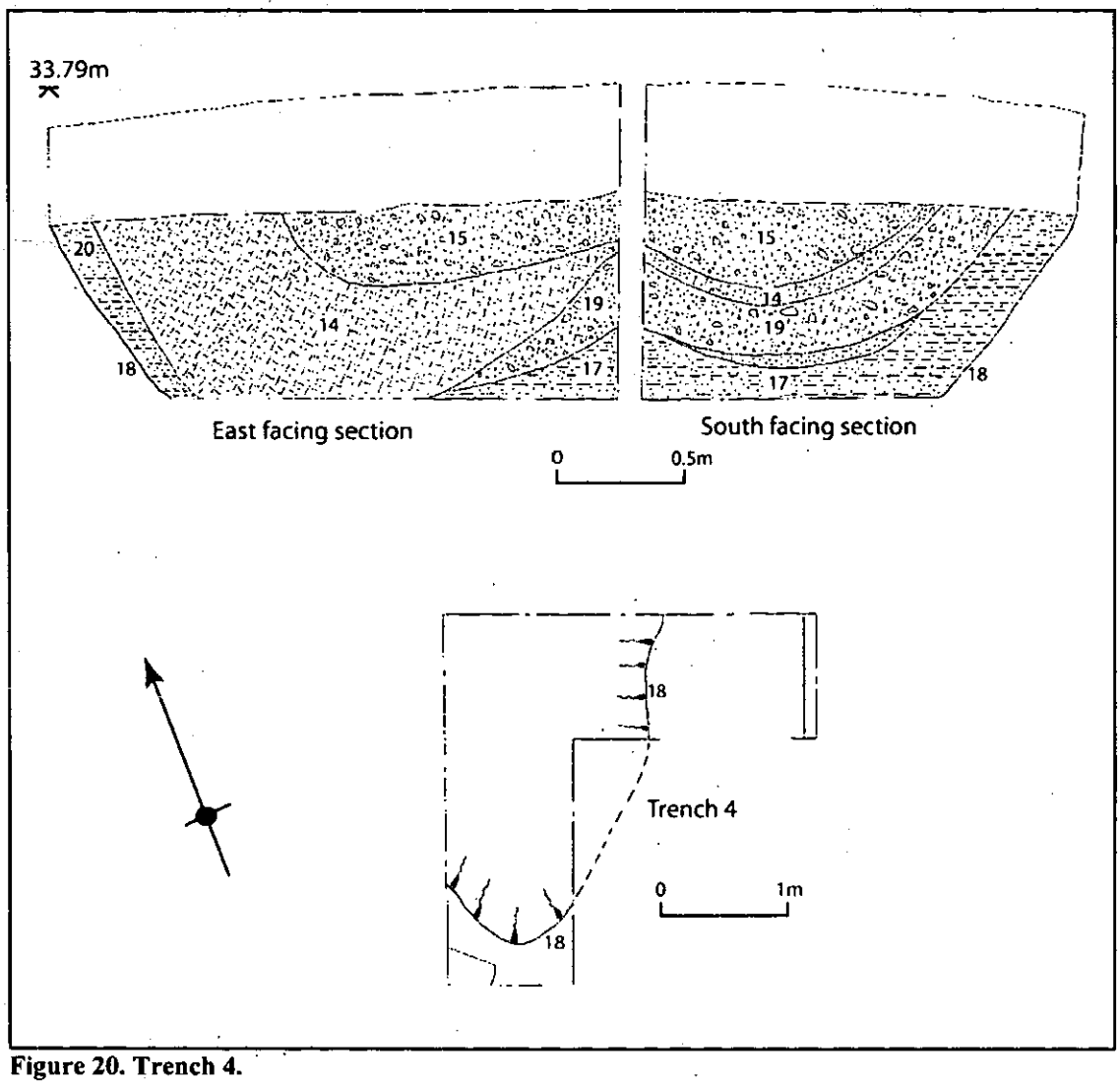



**Figure 20. Trench 4.**

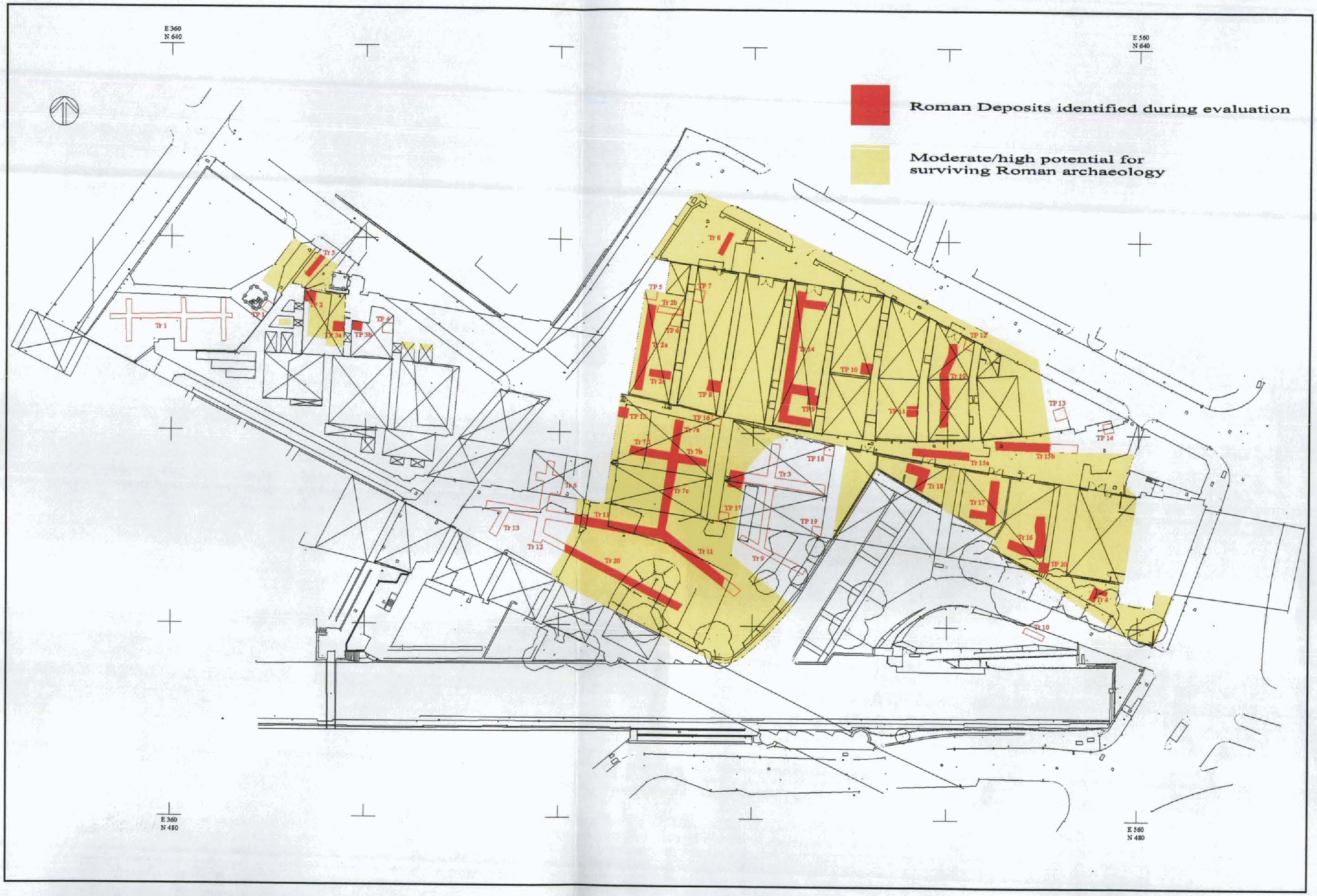



**Figure 21. Location of in-situ Roman deposits and areas of archaeological potential.**

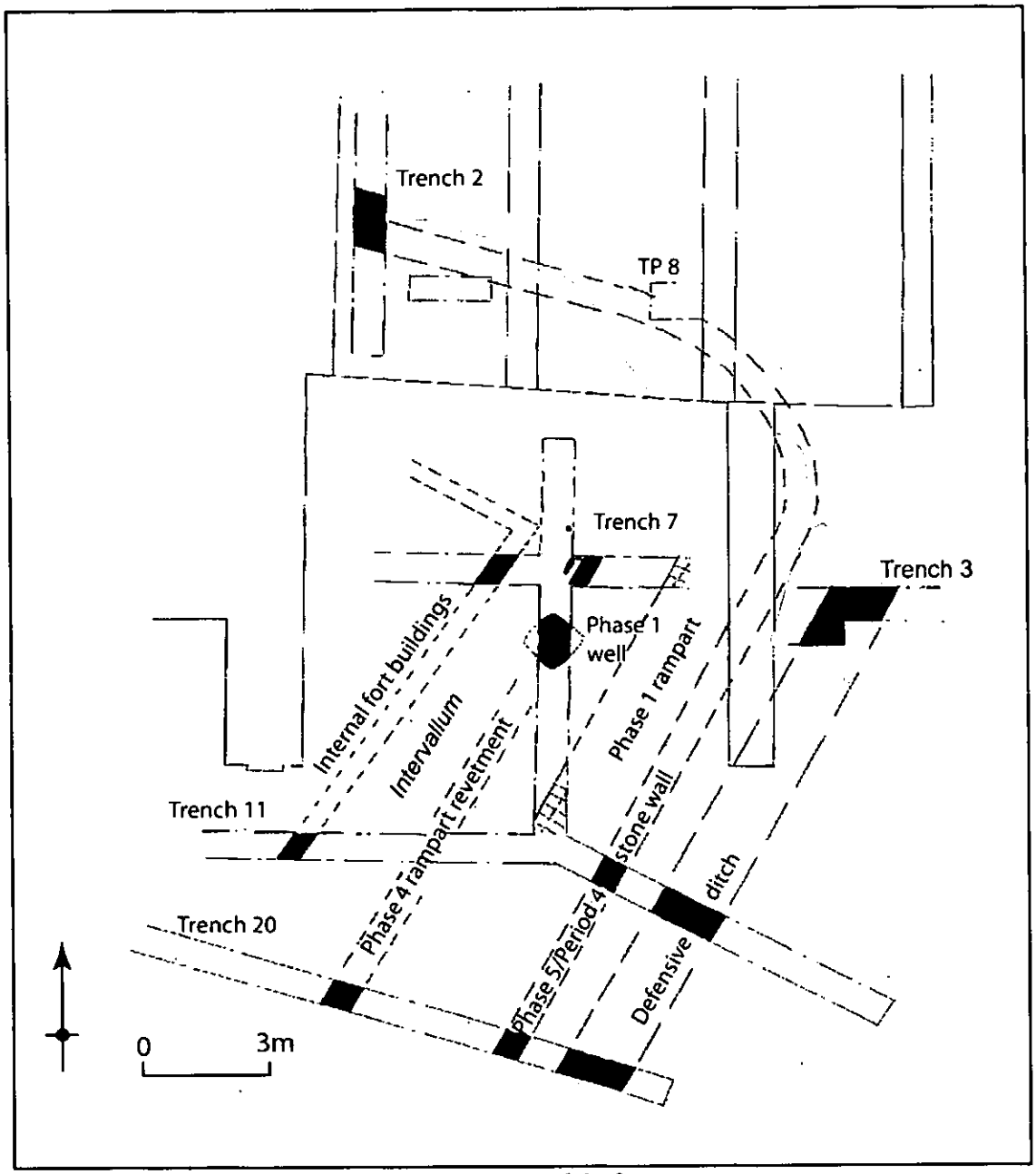



**Figure 22. Features defining the north-east corner of the fort.**

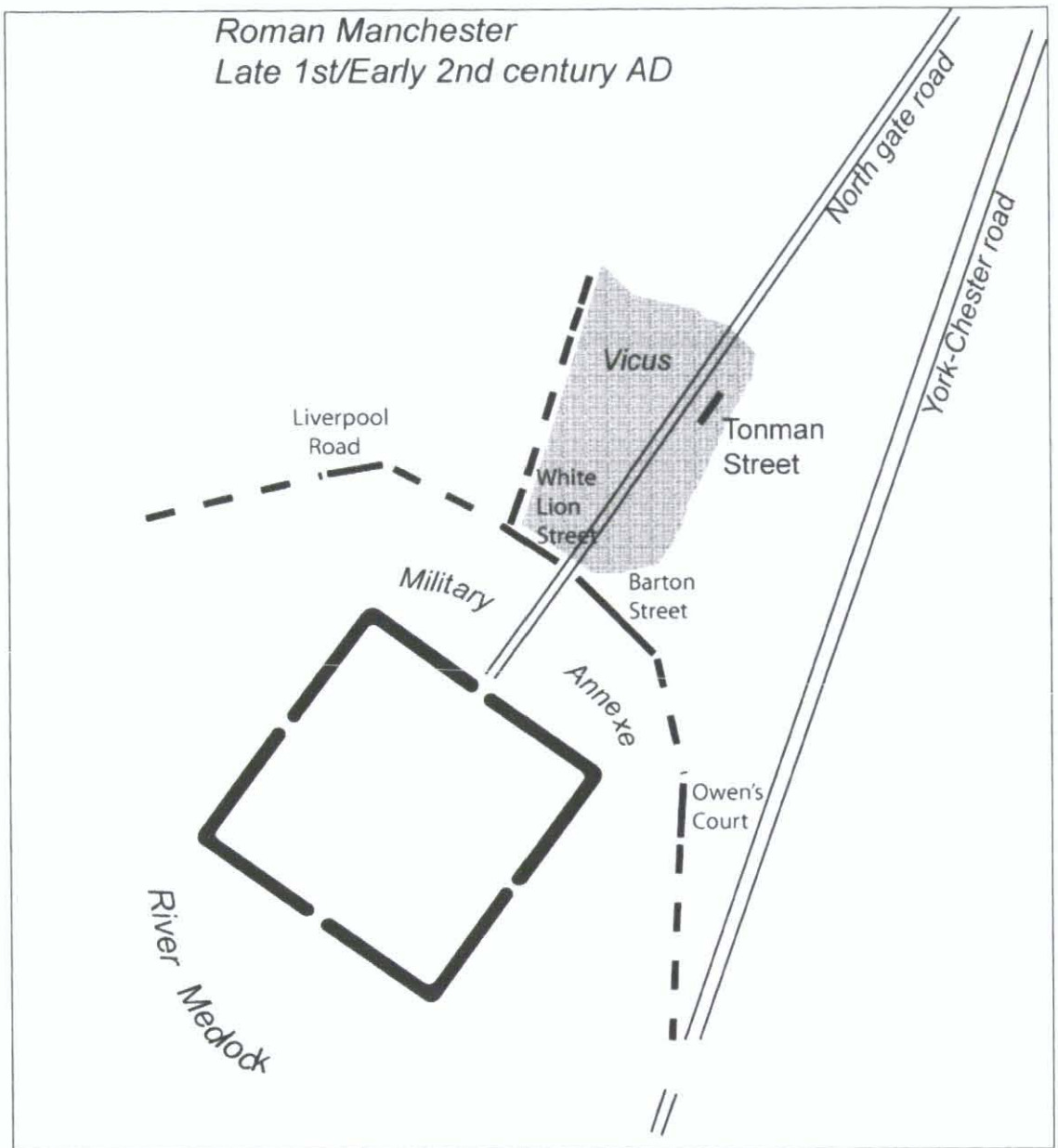



**Figure 23. Late 1st/early 2nd century Roman Manchester.**

# *PLATES*

**Plate 1. Trench 2A. Outer stone revetment wall of the fort. View from the west**

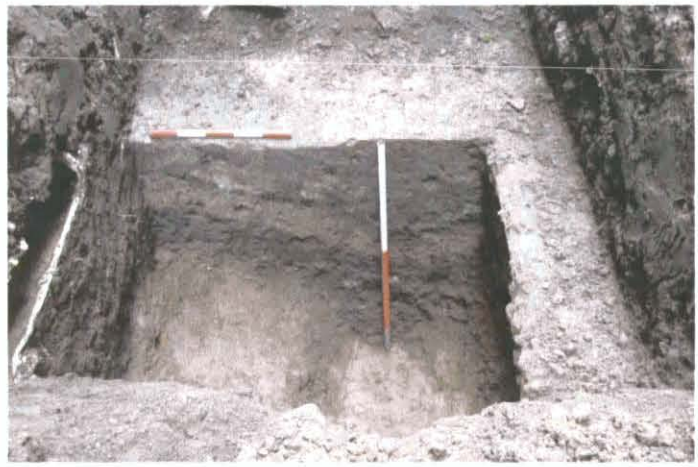


**Plate 2. Trench 15A. V-shaped ditch after sectioning. View from the west.**

**Plate 3. Trench 15B. Degraded Roman wall or floor. View from the south.**

**Plate 4. Trench 16. Partially excavated Roman ditch. View from the south.**

**Plate 5. Trench 16. Degraded Roman wall cut into the top of a Roman ditch. View from the south.**

**Plate 6. Trench 17. Roman pits/post-holes. View from the west.**

**Plate 7. Trench 19. Roman levels. View from the south.**

**Plate 8. Trench 7B. Phase 5B rampart revetment post after sectioning. View from the south.**

**Plate 9. Trench 7C. Cut turves of the Phase 1 rampart. View from the east.**

**Plate 10. Trench 7C. Phase 1 well and 'rake-out' pit prior to excavation. View from the south-east.**

**Plate 11. Trench 7C. Partially excavated Phase 1 well and 'rake-out' pit. View from the south-east.**

**Plate 12. Trench 7C. Partially excavated Phase 1 well and 'rake-out' pit. View from the south-east.**

**Plate 13. Trench 7C. Northerly 'rake-out' pit after half sectioning. View from the east.**

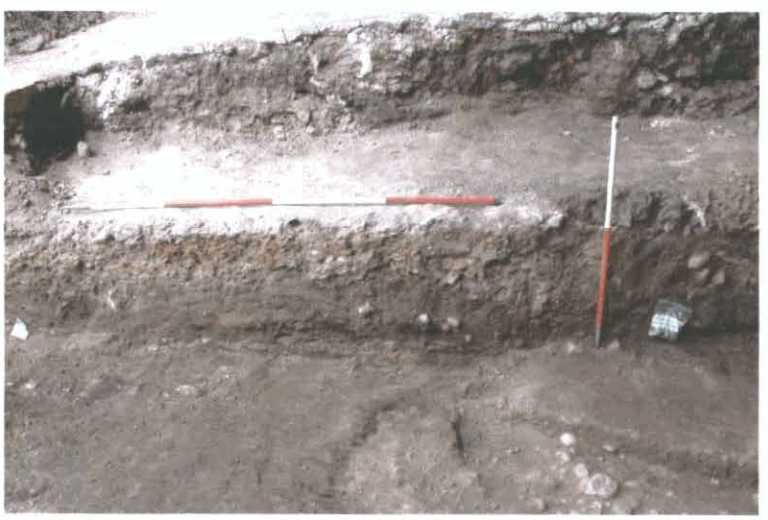


**Plate 14. Trench 7C. Phase 2 rampart, Phase 3 and 4 *intervallum* roads visible in the east facing section. View from the east.**

**Plate 15. Trench 7A. Box section excavated through the Roman deposits.**

**Plate 16. Trench 11. Outer stone revetment wall of the fort. View from the south.**

**Plate 17. Trench 11. Outer stone revetment wall of the fort after sectioning. View from the south.**

**Plate 18. Trench 11. Stone wall of a building located within the fort prior to excavation. View from the south-east.**

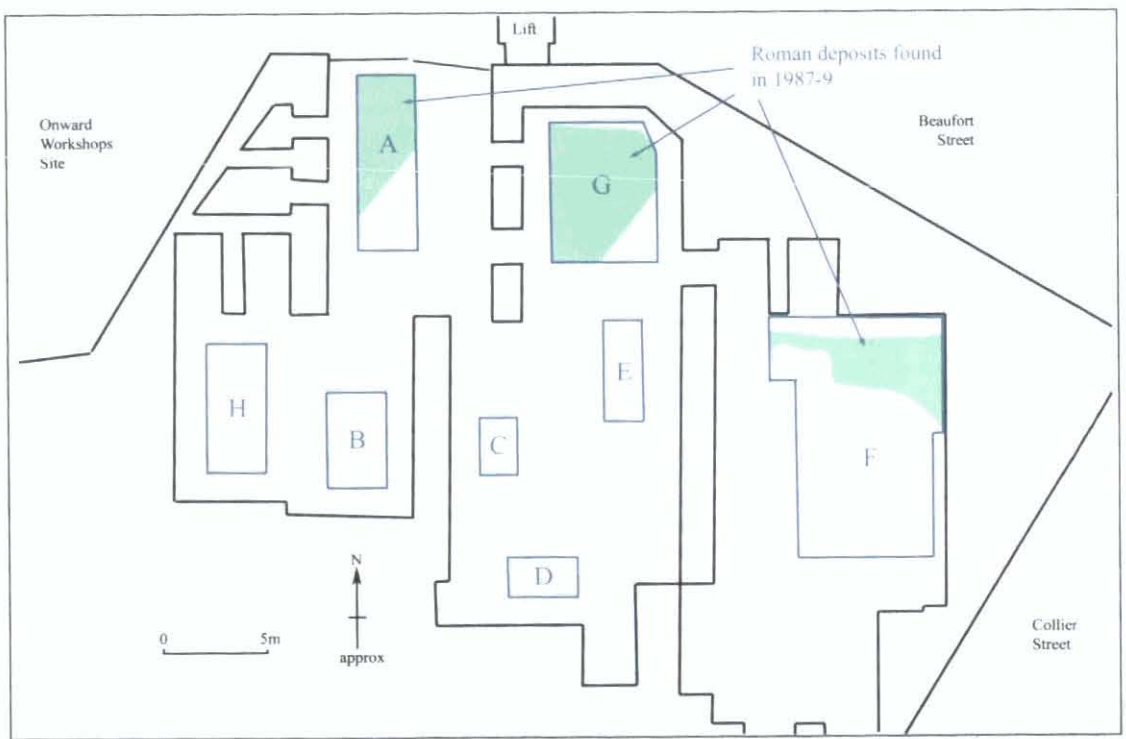
**Plate 19. Trench 11. Stone wall of a building located within the fort after sectioning. View from north.**

# *Addendum*

**In situ Roman wall – Solomon's Arches**

Following the completion of the archaeological evaluation at Castlefield Quay, C2C have requested information on the in situ Roman wall which was exposed during the late 1980s as part of the GMAU excavations within Solomon's Arches.

This wall is located in the northern half of Trench F (see below), is 0.6 m wide and 0.6 m high, and comprises two courses of faced red sandstone blocks with a rubble core. The wall runs south-west to north-east and contained within its masonry is a posthole, suggesting that it was a dwarf stone wall supporting a timber building. Levels taken during the late 1980s indicate that the top of the wall is found at 33.07m AOD.




**Plan showing the positions of archaeological trenches excavated in the late 1980s in Solomon's Arches. The in situ Roman wall is located in Trench F.**