

An Archaeological Evaluation at 1 – 8 Westgate Road, Newcastle-upon-Tyne, Tyne and Wear

Central National Grid Reference: NZ 2497 6387

Site Code: WEG 07

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1. NON-TECHNICAL SUMMARY

- 1.1 Archaeological investigations were undertaken January–February 2007 by Pre-Construct Archaeology Limited at 1-8 Westgate Road, Newcastle-upon-Tyne, Tyne and Wear. The central National Grid Reference for the site is NZ 2497 6387. The investigations comprised a trial trenching evaluation and photographic recording of a series of railway arches under which the site is located, separate reports on the two elements of the work being compiled.
- 1.2 The project was commissioned by Halcrow Group Limited prior to the submission of a planning application for the redevelopment of the site, which is bounded by Westgate Road to the north, St. Nicholas Street to the east, Forth Street to the west and Queens Lane to the south. The site comprises the open spaces between a series of masonry arches of the viaduct carrying the East Coast Mainline railway into Newcastle Central Station.
- 1.3 The work was undertaken following a recommendation by the Tyne and Wear County Archaeologist attached to the Historic Environment Section of Newcastle City Council. The site lies in an area of archaeological sensitivity; within the medieval town of Newcastle and close to the site of the Roman fort *Pons Aelius* at Newcastle and the proposed line of Hadrian's Wall, the course of which broadly follows the line of Westgate Road.
- 1.4 Six trial trenches (Trenches 1-6) were investigated during the evaluation, the principal aim being to provide information about the character, extent, depth and importance of archaeological remains at the site.
- 1.5 Trench 1, located in the north-western corner of the site, revealed natural boulder clay at a depth of c. 0.90m below current ground level. Part of a north-south aligned stone-lined structure recorded cutting into the boulder clay on the south side of the trench could represent a Roman roadside drainage feature. Deposits interpreted as successive Roman road surfaces overlay this feature, in turn overlain by a developed soil of probable post-Roman origin, this being encountered directly beneath the rubble make-up layer for the existing concrete floor surface.
- 1.6 Trench 2 was located in the south-western portion of the site and the earliest deposits to be exposed comprised potential Roman floor surfaces, at a depth of c. 1.15m below current ground level. These were truncated by a possible wall foundation and a posthole, both of Roman origin. A cobble surface to the north-east was truncated by a sub-circular feature, possibly a cremation burial of Roman date. This was overlain by make-up material for another cobble surface, this truncated by a substantial pit, probably a Roman refuse pit. These features were overlain by successive occupation deposits of possible Roman origin and these, in turn, were overlain by two deposits, possibly floor surfaces, from which 12th century pottery was recovered. These deposits were truncated by a refuse pit of probable medieval origin. The uppermost deposits in Trench 2 comprised the rubble make-up for the concrete floor surface.
- 1.7 Trench 3 was located in the central northern portion of the site. The earliest remains exposed, at a depth of c. 1.10m below current ground level, comprised a substantial stone surface of Roman origin. This was overlain by a probable make-up deposit for a cobble surface. Part of a stone structure, possibly part of a north-south aligned wall of Roman date, was recorded in the north facing section. This, in turn, was overlain by a developed soil of probable post-Roman origin, overlain by the rubble make-up for the existing concrete floor surface.

- 1.8 Trench 4 was located in the central southern portion of the site. The earliest deposit to be recorded, encountered at a depth of c. 0.90m below current ground level, comprised a rubble deposit of Roman origin. This was overlain by successive dump deposits possibly associated with the construction or demolition of Roman buildings or, alternatively, levelling deposits. Three substantial pits, interpreted as Roman refuse pits, truncated the dump deposits. An overlying developed soil of probable post-Roman origin had been cut into by two features, possibly a substantial refuse pit and a small pit or posthole, both of probable medieval origin. The uppermost deposits recorded in Trench 4 comprised a levelling deposit, and then the rubble make-up for the existing concrete floor surface.
- 1.9 Trench 5, located towards the south-eastern corner of the site, encountered natural boulder clay, possibly truncated, at a depth of c. 1.30m below existing ground level. Substantial post-medieval structural remains were recorded, comprising a substantial east-west aligned brick wall and a possibly associated wall, aligned north-south. Building rubble adjacent to these structures was probably derived from demolition of their upper parts, such activity probably dating from the time the railway viaduct was constructed in the mid 19th century. Again, the uppermost deposits comprised a levelling deposit, rubble make-up and the existing concrete floor surface.
- 1.10 Trench 6, located in the north-eastern corner of the site, encountered the natural sub-stratum at a depth of 0.80m below the current ground level. This was directly overlain by a developed soil of possible Roman origin. This in turn was overlain by a developed soil of probable post-Roman origin. Substantial post-medieval structural remains were recorded in this trench, comprising a brick wall aligned north-south and an associated flagstone surface, again possibly derived from a building demolished in the mid 19th century when the railway viaduct was constructed. The uppermost deposits encountered in this trench comprised the same sequence of deposits as recorded in Trenches 4 and 5.
- 1.11 In sum, the evaluation revealed the presence of important archaeological remains across the site, the earliest strata probably representing activity associated with the Roman *vicus* settlement that developed to the west of the Roman fort. Evidence for multi-phase Roman occupation during the 2nd and 3rd centuries was identified, with various types of remains being recorded, including structures, successive surfaces and pits. Developed soils overlying Roman remains are of probable late or post-Roman date, representing abandonment for settlement purposes.
- 1.12 Probable refuse pits of likely medieval origin encountered in Trenches 2 and 4 suggest that this part of the site, set back from the Westgate Road frontage, was utilised for the disposal of rubbish. The site lay within the medieval town walls and it is possible that this area lay in the backlots of medieval plots that fronted onto Westgate Road, this being one of the principal thoroughfares of the medieval town. Structural remains of late 18th or 19th century origin recorded in the eastern part of the site probably represent buildings demolished ahead of construction of the railway viaduct in the mid 19th century.

2. INTRODUCTION

- 2.1 This report details the results of an archaeological evaluation undertaken by Pre-Construct Archaeology Limited (PCA) at a proposed redevelopment site at 1-8 Westgate Road, Newcastle-upon-Tyne, Tyne and Wear. The work was undertaken between January 15th and February 6th 2007. The central National Grid Reference of the site is NZ 2497 6387 (Figure 1).
- 2.2 The site, covering an area of c. 1,023 square metres, is located beneath the arches of the viaduct carrying the East Coast Mainline railway into Newcastle Central station, in the historic core of the city. It is bounded by Westgate Road to the north, St. Nicholas Street to the east, Forth Street to the west and Queens Lane to the south (Figure 2).
- 2.3 The archaeological investigations were commissioned by Halcrow Group Limited in advance of a proposed mixed-use re-development scheme, which is to include the refitting of 1-8 Westgate Road and the installation of new services. The work was undertaken on the recommendation of the Tyne and Wear County Archaeologist (T&WCA) because of the archaeological potential of the site, to the west of the Roman fort of *Pons Aelius*, immediately south of the probable line of Hadrian's Wall and within the medieval town walls.
- 2.4 A Specification for the archaeological evaluation was prepared by the T&WCA.¹ A separate Specification for standing building recording of the railway arches was also prepared.² The purpose of the building recording was to provide a permanent record of the arches prior to any internal alterations and the results of that part of the project are described in separate report. The main objective of the evaluation was to allow the impact of the development proposals upon the archaeological resource to be assessed, in order to inform the planning decision. The evaluation comprised the investigation of six trial trenches, Trenches 1 to 6 (Figure 3).
- 2.5 The completed project archive, comprising written, drawn, and photographic records and artefacts will be deposited at the Museum of Antiquities, Department of Archaeology, Newcastle University, under the site code WEG 07. The Online Access to the Index of Archaeological Investigations (OASIS) reference number is: preconst1-27077.

¹ NCC 2006a.

² NCC 2006b.



Figure 1. Site location
Scale 1:25,000

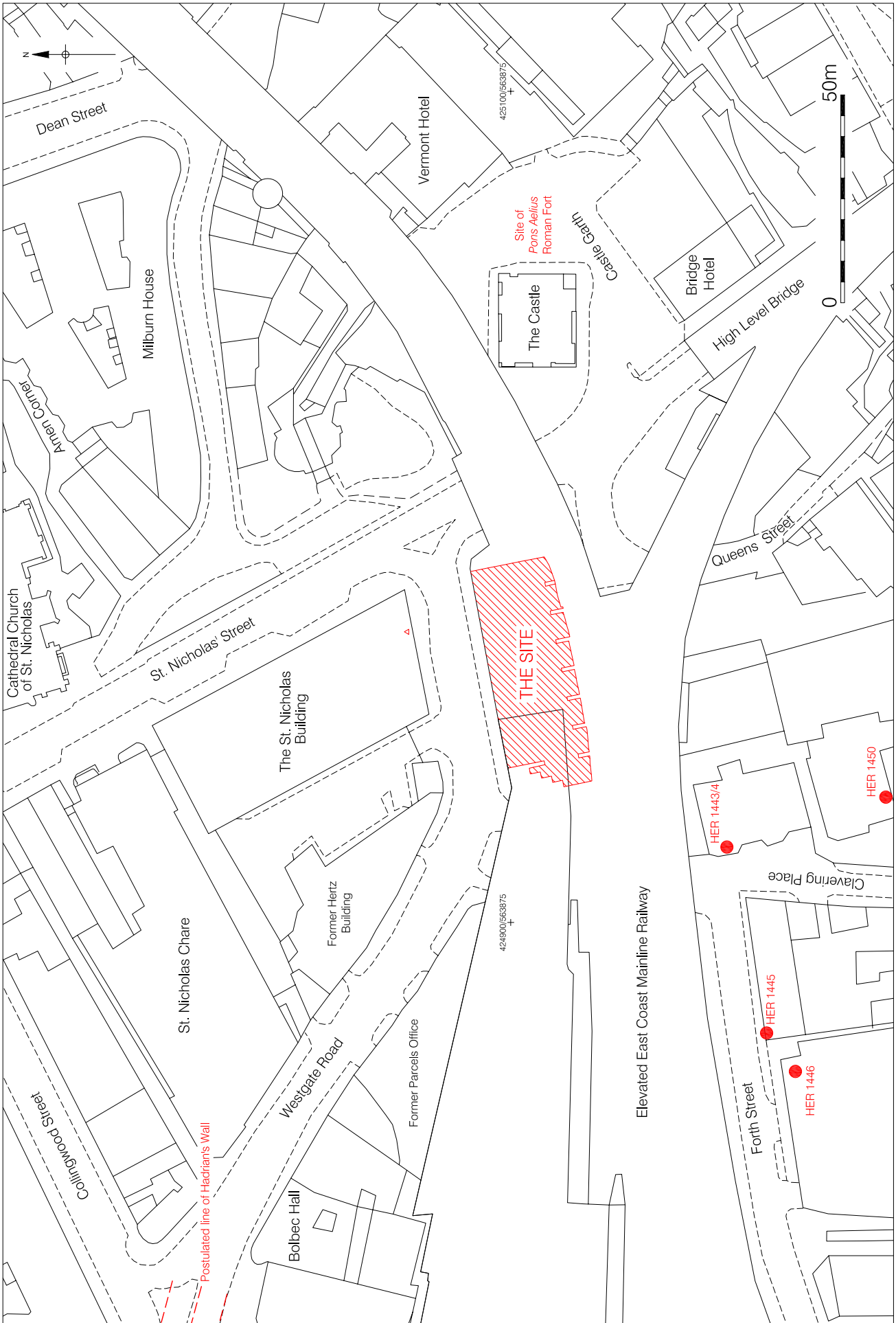


Figure 2. Site location detail
Scale 1:25,000



Figure 3. Trench location
Scale 1:250

3. PLANNING BACKGROUND AND RESEARCH OBJECTIVES

3.1 Planning Background

3.1.1 An application for planning permission is to be made for the development of the site at 1-8 Westgate Road to the Local Planning Authority, Newcastle City Council (NCC). This application is to include refitting of the railway arches currently occupying the site and groundworks associated with the installation of services. The site lies within an area of archaeological sensitivity, within the medieval town walls and close to the site of the Roman fort of *Pons Aelius* and the line of Hadrian's Wall.

3.1.2 At a national level, guidance relating to the need for early consultation in the planning process in order to determine the impact of development schemes upon the archaeological resource is identified in the document '*Planning Policy Guidance Note 16: 'Archaeology and Planning'*' (PPG 16).³

3.1.3 At a local level, guidance relating to archaeological sites is set out in the '*Newcastle City Unitary Development Plan*' (UDP), adopted in 1998.⁴ The UDP contains the following policies:

POLICY C04

DEVELOPMENT WHICH WOULD HARM SITES OR AREAS OF ARCHAEOLOGICAL INTEREST AND THEIR SETTINGS WILL NOT BE ALLOWED.

POLICY C04.2

WHERE A PROPOSAL MAY AFFECT A SITE OR AREA OF ARCHAEOLOGICAL INTEREST, THE DEVELOPER WILL BE REQUIRED TO SUBMIT AN APPROPRIATE ASSESSMENT OF ITS POTENTIAL IMPACT UPON THE ARCHAEOLOGICAL REMAINS AND WHERE NECESSARY UNDERTAKE AN ARCHAEOLOGICAL FIELD EVALUATION.

POLICY C04.3

WHERE ASSESSMENT AND EVALUATION HAVE ESTABLISHED THAT PROPOSED DEVELOPMENT WILL ADVERSELY AFFECT A SITE OR AREA OF ARCHAEOLOGICAL INTEREST, DEVELOPERS WILL BE REQUIRED TO PRESERVE ARCHAEOLOGICAL REMAINS IN SITU UNLESS THIS IS CLEARLY INAPPROPRIATE OR THE DESTRUCTION OF THE REMAINS IS DEMONSTRABLY UNAVOIDABLE, IN WHICH CASE A PROGRAMME OF ARCHAEOLOGICAL WORKS SHALL BE SUBMITTED TO AND AGREED WITH THE COUNCIL BEFORE THE START OF DEVELOPMENT.

POLICY C04.4

WHERE PROPOSED DEVELOPMENT WOULD INVOLVE LARGE SCALE GROUND DISTURBANCE IN CURRENTLY UNDEVELOPED AREAS DEVELOPERS WILL BE REQUIRED TO SUBMIT A PRELIMINARY ARCHAEOLOGICAL ASSESSMENT TO IDENTIFY ANY SITES OR POTENTIAL AREAS OF ARCHAEOLOGICAL INTEREST.

3.1.4 The Tyne and Wear County Archaeologist Officer (T&WCA) attached to the Historic Environment Section of NCC provides advice to NCC on archaeology and historic sites and monuments and is responsible for deciding where archaeological work is required and what form it should take. In this instance, two elements of archaeological work were recommended prior to determination of planning permission for the proposed redevelopment of the 1-8 Westgate Road site.

³ Department of the Environment 1990.

⁴ Available online at www.theplanningportal.gov.uk.

3.1.5 Firstly, although not currently legally protected as a Scheduled Ancient Monument (SAM), the 1-8 Westgate Road site lies within an archaeologically sensitive area within the medieval town of Newcastle. Located c. 60m east of the site is a SAM (No. 32753), which comprises the site of an Anglo-Saxon cemetery, motte and bailey castle and the site of the Roman fort of *Pons Aelius*. The site is also located just south of the proposed course of the Hadrian's Wall UNESCO World Heritage Site and, therefore, the view of English Heritage was also considered. Due to the potential for significant archaeological remains and the uncertainty about the potential archaeological impact of the proposal, it was recommended that an archaeological evaluation should be undertaken at the site in order to inform a decision regarding an appropriate mitigation strategy before any decision was taken on the planning application. The T&WCA issued the aforementioned Specification for the work, the purpose being to determine the extent, nature, date and degree of preservation of any archaeological remains at the site.

3.1.6 Secondly, in accordance with standard practice, a programme of photographic recording of the railway arches was required. While the arches are not listed and the site does not lie within a Conservation Area, the T&WCA considered the structures themselves to be of sufficient character and architectural merit to warrant recording before any internal alterations were carried out. Accordingly, a Specification for the required recording exercise was issued, the purpose of the work being to provide a permanent record of the railway arches prior to internal alterations. The results of this work are detailed in a separate report.

3.2 Research Objectives

3.2.1 In broad terms, the archaeological evaluation aimed to establish the date, nature, extent and significance of archaeological remains at the site as evidenced by any buried deposits, structures and features and any artefactual and ecofactual evidence that they may contain.

3.2.2 Additional aims and objectives of the project were:

- to compile a site archive consisting of all site and project documentary and photographic records, as well as artefactual and palaeoenvironmental material recovered;
- to compile a report that contains an assessment of the nature and significance of the stratigraphic, artefactual, archaeological and palaeoenvironmental data.

3.2.3 Trial trenches were used to investigate the archaeological potential and assess the impact of the development on the archaeological resource.

3.2.4 The evaluation aimed to provide sufficient data to enable an appropriate mitigation strategy to be devised in order to minimise the impact of the proposed development upon the archaeological resource.

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

No archaeological desk-based assessment of the site was undertaken prior to the investigations. A summary of the archaeological and historical background to the site has therefore been compiled, using the Tyne and Wear Historic Environment Record (HER) and other documentary and cartographic material. The lies within an area of archaeological importance, particularly for the Roman, early medieval and later medieval periods.

4.1 Prehistoric

4.1.1 No prehistoric remains have been recorded within the area of proposed re-development although evidence of prehistoric agricultural activity, flint tools and a stone axe were recorded during excavations carried out between 1973 and 1992 on the promontory to the east of the site. A prehistoric cist with a possible cremation was located c. 200m south of the site and a number of high value bronze and iron objects, mostly weaponry, have been recovered from the Tyne during dredging and bridge building, suggesting that it was a place of ceremonial object deposition. Also of note is a permanent prehistoric settlement site that was recorded during excavations carried out in 2004 adjacent to Pilgrim Street.

4.2 Roman

4.2.1 Hadrian's Wall, a UNESCO World Heritage Site, is located in the near vicinity of the site. The Wall as originally planned ran from Newcastle, where a new bridge was constructed and named *Pons Aelius* in honour of Hadrian, to Bowness-on-Solway. The Wall was built in stone between Newcastle, and the River Irthing, the eastern c. 72km, with the remaining c. 50km constructed in turf. From its inception, the Wall was planned with regularly spaced fortlets ('milecastles') at intervals of about 1 mile and the original design also planned for two equally spaced towers ('turrets') between each milecastle. At some point a fundamental change of plan occurred and forts were constructed along the line of the Wall, including *Pons Aelius* at Newcastle, and the Wall was extended to the east to terminate at the fort at Wallsend. A further defensive element was added to the Wall after the decision had been taken to construct the forts. The '*vallum*' comprised a broad flat-bottomed ditch flanked by a pair of linear banks constructed at some distance to the south of the Wall, sometimes adjacent to the Wall, and in some places up to 1km to its south.

4.2.2 The exact line of Hadrian's Wall in the immediate vicinity of 1-8 Westgate Road site has not been established, although recent excavations at the former Hertz Building, located c. 60m north-west of the site, recorded a length of the Wall. If the Wall continued on a straight line from this area, then its projected course would run c. 20m to the north of the site. The course of the vallum is also not known in central Newcastle in the area to the west of the fort, and it does not continue eastwards beyond the fort to Wallsend.⁵

⁵ Breeze and Dobson 1987, 83.

- 4.2.3 The site of *Pons Aelius* Roman fort (HER 204 and SAM No. 32753) is located c. 60m east of the proposed area of development, located largely beneath the medieval castle, between the Black Gate and the keep. The Roman fort was situated on a promontory defended by steep scarps to the south, east and west. The full extent of the fort has not been determined but is thought to be irregular in shape to utilise the triangular shape of the promontory. The northern defences lie along the steep slopes that define the northern edge of the promontory, and a section of this northern wall was excavated in 1985 near the site of the Black Gate. The southern defences are thought to lie on the edge of the steep river cliff, whilst the eastern and western sides have never been located. Features predating the construction of the stone-built fort, comprise mid 2nd century construction debris, ditches and gullies of possibly Hadrianic date, identified during previous excavations in the area.
- 4.2.4 The stone-built fort in Newcastle dates from the Antonine period in the late 2nd century and excavations have revealed part of the *principia* and *praetorium*, which would have been located in the central part of the fort, along with further buildings to the south. Excavations in 1929 to the south of the *principia* revealed further well-preserved buildings some with sills of doors and windows. North of the central buildings were two granaries laid out on either side of the main north-south road. Traces of a loading bay were uncovered at the east end of the eastern granary, with evidence that this feature was remodelled in the 3rd century. Much later in the life of the fort, the granaries were converted to a different use, although their new function was not established. A pair of stone buildings, interpreted as workshops, were uncovered to the north and east of the eastern granary. In the southern part of the promontory, near the present Bridge Hotel, Castle Garth, small-scale excavation revealed a metalled surface, interpreted as part of one of the main fort roads. Immediately outside the north wall of the fort, excavations revealed evidence for Roman activity, including postholes, metalworking hearths and the fragmentary remains of a stone building.
- 4.2.5 Evidence for Roman activity has also been uncovered at several locations to the west of the fort, suggesting that a *vicus* settlement, the civilian settlement that developed around a Roman fort, was situated in this area. In the 19th century, Roman pottery, human bones and Roman building stone were found at Clavering Place, c. 60m to the south-west of the development site (HER 1443 and 1444; see Figure 2). A fragment of building stone was found in 1864 (HER 1442) inscribed with the First Cohort of Thracians. In the same area, excavations undertaken in 1929 revealed Roman occupation earth and pottery (HER 1456). A short distance to the south, two Roman stone coffins were uncovered during building work in 1903 on the east side of Clavering Place (HER 1450 and 1452). Excavations at the Carmelite Friary in Clavering Place, c. 100m south-west of the development site, revealed a layer of brown clay which contained Roman pottery (HER 1445), including fragments of cooking pots, bowls, beakers, mortaria, amphora and samian ware, dating from the 2nd to 3rd century. This deposit sealed probable structural features (HER 1446) including a north-south orientated construction trench and a pile of cobbles three courses deep.

- 4.2.6 A recent evaluation undertaken at the former Parcels Office on the south side of Westgate Road, a short distance to the north-west of the 1-8 Westgate Road site, revealed the presence of archaeological remains of Roman date within one of the trenches investigated, these comprising a layer containing pottery overlying a small pit or posthole of Roman date.⁶

4.3 Medieval

- 4.3.1 The *Pons Aelius* fort was abandoned in the early 5th century and excavations undertaken beneath the railway arches, c. 30m east of the present site, recorded the remains of structures, drainage features and levelling deposits associated with non-Roman native pottery suggesting the site was re-occupied during the early medieval period. Overlying the remains of the fort, an Anglo-Saxon cemetery has been recorded, with more than 650 east-west aligned inhumation burials dating from the 8th century to the mid 12th century.
- 4.3.2 Documentary evidence records that in 1080, Robert Curthose, Duke of Normandy, built a motte and bailey castle on the site of Roman fort. Part of its boundary was recorded during excavations along the north-western side of the promontory, with a broad flat-bottomed ditch and a bank to the south, which formed part of the bailey to the rear. The location of the motte was not established. A stone-built tower keep castle replaced the motte and bailey castle between 1168 and 1178 during the reign of Henry II, of which part of the east curtain wall and north gateway remain upstanding.
- 4.3.3 The 1-8 Westgate Road site lies within the medieval town defences of which two lengths survive to the south of the site (NMN 32752 and 32763). These defences were constructed from the mid 13th to the mid to late 14th century, enclosing an area of c. 60 hectares, with later additions along the riverside in the 15th century. Gateways were constructed at principle points of entry and a berm and ditch outside. Between the late 18th and 19th centuries, the gates and large sections of the wall were demolished, as demonstrated by cartographic sources.
- 4.3.4 The medieval street of Westgate, the line of which survives as the modern Westgate Road, was one of the principal thoroughfares of the medieval town. Precise details of the pattern of medieval landholding are not known, but Oliver's map from the 1830s shows a series of long north-south orientated burgage plots running back from plots fronting Westgate Road.

4.4 Post-medieval

- 4.4.1 John Speed's map of 1610 is the earliest map to show the layout of the medieval town of Newcastle, the tower keep castle is annotated as 'High Castle' and the medieval town walls are also depicted. Charles Hutton's map of 1772 shows the area in more detail with substantial buildings occupying the area of the present site, fronting onto Bailiff Gate. Lambert's map of 1807 shows a similar arrangement of buildings in the area of the site.
- 4.4.2 Wood's map of 1827 and Collard's map of 1841 shows a similar arrangement of buildings as previous maps and by this time it is evident that a large portion of the medieval town wall had been removed. A map of Newcastle and Gateshead from the 1840s shows the proposed course of the railway and records several structures within the site. By the time of Oliver's map of 1849, the railway, and presumably the viaduct occupying the site, had been completed and the structures recorded on previous maps fronting onto Bailiff Gate had been demolished.

⁶ M. Town (North Pennines Archaeology) pers comm.

4.4.3 The Ordnance Survey 3rd edition of 1919 records major alterations to the layout of the building complexes to the north, previously fronting Bailiff Gate, with the site now fronting onto Westgate Road. Very little recent development in the area is known after the 3rd edition Ordnance Survey in 1919. During the 20th century, the railway arches were converted into commercial properties and at the time of evaluation were disused, being the premises of a former motor garage.

5. GEOLOGY AND TOPOGRAPHY

5.1 Geology

- 5.1.1 The 'solid' geology of Newcastle is Carboniferous Coal Measures comprising interbedded mudstones, sandstones and siltstones. The 'drift' geology of this area is characterised by Glacial Till, with other glacial and fluvio-glacial deposits intermittently present.

5.2 Topography

- 5.2.1 The site lies on the north side of the River Tyne within relatively high ground in the centre of Newcastle. The site comprises open spaces between the arches of the viaduct carrying the East Coast Mainline railway. The site is basically level with the present ground level at c. 28.65m OD.

6. ARCHAEOLOGICAL METHODOLOGY

6.1 Trial Trenching

- 6.1.1 The archaeological fieldwork was undertaken in accordance with the relevant standard and guidance document of the Institute of Field Archaeologists.⁷ PCA is an IFA-Registered Archaeological Organisation.
- 6.1.2 The Specification for the evaluation recommended that six trial trenches be investigated. Trenches 1, 3 and 6 were rectangular in plan, Trench 1 measuring 2.10m x 1m, Trench 3 measuring 2.88m x 1.36m and Trench 6 measuring 2.90m x 1.36m. Trenches 2, 4 and 5 were square in plan, each measuring 2m x 2m.
- 6.1.3 The outline of each trench on the concrete surface was defined with a circular saw and the surface broken-out with a hydraulic breaker. Ground reduction within all trenches was undertaken using a tracked 360° mechanical excavator of c. 3-tonne size utilising a non-toothed bucket. The work was directed by the supervising archaeologist. Material below the make-up for the modern surfaces was removed gradually by the machine, in spits of approximately 50mm thickness. The strategy adopted was to achieve an appropriate balance between preserving important remains *in situ* and fulfilling the objectives of evaluation, with regard to establishing the nature, date and extent of archaeological remains. All spoil removed by machine was mounded away from the edge of each trench.
- 6.1.4 Subsequent excavation and recording was undertaken in accordance with recognised archaeological practice and following methodology set out in PCA's field recording manual.⁸ Following machine clearance, the sections and the base of all trenches were carefully cleaned using appropriate hand tools. Sections were drawn at a scale of 1:10 and the base of each trench was planned at a scale of 1:20 relative to a baseline established along the trench, which was then located relative to the Ordnance Survey grid.
- 6.1.5 Archaeological deposits in all six trenches were recorded using a 'single context recording' system. Features, deposits and structures were recorded on *pro forma* context record sheets. The height of all principal strata and features were calculated relative to Ordnance Datum and indicated on the appropriate plans and sections. A 'Harris Matrix' stratification diagram to record stratigraphic relationships was compiled and fully checked during the course of the fieldwork.
- 6.1.6 Within all exposed archaeological deposits, careful cleaning and detailed recording was preferred to further excavation, although, where possible, very limited partial excavation was undertaken with the prime objective of recovering dating evidence, in order to fulfil the aim of the evaluation regarding dating of archaeological remains.
- 6.1.7 A photographic record of the investigations was compiled using SLR cameras. This comprised black and white prints and colour transparencies (on 35mm film), illustrating in both detail and general context the principal features and finds discovered. The photographic record also included 'working shots' to illustrate more generally the nature of the archaeological operation mounted. All photographs included a graduated metric scale.

⁷ IFA 2001.

⁸ PCA 1999.

6.1.8 Two Temporary Bench Marks (TBMs) were established on the site from the Ordnance Survey Bench Mark (value 29.31m OD) located opposite the site on the south-eastern corner of the St. Nicholas Building.

6.2 Post-Excavation

- 6.2.1 The stratigraphic data generated by the project is represented by the written, drawn and photographic records. A total of 105 archaeological contexts were defined in the trenches (Appendix B). Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data (Appendix A). A written summary of the archaeological sequence was then compiled, as described below in Section 7.
- 6.2.2 All artefacts recovered from the investigations were treated in an appropriate manner and were exposed, lifted, cleaned, marked, conserved, bagged, packaged, boxed and stored, as appropriate and in accordance with recognised guidelines.⁹
- 6.2.3 Assessment of all types artefactual and ecofactual material was undertaken by suitably qualified personnel. For each category of artefact and ecofact, a report has been produced including a basic quantification of the material and a statement of its potential for further analysis and recommendations for such work (Appendices C-H).
- 6.2.4 All materials that required stabilisation were transferred to a specialist conservation facility as soon as possible. The conservation of vulnerable materials commenced with an initial assessment of all recovered artefacts, X-radiography of iron objects and selected examples of non-ferrous material. Quality of preservation was assessed and the long-term conservation and storage needs of all excavated material has been identified.
- 6.2.5 The palaeoenvironmental sampling strategy of the project was to recover bulk samples from well-dated (where possible), stratified deposits covering the main periods or phases of occupation and from the range of feature types represented, with specific reference to the objectives of the evaluation. With the emphasis on retaining important remains *in situ*, as far as possible, and with very little actual archaeological excavation being undertaken, an attempt was made to determine the palaeoenvironmental potential of the site by sampling three deposits recorded in section. Other organic material recovered during the evaluation comprised a small assemblage of animal bone.
- 6.2.6 Survival of all materials from archaeological fieldwork depends upon suitable storage. The complete project archive, comprising written, drawn and photographic records (including all material generated electronically during post-excavation) and all 'finds' will be packaged for long term curation according to relevant guidelines.¹⁰ The depositional requirements of the receiving body, in this case the Museum of Antiquities, Department of Archaeology, Newcastle University, will be met in full.

⁹ UKIC 1983 and RESCUE 1988.

¹⁰ UKIC 1990.

7. THE ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural Sub-stratum

- 7.1.1 The natural sub-stratum was exposed in Trenches 1, 5 and 6 and generally comprised mid pinkish grey to mid orange brown clay to silty clay. This material was the boulder clay (till) glacial 'drift' material that is typical of the area. Due to the requirement to retain, as far as possible, remains of potential national importance *in situ*, the natural sub-stratum could not be exposed within Trenches 2, 3 and 4.
- 7.1.2 In Trench 1, the natural sub-stratum, [107], was encountered at a height of 27.62m OD, c. 0.84m below the present ground level, within a sondage excavated at the southern extent of the trench (Figures 3 & 4). In Trench 5, the natural sub-stratum, [513], was encountered at a height of 27.33m OD, c. 1.30m below the current ground level (Figure 15), and the natural sub-stratum, [610], in Trench 6 was encountered at a height of 27.80m OD, c. 0.80m below the current ground surface, within a sondage excavated at the northern extent of the trench (Figure 17). Given its depth and the presence of substantial post-medieval structural remains at that location, the deposit encountered in Trench 5 may have been truncated.
- 7.1.3 The highest level at which the natural sub-stratum was encountered at any location during the evaluation was 27.80m OD, this being in Trench 6, located in the north-eastern corner of the site. The lowest level was encountered in Trench 5, located at the south-eastern portion of the site, at a height of 27.33m OD.

7.2 Phase 2: Roman

7.2.1 Trench 1 (Figures 4 & 5)

- 7.2.1.1 A short length of a stone-lined linear feature, [108], aligned north-south, was recorded truncating the natural sub-stratum in a sondage excavated at the southern extent of Trench 1. This feature was trench-built within a broad construction cut, [111], measuring 0.40m north-south x 0.60m east-west, continuing beyond the limits of excavation to the north, south and east, with the depth not established. The stone lining, [108], was constructed with roughly hewn sandstone blocks measuring up to 160mm x 100mm x at least 0.80mm. Although only a small portion of this feature was exposed, it has been tentatively been interpreted as a roadside drainage feature of Roman date, based on its association with overlying probable road surfaces.
- 7.2.1.2 Three deposits, [106], [105] and [104], that have been interpreted as successive Roman road surfaces were recorded in Trench 1. It was not possible to establish the full extent of any of these deposits as they all continued beyond three or more limits of excavation. The alignment of the roads thus represented is uncertain, but based on the alignment of possibly related structure [108] and an apparent lensing out of deposit [106] at its eastern extent, it is considered likely that that each road was aligned north-south.

7.2.1.3 The earliest of the three surfaces, [106], comprised firmly cemented cobbles, recorded for a distance of at least 0.50m north-south by at least 0.80m east-west. Its maximum recorded thickness was 0.17m thick, although, as previously mentioned, it lensed out to the east, and the maximum height at which it was recorded was 27.60m OD. This was overlain by a firmly cemented cobble layer, [105], measuring at least 0.50m north-south by at least 1.0m east-west by 0.17m thick and recorded at a maximum height of 27.75m OD. One sherd of an amphora, broadly dating to the late 1st-3rd century, was recovered from this deposit.

7.2.1.4 Surface [105] was, in turn, overlain by an indurated cobble layer, [104], measuring at least 2.10m north-south by at least 0.98m by 0.30m thick and recorded at a maximum height of 28.07m OD, at a depth of c. 0.55m below the existing ground level. Ten sherds of Roman pottery dating from the late 2nd to mid 3rd century were recovered from this deposit, along with a sherd of Central Gaulish samian, probably dating to AD 120-250. Two sherds of 12th–13th century pottery recovered from this deposit are considered to have been introduced intrusively. This deposit also produced a small assemblage of fragmented Roman tile and a fragment of cattle bone.

7.2.2 Trench 2 (Figures 6, 7 & 8)

7.2.2.1 The basal deposit, [227], exposed in Trench 2 comprised a clayey silt deposit, recorded for a distance of 0.54m north-south x 0.90m east-west, continuing beyond the limit of excavation to the north and running below other layers in all other directions, with the thickness not established. The maximum height at which this deposit was recorded was 27.36m OD. Although only a small portion could be exposed, it is possible that it represents part of a beaten floor or yard surface.

7.2.2.2 Putative surface [227] was truncated by a sub-rectangular feature, [226], recorded adjacent to the northern limit of excavation. This measured at least 0.32m north-south by at least 0.72m east-west, continuing beyond the northern and eastern limits of excavation. The feature was not excavated therefore its depth was not established and no datable material could be recovered from its single silty clay fill, [225], which contained two large roughly hewn sandstone blocks. Interpretation of this feature cannot be certain as it was not fully exposed and not excavated, but it could represent the southern end of a pit or wall foundation.

7.2.2.3 A silty clay deposit, [218], was recorded in plan in the central eastern portion of Trench 2. It extended at least 1.14m north-south x at least 1.24m east-west, continuing beyond the limit of excavation to the east and running beneath other deposits in all other directions. Up to 0.15m thick, the deposit was recorded at a maximum height of 27.44m OD. It has been interpreted as a possible beaten clay floor surface.

7.2.2.4 An oval feature, [216], measuring 0.30m north-south x 0.24m east-west, was recorded in plan truncating deposit [218]. It was not excavated and no datable material was recovered from its single clayey sandy silt fill, [215], during cleaning. This feature has been interpreted as a posthole, possibly contemporary with surface [218].

- 7.2.2.5 A stone surface, [222], was encountered at the north-western extent of Trench 2, overlying putative clay surface [218]. It was recorded for a distance of 0.90m north-south x 1.10m east-west, continuing north and west beyond the limits of excavation, but remained unexcavated, so its full thickness was not established. It was recorded at a maximum height of 27.46m OD and comprised medium to large, un-worked or roughly hewn sandstone blocks, measuring up to 340mm x 180mm x 70mm and bonded with grey clayey silt. The stones all had smooth upper surfaces, suggesting that the surface had been in use for a considerable period. Due to the confines of the evaluation trench, it is unclear if this was an external or internal surface. Two sherds of mortarium dating to c. AD 150–230 were recovered from the surface.
- 7.2.2.6 The eastern part of a sub-circular feature, [224], was exposed cutting through stone surface [222] adjacent to the western limit of excavation. This measured 0.34m north-south x 0.24m east-west, continuing beyond the limit of excavation, up to 0.10m deep, and was recorded at a maximum height of 27.42m OD. Pottery recovered from its single clayey silt fill, [223], comprised two rim fragments from jars, not closely datable, along with four body sherds from the same vessel, broadly datable to the 2nd–3rd century. One fragment of burnt bone was also recovered, this was white in colour suggesting that it had been burnt at high temperature or had been subject to prolonged exposure to the heat source. It is possible that this pit represents a cremation burial, possibly disturbed in antiquity; however whether or not the bone is of human origin remains to be determined.
- 7.2.2.7 A substantial grey clayey silt layer, [207], up to 0.37m thick, was recorded in section in Trench 2. The full extent of this deposit was not established as it continued beyond all limits of excavation, but it was recorded at maximum and minimum heights of 27.79m OD and 27.68m OD, respectively. One sherd of Roman pottery of uncertain date was recovered from this deposit during trench cleaning, along with a lead spindle whorl and three iron nails. The layer perhaps represent a make-up deposit for the overlying cobble surface, [206], which was recorded in section extending beyond all limits of excavation. Alternatively, it could represent a developed soil that accumulated during a period of abandonment of the site. A bulk sample taken from this deposit produced moderately well preserved charred cereal grains, some identified as naked wheat and oat. A fragment of brome was also present, this probably representing a crop weed. The aforementioned cobble surface, [206], was up to 0.10m thick and was recorded at a maximum height of 27.93m OD, at a depth of c. 0.65m below current ground level.
- 7.2.2.8 Part of a substantial feature, [212], was recorded in the south facing section of Trench 2, truncating cobble surface [206]. This measured 1.40m east-west x 0.54m north-south, continuing beyond the northern limit of excavation, up to 0.53m deep and was recorded at a maximum height of 27.93m OD. At the western side of this feature was a remnant of possible stone lining, [220], surviving up to three courses high. This comprised unworked sandstone blocks, measuring up 190mm x 100mm x 100mm and bonded with mid grey clayey silt. The 'lining' did not continue beyond the western side and the remainder may have been removed in antiquity. One sherd of samian pottery dating to AD 120-250 was recovered from the primary fill, [219]; which comprised humic sandy silt. No datable material was recovered from the secondary fill, [211], which comprised black silt with frequent charcoal fragments throughout or the tertiary fill, [210], which comprised pinkish sand. The probable stone lining suggests an original function related to a specific trade or industrial activity, with later usage, based on the composition of the secondary fills, probably as a refuse pit.

7.2.2.9 The uppermost Roman deposits in Trench 2 comprised successive deposits, [205], [213] and [204], all recorded in section, interpreted as possible Roman occupation deposits. In each case, the full extent of the deposit could not be established. The earliest, sandy silt layer [205], extended across Trench 2 and was up to 0.20m thick, recorded at a maximum height of 28.08m OD. This was overlain by a 0.08m thick deposit, [213], comprising humic sandy silt, continuing beyond the southern limit of excavation and recorded at a maximum height of 27.99m OD. This in turn was overlain by a 0.29m thick deposit, [204], comprising clayey silt, recorded in section extending across Trench 2, continuing beyond all limits of excavation and recorded at a maximum height of 28.26m OD. The more extensive of these deposits, layers [205] and [204], have been interpreted as occupation deposits of late Roman origin. The intervening deposit, [213], probably represents a short-lived episode of deposition.

7.2.2.10 A bulk sample taken from deposit [204] produced numerous well preserved waterlogged plant remains of taxa of waste ground, wet places and hedges, with some well preserved invertebrate macrofossils and identifiable microfossil remains also present. Taken as a whole, the plant and invertebrate taxa from this deposit reflected the local ecology prevailing at the time of deposition. The area seems to have been periodically inundated with freshwater, perhaps seasonally. Spores from various fungi recovered from this deposit can be seen as an indication of the presence of dung from grazing animals. Food remains were limited to a single charred oat grain and two charred fragments of hazelnut shell, although several fragments of bone were recovered, including burnt fragments, some of which were identified as sheep/goat.

7.2.3 Trench 3 (Figures 9, 10 & 11)

7.2.3.1 Three deposits, [312], [311] and [310], were recorded towards the northern extent of Trench 3, all continuing beyond the limits of excavation to the east, west and north. The earliest, deposit [312], comprised sandy silt recorded for a distance of 0.74m north-south x 1.40m east-west. As it was unexcavated, its thickness was not established, but it was recorded at a maximum height of 27.46m OD. This was overlain by a 0.11m thick deposit, [311], comprising black sandy silt, which extended over an area measuring at least 0.33m north-south x at least 1.25m east-west and was recorded at a maximum height of 27.63m OD. This in turn was overlain by a 0.22m thick deposit, [310], comprising greyish brown clayey silt, recorded for a distance of 0.45m north-south x 1.25m east-west and at a maximum height of 27.84m OD. These deposits have been interpreted as successive Roman floor surfaces.

7.2.3.2 A substantial stone surface, [309], was recorded across the base of Trench 3, measuring at least 1.64m north-south x at least 1.50m east-west, continuing beyond the limits of excavation to the east, west and south. Unexcavated, its maximum thickness could not be determined, but the maximum height at which it was recorded was 27.65m OD, this c. 1m below current ground level. It was constructed using large sandstone slabs, measuring up to 580mm x 560mm x 50mm, and roughly hewn sandstone blocks, measuring up to 80mm x 80mm x 40mm. One sherd from a large decorated Central Gaulish samian bowl, probably of Hadrianic to early Antonine date, was recovered from the surface during cleaning. This sherd was burnt and a rivet hole was noted suggesting that this piece had been repaired in antiquity, indicating the vessel was earlier than the context it was recovered from. This surface has been interpreted as a possible yard surface, potentially associated with floor surfaces [312], [311] and [310], discussed above.

- 7.2.3.3 Surface [309] was overlain by a 0.29m thick deposit, [308], comprising clayey sandy silt, which was recorded in section extending beyond the limits of excavation to the east, west and north. This was recorded at a maximum height of 27.94m OD, this at a depth of c. 0.82m below current ground level. One sherd of Roman pottery of indeterminate date and one sherd of probable Central Gaulish samian dating to AD 120-250 were recovered from this deposit, along with several Roman tile fragments and a fragment of pig bone. This material may represent a levelling or make-up deposit associated with the overlying cobble surface, [307].
- 7.2.3.4 At the southern limit of excavation, deposit [308] was truncated by a narrow construction cut, [306], at least 0.12m in length x 0.53m wide and surviving up to 0.27m high, for a possible linear stone structure, [305], recorded in section at a maximum height of 27.84m OD. It was constructed using roughly hewn sandstone blocks, measuring up to 270mm x 80mm x 50mm, bonded with clayey silt. Definitive interpretation of this structure is impossible due to the limited degrees to which it was exposed, but it has been tentatively interpreted as the northern limit of a north-south aligned wall.
- 7.2.3.5 A clayey silt deposit, [307], with frequent sub-rounded to sub-angular stones, was recorded in section extending beyond the limits of excavation to the east, west and south. With a maximum thickness of 0.15m, this was recorded at highest and lowest levels of 27.95m OD and 27.77m OD, respectively, the maximum at c. 0.60m below current ground level. One sherd of undiagnostic Roman pottery was recovered from this deposit during cleaning, along with an assemblage of Roman tile. The high frequency of well-sorted stones indicates that this deposit probably represents a surface of Roman origin.

7.2.4 Trench 4 (Figures 12, 13 & 14)

- 7.2.4.1 Six deposits, [421], [419], [418], [417], [407] and [420], with a combined thickness of at least 0.54m, were recorded in section and plan in Trench 4. The full extent of these deposits could not be established as they continued beyond one or more limits of excavation. These deposits have been interpreted as dump deposits, possibly representing levelling deposits. The earliest of the deposits was layer [421], which extended across the entire base of trench, continuing beyond all limits of excavation. Comprising pinkish brown clay with frequent sub-angular stones throughout, it was recorded at a maximum height of 28.08m OD. Although unexcavated, ten sherds of Roman pottery, possibly dating from the 3rd century, were recovered during cleaning.
- 7.2.4.2 Layer [421] was overlain by a 0.15m thick deposit, [419], comprising sandy ashy silt, measuring at least 1.05m east-west and recorded at a highest and lowest level of 27.98m OD and 27.87m OD, respectively. This in turn was overlain by a deposit, [407], comprising clayey silt up to 0.50m thick, recorded across an area measuring 1.77m north-south x 1.58m east-west. It was recorded at highest and lowest levels of 28.39m OD and 27.98m OD, respectively. A strip of copper alloy was recovered from this deposit, possibly an ingot, and, although of assumed Roman date, essentially undated. An iron object, probably a chisel of Roman date, was also recovered from deposit [407]. Deposit [419] was also overlain by deposit [418], comprising sandy silty clay up to 0.25m thick, recorded across an area measuring 0.50m north-south x 0.70m east-west, at highest and lowest levels of 28.14m OD and 27.76m OD, respectively.

- 7.2.4.3 In turn, deposit [418] was overlain by a clay deposit, [417], up to 0.36m thick and recorded across an area measuring 1.80m north-south x 1.32m east-west, at highest and lowest levels of 28.31m OD and 28.07m OD, respectively. One sherd of probably Lezoux Central Gaulish samian dating to AD 120-150 was recovered from this deposit. The latest deposit in this sequence, [420], comprised a 0.27m thick deposit of mottled pinkish brown and dark grey clay and clayey silt, recorded across an area measuring 1.65m north-south x 1.47m east-west, at highest and lowest levels of 28.39m OD and 28.17m OD, respectively. Two sherds of Roman pottery of late 2nd or 3rd century date were recovered from this deposit, along with one sherd of Central Gaulish samian possibly dating to AD 120-250.
- 7.2.4.4 A possibly circular feature, [412], with near vertical sides and a flat base was recorded in the north facing section, measuring 0.70m east-west x 0.51m deep, continuing beyond the southern limit of excavation. No datable material was recovered from its single silty clay fill, [411]. A similar, also possibly circular, feature, [416], was recorded in section partially truncating the eastern edge of feature [412]. This has steep sides, a concave base and measured 0.70m east-west, continuing beyond the southern limit of excavation, and up to 0.40m deep. No datable material was recovered from its fills, [415], [414] and [413], which generally comprised ashy silt to sandy clayey silt. The form of both these features and the composition of their fills suggest that these are likely to represent parts of substantial refuse pits.
- 7.2.4.5 A possibly circular feature, [423], with steep sides and a pointed base was recorded in the east facing section, this measuring 0.55m north-south, continuing beyond the western limit of excavation, and up to 0.40m deep. No datable material was recovered from its single silty clay fill, [422]. The form and the composition of its fill suggest that this feature is also likely to have been used as a refuse pit.

7.2.5 Trench 6 (Figures 17 & 18)

- 7.2.5.1 The natural sub-stratum in Trench 6 was overlain by a 0.15m thick deposit, [609], comprising greyish brown clayey silt. This was recorded in a sondage excavated at the northern extent of the trench and extended 1.10m north-south x 1.10m east-west, continuing beyond all limits of excavation. It was recorded at a maximum height of 27.98m OD. One sherd of Roman pottery and one sherd of possibly Central Gaulish samian dating to AD 120-250 were recovered from this deposit, along with an iron nail stem. Only a small portion of this deposit was exposed and excavated and its full extent could not be established. This deposit has been interpreted as a developed soil of Roman date.

7.3 Phase 3: Post-Roman

7.3.3 Trench 1 (Figure 5)

7.3.3.1 Roman deposits in Trench 1 were overlain by a 0.37m thick deposit, [103], comprising sandy silty clay, recorded in section at a maximum height of 28.31m OD. The full extent of this deposit was not established as it continued beyond all limits of excavation. Two sherds of undiagnostic Roman pottery and two sherds of 12th-13th century pottery were recovered from this deposit. This deposit directly overlies Roman road surface [104] and has been interpreted as a developed soil that accumulated following abandonment of the site during the late or post-Roman period and was subject to reworking throughout the medieval period. A bulk sample taken from this deposit produced a single charred grain of oat and one charred grain fragment of wheat. Fragments of slag and cinder were also noted in the sample residue.

7.3.4 Trench 3 (Figures 10 & 11)

7.3.4.1 In Trench 3, Roman deposits were overlain by a 0.55m thick deposit, [304], comprising clayey silt, recorded in section. The full extent of this deposit was not established as it continued beyond all limits of excavation and it was recorded at highest and lowest levels of 28.37m OD and 28.23m OD, respectively. This deposit has also been interpreted as a developed soil that probably initially accumulated following late or post-Roman abandonment of the site, with subsequent reworking throughout the medieval period.

7.3.5 Trench 4 (Figures 13 & 14)

7.3.5.1 A similar developed soil, [410], up to 0.26m thick and comprising silty clay, was recorded in section in Trench 4 overlying Roman deposits. The full extent of this deposit was not established as it continued beyond the limits of excavation to the east, west and north and it was recorded at a maximum height of 28.44m OD. One sherd of a possibly Central Gaulish samian plate or bowl dating to AD120-150 was recovered from this deposit, considered to be residual in context. Encountered only in the western part of Trench 4, it is likely that this deposit had been truncated to the east during the modern period.

7.3.6 Trench 6 (Figure 18)

7.3.6.1 Clayey silt layer, [608], was recorded in both plan and section. Its full extent could not be established, as it continued beyond all limits of excavation, but it was up to 0.20m thick and was recorded at a maximum height of 28.18m OD. This deposit has also been interpreted as a developed soil of late or post-Roman origin, subsequently reworked throughout the medieval period.

7.4 Phase 4: Medieval

7.4.1 Trench 2 (Figures 7 & 8)

7.4.1.1 Deposit [203], comprising sandy silt, was recorded in section in Trench 2. It measured at least 2.10m east-west x at least 1.65m north-south, continuing beyond the east, west and northern limits of excavation. It was up to 0.10m thick and was recorded at a maximum height of 28.23m OD. One sherd of 12th century pottery was recovered from this deposit, which contained thin lenses of soft, dark brownish grey, clay silt and light grey, degraded mortar, possibly indicative of consecutive floor surfaces.

7.4.1.2 Layer [203] was overlain by deposit [202], comprising firm clayey silt, again recorded only in section in Trench 2. This deposit measured at least 2.0m east-west x at least 1.90m north-south, continuing beyond all limits of excavation, and was up to 0.15m thick. One sherd of pottery of 12th century date was recovered from this deposit. On the basis of its relatively compacted nature, this deposit has tentatively been interpreted as a floor surface of medieval origin.

7.5 Phase 5: Late Medieval/Early Post-medieval?

7.5.1 Trench 2 (Figure 8)

7.5.1.1 A possibly circular feature, [209], was recorded in the south facing section of Trench 2, truncating putative floor surfaces [202] and [203]. This feature measured 0.95m east-west, continuing north beyond the limit of excavation, and was 0.55m deep. No datable material was recovered from its single clayey silt fill, [208], which contained occasional charcoal flecks and moderate small fragments of sandstone. The composition of the infill suggests that this was a refuse pit and, given its stratigraphic position, is likely to be of late medieval or early post-medieval origin.

7.5.2 Trench 4 (Figures 13 & 14)

7.5.2.1 Part of a substantial feature, [406], with steep sides and an undulating base was recorded in the west facing section of Trench 2, truncating deposit [407]. This feature measured 1.54m north-south, continuing beyond the eastern limit of excavation, and was up to 0.46m deep. No datable material was recovered from its fills, [405], [404] and [403], which generally comprised sandy silt and clayey silts. The form and composition of this feature suggest that it is likely to represent part of a refuse pit.

7.5.2.2 A possibly circular feature, [409], was recorded in the east facing section, truncating developed soil [410]. U-shaped in profile, it measured 0.28m north-south, continuing beyond the western limit of excavation, and was 0.21m deep. No datable material was recovered from its single silty clay fill, [408], and it has been interpreted as either a small pit or posthole of late medieval or early post-medieval origin.

7.6 Phase 6: Post-medieval (late 18th–mid 19th century)

7.6.1 Trench 5 (Figure 15)

7.6.1.1 Substantial structural remains were recorded in Trench 5, comprising an east-west aligned brick wall, [505], extending across the northern portion of the trench. The full extent of this wall was not established as it continued beyond the limits of excavation to the east, west and north. A sondage was excavated through deposits to the south of the wall adjacent to the eastern limit of excavation. This revealed a 10mm thick deposit, [512], comprising sandy silt, overlying the natural sub-stratum. This deposit contained flecks of mortar throughout and has been interpreted as 'tread' associated with the construction of wall [505]. Part of a linear feature, [508], interpreted as the construction cut for wall [505], was recorded in the sondage, truncating deposit [512]. This feature measured at least 0.24m east-west, continuing beyond the eastern and western limits of excavation, and 0.24m north-south but its depth was not established. No datable material was recovered from its single clayey silt fill, [511].

7.6.1.2 Wall [505] itself was recorded for a distance of 1.92m east-west x 0.90m wide north-south x 0.96m high and the highest level at which it survived was 28.27m OD, at a depth of c. 0.42m below present ground level. It was constructed using unfrogged red bricks (220mm x 120mm x 80mm) laid in stretcher courses, bonded with a light greyish white lime mortar. A red brick structure, [514], was recorded abutting wall [505]. Comprising a single course of unfrogged red bricks (220mm x 120mm x 80mm), bonded with a light grey lime mortar, it measured at least 0.66m east-west, continuing east beyond the limit of excavation, and was recorded at a height of 27.52m OD. Wall [505] was also abutted by wall [504], aligned roughly north-south, at right-angles to the more substantial structure. It extended 1.16m north-south and was up to 0.64m high, recorded at a maximum height of 28.06m OD, at a depth of c. 0.56m below present ground level. It was constructed using unfrogged red bricks (220mm x 120mm x 80mm) and one large dressed large limestone slab measuring 800mm x 380mm x 150mm. It was constructed predominantly in stretcher courses with random headers, bonded with mid greyish white mortar. Two large notches in the upright portion of the limestone slab used in the construction of this wall indicate that some of the masonry had been reused. These walls probably represent the brick skin walls of a cellar added to the interior of the building represented by wall [505].

7.6.1.3 Substantial post-medieval structural remains were also recorded in Trench 6. Part of a linear feature, [607], was recorded within a sondage located at the northern extent of Trench 6, continuing beyond the northern and southern limits of excavation, truncating developed soil [608]. This feature measured at least 1.12m NE-SW by at least 0.19m NW-SE; its depth was not established. No datable material was recovered from its single clayey silt fill, [606], but it is probably of 19th century origin. This feature has been interpreted as the construction cut for wall [605].

- 7.6.1.4 The full extent of the wall [605], which was aligned NE-SW, was not established as it continued beyond the limit of excavation to the east and south, and it was not possible to expose the base due to Health and Safety considerations. As exposed, the masonry measured at least 2.84m NE-SW x 0.40m wide x at least 0.40m high, surviving to four courses, and the highest level at which the wall survived was 28.25m OD, at a depth of c. 0.39m below the present ground level. It was constructed using unfrogged red bricks, measuring 260mm x 120mm x 70mm, in 'English bond', bonded with light greyish white mortar.
- 7.6.1.5 A flagstone surface, [604], was recorded to the west of wall [605], over an area measuring 2.84m NE-SW x 1.24m NW-SE, continuing beyond the limits of excavation to the west and north. The highest and lowest levels at which it survived was 28.29m OD and 28.26m OD, respectively. This stone slab surface was contemporary with brick wall [605].

7.7 Phase 7: Post-medieval (mid 19th century)

7.7.1 Trench 5 (Figures 15 & 16)

- 7.7.1.1 Three deposits, [509], [506] and [503=510], with a maximum combined thickness of c. 1.02m were recorded in the southern portion of Trench 5. The full extent of these deposits was not established as they all continued beyond limits of excavation to the east, west and south. For the most part, deposits [506] and [503=510] comprised fragments of red brick, ceramic roof tiles and chalky mortar within a sandy silt matrix. Fragments of pantile and plaster recovered from deposit [506] were all of probable 18th to early 19th century origin.
- 7.7.1.2 Deposit [509] comprised silty clay with occasional patches of mortar and occasional fragments of sandstone and red brick. Fragments of red brick within all three deposits [509], [506] and [503=510] were similar to those used in the construction of walls [505] and [504], so that this group of deposits has been collectively interpreted as rubble derived from demolition of these structures, possibly when the railway viaduct was constructed across the site.

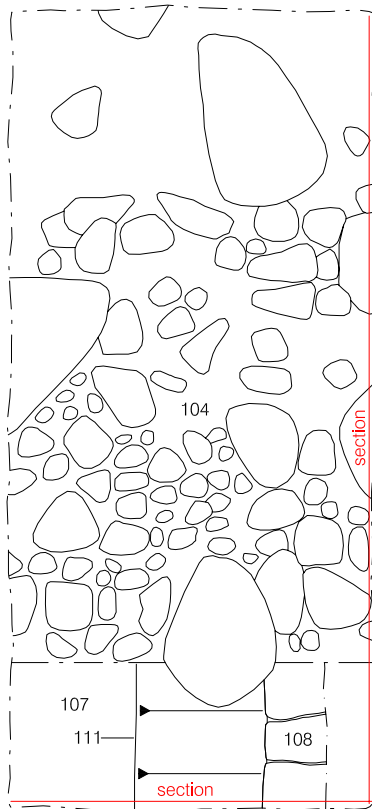
7.7.2 Trench 6 (Figures 16 & 17)

- 7.7.2.1 A thin clayey silt deposit, [603], was recorded overlying stone flag surface [604], continuing beyond all limits of excavation. It was recorded across an area measuring 1.50m east-west x at least 2.90m north-south, and it was recorded at a maximum height of 28.35m OD, being only 80mm thick at most. The presence of small fragments of brick, tile and sandstone within the deposit suggest that it was a demolition dump, perhaps associated with demolition of wall [605], possibly at the time of construction of the railway viaduct in the mid 19th century.

7.8 Phase 8: Modern (Figures 5, 7, 8, 10, 11, 13, 14, 16 & 18)

- 7.8.1 A service trench, [110], extended across Trench 1 on a north-south alignment. This was overlain by a 0.20m thick brick rubble make-up layer, [101], in turn overlain by a 0.18m thick concrete surface, [100], which extended across Trench 1 and was recorded at a maximum height of 28.55m OD.
- 7.8.2 A brick rubble make-up layer, [201], up to 0.25m thick, was recorded overlying pit, [209], in Trench 2. This was overlain by a 0.08m thick concrete surface, [200], which extended across Trench 2 and was recorded at a maximum height of 28.58m OD.

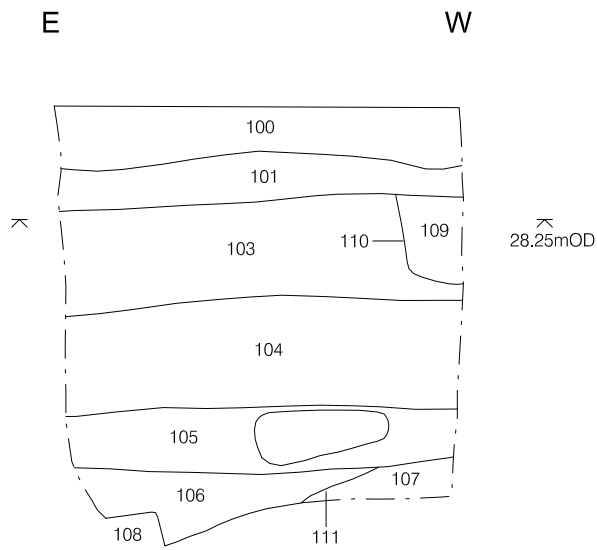
- 7.8.3 Two modern services, [303], aligned NW-SE and, [314], aligned east-west, were recorded extending across Trench 3. These were overlain by a 0.22m thick brick rubble make-up layer, [301], in turn overlain by a 0.12m thick concrete surface, [300], recorded extending across Trench 3 at a maximum height of 28.57m OD.
- 7.8.4 A levelling deposit, [402], up to 0.08m thick, was recorded overlying pit, [406], and developed soil, [410], in Trench 4. This was overlain by a 0.20m thick brick rubble make-up layer, [401], in turn overlain by a 0.05m thick concrete surface, [400], which extended across Trench 4 and was recorded at a maximum height of 28.67m OD.
- 7.8.5 A levelling deposit, [502], up to 0.16m thick, was recorded extending across Trench 5. This was overlain by a 0.15m thick brick rubble make-up layer, [401], in turn overlain by a 0.10m thick concrete surface, [500], which extended across Trench 5 and was recorded at a maximum height of 28.66m OD.
- 7.8.6 A brick rubble make-up layer, [601], up to 0.22m thick, was recorded extending across Trench 6. This was overlain by a 0.04m thick concrete surface, [600], which extended across Trench 6 and was recorded at a maximum height of 28.61m OD.



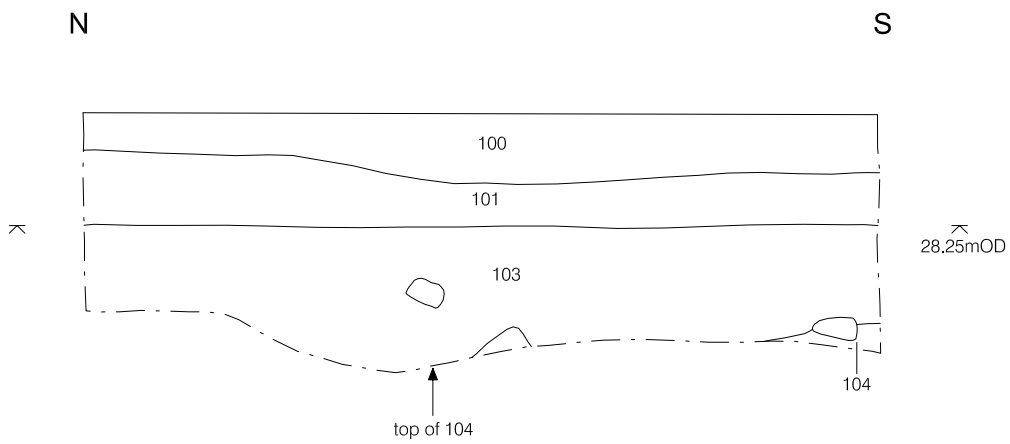
Trench 1. Plan.



Figure 4. Trench 1, plan
Scale 1:20



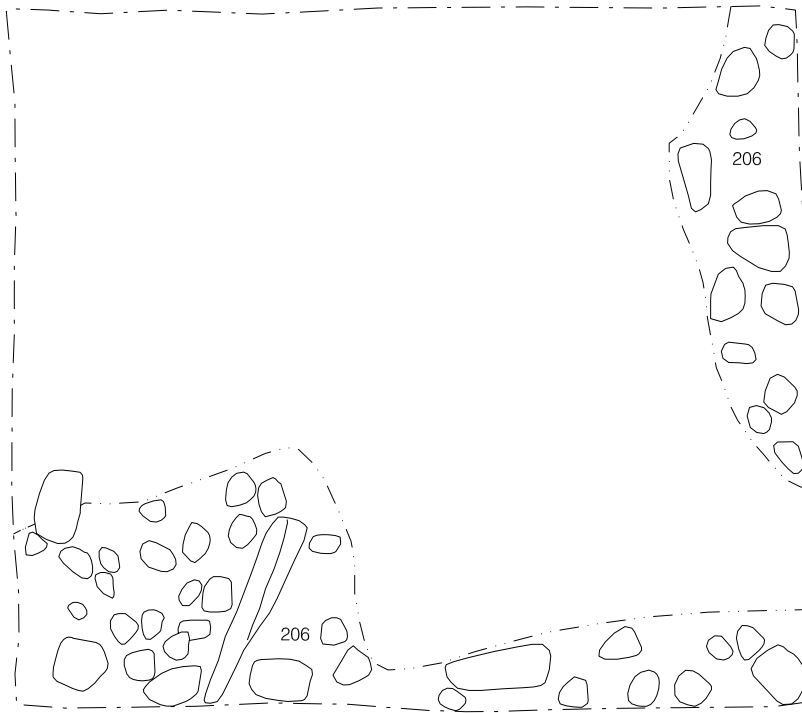
Trench 1. North facing section.



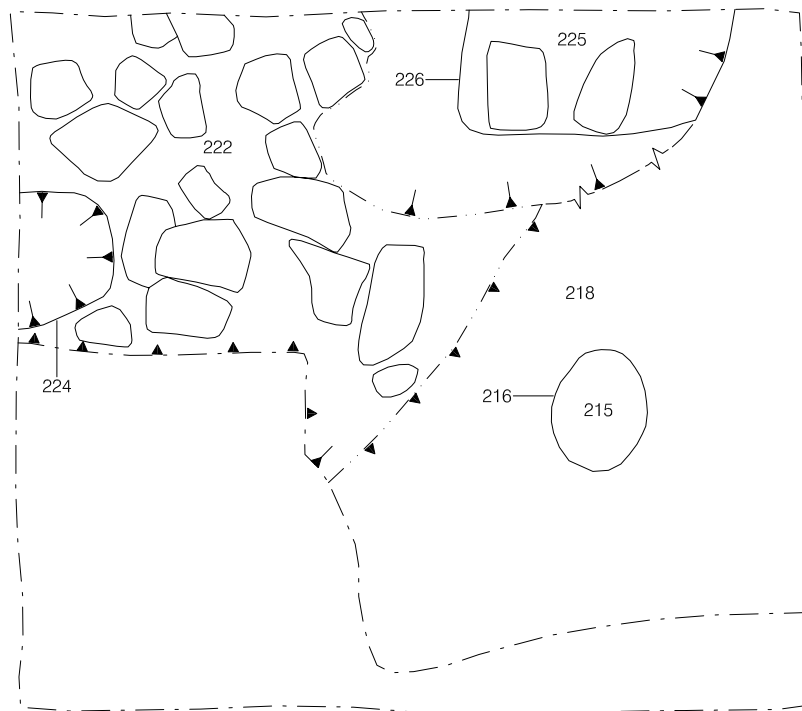
Trench 1. West facing section.



Figure 5. Trench 1, sections
Scale 1:20



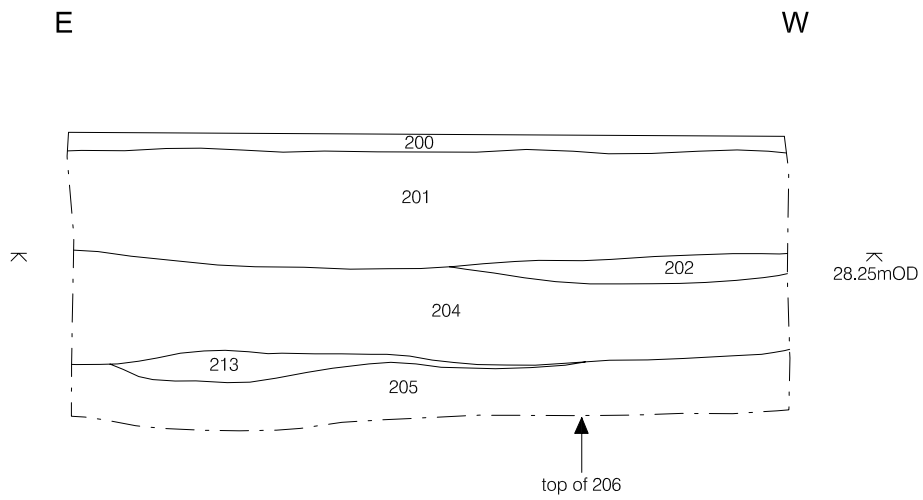
Trench 2. Uppermost Roman stone surface.



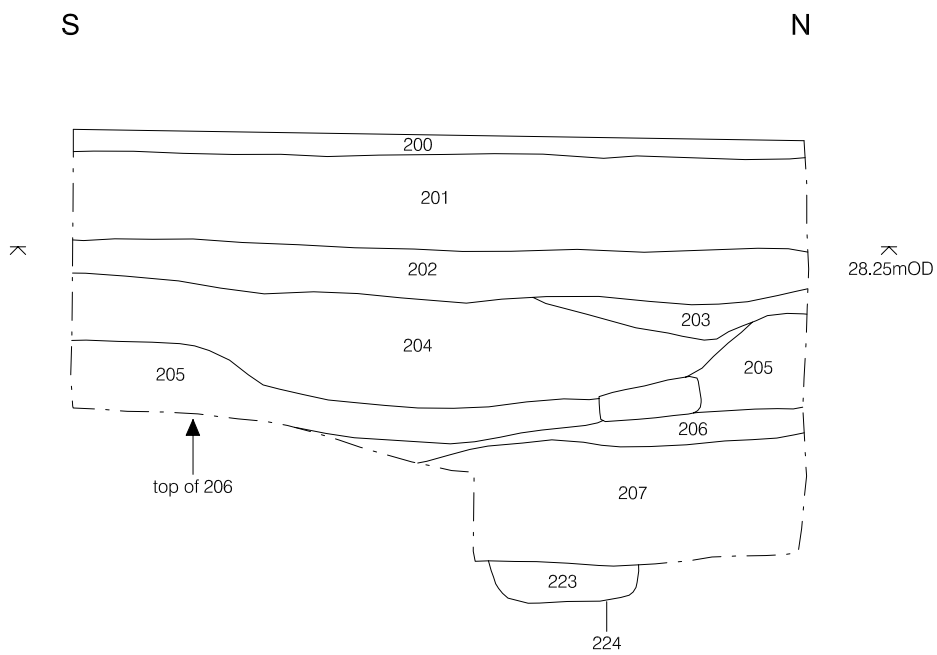
Trench 2. Earlier Roman features and deposits.



Figure 6. Trench 2, plan
Scale 1:20



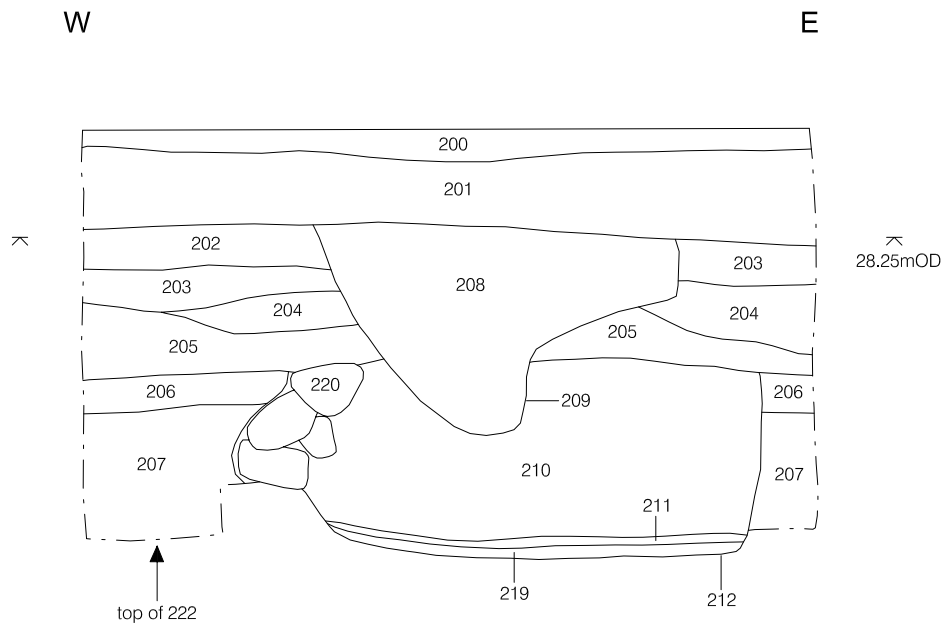
Trench 2. North facing section.



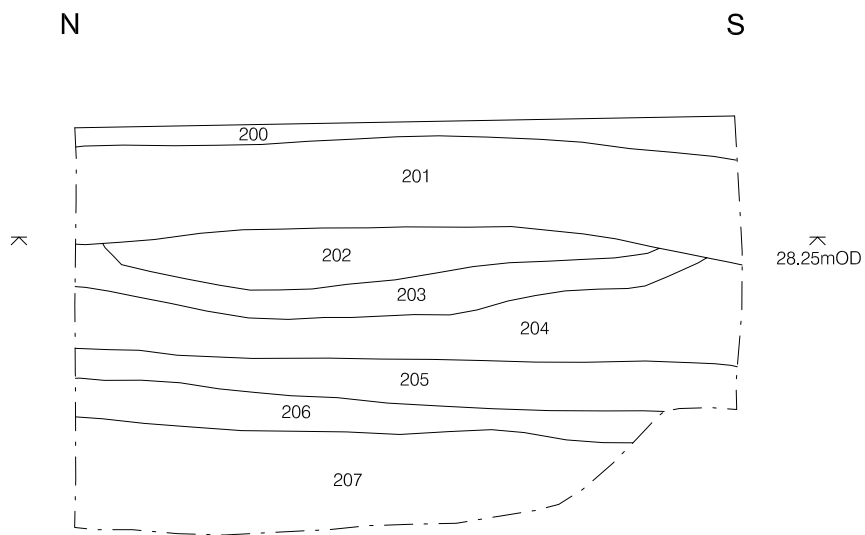
Trench 2. East facing section.



Figure 7. Trench 2, sections (1)
Scale 1:20



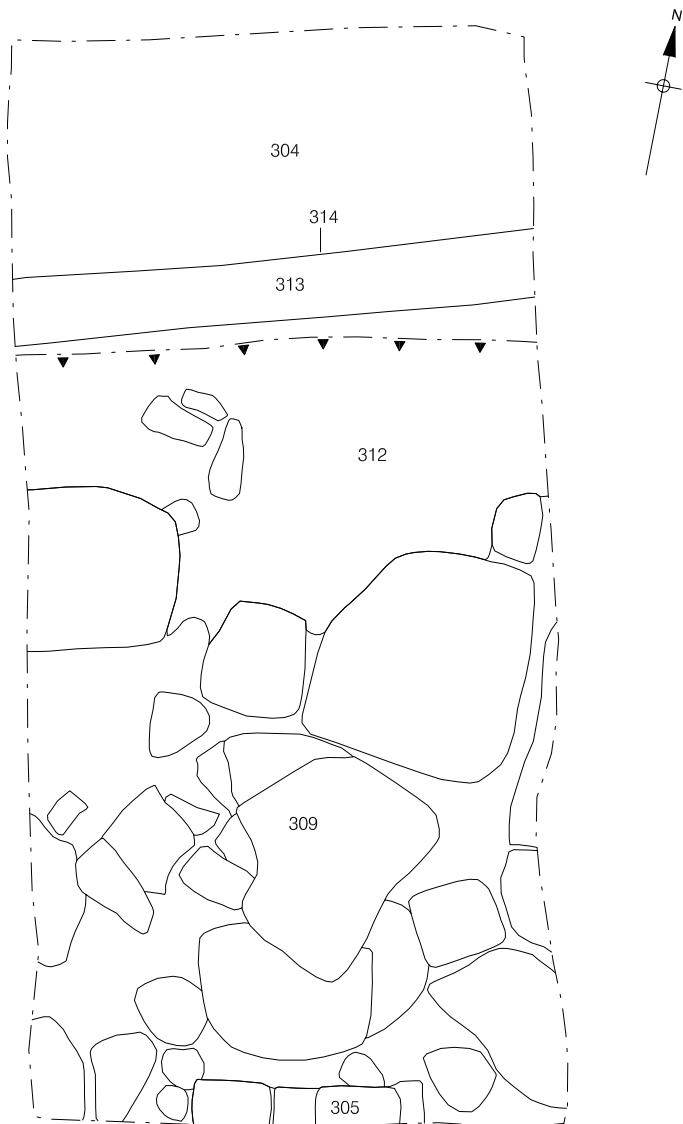
Trench 2. South facing section.



Trench 2. West facing section.



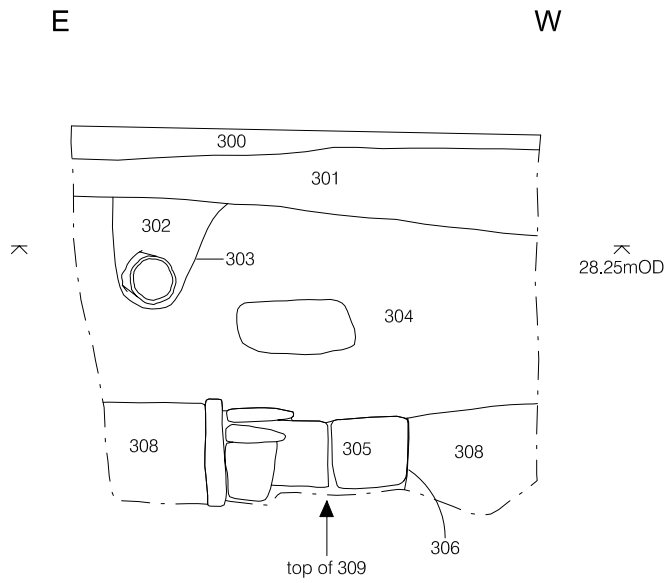
Figure 8. Trench 2, sections (2)
Scale 1:20



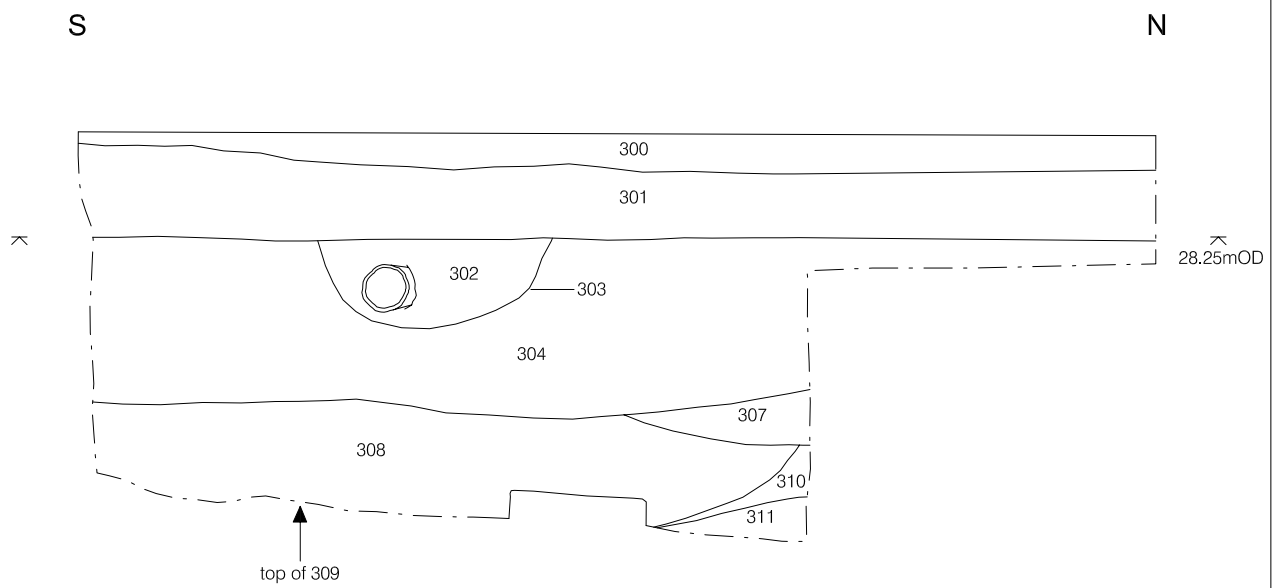
Trench 3. Plan.

0 1m

Figure 9. Trench 3, plan
Scale 1:20



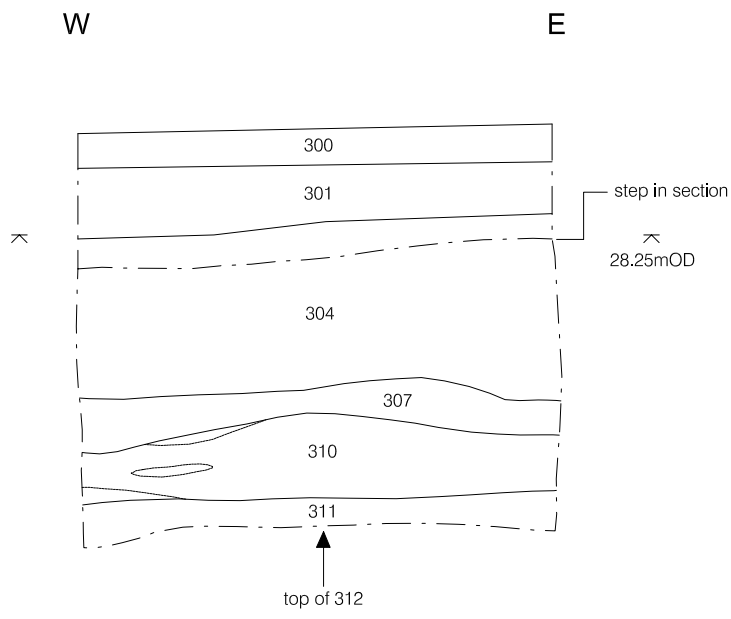
Trench 3. North facing section.



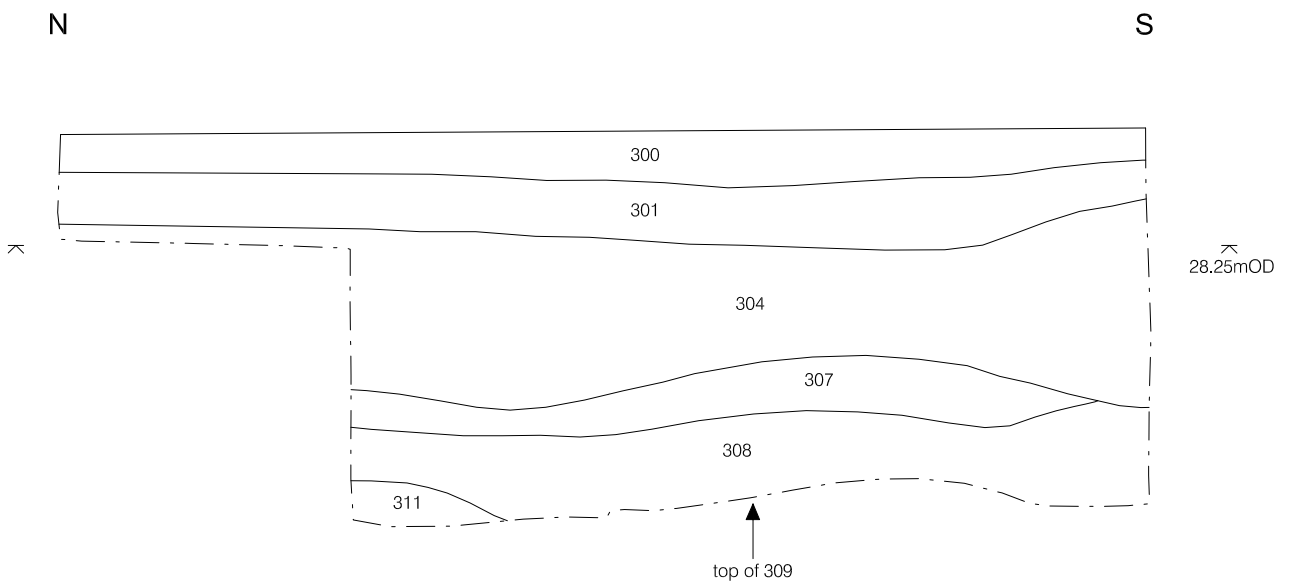
Trench 3. East facing section.



Figure 10. Trench 3, sections (1)
Scale 1:20



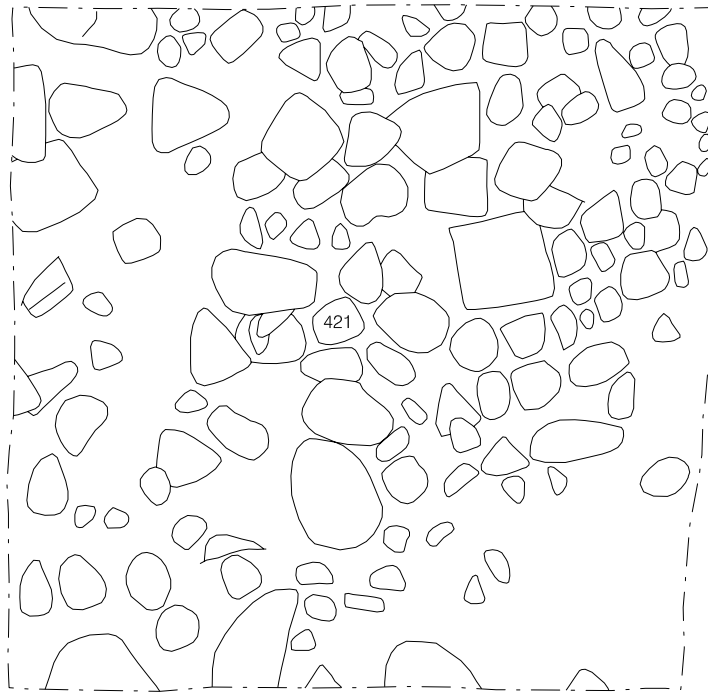
Trench 3. South facing section.



Trench 3. West facing section.



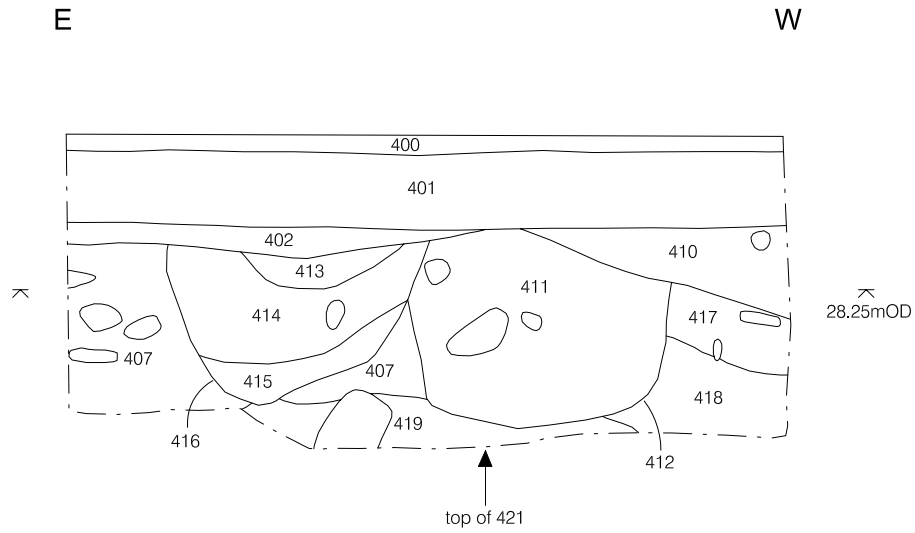
Figure 11. Trench 3, sections (2)
Scale 1:20



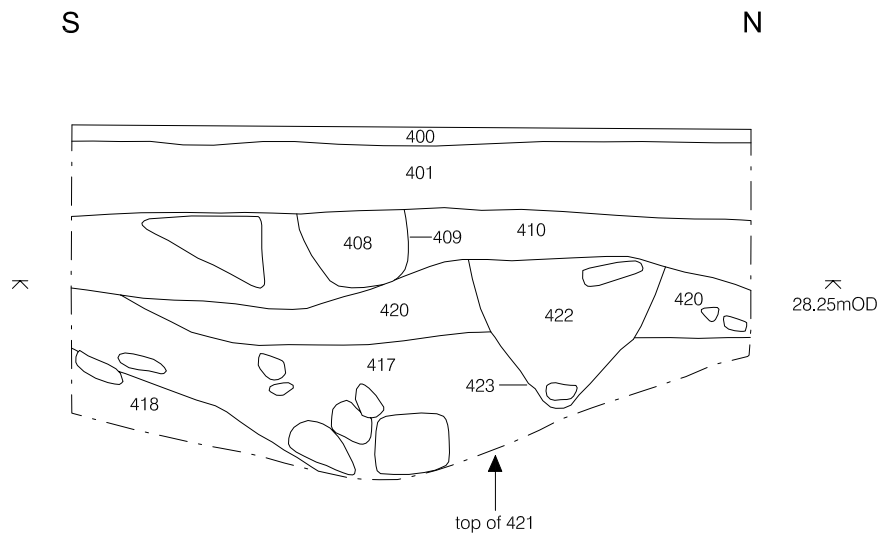
Trench 4. Plan.



Figure 12. Trench 4, plan
Scale 1:20



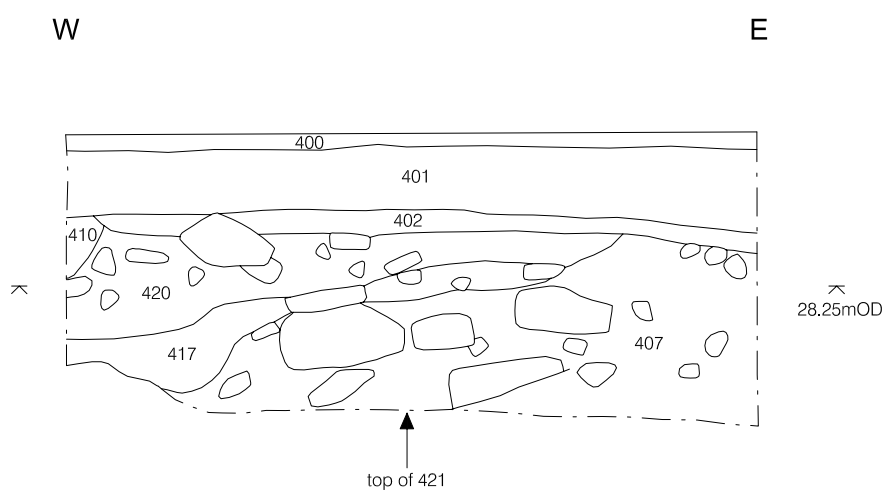
Trench 4. North facing section.



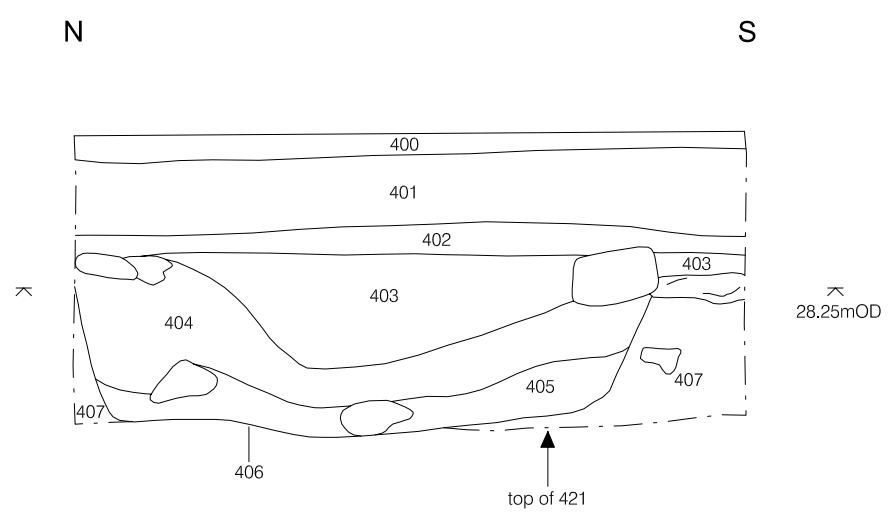
Trench 4. East facing section.



Figure 13. Trench 4, sections (1)
Scale 1:20



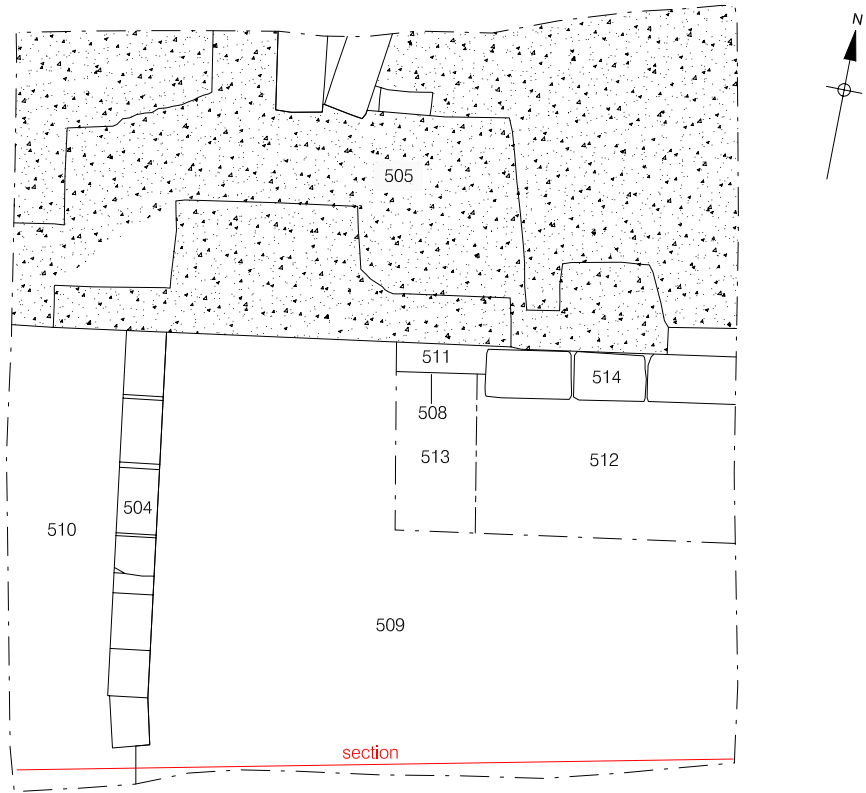
Trench 4. South facing section.



Trench 4. West facing section.



Figure 14. Trench 4, sections (2)
Scale 1:20



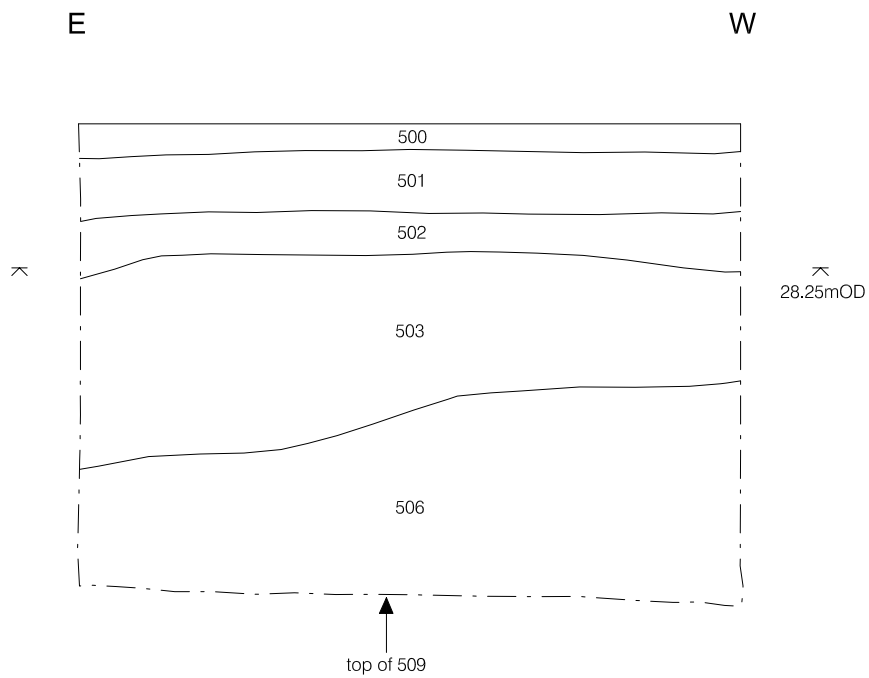
Trench 5. Plan.



mortar

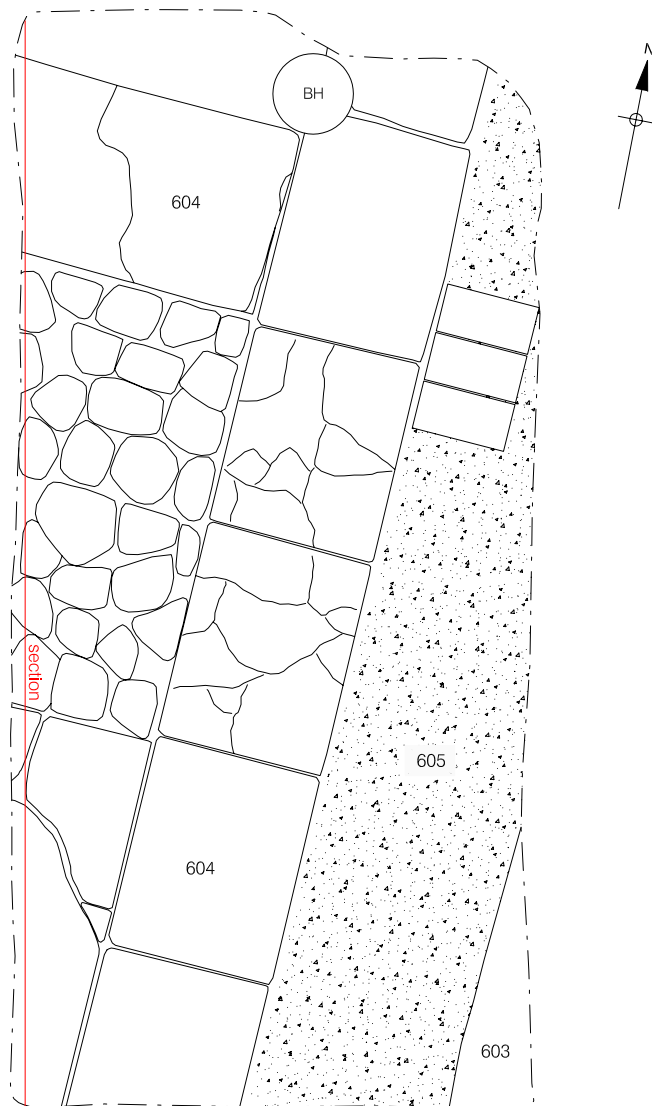


Figure 15. Trench 5, plan
Scale 1:20



Trench 5. North facing section.

Figure 16. Trench 5, section
Scale 1:20



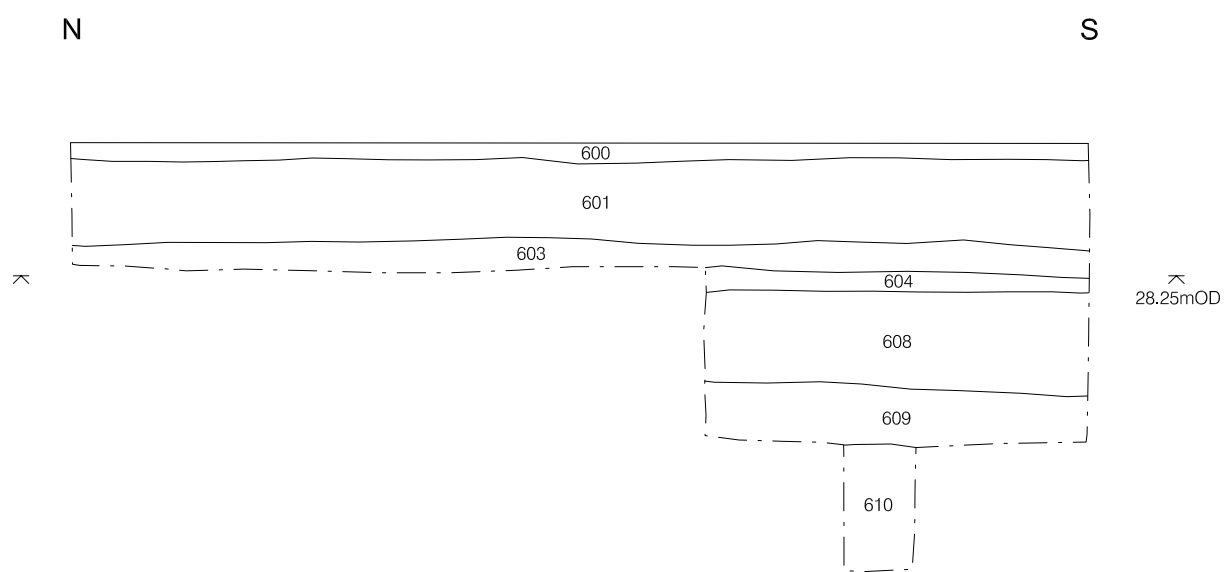
Trench 6. Plan (pre-excavation).



mortar



Figure 17. Trench 6, plan
Scale 1:20



Trench 6. East facing section.



Figure 18. Trench 6, section
Scale 1:20

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 Conclusions

8.1.1 All archaeological remains recorded within the evaluation trenches have been assigned to eight different phases of activity, ranging from the earliest, Phase 1, comprising naturally derived geological material, through to the latest, Phase 8, mostly comprising modern surfaces and associated make-up deposits.

8.1.2 Archaeological remains of the greatest significance comprise Phases 2-5, these spanning the Roman to late medieval/early post-medieval periods. Remains of lesser significance comprise Phases 6-7, these relating to structures of post-medieval (late 18th-mid 19th century) origin. Phase 8 is of no archaeological significance. The table below shows the depth at which archaeological deposits of note were encountered in each trench, along with the overall depth of archaeological deposits of note at each location.

Trench	Maximum height of existing concrete floor slab in trench	Depth of archaeological deposits below existing ground level (not incl. Phases 7 & 8 deposits)	Overall depth of archaeological deposits (not incl. Phases 7 & 8 deposits)	Natural reached (Y/N)
1	28.55m OD	0.28m	0.90m+	Y
2	28.55m OD	0.30m	0.90m+	N
3	28.56m OD	0.28m	0.80m+	N
4	28.67m OD	0.24m	0.65m+	N
5	28.66m OD	0.40m	1.30m	Y (truncated?)
6	28.61m OD	0.34m	0.45m	Y

8.1.3 All Roman remains have been assigned to Phase 2, without sub-division at this stage. The structures, deposits and features assigned to this phase demonstrate the presence of intensive multi-phase Roman occupation, dating from the 2nd and 3rd centuries, at the site. Although precise interpretation of all structures, deposits and features is not possible due to the limited degree of exposure and investigation that was achievable, the archaeological remains indicated the presence of structures, road and yard surfaces and refuse pits. Such remains are consistent with those that would be encountered within the Roman *vicus* settlement that developed to the west of the Roman fort.

8.1.4 Phase 3 was represented by developed soils overlying Roman remains, indicative of general abandonment in the late or post-Roman period, with resulting accumulation of such deposits.

8.1.5 Phases 4 and 5 represent deposits and features of probable medieval date. The potential remains of successive floor surfaces, possibly of 12th century date, were recorded in Trench 2, these being the only remains assigned to Phase 4. Phase 5 activity is represented by several probable refuse pits of likely medieval date, encountered in Trenches 2 and 4. The presence of such features suggests that this area, set back from the street frontage, was utilised for the disposal of rubbish. Since the site lay within the medieval town walls, it is possible that this area lay in the backlots of plots that fronted onto Westgate Road, this street being one of the principal thoroughfares of the medieval town.

8.1.6 Structural remains assigned to Phase 6 and recorded in Trenches 5 and 6 represent former buildings occupying the eastern part of the site. These are of probable late 18th to mid 19th century date - cartographic evidence indicates that by the time of Charles Hutton's map in 1772, substantial buildings occupied the site, fronting onto Bailiff Gate. This pattern of building survived until the time of Collard's map in 1841, although, by the time of Oliver's map in 1849, the railway, and presumably the viaduct that now occupies the site, had been completed and the structures recorded on previous maps had been demolished. Accordingly, demolition deposits associated with Phase 6 structures recorded in Trenches 5 and 6 have been assigned to Phase 7, dated to the mid 19th century.

8.2 Recommendations

- 8.2.1 The field evaluation described in this report has identified the presence of archaeological remains of Romano-British, medieval and post-medieval date at the site. On site discussions with Newcastle City Council and English Heritage have already indicated that this is an archaeological site of very high importance, so much so that there will be an emphasis on preservation *in situ* of significant archaeological remains.
- 8.2.2 It is suggested that remains of Romano-British date are of the highest significance at this site. Such remains, which include significant structural elements, survive at depths of c. 300-400mm (Trenches 1, 2 and 4) to c. 600mm (Trenches 3 and 6) below the existing concrete floor slab. Such is their importance, these remains will undoubtedly have to remain preserved *in situ* and, therefore, Romano-British archaeology represents the largest constraint to the proposed development.
- 8.2.3 Overlying deposits derived from Roman-British occupation of the site are probable early medieval and medieval strata, which, although significant, are arguably of lesser importance than the earlier remains. The evaluation suggests that early medieval and medieval deposits largely comprise developed soils, with potential pits cut into them. Since they do not appear to be of structural form, as is clearly the case for a significant proportion of the Romano-British remains, it will be more difficult for English Heritage and Newcastle City Council to assign a definitive level of significance without further investigation. Accordingly, it is suggested that controlled archaeological excavation of post-Roman material may be acceptable to the English Heritage and Newcastle City Council as a strategy to mitigate the impact of the development on this element of the archaeological resource.
- 8.2.4 Therefore, it is recommended that, if such a mitigation strategy is acceptable to English Heritage and Newcastle City Council, archaeological remains of post-Roman date be exposed and systematically excavated, thereby preserving them by record. A deposit model would be designed across the proposed development so that archaeological excavation would proceed to an agreed depth, which may vary across the site due to the nature of archaeological stratigraphy, in order to ensure that structural Romano-British remains are preserved *in situ*. Archaeological excavation would be focussed upon the determination of site context rather than mitigating against individual elements of construction groundworks. Therefore areas of archaeological excavation would potentially be larger than, for example, individual foundation trenches or service runs.

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www.newcastle-antiquaries.org.uk

10. ACKNOWLEDGEMENTS AND CREDITS

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Report: Aaron Goode

Project Manager: Robin Taylor-Wilson

Post-excavation Manager: Jennifer Proctor

CAD: Adrian Bailey

Samian Ware: James Gerrard

Other Credits

Biological Remains: Alexandra Schmidl, Deborah Jaques, John Carrott and Alex Beacock, PRS

Conservation: Karen Barker

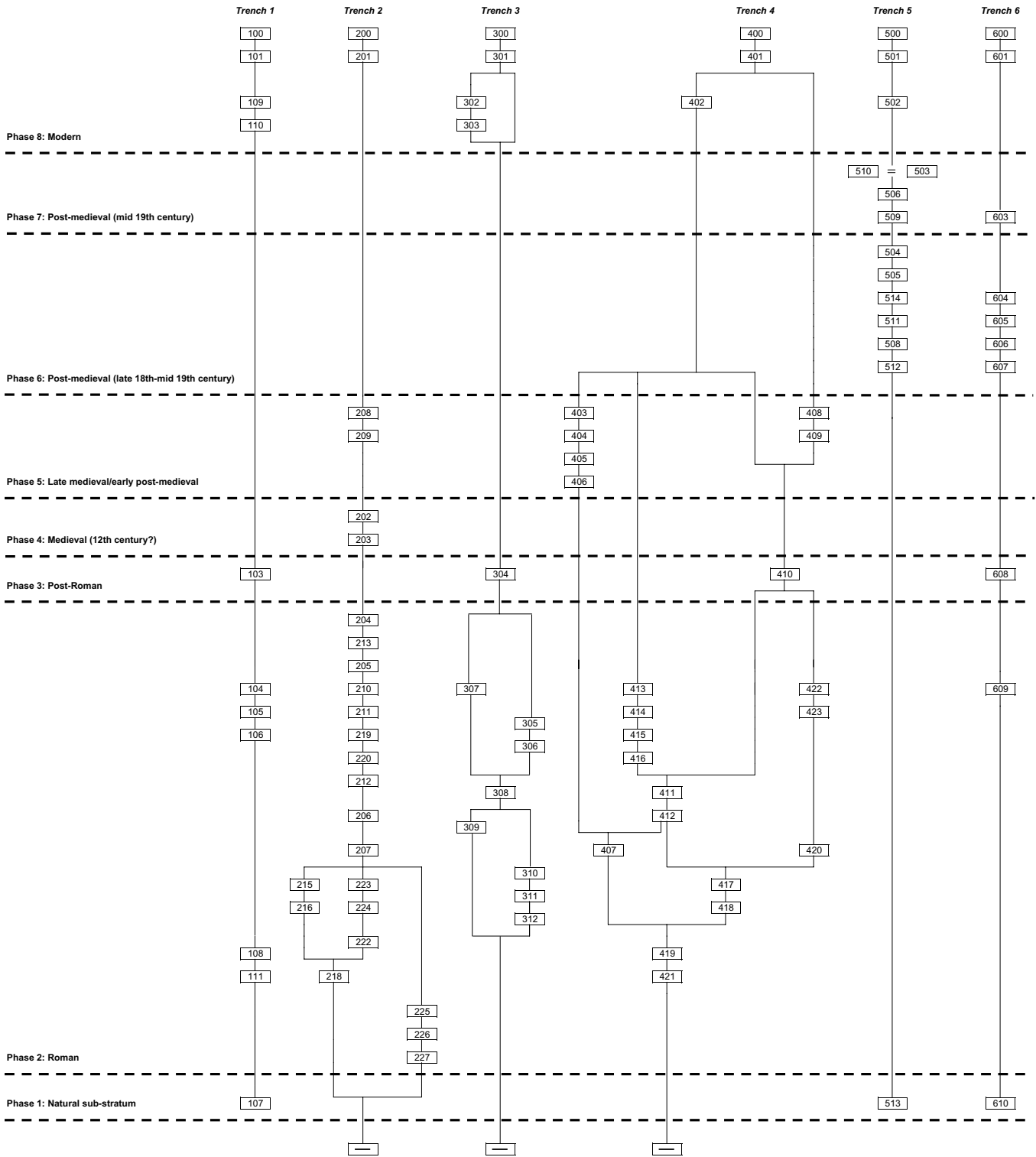
Medieval Pottery and Post-medieval Building Materials: Jenny Vaughan, NCAS

Roman Pottery, Brick and Tile: Scott Martin

Small Finds: Philippa Walton

APPENDIX A
STRATIGRAPHIC MATRICES

WEG 07: STRATIGRAPHIC MATRICES



**APPENDIX B
CONTEXT INDEX**

WEG 07: CONTEXT INDEX

Context	Trench	Phase	Type	Type	Description	Interpretation
100	1	8	deposit	layer	hard; light greyish brown; concrete; frequent stone chippings; extends across Trench 1, up to 0.18m thick	Concrete floor
101	1	8	deposit	layer	loose; mid pinkish brown; sand; frequent bricks and brick fragments, frequent small to medium sub-angular stones (<0.20m); extends across Trench 1, up to 0.20m thick	Make-up for concrete floor
103	1	3	deposit	layer	firm; dark greyish brown; sandy silty clay; occasional charcoal flecks, occasional small sub-round sandstone fragments (>0.20m); extends across Trench 1, up to 0.37m thick	Developed soil
104	1	2	masonry	surface	medium to large round and sub-round stones measuring (40mm x 40mm x 40mm) minimum to (440mm x 320mm x 150mm) maximum; bonded with indurated; dark grey; silty sand; extends across Trench 1, up to 0.30m thick	Stone surface
105	1	2	masonry	surface	small to large round and sub-round stones measuring (200mm x 150mm x 150mm) minimum to (350mm x 150mm) maximum; bonded with indurated; mid orange brown; silty sand; measures at least 0.50m N-S x at least 1 m x 0.17m thick	Stone surface
106	1	2	masonry	surface	small to medium sub-round and sub-angular stones measuring (150mm x 100mm x 100mm) minimum to (300mm x 200mm x 142mm) maximum; bonded with indurated; mid orange brown; silty sand; measures at least 0.50m N-S x at least 0.80m E-W x at least 0.17m thick	Stone surface
107	1	1	deposit	layer	firm; light pinkish grey; clayey silt; very occasional small sub-round stones (>0.02m), very occasional flecks of coal; measures at least 0.50m N-S x at least 0.75m E-W x at least 0.11m thick	Natural boulder clay
108	1	2	masonry	wall	roughly hewn sandstone blocks measuring (160mm x 100mm x 80mm) minimum to (160mm x 140mm x 80mm) maximum; orientated N-S; one course; bonded by firm; light grey; clay silt; measures at least 0.40m N-S x at least 0.16m E-W x at least 0.08m thick	Sandstone lining of feature [111]
109	1	8	deposit	fill	firm; light brown; clay; salt glazed ceramic pipe; measures at least 2m N-S x at least 0.18m E-W x 0.22m thick	Fill of service trench [110]
110	1	8	cut	service	linear; orientated N-S; sharp top break of slope; steep sloping concave sides; sharp break of slope at base, shallow concave base; measures at least 2m N-S x up to 0.18m E-W x 0.22m deep	Service trench
111	1	2	cut	linear	linear; orientated N-S; sharp top break of slope; break of slope at base and base not established; measures at least 0.40m N-S x at least 0.60 m E-W x at least 0.08m deep	Drainage feature
200	2	8	deposit	layer	hard; light grey; concrete; frequent stone chippings; extends across Trench 2, up to 0.08m thick	Concrete floor
201	2	8	deposit	layer	loose; small to medium red brick fragments (80%); occasional small fragments of mortar; extends across Trench 2, up to 0.25m thick	Make-up for concrete floor
202	2	4	deposit	layer	firm; mid grey; clayey silt; occasional small pieces of degraded coal, very occasional small rounded stones (>0.09m); measures at least 1.90m N-S x at least 2m E-W x up to 0.15m thick	Surface?
203	2	4	deposit	layer	firm; light brownish grey; sandy silt; thin lense of firm mid brownish orange sandy silt, thin lense of soft dark brownish grey clay silt, thin small lense of light grey degraded mortar; measures at least 1.65m N-S x at least 2.10m E-W x 0.10m thick	Surface?
204	2	2	deposit	layer	soft; mid brownish grey; clayey silt; very occasional flecks of CBM, very occasional small to medium sub-rounded stones, very occasional small fragments of coal; measures at least 1.86m N-S x at least 2m x up to 0.29m thick	Occupation deposit
205	2	2	deposit	layer	soft; dark brownish grey; clayey sandy silt; occasional small to medium sub-round stones (>0.21), very occasional flecks of CBM; measures at least 0.86m N-S x at least 2.10m E-W x up to 0.06m thick	Occupation deposit
206	2	2	masonry	surface	frequent small to medium sub-rounded to sub-angular stones measuring (40mm x 30mm x 30mm) minimum to (240mm x 160mm x 90mm) maximum; one large upright sandstone slab; bonded with friable; mid grey; clayey silt; measures at least 1.86m N-S x at least 2.10m E-W x up to 0.10m thick	Surface
207	2	2	deposit	layer	friable to firm; mid reddish brown, light yellowish brown to pink; clayey sandy silt to clay; extends across Trench 3	Make-up for surface?

WEG 07: CONTEXT INDEX

Context	Trench	Phase	Type	Type	Description	Interpretation
208	2	5	deposit	fill	soft; mid greyish brown; clayey silt; very occasional flecks of charcoal, one large sub-angular sandstone, moderate small fragments of sandstone (>0.09); measures 0.95m E-W x 0.55m thick	Fill of pit [208]
209	2	5	cut	pit	shape in plan not established; sharp top break of slope; sides vary from steep sloping concave to near vertical, eastern side has a sharp mid break of slope leading to a gradual sloping concave side; imperceptible to gradual break of slope at base; shallow concave base; measures 0.95m E-W x 0.55m deep	Refuse pit
210	2	2	deposit	fill	loose; mid pinkish orange; sand; occasional medium fragments of sandstone (>0.16m); measures at least 0.54m N-S x 1.16m E-W x 0.47m thick	Fill of pit [212]
211	2	2	deposit	fill	very soft; black; silt; frequent flecks of charcoal, very occasional small sub-rounded stones (>0.03m); measures at least 0.54m N-S x 1.10m E-W x 0.04m thick	Fill of pit [212]
212	2	2	cut	pit	circular; sharp top break of slope; sides vary from near vertical to gradual sloping undercut; sharp break of slope at base; shallow concave base; measures at least 0.54m N-W x 1.40m E-W x 0.53m deep	Refuse pit
213	2	2	deposit	layer	soft; mid brown; slightly humic sandy silt; measures 1.30m E-W x 0.08m thick	Occupation deposit
215	2	2	deposit	fill	firm; light grey; clayey sandy silt; very occasional medium sub-rounded stones (0.17m); measures 0.30m N-S x 0.24m E-W, thickness not established	Fill of posthole [216]
216	2	2	cut	posthole	circular; sharp top break of slope; sides, break of slope at base and base was not established; measures 0.30m N-S x 0.24m E-W, depth not established	Posthole
218	2	2	deposit	layer	firm; mid grey; silty clay; mottled with a light pinkish brown silty clay, occasional small fragments of coal, very occasional small sub-angular stones (>0.09m); measures at least 1.14m N-S x at least 1.24m E-W x up to 0.15m thick	Surface?
219	2	2	deposit	fill	soft; mid brown; humic sandy silt; measures at least 0.53m E-W x 1.10m N-S x 0.04m thick	Fill of pit [212]
220	2	2	masonry	wall	roughly worked fragments of sandstone measuring (100mm x 100mm x 0.90mm) minimum to (190mm x 100mm x 100mm) maximum; 3 courses; bound with firm; mid grey; clayey silt; measures at least 0.38m N-S x 0.30m E-W x 0.34m high	Stone lining of pit [212]
222	2	2	masonry	surface	roughly worked medium to large fragments of sandstone measuring (120mm x 100mm x 100mm) minimum to (340mm x 180mm x 70mm) maximum; bound with firm; mid grey; clayey silt; measures at least 0.90m N-S x at least 1.10m, thickness was not established	Stone surface
223	2	2	deposit	fill	soft; dark grey; clayey silt; occasional small sub-angular stones, occasional flecks of coal; measures 0.34m N-S x at least 0.24m E-W x 0.10m thick	Fill of feature [224]
224	2	2	cut	cremation	circular; sharp top break of slope; steep sloping concave sides; gradual to sharp break of slope at base; flat base; measures 0.34m N-S x at least 0.24m x 0.10m deep	Cremation burial?
225	2	2	deposit	fill	firm; light yellowish brown; silty clay; two medium sub-round sandstone (<0.24m); measures at least 0.32m N-S x at least 0.72m E-W, thickness not established	Fill of feature [226]
226	2	2	cut	linear	linear; orientated N-S; sharp top break of slope; sides, break of slope at base and base not established; measures at least 0.32m N-S x at least 0.72m E-W, depth was not established	Pit?
227	2	2	deposit	layer	soft; mid grey; clayey silt; frequent flecks of coal, very occasional small fragments of charcoal; measures at least 0.54m N-S x at least 0.90m E-W, thickness not established	Surface?
300	3	8	deposit	surface	hard; light greyish brown; concrete; frequent stone chippings; extends across Trench 3 up to 0.12m thick	Concrete floor
301	3	8	deposit	layer	loose; red brick rubble (80%); within a mid grey sandy silt matrix; frequent small pieces of mortar; extends across Trench 3 up to 0.22m thick	Make-up for concrete floor
302	3	8	deposit	fill	hard; light grey; concrete; measures at least 1.90m NW-SE x 0.30m NE-SW x 0.29m thick	Fill of service trench [303]
303	3	8	cut	service	linear; orientated NW-SE; sharp top break of slope; steep sloping concave sides; gradual break of slope at base; concave base; measures at least 1.90m NW-SE x 0.30m NE-SW x 0.29m deep	Service trench

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Context	Trench	Phase	Type	Type	Description	Interpretation
304	3	3	deposit	layer	soft; mid brownish grey; clayey silt; occasional small flecks of degraded coal, very occasional small to medium sub-angular sandstone (<0.21m), very occasional flecks of CBM; t least 2.86m N-S x at least 1.40m E-W x up to 0.55m thick	Developed soil
305	3	2	masonry	wall	roughly hewn and unworked sandstone blocks measuring (170mm x >100mm x 30mm) minimum to (270mm x >80mm x 50mm) maximum; one course; bound with firm; dark grey; clay silt; measures at least 0.12m N-S x 0.53m E-W x 0.27m high	Wall
306	3	2	cut	construction	linear; sharp top break of slope; vertical sides; sharp break of slope at base; flat base; measures at least 0.12m N-S x 0.53m E-W x 0.27m deep	Construction cut for wall [305]
307	3	2	deposit	layer	soft; mid greyish brown; clayey silt; very occasional flecks of degraded coal, occasional small patches of yellow clay silt, frequent small to medium sub-round and sub-angular stones (>0.18m); measures at least 1.25m N-S x at least 1.97m E-W x up to 0.15m thick	Surface
308	3	2	deposit	layer	soft; light grey; clayey sandy silt; very occasional small sub-round stones; very occasional charcoal flecks, medium sub-angular stones, and small pieces of CBM; measures at least 2.11m N-S x at least 1.15m E-W x up to 0.29m thick	Levelling/ make-up for surface [307]
309	3	2	masonry	surface	roughly hewn and unworked sandstone slabs and blocks measuring (80mm x 80mm x 40mm) minimum to (580mm x 560mm x 50mm) maximum; bound with soft; dark grey; clay silt; measures at least 1.64m N-S x 1.50m E-W x up to 0.20m thick	Stone surface
310	3	2	deposit	layer	soft; mid greyish brown; clayey silt; two small lenses of loose yellow sandy silt; one small lense of charcoal, very occasional small patches of mid brownish orange clayey sandy silt; measures at least 0.45m N-S x at least 1.25m E-W x up to 0.22m thick	Surface
311	3	2	deposit	layer	soft; black; coarse sandy silt; frequent small pieces and flecks of charcoal, very occasional small sub-round stones (>0.05); measures at least 0.33m N-S x at least 1.25m E-W x up to 0.11m thick	Surface
312	3	2	deposit	layer	soft; mid brown; coarse sandy silt; very occasional small sub-round and sub-angular stones (>0.02m); measures at least 0.74m N-S x at least 1.40m E-W, thickness was not established	Surface
313	3	8	deposit	fill	firm; mid greyish brown; clayey silt; frequent small to medium fragments of concrete, salt-glazed ceramic pipe; measures at least 1.38m E-W x 0.18m N-S, thickness was not established	Fill of service trench [314]
314	3	8	cut	service	linear; orientated E-W; sharp top break of slope; sides, break of slope at base and base not established; measures at least 1.38m E-W x 0.18m N-S, depth not established	Service trench
400	4	8	deposit	layer	hard; light greyish brown; concrete; frequent stone chippings; extends across Trench 4, up to 0.05m thick	Concrete floor
401	4	8	deposit	layer	loose; red brick rubble (80%); within a mid grey sandy silt matrix, frequent small to medium pieces of mortar, very occasional medium sub-angular sandstone fragments (>0.25m); extends across Trench 4, up to 0.20m thick	Make-up for concrete floor
402	4	8	deposit	layer	firm; mid greyish brown; clayey silt; very occasional flecks of mortar, frequent small pieces of coal, occasional small sub-round and sub-angular stone (>0.20m); measures at least 1.80m N-S x at least 1.76m E-W x 0.08m thick	Levelling deposit
403	4	5	deposit	fill	friable; dark reddish brown; sandy silt; very occasional flecks of mortar, occasional small pieces of coal and small sub-angular stones (>0.12m), one large angular stone; measures 1.35m N-S x 0.30m thick	Fill of pit [406]
404	4	5	deposit	fill	firm; mid grey to mid greyish brown; clay silt; frequent small stones (>0.10m), very occasional small pieces of coal and small pieces of mortar; 1.53m N-S; 0.40m thick	Fill of pit [406]
405	4	5	deposit	fill	firm; dark grey; clay silt; occasional small pieces of coal, very occasional small sub-round and sub-angular stones (>0.12m), two medium sub-round stones (>0.18m); measures 1.40m N-S x 0.15m thick	Fill of pit [406]
406	4	5	cut	pit	shape in plan was not established; sharp top break of slope; steep sloping concave sides; gradual to sharp break of slope at base; shallow concave base; measures 1.54m N-S x 0.46m deep	Refuse pit

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Context	Trench	Phase	Type	Type	Description	Interpretation
407	4	2	deposit	layer	firm; mid greyish brown; clayey silt; frequent flecks of charcoal and coal and small to large sub-angular stones (<0.25m, 30%); measures at least 1.77m N-S x at least 1.58m E-W x up to 0.50m thick	Rubble dump
408	4	5	deposit	fill	firm; dark grey; silty clay; occasional small angular stones (>0.05m); measures 0.28m N-S x 0.21m thick	Fill of pit [409]
409	4	5	cut	pit	shape in plan was not established; sharp top break of slope; sides vary from steep sloping concave to vertical; gradual break of slope at base; shallow concave base; measures 0.28m N-S x 0.21m deep	Refuse pit
410	4	3	deposit	layer	firm; mid grey; silty clay; frequent flecks of charcoal and coal, occasional large sub-angular stones (>0.30m); measures at least 1.80m N-S x 0.65m E-W x 0.26m thick	Developed soil
411	4	2	deposit	fill	firm; mottled yellowish brown, mid grey, pinkish brown; clay to silty clay; occasional small to medium sub-round and sub-angular stones (>0.17m), very occasional flecks of mortar; measures 0.70m E-W x 0.51m thick	Fill of pit [412]
412	4	2	cut	pit	shape in plan not established; sharp top break of slope; steep sloping sides; gradual break of slope at base; concave base; measures 0.70m E-W x 0.51m deep	Refuse pit
413	4	2	deposit	fill	loose; black; ashy silt; very occasional flecks of mortar; occasional small sub-rounded stones (>0.01m); measures 0.42m E-W x 0.10m thick	Fill of pit [416]
414	4	2	deposit	fill	firm; dark reddish brown; sandy clayey silt; very occasional small to medium sub-rounded stones (>0.08m); measures 0.70m E-W x 0.27m thick	Fill of pit [416]
415	4	2	deposit	fill	friable; black; ashy sandy silt; measures 0.51m E-W x 0.10m thick	Fill of pit [416]
416	4	2	cut	pit	shape in plan not established; sharp top break of slope; sides vary from moderately steep sloping to steep sloping concave; gradual to imperceptible break of slope at base; uneven base; measures 0.70m E-W x 0.40m deep	Refuse pit
417	4	2	deposit	layer	firm; mid pinkish brown; clay; frequent medium to large sub-round stones; measures at least 1.80m N-S x 1.32m E-W x 0.36m thick	Rubble dump
418	4	2	deposit	layer	firm; mid grey; sandy silty clay; very occasional medium round stones (>0.30m); measures at least 0.50m N-S x at least 0.70m E-W x 0.25m thick	Rubble dump
419	4	2	deposit	layer	friable; dark grey; sandy ashy silt; very occasional medium sub-rounded stones (>0.20m); measures at least 1.05m E-W x 0.15m thick	Dump?
420	4	2	deposit	layer	firm; mottled mid pinkish brown and dark grey; clay to clayey silt; frequent small to large sub-rounded and sub-angular stones, flecks of coal and charcoal; measures at least 1.65m x N-S x 1.47m E-W x 0.27m thick	Rubble dump
421	4	2	deposit	layer	firm; mid pinkish brown; clay; occasional small patches of orange brown and brownish yellow clayey silt, frequent medium to large sub-rounded and sub-angular stones (>0.30m); measures at least 1.80m N-S x 1.86m E-W, thickness not established	Rubble dump
422	4	2	deposit	fill	firm; mid yellowish brown; silty clay; occasional small patches of mid grey clayey silt and small to medium sub-rounded stones (>0.24m); measures 0.55m N-S x 0.40m E-W	Fill of pit [423]
423	4	2	cut	pit	shape in plan not established; sharp top break of slope; moderately steep concave sides; gradual break of slope at base; blunt tapered base; measures 0.55m N-S x 0.40m deep	Refuse pit
500	5	8	deposit	layer	hard; light greyish brown; concrete; frequent stone chippings; extends across Trench 5, up to 0.10m thick	Concrete floor
501	5	8	deposit	layer	loose; brick rubble (80%); in a reddish pink crushed brick and mortar matrix; frequent small to medium fragments of mortar, small to medium sandstone fragments (>0.25m); extends across Trench 5, up to 0.15m thick	Make-up for concrete floor
502	5	8	deposit	layer	compact; mid grey; mortar; occasional small fragments of CBM; measures at least 2m N-S x at least 1.90m E-W x up to 0.16m thick	Levelling deposit
503	5	7	deposit	layer	loose; brick rubble (85%) in a greyish white silty mortar matrix; occasional pieces of wood; measures at least 1.20m N-S x at least 1.75m E-W x 0.53m thick	Demolition deposit

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Context	Trench	Phase	Type	Type	Description	Interpretation
504	5	6	masonry	wall	red brick (220mm x 120mm x 80mm) and reused limestone fragments (800mm x 380mm x 150mm); orientated N-S; eight courses; bonded with light greyish white mortar; measures 1.16m N-S x 0.10m E-W x 0.64m high	Brick skin associated with wall [505]
505	5	6	masonry	wall	red brick (220mm x 120mm x 80mm); orientated E-W; bonded with light greyish white mortar; measures at least 0.90m N-S x at least 1.92m E-W x 0.96m high	Brick building
506	5	7	deposit	layer	loose; mid greyish brown; sandy silt; frequent brick and brick fragments (50%), small to medium sub-angular sandstone fragments (>0.29m), and small to medium pieces of mortar; measures at least 1.20m N-S x at least 1.80m E-W x 0.61m thick	Demolition deposit
508	5	6	cut	construction	linear; orientated E-W; sharp top break of slope; sides, break of slope base and base not established; measures at least 0.10m N-S x at least 0.24m E-W, depth not established	Construction cut for wall [505]
509	5	7	deposit	layer	firm; mid orange brown; silty clay; very occasional flecks of charcoal, occasional patches of mortar, small sub-angular stones (>0.03m), small patches of redeposited clay; measures at least 1.12m N-S x at least 1.60m E-W x 0.10m thick	Demolition deposit
510	5	7	deposit	layer	same as [503]	Demolition deposit
511	5	6	deposit	fill	soft; mottled mid orange brown and mid grey; clayey silt; measures at least 0.10m N-S x at least 0.24m E-W, thickness was not established	Fill of construction cut [508]
512	5	6	deposit	layer	soft; dark greyish brown; sandy silt; very occasional flecks of mortar; occasional small sub-angular stones (>0.05m); measures at least 0.36m N-S x at least 0.70m E-W x 0.01m thick	Construction deposit
513	5	1	deposit	layer	firm; mid orange brown; clay; very occasional small rounded stones (>0.02m); measures at least 0.40m N-S x at least 0.20m E-W, thickness not established	Natural boulder clay
514	5	6	masonry	wall	red brick (220mm x 120mm x 80mm); orientated E-W; one course; bonded with light grey mortar; measures 0.12m N-S x at least 0.66m E-W x 0.08m high	Brick skin at base of wall [505]
600	6	8	deposit	layer	hard; light greyish brown; concrete; frequent stone chippings; extends across Trench 6 up to 0.04m thick	Concrete floor
601	6	8	deposit	layer	loose; light greyish white; mortar; frequent red brick fragments (30%); extends across Trench 6, up to 0.22m thick	Make-up for concrete floor
603	6	7	deposit	layer	firm; dark grey; clayey silt; very occasional small fragments off coal, flecks of charcoal, flecks of CBM, small fragments of sandstone; measures at least 2.90m N-S x at least 1.40m E-W x 0.08m thick	Demolition deposit
604	6	6	masonry	surface	flagstones (600mm x 440mm x 60mm) maximum; bound with firm, dark grey, clayey silt; measures at least 2.84m NE-SW x at least 1.24m NW-SE x 0.07m thick	Flagstone surface
605	6	6	masonry	wall	red brick (260mm x 120mm x 70mm); orientated NE-SW; at least four courses of header and stretcher bond; bound with light, greyish white mortar; measures at least 2.84m NE-SW x 0.40m NW-SE x at least 0.40m high	Brick building
606	6	6	deposit	fill	firm; mid greyish brown; clayey silt; very occasional small fragments of sandstone (>0.10m), occasional flecks of CBM and mortar; measures at least 1.12m NE-SW x at least 0.19m NW-SE x at least 0.20m thick	Fill of construction cut [607]
607	6	6	cut	construction	linear; orientated NE-SW; sharp top break of slope; steep sloping sides; break of slope at base and base not established; measures at least 1.12m NE-SW x at least 0.19m NW-SE x at least 0.20m deep	Construction cut for wall [605]
608	6	3	deposit	layer	firm; mid grey; clayey silt; occasional small fragments of sandstone, very occasional small fragments of coal; measures at least 1.10m N-S x at least 1.10m E-W x 0.27m thick	Developed soil
609	6	2	deposit	layer	soft; light greyish brown; clayey silt; occasional small to medium fragments of sandstone; very occasional flecks of CBM; measures at least 1.10m N-S x at least 1.10m E-W x 0.15m thick	Developed soil
610	6	1	deposit	layer	firm; mid brownish pink; clayey silt; measures at least 1.10m N-S x at least 1.10m E-W, thickness not established	Natural boulder clay

APPENDIX C
ROMAN POTTERY, BRICK AND TILE

ROMAN POTTERY, BRICK AND TILE

By: *T.S. Martin*

Introduction

The evaluation produced 70 sherds of Roman pottery weighing 4.1kg. This material came from Trenches 1-4, with Trenches 5 and 6 producing no pottery at all. Pottery was recovered from 10 contexts. The pottery was primarily analysed to provide dating evidence for feature-fills and layers. Fabrics were classified, where possible, with reference to the National Fabric Reference Collection (Tomber and Dore 1998). Forms were classified using Gillam's (1968) northern form typology. The pottery recording was carried out with reference to the Guidelines issued by the Study Group for Roman Pottery (Darling 1994). Quantification was by sherd count and weight.

Results

Taken as a group, the pottery could be fitted into a 2nd to 4th century date range, although all of the material that is likely to be 4th century in date was unstratified. Using sherd count as a rough index of dating reliability, there were no large or medium-sized groups. The largest groups comprised just 10 sherds. These were recovered from contexts [104] and [421]. As dating evidence, the pottery provides few dates for feature-fills, but is most useful for layers (see Table 1 for a list of spot-dates).

Context	Sherd Count	Wt. (gms)	Dating
103	1	92	Roman with some medieval
104	10	211	Late 2nd to mid-3rd century with some medieval
105	1	48	Later 1st to mid-3rd century
222	2	231	c.150-230
223	6	322	?2nd to 3rd century
307	1	16	Roman
308	1	5	Roman
309	1	94	Hadrianic to Antonine
420	2	25	c.180-280
421	10	1738	?3rd century

Table 1: List of spot-dates in context number order (N.B. all dates are AD)

Of the ten contexts that produced pottery, five produced dating evidence based on vessel form. These comprised contexts [104], [222], [309], [420], and [421]. Of these, rubble deposit [104], in Trench 1, also produced some sherds of medieval date, suggesting that if this was a Roman road surface it had been disturbed by later activity. The only context in Trench 1 to produce exclusively Roman material was another rubble deposit, [105]. However, it produced a small sherd from a South Spanish Dressel 20 type amphora (Peacock and Williams 1986, Class 25), which can only be assigned a broad late 1st to 3rd century date range.

In Trench 2, two contexts produced pottery. These comprised surface [222], which contained a Gillam 255 mortarium datable to the period c. AD 150-230, and possible cremation burial [224]. The fill of this feature, [223], produced two jar rims, neither of which are closely datable.

Trench 3 produced just two sherds, both of which cannot be closely dated. These came from [307], a surface and [308], a make-up layer.

Trench 4 produced the largest amount of pottery, although the bulk of it was unstratified. The earliest phase of Roman occupation, comprising deposit [421], produced a small amount of pottery mainly comprising sherds of a Dressel 20 type amphora. Also present was the rim of a mortarium reminiscent of Oxfordshire type M22 (Young 1977). The presence of Crambeck grey ware sherds albeit unstratified, pushes the chronology of the site into the 4th century. Context [420], a demolition layer, produced some BB2 suggesting a late 2nd or 3rd century date.

In terms of the range of fabrics and forms present, there were few surprises, with Dressel 20 type amphora sherds being strongly represented. These comprised 19 sherds weighing 2.9kg. Of the grey wares, only a small number of unstratified Crambeck products could be assigned to a specific source. All of the other sherds are presumably locally made. Several sherds of BB2 were also present, although BB1 was absent. The most notable vessel was the Gillam 255 mortarium. These were probably produced in Gallica-Belgica and have been identified at a number of sites in the region including South Shields (cf. Gillam and Dore 1979, fig. 46.377; Dore 1983 fig. 34.326), Corbridge (Gillam 1968, type 255), and Carlisle (Harley 1990, fig. 193.85) so their presence at Newcastle is to be expected.

Recommendations

As it stands, little further work is required on this assemblage. Only the imported mortarium from context [222] and the other mortarium in context [421] are worth illustrating, otherwise only a brief summary would be required for inclusion in any publication report.

The Brick and Tile

The investigations produced a small tile assemblage amounting to 16 fragments weighing 1.5kg. Of this, three fragments weighing 0.2kg were unstratified. Quantification was by fragment count and weight. The bulk of the tile came from Trench 3, which produced seven stratified fragments in contexts [307] and [308]. The next largest amount of material came from Trench 1. This material came from context [104] and amounted to five fragments weighing 0.2kg. Most of the identifiable tile comprised *tegula* fragments with flanges being particularly well represented. The only *imbrex* fragment was unstratified. No further work is required on this assemblage.

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**APPENDIX D
SAMIAN WARE**

SAMIAN WARE

By: James Gerrard and T.S. Martin

Nine sherds of samian were recovered in a variety of states. All of the material probably originated from kilns in Central Gaul (Lezoux), although in some cases the small and abraded nature of the pottery makes certain identification to source problematic. The longevity of samian in use is well known and these spot dates should accordingly be used with caution when dating the site.

Unstratified

1 sherd, 17g. Abraded sherd. Possibly Central Gaulish AD120-250.

Context [104]

1 sherd, 1g. An abraded fragment. Possibly Central Gaulish. AD120-250.

Context [219]

1 sherd, 1g. Fresh fragment. Possibly Central Gaulish. AD120-250.

Context [308]

1 sherd, 7g. Fresh rim sherd from a Dr 33 cup. Probably a Lezoux (Central Gaulish) fabric. NRFRC code LEZ SA2. AD120-200.

Context [309]

1 sherd. Large Central Gaulish f37 bowl, probably of Hadrianic to early Antonine date. However, the sherd had been burnt and the presence of a rivet hole suggests that the piece had been repaired in antiquity. This indicates that the vessel is much older than the context from which it came.

Context [417]

1 sherd, 29g. Fresh base from a ?Dr 18/31 plate/bowl. Probably Lezoux Central Gaulish product. NRFRC code LEZ SA2. AD120-150.

Context [410]

1 sherd, 4g. A small but fresh rim form a Dr 18/31 plate / bowl. Probably Lezoux Central Gaulish product. NRFRC code LEZ SA2. AD120-150.

Context [420]

1 sherd, 2g. An abraded lump. Possibly Central Gaulish. AD120-250.

Context [609]

1 sherd, 5g. Slightly abraded. Possibly Central Gaulish AD120-250.

**APPENDIX E
SMALL FINDS**

SMALL FINDS

By: *Philippa Walton*

Introduction

A total of nine objects, or multiple fragments thereof, were retrieved from the excavations and recorded under seven small find numbers. The assessment has involved basic identification of the object materials and type and a consideration of those warranting further research at the analysis stage. The assessment has identified no objects requiring further research.

(abbreviation in tables as follows: NFW = No further work)

Copper alloy objects

SF 1 is a coin, known as a radiate, dating to the period AD 260 to c. AD 300. Unfortunately, the coin is too worn to attribute to a particular emperor.

SF 2 comprises a solid strip of copper alloy which may possibly be identified as an ingot. However, the object has no diagnostic features and therefore remains undated.

SF No	Context No	Description	Date	FW?
1	Unstrat	Radiate	AD 260-300	NFW
2	407	Ingot	undiagnostic	NFW

Lead objects

SF 5 is a lead spindle whorl. Similar spindle whorls are known in contexts dating from the Roman to the post medieval periods.

SF No.	Context	Identification	Date	FW?
5	207	Spindle whorl	Roman – Post med.	NFW

Bone objects

SF 4 is a fragment of a hairpin of a type probably dating to the mid Roman period. There are similarities in design with copper alloy examples from the river deposit at Piercebridge, County Durham (Walton, forthcoming) and it is likely that they represent a northern type.

SF No.	Context	Identification	Date	FW?
4	Unstrat	Hair pin	2nd -3rd century AD	NFW

Iron objects

SF 3, although very corroded, may be identified as a chisel and could well be Roman in date.

SF No.	Context	Identification	Date	FW?
3	407	Chisel	Roman?	NFW
6	207	3 x nail stems	Undiagnostic	NFW
8	609	Nail stem	Undiagnostic	NFW

Discussion

Detailed discussion and interpretation of the small finds assemblage is impossible due to its small size and it is unfortunate that the two securely datable objects, SF 1 and SF 4, were unstratified. However, the assemblage does accord well with the archaeological remains which attest to Roman occupation at the site, particularly in the 2nd and 3rd centuries AD.

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APPENDIX F
MEDIEVAL POTTERY

MEDIEVAL POTTERY

By: *Jenny Vaughan*

A small group of eighteen sherds was identified as medieval pottery and submitted for assessment. Only fourteen of these could be confidently identified as medieval, the date range being broadly mid 12th to mid 14th century.

Two sherds of Dog Bank ware, the iron rich type 2, came from Trench 2. These can be dated to the 12th century, or indeed earlier but this type of pottery appears to have gone out of production by the beginning of the 13th century. Fragments from Trench 1 were less closely dateable. The unstratified material from Trench 4 included some possible early 14th century sherds.

Context	Fabric	No.	Wt.	Comments	Date
103	buff	1	14	Greyish buff with light grey core, ill sorted inclusions though most are less than 1mm.	12th/13th c.
103	gritty	1	10	Light red/reddish yellow surfaces with paler (buff) margins and grey core. Moderate ill sorted inclusions, some a red ferrous grits, giving a pimply surface.	12th/13th c.
103	grey	1	2	Unidentified.	?
104	pink sandy	1	13	External surface has incised wavy and straight line decoration. Ext margin is light grey, so presumably surface was glazed but this has worn completely away.	13th c.
104	buff grey	1	6	Sooted	12th/13th c.
200	buff gritty	1	9	Sooted.	12th/13th c.
202	Dog Bank 2	1	26	Flat fragment from a base.	12th c.
203	Dog Bank 2	1	9	Sooted	12th c.
207	red stoneware	1	22	Part of small bowl shaped ves. Vitrified fabric. Does not look medieval.	?
400	bw	1	5	Small chip of buff white ware base	later 13th/14th c.
400	ox/rir	1	19	Thick dark grey with oxidised ext margin and surface. Traces of gl. May be from rg vessel.	13th/14th c.
400	early glazed	1	4	-	13th c.
400	rg	1	9	With fine ridging round.	13th/14th c.
400	orange bw	1	42	Bit from base - orange-buff white ware. Some sooting both int and ext.	13th/14th c.
400	white	2	5	Two small fragments from glazed vessel. Quite gritty fabric.	med
400	?	1	3	Thin mid grey fine fabric with red ext margin and white slipped surface. Unidentified.	?
609	grey	1	41	Unidentified.	?

Abbreviations:

ox/rir	A partly oxidised iron rich fabric
bw	Tyneside type buff white ware
orange bw	A slightly more iron rich variant of bw
rg	Reduced green glazed ware
ves	Vessel
ext	External

APPENDIX G
POST-MEDIEVAL BUILDING MATERIALS

POST-MEDIEVAL BUILDING MATERIALS

By: *Jenny Vaughan*

An assemblage of building materials, comprising pantiles and plaster, was recovered from context [506] in Trench 5.

The pantiles are probably 18th to early 19th century, the plaster the same general date. Perhaps both are from a building demolished when the railway viaduct was built.

Ten light red pantile fragments:

- Four large joining pieces, incomplete but all dimensions measurable: 247mm wide x 365mm long x 14mm thick. Wiped upper surface and sanded underside with sooting. No fixing hole.
- One fragment, 14mm thick with wiped upper surface and sanded underside, with traces of sooting and mortar flashing.
- One fragment, 12mm thick, surfaces as above.
- One fragment, 16mm thick, surfaces as above.
- One large fragment, 247mm wide x 15mm thick, surfaces as above. Traces of overlap of adjoining tile.
- Two flakes with mortar adhering.

Three fragments of plaster:

- One fragment of cornice, ogee moulding over dentillations. There are traces of lime wash on the surface and the impression of laths on the underside.
- One fragment of ceiling/wall plaster with lime washed surface and impressions of laths as above.
- One small fragment of surface skim.

APPENDIX H
BIOLOGICAL REMAINS

BIOLOGICAL REMAINS

By: Alexandra Schmidl, Deborah Jaques, John Carrott and Alex Beacock (PRS)

Introduction

Three sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) and a very small quantity of hand-collected bone recovered from the investigations were submitted to Palaeoecology Research Services Limited (PRS), County Durham, for an evaluation of their bioarchaeological potential.

Methods

Sediment samples

The sediment samples were inspected in the laboratory and their lithologies recorded, using a standard *pro forma*, prior to the processing of sub-samples, broadly following the procedures of Kenward *et al.* (1980; 1986), for the recovery of plant and invertebrate macrofossils. The sub-samples were disaggregated in water before processing and their volume recorded in a waterlogged state.

Plant and invertebrate remains in the processed sub-sample fractions (residues, washovers and flot) were recorded briefly by 'scanning' using a low-power microscope, identifiable taxa and other biological and artefactual components being listed on paper. Two of the residues were largely mineral in nature and were dried and weighed before being recorded, the third was recorded wet.

During recording, the presence of biological remains suitable for submission for radiocarbon dating was considered.

Some small organic lumps (possibly faecal concretions) in the residue from one of the processed sub-samples (Sample 2/T, Context 204) were examined using the 'squash' technique of Dainton (1992). This was undertaken to assess the content of eggs of intestinal parasitic nematodes, but routinely reveals other microfossils, such as pollen/spores and diatoms, and, where present, these were also noted. The evaluation slide was scanned at 150x magnification with 600x used where necessary.

Nomenclature for plant species follows Stace (1997) and insects follow Kloet and Hincks (1964-77). Charcoal identifications follow Schoch *et al.* (2004) and the identifications of fungal spores reference van Geel *et al.* (2003).

Hand-collected vertebrate remains

For the hand-collected vertebrate remains records were made concerning the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted, where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones, which could not be identified to species, were described as the 'unidentified' fraction. Within this fraction fragments were grouped into a number of categories: large mammal (assumed to be cattle, horse or large cervid) and totally unidentifiable.

Results

Sediment samples

The results are presented in context number order by trench. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers.

Context [103] [Trench 1; Post-Roman developed soil]

Sample 1/T (2 kg/2 litres sieved to 300 microns with washover; approximately 5 litres of unprocessed sediment remain)

Just moist, light to mid brown to mid to dark grey-brown (with some mid orange areas), brittle to crumbly (working soft), moderately stony (large stones of over 60 mm were common and some of 20 to 60 mm were present), slightly sandy clay silt, with some coal and cinder/ash present.

The large washover (~125 ml) was mostly of slag/cinder and undisaggregated sediment lumps and was dried for closer inspection. Identifiable botanical remains were restricted to one charred grain of oat (*Avena*) and one charred grain fragment of wheat (*Triticum*). No invertebrate remains were recorded.

The fairly small residue (dry weight 0.39 kg) was of stones (to 63 mm), coal (to 27 mm, but mostly as very small fragments and not sorted), cinder (to 26 mm; 19 g of larger pieces separated) and pottery (to 40 mm; 19 g). There were also three fragments of unidentified bone (to 6 mm; <1 g) and iron (to 10 mm; <1 g).

Context [204] [Trench 2; Roman occupation layer]

Sample 2/T (2 kg/2 litres sieved to 300 microns with paraffin flotation; approximately 4 litres of unprocessed sediment remain)

Moist, mid grey to mid to dark grey-brown (with some patches of orange and orange-brown), crumbly (working soft; with some parts initially brittle), slightly ?humic, slightly clay silt, with stones (2 to 60 mm), ?twigs and ?bone fragments present.

The tiny flot (1-2 ml, stored wet in alcohol) was largely composed of plant detritus, including decayed wood (to 15 mm), some fragments of twig (to 6 mm) and unidentifiable plant fibres, with a little sand. The identifiable remains within the plant assemblage were mostly of well preserved (by waterlogging) seeds and fruits of wild species of waste ground and wet places, with the former predominant. The most abundant taxa were common nettle (*Urtica dioica* L.) and orache/goosefoot (*Atriplex/Chenopodium*). There were also smaller numbers of remains of chickweed (*Stellaria media* (L.) Vill.), dock (*Rumex*), henbane (*Hyoscyamus niger* L.), nipplewort (*Lapsana communis* L.) and red/bladder campion (*Silene dioica* (L.) Clairv./*S. vulgaris* Garcke). In addition, other wild plant species such as rush (*Juncus*), crowfoot (*Ranunculus* subg. *Batrachium*) and meadow/creeping buttercup (*Ranunculus acris* L./*R. repens* L.) were represented, all typically found in wet places (e.g. marshy fields). Remains of blackberry (*Rubus fruticosus* L. agg.) and hazel (*Corylus avellana* L.) probably derived from hedges in the vicinity of this feature. There was also a single charred oat grain.

The flot also contained a small invertebrate assemblage. Most of the individual remains were of mites (Acarina), of which there were more than one hundred, in varying states of preservation and representing at least three forms. Cladoceran (water flea, including *Daphnia*) ephippia (resting eggs) and earthworm egg capsules were also quite numerous and there were a few ant (Formicidae) heads. Beetle remains were relatively few and also rather variably preserved, with chemical erosion ranging from light to rather severe but fragmentation being, in general, low. Perhaps a dozen species were represented, with identifiable remains including a head, elytron (wing case) and pronotum of *Aglenus brunneus* (Gyllenhal), heads and wing cases of a few Carabidae (ground beetles), a *Stenus* sp. elytron and a heavily eroded ?*Cercyon/Megasternum* pronotum.

The small residue (250 ml, kept wet) was mostly sand and stones (to 80 mm), with waterlogged wood fragments (to 30 mm) and some 'lumps' of organic material (?faecal concretions to 10 mm), but there were also traces of slag/cinder (to 5 mm), coal (to 5 mm) and charcoal fragments (to 10 mm). Some larger pieces of charcoal could be identified as oak (*Quercus*) and alder/birch/hazel (*Alnus/Betula/Corylus*). Again, waterlogged fruits and seeds representing a group of taxa typical of waste ground, wet places and hedges (e.g. dock, hazel, henbane, meadow/creeping buttercup, orache/goosefoot) were present. Food remains were limited to one poorly preserved unidentified cereal grain and two charred fragments of hazelnut shell. There were also nine fragments of bone (to 40 mm; 2 g) recovered from this sample, one of which was burnt. Several bones appeared to be acid-etched, including two small second phalange fragments which probably represented a young caprovid. None of the other fragments could be identified.

A microfossil 'squash' sub-sample was taken from the organic lumps in the residue and found to consist mostly of organic detritus, with a little inorganic content. The most abundant microfossils were fungal spores from various taxa including *Chaetomium*-type, *Cercophora*-type, *Sordaria*-type and *Sporormiella*-type. In addition, there were a few pollen grains and diatoms (of at least three forms) and a single very well preserved large whipworm (*Trichuris*) egg.

Context [207] [Trench 2; ?Make-up layer for cobble surface [206] or a developed soil, either of Roman date]

Sample 3/T (2 kg/2 litres sieved to 300 microns with washover; approximately 4 litres of unprocessed sediment remain)

Mosit, mid grey-brown to mid grey (with some flecks of light to mid orange), crumbly and slightly sticky (working soft, slightly sticky and somewhat plastic), very slightly sandy, clay silt (to silty clay), with stones (20 to 60 mm), coal and ?cinder/ash present.

There was a large washover (~125 ml, subsequently dried for examination) of coal (to 20 mm) and slag/cinder (to 20 mm), with a few undisaggregated sediment lumps and moderately well preserved charred cereal grains. Some of the last could be identified as naked wheat (*Triticum aestivum* L./*T. durum* Desf./*T. turgidum* L.) and oat. In addition, one caryopsis of brome (*Bromus*) was present – probably representing a crop weed in this context – and there was one waterlogged seed of orache/goosefoot (probably a modern contaminant). No invertebrate remains were present.

The rather small residue (dry weight 0.23 kg) was mostly of sand, stones (to 11 mm), coal (to 20 mm; 51 g) and cinder (to 26 mm; 20 g), with some slag (to 30 mm; 5 g) and traces of brick/tile (to 14 mm; 1 g) and bone (to 12 mm; 1 g). The last comprised four unidentified fragments, three of which were burnt. Identifiable botanical remains were restricted to a single charred grain of naked wheat.

Hand-collected Vertebrate Remains

Five fragments of bone were recovered from five deposits, representing three of the six trenches. Preservation of most of the fragments was rather poor, although two burnt bones from Contexts [223] and [308] were fairly robust and far less battered in appearance than the other remains. Both of the burnt fragments were white in colour, suggesting that they had been burnt at high temperatures or had been subjected to prolonged exposure to the heat source. Neither of these fragments could be identified and it was not possible to tell whether the fragment from Context [223] (a possible cremation) was human or animal in origin.

Remains of other species identified included a cattle proximal radius fragment from Context [104] (Trench 1) and a pig tibia shaft (with unfused distal articulation) from Context [308] (Trench 3).

Discussion and Statement of Potential

Ancient biological remains recovered from two of the processed sub-samples, Contexts [103] and [207], were restricted to small amounts of charcoal and a few charred cereal grains. The cereals included naked wheat and oat and indicated food waste and human activity at the site, but were too few to be of any further interpretative value. However, Context [204] produced numerous well preserved waterlogged plant remains of taxa of waste ground, wet places and hedges, and there were also some well preserved invertebrate macrofossils and identifiable microfossil remains present.

Taken as a whole, the plant and invertebrate taxa from Context [204] reflected the local ecology prevailing at the time of deposition (see above). The area seems to have been periodically inundated with freshwater (as shown by the presence of the wet ground plant taxa), but this was very likely subject to significant reductions (and probably complete drying out), perhaps seasonally, as suggested by the larger presence of plants of waste ground and the numbers of cladoceran ephippia (which are produced in response to environmental stress such as the over-crowding/ reduction in water quality caused by drying out of non-permanent bodies of water or pollution). Other indicators of a fluctuating water level (post-deposition) were present in the form of earthworm egg capsules and ants, both of which could only invade the deposit whilst it was unsaturated. This would also explain the variable nature of the preservation of the invertebrate remains.

The single very well preserved *Trichuris* egg recorded from the organic concretions from the residue of the sub-sample from Context 204 indicated that a 'background' level of faecal material was present in this deposit (though it was clearly not primarily faecal). Spot measurements of the egg showed it to be approximately 65 µm x 39 µm; too large for an egg of the human or pig parasite and more likely from a whipworm of caprovids or cattle. The far more numerous records of spores from various coprophilous fungi can also be seen as an indication of the presence of dung from grazing animals (van Geel *et al.* 2003).

Each of the deposits could provide sufficient suitable material (*e.g.* cereal grains, hazel nutshell) for radiocarbon dating (via accelerator mass spectrometry), if required.

The very few fragments of bone recovered (both by hand-collection and from the samples) were of no interpretative value.

Recommendations

Full analysis of the plant and invertebrate macrofossil assemblages from Context [204], together with further study of the microfossil content of this deposit would allow a more detailed interpretation. If possible, all of the remaining sediment should be processed to maximise the size of the assemblages available.

The vertebrate remains warrant no further consideration. Although very few fragments of bone were recovered, this is likely to be due to the limited amount of excavation possible within the remit of the Specification for the evaluation. The potential for the recovery of a larger more useful assemblage in the event of further excavation may be higher. The possibility of encountering further deposits with good organic preservation, such as that seen here in Context [204], should be considered by any future interventions at this site.

Retention and Disposal

All of the remaining sediment from Context [204] and the biological remains recovered from the evaluation sub-samples should be retained for the present. All of the other material considered by this report may be discarded.

Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here.

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**APPENDIX I
PLATES**



Plate 1. Trench 1, west facing section (*1m scale*).



Plate 2. Trench 2, south facing section (*1m scale*).



Plate 3. Trench 3, south facing section and stone surface [309] (*1m scale*).



Plate 4. Trench 4, east facing section and cobble surface [421] (*1m scale*).



Plate 5. Trench 5, south facing elevation of wall [505] (1m scale).



Plate 6. Trench 6, stone surface [604] looking north (0.5m scale).