

St. Bede's Catholic School, Long Cross, Bristol

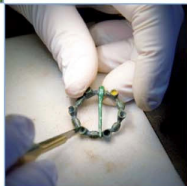
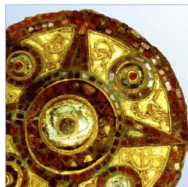
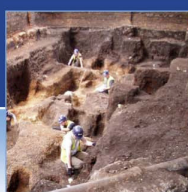
An Archaeological Post-Excavation Assessment Report

Planning Application Number: 08 / 23269 / F
National Grid Reference Number: ST 54370 78740

AOC Project No: 30351

Site Code: BRSMG: 2008/77

Date: June 2010



ARCHAEOLOGY

HERITAGE

CONSERVATION

St. Bede's Catholic School, Long Cross, Bristol

An Archaeological Post-Excavation Assessment Report

On Behalf of: **Skanska Construction**
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National Grid Reference (NGR): **ST 5437 7874**

AOC Project No: **30501**

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Date of Evaluation/Excavation: **October 2008 to July 2009**

Date of Report: **March 2010**

This document has been prepared in accordance with AOC standard operating procedures.

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Draft/Final Report Stage: Final	Date: June 2010

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Non-Technical Summary

Between the October 2008 and July 2009 a programme of archaeological evaluation and excavation was undertaken by AOC Archaeology Group at St. Bede's School, Long Cross, Bristol, National Grid Reference (NGR) ST 5437 7874 on behalf of Skanska Construction. The work was carried out ahead of the proposed construction of a new design technology and science block, sports hall extension and a new all-weather pitch.

The earliest phase of activity identified on site occurred during the Mesolithic period, represented by a small assemblage of residual flints, suggestive of sporadic activity during this period. Evidence for later activity was present in the form of a sequence of Late Iron Age to Early Roman roundhouses, replaced by a large enclosure ditch. After a hiatus, activity on site resumed in the 3rd to 4th century primarily represented by a sequence of boundary ditches forming part of a larger field system. This, in turn, was also replaced by a large enclosure ditch. In addition to the field system was a contemporary metalled trackway, constructed from a large volume of metalworking waste. The only activity to be subsequently identified was a small number of walls and ditches spread extensively across the site, thought to be associated with the 17th to 19th century exploitation of this part of the landscape.

This report presents an assessment of the archaeological investigations undertaken at the St. Bede's School site, summarising the stratigraphical sequence of archaeological remains, and describes the work undertaken on the archive. The principle objective of this report is to refine the research objectives of the project in light of the findings, assess the potential of the archive to address these research objectives, and create an updated project design.

As a whole, the site is thought to be of local to regional significance, this is due to the nature of the evidence being able to inform on the Late Iron Age and Romano-British utilisation of the immediate landscape for both settlement and agriculture.

1 Introduction

1.1 The Site

- 1.1.1 The St. Bede's Catholic School development is located on Long Cross Road, Shirehampton, Bristol. The proposed development is centred on National Grid Reference (NGR) ST 5437 7874 (Figures 1, 2 and 3). The site is irregularly shaped in plan and is bounded by Long Cross and residential properties to the south, Lawrence Western Road to the east, and drainage channels to the north and west. The area affected by the development covers a total area of approximately 14.9ha.

1.2 The Scope of the Project

- 1.2.1 This document aims to summarise the results of the archaeological evaluation and excavation, conducted by AOC Archaeology Group, at the St. Bede's Catholic School, Shirehampton, Bristol, on behalf of Skanska Construction.
- 1.2.2 The site work was allocated the site code BRSMG: 2008/77. The research aims outlined prior to fieldwork are discussed with reference to the results and the further work to enable full interpretation and dissemination. Quantification of the resources needed to fulfil this work has been undertaken in the light of the revised research objectives.

1.3 Planning Background

- 1.3.1 The local planning authority is Bristol City Council. Archaeology advice to the council is provided by Peter Insole, the Archaeological Officer to Bristol City Council. The site does not lie within an Area of Archaeological Significance Priority Zone or a Conservation Area.
- 1.3.2 A planning application for the redevelopment of the school was submitted by Skanska Construction (Application No.: 08/23269/F). The development entails the construction of a new design technology and science block, an extension to the sports hall and a new all-weather pitch as part of a larger programme of redevelopment at the school.
- 1.3.3 In accordance with Planning Policy Guidance: Archaeology and Planning (PPG 16) issued by the Department of the Environment in 1990 (DoE, 1990) and the recommendations of the Archaeological Officer to Bristol City Council, a condition on planning consent requires an archaeological investigation be carried out, initially in the form of an archaeological desk based assessment (AOC 2007), followed by archaeological fieldwork in order to record any archaeological deposits and features exposed.
- 1.3.4 The programme of archaeological investigation at St. Bede's School consisted of multiple phases of investigation, incorporating evaluation, geophysical survey and excavation. The first phase of archaeological evaluation took place between 27th and 30th October 2008, with the second phase evaluation occurring between 24th and 27th April 2009. The third phase archaeological evaluation and associated geophysical survey was undertaken between 7th and 22nd May 2009, with the archaeological excavation taking place between 8th June and 10th July 2009. The methodology of each phase of fieldwork was guided by a Written Scheme of Investigation (WSI) (AOC 2008a, 2008b and 2009). All WSIs were approved by the Archaeological Officer to Bristol City Council prior to the commencement of fieldwork.
- 1.3.5 This assessment report conforms to the requirements of Planning Policy Guidance: Archaeology and Planning (DoE 1990) (PPG16). It has been designed in accordance with current best archaeological practice and local and national standards and guidelines:

- English Heritage – Management of Archaeological Projects (EH 1991).
- Institute for Archaeologists – Standard and Guidance for Archaeological Field Evaluations (IfA 2008a).
- Institute for Archaeologists – Standard and Guidance for Archaeological Excavations (IfA 2008b).
- Institute for Archaeologists – Code of Conduct (IfA 2009).

2 Archaeological and Historical Background

The following information is drawn from the desk-based assessment (AOC 2007).

2.1 Prehistoric (500,000BC – c. AD43)

- 2.1.1 Settlement is known from the Avon region in the prehistoric period, with several early prehistoric flint artefacts recorded in Bristol. No find-spots are recorded within the immediate vicinity of the site, although a Neolithic flint axe was reported during excavations at the school in 1982 (Parker 1984).
- 2.1.2 Bronze Age activity is also known in the region with a finds hoard at Kings Weston Down and a barrow at Blaise Castle. Iron Age activity is evidenced nearby with Iron Age forts at Blaise Castle and Kings Weston Down and a late Iron Age settlement at Hallen, 1.2km north of the site. Iron Age pottery fragments were uncovered during the 1982 excavation of the school (Parker 1984), although no evidence of settlement was present.

2.2 Romano-British (c. AD43 – 410)

- 2.2.1 Settlement in the area continued into the Roman period, with Roman activity noted at Blaise Castle and a Roman Villa at Kings Weston.
- 2.2.2 The 1982 excavations at St Bede's Catholic School identified Roman settlement and burial activity from the 1st – 4th century AD, including V-shaped enclosure ditches, an un-mortared stone wall, an oven, occupation layers and a cobbled surface (Parker 1984). The excavations took place immediately west of the of the present school buildings.
- 2.2.3 Excavations at the nearby Henbury School revealed evidence for a Roman settlement and cemetery. Also nearby are two sites of antiquity; the first labelled as a "Roman Pavement" from the 1888 OS Map, the second labelled as a "Roman Road" on the 1920-21 OS map.
- 2.2.4 Several find-spots of Roman dated material are recorded in the immediate vicinity:
- Large quantity of 4th century pottery southeast of the site in the Long Cross area
 - Light masonry, 3rd and 4th century pottery to the south of the Long Cross area
 - Roman pottery found north of Style Acres to the south of the site
 - A possible Roman bank at Atwood Drive c. 200m to the northeast.

2.3 Anglo-Saxon (410 - 1066)

- 2.3.1 Little is known from Saxon Bristol as it lacks its own entry in the Domesday Book. The settlement is known to have grown to the south of the Roman settlement of Sea Mills between the Avon and Frome rivers.

2.3.2 The settlement later developed with a ditch and rampart in the 8th century, with the fortifications increasing in scale in response to the Danish threat in the east.

2.3.3 No major form of Saxon activity is known from the Lawrence Weston area surrounding the development site, and it is likely that it was a sub-manor of the larger nearby settlement of Henbury.

2.4 Medieval (1066 – 1485)

2.4.1 The settlement at Bristol continued into the medieval period, with the earlier ditch and rampart being replaced by stone fortifications in the Norman period. The town grew through trade to become one of the most prominent towns in England, and its growth continued into the post-medieval period with its important maritime ship building industry.

2.4.2 In the Lawrence Weston area two sites are recorded from this period. At Deering Close, southeast of the development site there is evidence of earthworks including a house platform. During excavations 13th century pottery and a pilgrims badge were recovered.

2.4.3 The second site is the Ancient Scheduled Monument of Mere Bank, a series of flood defences that are believed to be medieval in date.

2.4.4 These sites indicate some form of medieval settlement activity in the area, although no evidence of medieval activity is known from the site itself.

2.5 Post-Medieval to Modern (1485 – 1900)

2.5.1 The city developed during the 19th and 20th centuries to cover a wider area, although by the 19th century the port began to decline.

2.5.2 The Lawrence Weston area continued as a relatively small hamlet until the post Second World War boom. This is shown in maps from 1888 onwards, with the majority of the site being predominantly farmland. Two small farmhouses labelled Spring Farm and Spring Cottage with later ancillary buildings were the only development on the site until the creation of the Lawrence Weston residential area in the 1950's and the construction of the school in the 1960's.

2.6 Previous Archaeological Investigation

2.6.1 Three archaeological investigations have been conducted within the current development. In 1982 an excavation found evidence of Roman settlement and a Neolithic hand axe (Parker 1984) (as previously detailed). In 2003 a watching brief was carried out by Avon Archaeological Unit (Ducker 2003) which revealed some post-medieval artefacts. During 2005 a further watching brief was carried out by Bristol and Region Archaeological Services (Davis 2005), but no archaeological finds or features were present.

3 Geology and Topography

3.1 Terra Firma (Wales) Ltd conducted a geo-technical and geo-environmental assessment on the site on behalf of Skanska Integrated Projects. Their report (Terra Firma 2007) concluded:

- The underlying geology is formed from rocks of the Mercia Mudstone Group
- The northern half of the site is underlain by superficial fluvial tidal flat deposits, comprising organic-rich clay and silt.

- The central eastern area of the site is underlain by superficial head deposits, which may comprise poorly stratified clay, silt or sand and gravel.
 - To the south of the site no superficial deposits were present, although deposits of weathered bedrock are to be expected.
 - In areas beneath the current school campus made ground is to be expected.
- 3.2 The site lies between 8.00 and 10.00m OD with the site rising to the south towards King Weston Hill and Blaise Castle.
- 3.3 A 1982 excavation at the school (Parker 1984) noted that during the 1960s the southeast area of the site was terraced, and during 1982 the playing fields to the west were stripped and graded by a mechanical scraper.

4 Methodology

- 4.1 The programme of archaeological investigation at the St. Bede's School site was undertaken in four phases. The first phase of investigation consisted of an archaeological evaluation involving the excavation of five trenches (Trenches 1 to 5) located adjacent to the existing school buildings and south and west of the sports pitch (Figure 3). The second phase of work involved the opening of four evaluation trenches (Trenches 6 to 9) prior to the construction of the new tennis courts and access road adjacent to the north and west of the school buildings in April 2009. For the second phase of investigation a geophysical survey was commissioned, and undertaken by Stratascan (2009), the results of which provided the targeting of seven further evaluation trenches (Trenches 10 to 16). Based on the findings of the multiple phased evaluation, three areas were identified as requiring further excavation (Area A & B, and extension of Trench 14), while a fourth area was selected (Area C) as it was designated as having additional archaeological potential. The evaluation and excavation were conducted according to the written scheme of investigation (AOC 2008).
- 4.2 A sampling strategy was defined in the written scheme of investigation, defining the minimum extent of excavation required for different categories of feature, such as structures, ditches, and postholes. In addition, the written scheme of investigation defined the environmental sampling strategy.
- 4.3 In this report cuts are shown in square brackets '[000]' and fills and layers are shown in rounded brackets '(000)'.
- 4.4 The number assigned to each trench during the evaluation and excavation was guided by previous archaeological investigations undertaken, as Trenches 1 to 5 were associated with the first phase evaluation undertaken on site. All context numbers referred to in this report are prefixed with the trench number they originally derived from, i.e. all context numbers from Trench 6 are prefixed 6**, etc.
- 4.5 The evaluation and excavation was supervised by Catherine Edwards and the author, monitored by Andy Leonard (Fieldwork Manager) for AOC Archaeology, and Peter Insole for Bristol City Council.

5 Original Research Aims

- 5.1 The aims of the Evaluation and Excavation were defined as being:
- To record and sample excavate any archaeological remains encountered.
 - To assess the ecofactual and environmental potential of any archaeological features and deposits.

- To determine the extent of previous truncations of the archaeological deposits.
 - To enable the Bristol City Archaeologist to make an informed decision on the status of the archaeological deposits and any requirement for further mitigation work.
 - To make available to interested parties the results of the investigation in order to inform the mitigation strategy as part of the planning process.
- 5.2 The specific aims of the Evaluation and Excavation were:
- To define and assess the area of Roman occupation.
 - To determine the presence of any surviving human remains.
- 5.3 The final aim is to make public the results of the investigation, subject to any confidentiality restrictions.

6 Interim Summary of Results

During the course of the evaluation and excavation at the St. Bede's School site, six different periods of activity were recognised. The periods represented are the Mesolithic, Late Iron Age to Early Romano-British, 3rd to 4th century AD, post-medieval, and modern.

6.1 Period 1 – Natural

- 6.1.1 The natural deposits recorded on site demonstrated a degree of variation. In the southeast corner of the site a sondage excavated in Trench 3 revealed natural bedrock (304), consisting of mid red-pink compact sand with moderate patches of firm blue-green-grey degraded stone, at a height of 8.54m OD. A sondage excavated in Trench 1 in the western area of the site uncovered a layer of dark brown compact peat (104), recorded at a height of 5.56m OD.
- 6.1.2 Overlying bedrock (304) and recorded as contexts (303), (406), (422), (506), (524), (611), (805), (1107), (1206), (1304), (1305), (1421), and (1703), all of which were located in the eastern half of the site, was a firm, reddish brown, natural sandy clay. It was observed at its highest in Trench 3 at 9.12m OD, but dropped off to a height of 7.51m OD in Trench 14, and 6.36m OD in Trench 11.
- 6.1.3 In Trench 12, lying above natural clay (1206) was a layer of greyish blue alluvial clay (1205) up to 0.15m thick. Similar alluvial clay deposits were observed as contexts (103), (208), (405), (705), (908), (1003), (1503), (1604), (1605), and (1606), located to the north, south and west areas of the site. In Trench 1, alluvial clay (103) was deposited above peat layer (104). Analysis of a column sample taken through contexts (103) and (104) confirms they were deposited in an alluvial environment, with the pollen recovered suggested the presence of an open environment heavily modified by human activity. The alluvial clay was at its highest in Trench 16 at 7.61m OD. In Trench 12 this decreased to 7.15m OD. In Trench 9 its value was 6.19m OD, and in Trench 1 alluvial clay was recorded at 5.97m OD.
- 6.1.4 In Area A a brownish grey, clayey sand layer (421) up to 0.30m thick, was recorded as directly overlying the natural clay (422). The layer is interpreted as a possible natural soil horizon, although its stratigraphic location is uncertain due to the similarity between the deposit forming the layer and the fills of the features thought to truncate it.

6.2 Period 2 – Mesolithic (10,000BC – 4,000BC)

- 6.2.1 The earliest human activity recorded on site, designated as Period 2, was that associated with the Mesolithic. No features are directly associated with this period, although Mesolithic activity is represented by a small assemblage of knapped flint artefacts.

- 6.2.2 A total of six pieces of worked flint dated to the Mesolithic were recovered from an extensive area of the site during the course of the excavation, collected from Trench 14, and Areas A and C. All pieces were identified as being residual in later contexts. The only utilised piece recorded was a broken scraper, whereas all the remaining pieces were either bladelets, flakes or fragments. Taken as a group they imply a low level of Mesolithic activity taking place on or near the site.

6.3 Period 3 – Late Iron Age to Early Romano-British (100BC – AD 100)

- 6.3.1 Period 3 was represented by a moderate number of features distributed across the site (Figure 3). The majority of features from Period 3 were found in association with later features, having undergone a varying degree of truncation. These features were primarily attributed to this period due to recover of pottery dated to the Late Iron Age/early Romano-British transition, whereas certain features were stratigraphically associated or could be associated by proximity and characteristics.

Evaluation Trenches

- 6.3.2 The only feature associated with Period 3 to be found during the evaluation was identified truncating the natural clay (611) in Trench 6 (Figure 5). The short length of gully [606] was on an approximate northwest-southeast alignment, and was up to 0.50m wide by 0.15m deep. The gully had a simple curved profile. Gully [606] was filled by a firm, brownish grey, clay deposit (605) from which several small sherds of Late Iron Age/Early Romano-British pottery and animal bone were recovered. A fragment of post-medieval ceramic building material (CBM) was also recovered from fill (606), but is believed to have been incorporated into the fill when the feature was truncated by a later post-medieval field drain.

Trench 14

- 6.3.3 In Trench 14 a segment of curvilinear ditch [1422] was observed in the southeast corner of the trench, travelling from the eastern side of the trench into the southern limit of excavation (Figures 8 & 10). The ditch was 0.85m wide by 0.40m deep, with a U-shaped profile. The ditch contained two fills (1426) and (1423), both of which were similar orangey grey, sandy clay deposits, which contained small quantities of Late Iron Age/Early Romano-British pottery, animal bone, and fuel ash slag. The presence of primary fill (1426) may be indicative of primary silting of the ditch after it had been first cut.

Area A

- 6.3.4 Pit [449], located in excavation Area A, was the only feature in this trench to be tentatively associated with the Late Iron Age/Early Romano-British period (Figure 11). The pit was oval in shape measuring 0.80m in length, 0.70m wide, and up to 0.20m deep. The fill was a firm, mid grey, silty clay (448) which contained a single sherd thought to potentially date to this period.

Area C

- 6.3.5 The greatest numbers of features associated with Period 3 were recorded in excavation Area C (Figure 13). The earliest features assigned to this period are two sets of roughly parallel curvilinear gullies located in the northeast side of the trench. The outer gully alignment is initially represented by gully [1731] which is 0.50m wide, by 0.15m deep, with a simple curved profile. Gully [1731] is truncated by later ditch [1729], but appears to continue to the north as gully [1742] which had similar dimensions. Both gully sections are filled by the same mid brownish grey, sandy clay deposits (1730) and (1741). Fill (1730) was found to contain small sherds of Late Iron Age/Early Romano-British pottery and several fragments of indeterminate industrial slag. Truncating gully [1731] was an additional segment of curvilinear gully [1716] following the same alignment, the southern end of

- which had been truncated by a later ditch. Gully [1718] was slightly narrower, measuring 0.35m in width, with a similar depth at 0.15m and a curved profile. The fill of gully [1716] was also a mid grey, silty clay material (1714) and (1715) from which a small quantity of animal bone was recovered. Together, gullies [1716], [1731] and [1742] appear to represent the footprint of a roundhouse with an approximate diameter of 8.5m, the majority of which lies beyond the northeast limit of excavation.
- 6.3.6 Predating the inner set of gullies was posthole [1746], truncated by gully [1737], and extrapolated to have an approximate diameter of 0.25m and depth of 0.20m (Not visible in plan see section Figure 14). Possible stone post-packing material was observed within the soft, mid brownish grey, clayey sand fill (1745). Later gully [1737], itself truncated by two later ditches, continued beyond the northeast limit of excavation. Gully [1737] was 0.60m wide, by 0.20m deep, with a steep-sided flat based profile. The firm, mid brown, sandy clay fill (1736) contained a small number of fragments from the same Late Iron Age/Early Romano-British vessel. Immediately to the south of gully [1737] was another partially truncated curvilinear gully [1718] following the same alignment. Gully [1718] measuring 0.40m in width, and 0.20m depth with a more curved profile. The fill of gully [1718] was also mid brown, sandy clay deposit (1717) from which a single intrusive sherd of later Romano-British was recovered. This second curvilinear gully alignment is interpreted as forming the footprint of a second smaller roundhouse 8m in diameter.
- 6.3.7 In the interior of the roundhouse gullies three postholes were excavated [1720], [1722] and [1751]. The postholes varied in diameter between 0.20m-0.35m, and were up to 0.20m deep. The fills of the postholes (1719), (1721) and (1750) respectively, were all similar firm, mid greyish brown, sandy clay deposits. The only inclusions observed were occasional flecks of charcoal. No dating evidence was recovered from the fills of the three postholes, but they have been associated with this period due to their spatial positioning to the interior of the roundhouse gullies.
- 6.3.8 Two other features were assigned to this phase due to their similarity and proximity to other features from this period; gully [1755] and posthole [1757]. Gully [1755] is aligned northwest-southeast and measured 0.60m+. The gully is insubstantial, 0.20m wide by 0.05m deep, and was identified as having a rounded terminal. The gully fill was firm, greyish brown material (1754). Posthole [1757] was 0.20m in diameter and depth, with steep sides and a flat base. The fill of posthole [1757] was a greyish brown, clay deposit (1756). No finds were recovered from either fill.
- 6.3.9 The latest feature associated with this period was curvilinear ditch [1711], which was traced travelling from the northeast section, curving to the northwest, with its course truncating both earlier roundhouse gully alignments. The alignment of the ditch could not be traced adjacent to the northwest limit of excavation. Ditch [1711] was substantial in size, measuring 1.70m wide by up to 0.75m deep (Figure 14). Sections excavated through the line of the ditch demonstrated that it had a wide gradually curved profile. Each slot excavated through the ditch contained a single mid greyish brown, sandy clay fill (1710), (1712), (1713), (1727) and (1743), from which was collected a small assemblage of Late Iron Age/Early Romano-British pottery, animal bone, and possible Romano-British CBM fragments.
- 6.3.10 The Late Iron Age/Early Romano-British features excavated are primarily located in excavation Area C, although isolated features were identified in Trench 6 and 14, and Area A. The activity in Area C is initially focused on two different phases of roundhouse construction which is later replaced by a substantial ditch. The finds assemblage collected from these features is small, but diverse enough to be suggestive of domestic activity taking place.

6.4 Period 4 – Mid Romano-British Period (3rd to 4th Century AD)

- 6.4.1 Activity associated with Period 4 consists of the largest number of features from any period, and are distributed across the full area of the site. The features recorded consist predominately of linear ditch alignments, with several curvilinear ditches also present. The pottery recovered can be consistently dated to the 3rd to 4th century AD, and is supported by a close stratigraphic sequence, allowing all but a few features not to be directly associated with this period. Where, close pottery dating and stratigraphic sequences were not available, association with the 3rd to 4th century AD was determined by spatial relationships.

Evaluation Trenches

- 6.4.2 Two features were identified in the evaluations which are associated with Period 4. In Trench 2 a posthole [207] was identified in the central area of the trench, measuring 0.25m in diameter and 0.05m deep, cut into the alluvial clay (208). Its fill, (206), was a firm mid brown silty clay which contained a sherd of pottery generally dated to the Romano-British period (Figure 4).
- 6.4.3 In Trench 6 a slot through a northwest-southeast orientated ditch [604] was excavated. The ditch was broad yet shallow, measuring 1m wide by 0.20m deep, and over 2m in length (Figure 5). The firm, reddish grey, sandy clay fill (603) produced a couple of sherds of possible 3rd to 4th century pottery.

Trench 14

- 6.4.4 Overlying the natural clay (1421) in Trench 14 (Figure 8), and deposited prior to the mid Roman-British features, two layers were identified. In the northwest side of the trench layer (1410) was identified, recorded as brown, sandy clay deposit up to 0.20m thick, deriving from a possible alluvial source (not illustrated). A small quantity of pottery was recovered, suggesting the layer may have been deposited during the later 2nd or early 3rd century AD, immediately prior to the majority of the 3rd to 4th century AD features identified on site. Iron slag and hammerscale were also collected. Layer (1416) was recorded in section in the central area of Trench 14, consisting of a reddish grey, sandy clay deposit measuring up to 0.10m thick (Figures 8 and 10). The character of the deposit indicated it may have been a disturbed soil horizon. Incorporated into this layer was a range of metalworking debris in the form of hearth bases, hammerscale, and iron slag.
- 6.4.5 Truncating layer (1410) in the western area of the trench was ditch [1413]. Ditch [1413] was heavily truncated by later ditch features, so was primarily observed in section (Figures 8 and 10). The U-shaped ditch appeared to potentially run on a north-south alignment, and known to be over 0.70m in width and up to 0.45m deep. A mid greyish brown, sandy clay deposit (1414) filled the ditch, and did not contain any finds, apart from a small quantity of iron slag and fuel ash slag. The environmental samples collected from the fill also identified the presence of cereal crops including oat, a pea was also recorded. Travelling on a similar alignment on the east side of Trench 14 was ditch [1411/1424], which was 7m in length and truncated earlier layer (1416). Ditch [1411/1424] was similar to ditch [1413] as it was also U-shaped with a width of 0.65m and 0.50m deep (Figures 8 and 10). The grey, sandy fill (1412) and (1425) contained a very small assemblage of generally undiagnostic pottery, CBM fragments, and iron slag and hammerscale. If contemporary with one another, they may have acted as drainage ditches for a trackway.
- 6.4.6 Ditch [1411/1424] was truncated on its northwest side by ditch [1427] which continued beyond the northwest limit of excavation. It is assumed the terminal of the ditch has been truncated by later ditch [1417] as the line of ditch [1427] could not be traced in the eastern side of the trench. Ditch [1427] was 1.30m wide by 0.30m deep, with a wide gently curved profile. The ditch contained two sandy clay fills (1429) and (1428) which produced a few sherds of general Romano-British pottery and

animal bone fragments. A reasonable quantity of industrial metalworking residue was also collected including a quantity of iron slag, hammerscale, fuel ash slag, and fragments of hearth bases.

- 6.4.7 A substantial layer of mid greyish brown clay (1415) up to 0.30m thick, appears to have been deliberately deposited across nearly the full area of the trench, sealing all earlier features (Figure 9 and 10). A small collection of finds such as animal bone, 2nd to 4th century AD pottery, and fragments of iron slag and hearth base, were incorporated into the deposit at the time of its deposition. Analysis of a column sample taken through context (1415) confirms it derives from deliberately re-deposited material, containing a pollen assemblage indicative of an open environment heavily modified by human activity. It is likely that layer (1415) was designed to act as a formation deposit for a layer of compacted metalworking waste (1405). Layer (1405) was extensive, measuring 10m north-south by 1.30m east-west, with a thickness of up to 0.10m (Figures 9 and 10). The outline of the layer was at some points irregular, but generally formed an oval shape with the long axis aligned north-south. Layer (1405) consisted of compacted slag material, comprising large quantities of iron slag, hammerscale, and fuel ash slag, resulting in the formation of a durable metallised surface. The surface of the layer was cambered, strongly suggesting that the slag material had been deposited to form a hard surface to an established trackway. Pottery from the 3rd to 4th century had also been deposited within the slag material. The concentration of such a large quantity of metalworking residue strongly suggests that metalworking was taking place in close proximity to the site.
- 6.4.8 Parallel to the west side of metallised surface (1405) was ditch [1408/1417], truncating part of layer (1415). The ditch was traced for a distance of 6m, with the ditch sections demonstrating it to be up to 2.10m wide and 0.70m deep. Ditch [1408/1417] contained a reddish grey, sandy clay fill (1407), (1420) and (1418) which contained pottery roughly contemporary with the pottery from layer (1405), as well as fragments of animal bone, CBM, and residues of hammerscale and iron slag.
- 6.4.9 Several different contexts, possible alluvial in origin, were identified during the course of the evaluation and excavation, which can be described as brown sandy clay deposits (1403), (1404), (1409) and (1419). What is apparent is that they all partially, or fully, seal layer (1405) or ditch [1408/1417] to a depth of 0.25m. Limited dating evidence was recovered, although it does appear that these layers were deposited during, or soon after, the 3rd to 4th century AD and also contained small quantities of iron slag residue. A further homogenous clayey silt alluvial deposit (1406), up to 0.10m thick, was deposited above the previous restricted alluvial deposits. Layer (1406) also contained Romano-British pottery.

Area A

- 6.4.10 A system of stratigraphically linked ditches was excavated in Area A, the earliest associated with the 3rd to 4th century AD activity was ditch [444] (Figure 11). Ditch [444] was on a linear northwest-southeast alignment for a distance of approximately 10m before culminating in a rounded terminal. The ditch reached a maximum width of 0.40m and a depth of 0.20m, with a U-shaped profile. Several slots were cut across the ditch identifying a firm, dark greyish brown, sandy clay fill (443), (445), (456), which did not contain any finds. Running parallel to ditch [444] to the northeast was ditch [447], which was extrapolated as continuing to the northwest as short ditch section [458]. Ditch [477] was of similar size with a maximum width of 0.65m, and a depth of 0.20m, with a more curved profile. The ditch contained a firm, mid brownish grey, sandy clay fill (446) and (457) from which pottery sherds were recovered which could be associated with the 3rd to 4th century AD. A small undiagnostic pit [434], 0.60m in diameter and 0.20m in depth, containing a sandy clay fill (433), was truncated by a third ditch [436] on the same alignment as ditches [444] and [477]. Ditch [436] was also observed in evaluation Trench 4 as ditch [408], reaching a total length of 6.5m before continuing beyond the southwest limit of excavation. Ditch [436] shared similar characteristics, such as terminal and profile shape, and was of equivalent size. The ditch fill was a dark grey, silty clay (407) and

(435) from which a small assemblage of daub and two sherds of Romano-British pottery were retrieved.

- 6.4.11 Possibly associated with these earlier Period 4 ditches was feature [424]. Due to heavy truncation from later features, its function is unclear, although it may represent the terminal of a ditch, the course of which has now been removed. Its observed dimensions were 2.5m in length, by 0.60m wide, and 0.30m deep. Several sherds of possible 3rd to 4th century pottery were recovered from the sandy clay fill (423).
- 6.4.12 Ditch [444] was cut by later ditch [442], which was recorded during the evaluation as ditch [414], aligned at 90° to the earlier ditch and was observed for nearly the full width of the trench. Ditch [442] was of similar size, 0.65m wide by 0.25m, with a U-shaped profile. The ditch contained a firm, grey, sandy clay mottled fill (413), (441), (452) and (455). The finds retrieved include a quantity of pottery which can be associated with the 3rd to 4th century, and a small volume of indeterminate industrial slag material. Environmental analysis of the fill also identified the presence of cereal crops in the form of glume wheats.
- 6.4.13 Northwest-southeast ditch [428] cuts both ditch [442] and feature [424] (Figure 11). Ditch [428] was more substantial than the earlier ditches recorded with a maximum width of 1.15m and a depth of 0.35m. The ditch also had a U-shaped profile. The ditch fill was uniform throughout its length, described as a firm, dark greyish brown, sandy clay (427), (439) and (440), containing a small group of Romano-British pottery. Due to the small size of the pottery, dating can not be precise, but the ditch's stratigraphic relationship with other features dated to the 3rd to 4th century suggests it falls within this phase of activity.
- 6.4.14 Oval pit [426] was approximately 0.90m in length and 0.40m deep, containing a sandy clay fill (425). No features or finds were identified to characterise the function of the pit. The pit partially truncated earlier feature [424], and was itself was truncated by large ditch [430]. Ditch [430] was on a northwest-southeast alignment and terminated with a rounded end. The ditch was up to 0.85m wide, by 0.45m deep, and 2.60m in length, with a U-shaped profile. The ditch fill (429) was a firm, mid greyish brown, sandy clay deposit, containing a single small sherd of Romano-British pottery.
- 6.4.15 Other smaller discrete features were excavated in Area A. Three posthole-sized features were identified truncating two of the ditches. Postholes [410] and [412] truncated the surface of ditch [436], and posthole [451] truncated ditch [442]. All three postholes were circular, measuring approximately 0.30m in diameter, and were between 0.10m and 0.15m deep. The fills of the postholes were a similar grey, sandy clay deposits (409), (411) and (450), all of which contained what appeared to be stone post packing or post pad material. None of the postholes appear to be associated with a structural arrangement, and are most likely to represent the settings for individual posts.
- 6.4.16 Two pit features [432] and [454] were also recorded in different locations within the trench. Both pits were oval in plan and of a similar size, up to 0.70m in length by 0.60m wide and 0.20m deep. The only finds recovered from fills (431) and (453), was occasional small fragments of burnt animal bone from fill (453). Pit [454] cut a naturally formed hollow [438] and the silty spread contained within it (437), while pit [432] partially truncated the line of ditch [428] (Figure 11). The inclusion of the pits into this period is either due to their stratigraphical location or spatial association.

Area B

- 6.4.17 Initial activity in Area B related to the 3rd to 4th century AD is associated with two parallel linear ditches [532] and [540], aligned northeast-southwest and across the full width of the trench (Figure 12). Ditch [532] was 0.80m wide by 0.20m deep, with a curved profile. Whereas ditch [540] was

slightly larger, measuring up to 0.85m wide by 0.60m deep, with a V-shaped profile. The sandy clay primary fill (551) of ditch [532] was recorded in one of the excavated ditch slots, while a more uniform sandy clay secondary fill (531), (533), (534) and (550) was recognised throughout the length of the ditch. Fragments of animal bone and possible 3rd to 4th century pottery were recovered, along with a residual sherd of Late Iron Age/Early Romano-British pottery. Ditch [540] contained a sequence of shallow sandy clay fills (541), (544), (545), (546) and (547) indicating it may have silted up in phases. The only finds recovered were small fragments of animal bone from the upper most contexts.

- 6.4.18 The fills of both ditch [532] and [540] were sealed by a layer of orangey brown sandy clay (523), up to 0.50m thick, covering the full area of the trench (not illustrated). The layer is thought to be a buried soil horizon, with the column sample taken potentially indicating it was deposited in a damp waterlogged environment. Anthropogenic material was incorporated into this layer in the form of fuel ash slag.
- 6.4.19 Truncating layer (523) was northwest-southeast aligned ditch [536], traversing the full length of the trench. The ditch measured up to 0.95m wide and 0.25m in depth, with a curved profile. A single firm, grey, sandy clay fill (535) and (539) was recorded, containing possible 3rd to 4th century pottery, animal bone fragments, and CBM. The environmental samples taken from the fill contained the remains of barley and possible a broad bean.
- 6.4.20 Ditch [536] was cut by large curvealinear ditch [553/542], also detected during the evaluation as cut [508] (Figure 12). Ditch [553/542] was much larger than any of the other ditches previously recorded with a maximum width of 2.40m and depth of 1.15m, covering a distance of 13.5m. The ditch profile was gradually curved. An insubstantial silty clay primary fill (554) was recorded at the base of the ditch, with dark brown, silty clay fill (543), (509) and (511) overlying this. Animal bone, CBM and 3rd to 4th century pottery finds were recovered. The pollen assemblage from the column sample taken through the fill of the ditch indicates it was deposited in an open environment heavily modified by human activity.
- 6.4.21 Linear ditch [530] truncated the upper fills of ditch [553/542] along its northwest-southeast element of its alignment. Ditch [530] measured 6m+ long, 0.70m wide and 0.60m deep with a V-shaped profile. The firm, dark grey, silty clay fill (529) and (552) contained a small assemblage of 3rd to 4th century AD pottery and an iron nail. Subsequent to its backfilling, ditch [530] was truncated by ditch [526] re-cut on the same course and positioning (Figure 12). The two ditches were very similar with the same profile and approximate dimensions. A large assemblage of finds was recovered from the dark grey silty clay fill (507), (525), (527) (528) and (548), incorporating a moderate quantity of 3rd to 4th century pottery sherds, animal bone fragments and a small quantity of iron slag and fuel ash slag. Three metal finds were also recovered consisting of part of a copper alloy D-shaped buckle and two possible nails, in addition to a fragment of whetstone. Environmental samples collected identified evidence of glume wheats. The pollen content of a column sample taken through the fill of the ditch suggests the fill was deposited in an open environment heavily disturbed by human activity.
- 6.4.22 The only discrete feature excavated in Area B was shallow pit [538]. The pit was oval, measuring 0.70m long by 0.55m wide and 0.10m deep. No finds were recovered from the silty clay fill (537). Pit [538] is attributed to this phase due to its close proximity to the ditches assigned to Period 4.
- 6.4.23 The later features in Area B were sealed by a homogenous a mottled light brown sandy alluvial layer (521), recorded as context (505) in the evaluation, measuring up to 0.20m thick. This in turn was overlain by a greenish grey, sandy alluvial layer (522) up to 0.25m thick, recorded as (504) in the evaluation, from which 3rd to 4th century pottery was identified. A column sample was taken through these two contexts, the analysis of which suggests that layer (522) could be alluvial in origin, while

layer (521) was deposited in an environment influenced by stagnant water or waterlogged ground (not illustrated).

Area C

- 6.4.24 The earliest Period 4 activity identified in Area C was a possible small section of ditch [1739] on an approximate east-west alignment, located in the western corner of the trench (Figure 13). The ditch cut appeared to be tapered in plan reaching a maximum width of 0.90m, with a depth of 0.25m. The eastern extent of the possible ditch [1739] could not be traced due to truncation by later ditch alignments from this period. The ditch was filled with a firm, brown, clay deposit (1738), from which no finds were recovered. Northeast-southwest ditch [1733] truncated ditch [1739]. The terminus of the ditch is thought to have been truncated by later ditch [1747] as the continued alignment of the ditch could not be traced in the northern corner of the trench. Ditch [1733] was 0.60m wide by 0.20m deep with a vertically sided, flat based profile. A firm, greyish brown, clayey fill (1732) was evident backfilling the ditch. No finds were recovered.
- 6.4.25 On the southwest side of the trench, two possible rounded northeast-southwest aligned ditch terminals [1724] and [1726] were recorded. They measured between 0.90m and 1.20m wide, and up to 0.15m deep. Each ditch terminal contained a brown, sandy clay fill (1723) and (1725) which were barren of any anthropogenic material. The insubstantial nature of ditches [1724] and [1726], and lack of finds, raises the possibility that these two features could also be naturally formed hollows. Due to the features being only partially present within the excavation area prevented further investigation and the development of a more detailed interpretation.
- 6.4.26 Gully [1705] was identified in the eastern corner of the trench, aligned east-west for a distance of 3.50m. The gully had a maximum width of 0.60m and 0.30m depth, with an overall U-shaped profile. A soft, dark brownish grey, sandy clay fill (1704) and (1706) was recorded. A single intrusive fragment of post-medieval CBM was recovered.
- 6.4.27 Two postholes [1753] and [1759] were also recorded in the southern area. Both postholes were between 0.20m and 0.30m in diameter, and shallow at up to 0.10m deep. Similar fills (1752) and (1758) were excavated from each posthole, described as a firm, dark greyish brown, sandy clay deposit. Two undiagnostic Romano-British pottery sherds were recovered from fill (1752). The presence of general Romano-British pottery and their positioning away from the focus of the earlier Late Iron Age to Early Romano-British activity lead to their inclusion in Period 4.
- 6.4.28 Sealing all earlier features was a substantial layer of mid orangey brown, sandy clay soil horizon (1702), up to 0.50m thick, interpreted as an alluvial deposit. Layer (1702) was present throughout Area C (Figure 14). Due to the close similarity of layer (1702) and the fills of many of the Period 4 features, it is difficult to identify which features are sealed by layer (1702), and which features truncate it. This layer was attributed to Period 4 due to its stratigraphic location.
- 6.4.29 In the northwest section of the trench, ditch [1747] was observed truncating layer (1702), measuring up to 1.20m wide and 0.50m deep. Two brown, clay fills (1740) and (1748) were contained within the cut. A small proportion of ditch [1747] was present in the trench and was truncated by northwest-southeast aligned ditch [1729]. Ditch [1729] measured 6m+ long, 1.60m wide and 0.70m deep with a V-shaped profile and rounded terminal. The soft, mid grey, sandy clay fill (1728), (1744) and (1749) of ditch [1729] contained a small quantity of 3rd to 4th century AD pottery and animal bone. It is likely that ditch [1729] was cut as the later replacement for ditch [1747] (Figures 13 and 14). Running parallel to ditch [1749] was smaller ditch [1735], with a maximum width of 1m and its shallow curved profile reaching a depth of 0.20m. Ditch [1735] contained a firm, mid orangey brown, sandy clay fill

(1734) from which a small assemblage of Romano-British pottery, iron slag and animal bone was recovered.

- 6.4.30 Ditch [1709/1763] travelled on a linear alignment across the full width of Area C, and was observed in both the northeast and southwest sections (Figures 13 & 14). The ditch was of a substantial size, reaching a maximum width of 4.20m and depth of 0.80m. In both sections ditch [1709/1763] had a steep northwest edge, with a southeast edge. Primary sandy clay fill (1762) was recorded at the northeast end of the ditch, concentrated against the steeper northwest edge, which may suggest it derived from the movement of spoil from a bank or slumping from the sides of the cut. The secondary fill (1708) and (1761) was a darker brownish grey, silty clay deposit, while the tertiary fill was a blueish grey, sandy clay material (1707) and (1760) potentially alluvial in origin.
- 6.4.31 The greater proportion of Period 4 is represented by a sequence of ditches. The linear ditches identified in the main excavation areas, appear to be part of a phased system of field boundaries, initially orientated on a northwest-southeast axis, before being realigned on a northeast-southwest axis. Ultimately, a third phase of realignment took place re-establishing the northwest-southeast alignment. The larger curvilinear ditch [553] observed in Area B, does not appear to be part of this field system, and may represent a later enclosure ditch. The Period 4 features excavated in Trench 14 do not conform to the features observed elsewhere. These features are interpreted to part of the delineation and maintenance of a trackway contemporary with the activity occurring in Areas A, B and C.

6.5 Period 5 – Post-Medieval Period (17th to 19th Century)

- 6.5.1 A limited range of features identified during the evaluation, and dated by pottery evidence or associated by character, were identified as associated with the post-medieval period.
- 6.5.2 Cut into the alluvial clay (208) at the base of Trench 2 was a foundation cut [205] containing sandstone foundation material (204) for a wall. The wall measured 2.45m long, 0.30m wide and 0.20m deep and was aligned northeast – southwest (Figure 4). It consisted of very roughly dressed sandstone packed into the foundation cut. No dating evidence was retrieved in direct association with the wall, but the construction style suggests it might be a post-medieval field boundary wall.
- 6.5.3 Another trench-cut [906] foundation for a stone wall (905), truncating alluvial deposits (908), was identified in Trench 9 (Figure 4). Wall (905) was aligned northeast-southwest, up to 1.25m wide, and was constructed using roughly-dressed stones set in a clay bonding material. It was assigned to Period 5 based on the style of construction. A small spread of mortar (907) was associated with the exterior of the wall. The size of wall (905) may suggest it was once part of a larger structure.
- 6.5.4 In Trench 11 a northeast-southwest orientated ditch [1105] was exposed. The ditch was 0.95m wide by 0.30m deep, with a curved profile (Figure 5). The fill was a dark brownish grey, clay (1104) from which fragments of later 16th century to mid 18th century pottery recovered.
- 6.5.5 Overlying the alluvial deposit (1205) in Trench 12 was a 0.30m thick layer of brown, clayey subsoil material (1204) believed to have been disturbed during the post-medieval period (Figure 6). Cut into to this layer was east-west orientated ditch [1209] which was 0.70m wide by 0.30m deep. The ditch contained a sequence of two silty clay fills (1210) and (1208) which both produced pottery dating to the 19th century and a small assemblage of iron nails. Ditch [1209] was cut by a small undiagnostic feature [1203], the fill of which (1202) also produce pottery associated with the 19th century.
- 6.5.6 The investigation of Trench 15 identified the cut of the northeast-southwest orientated gully [1505], cut into alluvial deposit (1503) (Figure 7). Gully [1505] was 0.40m wide and 0.10m in depth, filled by

a brownish blue, clayey silt deposit (1504) which contained a sherd of late 16th to mid 18th century pottery.

- 6.5.7 It is likely that all four post-medieval ditches identified are part of previous field boundary or field drainage systems.

6.6 Period 6 – Modern (1900 to present)

- 6.6.1 Features assigned to activity over the past century are minimal. These features consist of a large cut [704] filled by modern debris (706) found in Trench 7, and part of a concrete pad (903) for a larger structure identified in Trench 9 (Figure 4).

- 6.6.2 A series of modern land drains [1106] (Figure 5), [1207] (Figure 6), [1306], [1307], [1308] (Figure 7), services [1607], and recent gullies [608] (607) (Figure 5) and [510], were uncovered and recorded during the course of the evaluation.

- 6.6.3 The most significant element of modern activity recognised on site is the range of made ground deposits observed. These vary in depth and are predominately formed of redeposited alluvial or clay deposits. Such made ground deposits were identified in: Trench 1 (102); Trench 3 (302); Trench 6 (602); Trench 7 (703) and (702); Trench 8 (804), (803) and (802); Trench 9 (904) and (902), Trench 10 (1002); Trench 11 (1103) and (1102); Trench 14 (1402); Trench 15 (1502); and Trench 16 (1603) and (1602). This implies that either horizontal truncation or modern disturbance has occurred in these areas.

- 6.6.4 All trenches were either sealed by topsoil (101), (201), (601), (701), (801), (901), (1001), (1201), (1301), (1401), (1501) and (1601), or by tarmac and associated formation deposits (301), (401), (402), (403), (404), (420), (501), (502), (503), (520), (1701).

6.7 Undated

- 6.7.1 Several features were encountered during the evaluation whose fills did not contain any dating evidence, or had comparable features in proximity. All features were sealed by modern deposits.

- 6.7.2 In Trench 2 a southeast-northwest aligned gully [203] cut through the clay measuring 2.10m long, 0.57m wide and 0.10m deep. It had moderate sides and a rounded base (Figure 4). Its fill (202), consisted of a mid orange grey clay.

- 6.7.3 In Trench 6 a large pit [610] was partially revealed (Figure 5). It was 2.90m long and up to 0.20m deep, containing a blueish grey, clay fill (609).

- 6.7.4 In Trench 13 a northwest-south aligned gully [1303] was recorded, measuring up to 0.50m wide by 0.30m deep (Figure 7). The fill was a brown, clayey silt (1302).

- 6.7.5 In Trench 15 a large ditch [1507] was orientated northwest-southeast, with a width of 0.60m and a depth of 0.15m (Figure 7). The ditch contained a brownish blue, clayey silt fill (1506).

7 Summary of Site Archive and Work Carried Out

7.1 Stratigraphic Site Archive

Stratigraphic Site Archive	Quantity
Context Sheets	190
Context Register Sheets	6
Trench Record Sheets	15
Plans	57
Plan Register Sheets	2
Sections	30
Section Register Sheets	4
Levels Sheets	11
Photographic Register Sheets	11
Environmental Sample Register Sheets	2
Environmental Sampling Sheets	13
Matrix Sheets	4
Watching Brief Sheets	2
Photographs, Black & White	101
Digital Photos	377

7.2 Work Carried Out On the Stratigraphic Archive

The site records have been completed and checked. A context register has been completed (Appendix A). The stratigraphic matrix has been compiled for the site (Appendix B). The records from the original evaluation and watching brief have been incorporated into the site stratigraphic archive. Contexts have been placed into preliminary phases using stratigraphic information and dating provided by specialists. Several illustrations have been constructed to accompany the results showing the location of the features that have been phased. The photographic archive has been checked, marked and referenced. The receiving museum is to be Bristol City Museum and Art Gallery.

8 Summary of Finds and Analysis of Potential

8.1 Quantification of Finds

All of the finds have been washed, catalogued and marked where appropriate. The archive boxes have been ordered and listing ready for deposition with Bristol City Museum and Art Gallery. The evaluation/excavation archive has also been assessed by specialists in accordance with the guidance laid down in MAP 2 (EH 1991).

Find Type	Quantity
Late Iron Age and Roman Pottery	6394g – 610 sherds
Post-Roman Pottery	129g - 15 sherds
Ceramic Building Material	428g – 25 fragments
Clay Tobacco Pipe	1 fragment
Glass	88g - 7 fragments

Prehistoric Flintwork	6 pieces
Fired Clay	156g – 44 fragments
Geological Material	23kg – 37 pieces
Environmental Samples	9 processed samples
Column Sample Assessment	4 column samples
Iron Metallurgy and Industrial Residues	variable
Animal Bone	690 fragments
Metalwork	13 objects

8.2 Finds (Appendix C)

8.2.1 Late Iron Age and Roman Pottery

The Late Iron Age and Roman Pottery assemblage was represented by a total of 610 sherds weighing 6394g. The pottery primarily falls into two groups. The smallest group is dated to the Late Iron Age/early Romano-British period, with the majority of sherds though to derive from the late 3rd to early 4th century. The assemblage has good potential to add to the understanding of supply and consumption of pottery in Roman Bristol, and given the limited nature of existing published assemblages from Bristol, could be a significant addition to regional studies.

8.2.2 Post-Roman Pottery

A total of 15 sherds of post-Roman pottery, weighing 129g, were recovered from eight individual contexts. The majority of the sherds are of a small size with signs of abrasion suggestive of reworking. The pottery spans a date range from the 13th century through into the 19th century. Due to its small size and lack of diagnostic material, the post-Roman pottery assemblage has limited potential for further analysis.

8.2.3 Ceramic Building Material

The building material assemblage from the evaluation and excavation comprised 25 fragments weighing 428g. The material was highly abraded with a majority of the fragments being of unidentifiable form. The majority of the material is undated though some fragments are of possible Roman date with the rest of post-medieval date. The ceramic building material has limited potential for further analysis.

8.2.4 Clay Tobacco Pipe

A single plain stem fragment was recovered from topsoil [201], dating to the mid 18th to 19th century. There is no potential for further analysis.

8.2.5 Glass

A total of 7 fragments of glass were collected during the course of the evaluation and excavation. All fragments are dated to the late 19th or 20th century. The recent date of the material and the small size of the assemblages indicates there is no further potential for analysis.

8.2.6 Prehistoric Flintwork

A total of 6 pieces of flint was recovered during the archaeological investigation at St. Bede's School. The assemblage was primarily represented but struck flakes or fragments, all of which are thought to date to the Mesolithic. Despite the date attributed to the assemblage, the small size means there is limited potential for further analysis.

8.2.7 **Fired Clay**

The assemblage of fired clay was collected from a single context (407), consisting of 44 pieces weighing 156g. The fragments are low to medium fired and are likely to represent daub. All fragments are amorphous. There is no potential for further analysis.

8.2.8 **Geological Material**

The geological material consisted of 37 pieces of stone, weighing approximately 23kg, from 17 different contexts. The majority of the stone types would have been available locally. Only a single worked piece was identified in the form of a whetstone. The stone assemblage is considered to have limited potential for further analysis.

8.2.9 **Bulk Environmental Samples**

Nine environmental samples were submitted for analysis. Small quantities of macrobotanical and charred plant remains were recovered. The assemblages are too limited to provide detailed information regarding the vegetation environment, fuel use or the agricultural economy of the site and therefore no further work is recommended.

8.2.10 **Column Samples**

Four monolith samples were taken from Trench 1 and Areas B and C for lithostratigraphic analysis. Assessment of the samples indicates that elements of the samples record evidence of the alluvial processes that have shaped the landscape. Further results demonstrate a moderate to high concentration and preservation of remains. Further investigation of the pollen identified will allow further quantification of the vegetation history.

8.2.11 **Iron Metallurgy and Industrial Residues**

An assemblage of industrial waste including slags and hearth bottom from iron working was recovered during the archaeological works and the subsequent processing of samples. The majority of the industrial residues were recovered from contexts in Trench 14, indicating the presence of either iron metalworking, or the disposal of material derived from this industry. Quantities of fuel ash slag were also recovered. No further analytical work is necessary on the material identified as combustion residues. The indeterminate slag material should be further analysed to determine its nature and the activities it represents. The metalworking residues will also require further analysis.

8.2.12 **Animal Bone**

A total of 960 animal bone fragments were recovered from hand excavated contexts and wet sieved samples. The size of the overall assemblage is relatively small which limits its potential archaeological value. The assemblage was dominated by cattle in association with horse and pig. Limited evidence for butchery is present. The size of the assemblage limits its research potential, so it is not recommended that further analysis is undertaken.

8.2.13 **Metalwork**

The metalwork assemblage comprised 13 objects, 12 of iron and one of copper alloy. The majority of the assemblage derives from the 19th century consisting mainly of iron nails. The 3rd to 4th century AD assemblage is smaller, represented by three nails and one fragment of copper alloy buckle. The nails are generally undiagnostic and do not require any further work. The buckle is of greater interest and further analysis should be undertaken to identify relevant parallels.

9 Significance of the Data

9.1 Summary of Results

- 9.1.1 During the course of the evaluation and excavation a high density of archaeological features were recorded in Trench 14, Areas A, B, and C, located in the eastern and southern areas of the site. The features excavated indicated on site activity during the Mesolithic, Late Iron Age to Early Romano-British, 3rd to 4th century AD, and post-medieval periods. Truncation caused by post-medieval and modern activity was limited, meaning the majority of features were found in a good state of preservation.
- 9.1.2 The earliest activity identified was associated with the Mesolithic period. Evidence for human activity during this period consisted of six fragments of residual worked flint.
- 9.1.3 The next period of activity recorded on site related to the Late Iron Age to Early Romano-British period in the form of two roundhouse gullies with associated postholes, and several isolated ditch or pit features. The roundhouses were located in Area C in the eastern area, while the isolated ditch and pit features occurred more in the southern area of site. A small assemblage of Late Iron Age to Early Romano-British pottery was recovered from these features, along with fragmented animal bone and slag residues. This assemblage generally indicates activity of a domestic nature occurring, with the slag suggesting possible industrial activity taking place as well. After the 1st century AD, and up until the late 3rd century AD, there appears to be a hiatus of activity on site, as no features or finds are attributable to this period.
- 9.1.4 Activity on site was renewed in the late 3rd century AD when an extensive sequence of ditches was created on site. These ditches are mainly confined to the southeast area of site, although other ditches associated with this period have been noted in the southern half of the site. The ditches excavated in Areas A, B and C, clearly demonstrated that there were several phases of ditch cutting involving different orientations, suggesting these ditches were part of an evolving field system. It is possible that a large enclosure replaced this field system, as observed in Area B. Contemporary with the field system was part of a metalled trackway exposed in Trench 14, close to the southern boundary off the site. The metalling of the trackway was created from metalworking slag, indicative of metalworking taking place in the vicinity of the site. The finds assemblage from this period is simple in character, primarily consisting of 3rd to 4th century pottery, associated with fragmented animal bone, several metal objects, and industrial slag residue. When considered together, the assemblages suggest that activity on site was primarily agricultural in nature, with the significant activities such as settlement and industry taking place in the vicinity of the site. Considering the pottery assemblage indicates abandonment of the site by the mid 4th century, the Period 4 evidence represents a phase of intensive agricultural activity
- 9.1.5 Evidence for renewed activity on site occurs by the late post-medieval period, with the evaluation and excavation identifying a dispersed group of ditches and walls thought to date to between the 17th and 19th century. The ditches and walls are located in west half of the site, in the area of sports pitches. These features are interpreted as representing a low key system of drainage, boundary divisions, or isolated structures, associated with the agricultural exploitation of the flood plain at this

time. The finds assemblage collected is limited consisting of a small number of abraded post-medieval pottery sherds, plus CBM and glass fragments.

- 9.1.4 Modern activity on site was restricted, primarily related to horizontal truncation of the existing deposits in the central area of the site and the deposition of made ground associated with the landscaping for the creation of sports pitches. Other made ground deposits relate to the construction of sports courts in the eastern area of site adjacent to the school complex.

9.2 Discussion of Significance

9.2.1 Mesolithic

Mesolithic finds were identified on site, albeit with an apparent residual character. Any activity of a Mesolithic date must be of a regional significance due to the limited number of sites known to represent this period in the Bristol area, although the value of the finds assemblage will be limited by the small range of forms present and its residual nature.

9.2.2 Late Iron Age/Early Romano-British

During the archaeological investigation a number of Late Iron Age to Early Romano-British features were excavated on site, representing settlement activity, with the potential for industrial activity to be taking place as well. Such features are significant as they can inform on subjects like settlement pattern, settlement architecture, and settlement economy during this period. The period in itself is significant due to the levels of rapid cultural change occurring. Due to the nature of the features, and the limited number of sites in the area which date to this period, activity during this period could be considered to be of local to regional significance. Not only could these features advance the understanding of local Late Iron Age/Early Romano-British settlement patterns, they could potential advance out knowledge to the extent of cultural change in Southwest England during the Roman Conquest.

9.2.3 Late Iron Age/Early Romano-British Finds

The Late Iron Age/Early Romano-British finds assemblage primarily consists of pottery, animal bone, and slag. It is of a small size, so is of local significance due to its potential to inform on activity within the local area of the site.

The pottery assemblage for this period is small, mainly consisting of undiagnostic body sherds. Due to the limited number of similar assemblages, it may have potential to add to our understanding of pottery consumption during this time.

The Late Iron Age/Early Romano-British faunal assemblage is small, with a low degree of evidence for additional activities such as butchery. The nature of the assemblage does not lend itself to further research.

The quantity of slag recovered from this period is small, preventing it from being significant as part of any further analysis.

9.2.4 3rd to 4th Century AD

The majority of the features encountered during the evaluation and excavation relate to the 3rd to 4th century AD, primarily representing agricultural activity, in association with the maintenance of trackways. It is clear that activity on the site has been re-established and intensively exploited for a period of less than 100 years. Although all the features are generally associated with the same type

of activity, they are able to chart the development of how the land was exploited over a short space of time. Due to the limited understanding of the development of Romano-British agricultural systems, and the small number of sites which demonstrate in the area which demonstrate contemporary activity, the features could be described as being of local to regional significance.

9.2.5 **3rd to 4th Century AD Finds**

The Romano-British finds assemblage primarily consists of pottery, metalwork, slag, animal bone, ceramic building material (CBM), stone and. It is of moderate size, so is of local to regional significance due to its potential for comparison with other sites.

The 3rd to 4th century pottery assemblage is of reasonable interest as a certain number of forms are present, as well as several well-stratified groups. Although of modest size there is some potential to add to our understanding of supply and consumption of pottery in Roman Bristol. Further information could be gained through comparison with larger better understood sites.

The metalwork collected associated with this period is small in number, and mainly represented by nails which are of limited interest. One object of interest is a fragment of copper alloy buckle which warrants further analysis. Due to the presence of the buckle, the assemblage has local significance.

The middle Roman slag assemblage was predominately collected from Trench 14 consisting of a variety of forms, including fuel ash slag, iron slag and metalworking residues. They are indicative of metalworking occurring in close proximity of the site.

The animal bone assemblage from the 3rd to 4th century AD was dominated by domestic species, primarily cattle. Evidence for butchery and selective disposal was limited. In general the small assemblage and the material currently available this does not raise any new research questions. The assemblage is of interest to the site only.

The ceramic building materials and geological material are of limited local significance as they as their diagnostic qualities are limited and assemblages small in size. Only a single artefact from the geological assemblage was identified as being worked. They are restricted to informing the assessment in regards to activity occurring on site.

9.2.6 **Post-Medieval**

During the excavation a small quantity of post-medieval features were also identified on site. All the features appear to represent boundary markers, drainage ditches or isolated structures dating to between the 17th and 19th century. Such low intensity use of the site provides a good indication to how the site was utilised in the late post-medieval period as marginal land, and its development over the past few hundred years. Its significance is related to providing information on the changes occurring in the rural hinterland of Bristol.

9.2.7 **Post-Medieval Finds**

The remaining assemblages of post-Roman pottery, glass, clay tobacco pipe, slag, and metalwork, are all small assemblages of material, either lacking in diagnostic elements or are residual. On this basis they are all classified as being of site significance only.

9.2.8 **Environmental Samples**

The environmental samples contain small quantities of macrobotanical remains and present little potential for further analysis and are unlikely to provide significant further information regarding the economy or vegetation associated with the Romano-British land use. The limited charcoal assemblage provides evidence for a range of different vegetation environments being exploited for fuel. Taxa from deciduous woodland as well as hedgerows are evident. The assemblage is too limited to provide detailed information regarding the vegetation environment, fuel use or the agricultural economy, and as a result which is limited to being of site significance only.

9.2.9 Significance

In summary, assessment of the evaluation and excavation results from the St. Bede's School site has shown that the results have potential for further work. The excavations results have the potential to be able to increase our understanding of settlement in the area during the transitional Late Iron Age to Early Romano-British period, and agricultural exploitation of the land during the 3rd to 4th century AD. All the evidence taken together indicates great potential to develop our understanding of how this marginal flood plain environment was utilised over time. This potential increases due to the limited quantity of published material relating to late prehistory and Romano-British periods from the region. This, taken in combination with the potential for further analysis identified in the Late Iron Age/Early Romano-British and 3rd to 4th century pottery and animal bone assemblages, indicates that the site as a whole has strong local and possible regional significance. The site has a substantial contribution to make in our understanding of the Romano-British activity of Bristol and the surrounding area.

10 Review of the Research Aims

10.1 Realisation of the Research Aims

10.1.1 This section examines the extent to which preliminary assessment of the results of the excavation indicates that the original research aims outlined in the Written Scheme of Investigation (AOC 2008) have been or can be answered.

10.1.2 *To define and assess the Roman occupation.*

The Roman activity identified on site fell into two chronological separate groups. The earliest activity is attributed to the Late Iron Age/early Romano-British period, focused on two roundhouses and an enclosure ditch located in the eastern area of the excavation. These features are primarily associated with settlement activity. A second period of Romano-British activity has been dated by the pottery assemblage to the late 3rd to early 4th century AD. The focus of activity changes from settlement to agriculture as a multiple phase field system is present in the eastern half of the site, associated with a later enclosure ditch.

10.1.3 *To determine the presence of any surviving human remains*

No evidence for human remains or funerary objects was encountered.

10.2 Revised Research Aims

10.2.1 Following the completion of the fieldwork and the initial post-excavation assessment of the site, it is apparent that some of the original research aims are no longer valid, whereas others require reviewing on the basis of the evidence collected. For those research aims that are valid it is possible to identify additional research questions which will be addressed as part of the work undertaken in preparation for the publication of the site. These are listed below.

10.2.2 *To define and assess the Roman occupation.*

Additional questions that should be addressed are:

- What is the relationship between the Late Iron Age/early Romano-British and 3rd to 4th century AD activity?
- Can the sequence of 3rd to 4th century AD ditches be more closely phases, and the sequences in each excavation area related to one another?
- How do the Romano-British remains relate to remains of the same period identified in earlier excavations at St. Bede's School?

10.3 Additional Research Questions

In addition to the revised research aims, the evidence produced by the excavation has identified further research questions that need to be addressed. These are listed by period below.

10.3.1 Mesolithic

Additional questions, relating to the Mesolithic activity, that should be addressed are:

- How does the evidence for Mesolithic activity on site compare to other Mesolithic sites known in the region?
- Which deposits did the Mesolithic material originate from?
- How does Mesolithic activity compare to other prehistoric sites in the immediate area?

10.3.2 Late Iron Age/Early Romano-British

Additional questions, relating to the Late Iron Age/early Romano-British activity, that should be addressed are:

- How does the location of the settlement relate to the landscape that surrounds it?
- How does the architecture of the known roundhouses relate to other examples in the region?
- Is there any evidence indicating the economy of the Late Iron Age/early Romano-British settlement?
- Is there any evidence for why the Late Iron Age/early Romano-British settlement was abandoned?
- How does the evidence for Late Iron Age/early Romano-British activity on site compare to other Late Iron Age/early Romano-British sites known in the region?

10.3.3 3rd to 4th Century AD

Additional questions, relating to the 3rd to 4th century AD activity, that should be addressed are:

- How does the Romano-British chronology of the site contrast with other sites in the region from this period?

- How does the 3rd to 4th century AD field system, enclosure and trackway relate to the landscape and topography around it?
- How does the sequence of ditches relate to the sites of archaeological interest in close proximity to the site? How do the ditches relate to the evidence revealed by Parker's 1982 excavation on site?
- Are there similar examples of field systems, enclosures and metalled trackways known in the region?
- Why was the 3rd to 4th century activity abandoned?
- What can the finds assemblage from the 3rd to 4th century indicate what activity was taking place in proximity to the site?

10.3.4 Post-Medieval

Additional questions, relating to the Post-Medieval activity, that should be addressed are:

- Do early cartographic sources identify any of the ditches or post-medieval walls identified?

10.3.5 General

Additional questions, relating to the general sequence of deposits, that should be addressed are:

- Would the construction of a deposit model assist in the interpretation of the cycles of alleviation on site and the chronology associated with it?

11 Summary of Further Work

Task	Description	Resource	Days
General			
1	Documentary Research	CJC	3
2	Checking and integration of digital drawn and contextual data.	CJC	0.5
3	Checking and integrating the matrix and the checking and completion of site phasing and digital plans.	CJC	0.5
Analysis			
4	Late Iron Age & Roman Pottery- Final analysis of key groups	AD	1
5	Late Iron Age & Roman Pottery- Further reading and comparative material	AD	1
6	Late Iron Age & Roman Pottery- Finalise illustration selection	AD	0.5
7	Column Sample – Further investigation of pollen and deposit model	CG/RB	TBC
8	Iron metallurgy and Industrial Residue- Further analysis of metalworking residues	MR	TBC
9	Metalwork – Cataloguing and further research	AH	1
10	Conservation- General conservation	PG	2
11	Conservation- Archiving	PG	1
Report, Publication and Archiving			
31	Integrating specialist reports	CJC	0.5
32	Liaison with specialists	MM	1
33	Completion of drawings for Publication	JM	3
34	Liaison with illustrator	CJC	0.5

Task	Description	Resource	Days
35	Preparation of Publication Text	CJC	3
36	Editing and review of publication text	CJC	1
37	Amendments resulting from external editor's comments to publication text and figures	CJC	0.75
38	Proof Reading	MM	0.5
39	Archive Preparation	PF	3
40	Archive Microfilming	PF	3
41	Liaison with Publication Editor	MM	1
42	Project Management and editing: overall	MM	2

12 Catalogue of Further Work

12.1 Documentary Analysis

12.1.1 Research of primary sources and documents concerning the site, including cartographic evidence. Research into possible comparison sites and archaeological excavations located adjacent to the current excavation. Time has been set aside to integrate any digital or contextual information.

12.2 Specialist Reports

12.2.1 Late Iron Age & Roman Pottery

- Final selection and analysis of key groups.
- Further reading and comparison with other local/regional assemblages.
- Finalise selection and extract pieces for illustration.

12.2.2 Column Sample

- Further investigation of the pollen from column sample <3> to allow further quantification of the vegetation history.
- Production of deposit model.

12.2.3 Iron metallurgy and Industrial Residue

- Further analysis of residues in regards to the recording of the plano-convex bases.

12.2.4 Metalwork

- Further detailed cataloguing.
- Further research and discussion.

12.2.5 Conservation

- General conservation of metal finds.
- Archiving.

12.3 Illustrations

12.3.1 Plans and Sections

The digitised plans produced for the publication will require checking and correcting to ensure it is linked correctly with the contextual database. In the course of the analysis extra drawings may be needed, so time has been given to allow for extra work to aid the structural analysis.

The digitised site plans will be used to produce publication illustrations. These will accompany the site narrative, being annotated to identify the features discussed in the text, at an appropriate scale.

12.4 Overall Publication, Archiving and Project Management

Following specialist analysis, the reports will be integrated into the publication report. Time has been allocated for consultation and amendments to be made during this phase of work, involving both the editor and specialists. Time has been allocated for proof reading and editing of the publication report prior to submission. Time has been allocated for liaison with the publication editor with regard to, submission of material and a summary of content.

Upon completion of the report, the documentary, physical and digital archives will be prepared, including microfiching, for accessioning at Bristol City Museum and Art Gallery. A site summary will be published in the Bristol Regional Archaeological Round-up, and a digital copy of the report lodged in association with the online OASIS form (Appendix D).

The management of the project includes monitoring task budgets, programming tasks, editing drafts production of the final report and publication for submission, and liaison with all members of the project team.

12.4.1 Potential for Publication

It is anticipated that an article of approximately 10-20 pages will be produced, including site drawings, site location, plan of excavation area showing the main features with additional illustrations where needed. The publication will be submitted to Bristol and Avon Archaeology. Publication of the site data will also be made through the Archaeological Data Service OASIS form (Appendix D).

13 Bibliography

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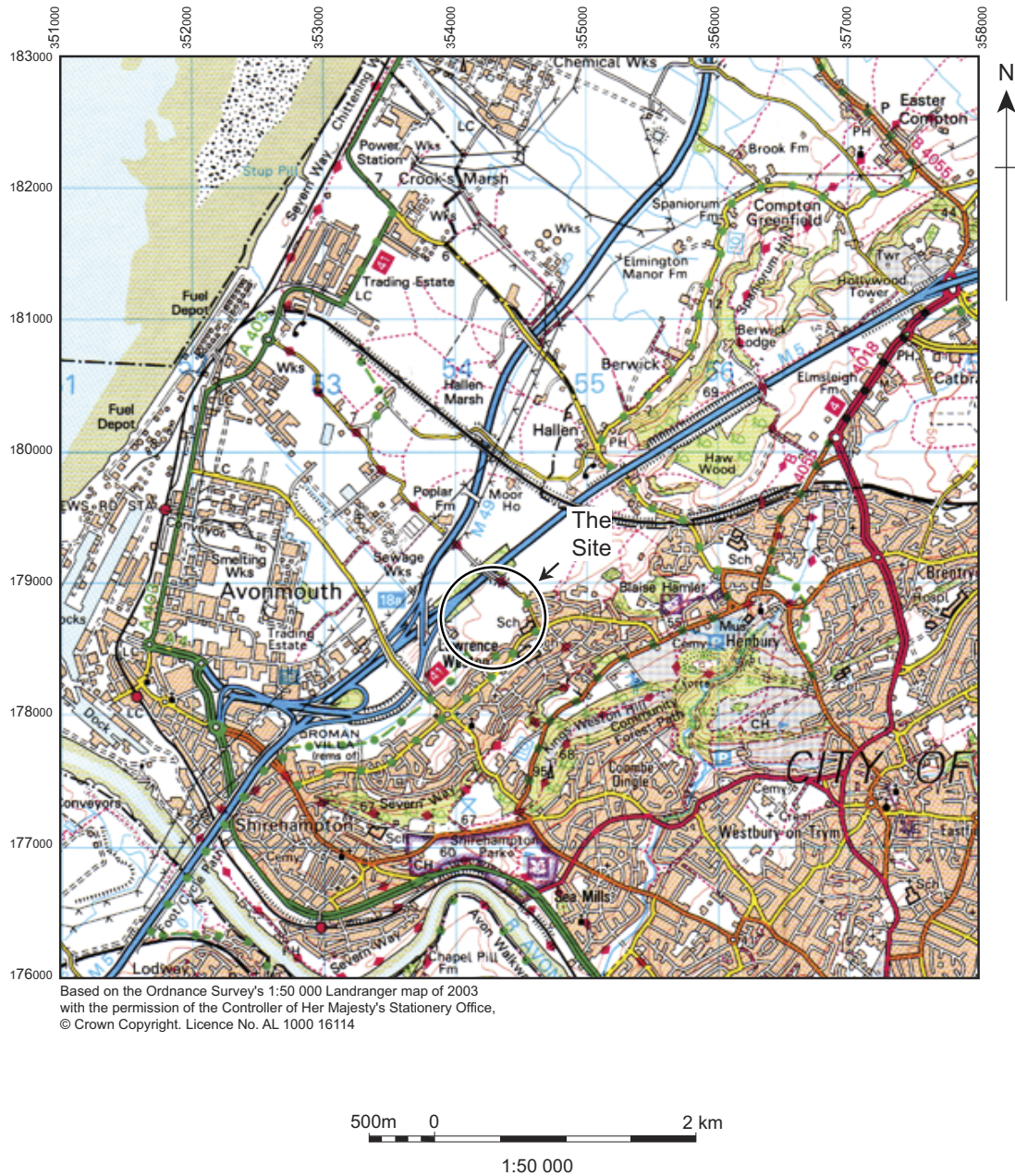


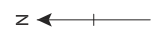
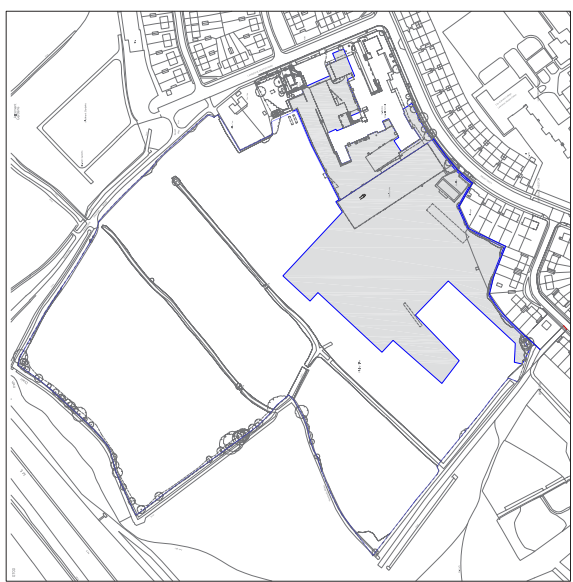
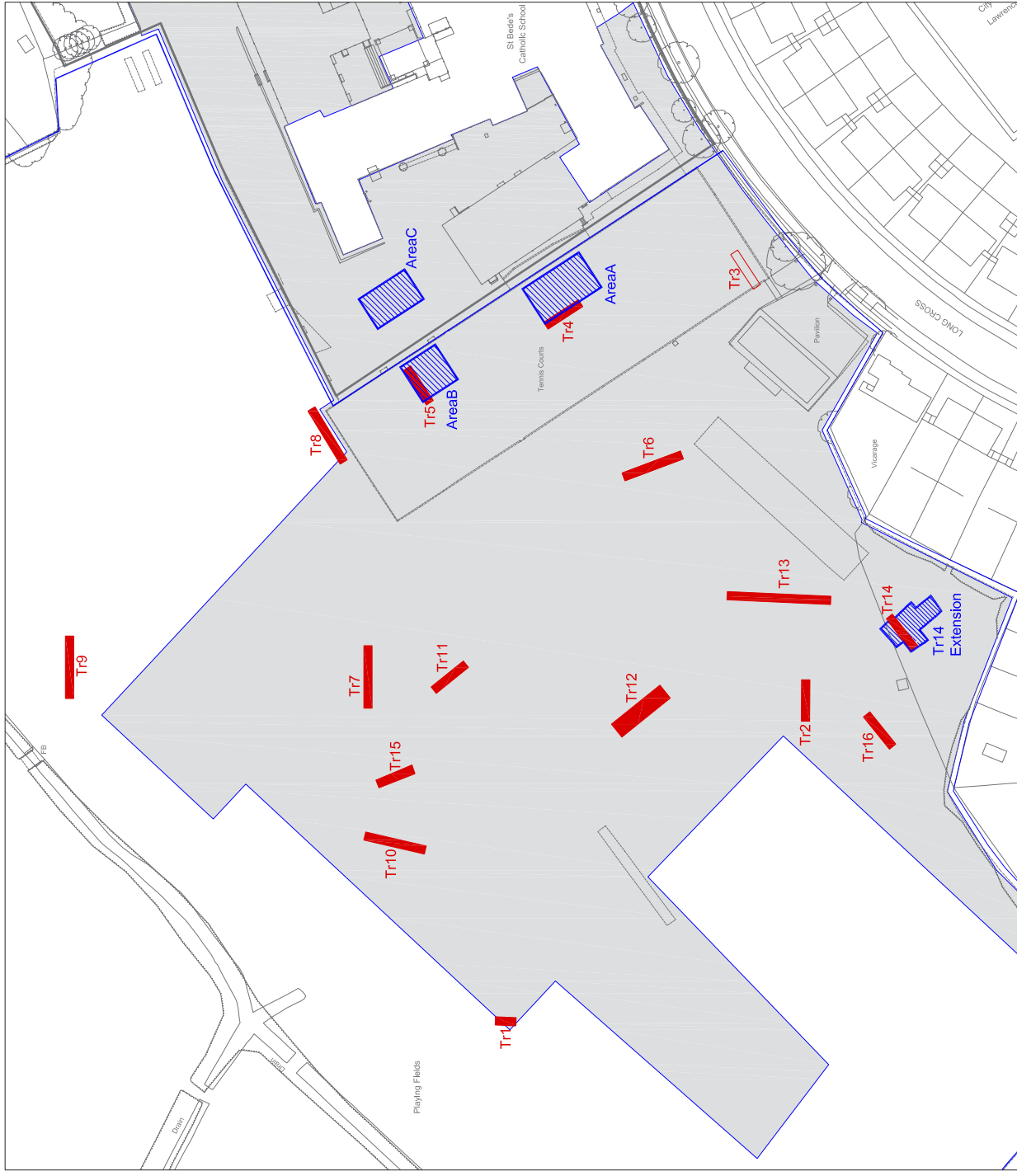
Figure 1: Site Location



Based on the Ordnance Survey's 1:10,000 map of 2006 with the permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright. Licence No. AL 1000 16114



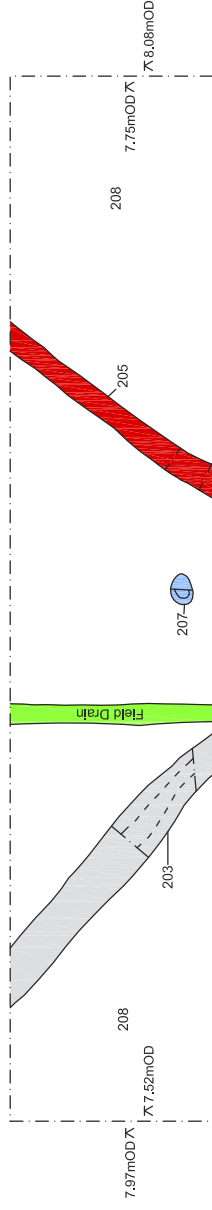
Figure 2: Detailed Site Location



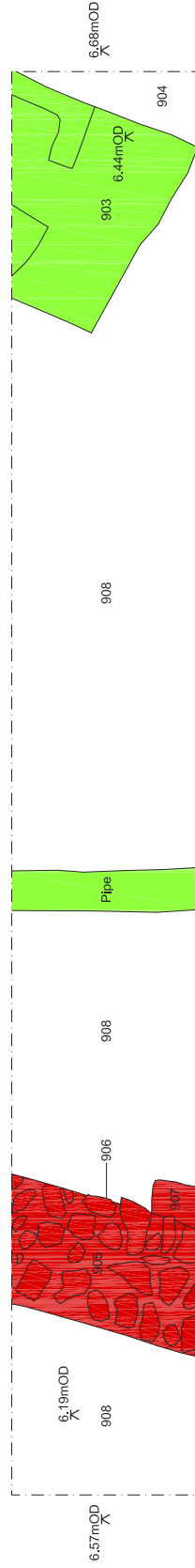
- Application Area
- Archaeological Evaluation Trenches
- Archaeological Excavation Areas



Figure 3: Trench Location Plan



Trench 2



Trench 9

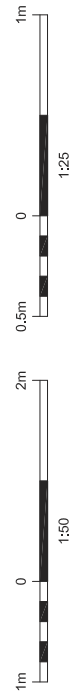
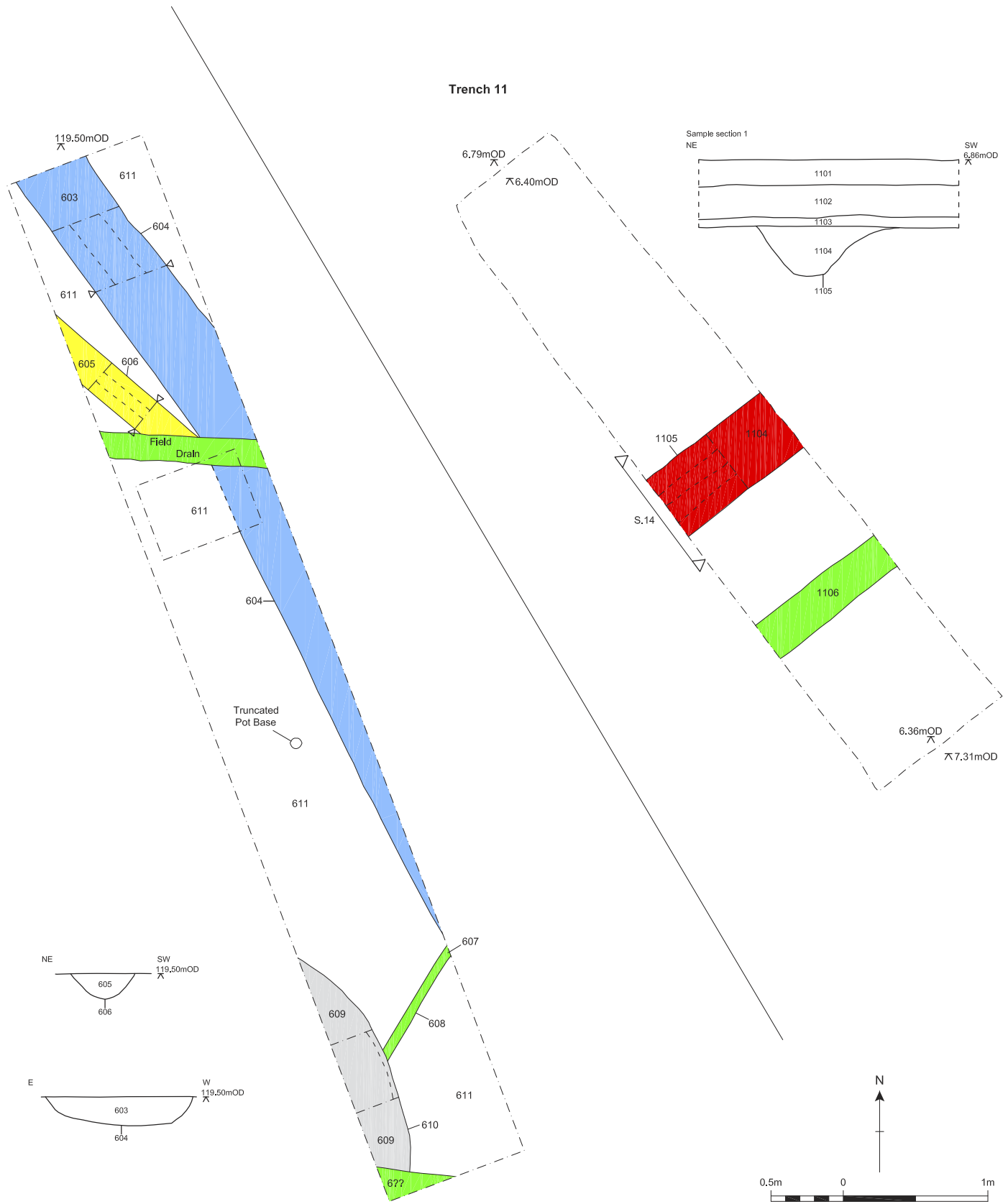


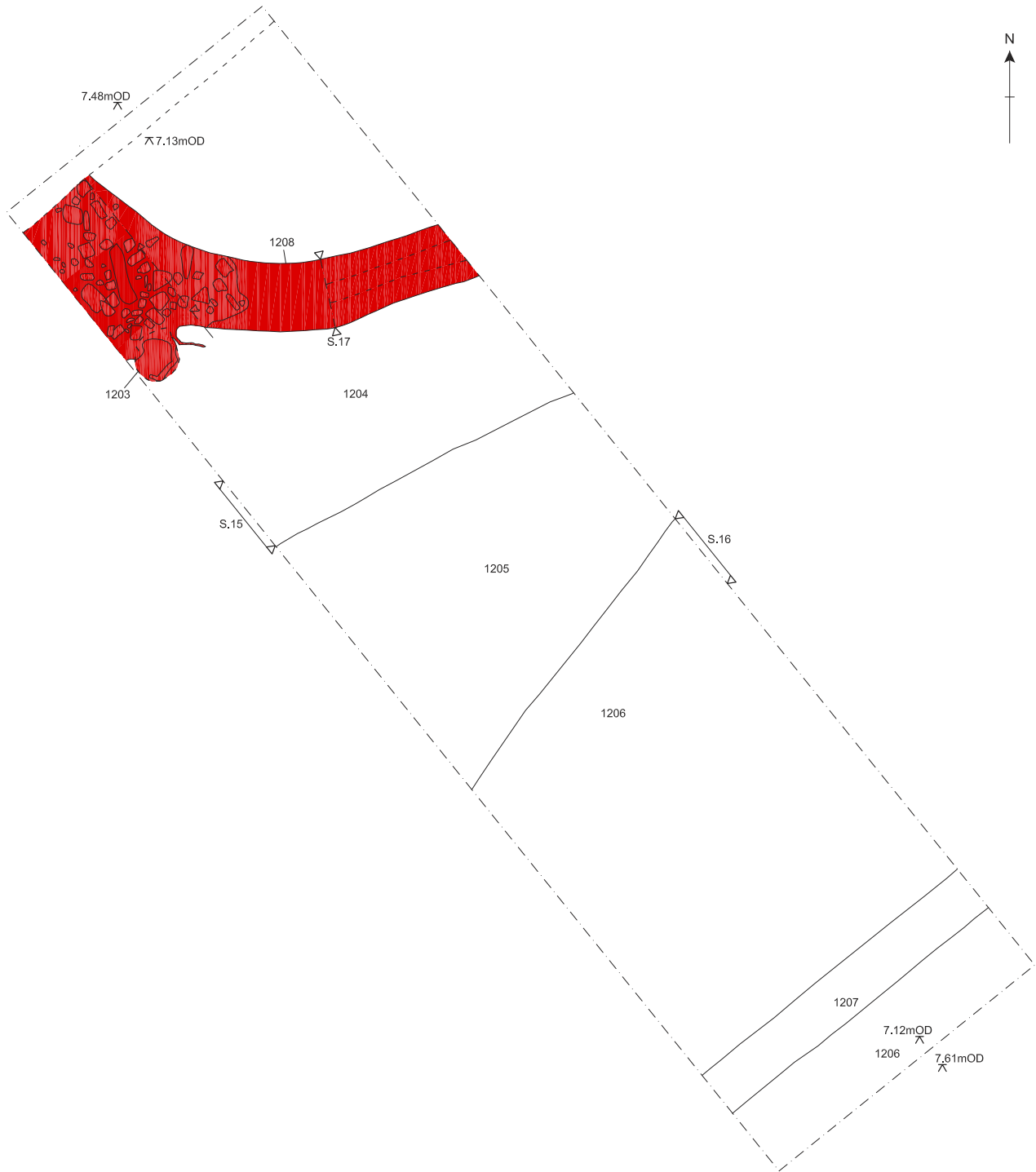
Figure 4: Trenches 2 & 9: Plans (1:50) & Sections (1:25)



Trench 6

Figure 5: Trenches 6 & 11: Plans (1:50) and Sections (1:25)

- Period 3: Late Iron Age-Early Roman
- Period 4: 3rd-4th Century Romano-British
- Period 5: Post Medieval
- Period 6: Modern
- Undated



- Period 3: Late Iron Age-Early Roman
- Period 4: 3rd-4th Century Romano-British
- Period 5: Post Medieval
- Period 6: Modern
- Undated

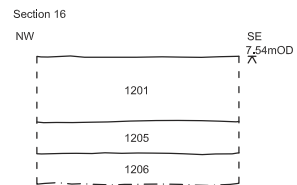
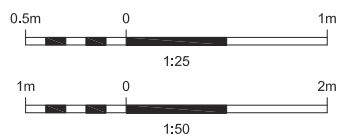


Figure 6: Trench 12: Plan (1:50) and Sections (1:25)

Trench 15

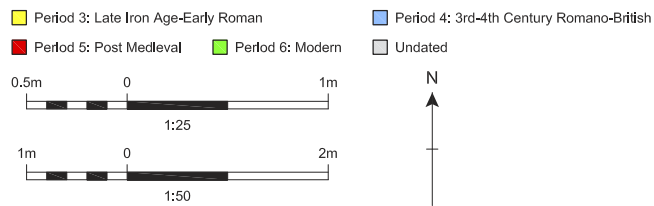
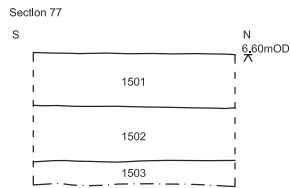
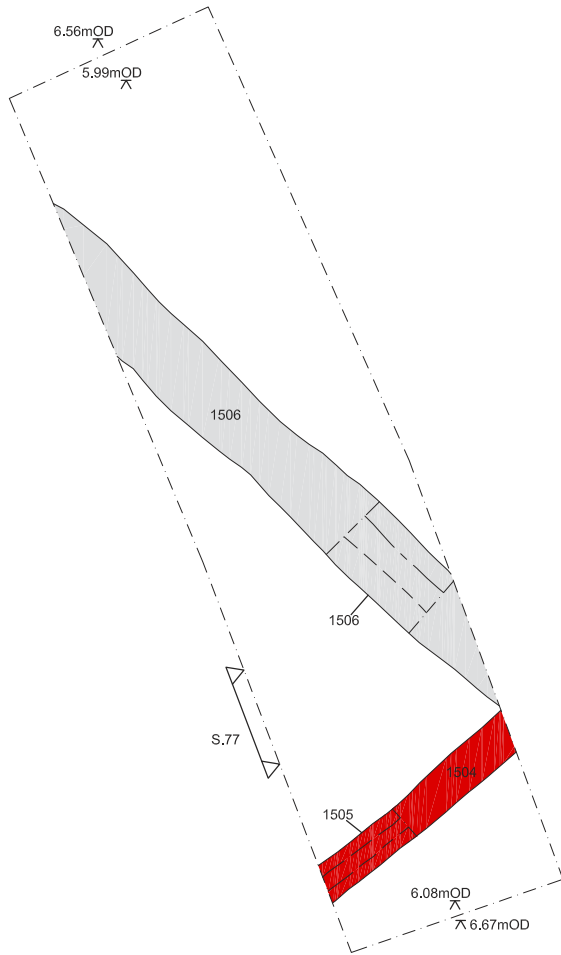
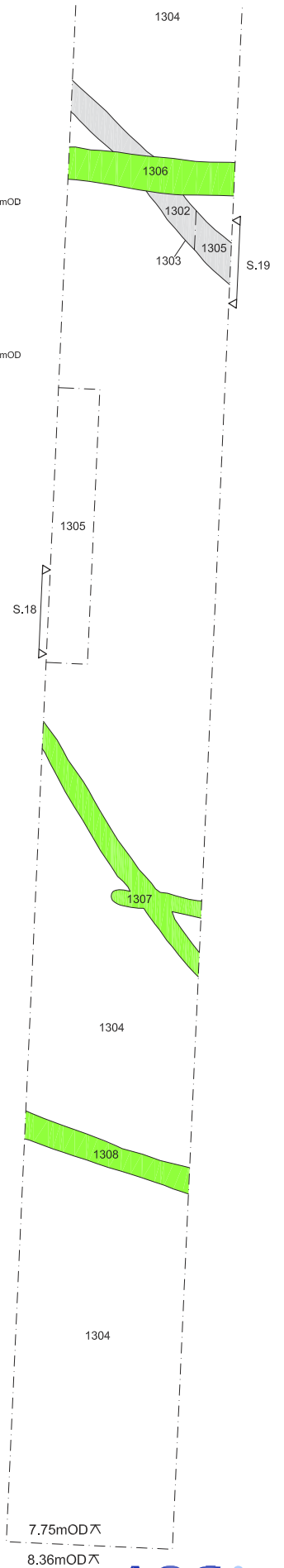
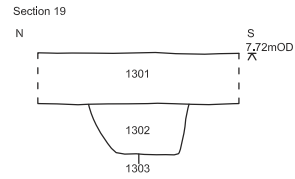
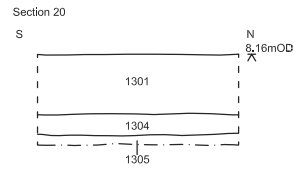


Figure 7: Trenches 13 & 15: Plans (1:50) and Sections (1:25)

Trench 13



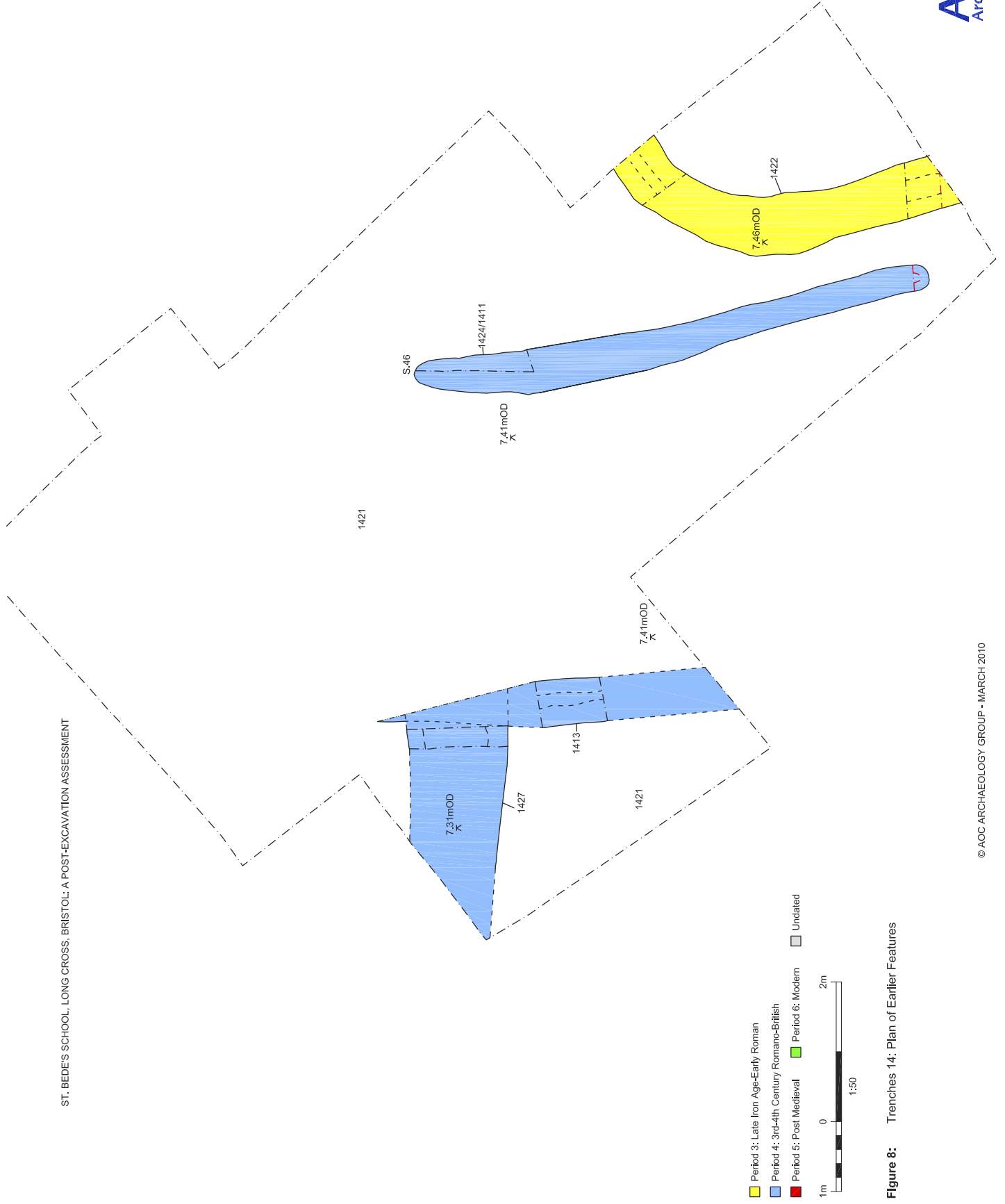


Figure 8: Trenches 14: Plan of Earlier Features

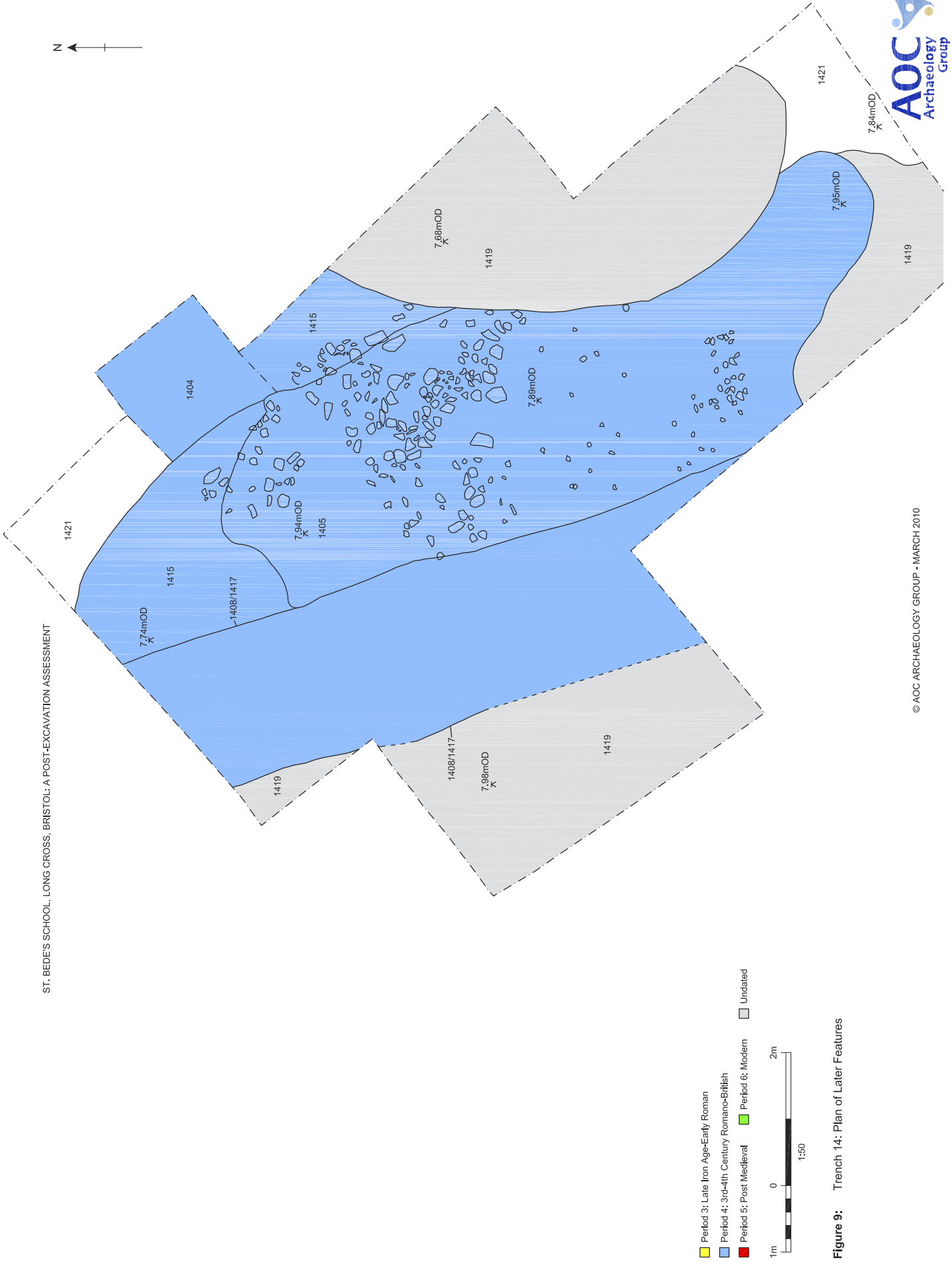


Figure 9: Trench 14: Plan of Later Features

ST. BEDE'S SCHOOL, LONG CROSS, BRISTOL: A POST-EXCAVATION ASSESSMENT

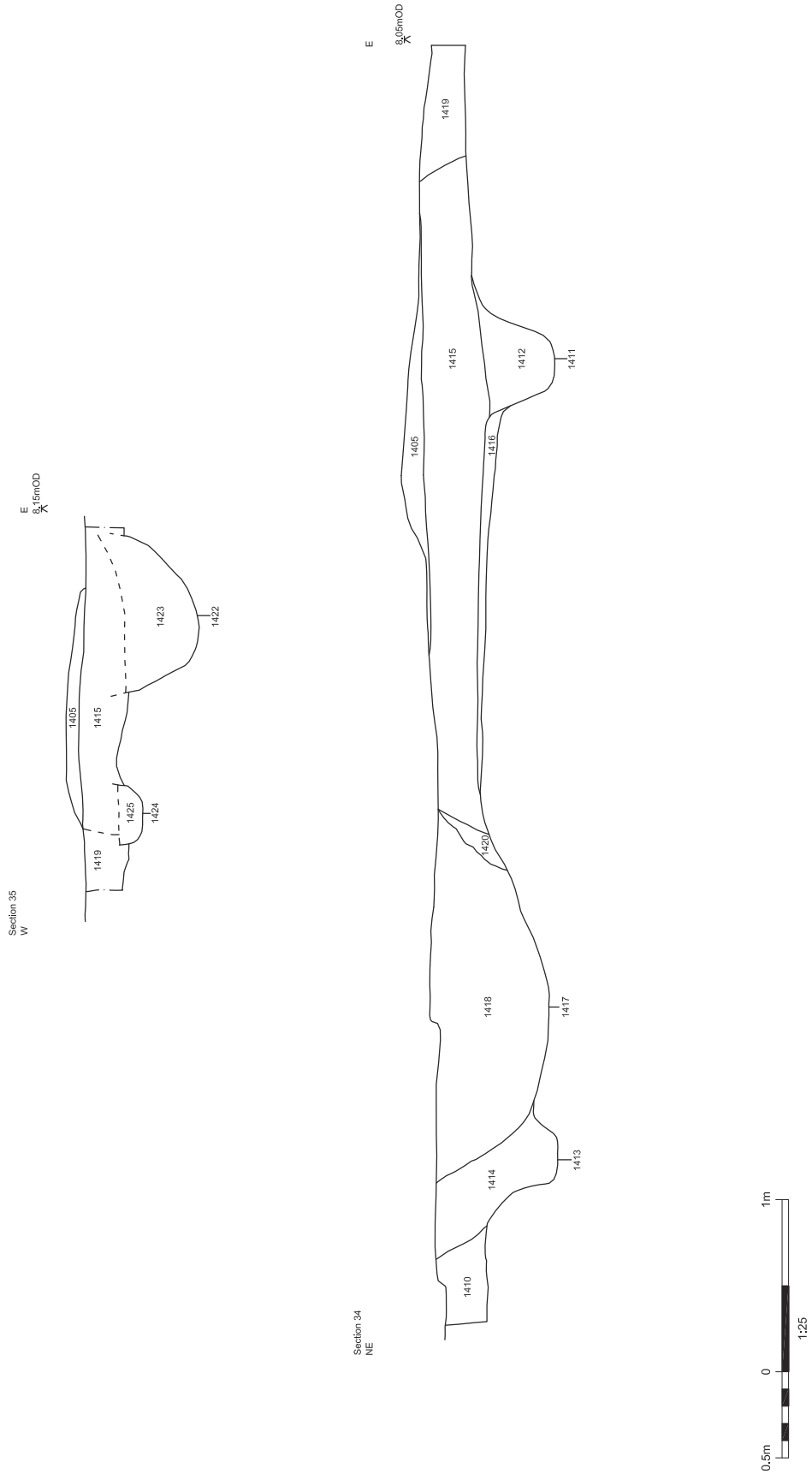


Figure 10: Trench 14: Sections

ST. BEDE'S SCHOOL, LONG CROSS, BRISTOL: A POST-EXCAVATION ASSESSMENT

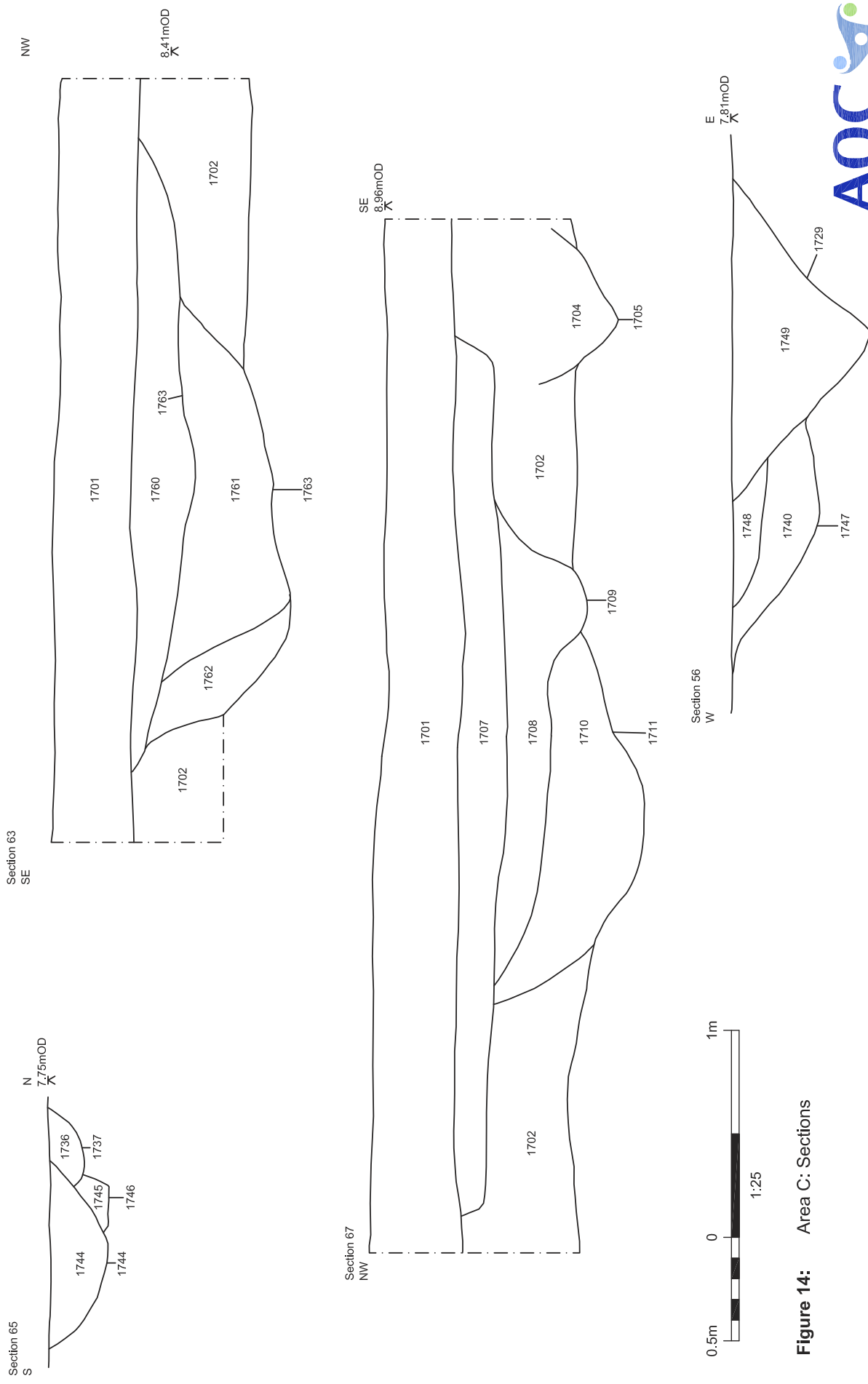


Figure 14: Area C: Sections

Appendices



Appendix A – Context Register

CONTEXT	TYPE	LENGTH	WIDTH	DEPTH	LEVEL (mOD)
101	Topsoil	5.00m	2.00m	0.20m	-
102	Subsoil	5.00m	2.00m	0.40m	-
103	Alluvial Clay	5.00m	2.00m	0.45m	-
104	Peat	1.40m	1.10m	0.30m	-
201	Topsoil	10.00m	2.00m	0.30m	-
202	Palaeochannel	2.60m	0.57m	0.10m	-
203	Fill of Palaeochannel [202]	2.60m	0.57m	0.10m	-
204	Wall	2.45m	0.30m	0.20m	-
205	Foundation Cut	2.45m	0.30m	0.20m	-
206	Fill of Posthole [207]	0.25m	0.20m	0.05m	-
207	Posthole	0.25m	0.20m	0.05m	-
208	Alluvial Clay	5.00m	2.00m	NFE	-
301	Tarmac Surface	5.00m	2.00m	0.07m	-
302	Levelling Layer	5.00m	2.00m	0.14m	-
303	Natural	5.00m	2.00m	0.76m	-
304	Natural Bedrock	2.50m	2.00m	0.60m+	-
401	Tarmac Surface	10.00m	2.00m	0.04m	-
402	Levelling Layer	10.00m	2.00m	0.08m	-
403	Levelling Layer	10.00m	2.00m	0.04m	-
404	Old Land Surface?	10.00m	2.00m	0.40m	-
405	Alluvial Clay	10.00m	2.00m	0.40m	-
406	Natural	10.00m	2.00m	NFE	-
407	Fill of Ditch [408]	4.00m	0.46m	0.22m	-
408	Ditch	4.00m	0.46m	0.22m	-
409	Fill of Posthole [410]	0.34m	0.30m	0.14m	-
410	Posthole	0.34m	0.30m	0.14m	-
411	Fill of Posthole [412]	0.34m	0.24m	0.08m	-
412	Posthole	0.34m	0.24m	0.08m	-
413	Fill of Ditch [414]	2.00m	0.46m	0.34m	-
414	Ditch	2.00m	0.46m	0.34m	-
420	Tarmac and made ground – current playground surface	16.20m	10.00m	0.35m	9.2
421	Soil horizon: brownish grey, firm, clayey sand	16.20m	10.00m	0.31m	8.85
422	Natural: reddish brown, firm, sandy alluvial clay	16.20m	10.00m	0.10m+	8.87
423	Fill of pit [424]: firm brownish grey sandy clay	2.50m	0.58m	0.30m	8.61
424	Cut, of pit: oval	2.50m	0.58m	0.30m	8.51
425	Fill of pit [426]: firm greyish brown sandy clay	0.92m	0.66m	0.41m	8.78
426	Cut, of pit: oval	0.92m	0.66m	0.41m	8.35

427	Fill of ditch [428]: firm dark greyish brown sandy clay	1.40m	1.15m	0.34m	8.71
428	Cut, of ditch: parallel and linear	1.40m	1.15m	0.34m	8.43
429	Fill of ditch terminus[430]: firm mid greyish brown sandy clay	2.00m	0.85m	0.46m	8.78
430	Cut, of ditch: parallel and linear	2.00m	0.85m	0.46m	8.27
431	Fill of post hole [432]: firm reddish brown sandy clay	0.64m	0.50m	0.15m	8.71
432	Cut, of post hole: oval	0.64m	0.50m	0.15m	8.58
433	Fill of pit [434]: firm mid greyish brown sandy clay	0.60m	0.55m	0.20m	8.65
434	Cut, of pit: oval	0.60m	0.55m	0.20m	8.35
435	Fill of ditch [0436]: firm dark greyish brown silty sandy clay	3.60m	0.40m	0.20m	8.65
436	Cut, of ditch: linear	3.60m	0.40m	0.20m	8.43
437	Fill of irregular pit [438]: compact light grey silty sand	1.60m	0.70m	0.10m	8.49
438	Cut, of pit: irregular	1.60m	0.70m	0.10m	8.39
439	Fill of ditch [428]: firm dark greyish brown sandy clay - SAME AS (427) / (440)	1.00m+	0.80m	0.26m	8.61
440	Fill of ditch [428]: firm dark greyish brown sandy clay - SAME AS (427) / (439)	0.70m	0.50m	0.29m	8.57
441	Fill of ditch [442]: firm dark grey mottled reddish brown, sandy clay – SAME AS (452) / (455)	0.60m+	0.28m+	0.30m	8.57
442	Cut, of ditch: parallel and linear	9.00m+	0.64m	0.26m	8.28
443	Fill of ditch [444]: firm dark greyish brown sandy clay – SAME AS (445) / (456)	1.00m+	0.40m	0.15m	8.48
444	Cut, of ditch: linear	12.00m	0.40m	0.22m	8.3
445	Fill of ditch [444]: firm dark greyish brown sandy clay – SAME AS (443) / (456)	1.00m+	-	0.07m	8.69
446	Fill of ditch [447]: firm mid brownish grey sandy clay	1.00m+	0.64m	0.21m	8.63
447	Cut, of ditch: parallel and linear	1.00m+	0.64m	0.21m	8.49
448	Fill of pit [449]: firm mid grey silty clay	0.80m	0.70m	0.19m	8.66
449	Cut, of pit: oval	0.80m	0.70m	0.19m	8.52
450	Fill of post hole [451]: firm dark greyish black sandy clay	0.36m	0.30m	0.14m	8.54

451	Cut, of post hole: oval	0.36m	0.30m	0.14m	8.39
452	Fill of ditch [442]: firm mid grey sandy clay – SAME AS (441) / (455)	1.00m+	0.64m	0.26m	8.54
453	Fill of pit [454]: firm dark grey silty clay	0.70m	0.60m	0.21m	8.54
454	Cut, of pit: oval	0.70m	0.60m	0.21m	8.38
455	Fill of ditch [442]: firm dark grey sandy clay - SAME AS (441) / (452)	0.63m	0.32m	0.22m	8.55
456	Fill of ditch [444]: firm mid brownish grey sandy clay – SAME AS (443) / (445)	0.26m	0.34m	0.22m	8.55
457	Fill of ditch [458]: firm mid brownish grey sandy clayey	1.00m+	0.60m	-	8.51
458	Cut, of ditch: parallel and linear	1.00m+	0.60m	-	-
501	Tarmac Surface	10.00m	2.00m	0.05m	-
502	Levelling Layer	10.00m	2.00m	0.10m	-
503	Made Ground	10.00m	2.00m	0.25m	-
504	Redeposited Clay?	8.50m	2.00m	0.35m	-
505	Alluvial Clay	10.00m	2.00m	0.55m	-
506	Natural	2.00m	2.00m	NFE	-
507	Fill of Ditch [508]	2.00m	1.86m	0.46m	-
508	Ditch	2.00m	1.86m	0.86m	-
509	Fill of Ditch [508]	2.00m	1.86m	0.20m	-
510	Old Hedge Row?	2.50m	2.00m	0.30m	-
511	Fill of Ditch [508]	2.00m	1.86m	0.20m	-
520	Tarmac and made ground – current playground surface	16.20m	10.00m	0.26m	8.94.
521	Deposit; firm pale orangey brown sand	16.20m	10.00m	0.22m	8.46
522	Natural; firm pale greenish grey sand	16.20m	10.00m	0.24m	8.26
523	Soil horizon: mid orangey brown, firm, sandy clay	16.20m	10.00m	0.50m	8.11
524	Natural; firm reddish brown sandy clay	16.20m	10.00m	0.10m+	7.81
525	Fill of ditch terminus [526]: firm dark greyish black silty clay SAME AS (527) / (528)	1.10m+	0.65m	0.47m	8.08
526	Cut, of ditch: parallel and linear	9.00m	0.70m	0.54m	7.57
527	Fill of ditch terminus [526]: firm dark greyish black silty clay SAME AS (525) / (528)	1.05m+	0.72m	0.54m	8.11
528	Fill of ditch terminus [526]: firm dark greyish black silty clay SAME AS (525) / (527)	1.12m+	0.50m+	0.43m	8.13

529	Fill of ditch terminus [530]: firm dark greyish black silty clay SAME AS (552)	1.10m+	0.68m	0.58m	8.11
530	Cut, of ditch: parallel and linear	1.10m+	0.68m	0.58m	7.57
531	Fill of ditch [532]: firm mid brownish grey sandy clay – SAME AS (533) / (534) / (550)	1.05m	0.80m	0.20m	7.82
532	Cut, of ditch: parallel and linear	10.00m+	0.80m	0.20m	7.66
533	Fill of ditch [532]: firm mid brownish grey sandy clay – SAME AS (531) / (534) / (550)	0.34m+	0.43m+	0.12m	7.81
534	Fill of ditch [532]: firm mid brownish grey sandy clay – SAME AS (531) / (533) / (550)	1.00m+	0.60m	-	-
535	Fill of ditch [536]: firm mid grey sandy clay	0.54m+	0.38m+	0.28m	7.81
536	Cut, of ditch: parallel and linear	10.00m+	0.95m	0.22m	7.68
537	Fill of pit [538]: soft mid brownish grey silty clayey	0.70m	0.56m	0.11m	7.76
538	Cut, of pit: oval	0.70m	0.56m	0.11m	7.64
539	Fill of ditch [536]: firm mid grey sandy clay – SAME AS (535)	1.06m+	0.96m	0.16m	7.85
540	Cut, of ditch: linear	1.00m+	0.85m	0.58m	7.1
541	Primary fill of ditch [540]: compact orangey brown clay	1.00m+	0.85m	0.09m	7.65
542	Cut, of ditch: linear	4.38m	0.26m	0.44m	8.24
543	Fill of ditch [542]: firm mid greyish brown sandy clay	4.38m	0.26m	0.44m	8.13
544	Secondary fill of ditch [540]: compact light greyish blue sandy clay	1.00m+	0.85mm	0.14m	7.65
545	Tertiary fill of ditch [540]: compact light greyish brown sandy clay	1.00m+	0.85m	0.21m	7.65
546	Uppermost fill of ditch [540]: compact light – mid brown sandy clay	1.00m+	0.85m	0.13m	7.65
547	Uppermost fill of ditch [540]: compact light – mid brown sandy clay – SAME AS 546	1.00m+	0.85m	-	7.64
548	SAME AS 528				
550	Secondary fill of ditch [532]: firm grey sandy clay – SAME AS (531) / (533) / (534)	0.80m+	0.70m	0.12m	7.86

551	Primary fill of ditch [532]; firm dark reddish brown sandy clay	0.80m	0.70m	0.10m	7.74
552	Fill of ditch [530]; firm dark greyish black silty clay – SAME AS (529)	0.50m	0.80m+	0.40m	8.13
553	Cut, of ditch: parallel and curvilinear	10.00m+	2.40m	1.15m	6
554	Primary fill of ditch [553]; firm dark brown silty clay	0.50m+	0.78m	0.13m	7.22
601	topsoil	15.0m	2.0m	0.20m	-
602	Soil horizon	15.0m	2.0m	0.10m	-
603	Ditch fill	10.0m	1.0m	0.18m	-
604	Ditch cut	10.0m	1.0m	0.18m	-
605	Gully fill	3.50m	0.52m	0.15m	-
606	Gully cut	3.50m	0.52m	0.15m	-
607	Gully fill	2.80m	0.10m	20mm	-
608	Gully cut	2.80m	0.10m	20mm	-
609	Pit? Fill	2.90m	0.62m	0.21m	-
610	Pit? Cut	2.90m	0.62m	0.21m	-
611	Natural clayey sands	15.0m	2.0m	0.1m+	-
701	Topsoil	15.0m	2.0m	0.25m	-
702	Made ground	15.0m	2.0m	0.20m	-
703	Made ground	15.0m	2.0m	0.17m	-
704	Modern trench cut	4.90m	2.0m	0.33m+	-
705	Alluvium	4.60m	2.0m	NFE	-
706	Modern Made ground	4.80m	2.0m	NFE	-
801	Topsoil	15.0m	2.0m	0.15m	-
802	Made ground	15.0m	2.0m	0.15m	-
803	Made ground	15.0m	2.0m	90mm	-
804	Made ground	15.0m	2.0m	0.10m	-
805	Natural clay	15.0m	2.0m	NFE	-
901	topsoil	15.0m	2.0m	0.20m	-
902	Made ground	15.0m	2.0m	0.21m	-
903	Concrete slab	2.9m	2.0m+	NFE	-
904	Made ground	2.0m+	0.75m+	NFE	-
905	Stone-built wall	2.0m+	1.25m+	NFE	--
906	Wall trench	2.0m+	1.25m+	NFE	-
907	Mortar spread	0.50m	0.50m	0.13m	-
908	alluvium	15.0m	2.0m	NFE	-
1001	Topsoil	6.00m	2.00m	0.20m	-
1002	Made ground	6.00m	2.00m	0.22m	-
1003	Alluvium	6.00m	2.00m	NFE	-

1101	Topsoil	10.0m	2.0m	0.18m	-
1102	Redeposited soils	10.0m	2.0m	0.21m	-
1103	Made ground-land levelling	10.0m	2.0m	0.10m	-
1104	Ditch fill	2.0m	0.96m	0.32m	-
1105	Ditch cut	2.0m	0.96m	0.32m	-
1106	Land drain	2.0m	0.55m	NFE	-
1107	Natural clays	10.0m	2.0m	NFE	-
1201	Topsoil	15.0m	4.0m	0.28m	-
1202	1203 Feature fill	2.20m	1.60m	>0.12m	-
1203	Irregular Feature cut	2.20m	1.60m	>0.12m	-
1204	Subsoil?	4.0m	1.50m	0.28m	-
1205	Natural alluviums	4.70m	4.0m	Variable to 0.16m	-
1206	Natural clays	6.0m	4.0m	>0.15m	-
1207	Land drain	4.0m	0.60m	NFE	-
1208	Fill of ditch 1209	2.0m	0.70m	0.11m	-
1209	Ditch	2.0m	0.70m	0.31m	-
1210	Fill of ditch 1209	2.0m	0.70m	0.20m	-
1301	Topsoil	25.00m	2.00m	0.30m	-
1302	Fill of gully [1303]	3.05m	0.50m	0.30m	-
1303	Cut of gully	3.05m	0.50m	0.30m	-
1304	Alluvium	25.00m	2.00m	0.10m	-
1305	Natural clay	3.30m	0.50m	0.05m	-
1306	Land drain	2.00m	0.40m	NFE	-
1307	Land drain	3.20m	0.40m	NFE	-
1308	Land drain	2.15m	0.30m	NFE	-
1401	Topsoil	10.00m	2.00m	0.16m	-
1402	Made ground	10.00m	2.00m	0.10m	-
1403	Alluvium	10.00m	2.00m		-
1404	Alluvium				-
1405	Layer; dark brownish grey angular slag fragments welded together	10.00m	1.32m	0.12m	8.05
1406	Alluvium				-
1407	Fill of ditch [1408]				-
1408	Cut of ditch				-
1409	Uncertain layer				-
1410	Uncertain layer				-
1411	Cut, of ditch: linear – SAME AS 1424	7.00m	0.65m	0.50m	7.24
1412	Fill of ditch [1411]: soft dark grey silty sand	7.00m	0.50m	0.50m	7.54
1413	Cut, of ditch: parallel and linear	1.00m+	0.70m	0.45m	7.14
1414	Fill of ditch [1413]: soft mid greyish brown sandy clay	1.00m+	0.70m	0.45m	7.51

1415	Bottoming layer / hard standing below 1405	10.00m+	5.00m+	0.32m	7.95
1416	Contaminated natural below 1415; firm red sandy clay	10.00m+	5.00m+	0.07m	7.65
1417	Cut, of ditch: linear	6.00m	2.10m	0.68m	7.25
1418	Fill of ditch [1417]: firm greyish red sandy clay – SAME AS (1420)	6.00m	2.10m	0.68m	7.54
1419	Soil horizon; firm mid greyish brown sandy clay	10.00m+	5.00m+	0.25m	7.68
1420	Fill of ditch [1417]: firm greyish red sandy clay – SAME AS (1418)	6.00m	2.10m	0.68m	7.9
1421	Natural; firm greyish red sandy clay	10.00m+	5.00m+	-	7.51
1422	Cut, of ditch: curvilinear	5.00m	0.86m	0.42m	6.47
1423	Fill of ditch [1422]: soft orangey grey sandy clay	5.00m	0.86m	0.42m	7.53
1424	Cut, of post hole: circular	0.35m	0.35m	0.12m	7.55
1425	Fill of ditch [1424]: soft pale greyish brown sandy clay – SAME AS (1412)	0.35m	0.35m	0.12m	7.64
1426	Primary fill of ditch [1422]	5.00m	0.86m	0.22m	6.97
1427	Cut, of ditch: linear	3.00m	1.30m	0.28m	7.31
1428	Secondary fill of ditch [1427]; firm pale greyish brown sand	3.00m	1.30m	0.14m	7.31
1429	Primary fill of ditch [1427]; firm greyish brown sandy clay	3.00m	1.30m	0.14m	7.38
1501	Topsoil	10.00m	2.50m	0.26m	-
1502	Made ground	10.00m	2.50m	0.28m	-
1503	Alluvium	10.00m	2.50m	0.10m	-
1504	Fill of feature [1505]	2.50m	0.42m	0.14m	-
1505	Cut of feature	2.50m	0.42m	0.14m	-
1506	Fill of ditch [1507]	6.50m	0.60m	0.16m	-
1507	Cut of ditch	6.50m	0.60m	0.16m	-
1601	Topsoil	10.00m	2.00m	0.24m	-
1602	Made ground	10.00m	2.00m	0.10m	-
1603	Subsoil?	10.00m	2.00m	0.12m	-
1604	Alluvium	2.60m	2.00m	0.05m	-
1605	Alluvium	3.70m	2.00m	0.05m	-
1606	Alluvium	3.70m	2.00m	NFE	-
1607	Service	3.00m	0.40m	NFE	-
1704	Fill of ditch [1705]: soft dark brownish grey sandy clay	1.00m+	0.50m	0.30m	7.95
1705	Cut, of ditch: parallel and linear	3.60m	0.60m	0.30m	7.74

1706	Fill of ditch [1705]: soft dark brownish grey sandy clay – SAME AS (1704)	0.47m+	0.20m+	0.15m	7.94
1707	Secondary fill of ditch [1709] ; firm mid bluish grey clayey sand – SAME AS (1760)	-	4.23m -	0.32m	8.56
1708	Primary fill of ditch [1709]; firm dark greyish black silty clay – SAME AS (1761)	-	2.30m	0.41m	8.36
1709	Cut, of ditch: parallel and linear	10.00m+	4.23m	0.68m	8
1710	Fill of ditch [1711]; soft mid greyish brown sandy clay – SAME AS (1712) / (1713) / (1727)	1.00m+	1.68m	0.30m	7.94
1711	Cut, of ditch: parallel and curvilinear	10.00m+	1.70m	0.73m	7.57
1712	Fill of ditch [1711]; soft mid greyish brown silty sandy clay – SAME AS (1710) / (1713) / (1727)	1.00m+	0.52m+	0.18m	7.78
1713	Fill of ditch [1711]; soft mid greyish brown sandy clay – SAME AS (1710) / (1713) / (1727)	1.00m+	0.62m+	0.18m	7.86
1714	Fill of gully terminus [1716]; soft mid grey silty clay – SAME AS (1715)	0.60m+	0.35m	0.15m	7.79
1715	Fill of gully [1716]; soft mid grey silty clay – SAME AS (1714)	1.00m+	0.30m	0.14m	7.74
1716	Cut, of gully: parallel and curvilinear	2.10m	0.35m	0.15m	7.65
1717	Fill of gully 1718; firm mid brown sandy clay	1.80m	0.38m	0.19m	7.84
1718	Cut, of gully: parallel and linear	1.80m	0.38m	0.19m	7.64
1719	Fill of post hole [1720]; firm mid greyish brown sandy clay	0.19m	0.19m	0.06m	7.81
1720	Cut, of post hole: circular	0.19m	0.19m	0.06m	7.75
1721	Fill of post hole [1722]; firm dark greyish brown sandy clay	0.34m	0.34m	0.21m	7.81
1722	Cut, of post hole: sub circular	0.34m	0.34m	0.21m	7.6
1723	Fill of ditch [1724]; soft brownish grey sandy clay	2.40m	1.20m	0.13m	7.86
1724	Cut, of ditch: parallel and curvilinear	2.40m+	1.20m	0.13m	7.79
1725	Fill of ditch [1726]; firm dark brown sandy clay	2.10m+	0.92m	0.14m	7.83

1726	Cut, of ditch: parallel and linear	2.10m+	0.92m	0.14m	7.73
1727	Fill of ditch [1711]; soft mid greyish brown sandy clay – SAME AS (1710) / (1712) / (1713)	2.00m+	1.22m	0.15m	7.74
1728	Fill of ditch [1729]; soft mid grey sandy clay – SAME AS (1744)	2.00m+	1.45m	0.48m+	7.77
1729	Cut, of ditch: parallel and linear	6.00m+	1.60m	0.67m	7.12
1730	Fill of gully [1731]; soft mid grey sandy clay	2.15m	0.47m	0.16m	7.77
1731	Cut, of gully: parallel and curvilinear	2.15m	0.47m	0.16m	-
1732	Fill of ditch [1733]; compacted greyish brown clay	3.60m+	0.61m	0.19m	7.8
1733	Cut, of ditch: linear	3.60m+	0.61m	0.19m	7.6
1734	Fill of ditch [1735]; firm mid orangey brown sandy clay	3.60m	1.00m	0.22m	7.79
1735	Cut, of ditch: linear	3.60m	1.00m	0.22m	7.51
1736	Fill of ditch [1737]; firm mid brown sandy clay	4.50m	0.62m	0.20m	7.79
1737	Cut, of ditch: curvilinear	4.50m	0.62m	0.20m	7.44
1738	Fill of ditch [1739]; compacted brown clay	2.40m+	0.88m	0.26m	7.7
1739	Cut, of ditch: linear	2.40m+	0.88m	0.26m	7.44
1740	Primary fill of ditch [1747]; compacted brown clay	2.00m+	1.21m	0.27m	7.68
1741	Fill of ditch [1742]; firm mid brown silty sand	1.70m	0.45m	0.22m	7.63
1742	Cut, of ditch: curvilinear	1.70m	0.45m	0.22m	7.49
1743	Fill of ditch [1711]; compacted brown clay – SAME AS (1710) / (1712) / (1713) / (1727)	2.00m+	1.08m	0.15m	7.8
1744	Fill of ditch terminus [1729]; soft dark brownish grey sandy clay – SAME AS (1728)	1.00m+	0.95m	0.27m	7.75
1745	Fill of post hole [1746]; soft mid brownish grey clayey sand	0.16m+	0.24m	0.18m	7.63
1746	Cut, of post hole: circular	0.16m+	0.24m	0.18m	7.49
1747	Cut, of ditch: linear	2.00m+	1.20m	0.48m	7.2
1748	Secondary fill of ditch [1747]; compacted greyish brown clay	2.00m+	0.70m	0.19m	7.64

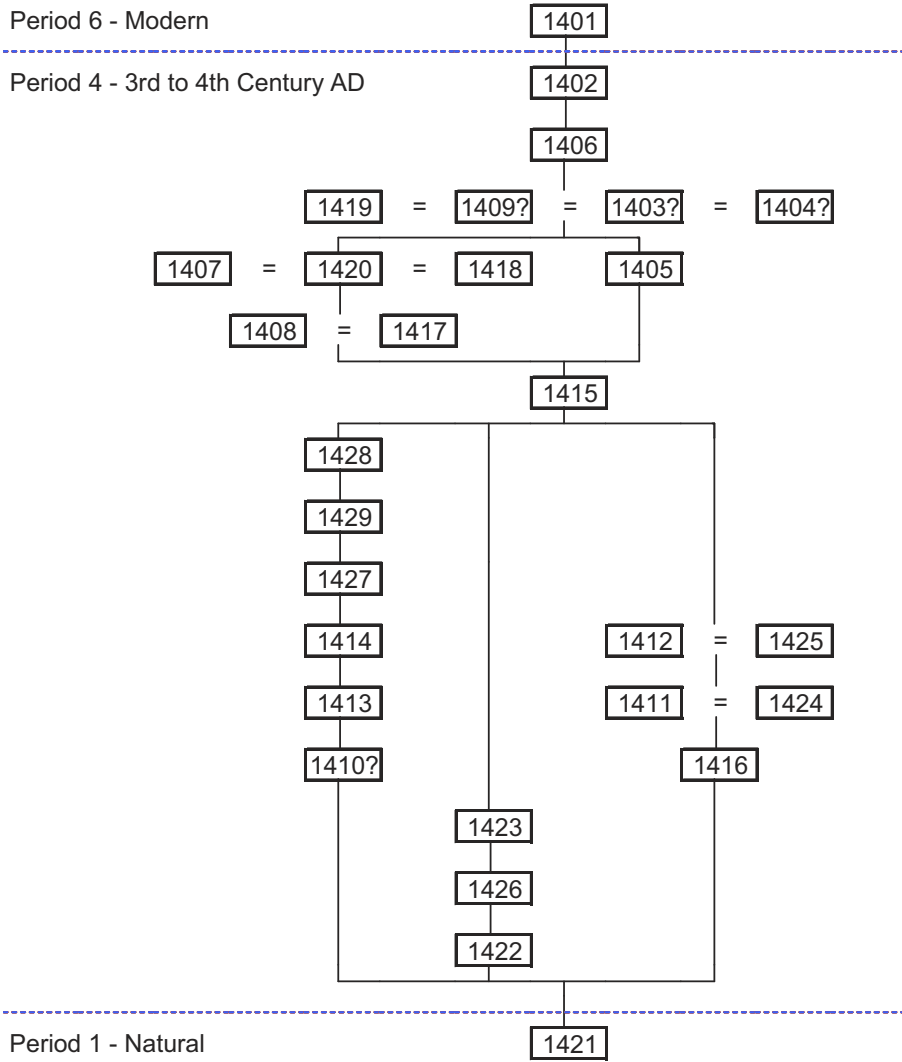
1749	Fill of ditch [1729]; compacted greyish brown clay – SAME AS (1728) / (1744)	2.00m+	1.60m	0.67m	7.64
1750	Fill of post hole [1751]; firm mid greyish brown sandy clay	0.26m	0.26m	0.15m	7.83
1751	Cut, of post hole: sub circular	0.26m	0.26m	0.15m	7.68
1752	Fill of post hole [1753]; firm dark greyish brown sandy clay	0.21m	0.21m	0.05m	7.92
1753	Cut, of post hole: sub circular - truncated	0.21m	0.21m	0.05m	7.87
1754	Fill of post hole [1755]; compacted greyish brown clay	0.26m	0.26m	0.04m	7.73
1755	Cut, of post hole: circular	0.26m	0.26m	0.04m	7.69
1756	Fill of post hole [1757]; compacted greyish brown clay	0.60m+	0.20m	0.21m	7.73
1757	Cut, of post hole: circular	0.22m	0.22m	0.21m	7.52
1758	Fill of post hole [1759]; soft mid brownish grey sandy clay	0.30m	0.30m	0.10m	7.91
1759	Cut, of post hole: circular	0.30m	0.30m	0.10m	7.61
1760	Tertiary fill of ditch [1763]; firm mid bluish grey sandy clay	10.00m+	3.05m	0.30m	8.61
1761	Secondary fill of ditch [1763]; firm dark brownish grey silty clay	10.00m+	1.85m	0.58m	8.46
1762	Primary fill of ditch [1763]; firm dark brown sandy clay	10.00m+	0.50m	0.68m	8.52
1763	Cut, of gully: parallel and linear	10.00m+	3.05m	0.78m	7.84

Appendix B – Harris Matrix

Trench 14

Period 6 - Modern

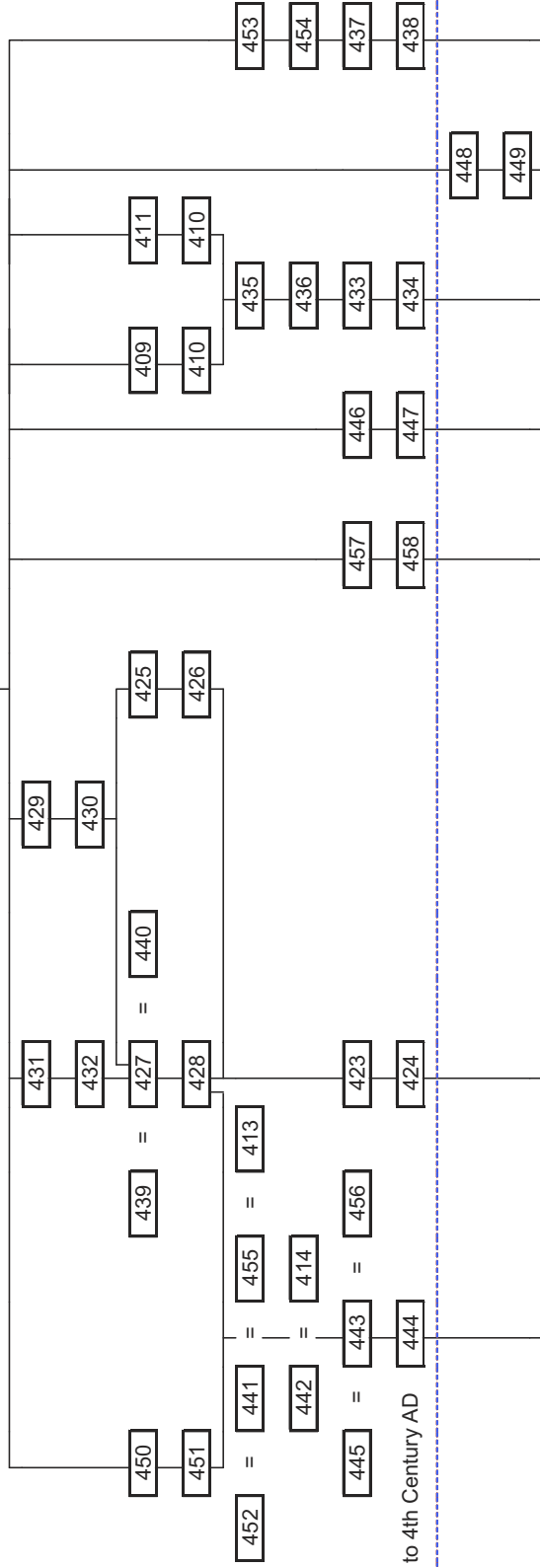
Period 4 - 3rd to 4th Century AD



AREA A

Period 6 - Modern

401 = 402 = 403 = 404 = 420



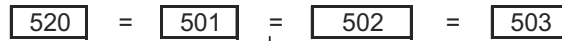
Period 4 - 3rd to 4th Century AD

Period 3 - Late Iron Age/Early Romano-British

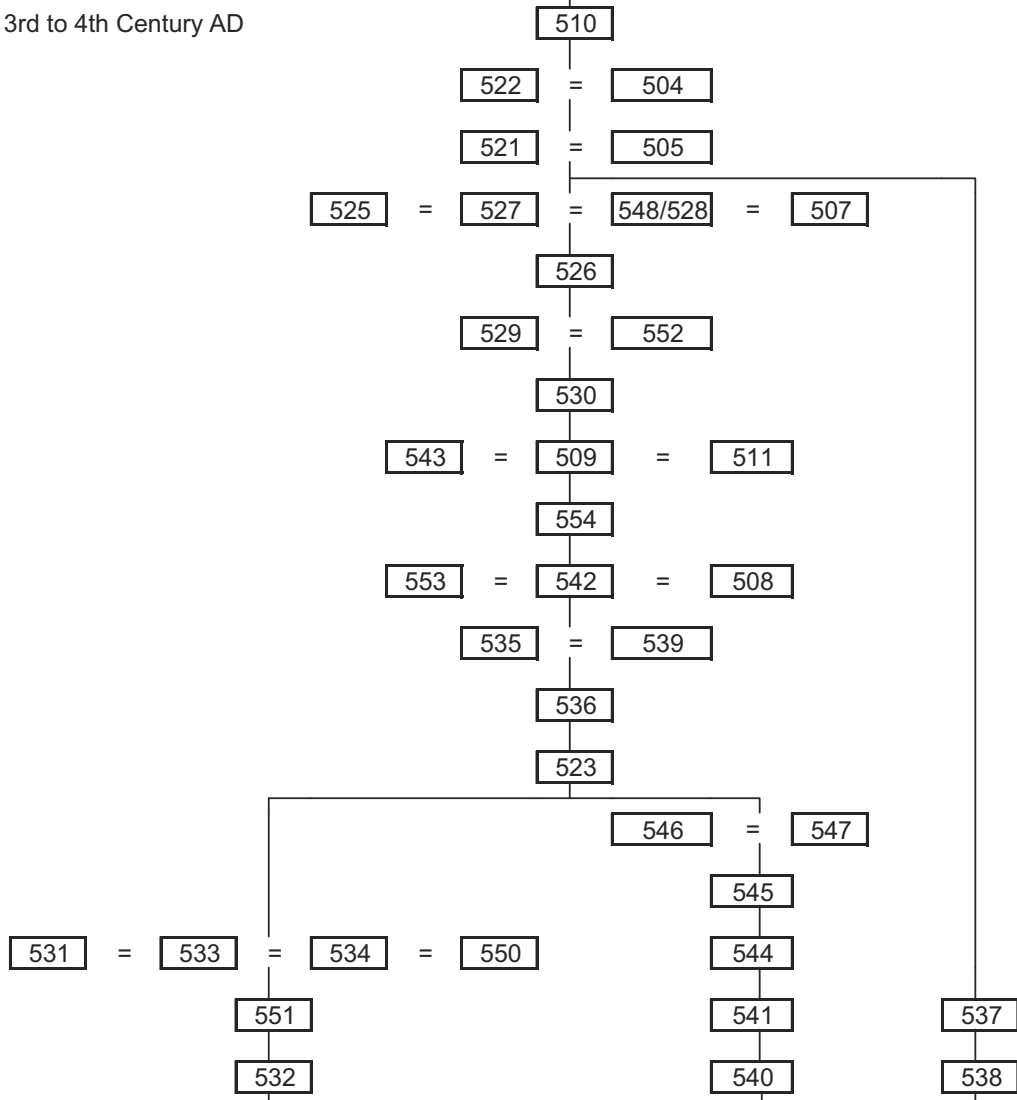
Period 1 - Natural

AREA B

Period 6 - Modern



Period 4 - 3rd to 4th Century AD



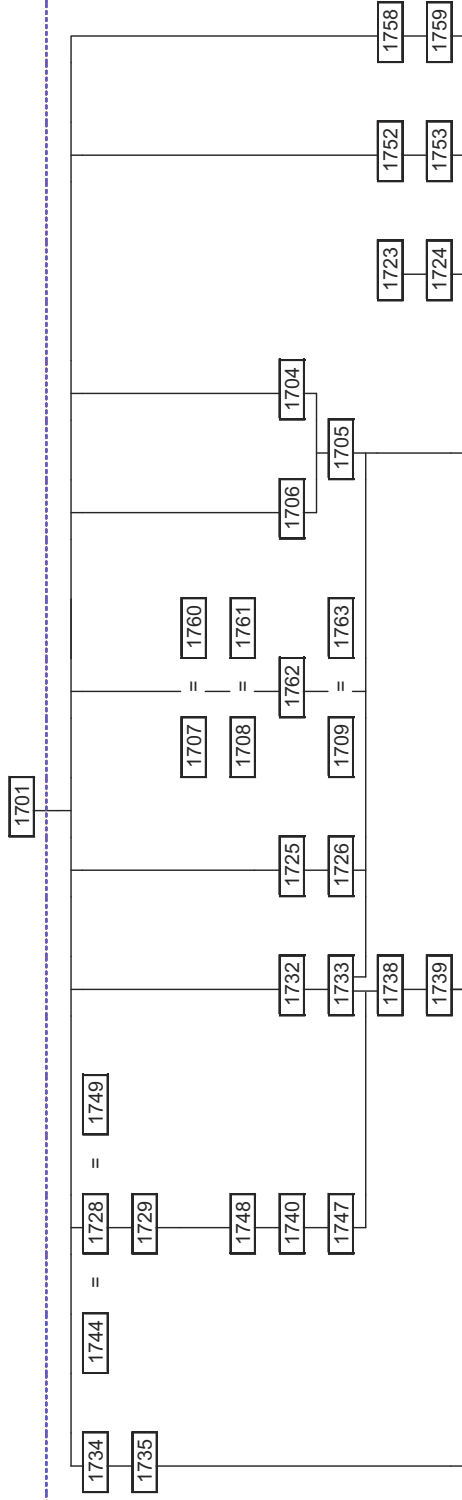
Period 1 - Natural



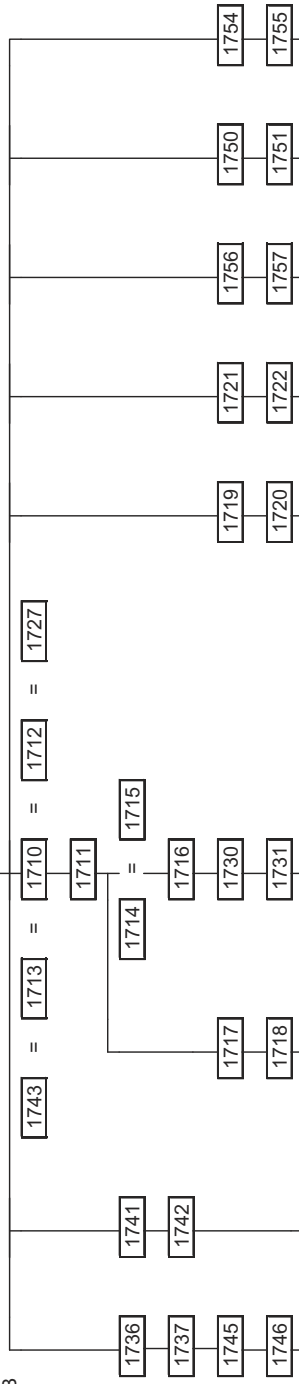
AREA C

Period 6 - Modern

Period 4 - 3rd to 4th Century AD



Period 3 - Late Iron Age/Early RB



Period 1 - Natural

Appendix C – Specialist Reports

The Late Iron Age and Roman Pottery

by Anna Doherty

A moderate sized assemblage of 610 sherds weighing 6394 and amounting to 6.29 EVEs was recovered from the evaluation and excavation of the site. Relatively few large associated groups were recovered but all of the well-dated contexts are from the late 3rd to earlier 4th century and it likely that most other pottery is broadly contemporary. In addition there are small quantities diagnostic Late Iron Age/ early Roman pottery but most contexts of this date contained only a few small fragmentary sherds and much of this material may be residual.

The pottery was examined using a x20 binocular microscope and quantified by sherd count, weight and EVE. In the absence of an established type series for the Bristol region, fabrics and forms have been recorded using codes from the Museum of London recording system (Marsh & Tyers 1979; Davies et al 1994) with some additional site-specific codes, detailed in table 1. Where appropriate, concordance to the National Roman Fabric Reference Collection is also provided (Tomber & Dore 1998).

Code	Expansion (NRFRC concordance)	Sh	Wt (g)	EVE
BAETL	Late Baetican amphorae (BAT AM 2)	1	194	
BB1	Black burnished ware 1 (DOR BB 1)	69	638	0.91
CALC	Calcite tempered ware	4	36	
GROG	Grog-tempered ware	1	26	
LIME	Limestone-tempered ware	40	182	0.1
OXID	Un sourced oxidised wares	16	104	0.07
OXIDF	Un sourced fine oxidised wares	7	68	0.07
OXRC	Oxfordshire colour-coated ware (OXF RS)	28	214	0.3
OXWS	Oxfordshire white-slipped ware (OXF WS)	1	10	
OXWW	Oxfordshire white ware (OXF WH)	1	170	0.21
RWS	Un sourced white-slipped wares	13	100	
SAMCG/EG	Central or East Gaulish samian ware	1	6	0.05
SAMLZ	Lezoux samian ware (LEZ SA 2)	3	12	
SAMMV	Les Martres-de-Veyre samian ware (LMV SA)	1	6	

SAND	Miscellaneous reduced sandy wares	59	524	0.13
SAND1	Un sourced medium coarse grey wares	247	2530	2.24
SAND2	Black burnished style coarse sand-tempered wares with black-slipped surfaces	88	950	1.3
SVW	Oxidised Severn Valley wares (SVW OX2)	28	538	0.52
SVWR	Reduced Severn Valley ware	2	86	0.39
Total		610	6394	6.29

Table 1: Quantification of fabrics.

Late Iron Age/ earlier Roman pottery

Late Iron Age/ early Roman tempered wares make up only around 4% of the assemblage by weight and the majority are limestone-tempered wares with a smaller quantity of calcite-gritted and grog-tempered wares. A similar range of probable 1st century native fabrics were noted at Sea Mills (Timby 1987, 84). A few diagnostic feature sherds are associated with these wares, all from bead-rim or plain profile jars with internally thickened rims, likely to date to around AD10-70/100, which can be paralleled in period 1 at the Henbury School excavations (McSloy 2006, fig 13, 1-8). A few examples of lids in coarse hand-made sandy fabrics also probably date to this period.

In a few cases, pottery of this type was associated with undiagnostic bodysherds in Roman fabrics but it is unclear if these are contemporary early Roman sherds or much later material. One Roman jar form has a cordoned shoulder and is in a fabric containing fine grog and clay pellets which seem more characteristic of the early Roman period; again this is not accompanied by other diagnostic datable material.

There is little positive evidence of 2nd or earlier 3rd century activity in the assemblage although several sherds of 2nd century, central Gaulish samian are present. Most of the Lezoux sherds may not be out of place in late 3rd century groups, since curation of later 2nd century samian is a common feature in 3rd century assemblages. However one sherd of Les Martres-de-Veyre samian, produced between AD100-120, is less likely to fit into this category.

Late 3rd to earlier 4th century pottery

Fabrics

Amongst the later assemblage, it notable that the pottery is generally of a very local character; around 40% is made up by undiagnostic medium coarse grey wares, probably of local origin. A further 15% is made up by SAND2, a coarsely sand-tempered ware with dark-slipped surfaces probably intended to imitate BB1. Some of the higher quality examples of this ware are in fact difficult to distinguish from BB1. However, SAND2 is generally high-fired and on larger sherds there are usually areas where the black slip is patchy and grey surfaces show through. Some examples of this ware are certainly wheel-thrown although on most examples any possible wheel-rilling is obscured by a black slip. BB1 of more certain Dorset origin makes up around 10% of the assemblage. This is a notably smaller figure than in most late groups from Cirencester, where BB1 typically makes up between 25 and 45%, in contrast to Gloucester where the level of BB1 in late groups is much smaller and has been attributed to a greater distance from the Fosse Way which played an important role in the transport of these wares (Timby 1999).

The proportions of coarse wares are notably different from those in the later Roman phase in the adjacent area of excavation at Lawrence Weston, where grey wares make up around 10% and black burnished wares (which may encompass fabrics similar to SAND2) make up around 58% (Parker 1984, 31). This is probably accounted for by chronological differences between the two assemblages. The latest phase on that site was said to be associated with a coin of Valentinian dated to AD367-75 (*ibid.*), whereas activity here is likely to be of late 3rd or earlier 4th century date. The slightly higher proportion of oxidised wares at that site (c.17%), implied to be mostly of Severn Valley origin, is less easy to explain, since that industry was in decline in the 4th century. However, the term 'Severn Valley Ware' encompasses quite a broad distribution of kilns and it is possible that some of the unsourced oxidised wares quantified above also come under that heading. However, it has also been noted that there is a sharp drop off in the distribution of Severn Valley on sites to the south of Gloucester (Timby 2003, 43).

The only other major source of non-local wares is the Oxfordshire industry. Red-slipped wares account for almost 5% of sherd count; there is also one example of an Oxfordshire white-ware mortarium and a single white-slipped sherd from the same industry.

Forms

The assemblage is dominated by just one form: the everted rim jar derived from black-burnished wares traditions, which makes up almost half of the EVE total. It is notable that most examples are relatively wide mouthed usually with diameters of over 200mm. Black-burnished style plain rim dishes and bead and flange bowls are the only other common form, together contributing around a fifth of EVEs. Necked jars and the characteristic tankard form, both associated with Severn Valley wares are both represented by several examples. The most complete examples of the latter type appear similar to Webster's (1976) type 4, which he considered to date to the 2nd or earlier 3rd century. However, this vessel class as whole can be found in earlier 4th century assemblages, so it is more likely to be contemporary with the main period of activity on the site. The only other recurring forms are samian derived bowl forms, mostly related to Dragendorff 31 and 37, from the Oxfordshire industry.

Significance and Potential

Although of a modest size, the assemblage has some potential to add to our understanding of supply and consumption of pottery in Roman Bristol. The majority of contexts contain fairly small and undiagnostic assemblages but several well-stratified groups are present. Given the very limited nature of existing published assemblages from Bristol, these would be a significant addition to the record if illustrated and analysed further. Groups to consider include [527] but also [507], [549], [602], and [1401]. These would also allow for comparison with assemblages from larger and better understood settlements like Gloucester, Cirencester and from other rural or nucleated sites in the vicinity.

Further work

The publication report will be partly based this assessment but the following tasks have been identified during the analysis stage:

Final selection and analysis of key groups	1 day
Further reading and comparison with other local/regional assemblages	1 day
Finalise selection and extract pieces for illustration	0.5 days
<i>Total</i>	<i>2.5 days</i>

It is estimated that around 25 illustrations would cover the range of forms and key groups.

The post-Roman pottery

by Luke Barber

The archaeological work recovered only 15 sherds of post-Roman pottery, weighing 129g, from eight individually numbered contexts. The material has been fully listed by context, fabric, form and date on excel table as part of the archive. The assemblage consists of very small (< 10mm across) to medium (to 50mm across) sized sherds with light to moderate signs of abrasion suggesting most have been subjected to at least some reworking. Virtually no feature sherds are present and no notable context groups are present (the largest being a mere three sherds weighing 36g from context [1504]). The contexts frequently show a mixing of periods, both between the medieval, early post-medieval and late post-medieval as well as with Roman material.

The earliest pottery consists of a tiny (2g) abraded sherd from a mid 13th- to 14th- century fine/medium sand tempered green glazed jug residual in [1504]. The assemblage also includes a few local glazed red earthenwares of later 16th- to mid 18th- century date. Two sherds (14g) were recovered from [1104] with single sherds coming from [1401] (8g) and [1504] (33g). Although all of these pieces show some signs of abrasion this is never extensive suggesting they have not been extensively reworked.

The remainder of the assemblage is of later 18th-, or more commonly 19th-, century date. A range of glazed red earthenwares is present, most notably a jar rim from [201] though small chips are present in [602] (2g) and [1202] (4g). Two sherds of 19th- century English stoneware are present, including part of a jug handle from [1210]. Tablewares are represented by three tiny chips of early 19th- century pearlware, two with blue transfer-printed decoration (contexts [602] (1g) and [1208] (1g)). The only other sherd consists of a small sherd (96g) of refined white earthenware from [1202], likely to be of later 19th- century date.

Significance and potential

The post-Roman assemblage from the site is too small and lacking in diagnostic pieces to warrant any further analysis. A low level of manuring during the medieval and post-medieval periods is suggested by the material. However, no further work is proposed on the assemblage and no separate report is needed for publication.

The Ceramic Building Material

by Sarah Porteus

A total of 25 fragments of ceramic building material (CBM) weighing a total of 428g were recovered from the evaluation. The material was highly abraded with a majority of the fragments being of unidentifiable form. A majority of the material is undated though some fragments are of possible Roman date with the rest of post-medieval date.

The material was examined under a X10 binocular microscope with a provisional fabric series drawn up. The material was recorded on standard recording forms for archive.

Fragments of CBM of possible Roman origin were in a fine soft sandy brown fabric with sparse rose quartz inclusions (fabric 5). All fragments in this fabric were highly abraded and no diagnostic Roman forms were identified. Fabric 5 occurred in contexts [539], [543], [602], [1412], [1713], however this material could be residual in all contexts.

Fragments of CBM of post-medieval date were represented by some identifiable fragments of peg tile and pantile. Post-medieval fabrics identified were fabric 1: a fine orange fabric with sparse coarse rose quartz with moderate fine burnt organics/calcareous inclusions and occasional coarse red iron rich silt inclusions (context [1208] only) and fabric 2: a sandy reddish fabric with abundant medium sized rose quartz (contexts [605], [1202], [1208], [1704]). All fragments in fabric 2 are sufficiently small to be intrusive to the contexts in which they were found. Salt glazed stoneware field drain pipe fragments of 19th or 20th century date were recovered from context [902].

Contexts [1202] and [1418] contained unidentified fragments of CBM in a pale orange fine silty calcareous fabric with abundant fine calcareous inclusions (fabric 3). This material could not be accurately dated.

Material to be illustrated

No items are recommended for illustration.

Significance of the material

The assemblage is not of local or national significance.

Analysis of Potential

The assemblage is too abraded and fragmentary to hold potential for further research.

Further work required

No further work is recommended.

Preparation for deposition in the archive

It is recommended the material be discarded.

Conservation Requirements

None.

The Clay Tobacco Pipe

by Elke Raemen

A single plain stem fragment (wt <2g) was recovered from topsoil [201]. The piece dates to the mid 18th to 19th century.

Significance and Potential

As the piece is unstratified and plain, there is no potential for further analysis. No further work is required and it is recommended the assemblage be discarded.

The Glass

by Elke Raemen

A total of seven pieces of glass (wt 88g) was recovered from two individually numbered contexts. Included is a complete triangular-sectioned, dark green bottle from made ground [1103] which contains both internal and external screw threads as well as a plastic screw cap and cover. Some alcohol contents remain and the bottle (height 96mm) probably represents a souvenir or miniature bottle, dating to the second half of the 20th century.

All other pieces were recovered from fill [1202] and include a green glass wine bottle body sherd, jar fragments and body sherds from a clear glass cylindrical bottle. An aqua window fragment, reinforced with iron wire and exhibiting a textured surface, was recovered as well. All fragments are of late 19th- to 20th-century date.

Significance and Potential

Given the small size of the assemblage, as well as the modern date of the pieces, the group is not considered to hold any potential for further analysis. No further work is deemed necessary and it is recommended the assemblage be discarded.

Prehistoric Flintwork

by Chris Butler

Six pieces of worked flint were recovered during the fieldwork (Table 2). The assessment comprised a visual inspection of each piece of worked flint present, noting details of the range and variety of pieces, general condition, and the potential for further detailed analysis. Classification follows Butler (2005). No archive has been produced as full details of the pieces are incorporated into this report.

Context	
420	1 Bladelet fragment (4g)
433	1 Scraper fragment 1 Fragment (9g)
1418	1 Fragment (FF) (6g)
1710	1 Soft hammer-struck flake (7g)
1741	1 Fragment (FF) (2g)

Table 2: The Flintwork

All of the pieces are a dark grey to black coloured flint with smooth buff coloured cortex present on some pieces. Two of the fragments have been fire-fractured (FF).

There is only one complete piece in this assemblage, the soft hammer-struck flake from Context 1710, with all the remaining pieces being broken fragments. The flake has a small platform, with platform preparation, and the pattern of negative scars on its dorsal side suggests that it may have been an axe-thinning flake of Mesolithic or Neolithic date.

Another Mesolithic piece is the bladelet fragment from Context 420. This has been struck from a bladelet core, and has been truncated by retouch, suggesting the bladelet was used for microlith production. The fragment from Context 433 is possibly from a core, and has some evidence of platform preparation, which could also place this piece in the Mesolithic period. The two fire-fractured fragments are also possibly Mesolithic pieces however it is difficult to be certain with these pieces.

The scraper fragment appears to be a broken half of the distal end of an end scraper, which has been abruptly retouched. From the surviving fragment, it is clear that this was never a large scraper, and although the piece has been carefully retouched, this could be an expedient end scraper of Mesolithic date.

Although most of the assemblage is derived from residual contexts, and is made up of fragments, it seems likely that most, if not all, can be assigned to the Mesolithic period.

Significance and Potential

It is recommended that no further work be undertaken on this assemblage, although the flintwork should be retained for possible further study in the future. The summary above should be included in the report.

The Fired Clay

by Elke Raemen

A small assemblage of 44 pieces (wt 156g) was recovered from ditch [408] (fill [407]; environmental sample <1>), pottery of which is of Roman date. Fragments are all in a low to medium fired, sparse

fine sand-tempered fabric with rare iron oxide inclusions to 1 mm. Although likely to represent daub, none of the fragments show any features.

Significance and Potential

As all pieces are amorphous, the assemblage is not considered to hold any potential for further analysis. No further work is required and it is recommended the assemblage be discarded.

The Geological Material

by Luke Barber, incorporating comments by David Green

Factual

The excavations at the site produced 37 pieces of stone, weighing just under 23kg, from 17 individually numbered contexts. The material has been fully quantified by context and stone type on pro forma for the archive with the assemblage being characterised in Table 3.

Period/Type	General & probable Roman	Late Roman Mid C2nd – 4th	Totals
<i>No. contexts</i>	7	10	17
Clifton Down Limestone (Lower Carboniferous)	1/6,900g	5/2,032g	6/8,932g
Dolomitic conglomerate (Triassic)	1/618g	9/9,120g	10/9,738g
?Sheared limestone	-	1/2,880g	1/2,880g
Pennant sandstone (Upper carboniferous)	4/146g	12/1,006g	16/1,152g
Quartzitic sandstone (?Upper Carboniferous)	-	1/64g	1/64g
?Black Rock Limestone (Lower Carboniferous)	-	1/72g	1/72g
Calcite/fluorite fossil	1/1g	1/1g	2/2g
Totals	7/7,665g	30/15,175g	37/22,840g

Table 3: Characterisation of the geological material.

With the possible exception of the Black Rock limestone, from the top of Kings Weston Hill (a kilometre up-slope from the site), all of the rock types are likely to have come from the hillside immediately above the site (within 600m). This area has a complex sequence of truncated outcropping beds where all of the stone types occur with the Dolomitic Conglomerate being located at the foot of the slope by the site. The high degree of weathering of virtually all pieces suggests the material has been transported naturally over a period of time and is likely to have been present through natural processes on the site itself.

The vast majority of the stone is from ditch fills dated to the later Roman period. The remaining pieces are from contexts likely to be of Roman date or loosely dated by ceramics to this period. With one exception (see below) all of the stone is unworked though the material may have been utilized for post-packing. Indeed a very large (6.9kg) flattish but weathered and irregular piece of Clifton Down limestone from the base of post-hole [410] (fill [409]) may have been used as a padstone of sorts. Although the 'upper' surface of this piece is slightly dished this does not appear to be man-made as the depression is too irregular. By far the largest group of stone was recovered from ditch [508] (fill [507]), where 14,840g was recovered including virtually the full range of types. Only one worked piece is present – a fragment of rectangular-sectioned whetstone (profile measuring 27 x 15mm and weighing 30g) in a fine grey sandstone probably from the Pennant sandstone beds.

Significance and Potential

The geological material from the site is considered to hold no potential for further study. The assemblage is both small and is totally dominated by stone types which are likely to have been available on, or in the immediate vicinity of, the site. With the exception of a small fragment of whetstone, none of the pieces show signs of having been worked/modified by man and further analysis is unlikely to shed any light on the Roman activity on the site.

Methodology

No further work is proposed on the geological material from the site and no report is needed for publication. With the exception of the whetstone fragment the assemblage is recommended for discard.

Charred Macrobotanical Remains and Wood Charcoal

by Lucy Allott

Introduction

Flots and residues containing charred macrobotanical remains and wood charcoal from nine samples were submitted for post excavation assessment. These samples were taken from a series of ditches located across the site and sampling aimed to establish evidence for past vegetation, fuel use and agriculture.

Methods

Flots were measured, weighed and scanned under a stereozoom microscope at magnifications of x7-45. Table 4 documents the contents of each. Preliminary identifications were made by comparing the macroplant remains with modern reference material held at the Institute of Archaeology, University

College London and with specimens documented in reference manuals (Cappers *et al.* 2006, Jacomet 2006, NIAB 2004).

Table 5 records the abundance of charcoal recovered from the residues. Where possible up to 10 fragments from each context were fractured along three planes (TS – transverse, TLS – tangential longitudinal and RLS – radial longitudinal sections) following standardised methodology (Gale and Cutler 2000) to help establish the range of taxa present, preservation of internal anatomical features and their potential for further analytical work. The fractured surfaces were viewed using both a stereozoom Leica EZ4D microscope at 8-45x magnifications (for preliminary sorting) and an incident light Olympus BHMJ microscope at 50, 100, 200 and 400x magnifications (for taxonomic identifications). The presence of roundwood fragments is recorded where relevant. Identifications have been made through comparison with modern reference material at University College London, Institute of Archaeology, and with taxa documented in identification manuals (Hather 2000, Schweingruber 1990, Schoch *et al.* 2004).

Results

Macrobotanical Remains

The majority of flots were small measuring less than 15ml in volume. Several contained high proportions of uncharred botanical remains (such as roots) and sediment. Charcoal fragments were noted in all of the flots however very few contained significant quantities of charcoal greater than 2mm in size. Small assemblages of macrobotanical remains were also recorded in many of these samples and preliminary identifications have been given where possible (Table 4).

Preservation of cereal grains was very variable in these samples and in all instances macrobotanical remains were infrequent (fewer than 10 per flot). Taxa identified include barley (*Hordeum* sp.) and wheat (*Triticum* sp.) some of which can be further identified as glume wheats (*T. spelta/dicocum*). Glume bases in sample <3>, [452] the fill of ditch [442] and the secondary fill [507] of ditch [508], (sample <2>) corroborate the identification for glume wheats. Oat (*Avena* sp.) grains that may be from cultivated or wild taxa were also recorded in sample <8>, [1414], fill of ditch [1413]. A single possible broad bean (cf. *Vicia faba*) in sample <10>, [539] and a pea (*Pisum sativum*) in sample <8>, [1414] were the only non-cereal crops noted.

Weed/wild taxa such as grasses (Poaceae), knotgrass/docks (*Polygonum/Rumex* sp.), stinking chamomile (*Anthemis cotula*) and other daisy family (Asteraceae) taxa as well as possible sedge family (cf. Cyperaceae) taxa were also recorded although not numerous. Legumes (Fabaceae) including medick (cf. *Medicago* sp.) were recorded in samples <11>, [543]; <28>, [1412]; <14>, [1428]; <15>, [1429] and <27>, [525].

Charcoal

Wood charcoal was scarce within the majority of samples and much of the material extracted from the residues was found to be of industrial origin (eg. clinker type waste), coal or vitrified to such an extent that morphological features were absent. Sufficient wood charcoal fragments were present in samples <2>, [507], <4>, [525], <7>, [1423], <15>, [1429], <20>, [1734], <21>, [1736], <22>, [1704] and <28>, [1412] for assessment (Table 5).

The following taxa were identified:

Fagaceae - *Quercus* sp. (deciduous oak)

Fagus sylvatica (beech)

Oleaceae -		<i>Fraxinus excelsior</i> (ash)
Corylaceae -		<i>Corylus avellana</i> (hazel)
Rosaceae - whitebeam)	Maloideae	<i>Malus/ Pyrus/ Crataegus/ Sorbus</i> sp. (apple/ pear/ hawthorn/
Prunoideae		<i>Prunus</i> sp. (cherries/ sloe)
Celastraceae		<i>Euonymus europaeus</i> (spindle tree)
Salicaceae		<i>Salix/Populus</i> sp. (willow/ poplar)
Oleaceae/Caprifoliaceae		<i>Ligustrum vulgare/ Lonicera</i> sp. (privet/ honeysuckle)

Significance and Potential

The small quantities of macrobotanical remains in these samples present little potential for further analysis and are unlikely to provide significant further information regarding the economy or vegetation associated with the Romano-British land use. The remains provide limited evidence for cereal cultivation and many of the weed/wild taxa recorded are common either on arable land, waste ground or grassland and are likely to have been introduced as weeds with the cereal remains. Stinking chamomile is often found on heavier, clay soils and may indicate cultivation of such areas. There is also limited evidence for other non-cereal crop remains of peas and beans. The scarcity of remains is probably related to the types of activities undertaken at the site and to the lack of primary charring localities. Samples from an adjacent site (Paradine 1984) revealed a similar although more diverse array of arable weed taxa and they provide some evidence for both cereals and beans.

The limited charcoal assemblage provides evidence for a range of different vegetation environments being exploited for fuel. Taxa from deciduous woodland as well as hedgerows are evident. Roundwood fragments were moderately common and some are from very small twigs. Unfortunately the assemblage is too limited to provide sufficient further identifications to characterise the vegetation. Much of the 'charcoal' assemblage consisted of vitrified charcoal, coal and clinker type industrial waste. The vitrified charcoal as well as the puffed cereal grains and indeterminate charred plant remains could be an indication of charring at high temperatures which may in turn be associated with industrial activities.

As these samples are from ditches it is possible that the charcoal fragments derive from several different charring episodes within the site vicinity and the deposits may have accumulated over an extended period while the ditches were open. This may explain the relatively high diversity of taxa recorded (considering the small quantity identified). Charcoal fragments in some of the samples contain sediment deposits that have obscured and damaged the anatomical features. Although this has hindered charcoal identification it does provide some evidence for ground conditions. Sediment infiltration can be attributed to phases of wetting and drying caused by changes in the water table either in the deposits at the site or in their original deposition environment before becoming incorporated into the ditches. This is not surprising at St Bede's as the site is relatively low lying (11m above sea level) and maps show numerous field drains located nearby to the north-west of the site.

These assemblages are too limited to provide detailed information regarding the vegetation environment, fuel use or the agricultural economy of the site and therefore no further work is recommended.

Table 4: Flot quantification (*=1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation (+ = poor, ++ = moderate, +++ = good).

Sample No.	Context	Deposit description/ Feature Type	Parent context	Flot collected at	Weight g	Flot volume ml	Uncharred %	Sediment %	Seeds uncharred	Charcoal >4mm	Charcoal 2-4mm	Charcoal <2mm	Crop seeds charred	Weed seeds	Other botanical	Charred	Identifications	Preservation
1	407	Fill of ditch	408		6	10	30	65			*	**	*				cerealia indet frags	+
25	439	Fill of ditch	428	300µm	8	15	10	85	*		*	**		*	*		Asteraceae, cf. <i>Anthemis cotula</i> , Poaceae & cpr indet.	++
3	452	Fill of ditch	442	300µm	2	10	80	10		*	*	**			*		<i>T. dicoccum/spelta</i> glume bases (2)	++
26	452	Fill of ditch	442	300µm	10	20	5	90			*	***						
26	452	Fill of ditch	442		2	5	35	20			*	****						
2	507	Secondary fill of ditch	508		4	5	<5	85			*	***	*	*	*		<i>Triticum</i> sp., occ. Poaceae weed seeds & cf. <i>T. dicoccum</i> glume base	+ / ++
19	523	soil horizon	523	300µm	<2	5	45	50			*	**		*	*		cpr indet. frags.	+ / ++
27	525	fill of ditch terminus	526	300µm	2	15		30	*(1)	**	*	***	*	*			cerealia (incl. <i>Triticum</i> sp.), Fabaceae cf. <i>Medicago</i> sp., <i>Polygonum/Rumex</i> sp.	++

Sample No.	Context	Deposit description/ Feature Type	Parent context	Flot collected at	Weight g	Flot volume ml	Uncharred %	Sediment %	Seeds uncharred	Charcoal >4mm	Charcoal 2-4mm	Charcoal <2mm	Crop seeds charred	Weed seeds	Other botanical charred	Identifications	Preservation	
12	528	Fill of ditch terminus	528		<2	<5	95	1	1		*	*	1	1		<i>Triticum</i> sp., Poaceae	++	
10	539	Fill of ditch	536		4	10	90			*	**	**						
10	539	Fill of ditch	536	300µm	2	5	60			*	***	***	*	*	*	indet. cpr frags puffed, <i>Hordeum</i> sp., cf. <i>Vicia faba</i> frags	+	
11	543	Fill of ditch	542		2	<5	80			*	**	**	*	*		cerealia, <i>Triticum/Hordeum</i> sp., cf. <i>Medicago</i> sp.	+ / ++	
28	1412	Fill of ditch	1411	300µm	<2	<5	50			*	*	***	1	*	*	Fabaceae <i>Medicago</i> sp., indet. cpr frags, cerealia	++	
28	1412	Fill of ditch	1411	1mm	4	15	20			*	*	**	*			cerealia indet puffed	+	
5	1412	Fill of ditch	1412	300µm	4	8	95	*				***		*		1 Poaceae & cf. Poaceae weed	++	
8	1414	Fill of ditch	1413	300µm	<2	<5	80					**	*			1 <i>Triticum</i> sp., 1 <i>Hordeum</i> sp., 1 <i>Avena</i> sp., & cerealia frags	++	
8	1414	Fill of ditch	1413	seed									1			cf. <i>Pisum sativum</i>	+	

ST. BEDE'S CATHOLIC SCHOOL, LONG CROSS, BRISTOL: A POST-EXCAVATION ASSESSMENT REPORT

Sample No.	Context	Deposit description/ Feature Type	Parent context	Flot collected at	Weight g	Flot volume ml	Uncharred %	Sediment %	Seeds uncharred	Charcoal >4mm	Charcoal 2-4mm	Charcoal <2mm	Crop seeds charred	Weed seeds	Other botanical	Identifications	Preservation
9	1418	Fill of ditch	1417	300µm	4	15	<5	90			*	**	*	1		indet. cerealia & Fabaceae	+ / ++
7	1423	Fill of ditch	1422	300µm	14	15	<2	90		1	*	****		*	*	occ. Poaceae weeds & indet cpr frags	++
13	1426	Primary fill of ditch	1422	300µm	20	30		98		*(1)		**	1			cerealia indet	+
14	1428	Secondary fill of ditch	1427	300µm	<2	<5	5	90			*	***	1	*		Asteraceae, 1 indet. cerealia frag, Fabaceae cf. <i>Medicago</i> sp.	
15	1429	Primary fill of ditch	1427	300µm	<2	<5	15	65	*		*	***	*	*		cerealia <i>Triticum/Hordeum</i> sp., Poaceae seed frags, cf. Fabaceae (cf. <i>Medicago</i> sp.)	+ / ++
24	1744	fill of ditch terminus	1729	300µm	2	5	<5	95		*		**		*		Asteraceae	+
23	1730	Fill of gully	1731		18	20	<5	98	*		*	**					
20	1734	Fill of ditch	1735		<2	5	10	60	*	*	*	**		*		1 Poaceae, 1 cf. Cyperaceae	++
21	1736	Fill of ditch	1737		4	10	<5	65	*	*	*	***					
22	1407	?	?		2	5	<5	95	*			*					

Table 5: Residue charcoal/ Industrial waste quantification (*=1-10, ** = 11-50, *** = 51-250, **** = >250) and charcoal identification (rw = round wood).

Sample No.	Context	Feature Type	Parent Context	quantity >4mm	quantity <4mm	Taxa/ material identified & quantity	Further notes
1	407	Fill of ditch	408	1		industrial debris?	
25	439	Fill of ditch	428		*	too few to merit identification	
26	452	Fill of ditch	442	*	*	too few to merit identification	
2	507	Secondary fill of ditch	508	*	**	cf. Maloideae (1), cf. <i>Prunus</i> sp. (7 incl rw), <i>Fraxinus excelsior</i> (2 incl rw)	moderately well preserved charcoal but too few for further work
19	523	soil horizon	523	*	*	too few to merit identification	
4	525	fill of ditch terminus	526	*	*	cf. <i>Quercus</i> sp. (4 rw), <i>Prunus</i> sp. (4), <i>Euonymus europaeus</i> (1)	
27	525	fill of ditch terminus	526	3	*	too few to merit identification	
12	528	fill of ditch terminus	528	*	**	too few to merit identification	
10	539	Fill of ditch	536	*	**	too few to merit identification	
11	543	Fill of ditch	542	*	*	too few to merit identification	

Sample No.	Context	Feature Type	Parent Context	quantity >4mm	quantity <4mm	Taxa/ material identified & quantity	Further notes
28	1412	Fill of ditch	1411	*	**	cf. <i>Quercus</i> sp. (2), <i>Fagus sylvatica</i> (1),	mostly industrial debris and vitrified charcoal therefore limited identifications
5	1412	Fill of ditch	1412	*	*	too few to merit identification	
7	1423	Fill of ditch	1422	**	**	<i>Quercus</i> sp. (9), Maloideae (1)	Poor preservation, sediment through the charcoal
13	1426	Primary fill of ditch	1422	*	*	too few to merit identification	
14	1428	Secondary fill of ditch	1427	*	*	too few to merit identification	
15	1429	Primary fill of ditch	1427	*	*	<i>Ligustrum/Lonicera</i> sp. (3 incl rw), <i>Salix/Populus</i> sp. (1), <i>Quercus</i> sp. (1),	Some cerealia indet & puffed/vesicular indet. cpr, some industrial debris. Very poor preservation of charcoal
24	1744	fill of ditch terminus	1729	*		too few to merit identification	
23	1730	Fill of gully	1731		*	too few to merit identification	
20	1734	Fill of ditch	1735	*	**	<i>Quercus</i> sp. (1), <i>Prunus</i> sp. (1), <i>Corylus avellana</i> (1)	Identifications limited

Sample No.	Context	Feature Type	Parent Context	quantity >4mm	quantity <4mm	Taxa/ material identified & quantity	Further notes
21	1736	Fill of ditch	1737	**	**	<i>Quercus</i> sp. (7), <i>Prunus</i> sp. (1), <i>Maloideae</i> (1), <i>Fraxinus excelsior</i> (1 nw)	
22	1704	?	?	*	*	cf. <i>Lonicera</i> sp. (1),	Poor preservation, sediment through the charcoal, therefore identifications limited
	1504	?	?			coal	

The Column Samples

by C.P. Green and C.R. Batchelor

Introduction

This report summarises the findings arising out of the column sample assessment undertaken by Quaternary Scientific (University of Reading) at St Bede's Catholic School, Long Cross, Bristol (National Grid Reference: ST 54370 78740). An archaeological evaluation of four trenches undertaken in October 2008 by AOC Archaeology Group revealed a series of Roman ditches in the eastern part of the site, the largest of which may represent the boundary of a Roman cemetery excavated during the 1980s. Several undated postholes and a sandstone wall formation were also present. In the western part of the site a series of alluvial clay deposits were present overlying a layer of peat (Pole, 2008).

The specific aim of the column sample assessment was to determine the nature of the depositional environment represented by the sediments and to provide a preliminary reconstruction of the vegetation history and detect evidence for human activities. In order to achieve this aim, the assessment consisted of:

Recording the lithostratigraphy to provide a preliminary reconstruction of the sedimentary history

Assessment of the preservation and concentration of pollen grains and spores from the natural sequence to provide a preliminary reconstruction of the vegetation history, and to detect evidence for human activities e.g. woodland clearance and cultivation

Site Context

St Bede's Catholic School is on the south side of the Severn Estuary on the landward edge of the broad alluvial tract that borders the estuary. The site forms level ground between 8.0m and 10.0m OD about 3.0km from the modern waterfront of the estuary and about 2.5km upstream from the mouth of the River Avon. The ground rises away from the site in a south-easterly direction towards the residential area of Lawrence Weston. The site lies on the extreme edge of the area mapped by the British Geological Survey (BGS) as Alluvium and close to the boundary at which the Mercia Mudstone (Keuper Marl) emerges from beneath the alluvial cover (BGS Bristol District Sheet 1962). Immediately to the east of the site a minor valley forms a re-entrant in the rising ground. The BGS maps an area of Head occupying the floor of this valley.

Methods

Lithostratigraphic descriptions

The lithostratigraphy of all column samples (Tables 6 to 12) was described in the laboratory using standard procedures for recording unconsolidated sediment and peat, noting the physical properties (colour), composition (gravel, sand, clay, silt and organic matter) and inclusions (e.g. artefacts). The procedure involved: (1) cleaning the samples with a spatula or scalpel blade and distilled water to remove surface contaminants; (2) recording the physical properties, most notably colour using a Munsell Soil Colour Chart; (3) recording the composition e.g. gravel, fine sand, silt and clay and (4) recording the unit boundaries e.g. sharp or diffuse.

Pollen assessment

Twenty-four sub-samples were extracted from the main lithological units of each column sample for the assessment of pollen content. The pollen was extracted as follows: (1) sampling a standard volume of sediment (1ml); (2) deflocculation of the sample in 1% Sodium pyrophosphate; (3) sieving of the sample to remove coarse mineral and organic fractions (>125 μ); (4) acetolysis; (5) removal of finer minerogenic fraction using Sodium polytungstate (specific gravity of 2.0g/cm³); (6) mounting of the sample in glycerol jelly. Each stage of the procedure was preceded and followed by thorough sample cleaning in filtered distilled water.

Quality control is maintained by periodic checking of residues, and assembling sample batches from various depths to test for systematic laboratory effects. Pollen grains and spores were identified using the Royal Holloway (University of London) pollen type collection and the following sources of keys and photographs: Moore *et al* (1991); Reille (1992). Plant nomenclature follows the Flora Europaea as summarised in Stace (1997). The assessment procedure consisted of scanning the prepared slides, and recording the concentration and preservation of pollen grains and spores, and the principle taxa on four transects (10% of the slide) (Tables 13 to 16).

Results and Interpretation of the Lithostratigraphic Descriptions

Location 1 (Trench 1)

This sequence represents the lower part (C horizon) of the modern soil developed in massive silty alluvium (Unit 5) passing down very gradually into bedded and increasingly sandy and increasingly organic alluvium (Units 4 and 3) which pass downward into a thin (5cm) bed of silty peat (Unit 2). Below the peat, the alluvium becomes increasingly mineral-rich downward (Unit 1). Charcoal is present near the top of the sequence, in the C horizon of the modern soil (Unit 5) and again in the most organic-rich part of the sequence (Units 2 and 3). No other material of anthropogenic origin was recognised in these deposits, which appear therefore to represent natural deposition in an alluvial environment. The generally gritty and, towards the base of the sequence, slightly gravelly character of the sediments suggests that they may form part of the alluvium of the minor valley that debouches onto the alluvial tract of the estuary nearby, rather than part of the alluvial sediment of the estuarine River Severn.

Depth (m)	Unit	Description
0.00 to 0.19	5	2.5Y 3/2 very dark greyish brown; well sorted slightly gritty silt; massive; scattered root channels and root remains; scattered plant remains; finely divided charcoal; gradual transition to
0.19 to 0.50	4	10YR 3/2 very dark greyish brown; poorly sorted gritty silt with small clasts (3mm); crude and uneven bedding defined by slight variations of colour and texture; plant remains common; scattered small (<5mm) fragments of wood.

Table 6: Lithostratigraphic description column sample <3 - upper>, Location 1 (Trench 1), St Bede's Catholic School, Long Cross, Bristol

Depth (m)	Unit	Description
0.00 to 0.09	4	10YR 3/2 very dark greyish brown; poorly sorted gritty silt; crude bedding defined by slight variations of colour and texture; scattered root channels and root remains; common detrital plant remains; scattered small (<5mm) fragments of wood; gradual transition (with downward increase of plant remains and coarser mineral particles) to:
0.09 to 0.18	3	10YR 3/1 very dark grey; poorly sorted peaty silt; massive; common detrital plant remains; scattered small (<5mm) fragments of wood; scattered finely divided charcoal; gradual transition to:

0.18 to 0.36	2	Black; mineral rich silty peat with coarse sand grains and granules, mineral content least at 0.20 to 0.25; massive; well-marked transition to:
0.36 to 0.45	1	10YR 3/1 very dark grey passing down to 10YR 3/2 very dark greyish brown; poorly sorted gritty silt with coarse sand grains and small clasts (up to 5mm); massive; common plant remains; small fragments of wood (<5mm).

Table 7: Lithostratigraphic description of column sample <3 - lower>, Location 1 (Trench 1), St Bede's Catholic School, Long Cross, Bristol

Location 2 (Trench 14)

This sequence consists entirely of disturbed, possibly redeposited sediment. In the upper part (Unit 3) there is a substantial amount of glassy slag of undoubted anthropogenic origin, which becomes less common downward in Unit 2. Units 3 and 2 rest on a more compact layer (Unit 1) comprising a structureless sand in which many small clasts are present including examples which are sharply angular and appear to be freshly broken. No part of this sequence is naturally deposited.

Depth (m)	Unit	Description
0.00 to 0.20	3	5YR 3/3 dark reddish brown; very poorly sorted clayey gritty sand with clasts of glassy slag (up to 60mm); massive; gradual transition to:
0.20 to 0.37	2	5YR 4/2 dark reddish grey; very poorly sorted sandy gritty clay with clasts of glassy slag (up to 30mm); weakly consolidated with many small voids and open surfaces coated with translocated sediment; gradual
0.37 to 0.49	1	10R 4/6 red; very poorly sorted clayey coarse sand with angular to sub-round clasts of various different rock types, including vein calcite and limestone; massive and more compact than the overlying unit.

Table 8: Lithostratigraphic description of column sample <16>, Location 2 (Trench 14), St Bede's Catholic School, Long Cross, Bristol

Location 3 (Area B)

The two column samples taken at this location overlap very largely. The upper column <1/2> appears to represent in its uppermost unit (Unit 4) the lower part (C horizon) of a soil developed in clayey, probably alluvial, sand. Below this level in column <1/2> and in column <2/2> in Units 2 and 3 there is further evidence of probable near-surface processes in the form of well-developed, undisturbed root channel networks with well-developed iron-rich coatings. Charcoal, mainly finely-divided, is present throughout Units 2 and 3. The presence of vivianite in Unit 4 and the heavy, glazed, iron-rich coatings in Units 2 and 3 suggest the possibility of accumulation in, or preservation beneath stagnant water or water-logged ground. In both columns these sediments rest with a sharp contact on reddish sandy clay (Unit 1) in which the root networks and charcoal characteristic of Units 2 and 3 are completely absent. Unit 1 appears to be a natural deposit, possibly alluvial, possibly colluvial.

Depth (m)	Unit	Description
0.00 to 0.10	4	10YR 5/2 greyish brown; moderately sorted slightly clayey medium to coarse sand with spotty Mn/Fe staining; massive; scattered root channels with humic coatings; scattered plant remains; vivianite; well-marked transition to:
0.10 to 0.18	3	7.5YR 5/4 brown; moderately sorted slightly clayey medium to coarse sand with spotty Mn/Fe staining; massive ; weakly consolidated with a well-developed network of voids and channels with iron-rich surface coatings; charcoal (up to 5mm); well-marked transition to:
0.18 to 0.48	2	7.5YR 4/3 brown; moderately sorted clayey medium to coarse sand with spotty MN/Fe staining; massive; more compact than overlying unit with fewer voids and channels; iron-rich surface coatings; charcoal (up to 5mm); sharp contact with:
0.48 to 0.50	1	2.5YR 4/3 reddish brown; moderately sorted sandy clay; massive.

Table 9: Lithostratigraphic description of column sample <17 - 1/2>, Location 3 (Area B), St Bede's Catholic School, Long Cross, Bristol

Depth (m)	Unit	Description
0.00 to 0.13	4	10YR 5/2 greyish brown; moderately sorted slightly clayey medium to coarse sand with spotty Mn/Fe staining; massive; scattered root channels with glazed iron-rich surface coatings; scattered root remains; charcoal (<5mm); well-marked transition to:
0.13 to 0.19	3	7.5YR 5/4 brown; moderately sorted slightly clayey medium to coarse sand with spotty Mn/Fe staining; root channels with bright red glazed iron-rich coatings; charcoal (<5mm); well-marked transition to:
0.19 to 0.39	2	7.5YR 4/3 brown; moderately sorted clayey medium to coarse sand with spotty Mn/Fe staining; massive; common root channels preserving root impressions and primary vertical root network; yellowish powdery surface coatings; charcoal (<5mm); sharp contact with:
0.39 to 0.50	1	2.5YR 4/3 reddish brown; sandy clay; massive.

Table 10: Lithostratigraphic description of column sample <17 - 2/2>, Location 3 (Area B), St Bede's Catholic School, Long Cross, Bristol

Location 4

The two columns collected from this locality overlap by about 0.12m. The upper part of the sequence (Unit 1) is a dirty grey, structureless, poorly sorted and fairly compact clayey sand incorporating many particles of charcoal, mainly small (<5mm). This layer passes down into similar material (Unit 2), less 'dirty' but containing some fine gravel. These units appear to be disturbed sediment and the upper unit in particular

has many of the characteristics of trampled ground. They rest on undisturbed bedded sandy sediments in which no material of anthropogenic origin (including charcoal) was recognised.

Depth (m)	Unit	Description
0.00 to 0.13	3	10YR 3/1 very dark grey; poorly sorted sandy clay/clayey sand; massive; root channels with localised humic coatings; scattered detrital plant remains; common charcoal (<5mm); gradual transition to:
0.13 to 0.44	2	10YR 4/3 brown; poorly sorted clayey sand with clasts up to 8mm; massive; root channels with humic coatings and evidence of sediment translocation; common charcoal (<5mm); gradual transition to:
0.44 to 0.50	1	7.5YR 4/4 brown; well sorted slightly clayey medium to coarse sand.

Table 11: Lithostratigraphic description of column sample <18 - upper>, Location 4 (Area B?), St Bede's Catholic School, Long Cross, Bristol

Depth (m)	Unit	Description
0.00 to 0.07	3	7.5YR 3/2 dark brown; moderately sorted clayey sand; massive; root channels; charcoal (<5mm); well-marked transition to:
0.07 to 0.19	2	7.5YR 4/4 brown; well sorted slightly clayey medium to coarse sand; massive; well-marked transition to:
0.19 to 0.50	1	7.5YR 3/4 dark brown; sandy clay with beds of fine to medium sand at 0.23 to 0.25, 0.29 to 0.30, two thin beds at 0.36 to 0.38, thin bed at 0.43; bedded with voids and channels in the sandy clay and evidence of sediment translocation on open surfaces.

Table 12: Lithostratigraphic description of column sample <18 - lower>, Location 4 (Area B?), St Bede's Catholic School, Long Cross, Bristol

Results and Interpretation of the Pollen

Location 1 (Trench 1)

The results of the pollen assessment of column sample <3> indicates a generally high concentration and moderate to high preservation of pollen remains through all the lithostratigraphic units. The main taxa included Poaceae (grass family), *Cereale* type (e.g. barley), *Chenopodium* type (e.g. fat hen), Lactuceae (daisy family), *Plantago lanceolata* (ribwort plantain). *Alnus* (alder), *Quercus* (oak), *Corylus* type (e.g. hazel), *Tilia* (lime), cf *Taxus* (yew) and *Fagus* (beech) were occasionally recorded. The dominantly herbaceous assemblage which continues through the sequence is indicative of an open environment heavily modified by human activity.

Depth (m)	Unit	Concentration	Preservation	Microscopic charred particles	Main taxa	
					Latin name	Common name
<3 – Upper> 0.03 to 0.04	5	4-5	3	1	Lactuceae Poaceae <i>Chenopodium</i> type <i>Centaurea nigra</i> <i>Cereale</i> type cf <i>Sphagnum</i> Diatoms	Daisy family Grass family e.g. Fat hen Black knapweed e.g. Barley Sphagnum spore
<3 – Upper> 0.22 to 0.23>	4	1	4	0	Poaceae <i>Plantago lanceolata</i> Diatoms	Grass family Ribwort plantain
<3 – Lower> 0.11 to 0.12	3	5	3-4	0	<i>Alnus</i> <i>Quercus</i> <i>Fagus</i> <i>Plantago lanceolata</i> <i>Cereale</i> type <i>Cyperaceae</i> <i>Poaceae</i> cf <i>Apiaceae</i> <i>Chenopodium</i> type	Alder Oak Beech Ribwort plantain e.g. Barley Sedge family Grass family Carrot family e.g. Fat hen
<3 – Lower> 0.30 to 0.31	2	5	3-4	0	<i>Quercus</i> <i>Corylus</i> type <i>Plantago lanceolata</i>	Oak e.g. Hazel Ribwort plantain e.g. Chamomile

					<i>Anthemis</i> type Cyperaceae Poaceae Lactuceae <i>Cereale</i> type	Sedge family Grass family Daisy family e.g. Barley
<3 – Lower> 0.44 to 0.45	1	3	3-4	0	<i>Alnus</i> <i>Quercus</i> <i>Tilia</i> cf <i>Taxus</i>	Alder Oak Lime Yew

Table 13: Pollen-stratigraphic assessment of column sample <3>, Location 1 (Trench 1), St Bede's Catholic School, Long Cross, Bristol

Location 2

The results of the pollen-stratigraphic assessment indicate a low to moderately high concentration and low to moderate preservation of remains through column sample <16>. The main taxa identified were Poaceae (grass family), Lactuceae (daisy family) and *Plantago lanceolata* (ribwort plantain). Other taxa included *Chenopodium* type (e.g. fat hen), cf *Cereale* type (e.g. barley) and cf *Ranunculus* type (e.g. creeping buttercup). The pollen assemblage is indicative of an open environment heavily modified by human activity.

Depth (m)	Unit	Concentration	Preservation	Microscopic charred particles	Main taxa	
					Latin name	Common name
0.09 to 0.10	3	3-4	3	3	Poaceae Caryophyllaceae Lactuceae <i>Chenopodium</i> type cf <i>Plantago</i> type cf <i>Polygonum</i> type	Grass family Campion family Daisy family e.g. Fat hen e.g. Ribwort plantain e.g. Knotgrass
0.25 to 0.26	2	3	2-3	1-2	Poaceae Lactuceae <i>Plantago</i>	Grass family Daisy family Ribwort plantain

					<i>lanceolata</i> cf <i>Cereale</i> type cf <i>Ranunculus</i> type <i>Polypodium vulgare</i>	e.g. Barley Buttercup family Polypody
0.34 to 0.33	2	1	1-2	1	Lactuceae Poaceae <i>Plantago lanceolata</i> cf <i>Cirsium</i> type	Daisy family Grass family Ribwort plantain e.g. Spear thistle

Table 14: Pollen-stratigraphic assessment of column sample <16>, Location 2 (Trench 14), St Bede's Catholic School, Long Cross, Bristol

Location 3

The results of the pollen-stratigraphic assessment indicate a low to absent concentration and a low preservation of remains through column sample <17>. The only pollen taxa identified included Lactuceae (daisy family), Aster type (e.g. spear thistle) and occasional Poaceae (grass family) *Plantago lanceolata* (ribwort plantain). Although these pollen taxa are recorded, they are more resistant than other pollen/spore types to corrosion, and so are likely over-represented. Consequently, no meaningful comments can be made on the likely vegetation environmental.

Depth (m)	Unit	Concentration	Preservation	Microscopic charred particles	Main taxa	
					Latin name	Common name
<17 Upper> 0.17 to 0.18	3	0	-	1	-	-
<17 Upper> 0.25 to 0.26	2	1	1	0	Lactuceae	Daisy family
<17 Upper> 0.32 to 0.33	2	1	1-2	1-2	Lactuceae	Daisy family
<17 Upper> 0.43 to 0.42	2	2	1-2	1	<i>Pinus</i> Lactuceae Poaceae	Pine Daisy family Grass family
<17 Lower> 0.09 to 0.10	4	1	1-2	1-2	Lactuceae <i>Aster</i> type Poaceae	Daisy family e.g. Spear thistle Grass family
<17 Lower> 0.17 to 0.18	3	1	1-2	2	Lactuceae <i>Polypodium vulgare</i>	Daisy family Polypody
<17 Lower> 0.25 to 0.26	2	2	1-2	1	Lactuceae cf <i>Plantago</i> type	Daisy family e.g. Ribwort plantain
<17 Lower> 0.33 to 0.34	2	1	1	3-4	Lactuceae	Daisy family
<17 Lower> 0.41 to 0.42	2	1	1-2	0	Lactuceae <i>Aster</i> type	Daisy family e.g. Spear thistle
<17	1	0	-	1	-	-

Lower>						
0.49 to 0.50						

Table 15: Pollen-stratigraphic assessment of column sample <17>, Location 3 (Area B), St Bede's Catholic School, Long Cross, Bristol

Location 4

The results of the pollen-stratigraphic assessment indicates moderate to high concentration of pollen remains in unit 1, column sample <18>. The assemblage includes of Lactuceae (daisy family), Poaceae (grass family), cf *Plantago lanceolata* (ribwort plantain), Caryophyllaceae (campion family) and *Ranunculus* type (e.g. creeping buttercup). This herbaceous assemblage is indicative of an open environment modified by human activity.

The results of the pollen-stratigraphic assessment indicate a low to absent concentration and a low preservation of remains through the remaining units of column sample <18>. The main pollen taxa identified was Lactuceae (daisy family), and as this taxa is more resistant than other pollen/spore types to corrosion, and it is most likely over-represented. Consequently, no meaningful comments can be made on the likely vegetation environmental through these units.

Depth (m)	Unit	Concentration	Preservation	Microscopic charred particles	Main taxa	
					Latin name	Common name
<18 Upper> 0.20 to 0.21	2	1	2	5	<i>Pinus</i>	Pine
					Lactuceae	Daisy family
<18 Upper> 0.38 to 0.39	2	1	1-2	5	Lactuceae	Daisy family
					Caryophyllaceae	Campion family
<18 Upper> 0.46 to 0.47	1	1	1-2	5	<i>cf Sinapis type</i>	e.g. White mustard
<18 Lower> 0.14 to 0.15	2	0	-	1	-	-
<18 Lower> 0.32 to 0.33	1	1	1-2	1	<i>cf Quercus</i>	Oak
					Caryophyllaceae	Campion family
					Lactuceae	Daisy family
					Poaceae	Grass family
<18 Lower> 0.49 to 0.50	1	5	1-2	1-2	Lactuceae	Daisy family
					Poaceae	Grass family
					<i>cf Plantago lanceolata</i>	Ribwort plantain
					<i>cf Cereale type</i>	e.g. Barley
					<i>Ranunculus type</i>	Buttercup family
					<i>Anthemis type</i>	e.g. Chamomile
Caryophyllaceae	Campion family					

Table 16: Pollen-stratigraphic assessment of column sample <18>, Location 4 (Area B), St Bede's Catholic School, Long Cross, Bristol

Discussion and Conclusions

The results of the lithostratigraphic assessment indicate that column samples <3> (Trench 1) and the lower part of samples <17> and <18> (Area B) record evidence of the natural processes that have shaped the landscape. These have been largely processes of alluviation at the landward margin of the estuarine floodplain of the River Severn. The samples also record the varied, but at the sample locations quite modest impact of human occupation on the site. In general, the evidence of human occupation is confined within the samples to the upper part of the sequences and in samples <17> and <18> (Area B) takes the form of sediment disturbance with the incorporation of charcoal into the disturbed sediment. Charcoal is also present in the naturally deposited sediments recorded in sample <3> (Trench 1). In sample <16> (Trench 14) the whole sediment sequence is in disturbed ground and the upper part is heavily contaminated with anthropogenic debris.

The results of the pollen-stratigraphic assessment indicate that samples <3> (Trench 1), <16> (Trench 14) and the lower part of <18> (Area B) contain a moderate to high concentration and preservation of remains. The main taxa recorded in these sequences indicate an open landscape dominated by herbaceous vegetation. The presence of taxa such as *Cereale* type (e.g. barley), *Plantago* type (ribwort plantain) and *Chenopodium* type (e.g. fat hen) is indicative of a landscape modified by human activity. The preservation and concentration of pollen remains in column sample <17> and the upper part of sample <18> is too poor to allow any interpretation of vegetation history.

Recommendations

No lithostratigraphic work is recommended on any of the samples. Further investigation of the pollen from column sample <3> (Trench 1) would allow further quantification of the vegetation history. No further work is recommended on column sample <16> due to the disturbed nature of the sedimentary sequence.

Iron Metallurgy and Industrial Residues

by Mike Roy

Introduction

An assemblage of industrial waste including slags and hearth bottom from iron working was recovered during the archaeological works and the subsequent processing of samples. A macroscopic assessment was made, with the aid of a magnet, and the materials separated according to material type. The assemblage was examined and categorized, with materials quantified by context.

The Material

The slag includes a mixture of residues from industrial processes, including residues from combustion, including fuel ash slag (FAS) and a sizeable amount of material derived from iron metalworking, possibly the smithing of iron. The industrial residues are summarised in Tables 17 – 22 below.

While fuel ash slag can be produced as a result of metalworking, it can also result from other processes such as the burning of daub and timber walls (Zeuner 1959) and cremation (Henderson et al 1987). However, the presence of large quantities of magnetic slag and of small quantities of hammerscale, in flake and occasionally spheroid form, in the associated deposits, indicates that the material is likely to derive from ironworking. Hammerscale is a diagnostic byproduct of smithing.

Context	Area/ Feature	Description	Quantity	Weight (g)
1405	Tr. 14/Slag layer	Plano-convex hearth base fragments	3	622.2
1415	Tr. 14/Hardstanding	Plano-convex hearth base amalgam fragment, with vitrification	1	243.7
1416	Tr. 14/Disturbed natural	Plano-convex hearth bases and fragments	3	1222.0
1428	Tr. 14/Ditch [1427]	Plano-convex hearth base fragments	6	1113.7
1429	Tr. 14/Ditch [1427]	Plano-convex hearth base	1	165.8
		Total	14	3367.4

Table 17 Plano-convex hearth bottoms

Context	Area/ Feature	Description	Quantity	Weight (g)
439	Tr. 4/Ditch [428]	Fe slag	5	0.9
528	Tr. 5/Ditch [526]	Fe slag	9	1.1
1401	Tr. 14/	Fe slag	31	492.8
1403	Tr. 14/	Fe slag	1	11.8
1405	Tr. 14/Slag layer	Fe slag	13	96.2
1410	Tr. 14/	Fe slag	7	158.3
1412	Tr. 14/Ditch [1411]	Fe slag	65	22.5
1414	Tr. 14/Ditch [1413]	Fe slag	3	0.6
1415	Tr. 14/Hardstanding	Fe slag	13	108.7
1418	Tr. 14/Ditch [1417]	Fe slag	14	21.3
1420	Tr. 14/Ditch [1417]	Fe slag	1	12.9
1429	Tr. 14/Ditch [1427]	Fe slag	21	95.9
1734	Tr. 17/Ditch [1735]	Fe slag (including large spheroids)	33	2.4
		Total	216	1025.4

Table 18 Fe slag

Context	Area/ Feature	Description	Weight (g)
1401	Tr. 14/	Soil with hammerscale/filings	5.6
1405	Tr. 14/Slag layer	Soil with hammerscale/filings	4.0
1410	Tr. 14/	Soil with hammerscale/filings	3.3
1412	Tr. 14/Ditch [1411]	Soil with hammerscale/filings	1.2
1416	Tr. 14/Disturbed natural	Soil with hammerscale/filings (including flakes)	21.1
1418	Tr. 14/Ditch [1417]	Soil with hammerscale/filings	2.3
1428	Tr. 14/Ditch [1427]	Loose earth with occasional hammerscale/filings	940.5
1428	Tr. 14/Ditch [1427]	Floor element, with possible Fe slag	382.9
Tr. 14	Tr. 14/	Soil with hammerscale/filings	0.7
		Total	1361.6

Table 19 Microresidues

Context	Area/Feature	Description	Quantity	Weight (g)
602	Tr. 6/Soil horizon	Indeterminate slag	1	29.9
1403	Tr. 14/	Indeterminate slag (some vitrification)	29	565.5
1405	Tr. 14/Slag layer	Indeterminate slag	73	501.5
1416	Tr. 14/Disturbed natural	Indeterminate slag (? Fe)	31	35.5
1418	Tr. 14/Ditch [1417]	Indeterminate slag (some possibly Fe)	52	86.6
1423	Tr. 14/Ditch [1422]	Indeterminate slag (? FAS)	2	0.6
1428	Tr. 14/Ditch [1427]	Indeterminate slag (probable Fe slag)	186	1458.0
1429	Tr. 14/Ditch [1427]	Indeterminate slag (? FAS)	34	19.2
1730	Tr. 17/Gully [1731]	Indeterminate slag (? FAS)	7	5.1
Tr.14	Tr. 14/	Indeterminate slag (? Fe)	6	210.0
Total			421	2911.9

Table 20 Indeterminate industrial slag residues

Context	Area/Feature	Description	Quantity	Weight (g)
452	Tr. 4/Ditch [442]	FAS	9	0.7
523	Tr. 5/Soil horizon	FAS	1	6.9
528	Tr. 5/Ditch [526]	FAS	21	3.3
1414	Tr. 14/Ditch [1413]	FAS	47	4.8
1426	Tr. 14/Ditch [1422]	FAS	8	9.1
1429	Tr. 14/Ditch [1427]	FAS (coke/coal waste)	62	9.0
Total			148	33.8

Table 21 Combustion residues

A small quantity of baked clay and a possible, heavily corroded, iron object were identified during assessment. This material is tabulated below.

Context	Area/Feature	Description	Quantity	Weight (g)
549	Tr.5/	Fragments of baked clay object with pattern of parallel incised diagonals	9	72.4
1429	Tr. 14/Ditch [1427]	Fe object (corroded)	1	36.5

Table 22 CBM and Fe object

Conclusions

The majority of the industrial residues were recovered from contexts in Trench 14, and it is apparent that this was the location of either iron metalworking, or the disposal of material derived from this industry. Material from contexts in this trench include likely plano-convex hearth bottoms, fragments and amalgams. Elsewhere, relatively small quantities of industrial waste are present, though the presence of large ferrous spheroids in context [1734] is indicative of smithing activity.

The fuel ash slag may derive from non-metalworking processes such as the burning of timber and daub structures. General combustion processes were also indicated by the presence of burnt fuel residues in context [1429].

While no further analytical work is necessary on the material identified as combustion residues, the indeterminate slag material should be further analysed to determine its nature and the activities it represents. The metalworking residues will also require further analysis. In particular the plano-convex bases should be recorded in order to clarify the nature of ironworking activities being undertaken. A short report should be produced, for inclusion in the publication of the excavation.

Iron and baked clay artefacts will require further assessment by the appropriate specialists.

Animal Bone

by Jackaline Robertson

Factual data

A total of 960 bone fragments collected from 46 contexts was submitted for environmental assessment from the excavations undertaken at St Bedes Catholic school, Bristol. The archaeological contexts under assessment consisted of ditches, post holes and pits. 272 fragments were identified either to element or species. Given the size of the overall assemblage this is a relatively small sample of animal bone which limits its potential archaeological value. The results are catalogued below. No dating evidence was available during the writing of this report but during excavation and based on previous work undertaken, this was believed to be a Romano-British Settlement and cemetery suggesting a Roman date.

The animal bone was retrieved through processing bulk soil samples and hand collection. This has ensured that the assemblage has not been biased as a wide range of different sized elements from varying species was recovered. This is evidenced by the retrieval of small bones such as foot fragments and rodent bones which are typically lost if the only method of collection is by hand. Poorly preserved bone fragments were also recovered alongside more complete well preserved bone elements. Overall the bone assemblage was described as being in good condition, with only a small proportion of the assemblage being described as poorly preserved. The material designated as poorly preserved had typically experienced taphonomic damage prior to burial such as burning or weathering.

Methodology

The assemblage was identified to element and species with the aid of skeletal atlases (Hillson 1986; Schmid 1972) and the reference collection stored at AOC Archaeology Ltd (Edinburgh). When an element could not be identified to species, it was instead described as large mammal (cattle / horse / red deer), ovicaprid (sheep or goat) or small mammal (dog/ cat/ rodent). The results are presented in four tables in below. Table 23 details the identifiable elements and species and the following criteria were recorded: context, element,

species, side, fusion state, fragmentation, and state of preservation and any evidence of staining on the bone surface. Assessing the level of staining used the following method: no staining was rated "0"; some staining affecting less than 25% of the bone surface was designated as "1"; less than 50% surface staining was "2"; while 50 – 75% was described as "3" and greater than 75% was rated as "4". A similar system was used to analysis preservation with 'A' referring to excellent, 'B' good, 'C' adequate and 'D' poor. The assemblage was also examined for butchery marks, pathologies, bone working, burning and carnivore gnawing.

Statement of potential

The assemblage was dominated by cattle with 27 fragments identified. Other species identified were ovicaprid (21), horse (11), pig (4), dog (2), bird (2), rodent (8), A further 148 fragments could only be described as large mammal and 4 as small mammal. Those fragments identified as large mammal are more likely to be either cattle or horse. The two small mammal fragments are probably dog. The assemblage was dominated by skull fragments, loose teeth, pelvis fragments and foot bones.

No bone fragments were recovered from wild species such as deer.

Fragments of rib and skull had several shallow parallel cut marks which appeared to have been made by a blade rather than a chopping tool like a cleaver or machete. This indicates that the intention was to remove meat or for skinning the carcass. A horn had chop marks at the base consistent with a cleaver to detach it from the skull. This horn also appeared to have been polished but there was no further evidence of bone working among the mammal bone fragments retrieved. A bird bone had small circular depressions running along the surface which could be evidence of bone working although it was poorly preserved. The butchery marks may be of value to other researchers into specific aspects of Roman butchery.

The horse bones had no obvious evidence of butchery but one metacarpal displayed clear evidence of a pathology. There was excessive bone growth and porosity along the proximal surface. This could be evidence of the beginning of arthritis in an older animal. There is no evidence that this was an articulated horse burial. Instead these remains were deposited throughout the site with no evidence of selective disposal occurring.

72 small fragments of burnt bone were retrieved and are white, blue and black in colour indicating they had been burnt at varying temperatures. The fragments were small with few exceeding 1cm in size. The burnt bone may represent residual waste from numerous industrial to domestic activities such as fuel, glue making, tanning, cooking and cleaning. The burnt bone evidence is too small and poorly preserved to offer any further definitive answers.

The assemblage is dominated by skull fragments, loose teeth, pelvis fragments and foot bones and there are few high value meat bones such as long bones. This indicates that this assemblage is probably a rubbish dump made up of mixed waste, primarily from industrial sources such as butchery, tanning or glue making with some domestic house hold waste included.

Given the small assemblage and the material currently available this does not raise any new research questions as the evidence is not unusual and most probably represents waste from industrial sources with some domestic waste. The size of the assemblage limits its research potential. Therefore, it is not recommended that further analysis is undertaken. However this material should be stored in the event that further environmental research is undertaken on this site or for comparison with other sites in the near locality. Furthermore this assemblage although small may be of interest to other researchers studying specific aspects of Roman activities, such as butchery and industrial sites. It is therefore recommended that the material be retained.

Storage and Curation

The bones have been cleaned, dried, labelled and are packed in three small boxes ready for archiving. The assemblage should be retained within the site archive. On completion of the project, the Developer/Landowner will discuss arrangements for the archive to be deposited with the relevant authority.

Table 23: The identifiable fragments

con	element	species	side	fusion	frag	pres	stn	Taphonomic indicators
507	Metacarpal	Cattle	L	Fused	Complete	B	0	
507	Metacarpal	Cattle	R	Fused	Proximal epiphysis and shaft	B	0	
507	Metapodial	Large mammal		Unfused	Distal epiphysis	B	0	Modern break
507	Femur	Large mammal			Shaft both proximal and distal ends absent	B	0	
507	Skull	Large mammal			Fragment	B	0	
507	Pelvis	Large mammal			Ilium	B	0	
507	Pelvis	Large mammal			Acet/ischium fragment	B	0	
507	Pelvis	Horse	L	Fused	Acet/ischium fragment	B	0	Bone broken in two
507	Pelvis	Large mammal			Acetabular	B	0	
507	Phalanx 3	Large mammal			Fragment	C	1	
507	Mandible	Small mammal	R		Ramus	B	0	Possibly dog
507	Lower Molar	Cattle	L		Fragment	C	1	
507	Tooth	Rodent			Fragment	B	0	
507	Metapodial	Rodent			Fragment	B	0	X2
507	Long bone	Rodent			Fragment	B	0	X3
520	Horn core	Ovicaprid			Horn	B	1	Polished six cut marks at horn base made with a heavy blade
522	Tooth	Large Mammal			Fragment	D	1	Recent damage

523	Upper M2	Cattle			Fragment	B	0	Worn
525	Ulna	Dog	L		Proximal missing	B	0	
525	Long bone	Rodent			Fragment	B	0	
525	Pelvis	Rodent			Acetabular	B	0	
527	Skull	Ovicaprid			Fragment	B	0	X 2 fragments
527	Lower M1	Ovicaprid	R		Fragment	B	0	Little wear
527	Lower M1	Ovicaprid	R		Fragment	B	0	Worn
527	Lower M2	Ovicaprid	R		Fragment	B	0	Worn
527	Lower dp1	Ovicaprid	R		Fragment	B	0	Worn
527	Lower dp2	Ovicaprid	R		Fragment	B	0	Worn
527	Molar	Cattle			Fragment	B	0	Worn and recently broken
527	Molar	Cattle			Fragment	B	1	Worn and recently broken
527	Pelvis	Large mammal			Acetabular	B	0	
527	Tusk	Pig			Fragment	B	0	Little wear
528	Tooth	Ovicaprid			Fragment	C	0	Worn
528	Deciduous Incisor	Ovicaprid			Fragment	B	0	From a young animal
528	Deciduous lower molar	Ovicaprid			Fragment	B	0	Little wear
531	Teeth	Large mammal			Fragments	C	3	X61 possible sheep and cattle
535	Lower molar	Ovicaprid			Fragment	C	0	
539	Mandible and Molar 3	Ovicaprid	L		Fragment of mandible and 3 rd molar	B	0	No longer intact
539	Lower M1	Ovicaprid	L		Fragment	B	0	Worn
539	Lower M2	Ovicaprid			Fragment	B	0	Worn
539	Tooth	Large mammal			Small fragment	C	1	
543	Scapula	Ovicaprid			Part of the blade and spine	B	0	Snapped in two

543	Lower molar	Cattle			Fragment	B	0	Little wear
546	Tibia	Ovicaprid	L		Shaft fragment both prox and distal end missing	B	0	
546	Incisor	Cattle			Fragment	B	0	Extremely worn
548	Pre molar	Cattle			Fragment	C	0	
548	Long bone shaft	Bird			Fragment	C	1	Small circular discoloured holes along surface.
548	Tibia	Large mammal			Part of distal end	C	0	Badly damaged
549	Metapodial	Large mammal			Part of proximal end and shaft	C	1	Proximal end very worn
549	Metatarsal	Cattle	L	Proximal fused	Proximal and shaft fragment	B	0	
602	Humerus	Large mammal			Proximal end	C	1	
602	Tibia	Cattle	L	Distal fused	Distal end and shaft	B	1	
602	Radius	Horse	L	Distal fused	Distal end and shaft	D	0	Recent damage
602	Metatarsal	Cattle	L	Proximal fused	Proximal end and shaft	B	0	Recent damage
602	Metapodial	Large mammal			Shaft fragment	B	1	
602	Phalanx 2	Cattle		Fused	Complete	B	0	
602	Pelvis	Large mammal			Acet fragment	C	0	
605	Metapodial	Large mammal		Distal fused	Distal end fragment	B	0	
605	Ulna	Horse	R	Proximal fused	Olercranon, processus anconaeus, semilunar notch, articular surface and shaft	B	0	

605	Humerus	Horse	R	Proximal unfused	Proximal end only	C	1	Bone broken in two
605	Metapodial	Large mammal			Part of distal end only	C	0	
605	Pelvis	Large mammal			Fragment	B	0	X2
605	Carpal	Large Mammal		Fused	Complete	B	0	
605	Pelvis	Large mammal			Fragment	C	1	Weathered
1208	Molar	Cattle			Fragment	C	0	Worn
1401	Metacarpal	Horse	L	Proximal fused	Proximal end and shaft	B	1	
1401	Metapodial	Large mammal		Distal unfused	Shaft and distal end	B	1	
1401	Pelvis	Large mammal			Fragments	B	0	X2
1403	Upper molar	Cattle			Fragment	B	0	Worn
1403	Upper premolar	Cattle			Fragment	B	0	Worn
1403	Skull	Large mammal			Fragment	B	0	
1403	Skull	Large mammal			Fragment	B	0	
1410	Molar	Horse			Fragment	B	2	Worn
1410	Tooth	Large mammal			Fragment	C	2	Worn
1410	Mandible	Large mammal			Ramis	C	2	
1412	Lower molar 3 rd	Ovicaprid	R		Fragment	B	0	Worn
1412	Long bone shaft	Large mammal			Shaft fragment	B	0	
1412	Lower Premolar 2	Cattle			Fragment	B	0	
1415	Pelvis	Horse	L		Acet/iliium	B	0	Broken into 5 parts
1415	Scapula	Large mammal			Fragment	B	0	
1415	Long bone	Large mammal			Shaft fragment	B	0	
1415	Astragalus	Cattle	R	Fused	Fragment	C	1	
1418	Skull	Large mammal			Fragment	B	0	X3

1418	Scapula	Large mammal			Fragment	B	0	
1418	Scapula	Cattle	L		Glenoid cavity	B	0	No evidence of porosity, eburnation or bone growth
1418	Ulna	Cattle	L	Proximal fused	Proximal end	B	0	
1418	Radius	Cattle	L	Proximal fused	Proximal end	B	0	Fresh break
1418	Radius	Large mammal	L		Shaft fragment with ulna scare	B	0	Fresh break
1418	Mandible	Pig	L/R		Both tusks present	B	0	
1418	Incisors	Large mammal			Fragments	B	0	X5
1418	Mandible	Large mammal			Fragment	B	0	
1418	Molar	Horse			Fragment	B	0	Worn
1418	Long bone shaft	Bird			Shaft fragment	B	0	
1418	Metacarpal	Horse		Proximal fused	Proximal end and shaft. Distal missing	B	0	Proximal surface displays evidence of severe bone growth and porosity
1418	Scapula	Large mammal			Part of glenoid cavity	B	1	
1418	Skull	Large mammal			Fragments	B	0	X19
1418	Upper molars	Cattle			Fragments	B	0	X2
1418	Radius	Small mammal	R		Fragment with ulna scar	B	1	
1418	Long bone shaft	Small mammal			Shaft	B	0	
1423	3 rd molar	Pig			Fragment	C	0	Little wear
1426	Molar	Ovicaprid			Fragment	C	0	Worn
1426	Tooth	Small animal			Fragment	B	0	

1428	Skull	Large mammal			Fragment	C	1	X18 One fragment has several shallow cut marks
1428	Upper molar	Cattle			Fragment	B	0	Worn
1428	Deciduous premolar	Ovicaprid			Fragment	B	0	Wear
1710	Femur	Cattle	L	Distal fused	Distal end and part of shaft	C	0	Bone broken in two
1710	Metacarpal	Horse	L	Proximal fused	Proximal end	B	0	
1710	Metapodial	Pig	L	Distal unfused	Distal epiphyseal	B	0	
1715	Radius	Horse	L		Complete but slight damage along proximal surface	B	1	
1734	Lower 3 rd molar	Ovicaprid			Fragment	B	0	Some wear
1734	Mandible	Large mammal	R		Fragment	B	0	
1734	Skull/maxilla	Large mammal			Fragment	B	0	
1734	Molar	Dog			Fragment	B	0	
1734	Tooth enamel	Large mammal			Fragment	C	0	
1744	Mandible	Large mammal			Ramus	C	0	
1744	Mandible	Large mammal			Fragments	B	0	X3
1744	Incisor	Cattle			Fragment	B	0	Worn
1744	Pre molar	Cattle			Fragment	B	0	Worn

Table 24: Ribs and vertebrae

con	size	R/V	pres	stn	taphonomy	frag	No of frags
507	S	Rib	B	0	4 small shallow cut marks		1
507	S	Rib	B	0			1
507	L	Rib	B	0		Fragment of spinal process	1

507	L	Rib	B	0			4
507	M	Rib	B	0			2
507	S	Vert	B	0		2 rodent	2
507	M	Vert	B	0		Spinous process	1
507	S	Rib	B	0		Rodent	1
520	L	Rib	B	1			2
520	M	Rib	B	0			1
525	M	Vert	B	0		Spinous process	1
527	L	Rib	B	0			1
539	M	Rib	B	0	3 shallow parallel cut marks	Fragment of spinal process	1
548	L	Rib	B	0		Fragment of spinal process	1
549	M	Rib	B	0			1
602	L	Vert	B	0	Appears to have been polished but unlikely to have been deliberate		1
602	M	Rib	B	0			2
602	L	Rib	B	0			1
605	L	Vert	B	0			1
605	L	Rib	B	0			2
605	L	Rib	B	0		Fragment of spinal process	1
1401	L	Vert	B	0	Facets fused		1
1401	M	Rib	B	0			2
1405	L	Rib	B	0	4 parallel shallow cut marks or scratches.		
1414	S	Vert	B	0	Complete	Rodent	1
1418	L	Vert	B	0			2
1418	L	Rib	B	0	5 parallel shallow cut marks or scratches.	Recently broken in two	1
1418	L	Rib	B	0			7
1428	L	Vert	B	0	Facets unfused		1
1744	S	Rib	B	0			1

Table 25: The unidentifiable assemblage

context	No of frags	pres	stain	taphonomy
439	1	D	4	Burnt black
452	4	C	0	Small fragments
452	4	C	0	Small fragments
452	1	C	4	Burnt black
452	1	C	3	Burnt white
452	1	C	0	
453	3	C	3	Burnt blue white
457	2	C	0	
507	32	C	0	
507	1	D	4	Burnt white
507	61	C	0	Includes fragments smaller than 2 mm
507	2	C	4	Burnt black
507	21	C	4	Burnt white/black/blue
523	12	B	0	
523	3	B	0	
525	1	B	0	
525	8	B	0	
525	4	B	0	
525	1	B	0	
525	10	D	4	Small burnt fragments
527	26	C	0	
527	7	C	0	
527	1	D	3	Burnt blue white
528	6	B	0	
528	3	B	0	
528	7	B	0	
528	11	C	0	Small fragments
535	4	C	1	
539	7	B	0	
539	1	B	0	
539	3	B	0	

539	10	D	0	Weatherd
543	12	C	0	
543	5	D	0	Weathered
546	1	B	0	
548	3	B	0	
549	27	B	0	
549	2	D	0	Weathered
602	13	B	0	
602	17	B	0	
605	12	B	1	
605	9	B	0	
907	1	B	0	
1104	1	B	0	
1401	10	B	1	
1401	15	B	0	
1403	6	B	0	
1406	2	B	0	
1412	6	C	0	
1412	4	D	4	Burnt white/black
1412	1	B	0	
1414	7	B	0	
1415	24	B	0	
1418	25	C	0	
1418	21	B	0	
1418	11	B	0	
1418	1	B	1	
1418	45	C	0	
1418	3	B	0	
1423	5	B	0	
1423	1	D	3	Burnt white black
1423	6	C	0	
1423	11	D	3	Burnt white
1426	4	B	0	
1428	1	B	0	
1428	4	B	0	
1428	1	D	3	Burnt blue black
1429	2	B	0	
1710	12	B	1	
1715	1	D	2	Weathered
1728	1	B	0	
1734	2	B	0	

1734	8	B	0	
1734	13	B	0	
1734	8	C	0	
1734	2	D	4	Burnt black/white
1736	14	C	1	
1736	5	D	3	Burnt white
1736	10	C	3	
1736	7	D	3	Burnt white/blue
1744	16	B	0	
1744	1	C	0	Two deep cut marks
1744	10	C	0	

Table 26: Weight by context

context	Weight (g)	context	weight (g)
439	0.7	1208	4.9
453	2.5	1401	258.9
457	4.7	1403	41.7
507	1111.9	1405	14
520	45.2	1406	5.6
522	15.3	1410	66.7
523	42.1	1412	120.3
525	22.6	1412	5.7
527	118.3	1414	0.9
528	19.1	1415	450.4
531	85.9	1418	973.1
535	27.3	1418	45
539	18.2	1423	4.3
539	27.5	1423	0.1
543	82.4	1426	8.7
546	24.1	1428	235.7
548	41.8	1429	0.5
549	290.1	1710	282
452 (26)	0.5	1715	240.3
452 (3)	0.5	1728	0.8
602	627	1734	49.6
605	492.1	1736	5.5
907	11	1744	78.5
1104	3.1	Total	6007.1

Metalwork

by A Heald

SUMMARY OF MATERIAL

There are 12 iron objects and 1 copper alloy object from St Bedes. None of the objects have been conserved and most of the iron objects are corroded making recognition of shape and form difficult. Some shape can be discerned through x-ray.

The initial descriptions are listed in table one, organised by context. Where discernible, the majority of the objects appear to be nails; although most are badly corroded and fragmentary. From a typological view the most interesting object is the copper alloy buckle component.

Eight of the objects are from 19th century or recent contexts, one is undated. Four of the objects are from 3rd/4th century contexts, including the buckle component and the nail.

SF	Context	Metal	Object	Context	Date?	Conservation notes
	1401	Iron	?Nail. Square-sectioned object. Corrosion obscures the ends of the object. Possibly a nail.	Modern topsoil	Modern	
2	1401	Iron	Curved piece of sheet, badly corroded.	Modern topsoil	Modern	Clean to ascertain shape
	1302	Iron	Rectangular sheet / grid.	Fill of gully	Undated	
	1208	Iron	Nail. Head, shank and tip.	Fill of ditch	19th century	
	1208	Iron	Badly corroded and fractured object. Possibly a nail	Fill of ditch	19th century	
	1208	Iron	Badly corroded and fractured object. Possibly a nail	Fill of ditch	19th century	
	1208	Iron	Badly corroded and fractured object. Possibly a nail	Fill of ditch	19th century	
	1208	Iron	Badly corroded and fractured object. Possibly a nail	Fill of ditch	19th century	
	1208	Iron	Badly corroded and fractured object. Possibly a nail	Fill of ditch	19th century	

1	527	Copper	Buckle, part of the D-shape	Fill of ditch	3 rd to 4 th century AD	
	529	Iron	Nail. Head, shank and tip.	Fill of ditch terminus	3 rd to 4 th century AD	
3	527	Iron	Square-sectioned object. Corrosion obscures the ends of the object. Possibly a large nail.	Fill of ditch terminus	3 rd to 4 th century AD	Clean to ascertain shape
4	525	Iron	Misc. Fragment of a curved piece of iron; sub-rectangular in section. Possibly a nail.	Fill of ditch terminus	3 rd to 4 th century AD	

Table 27: Finds description by context

SIGNIFICANCE OF DATA

The limited range of the material, particularly the preponderance of nails, suggests that the assemblage's significance goes no further than the local area.

RECOMMENDATIONS FOR FUTURE WORK

Conservation notes are listed in table one. The buckle should be catalogued and the assemblage discussed within wider regional assemblage contexts.

Conservation Report

by Pieta Greaves

Summary

The following assessment of conservation needs for the accessioned and bulk finds from the excavations at St Bedes encompasses the requirements for analytical conservation and long term curation. Work outlined in this document is needed to produce a stable archive in accordance with MAP2 (English Heritage 1992) and the Museum of London's Standards for archive preparation (Museum of London 1999).

Conservation support was provided by conservators working for the AOC Archaeology Group. Records of conservation carried out at the fieldwork stage are held in the conservation department of the AOC Archaeology Group Archives.

Description

The assemblage consists of 1Copper alloy object and 12 Iron objects.

Condition

Iron.

Five of the iron finds appear to have active corrosion, and powdery corrosion products on the surface. The other 7 iron objects appear to be in a stable condition, from the x-rays it is evident that a metal core still remains within the iron finds.

Copper alloy

The copper object has a powdery surface indicating active corrosion. Surface soils obscure any surface detail.

Methodology

All objects are to be packed in archive quality materials and stored in suitable environmental conditions. Records of all conservation work are prepared on paper and on the Museum of London collections management system (Multi MIMSY) and stored at the Museum of London.

X-ray catalogue:

X-Ray No	Volts(KeV)	Time (secs)	Finds no.
BRSMG 2008/77-001	60/50/40	6/5/3	Small Finds 1, 2, 3,4. Context 529, 1208, 1302, 1401

Recommended treatment

Copper and Iron finds require chemical stabilisation.

Copper alloy

It is recommended that the copper alloy artefact undergo superficial cleaning using scalpels and wooden tools under the microscope. To ensure stability of the find, chemical stabilisation should be carried out using 3% BTA in IMS in immersion under vacuum, followed by rinsing in IMS. Finally the object should be coated with a solution of 15% Incralac in acetone, applied by immersion and repeated up to three times. The last layer should contain a small amount of matting agent to minimise glare and shininess. The finds should be packed according to current standards at the Museum of London archive and stored in a sealed box with silica gel.

Iron

The cleaning of the selected iron finds should be carried out using an air-abrasive machine and 53µ aluminium oxide powder. If active corrosion is noted during cleaning, stabilisation should be carried using a 2% aqueous solution of sodium hydroxide, followed by rinsing in deionised water and drying. Objects that have been stabilized should then be lacquered with a 10% solution of Paraloid B72 in acetone with the addition of fumed silica as a matting agent. Any adhering required should be carried out using 40% Paraloid B72 in acetone.

Packaging for archive

The Museum of London's archive standards (1999) state that the accessioned finds need to be appropriately packed and stabilised before the site can be accepted into the archive. The work is required to bring them into line with the set standards and ensure that the archive is stable before transfer. The accession record needs to be completed, with accession numbers given to all the identified artefacts

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Appendix D – OASIS Form

OASIS ID: aocarcha1-50248

Project details

Project name St Bede's School, Long Cross, Bristol

Short description of the project A programme of archaeological evaluation and excavation was undertaken by AOC Archaeology Group at St. Bede's School, Long Cross, Bristol. The work was carried out ahead of a proposed construction of a new Design Technology and Science block, sports hall extension and a new all-weather pitch. The earliest phase of activity identified on site occurred during the Mesolithic period, represented by a small assemblage of residual flints, suggestive of sporadic activity during this period. Evidence for later activity was present in the form of a sequence of Late Iron Age to Early Romano-British roundhouses, replaced by a large enclosure ditch. After a hiatus, activity on site resumed in the 3rd to 4th century primarily represented by a sequence of boundary ditches forming part of a larger field system. This, in turn, was also replaced by a large enclosure ditch. In addition to the field system was a contemporary metalled trackway, constructed from a large volume of metalworking waste. The only activity to be subsequently identified was a small number of walls and ditches spread extensively across the site, thought to be associated with the 17th to 19th century exploitation of this part of the landscape. Overall, a moderate to high density of archaeological features were identified during the course of the evaluation and excavation deriving from the Mesolithic, Late Iron Age/Early Romano-British, 3rd to 4th century AD and post-medieval periods. As a whole, the site is thought to be of local to regional significance, this is due to the nature of the evidence being able to inform on the Late Iron Age and Romano-British utilisation of the immediate landscape for both settlement and agriculture.

Project dates Start: 27-10-2008 End: 10-07-2009

Previous/future work Yes / No

Any associated project reference codes BRSMG:2008/77 - Museum accession ID

Any associated project reference codes 30298 - Contracting Unit No.

Any associated 24663 - HER event no.

project reference
codes

Any associated 30501 - Contracting Unit No.
project reference
codes

Type of project Recording project

Site status Local Authority Designated Archaeological Area

Current Land use Community Service 1 - Community Buildings

Monument type DITCH Roman

Monument type POSTHOLE Roman

Monument type POSTHOLE Uncertain

Monument type WALL Uncertain

Monument type POSTHOLE Late Iron Age

Monument type ROUNDHOUSE Late Iron Age

Significant Finds POTTERY Roman

Significant Finds POTTERY Late Iron Age

Significant Finds SLAG Roman

Significant Finds STONE Roman

Significant Finds DAUB Roman

Significant Finds ANIMAL BONE Roman

Significant Finds METALWORK Roman

Investigation type 'Full excavation'

Prompt Direction from Local Planning Authority - PPG16

Project location

Country England

Site location CITY OF BRISTOL CITY OF BRISTOL BRISTOL St Bede's School, Long Cross

Postcode BS11 0SU

Study area 14.90 Hectares

Site coordinates ST 5437 7874 51.5052654786 -2.6575142543 51 30 18 N 002 39 27 W Point

Height OD / Depth Min: 6.61m Max: 9.06m

Project creators

Name of AOC Archaeology Group
Organisation

Project brief Bristol City Council
originator

Project design AOC Archaeology Group
originator

Project director/manager Andy Leonard

Project supervisor Catherine Edwards

Project supervisor Chris Clarke

Type of Developer

sponsor/funding
body

Name of Skanska Construction
sponsor/funding
body

Project archives

Physical Archive Bristol City Museum
recipient

Physical Contents 'Animal Bones','Ceramics','Environmental'

Digital Archive Bristol City Museum
recipient

Digital available Media 'Database','Images raster / digital photography','Text'

Paper Archive Bristol City Museum
recipient

Paper available Media 'Context sheet','Drawing','Map','Microfilm','Photograph','Plan','Report','Section'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title St Bede's Catholic School, Long Cross, Bristol: An Archaeological Evaluation Report

Author(s)/Editor(s) Pole, C

Date 2008

Issuer or publisher AOC Archaeology Group

Place of issue or publication AOC Archaeology London

Description A4

Project bibliography 2

Publication type Grey literature (unpublished document/manuscript)

Title An Archaeological Desk-Based Assessment of the proposed development of St Bede's School, Lawrence Weston, Bristol

Author(s)/Editor(s) Carter, N.

Date 2007

Issuer or publisher AOC Archaeology South

Place of issue or publication AOC Archaeology Twickenham

Description A4 text with 11 figures and local HER area references

Project bibliography 3

Publication type Grey literature (unpublished document/manuscript)

Title ST. BEDE'S CATHOLIC SCHOOL, LONG CROSS, BRISTOL: A POST-EXCAVATION ASSESSMENT REPORT

Author(s)/Editor(s) Clarke, C.

Date 2010

Issuer or publisher AOC Archaeology

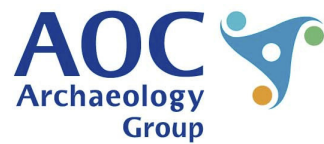
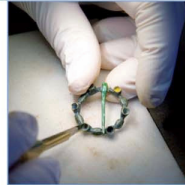
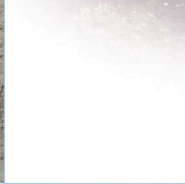
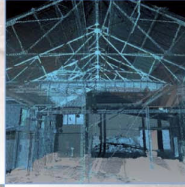
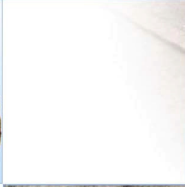
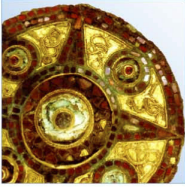
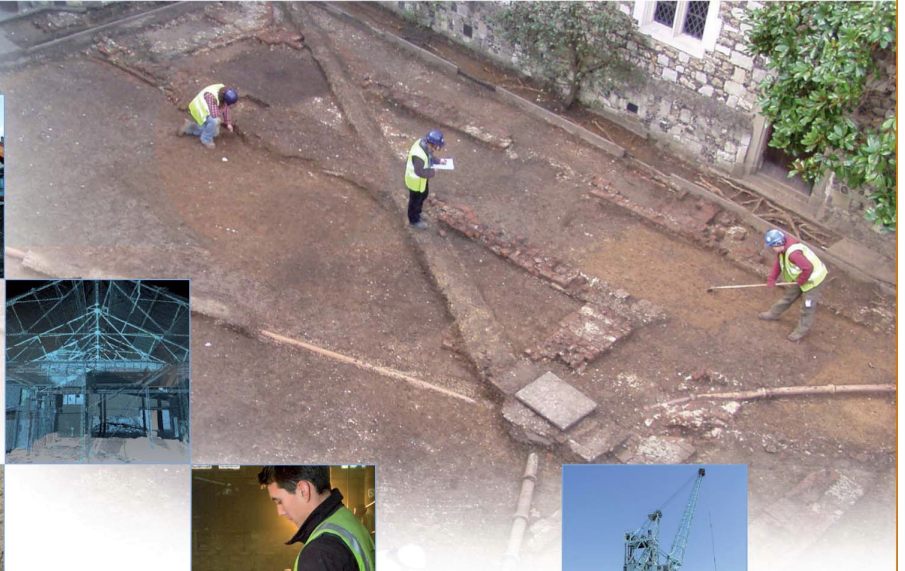
Place of issue or London

publication

Description A4 text, 12 illustrations, 35 pages bound between plastic covers

Entered by Chris Clarke (chris.clarke@aocarchaeology.com)

Entered on 19 March 2010



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