

Archaeological Excavation Report

2-4 Chester Road, Castlefield, Manchester

Client:

Castlefield Developments (Manchester) Ltd

Planning Ref:

113870/FO/2016

Technical Report:

Oliver Cook

Report No:

SA/2020/32









Site Location: 2-4 Chester Road, Castlefield, Manchester

NGR: Centred at NGR 383230 397440

Planning Ref: 113870/FO/2016

Internal Ref: SA/2020/32

Prepared for: Renaker Ltd

Document Title: 2-4 Chester Road, Castlefield, Manchester: Archaeological

Excavation

Document Type: Archaeological Excavation

Version: Version 1.2

Created by: Oliver Cook Position: **Project Officer** Date: March 2020

Approved By: Ian Miller

Position: **Assistant Director**

Signed: Date: June 2020

Copyright: Copyright for this document remains with the Centre for

Applied Archaeology, University of Salford.

Contact: Salford Archaeology, Centre for Applied Archaeology,

PeelBuilding, University of Salford, Salford M5 4WT

Telephone: 0161 295 4467 Email: i.f.miller@salford.ac.uk

Disclaimer:

This document has been prepared by Salford Archaeology within the Centre for Applied Archaeology, University of Salford, for the titled project or named part thereof and should not be used or relied upon for any other project without an independent check being undertaken to assess its suitability and the prior written consent and authority obtained from the Centre for Applied Archaeology. The University of Salford accepts no responsibility or liability for the consequences of this document being used for a purpose other than those for which it was commissioned. Other persons/parties using or relying on this document for other such purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify the University of Salford for all loss or damage resulting therefrom. The University of Salford accepts no liability or responsibility for this document to any other party/persons than by whom it was commissioned.





Contents

Summary1		
1.	Introduction	2
2.	Original Research Priorities	4
3.	Setting	5
4.	Historical Background	7
5.	Fieldwork Results	14
6.	The Finds	37
7.	Discussion	58
8.	Archive and Dissemination	67
Acknowledgments		69
Sources		70
Appendix 1: Illustrations		73
Appendix 1: Context List 8		80
Appendix 3: Romano-British Pottery Catalogue 82		
Appendix 4: Conservation Records 95		



Summary

Castlefield Developments (Manchester) Ltd has obtained planning consent for a residential development at 2-4 Chester Road in the Castlefield area of Manchester city centre (centred on NGR 383230 397440). The consented scheme allows for the construction of two residential apartment buildings with basement car parking and associated landscaping works (Planning Ref: 113870/FO/2016).

The site comprises a tract of land that falls steeply from the north side of Chester Road down to the Bridgewater Canal via two man-made terraces that have been cut into the natural slope. The archaeological interest in the site was highlighted in a desk-based assessment that was prepared to support the planning application, which concluded that the site has some potential to contain buried remains pertaining to Manchester's Roman settlement. In addition, it was concluded that the site had potential to contain buried remains of a range of buildings associated with the Bridgewater Canal that are shown on late 18th-century mapping, including the manager's office for the superintendent of the Castlefield Basin.

In the light of the archaeological interest in the site, and following consultation with the Greater Manchester Archaeological Advisory Service, Manchester City Council attached a condition to planning consent (Condition 4) that required a programme of intrusive archaeological investigation to be implemented in advance of development work. In 2016, Castlefield Developments (Manchester) Ltd commissioned Salford Archaeology to devise and execute an appropriate programme of archaeological investigation, which ultimately comprised the complete excavation of the entire site in 2017, with limited further excavation of deeply-buried deposits in July 2019.

Excavation across the northern part of the site, at the foot of the slope down to the Bridgewater Canal, revealed a series of relict soils and alluvial deposits that provided important evidence for the pre-industrial landscape associated with the River Medlock. Excavation of the earliest of these layers yielded a small but significant assemblage or Roman pottery that contained a relatively high proportion of Samian ware, suggesting that the material derived from a Roman military source, whilst the comparatively large number of beaker fragments amongst the coarseware pottery hints at an association with burial and ritual activities. These layers, moreover, overlay a natural outcrop of sandstone that retained clear evidence for having been quarried, presumably during the Roman period. It is concluded that this quarry may have been the source of stone building material used in the construction of small temples and shrines that are thought to have flanked the Roman road on its approach to a ford across the River Medlock, or employed in the reconstruction of the gatehouses of the Roman fort during the 3rd century AD.

The excavation also revealed the foundations of three distinct ranges of buildings that were constructed in several stages between the 18th and early 19th century. These included warehousing and workshop facilities, the canal manager's house and offices, and associated outbuildings, cumulatively providing a new insight into the Bridgewater Canal infrastructure in Castlefield Basin.





1. Introduction

1.1 Planning Background

Castlefield Developments (Manchester) Ltd has obtained planning consent for a residential development at 2-4 Chester Road in the Castlefield area of Manchester city centre (Figure 1). The consented scheme allows for the construction of two residential apartment buildings with ancillary amenity facilities for residents including a gym, landscaped terrace and swimming pool, new public realm and landscaping including two new pedestrian connections to the Castlefield Basin from Chester Road, basement car parking and related highway, access, servicing and associated works (Planning Ref: 113870/FO/2016).

The archaeological interest in the site was highlighted in a desk-based assessment that was prepared to support the planning application, which concluded that the site has some potential to contain buried remains pertaining to Manchester's Roman settlement (Street 2015). In addition, it was concluded that the site had potential to contain buried remains of a range of buildings associated with the Bridgewater Canal that are shown on late 18th-century mapping, including the manager's office for the superintendent of the Castlefield Basin, and any surviving remains were likely to be damaged or removed completely during the proposed construction programme.



Plate 1: Recent aerial view looking west across Chester Road and the Bridgewater Canal, showing the development site boundary



In the light of the archaeological interest in the site, Manchester City Council attached a condition to planning consent (Condition 4) that required an appropriate programme of intrusive archaeological investigation to be implemented in advance of development work. Following consultation with the Greater Manchester Archaeological Advisory Service (GMAAS), in their capacity as Archaeological Advisors to Manchester City Council, it was recommended that a 'strip, map and record' exercise should be implemented by way of evaluating the archaeological potential of the site, followed by controlled excavation where merited. The work was carried out in July 2017 in accordance with an approved Written Scheme of Investigation (Appendix 4). The outcome of the evaluation and excavation ultimately revealed that sealed Roman deposits existed at depth below the later remains and that further work was required when site infrastructure was in place that would make these areas accessible.

The secondary stage of the fieldwork was undertaken by Salford Archaeology in June and July 2019, and involved the monitoring of ground-reduction works on the ground at the foot of the steep slope from Chester Road, adjacent to the Bridgewater Canal, with an aim to identifying areas of the site that may merit controlled archaeological excavation.

Following completion of the fieldwork, an assessment has been made of the project archive, with a view to defining the costs of completing an appropriate programme of post-excavation analysis and publication, in accordance with guidelines provided by the National Planning Policy Framework. This assessment examined the results of the excavation and assessed the potential for further analysis of each category of data with regard to the project's research aims. The process has been designed to correspond to the objectives laid out in the guidance document *Management of Research Projects in the Historic Environment*, Historic England 2015).



2. Original Research Priorities

2.1 Research Aims

The main aim of the investigation, given the commercial nature of the project, were to establish the presence or absence of any buried remains of archaeological interest within the proposed development area and, if present, characterise the level of preservation and significance, and provide a good understanding of their potential. It was intended that this approach would enable a decision to be reached as to whether any further archaeological investigation is merited in advance of development.

The archaeological investigation was limited to the western part of the site, as the eastern part was developed in 1998 as the Quay Bar, the construction of which almost certainly damaged or destroyed any archaeological remains within its footprint.

The western part of the site comprises two different levels, with a retaining wall aligned approximately east/west across the area of archaeological interest (Figure 2). The area immediately to the south of this retaining wall appears to have been cut into the natural bedrock, creating a stepped terrace.

2.2 **Objectives**

In order to meet the aims stated above, the following objectives were devised:

- to determine the presence, character, and extent of any buried remains pertaining to prehistoric settlement or activity;
- to determine the presence, character, and extent of any buried remains pertaining to Romano-British settlement or activity;
- to investigate the dwelling known from historic maps and create a record that will enable further research to be conducted into its origins, use and abandonment;
- to make a full record of any archaeological remains to mitigate their damage or destruction during the proposed development;
- to carry out a programme of post-excavation assessment, which provides recommendations for further analysis and publication;
- to prepare a project archive for long-term deposition.





3. The Setting

3.1 Location, Topography and Land Use

The study area lies within the Castlefield area of Manchester (centred on NGR 383230 397440). This area, although predominantly rural until the late 18th century, has since been heavily developed. The study area occupies a triangular plot of land bounded by the Bridgewater Canal to the north and east, the A56 Chester Road to the south, and a modern block of flats to the west (Plate 2). At the time of the archaeological investigation, the site existed on two levels.



Plate 2: Aerial view across the Castlefield, showing the development area

The natural topography of the area has altered significantly by both industrial-era and modern development. Archival sources and cartographic evidence allow some reconstruction of the natural landscape to be made. It is clear the site lies close to the former course of the River Medlock, which was later canalised.

The earliest detailed maps, dating from the 18th and early 19th centuries, are an excellent source of information for contextualising the site and its development from rural fringe to industrial and commercial hub. The available mapping does make clear that the site, despite intense peripheral development, remained largely undeveloped throughout this period, raising the potential the survival of earlier remains from the Roman period.





The solid geology over most of the site comprised sandstone. The solid geology was overlain by glacio-fluvial deposits of sands and gravels and in the lower parts of the site by alluvial deposits associated with the former course of the River Medlock.



4. Historical Background

4.1 Prehistoric Period

The current understanding of any human activity in the Manchester region during the prehistoric period is poor, although it is reasonable to suggest that the Castlefield area may have been conducive for late prehistoric settlement on account of the natural topography and its location close to the confluence of the rivers Medlock and Irwell (UMAU 2002). However, physical evidence is wanting, and arguably the best evidence for prehistoric activity in the vicinity was yielded from an archaeological excavation that was targeted on a plot of land adjacent to Liverpool Road in Castlefield (Gregory 2007, 181). During the course of this work, two Mesolithic flints, one Neolithic/Bronze Age waste flake, and a single fragment of late Bronze Age/Iron Age pottery were recovered (HER 13944.1.0), although none was found in securely stratified deposits.

4.2 Roman-British Period

The first military occupation of Manchester was established during the governorship of Agricola (AD 77-84), and commenced with a five-acre wooden fort, known as Mamucium (Bruton 1909). The site of this encampment is marked today by the reconstructed elements of the fort and its ditches in Castlefield, situated a short distance to the north of the development area. During the 2nd century, the fort was developed in association with a substantial extramural settlement, or vicus, which expanded in both a northerly direction, and along the line of Chester Road to the south (Grealey 1974, 11). Roads from the fort linked Manchester with Ribchester to the north, Castleshaw, and York to the north-east, Wigan to the north-west, Chester to the south, and Buxton to the south-east.

Based on recent archaeological excavation and the distribution of Roman finds, the limits of this settlement appear to have extended northwards from the fort to approximately Quay Street, westwards along Liverpool Road for c 100m from the north-west corner of the fort, eastwards across Deansgate to the area now occupied by the Beetham Tower, and south-eastwards along Chester Road, terminating somewhere in the vicinity of Great Jackson Street (Plate 3). Whilst the study area lies on the opposite side of the River Medlock to the fort, there is some evidence for Roman activity in this locality; it lies adjacent to the projected course of the Roman road leading south-westwards towards Chester, across the River Medlock. The precise course of this road across the river, however, is uncertain. One possibility is that it followed the line of Knott Mill Bridge and the modern Chester Road.

An alternative route of the Roman road is suggested by one of the earliest known plans of the Castlefield area, dated 1765, which shows routeway curving from the north side of the road to the bridge (then known as Knot Mill or Aldport Lane) and terminating on the east bank of the Medlock. The key to this map describes this route as a 'hollow way to the ford', implying that this was a crossing point of some antiquity (UMAU 2001, 7).





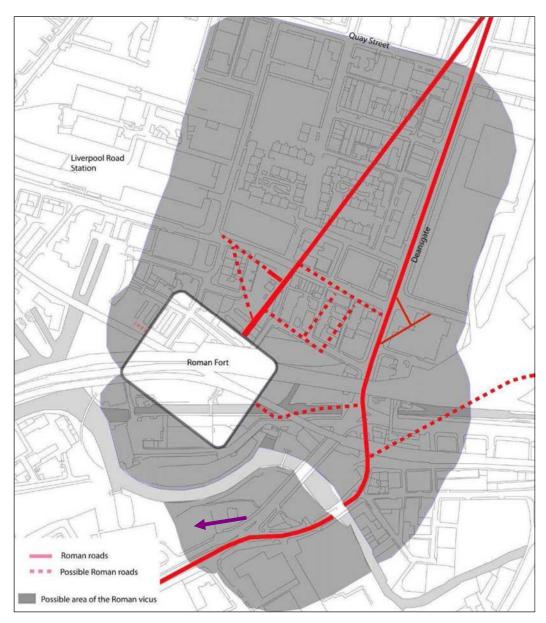


Plate 3: The extent of Manchester's Roman settlement (from Gregory forthcoming), with arrow marking the centre of the study area

Several Roman finds discovered on the south side of the Medlock have been reported by antiquarians since the 17th century. These include fragments of pottery recorded in the 1770s by Whitaker, and a tomb, comprising a wooden coffin in a grave lined with tiles, found in 1832 at a location which Charles Roeder described subsequently as 'evidently near Great Jackson Street'. Perhaps the best-known Roman finds from the south side of the River Medlock, however, are three sculptured stones found at a depth of c. 2m by workmen sinking a drain in 1821. One of has been identified as Cautopates, a figure associated with the worship of the Mithras, from which it is inferred that a *Mithraeum*, or building used for the worship of the god, stood within the locality (Miller and Cook 2019).





The precise spot at which the three stones were found is not certain, but they are described as having been discovered in the line of the Roman road from Manchester to Chester, and only a few hundred yards south-west of the Roman fort' (Bruton 1909, 35). Other finds are described as having been discovered in the vicinity of Knott Mill, including an altar to the goddess Fortuna Conservatris (Plate 3) found in 1612 'under the roote of an oak in Medlock neere Knott Mill' (Bruton 1909, 20; HER 415.4.24). Whilst the precise location of this discovery is uncertain, it may have been along the northern boundary of the present study area. In 1760, a centurial stone recording the building of a length of wall (presumably of the fort), was found 'on the south bank of the Medlock near Knott Mill, on the left of the road from Manchester to Stretford', ie on the opposite side of Chester Road to the study area (Bruton 1909, 32).

More recently, an archaeological excavation was undertaken in advance of a 47storey tower development at the junction of Deansgate, Great Bridgewater Street and Trafford Street. This site was occupied formerly by Great Northern Railway viaduct, and it was considered likely that the construction of this viaduct would have resulted in the destruction of buried archaeological remains. However, important archaeological remains dating from the Roman period were identified in three evaluation trenches that were placed across the site, leading to a programme of further excavation.

The remains were interpreted as being associated with the civilian settlement attached to the Roman fort, situated 120m to the south-west. The earliest phase of Roman activity was characterised by a group of substantial gravel pits, likely to have been associated with construction of roads in the settlement, with some evidence for tree clearance, the laying out of boundary ditches, and timber-framed buildings. The area appeared to have been abandoned in c AD 120-60, although a subsequent phase of activity saw the most intense occupation in the Roman period with structures built on a grid-like layout fronting onto a road or street, with commercial premises, possibly roadside shops. The final phase of activity comprised a single substantial pit from which pottery dating to AD 200-50 was recovered (Pre-Construct Archaeology 2005).

Pre-Construct Archaeology carried out another excavation on the junction of Chester Road and Great Jackson Street in 2008. This provided important new information on the character development of Roman Manchester, and indicated that temples and mausolea probably lined the Roman road from Chester as it dropped down to the ford across the River Medlock. Significantly, a Roman altar was recovered from this excavation. This had been dumped into a pit away from the road, suggesting that the area was reused for other purposes. Physical evidence for a sequence of intercutting pits, agricultural ditches and an enclosure ditch were also identified. Further evidence for Roman activity in the area was recovered from excavations on Owen Street (Salford Archaeology 2018) and Crown Street (Salford Archaeology 2019), which similarly provided physical evidence for several Roman boundary ditches.



4.3 Early Medieval Period

There is scant archaeological evidence in the region as a whole that represents the period between the end of the Roman occupation and the Norman Conquest, although the area around Manchester is known to have come under the control of several kingdoms during this period. In AD 620, Edwin conquered and occupied Manchester, and it may have been at this time that settlement in the town was established around the cathedral (Farrer and Brownbill 1911). A gold finger ring, discovered in antiquity, has been traced to the Castlefield area, providing rare physical evidence for human activity in Manchester during this period.

In AD 919, the Anglo-Saxon king Edward the Elder established a fortified base, or burh, at Manchester, which was then part of Viking Northumbria. It has been suggested that the burh lay within the area around the cathedral, but recent research favours it being at the Roman fort in Castlefield. However, the area of the cathedral had become a new focus for settlement by the late 11th century, and the site occupied presently by Chetham's School is thought to have been the site of a castle founded by Manchester's Norman barons. This early settlement at the confluence of the Irwell and Irk seems to have been bounded on the landward side by Hanging Ditch, whose curving line ran between the two rivers, taking a line that was followed subsequently by Toad Lane, the forerunner of Todd Street and Corporation Street.

4.4 Medieval and Post-medieval Periods

Post-Conquest Manchester was established around the manor house and parish church of St Mary, located over 1km to the north-east of the proposed development area. In 1223, the right to hold an annual fair was obtained, and the town was important enough to be granted a charter in 1301 (Kidd 1993, 14). A deer park, named Aldport Park was located towards the south end of Deansgate, bordered to the north by modern day Peter Street and Quay Street, and to the south by the River Medlock. The park is documented from the late thirteenth century, and is thought to have still been existence in the 16th century (UMAU 2005).

The vicinity of Castlefield remained almost wholly undeveloped until the 18th century; the only known activity in the area during the late medieval period was focused upon a mill at Knott Mill to the north-east of the present study area (GMAU 1993). The earliest reference to this mill dates from 1509, when a licence was given for the mill dam. It has been suggested that the mill, and subsequently this part of Manchester, derived its name from the miller (Farrer and Brownbill 1911, 178). The site of the mill is thought to have been incorporated into, or built upon, by the Duke's Warehouse.

4.5 Industrial Period

The onset of the rapid industrialisation centred on Manchester from the 18th century resulted in a massive expansion of the town's population. It was during this period that some of the principal streets, including Deansgate, Market Street and Shude Hill, developed commercially (Farrer and Brownbill 1911, 180). By the 1780s, the national demand for textiles, particularly cotton, began to rise, resulting in a dramatic increase in mill building that transformed Manchester into a centre of the factory-based cotton manufacturing industry of international repute (Baines 1835).





This process of industrial development was facilitated greatly by the introduction of an efficient regional transport network. The first significant advance in this respect was focused on the River Irwell when, in 1721, an Act of Parliament allowed the Mersey and the Irwell to be made navigable between Warrington and Manchester (Hadfield and Biddle 1970, 16-18). This allowed waterborne trade to enter Manchester and Salford for the first time and provided and an efficient link to the expanding port of Liverpool. The Mersey & Irwell Navigation was probably completed in 1736 and, by 1740, wharfage facilities for boats of up to 50 tons were provided by a quay established on the Manchester side of the river by Edward Byrom, a wealthy fustian dealer and one of the proprietors of the Mersey & Irwell Navigation Company (ibid). The quay was built a short distance to the north-west of the present study area in 1735, at the bottom of what in that year became Quay Street, strategically located to carry much of the town's trade, with a river frontage of 136 yards (George and Brumhead 2002, 22). This street also linked to Water Street, which joined with Quay Street at a right angle and provided a more direct link between the quay and the town, and appears from the map evidence to have been laid out in about 1750 (Gregory and Bell 2008).

The second half of the 18th and early 19th centuries were characterised by significant advances in waterborne infrastructure in Manchester, and particularly the expansion of the canal network. The first true industrial canal in Britain was that built by the Duke of Bridgewater, which was completed from his mines at Worsley to Manchester in 1764 (Hadfield and Biddle 1970). The Manchester terminus of the canal was at Castlefield, immediately to the north of the present study area (Sillitoe 1988).

During the construction of the canal, a channel was cut from the River Medlock to allow water to flow through the industrial complex at Knott Mill via a mill leat. A secondary channel, directed through a brick-built culvert system, was cut to supply water to the power features and unloading dock at the Grocers' Warehouse. As the Medlock is fed by the Pennines, and was subject to rapid and heavy flooding, this channel was fitted subsequently with an overflow tunnel that was constructed adjacent to the site of Brazil Mill at the north end of Commercial Street in 1838 (Tomlinson 1961, 139).

An important feature of the canal terminus was the distinctive canal warehouse, where perishable goods were stored between being delivered to the town and distributed locally. The first major warehouse to be erected in association with the canal was the Duke's Warehouse, which was built soon after 1765 (Taylor et al 2002, 10). This was soon complemented by Hensall, Gilbert and Company's Warehouse (known latterly as the Grocers' Warehouse in c. 1776, the Merchants' Warehouse in 1825, and Middle Warehouse in 1828-31 (Greene 2002). Castlefield's importance as a hub of the region's transport network resulted in the urban development of Knott Mill by the end of the 18th century.



4.6 Development of the Study Area

The development of the study area may be traced reasonably well from the sequence of available historic mapping. The earliest reliable published maps that show the study area at a reasonable scale are Charles Laurent's Map of Manchester & Salford, published in 1793 (Plate 4), and William Green's survey published in 1794. These show the site lying adjacent to the eastern terminus of the Bridgewater Canal, separated from it by the Castle Quay, and to have been occupied by a range of buildings. The south-eastern corner of this range comprised the manager's office for the superintendent of the Castlefield Basin, which was erected in c. 1793 and flanked by formal gardens on the eastern and western sides. Other elements of the building, extending to the north and west, have been identified as 'cottages and yards' (Arrowsmith 2000). There appear to be two small enclosures immediately to the north of the manager's office. Given the presence of formal gardens, it is possible that the manager's office was the official and domestic residence of the superintendent, whilst the rest of the range comprised secondary structures. Access to the buildings appears to have been exclusively from the canal side, as Chester Road is shown to have been separated from the plot by a solid boundary.

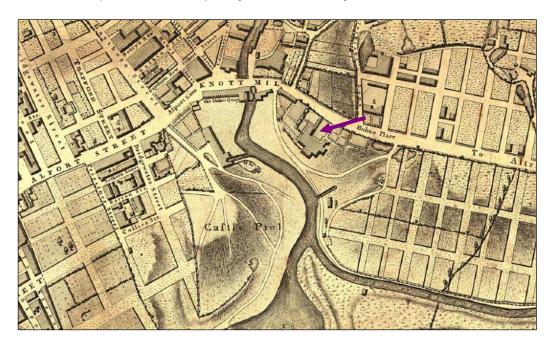


Plate 4: Extract from Charles Laurent's map, published in 1793, marking the position of the study area

Several maps of the area were produced during the first decade of the 19th century, such as those produced by Dean and Pigot in 1809, Johnson in 1820 and Swire in 1824, although all of these maps were published at a small scale, thus precluding any meaningful analysis of individual buildings. The next available detailed map of the area is that produced by Bancks & Co in 1831, which shows the building range to have comprised ten compartments of varying sizes, with formal gardens laid out to the east and south-west, and an apparent access to the building from Chester Road. A narrow rectangular structure and an L-shaped building is also shown to have been added to the west.





Some slight remodelling of the building complex appears to have been carried out by the mid-19th century, as shown on the Ordnance Survey 60": 1 mile map of 1851 (Figure 3). This shows that another element had been added to the central part of the original range of buildings, and the northern part of the complex was used as a smithy. The formal gardens to the west appear to have been removed, reflecting the increasingly industrialised character of the area. The structures situated to the west of the main range, and beyond the boundary of the site, are annotated as a manure pit and a stable block, presumably associated with the canal navigation company. None of the buildings are shown to have been served with pavement lights, suggesting that they did not incorporate basements.

The Ordnance Survey map also shows a tunnel crossing the north-eastern part of the present study area. This connected to an overflow and floodgate on the west bank of the River Medlock adjacent to Knott Mill Bridge, continued north-westwards from Knott Mill to Potato Wharf in Castlefield. It is thought that the tunnel was built in 1838 (Tomlinson 1961, 139).

The absence of basements beneath the main range of buildings is confirmed by the detail shown on Goad's insurance plans of 1889, which shows that most of the component elements of the complex were of two storeys in height, with the exception of the central component, which was of three storeys and annotated as a dwelling. Goad's plans marks another dwelling immediately to the north, overlooking the Bridgewater canal terminus, occupying the building annotated as a smithy on the Ordnance Survey map of 1851 (Figure 3). The south-eastern element of the range is annotated as a boys' home, and was two and a half storeys high. The eastern part of the site remained undeveloped, and is marked as a coal wharf.

The next available editions of Ordnance Survey mapping was surveyed in the late 1880s and published at a scale of 1:500 in 1891 (Figure 4) and at 25":1 mile in 1894. These plans show the main building range to have had the same footprint as that surveyed by Goad, although the individual component elements are of different sizes. The complex is named as Bridgewater House.

Ordnance Survey mapping published in 1908 shows the same arrangement of buildings within the study area, with no significant changes. The building complex in the site is identified on this map as the 'Castle Field Goods Office'. The same detail is shown on Ordnance Survey mapping of 1922 and 1932.

The Ordnance Survey map of 1965 shows the building complex to have been subject to some demolition, with those elements forming the western part of the range to have been demolished. The historic core of the buildings, however, remained extant until October 2001, when it was demolished following a devastating fire. At that time, the building had statutory protection as a Grade II listed building; the site finally was de-listed in 2013.





5. Fieldwork Results

5.1 Phasing

A summary of the results obtained from the excavation is presented below. This narrative is divided into three sections, which consider the archaeological development of the upper and lower terraces and a sequence of built remains spanning the two levels. Each of the features, deposits and structures encountered during the investigation has been ascribed to one of four general phases of activity:

Phase 1: Romano-British

Phase 2: Medieval - Post-medieval

Phase 3: Industrial Phase 4: Modern

Following the completion of the excavation in July 2017, a watching brief was maintained to further investigated deeply buried deposits that were identified on the lower terrace. This was carried out in June and July 2019.

Lower Terrace 5.2

5.2.1 Overview

The lower terrace was excavated in two parts (Areas 1 and 2). The excavation aimed to expose and characterise any archaeological remains and relate these to past phases of activity. Area 1 was situated close to the northern edge of the site (defined by hoarding adjacent to the Bridgewater Canal towpath), the foundations of the Quay Bar to the north-east and an extant stone retaining wall to the south. This excavation revealed a sequence of relict soils spanning the Roman and medieval/post-medieval periods.

Area 2 was excavated to the north-east of the 19th-century outbuildings in an area hemmed in by the natural sandstone escarpment to the south and the curving stone retaining wall to the north. This area similarly produced evidence of Roman activity, namely colluvial deposits. A post-medieval dry-stone wall was unearthed at the base of the escarpment, probably functioning as a retaining wall.

5.2.2 Natural Geology

The solid geology comprised red sandstone (001) with areas of weathered stone, alluvial sand and gravel (002) also present. Archaeological deposits were found to overly both the bedrock and alluvial sand, consisting of both plough soil (004) and waterlogged river deposits (005).

5.2.3 Phase 1 – (Romano-British)

A thick deposit of cultivated soil / hill-wash had developed immediately north of the sandstone escarpment (Plate 5). This was deposited on a north-facing slope, and was encountered in both Areas 1 and 2.







Plate 5: Excavated section through banded colluvial deposits (2m scale)

The investigation of the depositional sequence against the sandstone escarpment in Area 2 revealed that distinct bands of colluvium had accumulated. The lowest stratigraphic unit comprised a firm brownish-grey clayey sand. This was overlain by a layer of colluvium that was Roman in origin, at least in part, and contained material probably washed down from the upper terrace. The overlying layer was rocky and produced post-medieval finds and was covered by a thick deposit of soils of 18th- and 19th-century origin.







Plate 6: Excavated section through (004), (007) and [012] (1m scale)

5.2.4 Phase 2 – (Medieval – Post-medieval)

Although the clarity of horizon between the layers exposed in the sondage in Area 2 allowed for distinct phases of colluvial deposition to be identified, the plough soil encountered in Area 1 was homogenous. There was no distinction between the Roman and post-Roman layers that was immediately obvious; the frequency of Roman finds and their increased size and lack of abrasion from the lower levels of the horizon did suggest that only a thin veneer of post-medieval cultivate survived, however, with up to 1m of Roman soil surviving at the northern edge of the site. The nature of deposition on the lower terrace and diagonal banding of friable soil support the notion of accretion through hill-wash.

Two long, dry-stone walls (010 and 016) were uncovered on the lower terrace (Figure 5). These were dated through their stratigraphic relationship to the surrounding deposits and appear to be 18th-century in date. The length of the walls and absence of any returns suggest they defined the edges of a plot rather than a building. It is tempting to suggest these walls represented the edge of an early wharf configuration, but it seems more likely that they correspond to walls depicted on 18th-century mapping.





Wall 010 was exposed adjacent to the north-eastern edge of the excavation area, and was built above a layer of silty clay (008) above the compacted sandstone makeup 006. Silty clay deposit 008 was interpreted as bedding for the dry-stone wall. It contained fragments of 18th-century ceramics, class and coal, and extended to a depth of 0.25m. Wall 010 survived only as a foundation course. The top of the surviving structure lay at a height of 25.17m aOD. It ran for a total length of 6m east/west across the excavation area, with a maximum width of 0.70m and height of 0.20m. The foundation survived to its greatest extent at the western edge of the trench, and was heavily robbed-out close to the eastern limit of excavation. The stones utilised in its construction were roughly hewn, consisting of roughly squared sandstone blocks and a rubble core (Plates 7 and 8). The northern face of the wall remained intact, whilst the southern face was more disturbed. The wall was overlain by a loose deposit of sand, ash and coal-dust (009). Wall 010 and the compacted material to the north probably relates to the trackway shown on the historic maps.

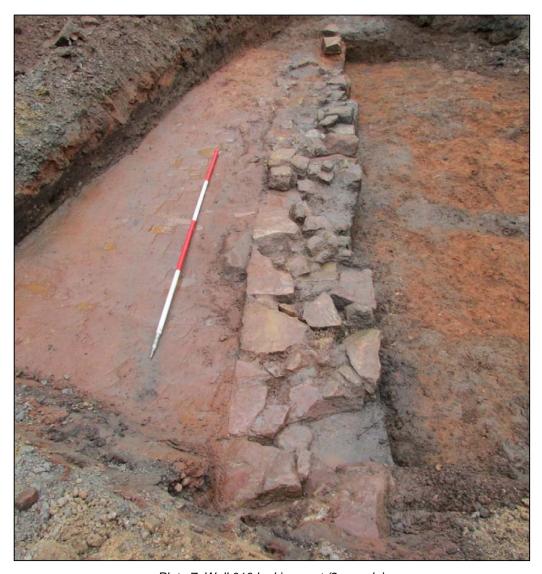


Plate 7: Wall 010 looking east (2m scale)







Plate 8: Wall foundation 010 and underlying deposit 008 (0.25 and 2m scale)

Wall 016 lay to the south of wall 010 and was built at the base of the sandstone escarpment in a construction cut through post-medieval soils (Figure 5). It consisted of a line of roughly faced stonework holding back a dry-stone rubble wall. It was probably intended as a retaining wall; it almost certainly represents a feature depicted on Laurent's map of 1793, which appears to show terracing to the east of the building complex, respecting the line of a road or trackway.

5.2.5 Phase 3 – (Industrial)

A 19th-century linear feature (012) backfilled with crushed sandstone (011) was encountered in the southern part of Area 1, extending along an east/west axis across the excavation area (Figure 5). This feature respected the alignment of the canal, canal-side buildings and retaining wall, and was clearly cut through the post-medieval deposits. The backfill of the feature comprised sterile crushed sandstone, was suggestive of drainage, probably functioning as a soakaway. The inclusion of late 18th- and 19th-century ceramics suggests this feature was relatively late in date, perhaps installed during or after the construction of the superintendent's house.

The last phase of activity was manifested by levelling events (013) and the creation of the coal wharf. Remnants of a sett surface (014) contiguous with the towpath were encountered across a large swathe of Area 1 (Plate 9).

5.2.6 Phase 4 – (Modern)

Several intrusive events were identified on the lower terrace. The concrete slab foundations of the former Quay Bar, which had occupied the eastern part of the site, were encountered at the far end of Area 1. These severely truncated the plough soil horizon. A large truncation through the sett surface, recognised as a trial hole, was re-excavated as part of the evaluation, revealing a thick build-up of relict soil beneath the post-medieval layers.







Plate 9: Exposed sett surface 014



Canal Manager's House 5.3

5.3.1 Overview

The excavations in the western part of the site uncovered a suite of built remains that had formed part of the canal manager's house and subsidiary buildings; these had occupied three artificial terraces cut into the bedrock, and were thus on different levels. The excavation allowed for the investigation of six areas of the building complex. The fragmentary foundations of the superintendent's house, which fronted Chester Road were found on the upper terrace. A long rectangular room was constructed on the middle terrace and remains of store-rooms, stables and a smithy were exposed at a tow-path level. The canal-side buildings were built above a multibayed undercroft, which ran from eastern edge of stables westwards, beyond the limit of excavation and site boundary. To the east of the main complex was a substantial brick extension, comprising a series of small divisions. This served as outbuildings, privies and washrooms. A rock-cut drain fed by pipes from the main house, middle-terrace and drains ran under the outbuildings and out the retaining wall towards the canal.

5.3.2 Phase 3 – (Industrial)

The earliest phase of activity relates to the act of terracing the bedrock in this part of the site, which involved creating artificial shelves for the various levels of the building. The artificial terraces are referred to herein as the upper, middle and lower shelves to avoid confusion with the upper and lower terraces of the site. The upper terrace of the site had clearly been modified, and was relatively flat.

Two rock-cut shelves were hewn to accommodate the middle level of the building (Room 1) and the undercroft, over which were Rooms 2 and 3. The difference in elevation between the middle and lower shelves was the most dramatic, forming a hewn vertical face in the bedrock.

The Undercroft: the lower shelf formed the building platform for the undercroft (Plate 10). This measured 18.92m x 5.54m and was situated below Rooms 2, 3 and 4. The northern wall (018) was 0.41m wide, stepping out at its foundation. Wall 018 ran for 18.92m across the excavation area, beyond the western limit of the excavation. The eastern side of the undercroft was formed by a substantial brick wall (019), which was built over the modified escarpment. Wall 019 also served as the east wall of Rooms 1 and 2, and survived to various heights across the excavation. The interior of the undercroft was sub-divided into six (3.50m wide) bays by five cross-walls (021-025). The cross-walls were constructed of hand-made brick bonded with lime mortar, measuring 5.54m in length and 0.36m in width. Each stood to a height of approximately 1.85m.

The floor of the undercroft (028) was made of hand-made bricks laid stretcher, bedded on deposits of crushed sandstone and sand (029) above the lower shelf in the bedrock. The shelf dropped sharply away (1.30m from the edge of wall 018). Initially, it was thought this represented a foundation trench for the wall. From excavation, however, it would seem that it actually represented the edge of a relict river channel (030), scoured through the natural geology over which the structure of the undercroft was built.







Plate 10: Exposed crown-capping of the undercroft barrel vaulting (Bay 2 open)

The southern side of the undercroft was formed by a neatly cut plinth in the bedrock, which acted as a springing point for barrel-vaulted roof. The profile of the barrelvaulting was inconsistent. In most cases, it formed elongated arch; however, the vaulting above wall 022 was an incomplete arc that flattened out on its northern side. It appeared to have been constructed over a timber former, which had decomposed. Voids left by the timber were visible in the upper courses of the brick cross-walls. The vaulted ceiling was 0.23m thick and capped with puddling clay (026), and covered by a thick deposit of crushed sandstone (027), forming the floor surfaces of Rooms 2-4. The lower levels of wall 019 formed the eastern side of the undercroft. The construction was particularly intriguing being built over the modified, shaped bedrock. It incorporated an arch, which was made smaller and rebuilt as a narrow-rounded arch (Plate 11). The arch led into a small alcove beneath the outbuilding structures.



Plate 11: West-facing elevation of wall 019 showing the alcove





Canalside subsidiary buildings (Rooms 2 - 4): above the levelling deposits capping the undercroft were a series of surfaces formed by hand-made bricks and flagstones. The subsidiary buildings at this level were sub-divided into three rooms (2-4). The easternmost sub-division was Room 2, which measured 4.61m x 6.00m (Plates 12 and 13). This appeared to represent a storeroom or stable block positioned adjacent to the 'smithy' shown on historic maps. The room was formed by walls 018, 019 and 032. The southern side of the room was defined by the vertically hewn bedrock and overlying brick walling.

The flooring within Room 2 was characterised by two distinct surfaces. The eastern side of the room was floored with flagstones; these defined an area that functioned a corridor. The western area of the room measuring 4.61m was surfaced with handmade bricks. These were predominantly laid on bed, stretcher across the width of the room apart from a re-laid section of flooring alongside the flagstone corridor that were laid in the opposite direction. A later concrete screed was adhered to the brick flooring in two patches adjacent to the flagstones, and appeared to represent a ramp between the two levels. A more obvious concrete ramp of late 19th- or 20th-century date had been made at the northern side of the building in the entranceway. A similar ramp led into Room 4.

A squared stone with a circular perforation was built into the brick flooring at the northern end of Room 2. The exact function of this is uncertain, although it may have been intended as a tethering post for animals.



Plate 12: Room 2, looking south-west (2m scale)





Plate 13: Room 2, looking south

A narrow room (Room 3) was excavated between Rooms 2 and 4. This space was defined by walls 032 and 033 (Plate 14). This measured 1.87m x 6.28m, and appeared to form an anteroom to Room 4. The dividing wall between Rooms 3 and 4 was constructed atop the flagstone surface of the rooms, and it appears this division was a relatively late construction decision. The wall abutted the bedrock and overlying brickwork at the southern side of the room in much the same manner as wall 032.



Plate 14: Rooms 2, 3 and 4 (1m scale)





Room 4 measured 3.02m x 6.28m, and was formed by the fragmentary remains of a dividing walls 033 and 036. The walls were constructed above the flagstone floor. The floor had been repaired with brickwork, and in places firebricks had been used. No obvious heat-related installations were found, but these bricks may possibly have derived from the smithy shown on the historic maps. Although relatively little of structural interest survived within the canal-side buildings, a number of features were noted in the surface of the floor, including settings for rectangular timbers and small circular perforations. The flooring was constructed above the levelling deposit capping the vaulted undercroft.

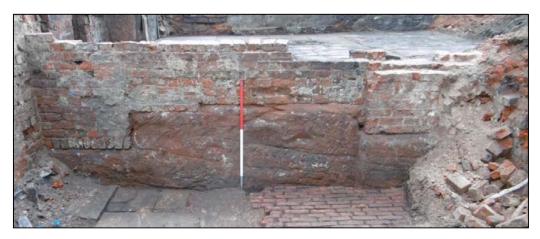


Plate 15: North-facing elevation of wall 038 taken from in Room 2 (1m scale)

Room 1: large rectangular Room 1 was exposed in the middle of the building complex, constructed on the middle shelf cut into the bedrock. The room was formed by walls 019, 038 and 039, whilst the southern side of the room was formed solely by the shaped bedrock (Plate 16). A bricked-up doorway was located at the eastern end of the room through wall 019, and an aperture probably representing a doorway was exposed through wall 039.

The northern wall (038) of the Room 1 was constructed above a vertical face of shaped bedrock, which also formed the southern side of Rooms 2-4. This wall was 0.23m wide and 9.80m long, and survived to a maximum height of 1.06m. Wall 038 was constructed of hand-made bricks bonded with lime mortar. The wall was built directly atop the bedrock, which incorporated a step and plinth. The eastern part of wall 038 was keyed into wall 019. The eastern part of the wall was built over low shelf in the bedrock, and incorporated a course of bricks laid on-edge, creating a step in the brickwork to make it level with other courses. A 0.66m wide buttress was built into the wall above the bedrock plinth. The western end of wall 019 had a stop-end. Wall 039 was also stop-ended and, together with wall 038, formed an entranceway into the western end of the room; this defined the western side of the Room. This was of contemporary construction to wall 038 and was survived to a maximum height of 0.36m. It was made of hand-made brick bonded with lime mortar and was constructed above the flagstone surface of the room, which extended beyond the limit of the excavation. An additional wall exposed in plan at the edge of the excavated area probably defined the limit of the floor, and may have constituted the wall of a corridor or stairwell.







Plate 16: Junction of wall 039 and rendered bedrock, south-west corner of Room 1

The room's southern limit was defined by the modified vertical face of the bedrock. A render had been applied to the bedrock face (Plate 16). The entirety of the floor was surfaced with flagstones (050), which were irregular in size (ranging from 0.18m x 0.21m x 0.04m to 0.78m x 0.64m x 0.05m) and shape. The surface was cracked and distressed; the western half of the room showed signs of heat.

Several phases of modification are discernible in the historic fabric. An entranceway through wall 019 retained two wooden door jambs fitted with iron pintels. The door was situated 0.46m from the north-east corner of the room, and was 0.81m wide. The aperture appeared contemporary with the 18th-century phase of construction, and had been bricked-up in the 20th century with machine-made bricks and cement.

A sink-setting and adjacent fireplace were also built into the eastern wall (019). The setting, sandwiched between the door and fireplace, survived as a low shelf. The eastern edge of the shelf consisted of a step within wall 019, whilst the southern side was formed from the bedrock, protruding from the northern cheek of the fireplace. The wall surface around the setting were faced with slate acting as rudimentary damp-proofing. The sink itself had been removed.

The fireplace was constructed of hand-made bricks and lime mortar, and was built around a metal frame. It did not appear to be an original feature in Room 1, and was built in front of a bricked-up window aperture through wall 019. The fireplace measured 0.65m x 1.25m, and stood to a height of 1.63m. The firebox opening measured 0.79m x 1.13m, and the brick cheeks were 0.24-0.27m wide. Yellow sandstone cladding adorned the cheeks of the fireplace and formed the mantel. The overmantel and brick superstructure (including the flues) stepped out from the northern side of the fireplace, overhanging the sink-setting. The firebox aperture had been bricked-up with hand-made bricks and light bluish-grey limewash (Plate 17).







Plate 17: Fireplace in Room 1 looking east (1m scale)

The removal of the blocking revealed brick the hearth was formed by rock-cut and brick walls. The back liner and southern side were formed from the vertically cut rock. The northern side and structure were constructed of hand-made bricks built around a cast-iron frame. Cast-iron panelling and hot-plates survived in the interior of the structure. Two conjoined flues (front and back) were identified. The back flue was vertical, whilst the front flue sloped from front to back (Plate 18).



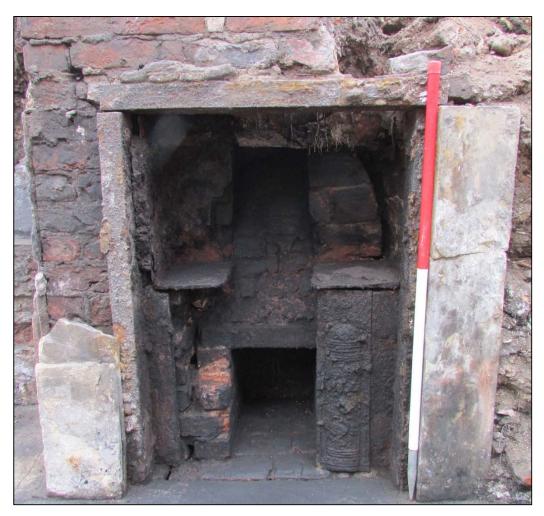


Plate 18: Detail of the fireplace in Room 1 (1m scale)





Plate 19: General view of Room 1, looking north-east (1m scale)



Plate 20: Wall 039 showing construction above flagstone floor 050 and the bedrock



Corridor: the corridor ran north/south from the southern side of Room 1 ending in the centre of the superintendent's house. The western wall was the most substantial in width (0.36m), whilst the southern and eastern walls were 0.23m wide; the walls survived to a maximum height of 0.58m. Hand-made bricks and lime mortar were utilised in the wall construction. The concrete surface, spread over an area of 1.96m x 1.34m, abutted the walls and was clearly later in date. The surface was 0.09m-0.13m thick, and was laid directly above the modified surface of the natural geology.

The rock-cut passage (052) was exposed during the excavation to the south of Room 1, and was shown to consist of a flat, vertical-sided passage (Plates 21 and 22). Only a small area was revealed initially. Further excavation on the upper terrace revealed the cut (052) ran for a total length of 8m x 2.50m. The initial exposure of the passage revealed a narrow step or recess at the northern end of the passage, which measured 0.78m x 0.23m. The step was situated towards the western edge of the passage, 0.51m from the western side of the cut. This feature had been blocked-up with hand-made bricks bonded with a dark blackish-grey mortar, indicative of a late 19th- or early 20th-century construction date (Plate 23).

The exact function of the rock-cut feature is not entirely certain, although it may have formed a point of access between the two levels of the building, being situated 0.80m below the surviving foundations of the house that fronted Chester Road. Alternatively, it may have functioned as a cold-room or storeroom for the adjoining Room 1.



Plate 21: Corridor comprised of rock-cut passage 052, brick wall 043 and concrete floor 048 (1m scale)







Plate 22: North-facing elevation of Room 1, showing the passage(1m scale)



Plate 23: Close-up view of the bricked-up step or recess and rock-cut passage 052 from Room 1

Outbuildings: a block of outbuildings that were broadly contemporary with the 18thcentury elements of the complex were exposed and recorded to the east of Rooms 1 and 2. This western and southern part of the excavation area was defined by a partially enclosed courtyard, under which lay two septic tanks or cess pits. A linear block (049) was sub-divided into several units, which included a slate-lined washroom and other small rooms that probably served as privies (Plate 24). A drain ran underneath the outbuildings and out through the retaining wall.







Plate 24: General view of linear range 049 and associated external surfaces

Access to and from the outbuildings was evidently maintained through the doorway at the eastern end of Room 1. This led onto a flagged area to the east of Room 1 that appears from historic maps to have been a partially enclosed courtyard. The middle artificial shelf on which Room 1 had been built stepped up behind Room 1. A single step with a one-brick riser and stone tread bridged the courtyard to a raised bedrock platform behind Room 1 (Plate 25).



Plate 25: View of flagstone surface and step







Plate 26: Washroom (1m scales)



5.3.3 Phase 4 – (Modern)

The last phase of activity identified during the excavation was ascribed to the modern period. The built remains under investigation were occupied until the early 2000s. A series of modern alterations and additions to the buildings were encountered. The demolition and subsequent levelling of the buildings also derived from this period.

The earliest phase of alteration, which dated to the mid- to late 20th century, comprised the bricked-up apertures through wall 019, including a possible window opening in Room 2 and doorway in Room 1, and a series of rectilinear brick structures with concrete bases that served as septic tanks between wall 019 and the outbuildings (049). These were exposed during the dismantling of wall 019. The materials and character of these structures suggested these were of a late date and negligible interest, probably deriving from a recent commercial use of the building.

5.4 Upper Terrace

5.4.1 Overview

An area equivalent to 90% of the upper terrace was stripped mechanically. Remains of the superintendent's house were badly truncated by recent demolition activity, although the vestiges of garden paths and yard surfaces shown on historic maps were encountered on the western half of the upper terrace in association with built remains. In areas where the paths and yards did not survive, signs of modern disturbance were more prevalent. The demolition of the house and subsidiary buildings was evidently accompanied by significant levelling. This resulted in horizontal truncation of areas of the 19th-century garden soils and, in some locations, down to the natural geology. Modern dump deposits containing refuse were found in various parts of the site.

5.4.2 Natural Geology

The natural bedrock was exposed across most of the upper terrace, in places overlain by patches of gravel and sand. A light brown subsoil was also encountered at the interface between undisturbed soil and natural. The bedrock formed a natural outcrop or escarpment; its surface was weathered and undulating, mirroring a similar outcrop of red sandstone seen on the other side of the Bridgewater Canal, which together delineate the ancient river terrace of the River Medlock. The excavation of a discrete sondage through deposits lain up against the outcrop revealed a man-made vertical face, likely to have derived from quarrying. The deposits abutted this spanned the Romano-British to post-medieval periods.

5.4.3 Phase 1 – (Romano-British)

Whilst there was no firm evidence to demonstrate conclusively that the apparent quarrying of the natural bedrock represented Romano-British activity, it is notable that alluvial deposits laid against the resultant vertical face contained fragments of pottery that were exclusively of Roman date. The possibility that these fragments were residual within later deposits cannot be dismissed, but the tentative evidence available points to the area having been quarried during the Romano-British period.





5.4.4 Phase 3 – (Industrial)

The garden soil across the upper terrace blanketed the weathered alluvial deposits and subsoil. It also extended beyond the natural escarpment, spilling out over the lower terrace, covering earlier deposits and structures. The soil abutted the southern face of the retaining wall, extending to a depth of 3.60m. Whilst the soil deposited across much of the upper terrace derived from cultivation, the thick deposits of soil here were almost certainly introduced (for the most part) in one event. This act probably coincided with the creation of the superintendent's house and laying out of the formal gardens depicted on the late 18th- and early 19th-century mapping.

The discrete survival of various surfaces, comprised of bricks, cobbles and setts, can be equated with the arrangement of outdoor paths and yards around the property. The largest spread was encountered in the south-west corner of the excavation area. Here, a spread of rounded river cobbles (046) survived above the post-medieval garden soil. A surface superimposed above cobbles 046 comprised large square setts (045) and probably represents its conversion from an ornate garden area to a more functional working yard during the 19th century (Plate 27). These surfaces were broadly contemporary with a curving garden wall also depicted on the historic maps.



Plate 27: Cobble (046) and sett (045) surfaces and curving boundary wall

Two further areas of cobbles to the east of the house and outbuildings can clearly be related to a series of perimeter paths around the property. These were similarly constructed of rounded cobbles and were laid directly above garden soil, and probably derived at least in part from the early to mid-19th century.





Lower Terrace Watching Brief 5.4

5.4.1 Overview

The apparent riverine deposits containing fragments of Roman pottery that were identified across the lower terrace were not fully excavated initially due to their depth below ground level. Following discussion with Castlefield Developments (Manchester) Ltd, it was agreed that a watching brief would be maintained during the excavation works required to create a basement for the new development as soon as a piling wall had been installed to enable the riverine deposits to be investigated further (Plate 28). The watching brief was carried out in June and July 2019.



Plate 28: General view across the site during the watching brief in June 2019, showing the piling wall in place

The watching brief was targeted on an area in the northern, central part of the lower terrace, covering an area of approximately 50m² (3.80m x 12.90m), in the location of the riverine deposits identified during the excavation in 2017. Made ground had been raised above relict soil deposits across the entirety of the area to a maximum depth of 1m. An area in the south-east corner of the area targeted by the watching brief had been truncated and consisted of redeposited material to the depth of natural geology. The soils consisted of sandy loams with fragmented and weathered sandstone beneath; the sandy deposits were derivative of the substrate.

A single archaeological feature, comprising a linear ditch, was identified on an east/west alignment along the route of the piling wall (Plates 29 and 30). The ditch had a maximum length of 12m and width of 1.50m, and was visible at a level of between 1.80m and 2.00m below the top of the capping beam, roughly consistent with ground level alongside the canal towpath. No other features were identified, and the soil horizon identified in 2017 proved to be patchy in its survival.







Plate 29: The surviving section of the ditch revealed beneath the piling wall



Plate 30: Section excavated across the ditch beneath the piling wall





6. The Finds

6.1 Introduction

The artefactual assemblage comprises finds from various material categories, mainly pottery (Roman to modern), ceramic building material, clay tobacco pipes, glass and metalwork. The aim of the finds assessment is to evaluate all classes of archaeological material from the evaluation work to assess their research potential and significance.

Finds were collected using a 100% collection policy on site during the excavation. All finds were returned to the Salford Archaeology finds laboratory in sealed and labelled polyethylene bags. All finds were washed, except metal and organic material, which were dry brushed, and grouped by material for assessment.

The assemblage was recovered from 28 contexts and unstratified deposits, mainly from colluvial and plough soil deposits, as well as from within the rooms of the late 18th- / 19th-century building. The assemblage comprises a mixture of materials dating from the Roman to modern period, with a total count of 261, weighing 11.2kg (Table 1). The assemblage is in fair condition, with little signs of abrasion noted. Pottery comprises 79% of the total assemblage, 159 sherds of which date to the Roman period, which includes decorated and stamped Samian ware, decorated Black Burnished ware, white and red mortaria and oxidised wares. The remaining 47 pottery sherds date from the late 17th to 20th centuries. The assemblage also contains a small proportion of Roman copper objects, including a partial Roman head-stud brooch.

Material	Number of Contexts	Count	Weight (g)	Period (century)
Animal bone	3	5	50	Unknown
Ceramic Building Material	4	12	498	Roman
Clay tobacco pipe	9	22	70	17 th -19 th
Copper	3	3	18	Roman
Glass	6	6	954	17 th -20 th
Iron	2	2	121	Modern
Mortar	1	2	121	Roman?
Pottery	17	206	7408	Roman to 19 th
Slag	1	2	195	Unknown
Wood	1	1	3	Unknown
Total		261	11188g	

Table 1: All finds recovered by material, count, weight and period





6.2 Samian Ware (Felicity Wild)

6.2.1 The Assemblage

In total, 29 sherds of Roman samian were examined from the site, from a maximum of 22 vessels. All were Central Gaulish, with sherds from five vessels probably from Les Martres-de-Veyre, the rest from Lezoux. Excluding uncertain scraps, the forms represented were 37 (eight examples), 27 (two), 33 (two), 38 (probably two), 18/31 and/or 31 (four), 18/31R or 31R (one).

The proportion of decorated ware (42%) seems unexpectedly high, although the assemblage is too small for statistics necessarily to be reliable. There were two potters' stamps, of Cintugenus of Lezoux, c. AD 155-80 and Donnaucus of Les Martres-de-Veyre, c. AD 100-20. The assemblage as a whole appeared to be of mid-2nd-century date, the stamp of Donnaucus being the earliest closely datable piece present. The late 2nd-century plain forms and work of the later Antonine potters were absent. Nothing need be later than c. AD 170-80.

6.2.2 The Decorated Wares

Figure types in the following are quoted from Oswald 1936-37 (O.), motifs from Rogers 1974 (Rogers). Potter numbers, die numbers and dates are quoted from Hartley and Dickinson 2008-12, and illustrations are presented in Plate 31.

- 1. Form 37, Central Gaulish: five sherds, two conjoining, of a bowl in dense, orangey fabric with smooth surface slip, characteristic of Les Martres-de-Veyre. Decoration shows panels with two small medallions containing a mask, a festoon (probably Rogers F35) containing the sphinx (O.857) over a bear (O.1609) and Mercury (O.532). The ovolo (probably Rogers B144 with beaded tongue rather than B143) and leaf-tip space filler (from Rogers J178) are typical of the style of Cerialis ii early Cinnamus ii. The bear, sphinx and festoon were all used by Cinnamus and the Mercury has been recorded on pieces in his style and that of related potters. Although they worked at Lezoux, large quantities of bowls in Cerialis-Cinnamus style have been found at Les Martres-de-Veyre (Romeuf 2000, pls. 94-100) along with plain-ware stamps of Cerialis. Whether the bowls were made there or whether the bowls or moulds were imported is uncertain, but the fabric of the present piece indeed suggests manufacture at Les Martres-de-Veyre. c. AD 135-60. (031) <68>
- 2. Form 37, Central Gaulish: two sherds of a small bowl with panels showing the vase motif (Rogers T3) topped by a trifid bud (probably Rogers G108) and the erotic group O.B). T3 and O.B were both used by Cinnamus ii and the bud is attributed to his style. Too little survives of the ovolo for certain identification, but it appears to fit his small bowl ovolo (Rogers B231) for size. c. AD 140-80. (031) <68>
- 3. Form 37, Central Gaulish: showing the lower part of panel decoration. The most distinctive feature is the motif in the bottom corner of the right-hand panel, a badly-impressed dolphin (O.2401) characteristic of the work of Secundus v of Lezoux (cfRogers 1999, pl. 108, 2 for its use as here in the panel corners). The legs are probably those of Hercules (O.783), attested for Criciro v and Doeccusi, but not known to have been used by Secundus. c. AD 145-175. (031) <68>





- 4. Form 37, Central Gaulish: small sherd showing a freestyle hunting scene with the horseman (O.246) used by a number of Hadrianic and Antonine potters. The other types are too fragmentary for certain identification but include the head of a small hound and probably the goat (O.1843). Both goat and horseman were used by Paternus v (Stanfield and Simpson 1958, pl. 106, 22), who also used a small hound (O.1926A). No complete impression of a space-filler remains, though parts of the small leaf sprig (Rogers L22) are visible on the edges of the sherd. This is used as a space-filler on a bowl with Paternus' stamp (Rogers 1999, pl. 79, 32) which also shows the hound. c. AD 160-185. (031) <68>
- 5. Form 37, Central Gaulish: sherds from two different bowls, both showing an ovolo similar to that on no. 1 above. In neither case is the tongue clear enough to show whether it is the beaded tongue of the Cerialis-Cinnamusovolo (Rogers B144) or that with diagonal striations characteristic of Cinnamus' mature style (Rogers B143). It seems likely that the larger piece shows B144, the smaller, B143. c. AD 135-10. (2417) <82>
- 6. Form 37, Central Gaulish: decoration shows the leg of an uncertain kilted figure, an undistinctive chevron matching Rogers G324 in size and what may be part of a composite motif to which no satisfactory parallels are forthcoming. A possibly similar 'wreath' appears in the centre of a different composite motif (Rogers Q13) attributed to a Trajanic potter whose name starts ME... The only example cited by Rogers of G324 used singly rather than as a frieze is on a bowl from Brecon (S&S, pl. 64, 22) in the style of the Hadrianic potter Vegetus. Other possible parallels all tend to be Trajanic or Hadrianic. The fabric is not that of Les Martres-de-Veyre, suggesting a probable Hadrianic date for the piece. (2417) <82>
- 7. Form 37, Central Gaulish: showing horizontal and vertical rows of the small S (Rogers S72) used by Cettus of Les Martres-de-Veyre (cfRomeuf 2000, pl. 89, 139 for similar use of the motif). *c.* AD 130-60. (Upper terrace) <48>

6.2.3 The Potters' Stamps

A Form 33, Central Gaulish: with the stamp CINT.VGENI (first N reversed). Die 3a of Cintugenus of Lezoux, c. AD 155-180. (031) <68>

B Form 27, Central Gaulish: complete profile of the cup, in the fabric of Les Martres-de-Veyre, abraded and with patches of dark accretion. Traces of the stamp are faintly visible, reading DONNAV[CI] (NN and AV ligatured). Die 5a of Donnaucus of Les Martres-de-Veyre. *c.* AD 100-20.(Upper terrace U/S) <28>





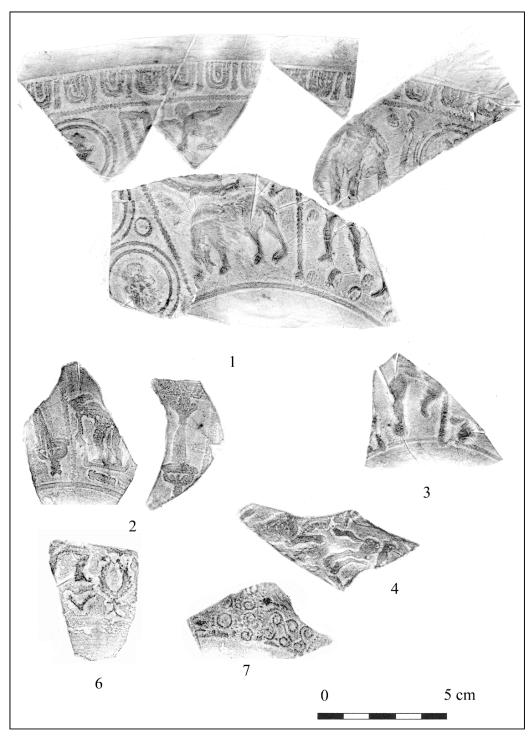


Plate 31: Decorated Samian ware from Chester Road





Plate 32: Decorated Samian ware from Chester Road



Plate 33: Examples of Samian ware from Chester Road



6.3 Romano-British Pottery (Ruth Leary)

6.3.1 Methodology

This assessment follows the Standard for Pottery Studies in Archaeology (Barclay et al 2016). All the pottery was examined in context groups. The sherds are recorded grouped by ware group and vessel type. Quantification is by sherd weight, count and estimated vessel equivalent (EVES). The ware group, vessel form, vessel type, condition, decoration and any obvious joins are recorded and a spot dating list is given by context.

The fabric of the pottery was first examined by eye and sorted into fabric groups on the basis of colour, hardness, feel, fracture, inclusions and manufacturing technique. A sample of the sherds was further examined under an x30 binocular microscope to verify these divisions. The size of the sample was as large as was felt necessary for each fabric group, and descriptions followed a standard nomenclature:

Colour: narrative description only Hardness: after Peacock 1977

soft - can be scratched by finger nail

hard - can be scratched with penknife blade

very hard - cannot be scratched

Feel: tactile qualities

smooth - no irregularities

rough - irregularities can be felt

sandy - grains can be felt across the surface leathery - smoothed surface like polished leather

soapy - smooth feel like soap

Fracture: visual texture of fresh break, after Orton 1980.

> smooth - flat or slightly curved with no visible irregularities irregular - medium, fairly widely spaced irregularities finely irregular - small, fairly closely spaced irregularities

laminar - stepped effect

hackly - large and generally angular irregularities

Type: after Peacock 1977

Frequency: indicated on a four-point scale - abundant, moderate, sparse and rare where

abundant is a break packed with an inclusion and rare is a break with only one or

two of an inclusion.

Sorting: after Orton 1980

Shape: angular - convex shape, sharp corners

subangular - convex shape, rounded corners

rounded - convex shape no corners

platey - flat

Size: subvisible - only just visible at x30 and too small to measure

> fine - 0.1-0.25mm medium - 0.25-0.5 coarse - 0.5-1mm very coarse - over 1mm





6.3.2 Factual Data

An assemblage of 131 sherds of coarse pottery (4710g, 3.42 EVES) was recovered from nine contexts and one very abraded samian sherd was identified in addition and is included in the Samian report. The pottery was in reasonable condition, although the oxidised wares had suffered some surface erosion due to burial conditions. The assemblage dated from to the Antonine period, predominantly from the mid-2nd century to the late 2nd /early 3rd century with one sherd having a date range extending from the mid-3rd to mid-4th century (Table 2). The assemblage includes a range of wares typical of military extra-mural settlements in this region and included sherds belonging to the Baetican olive-oil amphora Dressel 20 (Peacock and Williams 1986, Class 25), a Rhaetian mortarium, several Mancetter-Hartshillmortaria from the kilns near Coventry, Cheshire plain reduced and oxidised wares and white wares, perhaps also from the Mancetter-Hartshill kilns.

Context	Context description	No	G	EVES	Pottery dating
004	plough soil	2	103	0.18	Roman
005	River deposits RB	30	603.1	0.23	M2-M3 century
007	plough soil	6	14		Roman
031	charcoal deposit lower terrace below vaulted cellar	26	410.6	1.11	M-L2
053	lower terrace between rockface and stone wall	43	1759	1.13	L2-E3 century
55	colluvium rep sect	6	264.6		AD190-240
60	within structure west end of site	1	3		2 nd century
2406	Roman deposits-possible water course with river pebbles depression filled with Roman deposits (similar to 2417)	1	6		Uncertain
2417	Light grey Roman deposit similar to 2406, seems to infill quarried sandstone shelf 2419-Roman pottery fill	6	566	0.22	Mid- to late 2 century
U/S	Unstratified	10	981	0.55	
Total		131	4710	3.42	

Table 2: Quantity of coarse pottery from contexts with context dating



6.3.3 Range and Variety of Material: Ware and Forms

Amphora: the globular-shaped Dressel 20 amphora is the most commonly found amphora form imported into Roman Britain (Williams and Peacock 1983). They were made specifically to transport by sea the large surplus of olive-oil produced by the many estates situated in the valley of the River Guadalquivir and its tributaries between Seville and Cordoba in the southern Spanish Roman province of Baetica. A rim, neck, handle sherd from Dressel 20 amphora came from context 053, and is dated to the Antonine period (Plate 34).



Plate 34: Amphora rim and handle fragment from context 53, Chester Road

Black-burnished Ware: the BB1 group dated predominantly to the mid- to late 2nd century. Two flat-rim dishes and one flat-rim bowl were decorated with lattice burnish and compared with Gillam 1976 nos 57,63, 64 and dated early to mid- 2nd, mid- to late 2nd and mid- to late 2nd century respectively (Plate 35). The jars were of Gillam 1976 no. 3 (with a wavy lie burnish on the neck and Gillam 1970 nos 135-6 dating mid- to late 2nd and late 2nd to early/mid-3rd century. The range of vessels and types of decoration indicate a date range in the mid-2nd to late 2nd or early 3rd century

Mortaria: fine-textured, cream fabric, varying from softish to very hard, sometimes with pink core; self-coloured or with a self-coloured slip. Inclusions usually moderate, smallish, transparent and translucent white and pinkish quartz with sparse opaque orange-brown and rarely blackish fragments; rarely white clay pellets (or re-fired pottery). The range in fabric is, in fact, quite wide, from that with virtually no inclusions to fabrics with a fair quantity and fabrics with hard, ill-sorted black inclusions. The trituration grit after AD130-40 consisted of hard red-brown and/or hard blackish material (probably re-fired pottery fragments, called MIH2 in the catalogue), with only very rare quartz fragments. Earlier mortaria usually have a mixed trituration grit in which quartz and sandstone are normal components and some early 2nd-century mortaria probably have entirely quartz trituration grit. Mancetter-Hartshill mortaria of AD130/140 onwards are usually easy to recognise.



Fragments from five mortaria were found: a bead rim mortarium with downbent flange (late 2nd century); a collared mortarium (AD190-240); a smooth, concave hammerhead mortarium (3rd century); a hammerhead with four rounded reeds (AD190-240), and; a multi-reeded hammerhead mortarium (mid-3rd to mid-4th century; Plate 36).



Plate 35: Black burnished ware with incised decoration



Plate 36: Mancetter-Hartshill, Warks mortaria





Rhaetian (Wilderspool?). Orange-brown fabric with dense, red-brown slip normally limited to the upper side of the flange and any internal concavity below the bead. The slip may or may not extend over the spout dependent on whether the potter applied the slip before or after cutting out the spout (the best practice was to cut the spout first of course.) Inclusions: ill-sorted, minute to smallish, rounded quartz with red-brown, black and grey material. The fabric is finer than other oxidised Wilderspoolmortaria. Trituration grit: mixed, quartz, quartz sandstone, red-brown and pale brown sandstone and hard grey material. In the Rhaetian mortaria the grits were more likely to use smaller fragments and to pack it more closely together; in theory the grit should not extend into the concavity, but odd strays do occur. Much of a single vessel of Hartley type C (Hartley 2012; Plate 37).



Plate 37: Rhaetian mortaria

O: Oxidised Wares: several different types of oxidised wares are present in the assemblage, including:

OAA1 Cheshire plains fine ware, orange to pale orange. Soft with powdery/sandy feel and smooth fracture. Sparse, well-sorted, fine quartz and sparse ill-sorted fine to medium, rounded red brown inclusions. Micaceous. Body sherds only, one from the neck of a narrow-necked jar.





OAA2 Medium orange to pale orange/buff. Soft with powdery/sandy feel and irregular fracture. Common, well-sorted, fine quartz and sparse ill-sorted fine to medium, rounded red brown inclusions. As OAA1 but more quartz. Body sherds only.

OAB1 Cheshire Plains medium orange, hard to soft with rather sandy feel and quite smooth fracture. Sparse-moderate, ill-sorted medium to coarse subangular quartz, sparse, ill-sorted, rounded red/brown and grey inclusions. Cheesepress, wide-mouthed jar (as Webster 1976 no. 24, late 2nd-late 3rd century; Plate 38), everted rim beakers, rouletted beaker bodysherds, roughcast beaker bodysherd (2nd century), wide-mouthed jar with a fat rounded everted rim, narrow-necked jar with bifid everted rim (3rd century).

OAC1 orange, hard with gritty feel and hackly fracture. Abundant, well-sorted, medium-coarse sub rounded quartz.



Plate 38: Late 2nd to late 3rd century oxidised ware cheese press

FLA: White Wares: two types of white wares were present in the assemblage:

FLA1 White or off white, probably with darker cream slip. Fairly hard with smooth feel and fracture. Very few inclusions, rare quartz and rounded red/brown. Body sherds.

FLA2 White hard, smooth with irregular fracture. Common, well-sorted fine, sub-rounded quartz and sparse, ill-sorted medium to fine red/brown inclusions. Body sherds.

FLB: White Slipped Ware: one types of white slipped ware was present in the assemblage:

FLB1 Orange, quite pale with white slip. Soft with smooth or sandy/powdery feel and slightly irregular fracture. Sparse well-sorted subangular quartz and rare rounded grey inclusions. Flagon handle and everted-rim beaker sherd.

R: Reduced Coarse Wares: this group included fine grey wares and moderately sandy grey wares, both with two distinct types. The fine grey ware types are:

GRA1 Dark grey/black. Very fine, hard, smooth with smooth fracture. Sparse, fine sub-rounded quartz. Neck of narrow-necked jar.





GRA4 Severn Valley reduced ware with vesicles and black inclusions – charcoal. Grey with reddish-brown core. Fairly hard and smooth fracture and feel, moderate very fine quartz and sparse fine red/brown and black inclusions. Similar to SV reduced ware, but probably not fine enough. Webster (1976, 94) suggested that Severn Valley wares did not appear at Manchester until the mid- to late 2nd century. Body sherd.

The moderately sandy grey ware types are:

GRB1 Hard with fairly smooth feel if surface unabraded. Sandy if surface abraded. Sparse-moderate, well-sorted medium subangular quartz as OAB1, sparse ill-sorted medium-fine rounded grey inclusions. Darker grey slip. Cheshire Plains reduced ware. Narrow-necked everted rim jar, 2nd century (Webster 1982 and 1991, 13).

GRB2 Grey without obvious slip. Sandy, hard with irregular fracture and moderateabundant well-sorted, medium, subangular quartz. Tends to feel coarser than GRB1. Sometimes with brown core or margins.

RSB1: Red Slipped Wares: Red slip. Sandy, fairly hard and sandy. Same as CP from Mellor with traces of red slip. Sparse-moderate, ill-sorted medium to coarse subangular quartz, sparse, ill-sorted, rounded red/brown and grey inclusions.

Row Labels	No	G.	Estimated Vessel Equivalents (EVES)
BB1	20	424.7	0.86
DR20	9	960	0.20
FLA1	2	23	
FLA2	4	47	
FLB1	3	63.2	0.15
GBB1	1	16.5	
GRA1	1	7.1	
GRA1?	1	12.4	
GRA4	3	19.7	
GRB1	12	267.2	0.20
GRB2	1	22	
MH2	7	518.6	0.20
MRHAETIAN	10	981	0.55
OAA1	12	306.7	
OAA2	1	127.7	
OAB1	39	869	1.26
OAC1	4	32	
RSB	1	11.8	
Total	131	4710	3.42

Table 3: Component types present in the assemblage





6.3.4 Chronology

The pottery assemblage dated from the mid- 2nd century to the mid-3rd century. The assemblage from context *005* river deposits include a mid- to late 2nd century BB1 flat-rim bowl (Gillam 1976 no. 39), an OAB1 wide-mouthed jar similar to a late 2nd to late 3rd century Severn Valley type jar in Cheshire Plain ware (Webster 1976 no. 24, Webster 1991, 13), a BB1 plain-rim dish of late 2nd- to early 3rd-century type (Gillam 1976 no. 77 or 79) and a multi-reeded hammer head mortarium from the Mancetter-Hartshill potteries of the mid-3rd to mid-4th century. Together these span the mid-2nd to mid-3rd century.

Context *031*, a charcoal deposit lower terrace below vaulted cellar, includes an OAB1 narrow-necked jar similar to the 2nd-century Severn Valley types (Webster 1976 nos 203), everted -rim OAB1 beaker sherds, a sherd from a BB1 flat-rim dish with acute lattice burnish of the early to mid-2nd century and a GRB1 jar with vertical burnished lines (Gillam 1976 no. 57). This group dates a little earlier than the river group and may belong in mid- to late 2nd century.

The pottery from context *053*, the lower terrace between rockface and stone wall, included part of a Mancetter-Hartshill collared mortarium of AD190-240, a Mancetter-Hartshill bead-rim mortarium with downbent flange of late 2nd-century date, and an Antonine Rhaetian type C mortarium, an OAB1 bifid rim narrow-necked jar of 3rd-century type as well as BB jars of the late 2nd to early 3rd century and the late 2nd to mid-3rd century (Gillam 1970 nos 135-6), BB1 dishes of the mid- to late 2nd century (Gillam 1976 nos 63-4), an Antonine Dressel 20 amphora rim and neck sherd. This group overlaps with that from context *031*, but indicates continuing ceramic deposition at least in the early 3rd century.

The pottery from context *055* colluvium similarly includes a 3rd-century Mancetter-Hartshill hammerhead mortarium and a hammerhead mortarium with four reeds dated AD190-240. A single very abraded FLA2 bodysherd from context *060* within the structure at the west end of site comes from a rouletted beaker or jar unlikely to date later than the 2nd century.

Context 2417, a light grey Roman deposit similar to 2406, seems to infill quarried sandstone shelf 2419, contained a mid-2nd-century BB1 jar sherd with wavy line neck burnish (Gillam 1976 no. 3) as well as BB1 flat-rim bowl with lattice burnish of mid- to late 2nd-century date range (Gillam 1976 no. 39), and an FLB everted-rim beaker.

A single OAC1 sherd from context 2406 is of uncertain date. An OAB1 cheesepress came from plough soil 004.

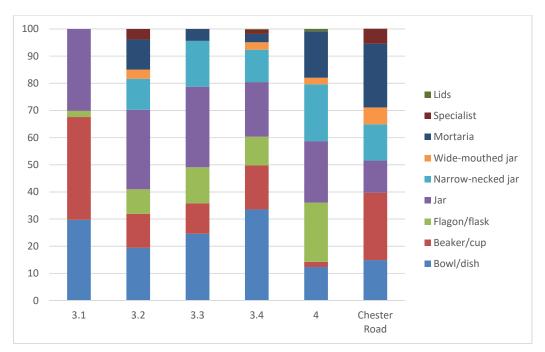
Overall, the pottery gives a restricted date range in the mid-2nd to early or mid-3rd century. The lack of BB1 jars with obtuse lattice and splayed rims, BB1 grooved flat rim bowls and Nene Valley colour-coated ware suggest a focus of domestic settlement did not extend far into the 3rd century when these types began to become more common. The overall assemblage compares with Manchester Period 3.1-2, although the relative quantity of mortarium sherds is rather higher at Chester Road than was identified in the assemblage from excavations at Barton Street.





6.3.5 Function and Site Status

Compared to the functional groups found at Barton Street in Period 3 and 4, Chester Road has rather more small jar/beakers and fewer flagons. The group also has more mortaria. This is a rather small assemblage for this to be statistically significant, but the high level of beakers is like the assemblage from Barton Street P3.1, perhaps associated with an early ritual activity pre-dating the Period 3 temple building. Given the evidence in the area of Chester Road for ritual and sepulchral activity, including a mithraeum, this high level of beakers, a vessel type often associated with both burial and ritual activities, is perhaps significant. Similarly, the relative quantities of Samian ware compare well with the Period 3 'temple' phases at Barton Street, although the high levels of mortarium wares at Chester Road are not duplicated there.



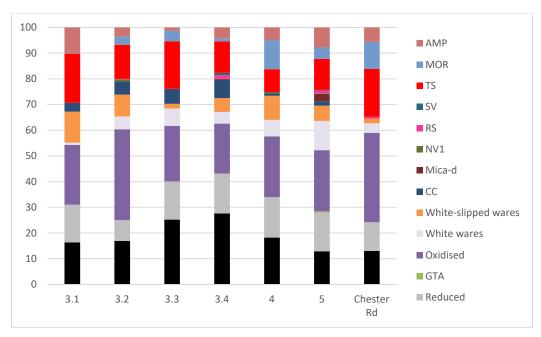
Vessel types at Chester Road compared with Barton Street Periods 3-4 (using EVES excluding amphora for comparative purposes, Leary 2007)

Vessel	EVES	% of EVES
AMP	0.20	5.85%
Bowl	0.05	1.46%
Bowl/Wide-m jar	0.07	2.05%
Beaker	0.80	23.39%
Cheesepress	0.18	5.26%
Dish	0.36	10.53%
Jar	0.45	13.16%
Mortarium	0.75	21.93%
Narrow-n jar	0.43	12.57%
Wide-m jar	0.13	3.80%
Total	3.42	100.00%

Table 4: Relative quantities of vessels, using EVES values







Wares at Barton Street Periods 3-4 compared with Chester Street using sherd count

Site Status and Aspects of Trade and Exchange

The site is supplied with local oxidised and reduced wares of the same types as that found at Barton Street Period 3 with similar levels of BB1 from Dorset, Samian ware from Gaul, Baetican amphora and Mancetter-Hartshill and local mortarium wares. The levels of amphorae and imported fine wares are consistent with a domestic settlement within a military extra-mural settlement.

6.3.7 Significance of the Assemblage

The pottery assemblage recovered from the excavation is significant because of the sparse known evidence for the Roman vicus in this area of Manchester, together with its association with evidence of religious activity in the form of altars and sculptures associated with Mithras, indicating the existence of a Mithraeum in the vicinity. The fresh condition of many of the sherds and the large fragments recovered suggests the excavation is close to a focus of activity in the Roman period dating to the mid- to late 2nd to early 3rd century, and this agrees with the evidence previously recorded by PCA (Martin 2007). The discovery of a tile tomb on the south side of the River Medlock evidently near Great Jackson Street, close by the Roman road to Chester was recorded by the antiquarian Charles Roeder in 1832. The PCA excavations recovered pottery of the mid- to late 2nd century from a pit and a linear feature. What seems to be an undiagnostic sherd of Nene Valley came from a ditch and was dated to the mid-3rd century on the basis of Webster's dating for the arrival of this ware in the North West (Webster 1991, 14; PCA 2007, 58), but this may be dated incorrectly since Nene Valley colour-coated ware was present in the late 2nd century at Barton Street in small quantities (Leary 2007, 110). If this dating is questioned, then the activity excavated by PCA here has the same chronological profile as that reported in this report.





Although a small group, this assemblage is readily compared with larger extra-mural assemblages excavated at Barton Street and, in particular, has characteristics which may indicate ritual activity on or near the excavated area. The relatively small amount of pottery recovered from the *vicus* south of the river, together with the possibly ritual characteristic of the assemblage, make this assemblage more significant than its size would normally imply.

6.4 Post-Roman Pottery (Sam Rowe)

6.4.1 Quantification

A total of 47 sherds of post-medieval pottery were recovered from the site. This material is very fragmentary, and the majority originates from modern structures on the site as well as from post-medieval plough soil. Most of the material dates to the 18th and 19th centuries, and are typical pottery types from industrial urban deposits (Table 5).

Pottery Class	Contexts	Count	Weight	Period (century)
Blue and white china	(051), (007)	4	434g	19 th
Dark-glazed coarseware	(007), (009), (055), (060)	15	556g	18 th -19 th
Dark-glazed fineware	(007)	1	2g	17 th -18 th
Mottled ware	(007), (009), (060)	3	24g	18 th
Slipware	(007), (055), (2403)	4	84g	18 th -19 th
Stoneware	(015), (060)	20	919g	19 th

Table 5: Post-medieval pottery classes recovered from the excavation

6.4.2 Range of Material

A total of 47 sherds of post-medieval pottery were recovered from the site. This material is very fragmentary, and the majority originates from modern structures as well as from post-medieval plough soil. Most of the material dates to the 18th and 19th centuries, and are typical pottery types from industrial urban deposits (Table 5).

A variety of fabric wares are present in the assemblage. This includes a single sherd of 17th- and early 18th-century dark-glazed fineware or Blackware. Dark-glazed coarsewares consists of 15 fragmentary sherds from storage vessels, a typical find in urban assemblages from the North West. Three small sherds of mottled ware were also recovered from the site, which is a typical 18th-century ware in the North West. Four sherds of 18th- or 19th-century slipware were retrieved from plough soil on the site, including a small sherd of yellow combed slipware. A total of 20 sherds of stoneware were recovered from deposits within modern structures on the site. This includes incised brown salt-glazed stoneware and a complete ink bottle.

The post-medieval pottery from the site it provides little further research potential to enhance an understanding of post-medieval pottery use or production in Manchester.





6.5 Ceramic Building Material (Sam Rowe)

6.5.1 Quantification

A total of 12 fragments of ceramic building material was retrieved from the site, deriving from the fill of a channel (031), from a sondage (053) excavated across the lower terrace, a Roman deposit (2417), and unstratified deposits. The small group consists mainly of extremely fragmentary pieces of possible Roman brick or tile (Plate 39). Little can be ascertained in terms of the forms or shapes due to fragmentation, and it may be concluded that the small group of ceramic building materials has no further research potential.



Plate 39: Unstratified ceramic building material

Clay Tobacco Pipes (Sam Rowe) 6.6

6.6.1 Quantification

A total of 22 clay tobacco pipe fragments were recovered from nine contexts on the site. This includes 18 stem fragments, and four complete or almost complete pipe bowls (Table 6).

Context	Identification	Date
(055)	Plain bowl with heel (Plate 40)	AD1680-1710
Fn 22		
U/S	Plain bowl with heel	AD1680-1710
Fn 39		
(007) Plough soil	Bulbous bowl with stamp,	AD1640-1680
Fn 38	possible 'IB' (Plate 41)	
(006)	Complete 'IB' stamp on body	AD1640-1660
Fn 44	(Plate 42)	

Table 6: List of pipe bowls recovered from the excavation





6.6.2 Evaluation

Most of the clay pipes date to the 17th and 18th centuries. All the pipe bowls are pre-AD1710, including two bowls stamped with the makers' mark 'IB' from plough soil deposits. 'IB' is a common set of initials stamped on 17th- and 18th-century pipes in the North West, and also occur widely across Merseyside, Cheshire, Lancashire and Greater Manchester, where they make up a third of all stamped marks found (Higgins 2008, 134). The 'IB' stamp has successfully been attributed to the Baxter, Billing and Birch/Birchall families of the 17th century in Rainford, Merseyside.



Plate 40: Plain clay tobacco pipe bowl with heel, AD1680-1710 (fn 22)



Plate 41: Bulbous pipe bowl with worn makers' stamp, AD1640-1680 (fn 38)







Plate 42: Complete pipe bowl with makers' stamp 'IB', AD1640-1680 (fn 44)

6.7 Glass (Sam Rowe)

6.7.1 Quantification

A total of six fragments of glass were retrieved from fills deposits within modern room structures or unstratified deposits. the site. All the fragments are bottle glass, and range in date from the mid-17th century to 20th century.

6.7.2 Evaluation

Three of the glass items date to the late 19th or early 20th century, including a complete bottle reading 'BLEACH MELRY RECD' with an external screw thread. The remaining three bottle fragments are green glass probably from onion bottles and date to the mid- to late 17th century (Plate 43). Further research on the glass is unlikely to help further interpretation of the site. It is of note that the assemblage includes early bottle glass, and this should be retained in the archive.

6.8 Metal Objects (Sam Rowe)

6.8.1 Quantification

A total of five metal objects were recovered from the excavation, including two iron objects, a probable nail from a rock cut pit, and a late 19th- or early 20th-century clothes iron from a deposit in Room 1. The assemblage also contains three copper objects, including a small fragment that is possibly the foot of an object from the rock-cut pit, a probable Roman S-shaped brooch pin from the lower terrace deposit, and a partial corroded head-stud brooch with missing head and catchplate from the rock-cut pit, dating to the 2nd century (Plate 44). The copper items have been subject to professional conservation (*Appendix 4*).







Plate 43: Neck of glass onion bottle, mid- to late 17th century (fn 26)



Plate 44: Roman head-stud brooch, 2nd century AD (fn 67)





6.9 Animal Bones (Sam Rowe)

6.9.1 Quantification

Four animal bones were recovered from the excavations, including a scapula from a domesticated animal, from deposits *009* and *051*. This very small assemblage has no research potential, and the material should be considered for discard.

6.10 Palaeo-environmental Samples

Bulk samples or 40 litres and 60 litres were recovered from deposits uncovered on the lower terrace, although assessment of this material concluded that it did not contain any organic material, and had no potential for palaeo-environmental analysis.

6.11 Conclusion

The finds' assemblage recovered from Chester Road is relatively small in quantity, though provides a useful example of a group of Roman ceramics being utilised in the Manchester region, close to the site of the Roman fort and the lines of Roman roads in the city. The variety of Roman pottery recovered makes this site of regional significance. The Roman material should be retained as part of the archive and kept for future research purpose. The post-medieval and modern material is of limited research potential, and may be discarded after discussions with the recipient museum.



7. Discussion

7.1 Introduction

The River Medlock will have been a dominant feature of the local landscape in the late 1st century AD when the Roman fort was established in Castlefield. This covered five acres on the north side of the river, overlooking 2-4 Chester Road, with an extensive settlement that housed a largely civilian population evolving to the north and east of the fort. However, the nature and extent of Roman activity on the south side of the Medlock, including the present study area, is less well understood.

A few remarkable finds have been discovered along Chester Road, which follows the route of the Roman road leading south from the fort, and presumably via a ford across the River Medlock somewhere in the vicinity of 2-4 Chester Road. These finds include a wooden coffin that was discovered in a grave lined with tiles somewhere near Great Jackson Street in the 1770s, an urn bearing an inscription in Latin that was translated 'to the Goddess called Isis' that was found at Knot Mill during the same period, and three sculptured stones that were found in the area by workmen in 1821. One of these stones has been identified as Cautopates, a figure associated with the worship of the Mithras, from which it is inferred that a *Mithraeum*, or building used for the worship of the god, had been nearby. The most important discovery in modern times derived from an archaeological excavation carried out at the junction of Chester Road and Great Jackson Street in 2008, when a spectacular Roman altar was unearthed in a pit. This discovery added weight to the suggestion that temples, shrines and mausolea probably lined the Roman road to Chester as it approached the ford across the River Medlock (Miller and Cook 2019).

Recent archaeological excavations have also uncovered the remains of boundary ditches delimiting plots of land set out to the south of the Roman road to Chester. Excavations in on Great Jackson Street 2008 uncovered a group of rubbish pits that may have been excavated originally to extract sand and gravel for road-building purposes. Fragments of early to mid-2nd-century pottery recovered from these pits dated raised the possibility of people living on or near the site, although the excavation provided no evidence for any buildings. A reorganisation of the site in the late 2nd century appeared to see the replacement of the relatively shallow ditches with a substantial boundary feature, which retained traces of a wooden box drain with lead fittings at its base, although the final phase of development in the early 3rd century brought a reinstatement of smaller plots, demarcated by shallow ditches, together with more refuse pits and a group of postholes.

Excavation at Deansgate Square in 2016 similarly uncovered a linear boundary ditch, which extended southwards for nearly 37m at a right angle to the Manchester to Chester Roman road. Fragments of pottery discovered in the fill of this ditch were all of a probable Trajanic date (98-117 AD), with no later material, suggesting that the ditch had been infilled and the boundary abandoned in the early 2nd century. Similarly, charcoal recovered from a pit that was associated with the ditch was subject to radiocarbon assay, and returned a date of c 90 AD (Miller and Cook 2019).





The remnants of another ditch were found broadly parallel to the line of the Roman road, lying approximately 15m to the south-east of the modern road, and probably formed the rear boundary of a plot. Excavation of this ditch yielded fragments of pottery with a broad date range, including 3rd- and potentially 4th-century sherds, implying that it had formed a boundary feature throughout the Roman period.

The plot appeared to have been used for cremation ceremonies during the mid-2nd century as numerous small fragments of burnt bone were discovered, although there was no indication that the site was ever used for burials. The plot's location on the flood plain of the River Medlock is of note, perhaps reflecting funerary rites associated with water. Small, discrete areas that had evidently been subject to extreme temperatures were also identified, and may again have been associated with cremations (Miller and Cook 2019).

A few fragments of Roman roof tile were recovered from one of several inter-cutting pits excavated on Owen Street, adjacent to a large, ephemeral feature that contained numerous large stones. These may have derived from a demolished structure, such as a shrine or small temple, although firm evidence was lacking.

Activity on Deansgate Square appears to have declined during the 3rd century, although a few fragments of 4th-century pottery attest to a low-level presence in the area at the end of the Roman period. A renewal of the early boundary extending southwards from Chester Road may have been the reason for a row of postholes that lay adjacent to the ditch that had been infilled in the early 2nd century.

Excavations on Crown Street in 2018 similarly yielded the fragmentary remains of a Roman boundary or enclosure ditch. The alignment of the ditch corresponded broadly with the field system / boundary ditches during excavations at Owen Street and Great Jackson Street, which together formed part of the agricultural hinterland of the Roman fort and vicus (Harvey and Cook 2018).

Notwithstanding the important results obtained from these previous excavations, the character of Roman activity on the north side of Chester Road remained untested. The industrialisation of Manchester from the mid-18th century onwards, and particularly the construction of the Bridgewater Canal terminus, the development of Castlefield Basin and the construction of the Rochdale Canal, resulted in significant changes to the landscape along the River Medlock corridor in the immediate vicinity of the study area. Some of this development work eradicated any surviving evidence for Roman activity in the area, such as the southern part of the Roman fort and the associated bathhouse on the northern bank of the river. The archaeological excavation at 2-4 Chester Road, however, has thrown some light on the nature of Roman activity on the south bank of the River Medlock.

The excavation yielded no physical evidence for activity in the area between the end of formal Roman administration in the 5th century and the late 18th century, although the surviving remains of the canal manger's houses and associated buildings are of considerable interest.





7.2 Phase 1 – Romano-British Activity

Excavation to depth across the lower terrace revealed accumulations of sediment, overlain by cultivated soils that had probably developing over a long period of time. Of particular interest, however, was a series of deposits that had formed against the face of the sandstone bluff that flanked the edge of the River Medlock, prior to its remodelling as the terminus of the Bridgewater Canal.

Sections excavated through the deposits in two discrete areas of the site demonstrated that the rockface, which was near vertical in places, had been subject to human modification. It seems likely that this natural outcrop of sandstone was exploited in antiquity as a quarry. Corroborative evidence in the semblance of distinctive toolmarks and shelving in the rock add weight to this interpretation. Whilst it is extremely difficult to determine a date for of quarrying activity on morphological grounds, it is notable that the deposits that were laid down against the modified vertical face of the bedrock contained fragments of Roman pottery and no later material, suggesting that the sandstone outcrop on the south side of the River Medlock had been guarried during the 2nd or even 3rd century AD. A 3rd-century date would coincide broadly with the reconstruction of the gatehouses of the Roman fort in stone, whilst the demand for stone building material at a slightly earlier date may have derived from the construction of small temples and shrines along the side of Chester Road on its approach to a ford across the river. Whilst physical remains of any such buildings on the south side of the river have yet to be discovered, their former existence is strongly implied by from the discovery of inscribed stones and altars in the vicinity.

An assemblage of large, unworn sherds of Roman pottery found at the base of a sandstone escarpment on the river bank also merits some consideration. These do not appear to have been subject to considerable movement or abrasion post-deposition, and it may therefore be assumed that they were discovered in the same position that they were deposited in the 2nd and 3rd centuries. The finds could be indicative of the discard of refuse material beyond the confines of the fort or *vicus*, or perhaps even unintentional loss occurring on the River Medlock, although the quantity of pottery sherds recovered from the excavation suggests this to be unlikely. The perceived cultic or religious activity taking place along Chester Road, however, raises the possibility for intentional 'ritual' deposition, and whilst this cannot be established definitively, the deposition of material within water is a widely documented trend during the Romano-British period.

The relatively high proportion of Samian ware sherds within the assemblage of pottery recovered from the excavation suggests that the material derived from a Roman military source, whilst the comparatively large number of beakers represented amongst the coarseware pottery hints at an association with burial and ritual activities, and reflects the character of the Roman pottery assemblage recovered from the excavation of a small temple on Barton Street on the north side of the River Medlock (Gregory 2007).



7.3 Phase 2 – Medieval and Post-medieval Activity

The excavation yielded no physical evidence that could be firmly attributed to activity in the area between the end of formal Roman administration in the 5th century and the 18th century, with the exception of the soil layer that had accumulated over an extended period; this probably derived from natural processes.

The earliest post-Roman remains identified during the excavation comprised two sections of denuded stone walling that were identified in the north-eastern part of the lower terrace. The northernmost wall (010) survived only as a scatter of rubble that had seemingly formed the foundation, situated above a layer containing 18th-century ceramics. It is possible that the wall pre-dated the completion of the Bridgewater Canal, perhaps forming a retaining bank to the River Medlock, although in the absence of any evidence this suggestion is pure conjecture. It seems more likely that wall 010 formed part of the canal infrastructure, possibly representing a low wall along the side of a track that linked the canal towpath to the Dukes Warehouse at Knott Mill, as shown on Laurent's map of 1793 (Plate 45).

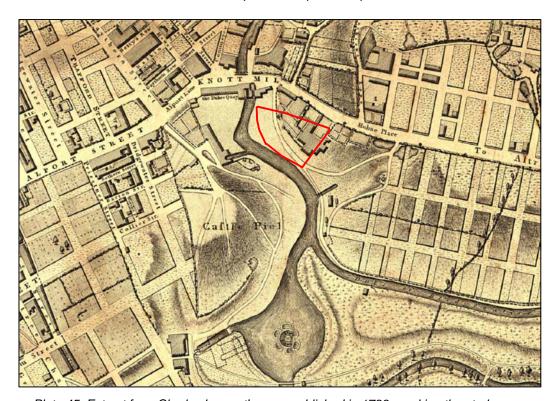


Plate 45: Extract from Charles Laurent's map, published in 1793, marking the study area

Another section of wall (016) also appeared to be post-medieval in date, housed in a cut through earlier soil horizons. This structure ran for a considerable length of the site in-line with the quarried face of the sandstone outcrop. The wall was in turn cut by the outhouse wall foundations that were constructed in the late 18th century. The precise date of construction and intended function of this wall cannot be determined, although association with a late phase of quarrying, possibly in connection with the development of the Castlefield Basin, may perhaps be the most likely explanation.





7.4 The Canal Manager's House and Associated Buildings

These structural remains spanned the upper and lower terraces of the site, and were found to belong to three distinct ranges of buildings constructed in several stages between the 18th and early 19th century: warehousing and workshops; the canal manager's house and offices; and associated outbuildings. The phasing presented is based primarily on a sequence of early plans of the Castlefield Basin, and subsequent historic maps of the area that help document the development of the complex.

The earliest plans available document activity in the area as early as the mid-18th century, shortly after the completion of the Castlefield Basin. Young's plan of 1761 depicts a building constructed on the southern side of the canalised River Medlock, to the west of Knott Mill Bridge. A plan from 1777 presents a less stylised plan of the building. It is clear this forms the northern range of the complex, and was then named 'Mount Pleasant'. Through comparison with later geo-rectified maps, such as that by Foulkes in 1785 (Plate 46), it is possible to ascertain that roughly two-thirds of this building lay within the development site, with the remainder extending beyond the western boundary.

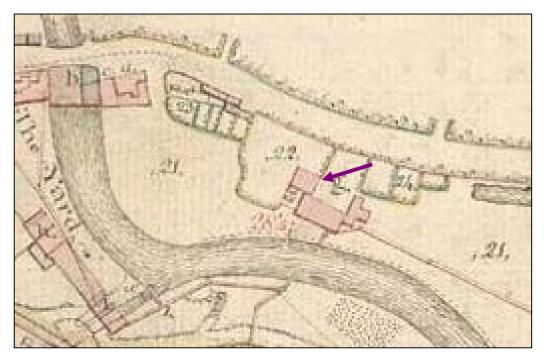


Plate 46: Extract from John Foulkes plan of Castlefield Basin from 1785, with arrow marking the canal manager's house and associated outbuildings

A relatively large portion of the early range on the lower terrace was exposed during the archaeological excavation. A primary component was the vaulted undercroft built below the level of the towpath. This structure was built into a shelf cut into the bedrock and constructed in hand-made brick and lime mortar. The vaulting was supported by a series of lateral cross-walls that divided the exposed footprint into six bays. The presence of rectangular voids in the upper sections of the wall are likely to have derived from a wooden former around which the vaulted ceiling was built.





A cross-section through top of the vaulting showed it had been sealed above with puddling clay and a relatively thick make-up of fragmented, chipped sandstone, presumably deriving from the quarrying the bedrock. This not only made the structure watertight, but also ensured it was well-insulated and remained cool. Atop this well-consolidated make-up were stone and brick floor surfaces of the rooms above.

The undercroft had survived relatively intact, and remained unseen and forgotten until preliminary ground investigation works in 2016, which unexpectedly opened up a large void into the roof of the structure. Owing to the good levels of preservation, much of the interior remained open. It also became apparent that the undercroft continued further west beyond the limits of the development site, probably extending the full length of the range, as it is depicted on historical maps.

Access between the bays of the undercroft was made possible by a series of rounded arches built into the cross-walls. As no access to the towpath or buildings above was established within the site, an entrance must have lain at the western end of the range. The nature of the undercroft, being a secure, underground space, strongly implies it was purpose-built for goods storage, the cool temperature and lack of natural light making it ideally suited for storing perishable goods.

A series of rooms (2-4) were constructed above the undercroft, their floors raised slightly above the level of the towpath. These occupied the northern half of the range, which was divided longitudinally by a partition running east/west.

The exterior northern and eastern walls of the range were shared with the undercroft below. At ground level, the space was divided internally by a series of brick partitions, running north/south. The southern side of the rooms was formed by the vertical rockface, on top of which was a brick wall acting as the longitudinal division within the range. The original function of these canal-side rooms cannot be ascertained from historical sources, although by the mid-19th century, one contained a smithy. Insurance plans from 1889 show this space, along with the adjoining rooms, was later converted for domestic use.

The floor of the easternmost room (Room 2) was largely made of brick. A row of flagstones formed a walkway along the eastern edge of the room. A stone, possibly supporting a tethering post, was housed within the brick floor, alluding to its potential use as a stable in connection with the adjacent smithy.

The floor within the former smithy (Room 4), to the west, comprised a mixture of brick and flagstones. Concrete ramps were added to the entrances into Rooms 2 and 4 from the towpath, implying these spaces were used latterly for goods storage. The ramps may have been installed in the late 19th or 20th century. This or its earlier phase of reuse presumably involved the complete removal of the smithy, as no trace of the forge or metalworking installations remained. Firebricks used to patch up the floor were perhaps the only sign that it had once served an industrial use.





Housed within the rear of the building, to the south of the longitudinal division, were additional rooms. These were built above a second shelf in the bedrock, *c.* 1.5m above the floor level within the canal-side rooms, situated between the lower and upper terraces. The exposed room was floored with flagstones. Built into the wall at the eastern end were a fireplace and elements of a sink setting; these appeared to be original to the construction of the external walls, and were probably maintained until the end of the 19th century, when this part of the complex was used a boys' home. The fireplace was blocked-up subsequently and the sink removed. Access to this level of the building was achieved through a doorway through the eastern and western walls. Another potential entrance, via the passageway, was indicated by a blocked recess in the bedrock, which may have acted as a step. This would have presumably allowed movement to and from the manager's house on Chester Road. Ordnance survey maps from 1891 (Figure 4) reveals stepped access down from the gardens to a small yard on the eastern side of the building, which may have been accessible from the eastern doorway.

The house / office was constructed on the upper terrace of the site, accompanied by a range of adjoining outbuildings to the north. These additions are shown on John Foulkes' Map of the Castlefield Basin dated 1785 (Plate 46), and on subsequent maps produced by Charles Laurent (Plate 45) and William Green in the late 18th century.

The survival of archaeology on the upper terrace was more fragmentary than on the mid and lower terraces. External wall foundations and a sunken passage were the only tangible remains that could be linked to the manager's house. Severe landscaping associated with the demolition of the house had completely removed all but the deepest foundations. This had once been the most aesthetically pleasing element of the complex. It was also the building that was most visible from Chester Road (Plate 47). It supposedly consisted of two adjoining townhouses, which were remodelled into one and served as the manager's house until the second half of the 19th century. By the late 1880s, the house had been converted along with parts of the adjoining range into a boys' home (Figure 4).

Associated outbuildings, including privies and a washhouse were found in the northeast of the complex and were reasonably well-preserved. These were also built around the modified rockface and were connected to drainage that led to the retaining wall to the north. The buildings formed a fairly early part of the complex and were probably constructed around the same time as the house. Initially, only two buildings were built; these were however expanded in the following century and are shown in greater detail on the 1891 Ordnance Survey map, as seven individual rooms (Figure 4).

Situated to the east and south of the house were a series of gardens. Although heavily landscaped, some areas of external surfaces belonging to garden paths and an area of courtyard survived, albeit in a very fragmentary condition. The creation of the gardens to the east of the house in the 18th century involved the construction of a large stone retaining wall, which was still standing at the time of the excavation. Abutting the wall were thick deposits of garden soil, which had evidently been imported into the site to raise the ground level within the gardens.







Plate 47: The Canal Manager's House, seen from Chester Road

The site remained largely unaltered until the construction of the Bridgewater Viaduct in 1841. The viaduct cut-off the wagon access to the quay from Chester Road. In response, a new means of access to the quay was established to the south-west of the house and included an entranceway with curving brick walls. One of these walls was built as far as the house, seemingly separating the house from the yards to the east (Figure 3). This was represented archaeologically by a curving section of brick wall. Immediately, west of the wall were superimposed cobble and sett surfaces. The creation of the new haulage road to the quay around this time probably necessitated the resurfacing of the external yards, hence the laying of more durable sandstone setts over the existing cobbles.

The layout of the complex is captured in an aerial photograph taken in 1930 (Plate 48). This shows the spatial relationship between the manager's house and the range to the north, overlooking the canal. The way in which the northern range had been built into the steep slope down to the canal is similarly captured in a photograph taken in 1961 (Plate 49).





Plate 48: Aerial view across the site in 1930, showing the house and canal-side buildings



Plate 49: Castlefield Basin, 1961 showing the buildings forming the northern range (red)



8. Archive and Dissemination

8.1 Archive

The results of the archaeological investigation will form the basis of a full archive to professional standards and in line with current ClfA guidelines updated 2014. The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the ClfA in that organisation's code of conduct. As part of the archiving process, the on-line OASIS (On-line Access to Index of Archaeological Investigations) form will be completed.

The site archive will be so organised as to be compatible with the other archaeological archives produced in the North West. All drawn records will be transferred to and stored in digital format, in systems which are easily accessible. The integrity of the site archive will be maintained upon completion of the archaeological works with the archive ultimately being offered for deposition with the Manchester Museum, given the dominance of Roman material.

8.2 Conservation

Most of the assemblage is well-preserved and in good condition, and thus the conservation requirement is low. A small group of copper alloy objects will require specialist conservation prior to deposition.

8.3 Storage

The complete project archive, which will include written records, plans, digital plans and photographs, artefacts and ecofacts, will be prepared following the guidelines set out in *Environmental standards for the permanent storage of excavated material from archaeological sites* (UKIC 1984, Conservation Guidelines 3) prior to deposition.

For long-term storage of the digital data, CDs will be used, the content including the reports, plans, scanned images and digital photographs. Each CD will be fully indexed and accompanied by the relevant metadata for provenance. The digital record should ideally be duplicated as a paper record for long-term archiving, including printouts of photographs and survey plots, labelled and summarised.

All dry and stable finds will be packed according to the museum's specifications, in either acid-free cardboard boxes, or in airtight plastic boxes for unstable material. The artefactual assemblage is predominantly stable, but should be packed carefully with bubble wrap protecting the bags to minimise movement and abrasion in the boxes. The pottery was stable. Care should be taken with the abraded oxidised wares fragments of Roman pottery as they tend to abrade further due to their eroded surfaces. The Rhaetian mortarium could be glued together and form a substantially complete vessel in good condition.





8.4 Packaging

The assemblage is currently well-packaged and will require no further packaging. Box lists derived from the site database have been compiled and will be updated when the identification of objects is complete. The paper records will be presented in either ring binders or in acid-free storage, fully indexed, and with the contents labelled.

Discard Policy 8.5

A discard policy will be prepared, in consultation with the recipient museum. Material of no discernible long-term archaeological potential will be discarded.

8.6 Dissemination

The results obtained from the excavation have been summarised and published in a booklet dedicated to the recent archaeological work on the south side of the River Medlock, around Chester Road, Owen Street and Crown Street (Miller and Cook 2019).



Acknowledgements

Salford Archaeology would like to thank Castlefield Developments (Manchester) Ltd, and specifically Steve Ramsden and Nick Cook for commissioning and supporting the programme of archaeological works. Salford Archaeology is also grateful to Norman Redhead of GMAAS for his guidance support.

The fieldwork in 2017 was directed by Oliver Cook assisted by Andy Coutts, and the watching brief in 2019 was carried out by Oliver Cook and Steve Tamburello. The site survey was completed by Richard Ker, Lewis Stitt, Elizabeth Statham and Oliver Cook. The illustrations were produced by Richard Ker and Sarah Mottershead.

The report was compiled by Oliver Cook, with contributions from Ian Miller, Sam Rowe, Felicity Wild and Ruth Leary. The conservation work on the copper alloy objects was carried out by Karen Barker. The report was edited by Ian Miller, who was also responsible for project management.





Sources

Cartographic Sources

Map of Manchester and Salford, drawn from a survey by William Green, begun in 1787 and completed in 1794

Map of Manchester and Salford, C Laurent, 1793

Map of Manchester, Dean and Pigot, 1809

Plan of Manchester, Johnson, 1820

Map of Manchester and its Environs, W Swire, 1824

A Map of Manchester and Salford, Bancks and Co, 1831

Ordnance Survey 6": 1 mile map, Manchester sheet 24, surveyed 1848-49, published 1850

Ordnance Survey 1:2500 First Edition map, surveyed 1888-91, published 1896

Ordnance Survey 1:2500 map, 1908 Edition, (surveyed 1905)

Ordnance Survey 1:2500 map, 1922 Edition, (surveyed 1915)

Ordnance Survey 1:2500 map, Revision of 1933

Secondary Sources

Barclay, A, Knight, D, Booth, P., Evans, J, Brown, D.H. and Wood, I., 2016 *A Standard for Pottery Studies in Archaeology Prehistoric Ceramics Research Group*, Study Group for Romano-British Pottery and Mediaeval Pottery Research Group

Bruton, F.A., 1909 The Roman Fort at Manchester, Manchester

Farrer, J. and Brownbill, W., (eds) 1911 *Victoria County History of Lancashire*, **4**, London

Gillam, J.P., 1970 Types of Roman Coarse Pottery Vessels in Northern Britain, 3rd edition, Newcastle

Gillam, J.P., 1976 'Coarse Fumed Ware in Northern Britain and Beyond', *Glasgow Archaeological*. *Journal*, **4**, 57-89

George, D. and Brumhead, D., 2002 The Mersey Irwell Navigation - The Old Quay at Manchester, in R. McNeil and D. George (eds.), 22-4

Gregory, R.A., 2007 Roman Manchester: The University of Manchester's Excavations within the Vicus 2001-5, Oxford

Gregory, R.A. and Bell, S., 2008 The Pump House, Left Bank. Manchester: An Archaeological Excavation, unpubl rep

Hadfield, C. and Biddle, G., 1970 *The Canals of North West England, Vol 1*, Newton Abbot





Hartley, B.R. and Dickinson, B.M., 2008-2012 Names on Terra Sigillata. An Index of Makers' Stamps and Signatures on Gallo-Roman Terra Sigillata (Samian Ware), 9 vols., Institute of Classical Studies, London

Hartley, K.F., 2012 'Raetianmortaria in Britain', *Journal Roman Pottery Studies*, **15**, 76-95

Harvey, K.M. and Cook, O., 2018 Archaeological Excavation Report: Crown Street (Zone 1), Castlefield, Manchester, Salford Archaeology unpublished report

Leary, R.S., 2007 'Romano-British Coarse Pottery', In R.A. Gregory, *Roman Manchester*, Manchester, 73-126, 154-55 and 168-77

Martin, T.S., 2007 'Roman Coarse Pottery', in *An Archaeological Evaluation at Chester Road/Great Jackson Street, Manchester, Greater Manchester*, Pre-Construct Archaeology, unpublished report, 97-8

Miller, I. and Cook, O., 2019 Deansgate Square, Manchester: Archaeology Beyond the Medlock, Greater Manchester's Past Revealed, 25, Salford

Orton, C.R., 1980 'Introduction to the Pottery Reports', in D.M. Jones, Excavations at Billingsgate Buildings 'Triangle', Lower Thames Street 1974, *Transactions London and Middlesex Archaeological Society Special Paper 4*

Oswald, F., 1936-37 *Index of Figure Types on Terra Sigillata*, University of Liverpool Annals of Archaeology and Anthropology, Supplement

Peacock, D.P.S., 1977 Pottery and Early Commerce, London

Peacock, D.P.S. and Williams, D.F., 1986 Amphorae and the Roman Economy, London

Pre-Construct Archaeology, 2005 An Archaeological Excavation at the Beetham Tower site, Deansgate, Manchester. Post-Excavation Assessment Report, unpublished report

Pre-Construct Archaeology, 2007 An Archaeological Evaluation at Chester Road/Great Jackson Street, Manchester, Greater Manchester, unpublished report

Rogers, G.B., 1974, *Poteries Sigillées de la Gaule Centrale I: les motifs non figurés*, Gallia Supplement 28

Rogers, G.B., 1999, *Poteries Sigillées de la Gaule Centrale II: les potiers*, premier Cahier du Centre Archéologique de Lezoux

Romeuf, A.-M., 2000 Le Quartier Artisanale Gallo-Romain des Martres-de-Veyre (Puy-de-Dôme), deuxième Cahier du Centre Archéologique de Lezoux

Salford Archaeology, 2018 Owen Street, Castlefield, Manchester: Post-excavation Assessment, unpubl report

Salford Archaeology, 2019 Crown Street, Phase 1, Castlefield, Manchester: Archaeological Excavation, unpubl report

Street, R.A., 2015 Owen Street, Castlefield, Manchester: Archaeological Desk-based Assessment, unpubl report





Sillitoe, P., 1988 The Castlefield Canal Basin 1763-1805: A Chronology of Development, unpubl dissertation

Stanfield, J.A. and Simpson G., 1958 Central Gaulish Potters, London

Tomber, R. and Dore, J., 1998 *The National Roman Fabric Reference Collection. A Handbook*, MoLAS Monograph 2, London

Tomlinson, V.I., 1961 Early Warehouses on Manchester Waterways, *Trans Lancashire Cheshire Antiq Soc*, **71**, 128-51

UMAU, 2001 Land at Bridgewater Viaduct, Manchester, unpubl report

UMAU, 2002 Liverpool Road, Manchester: Archaeological Excavation, unpubl report

Webster, P.V., 1974 'The Coarse Pottery', In G.D.B Jones *Roman Manchester*, 89-119

Webster. P.V., 1976 'Severn Valley Ware: A Preliminary Study', *Transactions of the Bristol and Gloucs Archaeological Society*, **94**, 18-46

Webster, P.V., 1982 'Romano-British Coarse Pottery in North-West England – An Introduction', *Lancashire Archaeological Journal*, **2**, 13-31

Webster, P.V., 1991 'Pottery Supply to the Roman North-West', *Journal of Roman Pottery Studies*, **4**, 11-18



Appendix 1: Illustrations

Figure 1: Site location, showing the position of the excavation areas

Figure 2: Site boundary and archaeological features superimposed on the

modern Ordnance Survey map

Figure 3: Site boundary and archaeological features superimposed on the

Ordnance Survey Town Plan of 1851

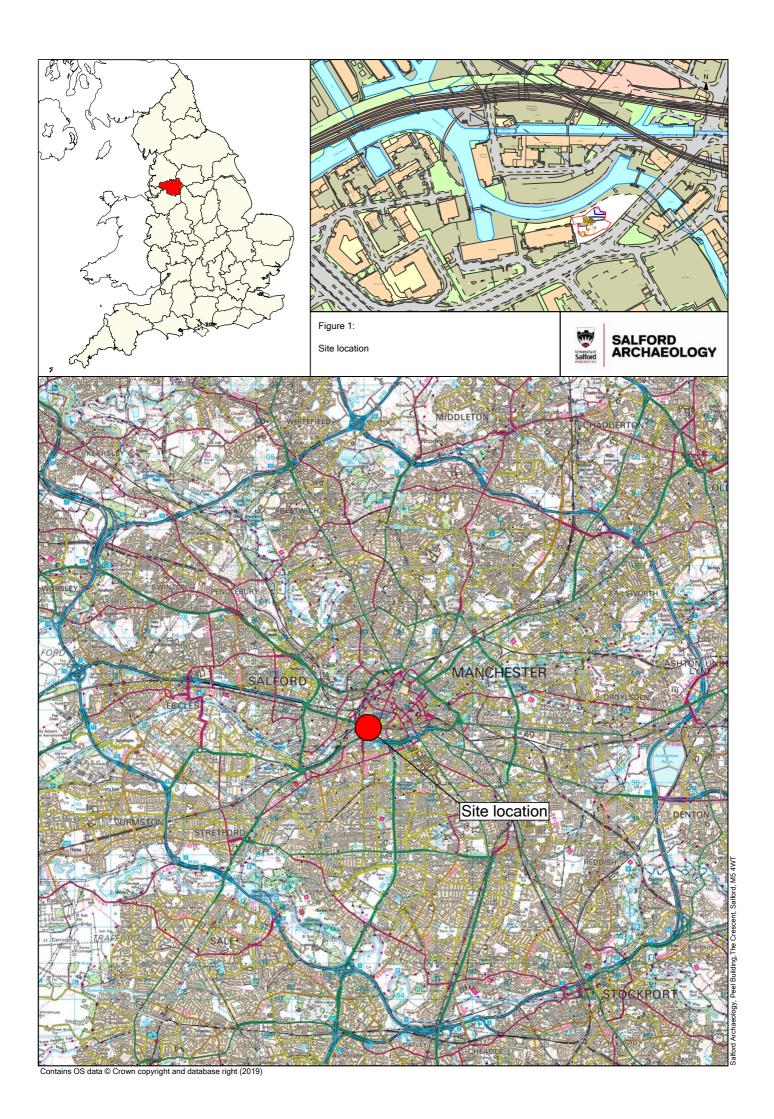
Figure 4: Site boundary and archaeological features superimposed on the

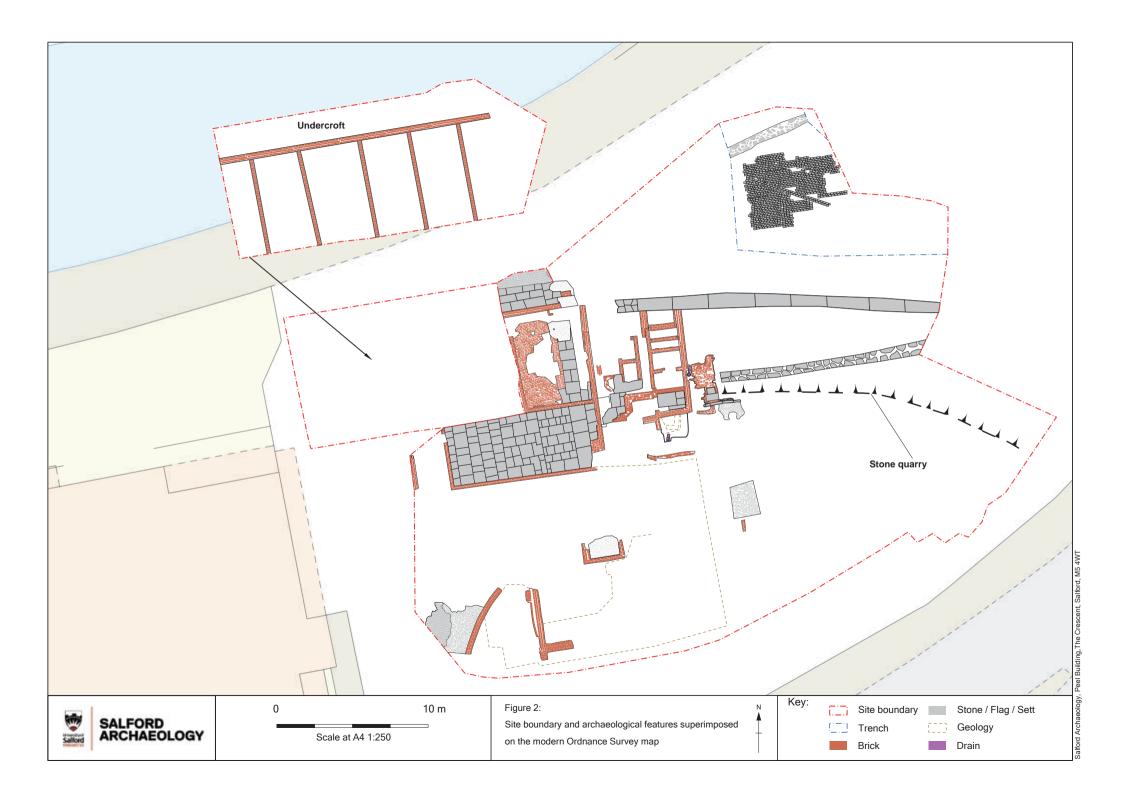
Ordnance Survey Town Plan of 1891

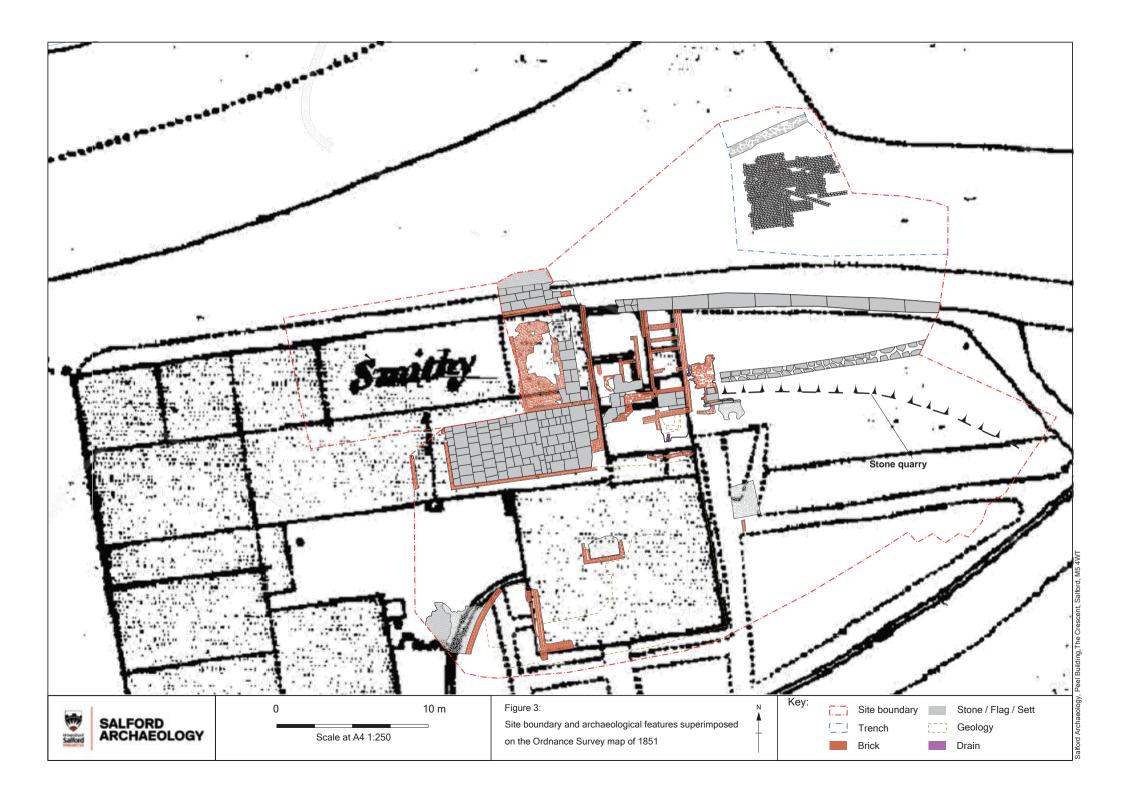
Figure 5: Plan of the archaeological features

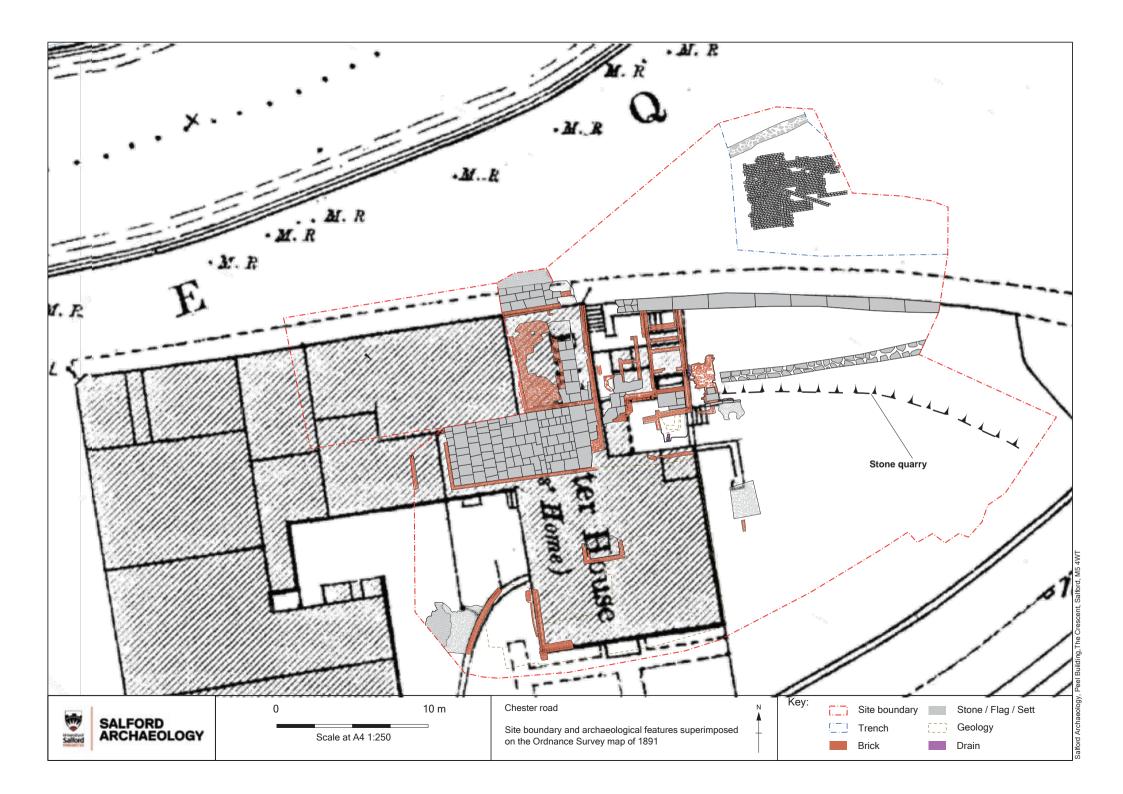
Figure 6: Elevation of one of the undercroft bays

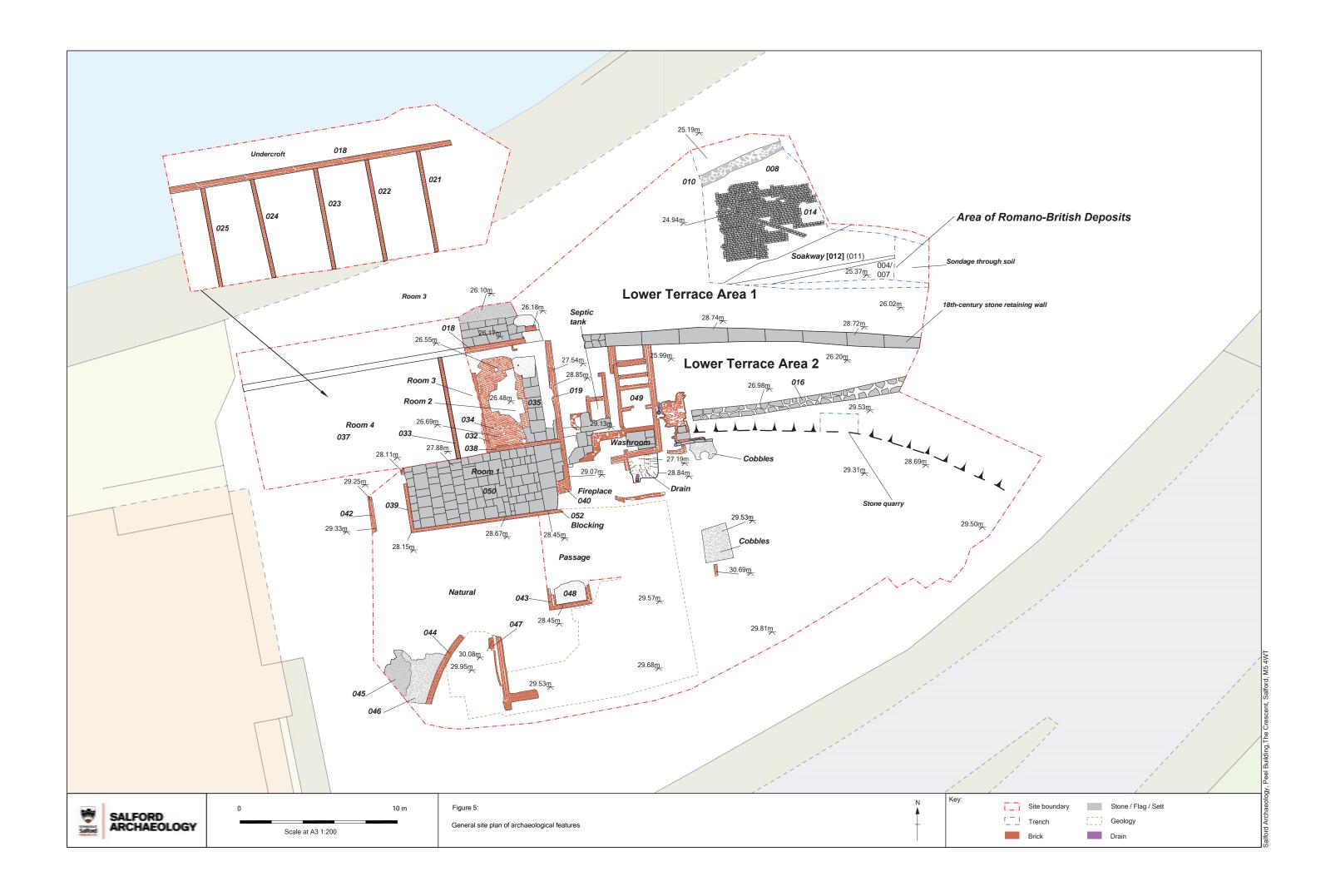


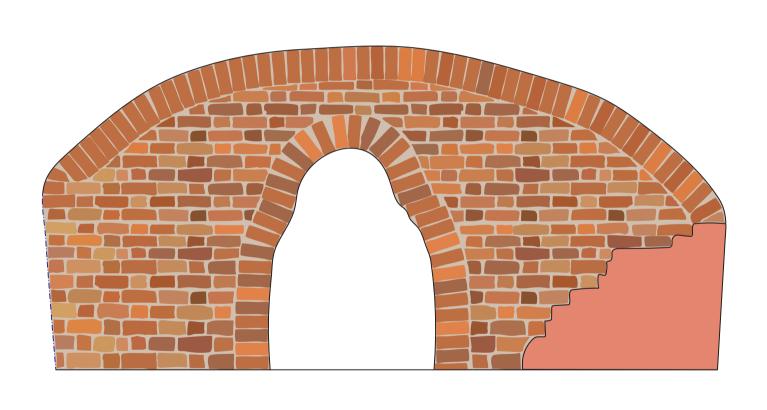












SALFORD ARCHAEOLOGY

0 1 m Scale at A4 1:30 Figure 6:

Elevation of undercroft

Key:

bedrock



Appendix 2: Context List

Context Number	Feature	Area, Subdivision	Description
001		UT/LT	Bedrock
002		UT/LT	Glacial drift deposits (gravels/sands)
003		UT	Clayey sand subsoil
004		LT	Plough soil (Romano-British?)
005		LT	River deposits (Romano-British?)
006		LT	Fractured sandstone levelling make-up
007		LT	Plough soil (Post-medieval)
008		LT	Firm silty clay layer
009		LT	Loose sand ash layer
010		LT	Dry stone wall foundation (robbed out)
011	012	LT	Soakaway fill
012		LT	Soakaway cut
013		LT	Compacted layer underlying sett surface
014		LT	Sett surface
015		UT/LT	Group number for structural remains
016		LT	Dry stone wall at the base of escarpment PM
017			
018	015	LT	North wall of undercroft and Rooms 2 and 3
019	015	LT	East wall of undercroft and Rooms 1 and 2
020	015	LT	Vaulted roof of undercroft
021	015	LT	Cross-wall of undercroft (1/5)
022	015	LT	Cross-wall of undercroft (2/5)
023	015	LT	Cross-wall of undercroft (3/5)
024	015	LT	Cross-wall of undercroft (4/5)
025	015	LT	Cross-wall of undercroft (5/5)
026		LT	Puddling clay above <i>020</i>
027		LT	Levelling above 026
028	015	LT	Brick Floor of undercroft
029		LT	Levelling beneath 028
030		LT	Relict river channel
031		LT	Fill of channel
032		LT	Dividing wall between Rooms 2 and 3
033		LT	Dividing wall between Room 3 and 4
034		LT	Room 2 brick floor
035		LT	Room 2 flag floor
036		LT	Western wall of Room 4
037		LT	Flag floor of Rooms 3 and 4
038		MS	Northern wall of Room 1
039		MS	Western wall of Room 1
040		MS	Brick fireplace built into <i>019</i> in Room 1
041		MS	Bricked-up recess in stonework Room 1
042		MS	Brick wall to the west of 039
043		MS/UT	Brick walling of corridor to south of <i>041</i>





Context	Feature	Area,	Description
Number		Subdivision	
044		UT	Curving garden wall
045		UT	Sett surface above 046
046		UT	Cobbled surface below 046
047		UT	Foundation wall of Superintendent's House
048		MS/UT	Concrete floor of corridor ass. w/ 043
049		MS, LT	Group number for outbuildings
050		MS	Flag floor of Room 1
051		MS	Fireplace Room 1
052		MS/UT	Rock-cut corridor associated with 043 and 048
053		LT	Lower terrace sondage between wall and bedrock
054		LT	Above <i>053</i>
055		LT	Above 054, mix of RB and late finds, sondage
056		LT	Above <i>055</i>
057		LT	Pebble layer above 056
058		LT	Post-medieval layer
059		LT	19th-century soil filling space between retaining wall
060		LT	Isolated brick structure west of site
2401		LT	Modern rubble
2402		LT	Layer of degraded sandstone possibly modern covering
2403		LT	Dark grey silty clay-possibly continuation of linear running parallel to pile wall (post med finds)
2404		LT	Lighter grey layer below 2403
2405		LT	Layer of degraded sandstone c.0.50m deep
2406		LT	Roman deposits-possible water course with river pebbles depression filled with Roman deposits (similar to 2417)
2407		LT	Degraded natural sandstone transitioning to bedrock
2408		LT	Brick undercroft walls. NW-SE
2409		LT	N-S wall abutting N side of 2408
2410		LT	Brick floor between 2408 and 2411 cellars
2411		LT	Cellar wall N-S other side to 2412
2412		LT	Cellar wall
2413		LT	Rubble backfill within 2408
2414		LT	Rubble backfill with 2411 and 2412
2415		LT	Bedding layer below brick floor 2410
2416		LT	Layer of degraded crushed sandstone similar to 2405
2417		LT	Light grey Roman deposit similar to 2406, seems to infill quarried sandstone shelf 2419-Roman pottery fill
2418		LT	Degraded natural to bedrock
2419		LT	Cut quarried sandstone shelf



Appendix 3: Romano-British Pottery Catalogue

CTX	Context	ID	FN	Ware	Fabr	Form	Description	Vessel	Profil	Rim	Base	Body	Handle	Rim	RimP	Total	Weight	Decoratio	Burn	Soot	illu	Dating
	Description				ic				е					D		count	(g)	n	t	ing	str	
																					ate	
004	Plough soil	13	53	ow	OAB 1	cheese press	fragment of cheese press with perforation holes	СНР	1					14	18	1	98				У	
004	Plough soil	14	55	OW	OAA 1							1				1	5	double grooving				
005	River deposits RB	5	30	МН	MH2	reeded rim hammer head mortarium	RHH7 with traces of brown paint in grooves	MOR		1						1	94				У	m3-m4
005	River deposits RB	6	31	BB1	BB1	plain rim dish	Gillam 1976 ns 77 or 79	D		2		2		24	5	4	21.5	burnished intersectin g arcs			У	L2-E 3rd
005	River deposits RB	7	32	GW	GRB 1							1				1	17					
005	River deposits RB	8	33	BB1	GBB 1	jar		J				1				1	16.5	burnished				120+



СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot ing	illu str	Dating
	Description				ic				C					D		count	(8)	"		IIIg	ate	
005	River deposits RB	9	34	OW	OAB 1							5				5	91					
005	River deposits RB	10	35	OW	OAA 2		jar base	J			1					1	127.7					
005	River deposits RB	41	35	OW	OAA 1							7				7	31.8					
005	River deposits RB	42	35	OW	OAB 1	wide- mouthed jar	Webster 1976 no. 24	WMJ		1		6		36	13	6	110.9				У	L2-L3
005	River deposits RB	51	33	GW	GRA 1?		pale fabric with some grey slip				1			0	0	1	12.4					
005	River deposits RB	54	31	BB1	BB1	flat-rim bowl,	Gillam 1976 no.39?	В		1		2		20	5	3	80.3	burnished lattice	y outs ide	a little outs ide	у	M-L 2nd
007	Plough soil	11	46	OW	OAC 1							2				2	11					
007	Plough soil	12	47	GW	GRB 1							4				4	3					



СТХ	Context	ID	FN	Ware	Fabr	Form	Description	Vessel	Profil	Rim	Base	Body	Handle		RimP	Total	Weight	Decoratio	Burn	Soot	illu	Dating
	Description				ic				е					D		count	(g)	n	t	ing	str ate	
031	Deposit below vaulted cellar	15	56	OW	OAB 1	everted-rim beaker		BKR		3				11	46	3	43.2					
031	Deposit below vaulted cellar	16	57	BB1	BB1			B/D				1				1	7		thro ugh out			
031	Deposit below vaulted cellar	17	58	GW	GRB 1	narrow- necked jar		NNJ		1				14	20	1	54					2
031	Deposit below vaulted cellar	18	59	ww	FLA2			F				3				3	44					
031	Deposit below vaulted cellar	19	60	GW	GRB 2	jar	with vertical burnish lines	J				1				1	22					
031	Deposit below vaulted cellar	20	61	BB1	BB1	jar					2	1				3	61.5	acute lattice burnish				120-200





СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot	illu str ate	Dating
031	Deposit below vaulted cellar	44	56	OW	OAB 1	beaker with slightly turned out very short rim		BKR		1				7	19	1	7.6				У	
031	Deposit below vaulted cellar	45	56	OW	OAB 1							3		0	0	3	30.2					
031	Deposit below vaulted cellar	46	56	OW	OAB 1							2		0	0	2	9	rouletted				2
031	Deposit below vaulted cellar	47	56	ow	OAB 1							3		0	0	3	51.3					
031	Deposit below vaulted cellar	48	56	OW	OAB 1	everted rim wide- mouthed jar	Webster 1976 nos 2-3	NNJ		1				15	16	1	25.1				У	L1-2



СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot ing	illu str	Dating
																					ate	
031	Deposit below vaulted cellar	49	56	GW	GRA 4							3		0	0	3	19.7					
031	Deposit below vaulted cellar	52	61	BB1	BB1	flat-rim dish	Gillam 1976 no.57	D		1				22	10	1	36	burnished acute lattice			у	E-M2nd
053	Deposit below vaulted cellar	21	69	MRH AETIA N	MRH AETI AN	Wilderspool? Rhaetian C mortarium	there is a scar on the flange where the handle would have been	MOR		4		6		28	55	10	981					Early to mid- Antonin e
053	Deposit below vaulted cellar	22	70	МН	MH2	mortarium, bead and downbent flange	white mortaria	MOR		1		1		26	5	2	45.4				у	L2
053	Lower terrace between rockface and stone wall	23	71	BB1	BB1	flat rim dish	Gillam 1976 64	D	1					20	21	1	72.1	burnished acute lattice		a little	У	M-L2



CTX	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot ing	illu str	Dating
																					ate	
053	Lower terrace between rockface and stone wall	24	72	GW	GRB 1	jar		J			1	1				2	112	double groove outside body				
053	Lower terrace between rockface and stone wall	25	73	AMP	DR2 0		rim and handle	AMP		1		5	1	18	20	7	501				У	Antonin e, M-L2
053	Lower terrace between rockface and stone wall	26	74	AMP	DR2 0			AMP				1				1	169					
053	Lower terrace between rockface and stone wall	27	76	ww	FLA1		body	WW				2				2	23					



СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot	illu str ate	Dating
053	Lower terrace between rockface and stone wall	28	77	WS	FLB1	flagon ribbed handle	this handle has sheared off cleanly at both ends	F					1			1	36				У	
053	Lower terrace between rockface and stone wall	29	78	ow	OAA 1	jar base and body		J			1	2				3	268.2					
053	Lower terrace between rockface and stone wall	35	52	GW	GRB 1	lid	knob of lid	L				1				1	22.4				y?	
053	Lower terrace between rockface and stone wall	36	52	GW	GRA 1	neck of beaker or narrow necked jar	similar to Upchurch ware	NNJ				1		0	0	1	7.1					



СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot	illu str ate	Dating
053	Lower terrace between rockface and stone wall	37	71	GW	GRB 1	jar		J				2		0	0	2	40.8					
053	Lower terrace between rockface and stone wall	38	71	BB1	BB1	everted rim jar	Fairly straight everted rim. Gillam 1976 no. 136	J		1				15	15	1	19.6				У	L2-E3
053	Lower terrace between rockface and stone wall	39	71	BB1	BB1	flat-rim dish	Gillam 1976 no. 63	D		1		1		20	7	2	37.8				У	M-L2
053	Lower terrace between rockface and stone wall	40	71	BB1	BB1	Everted rim jar	Gillam 1970 no.135. Quite out curving but has change of angle at tip.	J		2				19	16	2	42.9				У	L2-M3





СТХ	Context	ID	FN	Ware	Fabr	Form	Description	Vessel	Profil	Rim	Base	Body	Handle		RimP	Total	Weight	Decoratio	Burn	Soot	illu	Dating
	Description				ic				е					D		count	(g)	n	t	ing	str ate	
																					ate	
053	Lower	55	70	МН	MH2			MOR		1				30	15	1	149.3					190-240
	terrace					two beads																
	between					and flat area																
	rockface					between																
	and stone																					
	wall																					
053	Lower	57	78	OW	OAB	jar		J			1	6		0	0	7	120.3					
	terrace				1																	
	between																					
	rockface																					
	and stone																					
	wall																					
053	Lower	58	78	OW	OAB	neck of jar		J				1		0	0	1	7.8					
	terrace				1																	
	between																					
	rockface																					
	and stone																					
	wall																					
053	Lower	59	78	OW	OAB	narrow-		NNJ		1		1		13	7	2	20.8				у	3rd
	terrace				1	necked jar																
	between					with bifid																
	rockface					everted rim																
	and stone																					
	wall																					



CTX	Context	ID	FN	Ware	Fabr	Form	Description	Vessel	Profil	Rim	Base	Body	Handle		RimP	Total	Weight	Decoratio	Burn	Soot	illu	Dating
	Description				ic				е					D		count	(g)	n	t	ing	str	
																					ate	
053	Lower terrace between rockface and stone wall	60	78	ow	OAB 1	fat rounded everted rim of ?bowl or wide- mouthed jar		B/WMJ		1				30	7	1	21.2				У	2nd century, cf. Leary 2007, no. 206 in Period 3.4 mid- to late 2nd century
053	Lower terrace between rockface and stone wall	61	78	WS	FLB1			F				1		0	0	1	16.2					
053	Lower terrace between rockface and stone wall	62	78	OW	OAB 1	roughcast beaker body		BKR				1		0	0	1	13.9				У	2



CTX	Context	ID	FN	Ware	Fabr	Form	Description	Vessel	Profil	Rim	Base	Body	Handle	Rim	RimP	Total	Weight	Decoratio	Burn	Soot	illu	Dating
	Description				ic				е					D		count	(g)	n	t	ing	str ate	
053	Lower terrace between rockface and stone wall		78	RS	RSB		closed	J				1				1	11.8	burnished wavy line above burnished zone				
055	Colluvium rep sect	2	19	МН	MH2	concave smooth hammerhea d mortarium		MOR		1						1	96.7				У	3rd
055	Colluvium rep sect	3	23	GW	GRB 1							1				1	18					
055	Colluvium rep sect	4	24	OW	OAA 1	jar		NNJ				1				1	1.7	cordon outside neck				
055	Colluvium rep sect	50	24	OW	OAC 1		part of base of closed vessel, jar					1		0	0	1	15					
055	Colluvium rep sect	56	19	МН	MH2	four reeded rim mortarium		MOR		1	1			0	0	2	133.2				У	190-240



СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot	illu str ate	Dating
060	Within structure west end of site	1	1	ww	FLA2	beaker	with rouletted decoration	BKR				1				1	3	dash rouletting				2nd century ?
2406	Possible water course with pebbles	32	86	OW	OAC 1							1				1	6					
2417	Light grey Roman deposit similar to 2406	30	83	BB1	BB1	flat-rim bowl	Gillam 1970 no. 1976 no. 39	В				1				1	36.3	right angled lattice burnish			У	M-L2
2417	Light grey Roman deposit similar to 2406	31	84	WS	FLB1	everted rim beaker	beaker with rounded expanded rim	BKR		1				8	15	1	11					2nd century ?



СТХ	Context Description	ID	FN	Ware	Fabr ic	Form	Description	Vessel	Profil e	Rim	Base	Body	Handle	Rim D	RimP	Total count	Weight (g)	Decoratio n	Burn t	Soot	illu str ate	Dating
2417	Light grey Roman deposit similar to 2406	33	87	AMP	DR2 0			AMP				1				1	290					
2417	Light grey Roman deposit similar to 2406	34	84	ow	OAB 1							2				2	219					
2417	Light grey Roman deposit similar to 2406	53	83	BB1	BB1	everted rim jar	Gillam 1970 no. 1976 no. 3	J		1				17	7	1	9.7	burnished wavy line outside rim				M-L 2nd



Appendix 4: Conservation Records



Conservation Record

Acc. No.

Nature / Object Copper alloy brooch pin

Lab No. 20/42

Client Salford University

X-ray No.

ID. No. 2-4 Chester Rd SF64

Instruction

Clean to aid identification

Condition

Copper alloy brooch pin or possibly a fish hook covered in soil and waxy green corrosion with patches of hard bulbous and pits of powdery green corrosion disrupting much of surface patina.

Photo Before After





Treatment

1. Mechanically cleaned using a scalpel and glass bristle brush.

Advice Handle with care and wear appropriate gloves

Ideal recommended environmental conditions for display / storage

Temperature 18°C±5°C in any 24-hour period Relative humidity less than 30%±5% in any 24-hour period Maximum light 300 Lux Ultra-violet light $0\mu W/lumen$

Treatment 1 Date 2/20 Conservator KB

Conservation Record

Acc. No.

Nature / Object Copper alloy brooch

Lab No. 20/43

Client Salford University

X-ray No.

ID. No. 2-4 Chester Rd SF67

Instruction Clean to aid identification

Condition

An incomplete cast copper alloy brooch covered in soil and waxy green corrosion with patches of powdery green corrosion in pits disrupting the surface patina. Broken at both ends with missing spring and pin.

Photo Before After





Treatment

1. Mechanically cleaned using a scalpel and glass bristle brush.

Advice Handle with care and wear appropriate gloves

Ideal recommended environmental conditions for display / storage

Temperature 18°C±5°C in any 24-hour period Relative humidity less than 30%±5% in any 24-hour period Maximum light 300 Lux Ultra-violet light 0 μ W/lumen

Treatment 1 Date 2/20 Conservator KB







CONSULTANCY



DESK BASED ASSESMENTS



WATCHING BRIEF & EVALUATION



EXCAVATION



BUILDING SURVEY



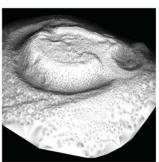
3D LASER SCANNING



COMMUNITY INVOLVEMENT



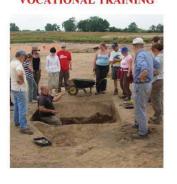
LANDSCAPE SURVEYS



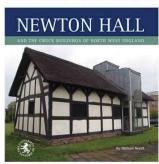
GEOPHYSICAL SURVEYS



WORKSHOPS & VOCATIONAL TRAINING



RESEARCH PUBLICATIONS



SEMINARS, DAYSCHOOLS CPD EVENTS

