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Summary

PHD 1 Construction submitted a planning proposal for the redevelopment of land bounded by Dantzic Street, and Gould Street, Manchester (centred NGR SJ 84534 99376). The proposed scheme comprised the erection of two no. part 5, part 7, part 19 storey buildings to form 434 residential apartments (Use Class C3), creation of commercial floorspace totalling 888 sqm (Use Class A1, A2, A3, B1a, D1, D2 and launderette (Sui Generis)), with associated car parking, roof terraces, servicing, landscaping, public realm and associated works, boundary treatment and vehicular access from Bromley Street (original Planning Ref:103382/FO/2013/NI; amended Planning Ref: 107801/FO/2015/NI). The delivery of the proposals will necessitate earth-moving works that will remove any surviving buried remains of archaeological interest.

An archaeological desk-based assessment that was carried out to support the planning application for the development concluded that the site had potential to contain the below-ground remains of archaeological interest. The potential remains of archaeological interest included medieval and post-medieval features, 18th-and 19th-century workers' housing, an early 19th-century cotton mill, and other potential industrial works.

In light of the conclusions drawn from the desk-based assessment, and following consultation with the Greater Manchester Archaeological Advisory Service, Salford City Council advised that in the first instance a scheme of intrusive archaeological evaluation trenching would need to be carried out in advance of construction work. The archaeological evaluation concluded that significant below-ground archaeological remains survived in good condition.

Following further consultations with Greater Manchester Archaeological Advisory Service, Salford City Council it has been agreed that a scheme of archaeological investigation will comprise two open area excavation trenches. Area A is situated in the north-east part of the site and is positioned to target late 18th and 19th century workers' houses along Bilberry Street and Back Bilberry Street together with industrial buildings on the north-east side of Bromley Street comprising a print and dye works, and starch works shown on the Ordnance Survey Town Plan of 1851. The second excavation area, Area B, targeted the remains of an early 19th century cotton mill (Parker Street Mill), together with a row of double-depth domestic properties, a school located between Ashley Lane (Dantzic Street) and John Street, and a row of back-to-back properties between Ashley Lane and Back Ashley Street.

Salford Archaeology were commissioned in March 2015 to undertake the archaeological works as part of a condition attached to the planning application submitted to the Manchester City Council.

Despite the area being intensively development from the late 18th century onwards, archaeological remains associated with the pre-industrial landscape had survived in both areas, consisting of pockets of plough soil. In Area B, a c. 45cm deep deposit of plough-soil lay beneath the flooring of the Parker Street Mill site. The plough soil had been truncated to the east of the mill but survived *in-situ* to the west of the mill site, producing three sherds of medieval pottery.

The remains of the 18th- and 19th-century buildings, moreover, had almost entirely been removed during the early 20th century, when a large rubber works with deep basements and

substantial concrete stanchions, was erected across much of Area A. Partially truncated remains of walls associated with the 19th century houses fronting Portland Street (Dantzic Street) were uncovered in the north-west limit of excavation. In addition, a flagged pathway was exposed, which presumably led to outshuts at the rear of the properties. The infill of the pathway contained several ginger ale stoneware bottles indicating that that this property was at least partially commercial in its last phase.

Archaeological excavations within Area B revealed substantial *in-situ* remains of an early 19th century cotton/silk mill (Parker Street Mill) together with the footprint of a school, two double-depth properties fronting Ashley Lane (Dantzic Street), and a row of five back-to-back cellars located between Ashley Lane (Dantzic Street) and Back Ashley Street. The two south-west back-to-backs were later converted into one commercial property with several phases of rebuild including the blocking-up of an original rear stairwell entrance. The double-depth cellars excavated to the north-east, contained a pot-boiler, window, and fireplace as well as *in-situ* flooring and stairs (both to the rear and internally). In comparison to the back-to-backs excavated to the south-west, the double-depth houses were substantially superior both in build-quality and internal fittings.

Northern Gateway (FEC) No.7 Ltd subsequently purchased the site, in April 2021. The proposed scheme allows for the erection of a residential-led mixed use development comprising three no. towers (37, 26 and 18 storeys) and podium levels (6 storey) to form 634 residential apartments and townhouse accommodation (Use Class C3) together with commercial accommodation (1222 sqm) (Use Classes A1,A2,A3,A4,A5,B1, D1 and D2)); with associated residential amenity areas, refuse storage, plant (including substation), car parking, cycle storage, landscaping and new public realm including the re-instatement of Bromley Street and other associated works (Planning Ref: 126944/FO/2020). Salford Archaeology have been commissioned to produce a final report, publication, and archive of the archaeological remains previously exposed in 2015.

1. Introduction

1.1 Planning Background

PHD 1 Construction submitted a planning proposal for the redevelopment of land bounded by Dantzic Street, Gould Street, and Williamson Street, Manchester in 2013 (centred NGR SJ 84534 99376). The proposed scheme comprised the erection of two no. part 5, part 7, part 19 storey buildings to form 434 residential apartments (Use Class C3), creation of commercial floorspace totalling 888 sqm (Use Class A1, A2, A3, B1a, D1, D2 and launderette (Sui Generis)), with associated car parking, roof terraces, servicing, landscaping, public realm and associated works, boundary treatment and vehicular access from Bromley Street (original Planning Ref:103382/FO/2013/NI; amended Planning Ref: 107801/FO/2015/NI).

At an early stage in the design process, an archaeological desk-based assessment of the study area was produced. This concluded that a programme of further archaeological investigation was merited, which should comprise an archaeological trench evaluation and possible more extensive excavation of the below-ground remains (Salford Archaeology 2013).

In the light of the conclusions drawn from the archaeological desk-based assessment, and following consultation with the Greater Manchester Archaeological Advisory Service (GMAAS), which provides planning advice to Manchester City Council, a condition was attached to planning consent that required a scheme of archaeological investigation to be implemented in advance of construction work at Dantzic Street, Gould Street, and Williamson Street. Condition 27 attached to planning ref: 103382/FO/2013/NI stated:

‘No development shall take place until the applicant or their agents or successors in title has secured the implementation of a programme of archaeological works. The works are to be undertaken in accordance with Written Schemes of Investigation (WSI) submitted to and approved in writing by Manchester Planning Authority. The WSIs shall cover the following:

- 1. A phased programme and methodology of investigation and recording, including:
 - a targeted evaluation.
 - (based upon the evaluation results) open area excavation.
- 2. A programme for post-investigation assessment, research, and re-interment to include:
 - An analysis of finds and site investigation records.
 - The production of a final report detailing the significance of the archaeological and historical interest represented.
- 3. Provision for publication and dissemination of the analysis and report on the site investigation – including publication in ‘Greater Manchester’s Past Revealed’ series.
- 4. Provision for archive deposition of the report and records of the site investigation.
- 5. Nomination of a competent person(s)/organisation to undertake the works set out within the approved WSI.

Reason: To investigate the archaeological interest of the site and record and preserve any remains of archaeological interest, pursuant to saved Policy DC20.1 of the Unitary Development Plan for the City of Manchester and in accordance with NPPF Section 12, Paragraph 141(- To record and advance understanding of heritage assets to be lost and to make information about the archaeological heritage interest publicly accessible), and policies SP1, H1, EN1 and DM1 of the Core Strategy for Manchester.

In order to address the requirements of the conditions attached to the consented scheme, PHD 1 Construction commissioned Salford Archaeology to prepare the required Written Scheme of Investigation (WSI). This was prepared in March 2015, and allowed for an intrusive archaeological investigation via 11 evaluation trenches that were targeted across the footprint of former buildings of potential archaeological interest (Salford Archaeology 2015). In acknowledgement of this WSI, the Greater Manchester Archaeological Advisory Service confirmed that the scope of works outlined represented an appropriate scheme of archaeological investigation to satisfy the requirements of the planning application. The results of the intrusive archaeological investigations uncovered significant below-ground archaeological remains.

Following consultation with Manchester City Council and the Greater Manchester Archaeological Advisory Service (GMAAS), it has been agreed that further archaeological investigations were required at the site, comprising two open area trench excavations. Salford Archaeology was commissioned in April 2015 to undertake the scheme of archaeological works, which were completed by May 2015.

Northern Gateway (FEC) No.7 Ltd subsequently purchased the site, in April 2021, and is progressing a consented scheme of development on land between Dantzic Street, Gould Street, and Williamson Street, Manchester (centred on NGR SJ 84534 99376, Plate 1). The consented scheme allows for the erection of a residential-led mixed use development comprising three no. towers (37, 26 and 18 storeys) and podium levels (6 storey) to form 634 residential apartments and townhouse accommodation (Use Class C3) together with commercial accommodation (1222 sqm) (Use Classes A1,A2,A3,A4,A5,B1, D1 and D2)); with associated residential amenity areas, refuse storage, plant (including substation), car parking, cycle storage, landscaping and new public realm including the re-instatement of Bromley Street and other associated works (Planning Ref: 126944/FO/2020).

A condition was attached to planning consent that required a scheme of archaeological works to be implemented in advance of construction work at Dantzic Street, Gould Street, and Williamson Street. Condition 8 of 126944/FO/2020 stated:

- 1. A programme for post-investigation assessment, research and re-interment to include:-
An analysis of finds and site investigation records:-the production of a final report detailing the significance of the archaeological and historical interest represented;
- 2. Provision for publication and dissemination of the analysis and report on the site investigation – including publication in ‘Greater Manchester’s Past Revealed’ series;
- 3. Provision for archive deposition of the report and records of the site investigation.

Reason - To record and advance understanding of heritage assets impacted on by the development and to make information about the archaeological heritage interest publicly accessible pursuant to policy EN3 of the Manchester Core Strategy.

The application for planning permission submitted by Northern Gateway (FEC) No.7 Ltd (Planning Ref: 126944/FO/2020) is accompanied by the previous archaeological desk-based assessment. The final report and publication of the archaeological works, undertaken in April 2015, is required to satisfy the requirements of the planning application (Salford Archaeology 2013).

1.2 Academic Aims

The principal aims of the project are to provide a final report on the archaeological remains excavated at Dantzic Street and secure the dissemination of the results via the deposition of an archive report with the Greater Manchester Historic Environment Record, and an appropriate level of dissemination that will be achieved via the publication of a paper in an appropriate academic journal that presents the key results obtained from the excavation.

1.3 Objectives

The principal objectives of the archaeological investigation were:

- to analyse finds and site investigation records;
- to produce a final report detailing the significance of the archaeological and historical interest represented;
- to make available the results of the work via the deposition of an archive report with the Greater Manchester Historic Environment Record, and an appropriate level of dissemination of the results.

It was anticipated that the archaeological investigation would address several of the initiatives for archaeological research of the industrial and modern periods stated in the current Archaeological Research Framework for North West England. In particular, it is suggested that there are many aspects of 19th-century urban life that are insufficiently covered within the documentary record, and archaeological research is needed to shed light on the urban working classes in general within the region (Newman and McNeil 2007).

- *Initiative 7.6*: 'A study of the development of workers' housing in Greater Manchester and East Lancashire should be undertaken to examine the development of different housing types...' (McNeil and Newman 2007, 139);
- *Initiative 7.7*: 'Study the material culture of industrial workers' households...' (*ibid*);
- *Initiative 7.25*: 'Where threatened with possible redevelopment excavations are required of now undeveloped and cleared former working class areas regarded as slums' (*op cit*, 147);
- *Initiative 7.41*: 'The retention of later period artefacts and their routine analysis as part of all archaeological excavation projects' (*op cit*, 156).

The aims and objectives of the project were achieved via the following stages:

- *Post-excavation and Report Production*: secure the dissemination of the results via the deposition of an archive report with the Greater Manchester Historic Environment Record and inclusion in an academic monograph or in 'Greater Manchester Past Revealed' series.

1.4 Location

The study area (centred on NGR SJ 84534 99376) lies within the Newtown area of Manchester, which forms part of the township of Cheetham. The site is broadly triangular, and is bounded to the north-west by Dantzic Street, to the south-east by Williamson Street/the railway viaducts exiting Victoria Station, running north-east, and to the south-west by Gould Street (Plate 1; Figure 1). The site currently comprises over-grown vegetation.

The overlying drift geology, as mapped by the OS Geological Survey, comprised Glacio-Fluvial Sand and Gravel. A thin deposit of boulder clay was found during the excavation, which overlay the uppermost sand and gravel deposits. The underlying solid geology comprised of Permo-Triassic, interbedded sandstone, and conglomerate, also known as Sherwood Sandstone (<http://www.bgs.ac.uk>).

The site occupies land that sits on a relatively level plane measuring 30.5m aOD at its north-west corner and 29.6m aOD at its south-west corner. The ground rises slightly, beyond the north-east of site area, to 31.4m aOD. It lies at the foot of a shallow valley associated with the River Irk, which flows north-east/south-west to its confluence with the River Irwell.



Plate 1: Site boundary superimposed onto recent aerial imagery (Google Earth)

2. Historical Background

2.1 Introduction

The following section summarises the historical background to the site, and is intended to provide a context in which to consider the results obtained from the open area excavation trenches.

2.1.1 Prehistoric Periods

Prehistoric activity in north-west England tends to be sporadic and is often based on chance finds. However, within the region there is growing evidence for prehistoric activity taking place on well drained sands and gravels close to watercourses (Mottershead, 2006: 4). The main local focus of prehistoric activity seems to have been on the Manchester side of the River Irwell on a high spur of land bounded by the River Irwell and its tributary the River Irk, an area, which now contains Manchester Cathedral and Chetham's School (Tupling 1962). Whilst the geology of the site may indicate potential for prehistoric activity, the intense development of the study area over the last 150 years limits the chances for any prehistoric remains to survive. No prehistoric finds are known to have come from within the study area.

2.1.2 Romano-British Period

Approximately 1.9km to the south-west of the study area lies the Roman Fort of *Mamucium*, and its associated civilian settlement or *vicus*. The fort was established during the governorship of Agricola (AD 77 -84) on a sandstone bluff within Castlefield (Gregory 2007). Archaeological excavation has shown that in the late 1st century the fort comprised a turf rampart and timber gates that surrounded an area of c. 1.2ha, and could potentially hold a 480-man infantry unit. The fort was rebuilt to similar dimensions in stone c AD 200 (*ibid*). A substantial extramural settlement developed around the fort during the 2nd century AD (Miller, 2007: 7).

An extensive network of Roman roads linked *Mamucium* with other forts in northern England. Roads from the fort linked Manchester with Ribchester to the north, Castleshaw, Slack and York to the north-east, Wigan to the north-west, Chester and Northwich to the south, and Buxton to the south-east. The projected course of the Roman road to Ribchester lies approximately 0.6km to the west of the study area, and is known to have crossed the River Irk, continuing northwards through Broughton along the line of Bury New Road (Miller, 2007: 7).

No Roman finds have been discovered within the study area however, several finds have been discovered in the nearby vicinity. Approximately 200m to the south of the study area, a Roman quern was excavated in 1904 at St Michael's Square, Ashley Lane together with a coin of Constantine the Great at Angel Street (HER: 1253.1.0). In addition, approximately 200m south-west of the study area, a large quantity of Roman and later coins was retrieved from the riverbed of the Irk, between Scotland and Ducie Bridge. This discovery was made when the river was diverted to construct the Lancashire and Yorkshire Railway at the end of the 19th century (HER: 1393.1.0). All these finds appear to have been isolated discoveries and no associated features were identified. The intense development of the site during the industrial revolution indicates that the chance of discovering Roman remains is limited.

2.1.3 Early Medieval Period

There is little archaeological evidence in the region 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 the settlement around the Cathedral was established (Farrer and Brownbill 1911). Manchester is mentioned in the Anglo-Saxon Chronicle of AD 919, which refers to Edward taking over the town and making repairs to the fortifications (Miller, 2006: 9). It is probable that these fortifications comprised of little more than a timber palisade, which again was most likely positioned around the Cathedral settlement. In 1028 King Canute founded one of his ten Royal Mints in the town (Farrer & Brownbill, 1908).

Only a few artefacts of this period have been uncovered within the Manchester area. One such artefact; a 6th-century funerary urn stamped with decoration typical of the Anglo-Saxon period was found at Red Bank in 1850, to the south-west of the current study area (HER: 1254.1.0.). There is however, no known evidence for early medieval activity within the study area and given the development of the area during the 18th- and 19th-centuries the potential for any such buried remains to exist would be slight.

Prior to the Norman Conquest, Salford was a royal manor, held directly by the king, and the administrative centre of the much larger area known as the Salford Hundred. Although in the late Anglo-Saxon period Salford was the secular capital of its hundred, ecclesiastically it was subordinate to Manchester, which was the location of the parish church of St Mary, later to become Manchester Cathedral (Gregory and Miller 2015).

2.1.4 Later Medieval Period

Following the Norman Conquest, the town of Manchester was granted to the Grelley family, who constituted it the head of their barony (Farrer & Brownbill, 1911). Salford, with the adjacent townships of Broughton, Cheetham, Hulme, and Stretford was retained by the King as demesne and were bestowed on the great nobleman to whom he entrusted 'the land between Mersey and Ribble' (Farrer & Brownbill, 1911).

The Grelley family established a manor house at the confluence of the Rivers Irk and Irwell from which the family governed both the manor and extensive barony and it is thought that the medieval town of Manchester grew up around this manor (Hartwell, Hyde & Pevsner, 2004: 256). Before the manor house was built, it is believed that the family occupied Manchester Castle, situated within the vicinity of Chetham's School of Music.

During the 13th century Manchester emerged as an important regional centre and in AD 1227 Henry III granted Robert Grelley the right to hold a weekly market every Saturday and an annual fair (Farrer & Brownbill, 1911). In 1301 Manchester was granted borough status, encouraging the growth of the economy. By this time, many of the inhabitants were established craftsmen and traders (ibid). Further documentary research for the period has revealed that a corn mill and a woollen fulling mill had been established along the River Irk by AD 1282 and by the later medieval period the River Irk was utilised by several water mills (Miller, 2007: 8). Throughout this period the study area most likely comprised open agricultural land, which lay beyond the area of settlement associated with the town.

2.1.5 Post-medieval Period

Manchester continued to prosper during the post medieval period by which time the towns market lay at the centre of a fledgling textile trade industry (Miller, 2006: 10). The size and wealth of the town during this period is reflected in the decision of the Lord of the manor to rebuild St Mary's church in 1421 as a collegiate institution (Hartwell, Hyde & Pevsner, 2004: 256). By 1539, Manchester was described by John Leland as 'the finest and busiest town in the whole of Lancashire, with the best buildings and the greatest population' (Chandler, 1993: 263 & Miller, 2006: 10).

The layout of the town is captured on the earliest known map of the area, which has been dated to c. 1650 (Plate 2). This early plan depicts the form of the post-medieval town, showing the main medieval streets and building ranges. The map shows continuous development along Hanging Ditch, Toad Lane, Market Street Lane, Deansgate and the smaller streets that cluster around the Cathedral. The street frontages along Long Millgate have also been entirely developed, with garden or allotment plots defined to the rear. Long Millgate forks into two thoroughfares, one of which is Ashley Lane that eventually turns into Portland Street, (later known as Dantzic Street). Ashley Lane is partly captured on the map showing one small rectangular block of buildings situated along the street frontage together with two garden plots to the rear. The rest of the route is undeveloped and is surrounded by agricultural land. Presumably, the area surrounding Portland Street (Dantzic Street) would have been of a similar character, especially given its distance away from the burgeoning town centre.



Plate 2: Plan of Manchester and Salford c. 1650

Manchester's agricultural-based economy was increasingly supplemented by the weaving and finishing of traditional textiles, which gradually enhanced Manchester's prosperity. Cloth was increasingly brought into the town for bleaching and dying and its market expanded for trading the finished cloth (Miller, 2006: 10). From the early 17th century, a flourishing business community developed within Manchester, which was dominated by wealthy merchant's manufacturers and fustian dealers most notably the Chethams, the Booths, the Wrigleys and

the Byrom's (Miller, 2006: 10). These families formed the social elite below the landed gentry such as the Stanley's and Strange families, whose estates incorporated Cheetham and the open agricultural land around the present study area (Miller, 2006: 10). However, there are no known remains of this period within the study area and it is likely that the study area remained undeveloped.

The River Irwell became a major transport route after 1734, when the Mersey Irwell Navigation was completed. This new navigation formed an efficient link to the expanding port of Liverpool and enabled sea-going vessels to sail up the Irwell into Manchester and Salford. 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 (George and Brumhead 2002, 22). The establishment of the quay significantly boosted the prosperity of Manchester, allowing cotton and other raw materials to be transported to and from the town, kick starting the industrial revolution.

Casson and Berry plan in 1740 at a scale of c. 1:2000, broadly replicates the detail of the c. 1650 map. The newly established 'Kay' is marked on the mapping, situated away from the town centre, at the junction of Quay Street and Water Street. The plan shows that Manchester is growing at a much quicker rate than the neighbouring town of Salford. Unfortunately, the mapping does not capture the study area, and no further development has taken place along Ashley Lane.

Similarly, a survey by Tinker, published in 1772, does not depict the study area and no further developments have taken place along Ashley Lane. The plan shows a similar layout to Casson and Berry's earlier sequence of maps, produced between 1741-51. The area surrounding the quay has seen some development, and although the function of the buildings cannot be ascertained from the mapping, they are likely to represent some of Manchester's first warehouses.

2.1.6 Industrial Period

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, and the development of pre-existing areas of wharfage along Water Street (George and Brumhead 2002). The Mersey and Irwell Navigation company's first competitor was the Duke of Bridgewater, who owned vast estates in Worsley and wanted to construct a canal to transport coal from his mines at Worsley to Manchester and Salford. The Duke employed James Brindley to design and manage the construction of the canal in 1758, which would serve the dual purpose of draining his coal mines, whilst also providing an affordable means of transporting his coal from Worsley into Manchester. The canal was completed between Worsley and Castlefield in 1764 and was the first true industrial canal in the world. The success of this venture halved the price of coal and acted as the catalyst for a surge of canal building nationwide.

In addition to the benefits of providing an arterial transport route, the River Irwell also had considerable potential to power waterwheels along fast-flowing stretches of its course in Salford, offering a distinct advantage over Manchester to pioneering factory masters prior to the advent of steam engines. Hence, in 1782, James Ackers, Jonathan Beever and Joseph Ramsbottom established Bank Mill, and William Douglas built a large mill beside the Irwell at Pendleton in Salford, representing two of the earliest water-powered mills in Lancashire (Aspin 2003, 453). By 1795, the latter concern was the largest firm in the Manchester district

(Greenwood 1951, 143-6). Despite the early development of the textile industry in Salford, merchants chose to establish offices and warehouses in Manchester, which quickly developed into an administrative and commercial hub.

By the 1790's Manchester's thriving export market was beginning to displace London as the centre of overseas trade in cotton cloth, reflecting great improvements to the transport networks within the north-west. The introduction of steam power to cotton spinning during the late 18th century was the catalyst for the massive expansion of Manchester as a manufacturing centre and with this came the rapid growth of the town's population from 22,481 in 1773 to 75,281 by 1801 (Miller, 2006: 11).

2.2 Site Development

By the late 18th century, the study area and its immediate surroundings formed part of the Newtown district of Manchester. During this period Newtown was experiencing the first phases of industrialisation with its open agricultural plots being sold for industrial and residential development. Green's map of Manchester dated 1794 (Figure 3) is the first available, and accurate map that captures the layout of the site. This plan captures the area during a period of rapid development. A grid like pattern of streets had begun to be laid out on the east side of the River Irk and along these streets several blocks of residential, commercial, and industrial buildings had begun to develop. Within the study area four roads had been laid out, all of which represent the current street layout. Ashley Lane and Portland Street (Dantzic Street) mark the north-west boundary of the site, following the line of a pre 18th-century route way. Bilsborough Street forms a junction with Portland Street, running in a south-easterly direction from Portland Street. A street named Flag Row ran north-east from Bilsborough Street. Along both the northern and southern sides of Bilsborough Street four blocks of mixed residential and commercial properties had been constructed. The north side comprised of an 'L'-shaped range with four houses fronting Bilsborough Street and five houses fronting Flag Row together with a further row of five dwellings with back yards and outshuts. Similarly, the south side comprised a block of five houses with rear yards, which were abutted to the south by a further two houses. An 'L'-shaped range of buildings also fronted Bilsborough Street, continuing slightly along Portland Street. This block of buildings consisted of several commercial properties and three houses.

A large, enclosed field is situated to the south of Bilsborough Street, marked on all four sides by a hedgerow. The land within the plot was owned by John Carroll Worsley, Esq. Within the north-west corner of the field at the junction of Ashley Lane and Portland Street was a yard, which contained several structures. Fronting Ashley Lane was an 'L'-shaped range and to the south-east of this range was a small roughly rectangular structure. Green's map gives no indication as to what the function of these structures was, however, later maps indicate that the structures formed a Print & Dye Works.

The south-west site boundary is marked by a field boundary. In total, three blocks of properties have been built to the south-east of the field boundary, along an unmarked road (later Gould Street), beyond the site limit.

Whilst there are several early 19th-century maps of the area, these were all produced at a scale which precludes close analysis of the built environment, although they help to characterise the wider area. Pigot's map of 1813 and 1821 (Figure 4) show that the study area and its immediate surroundings remained largely unchanged, however, by Swire's map of

1824 (Figure 5) the southern half of the study area had begun to be developed. Several streets including Bromley Street, Parker Street, and Gould Street had been laid out to the south of Bilsborough Street, although none of the streets have been named. Fronting Ashley Lane, between Bromley Street and Back Irk Street (later known as Gould Street), two blocks of residential/commercial properties appear to have been constructed. A large square structure, shown as a mill on later mapping has been constructed between Parker Street and Bromley Street. At the north end of the study area the commercial units along Bilsborough Street have been partially demolished. The potential Dye and Print Works identified at the junction of Ashley Lane and Portland Street had been substantially extended south-westwards to form a large quadrangle with a central yard.

Bancks' and Co's plan of 1831 is the first map to show any significant changes to the townscape, clearly marking the new layout of streets and provides more detail of the character of the buildings (Figure 6). A row of 12 back-to-backs dwellings have been constructed between the Ashley Lane frontage and the junction of Parker Street, aligned north-east/south-west. A further row of four back-to-back properties are situated to the south-east along Silver Street. A cotton mill is clearly marked between Bromley Street and Parker Street together with a square building, marked on later mapping as Ashley Lane School. A row of four commercial or domestic properties line Portland Street to the north-west of the school. Much of the land between Bilsborough street and Bromley street remains undeveloped, although two rows of domestic houses continue to line the south-west side of Bilsborough Street. The arrangement of buildings later marked as a Dye and Print Works continue to occupy a plot of land at the junction of Portland Street and Bromley Street.

The Ordnance Survey 60": 1 mile map of 1850 (Figure 7) provides considerable detail of the buildings occupying the site in the mid-19th century. The buildings shown on the Ordnance Survey map of 1850, likely capture the same dwellings shown on Bancks & Co's plan of 1831, although a few changes have taken place. The Lancashire and Yorkshire Railway line and its associated viaduct has been laid to the south-east of the site. Bilsborough Street has been renamed as Bilberry Street, and between Bromley Street and Bilberry Street, Back Bilberry Street had been laid out. Another new street, marked as John Street on the mapping, has been laid between Bromley Street and Parker Street, running north-east/south-west. A similar arrangement of houses occupy the south-west side of Bilberry Street, possibly comprising double depth terraced properties, some of which have back yard plots and outshuts.

The footprint of the 'Print & Dye Works' seems to have been redeveloped or extended into an irregular-shaped building located between Back Bilberry Street and Bromley Street. Along Portland Street, four smaller individual buildings about the 'Print and Dye Works', which potentially represent four domestic properties. To the immediate south-east of the 'Print and Dye Works', a large structure with a central courtyard and a Leat is labelled as 'Starch Works'. A similar arrangement of buildings is marked between John Street and Portland Street, however, a small rectangular enclosure labelled 'Coal Yard' has been established and the rectangular building identified on Bancks' map of 1831 is labelled 'Ashley Lane Infant & Sunday School'. On the east side of John Street, the mill building identified on earlier mapping is labelled as 'Irk Town Silk Mill' and the map shows that the site comprised a large 'L' shaped range fronting John Street and Parker Street, which was abutted by a smaller rectangular range that fronted Parker Street and to the north-east of this was a third rectangular range fronting Bromley Street. At the centre of this site was a large open yard accessed from Bromley Street that contained two rectangular enclosures and a small rectangular structure.

In the south-west extent of the site, the former row of 12 back-to-back properties located along Ashley Lane, have been converted into six through houses. The Ordnance Survey plan shows that these properties had front external staircases permitting access into cellars, with the exception of the second from the end of row terrace, which was accessed from the rear. The row of four properties to the immediate north-east and some of the properties along Bilberry Street also contained cellars. To the rear of the converted back-to-backs, an earlier block of four back-to-back dwellings has been extended to the north-east to form a row of 14 properties. An L-shaped building is located at the north-east end of the back-to-backs. These properties are situated between Back Ashley Lane and John Street.

Adshead's map of 1851 (Figure 8) shows no physical change to the study area however it does provide further details as to the functions of the buildings. The map confirms that most of the properties were residential buildings. However, the map and historical trade directories show that a public house named the 'Dyers Arms' was located at the junction of Ashley and Bromley Street from 1828, later listed as a Bakers and Grocers from 1841 (Pigot & Co 1828; Pigot 1841). In addition, Adshead's map shows that the Print & Dye Works has become 'J Piggott's Machine Works', whilst the Starch Works is listed as 'F Peacock's Starch & Gum Works', and the Irk Town Silk Mill is listed as 'J Holcroft's Silk Mill'.

The layout of buildings shown on the 1891 Town Plan (Figure 9) is largely unchanged to that recorded on the 1850 survey, although the industrial buildings along Bromley Street and Parker Street appear to have been subject to some remodelling and change of use. The undeveloped land at the north-west end of Bilberry Street and Back Bilberry Street has been developed into an irregular arrangement of back-to-back properties. The plan also shows that the end of terraced through house and the adjacent property along Ashley Lane have been converted back into back-to-back dwellings.

Trade directories for the period record that by the end of the 19th century the 'Machine Works' had been renamed Bromley Street Works and was occupied Arundel & Co Machine Makers. The starch works continued to operate throughout the 19th century listed as 'F Peacocks Starch and British Gum Manufacturers' in 1858 and is listed in the subsequent trade directories of 1897 and 1890 (Post Office 1858, Slater 1879 & 1890). Slater's trade directory of 1895 confirms that the mill site was named Parker Street Mills and is recorded as having multiple tenants, housing: Albert Sharrock (small ware & tubing manufacturer), John Marsh (cut nail manufacturer), E Phillips & Son (winders and warpers), P & S Kitching (sewing cotton manufacturer), J Faulkner (fustian cutter), J & S Horrocks (machine makers), J Rogan (glass bender & beveller) and J Bridhe & Co Ltd (glass manufacturer) (Slater, 1895).

Ordnance Survey mapping, published in 1908 (Figure 10), broadly replicates the layout of buildings in the study area, with only minor changes. All back-to-back properties have been converted into through houses, whilst the Machine and Starch Works have been amalgamated into a large 'Rubber Works'. The domestic dwellings formerly abutting the dye works, and fronting Portland Street have been cleared. The expansion of the Lancashire and Yorkshire Railway considerably altered the street layout beyond the south-east site boundary, demolishing several domestic dwellings and part of the Parker Street Mill yard. The viaduct extension broadly marks the south-east boundary of the site.

The next map available map, the Ordnance Survey of 1922 (Figure 11), shows that several streets have been renamed, Portland Street has become Dantzic Street, John Street is now named Jason Street, and Parker Street is Parlane Street. All the properties formerly situated between Bilberry Street and Back Bilberry Street have been subsumed by the rubber works.

The survey also shows that Back Bilberry Street has been cleared along with the housing along its north-eastern edge, to make way for the expansion of the rubber works. The rubber works appears on the mapping as one large rectangular structure comprising a covered gateway, a small rectangular yard along Bromley Street, and a square stack chimney within the north-western half of the building.

By the turn of the 20th century Ashley Lane School had been renamed as the Parker Street Independent Chapel and Board School (Slater 1894). Slater's trade directory of 1920 lists the school as a congregational church and Sunday school (Slater 1920 & Kelly 1930). The former mill building is occupied by Parlane Waterproof Co Ltd, a waterproof clothing manufacturer (Kelly, 1930). The Parlane Waterproof Co were recorded as occupying the site in 1935, however, by 1940 trade directories record the site as being occupied by Taylor & Roth, a cabinet maker's (Kelly, 1940). The trade directory of 1905 lists the occupant of the rubber works, as 'B. Cohen' an 'Indian Rubber Manufacturer'. The proprietor of the rubber works had changed by 1911 and is listed as 'The Premier Waterproof & Rubber Co Ltd, Indian rubber manufacturer' (Slater's Directory 1905 & 1911). Between 1925 and 1930 the rubber works began to manufacture rubber soles and heels, a niche market for the period (Kelly's Directory 1930 & 1940).

The Ordnance Survey map of 1949 shows that no domestic properties occupy the site and the course of Bilberry and Back Bilberry Street have both been erased. The through houses along Ashley Lane have been cleared together with properties to the north-east, except for the Public House located at the junction of Bromley Street and Dantzic Street. The character of the site and surrounding area appears to be exclusively industrial. A similar configuration of buildings is shown on the Ordnance Survey plan of 1970.

Between 1940 and 1967 the rubber works was renamed 'Phillips Rubbers'. The company continued to produce rubber heels and soles on the site until the beginning of the 21st century. Photographs show that Rubber Works was a five-storey brick-built structure with numerous large windows along the Dantzic Street and Bromley Street elevations and an ornate, moulded stone doorway at the south-west corner of the building. The rubber works was demolished in 2004 after which the site functioned as a car park.

3. Methodology

3.1 Archaeological Excavation

The principal aim of the archaeological excavation was to target the remains of a buried soil horizon, the Starch and Dye works, workers housing and the public house initially exposed during an archaeological evaluation. This was achieved by the excavation of two open area excavation trenches that were placed across the footprint of buildings of potential archaeological interest depicted on the sequence of historical maps (Figures 2-11). It was anticipated that this approach would represent an appropriate sample of the archaeological resource.

General Methodology: all archaeological work was conducted following the ClfA Standards and Guidance for archaeological field evaluation (ClfA 2014). Prior to the commencement of any excavation works, the location of the trench targeted for archaeological investigation was laid out accurately with respect to the Ordnance Survey national grid. The position of this area was then scanned for any live services using a cable avoidance tool.

Archaeological Excavation: machine excavation was used to define carefully the extent of any structural remains. This was carried out using a mechanical excavator of appropriate power under close archaeological supervision. Thereafter, remains were cleaned manually to define their extent, nature, form and, where possible, date. Once the extent of buried archaeological remains was established, they were subject to detailed archaeological excavation and recording. Hand excavation was undertaken by trained professional archaeologists. All information identified in the course of the site works was recorded stratigraphically, utilising *pro-forma* context sheets, and was accompanied with sufficient pictorial record (plans, sections and photographs) to identify and illustrate individual features.

Context Recording: all contexts were recorded using *pro-forma* sheets, and details were incorporated into a Harris matrix. All written recording of survey data, contexts, photographs, artefacts and ecofacts were cross-referenced from record sheets using sequential numbering.

Photography: a full and detailed photographic record of individual contexts was maintained and similarly general views from standard viewpoints of the overall site at all stages of the archaeological investigation was generated. Photography was undertaken in accordance with HE guidance, Digital Image Capture and File Storage Guidelines for Best Practice (July 2015). All frames included a visible, graduated metric scale. Photographs records were maintained on photographic *pro-forma* sheets.

Planning: the precise location of all archaeological structures encountered was surveyed using a total station linked to a pen computer data logger. This process generated scaled plans within AutoCAD, which were then be subject to manual survey enhancement. The drawings were generated at an accuracy appropriate for 1:20 scale, and all information was tied in to Ordnance Datum.

Finds policy: finds recovery and sampling programmes was in accordance with best practice (following current Chartered Institute for Archaeologists' guidelines, Standard and guidance for the collection, documentation, conservation and research of archaeological materials.

4. Fieldwork Results

4.1 Overview

Based upon the results of the archaeological trial trenching undertaken by Salford Archaeology in March 2015, GMAAS recommended that further archaeological investigation was merited. This comprised two open-area excavation trenches (Figure 2). Area A targeted relict soils pre-dating the 1787-94 mapping, together with the remains of a potential late 18th century Dye and Starch Works, and late 19th-century workers' houses situated between Bilberry Street and Back Bilberry Street. The second excavation trench, Area B, was positioned to target an early 19th-century public house, properties along the Ashley Lane frontage, a school and a cotton mill.

Unless otherwise stated all structures were formed from handmade bricks (0.23m by 0.11m by 0.7m) and lime mortar.

The following summary presents an overview of the remains encountered during the excavation. Each of the features, deposits and structures encountered during the investigation has been ascribed to one of five general phases of activity. However, several sub-phases have been identified for the development of the Parker Street Mill. This phasing is based on the site matrix and assessment of the artefactual evidence.

Phase 1: Natural deposits;

Phase 2: Medieval/Post-medieval activity;

Phase 3: Early 19th-century activity;

Phase 4: Late 19th-century activity;

Phase 5: Modern activity;

4.2 Area A

4.2.1 Overview

Area A was sub-rectangular in plan measuring 47m northeast-southwest by 18m-28m north-west/south-east. The remains of a large 20th-century rubber works had truncated and removed almost all previous archaeological activity in the area. A generic context number [631] has been assigned to the structures that were associated with the rubber works, which mostly comprised concrete and modern red brick walls. During the excavation, structures associated with the rubber works were left *in-situ* as they were cut to a greater depth than the uppermost geological deposits.

Evidence of earlier archaeological activity survived in two discrete parts of the excavation trench. A discrete deposit of pre-industrial plough soil (630) survived in the southern part of Area A, whilst the rear aspect of (originally late-18th century) housing fronting onto Dantzic Street was exposed in the north-west limit of excavation (Figures 13 and 14).

4.2.2 Phase 1: Geology

In total, two geological drift deposits were discovered within Area A. Both had been truncated by the 20th-century rubber works [631]. A drift clay deposit (614) was identified in the extreme east and south-west part of the trench. The natural deposits in the north-west part of the trench were formed of alluvial sand. The depth of the natural geology varied between the north-west and eastern extent of the trench by up to 2.6m. This was in part affected by the depth of the rubber works foundation in the north-west part of the trench. However, it also likely reflects the natural topography of the site, which falls c.1.4m in height from the south-east to the north-west, towards the bank of the River Irk. The rubber works had terraced this slope to create flat (concrete-laid) working floor areas.

4.2.3 Phase 2: Medieval/Post-Medieval

A series of natural geological layers were identified in the southern part of the excavation trench, overlain by a potential layer of medieval plough-soil. A friable and loose, light brown sand (615) was exposed beneath drift clay (614). Layer (615) measured a maximum depth of 1.1m. Layer (614) comprised a firm plastic light yellow/brown clay with a maximum depth of 0.15m. Layers (615) and (614) represented natural geological layers and had both been cut by the rubber works [631].

Layer (630) survived as an isolated deposit, overlying drift clay (614). In plan, the layer measured 2.2m north/south by 1.6m east/west. It consisted of light-mid grey/brown, friable, sandy silt with very occasional small sub-rounded stone inclusions. This layer is likely to have represented the remains of medieval/post-medieval plough-soil measuring 0.15m deep. The layer produced medieval pottery.

Early mapping of the area (Green 1794; Figure 3) shows the majority of Area's A and B as a single large open field still devoted to agricultural concerns. In 1794 it was owned by John Carill Worsley of Platt Hall in Rusholme and had been in the ownership of the Worsley family since at least 1587 (Roberts, 1983 p.4).

The sherds of medieval pottery recovered from plough-soil were probably re-deposited here either as a rubbish spread or through manuring and yield evidence of usage from the 13th century onwards.

4.2.4 Phase 3: Early 19th Century

Archaeological remains associated with this phase of activity relate to the development of the site shown on the available series of early 19th-century maps (Figures 4-6). Structures associated with this phase were constructed using handmade bricks and lime mortar.

A north-east/south-west aligned range of structures were exposed in the north-west limit of excavation (Plates 28-30; Figures 13-4 and 16). All these structures extended beyond the north-west edge of the excavation area and had been truncated to the south-east some by the 20th-century rubber works.

Running north-west/south-east were the remains of passageway 507 (Plate 30). The passageway was constructed by square flagstones (average size 50cm by 48cm by 8cm), which abutted and were flanked to the south-west and north-east by two handmade brick walls 629. The passageway measured 1.5m long before it was truncated to the south-east. The internal width of the passageway measured 1.12m. The flagstone surface lay 0.55m beneath a distinctive mixed deposit of dark grey clinker and light-mid brown, fine, mortar rich clayey

silt, which contained a very high percentage (c. 80%) of stoneware bottles. The flagstones had been laid above a 0.16m deep mixed levelling layer, which directly overlay natural (614).

Walls 629 demarcated the passageway 507 to the north-east and south-west. The walls extended c. 1.2m further to the south-east than the surface of the passage, eventually being truncated by the rubber works. Each wall was one brick wide (or 0.24m) and survived up to 0.65m high with a single brick wide foundation step. The walls were built above the natural geology (614).

A series of truncated brick walls lay to the south-west of the passageway. Wall 506 ran parallel to wall 629, aligned north-west/south-east, and survived up to 0.56m high. The wall was one brick wide but had been truncated to the north-west leaving a single skin of bricks. The rubber works [631] truncated the south-east extent of the wall.

Running north-west/south-east were the remains of wall 505. This wall was one and a half bricks wide and survived up to 0.56m high. Wall 505 lay beneath pathway 503 and abutted the north-east side of wall 502. Rubber works [631] truncated the wall to the south-east.

Abutting wall 505, were the remains of a single skin wall 502. Wall 502 was aligned broadly north-east/south-west. The wall also lay beneath the pathway 503 and had been truncated to the south-east and south-west by the rubber works. The wall survived up to a single course high (or 0.8m) and laid above a 0.5m deep mixed deposit of mid-dark grey/brown silty clay. This layer directly overlay the natural geology (614).

Pathway 503 was aligned north-west/south-east, overlying walls 502 and 503. The pathway comprised rectangular stone flags (average size 68cm by 40cm by 8cm), which was flanked to the south-west and north-east by two header-laid walls. The pathway had an external width of 0.85m and an internal width of 0.45m. It measured 0.86m long before it was truncated to the south-east by [631].

4.2.5 Phase 4/5: Late 19th/20th Century

The excavations within Area A necessitated the large-scale removal of substantial 20th century industrial foundations, stanchions, tanks, floor levels and walls associated with a large rubber works [631], which was built c. 1908 (Figure 11).

A large 'L'-shaped chimney base and associated stand was exposed towards the east of the site, measuring 17m east/west by 13.5m north/south (Plate 27). Many of the surviving bricks were stamped 'Ruabon' and were made at the very large Welsh brickworks 'Dennis Ruabon Ltd'.

4.3 Area B

4.3.1 Overview

Area B lay to the south-west of Area A comprising an 'L'-shaped trench that measured 50m north-east/south-west by 40m north-west/south-east (Figure 2 and 13). Area B had not been substantially truncated by 20th-century activities therefore, archaeological below-ground remains survived in good condition.

4.3.2 Phase 1: Geology

Red sandstone bedrock (635) was excavated at a depth of 3m beneath wall 558. The bedrock was only identified within the vicinity of an early 19th-century school [552]. No relationships with any drift deposits were observed.

A similar series of drift deposits were identified in Area B. Like Area A, firm light yellow/brown clay (614) was identified at a maximum depth of 0.12m (Plate 11). Clay (614) had been mostly removed during initial machining of the site due to its depth. Layer (614) overlay layers (615) and (616).

Layer (615) measured a maximum depth of 0.25m. This layer was exposed beneath (583), (614), and above (616).

A banded deposit of water-rolled pebbles and gravels (616) was exposed beneath (615) measuring 0.45m deep. This layer was exposed below (615) and (583), and above (627).

Very fine, light brown, friable sand with a depth of >0.6m was excavated below layer (616).

4.3.3 Phase 2: Medieval/Post-Medieval

A discrete deposit (583) was excavated to the west of the Parker Street Mill structure (Plates 2 and 11). In plan, the layer measured 4.9m north-west/south-east by 9.15m north-east/south-west. Layer (583) comprised light-mid grey/brown, friable, sandy silt with very occasional small sub-rounded stone inclusions and likely represented plough soil. This layer (583) overlay natural deposits (614), (615) and (616) and had a maximum depth of 0.45m, and an average depth of 0.22m. A total of three sherds of medieval pottery were recovered from the plough soil (see Appendix 3 below).

Early mapping of the area (Green 1794; Figure 3) shows the majority of both Area A and B as a single large open field still devoted to agricultural concerns. In 1794 it was owned by John Carill Worsley of Platt Hall in Rusholme and had been in the ownership of the Worsley family since at least 1587 (Roberts, 1983 p.4).

The sherds of medieval pottery recovered from plough-soil (583) were probably re-deposited here either as a rubbish spread or through manuring and yield evidence of usage from the 13th century onwards.

Plough soil layer (630), also exposed in Area A, had been cut by pier bases [613] and [642], mill walls 621 and 618, and drains associated with rubber works 617.

4.3.4 Phase 3: Early 19th Century

Archaeological remains associated with this phase of activity relate to the development of the site shown on the available series of early 19th-century maps (Figures 4-6). Structures associated with this phase were constructed using handmade bricks and lime mortar.

Back-to-back workers' housing c. 1820-1824 (Figure 19): a rectangular block of buildings aligned north-east/south-west first appears on Swire's plan of 1824 (Figure 5). Detail of the individual buildings is first shown on Bancks' and Co's plan of 1831 (Figure 6), showing a block of twelve back-to-back dwellings situated between Ashley Lane and Back Ashley Lane. A range of cellars excavated in the south-west part of the trench were associated with the early 19th-century housing shown on Swire and Bancks' maps (Figure 19). The full footprint of five rear back-to-back properties was exposed together with the partial footprint of a back-to-back cellar fronting Ashley Lane (Cellar I, which lay to the north-west of Cellar B). The entire plot of

back-to-back cellars along the Ashley Lane frontage could not be fully excavated due to health and safety requirements. Each cellar has been labelled alphabetically A-E from south-west to north-east.

The row of properties was bounded to the south-east by one brick wide external wall 525. Wall 525 was aligned north-east/south-west and ran the entire length of the excavated row of houses, continuing beyond the south-west limit of excavation. In addition, a single skin internal partition wall 526 ran through the centre of the houses, dividing the front and rear back-to-back dwellings. This wall was aligned north-east/south-west and had been truncated in several places along its projected course. Backfill (511) was 2.4m deep and had been used to backfill the cellars. Infill deposit (511) consisted of very mixed mid-dark grey, sandy silt with frequent mortar, glass, pottery, and stone inclusions. Rather unusually, two small fragments from separate gravestones were discovered within (511). Both appeared to be of 20th-century date.

Several phases of development were identified within the cellars remains, which reflect the longevity and conversion of the buildings into through houses (shown on historic maps from 1824-1922).

Cellar A [512]: consisted of a sub-square room, located in the south-west part of the excavation trench. Walls 525 to the south-east, 527 to the north-east, 526 to the north-west, and 532 to the south-west demarcated the footprint of the property (Plates 15-6 and 19). In plan, the room measured 4.2m north-west/south-east by 3.55m north-east/south-west. The surface of the room was paved by a mixture of flagstones, clay tiles (0.22m by 0.22m by 0.05m thick), and broken handmade bricks 520. The floor surface was exposed at a depth of 1.8m from the upper surviving course of the property.

Wall 532 lay within the south-west limit of excavation and as a result was only partially exposed. The wall was aligned north-west/south-east measuring 4.55m long and 0.42m. It was also clear that the wall was keyed into wall 526 and 525 implying that the walls were contemporary. It is likely that this wall was reinforced when the properties were converted into through house, first shown on the Ordnance Survey plan of 1849 (Figure 7).

Single skin walls 526 and 527 were both internal party walls. Wall 526 divided the front and rear back-to-back properties, whilst wall 527 formed a boundary between the neighbouring property, located to the north-east.

Access into the cellar was granted via a staircase 544 situated along Back Ashley Lane. The staircase was built to the south-east of wall 525 and was bounded by one brick wide walls. In plan, the stairwell was rectangular, aligned north-east/south-west, and consisted of a flight of five steps. Each step comprised a stone flag tread laid on top of two courses of handmade bricks. The original cellar entrance had been rebuilt and blocked-up with reused hand-made bricks and grey mortar.

A flagstone throughway was partially exposed during the works, which led from Cellar A into an unexcavated cellar which lay to the south-west. The throughway truncated wall 526, and seemingly connected the two cellars.

Cellar B [513]: in plan, cellar B was sub-square measuring 4.5m north-west/south-east by 3.55m north-east/south-west. Walls 525 to the south-east, 528 to the north-east, 526 to the north-west, and 527 to the south-west demarcated the footprint of the property. The floor surface 521 comprised flagstones (largest 0.85m by 0.68m), together with a mixture of full and

half handmade bricks. Surface 521 was exposed at a depth of 1.85m from the uppermost surviving course of the property (Plates 15 and 16).

Single skin wall 528 formed an internal partition wall between cellar B and cellar C that was located to the north-east. Wall 528 was laid stretcher bond and survived up to 1.45m high. The wall abutted wall 525 to the south-east and was tied into with wall 526 to the north-west. The wall survived into poor condition and had bowed to the south of its original line.

In total, two original brick lined light-wells 539 had been set within external wall 525. Both original light-wells were 1m wide, 0.75m deep and had a 0.8m gap between them. Each light-well had undergone some modifications during a later phase. The southernmost light-well was later divided by a single skin wall, whilst the northernmost light-well had been rebuilt to include a re-used stone lintel (1.1m long by 45cm wide by 25cm deep) that formed a step, potentially representing the remains of a windowsill.

Cellar C [514]: measured 4.5m north-west/south-east by 3.55m north-east/south-west. Walls 525 to the south-east, 529 to the north-east, 526 to the north-west, and 528 to the south-west demarcated the footprint of the property. The surface of the room was paved by a mixture of full and half handmade bricks 522. Surface 522 was exposed at a depth of 1.9m from the upper surviving course of the property (Plate 18).

Single skin wall 529 was laid stretcher bond and survived up to 1.2m high. The wall 529 had been remodelled on the south-east side of a fireplace setting for Cellar D 535. The remodelled section of wall abutted wall 525, whilst the original section of wall was keyed into wall 526.

A fireplace setting 534 was incorporated within the construction of wall 528. The fireplace structure consisted of two brick buttresses that protruded 0.15m north-east from wall 528. The buttresses were situated 0.85m apart, presumably to form the fireplace surround or cheeks. Fireplace 534 was positioned in the centre of the wall.

In total, two brick lined light-wells 540 were set within wall 525. Both light-wells measured 1m wide and 0.75m deep. The light-wells were situated 0.8m apart and were of a similar construction to those excavated in cellar B.

Cellar D [515]: walls 525 to the south-east, 530 to the north-east, 526 to the north-west, and 529 to the south-west demarcated the footprint of cellar D. The floor space within cellar D measured 4.6m north-west/south-east by 3.55m north-east/south-west.

Other than four square red tiles 523 (each measuring 0.22m by 0.22m by 0.05m thick), the floor surface within the cellar had been removed. The tiles had been laid above a 0.11m deep levelling layer (545) of dark grey, friable, sandy silt with glass, shell, and coke inclusions. The tiles were excavated at a depth of 1.94m below the upper surviving course of the property. The levelling layer (545) overlay a light yellow/brown compacted clay (546) with frequent brick rubble inclusions. Yellow/brown clay (546) measured 0.05m and was situated above a friable light-mid red sand (547).

Single skin wall 530 was laid stretcher bond and survived up to 0.46m high. This wall formed the north-east boundary between neighbouring cellars D and E.

A fireplace setting 535 was incorporated into the construction of wall 529. The fireplace comprised two buttresses that protruded 0.15m to the north-east of wall 529, creating a recess for a firebox. The buttresses were situated 0.8m apart. Fireplace 535 was identical in construction to fireplace 534.

Like cellars B and C, two brick lined light-wells 541 were set within wall 525. The light-wells were identical to those excavated in the neighbouring properties measuring of 1m wide and 0.75m deep. A 0.8m gap was situated between the two light-wells.

Cellar E [516]: wall 525 to the south-east, wall 531 to the north-east, wall 526 to the north-west, and wall 530 to south-west demarcated the footprint of cellar E (Plate 17). In plan, the room measured 4.3m north-west/south-east by 3.55m north-east/south-west. Floor surface 524 paved the room and was exposed at a depth of 1.95m below the upper surviving course of the property. The surface consisted of a mixture of full and half handmade bricks together with flagstones (measuring a maximum of 0.88m by 0.3m).

External wall 531 demarcated the north-east end wall of the range of back-to-backs. The wall was 4.5m long, one and a half bricks wide (or 0.24m), and 1.75m high.

A gap measuring 0.88m was visible within wall 526, potentially representing the remains of a doorway. It is possible that a doorway was inserted within party wall 526 when the back-to-backs were converted into through-houses in the mid-19th century (Figure 7).

The remains of a possible fireplace 536 were built within wall 530. The fireplace was demarcated by two brick buttresses, protruding 0.15m from wall 530. The buttresses were located 0.8m apart. Fireplace 536 was positioned in the centre of the wall, replicating the same position as the fireplaces found in cellars C and D.

Built within wall 525 were the remains of two brick lined light-wells 542. These were identical to the light-wells exposed within cellars B-D. Both light-wells were 1m wide, 0.75m deep and located 0.8m apart.

Cellar I [638]: walls 526 to the south-east, wall 533 to the north-east, and wall 527 to the south-west demarcated the footprint of cellar I. This cellar was only partially exposed during the excavation and was situated immediately to the north-west of cellar B.

An intact mixed floor surface 639 paved the surface of the room, which was exposed at a depth of 1.84m. The floor surface comprised flagstones (maximum size 0.6m by 0.5m) and a mixture of broken and whole handmade bricks.

An additional wall 537 was added to the north-east elevation of wall 527. The wall measured 0.98m long and was one and a half bricks wide. The wall was only partially exposed and its function was unclear.

A similar wall 538 was added along the south-west elevation of wall 533. This wall had an exposed length of 0.98m and 0.6m wide. The function of the wall was unclear.

A potential fireplace 533 was situated to the south of wall 538. The possible fireplace was situated in the north-east corner of the room, rather than in a central position. Fireplace 533 measured 0.98m with a 0.25m deep recess.

Double depth terraced properties Ashley Lane (Figure 20): a second range of buildings were targeted to the north-east of the back-to-backs comprising four terraced properties along Ashley Lane (Figure 15 and 20). These properties were likely domestic in function except for the Dyer's Arms public house, which was the end-of-terrace property situated at the junction with Bromley Street. This property lay beyond the north-east limit of excavation. The buildings are first shown on Swire's map of 1824 (Figure 5) but are captured in detail on Bancks' and Co's plan of 1831 (Figure 6).

Cellar F [549]: was situated to the south-west of cellar G and was demarcated by one brick wide walls 559 and a one and a half brick wide wall 566 to the north-east (Plates 20-2). In plan, the room was sub-square measuring 4.62m north-west/south-east by 3.48m north-east/south-west.

An intact floor surface 561 was excavated at a depth of 1.79m below the upper surviving course of the property. The surface consisted of flagstones (maximum size 0.86m by 0.6m), and a mixture of full and half handmade bricks. A single flagstone had a 0.12m² and 0.05m deep cut within its centre indicating that it had been re-used from an earlier structure. The surface continued beneath a potential boiler setting (561).

Wall 566 formed a partition between cellar F and cellar G, located to the north-east. Wall 549 was tied into wall 566, implying that the walls were contemporary.

A brick light-well 560 (brick size 23cm by 11cm by 7cm) was set within the south-west wall 559. The light-well measured 1.22m wide and 0.58m deep, creating a recess within the wall. A rectangular flagstone had been set within the base of 560 and probably functioned as a windowsill.

A wash-boiler (or 'set-pot') 562 had been built against the south-east wall 559. The boiler setting 562 protruded into the room and was set within an earlier fireplace. The boiler measured 0.8m north-west/south-east by 0.76m north-east/south-west and was 0.68m high. The boiler contained its original iron bowl, which had a diameter of 0.51m. The original fireplace, which had been partially masked by the boiler, consisted of two brick buttresses or 'cheeks' set 0.96m apart. The fireplace cheeks were laid stretcher bond each measuring one brick wide (or 0.24m) and 0.4m deep wide. An internal single skin wall had been inserted within the earlier fireplace, dividing the chimney in half. The boiler was built in front of the south-west half of the chimney breast using a mixture of handmade bricks. Repair work was undertaken in machine made bricks with grey mortar, indicative of a post 1860s date (Phase 4). A rectangular firebox was situated at the base of the structure. This was capped by a metal grate (Plate 21). In addition, a thin flat iron rail had been set between the internal single skin wall and the south-west fireplace cheek. The iron rail was located 1.2m above the floor level and overlay the bowl of the wash-boiler.

The north-east half of the fireplace had undergone few modifications and was represented by the original projection of the chimney breast. An iron rail had been set at a height of 0.23m above floor level. This may have marked the top of a firebox and was set between the north-east fireplace cheek and the internal dividing wall, built within the chimney.

A doorway 577 was positioned in the centre of the north-east wall 559. The doorway was only partially exposed, although two square faced stone blocks were visible on either side of the doorway, possibly representing the remains of a doorjamb. The doorway measured 0.84m wide.

The remains of an internal stairwell 563 was excavated at the junction of walls 559 and 566. Staircase 563 was aligned north-west/south-east and ran parallel to wall 566. The staircase was only partially intact and had been damaged prior to the excavation. The south-west wall of the staircase measured 1.45m long and was one brick wide (or 0.24m). Presumably, the wall of the staircase would have originally measured c. 2.7m. The remnants of four rectangular flagstone treads, each measuring c. 0.78m by 0.3m were laid above two courses of bricks. The steps had been built into wall 566.

Cellar G [550]: wall 566 demarcated the partially exposed footprint of the cellar, which comprised two rooms divided by single skin wall 574. The south-east cellar room was fully excavated, measuring 4.5m north-west/south-east by 3.95m north-east/south-west (Plate 23). The north-west room was partially exposed and measured 3.95m long by 1.7m. The rooms were connected by a doorway located in the centre of wall 574. The footprint of the property continued beyond the north-west limit of excavation and was probably associated with a double-depth terraced property situated along Ashley Lane.

Wall 566 was one brick wide to the south-east and the north-east. The south-west wall was slightly wider, comprising a one and a half brick wide wall, which was situated between cellars G and F.

Flagstones 569 (maximum size 1.02m by 0.84m) paved the room throughout. The floor surface was exposed at depth of 2.03m.

A large fireplace 568 was built within the centre of the south-west wall. It measured 1.6m wide, and 1.9m high. The fireplace opening measured 1m wide and 1.3m high. A two-course arch laid header-on-edge was positioned above the fireplace opening. This was designed to spread the load above the opening of the fireplace across and down to the sides of the fireplace firebox. The fireplace opening was flanked on either side by vertical thin rectangular flagstones. Each stone measured 1m long, 0.22m wide, and 0.02m thick. A sub-rectangular stone had originally capped the external stones and formed a stone clad fire surround. This measured 1.44m long, 0.34m wide, and 0.02m thick. Unfortunately, the top stone collapsed upon excavation.

A staircase 570 was located to the rear of Cellar G orientated north-west/south-east, providing access to the cellar from the rear of the property. The staircase comprised a flight of three rectangular flagstone treads (each measuring 0.92m by 0.16m by 0.06m), which were supported by two courses of bricks. A two-brick wide door jamb lay over the uppermost step. The staircase led to a sunken 0.75m wide coal store or corridor. The coal store/corridor was flanked to the north-east and south-west by single skin walls. A coal chute 573 was located within the corridor, built in the upper surviving course of the north-east single skin wall. The coal chute was built using bricks with a flagstone chute. The passage had later been filled with a mixed deposit of mid-dark grey, clayey silt (571) with a later flagstone surface 572 laid above.

Building H [548]: the south-west end-of-terrace house and the neighbouring property to the north-east had been heavily truncated by modern activity, presumably during their initial demolition. To investigate the properties further, a sondage was excavated, removing a late 19th century extension of Ashley Lane School 552 and a mid-20th century road surface 501.

The sondage was excavated to a depth of 1.85m below the modern ground level, revealing the remains of wall 553. Wall 553 ran along a north-east/south-west alignment, but was orientated slightly further north than the structures pertaining to cellar F and G. The wall measured 2.65m long and was one brick wide (or 0.24m). A second wall ran parallel to wall 553, abutting the north-west elevation. This wall was laid header bond and was one brick wide. Both walls were constructed of handmade bricks and lime mortar. Although, the walls were constructed using the same materials, it is likely that the north-west wall was potentially a slightly later addition, built to reinforce the original wall. It is unclear whether wall 553 was associated with the terraced properties fronting Ashley Lane or the school. Modern structure 555 had removed most of the building.

Ashley Lane School [552] (Figure 20): a sub-square structure 552 demarcated the footprint of the school, which was constructed in 1827 and first appears on Bancks' and Co's plan of 1831 (Figure 6). The north-east and south-west walls of the structure were two and a half bricks wide (or 0.7m), whilst the south-east and north-west walls were two bricks wide. All four walls were keyed into each other, implying that they were all contemporary. The footprint of the building measured 16.5m by 12m.

Fragments of two partition walls 557 were exposed within the south-west portion of the building. The walls ran parallel along a north-east/south-west alignment. Each wall measured 4.8m long, one brick wide and was one course high. The south-west end of the walls abutted the north-east face of wall 556. The walls were situated 5.95m apart.

A sondage was excavated against the north-east face of the south-west wall 556. The sondage revealed that the surface of the school lay above 3m of compacted mixed levelling layers (558). Layer (558) consisted of dark grey, clayey silt with frequent brick rubble, mortar, glass, slag, and re-deposited sand inclusions. This layer overlay the natural red sandstone bedrock (635). Structure 556 cut through layer (558), whilst internal walls 557 were laid directly above it.

The sondage also exposed the foundations of wall 556, which were excavated at a depth of 3m. The base of the wall comprised a one brick deep foundation step of header bricks. The wall overlay bedrock (635).

Parker Street Mill (Figure 18): most of an early 19th century mill site was uncovered during the excavation (Plates 1-2). The original mill building underwent substantial changes in both design and function during its lifespan before finally being demolished to make way for the expansion of the rubber works in c. 1925. Throughout the mills existence it had various functions, originally operating as a cotton mill, before it gave way to silk, and eventually became a multi-occupancy emporium housing glass, nail, tubing, and cotton manufacturers amongst other firms. The mills change of ownership and usage, led to several name changes. Originally, the mill was named Parker's Mill, then became Irk Town Silk Mill, followed by T. Holcroft's Silk Mill, and finally Parker Street Mills.

It should be noted that the north-eastern extent of the mill lay outside the area of excavation. The south-western wall of the mill 634 was also not fully exposed during the works due to the presence of a live electricity service, which ran parallel to the wall. A generic context number of [519] has been assigned to the mill building.

In total, five sub-phases of development were identified during the excavation of the mill site. These refer to the expansion and addition of several key elements that were exposed at the mill (Figures 21-5).

Potential phase one c. 1820-1823 (Figure 21): the original mill was rectangular in plan, aligned north-east/south-west. Externally, the mill building measured 17.68m (58 feet) by 10.98m (36 feet). Internally the mill measured 16.46m (54 feet) north-east/south-west by 9.8m (32 feet) north-west/south-east. External walls 621 to the north-east, 633 to the south-east, 634 to the south-west, and 618 to the north-west demarcated the footprint of the structure.

Wall 618 was orientated north-east/south-west, measuring 16.5m long, 0.56m wide, and 1.02m high (Plates 9 and 10). Towards the base of the wall a reversed arch was incorporated within the build, which was designed to spread the weight of the building. In total, two arches were exposed within the construction of the wall with a 1m wide gap between each arch. Each

arch measured 1.7-8m wide by 0.5m deep and was formed from header bricks with a mixture of headers and stretchers filling the centre of the arch. Both arches lay directly above a two-three course deep stepped foundation of headers, which protruded 0.06m from the wall face. The wall was keyed into wall 621. The wall lay to the north of the later rubber works [631] and had been covered with a mixed layer of made ground. The foundation cut for wall 618 cut through natural deposits (614), (615) and (616).

Running north-west/south-east were the remains of wall 621 (Plates 10-1). Wall 621 measured 3.2m long and 0.56m wide. The remainder of the wall length (measuring 7.78m) had been robbed-out to a depth of 1.7m. The wall was observed within a sondage, which had been placed at the junction of wall 618 and a north/south linear fill (622). The fill comprised light brown, coarse sandy lime mortar with very frequent brick rubble inclusions, which filled the potential robber cut of wall 621. Fill (622) lay over a mixed mid-brown/grey, silty clay (628) with pockets of red sand. Fill (628) directly overlay 621 and was also presumably associated with the robbing of the wall. Wall 621 appeared to have a ratio of stretcher to header of 6:1. Wall 621 cut (614), (615), (616) and (627).

A small section of wall 625 measuring 1.5m long was exposed to the south-east of wall 621, along the exact same projection. It was unclear whether the wall represented a surviving section of wall 621 or later remodelling. Wall 625 appeared to abut the surviving remnants of wall 621.

Wall 633 was orientated north-east/south-west and measured 16.5m long, 0.56m wide, and 0.4m high. Towards the exposed base of the wall a reversed arch was incorporated within the build, which was designed to spread the weight of the building. A single arch was exposed within wall 633 measuring 1.7m wide by 0.5m deep. The arch was formed from header bricks with a mixture of headers and stretchers filling the centre of the arch. The construction of this arch was identical to those found within wall 618. The wall 633 had been truncated in several sections along its length to incorporate the Phase 4 re-build 603. The longest surviving section of the original wall measured 3.1m.

Wall 634 was orientated north-west/south-east and measured 11m long, 0.56m wide and 1.2m high.

Several other structural elements are also potentially contemporary with the first phase of construction including pier bases, a chimney and flue, and drains (Figure 21). In total, five sub-square pier bases ran through roughly the centre of the original mill building orientated north-east/south-west (Plate 2). The bases were regularly spaced with a 1.9m-2m gap between each of the piers. Some of the brick piers varied in size measuring between c. 0.7-9m². The fabric of the piers comprised a tightly mortared base of bricks capped by a square flagstone. The flagstones lay off-centre and varied in size between 0.45-0.6m². In total, three of the flagstones had remnants of iron fixtures adhered to their upper surface. Each pier base had been heavily (and seemingly repeatedly) mortared with light grey sandy mortar. Later repairs were indicated by the presence of indurated black mortar, concrete, and occasional machine-made bricks, indicative of a post-1860s date. The pier bases had a depth of 0.32m, cutting through natural geological layers (614), (615), and plough soil (583). The piers formed a total of six north-east/south-west bays within the mill.

A circular chimney base 585 was excavated to the north-east of wall 633 (Plates 3-4). The fabric of the chimney comprised a circular brick stack with a two-three course width bricks and an external diameter of 1.58m (5 feet 2 inches). Many of the internal facing bricks were partly

vitrified and all were bonded by lime mortar. In plan, the interior of the chimney base was slightly sub-oval. The north-east/south-west axis measured an internal diameter of 1.1m (3 feet 7 inches). The north-west/south-east axis had an internal diameter of 0.92m (3 feet). The chimney survived up to 1.5m deep and was filled by (587) and (588). Fill (587) consisted of a very dark grey/brown, compacted clay with frequent pockets of light pink/red clay, mica and brick rubble. The fill measured 0.16m thick and overlay (588). Fill (588) comprised compacted light brown, sandy silt with regular small stone, mortar and brick rubble measured 0.13m thick.

In total two flues extended into chimney 585. Flue 589 was contemporary with the construction of the chimney and is likely to have represented the original flue. This flue had been blocked and replaced by a later flue 584, extending along a north-west/southeast alignment.

Chimney flue 589 (Plates 5 and 6) was bonded with 585 to the north-east and was orientated broadly north/south with a slight curve 1.4m north of its junction with the chimney base. The flue 589 had an internal width of 0.2m, which progressively widened as it extended northwards away from the junction with the chimney. Its widest point measured 0.7m, where it was truncated by a probable drain cut [598]. The fabric of the flue comprised two parallel brick walls constructed using a mixture of handmade bricks 590 and light-yellow fire bricks 591. The lower courses of the western wall of the flue (up to 1.4m northeast of the chimney) were primarily built of handmade bricks and these had been heavily vitrified, whereas the opposing eastern wall was built of fire brick. At 1.4m north-east of the chimney, the build of these walls reversed, with the eastern wall built of handmade bricks and the western wall built using fire bricks. From this point, the western wall of the flue abutted and ran contiguous with mill wall 636. Both walls had a one brick wide foundation step at their bases. A vertical inset iron fixture had been set within a 0.15m deep recess in the eastern wall formed by a protrusion of bullnose headed fire bricks. This fixture had originally formed part of an adjustable gate-lever to control airflow and was located 1.4m to the north-east of the chimney. The eastern wall had cut the brick flooring of the flue. The base of the flue comprised tightly bonded bricks excavated at a depth of 1.4m from the top of the flue. Flue 589 lay beneath concrete 592 and stair turret 593. A mixed mid-brown/grey clay silt (595) with frequent red brick fragments and mortar filled the interior of the flue. A later wall blocked the junction between the chimney and flue, implying that the flue went out of use.

Possible drain 620 was represented by a sub-square deposit of very dark grey coke and slag. In plan, the deposit measured 2.2m east/west by 2.6m north/south. Originally, the drain may have abutted wall 621 or alternatively may have been truncated by the wall. The deposit measured 0.22m deep.

Potential phase two c.1823-1830 (Figure 22): of the mill denotes a north-eastern expansion of the building, which necessitated the construction of two new walls (619 and 636), and the removal of the earlier external wall 621. The recorded dimensions of this later build, within the excavation area, measured 23.9m north-east/south-west by 10.98m east/west. Based upon a partially visible return for the north-eastern exterior wall of the mill, the estimated total external length of the new north-east/south-west footprint of the mill was 25.9m (85 feet) with an internal length of 24.7m (81 feet). The mill was also expanded to the south-east at this time, but this lay outside the area of excavation.

In total, three pier bases 642 were excavated within the extension of the mill (Plate 2). The pier bases followed the same alignment as the earlier pier bases situated to the south-west. The later phase of pier bases was of similar construction to the bases excavated within the original mill building. They consisted of a square handmade brick base measuring c. 0.6-

0.9m², capped by a sub-square flagstone. Occasional machine-made bricks were evident within some of the pier bases implying that they had undergone some later repair work (presumably, taking place in the second half of the 19th century). The flagstones lay off-centre and varied in size between 0.45-0.6m². In total, two flags had remnants of iron fixtures adhered to their upper surface. Each pier base had been repeatedly repointed with a mixture of light grey sandy mortar, black mortar, and concrete implying that the pier bases were maintained throughout 19th- and 20th centuries. The pier bases 642 added an additional three north-east/south-west bays to the mill, totalling nine. The construction of the piers 642 cut (583), (614), (615) and the backfilling (622) of earlier wall 621.

Wall 619 butted up to earlier wall 618, following the same north-east/south-west alignment. The wall measured 2.4m long, 0.56m wide, and was 2.05m high. The wall was laid using a mixture of stretcher and header bond (stretcher to header ratio 12:1). This wall demarcated the south-east external wall of the extension.

The north-west external wall of the extension was marked by 636. This wall abutted earlier wall 625, following the same north-east/south-west alignment. Wall 636 measured 6.2m long, 0.56m wide, and was 1.45m high.

Potential phase three c. 1830-1843 (Figure 23): a half-circular brick structure represented the remains of a stair-turret 593, and abutted mill walls 625 and 636 (Plates 3, 4 and 7). The stair block was situated on the north-east side of the mill and overlay the chimney base 585 and flue 589. The external footprint of the stair-turret measured 4.42m wide (14 feet 6 inches) along a north-east/south-west alignment. Internally, it measured 4.04m by 4.04m (13 feet 3 inches). The fabric of the stair-turret comprised handmade bricks laid stretcher bond. The surviving walls of the structure measured 1.28m high, which cut through the natural geology. A flue 584 passed through the south-east section of the wall that demarcated stair-turret 593. Photographs taken of the mill show that the external stair tower wrapped around the circular chimney (Plate 8).

A deposit (602) lay within the stair-turret, abutting chimney 585, flue 589, and mill walls 625 and 636. The deposit was cut by a later flue 584, and lay under concrete (592). Deposit (602) consisted of very mixed fine, compacted light-mid brown, silty clay with frequent mortar and brick rubble inclusions, which measured 1.28m thick (Plate 7).

A French drain 609 was situated to the south-west of 593. The drain curved from beneath wall 624/625 aligned north-west/south-east before it curved again to form a north-east/south-west orientation. The drain was demarcated on either side by two single skin walls, capped with flagstones, and had a brick base. It measured 3.35m long, 0.58m wide, and appeared to respect the construction of stair-turret 593 indicating that the structures may have been contemporary (Plate 13). The drain may have been associated with a sump 607, situated directly to the south-west of the drain, however, the drain had been truncated in this part of the trench.

Drain Sump 607 comprised a U-shaped brick structure, which abutted mill walls 603 and 633. The sump was situated on the south-east side of the mill measuring 3.1m east/west by 1.5m north/south, and was 1.25m deep.

Potential phase four c. 1843-1908 (Figure 24): this rather widely dated phase saw major developments upon the site including the re-building of the south-east mill wall 634 that contained reinforcing iron girders and a new chimney flue. In addition, repairs to the pier support bases, described above, were undertaken during this period.

Wall 603 replaced the majority of original wall 634 from the depth of the mill floor 605 upwards. The wall followed that exact same north-east/south-west projection as the earlier wall and measured 14.9m long, 0.56m wide, and 0.54m high. The fabric of the wall comprised handmade bricks and an indurated very dark grey mortar, possibly indicative of a post-1860s construction date. In total, two parallel reinforcing iron girders 604 had been set within the wall, running alongside its length (Plate 14). These girders lay 0.18m above the base of wall 603 and each measured 0.08m wide and 0.08m deep. The girders had a 0.1m gap between them.

Flagstone paving 605 partially survived against wall 603 and 618. The flagstones abutted wall 603 suggesting that they were re-laid following the construction of the wall. However, it is likely that the flagstone surface was originally laid during the first phase of construction at the mill and would have paved the entire working floor surface. Each flagstone was either sub-square or sub-rectangular in shape (averaging 1m x 0.85m x 0.04m deep). No mortar was visible between the stone paving. Several flagstones retained sub-rectangular depressions, which may have been associated with holding down machinery. The floor surface was laid above a mixed cinder rich levelling layer (606), which measured 0.42m and overlay the natural geology (614). The substantial depth and mixed nature of layer (606) may be indicative of several re-levelling phases. The concrete flooring for the rubber works 632 overlay surface 605.

Linear chimney flue 584 extended from the south-east side of chimney stack 585, aligned north-west/south-east. The construction of the flue consisted of two single skin walls and a level brick surface. The flue measured 1.82m long, but continued beyond the south-east limit of excavation. The base of the flue was situated at a depth of 0.47m from the upper surviving course of the flue. Internally, the flue measured 0.48m wide, and it externally measured 0.72m wide. A very dark red/brown, compacted, silty clay with frequent brick rubble filled the interior of the flue. A mixture of full and half brick had been used to construct the flue, which were predominantly laid stretcher bond with black mortar visible between the courses. The presence of black mortar indicates a post-1860s construction date for the flue. Flue 584 cut chimney 585, stair turret 593 and deposit (602), confirming that it was later than these structures. It lay beneath the concrete flooring of the 20th century rubber works.

Concrete 592 was partially revealed within stair-turret 593. The concrete comprised crushed red brick and concrete measuring 3.5m by 0.72m. The concrete abutted 593 and mill wall 636 and overlay 589 and 595.

Built within the south-east external wall of the mill were the remains of two windows 624 and 641, and a potential doorway 640 (Plate 12). Window 624 was set within wall 625 and measured 1.65m wide. The window was built using a mixture of reused handmade bricks, machine made bricks and bullnose header bricks bonded with black mortar. In total, two flagstones formed a windowsill and rested above a stepped brick arrangement.

The second window 641 was set within wall 636 and lay 4.5m to the north-east of window 624. Window 641 was identical in construction to window 624.

A potential doorway 640 was built within wall 636, presumably leading from the mill extension into the stair tower to gain access to the above floors. The doorway was marked by two rectangular flagstone steps (1.55m by 0.28m by 0.06m). The upper flagstone tread lay directly above wall 636, on top of a single course of bricks. The lower thread was laid three brick courses above the foundation step of the wall. Bullnose header bricks were utilised to round the corners on either side of the steps. The structure was bonded with black mortar.

A row of broken flagstones 642 survived beneath a single skin wall. The flagstones were sub-square and each measured c. 0.82m wide by 0.78m long. The paved area measured 8.4m long. The single skin wall, built above the flags, survived up to once course high, and measured 6.35m long. The paving was laid above a mixed mid-grey, silty sand infill and was possibly associated with 641.

Potential phase five c. 1908-1925 (Figure 25): a sub-square concrete-lined tank 611 was exposed along the north-west side of wall 603. The tank measured 1.84m north/south by 2.5m east/west. The base of the tank was exposed 0.4m deep. The tank abutted wall 603 and cut through the natural geology (614) and (615).

Drain 643 was exposed in the north-east limit of excavation. The drain consisted of an arrangement of reused handmade bricks surrounding a large ceramic pipe all mortared with a concrete and black mortar. It is likely that the drain was associated with a large rectangular cut [598] situated to the south-east.

Sub-rectangular cut [598] was aligned north-west/south-east, measuring 9m by 2.6m. The cut [598] truncated chimney flue 589 and its infill (595). The cut was filled with a mixed mid brown silt clay (599).

4.3.5 Phase 4: Late 19th Century

Ashley Lane School [552] (Figure 20): in total, two late 19th-century extensions had been constructed on the north-west side of the school. Structure 551 was a rectangular extension that was probably associated with a similar shaped building shown on the Ordnance Survey plan of 1893 (Figure 9). The extension was situated along the north-west wall 556 measuring 5.55m north-east/south-west by 2.5m north-west/south-east. The fabric of the structure comprised machine-made bricks bonded with a very dark grey indurated mortar. The walls of the structure were one brick wide and one course high.

A second potential rectangular extension 555 was also situated to the north-west of wall 556. This building was situated to the south-west of extension 551. Structure 555 measured 6.5m north-east/south-west by 3.5m north-west/south-east and was 1.8m deep. The fabric of the structure consisted of machine-made bricks, concrete, and dark grey mortar. The structure cut (576), house 548, and abutted wall 556.

Road 581 was aligned north-west/south-east and represented the remains of Parker Street. The road surface was formed from a mixture of square and rectangular stone-setts. The setts were flanked on either side by tightly abutting kerbstones which were laid end-on. The exposed area of the road measured 41m by 4.9m. Road 582 ran north-east from the centre of road 581.

Road 582 was aligned north-east/south-west and represented the remains of John Street, first appears on the Ordnance Survey plan of 1849 (Figure 7). The south-west end of the road was adjoined to Parker Street 581. The road surface comprised rectangular stone-setts (average size 0.12m by 0.05m), which were flanked on either side by tightly abutting kerbstones laid end-on. The road measured 39m by 3.75m, continuing beyond the north-east limit of excavation. Road surface 582 was of a different build to road 581.

4.3.6 Phase 5: 20th Century

A rubber works 631 took over the site of Parker Street mill in c. 1925. Most of the structure associated with the rubber works 631 was removed during the initial machine excavation of

the site. Some structures associated with the rubber works were left *in situ*, including drain sumps 617 and 608 and modern wall 610 due to their depth. Concrete floor surfaces overlay the majority of Area B, concealing earlier archaeological remains.

Road 501 was a short section of stone-sett roadway, which overlay cellar F and Building H [548] as well as infill (576). The road had a recorded length of 6.5m by 2.92m and was aligned east/west. The road surface consisted of sub-rectangular stone setts (average size 0.15m by 0.07m) and was flanked on either side by kerbstones, which were laid end-on. This section of road continued to the north-west of the excavation area but was seemingly truncated to the south-east. The road surface was removed during the excavation to reveal earlier archaeological remains. It is likely that this road was constructed post-WW2.

5. Discussion

5.1 Introduction

The archaeological excavation uncovered the very fragmentary remains related to the late 18th- and 19th-century occupation of the site, and included the vestiges of industrial and domestic buildings. Whilst the site was located beyond the periphery of the historic medieval core of Manchester, occasional pockets of plough soil dating to the medieval/post-medieval period were present, and represented the agricultural use of the site. Most of the archaeological remains in Area A had been removed during the construction of a large rubber works in the 20th century.

5.2 Medieval and Post-medieval Activity

The study area lay a short distance to the north-east of the medieval core of Manchester along a pre-17th century thoroughfare that headed in the direction of Blackley (Plate 2). The study area is first captured on Green's plan of 1787-93 (Figure 3), which shows that both Area A and B lay within a single large open field devoted to agricultural concerns. In 1794 it was owned by John Carill Worsley of Platt Hall in Rusholme and had been in the ownership of the Worsley family since at least 1587 (Roberts, 1983 p.4). Billsborough Street had been developed along the north-east edge of the site and a potential industrial building occupies the north-west corner of the open field.

Despite the remarkable levels of industrial development upon the site, remnants of the earlier pre-industrial agricultural landscape still survived, and was represented by plough soil layers (630) in Area A and (583) in Area B. In total, three sherds of medieval pottery were recovered from plough-soil (583), which had probably been re-deposited here either as a rubbish spread or through manuring and provided evidence of usage from the 13th century onwards.

5.3 Early 19th Century Activity

5.3.1 Workers' Houses

Despite the fragmentary survival of a wall stubs and truncated flagstone surfaces in the north-west limit of excavation in Area A, an interpretation can be offered for the exposed structures due to the comprehensive cartographic record for the area. Green's plan of 1787-94 is the first map to capture the site and shows an L-shaped arrangement of buildings that may have been industrial (Figure 3). Later maps show a similar arrangement of buildings however, it is unclear whether the buildings had undergone several phases of modifications, or if they had been redeveloped (Figures 4-5). Banks' plan of 1831 (Figure 6) and the Ordnance Survey plan of 1849 (Figure 7) show that the L-shaped arrangement of buildings comprised four individual properties fronting Ashley Lane, which were adjoined to the north-west of a print and dyeworks. The mapping provides no further detail of the four buildings however, it is likely that they were domestic. It is likely that the remains exposed within Area A represented the rear aspect of these properties. No below-ground archaeological remains pertaining to the print and dye works survived. This had been entirely removed during the development of the site into a rubber works during the 20th century.

The structures exposed in Area A were potentially associated with three phases of activity that took place during the early 19th century. Walls 502 and 505 represented the earliest phase

potentially associated with buildings marked on Green's plan (Figure 3). The next phase may have been the construction of a passageway 507 and flanking walls 629, which potentially relate to Bancks' plan of 1831 (Figure 6). The third phase included path 503 and probably relates to the Print and Dye works, which lay to the south-east. Wall 503 overlay walls 502 and 505, and has a slightly different alignment to the other structures. All the structural remains excavated were built using the same materials, survived in an extremely small part of the excavation trench, and had been truncated by 20th century activity. Therefore, it was difficult to ascertain the sequence of phases with certainty.

Adshead's map of 1851 lists the row of four properties as non-commercial however, archaeological evidence seems to contradict this notion. A large quantity of ginger beer bottles in production from 1850-1880 were excavated within the backfill of the remains. The assemblage was likely amassed between 1850-1890. The archaeological evidence indicates that the excavated property may have functioned as a commercial enterprise. The ground floors of properties along main thoroughfares were often converted into commercial premises, with the upper storeys remaining domestic.

The sequence of historic maps show that two rows of buildings lined Ashley Lane from 1824 (Figure 5). Later mapping shows that these buildings contained cellars, indicated by external staircases and window lights marked on the mapping (Figure 6-7). The mapping also indicates that the south-westmost row was a block of back-to-back dwellings situated on the south-east side of Ashley Lane, whilst a row of four double-depth terraced properties were situated to the north-east. In addition, an early cotton mill is clearly marked on Bancks' map however, the mill may have been established prior to Swire's map of 1824, as this shows a large square building in the location of the mill. Below-ground archaeological remains associated with the domestic dwellings and the former cotton mill survived within Area B.

In 1844 Engels described the Irk valley as a place where *'all the features of a city are lost. Single rows of houses or groups of streets stand here and there, like little villages on the naked, not even grass-grown clay soil; the houses, or rather cottages, are in bad order, never repaired, filthy, with damp unclean cellar dwellings; the lanes are neither paved, nor supplied with sewers, but harbour numerous colonies of swine penned in small sties or yards, or wandering unrestrained through the neighbourhood'*. (Engels, F 1892; Roberts 1983, 6). Similar conditions were described by social campaigner Angus Bethune Reach, who described the nearby Angel Meadow in 1869 as *'the lowest, most filthy, most unhealthy and most wicked locality in Manchester'* (ibid).

From the mid-19th century onwards, several attempts were made to improve the quality and sanitation of houses in Manchester and other industrial cities. The first enactment that sought to improve workers' houses was the Manchester Police Act of 1844, which banned the building of new back-to-back dwellings. Shortly after this legislation was passed, the Ordnance Survey plan of 1849 shows that the back-to-backs have been converted into through-houses (Figure 7). Archaeological evidence that supports the new layout of the houses was excavated in cellar E. This consisted of a later doorway that had been added into wall 526 to connect two rooms that had previously formed two separate back-to-back houses. Elsewhere in Manchester, the act was not successfully implemented, and improvements were often delayed or ignored, prompting a series of later laws. The Manchester Waterworks and Improvement Act of 1867, similarly, aimed at converting or demolishing all back-to-back housing within the city, yet many were often left as operating households until their demolition in the early/mid-20th century.

Another housing improvement act that seems to have been adhered to at the site is The Manchester Corporation New Streets Act of 1853, which aimed to close cellar dwellings. The implementation of this act is generally regarded as being unsuccessful as only 176 cellar dwellings had been closed by 1859. Archaeological evidence relating to the implementation of this act was excavated in Cellar A, which had a blocked rear external staircase 544 that previously led down into the cellar. Presumably, the blocked doorway prevented the inhabitation of the cellar as a separate dwelling. Cellars B-E did not have rear external staircases. Instead, the Ordnance Survey plan of 1849 (Figure 7) shows that these four cellars were accessed via front external staircases with two light-wells located to the rear. The excavation exposed two light-wells in each cellar that had been built within the rear external wall 525, confirming the layout shown on the 1849 map. It is not known whether the front external staircases had been blocked up as they lay beyond the north-west limit of excavation. No internal staircases were identified, although access to the ground floor could have been permitted by a timber staircase or ladder that has not survived in the archaeological record.

The south-west wall 532 of Cellar A had been knocked through to form a passage into the adjacent cellar, which lay beyond the south-west limit of excavation. Historical documents indicate that cellar A was situated at 136 Ashley Lane. In 1839, this property was occupied by Eleazer Siddy who is listed in the trade directories as a baker, shopkeeper, and flour dealer (Roberts p.17). It is recorded that by 1843 Eleazer had expanded his business into the adjacent properties, which may explain the reason for the modifications in the south-west wall, to connect the two properties. This dwelling had previously been owned by beer retailer Samuel Thorpe.

Cellars F and G represented the remains of double-depth terraced properties that lay along Ashley Lane, to the north-east of the back-to-backs. The excavation revealed part of the footprint of two properties that were in the centre of the row. The footprints of these dwellings do not alter, until the south-west end of row terraced was demolished by 1893 and may have been associated with the remains of house H (Figure 9). It is likely that these properties were built by 1813 (Figure 4) to accommodate middle-class households. By the 1830's the population of Manchester had grown dramatically, and there was increasing pressure for more houses to be built. As a result, private developers began to cram as many houses as possible into small plots of land, culminating with the development of back-to-back dwellings. This also led to larger houses, represented by cellars F and G, becoming multiple-occupancy dwellings, or lodging houses. The cellars of these properties could be accessed by an external front staircase allowing the cellar to be inhabited as a separate dwelling if required. Although not originally designed as such, it is possible that cellars F and G were cellar dwellings. Both cellars included substantial fireplaces indicating that they may have originally functioned as servant's quarters.

After house H had been demolished, a cellar light 560 was built into the south-west wall 559 of cellar F. In addition, a pot-boiler was excavated within the room, indicating that it had been substantially modified potentially to accommodate the inhabitants.

5.3.2 Ashley Lane School

Other than single skin walls 557, no internal features were discovered within the school. No doubt this was due to the load-bearing capabilities and substantial depth (3m) of the external walls 552, which made redundant the requirement for deep foundations for internal walls.

Levelling deposit (558) clearly pre-dates the construction of the school in 1837, and would appear to be a pre-development deposit necessary for the general levelling of the area. No geological layers survived below the deposit, which instead directly overlay bedrock (635). It is possible that the foundations for walls 552 were required to rest on bedrock, however, this is not supported by the archaeological evidence elsewhere on the site. Alternatively, the ground had been excavated prior to the development of the school in c. 1820. River gravels and sands may have been extracted from the ground to provide building materials, and was later back-filled with levelling layer (558) once the bedrock had been reached, however, there is no firm evidence to corroborate this theory.

5.3.3 Road surfaces

Parker Street 581 is first captured on Bancks' 1831 map (Figure 6) and is recorded as being 134 yards long. Its surface clearly pre-dates John Street and its combination of large and small setts shows that at least two phases of re-surfacing took place. The sequence of historic mapping supports the archaeological evidence, which first shows John Street (north) on the Ordnance Survey plan of 1849 (Figure 7).

Frederick Engel's description of the Irk Valley in 1844 states that *'the lanes are neither paved, nor supplied with sewers'* indicating that the streets were formed from clay/dirt tracks prior to the cholera outbreak of 1845 (Engels, F 1892; Roberts 1983, 6). Slightly later historic documents that refer to the cholera outbreak (Leigh and Gardiner 1850; Roberts 1983, 7) note that by 1849 *'the streets had been recently and excellently paved and sewered and were regularly swept'*. It is possible that the excavated road surfaces were originally laid during this period, and repaired throughout the late 19th and early 20th century.

5.3.4 Parker Street Mill

Parker Street Mill was excavated in the south-east part of Area B. In its original format Parker Street Mill operated as a small cotton mill, presumably seeking to take advantage of the significant growth in the cotton industry at this period. The rapid developments of the Industrial Age required significant investment by the mill owners and the early mill was rapidly extended. A Phase Two development increased the footprint of the mill by c.45% and this was soon followed by the inclusion of the chimney within a newly constructed stair-turret. By 1844 the mill had changed from cotton to silk and the Ordnance Survey map of 1844-9 shows the site as Irk Town Silk Mill. In succeeding years, as both the silk and cotton industries waxed and waned, the mill was occupied by several companies before it closed in 1925. Other contemporary mills also became mixed use premises (for a parallel see Brownfields cotton mill, which from 1891 had 28 separate occupiers listed, UMAU 2007(a)). The different phases of development at the mill were reflected in the archaeological excavation where five potential sub-phases were identified.

Phase One c.1820-1823: the footprint of the mill is potentially first shown on Swire's map of 1824 (Figure 5) as a square structure fronting onto what would later become Parker Street (to the southwest) and Bromley Street (to the northeast). The footprint shown on the map does not fit with the archaeological remains uncovered, which consisted of a rectangular building. This seemingly conflicting evidence may possibly be explained by an original mapping error. Otherwise, the archaeological remains may pertain to the substantial rebuild that took place between Swire's map of 1824 and Bancks' map of 1831.

The archaeological evidence implies that within c. four years of the mill's construction, the original building was in-sufficient and was extended by c.45% to the north-east. Parallels for

the rapid re-development and expansion of mill buildings can be found at sites throughout Manchester (for example, Beehive Mill, Ancoats was built in c. 1820 and re-developed in 1824. Another example is Chorlton New Mill, established in 1814 and extended in 1818).

Pier Bases 613 had been repaired on several occasions. No major differences were observed within the spacing or the orientation of the line indicating that they were contemporary. The three pier bases 642 located to the north-east of the original mill footprint were associated with the later expansion of the mill.

A rare photograph of the mill taken in 1898 by H. Entwistle (Manchester Local Image Collection: M20526) shows a red brick, slate-roofed five storey high building with an external width of three bays. The photograph indicates that the original mill building was six bays long by three bays wide, whilst the later extension, associated with Phase Two, was nine bays long by three bays wide. The photo also clearly shows a distinct break between the fourth and fifth storeys indicating that an additional storey was either added or repaired. Although the window shapes, sizes, lintels, and sills all look the same build, two iron strengthening ends are located between the fourth and fifth floors, which strongly suggests that the upper floor has been rebuilt or is a later addition. This would probably denote that the mill was originally four floors high.

The mills power systems are not indicated on the available sequence of early 19th century maps. No external source of waterpower was available to the Parker Street Mill. Based on the known parallels within the Manchester area, it is likely that a new build cotton mill of c. 1820-1823 would be steam powered. Cotton mills of a similar date such as Beehive Mill built in c. 1820, Chorlton New Mill built in 1814, and Sedgewick Mill built in 1818 all had an original internal steam engine from their initial development.

Bancks' plan of 1831 (Figure 6) shows the location of a chimney, which confirms that the mill was steam powered by at least this date. Chimneys of the size at Parker Street Mill served much the same purpose as domestic chimneys and were designed to create an updraught to remove the products of combustion (primarily carbon dioxide, steam, etc) of coal or other fuels that heated the steam engine boilers (British Brick Society 2010 p.18). Although the chimney is not shown on pre-1831 mapping, it is likely to be contemporary with Phase One, and is located on the north-east side of the original mill building (pers.comm. Peter Arrowsmith).

No external boiler house is depicted at the mill site until the Ordnance Survey map of 1844-1849 (Figure 7), which marks a boiler house to the north-east of the chimney. Chimneys were predominantly built close to boiler houses, often in the mill yard, and were connected by a short underground flue. It is possible that the original boiler was sheltered in a lean-to/temporary structure, which may not have been recorded by early cartographer's (pers.comm. Peter Arrowsmith). The absence of a boiler house on Bancks' map more likely reflects inaccuracies in early mapping, rather than discrediting the mills use of steam power.

Flue 589 was earlier than flue 584, extending north/south. The walls of flue 589 had been repaired using yellow firebricks. The rebuilt south-east wall of the flue truncated the original handmade brick surface of the flue. The rebuild may have coincided with the Phase Two extension of the mill, but is more likely to relate to the third phase of activity, in particular the arrival of permanent boiler houses shown on the Ordnance Survey map of 1849 (Figure 7). The rebuild also introduced the air-flow control gate. The alignment of the earlier flue may indicate that an earlier boiler house was situated to the north of the mill.

Phase Two c.1823-1830: of the mill reflects a north-easterly expansion of the building, which necessitated the construction of two new walls 619 and 636 and the removal of the Phase One wall 621. Though the full length of the extension continued beyond the north-east limit of excavation, a partially visible return for the north-east external wall was identified, giving the mill an estimated total length of 25.9m (85 feet). Reused handmade bricks, potentially taken from wall 621, were used in the construction of walls 619 and 636.

The constant expansion and modification of the mill is consistent with the growth of the cotton industry in Manchester and advances in technology. For instance, by 1825 steam engines were able to power much larger machines and an increased power source was needed to cope with their demands. In many ways, the remarkable developments in technology of the time created an 'expand-or die' mentality amongst mill owners, many of whom went bankrupt in their attempts to fulfil this.

Phase Three c.1830-1843: stair-turret 593 abuts the Phase Two structures indicating that it post-dates the extension of the mill to some degree. The stair-turret appears to be captured on Banks's map of 1831 (Figure 6), indicating that it may have been built immediately after the extension was constructed, but during the same phase of works.

The chimney 585 was incorporated within a semi-circular turret, which housed a stair-well 593 (Plate 8). The layout consisted of a circular chimney stack that rose through the centre of a spiral stair. Stair-turrets are usually semi-circular structures lit by one window on each floor, which as well as helping to ventilate the mill, also provided an escape route (usually fire-proofed) from the upper floors. The inclusion of a chimney within a stair-turret is characteristic of many of Manchester's early mills (Salvin's factory of 1796). Similar combined chimney/stair towers were attached to several early 19th-century mills such as Islington Mill in Salford from 1823 (Figure 12) and Wharf Mill in Ashton-Under-Lyne. Brownsfield Mill in Ancoats is the last known fully intact example of a chimney stair tower and is also the earliest surviving intact mill chimney in Manchester (Plate 8; British Brick Society 2010, p.2).

5.4 Late 19th Century Activity

Activity associated with the late 19th century was constructed using reused handmade bricks or machine-made bricks bonded with black or grey mortar, indicative of a post-1860s construction date. The majority of the archaeological remains pertaining to this phase comprised repairs to earlier structures. The fourth phase of activity at Parker Street Mill falls into this category.

5.4.1 Parker Street Mill

Phase Four c.1843-1908: The Ordnance Survey plan shows that the mill site had been expanded to the south-east by a second rectangular building, enclosing the mill the yard. Access into the mill was provided by a covered gateway. it is likely that during this phase, the mill changed from cotton to silk production. The redevelopment involved the removal of the boiler houses from their original position and flue 589 was decommissioned. A new flue 584 was added to the south-east of chimney 585 running in south-east direction. Mapping of 1893 (Figure 9) now shows that the stair-turret is linked to the new development to the southeast and it is likely that new boilers were situated here with a new flue connecting them.

Phase Five c.1908-1925: no major re-developments or features have been ascribed to this phase, other than the widespread use of concrete to repair earlier structures.

5.5 20th Century Activity

A large rubber works 631 had been established on the site by 1908 (Figure 10) and had been further expanded by 1922 (Figure 11). The remains of the rubbers works truncated earlier archaeological remains in Area A and were present in Area B.

6. Conclusion

Summary

The excavation of two open-area trenches in land to the south-east of Dantzic Street provided a useful opportunity to examine an important early 19th-century cotton mill, workers' houses, and a school. The project has helped to increase the archaeological knowledge of archaeological sites across Manchester, of which a growing record exists.

Archaeological evidence spanning from the medieval to modern period was evident within the site. The main phase of activity on the site, however, was associated with the early 19th century/industrial period. Medieval/post-medieval activity comprised two fragmented pockets of plough soil. In total, three sherds of Medieval pottery were yielded from the plough soil, however they have limited further research potential.

A significant portion of the excavated archaeological remains represented the early 19th century development of the site (Figures 4-7). Some of these remains may have been associated with buildings depicted on Green's plan of 1787-94 (Figure 3), particularly the structural remains that were partially exposed in Area A, although this could not be confirmed with certainty. Most of the archaeological remains relate to domestic dwellings, a school and a cotton mill first clearly shown on Bancks' and Co's plan of 1831 (Figure 6). All of these structures were built using handmade bricks and lime mortar. Later repairs and additions were constructed in machine-made bricks bonded with either black or grey mortar, indicating a post-1869s construction date.

In total, five sub-phases have been identified for the development and expansion of Parker Street Mill. The first three phases of activity at the mill are very close in date and are likely to reflect the rapid technological improvements in the textile industry during the early 19th century. The later phases are broader and mostly comprise repairs to earlier structures except for a new flue. The lack of later archaeological activity at the mill may indicate that the structure was in decline by the end of the 19th century. This may be supported by the buildings use by multiple tenants. The archaeological evidence corroborates the information gleaned from historic maps, which shows that same footprint of the mill during the late 19th- and early 20th centuries (Figures 10-1).

The final phase of development comprised the expansion of a large rubber works and was represented by modern brick walls, poured concrete floor surfaces and concrete stanchions. The phases of activity at the mill span over 100 years dating from c. 1820 to 1925.

Significance

The archaeological investigations at Dantzic Street allowed for two open-area excavation trenches to take place at an important site that was developed during the onset of the industrial revolution in Manchester. The site was largely developed during the early 19th century and remains spans from the medieval-modern period. The site was considered of local/regional significance.

The significance of the results will be further expanded upon in a scheme for disseminating the results, including an article. This would allow the development of the site to be better understood.

7. Archive

7.1 Archive

The results of the archaeological investigation will form the basis of a full archive to professional standards and in line with current guidelines (ClfA 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.

The site archive will be so organised as to be compatible with the other archaeological archives produced in north-west England. All drawn records will be transferred to and stored in digital format, in systems which are easily accessible. The project archive will ultimately be offered to the Museum of Science and Industry (MoSI) in Manchester for long-term deposition. A copy of this report will be lodged with the Greater Manchester Historic Environment Record, and the on-line OASIS (On-line Access to Index of Archaeological Investigations) form will be completed. In addition, a copy of the report will be publicly available for downloading via the University of Salford's Figshare website, a data repository designed to manage and share research data outputs:

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The following Salford Archaeology staff conducted the on-site works- Sarah Cattell, Emily Hater, Andrew McGuire, Sara-Jane Murphy, Peter Noble and Andrew Radford.

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Appendix 1: Plates



Plate 1: Area B with Parker Street Mill in foreground. Looking west.



Plate 2: Area B Parker Street Mill showing pier bases 613 and 642. Plough soil (583) can be seen under and to the right of the 2m scale. The line of the robbed-out Phase One wall 621 runs left to right just to the fore of the scale, looking south-west.



Plate 3: Area B showing Parker Street Mill in background with chimney 585 and stair-turret 593 in the foreground, looking west



Plate 4: Area B showing stair turret 593, chimney stack 585 and flues 584 and 589, looking south-west.



Plate 5: Area B showing flue 589 flooring and control gate, looking south-west



Plate 6: Area B showing flue 589 control gate and red brick flooring. Note that the red brick floor has been cut by the rebuilt flue wall, looking south.



Plate 7: Area B showing chimney stack 585, flues 584 and 589, deposit (602) and stair-turret 593, looking south-west.



Plate 8: External view (left) and internal view (right) of the extant combined chimney and stair tower at Brownfield Mill, Ancoats, Manchester. Image reproduced with permission from British Brick Society Information 113 July 2010, 4.



Plate 9: Area B showing Phase One walls 618 and 621 with Phase Two wall 619 to the right, looking north-west.



Plate 10: Area B showing walls 618 and 621 with wall 619 to the right, looking north-west.



Plate 11: Area B showing robbed-out wall 621, plough soil 583, natural (614-616) and (627) looking south-east



Plate 12: Area B Parker Street Mill. Showing Phase Four windows 624 and 641 with steps 640 built within the Phase Two mill wall. Note cut 598 cutting flue 589 to the lower left, looking south-west.



Plate 13: Area B showing drain 609 and area to the east of Parker Street Mill, looking south-west.



Plate 14: Area B overhead of reinforcing girders 604 within mill wall



Plate 15: Area B showing Cellar A with Cellar B to the left. Note blocked-in doorway for stairs 544, looking south-east.



Plate 16: Area B showing Cellars A and B, looking south-east.



Plate 17: Area B showing Cellars A-E with Cellar E in the foreground, looking south-west.



Plate 18: Area B showing Cellar C, looking west.



Plate 19: Area B showing Cellar A stairwell 544, looking south-west.



Plate 20: Area B Cellar F showing pot-boiler 562 and light-well 560, looking south-west.



Plate 21: Area B Cellar F detail of pot-boiler 562, looking east.



Plate 22: Area B Cellar F. Overhead of internal pot within 562



Plate 23: Area B Cellar G Showing fireplace 567 and steps 570, looking south.



Plate 24: Area B showing John Street (north). Parker Street can be seen running from left to right in the background, looking south-west.



Plate 25: Showing similar example of cellar fireplace from House C2 Loom Street Manchester. Image taken from p.22 UMAU 2007(b).



Plate 26: Loom Street, Area F showing similar examples of repeated patterning of cellar fireplaces and light wells. Image taken from p.37 UMAU 2007(b).



Plate 27: Area A looking south-west.



Plate 28: Area A showing truncated remains of late 18th/19th century housing, looking north-west.



Plate 29: Area A showing location of 502 and 507, looking south-east.



Plate 30: Area A showing passageway 507 and deposit of stoneware ginger bottles, looking north-west.

Appendix 2: Figures

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- Figure 24: Parker Street Mill, phase four
- Figure 25: Parker Street Mill, phase five

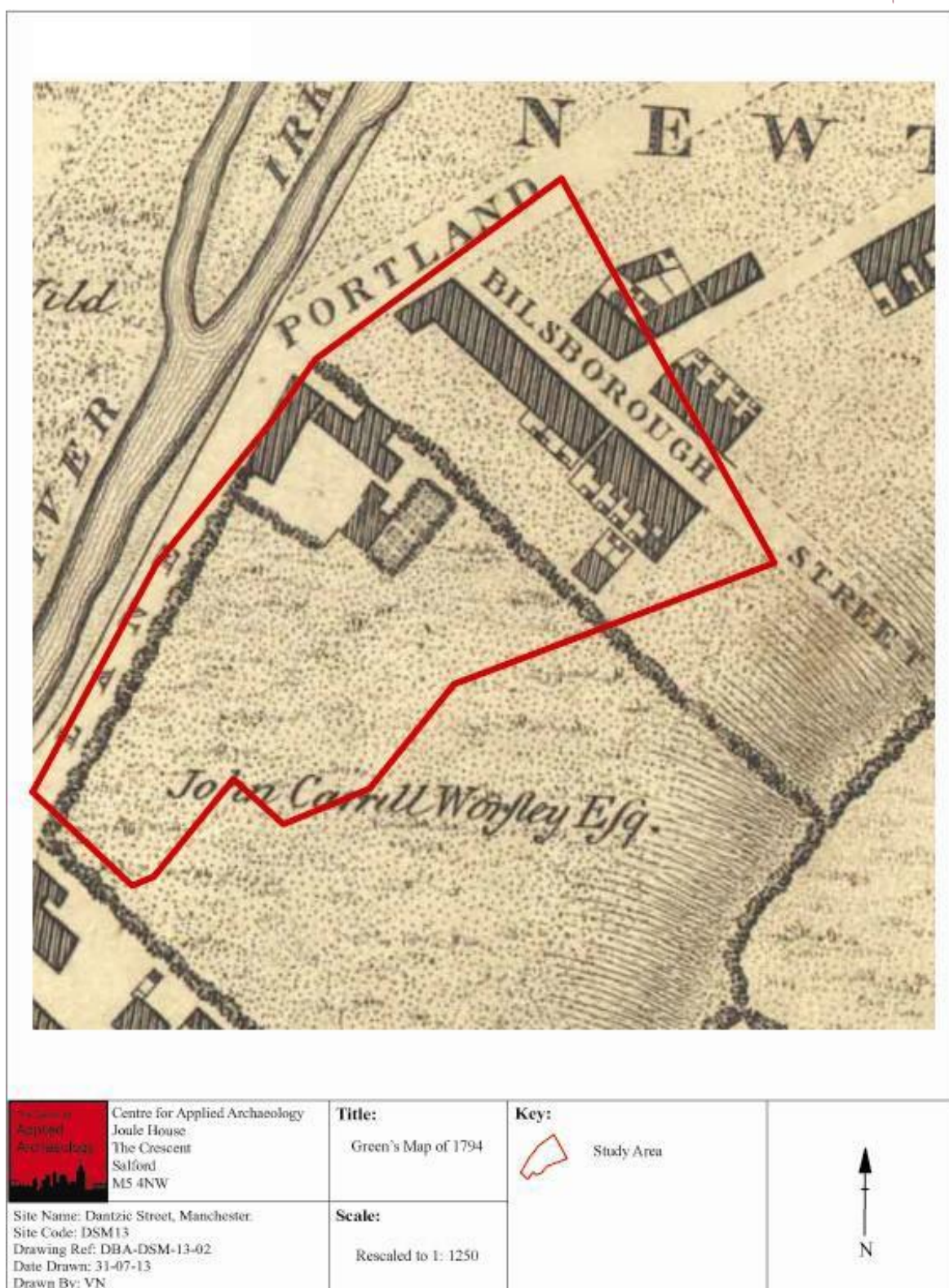


Figure 3: Green's map of 1794 showing the first developments upon the site.



 Centre for Applied Archaeology Joule House The Crescent Salford M5 4NW	Title: Pigot's Map of 1813	Key:  Study Area	 N
Site Name: Dantzic Street, Manchester Site Code: DSM13 Drawing Ref: DBA-DSM-13-03 Date Drawn: 31-07-13 Drawn By: VN	Scale: Rescaled to 1: 1250		

Figure 4: Pigot's map of 1813



The Centre for Applied Archaeology Joule House The Crescent Salford M5 4NW	Title: Swire's Map of 1824	Key:  Study Area	
Site Name: Dantzic Street, Manchester. Site Code: DSM13 Drawing Ref: DBA-DSM-13-04 Date Drawn: 31-07-13 Drawn By: VN	Scale: Rescaled to 1: 1250		

Figure 5: Swire's map of 1824. Note arrival of Parkers Street Mill and housing associated with Cellars A-E, and F, G, H and I.



Figure 6: Bancks and Co. Map of 1831. Note mill is listed as a cotton mill and addition of the chimney stair-turret.

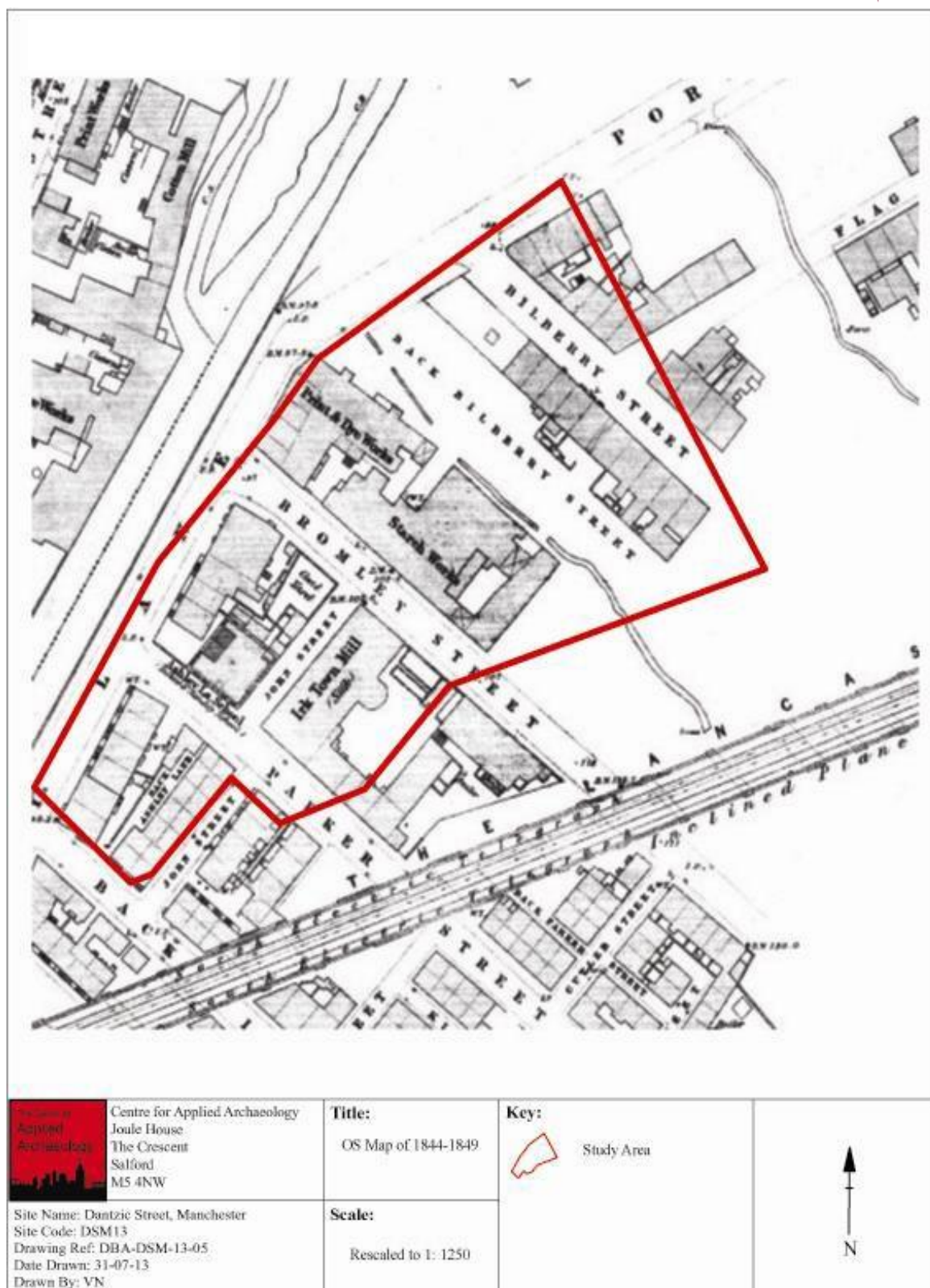


Figure 7: OS map of 1844-1849. Note stair access to cellars fronting Dantzic Street and the recording of boiler houses to the east of the chimney.



The Centre for Applied Archaeology	Centre for Applied Archaeology Joule House The Crescent Salford M5 4NW	Title: Adshead's Map of 1851	Key:  Study Area	
Site Name: Dantzic Street, Manchester Site Code: DSM13 Drawing Ref: DBA-DSM-13-06 Date Drawn: 31-07-13 Drawn By: VN		Scale: Rescaled to 1: 1250		

Figure 8: Adshead's map of 1851.

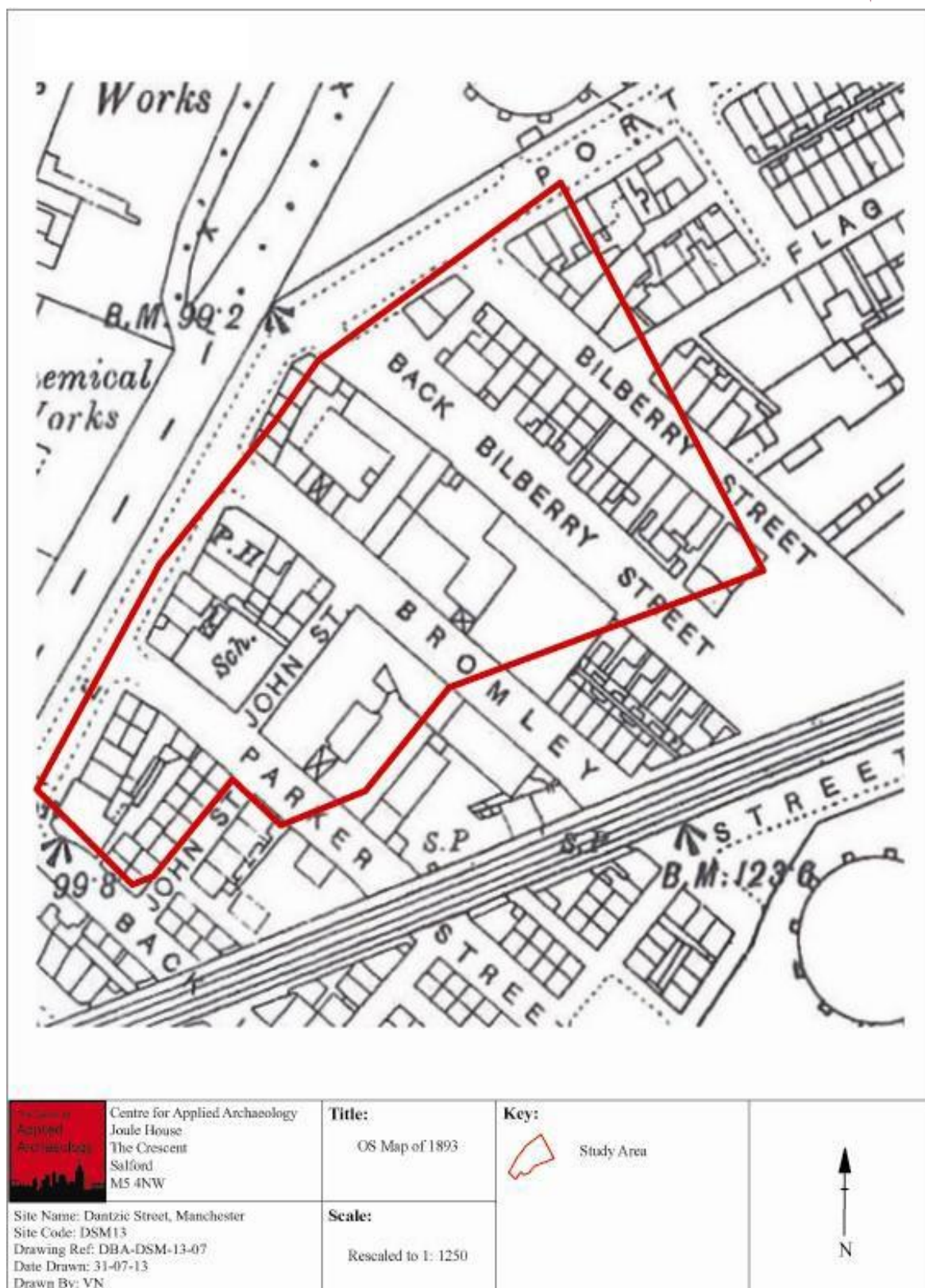


Figure 9: OS map of 1893. Note the removal of House H and the chimney stair-turret now being linked to structures to the southeast.

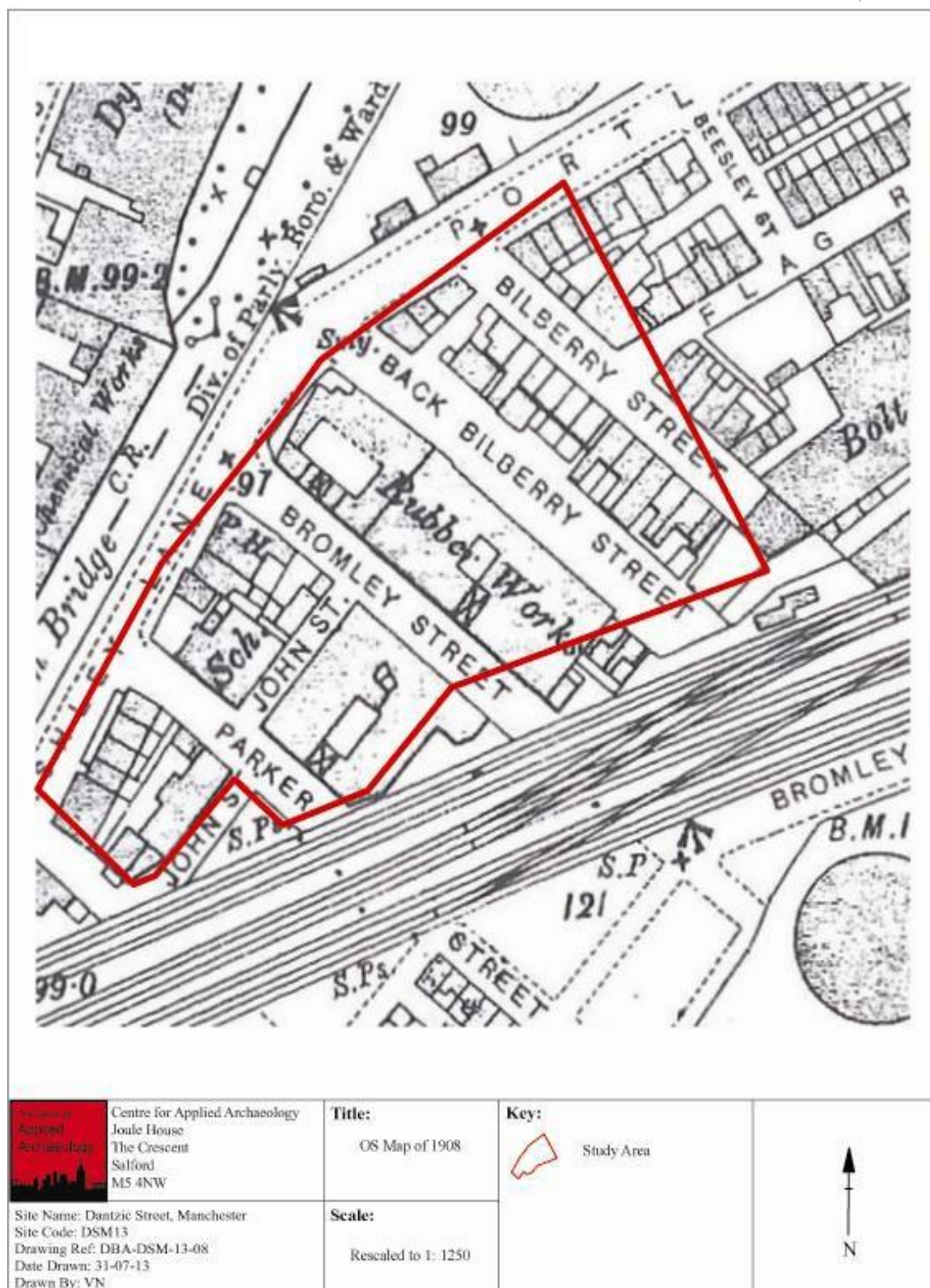


Figure 10: OS map of 1908

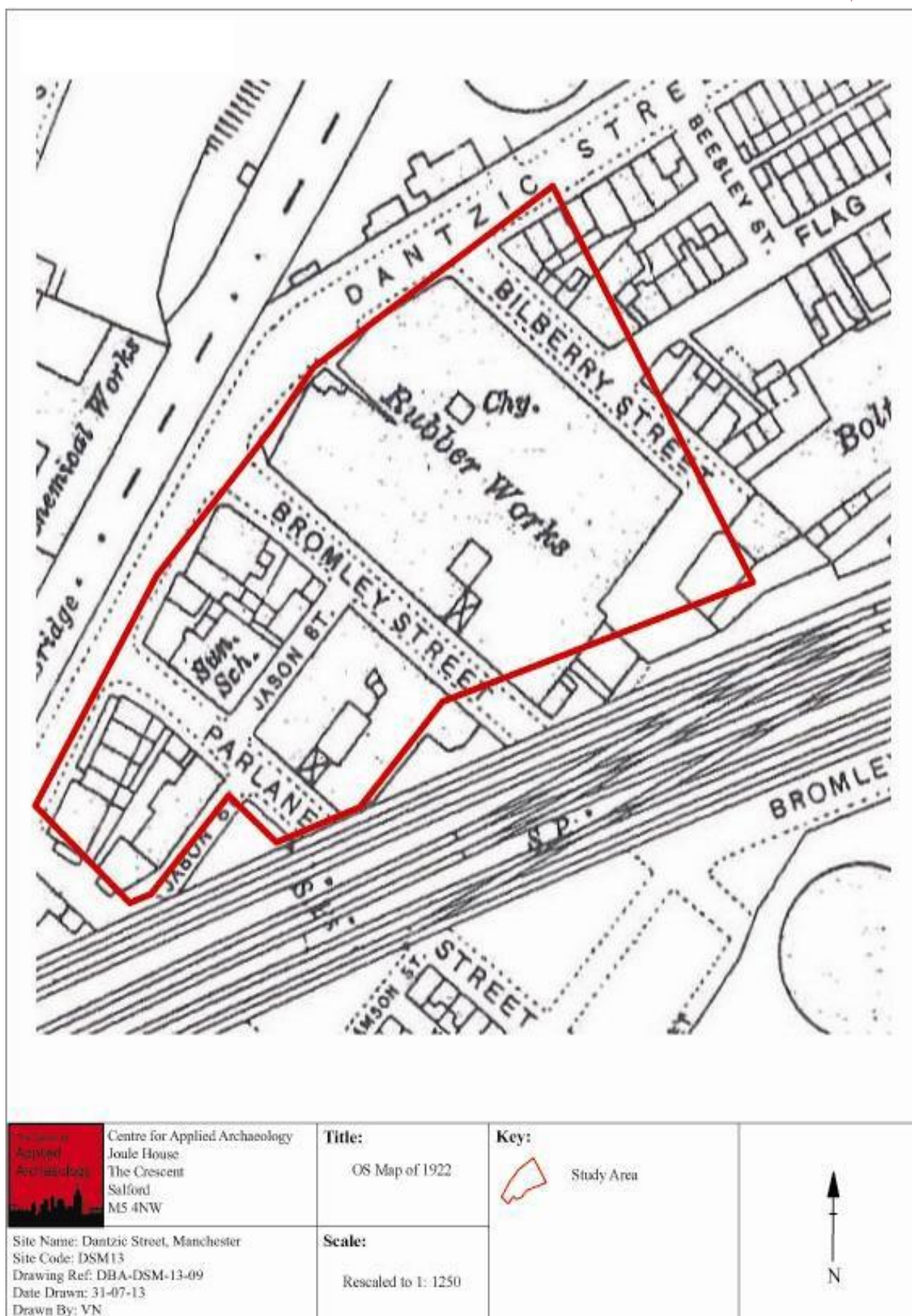


Figure 11: OS map of 1922

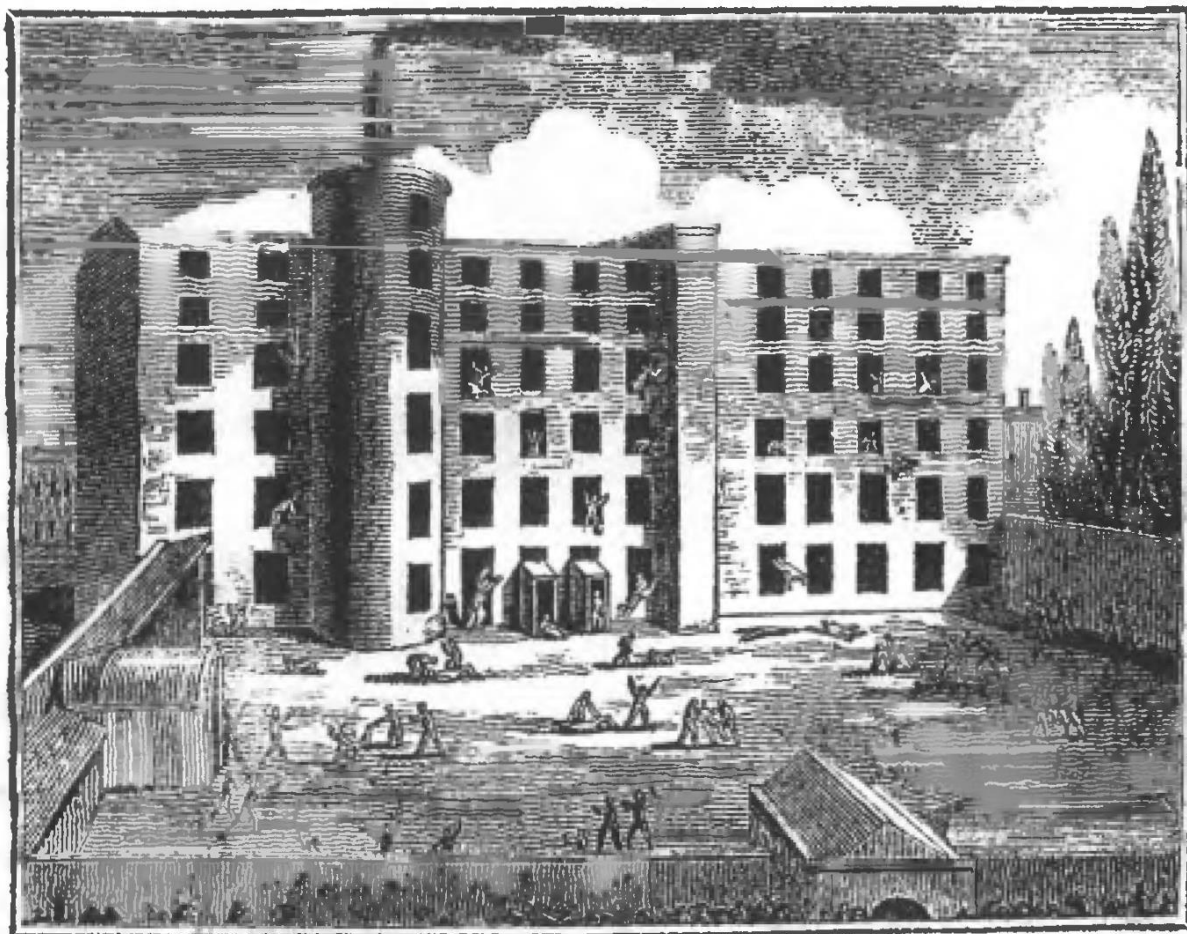


Figure 12: Engraving of Islington Mill, Ancoats, Manchester and built in 1823 showing the chimney and stair-turret. Image reproduced with permission from p.3 British Brick Society Information 113 July 2010.

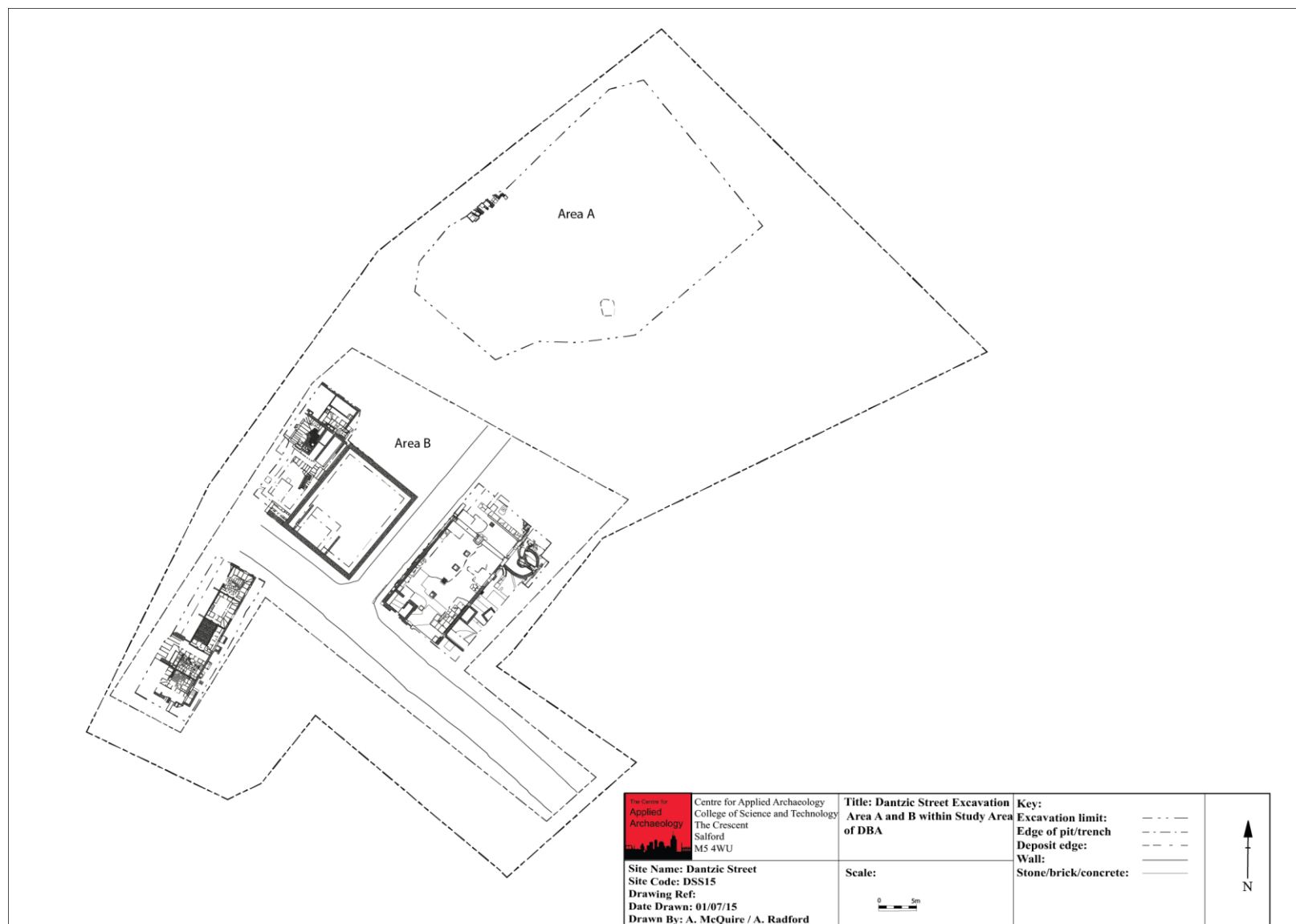


Figure 13: Archaeological survey of the excavated remains in Area A and Area B

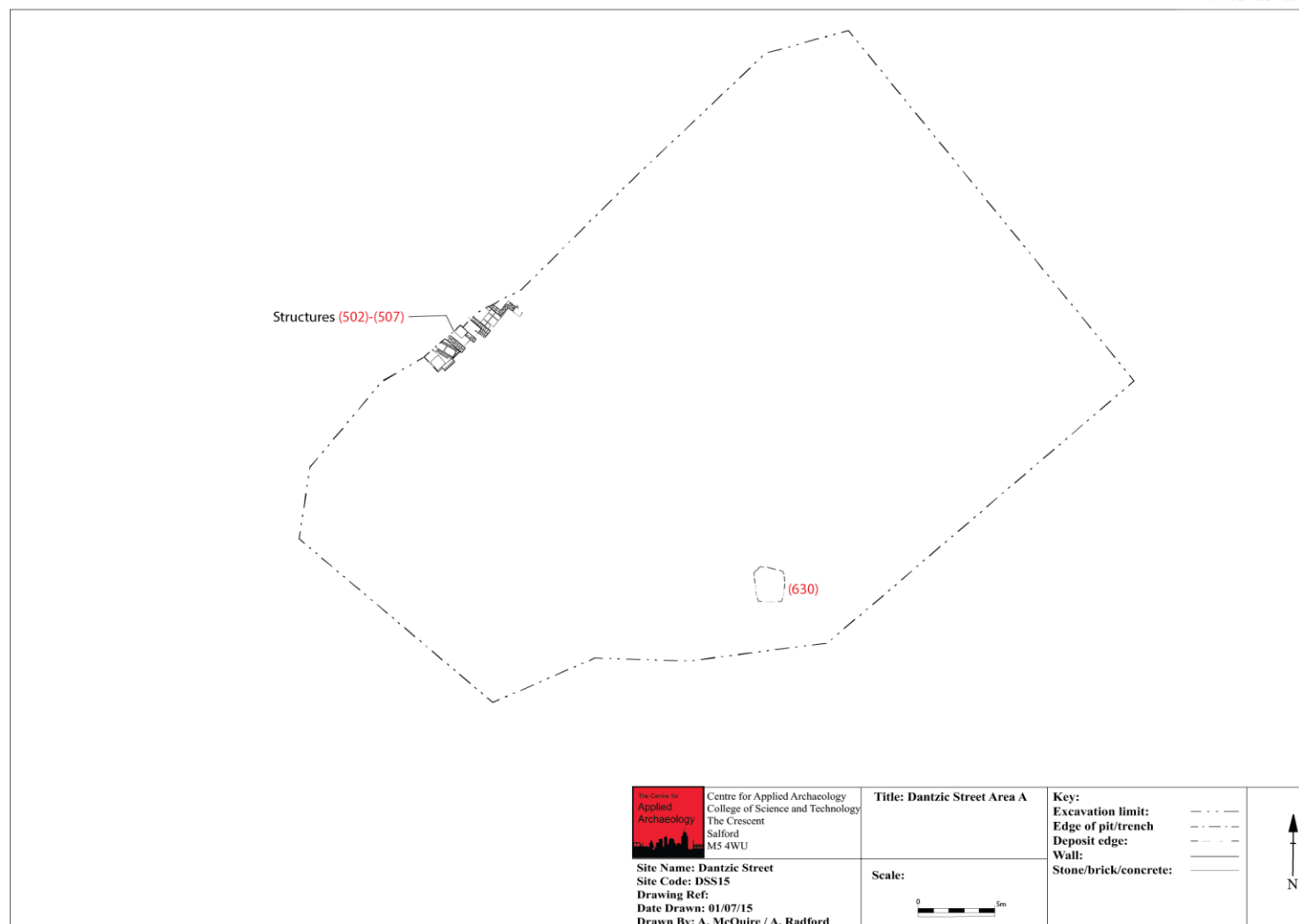
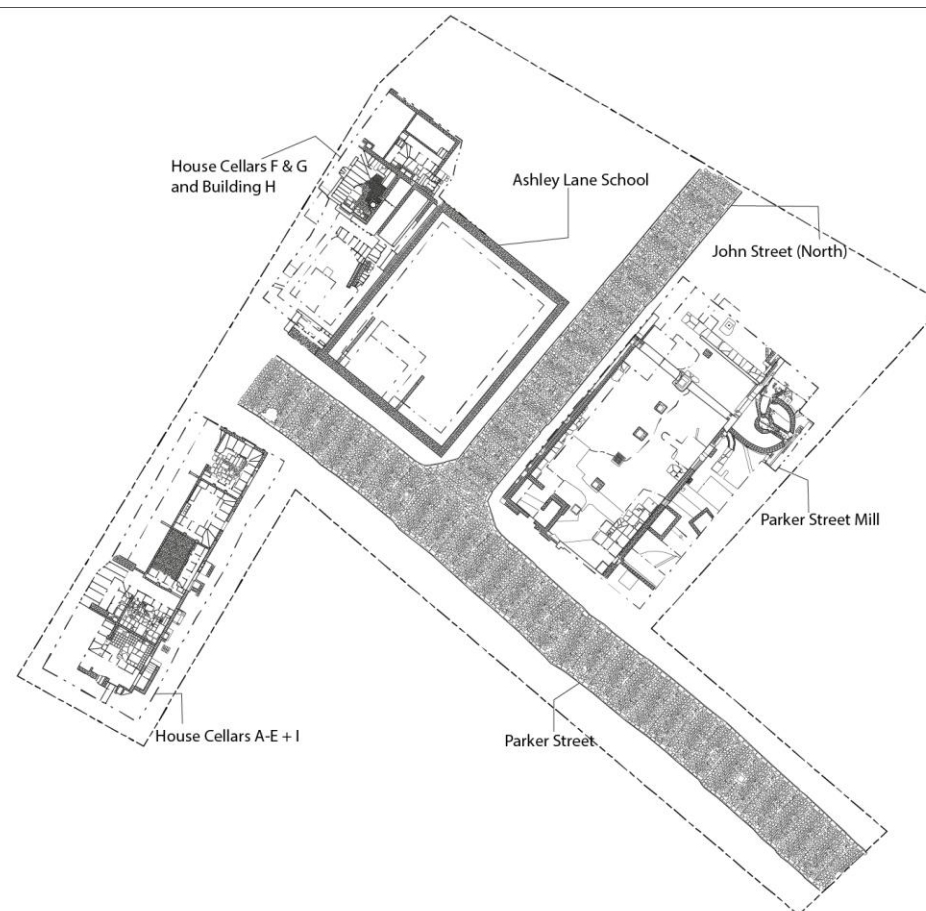


Figure 14: Archaeological survey showing Area A



 Centre for Applied Archaeology College of Science and Technology The Crescent Salford M5 4WU	Title: Area B Excavation Area	Key: Excavation limit: --- Edge of pit/trench: --- Deposit edge: --- Wall: --- Stone/brick/concrete: ---	 N
Site Name: Dantzic Street Site Code: DSS15 Drawing Ref: Date Drawn: 01/07/15 Drawn By: A. McQuire / A. Radford	Scale: 0 5m		

Figure 15: Archaeological survey in Area B

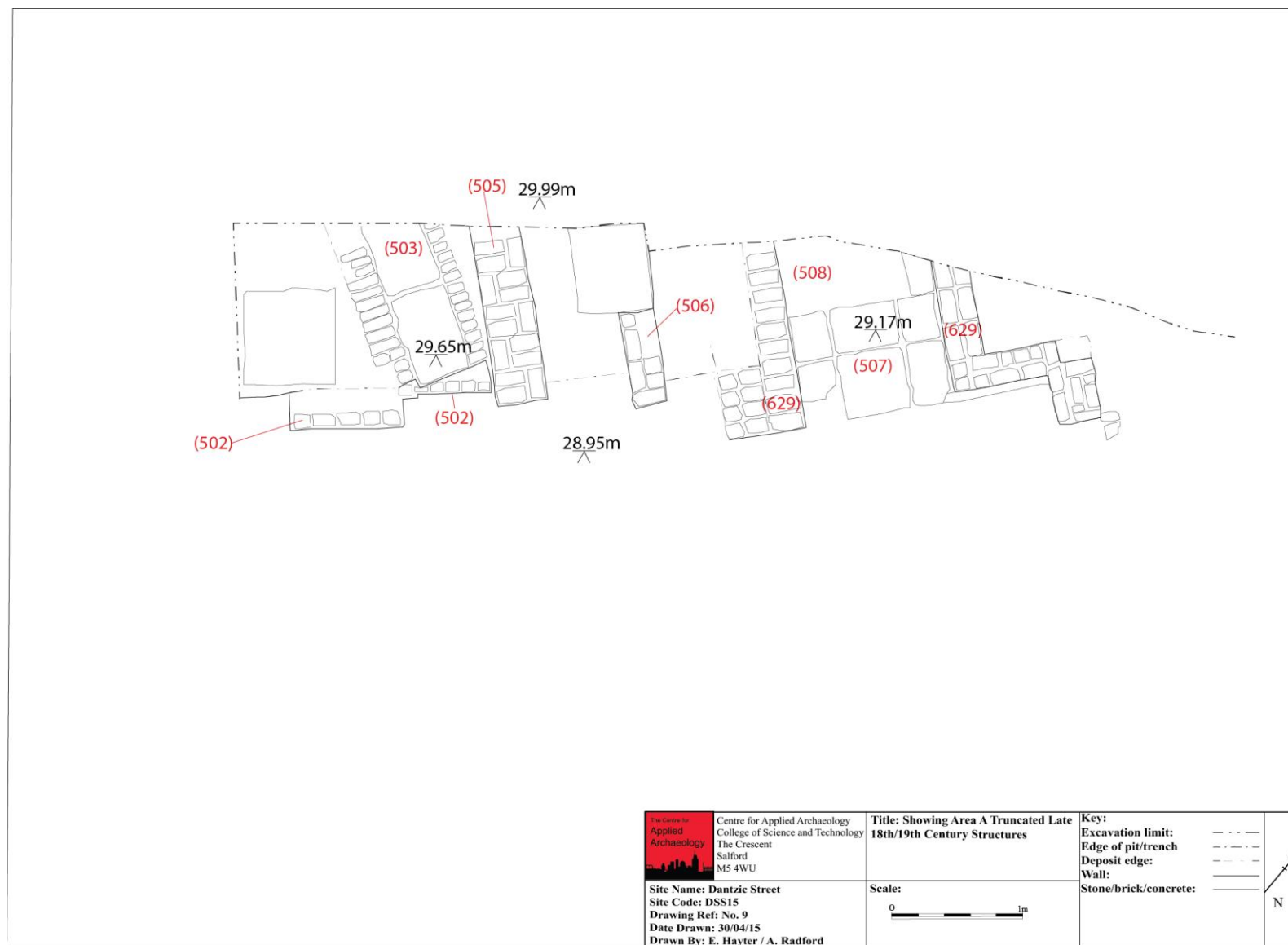


Figure 16: Detail of archaeological remains in Area A

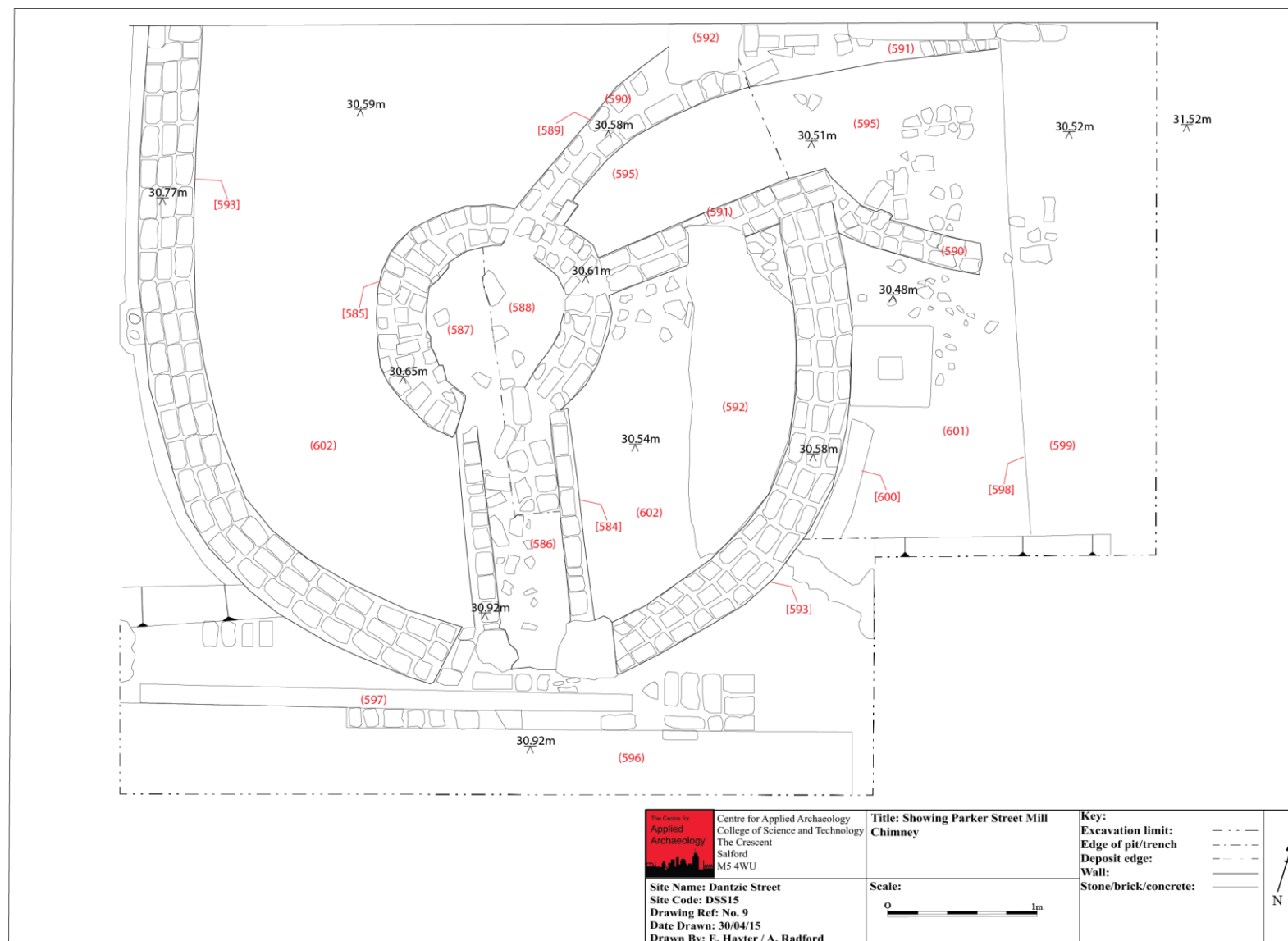
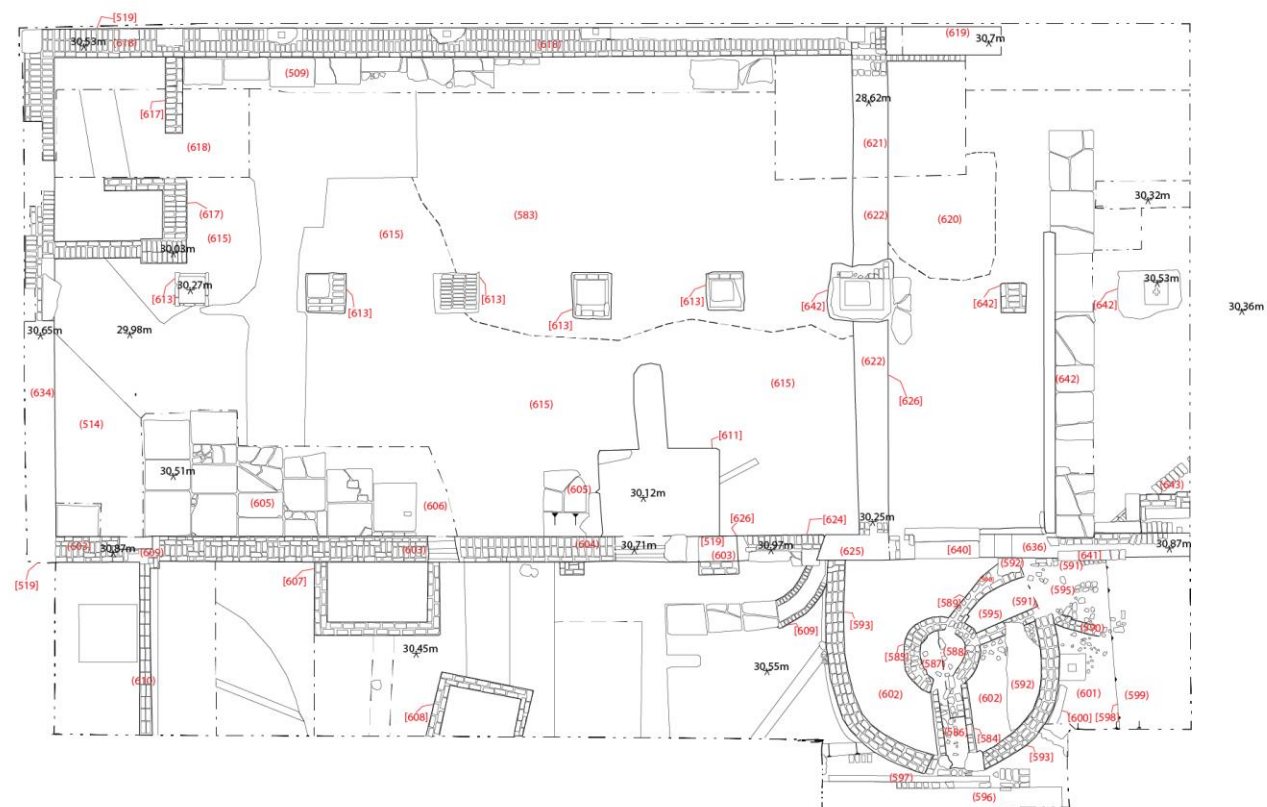


Figure 17: Archaeological remains of chimney 585, stair turret 593 and flues in Area B



	Centre for Applied Archaeology College of Science and Technology The Crescent Salford M5 4WU	Title: Parker Street Mill	Key: Excavation limit: --- Edge of pit/trench: --- Deposit edge: --- Wall: --- Stone/brick/concrete: --- N
Site Name: Dantzic Street Site Code: DSS15 Drawing Ref: No. 9 Date Drawn: 30/04/15 Drawn By: A. McQuire / A. Radford	Scale: 0 5m		

Figure 18: Detail of Parker Street Mill

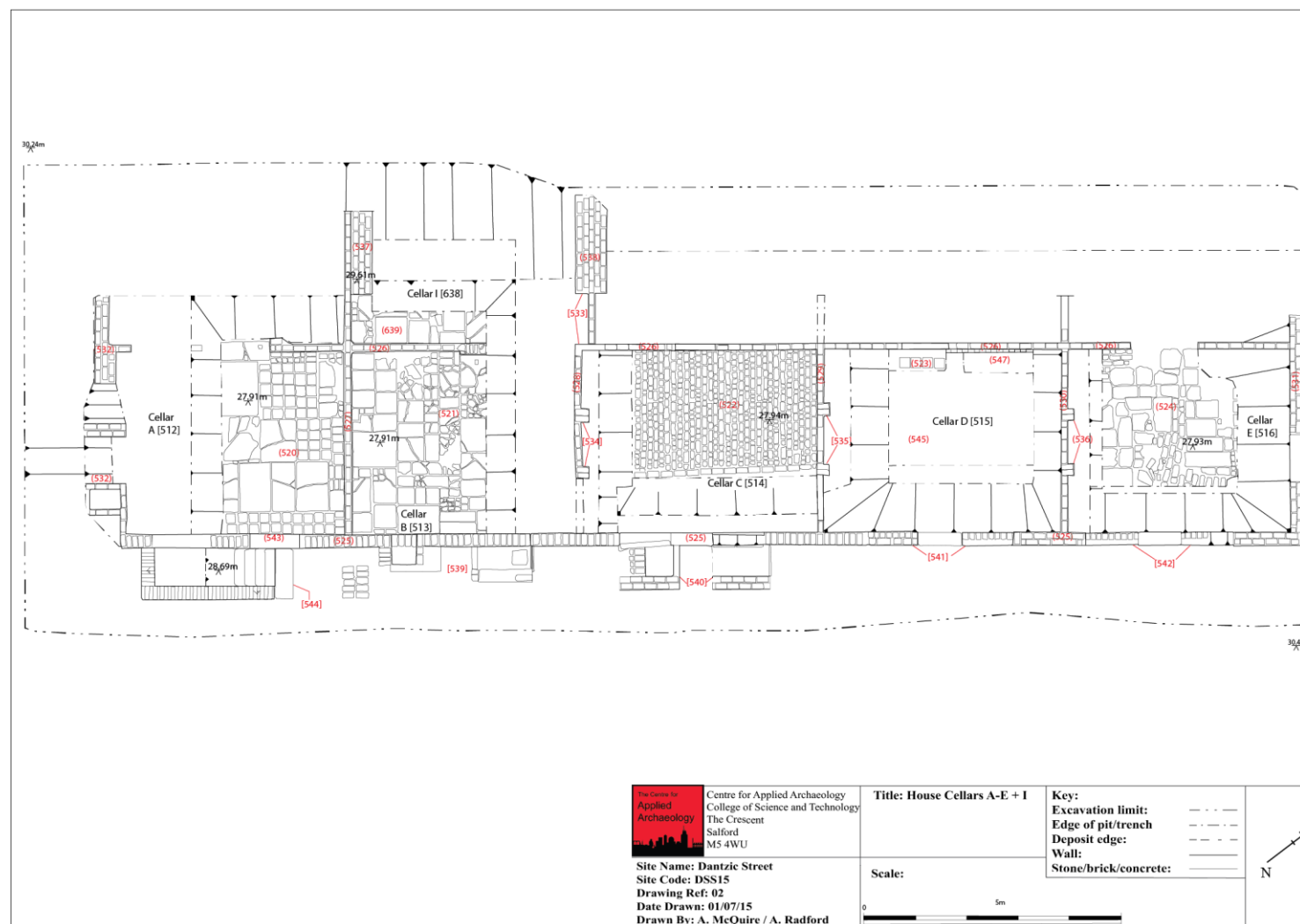


Figure 19: Details of Cellars A-E and I in Area B

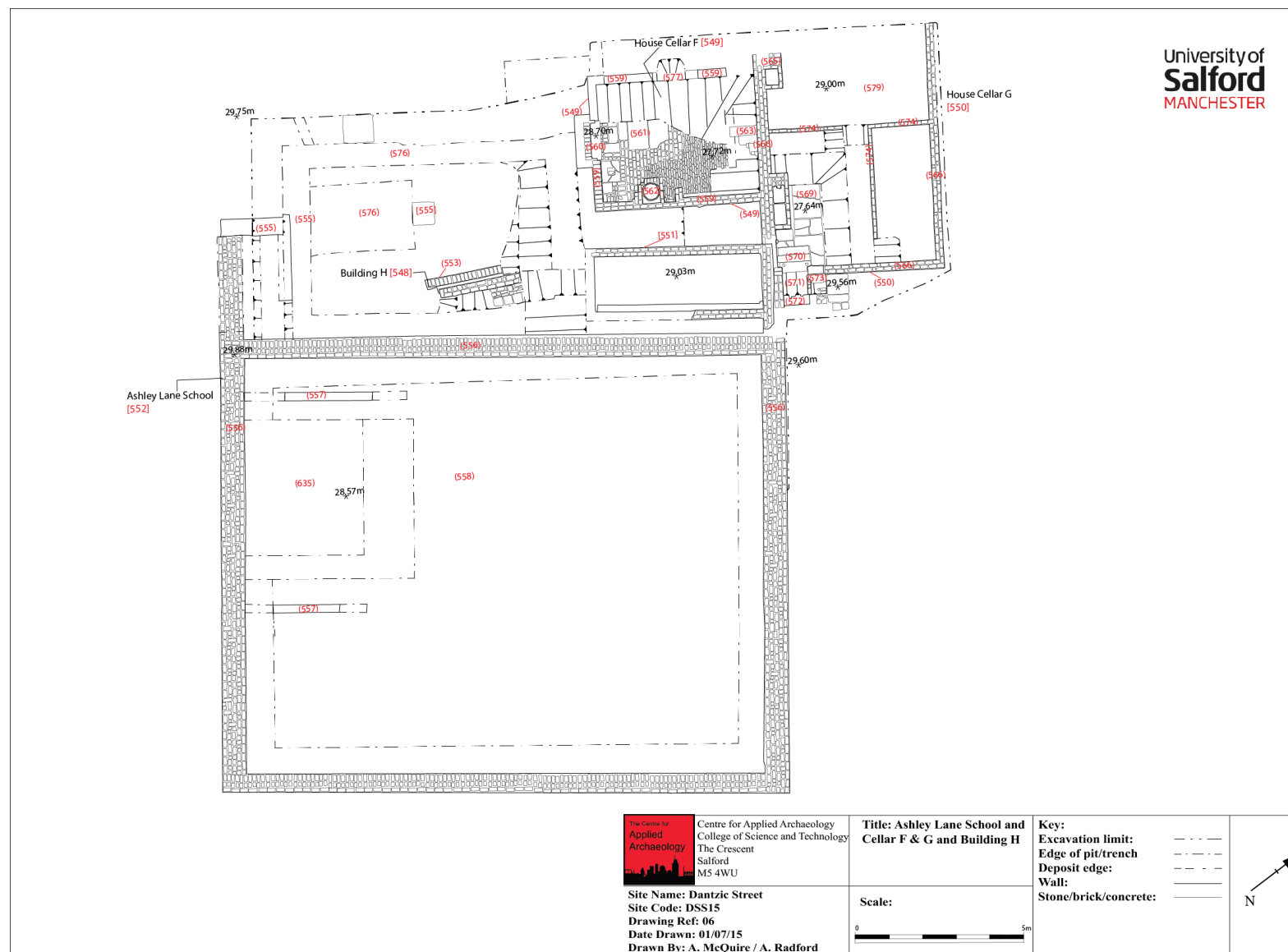
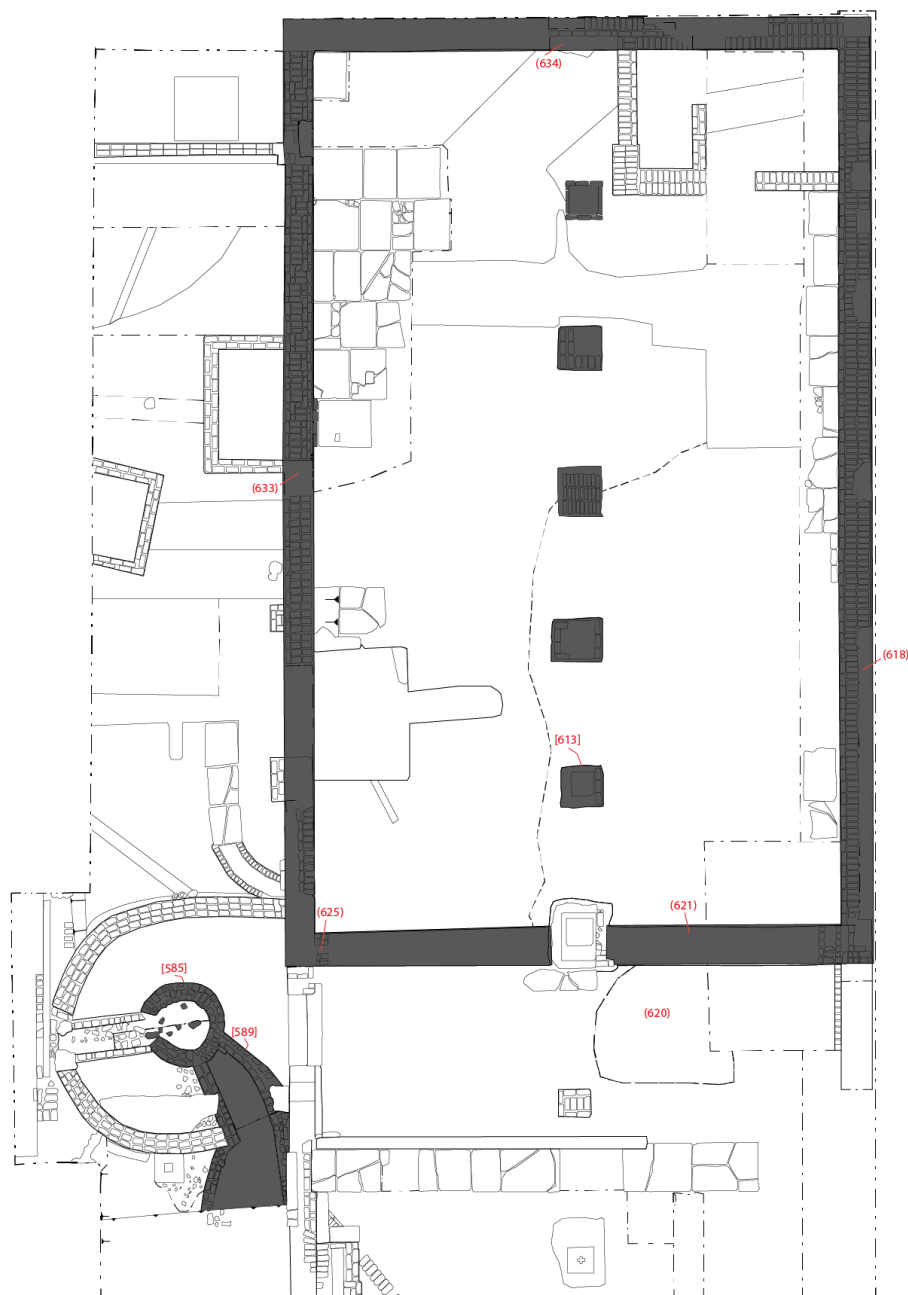
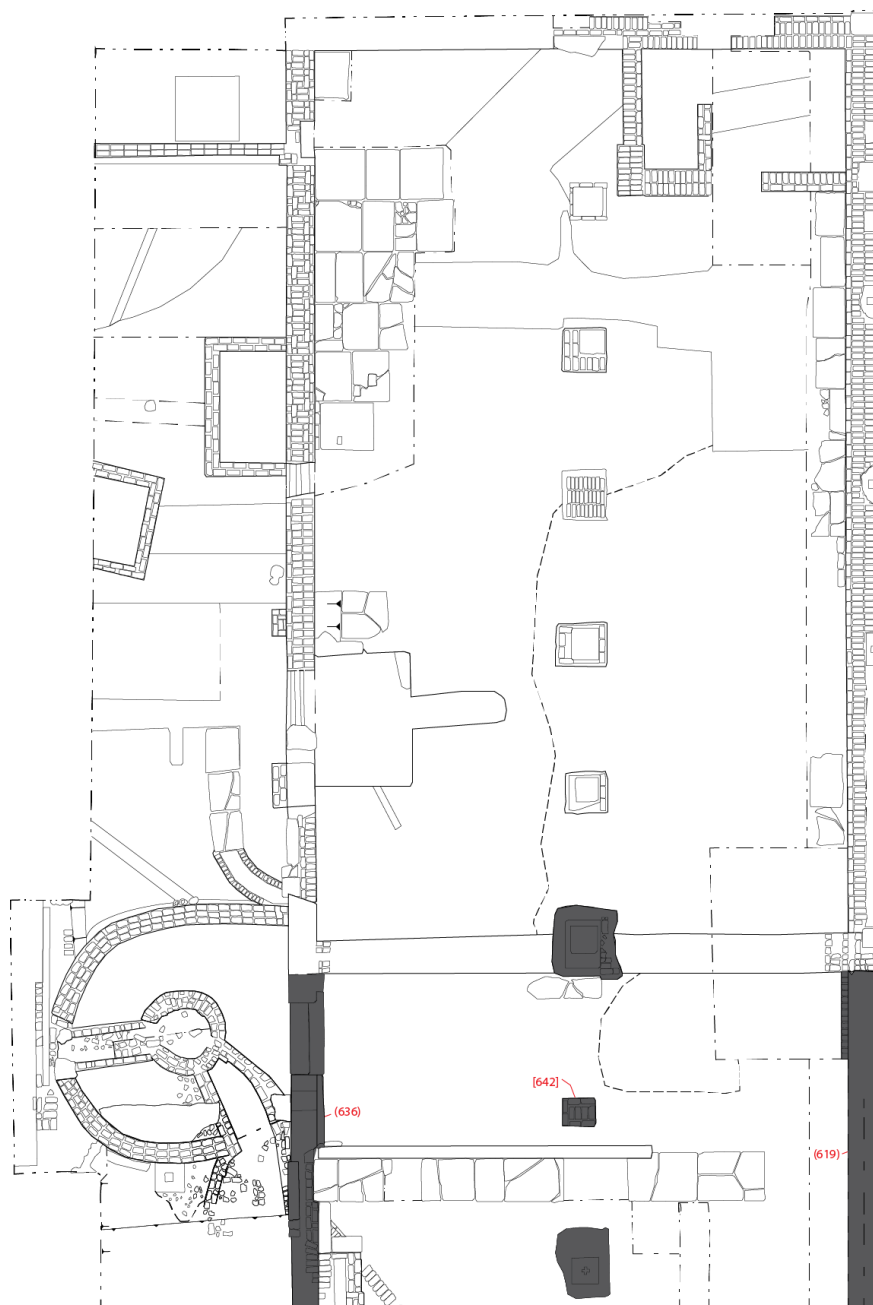


Figure 20: Detail of Ashley Lane School and Cellars F-H



The Centre for Applied Archaeology Centre for Applied Archaeology College of Science and Technology The Crescent Salford M5 4WU	Title: Parker Street Mill Phase One	Key: Excavation limit: - - - - Edge of pit/trench: - - - - Deposit edge: - - - - Wall: ———— Stone/brick/concrete: ————	N
Site Name: Dantzic Street Site Code: DSS15 Drawing Ref: No. 9 Date Drawn: 30/04/15 Drawn By: A. McQuire / A. Radford	Scale: 0 ———— 5m		

Figure 21: Parker Street Mill, phase one



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Site Name: Dantzic Street

Site Code: DSS15

Drawing Ref: No. 9

Date Drawn: 30/04/15

Drawn By: A. McQuire / A. Radford

Title: Parker Street Mill Phase Two

Scale:

0 5m

Key:

Excavation limit: - - - -

Edge of pit/trench: - - - -

Deposit edge: - - - -

Wall: - - - -

Stone/brick/concrete: - - - -

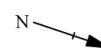
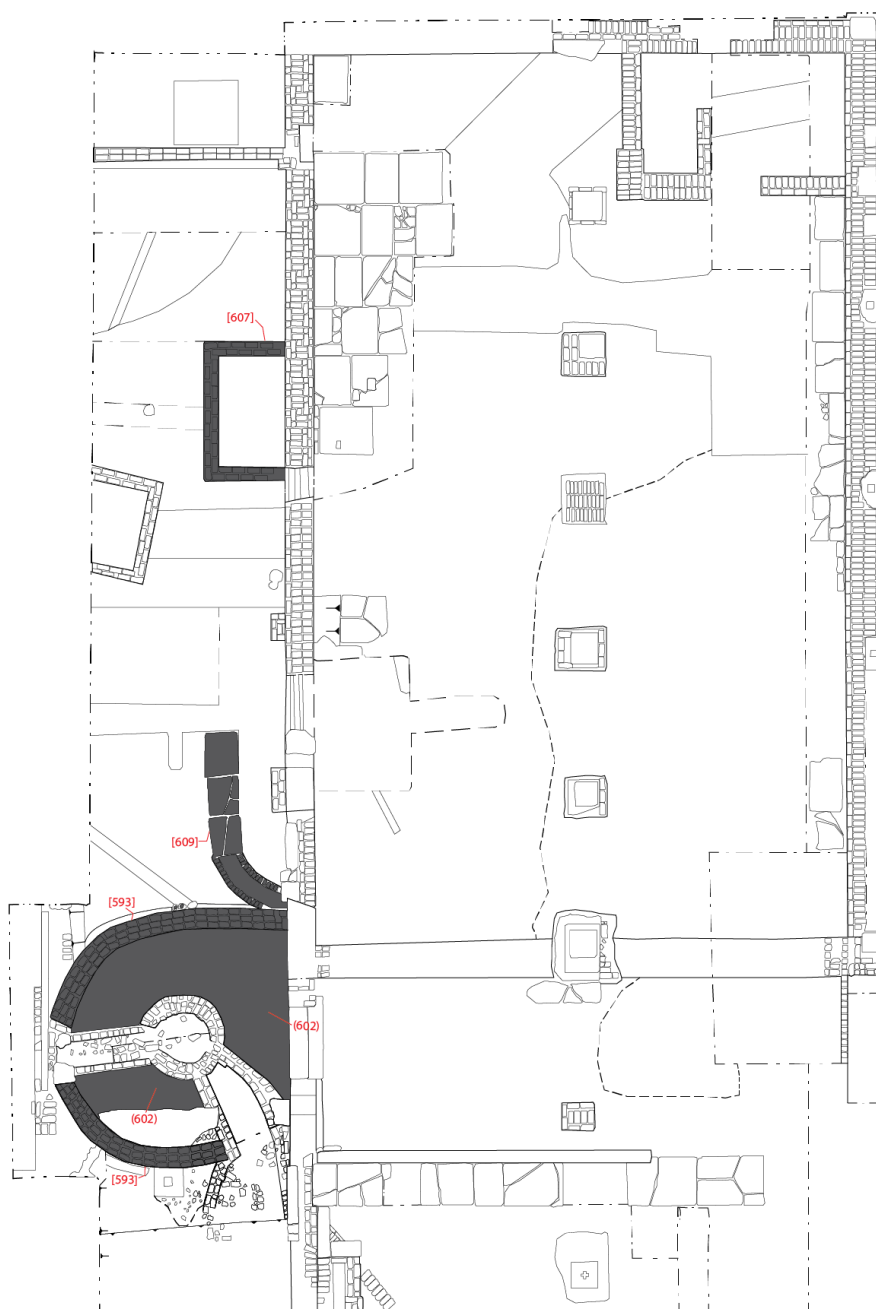


Figure 22: Parker Street Mill, phase two



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Site Name: Dantzic Street
Site Code: DSS15
Drawing Ref: No. 9
Date Drawn: 30/04/15
Drawn By: A. McQuire / A. Radford

Title: Parker Street Mill Phase Three

Scale:
0 5m

Key:
Excavation limit: ---
Edge of pit/trench: - - -
Deposit edge: . . .
Wall: = = =
Stone/brick/concrete: — — —

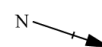
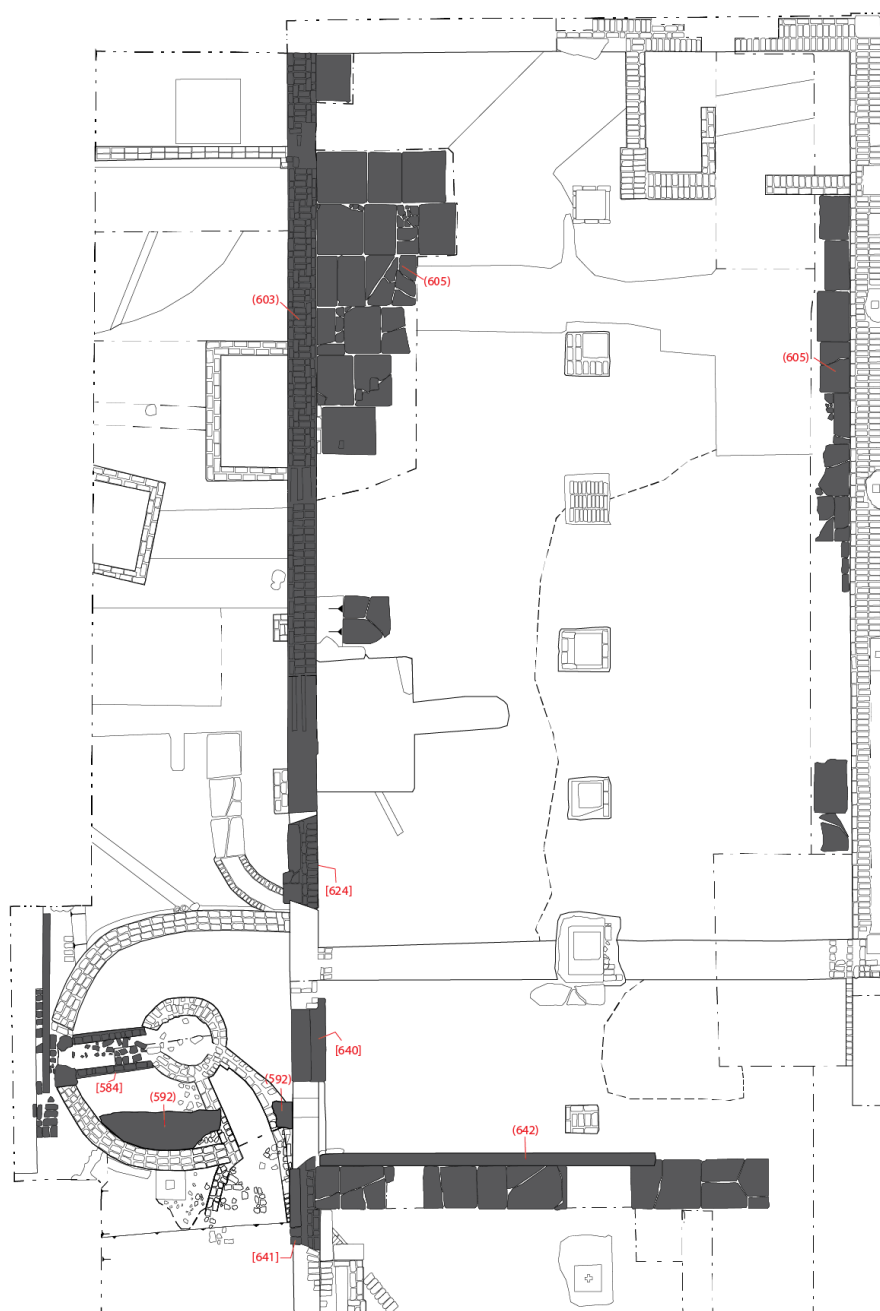


Figure 23: Parker Street Mill, phase four



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Salford
M5 4WU

Site Name: Dantzic Street
Site Code: DSS15
Drawing Ref: No. 9
Date Drawn: 30/04/15
Drawn By: A. McQuire / A. Radford

Title: Parker Street Mill Phase Four

Scale:



Key:

Excavation limit: ---

Edge of pit/trench: - - -

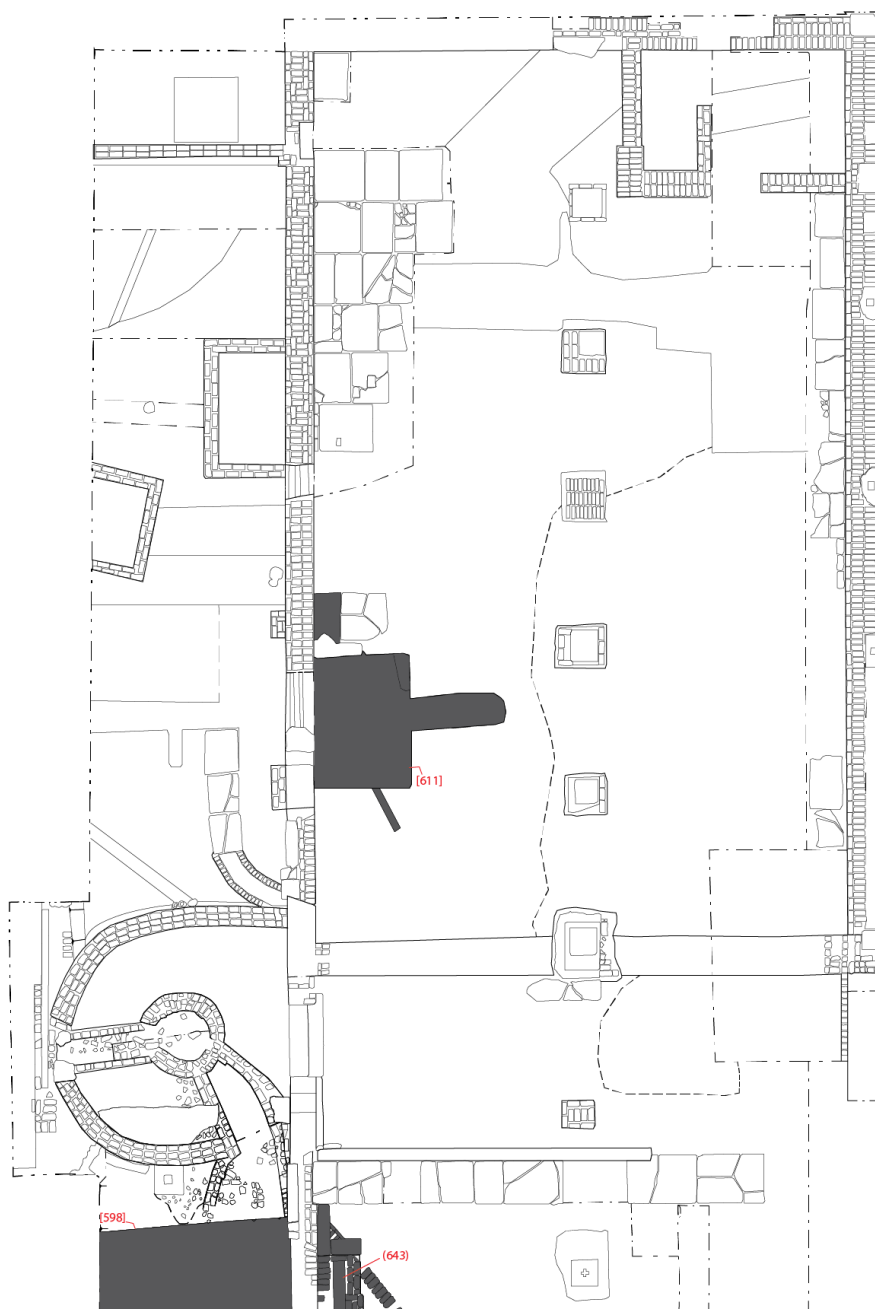
Deposit edge: . . .

Wall: =

Stone/brick/concrete: —



Figure 24: Parker Street Mill, Phase 4



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Salford
MS 4WU

Site Name: Dantzig Street
Site Code: DSS15
Drawing Ref: No. 9
Date Drawn: 30/04/15
Drawn By: A. McQuire / A. Radford

Title: Parker Street Mill Phase Five

Scale:
0 5m

Key:
Excavation limit: ---
Edge of pit/trench: ---
Deposit edge: ---
Wall: ---
Stone/brick/concrete: ---

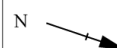


Figure 25: Parker Street Mill, phase five

Appendix 3: Finds Assessment

Introduction

This assessment report concerns the archaeological material recovered from Dantzic Street excavation in 2015, carried out by Salford Archaeology, on behalf of Northern Gateway (FEC) No.7 Ltd. Archaeological investigations were carried out as part of a condition attached to planning consent. The finds assemblage pertains to the materials recovered during excavation.

Assessment Aims and Objectives

The principal aim of the present assessment is to evaluate all classes of archaeological artefact data generated during the excavations of 2015 at the site of Dantzic Street. A statement of significance of the result from each element of the artefactual assemblage is given below based on the assessment work undertaken, and the original research themes expressed in the project design.

The objectives of the assessment correspond to and are prescribed in English Heritage MoRPHE guidelines, project planning, note 3 Archaeological Excavation, “3.7 Analysis and Report Production” [English Heritage:2008] and “Selection, Retention and Dispersal of archaeological collections guidelines for use in England, Wales and Northern Ireland” chap 4 pp24-29. [Society of Museum Archaeologist: 1993: PP 24-29]

- To assess the quantity, provenance and condition of all classes of stratigraphic artefactual and environmental data, with a view of retention and dispersal of materials in line with the stated Guidelines
- To comment on the range and variety of the material, with a view of expanding the collected archaeological data and formulating new archival resources of artefactual information.
- To formulate any further questions arising from the assessment of the excavated data, in line with the research agenda set out in the North West Research Framework.

Material Assessed

The entirety of the stratigraphic archaeological artefact data along with a brief overview of the unstratified archaeological data was viewed and assessed for the production of this report. The quantifications are incorporated into each individual assessment.

Procedure of Assessment

The methodologies adopted for the assessment varied depending on the class of the material under examination. All classes of find were examined in full, with observations supplemented by the finds records generated during the course of the excavation.

Methodology

The assessment was carried out in accordance with the guidelines set out by English Heritage in the document Management of Research Projects in the Historical Environment [English Heritage : 2008] Planning Policy Note 3 and with reference to the Medieval [Newman and Newman :2007] and Post Medieval Research Agendas drafted by the North West Region

Research Framework [Newman and McNeil: 2007]. The Selection, Retention and Dispersal of Archaeological Collections: Guidelines for use in England, Wales and Northern Ireland [Society of Museum Archaeologist: 1993], and “The Post Medieval Research Agenda” [Newman and McNeil: 2007] were also consulted for the formation of this report.

The finds recovered from the excavation comprised various categories of material including: Glass, Ceramic, Bone, Metal and Miscellaneous.

All categories of finds were examined in full, with observations in regards to the level of preservation, condition and any observable anomalies, such as decoration being noted. All categories of finds were given individual accession numbers in line with the Standard Operating Procedures [Whittall : *forthcoming*] for Salford Public Archaeological Resource Centre (SPARC), and all finds were photographed digitally using a Canon Power Shot G12 with a Canon 6.1 – 30.5mm zoom lens.

All images were then downloaded on to Digital archives held at the Centre for Applied Archaeology.

The Assemblage

The totality of the assemblage of artefacts recovered from the excavations at Dantzic Street and Gould Street, were processed and analysed in a controlled laboratory environment based at Salford Public Archaeological Resource Centre (SPARC), hosted by the Centre *for* Applied Archaeology (CfAA) at the University of Salford.

The initial analysis consisted of the collecting and cleaning of all artefact material, and the calculation of the volume of artefacts recovered, the assemblage counts are as follows:

Material	Count
Iron Slag	3
Clay Pipe Stem	31
Clay pipe bowl	1
Glass	90
Ceramics	51
Seashell	3
Miscellaneous Ceramics	18
Miscellaneous Metals	13
Stone ware Bottles	1192
Bone	7
Total Count	1320

Table 1: The above table shows the artefact assemblage count by material type and to total number of artefacts found at Dantzic Street and Gould Street.

The assemblage count gives a brief view into the overall distribution of artefacts recovered from the excavations at Dantzic Street and Gould Street, giving a clear indication that the predominant collection centred on those classified as stone ware bottles. The glass recovered from the excavations refers to both whole glass bottles of which there were 36 and fragmented glass sherds of which there were 54. Similarly, the count for the stone ware bottles includes all full and fragmented sherds of which 1068 were fragmented and 124 were full vessels.

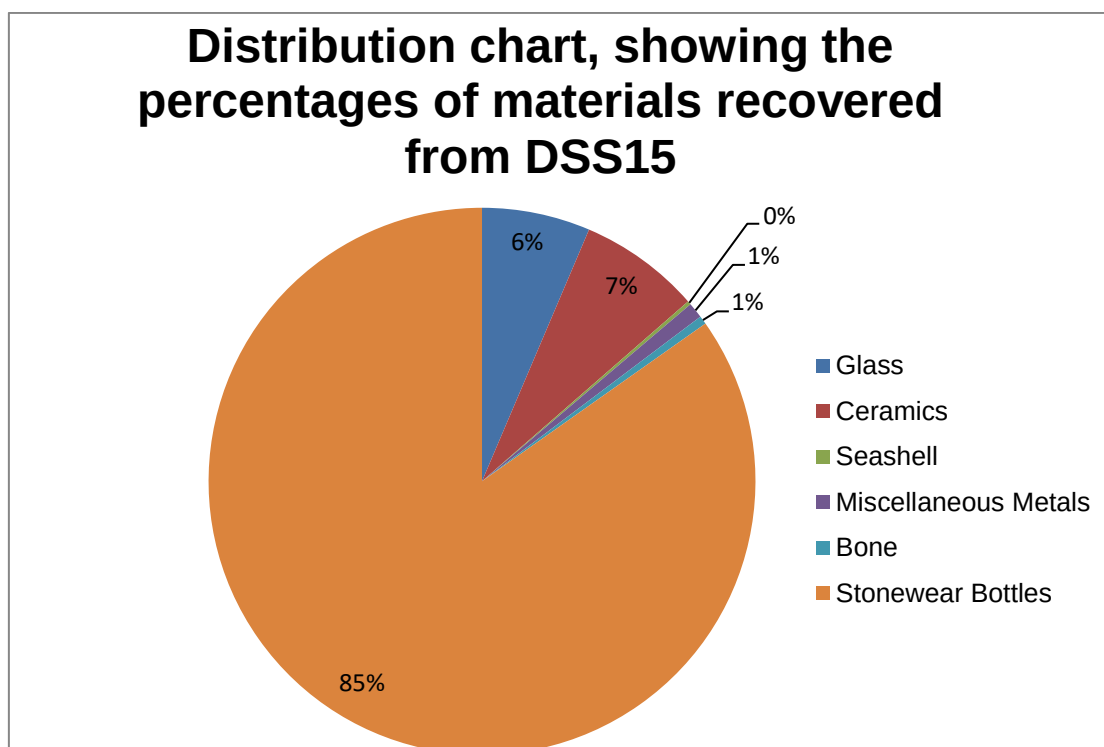


Table 2: The Pie Chart above shows the distribution percentages of the entirety of the assemblage recovered from the excavations at Dantzic Street sites 2015.

The miscellaneous ceramics category includes industrial, post-industrial and modern mass-produced white wares, common wares found in unstratified locations, modern wares found in disturbed contexts and ceramics which are degraded past identification. The count of miscellaneous ceramic artefacts concluded 18 individual items.

Clay pipes accounted for only 1 % of the total assemblage with a count of 31 items, which is unusually small given the location of the site and levels of preservation present in many other artefacts. As clay pipes are regarded as having potentially diagnostic characteristics for the identification of date ranges, all clay pipes were photographed digitally and are part of a full retention profile [Society of Museum Archaeologist: 1993]. Further detail is given on these artefacts within this report.

In total the ceramic artefacts recovered from the excavation number 101 individual items including miscellaneous ceramics (18), clay pipes (31) and identified ceramics (51). The 101 ceramics recovered account for 7% of the total collection.

The most common artefact materials recovered can be segmented into three predominant material categories of ceramics, stone ware bottles, and class, the bar chart below shows the distributions of these three types of artefact highlighting that ceramics (including miscellaneous and identified) account for 7% of the entire collection. Glass accounts for 6% of the entire collection and stone ware bottles account for 84% of the totality of the assemblage.

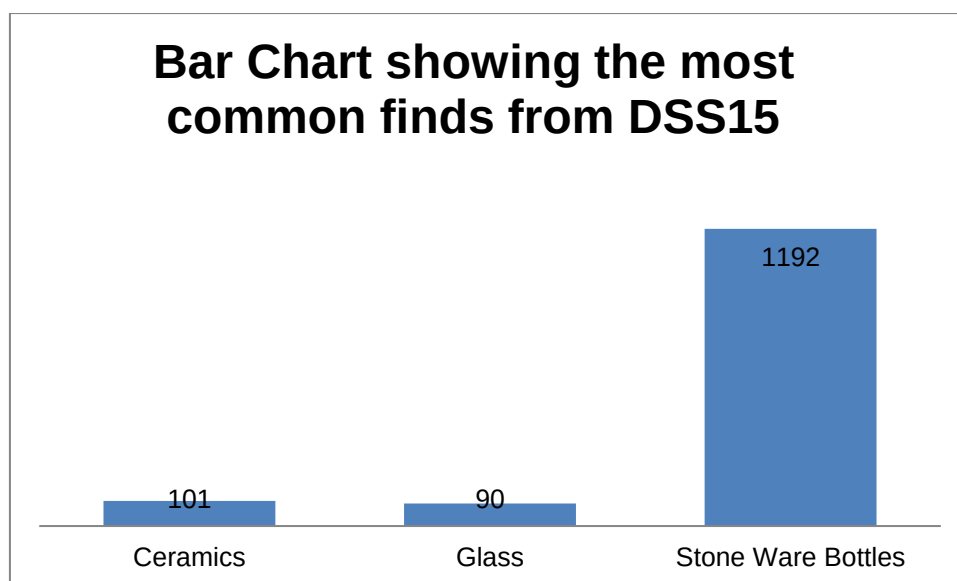


Table 3: The above bar chart depicts the distribution of the more commonly found materials recovered from Radcliffe Tower in 2013.

The Ceramics

The pottery was examined in context groups alongside the other categories of artefacts recovered from the excavation. The ceramic material was separated off and catalogued according to type ware and sherds family (body sherd, rim sherd). The assessment conformed to the minimum standards established by the Medieval Pottery Group [Slowikowski *et al*: 2001] for the Processing, Recording and Analysis of Post Roman Ceramics. Each group within the context was assigned a unique accession number.

The pottery was washed by hand where appropriate, left to air dry in non-direct sunlight and placed in to industry standard air tight zip lock bags, before being transported to SPARC to be further sorted by context.

Each stratified artefact was assigned an accession number based on type, and was photographed. Each artefact was then re-bagged and placed into large archive boxes ready for decision in regard to selection, retention and dispersal in accordance to the appropriate guidelines. [Society of Museum Archaeologist: 1993]

The ceramic collection has been separated into three main categories for further analysis, these are:

- Clay Pipes
- Miscellaneous Ceramics
- Identifiable Ceramics.

All clay pipes are recommended for retention as diagnostic information is possible through further study of the borehole diameter and where a bowl is present, the style, size and shape of the bowl is diagnostic to set identifiable date ranges.

Miscellaneous ceramics are recommended for dispersal given that these are predominantly mass produced modern white wares, and although it is recognised that the collection could provide some limited information, the information which could be ascertained from a study of these items would not offer further insight into the history of the material culture of this site.

All medieval and post-medieval ceramics are recommended to be retained in line with the selection, retention, and dispersal guidelines [Society of Museum Archaeologist :1993] this is due to the relative scarcity of identifiable medieval and post-medieval wares. The collection of the medieval materials recovered, include three sherds of a buff light orange oxidised sandy ware, one fragment of which shows an external green glaze and possible reflects a fine table ware.

To this extent the distribution spread of the entirety of collected ceramics can be seen in the below bar chart, which highlights the distributions of clay pipes and medieval ceramics in comparison to the combined Identifiable Ceramics and Miscellaneous ceramics.

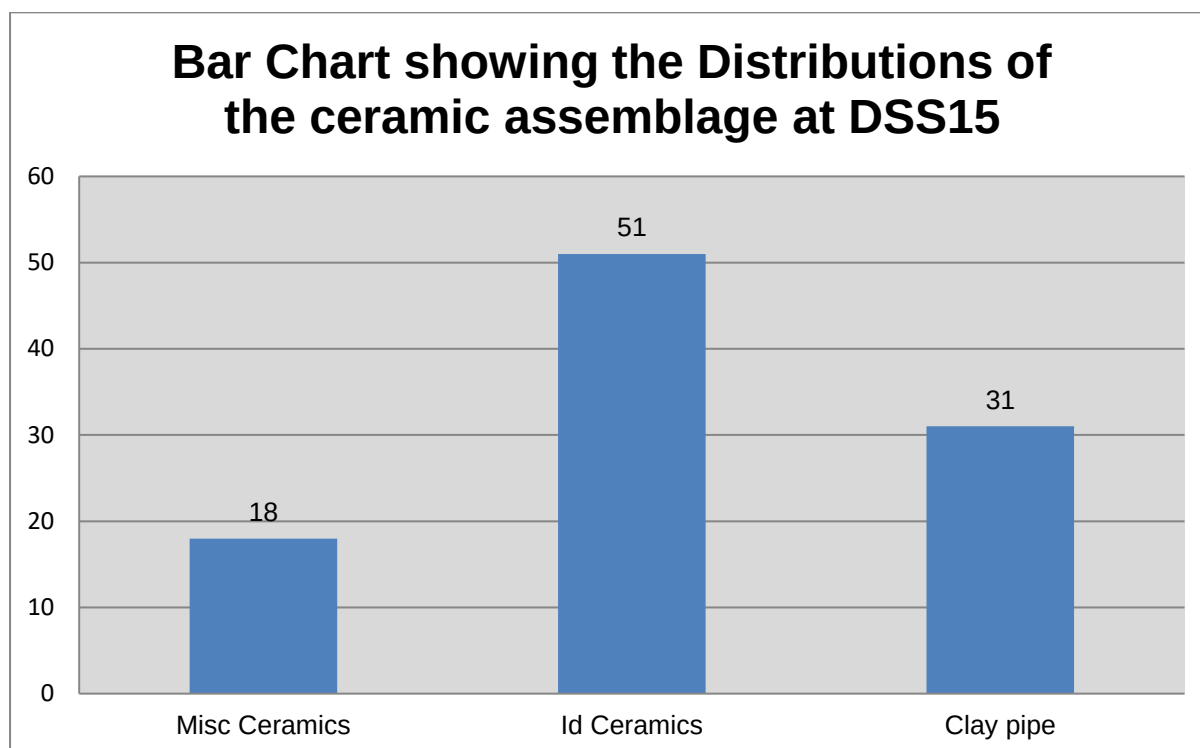


Table 4: The above bar chart shows the distribution in comparison of all the recovered ceramics from Dantzie Street.

Clay Pipes

The clay pipes recovered from the excavation spanned across the site in both stratified contexts and unstratified locations. The distribution of clay pipes and smoking paraphernalia across sites within the Greater Manchester region tend to be a relatively dense distribution, however, only 1% of the total assemblage is attributed to smoking paraphernalia from the Dantzie Street excavations. This level of clay pipe recovery is unusually low for the character and location of the sites.

The clay pipes recovered during the excavation reflected a very low level of preservation, with many fragmented stem sherds and a single highly degraded bowl sherd. It is concluded that due to the lack of visible characterisation of these pipe stems and bowls, and the unusually low count within the assemblage, that these clay pipe fragments should be retained for further study to assess the reason for the low levels of preservation and lack of substantial assemblage, which would normally be expected on industrial and post-industrial sites.

Identifiable Ceramics

The selection of identifiable ceramics recovered from Dantzic Street, consists of items or artefacts where the predominant parent material of the items or artefacts construction is recognisable as formation of ceramic, being that the section of the item or artefact will give indication to the fabric and temper used and the function of the item or artefact is recognisable as a form of vessel or pottery.

The identifiable ceramics recovered from Dantzic Street reflect strongly the later phases of activity within the area, the high percentage of white wares (78%) are indicative of the predominant function of the area as housing, along with the moderate percentage of classic blue transfer wares (15%) reflect a low level of social status within the residents with only a single sherd of porcelain material (2%) with the identifiable markings of “the Palatine Hotel” was recovered. The identifiable ceramics from the medieval which were recovered from plough soil contexts accounts for 5% of the ceramics assemblage.

The single sherd of the porcelain from the Palatine Hotel gives the identifiable ceramics a working *Terminus Ante Quem* (TAQ), as the hotel was in operation from 1837-1911, whereas the presence of medieval ceramics offers a proxy *Terminus Post Quem* (TPQ) of the 13-14th century.

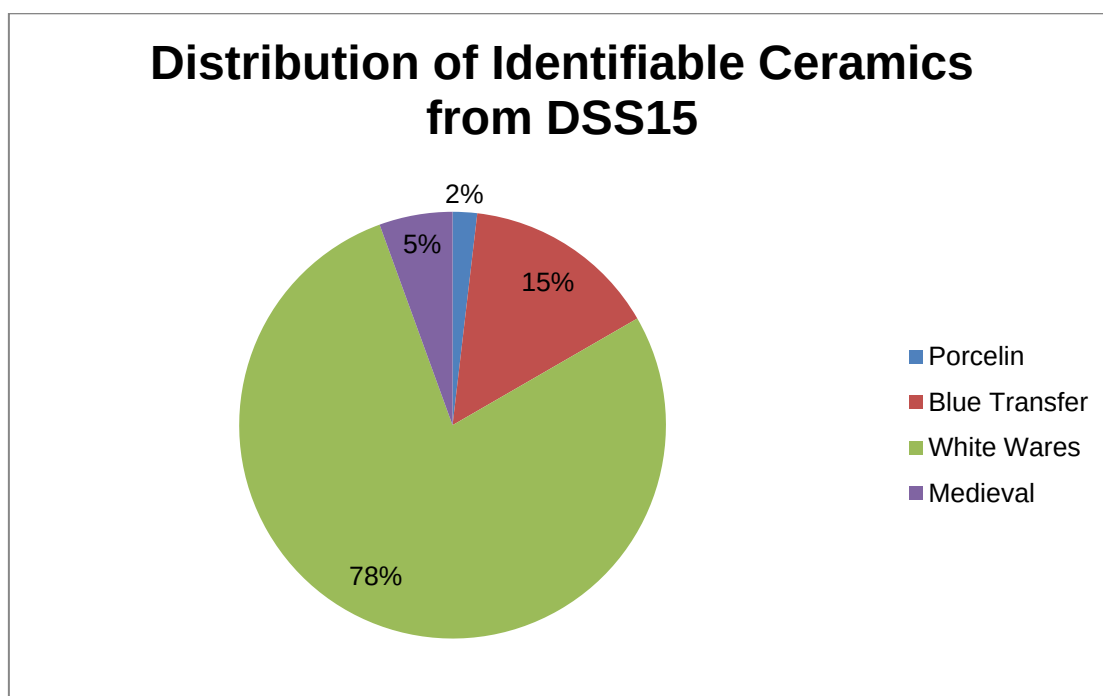


Table 5: Pie chart showing the distribution of identifiable ceramics at Dantzic Street.

The above Pie Chart shows the distribution of items from the identified ceramics collection at Dantzic Street, the assemblage is dominated by the 19th and 20th century white wares, which are associated with the domestic materials from the later phases of occupation at Dantzic Street. These domestic white wares account for 78% of the total identifiable ceramics assemblage.

An interpretation of the medieval ceramics recovered from the Dantzic Street excavations are given below; the assessment and report is given by Ian Miller.

Medieval Pottery Sherds (Ian Miller)

Medieval/Post-Medieval Plough-Soil (583) and (630): despite the remarkable levels of industrial development upon the site, remnants of the earlier pre-industrial agricultural landscape still survived. Layers (583) (Area B) and (630) (Area A) are remnants of once commonplace agricultural fields which covered the area prior to the later 18th century.

Early mapping of the area (Green 1794, Figure 3) shows the majority of both Area A and B as a single large open field still devoted to agricultural concerns. In 1794 it was owned by John Carill Worsley of Platt Hall in Rusholme and had been in the ownership of the Worsley family since at least 1587 (Roberts 1983, 4).

The sherds of medieval pottery recovered from plough-soil (583) were probably re-deposited here either as a rubbish spread or through manuring and yield evidence of usage from the 13th century onwards (see UMAU 2007 (b) for a similar example of medieval plough-soil from Spinningfields, Manchester).

Sherd 1 is a buff light orange oxidised sandy ware part body and base sherd. Although the precise source of this pottery is unknown it is almost certainly locally produced (within 12 miles of the site). The sherd is relatively thin and probably derives from a finer vessel, possibly a baluster or jug. Probably 13th-14th century in date.

Sherd 2 is a small body sherd of a buff light orange oxidised sandy ware. It is possibly from the same vessel as Sherd 1. Probably 13th-14th century in date

Sherd 3 is a body sherd of a buff light orange oxidised sandy ware with a reduced core and external green lead glaze. Probably from a finer table-ware vessel, possibly a narrow-necked jug or baluster. Sherd 3 is slightly later in date to sherds 1 and 2 and probably dates from the late 13th-late 14th century.

The assemblage of identified ceramics recovered from Dantzic Street, has been cleaned by hand where appropriate and allowed to air dry before being analysed. The analysis process of these items consisted of detailed information being recorded in regard to the weight, height and over all conditions of the recovered items, as well as being digitally photographed, with interpretations given on each subcategory of potentially significant items with comparative examples.

In line with the selection, retention, and dispersal guidelines [Society of Museum Archaeologist: 1993] used within this report, it is recommended that all Medieval and Post Medieval identifiable ceramics be retained for future assessment and study.

Glass

The assemblage of glass bottles and glass fragments from the excavations at Dantzic Street reflected a moderate percentage of the collected materials, at 6% of the entire material assemblage; the glass was separated into fragmented sherds and whole bottles.

The fragmented glass sherds account for 60% of all glass recovered, whereas full glass bottles account for 40% this is a relatively high ratio of fragment to full recovery.

There were 36 identifiable complete bottles, of which two bottles have been outlined as holding diagnostic characteristics.

M. (Manoah) Davies and Son

Date: c.1850-80

Listed in: Slater's Directory 1895

Address:

1883 – Mitchell Street, Ancoats; 1886 – 58 Great Bridgwater Street; 1895 - Malvern Street, Cornbrook, Manchester

Company History:

The company made Aerated /Mineral Water and Ginger Ale. Manoah Davies appears in Census Records of 1881, married, living at 42 Mitchell Street, Ginger Beer Maker, born in Bristol. He had two sons Ralph and George. 1901 aged 69, listed as Mineral Water Maker, no trace of his sons.

The 'M. Davies' glass bottle found would have contained mineral/aerated water and dates to c.1880. The glass colour is an aqua with a 'blob-top' style with stopper closure. Two neck strengthening rings are present and the bottle is embossed with the maker's mark/logo. This type of bottle is likely to have been hand gathered glass and produced mouth blown into a two-piece mould.



Plate 1: 'M. Davies' glass bottle

J. Pratt and Son

Date: c.1890 - 1920

Address: Manchester

Description: Mineral water or beer or Ginger Beer

Company History:

Unfortunately, very little is known about 'J. Pratt and Son', although the name is well known in the history of brewing in and around Manchester. Between 1800 and 1920, Groves and Whitnall were the main manufacturers of mineral waters and beers. They acquired many of the smaller companies during this period and it is possible that J. Pratt and Son was one of such. It is possible the bottle manufacturer was Cannington Shaw Glass Manufacturers as other Pratt bottles have been found with their initials on the base.



Plate 2: 'J. Pratt and Son' glass bottle

Stoneware Bottles

The predominant materials recovered from the excavations at Dantzic Street were stone ware ginger beer bottles, which were recovered in large amount. In total 1192 bottles and fragments of stone ware bottles were recovered, accounting for 85% of the total material assemblage at Dantzic Street.

Ceramic Ginger Beer, Mineral Water, and Glass Bottles (Mandy Burns)

Ginger Beer: A History

Ginger beer has its origins in England in the mid 1700's. Production peaked around 1935 when there were approximately 3,000 breweries in England (Polak 2012, 183).

Its ingredients include Jamaica ginger root and fresh lemons and used yeast for fermentation. Both non-alcoholic and alcoholic versions were produced, with some containing up to 11% alcohol. It was mostly stored in stoneware bottles with a cork stopper to maintain effervescence (Polak 2012, 182). These were later adapted to take the internal screw stopper, which was used until well into the twentieth century (Hedges 1975, 19). The carbonation process was introduced in 1899; an essence of extract was used to achieve the right flavour (Polak 2012, 182).

Salt-glazed stoneware bottles tend to be the early version, used from c. mid-1700's to mid-1800's. After brewing, the bottles were corked and wired to maintain pressure, which kept the alcohol and carbon dioxide in solution, improving preservation and extending shelf life (Polak 2012, 183).

The early stoneware bottle was used extensively from 1790 until 1880-1890 when industrialization and new manufacturing techniques introduced a grey stoneware bottle. These new bottles were used from approximately 1885 to 1920 and were transfer-marked with various logos to attract the buyer.

In 1835, 'Improved Bristol Glaze' was introduced, which produced a thick, shiny finish to the glaze. This was a feldspathic glaze-slip using zinc oxide that required only a single firing. Many of the later ones were known as the 'double dip' or 'double glaze' ware, because of the two-toned effect produced by dipping the bottle in the glaze twice. These bottles were usually glazed in off-white and a mustard colour. The white was usually at the bottom and the mustard from the shoulders up but the opposite has also been known. These date from 1870-1880. Other colours were also used such as the blue colour seen on the 'M. Davies' bottle. Improved Bristol Glaze (IBG) soon replaced the older salt-glazed bottles.

These 'newer' bottles were mostly vitreous in a light grey or greyish white stoneware. They were dipped vertically to produce the two-toned effect, with the printed transfer label, usually in black, placed on the body of the bottle (Polak 2012, 183).

The collection of stone ware bottles was incredibly large, and is considered to be highly unusual, as such further study is fully recommended to ascertain the possible reasons for such a large quantity of stone ware bottles.

The bottles were predominantly recovered from context (508) with only a few, as little as 9 bottles, recovered from (511), there is a notable differentiation between the bottles recovered from (508) and those of (511).

The bottles from (511) were colour topped bottles, where the bottles are double dipped, producing a difference in colour between the body and the neck or lip. The bottles are all trademark identified as M. Davis, the same producer as the double ringed neck complete glass bottle discussed above.

The bottles recovered from (508) were cleaned and catalogued and divided into maker, trademark and unknown. There were six makers identified with a total of nine different trademarks.

The assemblage was dominated by bottles identified with the producer of “David Paton” the Paton collection displayed three variations of trade mark, “*Paton & Price G Bristol*” “*David Paton Manchester*” and “*David Paton*”. The assemblage also identified “J.Bourne” with two variations of trade mark, “*Joseph Bourne & Son Patentees Denby Pottery Near Derby*” and “*J.Bourne & Son Patentees Denby Near Derby*”. Although the bottle assemblage was dominated by these two producers, four other producers were identified through individual bottles, “Moorhouse Hulme”, “Plant”, “Davis” and “Dowd” were also present within the assemblage from (508).



Plate 3: ‘M.Davis’ double dipped ginger beer bottle from (511)

The bottle assemblage at Dantzic Street is offered in the pie chart below which highlights the dominance of the David Paton collection within the assemblage.

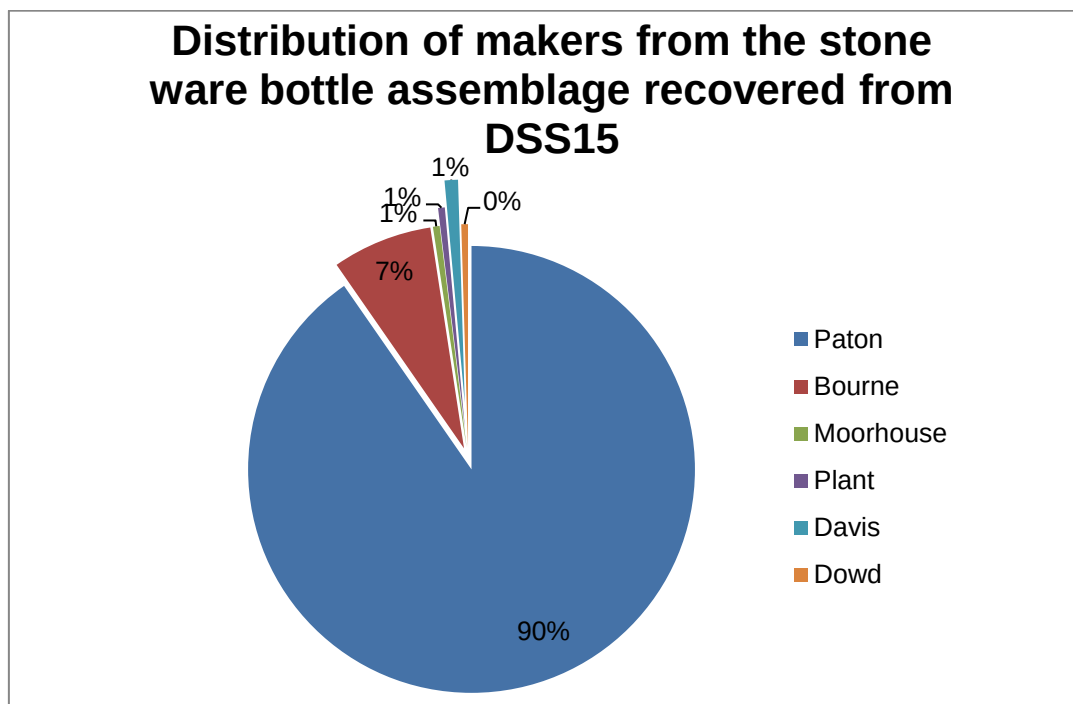


Table 6: chart showing bottle assemblage.

David Paton

The David Paton collection accounted for 90% of the total bottles recovered from Dantzic Street, this collection showed three identifiable forms of trade mark, *Paton & Price* trademarks accounted for 11% of the Paton collection with *David Paton Manchester* accounting for 89% of the collection. A single fragment of the *David Paton* trademark was recovered.

David Paton appears in the Slaters 1911 directory as “Paton’s Mineral Water Bottling Company Ltd” Paton also appears in The Paisley Directory and the General Advertiser, Vol 1852 as a bottler. The Paton Company is recorded as being at Shude Hill in Manchester (John Paton) and also at Chester Road in Manchester (Joseph Paton). It is possible that the variations within the trademark could reflect at which production centre the bottles were produced. A further study would be recommended to ascertain that viability of this.

David Paton was active within the bottling industry between the years 1850-1880, and produced bottles with hand applied mid-brown, salt glazed slip, the closures of the bottles were cork stoppers and the logos and trademarks are all incised.

Plate 4 shows the variations in trademarks of the Paton collection, above left was the predominant trademark David Paton Manchester, centre left shows the singular Paton trade mark, while the centre right and above right show the Paton & Price trademark.



Plate 4: example of David Paton stoneware bottles

Joseph Bourne

The Joseph Bourne bottles account for 7% of the total bottle assemblage, with 2 different trademarks identified, *Joseph Bourne & Son Patentees Denby Pottery near Derby* and *J.Bourne and Son Patentees Denby Near Derby*. The longer trademark accounts for 87% of the Bourne collection and the shorter reflects 13% of the Bourne collection.

The Bourne collection offers a date range of 1850 – 1880 and Joseph Bourne appears in Pigots & Co's Directory of Derbyshire, 1835 listed as a Bottle and Stoneware Manufacturers, located at Denby, the Bourne Company absorbed smaller potteries during its expansion, including the Condor Park and Belper potteries.

Plate 5 shows the longer trademark of Joseph Bourne and Son, Patentees, Denby Pottery, near Derby. This trade mark accounts for 87% of the Bourne collection, whereas the shorter trade mark above right shows the J.Bourne and Son, Patentees, Denby Pottery, Near Derby.

The Bourne trade mark became Bourne and Son in 1841 when Joseph Bourne took his son Joseph H.Bourne into partnership, the trade mark remained J.Bourne & Son until 1916 when the company became Denby Pottery Ltd.



Plate 5: example of ' J Bourne stoneware bottles

Contextual Assemblage

The total assemblage recovered from Dantzic Street has a combination of stratified and unstratified items, those items which are stratified offer a wide range of archaeological information, those which are unstratified can, on occasion, provide a proxy date range for the site.

The assemblage from Dantzic Street is heavily dominated by Stone ware bottles, these bottles can be dated by typology, glaze type, fabric type and maker. The date range offered by the bottles as a collection suggest that the bottle assemblage was amassed around 1850-1890. Through consideration of bottle form, bottle fabric and glazes, along with additional information offered by the presence of the trademarks, an inference can be made that these bottles were predominantly ginger beer bottles, with a smaller amount of carbonated water bottles present.

The large amount of these stone ware bottles would easily lend the assemblage to further academic study and hold significant potential for publication in regard to the following research aims;

- Investigate the potential of trademark typologies
- Identify any anomalies or diagnostic characteristics
- Assessment of the assemblage within a local, regional and national context
- Historical research focussed on the development of the makers companies

The bottle assemblage recovered from Dantzic Street and Gould Street is unusual in its volume and quality, and as such academic study of the assemblage should be given consideration.

The ceramic assemblage from the site includes 3 fragments of 13th - 14th century sandy ware pottery, although as outlined in Ian Millers contribution, these fragments may be redeposited within the identified plough soils; The recovery of medieval ceramics and the identification of a plough soil within the city, makes these items significant.

A further study of the plough soils themselves could offer significant archaeological and environmental information in regard to the degradation of ancient soils within the city boundary. There is potential within such a study to investigate levels of contaminants or pollutants that the industrial revolution deposited on older soils.

The recommendations given above are offered based on information collected during the excavation and post excavation analysis of the material assemblage recovered from Dantzic Street and Gould Street and is offered as recommendations for potential further work. The large assemblage of Stone Ware bottles is highly significant to the immediate area, the locality and the region and it is recommended that further study of the bottle assemblage is given consideration.

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Building	Context	SF no.	Fabric type	Quantity	MNV	Complete	Weight (g)	Provisional Date	Finish	Bore	Lip	Neck	Body	Diameter/width (mm)	Photograph no.	Notes and Additional information	
A	(511) [512]	11000.3.3	Glass	1	1	Y	445	20th	Two part	Stopper - 'Crown cork'			Circular	67	235	Full vessel beer bottle - green, machine made two piece mould, body embossing – "THELFALL'S BREWERY Co Ltd",	
A	(511) [512]	11000.2.8	Glass	1	1	Y	130	20th		Metal cap closure			Circular - barrel		236	Full vessel modern domestic – clear , "TYNE BRAND PRODUCT NORTH SHIELD ENGLAND"	
A	(511) [512]	11000.6.1	Glass	1	1	Y	126	1900-1950	One part	Stopper			Ovoid	59x41	234	Full vessel household/domestic – blue, machine gathered two piece mould with applied lip,	
A	(511) [512]	11000.2.7	Glass	1	1	Y	66	20th		Stopper			Circular	31	233	Full vessel small medicine bottle - clear, machine made two piece mould, body embossing – "TEA SPOONS (5ml scale markings)", 130mm height, 75ml volume	
A	(511) [512]	11004.5.3	Clay pipe	5	-	N	41	19th								Stems	
A	(511) [512]	11004.5.3	Ceramic	2	-	N	380	19-20th								Glazed ceramic jar lid - domestic/kitchenware	
A	(511) [512]	11004.5.3	Ceramic	1	-	N	218	19-20th								Large ceramic jar fragment, probably industrial / non-domestic, "B35"	
A	(511) [512]	11004.5.3	Metal	1	1	Y	45	19-20th								Iron teaspoon	
B	(511) [513]	11000.2.10	Glass	1	1	Y	345	1900-1950	One part	Cap seat	Rounded	-	Circular	64	243, 7731	Full vessel milk bottle - clear, body embossing – "B & W MILK Brough & Wild Dairies Ltd. Manchester", base - "FGC B & W 1",	
B	(511) [513]	11000.2.9	Glass	1	1	Y	785	1872-1900 (Cornbrook brewery est. 1885 and liquidated 1968)	Two part	Internal thread - stopper		Sloping	Circular		241, 7728	Full vessel wine bottle with stopper - clear, machine made two piece mould, body embossing – "CORNBROOK BREWERY Co Ltd MANCHESTER", base - "K 84 7 S 3 U A B"	
B	(511) [513]	11000.2.11	Glass	1	1	Y	26	1850-1950	One part	Stopper - cork (present)	Rounded - folded out	-	Rectangular with flat chamfers	17x32	244	Full vessel bottle - clear, machine made mould with no seams visible, probably tincture / perfume,	
B	(511) [513]	11001.2.2	Ceramic	1	1	Y	142	19-20th								Small glazed ceramic jar - ink pot (?)	
C	(511) [514]	11000.1.1	Glass	1	1	Y	714	1850-1900	One part	Stopper	Down-tooled	Sloping with rounded shoulders	Circular	90	238	Full vessel whisky bottle - brown, hand gathered two piece mould with applied lip, base embossing – "UAM-VAR WHISKY",	
C	(511) [514]	11000.8.8	Glass	1	1	Y	706	1800-1850	Two part	Stopper		Sloping	Circular	78	237	Full vessel champagne/wine bottle - aqua/light green, hand made pontilled with a high kick up and high SLS mix,	
C	(511) [514]	11004.3.2	Glass	1	1	Y	72	19-20th					Octagonal		240	Small glass bottle stop - clear, purpose unknown	
C	(511) [514]	11000.6.2	Glass	1	1	Y	218	1800-1850	One part	Stopper	Patent		Circular		239	Full vessel bottle - blue, hand gathered three piece mould with applied lip, domestic / household use	

Building	Context	SF no.	Fabric type	Quantity	MNV	Complete	Weight (g)	Provisional Date	Finish	Bore	Lip	Neck	Body	Diameter/width (mm)	Photograph no.	Notes and Additional information
C	(511) [514]	-	Clay pipe	3	-	N	9	19th								Stems
C	(511) [514]	11001.2.1	Ceramic	1	1	Y	480	19th					Circular			Salt-glazed beer/ginger beer bottle, "P. DOWD P.D MANCHESTER"
C	(511) [514]	11001.2.1	Ceramic	1	1	Y	560	19th					Circular			Salt-glazed beer/ginger beer bottle, unmarked
C	(511) [514]	11004.1.1	Ceramic	2	-	N	350	19-20th								White ceramic sherds
C	(511) [514]	-	Other	1	-	Y	20	19-20th								Rubber bottle top, "Cornbrook Brewery & Co. Manchester"
D	(511) [515]	11004.5.11	Glass	1	1	Y	12	19th-20th								Glass bottle stop
D	(511) [515]	11000.3.1	Glass	1	1	Y	501	1850-1900	Two part	Stopper	Rounded string rim	Tapered	Circular	71	214, 215, 7730	Full vessel beer/ginger beer bottle - green, body embossing – "J. PRATT & SON MANCHESTER No 4150 TRADEMARK No 22964 REGISTERED (arm and hammer icon)" , base - "659",
D	(511) [515]	11000.3.2	Glass	1	1	N	405	1820-1870				Rounded and marked	Circular	69	217	Partial vessel beer bottle - green, neck and finish missing, three piece mould, body embossing – "H.SHAW DUKINFIELD", neck - "IMPERIAL 1/2 PINT", base - "1395",
D	(511) [515]	-	Glass	4	-	N	100	19-20th								Glass bottle shards
D	(511) [515]	11000.8.1	Glass	1	1	Y	490	1850-1950	One part	Stopper		Tapered	Circular	64	216	Full vessel 'blob top' mineral water - aqua, two piece mould , body embossing – "P. DOWD MANCHESTER P.D TRADEMARK", base - "N & Co 2002",
D	(511) [515]	-	Glass	1	1	Y	270	19-20th								Full vessel jar - clear
D	(511) [515]	11000.6.3	Glass	1	1	N	56	1800-1880	One part	Stopper	Flared	-	True octagonal	42	251	Partial vessel bottle - blue, probably ink pot for domestic/household use, hand gather two piece mould with visible bubbles,
D	(511) [515]	11000.3.4	Glass	1	1	Y	518	1850-1900	Two part	Stopper	Two part rounded string rim	-	Circular	72	249, 250	Full vessel mineral water or ginger beer bottle- green, hand gathered two piece mould with applied lip, body embossing – "J. PRATT & SON MANCHESTER REGISTERED TRADE MARK No 22964 (arm and hammer icon)", base - "659",
D	(511) [517]	11000.2.4	Glass	1	1	N	103	1850-1920				Missing	Ovoid	55x36	229	Partial vessel medicine bottle – clear, hand gathered glass (bubbles present) two piece mould,
D	(511) [517]	11000.8.7	Glass	1	1	Y	240	1850-1920			Three part lip	Circular	Circular	52	230	Full vessel relish/sauce bottle – aqua, hand gathered two piece mould with applied lip,, body embossing - "WHYBROWS RELISH", base - "926",
D	(511) -	11000.8.4	Glass	1	1	Y	227	1850-1900	Three part	Ground, stopper	Applied	Straight	Circular	52	224	Full vessel domestic sauce bottle – aqua, two piece mould with applied lip, body embossing – "LONDON RELISH", base - " W.D HOLBROOK & Co",

Building	Context	SF no.	Fabric type	Quantity	MNV	Complete	Weight (g)	Provisional Date	Finish	Bore	Lip	Neck	Body	Diameter/width (mm)	Photograph no.	Notes and Additional information
D	(511) [515]	11000.2.6	Glass	1	1	Y	1300	20th	Two part	Stopper			Circular	135	232, 7727	Full vessel Demi John-Wire – clear, machine made modern two piece mould (passes through closure),
D	(511) [515]	11000.2.5	Glass	1	1	Y	405	20th		External screw			Circular		231	Full vessel jar - clear, machine made two piece mould, red residue (paint?) inside, base embossing "K431 G162 UGB"
D	(511) [515]	11000.2.5	Glass	1	1	Y	176	20th		External screw			Square		231	Full vessel bottle - clear, probably sauce bottle, machine made, base embossing "T"
D	(511) [515]	11000.2.1	Glass	1	1	Y	70	1850-1900	One part	Stopper (cork)	Flanged		Ovoid	39x25	218	Full vessel medicine/domestic bottle - clear, two piece mould, 125mm height
D	(511) [515]	11000.8.9	Glass	1	1	Y	445	C.1880	One part	Stopper	Rounded	Two neck strengthening rings	Circular	71	245, 246, 247, 248, 7729	Full vessel mineral water / beer 'blob top' bottle- aqua, probably machine-gathered two piece mould with applied lip, body embossing – "M.DAVIES MANCHESTER REGISTERED TRADEMARK (masonic compass icon) MALVERN STREET CITY ROAD CONBROOK MANCHESTER", 174mm height
D	(511) [517]	11000.8.6	Glass	1	1	Y	46	1820-1900	One part				Ovoid - two pointed ends	38x28	227	Full vessel medicine/household bottle – aqua, two piece mould or possible hand finished (irregular shape), 57mm height
D	(511) [517]	11000.2.3	Glass	1	1	Y	26	1820-1900	One part		Flared	Straight with sloping shoulders		24	228	Full vessel medicine vial - clear, possibly hand produced although possible mould seams are visible on shoulders and neck, 69mm height
D	(511) -	11000.8.2	Glass	1	1	N	325	1870-1950				Missing	Circular	56	220,221	Partial vessel 'codd' mineral water bottle - aqua, two piece mould, body embossing – "M.DAVIES MANCHESTER REGISTERED TRADE MARK (masonic compass icon) – T.TURNER & Co MAKERS DEWSBURY & LONDON",
D	(511) -	11000.8.3	Glass	1	1	N	511	1870-1950					Circular	65	222, 223	Partial vessel 'codd' mineral water bottle – aqua, two piece mould, body embossing – "M.DAVIES MANCHESTER REGISTERED TRADE MARK – T.TURNER & Co DEWSBURY",
D	(511) [515]	11004.5.2	Clay pipe	3	-	N	10	19th								Stems
D	(511) [515]	11004.1.5	Ceramic	1	-	N	101	19-20th								Glazed brown tea pot lid
D	(511) [515]	11004.1.5	Ceramic	1	1	Y	498	19th								Salt-glazed beer/ginger beer bottle
D	(511) [517]		Ceramic	1	1	Y	367	20th								Modern white ceramic cup
D	(511) [517]	11004.1.2	Ceramic	1	1	Y	129	19-20th								Small glazed ceramic cup
D	(511) [517]	11004.1.2	Ceramic	4	-	N	680	19-20th								Blue and white transfer ware sherds

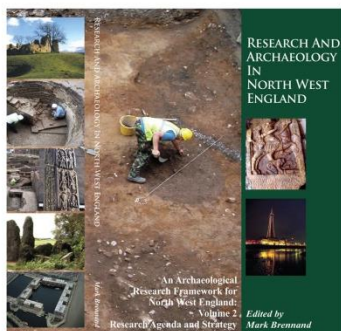
Building	Context	SF no.	Fabric type	Quantity	MNV	Complete	Weight (g)	Provisional Date	Finish	Bore	Lip	Neck	Body	Diameter/width (mm)	Photograph no.	Notes and Additional information
D	(511) [515]	11001.2.1	Ceramic	1	1	Y	480	19-20th								Large white ceramic jar
D	(511) [515]	11004.5.1	Ceramic	1	1	Y	110	19-20th								Small white ceramic cup - ink (?)
D	(511) [515]	11004.5.2	Ceramic	1	1	Y	500	19th							7632, 7684, 7717	Salt-glazed beer/ginger beer bottle, "P. DOWD P.D MANCHESTER"
D	(511) [515]	11004.5.2	Ceramic	1	1	Y	502	19th							7635, 7683, 7718	Salt-glazed beer/ginger beer bottle, "M. DAVIES & SON MANCHESTER" – Masonic compass icon with distinct blue lip
D	(511) [515]	11004.5.2	Ceramic	3	2	N	1160	19th							7634	Fragments of salt-glazed beer/ginger beer bottle, "M. DAVIES & SON MANCHESTER" – Masonic compass icon with distinct blue lip
D	(511) [515]	11004.5.1	Ceramic	1	1	Y	512	19-20th								Large white ceramic jar
E	(511) [516]	11004.1.4	Ceramic	1	-	Y	30	19-20th								Ceramic white bottle top, "O'CONNELL'S PATENT SIPHONIA"
D	(511) - [515]	11004.5.11	Ceramic	4	1	N	155	1837-97								Ceramic plate - red and white transfer ware , "J.M & SONS BAMBOO"
D	(511) [515]	11004.5.11	Ceramic	1	-	N	65	19-20th								Glazed ceramic watering-can head
D	(511) [515]	11004.2.1	Metal	1	1	Y	48	19-20th								White metal tobacco pipe
D	(511) [515]	11004.5.1	Other	1	-	Y	22	19-20th								Rubber bottle top, "A.L.B"
D	(511) [512]	11006.4.2	Other	1	-	N	2860	19-20th								Gravestone fragment, "...Joseph Edward..."
D	(511) [515]	11004.5.2	Other	1	-	Y	28	19th-20th								Rubber bottle stop, illegible
D	(511) [512]	11004.5.11	Other	2	2	N	103	19th (?)								Anthromorphic white porcelain statue-figurines
D	(511) [515]	11004.5.1	Ceramic	1	1	Y	480	19th								Salt-glazed beer/ginger beer bottle
D	(511) [515]	11004.5.2	Other	2	-	Y	45	Unknown								Two seashells, probable food waste
E	(511) [516]	11000.2.2	Glass	1	1	Y	48	1850-1950	One part	Stopper	Flanged		Circular	21	219	Full vessel medicine vial – clear, two piece mould with mould seam passing through lip, base embossing - "17", 111mm height
E	(511) [516]	11004.1.3	Clay pipe	6	-	N	40	19th								Stems
E	(511) [516]	11004.1.4	Ceramic	1	1	N	1505	20th							7726	Green ceramic vase, handle broken
E	(511) [516]	11004.1.3	Ceramic	3	2	N	380	19th								Salt-glazed beer/ginger beer bottle, "M. DAVIES & SON MANCHESTER" – Masonic compass icon with distinct blue lip
E	(511) [516]	11004.1.3	Ceramic	1	1	N	145	1862 TPQ								White ceramic domestic jar, "Dundee [...] Marmalade Prize Medal 1862"
E	(511) [516]	11004.1.3	Ceramic	2	-	N	88	19th								Blue and white transfer ware
E	(511) [516]	11004.5.10	Metal	1	1	Y	42	19-20th								Dinner fork
E	(511) [516]	11006.4.1	Other	1	-	N	6700	20th								Black polished gravestone fragment , "[...] Greenhalgh [...]"
Area A	(508) [510]	11004.5.8	Glass	54	-	N	356	19-20th								Glass bottle shards

Building	Context	SF no.	Fabric type	Quantity	MNV	Complete	Weight (g)	Provisional Date	Finish	Bore	Lip	Neck	Body	Diameter/width (mm)	Photograph no.	Notes and Additional information
Area A	(508) [510]	11004.5.6	Clay pipe	1	1	N	15	19th								Bowl without stem, undecorated and unmarked
Area A	(508) [510]	11004.5.4	Clay pipe	20	-	N	106	19th								Stems
Area A	(508) [510]	11004.5.8	Ceramic	8	1	N	150	19-20th								White/cream ware sherds
Area A	(508) [510]	11004.5.12	Ceramic	21	-	N	580	19th								Blue and white transfer ware
Area A	(508) [510]	11004.5.13	Ceramic	1	1	N	140	1837-1911 (Palatine Hotel)							7675	White ceramic teacup with blue paint, "Palatine Hotel"
Area A	(508) [510]	11004.5.7	Ceramic	1209	124	N	68112	19th							7622, 7624, 7626, 7628, 7630, 7680, 7686, 7707, 7712, 7713, 7714, 7715, 7719, 7723, 7725	Salt-glazed ginger beer bottles, including "DAVID PATON MANCHESTER", "J.BOURNE & SON PATENTEES DENBY NEAR DERBY", "PLANT", "MOORHOUSE HULME"
Area A	(508) [510]	11004.5.13	Ceramic	5	1	N	450	19-20th								Salt-glazed ceramic decorated jar
Area A	(508) [510]	11004.5.6	Animal bone	4	-	N	55	19-21st								Animal bone food waste, possibly chicken
Area A	(508) [510]	11004.5.5	Metal	3	-	N	45	19th								Miscellaneous copper fragments
Area A	(508) [510]	11004.5.13	Metal	2		N	88	19-20th								Iron slag
Area A	(508) [510]	11004.5.9	Other	2	2	N	34	19th								Seashell, probably food waste
Area A	(508) [510]	11004.5.9	Other	1	-	N	38	19th								White ceramic door knob
Plough soil	(583) -	11004.1.7	Ceramic	2	-	N	13	14-15th							253	One sherd of Lancashire gritty, one sherd of red stoneware
Plough soil	(583) -	11004.1.6	Ceramic	1		N	7	14-15th							252	Sherd of possible vitrified late yellow ware
Silk mill	(518) -	110034.3.1	Glass	5	-	N	45	1850-1950							226	Miscellaneous glass - 1 x codd bottle marble, 4 x glass rods (silk spindles)
Silk mill	(518) [519]	11000.8.5	Glass	1	1	Y	485	1850-1900	One part	Stopper		Sloping	Circular	67	225	Full vessel 'blob top' mineral water/ginger beer bottle – aqua, two piece mould with applied lip, body embossing - "PATON'S LIMITED MANCHESTER – REDFEARN BROS BOTTLE MAKERS BARNESLEY", base - "RRB"
Unstratified	N/A	11000.9.1	Glass	1	1	Y	630	1872-1950	One part	Internal thread stopper-screw (present)	Down-tooled	-	Circular		242	Full vessel mineral water bottle – aqua/clear, machine made moder two piece mould, body embossing – "J&B JEWSBURY & BROWN MANCHESTER TRADE MARK (Star of David)", base - "J&B 63 C"

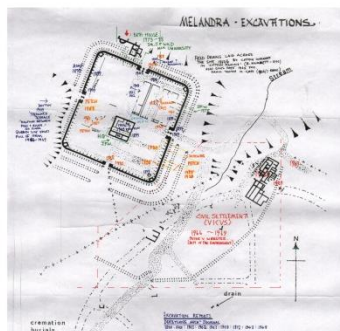
University of
Salford
MANCHESTER



CONSULTANCY



DESK BASED ASSESMENTS



WATCHING BRIEF & EVALUATION



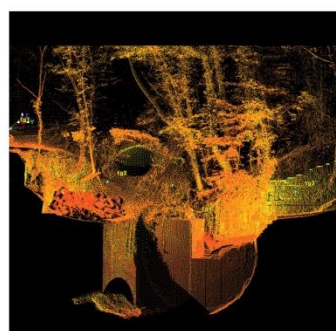
EXCAVATION



BUILDING SURVEY



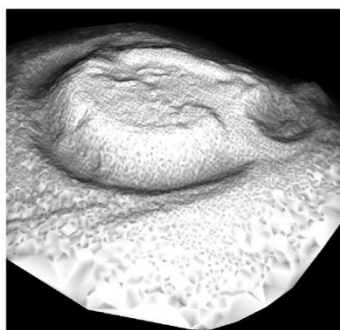
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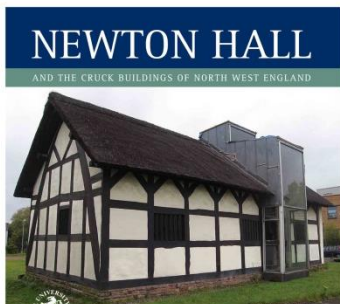
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