



Plots 2, 3 and 5, Angel Meadow, Manchester: Archaeological Excavation Report

May 2019

Client: Orion Heritage Ltd

Issue No: 3

OA Reference No: L11148

NGR: SJ 844 991



Client Name: Orion Heritage Ltd
 Document Title: Plots 2, 3 and 5, Angel Meadow, Manchester: DRAFT Archaeological Excavation Report
 Document Type: Excavation Report
 Grid Reference: SJ 844 991
 Planning Reference: 116366/FO/2017
 Site Code: AMM18
 Invoice Code: L11148

 OA Document File Location: X:\Projects\Adam T\Projects\L11148_Angel_Meadow_Manchester
 OA Graphics File Location: X:\Projects\Adam T\Projects\L11148_Angel_Meadow_Manchester\OAN_CAD

 Issue No: 2018-2019/1952
 Date: 09/05/2019
 Prepared by: Richard Gregory (Senior Project Manager)
 Checked by: Rachel Newman (Senior Executive Officer: Research and Publication)
 Edited by: Rachel Newman (Senior Executive Officer: Research and Publication)
 Approved for Issue by: Rachel Newman (Senior Executive Officer: Research and Publication)
 Signature:

.....

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

OA South

Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East

15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SG

t. +44 (0)1223 850 500

OA North

Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD

t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk

w. oxfordarchaeology.com

Oxford Archaeology is a registered Charity: No. 285627



Plots 2, 3 and 5, Angel Meadow, Manchester

Archaeological Excavation

Contents

List of Plates	v
List of Tables	viii
Summary	ix
Acknowledgements	x
1 INTRODUCTION	1
1.1 Circumstances of the project	1
1.2 Site location, topography, and geology	1
1.3 Historical background	2
1.4 Previous archaeological investigation	11
1.5 Aims and objectives	12
2 METHODOLOGY	13
2.1 Introduction	13
2.2 Excavation and recording methodology	13
2.3 Post-excavation analysis and reporting	14
2.4 Archive	14
3 RESULTS	15
3.1 General site stratigraphy and phasing	15
3.2 Plot 2	15
3.3 Plot 3	46
3.4 Plot 5	70
3.5 Finds summary	93
3.6 Community Outreach	95
4 DISCUSSION	96
4.1 Introduction: excavating workers' housing in Manchester	96
4.2 Chronology and form of the workers' housing	97
4.3 Construction and building quality	103
4.4 Evolving sanitation	105
4.5 Drainage	112
4.6 Improvements in ventilation and space	112

5	CONCLUSION	114
5.1	Plots 2, 3, and 5 in context	114
6	BIBLIOGRAPHY	115
	Cartographic sources	115
	Secondary sources	115
APPENDIX A	SUMMARY ENTITY/CONTEXT DESCRIPTIONS	120
APPENDIX B	1851 CENSUS FOR OLD MOUNT STREET	126
	LIST OF FIGURES	140

List of Plates

Plate 1	Recent aerial view of the St Michael's Flags and Angel Meadow Public Park with Plots 2 and 3 to the west, and Plot 5 to the east	2
Plate 2	An extract from Green's map of 1787-94, showing the Angel Meadow area, with Plots 2, 3, and 5 highlighted	3
Plate 3	Workers' housing in and around Plots 2, 3, and 5, as depicted on the 5ft:1mile OS maps of 1850, with Plots 2, 3, and 5 highlighted	5
Plate 4	The areas in north-western Manchester described by Engels, superimposed on the 5ft:1mile OS maps of 1850, with the excavated plots highlighted.....	6
Plate 5	Angel Meadow, as depicted on the 1:2500 OS maps of 1893, with Plots 2, 3, and 5, and the ragged schools highlighted.....	10
Plate 6	Remains of early nineteenth-century cellars in the southern portion of Plot 2, excavated in 2012	11
Plate 7	An extract from Green's map of 1787-94, with the location of Plot 2 highlighted.....	16
Plate 8	An extract from Johnson's map of 1818/19, with the location of Plot 2 highlighted.....	16
Plate 9	An extract from Swire's map of 1824, with the location of Plot 2 highlighted.....	17
Plate 10	An extract from Bancks & Co's map of 1831, with the location of Plot 2 highlighted.....	17
Plate 11	An extract from the 5ft:1mile OS map of 1850, with the location of Plot 2 highlighted.....	18
Plate 12	An extract from the 10ft:1mile OS map of 1891, with the location of Plot 2 highlighted.....	19
Plate 13	An extract from the 25inch:1mile OS map of 1908, with the location of Plot 2 highlighted	20
Plate 14	Aerial view of R17	24
Plate 15	Staircase in R15 , looking south-west	25
Plate 16	Structure 2005 , beneath Privy P7 , looking south-east	26
Plate 17	Aerial view of 2007	27
Plate 18	P3 , looking south-west.....	27
Plate 19	Aerial view showing the flagged surface of Court 3 , and the remains of R5 , R6 and R7 , and C9	29
Plate 20	Fireplace in R5 , looking east	30
Plate 21	Aerial view of C4-8	32
Plate 22	Remains of the fireplaces in C8 , looking west	33
Plate 23	C7 , looking south.....	34
Plate 24	Southern elevation of C4 , with patches of surviving lime plaster.....	35
Plate 25	Fireplace (and later pot boiler) in C5 , looking north	35
Plate 26	Blocked doorway originally providing access between C5 and C9 , looking east	36
Plate 27	C1-3 , looking north, with a blocked doorway visible on the northern elevation of C3	37

Plate 28	P1 , looking east	39
Plate 29	R2 , looking south-west.....	40
Plate 30	Aerial view of the Phase 5 yards, privies, and ginnel in the Nelson Court area.....	41
Plate 31	P4 , looking north-west.....	42
Plate 32	Aerial view of R12-14 and P1-3	43
Plate 33	Base of a pot-boiler associated with the eastern fireplace in C8 , looking south.....	44
Plate 34	Aerial view of modified Court 2 , and Phase 5 R1 , R9 , and R10 , and P5 and P6	45
Plate 35	An extract from Johnson's map of 1818/19, with the location of Plot 3 highlighted.....	46
Plate 36	An extract from Bancks & Co's map of 1831, with the location of Plot 3 highlighted.....	47
Plate 37	An extract from the 5ft:1mile OS map of 1850, with the location of Plot 3 highlighted.....	48
Plate 38	An extract from the 10ft:1mile OS map of 1891, with the location of Plot 3 highlighted.....	49
Plate 39	An extract from the 25inch:1mile OS map of 1908, with the location of Plot 3 highlighted	50
Plate 40	C4-6 , looking south-west, with C6 in the foreground.....	54
Plate 41	Remains of a fireplace in C5 , looking north-east.....	55
Plate 42	Aerial view of Plot 3, highlighting the well-preserved remains of Holden Street.....	56
Plate 43	Aerial view of R1-5	57
Plate 44	Aerial view of R15	58
Plate 45	Aerial view of C7 and C8	59
Plate 46	C8 , looking south-east.....	60
Plate 47	Remains of a fireplace in R14 , looking north-east.....	61
Plate 48	Outshut 3004 , looking south-east.....	61
Plate 49	Aerial view of C1-3	62
Plate 50	C2 , looking south-west.....	63
Plate 51	C1 , looking south-east.....	63
Plate 52	Aerial view of R11	64
Plate 53	Blocked cellar light, R10 , looking north-west	65
Plate 54	Aerial view of the rebuilt northern corner of R12	66
Plate 55	Rebuilt wall of C7 , looking south-east	67
Plate 56	Remodelled cellar steps, associated with C8 , looking south-east.....	68
Plate 57	P2 , looking north-west.....	69
Plate 58	Aerial view of Y1-5 , adjacent to Holden Street	70
Plate 59	An extract from Green's map of 1787-94, with the location of Plot 5 highlighted.....	71
Plate 60	An extract from the Bancks & Co's map of 1831, with the location of Plot 5 highlighted.....	72
Plate 61	An extract from the 5ft:1mile OS map of 1850, with the location of Plot 5 highlighted.....	73

Plate 62	An extract from the Ordnance Survey 10ft:1mile map of 1891, with the location of Plot 5 highlighted	74
Plate 63	An extract from the 25inch:1mile OS map of 1908, with the location of Plot 5 highlighted	75
Plate 64	Houses on Old Mount Street in 1964	75
Plate 65	Aerial view of C8-11 (from left to right).....	78
Plate 66	C8-11 , with the fireplace for C11 in the foreground, looking south-west ..	78
Plate 67	Handmade brick floor in C9 , looking south-west	79
Plate 68	North-west-facing elevation of C9 , with the surviving Phase 1 cellar light and door (both later blocked)	80
Plate 69	Remains of the fireplace in C1 , looking south-west	81
Plate 70	Aerial view of C1-4	81
Plate 71	C2 and its brick-lined drain, looking north-east	82
Plate 72	The north-west-facing elevation of C3 , with the surviving Phase 1 cellar light and door (later blocked)	82
Plate 73	Aerial view of R6 and R7	83
Plate 74	The north-west-facing elevation of C4 , showing the Phase 1 wall and door, and the Phase 3 cellar light (later blocked)	84
Plate 75	Phase 3 floor in C10 , looking north-west.....	84
Plate 76	Early privy in Y15 , looking south-west	85
Plate 77	R1 , looking west	86
Plate 78	Aerial view of Back Old Mount Street, with R1 on the far left-hand side ..	86
Plate 79	Aerial view of structure 5007	87
Plate 80	The north-west-facing elevation of C10 , showing the rebuilt Phase 4 wall, with cellar light and doorway (later blocked)	88
Plate 81	Remains of the fireplace and pot-boiler in C6 , looking south-west.....	88
Plate 82	Aerial view of Y4-9 , with Phase 4 paving and privy blocks	89
Plate 83	Privy in Y9 , looking south-west	89
Plate 84	Aerial view of 5004/5006	90
Plate 85	Phase 4 privy block, looking north-east.....	90
Plate 86	Aerial view of Y1-3	91
Plate 87	Sewage/drainage structure in Y1 , looking north	92
Plate 88	The remains of the Phase 5 fireplace in C11 , looking south-east	93
Plate 89	An advertisement sign recovered from Plot 3.....	94
Plate 90	The remains of a pram from the backfill of Plot 3.....	94
Plate 91	The typical form of a privy midden in use in Manchester in the earlier part of the nineteenth century (from Gray 1884).....	107
Plate 92	A Manchester ash closet (from Gray 1884).....	110

List of Tables

Table 1	Inhabited dwellings and population calculated by Census returns for the court dwellings in Plot 2.....	21
Table 2	The inhabitants of No 1 Court in 1861, as derived from the Census returns	22
Table 3	Inhabited dwellings and population calculated by Census returns for Little Nelson Street and Holden Street	50
Table 4	The inhabitants of Holden Street in 1841, as derived from the Census returns.....	52
Table 5	Inhabited dwellings and population calculated by Census returns for Old Mount Street.....	76

Summary

Oxford Archaeology North was commissioned by Orion Heritage Ltd, on behalf of Angel Meadow (FEC) Ltd, to undertake a programme of archaeological excavation at Angel Meadow, Manchester (centred on SJ 844 991), prior to redevelopment. This work has been undertaken in order to fulfil an archaeological planning condition (planning ref: 116366/FO/2017; condition 7) and entailed open-area excavation across three separate plots (Plots 2, 3, and 5) surrounding St Michael's Flags and Angel Meadow Public Park.

The work was informed by earlier desk-based assessments, and archaeological excavation, which suggested that all of the plots would contain important below-ground remains relating to the residential development of north-western Manchester during the eighteenth and nineteenth centuries. Moreover, this area formed an important residential 'suburb', during the early-mid- nineteenth century, associated with one of the world's first industrial cities, given over to housing Manchester's rapidly expanding working-class population. During this period, it was also a notorious slum, that was described by various social commentators and reformers, notably Friedrich Engels, who described the area containing the excavated plots as 'Irish Town'.

Taken together the excavations exposed one of the largest areas of workers' housing to be excavated in the city of Manchester, and uncovered a range of house types, which would characterise the late eighteenth- and nineteenth-century townscape in Angel Meadow and also other parts Manchester. These house types included double-depth properties, dating to the late eighteenth century (in Plot 5), which may have been artisan dwellings. Many of these had cellars that were potentially used as workshops, though one could conceivably represent an early example of a cellar dwelling. The other house types excavated date exclusively to the early nineteenth century and were largely confined to Plots 2 and 3, where they included double-depth properties and, more commonly, single-depth back-to-back and blind-back dwellings, many of which were arranged around insalubrious courtyards. Many of these excavated dwellings were also provided with cellars, and documentary evidence indicates that a proportion of these were almost certainly cellar dwellings. There was also some evidence for the division of the late eighteenth-century cellars (in Plot 5) during this period, which again might relate to the 'conversion' of these former workshops into dwellings, as a result of rapid increases in the area's population.

The excavations also provided some evidence on the quality of the construction of the late eighteenth- and early nineteenth-century properties. This evidence allowed the building materials and styles to be assessed, and also indicated that a proportion of the dwellings were subjected to schemes of rebuilding during the nineteenth century, as a result of structural failure.

Other significant features present within all of the excavated plots related to improvements in space and ventilation, through demolition, rebuilding and the creation of yards, and also to sanitation. Indeed, the excavated plots produced a good sequence of privy types that reflect the evolution of sanitation through the late eighteenth and nineteenth centuries, and its improvement as a result of various local and national acts that were passed during the mid- and late nineteenth century.

Acknowledgements

Oxford Archaeology would like to thank Rob Smith of Orion Heritage Ltd for commissioning this project. Thanks are also extended to Norman Redhead, who monitored the work on behalf of the Greater Manchester Archaeological Advisory Service (GMAAS), for his advice and guidance throughout all stages of the project.

The project was managed for Oxford Archaeology by Adam Tinsley. The fieldwork was directed by Aidan Parker, who was supported by Andrew McGuire. Other members of the Oxford Archaeology field team included Steve Clarke, Zoe Clarke, Jon Onraet, Paul Simkins, Debbie Lewis, James Hodgson, and Mike Birtles. Survey and digitising were carried out by Andrew McGuire and Mark Tidmarsh. Thanks are also extended to the teams of OA staff who prepared the archive under the management of Dot Boughton. This report was written by Richard Gregory, with illustrations prepared by Mark Tidmarsh, and was edited by Rachel Newman.

1 INTRODUCTION

1.1 Circumstances of the project

- 1.1.1 Oxford Archaeology (OA) North was commissioned by Orion Heritage Ltd, on behalf of Angel Meadow (FEC) Ltd, to undertake a programme of archaeological excavation across four separate plots (Plots 2, 3, 4, and 5) at Angel Meadow, Manchester. These areas have been earmarked for redevelopment, as part of a wider scheme of residential redevelopment, and the excavations have been undertaken in order to fulfil an archaeological planning condition (planning ref: 116366/FO/2017; condition 7) placed on this development.
- 1.1.2 The fieldwork was completed between 23rd July and 7th September 2018 and successfully exposed and recorded archaeological remains within three of the four plots (Plots 2, 3, and 5), the results of which are detailed in this report. The remaining plot (Plot 4) will be examined at a later date, and will accordingly form the subject of a separate report.

1.2 Site location, topography, and geology

- 1.2.1 The development area is situated on the northern edge of Manchester city centre, within Angel Meadow (centred on SJ 844 991; Fig 1). Angel Meadow refers to the area surrounding Angel Street and St Michael's Flags and Angel Meadow Public Park (formerly comprising St Michael's church and burial ground; *Section 1.3.4 below*), which now includes to the south of Angel Street, One Angel Square, the Co-operative Group's headquarters building. Topographically, this area lies on the east side of the valley of the River Irk, a tributary of the River Irwell, and ground levels fall from east to west towards the river, from approximately 33m Ordnance Datum (OD) to 29m OD. The solid geology of Angel Meadow, as mapped by the Ordnance Survey (OS) Geological Survey, consists of Chester Formation Sandstone, whilst superficial deposits comprise Devensian Till (Tonks 1931).
- 1.2.2 The three plots (2, 3, and 5) subjected to excavation surround the eastern and western sides of St Michael's Flags and Angel Meadow Public Park (Fig 2), and prior to the excavation all functioned as public car parks, covered by modern hardstanding. Plot 2 (centred on SJ 8435 9916) and Plot 3 (centred on SJ 8438 9920) are to the west of the public park, both bounded by Aspin Lane (formerly Ashley Lane) to the south-east, and Dantzig Street (formerly New Blakeley Street) to the north-west (Plate 1). The south-western side of Plot 2 is bounded by Angel Street, whilst its north-eastern side is bounded by Mincing Street (formerly Nelson Street), which also forms the south-western boundary for Plot 3. Little Nelson Street forms the north-eastern boundary of Plot 3. In contrast, Plot 5 (centred on SJ 8451 9915) is to the east of the public park and is bounded to the north-east by Ludgate Hill, to the south-east by Naples Street (formerly Nicholas Street), to the south-east by School Street, and to the north-west by Old Mount Street (Plate 1).

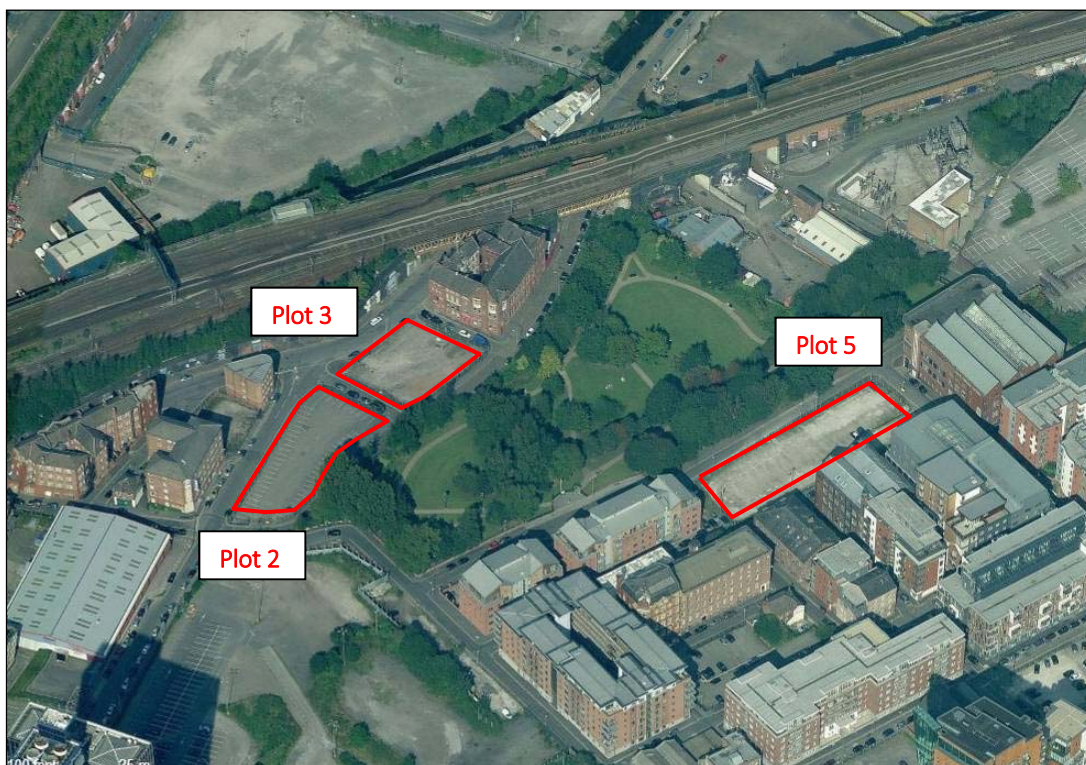


Plate 1: Recent aerial view of the St Michael's Flags and Angel Meadow Public Park with Plots 2 and 3 to the west, and Plot 5 to the east

1.3 Historical background

- 1.3.1 **Pre-industrial activity:** prior to the late eighteenth century, it appears that Angel Meadow formed a largely undeveloped area to the north-east of Manchester's historic core, centred on Chetham's College and the Collegiate Church (now Manchester Cathedral; Hartwell 2001, 5). There is, for instance, no clear evidence for prehistoric, Roman, or indeed medieval or earlier post-medieval activity in this area (OA North 2015a; 2015b; 2015c; 2015d). It is, however, possible that it formed agricultural land during the late medieval and post-medieval periods, following the establishment of Long Millgate, perhaps in the twelfth century, a street that ran to the south-east of Angel Meadow, along the south side of the River Irk, and Miller Street, to the south of Angel Meadow, which was probably established the mid-late sixteenth century (OA North 2015a).
- 1.3.2 **Industrial period:** in last quarter of the eighteenth century, the population of Manchester expanded at an unprecedented rate, helped by an upsurge in the textile industry, in which the town was involved as both a manufacturing and a commercial centre. It was, therefore, during this period that the area on the north-eastern fringes of the historic core began to witness rapid development, with land being given over to the construction of workers' housing and factories.
- 1.3.3 The development of the Angel Meadow area at the end of the eighteenth century is captured on a detailed map of Manchester produced by the cartographer William Green in 1787-94 (Plate 2), which was copied by the French cartographer Charles Laurent and published in 1793. These maps show that new streets had been laid out across the area, and numerous buildings erected. The new streets included Angel

Street, which provided a link between Ashley Lane and Rochdale Road, and also afforded access to the church of St Michael and All Angels.

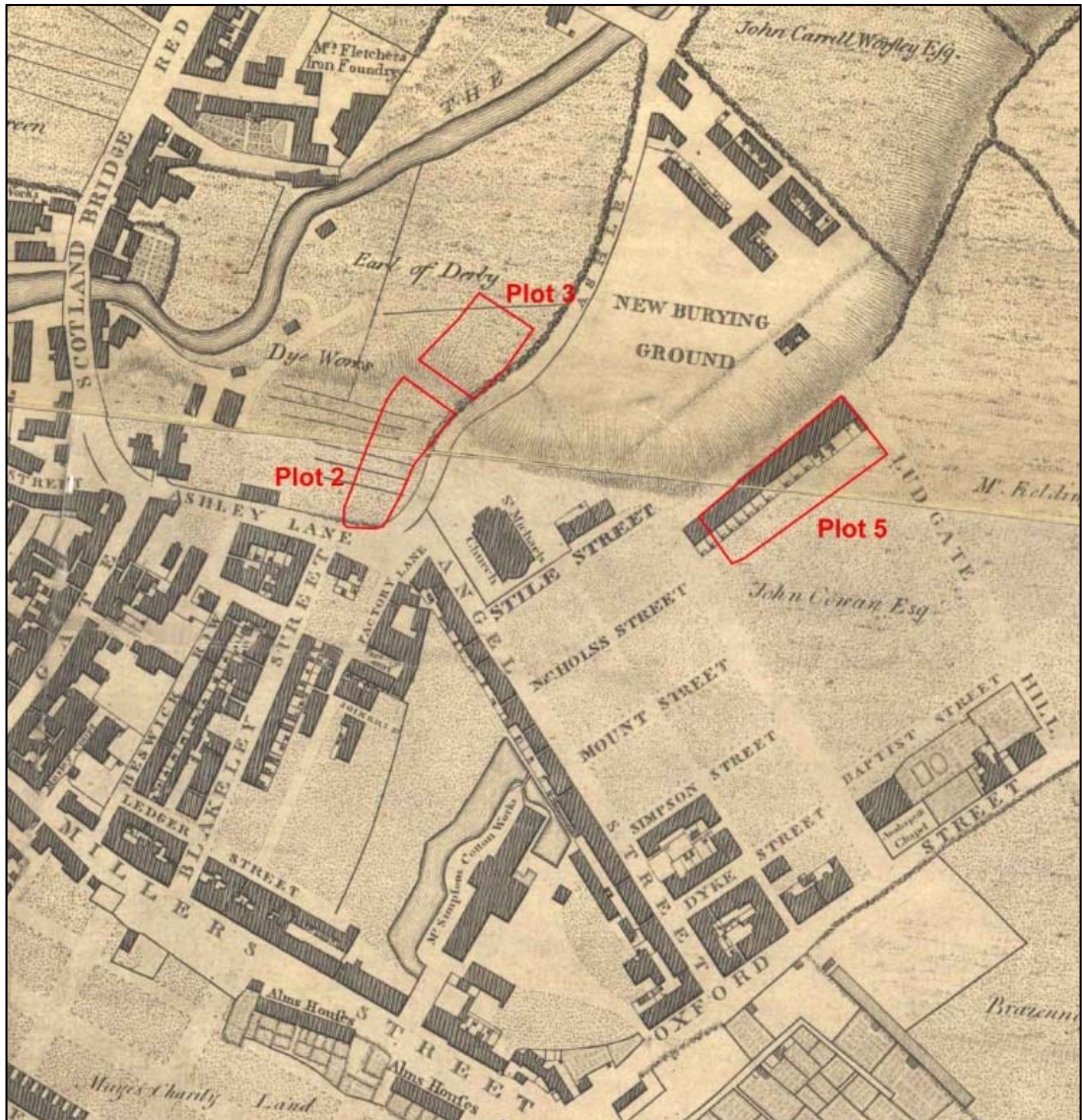


Plate 2: An extract from Green's map of 1787-94, showing the Angel Meadow area, with Plots 2, 3, and 5 highlighted

- 1.3.4 St Michael and All Angels was built in 1788, and was originally constructed in the area now forming the southern end of St Michael's Flags and Angel Meadow Public Park. Immediately to its north, encompassing the area covered by the remainder of the public park, was an associated burial ground that was consecrated in 1787. The church was originally planned as a 'carriage church', which wealthy Mancunians could drive to from the city; however, with the purchase of the land by the Overseers of the Poor of Manchester in 1786 for the burial ground, and the absorption of this area into the town, the church instead predominantly served the new working-class population in the area (L Gregory 2006). The burial ground comprised a mass burial pit for the poor, which has been estimated to contain 30-40,000 unmarked inhumations (Marsden 2014).

- 1.3.5 The burial pit was full by 1816, after which this open area became notorious for activities such as cock-fighting and gambling (Roberts 1999, 7). In the 1820s and 1830s, some areas of the former burial ground were dug up, with exhumed bones being ground and sold as fertiliser to local farms (and also according to local tradition used for flour; *op cit*, 8). In order to prevent further illegal excavations, the area was flagged over in 1867 and became known subsequently as St Michael's Flags (Miller and Wild 2015, 46-7). Then in the late nineteenth century this public space was improved further, with the construction of a playground in 1891, that was later extended in 1894, as well as public toilets and a bandstand (*ibid*). Access to the new playground from the north was provided by stone steps, which feature in a 1928 painting by L S Lowry (*ibid*).
- 1.3.6 Another significant feature of the developing townscape in the late eighteenth century was Shudehill Mill, which was erected in 1780-3 by Richard Arkwright and partners on the site of a former brick yard to south-east of Angel Meadow, between Angel Street and Miller Street. Shudehill Mill was one of a number of early cotton factories in England and Scotland that were built to house Arkwright's patented machinery for carding and spinning (*op cit*, 22-33). It was one of the largest of the Arkwright mills, reflecting the importance of Manchester as a centre of textile manufacture. It was also probably the first purpose-built mill in Manchester to employ a steam engine and to have a mill chimney (*ibid*). The mill (denoted as 'Mr Simpson's cotton works on Plate 2) essentially signalled the viability of Manchester as a pre-eminent centre for cotton spinning, based on steam power, and stimulated the industrial and associated residential development of the surrounding area in the late eighteenth century.
- 1.3.7 **Workers' housing and Manchester's nineteenth-century slums:** the most common site-type built within the Angel Meadow area during the late eighteenth century, and also throughout the first half of the nineteenth century, was workers' housing, which also formed the principal buildings in Plots 2, 3, and 5. Within this site type, among the earliest of houses were artisans' dwellings of three storeys and a basement, dating to the late eighteenth century (Redhead 2011). Many of these were double-depth properties (properties with two ground-floor rooms), and had outshuts to the rear. Although smaller double-depth houses (often two storeyed) continued to be constructed in the early part of the nineteenth century, these areas also contained inferior, and generally early nineteenth-century, housing in the form of back-to-backs, twin rows of single-depth, one-up one-down houses sharing a common rear wall, and blind-back properties (*ibid*). These latter types of houses were akin to back-to-backs, being single-depth dwellings, with windows and doors on one side only, the only difference being that they did not share a common rear wall with another property. These single-depth dwellings were small, with the typical room size being 3.05-4.58m² (Muthesius 1982, 107). In the course of the first half of the nineteenth century, houses of all types within the area became notorious for their overcrowding and insanitary conditions, with cellars being used as separate dwellings (with 4270 recorded in Manchester and Salford in 1835; *cf* Pearlman 1956), and Angel Meadow was widely acknowledged to be one of Manchester's worse slums by the end of the century (Nevell 2017a; Plate 3).

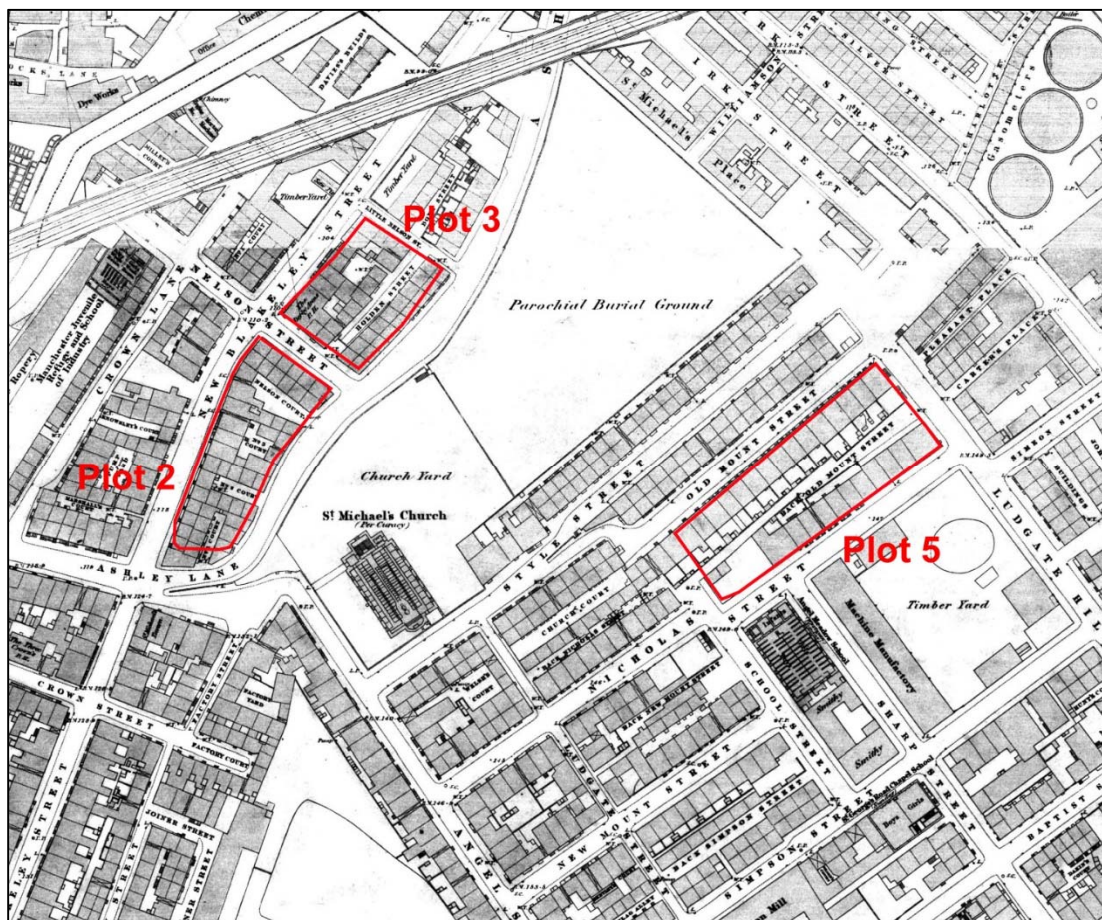


Plate 3: Workers' housing in and around Plots 2, 3, and 5, as depicted on the 5ft:1mile OS maps of 1850, with Plots 2, 3, and 5 highlighted

- 1.3.8 This image of Manchester as a nineteenth-century slum town is largely a result of the descriptions of early and mid-nineteenth-century social commentators, particularly Friedrich Engels, one of the main architects of late nineteenth- and twentieth-century Socialism, who published his 1844 observations on Manchester's working-class inhabitants in *The Condition of the Working Class in England* in 1845 (Engels 1971). It is worth noting, however, that, in the north-western part of the mid-nineteenth-century town, the worst areas of workers' housing described by Engel's were the slums along the River Irk (the area sandwiched between Long Millgate and the banks of the River Irk, up to the point where the Manchester & Leeds Railway (*Section 1.3.5*) crossed the Irk), which seemingly contained the most depraved and run-down, and haphazardly planned, properties (1971, 61; Plate 4). Many of these properties were post-medieval building stock and Engels notes that in this area cellar dwellings were rare (*op cit*, 63). This area also contained the notorious Allen Court, the filthy condition of which was described in the early 1830s by both James Kay and Henry Gaultier in relation to the outbreak of cholera in Manchester in 1832 (Kay 1832; Gaultier 1833).

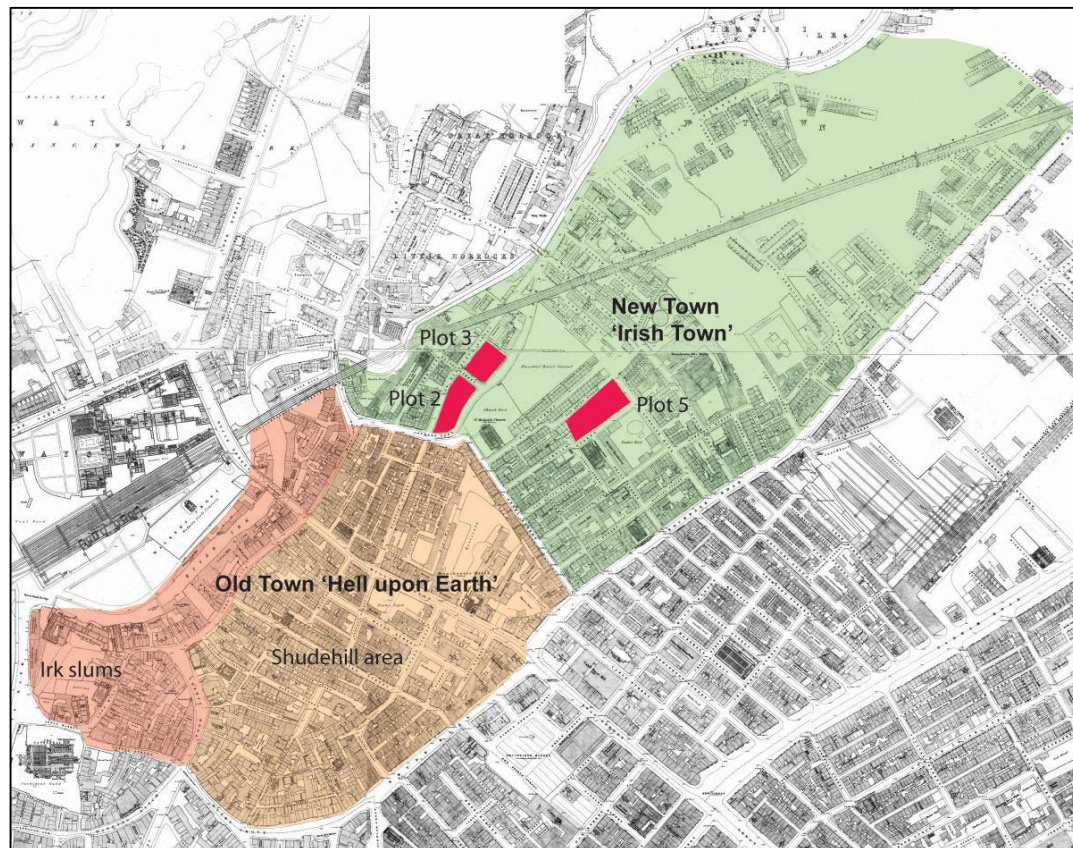


Plate 4: The areas in north-western Manchester described by Engels, superimposed on the 5ft:1mile OS maps of 1850, with the excavated plots highlighted

- 1.3.9 According to Engels, in the north-western part of the town, very poor workers' housing was present in Shudehill, specifically that area contained by Long Millgate, Ashley Lane, Angel Street, Withy Grove/Shudehill, which was composed of a newer stock of housing arranged around ill-ventilated alleys and courts (1971, 62; Plate 4). Engels noted that this area is slightly 'better than the slums in the valley of the Irk', and the 'streets do sometimes have gutters' (*op cit*, 62), though most had a cellar dwelling beneath each property and 'filth, heaps of refuse and ashes and dirty pools in the streets are common to both districts' (*ibid*). He also notes that in the Shudehill area there were large numbers of pigs kept in the courts or allowed to roam freely, and in 'nearly every court there are one or more little nooks in which pigs are kept' and that the inhabitants 'throw all their garbage into these sites' (*ibid*). Engels noted that, together, the Irk slums and the Shudehill area were known as the 'Old Town' (although he is at pains to point out that the appalling living conditions were solely a product of the industrial age) and it was this 'Old Town' area, that he described as 'hell upon earth'.
- 1.3.10 In the mid-nineteenth century, new development had occurred directly adjacent to 'Old Town', in the north-western part of Manchester, called 'New Town', also known as 'Irish Town', attesting to its large Irish population, which would subsequently increase following large-scale Irish migration into the area, as a result of the Irish Potato Famine of 1846-51 (L Gregory 2006). Engels' noted that this area lay between the River Irk and St George's Road (later Rochdale Road) and probably extended south-west/north-east from Angel Street up to an area of housing denoted as 'New Town' on the OS map of

1850. As such, the housing in Plots 2, 3, and 5 formed part of this area (Plate 4). The cartographic evidence indicates that, during the mid-nineteenth century, it contained dispersed areas of housing in its north-eastern portion, though housing density dramatically increased to the south-west, when moving towards the 'Old Town' area. This is confirmed by Engels' (1971, 65), who in describing the 'New Town' comments,

This district does not give one the impression that it is part of a big city. The New Town is composed of single rows of houses and groups of streets which might be small villages, lying on bare clayey soil which does not produce a blade of grass. The houses – or rather cottages – are in a disgraceful state because they are never repaired. They are filthy and beneath them are to be found damp, dirty cellar dwellings; the unpaved alleys lack any form of drainage. The district is infested with small herds of pigs; some are penned up in little corners and sties, while others wander freely on the neighbouring hillside. The lanes in this district are so filthy that it is only in very dry weather that one can reach it without sinking ankle-deep at every step. Near St George's Road these isolated groups of houses are built closer together and one reaches a maze of lanes, blind alleys and back passages and courts. The nearer one gets to the centre of the town, the more closely packed are the houses and the more irregular is the lay-out of the streets. On the other hand, the streets here are often paved or at least have adequate pavements and gutters; but the filth, and the disgusting condition of the houses, particularly the cellars, remains unchanged.

- 1.3.11 Another graphic description of Angel Meadow by Angus Bethune Reach was published in 1849, some five years after Engels had visited the area. Reach was a journalist who visited Manchester and produced an extremely valuable account of the industrial city and its lower-class inhabitants. One of his visits, with a police officer, was to see the town's notorious lodging houses, which he noted were particularly prevalent along Blakeley (later Charter) Street (quoted in Aspin 1972, 55). During this visit, Reach noted that

The lowest, most filthy, most unhealthy, and most wicked locality in Manchester is called, singularly enough, "Angel Meadow". It lies off Oldham Road, is full of cellars, and inhabited by prostitutes, their bullies, thieves, cadgers, vagrants, tramps, and, in the very worst sties of filth and darkness, by those unhappy wretches the "low Irish" (*op cit*, 53).

- 1.3.12 Reach continues this account of the 'low Irish' of Angel Meadow, by commenting that,

They live in more wretched places still – the cellars. We descended to one. The place was dark, except for the glare of a small fire. You could not stand without stooping in the room, which might be about twelve by eight [3.7 x 2.4m]. There were at least a dozen men, women and children on stools, or squatted on the stone floor, round the fire, and the heat and smells were oppressive...There was nothing like a bedstead in the place. Further back opened a second cellar, strewn with coals and splinters of wood used for making matches... (*op cit*, 55-6).

1.3.13 Reach then continued his tour of the Irish dwellings in Angel Meadow, highlighting the appalling conditions within some. Specifically, he notes that

The last place we visited is, I am told, the “worst cellar in all Manchester”. The outer room was like that of others which I had seen, but following a woman who held a light, we proceeded into the inner cellars. They were literally vaults, three of them opening from one to the other. The air was thick with damp and stench. The vaults were mere subterranean holes, utterly without light. The flicker of the candle showed their grimy walls, reeking with foetid damp, which trickled in greasy drops down to the floor. Beds were huddled in every corner: some of them on frames – I cannot call them bedsteads – others on the floor. In one of these a man was lying dressed, and beside him slept a well-grown calf. Sitting upon another bed was an old man maudlin drunk, with saliva running over his chin, making vain efforts to rid himself of this trowsers [sic], and roaring for help. In the next cellar two boys were snoring together in one bed, and beside them was a man sleeping in an old battered hat for a nightcap. “Is he undressed” I said. The police officer, for answer, twitched down the clothes, and revealed a stark naked man, black with filth. The smell in this room was dreadful, and the air at once hot and wet (*op cit*, 56).

1.3.14 **Legislation and improvement of workers’ housing:** in the late eighteenth and early nineteenth centuries, several acts and by-laws were passed that were designed to regulate the living conditions within Manchester (*cf* Nevell 2014). These date from 1790 onwards, were initially implemented by the Police Commissioners, and included by-laws relating to the widths of streets, paving, drainage, as well as rudimentary building regulations (relating to providing party walls). However, as evidenced by the descriptions of Engels and other social commentators (*Sections 1.3.7-9 above*), these by-laws were largely ineffectual (*cf* Hylton 2003, 152) and Manchester continued on its very specific social and economic trajectory, which meant that by the mid-nineteenth century it formed one of the pre-eminent industrial slum ‘cities’ in the country.

1.3.15 By that time, the atrocious living conditions within the town, coupled with the appearance of liberal social reformers and local politicians (many of whom were Unitarians associated with Manchester’s Cross Street chapel; *cf* Gregory 2018), created a legislative watershed in Manchester, following which a series of more-effective acts were passed that were specifically designed to improve the living conditions of those occupying workers’ housing. The first of these was the Manchester Police Act of 1844, which stated that any new house should be provided with a toilet, with a door and covering, and all existing houses were to have one installed; significantly, this act also banned the building of new back-to-backs (Muthesius 1982, 126; Lloyd-Jones and Lewis 1993). This was further aided by the Public Health Act of 1848, which ‘gave local authorities powers to supply water, to pave and clean streets, to arrange the collection of refuse and the whitewashing and purifying of houses’ (Parkinson-Bailey 2000, 40). Cellar dwellings were also made illegal in 1853, through the Manchester New Streets Act, though this was largely unsuccessful at first, and the cellar population of Manchester is calculated at 22,924 in 1845 and 12,396 in 1861

(Roberts 1993, 22). Indeed, it was not until 1868-72 that the majority of cellar dwellings in Manchester were vacated (Hylton 2003, 154).

- 1.3.16 Two significant advances in housing legislation were introduced in the late 1860s. The first was the Manchester Waterworks and Improvement Act of 1867, which led to the appointment of a Medical Officer of Health for the town, the first of which was Dr John Leigh (Parkinson-Bailey 2000, 41). Nationally, this act was the first of its kind that enabled houses unfit for habitation to be closed and demolished without compensation being given to their owners; however, this said, a compensation of £15 was normally paid for each dwelling demolished (*ibid*). Significantly, the 1867 act also specified the minimum requirements for room sizes and window areas in new dwellings, and also required that every new house had a yard at the rear, which had to be at least 70ft². This act also required a minimum street width of 30ft (*ibid*). This local act was then supplemented in 1868 by the passing of a national act. This was the Artisans' and Labourers' Dwelling Act, also known as the Torren's Act after its author, which focused on the improvement, maintenance, or demolition of pre-existing houses and also new-build houses (*ibid*). To bring houses up to the required standard, landlords might create a through-dwelling by knocking doors through the party wall between a pair of back-to-backs. Pairs of back-to-backs or individual one-up one-downs might be removed altogether to create the space for yards for the remaining property (Roberts 1993, 22-3).
- 1.3.17 In 1875, the Artisans' and Labourers' Dwellings Improvement Act was introduced to provide the mechanism of slum clearance, the first act of its kind (Pearlman 1956, 28). However, the Manchester authorities were initially resistant to this act, and it was not until 1890, with the amendment of this Act, that slum clearance and regeneration began in earnest (*op cit*, 34).
- 1.3.18 **Other significant nineteenth-century buildings and structures:** within the nineteenth-century 'slum' area of 'New Town', two other significant nineteenth-century buildings existed within the Angel Meadow area, close to the excavated plots, which are still extant. Both functioned as 'ragged' schools (Plate 5), providing Sunday School teaching, food, and clothing to disadvantaged children of Angel Meadow who could not attend normal Sunday Schools and church services (*op cit*, 48). One of these schools, the Angel Meadow (later the Charter Street) Ragged School and Working Girls Home, stands immediately north-east of Plot 3; this building dates to 1866 and was extended in 1891 and 1898, and it occupies the site of Manchester's first Industrial School that opened in 1847 (*ibid*; Hartwell 2001, 290). The Sharp Street Ragged School for Boys, is the second school building, immediately south-east of Plot 5. The extant building is now protected as a Grade II listed building and was built in 1869, though this replaced an earlier building dating to 1853 (Hartwell 2001, 289).

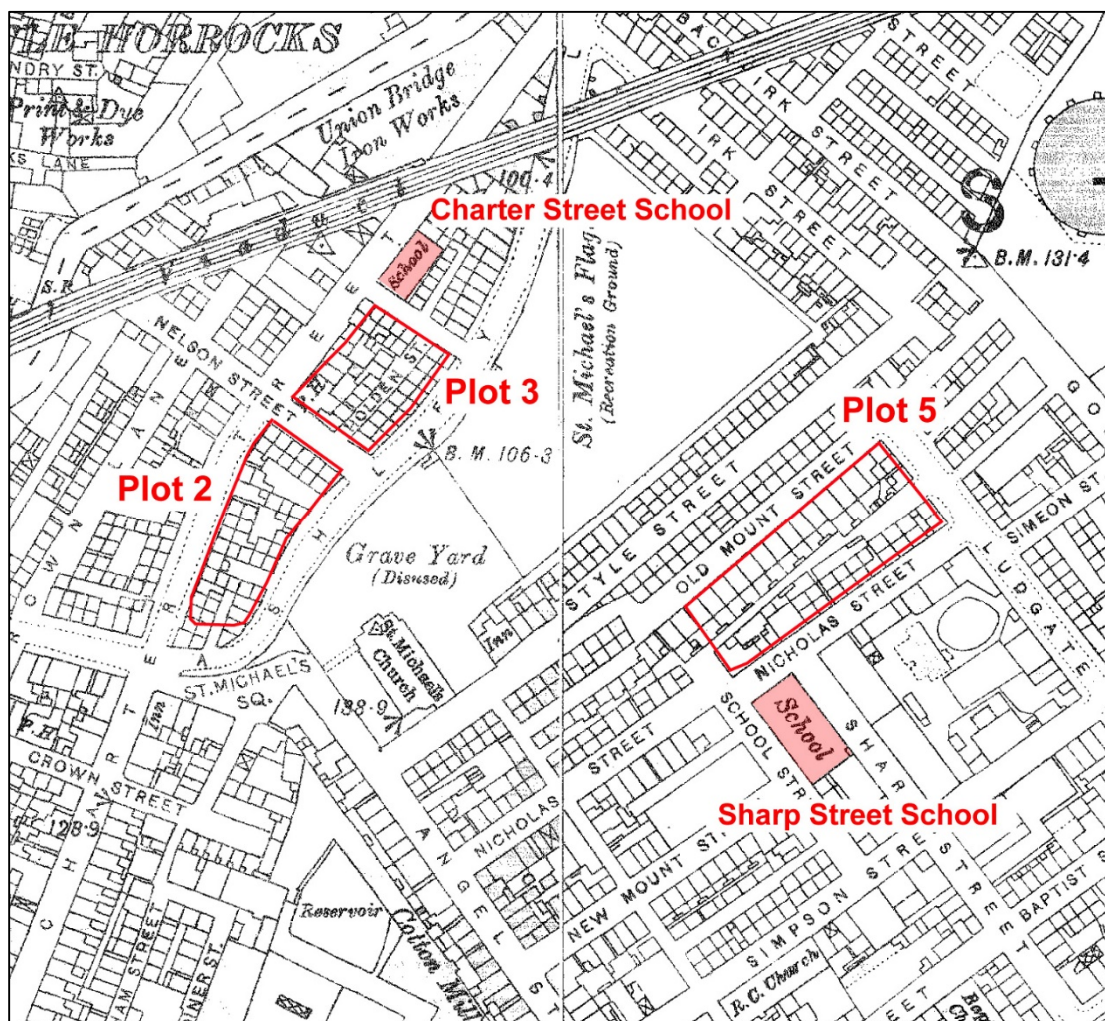


Plate 5: Angel Meadow, as depicted on the 1:2500 OS maps of 1893, with Plots 2, 3, and 5, and the ragged schools highlighted

- 1.3.19 Another significant mid-nineteenth-century construction, close to the Charter Street Ragged School, was a railway viaduct that carried the Manchester & Leeds Railway extension between Hunts Bank (Victoria Station) and Oldham Road (the original terminus for the line; Goode 1986, 30-1). Work on the extension began in 1842, and its construction led to the demolition of 21 houses immediately north of the burial ground (Roberts 1999, 6). The line was finally opened in 1844 (Goode 1986, 30-1).
- 1.3.20 **Twentieth-century development:** much of the nineteenth-century housing in Angel Meadow remained, albeit in an improved state, well into the early twentieth century, and it was not until the immediate post-Second World War era that the nineteenth-century housing stock appears to have been cleared (OA North 2015a; 2015b; 2015c; 2015d). Indeed, some of the housing may have been destroyed during the War, during the Manchester Blitz in December 1940, as the Shudehill area of Manchester was subjected to considerable damage during this bombing campaign (Miller and Wild 2015, 52-3).

1.4 Previous archaeological investigation

- 1.4.1 Prior to the excavations, each of the plots had been subjected to archaeological assessment (OA North 2015a; 2015b; 2015c; 2015d). These assessments considered the pertinent archaeological, cartographic, and documentary evidence and concluded that significant below-ground archaeological remains would probably survive, within each of the respective plots, that were relevant to the Industrial-period development of Manchester. More specifically, it was suspected that each of the plots might contain valuable evidence for nineteenth-century workers' housing, associated with an area that is known to have contained one of Manchester's most deprived Victorian slums. Moreover, the historical importance of the area was further highlighted by an historical assessment survey, which examined the nineteenth- and twentieth-century occupancy of the plots in some depth (L-P Archaeology 2017).
- 1.4.2 In addition to this assessment work, the extreme southern portion of Plot 2 had also been previously excavated. This excavation was completed as a prelude to road-widening works along Angel Street and Aspin Lane in 2012, as part of the adjacent NOMA project (OA North 2013a; Miller and Wild 2015). Significantly, the excavation revealed the well-preserved remains of back-to-back cellars (Plate 6), built in the 1820s, which fronted New Blakeley Street, and a small courtyard area (marked as No 1 Court on historical mapping; *Section 3.2.3 below*). Some of the cellars had evidently been abandoned and infilled during the later nineteenth century, and improved sanitation was installed. The footprints of houses on the eastern side of the court were also excavated, although the foundations of these uncellared properties were fragmentary, and yielded little significant information.



Plate 6: Remains of early nineteenth-century cellars in the southern portion of Plot 2, excavated in 2012

1.5 Aims and objectives

- 1.5.1 The over-riding aim of the investigation was to compile a detailed record of all significant archaeological remains within the three excavated plots, and to ensure the long-term preservation of the archaeological information by the production and deposition of a report, an ordered project archive, and an appropriate level of publication.
- 1.5.2 However, at a more detailed level, it was strongly suspected on the basis of the archaeological assessments and previous excavation in Plot 2 (*Section 1.4*) that the principal below-ground remains that would be encountered within Plots 2, 3, and 5 would relate to Industrial-period workers' housing. Given this, the aims and objectives of the fieldwork were to compile a detailed archaeological record of the remains of the workers' housing exposed and to establish any differences in the plan, form, and construction techniques of the different types of housing encountered in the three excavated plots.
- 1.5.3 It was further anticipated that the excavation data, in tandem with the historical and cartographic evidence, would allow for the construction of a narrative detailing the historical development of three areas surrounding the former St Michael's church and burial ground. In addition, at a broader scale, it was anticipated that the results might address regional research objectives relating to urban housing detailed in the Industrial Period section of the North West Regional Framework (Newman and McNeil 2007), and its imminent update (*cf* Nevell 2017b).

2 METHODOLOGY

2.1 Introduction

- 2.1.1 After consultation between Orion Heritage Ltd and GMAAS, the requirement for a stage of archaeological evaluation by trial trenching was bypassed in favour of full excavation of the three plots. It was also decided that a post-excavation assessment report would not be required and that, instead, a full excavation report would be compiled following the completion of the fieldwork.
- 2.1.2 Following these decisions, a written scheme of investigation (WSI) was submitted by OA North, detailing the methodology that would be employed during the fieldwork and post-excavation work (OA North 2018). During all stages of the project, the WSI was adhered to in full, and the work was consistent with the relevant Chartered Institute for Archaeologists (CIfA) and Historic England guidelines (CIfA 2014a; 2014b; 2014c; 2014d; Historic England 2015).

2.2 Excavation and recording methodology

- 2.2.1 Plots 3 and 5 were excavated in their entirety (covering some 1066m² and 2208m² respectively), whilst the majority of Plot 2 (c 1330m²) was excavated, apart from that portion that had previously been excavated in 2012 (*Section 1.3.2*). Due to logistics involving spoil management, Plot 5 was excavated in two halves, beginning with the southern end of the plot.
- 2.2.2 During all of the excavations, the modern hardstandings and overburden (*Section 3.1.2 below*) were removed by a mechanical excavator, fitted with a toothless ditching bucket or a breaker, under archaeological supervision, to the surface of the first significant archaeological deposit (*Section 3.1.1 below*). The area was then cleaned by hand, using hoes, shovel scraping, and/or trowels, depending on conditions, and inspected for archaeological features. All features of archaeological interest were investigated and recorded.
- 2.2.3 The recording of the remains within each of the plots conformed to the same basic methodology. After excavation and cleaning, the remains were compared to the historical mapping and assigned entity numbers based on their form and function. Therefore, for each plot there are several '**Rooms**', '**Cellars**', '**Yards**' and '**Privies**' with designated consecutive numbers *eg R1, R2, C1, C2, Y1, Y2, P1, P2 etc.* Each individual entity was then described in full on *pro-forma* description sheets noting dimensions, structural fabrics, and other individual elements/features within them. Individual context numbers were assigned to isolated structural elements that were separate from the various room designations, large standalone features such as cobbled roads and the various overburden and natural deposits observed during excavation. The numbering of these features and deposits followed the usual pattern of sequential numbering reflecting the plots they were contained in: Plot 2 context numbers are **2000, 2001, 2002**; and so forth. All of the written records were supplemented by digital photography, using high-resolution digital cameras, and photograph records were maintained on *pro-forma* sheets.

- 2.2.4 The structural remains were recorded using rectified photography and photogrammetric survey using an Unmanned Aerial Vehicle (UAV; a small remote-controlled drone) and additional digital photographs. Appropriate survey-control measures were established through the positioning of rectified photography cards and survey points. The position of these reference points was then surveyed using a GPS system to locate each and every record accurately. The survey data were then processed using a computer software package (AgiSoft), which allowed for the production of detailed plans and elevations, as well as three-dimensional models.
- 2.2.5 All of the finds recovered from the site came from demolition/backfill deposits and, in line with the agreed WSI, none of these were retained. The quantities and type of artefacts recorded from the respective plots were, however, recorded on site, which has enabled the character of the finds assemblage to be considered (*Section 3.5 below*).

2.3 Post-excavation analysis and reporting

- 2.3.1 The post-excavation work primarily comprised an analysis of the structural remains recorded in each of the plots, and a consideration of these remains in relation to detailed cartographic and documentary evidence, in order to allow the phasing of the remains to be better comprehended, and also to allow some insights into occupancy. Hence, in *Section 3*, the results from each of the excavated plots are considered in turn, with the cartographic and documentary evidence presented as a prelude to a discussion of the excavated structural remains.
- 2.3.2 In addition to an analysis of the site-specific evidence, the results from the Angel Meadow excavations have been placed in their local context. This is presented in a concluding section (*Section 4*), which provides an overview of the evidence derived from the Angel Meadow excavations and considers this in relation to the other excavated Industrial-period workers' houses that have been examined in the Shudehill area and also more widely across the City of Manchester.

2.4 Archive

- 2.4.1 A full professional archive has been compiled in accordance with the WSI, and with current ClfA guidelines (ClfA 2014c). The archive will be deposited with The Museum of Science and Industry (MoSI) on completion of the project. Copies of this report will also be sent to the GMAAS, for inclusion in the Greater Manchester Historic Environment Record (HER).

3 RESULTS

3.1 General site stratigraphy and phasing

- 3.1.1 A summary list of the recorded site entities and contexts for each the plots at Angel Meadow are presented in *Appendix 1*. Generally, however, the three excavated plots conformed to the same basic stratigraphy. The earliest deposit encountered was natural clay and, in some areas, this lay beneath redeposited clay, which had seemingly been dumped onto some parts of the plots as a levelling/made-ground deposit, immediately prior to the construction of Industrial-period buildings and associated courtyards and yards.
- 3.1.2 The Industrial-period remains were invariably defined by mortared brick walling and brick/cobble/flagged surfaces and, based on the cartographic evidence and stratigraphic relationships, these could be divided into six phases. Within this scheme, Phase 1 dates to the late eighteenth century, though remains dating to this period were only apparent in Plot 5. The Phase 2 remains date to 1809-18/19 and these were only encountered in Plots 2 and 3, representing the earliest structural remains in these plots. Phase 3 dates to the early-mid-nineteenth century, and remains of this date were present in all three plots; however, Plot 5 also contained remains that could be, more accurately, dated to the mid-nineteenth century, and these are accordingly ascribed to Phase 3B. Phase 4 dates to 1848-88, whilst Phase 5 covers the period 1889-1908, and again remains dating to these phases were present in all three plots. Structural remains dating to the late twentieth century were also apparent in Plots 2 and 3 (Phase 6).
- 3.1.3 In all plots, lying above the Industrial-period remains was a demolition/levelling deposit composed of brick and other building rubble, set within a matrix of loose sandy clay (another element of Phase 6). The depth of the demolition deposit varied depending on the underlying remains, though in some cellared areas it had a maximum depth of 2m. Sealing the demolition deposit was an uppermost layer, composed of tar-macadam, or compacted gravel with occasional rafts of concrete, or a combination of all these, which had been laid down as hardstanding for the car parks that were in operation in each of the plots, immediately prior to the excavation.

3.2 Plot 2

- 3.2.1 **Cartographic evidence:** historical mapping, dating from the late eighteenth-century onwards, is invaluable for determining the development of Plot 2. It is evident from this that, by the time of Green's 1787-94 survey of Manchester, although Ashley Lane had been established immediately to the east of Plot 2, the area was undeveloped, and was used as a tenter ground. Within this area cloth from a dye works to the north-east was hung out to dry on tenter hooks, the positions of which are represented as a series of parallel lines on Green's map (Plate 7).



Plate 7: An extract from Green's map of 1787-94, with the location of Plot 2 highlighted

- 3.2.2 Although Plot 2 is still depicted as undeveloped on Dean and Pigot's map of 1809, by the time of Johnson's map of Manchester (surveyed 1818/19; published 1820), a row of properties had been constructed in the northern part of the plot, fronting Nelson Street, and to the rear of these, another detached block had been constructed fronting New Blakeley Street (Plate 8). Later mapping indicates that the row of properties fronting Nelson Street contained back-to-back dwellings, whilst the block on New Blakeley Street formed two adjoining double-depth properties.



Plate 8: An extract from Johnson's map of 1818/19, with the location of Plot 2 highlighted

- 3.2.3 In the early 1820s, the remaining areas of Plot 2 were developed, as evident on Swire's map of 1824, which depicts blocks of housing and courtyards (Plate 9). Later mapping, specifically Bancks & Co's map of 1831 (Plate 10) and the 5ft:1mile OS map of 1850 (surveyed in 1848; Plate 11), allow further insights into the character and form of the 1820s development. These maps indicate that in the early nineteenth century the plot contained four courtyards (named from south to north, Nos 1-3 Court and Nelson Court), one of which (Nelson Court) lay to the rear of the properties that had been built in the second decade of the nineteenth century (*Section 3.2.2*).

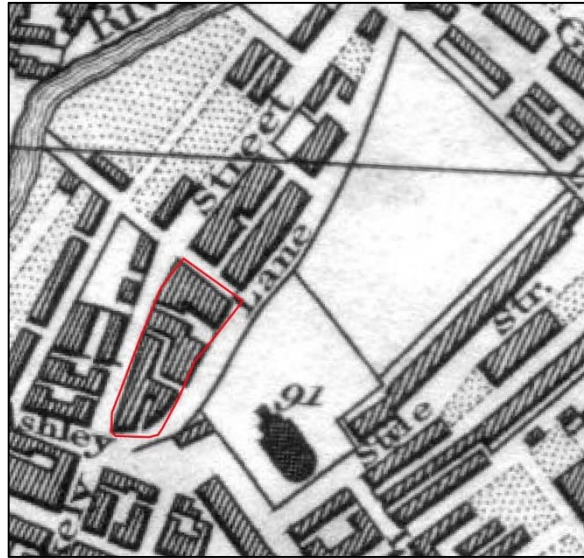


Plate 9: An extract from Swire's map of 1824, with the location of Plot 2 highlighted



Plate 10: An extract from Banks & Co's map of 1831, with the location of Plot 2 highlighted



Plate 11: An extract from the 5ft:1mile OS map of 1850, with the location of Plot 2 highlighted

- 3.2.4 The housing stock constructed in the early 1820s included two blind-back houses on the southern side of Nelson Court. To the south of this courtyard, a mixture of double-depth, back-to-back, and blind-back houses fronted Ashley Lane and New Blakeley Street, the latter probably being cellared, given the depiction of cellar lights on the OS map of 1850.
- 3.2.5 The 1820s houses surrounding No 3 Court originally comprised a block of four back-to-back houses, partially fronting New Blakeley Street, though these had seemingly been converted into two adjoining double-depth properties by 1848 (Plate 11). Immediately to the south of these was a double-depth property with outshut to the rear. The remaining houses surrounding the courtyard, including those fronting Ashley Lane, comprised blind-back houses. Two of these may also have been converted into a single larger property by 1848.
- 3.2.6 The 1820s houses surrounding No 2 Court, consisted of small blind-back houses, whilst those associated with No 1 Court were back-to-backs, along with two irregular-shaped houses fronting Ashley Lane. It also appears that by 1848 those back-to-backs that partially fronted Ashley Lane and No 2 Court had been converted into two adjoining double-depth properties.

- 3.2.7 Adshead's map of 1850 shows an essentially similar layout to the OS map of 1850. It does, however, indicate that the two double-depth properties fronting New Blakeley Street that were built in the second decade of the nineteenth century (*Section 3.2.2 above*) operated as commercial concerns at this time.
- 3.2.8 In the late nineteenth century, the area was resurveyed by the OS, which produced mapping that was published at a scale of 1:500 in 1891 (surveyed in 1889) and at 25inch:1mile in 1893 (surveyed 1888-9). This shows the same general layout of properties as is evident on the earlier mapping, and confirms the mixture of double-depth, blind-back and back-to-back housing that occupied Plot 2 (Plate 12). Intriguingly, however, the 1890s mapping depicts some of the double-depth housing plotted the earlier OS map, adjacent to No 3 Court, as back-to-back properties, suggesting that they had been subdivided by this date. Given the various acts of housing legislation that were passed in the latter half of the nineteenth century (*Section 1.3.13 above*), in order to improve workers' living conditions, it is possible that this subdivision occurred prior to the late 1860s.



Plate 12: An extract from the 10ft:1mile OS map of 1891, with the location of Plot 2 highlighted

- 3.2.9 The next edition of Ordnance Survey mapping, published in 1908 (Plate 13), shows some changes to Plot 2. The early nineteenth-century houses that fronted Nelson Street appear to have been remodelled, with the conversion of the back-to-back houses into single properties with small yards to the rear. As part of this modification,

a blind-back property and a double-depth property that fronted New Blakeley Street were demolished, creating open access between Charter Street (formerly New Blakeley Street) and Ashley Lane. There also appears to have been some modification to the properties fronting Ashley Lane in the Nelson Court area, and the demolition of houses between No 1 Court and No 2 Court. This was undoubtedly linked to improving the natural lighting and flow of air through these cramped residential areas, which in No 2 Court included the extension of the rearward portions of the properties fronting New Blakeley Street and construction of the yard areas to the rear of the properties fronting Ashley Lane.

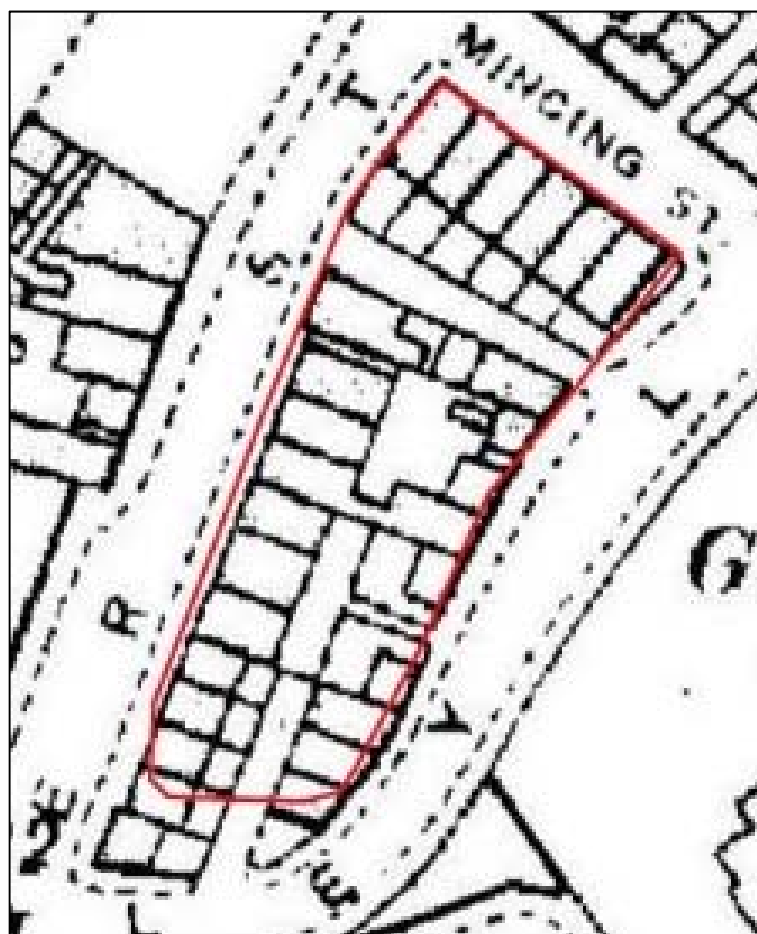


Plate 13: An extract from the 25inch:1mile OS map of 1908, with the location of Plot 2 highlighted

- 3.2.10 A similar layout of buildings is depicted on the OS map of 1922, although the properties occupying the south-eastern part of the Plot 2 had been cleared by 1933. The next edition of OS mapping, published in 1952, shows the site to have been cleared entirely.
- 3.2.11 **Occupancy:** it is possible to gain some insights into the nature of the occupancy of Plot 2 during the nineteenth century from the documentary evidence. For instance, the late nineteenth-century entries in trade directories indicate the presence of two commercial premises within Plot 2: Jacob Barker, a coal dealer, at 110 Charter Street (formerly New Blakeley Street); and Joseph Clarke, a brush maker, at 126 Charter Street (Slater 1895, 86). The precise location of these properties is uncertain, although they were situated between Ashley Lane and Nelson Court.

3.2.12 The Census returns for Plot 2 were also examined as part of an Historic Assessment of the Angel Meadow plots (L-P Archaeology 2017; *Section 1.4.1 above*). From these returns it has been possible to examine the demography of those dwellings that were associated with Nelson Court and Courts Nos 1-3 for the period 1841-1911.

3.2.13 From this, it appears that the highest population within these four courts was in 1841, when they contained 123 individuals occupying 26 dwellings (Table 1). The population then fluctuated until 1881, after which it gradual decreased, presumably as living conditions improved.

Year	Dwellings	Population	Average number of occupants per dwelling
1841	26	126	4.8
1851	19	85	4.5
1861	25	104	4.2
1871	23	97	4.2
1881	23	100	4.3
1891	22	79	3.6
1901	16	66	4.1
1911	10	34	3.4

Table 1: Inhabited dwellings and population calculated by Census returns for the court dwellings in Plot 2

3.2.14 At a gross level, the average density of people per dwelling in all four courtyard areas appears to have been fairly consistent throughout the period (Table 1). However, this belies the fact that Census returns indicate that some properties had a fairly high number of inhabitants, and some much fewer at any one time. For example, in 1851, 12 inhabitants are recorded in one of the dwellings in No 3 Court, whilst in contrast, only two people inhabited an adjacent dwelling.

3.2.15 The Census returns also indicate that families were occupying some of the cellars of the courtyard properties, specifically in two of the cellars in No 1 Court, in 1861 (Table 2). These included a probable husband and wife in one cellar (Patrick and Ellen Higgins) and a family of four in another (the McDonough family), which included a four-year old child and a ten-month-old infant. Given that these dwellings lay in No 1 Court, these were probably within those cellars that were excavated in 2012, to the south of the 2018 excavation (*Section 1.4.2*).

Inhabited	Inhabitants	Age	Male	Female	Occupation
1	Richard Reed	32	x		Porter
	Anne Reed	26		x	
1 cellar	Patrick Higgins	39	x		Chelsea out Pensioner
	Ellen Higgins	30		x	Charwoman
3	John Sedgwick	52	x		Manchester Warehouseman

Inhabited	Inhabitants	Age	Male	Female	Occupation
	Daniel Sedgwick	12	x		Manchester Warehouse Boy
	William Sedgwick	61	x		Shoe Maker
3 Cellar	Nathan McDonongh	26	x		Chair Bottomer
	Elizabeth McDonongh	24		x	
	Maryann McDonongh	4		x	
	Ellen McDonongh	10m		x	
4	Thomas Wharmby	58	x		Porter-Lodge Keeper
	Joseph Wharmby	55	x		Printer/ Compositor
5	Elizabeth Carney	54		x	Housekeeper
	Michael Carney	28	x		Foundry Labourer
	Anne Carney	20		x	Umbrella Maker
	Dennis Carney	25	x		Blacksmith
	Anne Carney	20		x	
	Elizabeth Carney	3		x	
	Mary Carney	2		x	
	Margaret Johnson	22		x	Cotton Factory Worker
	Elizabeth Johnson	1		x	
	Ellen Lynch	20		x	

Table 2: The inhabitants of No 1 Court in 1861, as derived from the Census returns

3.2.16 Regarding ethnicity, although many of the residents of Plot 2 were born in Manchester/Lancashire, around a third were born in Ireland, and over half of the residents were of Irish descent. It is also clear from the Census returns that throughout the nineteenth century, the residents of Plot 2 were mainly employed in low-paid occupations, with, unsurprisingly, a fairly high proportion being employed in the textile industry.

3.2.17 **Archaeological remains:** the area examined as part of the 2018 excavation contained fairly well-preserved structural remains (Fig 3) relating to the nineteenth-century housing known to have existed across this area from the historical mapping (*Sections 3.1.2-10*). Most of the structural remains could be dated to the earlier part of the nineteenth century (Phases 2 and 3). These were overwhelmingly constructed of handmade bricks, each measuring 0.23 x 0.11 x 0.07m, bonded with lime mortar. A small portion of the remains also related to remodelling and improvement of the

properties, within the mid-late nineteenth century (Phase 4), and also the late nineteenth/early twentieth century (Phase 5; Fig 4).

- 3.2.18 In general terms, the properties were arranged around three courtyard areas, which are known from historical mapping to have formed, from south to north, Court Nos 2 and 3 (**Courts 2 and 3**), and Nelson Court (**Nelson Court 4**; Fig 3). The excavated houses consisted of back-to-back and blind-back dwellings, and also one double-depth houses fronting New Blakeley Street and Ashley Lane. The cartographic evidence also indicated that, in the northern part of the plot, two other double-depth houses were present, fronting New Blakeley Street, though only the piecemeal remains of these survived. Indeed, this part of the site appears to have suffered from some form of truncation, perhaps as a result of World War II bomb damage, or a more concerted removal of building remains during the post-War period, when the plot was cleared.
- 3.2.19 The complete ground plans of several of the properties were uncovered, of those dwellings that could be accessed from the courtyard areas. The remains of privies were also evident, which were clearly later additions designed to serve the properties, and improve sanitation and living conditions. It was also apparent that, in the south-west quarter of the plot, those properties which originally fronted New Blakeley Street and the western sides of Courts Nos 2 and 3 had been cellared. This was consistent with the evidence of the 2012 excavation within Plot 2 to the south-west of the 2018 trench, which also uncovered cellared back-to-back properties fronting New Blakeley Street (*Section 1.4.2*).
- 3.2.20 **Phase 2 (1809-18/19)**: the earliest surviving properties comprised a range of back-to-back dwellings at the far northern end of Plot 2 (Fig 4). Historical mapping indicates that these were the first houses to be constructed in the plot, along with two double-depth houses to the south, at some point between 1809 and 1818/19 (*Section 3.2.2*). The back-to-backs could be accessed from Nelson Street and New Blakeley Street, and, eventually, Nelson Court, following its creation in the 1820s (*Section 3.2.28*).
- 3.2.21 Historical mapping indicates that this range originally contained 12 dwellings, and elements of all 12 of these properties were exposed in the excavation trench. However, within the area examined, only the rear portions of five of the dwellings that fronted Nelson Street (**Rooms R16, R18, and R22**; Fig 3) and New Blakeley Street (**R19 and R20**) were exposed, and the remains of four of the dwellings at the south-eastern end of the range (defined by **2003** and **2004**) had been largely destroyed. There was a general absence of *in-situ* flooring within any of the dwellings, apart from traces of sandstone flags within **R16** and **R18**.
- 3.2.22 Although the survival of structural remains associated with these properties was variable, and only the lower foundations of the walls were present, enough did survive to enable their general morphology and form of construction to be determined. It is clear, for instance, that all of the individual dwellings were of identical size, with internal ground-floor areas measuring 3.85 x 3.95m. The exterior brick wall of the range, facing Nelson Court, was double-skinned and presumably the other exterior walls, that lay beyond the excavated area, were of a similar design. All of the interior party walls, which served to divide the range into the individual dwellings, were single-skinned constructions.

3.2.23 Several brick-built structures were present in the interiors of the back-to-back properties, and their positioning and general similarity suggested that each of these dwellings contained an identical 'set' of internal features, at ground-floor level. These, however, were most apparent in one of the dwellings (**R17**) fronting Nelson Court (Plate 14). On its eastern wall were two brick walls that projected for a distance of 0.55m. These were one full-brick thick, were spaced 0.95m apart, and formed the remains of a fireplace that was positioned centrally on the eastern side of the dwelling. Directly opposite this fireplace, tied into the western wall, was a rectangular handmade-brick structure. This measured 1.55 x 0.75m and was a single-skin construction, four courses high, with a brick floor and course of header bricks forming a step. It is probable that this supported a staircase that allowed access to a first-floor level, with perhaps a storage area beneath. Within **R17** two other, single-skin, projecting brick walls were also identified. One of these, which was one-brick (0.23m) long, was positioned on the northern (rear) wall of the dwelling, set some 0.75m from the western wall. It is possible that this feature related to a doorway, which led to the stairs. The other projecting wall was located on the southern (front) wall. This extended for a distance of 0.6m and was set 1.1m from the west wall, and might have defined a small partitioned area in the corner of the room.



*Plate 14: Aerial view of **R17***

3.2.24 The positioning of these internal features was probably replicated in the other dwellings that fronted Nelson Court and Nelson Street. For instance, the staircase, positioned on the western party wall, survived in eight of these dwellings (Plate 15). The partial remains of a fireplace, on the opposing eastern party wall, was also apparent in one of these dwellings (**R15**), whilst the wall stub possibly relating to a doorway leading to the stairs was also present in two of the dwellings (**R18** and **R22**). These internal features were also seemingly present in the two dwellings (**R19** and **R20**) at the western end of the back-to-back range, that fronted New Blakeley Street. In contrast, though, the location of these features was rotated 90 degrees anti-clockwise, with the fireplaces and staircases being on the northern and southern walls respectively. However, this is to be expected given that access into these properties was would have been from the west, from the New Blakeley Street frontage.



*Plate 15: Staircase in **R15**, looking south-west*

- 3.2.25 To the south of the back-to-back range, surrounding Nelson Court, were several isolated nineteenth-century brick-built structures. Although this part of the site had suffered from a fairly high degree of truncation, it seems possible that these features formed elements of two double-depth properties that the historical mapping suggests were erected in this part of the plot between 1809 and 1818/19 (*Section 3.2.2*).
- 3.2.26 The structures included a right-angled length of handmade brick walling (**2005**), which was one full-brick thick and had been laid in a stretch bond (Plate 16). This wall had been heavily truncated during the late nineteenth/early twentieth-century remodelling of Nelson Court (*Section 3.2.49*), but it seemed to represent the exterior wall of an early building. Moreover, its position seems to suggest that it related to the more northerly of the double-depth properties in this area, though intriguingly it does not equate with any wall lines plotted on the detailed mid-nineteenth-century mapping. One possibility, therefore, is that it represents the corner of an outshut that was demolished in the earlier part of the nineteenth century. Another structure (**2006**) was also associated with this northern property. This was rectangular in plan, c 1m wide, though its length could not be determined as it extended outside of the excavation area. However, its form suggested that it formed the base of a staircase, which was probably in the front room of the property.



Plate 16: Structure **2005**, beneath Privy **P7**, looking south-east

- 3.2.27 Two structures lay to the south and appear to have been associated with the more southernmost of the double-depth properties. One of these (**2007**; Plate 17) was a rectangular handmade brick structure, measuring 1.6 x 1.02m, with a brick floor, which was defined on its northern, eastern and western sides by a single-skin wall. Its southern side, however, was defined by a double-skin wall that probably represented the only surviving element of the wall which formed the southern side of the dwelling; the historical mapping indicates that this also defined the northern side of a covered

passage allowing access into No 3 Court. As with structure **2006** (*Section 3.2.26 above*), the form of structure **2007** suggests that it supported the stairs running to an upper floor, and its position indicates that these were placed in the rear room of the double-depth dwelling. Historical mapping indicates that the other structure associated with this property was located in its outshut (**P3**; Plate 18). Although it had been truncated by a later drain, it was evident that it formed a rectangular brick-built chamber, measuring 2.1 x 1.62m, with an outer two course-thick brick wall, bonded with lime mortar. The chamber was divided into two compartments by a two-course thick wall, each of which had brick floors. It also had a brick-built drain running out from its eastern side, then along its southern side, though it is unclear whether this represents an original, or later, feature. The form of the structure, however, suggest that it was an early privy.



Plate 17: Aerial view of **2007**



Plate 18: **P3**, looking south-west

- 3.2.28 **Phase 3 (Early-mid-nineteenth century)**: the cartographic evidence indicates that most of the dwellings exposed in the 2018 excavation area were probably constructed in the early 1820s, at some point between 1818/19 and 1824, along with three associated courtyard areas (Nelson Court, and **Courts 2** and **3**; Fig 4). The cartographic evidence also indicates that some of these properties were then subdivided/amalgamated during the early-mid-nineteenth century.
- 3.2.29 **Nelson Court area**: three of the 1820s dwellings (**R12-14**) lay on the southern side of Nelson Court. However, two of these buildings (**R13** and **R14**) had been subjected to later modification/demolition as part of a scheme designed to improve living conditions (*Section 3.2.53*), and only portions of the original external walling survived as single foundation courses. Little could therefore be determined regarding their internal layouts, though it was clear that each had a near identical-sized plan, measuring c 3.3 x 3.1m. The external walls were double-skinned, as was the surviving early nineteenth-century party wall separating two of the dwellings (**R12** and **R13**).
- 3.2.30 **No 3 Court area**: the cartographic evidence indicates that originally, during the mid-nineteenth century, the dwelling represented by **R12-14**, adjoined two other properties that could be accessed from No 3 Court (**Court 3**), which itself was accessed via a covered passage leading from Ashley Lane. However, it was apparent that one of these buildings had been demolished in order to insert a privy in the latter half of the nineteenth century (*Section 3.3.46*), whilst only the piecemeal remains of the other building survived (**R23**). This single-depth building fronted Ashley Lane, and its northern side was defined by the southern wall of an adjacent dwelling (**R12**; *Section 3.2.19*), whilst its southern wall was evident as a small length (0.65m) of double-skin walling. This indicated that the building was 3.47m wide.
- 3.2.31 To the south, the surface of **Court 3** survived, composed of sandstone flags, containing four small drains, as did the remains of two buildings (defined by **R5-7**) dating to the 1820s on the southern side of this courtyard, which fronted Ashley Lane (Plate 19). Cartographic evidence indicates that one of these latter buildings (**R7**) formed a blind-back that was positioned immediately south of the covered passage leading to the courtyard. This building was 4.1m wide and its rear portion lay within the excavation area. Its northern side was defined by a single-skin brick wall, whilst its western gable wall was double-skinned, and had been rebuilt at a later date (*Section 3.2.54*). A c 0.6m-wide doorway was also present on its western gable wall, at the north-western corner of the building. Two areas of *in-situ* sandstone flags were present within, forming the original flooring. Immediately south of the doorway, butted against the gable wall, was a rectangular brick structure, defined by two single-skin walls, parallel with this side of the building, which contained an area of flagged and brick flooring. This structure measured 0.54m across and had a length of 1.29m, and defined the position of a narrow staircase.



Plate 19: Aerial view showing the flagged surface of **Court 3**, and the remains of **R5** (centre), **R6** and **R7** (right and centre), and **C9** (left)

- 3.2.32 The western wall of the blind-back was tied into the northern side of the second building (defined by **R5** and **R6**) fronting Ashley Lane that survived in the **Court 3** area. The cartographic evidence indicates that this originally began life as two separate tenements, had been converted into a single double-depth building between 1831 and 1848, and was then subsequently divided back into two separate tenements in the latter part of the nineteenth century, possibly prior to the late 1860s (Sections 3.2.5 and 3.2.8). In any event, the main structure of the 1820s building would probably have been retained throughout this period, with subdivision/amalgamation merely involving the blocking or creation of doorways between rooms.
- 3.2.33 It is evident that the southern side of this building was defined by the rear wall for a range of blind-backs lining the northern side of **Court 2**, which it abutted, indicating that it, and also the blind-back dwelling to its south (Section 3.2.32) were built at a slightly later date than those associated with the adjacent courtyard. The northern side of this double-depth building survived as a double-skinned wall, whilst its western wall was partly defined by a single-skin wall and partly by the wall of an adjacent outshot (**Cellar C9**; Section 3.2.42), associated with a property fronting New Blakeley Street (Plate 19). Again, this relationship indicates that the buildings on the southern side of **Court 3** were built at a slightly later date than the surrounding buildings,

though, based on the cartographic evidence, probably before 1824. The interior walls within the double-depth dwelling were also of single-skin construction, including the party wall separating it from the blind-back dwelling to the north (**R7**; *Section 3.2.31*). Other external features associated with the double-depth building included a doorway in its northern wall, adjacent to its north-western corner. The actual position of this doorway was defined by two 0.24m-square recesses that had been cut into the sandstone flags at the threshold. These would have secured the timber jambs for the door and they were set 1.15m apart.

- 3.2.34 Within the interior of the dwelling were two rooms. One of these (**R5**) formed the rear room of the original double-depth property, measuring 3.95 x 4.25m, which latterly formed a separate dwelling. The complete area of this room was exposed and contained a flagged floor, apart from a rectangular area of brick flooring (measuring 1.4 x 0.7m) at the south-western corner of the room. It seems quite possible that this denotes the position of a staircase, as similar areas of brick flooring were associated with other staircase positions excavated within this plot. Another internal feature comprised the remains of a 0.8m-wide fireplace situated just off-centre on the eastern wall of the room (Plate 20). The sides of this were composed of two full-brick width (0.23m) walls, projecting for a distance of 0.39m into the room. A stretch of single-skin walling also extended from the northern side of the fireplace, parallel with the party wall, which could represent the setting for a range or pot boiler. Only the rear elements of the adjacent room (**R6**) were present in the excavated area, and this was of identical width to its counterpart, and also similarly contained a flagged floor.



Plate 20: Fireplace in R5, looking east

- 3.2.35 On the western side of **Court 3** was an early nineteenth-century building range, the frontage of which lay on New Blakeley Street. This range was also immediately south of a covered passage extending from this street into **Court 3**, and was north of a block

of blind-back properties surrounding **Court 2** (Section 3.2.43). Interestingly, the cartographic evidence suggests a similar pattern of development to that observed for the buildings on the other side of **Court 3** (Section 3.2.32), in the early and mid-nineteenth century. Specifically, it appears that initially a block of four back-to-back properties existed in the central and north part of the range, adjacent to a double-depth property, with an outshut to the rear. Then, at some point between 1831 and 1848, the back-to-backs had seemingly been converted into two double-depth dwellings, and thus a total of three of these types of buildings now existed within the range. This reconfiguration seems to have been short-lived, however, as during the latter half of the nineteenth century (possibly prior to the late 1860s; Section 3.2.8), all three of the double-depth dwellings were subdivided, to form a block of six back-to-back tenements.

- 3.2.36 Although this range's street frontage lay beyond the excavated area, the archaeological remains did indicate that its exterior walls, and also the party wall, which divided the range from those properties associated with **Court 2**, was of double-skinned construction, being one full brick in width, laid in an English Garden Wall bond. Within the range, five cellars were present (**C4-8**; Plate 21). These were half-basements, and the largest (**C8**) was at the northern end of the range. This was a single cellar, with a c 4m width and a flagged floor, of a type that invariably lay beneath one double-depth property or two back-to-back dwellings. Perhaps significantly, there was no obvious dividing wall within the cellar that equated with the position of the back-to-backs' party wall, as depicted on historical mapping. Instead, it appears that this internal wall was 'floating' and was supported by a brick-built pillar, measuring 0.38 x 0.47m in plan, the remains of which were located at the centre of the cellar floor. The cellar could be accessed from **Court 3**, via a c 1m-wide stairwell, that had single-skin walls, and flagstone treads, supported on a brick base.



Plate 21: Aerial view of C4-8

3.2.37 **Cellar C8** also contained two brick-built fireplaces/chimney stacks on the southern wall, positioned beneath, and supporting, the fireplaces in the two upper rooms of the double-depth/back-to-back property. Only one side of the fireplace in the western part of the cellar lay within the excavated area, though both sides of the fireplace were present in the eastern part of the cellar (Plate 22). This fireplace was formed of two brick piers, that were three-bricks thick. These were spaced 0.9m apart and the fireplace also had a sandstone base.



*Plate 22: Remains of the fireplaces in **C8**, looking west*

- 3.2.38 Immediately south of **C8** were **C6** and **C7**, which again had widths of 4m and flagstone floors, though these only partially survived (Plate 21). As with **C8**, these cellars invariably lay beneath one double-depth property or two back-to-back dwellings. These cellars were divided by a single-skin partition wall, corresponding to the position of the party wall for the back-to-back houses depicted on historical OS mapping. In one area the footings for this wall were overlain by a flagstone, which probably denotes the position of a doorway allowing access between the two cellars. Moreover, there was no evidence for access to the cellars from **Court 3**, implying the cellars were either accessed through trapdoors in the rooms above, or more likely from the New Blakeley Street frontage, particular as features possibly denoting stairwells are plotted on the OS map of 1848.
- 3.2.39 The complete extent of **C7** was uncovered (Plate 23), and this measured c 3.8 x 4.1m; it seems highly likely that the adjacent **C6** was of identical size. Both of the cellars were also provided with fireplaces/chimney stacks that were situated in the southern walls, and these were of identical design and size to those in **C8** (Section 3.2.36). Another brick-built structure was also associated with **C7**, which butted onto the external face of its eastern wall. This sunken structure had one-brick-thick walls, measured 1.2 x 0.9m, and probably represents the base of steps that led to the raised ground-floor of the property.



Plate 23: **C7**, looking south

3.2.40 **C4** and **C5** were south of **C6** and **C7**, and lay beneath the southernmost of the double-depth/back-to-back property in this range. They were identical in size to **C6** and **C7** (Section 3.2.38), contained elements of *in-situ* flagged flooring, and patches of lime plaster were also observed, indicating that originally the cellar walls were rendered (Plate 24). These cellars were divided by a single-skin wall that had a centrally placed 0.8m-wide, doorway, allowing access between them. Significantly, though, the northern part of this wall, beyond the doorway, was a later addition, suggesting that originally the two cellars formed one large cellar, containing a short southern partition wall. It is therefore conceivable that the two separate cellars, with shared access from New Blakeley Street, were created when the double-depth property was ‘converted’ into a back-to-back dwelling (Section 3.2.35). This division may also imply that the cellar was divided to form two separate cellar dwellings.



*Plate 24: Southern elevation of **C4**, with patches of surviving lime plaster*

3.2.41 Both **C4** and **C5** contained fireplaces/chimney stacks, which were identical in size and design to those found in the other cellars in this range (*Sections 3.2.36 and 3.2.38*). Similarly, that in **C4** was placed on the southern side of the cellar, though that in **C5** was on the northern wall (Plate 25), mirroring the fireplace in adjacent **C7**.



*Plate 25: Fireplace (and later pot boiler) in **C5**, looking north*

3.2.42 One further feature associated with **C5** was a 0.7m-wide doorway, on its eastern wall, which had been blocked with a handmade brick wall at some stage (Plate 26). This doorway originally led into a cellared outshut (**C9**) that in the early part of the nineteenth century formed an element of the double-depth property that existed at this end of the building range. The north wall of the outshut was of double-skin construction, and contained a doorway 0.7m-wide adjacent to the rear wall of the double-depth property, allowing access into **Court 3**. Although this wall had been blocked with handmade brick, its presence suggests that, originally, steps may have led from it down into the cellared outshut; however, it was not possible to determine this with certainty, as this part of the cellar was not cleared of demolition rubble. The eastern wall of the outshut was single-skinned and this abutted the northern wall of the adjacent blind-back dwellings, lining **Court 2** (Section 3.2.45 below); this also formed a party wall with **R5**, associated with the adjacent double-depth property that fronted Ashley Lane (Section 3.2.23 above). The eastern half of the cellared outshut was excavated, exposing remnants of a flagged floor. Immediately above the floor level was a 0.5m-thick layer composed of tin-plate fragments. There was also a small square brick-built 'annexe' on the northern side of the outshut; however, the purpose of this feature is not particularly clear.



Plate 26: Blocked doorway originally providing access between **C5** and **C9**, looking east

3.2.43 *No 2 Court area*: it was evident that much of the early nineteenth-century structural remains surrounding **Court 2** had been subjected to later modification (Section 3.2.54 below). Therefore, although it is known from historical mapping that this court was lined by blind-back properties, which included three single-depth houses fronting New Blakeley Street, only piecemeal remains of these buildings survived. This was also compounded by the fact that it was only possible, on health and safety, and logistical, grounds to excavate only partially those properties that fronted New Blakeley Street.

The excavated remains from the 1820s that were recorded did, however, indicate that these later properties were cellared (**C1-3**; Plate 27), and were constructed at exactly the same time as the cellared properties fronting New Blakeley Street, in the **Court 3** area (**C4-8**). This was particularly evident, as the shared rearward double-skinned external wall (with an English Garden Wall bond) of **C1-3** was tied into the southern wall of an adjacent double-depth/back-to-back property (defined by **C4** and **C5**) in the **Court 3** area (Section 3.2.40). Surprisingly, it was also clear that, originally, there was access between **C3** in the **Court 2** area and **C4** in the **Court 3** area, as a 0.65m-wide doorway had once existed that allowed for movement between the two cellars, which were associated with two seemingly separate properties.



Plate 27: **C1-3**, looking north, with a blocked doorway visible on the northern elevation of **C3**

- 3.2.44 The excavated parts of the cellars in **Court 2** indicated that they were separated by single-skin walls, and one of them (**C2**) had a width of 5.3m, whilst another (**C3**) was 4m wide. This implies that **C3** was probably of similar size to the cellars to the north (**C4-8**), whilst **C2** formed a larger structure. The **Court 3** cellars also possessed flagged floors, had been rendered with a lime plaster, and were provided with fireplaces/chimney stacks positioned on their northern walls. These features were defined by projecting checks, one full-brick wide, spaced 0.9m apart.
- 3.2.45 The remains of the dwellings flanking **Court 2** were very partial in extent (defined by **R1**, **R3** and **R8-11**), being composed of fragmentary lengths of walling, indicating that the external walls were of double-skin construction, with single-skin party walls. It was also apparent that the southern exterior wall of the blind-backs on the northern side of **Court 2** (**R3**, **R8**, and **R9**) had been laid on stone footings, set on a mortar bedding layer. **R9** contained portions of an *in-situ* flagged floor, presumably indicative of the flooring found in all of these dwellings. The size of these blind-backs could also be ascertained and each appears to have had a ground-floor area measuring some 4.1 x 3.3m. A fireplace also survived in one of these dwellings (**R3**), positioned centrally on its western wall; this was composed of two 0.38m-long checks that were one-full brick wide, spaced 0.94m apart. Access into this dwelling was via a doorway positioned at its south-western corner, where an exterior stone step survived.
- 3.2.46 **Phase 4 (1848-88)**: one structure was present in **Court 3** that can be dated by the cartographic evidence to the mid-/late nineteenth century (Fig 4). Significantly, this butted on to the rear of an earlier single-depth property fronting Ashley Lane (**R23**; Section 3.2.30; Fig 3) and it was clearly associated with improving the living conditions for those occupying this property, since it formed a small outshot functioning as a privy block (**P1**; Plate 28); its construction also entailed the demolition of an early nineteenth-century dwelling, of which no remains survived (Section 3.2.30). The privy block measured 2.91 x 1.88m, was constructed of handmade brick, bonded with a grey/brown sandy mortar, and it could be accessed from its 'parent' property (**R23**) through a 0.9m-wide doorway close to its south-eastern corner. The external walls were one-full brick thick and it was divided in half by a single-skin wall, to form two small rooms, with access between each being through a doorway at the northern end of the dividing wall. An *in-situ* flagged floor was also present in both rooms, along with 0.75m square brick-lined chambers.



Plate 28: **P1**, looking east

3.2.47 To the south-west, another outshut, of sorts, was present in the **Court 2** area. This butted onto the rear wall of the early nineteenth-century blind-back (defined by **C2**), and, as such, would have been positioned at the far end of the courtyard. It formed a T-shaped structure (**R2**), with maximum dimensions of 3 x 2m, with a double-skin brick wall, bonded with a dark grey mortar, and a flagged floor (Plate 29). The exact purpose of the structure is not entirely clear, though given its position at the end of the courtyard it is quite likely that it was a privy. Indeed, the large-scale OS map of 1891 depicts a probable small privy block in this area, containing three separate compartments, with a 'corridor' to the rear, parallel with the blind-back property. It seems likely, therefore, that the T-shaped structure relates to this corridor and the central compartment in the block.



Plate 29: R2, looking south-west

- 3.2.48 **Phase 5 (1889-1908)**: historical OS mapping indicates that some of the early nineteenth-century buildings and courtyards in Plot 2 were subjected to modification between 1893 and 1908, which was undoubtedly linked to improving living conditions in this part of Angel Meadow. These modifications included demolishing some of the earlier properties, and providing some of those that remained with improved drainage systems, privies, and yard areas (Fig 4).
- 3.2.49 **Nelson Court area**: at the northern end of the plot, this phase of improvement was readily apparent in the modifications that were made to the row of 12 early nineteenth-century (Phase 2) back-to-backs that partially fronted Nelson Street/Nelson Court (*Section 3.2.20*). The cartographic evidence indicates that these were knocked through to form six larger double-depth dwellings, which were each provided with yards and privies that covered much of the area formerly contained in Nelson Court. This later court was therefore transformed into a much narrower ginnel. The remains of the yards, privies and ginnel were all present in the excavated area (Plate 30).



Plate 30: Aerial view of the Phase 5 yards, privies, and ginnel in the Nelson Court area

- 3.2.50 The yard areas (**Y1-5**) progressively narrowed in size from west (**Y5**) to east (**Y1**) and were defined by double-skin wall foundations bonded with a dark grey mortar. Within each of the yard areas, directly adjacent to the rear of the properties, the up-spout of a ceramic drain was present, which fed into a drainage system, which was partly uncovered in **Y5**. These drains were presumably inserted during the construction of the yards as a means of carrying away both rain and grey water.
- 3.2.51 Butted onto the rear yard wall were two privy blocks (**P4** and **P7**), one of which (**P7**) served the properties associated with **Y3** and **Y4**, the other (**P4**; Plate 31) serving the properties associated with **Y1** and **Y2**. Both were of identical design and construction, being composed of an outer double-skin wall, and also an interior, one full-brick wide, wall (which only survived in **P4**) that divided the block into two separate toilets, served by *in-situ* soil pipes, indicating that they were flushable, provided with a water supply. **P7** measured 3.7 x 1.15m, whilst **P4** was nearly identical in size, measuring 3.5 x 1.15m, with the separate toilet cubicles measuring c 1.4m across.



Plate 31: **P4**, looking north-west

- 3.2.52 Immediately to the south of the yards, a 2.75m-wide paved surface was encountered that survived for a distance of 15m (Plate 30). This was almost certainly laid in the late nineteenth/early twentieth century and represented the ginnel depicted on historical mapping. Along its centre ran a drain, capped with flagstones.
- 3.2.53 To the south of this ginnel, on the southern side of Nelson Court, the cartographic evidence also hints that the early nineteenth-century properties in this area were also modified between 1889 and 1908 (Plate 32). This seems to have involved the conversion of two blind-back dwellings (**R12** and **R13**; *Section 3.2.29*) into a double-depth property fronting Ashley Lane, and the demolition of another blind-back property (**R14**; *Section 3.2.29*) to the rear of this, the footprint of which then acted as a small walled yard area. Structural remains relating to these modifications were apparent, indicating that the process of the conversion of the blind-backs into a double-depth property entailed the complete rebuilding of the western end of the blind-back (**R13**), which now formed the back room of the reconfigured property. The associated yard was also defined by a 'newly' constructed wall, that sat above the wall lines of the earlier property (**R14**). Another structure that was contemporary with the yard was a privy block (**P2**). This straddled the yard wall, measured c 2.4 x 2 m, with a one full-brick thick wall, and was internally divided into two separate compartments, each provided with a soil pipe, that would have served a flush toilet. One of the toilets served the property fronting Ashley Lane, whilst the other served an early nineteenth-century double-depth property fronting New Blakeley Street (*Section 3.2.27*); this privy probably also replaced an earlier privy (**P3**; *Section 3.2.27*) associated with this property.



Plate 32: Aerial view of **R12-14** and **P1-3**

3.2.54 *No 3 Court area*: the only structures associated within the central part of the plot that probably date to Phase 5 were located in **C8** (Section 3.2.36) and **C5** (Section 3.2.40), associated with a blind-back dwelling fronting Ashley Lane (**R7**; Section 3.2.31). The features in **C8** comprised the bases of two pot-boilers, that would have held a large metal pot, heated from below, used for cooking or washing laundry, that butted up against the two fireplaces in this cellar (Plate 33). The bases were composed of (reused?) handmade bricks, bonded with a hard grey cement, and they both measured c 0.8 x 0.7m. The remains of a similar pot boiler were associated with the fireplace in **C5**. The Phase 5 remains associated with the **R7** dwelling indicated that its rear wall had been rebuilt in the late nineteenth/early twentieth century, with a double-skin wall. This wall was also associated with the up-spout of a ceramic drain, designed to carry rain/grey water from the property.



*Plate 33: Base of a pot-boiler associated with the eastern fireplace in **C8**, looking south*

- 3.2.55 *No 2 Court area*: several fairly extensive modifications were made in this area during this period. The cartographic evidence indicates that on either side of the courtyard two of the blind-back properties were combined with two adjacent blind-back properties fronting New Blakeley Street (defined by **C1** and **C3**; *Section 3.2.43*) to form double-depth properties, presumably by knocking through dividing walls. It is also apparent that one of the blind-back properties on New Blakeley Street (defined by **C2**; *Section 3.2.43*) was extended across **Court 2**, to create another double-depth property.
- 3.2.56 The excavated remains indicated that this programme of modification entailed the complete rebuilding of the (presumably originally single-skinned) side walls of the blind-back dwellings, that formerly fronted **Court 2**, by a single wall that extended between these former dwellings, across **Court 2**, and that also acted as the rearward extension of the former blind-back (**C2**) that fronted New Blakeley Street (Plate 34). This wall was double-skinned and was composed of reused handmade brick, bonded with a hard grey cement mortar. The extension of the property defined by **C2** effectively created a backroom (**R1**) in this now enlarged, double-depth, property, and the construction of this room would also have entailed the demolition of the Phase 4 privy block (**R2**; *Section 3.2.47*) that was positioned at the far western end of **Court 2**. Although no flooring survived in the extended room, it is quite likely that the footings of the former privy block were covered by the 'new' floor surface that was contained within this room.



*Plate 34: Aerial view of modified **Court 2**, and Phase 5 **R1**, **R9**, and **R10**, and **P5** and **P6***

- 3.2.57 Attached to the rear of this extended property was a small privy (**P6**) that also dates to Phase 5. This measured 1.58m square and had a double-skin wall, composed of reused handmade bricks bonded with a grey mortar. In its interior, the partial remains of a brick floor were present, as was a soil pipe located on its western side, that would have been linked to a flush toilet.
- 3.2.58 The map evidence also indicates that other major changes were made to the properties in the eastern portion of the **Court 2** area, between 1889 and 1908. This comprised the demolition of four blind-back dwellings that originally lay in the inner parts of the early nineteenth-century court area, and the addition of walled yards to the two early nineteenth-century blind-back properties that fronted Ashley Lane (defined by **R9** and **R10**; *Section 3.2.45*). In addition, a ginnel was built, leading from Ashley Lane, in between the yard areas, allowing access to the rear part of the reconfigured court behind the Ashley Lane properties, and also those that fronted New Blakeley Street.
- 3.2.59 In the excavation area, portions of Phase 5 walling were present that related to the rear wall of the yard areas associated with the Ashley Lane properties, as were the remains of walling defining the northern and southern sides of the ginnel. These walls were one-full brick thick and were composed of reused handmade bricks (perhaps derived from the demolished blind-back dwellings?) bonded with a grey cement

mortar. A small surviving area of flagged floor was also present at the eastern end of the ginnel.

- 3.2.60 One further structure associated with the improvement of the properties fronting Ashley Lane was the construction of a small privy on the rear of the earlier blind-back dwelling that lay on the northern side of the ginnel (defined by **R9**; *Section 3.2.45*). This structure (**P5**) was similar in size and design to the other Phase 5 privy in the **Court 2** area (**P6**; *Section 3.2.56*), and was also similarly constructed of reused handmade bricks.

3.3 Plot 3

- 3.3.1 **Cartographic evidence:** it is clear from the historical map evidence that, although Ashley Lane, on the eastern side of Plot 3, was present in the late eighteenth century, the actual area covered by Plot 3 remained undeveloped until the early part of the nineteenth century. For instance, no buildings are apparent on Dean and Pigot's map of 1809, with the first map to show any development being Johnson's 1818/19 map of Manchester, which depicts a small block of buildings in the north-eastern corner of the plot (Plate 35); later mapping suggests that these formed a block of back-to-back dwellings at the corner of Little Nelson Street and Ashley Lane.

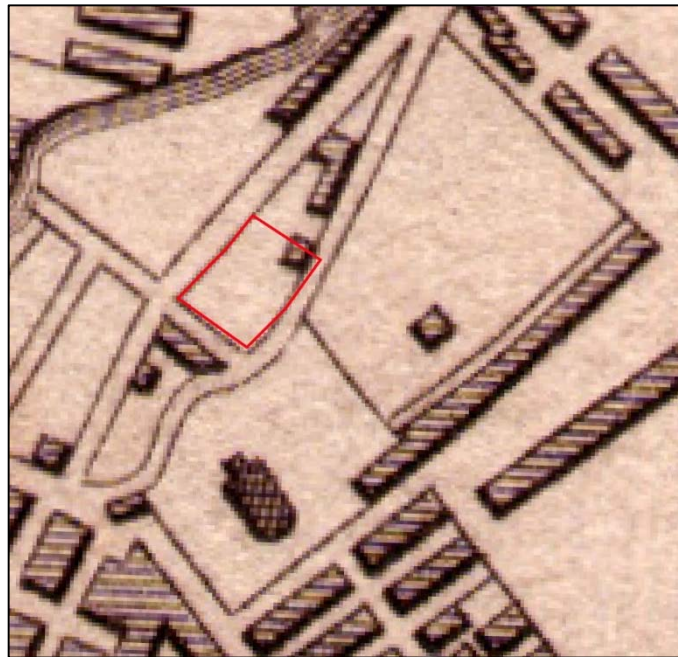


Plate 35: An extract from Johnson's map of 1818/19, with the location of Plot 3 highlighted

- 3.3.2 Further development evidently occurred shortly after Johnson's survey, as Swire's map of 1824 shows Plot 3 to have been developed almost entirely, with buildings positioned on either side of a small north-east/south-west-aligned street running through the centre of the plot, named Holden Street on later maps. The form and character of these buildings is apparent on Bancks & Co's map of 1831 (Plate 36). This indicates that the small block of back-to-back housing at the corner of Little Nelson Street and Ashley Lane (*Section 3.3.1*) had been extended, and together these now formed a block of 18 back-to-back properties, which could be accessed from Ashley Lane and Holden Street.

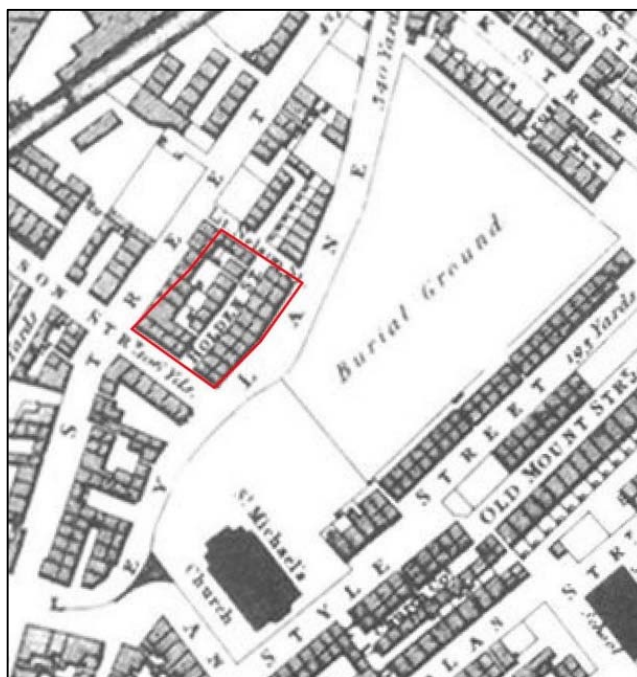


Plate 36: An extract from Bancks & Co's map of 1831, with the location of Plot 3 highlighted

- 3.3.3 On the other side of Holden Street, contained in the north-western corner of Plot 3, Bancks & Co's map depicts a C-shaped block of properties, surrounding a courtyard, which could be accessed from Holden Street, via a covered passageway. These properties consisted of a row of five blind-backs fronting Little Nelson Street, a back-to-back dwelling fronting New Blakeley Street and the courtyard, and a large single-depth property facing Holden Street, that stood next to the covered passage. Similarly, in the far south-western corner of Plot 3, Bancks & Co's map plots a row of four blind-back dwellings fronting Nelson Street. The area between this latter row of blind-backs and the C-shaped block to the north-east contained a selection of buildings of varying sizes, with three separate courtyard areas to the rear. These buildings included blind-back dwellings fronting Holden Street, whilst New Blakeley Street was fronted by a range that contained, from south-west to north-east, a fairly large building, with an outshut to the rear, two double-depth properties, and two large single-depth properties.
- 3.3.4 The buildings depicted on the OS 5ft:1mile maps of 1850 (surveyed in 1848; Plate 37) and Adshead's map of 1850, show several modifications/additions to those depicted on Bancks & Co's map (*Section 3.3.3*). By the middle of the nineteenth century, a blind-back dwelling had been built across one of the courtyard areas, infilling that open area that was formerly positioned to the rear of the double-depth properties fronting New Blakeley Street and the blind-backs fronting Holden Street. These maps also indicate that two of the blind-backs at the north-western end of Little Nelson Street, and the adjoining back-to-back dwelling, had both been combined to form two double-depth properties fronting New Blakeley Street. Similarly, two of the blind-backs fronting Nelson Street, along with the large building fronting Nelson Street, had been combined into one large property, which functioned as a public house, named 'The Derby Arms' on the OS map of 1850.



Plate 37: An extract from the 5ft:1mile OS map of 1850, with the location of Plot 3 highlighted

- 3.3.5 The OS maps of 1891 (Plate 38) and 1893 reveal an essentially similar layout of properties to that shown on the earlier mapping. One of the few slight differences is the probable replacement of a mid-nineteenth-century building, constructed in one of the early nineteenth-century courtyards, with a structure that probably functioned as an outshut for one of the double-depth properties fronting New Blakeley Street, along with the construction of a yard area to the rear of one of the blind-backs fronting Holden Street. Extending from the oushut, around the corner of the yard in a dog-leg, was a privy block. A small privy block had also been constructed in the large courtyard area to the north-east, that could be accessed from Holden Street. Other modifications were the conversion of the southernmost of the back-to-backs fronting Holden Street/Ashley Lane into a double-depth property, the removal of a covered passageway, adjacent to a large single-depth building at the north-eastern end of Holden Street (*Section 3.3.3*), and division of this property into two smaller units. Intriguingly, the 1891 and 1893 maps also indicate that the two properties at the corner of New Blakeley Street and Little Nelson Street had been reconfigured back into their original early nineteenth-century guises, as four separate tenements.



Plate 38: An extract from the 10ft:1mile OS map of 1891, with the location of Plot 3 highlighted

- 3.3.6 The next edition of OS mapping, published in 1908 (Plate 39), shows some changes to Plot 3. In particular, the early nineteenth-century back-to-backs (*Section 3.3.2*) fronting Ashley Lane/Holden Street were remodelled, which entailed their conversion into double-depth properties with small yards to the rear (though see *Section 3.3.4*). Three of the blind-back houses on Holden Street and one fronting Little Nelson Street also appear to have been demolished by 1908, presumably in an attempt to improve the natural lighting and ventilation of the area by removing the worst dwellings, and these were replaced by a courtyard and a narrow building. Similarly, one of the blind-backs on Little Nelson Street had been demolished, to allow better access and ventilation into a courtyard to the rear. The same layout is shown on the Ordnance Survey maps of 1922 and 1933, although the entire plot is shown to have been cleared of all buildings on subsequent editions of OS mapping.

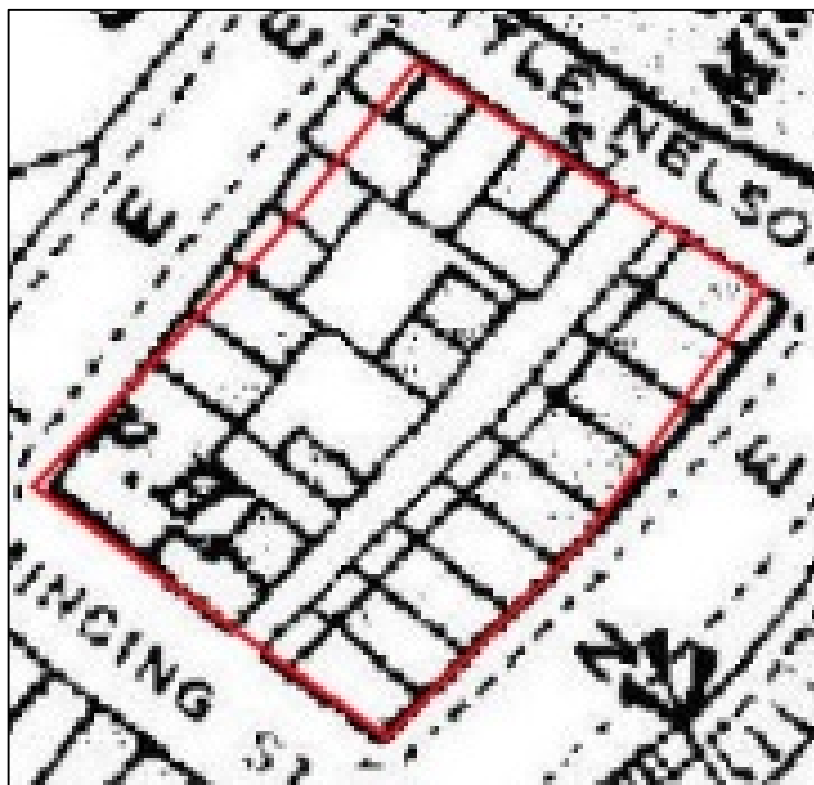


Plate 39: An extract from the 25inch:1mile OS map of 1908, with the location of Plot 3 highlighted

3.3.7 Occupancy: the Census returns for Little Nelson Street and Holden Street were examined as part of an historic assessment of the site (L-P Archaeology 2017), and these provide some details on the character of occupation in parts of Plot 3. For instance, along these two streets, it appears that the population fluctuated slightly between 1841 and 1861, and then peaked in 1871 (Table 3). After this date, the population then steadily declined. The extremely low population levels recorded in the early twentieth century are undoubtedly due to the fact that the back-to-back dwellings along Holden Street ceased to exist during this period, as they were combined with those on Ashley Lane to form double-depth properties, which fronted this latter street (Section 3.3.6).

Year	Dwellings	Population	Average number of occupants per dwelling
1841	17	72	4.2
1851	20	91	4.6
1861	21	82	3.9
1871	21	100	4.8
1881	19	82	4.3
1891	14	63	4.5
1901	4	12	3
1911	2	4	2

Table 3: Inhabited dwellings and population calculated by Census returns for Little Nelson Street and Holden Street

3.3.8 Between 1841 and 1891 the average population density per dwelling remained fairly consistent, though detailed consideration of the Census data reveals that there is one instance, in 1841, when one of the Holden Street back-to-backs contained a family of nine (the Briand family; L-P Archaeology 2017, appendix 1; Table 4). It is also apparent that several individual properties were subjected to multiple occupancy. This appears to be a particular feature of the Holden Street dwellings between 1841 and 1881, and suggests that different families/occupants may have dwelt in the ground-floor and first-floor areas, and perhaps even the cellars of some of these properties.

Inhabited	Inhabitants	Age	Male	Female	Occupation
1	Robert Dobson	30	X		Carter
	Catherine Dobson	28		X	Umbrella Maker
	Thomas Dobson	2	X		
1	William Carrol	24	X		Silk Weaver
	Anne Carrol	22		X	Umbrella Maker
	Stephen Carrol	3m	X		
1	John Dunn	50	X		Weaver
	Elizabeth Dunn	45		X	
	John Dunn	18	X		Weaver
	Mary Dunn	6		X	
	John Dunn	1	X		
	Mary Dunn	25		X	
1	Michael Daley	27	X		Weaver
	Bridget Daley	26		X	
	Thomas Daley	1	X		
1	John Hopwood	30	X		Carter
	Hannah Hopwood	26		X	
	Samuel Hopwood	4	X		
	George Hopwood	3	X		
	John Hopwood	1	X		
1	John Briand	38	X		Silk Weaver
	Pricilla Briand	35		X	
	Robert Briand	15	X		Power-loom Weaver
	Jane Briand	13		X	
	Sarah Briand	9		X	
	Mary Briand	7		X	
	John Briand	5	X		
	Elizabeth Briand	3		X	
	Pricilla Briand	5m		X	
1	Charles Fildes	25	X		
	Elizabeth Fildes	25		X	Clog Pattern Maker

Inhabited	Inhabitants	Age	Male	Female	Occupation
	William Henry Fildes	5	X		
	Jane Fildes	3		X	
	Phoebe Fildes	2		X	
1	Ellen Steem	45		X	Mangler
	John Steem	20	X		
	Arthur Steem	15	X		
	William Steem	13	X		
1	Macmillan Annes	20	X		Spinner
	Catherine Annes	22		X	Seamstress
	Elizabeth Annes	2		X	
1	Anne Balance	37		X	Weaver
	William Balance	14	X		Rope Maker
	Elizabeth Balance	11		X	
	Susannah Balance	9		X	
	Sarah Anne Balance	7		X	
	Rachael Hale	20		X	Weaver
1	John Beady	60	X		Tailor
	Martha Beady	70		X	Journeyman
1	Johnathan Worral	65	X		Block maker
	Martha Worral	55		X	
1	William Botham	34	X		Agent
	Ann Botham	36		X	Cotton winder
1	William Dawson	75	X		Hawker
	Mary Dawson	50		X	
	Hannah Dawson	20		X	Winder

Table 4: The inhabitants of Holden Street in 1841, as derived from the Census returns (Note: the Census data numbers all of the individual dwellings as '1')

3.3.9 Unsurprisingly, all of the occupants were in low-paid employment, and many worked in the textile industries. As with the inhabitants in Plot 2 (Section 3.2.16), there was a mix of both people born in Lancashire and Ireland. In fact, more detailed analysis of the data suggested that 1:3 of the residents were born in Ireland and over half of the residents were of Irish descent (L-P Archaeology 2017).

3.3.10 **Archaeological remains:** the majority of the remains in this plot dated to the early nineteenth century (Phases 2 and 3) and were concentrated on either side of, and fronting, Holden Street, which was established as part of the early nineteenth-century development (Phase 3) of the area. In these two areas, the remains were fairly coherent and the complete, or partial, footprints of some buildings were discernible. Several of the buildings also contained cellars, which were concentrated in the northern half of the site, though an area of cellarage was also apparent in the western

part of the trench. One of these latter cellars was associated with The Derby Arms public house. Nineteenth-century building remains were also apparent on the north-western side of the trench, relating to buildings that originally fronted New Blakeley Street and Little Nelson Street, though these were very fragmentary, and had suffered from a higher degree of later truncation. Again, as with Plot 2 (*Section 3.2.18*), this might be a result of World War II bomb damage, or a comprehensive removal of the remains in this area during clearance of the buildings in the post-War period, though this remains uncertain.

- 3.3.11 Apart from the cobbled road surface, the early nineteenth-century remains predominantly related to brick buildings/structures, composed of handmade bricks (measuring 0.23 x 0.11 x 0.07m), bonded with a light brown sandy mortar. Some *in-situ* sandstone flagged flooring also survived in some of the buildings. There was also evidence for mid-late nineteenth-century modification (Phase 4), as well as late nineteenth/twentieth-century additions and modifications to some of the buildings (Phase 5), which entailed rebuilding of external and internal walls. In addition, the remains of a late twentieth-century building and another structure lay within the excavation area (Phase 6).
- 3.3.12 **Phase 2 (1809-18/19):** Johnson's map of 1818/19 indicates that by this date a block of buildings had been constructed in the north-eastern portion of Plot 3, at the corner of Little Nelson Street and Ashley Lane, and these most probably formed back-to-backs, based on the evidence of later mapping (*Section 3.3.1*). These formed a discrete block of six early nineteenth-century back-to-backs and are most probably those depicted on Johnson's survey, along with two further back-to-backs to the north, which lay largely beyond the excavated area (Fig 5). All of these dwellings were cellared, though there was poor survival of these, due to later truncation, with **C4-6** respectively defining the cellared areas beneath two of the opposing back-to-back dwellings (Plate 40). Where it survived, the external wall of this block of back-to-backs was of double-skin construction, whilst the internal party walls were single skinned.



Plate 40: **C4-6**, looking south-west, with **C6** in the foreground

3.3.13 Through extrapolation, it is evident that those back-to-backs that would later front Holden Street, and presumably also those fronting Ashley Lane, measured 5 x 4.8m in plan. A limited number of remains were present within the interior of the cellars. These included portions of an *in-situ* flag floor in **C6** and projecting brick piers on the northern walls of **C4** and **C5**. These mark the position of fireplaces/chimney stacks

(Plate 41), and originally these would have been found in each of the cellars that lay beneath the back-to-backs.



Plate 41: Remains of a fireplace in C5, looking north-east

- 3.3.14 **Phase 3 (early-mid-nineteenth century)**: as with Plot 2 (Section 3.2.28), the cartographic evidence indicates that most of the building remains in the excavated area, along with the remains of Holden Street, were probably constructed in the early 1820s, at some point between 1818/19 and 1824 (Fig 6). Again, in a similar fashion to Plot 2, the cartographic evidence also indicates that some of the properties were subdivided/amalgamated during the early-mid-nineteenth century (Section 3.2.28).
- 3.3.15 **Holden Street**: the *in-situ* remains of Holden Street (**3003**; Fig 5) were very well-preserved and, in fact, this street formed the most prominent feature in the excavated area (Plate 42). Indeed, much of its surface was present, and it had only been disturbed in four places, during the construction of a late twentieth-century building (Section 3.3.35). It was evident that, in the excavation area, the street was wider at its north-eastern end, at 3.7m across, narrowing to 2.5m at its far south-western end. Its surface was composed of cobble setts, with average dimensions of 0.22 x 0.12 x 0.1m, set on a black silty bedding layer. The road surface was bounded by kerb stones, which were present in several areas, behind which was a flagstone pavement, measuring c 0.8m wide. *In-situ* remains of this pavement were present along the north-eastern and south-western parts of the street, with better survival on its eastern side.



Plate 42: Aerial view of Plot 3, highlighting the well-preserved remains of Holden Street

3.3.16 *Back-to-backs on the eastern side of Holden Street:* by 1824, additional back-to-backs had been built fronting Holden Street and Ashley Lane, which effectively extended the original (Phase 2) block of back-to-backs in the north-eastern corner of the plot (defined by **C4-6**; *Section 3.3.12*) in a south-easterly direction, up to Nelson Street. These Phase 3 back-to-backs differed, however, from the Phase 2 dwellings in that none possessed cellars, though they did share some constructional similarities in that, as far as could be ascertained, the external wall of this extended block was double-skinned, within which were single-skin party walls defining the walls of the individual dwellings.

3.3.17 As a result of later truncation, each of the opposing back-to-back dwellings (*ie* one fronting Holden Street and one fronting Ashley Lane) were recording as a single room during the excavation (**R1-5**; Plate 43). The remains associated with these was also

fragmentary and no floor surfaces survived. In addition, only the area covering the complete ground-floor footprint of four of the dwellings (the western portions of **R2-5**) was present in the excavation area. These dwellings fronted Holden Street and two (in **R2** and **R3**) measured 3.7m square. The remains of fireplaces were also present on the north-eastern walls of these dwellings. It is likely that the adjacent dwellings fronting Ashley Lane were of comparable size and the remains of one side of a fireplace, again on the north-eastern wall, was present in the easterly **R3** dwelling. The back-to-backs to the north-east of these (in **R4** and **R5**) were more irregular in morphology, with those fronting Holden Street having trapezoidal plans. Both measured 3.7m across, but their depth ranged between 4.2m and 3.7m. It is likely, however, that these also had fireplaces on their north-eastern walls, particularly as one side of a fireplace was present on the north-eastern party wall of the **R4** back-to-back that would have fronted Ashley Lane. Within this dwelling, a 0.85m-wide brick base was also present, butting against its south-western party wall, which marked the position of a staircase leading to the first-floor of the property.



Plate 43: Aerial view of **R1-5**

3.3.18 *Buildings on the western side of Holden Street:* Phase 3 building remains were also present that related to a series of single-depth buildings that fronted Holden Street, and are clearly depicted on the OS map of 1850. At the north-eastern end of the exposed street, these included the remains of a large single-depth dwelling (**R15**, originally designated as **Yard (Y)6** during the excavation; Plate 44), which the

cartographic evidence indicates originally had a covered passage on its northern side, that led to a courtyard area to its rear (*Section 3.3.3*). The remains of this building and the adjacent passageway were, however, fairly fragmentary due to later modifications (*Section 3.3.29*) and truncation (*Section 3.3.35*). Therefore, the surviving elements merely consisted of parts of the south-western and eastern external walls of a single-depth dwelling, which were double-skinned, being one-full-brick thick. The position of the passageway was denoted by later blocking walls (*Section 3.3.20*).



Plate 44: Aerial view of **R15**

3.3.19 To the south of **R15** were the cellars (**C7** and **C8**; Plate 45) of two adjoining blind-back properties. **C8** was the better preserved, in terms of the early nineteenth-century remains, and this measured 4.39 x 3.76m (Plate 46). The external walls, and also the party wall, were double-skinned and had been laid in an English Garden Wall bond, whilst its floor was composed of stone flags. Access into the cellar was via a flight of steps from Holden Street, though these had been remodelled during the late nineteenth century (*Section 3.3.32*). The original walls of the stairs did, however, survive, butting the building's eastern elevation, indicating that this entrance was c 1.5m wide. A brick-built, 0.8m-square, structure also stood on the Holden Street

frontage, close to the western corner of the cellar, which probably formed the base of stairs leading to the raised ground-floor of the building. Perhaps significantly, there was no clear evidence for a fireplace within the cellar. Indeed, the only internal remains comprised a short length of walling; this was adjacent to the cellar entrance and might have formed elements of the original cellar stairs.



Plate 45: Aerial view of C7 and C8



Plate 46: **C8**, looking south-east

- 3.3.20 Much of **C7** had been rebuilt in the late nineteenth century (*Section 3.3.32*) and it had also been disturbed by a late twentieth-century building. Thus only partial fragments of the original build survived, though it was clear that it measured 3.84 x 4.36m. The early nineteenth-century elements included short lengths of walling, forming elements of the original exterior wall. Internally, a flagged floor was present, along with the checks of a fireplace/chimney stack on its north-eastern wall, which measured 1.38m across. On the Holden Street frontage, the partial remains of the base of the stairs, allowing access to the ground floor, were evident, identical in size and positioning to those in adjoining **C8** (*Section 3.3.19*), as was a length of walling forming the south-western side of the steps that would have led into the cellar from the street.
- 3.3.21 To south-east of **C7** and **C8**, several Phase 3 walls were recorded, relating to three blind-back properties (defined by **R12-14**) depicted on historical mapping (*Section 3.3.3*). Again, these remains were piecemeal, as some had been subjected to later rebuilding (*Section 3.3.31*) and truncation, though those present did indicate that the buildings had an average width of 4m, with double-skinned external walls and single-skin party walls. No floor levels survived, and the only internal features present were a 0.78m-wide fireplace on the north-eastern party wall of **R14** (Plate 46), and a 0.83m-wide fireplace on the north-eastern wall of **R12**. Both of these were defined by projecting brick piers.



*Plate 47: Remains of a fireplace in **R14**, looking north-east*

3.3.22 The best-preserved, and most coherent, structure in this area was a brick-built outshut (**3004**), which was accessed from the blind-back defined by **R13** (Section 3.3.21). This structure had a T-shaped plan, covering an area measuring approximately 2.5m square, with a double-skin external wall and internal brick floor (Plate 48). At a later date, a wall had been inserted into its interior (Section 3.3.31).



*Plate 48: Outshut **3004**, looking south-east*

3.3.23 The last early nineteenth-century building remains were to the south-west, on the western side of Holden Street. These comprised three cellars (**C1-3**), the backfill from two of which (**C1** and **C2**) was emptied in order to expose their floor levels (Plate 49). **C2** and **C3** were associated with two blind-back properties, one (containing **C2**) fronting Holden Street, the other (**C3**) Nelson Street, and their external walls were one-full brick thick, laid in an English Garden Wall bond, whilst the original party wall shared by these two dwellings was of single-skin construction.



Plate 49: Aerial view of **C1-3**

3.3.24 The interior of **C2** was fully exposed, measuring 3.78 x 3.57m, which revealed its floor, composed of stone flags, which also contained a small ceramic drain positioned against its eastern wall (Plate 50); several later additions were also apparent (*Section 3.3.32*). Originally, access into this cellar was from Holden Street through a 1.1m-wide doorway (blocked at a later date; *Section 3.3.31*), connected to a stairwell. The partial remains of the side walls of this stairwell were apparent, though these had been disturbed by a later drain.



Plate 50: **C2**, looking south-west

3.3.25 **C1**, to the west of **C2**, was of similar size (3.9 x 3.55m) and construction, and contained a flagged floor (Plate 51). Set within this floor were also two ceramic drains, one on its eastern and other on its western side. In addition, an area of brick flooring in its north-eastern corner probably marks the position of a staircase, allowing access into it from the room above. The cartographic evidence indicates that this cellar and the room above formed an outshut for a large building, which, by at least the mid-nineteenth century, functioned as The Derby Arms public house (*Section 3.3.4*). Interestingly, though, access between this cellar and the adjacent cellar (**C2**; *Section 3.2.24*), beneath the blind-back dwelling, was possible through a c 1.1m-wide doorway, which was blocked at a later date (*Section 3.3.32*).



Plate 51: **C1**, looking south-east

3.3.26 *Buildings fronting New Blakeley Street*: some limited early nineteenth-century building remains were present on the eastern side of Plot 3, associated with two double-depth properties that fronted New Blakeley Street (*Section 3.3.3*). The remains comprised lengths of double-skin walling, and although these were fragmentary, they appear to relate to the rear portions of the double-depth buildings (defined as **R11**; Plate 52). They included elements of the rear external wall of the properties, and also a small part of the side wall of the more north-easterly of the dwellings, with evidence for a perpendicular projecting wall, probably forming one side of a fireplace/chimney stack. Another recognisable feature was a 1.1m-wide stairwell, providing access into the cellar that lay beneath the north-easternmost of the dwellings. The side walls of this were present, though it had been blocked up and sealed by a stone flag at a later date. The cartographic evidence suggests, however, that this may have occurred in the early-to mid-nineteenth century, and was perhaps related to the construction of a blind-back building immediately to the rear of the double-depth property (*Section 3.3.4*).



Plate 52: Aerial view of **R11**

3.3.27 To the north-east of **R11** was another fragmentary group of remains, which formed elements of a large single-depth property (**R10**) and a double-depth dwelling (**R9**) fronting New Blakeley Street, forming an element of the C-shaped block of properties that surrounded the courtyard there (*Section 3.3.3*). This property began life as a back-to-back, but had been converted into a double-depth property at some stage between 1831 and 1848 (*Section 3.3.3*). The elements relating to the large single-depth property (**R10**) merely included portions of its double-skinned rear wall, and evidence for a cellar within the property was the presence of a 1m-square cellar light, that had been blocked at a later date (Plate 53). Slightly more remained of the adjacent property (**R9**), including its single-skinned side walls and its double-skinned rear wall. Together, these indicate that the building was 4.4m wide. It is also clear that this property was not cellared, as two *in-situ* flags were present next to its south-western side wall, forming elements of the ground-floor floor surface. These flags also lay next to a brick pier, forming one side of a fireplace.



Plate 53: Blocked cellar light, **R10**, looking north-west

3.3.28 *Buildings fronting Little Nelson Street*: along the Nelson Street frontage were stretches of walling (**R6-8**) that related to the early nineteenth-century buildings lining this. These formed the rear portions of blind-back buildings, two of which (**R6** and **R7**) measured 3.9m wide, with a double-skin rear wall and single-skin party walls. Neither was cellared, and at the rear of their interiors, brick structures of identical form were present. These structures marked the position of staircases, which measured 1.1m wide, were parallel with the rear external wall, and, inside the living area, were supported by a single-skin wall. A brick floor also lay beneath each of the staircases. Only very small portions of **R8** were exposed, though these again related to the remains of a staircase that, in this instance, lay above a flagged floor.

3.3.29 **Phase 4 (1848-88)**: there was some evidence for mid-late nineteenth-century modification to the early nineteenth-century buildings in Plot 3. For instance, the cartographic evidence (*Section 3.3.5*) indicates that the large single-depth dwelling at the north-eastern end of Holden Street (**R15**; *Section 3.3.18*) was extended slightly on its north-eastern side, at some point between 1850 and 1891. This involved the removal of a covered passageway that was formerly on this side of the building, and this area was incorporated into the interior of the extended building. This now meant that the north-eastern wall of the building formed a party wall with the adjacent blind-

backs fronting Little Nelson Street (**R6** and **R7**; *Section 3.3.28*). The map evidence also indicates that the building was subdivided into two smaller units.

- 3.3.30 Evidence for the expansion and division of this building was apparent in the form of two walls that blocked either end of the former passageway. It was also clear that the original side wall of the single-depth property had been removed and a 'new' flagged floor inserted into the building's interior. Set within this floor were two short lengths of brick walling. One abutted the south-western wall of the building and its position would indicate that it was the dividing wall depicted on late nineteenth-century mapping that split the property into two units, the smaller of which measured 4.2 x 2m. The other lay within the larger, c 4.2m-square, unit, and appears to have defined a small partitioned area. Other features set within the floor included a drain and associated drainage gullies running along the north-eastern side of the building.
- 3.3.31 The only other Phase 4 modifications related to those buildings on the western side of Holden Street. One of these modifications involved the complete rebuilding of the northern corner of one of the blind-back dwellings (**R12**; *Section 3.3.21*). This entailed the construction of a right-angled double-skinned wall, which abutted the north-western side of the early nineteenth-century fireplace in this dwelling (Plate 54). The cartographic evidence (*Section 3.3.5*) indicates that this relates to the construction of a yard area to the rear of the property. At the far south-western end of the plot, it also appears that the street-front entrance into **C2** (*Section 3.2.24*) was blocked with a handmade brick wall bonded with a sandy mortar. Finally, within outshot **3004** (*Section 3.3.22*), walling was inserted to create a 0.86m-square compartment; it is possible that this was the remains of a privy.



Plate 54: Aerial view of the rebuilt northern corner of **R12**

- 3.3.32 **Phase 5 (1889-1908)**: during the late nineteenth/early twentieth century, some of the buildings fronting Holden Street were subjected to rebuilding and modification. For

instance, in **C2** (Section 3.2.24), an entrance between this and adjacent **C1** (Section 3.3.25) was blocked and a rectangular structure was built in its western corner, which had double-skin walls. The structure measured 1.89 x 1.18m and was associated with a large ceramic pipe, suggesting that it related to the construction of a privy that lay at the rear of The Derby Arms public house. To the north-east, the northern corner of **C7** (Section 3.3.20), associated with a large single-depth property, was also completely rebuilt with a 'new' double-skinned wall, though this seems to have respected the position of an earlier fireplace (Plate 55). This scheme of rebuilding might also have involved the insertion of a 'new' stairwell and staircase (Plate 56), allowing access into **C8** (Section 3.3.19), associated with an adjoining property. This new stairwell measured 1.26 x 1.23m, and was of brick construction with stone steps.



Plate 55: Rebuilt wall of C7, looking south-east



*Plate 56: Remodelled cellar steps, associated with **C8**, looking south-east*

3.3.33 The cartographic evidence (Section 3.3.6) indicates that several buildings were demolished to the south and north of **C7** and **C8**, to improve the natural light and ventilation. Demolition to the south resulted in the removal of a block of three blind-back buildings (**R12-14**; Section 3.3.21), which were subsequently replaced by a narrow building and a courtyard area. Several lengths of fragmentary Phase 5 walling in this area probably relate to these structures. The demolition to the north involved the removal of a blind-back on Little Nelson Street, which created an open area (**Y7**). It is evident from the archaeological remains in this area that part of this improvement entailed the construction of two privies (**P1** and **P2**), both of which contained *in-situ* soil pipes (and hence flush toilets). One (**P1**) measured 1m square and had been tagged onto the rear of the large single-depth building (**R15**) that had been remodelled in Phase 4 (Section 3.3.29), whilst the other (**P2**) had been attached to the rear of the double-depth property (**R9**; Section 3.3.27) fronting New Blakeley Street. This latter privy had double-skin walls and measured 1.5 x 0.75m (Plate 57).



Plate 57: **P2**, looking north-west

3.3.34 The most dramatic late nineteenth/early twentieth modifications occurred on the eastern side of Holden Street. The cartographic evidence indicates that the row of back-to-back properties in this area was knocked through, to create double-depth properties, and provided with small yards backing onto Holden Street. There was very clear archaeological evidence for this conversion, as it actually entailed the construction of a completely new rear wall for all of these properties. Significantly, this double-skinned wall did not respect the external wall of the earlier properties (as the historical mapping suggested; *Section 3.3.6*), but instead sliced through the back-to-back dwellings that fronted Holden Street, and hence created one-and-half-unit dwellings, with a single-depth room at the front and a smaller room to the rear. The small yard areas to the rear (**Y1-5**) did, however, respect the wall lines of the front portions of the earlier back-to-backs fronting Holden Street, and it is probable that the bases of the demolished early nineteenth-century walls acted as the footings for the yard walls (Plate 58). Several of these yards also contained ceramic up spouts, which would have carried rain and grey water from the remodelled properties.



Plate 58: Aerial view of Y1-5, adjacent to Holden Street

3.3.35 **Phase 6 (late twentieth century):** the most recent activity on Plot 3 was represented by the footings for a late twentieth-century building with an L-shaped plan. This was built across Holden Street and also the site of two early nineteenth-century buildings (**C7** and **C8**; Section 3.3.19). Immediately to the north-east of this building was a modern concrete structure, probably designed to provide services to the building, which partially encroached on Holden Street and truncated the remains associated with **R15** (Section 3.3.18).

3.4 Plot 5

3.4.1 **Cartographic evidence:** it is evident from historical mapping that the first developments in Plot 5 date to the late eighteenth century. Specifically, Green's map of 1787-94 depicts a block of workers' housing along the south side of Stile Street (known subsequently as Old Mount Street), and immediately west of Ludgate Hill, on land belonging to John Cowan Esq (Fig 2; Plate 59). This comprised 17 double-depth dwellings, with yards and privies to the rear, and it seems possible that the houses were erected in at least two separate stages, particularly as the five properties at the

north-eastern end of the row appear to be slightly larger than those to the south-west. Three of these properties were also provided with outshuts.

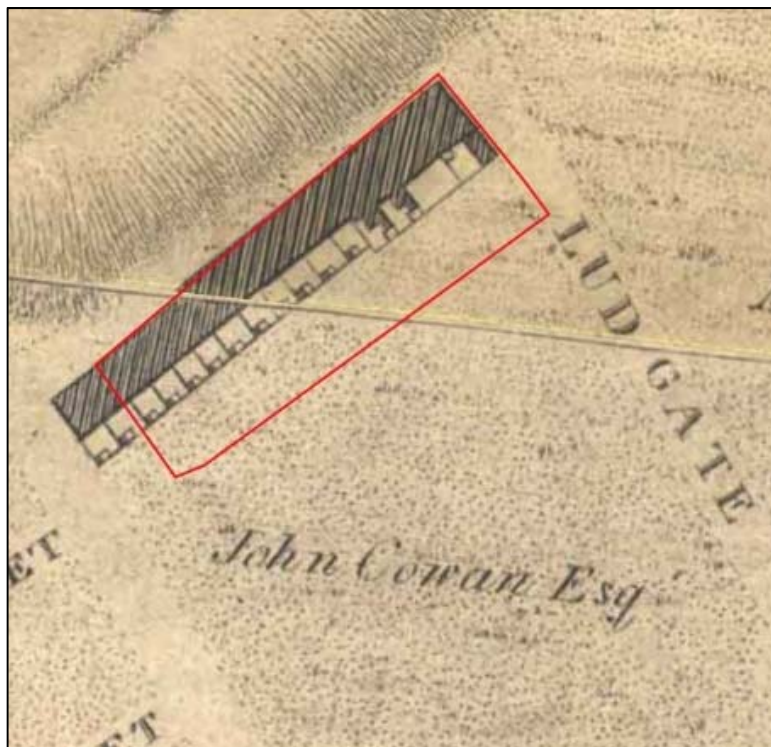


Plate 59: An extract from Green's map of 1787-94, with the location of Plot 5 highlighted

- 3.4.2 Although the same basic configuration is depicted on Johnson's map of 1818/19, it is evident that shortly after this survey further development occurred, as a map produced by Swire in 1824 shows that buildings had been erected in the south-eastern part of Plot 5, fronting onto Nicholas Street. The layout of these buildings suggests that they comprised another row of workers' housing, and this is confirmed by the Bancks & Co's map of 1831 (Plate 60), which depicts a block of ten back-to-back houses, with a single house at the north-eastern end, suggesting that construction work may have been ongoing. It is also evident that a covered passageway was present within the block, which allowed access between Nicholas Street and a small street that is named Back Old Mount Street on later mapping. In addition, the Bancks & Co's map also shows a very small isolated building, adjoining a large walled yard/compound, to the south-west, fronting Back Old Mount Street. By the time of this survey, two late eighteenth-century outshuts associated with the larger double-depth properties at the north-eastern end of the row, flanking Old Mount Street (*Section 3.4.1*), had also been demolished.



Plate 60: An extract from the Bancks & Co's map of 1831, with the location of Plot 5 highlighted

- 3.4.3 The OS 5ft: 1mile map of 1850 (surveyed in 1848) shows a similar layout of buildings to that surveyed by Bancks & Co, as does Adshead map of 1850, though the OS map indicates that most of the properties fronting Old Mount Street were provided with cellars, with the possible exception of those at the south-western end of the row (Plate 61). Similarly, it appears that the row of early nineteenth-century houses fronting onto Nicholas Street were also cellared, which suggests that by this date these may have been knocked through to form double-depth dwellings.



Plate 61: An extract from the 5ft:1mile OS map of 1850, with the location of Plot 5 highlighted

- 3.4.4 The OS 5ft: 1mile map of 1850 also shows that the early nineteenth-century properties fronting Nicholas Street had been extended by the mid-nineteenth century. The original row was extended to the north-east by the addition of four houses, which Adshead depicts as a block of six back-to-back cottages, along with two double-depth properties facing Ludgate Hill, and to the south-west there were two slightly larger houses, though these are shown as a single property on the OS map of 1850. None of these additional properties appear to have had cellars. It is also evident that an additional small building had been built to the south-west, which adjoined an earlier small building that fronted Back Old Mount Street (*Section 3.4.2*).
- 3.4.5 The next available edition of OS mapping was published at a scale of 1:500 in 1891 (Plate 62) and at 25":1mile in 1893, and both show broadly the same layout of properties as shown on the earlier mapping, although some slight changes can be seen. The main changes are the addition of further buildings, which were positioned between the south-western end of the properties fronting onto Nicholas Street, and the blind-backs fronting Back Old Mount Street. These infilled a formerly vacant area and marked the complete development of the plot. It is of note that the detailed 1:500 map of 1891 depicts the original properties in the row between Nicholas Street and Back Old Mount Street, and the addition at the north-eastern end, as back-to-back houses.

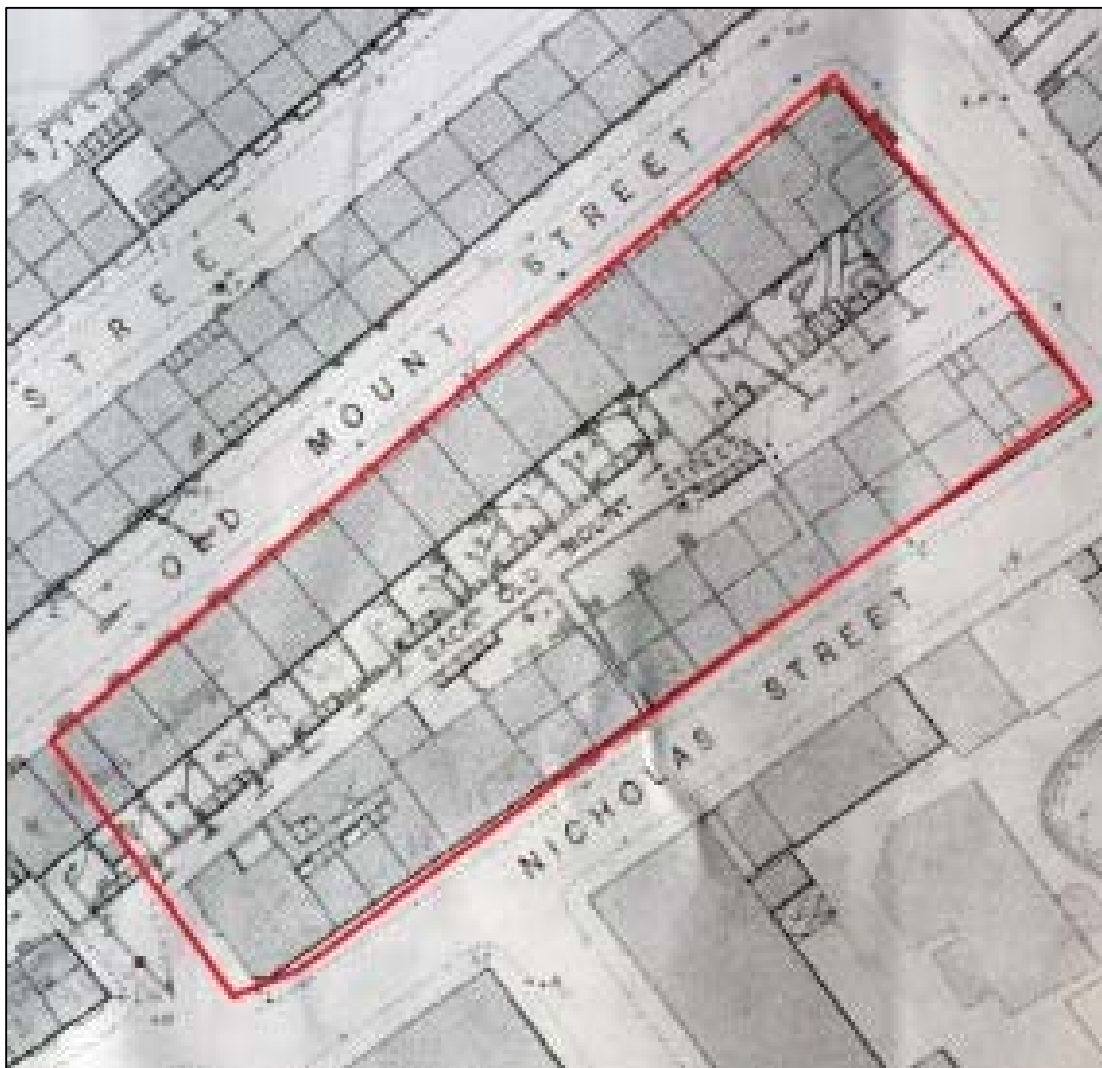


Plate 62: An extract from the Ordnance Survey 10ft:1mile map of 1891, with the location of Plot 5 highlighted

- 3.4.6 The successive editions of OS mapping, published in 1908 (Plate 63) and 1922, show the buildings in the Plot 5 as largely unchanged, though it is evident that the buildings fronting the south-western end of Nicholas Street had been substantially modelled, which included the construction of an additional double-depth house. Much of the site had been cleared by the early 1950s, including the demolition of all the properties along Nicholas Street. The 1951-2 OS map shows the only buildings to remain in Plot 5 are those late eighteenth-century buildings that formed the north-eastern end of the block fronting Old Mount Street (*Section 3.4.1*). These buildings are captured on a photograph of 1964 (Plate 64), which indicates that they were three-storeyed constructions, and the south-westernmost of these buildings appears to have multi-light windows in the upper storey, suggesting that they originally contained workshops on the top floor. These buildings are also shown on the OS map of 1966, and subsequent mapping into the 1990s, when the other parts of the plot were used as a car park.

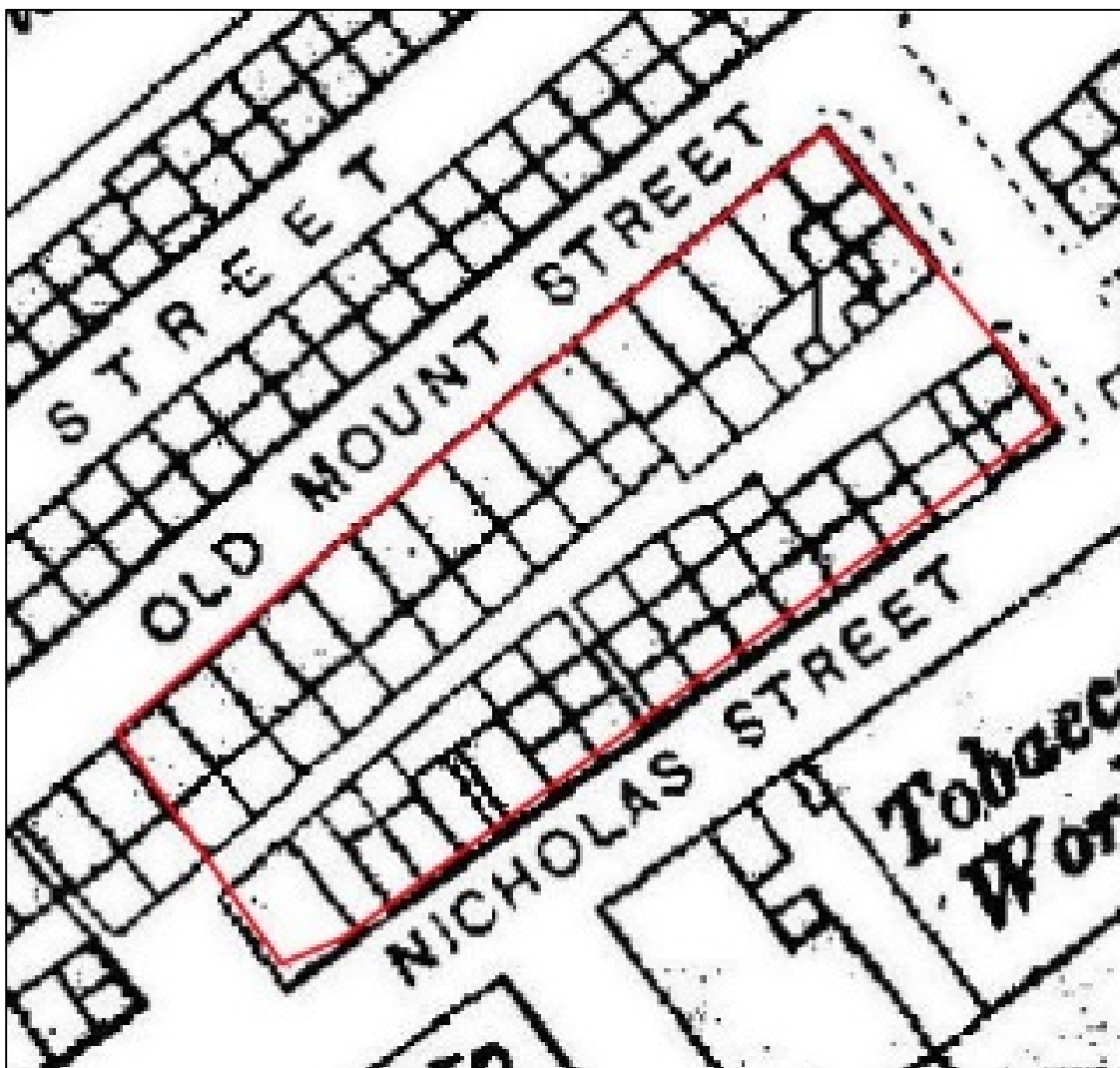


Plate 63: An extract from the 25inch:1mile OS map of 1908, with the location of Plot 5 highlighted



Plate 64: Houses on Old Mount Street in 1964

3.4.7 **Occupancy:** as with the other plots, the Census returns, dating between 1851 and 1911, relevant to Plot 5 were examined as part of the historical assessment of the site (L-P Archaeology 2017). These returns are for Old Mount Street and, as such, relate to those people who inhabited the properties in Plot 5, on the south-eastern side of this street, and also those properties on the opposite side of the street, beyond Plot 5; the mapping evidence indicates that throughout the mid- and late nineteenth century these latter properties comprised back-to-back houses, which were cellared (cf Plate 61).

3.4.8 The returns indicate that the highest population recorded for this street was in 1851, when 46 occupied dwellings were present containing 580 people (Table 5). The population fell gradually until 1881, though it then once again increased slightly. After this date it declined once more.

Year	Dwellings	Population	Average number of occupants per dwelling
1851	46	580	12.6
1861	37	433	11.7
1871	45	393	8.7
1881	37	312	8.4
1891	45	367	8.2
1901	45	321	7.1
1911	34	141	4.1

Table 5: Inhabited dwellings and population calculated by Census returns for Old Mount Street

3.4.9 In contrast, the average number of occupants per dwelling fell gradually from 1851 to 1911. In 1851 and 1861, population density was comparatively high, with an average of 12.6 people occupying a property in the earlier year and 11.7 people per property in the latter. At a gross level, this indicates that during these periods properties were occupied by multiple families/individuals, with some probably representing lodging houses. Indeed, closer scrutiny of the data reveals that in 1851 ten of the properties were inhabited by over 12 people, with a maximum number being 21 people in a single property (Appendix 2). The inhabitants in this latter property included four separate families (the Reilly family numbering four people; the Barton family numbering three people; the Hall family numbering six people; and the Mulligan family numbering four people), along with four individuals who were seemingly unrelated. This, therefore, suggests that in this instance the property had been divided into small tenements, that were individually rented out, as well as rooms/areas for individual lodgers. During the nineteenth century, many of the residents were employed in the textile industries, and over half were born in Ireland, with the other half being born in Manchester/Lancashire, and over 1:3 were of Irish descent (L-P Archaeology 2017).

3.4.10 **Archaeological remains:** most of the building remains in Plot 5 related to the rear portions of the late eighteenth-century properties that originally fronted Old Mount Street (Fig 7). The majority of these remains relate to the cellars that lay beneath the rear rooms of these properties, and also the wall footings for those properties at the south-western end of the range that were not cellared. In addition, portions of the

yards that lay to their rear also survived. It was apparent, however, that the survival of the yards was much better in the southern half of the plot, and the remains of those located in the central part had been, by and large, completely obliterated by later activity.

- 3.4.11 Similarly, most of the remains forming elements of the nineteenth-century properties that are known from historical mapping to have been between Back Old Mount Street and Nicholas Street (*Section 3.4.2*) had been destroyed by later truncation. Indeed, the only evidence for these buildings were a few fragmentary remains at the southern end of the plot, together with later nineteenth-century building remains, along with one small isolated 'island' of archaeology further to the north-east. This absence might, therefore, be the result of bomb damage that occurred during the air raids that took place across Manchester on 22 and 23 December 1940, which destroyed Arkwright's Mill to the south-west, or are perhaps a result of late twentieth-century demolition, which comprehensively removed the foundations and cellars of the early nineteenth-century properties. Some modern truncation had also occurred at the far north-eastern end of the plot from the concrete footings of modern structures.
- 3.4.12 Some of the structural remains that were present relating to the properties fronting Old Mount Street could be dated to the late eighteenth century (Phase 1; Fig 8), whilst some of the fragmentary remains between Back Old Mount Street and Nicholas Street dated to the early nineteenth century (Phase 3) and the mid-nineteenth century (Phase 3B). It was also evident that the late eighteenth-century properties fronting Old Mount Street had been subjected to episodes of repair and improvement in the mid-late nineteenth century (Phase 4). Other structural remains dating to this late period were present in the area between Back Old Mount Street and Nicholas Street, relating to infilling. Finally, there was also some evidence for late nineteenth-early twentieth-century modification (Phase 5) of the earlier building stock. Two stretches of road surface were also present in Plot 5, which appear to date to the mid-nineteenth century (Phase 3B).
- 3.4.13 **Phase 1 (late eighteenth century):** all of the late eighteenth-century remains in Plot 5 related to the rear portions of the double-depth properties plotted on Green's map of 1787-94. This formed a continuous building range that fronted Old Mount Street (*Section 3.4.1*). The structural remains associated with this phase were constructed of handmade bricks (0.22 x 0.11 x 0.07m) bonded with a lime mortar.
- 3.4.14 *Double-depth properties at north-eastern end of Old Mount Street:* the larger of the late eighteenth-century properties in the range were positioned at the north-eastern end of Plot 5, the remains of four of these lay within the excavation area, and indicated that they were cellared (**C8-11**; Plate 65). Although all of these had been subjected to later rebuilds and modifications (in Phases 4 and 5), and one of the cellars (**C8**) was not completely emptied for reasons of access, the basic form and construction of the late eighteenth-century constructions could be determined (Plate 66). It is apparent, for instance, that these buildings had a double-skin external wall (*ie* the wall that defined the rear of the buildings), whilst the north-east/south-west party walls were single-skin constructions.



Plate 65: Aerial view of **C8-11** (from left to right)



Plate 66: **C8-11**, with the fireplace for **C11** in the foreground, looking south-west

3.4.15 Internally, each of the cellars had a fireplace/chimney stack on their south-western party walls, each c 1m wide. The remains of *in-situ* flooring survived in two of the cellars (**C9** and **C10**), which in one (**C9**) consisted solely of handmade brick (Plate 67), whilst the other was composed of handmade brick, interspersed with stone flags. All of the cellars also had some evidence of a dividing wall on their western side, which corresponded to the position of the internal wall that would have originally defined the rear room of the double-depth properties. These rooms and the cellars beneath were all similar in size, at c 3.8 x 5.4m. It was apparent, however, that in **C8**, **C9**, and **C11**, these walls either never originally extended across the complete width of the cellar (suggesting the presence of one large cellar beneath the entire building footprint; the outer wall being beyond the area excavated) or had been removed/modified at a later date. An original wall spanning the width of the cellar was, however, present in **C10**, which had a c 1m-wide doorway, allowing access into the cellared area at the front of the property. Therefore, in this instance, it is evident that this property, at least, had two defined cellars beneath its footprint.



Plate 67: Handmade brick floor in C9, looking south-west

3.4.16 The eastern exterior walls of **C10** and **C11** had been substantially rebuilt at a later date (*Section 3.4.33*); however, some original late eighteenth-century features associated with this wall line were apparent in **C8** and **C9**. These included a stepped entrance leading up from a doorway, positioned at the north-eastern corner of the respective cellars, which in both instances was c 0.8m wide. The south-eastern side walls of both of these steps were similarly defined by c 0.85m-square ‘piers’ protruding from the rear walls of each of the cellars. Green’s map of 1787-94 indicates that originally these stepped entrances would have exited into outshuts to the rear of the properties containing **C8** and **C9**, though these had been demolished by the time of Bancks & Co’s survey of 1831 (*Section 3.4.2*), and access into the cellars would then have been directly from yard areas to the rear. It was also evident that each of these cellars had a light on the eastern wall, which originally flanked the south-eastern side of the late eighteenth-century outshuts, prior to their demolition. These ‘windows’ were surprisingly large, at c 2.8m wide, and indicate that the cellars were fairly well lit and ventilated. The cellar light in **C9** was completely exposed, and this also suggested that these were fairly well-made features that had been provided with a stone sill (Plate 68; Fig 9).



Plate 68: North-west-facing elevation of **C9**, with the surviving Phase 1 cellar light and door (both later blocked)

- 3.4.17 To the rear of the properties at the north-eastern end of the Old Mount Street range were several fragmentary lengths of, one full-brick wide, Phase 1 walling (associated with yards **Y13-16**; Fig 7). One of these was parallel with the range and formed the rear wall of the yard depicted on Green's map of 1787-94, and was set some 6m back from the rear wall of the properties. Another length of comparable walling (defining the north-eastern side of **Y13**) originally formed the north-eastern wall of the late eighteenth-century outshut that was associated with the property containing **C8** (Section 3.4.16). The partial remains of another late eighteenth-century outshut were also present at the far north-eastern end of the plot. This outshut was linked to the property that originally stood at the north-eastern end of the range and its remains comprised a right-angled section of double-skin walling.
- 3.4.18 *Smaller double-depth properties fronting Old Mount Street*: historical mapping indicates that the late eighteenth-century properties in the central and south-western portion of the Old Mount Street building range were slightly smaller in size, compared to those at the north-eastern end of the range. Excavation indicated that most of these had cellars, apart from those at the far south-eastern end of the range (Section 3.4.22).
- 3.4.19 Seven cellars (**C1-7**) associated with the rear portions of these properties were either fully or partially excavated. Although these had invariably been subjected to later phases of modification, they were largely similar in terms of construction and design. Hence, the exterior wall, which also defined the rear wall of the properties, was double-skinned, whilst the party walls were single-skinned. Most of the cellars also had evidence for a fireplace/chimney stack on their south-western party wall, defined by projecting brick piers (Plate 69). Where both piers survived, these indicated that these structures were c 0.9m wide.



Plate 69: Remains of the fireplace in C1, looking south-west

3.4.20 The original brick floor was present in three of the cellars (**C2-4**) and in one of these (**C2**), this was interspersed with stone flags (Plate 70). A curving brick-lined drain was exposed beneath the floor of this cellar, again an original feature that was probably designed to drain water to keep the cellar comparatively dry (Plate 71). Most of the cellars could be accessed through a doorway at their north-eastern corner, via a flight of steps that led from the yard areas at the rear of the properties; one of the stairways (in **C6**) was fully exposed, and comprised six stone treads supported by brick walling. In contrast, **C1** did not possess this arrangement, but instead, access into this cellar was originally possible from **C2**, in the adjacent property to the north-east, through a doorway in the party wall, and also from the cellar that was beneath the front room of the property, beyond the excavation area.



Plate 70: Aerial view of C1-4 (left to right)



Plate 71: **C2** and its brick-lined drain, looking north-east

3.4.21 One of the cellars (**C3**) also had a cellar light on its eastern external wall, which was 1m across (Plate 72; Fig 9). It is also quite possible that two of the other cellars had light wells, though these had been modified by later activity; for instance, a protruding section on the outer face of the external wall of **C5** could denote the presence of one such a structure, whilst an original light well in **C4** may have been replaced in the early nineteenth century (Section 3.4.27).



Plate 72: The north-west-facing elevation of **C3**, with the surviving Phase 1 cellar light and door (later blocked)

3.4.22 Walling was present on the western side in some of the cellars, marking the position of the internal dividing wall between the rear and front rooms of the double-depth dwelling (Fig 8). These indicate that the rooms were of near-identical size in all of the excavated properties, measuring some 3.3 x 5m. It was clear, however, that originally these walls did not span the entire width of the properties, implying that they were designed with one large cellared area covering their entire footprint.

3.4.23 At the far south-eastern end of Plot 5, two of the Old Mount Street properties were not cellared. The remains associated with these (**R6** and **R7**) were double-skin walling defining the eastern external wall of the two properties and also a double-skin dividing wall (Plate 73). However, the party wall between the more north-easternmost of these properties, **R7**, and the adjoining cellared property (containing **C1**; *Section 3.4.19*) was of single-skin construction. The remains of a 0.5m-wide fireplace was also positioned on the south-western party wall of **R7**, mirroring the arrangement seen in all of the other excavated late eighteenth-century properties in Plot 5.



Plate 73: Aerial view of **R6** and **R7**

3.4.24 The only other Phase 1 remains associated with the double-depth properties exposed at the south-western end of Plot 5 was a double-skin wall that was parallel with the range, some 4.5m distant. This formed the yard wall depicted on Green's map of 1787-94 and also later mapping.

3.4.25 **Phase 3 (early-mid-nineteenth century)**: structural remains dating to this phase comprised several lengths of handmade brick walling bonded with lime mortar. In the central area of Plot 5, several Phase 3 walls were present, which formed the only surviving remains of the block of back-to-back dwellings erected between 1818/19 and 1824 between Nicholas Street and Back Old Mount Street (*Section 3.4.2*). The remains specifically related to two of the back-to-backs fronting Old Mount Street and indicated that these were cellared, and had a double-skin external wall and single-skin party walls. The remains of a fireplace also lay on the north-eastern wall of one of these properties.

3.4.26 Another length of Phase 3 walling at the far south-western end of Plot 5 later formed an element of a mid-nineteenth-century building (**R1**; *Section 3.4.28*). Bancks & Co's map of 1831 indicates that originally this double-skin wall formed part of a walled yard/compound on the southern side of Back Old Mount Street (*Section 3.4.2*).

3.4.27 Other lengths of walling that probably date to this period were present in four of the cellars (**C1**, **C2**, **C4**, and **C5**) associated with the late eighteenth-century double-depth properties fronting Old Mount Street (*Section 3.4.19*). In **C1**, **C2**, and **C5**, these were additions to the north-eastern internal walls of the cellars, which appear to have been designed to divide the rear and front portions in the respective properties (on the edge of the excavated area). This indicates that, during this period, these cellars were partitioned, which might suggest that each was divided into two separate dwellings. Access between these potential dwellings was, however, possible through c 1m-wide doorways on these newly created dividing walls, though one of these doorways (in **C2**) appears to have been blocked shortly after its creation, with an early nineteenth-century blocking wall. In contrast, the Phase 3 walling in **C4** related to the partial rebuilding of its external south-eastern wall, which also involved creating a 0.9m-wide cellar light (Plate 74). It is possible that this light replaced an earlier light well that had collapsed, particularly as a Phase 1 cellar light existed in an adjacent cellar (**C3**; *Section 3.4.21*). It is also likely that a 'new' handmade brick floor was also laid in **C10** (*Section 3.4.15*) during the early nineteenth century, which sealed the late eighteenth-century floor (Plate 75).



Plate 74: The north-west-facing elevation of **C4**, showing the Phase 1 wall and door, and the Phase 3 cellar light (later blocked)



Plate 75: Phase 3 floor in **C10**, looking north-west

3.4.28 Another Phase 3 structure was an early privy in **Y15**, to the rear of one of the double-depth houses fronting Old Mount Street, the position of which was plotted on Bancks

& Co's map of 1831. This measured 1.9m square and had a one full-brick thick external wall. Internally, it was divided onto four separate compartments (Plate 76).



Plate 76: Early privy in Y15, looking south-west

3.4.29 **Phase 3B (mid-nineteenth century):** it has been possible through a detailed consideration of the historical map sequence to date some of the handmade brick structural remains in Plot 5 to the mid-nineteenth century. At the south-western end of the plot, these define the footprint of a small building (**R1**) that is first depicted on the OS map of 1850 (*Section 3.4.4*), and stood on the eastern side of Back Old Mount Street. Its northern side was formed by a length of double-skinned Phase 3 walling that was originally an element of a walled yard/compound (*Section 3.4.26*), whilst its remaining Phase 3B walls, which defined its eastern, western, and southern sides, were also double-skinned. Together these created a rectangular building that measured 3.5 x 4m, which could be entered through a 0.9m-wide doorway at its north-eastern corner, with a flagged threshold (Plate 77). Adjacent to this doorway were patches of brick flooring, which might originally have extended across the entire interior of the structure. The interior also contained a brick-built partition, parallel with the north-western wall of the building, which was 1.25m wide. Inside the partition was a sunken brick floor and a brick-built drain. The function of this building is slightly perplexing, though the available evidence seems to suggest that it did not form a domestic dwelling.



Plate 77: **R1**, looking west

3.4.30 The eastern wall of the **R1** building was tied into a wall that extended along the southern side of Back Old Mount Street for a distance of 23m. Significantly, the surface of this street (**5005**) survived (Plate 78) between this wall and a Phase 1 wall on the opposite side of the street that formed the yard wall for the double-depth properties fronting Old Mount Street (Section 3.4.24). However, as the surface appeared to be contemporary with the Phase 3B wall, this suggests that it was laid in the mid-nineteenth century (though portions would have been lifted and replaced at later dates to insert drains; see Section 3.4.39). The street was 2.7m wide and was composed of stone setts, set on a bed of clinker, and sand and gravel. A drain capped with sandstone slabs also ran down its centre line, which was associated with two cast-iron drain covers. A similar surface was present at the far north-eastern end of the plot, forming another surviving section of Back Old Mount Street.



Plate 78: Aerial view of Back Old Mount Street, with **R1** on the far left-hand side

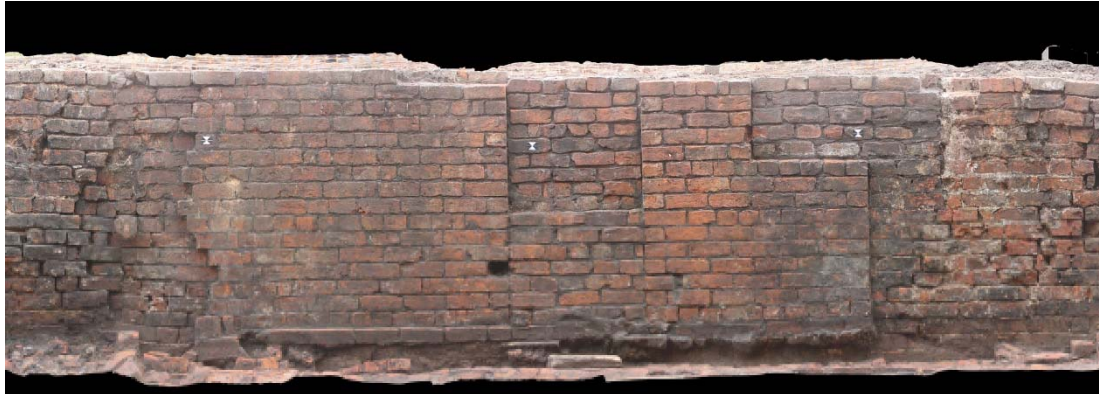
- 3.4.31 The map evidence and archaeological remains indicate that the Phase 3B wall on the southern side of Back Old Mount Street (*Section 3.4.30*) replaced, and followed the line of a Phase 3 wall that enclosed a large yard/compound (*Section 3.4.26*). Similarly, the Phase 3B wall enclosed this area, but by the mid-nineteenth century it also joined onto the south-western side of a large building, with an outshot to the rear, which is plotted on the OS map of 1850 (*Section 3.3.4*). Portions of the south-western gable wall of this building survived (defining the north-eastern side of **Y3** and **R5**). This was a comparatively substantial wall, being three-courses thick, which was perpendicular to Back Old Mount Street and Nicholas Street.
- 3.4.32 To the east of this wall was another Phase 3B structure (**5007**), which is depicted on the OS map of 1850. Although its northern side had been destroyed by a later structure (*Section 3.4.36*), it measured 2.3m wide and had walls that were one-full brick thick (Plate 79). It also had a short internal dividing wall, which created two compartments. The form of the structure indicates that it was an early privy to the rear of the large property fronting Nicholas Street.



Plate 79: Aerial view of structure **5007**

- 3.4.33 **Phase 4 (1848-88)**: the remains dating to this phase generally comprised handmade brick walls, bonded with a dark grey mortar, relating to rebuilds/modifications within existing buildings, or the construction of new structures designed to improve living standards. Many of the double-depth buildings fronting Old Mount Street were subjected to rebuilding and strengthening during Phase 4. Indeed, some of the schemes of rebuilding were fairly major in scope, such as those associated with the properties containing cellars **C10** and **C11** (*Section 3.4.14*). In both of these properties, the rear walls of the cellars (and presumably some of the walling above) were rebuilt

and **C11** was provided with a 'new' external doorway, whilst the rebuilt wall of **C10** also contained an external doorway, as well as a cellar light (Fig 9; Plate 80). In other areas, specifically **C5** and **C6**, the rear wall was strengthened by adding an extra brick skin to its interior face. Within many of the cellars, interior walls were also added in Phase 4 (Fig 8; at the edge of the excavated area). It is unclear, however, whether these replaced existing walling or were designed to strengthen the building above, or divided the cellar into distinct areas, as may have been the case in **C9**. In **C6**, a square brick structure was built against the fireplace, which might have supported a pot boiler (Plate 81).



*Plate 80: The north-west-facing elevation of **C10**, showing the rebuilt Phase 4 wall, with cellar light and doorway (later blocked)*



*Plate 81: Remains of the fireplace and pot-boiler (right-hand side) in **C6**, looking south-west*

3.4.34 One consistent feature of the Phase 4 improvements associated with the double-depth properties that fronted Old Mount Street was the blocking of rear cellar doorways and lights. This included the blocking of the Phase 4 external doorways and cellar light in **C10** and **C11** (Section 3.4.33), implying that it occurred shortly after these cellars had been partially rebuilt. The blocking of these features was directly linked to the rebuilding and improvement of the yards to the rear of the double-depth properties, demonstrated by the fact that the stairwells leading to the cellars from

these areas were backfilled and sealed by a stone-flagged surface, that survived in several of the yard areas (**Y6-9**, and **Y13** and **Y14**). Many of the east/west walls dividing these yard areas were also rebuilt, including those associated with the uncellared double-depth properties at the far south-western end of the range (**Y4** and **Y5**).

- 3.4.35 The OS maps of 1891 and 1893 indicate that each property by then also had a privy at the rear of the yard, and the remains of these survived in **Y4-9** (Plate 82) and **Y13-16**. They were all comparable in form and had a 'butterfly' arrangement, whereby two rectangular privies were positioned on one side of a yard wall, with the arrangement being mirrored on the opposite side. Each individual privy measured c 0.8 x 1.5m, was of double-skin construction, and associated with a soil pipe, indicating that they were flush toilets, provided with a water supply; one in **Y9** also had the remains of a flagged floor in its interior (Plate 83).



*Plate 82: Aerial view of **Y4-9**, with Phase 4 paving and privy blocks*



*Plate 83: Privy in **Y9**, looking south-west*

- 3.4.36 Two Phase 4 privy blocks were also present on the eastern side of Back Old Mount Street. Both were narrow rectangular structures, with double-skin walls, and one (**5004/5006**) measured 5.2 x 1.3m (Plate 84); the large-scale OS map of 1891 indicates that originally it contained five separate privies, two of which (**5006**) survived. The other privy block (spanning the later buildings defined by **R4** and **R5**; *Section 3.4.37*) was c 9m long and had a brick floor (Plate 85). Although no compartments survived within, the map evidence indicates that originally this was associated with three

privies, immediately to the rear of a double-depth property fronting Nicholas Street, with open areas on either side.



Plate 84: Aerial view of 5004/5006



Plate 85: Phase 4 privy block, looking north-east

3.4.37 **Phase 5 (1889-1908)**: historical mapping indicates that the properties at the south-western end of Nicholas Street were substantially modified during this period, and two double-depth properties would have existed in the excavation area (**R4** and **R5**), along with a large property (**R2**), separated from the double-depth properties by a linear yard (**Y1**). Partial remains associated with these buildings were present, including the rear, double-skinned, wall of one of the double-depth properties (**R4**), as well as the remains of a wall and 1m-wide fireplace in the larger property (**R2**). The wall represents an internal division, forming the south-western side of the room, onto which the fireplace was attached, as evidenced by two projecting piers forming the

sidewalls of fireplace/stack. The fireplace had also been partly built above the remains of an earlier building (**R1**; Section 3.4.29).

- 3.4.38 Other Phase 5 remains in this area included yard walls associated with **Y1** and also two yards (**Y2** and **Y3**) at the rear of **R4** and **R5** (Plate 86). The walls associated with **Y2** and **Y3** were fairly substantial, being three-courses thick in places. Within each of the yard areas were brick-built privies, with those in **Y2** and **Y3** being of identical rectangular form (measuring 1.16 x 1.7m), arranged back-to-back, on either side of the yard wall. Again, these were fairly substantial structures, and in sections were constructed of three-course-thick walls. An *in-situ* soil pipe was also present in the privy within **Y2**, indicating the presence of a flushing toilet. Three privies were present in **Y1**, which together formed a small block, some 3.8m long; the compartments within were 1.4m wide. Once more, these were substantial structures that in places had three-course-thick walling, and soil pipes survived in two of the privies.



Plate 86: Aerial view of **Y1-3**

- 3.4.39 Three identical structures were found directly adjacent to the privy block in **Y1**, and also the privies in **Y2** and **Y3**. These were 1.25m square and had one-full brick wide walls, lined with a sloping cement base (Plate 87). They clearly formed part of the sewage system, as the surviving soil pipes from the privies ran into their interiors, whilst an exit pipe was present leading to the main sewer beneath Back Old Mount Street. The sewage/drainage structure in **Y1** also had two additional ceramic pipes extending from it into the building containing **R2** (Section 3.4.37).



Plate 87: Sewage/drainage structure in Y1, looking north

3.4.40 Some limited Phase 5 remains were also present in the cellars of the double-depth properties fronting Old Mount Street, relating to rebuilding and modification. It is evident that the property containing **C2** was subjected to a major scheme of refurbishment, as the rear wall of the cellar was completely rebuilt during this period; this might also have been contemporary with the laying of a concrete floor in the cellar (**C1**) of an adjacent property. The rear wall of **C7** was also strengthened through the construction of an additional skin of walling on its inner face. In addition, it appears that two of the Phase 4 walls used to block the cellar lights in **C8** and **C9** were replaced during Phase 5. This replacement in **C8** probably relates to the construction of a new fireplace in the room above, as one of its supporting checks was evident in this cellar. Similarly, in **C11**, the brick piers for a chimney stack were added to the eastern wall of the cellar (Fig 9: Plate 88). Other modifications included the blocking of an internal doorway in **C5** and the extension/replacement of an internal dividing wall in **C8**.



Plate 88: The remains of the Phase 5 fireplace in C11, looking south-east

3.5 Finds summary

3.5.1 Finds were recovered from all three plots, all of which were typical of Industrial-period sites, though, in accordance with the Project Design accepted by GMAAS (OA North 2018), and according to the advice and requirements of the potential receiving museum, The Museum of Science and Industry, their presence was noted within the paper archive, but none were retained (*Section 2.2.5*). In summary, generally the quantity of finds was low, with most material coming from Plots 2 and 3. Finds from Plot 2 included several examples of ceramic beer bottles from various local breweries, and glass bottles (Codd and Hamilton bottles) for carbonated beverages, as well as fragments of leather shoes. Plot 3 contained more leather-shoe fragments, glass bottles of a similar type to those from Plot 2, and some painted tin advertisement signage (Plate 89) as well as the remains of a pram (Plate 90). A similar array of finds was recovered from Plot 5. There were also the ubiquitous clay-tobacco pipes and the other pottery fragments expected on sites dating to the nineteenth century within the various backfill deposits.



Plate 89: An advertisement sign recovered from Plot 3



Plate 90: The remains of a pram from the backfill of Plot 3

3.6 Community Outreach

- 3.6.1 As part of the conditions for planning consent required by GMAAS, and as set out in the Project Design (*ibid*), a programme of community outreach events was incorporated into the excavations. This principally comprised the creation and maintenance of a site blog, which was established via a WordPress web platform, which can be accessed at <https://angelmeadowdig.wordpress.com/>. This blog was produced by the attending Project Officer on a regular basis (approximately two a week), and detailed the unfolding results of the excavations for public consumption, including relevant digital imagery associated with the text. Posts were automatically shared to OA's social media platforms, primarily Facebook and Twitter, with a combined outreach of 44,546 followers across all platforms. The first post was on 25th June 2018, and the last on 31st August 2018, and in this five-week duration, ten blog posts were made. Records indicate that the blog was well received and generated a total of 4640 views from 2011 visitors, primarily from the vicinity of the works, probably by local office workers and residents of surrounding blocks. The two YouTube videos linked in the blog posts received 307 watches in the main period of works (August), and there was a good positive reception via comments and messages on Twitter and Facebook. Overall, the blog was a success and demonstrated considerable local interest in the works; indeed, the viewing figures represent one of the most successful blogs established by OA via the WordPress platform.
- 3.6.2 The blog also provided a platform from which several open days were advertised, in which members of local interest groups, such as the Friends of Angel Meadow, as well as members of the general public, were invited to participate. Each open day was supervised by the OA North Project Manager and work supervisors, who generally greeted the public, answering all questions as best they could, and provided presentations relating to the structural remains and history of Angel Meadow, as part of half-hourly guided tours of the various different sites on either side of Angel Meadow park. The first open day was held on Saturday, 4th August, with a second on Saturday, 25th August. Both events were relatively well attended, with a steady stream of several hundred visitors throughout the days, some of which came well-armed with historical plans of the former terraces around Angel Meadow, and many stories of relatives who used to live in the area during its infamous period.

4 DISCUSSION

4.1 Introduction: excavating workers' housing in Manchester

- 4.1.1 Over the last decade, workers' housing has been recognised as an extremely valuable site 'type' relevant to the study of industrialisation in Manchester (*cf* Readhead 2011; Nevell 2017a; 2017c), which has added significance, in that Manchester is generally viewed as one of the world's first industrial cities (*cf* McNeil and George 2002). Moreover, the Angel Meadow area, along with the adjacent district of Ancoats immediately to the east, holds particular relevance to the study of workers' housing, as they effectively represent the earliest Industrial-era residential suburbs of Manchester, serving to 'contain' the new urban working class that was responsible for the dramatic expansion of the town's population in the early nineteenth century (*cf* Roberts 1993).
- 4.1.2 Significantly, within the Angel Meadow/Shudehill area, to the south of the 2018 excavations, several other areas of workers' housing have been excavated (Miller Street). These include the excavation of four open-area trenches (the Miller Street excavations) within a plot of land immediately south of Plot 2, at the corner of Blakeley Street, Ashley Lane, and Angel Street, which now forms One Angel Square (OA North 2011; Miller and Wild 2015), whilst to the south-east of this, three open-area excavations were excavated along the southern side of Angel Street (OA North 2013a; Miller and Wild 2015; Fig 10). Excavation has also occurred, on the fringe of Angel Meadow, at Sharp Street, to the south-east of Plot 5, adjacent to Rochdale Road (ARS Ltd 2018).
- 4.1.3 Beyond the Angel Meadow area, numerous excavations of late eighteenth/nineteenth-century workers' housing have also been completed, some of which have been summarised by Nevell (2017a; 2017c). These include an important group of sites in the Ancoats area, specifically in Bengal Street and Jersey Street (OA North 2005; Miller and Wild 2007), Loom Street (Gregory 2007; Nevell 2014), Victoria Works (Mottershead 2007), George Leigh Street (OA North 2008; 2016), Hall's Court on Jersey Street (Cattell and Nevell 2011; Nevell 2014), Vesta Street (OA North 2013b), Milliners Wharf (ARS Ltd 2014), Great Ancoats Street (PCA 2017a), and Mason Street (CFA Archaeology 2018). In other parts of the city, workers' houses have also been examined in the Northern Quarter, at Tariff Street (Mottershead 2009) and close to Piccadilly Station, at Piccadilly Place (OA North 2006; Miller *et al* 2010), whilst numerous Industrial-era houses have been recorded around Liverpool Road, in Castlefield, in the south-west portion of the city, during the excavation of Manchester's Roman settlement. These include houses at Castlefield Gardens (Jones and Grealey 1974), Barton Street (R Gregory 2006), and Southern Street (Gregory and Higgins 2006). In the area between Princess Road and Upper Brook Street, on the southern side of the city centre, several workers' housing sites have been subjected to excavation. These include Higher Chatham Street (OA North 2014), Booth Street East (OA North 2013c), and First Street Plot 11 (PCA 2017b). In addition, workers' housing sites have also been examined in the adjacent area of Hulme. These included sites at Birley Fields (OA North 2012), Ellesmere Street (Murphy and Cattell 2014), and Leaf Street (Stitt *et al* 2016).

- 4.1.4 It is now apparent from this collective evidence, that the data generated from the excavation of workers' housing in Manchester can provide valuable details on the chronology and form of urban housing, and the fluctuating living conditions of the urban working class across a period that, more generally, was associated with a dramatic transformation of the town (*ie* a shift from a semi-rural settlement to a densely populated urban townscape shaped by the textile-manufacturing industries; Nevell 2017a). Given this, the excavations in Plots 2, 3, and 5 hold great importance, as together they represent the largest areas of workers' housing that has yet to have been excavated in the city of Manchester, containing fairly well-preserved remains associated with the full range of dwelling types that were occupied by the urban working classes throughout the late eighteenth and nineteenth centuries.

4.2 Chronology and form of the workers' housing

- 4.2.1 *The emergence of workers' housing during the late eighteenth century:* the cartographic sources indicate that the Angel Meadow area, specifically that surrounding St Michael and All Angels church, and its associated burial ground, was first residentially developed in the late eighteenth century, largely through the construction of double-depth properties at the northern end of the burial ground and on its eastern side, fronting Stile Street (later Old Mount Street). When built, these properties were on the north-eastern fringe of Manchester, which had just begun to enter the initial stages of industrialisation, with an estimated population within the Manchester township of 22,481 in 1773 (within 3446 dwellings), rising to 75,281 by 1801 (Hartwell 2001, 17; Kidd 2006, 38).
- 4.2.2 In the Angel Meadow area, and indeed in the town more generally, the first throes of industrialisation are embodied by Shudehill Mill, which stood just to the south of St Michael's church, on the site of a former brick works, between Angel Street and Miller Street, and this may have acted as the initial impetus for residential development in this area. This was a cotton-spinning mill, established by Richard Arkwright in 1780, that was initially powered by a waterwheel, associated with a steam-powered pumping system. In 1786, the mill was, however, sold to John and Samuel Simpson, who installed a Boulton and Watt steam engine in 1791, to replace the original waterwheel and pumping engine, which was used as the mill's main power system (Miller and Wild 2015).
- 4.2.3 Evidence for late eighteenth-century housing survived in Plot 5, fronting Old Mount Street. This comprised, the remains associated with the rear portions of 15 separate properties, which allow the character of these dwellings to be established to some degree (Fig 11). When built, these properties had a pleasant prospect, with views across the burial ground towards the River Irk, with easy access to the commercial district of Manchester, and it is quite possible that they were not originally designed as low-cost residential buildings. Moreover, based on historic photographs of similar period properties on Angel Street, it is likely that these 'higher-status' workers' dwellings were characterised by neo-classical-inspired architectural embellishment around the doorways (*cf* Miller and Wild 2015, 17).
- 4.2.4 One feature that emerges from the form of these dwellings is that it may well be the case that the late eighteenth-century development in Plot 5 was actually spread over

two separate episodes, with the buildings at the north-eastern end being the earlier properties. These were certainly larger in size than those to the south-west, and the photographic evidence indicates that they were three-storeyed (*Section 3.4.5*), perhaps with loomshops on the top floors, thus functioning as artisan dwellings, whilst the excavated remains revealed that each was provided with a cellar (**C8-11**; *Section 3.4.14*).

- 4.2.5 These cellars were half-basements, and lay beneath raised ground floors, each being c 5.4m wide. As far as could be ascertained, the cellars were also well lit and ventilated (*Section 3.4.15*), and could be accessed independently from the rear of the properties, via a doorway and stairwell; a similar arrangement probably also existed on the street frontage, based on the evidence of later mapping (*ie* the OS map of 1850; Fig 12). It is quite possible therefore that the cellars acted as independent areas, within the respective property, with no direct communication between them and the ground-floor area of the house. It is unclear, though, whether these areas acted as dwellings at this stage. For instance, although each of the excavated cellars contained a 'fireplace' on the south-western wall, it is uncertain whether these were used as such (*Section 4.3.5*). Also, most of cellars appear to have been undivided, at this stage, forming one continuous space beneath the footprint of the property. The implication might, therefore, be that they originally functioned as workshops, confirming the suggestion that the properties were used by artisans (*Section 4.2.4*). However, one of the cellars of these properties (that containing **C10**) was divided into a front and back room, with a doorway allowing access between these two rooms, and there is, therefore, a possibility that this functioned as an early cellar dwelling. If this was the case, the front room would have functioned as a 'living room', which contained the parlour/kitchen, and a small bedroom (within the excavated portion of the cellar) that was heated by a fireplace.
- 4.2.6 The other, and perhaps slightly later, late eighteenth-century double-depth properties in Plot 5, fronting Old Mount Street, although slightly smaller in size, appear largely comparable in form to those at the north-eastern end of the plot. Hence, most had cellars, with lights and independent access, via stairwells/doorways, at the rear of the properties. The rear portions of these cellars also had 'fireplaces', though again it is not clear whether the cellars functioned as heated dwellings *per se*, or whether these structures merely supported the fireplaces/stacks on the floors above. The only major difference with these properties were that the two south-westernmost did not possess cellars (*Section 3.4.23*). However, in all other respects these seemed to be comparable in size, form and layout to the adjoining properties in this terrace.
- 4.2.7 In the Angel Meadow area, to the south of Plot 5, several other late eighteenth-century workers' houses have also been excavated as part of the NOMA regeneration project, some of which form excellent comparators. These include a block of late eighteenth-century properties along Blakeley (later Charter) Street (OA North 2011). These were similar-style double-depth properties with yards and outshuts to the rear, which were provided with cellars that could be accessed independently, contained fireplaces, and were well lit and ventilated. In this sense, they were practically identical properties to those in Plot 5 and probably again formed comparatively 'high-status' artisan dwellings that were built on the fringe of the nascent industrial town. The only

major difference was that the Blakeley Street range was constructed as a single build, whereas those in Plot 5 may have been built in two separate phases, and most appear to have contained full basements (as opposed to half-basements) that were divided into two rooms from the outset, differing from the suspected 'open' cellars in most of the Plot 5 properties (*Section 4.2.5*). It was suggested that the presence of these 'rooms', along with fireplaces, indicated the presence of cellar dwellings. Hence, the cellars of this range may have been rented as dwellings, whilst those in Plot 5 were used as workshops/stores, with one possible early dwelling (*Section 4.2.5*).

- 4.2.8 The other early properties excavated as part of the NOMA project extended along Angel Street (OA North 2011; 2013a). These included a double-pile house dating to the seventeenth or early eighteenth century, and late eighteenth-century double-depth properties, akin to those excavated in Plot 5 and along Blakeley Street. These were therefore similarly provided with cellars that could be independently accessed from the rear (and probably also the front) of the properties. Again, however, these differed somewhat from those in Plot 5, in that the cellars had two basement rooms. It was also suggested that these properties were not constructed as single builds, but reflected the piecemeal development of small plots of land by different builders and speculators (OA North 2011).
- 4.2.9 **Early to mid-nineteenth-century expansion:** the early to mid-nineteenth century witnessed a massive surge in the industrialisation of Manchester, and in consequence the construction of vast swathes of new residential properties to house the expanding urban workforce (*Section 1.3.7*). During this period, it is estimated that within Manchester the population had risen from its 1801 figure of 75,281 (*Section 4.2.1*) to 235,507 in 1841 (though this now included a larger area contained within the municipal borough that was established in 1838), and then to 303,382 in 1851, with the number of dwellings rising from 17,257 in 1821 (a figure that itself had increased five-fold since the late eighteenth century; *Section 4.2.1*), to c 50,000 in 1851 (Hartwell 2001, 17; Kidd 2006, 38). In terms of the residential geography of the early to mid-nineteenth-century town, Engels, writing in 1844, noted that

In the centre of Manchester there is a fairly large commercial district, which is almost half a mile long and half a mile broad. This district is almost entirely given over to offices and warehouses. Nearly the whole of this district has no permanent residents... Around this commercial quarter there is a belt of built up areas on the average one and a half miles in width, which is occupied entirely by working-class dwellings. This area of workers' houses includes all Manchester proper, except the centre, all Salford and Hulme, an important part of Pendleton and Chorlton [referring to Chorlton on Medlock], two thirds of Ardwick and certain areas of Cheetham Hill and Broughton. Beyond this belt of working-class housing or dwellings lie the districts inhabited by the middle classes and upper classes. The former are to be found in regularly laid out streets near the working-class districts – in Chorlton [on Medlock] and in the remoter parts of Cheetham Hill. The villas of the upper classes... lie in the higher and remoter parts of Chorlton [on

Medlock] and Ardwick or on the breezy heights of Cheetham Hill, Broughton and Pendleton (Engels 1971, 54-5).

- 4.2.10 Significantly, there was little legislative control associated with the building of early to mid-nineteenth-century workers' housing, which allowed the construction, by private speculators, of densely packed, insalubrious housing, often poorly ventilated, with a large proportion lacking running water and a basic sanitation system (Nevell 2017a). Indeed, in 1844 Engels commented that in the working-class areas of Manchester 'building has taken place in a haphazard manner with little or no planning or interference from the authorities' (1971, 56). This period was also characterised by a more intensive occupation of both the older and newer housing stock, epitomised by the division of single properties into multiple tenements, which included the rise of cellar dwellings, for the poorest workers, particularly following an increase in rents between 1807 and 1815, coupled with the massive increase in the population of the industrialised town from the 1820s onwards (*ibid*; Miller and Wild 2007, 31).
- 4.2.11 Therefore, during this period, the character of Angel Meadow was transformed and became a dense industrial suburb, associated with housing, factories, and warehouses. Many of the pre-existing buildings were divided and used as multiple tenements, a proportion acted as lodging houses, whilst some of the cellars were partitioned to form single-room dwellings (Miller and Wild 2015, 34). Significantly, this process of residential intensification can be seen in Plot 5 in relation to the late eighteenth-century properties that were extant in the early-mid-nineteenth century. For instance, Census returns imply that during the mid-nineteenth century these properties were densely occupied, by multiple families/individuals. Indeed, in 1841 and 1851, the average number of people occupying the dwellings on Old Mount Street was relatively high, at 12.6 and 11.7 respectively, with some properties being occupied by multiple families and individuals (*Section 3.4.8*). The archaeological evidence also hints at division within some of the properties, specifically through the construction/extension of dividing walls within the cellars, during the early nineteenth century (in Phase 3), which was perhaps linked to the creation of cellar dwellings within these properties (*Section 3.4.27*).
- 4.2.12 Large areas of workers' housing were also constructed in Angel Meadow during this period, within plots that had been laid out in the late eighteenth century. This housing included a now familiar range of 'set' types, that could be found across other parts of Manchester, and would come to characterise occupation within the industrialised town. These types comprised double-depth properties, back-to-backs, and blind-backs, with the latter two types often being arranged around courtyard areas. It seems, from the mid-nineteenth-century Census records for Plots 2, 3, and 5 (L-P Archaeology 2107, appendix 1), that there was a mix of people occupying both these 'new' dwellings, and those pre-existing houses (*Section 4.2.10*) comprising 'locals' (*ie* from Lancashire), or people from Ireland, or having Irish ancestry. These records, therefore, confirm the mid-nineteenth-century attribution of this part of Manchester as being within 'Irish Town' (*Section 1.3.10*). Unsurprisingly, though, all of the inhabitants, whether born in Lancashire or Ireland, were in low-paid employment and many worked in the textile industry.

- 4.2.13 In the excavated Angel Meadow plots, the earliest of these workers' houses were constructed in Plots 2 and 3, between 1809 and 1818/19, and formed two ranges of back-to-back dwellings (*Sections 3.2.21* and *3.2.12*). These were of standard 'one-up, one-down' form, and those in Plot 2 measured 3.85 x 3.95m in plan, and were heated by a fireplace on their eastern wall. Access between the ground and first-floor was via a staircase on the opposing western wall. In contrast, the back-to-backs in Plot 3 had been cellared, and were larger in size, measuring 5 x 4.8m.
- 4.2.14 Following the construction of these properties, there was a marked surge of building activity in Plots 2, 3, and 5, between 1818/19 and 1824, creating to the complete development of the plots between Ashley Lane and New Blakeley Street, on the north-western side of the burial ground, and infilling an area between Old Mount Street and Nicholas Street on the south-eastern side of this cemetery. On the north-western sides of the burial ground, in Plot 2, these properties flanked Ashley Lane and New Blakeley Street, and were also arranged around four courtyards, three of which (Nos 1-3; Fig 13) were certainly poorly lit and ventilated, with the other (Nelson Court) being slightly more open. The properties contained the full range of early nineteenth-century workers' house types (*Section 4.2.11*), including double-depth properties, back-to-backs, and blind-backs. Intriguingly, the cartographic evidence suggests that some of the properties, in the vicinity of No 3 Court, began life as single-depth tenements (*Sections 3.2.32* and *3.2.35*), which were then combined to form single double-depth properties, after which they were again subdivided into single tenement dwellings. Although these fluctuations could merely be as a result of erroneous survey in the late 1840s by the OS mapping division, it seems more likely that they reflect the dynamic pattern of ownership/occupation in some properties throughout the early and mid-nineteenth century. However, where it could be ascertained, the single-depth dwellings (back-to-backs and blind-backs, or single rooms in buildings that were later converted to double-depth properties) were similar in size, measuring some 3.8 x 4.1m, and were heated by fireplaces.
- 4.2.15 The better preserved of these buildings were those flanking New Blakeley Street, which had been cellared. Although the Census returns indicate that some in Plot 2 were cellar dwellings (*Section 3.2.15*), it seems more likely that these were confined to **Court No 1**, to the south of the 2018 excavation area. Fortunately, this part of the plot was excavated in 2012 and may well have uncovered direct evidence for these dwellings (OA North 2013a; Miller and Wild 2015). It is evident from this that the cellars were half-basements, measuring some 3.8m², and had direct access from New Blakeley Street, via a street-frontage stairwell, seemingly confirming that they had been used as individual dwellings. The cellars were also comparatively well-lit and ventilated by a 1.5m-wide window, and each also had a fireplace on their northern cross wall, all of which were remodelled into ranges at a later date.
- 4.2.16 The early nineteenth-century building activity in Plot 3, also on the north-eastern side of the burial ground, indicates that a mixture of house types was constructed in this area between 1818/19 and 1824, flanking Ashley Lane, Holden Street, and New Blakeley Street (Fig 14). The excavated remains consisted of parts of a range of back-to-backs between Holden Street and Ashley Lane (*Section 3.2.16*), heated by fireplaces on their north-eastern cross walls, with staircases on the opposing cross walls,

providing access to the upper room. Some of these back-to-backs had regular ground-plans, measuring 3.7m², whilst others were more irregular, measuring 3.7m across, with depths of between 4.2m and 3.7m.

- 4.2.17 The tangible remains of other properties, constructed between 1818/19 and 1824, were also encountered on the western side of Holden Street. These consisted of three single-depth properties, which essentially were blind-back properties, though they were slightly larger than the other examples of blind-back dwellings encountered in this plot, and in Plot 2. The remains of one (*Section 3.3.18*) were fairly fragmentary, though two were better preserved, as they contained cellars, measuring 3.84 x 4.36m (*Section 3.3.19*). These cellars could be independently accessed from the street frontage, which may suggest they functioned as cellar dwellings. However, if this was the case, these were very poorly lit and ventilated, as no cellar windows were identified within the street frontage of the buildings. Other smaller early nineteenth-century blind-back properties stood to the south-west, the better-preserved of which contained a cellar (*Section 3.3.24*), measuring 3.78 x 3.57m. It is, again, unclear whether this acted as a dwelling, though it could be independently accessed from the street frontage. That said, as access was possible from this cellar into an adjacent cellar associated with The Derby Arms public house (*Section 3.3.25*), to its rear, it is quite possible that it functioned as an additional storage area for this commercial concern.
- 4.2.18 The cartographic evidence also indicates that Plot 5 contained housing that was constructed between 1818/19 and 1824 (Fig 12). These comprised a row of back-to-backs between Back Old Mount Street and Nicholas Street, though very few remains of these survived, and it may well be that this part of the site was subjected to aerial bombardment during World War II (*Section 3.4.11*). In addition, this plot also contained the only mid-nineteenth-century building encountered in all of the excavated areas. This was small, measuring some 3.5 x 4m, and standing on the eastern side of, Back Old Mount Street (*Section 3.4.29*). On the map evidence alone it could have been interpreted as a blind-back dwelling; however, the excavated remains imply that this was not case. There was, for instance, no evidence for a fireplace, which would usually have been present in a domestic building, and, instead, the only internal feature was a sunken brick-built partition of unknown function.
- 4.2.19 The early nineteenth-century buildings excavated in Plots 2, 3, and 5 add to the growing body of evidence for workers' housing dating to this period, excavated at other sites within the nineteenth-century urban core of Manchester, particularly in the Ancoats area, where most of the types comparable to those at Angel Meadow have been examined (*Section 4.1.3*), and also at Sharp Street, adjacent to Rochdale Road, where comparable back-to-back and blind-back cellared dwellings have also been excavated (ARS Ltd 2018). Significantly, though, within the core of the Angel Meadow area, although other early- to mid-nineteenth-century dwellings have been examined, in the NOMA development area, these were limited to the back-to-back dwellings fronting New Blakeley Street, at the southern end of Plot 2 (*Section 1.4.2*), and cellars beneath large properties fronting St Michael's Square (at the junction of Ashley Lane and Angel Street), together with a cellar of an irregular blind-back property to the rear of these (OA North 2011). Given this notable absence of previously excavated

nineteenth-century workers' dwellings in this area of Manchester, the results, particularly from Plots 2 and 3, have added significance.

- 4.2.20 **Later nineteenth- and early twentieth-century buildings:** given that most of the plots were fully developed during the early nineteenth century, there was unsurprisingly a general absence of buildings dating to the latter part of the nineteenth and early twentieth centuries in the excavated areas. During this period, the construction of insalubrious dwellings had effectively ended, and in fact this era saw a phase of 'improvement' (*Section 1.3.16*). The few new buildings that were erected for housing in the City of Manchester during this period were therefore larger and designed with improved living conditions in mind, and several of these late nineteenth/early twentieth-century buildings existed in Plot 5, the remains of which were present on the eastern side of Back Old Mount Street (*Section 3.4.37*). The map evidence indicates that these formed elements of double-depth properties, and a larger property, fronting Nicholas Street. These remains were very fragmentary, however, and little could be concluded relating to their form and function.

4.3 Construction and building quality

- 4.3.1 The excavated buildings in Plots 2, 3, and 5 provided fairly good details relating to the construction of the late eighteenth- and nineteenth-century buildings in this part of Angel Meadow. Where it could be ascertained, many of the walls had also been constructed using an English Garden Wall bond, and all of the late eighteenth- and nineteenth-century walling was composed of handmade brick. Indeed, the only major difference between the late eighteenth-/earlier nineteenth-century walls and those dating to the latter part of the nineteenth century was the mortar types employed. Generally, those dating to the earlier periods were lime-based and were lighter in colour, whilst the later mortars were darker and included ashy materials. Presumably, when the late eighteenth- and early nineteenth-century buildings were erected, the bricks used in their construction were manufactured nearby. The other main building material was stone flags, used for flooring, window sills, and steps. The stone used for these was sandstone and this would have been quarried from the Rossendale area, where a series of stone quarries is known, dating to the late eighteenth and early nineteenth centuries, exploiting deposits of Rough Rock (formerly termed 'Millstone Grit'), Dyneley Knoll Flags, Crutchman Sandstone, and the Lower and Upper Haslingden Flags, used to produce stone flags and other ornamental stonework (*cf* Gregory 2003).
- 4.3.2 It is probable that most of the cellars and, where these were absent, ground-floor rooms of the excavated houses were formally floored. Interestingly, in the excavated plots, the flooring associated with the late eighteenth-century cellars (in Plot 5) was predominantly composed of handmade brick, whilst that associated with the early nineteenth-century housing (in Plots 2 and 3) was composed of stone flags. It is probable, though, that these differences are not chronologically related, as excavated examples of both of these floor types are known from workers' housing excavated in the Ancoats area (*Section 4.1.3*).
- 4.3.3 It is evident from the structural remains that all of the building ranges had double-skin exterior walls with single-skin internal and/or party walls. This style of construction

appears typical of Manchester's workers' houses and conforms to Engels' (1971, 68) descriptions of some of the workers' houses in nearby Ancoats, where 'the outer cellar walls which carry the weight of the ground-floor and the roof, are only one brick thick [*ie* double-skinned]'. Indeed, the use of this style of build has been noted at most of the excavated late eighteenth-/nineteenth-century workers' housing in Manchester (*Section 4.1*), and appears to have developed in the late eighteenth century, when it was used in the construction of fairly 'high-status' artisan dwellings, such as those in Plot 5, continuing to be used in the early- to mid-nineteenth century during the construction of more insalubrious dwelling types (*cf* Miller and Wild 2015, 15).

- 4.3.4 Apart from the internal walling, within the ranges none of the external walls were single-skinned. This inferior technique was certainly employed to build workers' houses in parts of Manchester, particularly as Engels (*op cit*, 69) comments that in Ancoats, 'I have seen several cottages of the same height [to those with double-skin walls; *Section 4.3.3*] – some actually still being built – where the thickness of the walls is equal to that of only half a brick'.
- 4.3.5 Other internal structures associated with most of the houses included the remains of fireplaces. These were defined by two projecting piers, spaced 0.8-1m apart, that in all cases were one-full-brick thick. It should be noted, however, that a proportion of the 'fireplaces' in the excavated cellars may not have actually functioned as such, but instead merely acted as the supports for the fireplace in the room above, which means that these mimicked the plan of a fireplace setting. This naturally has implications for the archaeological identification of cellar dwellings (which are normally viewed as possessing a heat/cooking source; *cf* Redhead 2011, 55), and suggests that a 'fireplace' setting alone does not necessarily imply the occupation of the cellar. Indeed, the only firm archaeological evidence for occupation would be direct evidence for the use of these fireplace settings, such as soot-blackened/heat-affected walls, or the presence of grates. The other major internal features present within the uncellared houses were structures that supported a staircase leading to the upper floor. These were positioned on the opposing side wall to the fireplace and had single-skin walls, and brick bases.
- 4.3.6 As far as the process of construction of the buildings in Plots 2, 3, and 5 is concerned, it seems that those properties with cellars required the excavation of a trench, which was then 'lined' with walling that acted as the major support for the building above. There was no clear evidence for the use of foundation trenches to contain the lower footings of the cellar walls, or indeed for the walling of those properties that did not possess a cellar.
- 4.3.7 The excavated remains also provided some evidence for the durability and quality of the late eighteenth- and early nineteenth-century building stock in Angel Meadow. This has some relevance in relation to historical accounts of workers' housing, specifically Engels' 1844 descriptions. Again, when discussing the workers' housing in Ancoats, though this is probably also applicable to the houses in the Angel Meadow area, he comments that 'It is generally estimated that on the average a worker's house is habitable for only 40 years' and that 'after 40 years working-class property is generally in a ruinous condition' (Engels 1971, 69). He attributes this to the poor build of the properties, lack of maintenance, and periods of abandonment. He also suggests that in some case the older properties were progressively stripped of their woodwork,

in the last ten years of their life, by the tenants (who he stresses are generally Irish), for use as fuel (*ibid*).

- 4.3.8 The cartographic evidence and archaeological remains are slightly at odds with this description as they do indicate that, once built, the late eighteenth-/early nineteenth-century properties in Plots 2, 3, and 5 remained in use until their demolition in the mid-twentieth century. Importantly, however, the archaeological remains do suggest that some of the building stock did indeed suffer from serious structural problems, which was perhaps a result of neglect or poor build quality.
- 4.3.9 There was one example in Plot 5, where the rear wall of one of the late eighteenth-century properties (containing **C4**; *Section 3.4.27*) was rebuilt in the early nineteenth century, suggesting that the build quality of this dwelling, at least, was probably quite poor. Indeed, this rebuilding episode probably equates with Engels' 40-year life expectancy for a workers' dwelling (*Section 4.3.7*). Other examples of rebuilding within this 40-year bracket might include one early/mid-nineteenth-century building in Plot 2, the rear wall of which was rebuilt in the late nineteenth century, suggesting that it had suffered some form of structural failure (*Section 3.2.54*), and the corner of an early nineteenth-century blind-back in Plot 3, that was rebuilt in mid- to late nineteenth century (*Section 3.3.31*). In contrast, most of the other excavated buildings appear to have been structurally sound for a more extended period of time, though they did eventually require some form of rebuilding, indicative of structural failure. For instance, in Plot 3, it seems that two sides of an early to mid-nineteenth-century building (containing **C7**; *Section 3.3.20*) suffered some serious structural problems and, as such, over half of this building was rebuilt in the late nineteenth/early twentieth century (*Section 3.3.32*). Similarly, in Plot 5, during the mid-late nineteenth century, some of the rear portions of the late eighteenth-century properties fronting Old Mount Street were subjected to major schemes of rebuilding and strengthening (*Section 3.4.33*). Assuming that these properties were built in the mid-1780s, this scheme of rebuilding could have occurred anywhere between 70 and 110 years following their erection. Perhaps, however, the important point is that, during the latter part of the nineteenth century, investment was made in rebuilding these properties, which may imply that they still had a significant rentable value. It is also quite possible that this scheme of rebuilding was linked to wider schemes designed to improve the living conditions within these properties (*Section 4.6*). It is worth noting that the rear wall of one of these properties was also completely rebuilt in the late nineteenth/early twentieth century (*Section 3.4.40*).

4.4 Evolving sanitation

- 4.4.1 **Late eighteenth-mid-nineteenth century:** it is very evident from the descriptions of Engels, and also other social commentators such as James Kay, that inadequate sanitation was a major problem associated with the swathes of workers' housing that dominated the Manchester townscape during the earlier part of the nineteenth century. For instance, Engels comments that 'pumps and piped water are to be found only in the better-class districts of the town' (1971, 62), whilst, regarding privies, in his description of the slums along the River Irk he notes 'there are so few privies that are either filled up every day or are too far away for those who need to use them', and

that 'owing to the lack of conveniences...deserted ground floors [of houses] are often used by the whole neighbourhood as privies' (*ibid*).

- 4.4.2 Kay provides further details relating to the inadequate privy arrangements that existed in some parts of the town in the early 1830s. For example, he notes that in Parliament Street, which ran west of Deansgate, in the area now covered by Spinningfields,

there is only one privy for 380 inhabitants, which is placed in a narrow passage, whence its effluvia infest the adjacent houses, and must prove a fertile source of disease. In this street also, cess pools with open grids have been made close to the doors of the houses, in which disgusting refuse accumulates, and whence its noxious effluvia constantly exhale. In Parliament passage about 30 houses have been erected...these 30 houses have one privy (Kay 1832, 36-7).

- 4.4.3 These descriptions and the cartographic evidence indicate that the form of these early privies often comprised a small outhouse containing a brick-lined chamber or pit. In the historical literature, together these features are referred to as an ash pit or privy midden/closet (*cf* Aspin 1972, 4; Gray 1884; the former term indicating that in some cases ash was added as a deodoriser), and the design of one these, in use in Manchester prior to the late 1860s, is illustrated by Gray (1884; Plate 89). The major disadvantage of privy middens was that they were designed to contain sewage, yet they were not linked to any form of piped sewage system. Hence, as they were constructed of porous brick, sewage would percolate and pollute the surrounding soil, and presumably also the groundwater (Sutcliffe 1899, 45-6). In addition, they would need to be emptied and cleaned periodically to prevent them overflowing, which would have required the manual removal of the privy contents and its dumping, probably within a nearby court or back street (*ibid*), which would in turn lead to the blocking of drains that were merely designed to carry rainwater with human waste; indeed, this appears to have been a particular problem in mid-nineteenth-century Manchester (*cf* Power 1877, 1). This process of cleaning was invariable difficult, as the chambers of the privy middens were static and many privies were often unmaintained. For instance, Engels (1971, 58) describes one such privy in a court off Long Millgate in the 'Old Town' area, commenting that 'just at the entrance where the covered passage ends there is a privy without a door. The privy is so dirty that the inhabitants of the court can only enter or leave the court if they are prepared to wade through puddles of stale urine and excrement'.

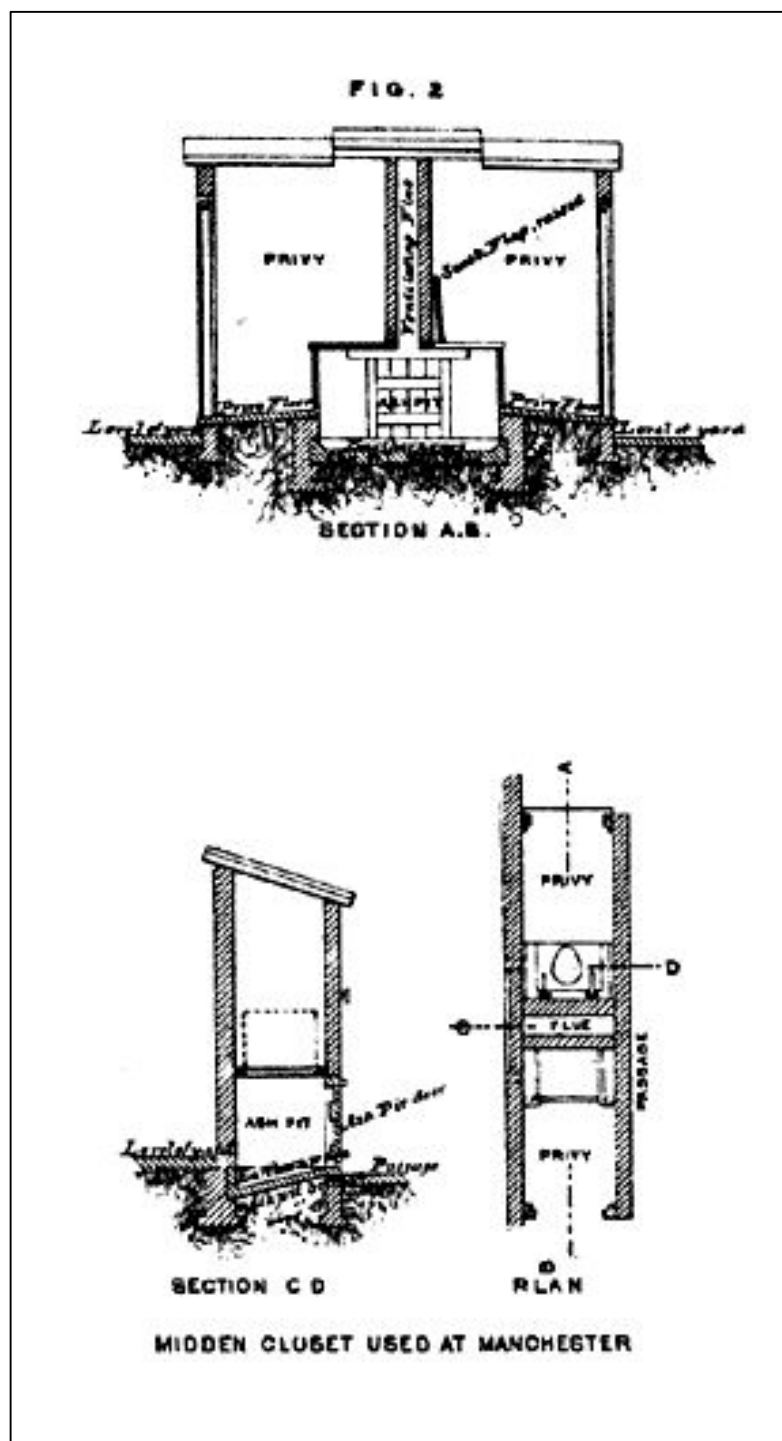


Plate 91: The typical form of a privy midden in use in Manchester in the earlier part of the nineteenth century (from Gray 1884)

- 4.4.4 The cartographic evidence provides some details of the sanitation arrangements in the excavated Angel Meadow plots. Significantly, Green's map of 1787-94 indicates that the majority of the late eighteenth-century properties in Plot 5 fronting Old Mount Street were provided with their own separate privy, positioned in a small yard area. The only exceptions to this were two properties at the north-eastern end of the range, which had a shared yard area, but no privies. The presence of privies associated with most of the properties is significant, indicating that these dwellings were designed

form the outset with comparatively good systems of sanitation, reinforcing the notion that they were not originally low-cost residential buildings (*Section 4.2.3*). These privies are also depicted on the Bancks & Co's 1831 map and the OS map of 1850, indicating that the properties continued to be well serviced throughout the early part of the nineteenth century. Bancks & Co's map also indicates that privies had been installed by this date to serve the two properties which originally were not provided with toilets, whilst the 1850 map also indicates that the properties in Plot 5 could acquire water, from a water tap (denoted as 'WT' on the OS map) positioned at the north-eastern end of Back Old Mount Street. This water tap appears to have served the late eighteenth-century properties and also a range of properties between Back Old Mount Street and Nicholas Street (*Sections 3.4.2 and 3.4.4*). Interestingly, only one of these early- to mid-nineteenth-century properties, at the south-western end of the range, was seemingly provided with a privy, perhaps indicating that this was deemed less of a priority when these buildings were constructed.

- 4.4.5 The OS map of 1850 also indicates that the early nineteenth-century housing in Plots 2 and 3 similarly had rudimentary water supplies. Specifically, in Plot 2, a 'pump' was placed at the entrance to Nelson Court, whilst water taps were present in Nos 1 and 2 Courts; in Plot 3, a water tap was located in the courtyard area close to the centre of the plot. Interestingly, the only possible privies depicted on the OS map associated with Plot 2 were two small structures positioned at the western end of No 2 Court, adjoining a blind-back building (containing **C2**; *Section 3.2.44*), and two similar structures at the northern end of No 1 Court (beyond the 2018 and 2012 excavation areas). In Plot 3, it is possible that an L-shaped structure, adjoining a large single-depth property (**R15**; *Section 3.3.18*), also functioned as such. Significantly, as the two potential privy middens in No 2 Court, in Plot 2, were built against the blind-back building, it is highly likely that their contents would have leaked into its cellar, creating a particularly repugnant environment if this area was ever used as a dwelling.
- 4.4.6 Turning to the archaeological evidence, there was no evidence for early water supplies in any of the plots, but several early privies were present in Plots 2 and 5. In Plot 5, these included a small brick-built privy block, representing a privy midden with four separate compartments (*Section 3.4.28*). This was built in the early nineteenth-century to serve two of the late eighteenth-century properties fronting Old Mount Street (*Section 4.4.4*). Another slightly later brick-built privy midden was also present in Plot 5, though this contained two compartments (*Section 3.4.32*). This privy dates to the mid-nineteenth century and stood in the yard area of a large property that fronted Nicholas Street; significantly, in the mid-nineteenth century, it seems to have formed the only privy associated with properties in Plot 5 fronting this street and Back Old Mount Street (*Section 4.4.5*).
- 4.4.7 In Plot 2, although no early nineteenth-century remains associated with privies were present at the western end of No 2 Court (as suggested by the map evidence; *Section 4.4.5*), it is significant that a probable later privy stood in this area (*Section 4.4.11*), hinting that this part of the court was indeed deemed appropriate for the positioning of earlier privies. The remains of a privy (**P3**; *Section 3.2.37*), dating to 1818/19-24, was also present within an outshot associated with a double-depth property fronting New Blakeley Street. This privy stood in Nelson Court and would have served the

occupants who dwelt in this area. The form of the privy indicates that it was a brick-built privy midden, containing two separate toilets. Taken together, the archaeological remains and cartographic evidence therefore indicate that Nelson's Court and Nos 1 and 2 Courts each had two privies, with an apparent absence of privies in **Court No 3**. When this is considered in relation to the population figures in the 1841 Census (*Section 3.2.13*), this roughly indicates that each of the privies in Plot 2 might have served on average 21 people.

- 4.4.8 This estimate for the 1841 privy to people ratio, although fairly high by present-day standards, is certainly not as bad as that recorded by Kay for the Spinningfields area, in the early 1830s (*Section 4.4.2*). It is also way below the figure estimated by Pearlman (1956) of 78 people per privy in Manchester, during the early nineteenth century. In any event, in Plot 2 this ratio would have been further reduced, as the excavation exposed the remains of a privy, constructed in No 3 Court in the mid-nineteenth century (**P1**; *Section 3.2.46*). This was an excellent example of a privy midden, comprising two adjacent privies, within a brick-built privy block/outshut, attached to the rear of a property fronting Ashley Lane. The privies had flagged floors and each was associated with adjacent brick-lined midden pits. Significantly, the large-scale 10ft:1mile OS map of 1891 indicates that two further privies were linked to **P1**, and although no remains of these survived, it is clear that the privy block originally contained four privies. Given their mid-nineteenth-century date, these were certainly constructed after the Manchester Police Act of 1844, which stated that all existing houses were to have privies installed (*Section 1.3.11*). It is therefore tempting to suggest that these were constructed as a direct result of this act in order to provide the housing associated with No 3 Court with its first privies.
- 4.4.9 **Later nineteenth-early twentieth century:** a major advance in Manchester's sanitation was made in the late 1860s, through the introduction of pail closets. These were similar to privy middens, in that they were not linked to a sewage system, but differed in that they employed an easily removable receptacle (*eg* a bucket, box, or barrel/tub) that was used to catch and contain excreta. The faecal matter was then regularly emptied and collected by 'scavengers', who would transport the waste by wagon and dump it at sites that lay outside of the town (Gray 1884). Modifications to these new-style of privies were also made through the addition of chutes that allowed dry earth or ash to be poured into the pail in order to reduce the smell, absorb urine, and help with the breakdown of faecal matter (*ibid*). The use of ash, as an additive, seems to have been favoured in Manchester, probably due to its ready availability, and one such ash closet is illustrated by Gray (1884; Plate 90).

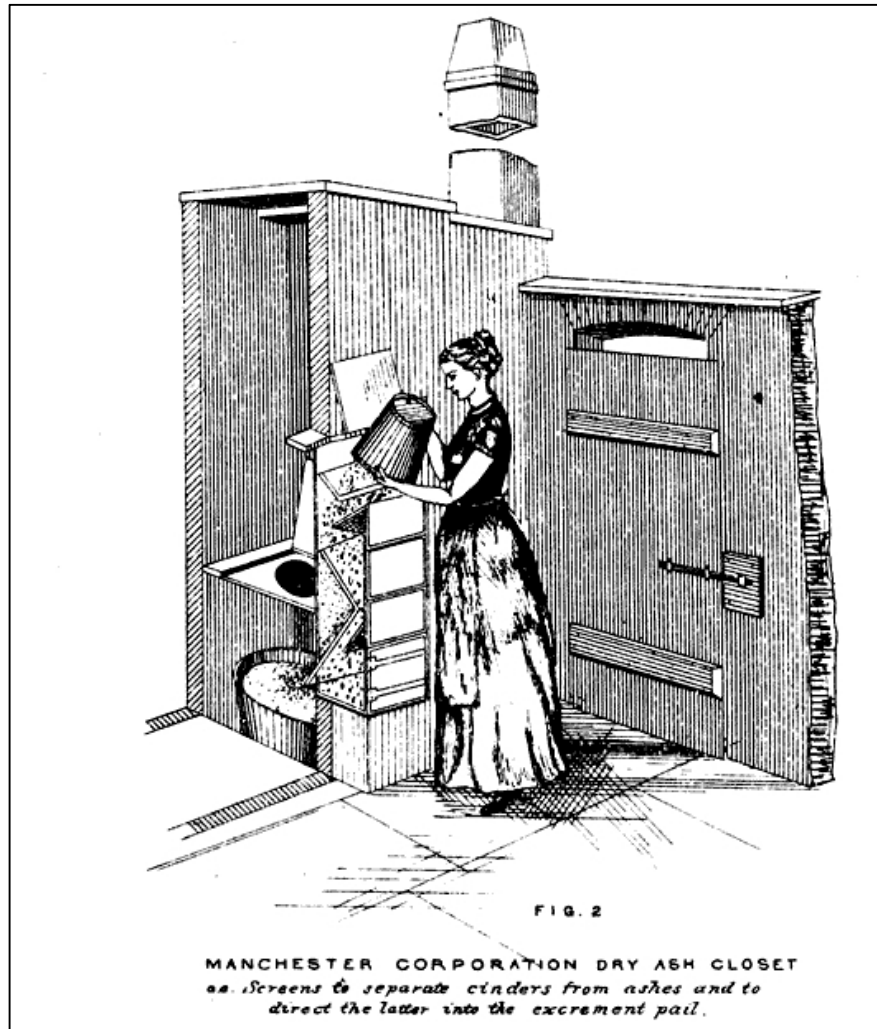


Plate 92: A Manchester ash closet (from Gray 1884)

4.4.10 The pail system had whole-heartedly been adopted in Manchester by the end of the 1870s, with 59,931 recorded in the city in 1880 (Wilson 1990, 127), and this was viewed as an invaluable technique for combating sanitary problems. Indeed, in 1879, Dr John Leigh, the city's first Medical Officer of Health (*Section 1.3.12*) commented that

such closets are emptied bi-weekly, and their contents converted into valuable manure and mortar, with great reduction of the volume of effete material...The importance of this may be estimated from the fact that the amount of matter which, under the old system...would annually fill an area equal to St Ann's square...to a height of 80ft, is now satisfactorily disposed of without the production of any nuisance (quoted in Parkinson-Bailey 2000, 42).

4.4.11 Significantly, the remains of one possible pail closet was present in Plot 2 (**R2**; *Section 3.2.47*; Fig 15). This structure had a T-shaped form and a solid flag floor, and stood in No 2 Court, where it had been attached to the back of a blind-back property (containing **C2**); the map evidence also suggests that it formed a replacement for two earlier privies in this area (*Section 4.4.7*), and actually formed the remains of a short

‘corridor’, in front of which were originally three separate compartments, the central of which survived in the excavation area. Importantly, the excavated remains revealed that clear access existed between the corridor and the central compartment, suggesting that this was not actually a privy, but was a place where a person could pour ash through chutes into two privies located on either side. Another pail closet might also have existed in Plot 3. In this instance, this was inserted into a pre-existing outshut (**3004**; *Section 3.3.33*), and its remains comprised a small brick-built compartment (Fig 16). Based on their apparent date and form, there were also two brick-built privy blocks in Plot 5, that might conceivably have contained pail closets (*Section 3.4.36*). Both stood on the eastern side of the plot and served the workers’ housing that fronted Nicholas Street and the some of the back-to-backs that faced Back Old Mount Street (Fig 17). Both were also fairly extensive and map evidence indicates that they contained multiple compartments; however, the compartments were only visible in one of the privy blocks.

- 4.4.12 During the 1870s, the first water closets (*ie* modern flushing toilets) also appeared in some domestic dwellings in Manchester (Wilson 1990). However, due to the cost of installing the concomitant sewers, it was not feasible to install these in the majority of workers’ housing, which largely explains the widespread adoption of the pail system. The sewer systems during this period, which had been extensively laid during the mid-nineteenth century, were primarily designed as rainwater sewers, and it was not until the completion of the Davyhulme sewage works in 1894 that an effective sewerage system existed (Parkinson-Bailey 2000, 40). The completion of this work allowed for the rapid and widespread installation of water closets in workers’ houses and, in 1894, 24,300 were installed in Manchester, rising to 230,046 in 1927 (*ibid*). It should be noted, however, that, even in 1927, 11,018 pail closets were still in use, as well as 35 privy middens (*ibid*).
- 4.4.13 There was extensive evidence for water closets in all of the excavated plots, which had been installed as a means of improving living conditions. Those in Plot 2 stood in the Nelson Court area (*Sections 3.2.51* and *3.2.53*), as well as in No 2 Court (*Section 3.2.57*; Fig 18), whilst the remains of water closets in Plot 3, were present at the north-eastern end of the plot (*Section 3.3.33*), with the possible remains of one also at the southern end of the plot, seemingly associated with a water closet connected to The Derby Arms public house (*Section 3.3.32*; Fig 19). In Plot 5, a series of water closets was installed to serve the late eighteenth-century properties which fronted Old Mount Street (Fig 17); perhaps, significantly, each of these double-depth properties was provided with not one but two water closets. Other water closets in this plot were associated with those large properties that fronted Nicholas Street, at the far south-eastern end of the plot (*Section 3.4.38*; Fig 20).
- 4.4.14 It was evident from all of these remains that these types of privy were brick-built ‘outhouses’, positioned in yard areas, that were associated with *in-situ* soil pipes. Those in Plots 2 and 3 were installed at some stage in the late nineteenth/early twentieth century, probably following the opening of the Davyhulme sewage works in 1894 (*Section 4.4.12*). The same was true of those privies in Plot 5 associated with the Nicholas Street properties. These might, however, have been slightly later in date (probably dating to the early twentieth century) as they were more substantial and

were associated with sewage/drainage structures lined with cement (*Section 3.4.39*), that seem to have fed grey water into the main sewer in Back Old Mount Street. The fact that the effluence first had to enter what appeared to be small cement-lined 'tanks' might suggest that this sewer was actually inadequate for receiving the increased amount of sewage following the installation of these privies. Indeed, this sewer was probably laid in the mid-nineteenth century as a rainwater sewer, hence the need for subsidiary sewage structures in the late nineteenth/early twentieth century, which could contain any backed up effluence and allow the sewage to enter the main sewer gradually.

- 4.4.15 Interestingly, the water closets associated with the Old Mount Street properties in Plot 5, which were also linked to the Old Back Mount Street sewer, based on mapping evidence, were certainly in existence prior to 1889. This indicates that these were comparatively early examples, and they seem to have been installed when the adjacent properties fronting Nicholas Street were still using pail closets (*Section 4.4.11*). They might therefore represent some of the earliest water closets to be installed in this area, which initially the Old Back Mount Street sewer could probably have coped with prior to 1888.

4.5 Drainage

- 4.5.1 Apart from the evidence for soil pipes and other features associated with sewage systems, several other drains were identified in the excavation plots. The earliest of these dates to the late eighteenth century and was positioned beneath a cellar floor (**C2**; *Section 3.4.20*) in one of the properties fronting Old Mount Street. It was a brick-lined feature and its presence indicates that it was intended to keep, at least, the below-ground area of this property relatively dry. Presumably, similar features may also been present in some of the other late eighteenth-century properties along this street, suggesting that they were of better design than many of the properties built in the early nineteenth century in the Angel Meadow area.
- 4.5.2 The few other drainage features noted were present in courts or yard areas, and seem to have been designed to carry rain/grey water away from specific properties. For example, several drains were embedded in the surface of **Court No 3**, in Plot 2, positioned directly against nineteenth-century buildings (*Section 3.2.31*), which probably date to the early-mid- and late nineteenth century. A drainage system of similar design had also been installed during the construction of yard areas at the northern end of this plot (*Section 3.2.50*). The system probably linked with a drain that ran along the centre of an adjacent ginnel (*Section 3.3.52*). Similarly, drains were evident in the yard areas at the rear of the late eighteenth-century properties fronting Old Mount Street, in Plot 5, which date to the mid-late nineteenth century.

4.6 Improvements in ventilation and space

- 4.6.1 Within all of the plots, there was clear evidence for schemes dating to the latter half of the nineteenth- and first part of the twentieth century that were designed to improve ventilation and space, both within and outside the pre-existing housing stock. In Plot 2, at some stage between 1889 and 1908 the back-to-back to properties that fronted Nelson Street and Nelson Court, and also two blind-backs on the southern side

of Nelson Court, were knocked through to form double-depth properties, which had yards to their rears, each with an outdoor privy (*Sections 3.2.50 and 3.2.53*). Moreover, the conversion of the blind-backs entailed the complete rebuilding of the end of one of the properties and the demolition of an adjacent property (also a blind-back), the footprint of which defined the 'new' yard area. This process of knocking through, as well as extending, earlier single-depth properties during the late nineteenth/early twentieth century was also apparent at the southern end of this plot, in the **Court No 2** area. There, a major scheme of modification occurred that entailed building a new wall to form the back wall of the converted/extended properties fronting New Blakeley Street (*Section 3.2.56*). Other modifications designed to improve ventilation and space in this area included the demolition of blind-backs, the addition of walled yards to two early nineteenth-century blind-back properties that fronted Ashley Lane, and the construction of a small ginnel (*Section 3.2.38*).

- 4.6.2 In Plot 3, a fairly dramatic scheme of improvement occurred, that related to the block of back-to-backs between Ashley Lane and Holden Street (*Section 3.4.35*). This entailed knocking through these properties, which now had their front entrances on Ashley Lane, and constructing a new rear wall, which sliced through the former back-to-backs that fronted Holden Street. These reconfigured properties were one-and-half-unit dwellings, and had small yard areas and privies to the rear, backing onto Holden Street, the yard walls of which were built on the footings of the earlier buildings. Several buildings in this plot were also demolished in the late nineteenth/early twentieth century.
- 4.6.3 In Plot 5, the late eighteenth-century properties fronting Old Mount Street were provided with yard areas and privies from their outset. However, during the mid-late nineteenth century, these yard areas were rebuilt and resurfaced (*Section 3.4.34*). This scheme also involved blocking the former rear cellar entrances into the properties, as well as the cellar lights, and the construction of privies (*Section 4.4.15*). During this period, small yard areas also existed to the rear of properties fronting Nicholas Street (*Section 3.4.37*).

5 CONCLUSION

5.1 Plots 2, 3, and 5 in context

- 5.1.1 The excavated remains in Plots 2, 3, and 5 stood within one of world's earliest industrial suburbs and have provided valuable details on the development of workers' housing in this area. In line with the other excavations in the Angel Meadow area (cf OA North 2011; 2013a; Miller and Wild 2015), it appears that, initially, the area was occupied by relative 'high-status' groups, such as artisans, merchants and hand-loom weavers, who dwelt in double-depth properties, such as those excavated in Plot 5, on the fringes of the late eighteenth-century town. These properties were well served, with their own privies and yards, and often contained fairly well-lit and ventilated basements that could have functioned as workshops.
- 5.1.2 With the massive industrial expansion of Manchester in the early part of the nineteenth century, the area was transformed into an insalubrious townscape, where the older properties were divided and converted, whilst new forms of workers' housing were rapidly built, including single-depth back-to-backs and blind-backs, as well as some double-depth properties, continuing the double-depth housing tradition that had emerged in the eighteenth century. Many of these properties also contained Manchester's notorious cellar dwellings, derided by social commentators, such as Friedrich Engels and Angus Reach (*Sections 1.3.10 and 1.3.12*). Significantly, most of the building remains in Plots 2 and 3 related to this phase of industrial expansion, including good examples of back-to-backs, blind-backs, and double-depth properties, a proportion of which contained cellars, and possibly cellar dwellings. Indeed, all were constructed in the second and third decades of the nineteenth century, with many probably being built in the early part of the 1820s. These would, therefore, have been the dwellings that existed when both Engels and Reach passed through the area in the mid-nineteenth century, and documented the atrocious living conditions in Angel Meadow, which permeated and shaped later conceptions of this area.
- 5.1.3 Notably, the area and its housing was gradually improved through the latter part of the nineteenth- and early part of the twentieth century, as part of a city-wide scheme of improvement, linked to both local and national policies. This was largely through improvements in sanitation, ventilation, and space, and, significantly, many of these changes are readily visible within all three of the excavated plots.
- 5.1.4 Given the success of the excavations, the quality of the data, and the emerging body of archaeological evidence for workers' housing in Angel Meadow, an academic publication would act as a suitable vehicle for disseminating the results of the work from Plots 2, 3, and 5, and would also allow the work to be set in the context of the other excavated remains obtained from this important early industrial suburb. The format and scope of any such publication would, however, need to be formulated in conjunction with Orion Heritage Ltd and GMAAS, though this might take the form of an extended article in a suitable academic journal.

6 BIBLIOGRAPHY

Cartographic sources

Adshead, J, 1850 *Plan of the Township of Manchester*

Banks, G, & Co, 1831 *A Map of Manchester and Salford*

Dean and Pigot, 1809 *Map of Manchester*

Green, W, 1787-94 *Map of Manchester and Salford*

Johnson, 1820 *Plan of Manchester*, surveyed 1818/19

Laurent, C, 1793 *Map of Manchester and Salford*

Ordnance Survey (OS), 1850 5ft:1mile map, Manchester sheets 18 and 24, surveyed 1848

Ordnance Survey (OS), 1891 10ft:1mile, First Edition, Manchester sheets CIV.6.15 and CIV.7.11, surveyed 1889

Ordnance Survey (OS), 1893 1:2500, First Edition, Lancashire sheets CIV.6 and CIV.7, surveyed 1888-9

Ordnance Survey (OS), 1908 1:2500, Lancashire sheets CIV.6 and CIV.7, surveyed 1905

Ordnance Survey (OS), 1922 1:2500, Lancashire sheets CIV.6 and CIV.7, revised 1915

Ordnance Survey (OS), 1933 1:2500, Lancashire sheets CIV.6 and CIV.7

Ordnance Survey (OS), 1952 1:2500, Lancashire sheets CIV.6 and CIV.7

Swire, W, 1824 *Map of Manchester and Salford*

Secondary sources

Archaeological Research Service (ARS) Ltd, 2014 *Milliners Wharf, Ancoats, Manchester: archaeological excavation*, Unpubl rep

Archaeological Research Service (ARS) Ltd, 2018 *Archaeological excavations at Sharp Street, Manchester*, Unpubl rep

Aspin, C (ed), 1972 *Angus Bethune Reach: Manchester and the textile districts in 1849*, Helmshore

Cattell, S, and Nevell, M, 2011 *The workers' housing on vacant land at the corner of Pickford Street and Jersey Street: an archaeological excavation*, Unpubl rep

CFA Archaeology, 2018 *Land off Mason Street, Manchester: archaeological excavation*, Unpubl rep

Chartered Institute for Archaeologists (CIfA), 2014a *Code of conduct*, Reading

Chartered Institute for Archaeologists (CIfA), 2014b *Standard and guidance for archaeological field evaluation*, Reading

Chartered Institute for Archaeologists (CIfA), 2014c *Standard and guidance for the creation, preparation, transfer and deposition of archaeological archives*, Reading

Chartered Institute for Archaeologists (CIfA), 2014d *Standard and guidance for the collection*,

documentation, conservation and research for archaeological materials, Reading

Engels, F (trans and ed Henderson, W O, and Chaloner, W H), 1971 *The condition of the working class in England*, Oxford

Gaulter, H, 1833 *The origin and progress of the malignant cholera in Manchester*, London

Goode, C T, 1986 *The railways of Manchester*, Hull

Gray, S M, 1884 *Proposed plan for a sewerage system, and for the disposal of the sewage of the City of Providence*, London

Gregory, L, 2006 *Where Angels Play: an investigation into the lives and deaths of the inhabitants of Angel Meadow, a Mancunian industrial slum*, undergrad diss, Univ Manchester

Gregory, R A, 2003 *The Rossendale quarrying industry: archaeological assessment report*, Unpubl rep

Gregory, R A, 2006 Appendix 1: Eighteenth and nineteenth-century archaeology, in R A Gregory, *Excavation at Barton Street, Castlefield Manchester*, Unpubl rep, 199-212

Gregory, R A, 2007 *Loom Street, Ancoats, Manchester: an archaeological excavation of late eighteenth- and nineteenth-century workers' housing*, Unpubl rep

Gregory, R A, 2018 *Architecture, burial and reform: the Upper Brook Street Unitarian Chapel, Manchester*, Greater Manchester's Past Revealed, **19**, Lancaster

Gregory, R A, and Higgins, M, 2006 *340 Deansgate, Castlefield, Manchester: archaeological excavation within the Roman vicus*, Unpubl rep

Hartwell, C, 2001 *Manchester: Pevsner architectural guides*, New Haven and London

Historic England, 2015 *Management of Research Projects in the Historic Environment: the MoRPHE project managers' guide*, Swindon

Hylton, S, 2003 *A history of Manchester*, Chichester

Jones, G D B, and Grealey, S, 1974 *Roman Manchester*, Altrincham

Kay, J P, 1832 *The moral and physical condition of the working classes employed in the cotton manufacture in Manchester*, 2nd edn, London

Kidd, A, 2006 *Manchester*, Lancaster

Lloyd-Jones, R, and Lewis, M J, 1993 Housing factory works: Ancoats in the early 19th century, *Manchester Reg Hist Rev*, **7**, 33-6

L-P Archaeology, 2017 *Occupation of Angel Meadows: historical assessment report*, Unpubl rep

McNeil, R, and George, D (eds), 2002 *Manchester - archetype city of the Industrial Revolution: a proposed World Heritage Site*, Heritage Atlas, **4**, Manchester

Marsden, J, 2014 *Forgotten fields: looking for Manchester's old burial grounds*, Manchester

Miller, I, and Wild, C, 2007 *A & G Murray and the cotton mills of Ancoats*, Lancaster Imprints, **13**, Lancaster

Miller, I, and Wild, C, 2015 *'Hell upon earth': the archaeology of Angel Meadow, Greater Manchester's Past Revealed*, **14**, Lancaster

Miller, I, Wild, C, and Gregory, R A, 2010 *Piccadilly Place: uncovering Manchester's industrial origins*, Greater Manchester's Past Revealed, **1**, Lancaster

Mottershead, G, 2007 *Victoria Works, Pollard Street, Ancoats: an archaeological evaluation and excavation*, Unpubl rep

Mottershead, G, 2009 *Tariff Street, Manchester: an archaeological evaluation and excavation*, Unpubl rep

Murphy, S J, and Cattell, S, 2014 *Ellesmere Street, Hulme, Manchester: archaeological evaluation and excavation report*, Unpubl rep

Muthesius, S, 1982 *The English terraced house*, New Haven and London

Nevell, M, 2014 Legislation and reality: the archaeological evidence for sanitation and housing quality in urban workers' housing in the Ancoats area of Manchester between 1800 and 1950, *Ind Archaeol Rev*, **36**(1), 48-74

Nevell, M, 2017a Excavating 'Hell upon Earth'. Towards a research framework for the archaeological investigation of workers' housing: case studies from Manchester, UK, *Ind Archaeol Rev*, **39**(2), 85-100

Nevell, M, 2017b The Industrial and 20th century period: resource assessment update. First draft [Online] Available at: <https://archaeologynorthwest.wordpress.com/period-updates/> (accessed 18 September 2018)

Nevell, M, 2017c Excavating Engels: the archaeological investigation of workers' housing in Manchester and Salford, 2001 to 2017, *Mem Proc Manchester Lit Phil Soc*, **154**, 75-98

Newman, R, and McNeil, R, 2007 The Industrial and Modern period research agenda, in M Brennand (ed), *Research and archaeology in North West England. An archaeological research framework for North West England: Volume 2. Research agenda and strategy*, Archaeol North-West, **9**, Manchester, 133-58

Oxford Archaeology North (OA North), 2005 *New Islington Wharf, Ancoats, Manchester: archaeological investigation*, Unpubl rep

Oxford Archaeology North (OA North), 2006 *Piccadilly Place, Piccadilly, Manchester: archaeological excavation*, Unpubl rep

Oxford Archaeology North (OA North), 2008 *George Leigh Street, Ancoats, Manchester: archaeological excavation final report*, Unpubl rep

Oxford Archaeology North (OA North), 2011 *Co-op Headquarters, Miller Street, Manchester: archaeological excavation*, Unpubl rep

Oxford Archaeology North (OA North), 2012 *Birley Fields, Hulme, Manchester: community excavation*, Unpubl rep

Oxford Archaeology North (OA North), 2013a *NOMA Regeneration, Miller Street, Manchester: archaeological excavation*, Unpubl rep

- Oxford Archaeology North (OA North), 2013b *Islington Wharf Mews, Vesta Street, Ancoats, Manchester: archaeological excavation final report*, Unpubl rep
- Oxford Archaeology North (OA North), 2013c *National Graphene Institute, Booth Street East, Manchester: archaeological excavation*, Unpubl rep
- Oxford Archaeology North (OA North), 2014 *MMU Students' Union, Higher Chatham Street, Manchester: archaeological excavation*, Unpubl rep
- Oxford Archaeology North (OA North), 2015a *Angel Meadow Residential (Plot 2), Aspin Lane, Manchester: archaeological desk-based assessment*, Unpubl rep
- Oxford Archaeology North (OA North), 2015b *Angel Meadow Residential (Plot 3), Aspin Lane, Manchester: archaeological desk-based assessment*, Unpubl rep
- Oxford Archaeology North (OA North), 2015c *Angel Meadow Residential (Plot 4), Aspin Lane, Manchester: archaeological desk-based assessment*, Unpubl rep
- Oxford Archaeology North (OA North), 2015d *Angel Meadow Residential (Plot 5), Aspin Lane, Manchester: archaeological desk-based assessment*, Unpubl rep
- Oxford Archaeology North (OA North), 2016 *Land at George Leigh Street, Ancoats, Manchester: archaeological excavation*, Unpubl rep
- Oxford Archaeology North (OA North), 2018 *Angel Meadow, Greater Manchester: project design for excavation of Plots 2, 3, 4 and 5*, Unpubl doc
- Parkinson-Bailey, J J, 2000 *Manchester: an architectural history*, Manchester
- Pearlman, W, 1956 *The dwellings of Manchester*, Unpubl thesis, RIBA
- Power, W A, 1877 *The pail closet system: progress at Manchester*, Manchester
- Pre-Construct Archaeology (PCA), 2017a *74-88 Great Ancoats Street, Ancoats, Manchester M4 5AG: assessment of an archaeological excavation*, Upubl rep
- Pre-Construct Archaeology (PCA), 2017b *First Street, Plot 11, Manchester M15 4FN: assessment of an archaeological excavation*, Upubl rep
- Redhead, N, 2011 Archaeological investigations of workers' housing in Manchester, *North West Labour Hist*, **35**, 53-7
- Roberts, J, 1993 A densely populated and unlovely tract: the residential development of Ancoats, *Manchester Reg Hist Rev*, **7**, 15-26
- Roberts, J, 1999 *Working class housing in nineteenth-century Manchester: John Street, Irk Town, 1826-1936*, 2nd edn, Radcliffe
- Slater, I, 1895 *Manchester and Salford directory for 1895*, Manchester
- Stitt, L, Reader, R, and Miller, I, 2016 *Leaf Street, Hulme, Manchester: archaeological excavation report*, Unpubl rep
- Sutcliffe, G L, 1899 *The principles and practice of modern house construction*, London
- Tonks, L H, 1931 *Manchester and south-east Lancashire coalfield*, Geol Memoirs sheet, **85**, London

Wilson, O J, 1990 *Technology and municipal decision making: sanitary systems in Manchester 1868-1910*, Unpubl PhD thesis, Univ Manchester

APPENDIX A SUMMARY ENTITY/CONTEXT DESCRIPTIONS

A.1.1 Plot 2

Entity/Context	Phase	Description
2000	Modern	Tarmacadam
2001	Modern	Demolition rubble/backfill
2002	-	Orange/brown clay. Redeposited natural geology
2003	2	Stairwell/ cupboard space
2004	2	Stairwell/ cupboard space
2005	2	Brick structure disturbed by P7 . Includes brick floor
2006	2	Brick structure to west of Y5
2007	2	Brick structure to north of C8 . Possible privy
C1	3	Southernmost cellar in Plot 2. Features include fireplace. Not fully excavated
C2	3	Located to north of C1 . Features include flagged floor and fireplace
C3	3	Located to north of C2 . Features include flagged floor, fireplace and blocked doorway in north partition
C4	3	Located to north of C3 . Features include fireplace, flagged floor, blocked doorway to south and doorway into C5
C5	3	Located to east of C4 . Features include fireplace, flagged floor, and doorway into C4 . Blocked doorway and sockets in east wall
C6	3	Located to north of C4 . Features include fireplace, flagged floor, and doorway into C7
C7	3	Located to east of C6 . Features include flagged floor, fireplace, and possible access/light
C8	3	Northernmost cellar on Plot 2. Features include flagged floor, 2x fireplace, and rear access to east
C9	3	Located to east of C5 . Incorporates 1.07 x 1.10m annex to north. 2x blocked doorways
Court 2	3 and 5	Located to south-east of Plot 2. Two-phase courtyard with flagged floor and boundary walls
Court 3	3	Located to east of C7 and C8 . Internal courtyard with flagged surface and central gutter. Allows access to C7-9 , R5 and R7
Court 4 (Nelson Court)	5	Located to north of R12-14 . Late phase of 'Nelson's Court'. Flagged floor with central gutter
P1	4	Located to south of R13 . Privy midden. Features include 2x toilets, flagged floor, and eastern entrance
P2	5	Located within and west of R14 . Features include original brick floor and modifications
P3	3	Located to west of R14 . 2x chamber. Privy midden
P4	5	Located within Y1 and Y2 . 2x chamber, water closet. Straddles central yard wall
P5	5	Water closet within R8
P6	5	Water closet within R4

Entity/Context	Phase	Description
<i>P7</i>	5	Located within <i>Y3</i> and <i>Y4</i> . 2x chamber, water closet. Cuts earlier structure <i>2005</i>
<i>R1</i>	5	Located to east of <i>C2</i> . Originally part of <i>Court 2</i>
<i>R2</i>	4	Located within <i>R1</i> . Possible pail closet
<i>R3</i>	3 and 5	Located to east of <i>C3</i> . Features include fireplace and stepped entrance
<i>R4</i>	5	Located to south of <i>C9</i> . Reconfigured <i>Court 2</i> . Contains <i>P6</i>
<i>R5</i>	3	Located to east of <i>C9</i> . Features include fireplace, flagged and brick flooring and access to <i>Court 3</i>
<i>R6</i>	3	Located to east of <i>R5</i> . Includes flagged floor and single-skin partitions
<i>R7</i>	3	Located to north of <i>R6</i> . Features include flagged floor, doorway, and staircase
<i>R8</i>	3 and 5	Located to south of <i>R5</i> and <i>R6</i> . Dwelling removed during Phase 5 remodelling of Court 2. Contains <i>P5</i>
<i>R9</i>	3	Located to east of <i>R8</i> . Features include flagged floor
<i>R10</i>	3	Only surviving element 2.10 x 0.23m (north-south) foundation wall
<i>R11</i>	3	Fragmentary remains. Features include fireplace and bedding layer for a floor
<i>R12</i>	3	Single-depth tenement
<i>R13</i>	3 and 5	Single-cell tenement, later remodelled
<i>R14</i>	3 and 5	Located to west of <i>R13</i> . Remodelled tenement. Features include flagged floor and <i>P2</i>
<i>R15</i>	2	Located to east of <i>R17</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R16</i>	2	Located to north of <i>R15</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R17</i>	2	Located to east of <i>R19</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R18</i>	2	Located to north of <i>R17</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R19</i>	2	Located to west of <i>R17</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R20</i>	2	Located to north of <i>R19</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R21</i>	2	Located to east of <i>R15</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R22</i>	2	Located to east of <i>R16</i> . Back-to-back tenement. Contains fireplace and stairwell/cupboard
<i>R23</i>	3	Located to south of <i>R12</i> . Partial remains of single-depth tenement
<i>Y1</i>	5	Located to north-east of <i>P4</i> . Trapezoidal yard
<i>Y2</i>	5	Located to north-west of <i>P4</i> . Trapezoidal yard

Entity/Context	Phase	Description
<i>Y3</i>	5	Located to south of <i>R21</i> . Trapezoidal yard
<i>Y4</i>	5	Located to south of <i>R15</i> . Trapezoidal yard. Contains earlier structure <i>2005</i>
<i>Y5</i>	5	Located to south of <i>R17</i> . Trapezoidal yard

A.1.2 Plot 3

Entity/Context	Phase	Description
<i>3000</i>	Modern	Gravel
<i>3001</i>	Modern	Demolition rubble/backfill
<i>3002</i>	-	Redeposited natural clay
<i>3003</i>	3	Cobbled road surface of Holden Street with intact kerbstones and pavement
<i>3004</i>	3 and 4	Located to west of <i>R13</i> and <i>R14</i> . An outshut that was later converted into a privy
<i>C1</i>	3	Cellar of The Derby Arms public house. Contains fagged floor and blocked doorway to east
<i>C2</i>	3	Located to east of <i>C1</i> . Contains flagged floor, blocked doorways, and a (Phase 4) partition
<i>C3</i>	3	Located to south of <i>C2</i> . Contains blocked doorway to east. Not fully excavated
<i>C4</i>	2	Located to north of <i>R5</i> . Remodelled back-to-back tenements. Contains internal partition and fireplace
<i>C5</i>	2	Located to north of <i>C4</i> . Remodelled back-to-back tenements. Contains internal partition and fireplace
<i>C6</i>	2	Located to north of <i>C5</i> . Remodelled back-to-back tenements. Contains internal partition and flagged floors
<i>C7</i>	3 and 5	Located to south of <i>R15</i> (<i>Y6</i>). Single-depth tenement. Contains flagged floor and fireplace. Eastern and western walls were rebuilt during Phase 4
<i>C8</i>	3	Located to south of <i>C7</i> . Single-depth tenement. Contains flagged floor, fireplace, and remodelled entrance
<i>R1</i>	3	Remodelled back-to-back tenements. Contains a fireplace
<i>R2</i>	3	Located to north of <i>R1</i> . Remodelled back-to-back tenements. Contains internal partition and fireplace
<i>R3</i>	3	Located to north of <i>R2</i> . Remodelled back-to-back tenements. Contains internal partition and fireplace.
<i>R4</i>	3	Located to north of <i>R3</i> . Remodelled back-to-back tenements. Contains internal partition, fireplace and staircase/cupboard
<i>R5</i>	3	Located to north of <i>R4</i> . Remodelled back-to-back tenements. Contains internal partition
<i>R6</i>	3	Located to west of Holden Street (northern edge of excavation). Contains flagged/brick floor and staircase

Entity/Context	Phase	Description
R7	3	Located to west of R6 . Remodelled tenement. Contains brick floor and staircase/cupboard
R8	3	Located at north-west edge of excavation. Remodelled tenement. Contains flagged floor and staircase
R9	3	Located to south of R8 . Heavily truncated tenement. Contains fireplace and flagged floor
R10	3	Located to south of R9 . Eastern elevation and entrance with Phase 5 blocking wall
R11	3	Located to south of R10 . Comprises eastern elevation, blocked cellar entrance
R12	3-5	Located to south of C8 . Remodelled tenement. Contains fireplace. Northern corner rebuilt in Phase 3. Contained Phase 4 yard boundary
R13	3 and 5	Located to south of R12 . Contains fireplace and Phase 5 yard boundary
R14	3 and 5	Located to north of C2 . Contains fireplace and Phase 5 yard boundary
P1	5	Water closet in Y7
P2	5	Water closet in Y7
Y1	5	Located to west of R1 . Contains privy and flagged floor. Covers the western end of earlier back-to-back
Y2	5	Located to west of R2 . Contains privy. Covers the western end of earlier back-to-back and contains remains of its fireplace
Y3	5	Located to west of R3 . Contains privy. Covers the western end of earlier back-to-back and contains remains of its fireplace
Y4	5	Located to west of R4 . Contains privy. Covers the western end of earlier back-to-back
Y5	5	Located to west of R5 . Covers the western end of earlier back-to-back
Y6 (redesignated as R15)	3 and 5	Located to south of R6/7 . Single-depth building that expanded in Phase 5
Y7	5	Located between Rooms 7 and 8 . Yard area containing P1 and P2

A.1.3 Plot 5

Entity/Context	Phase	Description
5001	Modern	Gravel/Concrete
5002	Modern	Demolition rubble/backfill
5003	-	Redeposited natural clay
5004	4	Located to south of 5006 . Part of privy block
5005	3	Cobbled road surface of Back Old Mount Street
5006	4	Located to north of 5004 . Part of privy block. Overlying 5007
5007	3	Located to east of 5006 . Privy below 5006
C1	1, 3, and 5	Located to north of R7 . Contains fireplace and blocked doorway, and Phase 5 concrete floor. Internally remodelled in Phase 3
C2	1, 3, 4, and 5	Located to north of C1 . Contains brick/flag floor, blocked doorway and brick drain. Internally remodelled in Phases 3 and 4. Rear wall rebuilt in Phase 5
C3	1	Located to north of C2 . Contains brick floor, blocked doorway and cellar light
C4	1	Located to north of C3 . Contains brick floor, fireplace, and blocked doorway and cellar light
C5	1, 3, and 4	Located to south of C6 . Contains partial brick floor and blocked doorways. Internally remodelled in Phase 3 and external wall strengthened in Phase 4
C6	1 and 4	Located to north of C5 . Contains blocked doorway, fireplace, and Phase 4 pot boiler. External wall strengthened in Phase 4
C7	1 and 5	Located to north of C6 . Contains blocked doorway and fireplace. External wall strengthened in Phase 5
C8	1 and 5	Located to north of C7 . Contains blocked doorway and fireplace. Internally remodelled in Phase 5
C9	1	Located to north of C8 . Contains brick floor, and blocked doorway and cellar light
C10	1 and 4	Located to north of C9 . Contains fireplace, 2x brick floor, blocked doorway/cellar light. External wall rebuilt in Phase 4
C11	1, 4, and 5	Located to north of C10 . Contains fireplace, blocked doorway/cellar light. External wall rebuilt in Phase 4; fireplace added in Phase 5
R1	3B	Single-depth building
R2	5	Part of a large building; contains a fireplace
R3	-	N/A
R4	4 and 5	Rear element of Phase 5 double-depth property. Crossed by earlier (Phase 4) privy block
R5	4 and 5	Rear element of Phase 5 double-depth property. Crossed by earlier (Phase 4) privy block
R6	1	Located at edge of excavation
R7	1	Located to north of R6 . Contains fireplace
Y1	5	Located to north of R1 . Contains water closet

Y2	5	Located to north of Y1 . Contains water closet
Y3	5	Located to north of Y2 . Contains water closet
Y4	1 and 4	Located to east of R6 . Has Phase 1 rear wall and Phase 4 side walls, flagged floor and privy
Y5	1 and 4	Located to north of Y4 . Has Phase 1 rear wall and Phase 4 side walls, flagged floor and privy
Y6	1 and 4	Located to north of Y5 . Has Phase 1 rear wall and Phase 4 side walls, flagged floor and privy
Y7	1 and 4	Located to north of Y6 . Has Phase 1 rear wall and Phase 4 side walls, flagged floor and privy
Y8	1 and 4	Located to north of Y7 . Has Phase 1 rear wall and Phase 4 side walls, flagged floor and privy
Y9	1 and 4	Located to north of Y8 . Has Phase 1 rear wall and Phase 4 side walls, flagged floor and privy
Y10	1	Badly disturbed
Y11	1	Badly disturbed
Y12	1	Badly disturbed
Y13	1 and 4	Located to east of C8 . Has Phase 1 rear and side walls and Phase 4 flagged floor and privy
Y14	1 and 4	Located to east of C9 . Has Phase 1 rear and side walls and Phase 4 flagged floor and privy
Y15	1, 3, and 4	Located to east of C10 . Has Phase 1 rear wall, and Phases 3 and 4 privies
Y16	1 and 4	Has Phase 1 rear wall and Phase 4 side walls and privy

APPENDIX B 1851 CENSUS FOR OLD MOUNT STREET

Inhabited	Name	Age	Male	Female	Occupation
1	James Barns	30	X		Cotton weaver handloom
	Mary Barns	30		X	Cotton weaver powerloom
	James Barns	5	X		
	Thomas Barns	2	X		
2	Thomas Palmer	36	X		Cotton weaver handloom
	Margaret Palmer	34		X	Housekeeper
	James Palmer	9	X		Scholar
	Joan Palmer	6		X	Scholar
	Esther Palmer	2		X	
	Esther Floy	56		X	Cotton winder
	Edward Harris	30	X		Cotton weaver handloom
	Michael Martin	22	X		Cotton weaver handloom
	Margaret Fitzpatrick	25		X	Cotton winder
2	Mary Taylor	80		X	Parish Pauper Housekeeper
	Mary Spears	56		X	Seamstress
	Margaret Spears	19		X	Stock maker
	Catherine Spears	12		X	Stock maker
2	Bridget Cavill	50		X	Housekeeper
	Jones Cavill	26	X		Small man hawker
	Ellen Cavill	14		X	Small man hawker
	Sarah Cavill	8		X	
	Michael Jones	26	X		Bricklayer labourer
	Margaret Jones	22		X	Stay finisher
	Martha Jones	4		X	
	Esther Conley	25		X	Hawker small houses
	James Bankes	43	X		Rope hawker
2	Edward Lynn	52	X		Bricklayer labourer
	Sarah Lynn	52		X	
	Mary Lynn	38		X	Mat maker
	Winifred Lynn	13		X	
	Patrick Lynn	17	X		Strong hawker
	James Lynn	14	X		
	William Ludlow	31	X		Cotton weaver factory
	Mary Ludlow	26		X	
	James Ludlow	10	X		
	Henry Ludlow	55	X		
	Michael Dougan	22	X		Bricklayer labourer
	Eliza Dougan	26		X	Sewer
	Catherine Dacey	5		X	
	John Dacey	3	X		
	Ellen Ludlow	2		X	

Inhabited	Name	Age	Male	Female	Occupation
	Mary Ludlow	5m		X	
2	Patrick Lynch	42	X		Cotton weaver
	Mary Lynch	42		X	
	Daniel Lynch	19	X		Cotton weaver
	John Lynch	17	X		Cotton weaver
	Catherine Lynch	14		X	Cotton weaver
	Elizabeth Lynch	10		X	Scholar
	Mary Ann Lynch	7		X	Scholar
	Sarah Lynch	5		X	Scholar
	Edward Lynch	1	X		
	Peter McDonald	40	X		Cotton weaver
2	Joseph Austin	49	X		Cotton weaver
	Mary Austin	38		X	Cotton weaver
	Catherine Austin	12		X	
	Joseph Austin	10	X		Scholar
	James Austin	6	X		Scholar
	Mary Ann Austin	3		X	
4	Thomas Foy	37	X		Cotton weaver
	Mary Foy	35		X	Cotton weaver
	Anne Foy	9		X	
	Honora Foy	7		X	
	Mary Foy	3		X	
	Thomas Hanibin	56	X		Cotton weaver
	John Man	37	X		Cotton weaver
	Michael Freeman	32	X		Cotton weaver
	John Conroy	45	X		Cotton weaver
	Thomas McCabe	40	X		Cotton weaver
	Ann Flynn	50		X	Cotton winder
	Ellen Hogan	23		X	Cotton winder
5	John Gilboro	36	X		Tailor
	Mary Gilboro	36		X	Housekeeper
	Mary Gilboro	14		X	Cotton spinner
	Thomas Gilboro	12	X		
	John Gilboro	7	X		
	William Gilboro	5m	X		
	Mary McGowan	14		X	
	Margaret McGowan	12		X	
	Catherine McGowan	5		X	
5	John Healey	48	X		Powerloom weaver cotton
	Mary Healey	46		X	
	John Healey	14	X		Scholar
	Thomas Healey	8	X		
5	Jeremiah Grimlon	38	X		Hand weaver cotton

Inhabited	Name	Age	Male	Female	Occupation
	Mary Grimlon	40		X	Hawker
5	Michael Lynch	45	X		Belt-brace maker
	Peter Lynch	18	X		Brace maker
	James Lynch	14	X		Carter
	Theresa Lynch	11		X	
	John Lynch	8	X		Scholar
	Sarah Ann Lynch	4		X	Scholar
6	Henry Burns	40	X		Cotton weaver
	Jane Burns	38		X	Cotton weaver
	Thomas Burns	4	X		Cotton weaver [sic]
	William Burns	2	X		Cotton weaver [sic]
	Timothy Burns	8m	X		
	John Fitzpatrick	37	X		Cotton weaver
	Thomas Flannagan	26	X		Cotton weaver
	Edward Flannagan	16	X		Cotton weaver
	John Flannagan	14	X		Cotton winder
	Mary Beregán	40		X	Cotton winder
	Eliza Keeman	24		X	Cotton winder
	Honora Doyle	40		X	Cotton winder
6	John Shields	25	X		Cotton weaver
	Ellen Shields	25		X	Plain servant
	Dougal Shields	5	X		
	David Shields	3	X		
	Isabella Shields	1m		X	
	Elizabeth Tayler	50		X	Cotton winder
	Hannah Tayler	11		X	Cotton winder
	Catherine Kennard	24		X	Plain sewer
7	Thomas Baxter	69	X		Silk weaver
	William Baxter	30	X		Whip maker
	John Jenkinson	41	X		Shoe maker
	Mary Jenkinson	36		X	
	Patrick Harrington	32	X		Cotton weaver
	Theresa Harrington	30		X	Cotton weaver
	Ellen Harrington	10		X	
	Dennis Harrington	8	X		
	Edward Harrington	5	X		
	Mary Harrington	2		X	
	Sarah Guildford	39		X	Silk winder
	Mary Guildford	16		X	Powerloom weaver cotton
	John Guildford	13	X		Cotton-cap carrier
	Caroline Guildford	11		X	Silk piecer
	Thomas Guildford	8	X		Scholar
	George Guildford	6	X		Scholar
8	John Connor	48	X		Cotton weaver

Inhabited	Name	Age	Male	Female	Occupation
	Bridget Connor	47		X	Cotton weaver
	James Connor	16	X		Cotton weaver
	Joseph Connor	14	X		Scholar
	Mathew Connor	9	X		Scholar
9	Catherine Dinan	36		X	Shop keeper
	Frances Dinan	11		X	
	Jeremiah Dinan	5	X		
	Mary Dinan	3		X	
	Michael Mahoney	30	X		Cotton weaver
	Johanna Mahoney	32		X	Cotton weaver
	Terence Mahoney	9m	X		
	John Brook	30	X		Cotton weaver
	Margaret Brook	25		X	Cotton weaver
	Edward Daly	50	X		Cotton weaver
	Patrick Flood	26	X		Scale maker
	Margaret Flood	26		X	Cotton weaver
	Eliza Flood	12		X	
	John Flood	7	X		
	Peter Flood	5	X		
	Patrick Flood	2	X		
10	Michael Daley	54	X		Cotton weaver
	Thomas Daley	15	X		Cotton weaver
	Ellen Daley	14		X	Cotton weaver
	Honora Daley	7		X	
	Ann Daley	20		X	Cotton winder
	Charles Daley	38	X		Cotton weaver
	Mary Daley	28		X	Cotton winder
	John Daley		X		
	Mary Daley			X	
	Bridget Forrest	21		X	Cotton winder
	Mary Ann Byrnes	19		X	Cotton weaver
11	John Crawford	50	X		Cotton weaver
	Ann Crawford	55		X	
	Catherine Crawford	24		X	
	Sarah Crawford	22		X	
	Daniel Lynch	54	X		Cotton weaver
	Patrick Mullins	50	X		Cotton weaver
	Thomas Conway	42	X		Cotton weaver
	Richard Power	42	X		Cotton weaver
	Rosamond Power	56		X	
	Patrick Power	7	X		
11	Patrick Galaghie	36	X		Cotton weaver
	Ann Galaghie	35		X	Cotton weaver
	Peter Foyce	60	X		Cotton weaver

Inhabited	Name	Age	Male	Female	Occupation
	Bernard Barrett	35	X		Cotton weaver
12	James Hales	60	X		Cotton weaver
	Michael Hales	27	X		Cotton weaver
	Donald Hales	22	X		Cotton weaver
	James Hales	22	X		Cotton weaver
	Mary Ann Hales	18		X	Cotton weaver
	Martha Hales	16		X	Cotton winder
	Ellen Hales	12		X	Cotton winder
	Frances Rooney	40			Cotton weaver
13	James Stack	38	X		Cotton weaver
	Mary Stack	40		X	Cotton winder
14	John Buckell	36	X		Cotton weaver
	Bridget Buckell	36		X	Cotton weaver
14	Daniel Curran	33	X		Cotton weaver
	Margaret Curran	29		X	Cotton winder
	Peter Curran	13	X		Cotton winder
15	Daniel Calaghan	54	X		Cotton weaver
	Esther Calaghan	50		X	
	Martin Bryan	14	X		
	John Bryan	13	X		
	Catherine Bryan	11		X	
15	John Byrne	59	X		Cotton warper
	Sarah Byrne	65		X	
	Francis Byrne	24			Silk weaver
	Mary Ann Byrne	27		X	Silk winder
	Elizabeth Ann Byrne	3		X	
	Thomas Tool	35	X		Wool carder
	Bridget Tool	42		X	Silk winder
	Edward Tool	13	X		Servant labourer
	Joshua Tool	9	X		
	Andrew Gallagher	46	X		Silk weaver
	Mary Gallagher	32		X	Charwoman
	Susan McCabe	46		X	Old clothes dealer
	Patrick McCabe	16	X		Tobacco-pipe maker
	Ellen Freney	44		X	Cotton weaver
	Mary Freney	19		X	Cotton weaver
	Dennis Freney	17	X		Cotton weaver
	Thomas Griffin	42	X		Cotton weaver
	Isaac Griffin	14	X		Cotton weaver
15	Mathew Evans	66	X		Cotton weaver
	Ellen Evans	50		X	Silk winder
	Eliza Evans	18		X	Powerloom weaver cotton
	Ellen Evans	16		X	Powerloom weaver cotton
	Dorcas Evans	14			Cotton spinner

Inhabited	Name	Age	Male	Female	Occupation
15	Frances Evans	10			
	James Voker	16	X		Doffer Throstles
	John Bradley	48	X		Cotton weaver hand
	Bridget Bradley	43		X	Cotton weaver hand
	Joseph Bradley	25	X		
	Elizabeth Bradley	13		X	Helper to power-loom weaver
	Michael Bradley	10	X		Cotton winder
16	Thomas Bradley	7	X		Scholar
	Michael Nolan	48	X		Cotton weaver
	Mary Nolan	46		X	Cotton weaver
	Michael Nolan	21	X		Cotton weaver
	John Nolan	18	X		Cotton weaver
	Andrew Nolan	14	X		Cotton weaver
	Thomas Nolan	9	X		Scholar
17	Pierce Nolan	7	X		Scholar
	Patrick Daley	40	X		Scholar [<i>sic</i>]
	Margaret Daley	34		X	Cotton weaver
	Owen Daley	9	X		
	Charles Daley	8	X		
	Mary Daley	7		X	
	Mathew Daley	6	X		
	Catherine Daley	4		X	
	Margaret Daley	9m		X	
	Catherine Cacoian	44		X	General servant
	Bridget Burn	18		X	
	Cornelius Raylor	12	X		Cotton weaver
	John Burns	22	X		Cotton weaver
	Willima Cummor	20		X	Cotton weaver
17	John Carroll	30	X		Cotton weaver
	George Foy	38	X		Cotton weaver
	Sarah Foy	29		X	Cotton weaver
	Sarah Jane Foy	14		X	
18	Mary Jane Foy	7		X	
	Timothey Coffey	57	X		Cotton weaver
	Ann Coffey	58		X	Cotton weaver
	William Horan	50	X		Cotton weaver
	John Martin	22	X		Cotton weaver
	Patrick Breedy	42	X		Cotton weaver
	Mary McGinscof	40		X	Cotton weaver
18	Johanna Tayler	30		X	Cotton weaver
	Patrick Turnern	35	X		Farm Labourer
	Ann Turnern	36		X	Plain sewer
	John Turnern	9	X		
18	Michael Turnern	7	X		

Inhabited	Name	Age	Male	Female	Occupation
	Patrick Turnern	5	X		
	Thomas Turnern	2m	X		
19	Charles Jones	57	X		Silk weaver
	Margaret Jones	47		X	Silk winder
	Margaret Jones	14		X	Silk winder
	Rebecca Jones	12		X	
	Tereasa Jones	6		X	
	Mary Clark	12		X	Silk winder
	Joseph Lynam	20	X		Carpenter
19	Joseph Haw	50	X		Cotton weaver
	Ann Haw	40		X	Silk winder
	Mary Haw	14		X	Silk winder
	Thomas Haw	9	X		
19	James Thorpe	26	X		Silk weaver
	Eliza Thorpe	28		X	Silk powerloom
	Stephen Thorpe	5	X		
	John Thorpe	2	X		
19	Thomas Patterson	52	X		Cotton weaver
	Eliza Patterson	50		X	charwoman
	John Patterson	14	X		Helper to powerloom weaver
	Ellen Conway	36		X	Cotton winder
	Thomas Conway	6	X		
20	John Mcallister	47	X		Silk weaver
	Mary Mcallister	47		X	Silk winder
	Ellen Roach	30		X	servant
	Joseph Roach	5	X		
20	John Carroll	29	X		Silk weaver
	Mary Carroll	28		X	
	Martha Carroll	5		X	
	Mary Ann Carroll	2		X	
	Margaret Carroll	3m		X	
	Joseph Carroll	16	X		Errand boy
21	Mark Kelly	40	X		Cotton weaver
	Jane Kelly	44		X	Cotton weaver
	Mark Kelly	25	X		
	James Kelly	13	X		
	George Kelly	14	X		
	Thomas Kelly	7	X		
	Mary Jane Kelly	1		X	
	William Cinoley	21	X		Cotton weaver
	Daniel Cinoley	25	X		Cotton weaver
	Maria Rodgers	20		X	Cotton weaver
	Mary Ann Brown	20		X	Cotton weaver
	Honora Edgar	39		X	Sack binder

Inhabited	Name	Age	Male	Female	Occupation
	John Edgar	6	X		Sack maker [sic]
	Daniel Edgar	13	X		
21	John Yates	34	X		Cotton weaver
	Martha Yates	37		X	
	Ann Yates	9		X	
	John Yates	3		X	
	Ellen Yates	9m		X	
	Mary Kelly	33		X	
	Mary Kelly	15		X	
22	William Murphy	43	X		Cotton weaver
	Margaret Murphy	40		X	Cotton weaver
	Catherine Murphy	19		X	Cotton weaver
	Mary Ann Murphy	16		X	Cotton weaver
	Ellen Murphy	8		X	
	Agnes Murphy	3		X	
	John Murphy	2	X		
22	James Healey	27	X		Shoe maker
	Catherine Healey	23		X	Binds shoes
	John Healey	4	X		
	Maria Healey	1m		X	
22	Charles Palmer	40	X		Cotton weaver
	Ellen Palmer	40		X	Cotton weaver
	William Palmer	13	X		Cotton weaver
	Jane Palmer	8		X	
	Edward Palmer	6	X		
	Teresa Palmer	4		X	
	James Palmer	2	X		
22	Ellen Agnew	70		X	Cotton winder, pauper
22	Ann Downs	56		X	Cotton winder
	Patrick Downs	20	X		carpenter
	Martin Downs	18	X		Cotton weaver
	Thomas Downs	16	X		Cotton weaver
	Sarah Downs	34		X	Dressmaker
	Mary Ann Downs	5		X	
	Sarah Evans	60		X	Cotton winder
	Honora Ryon	40		X	Dressmaker
23	James Oleary	40	X		Cutter
	Mary Oleary	42		X	
	Hannah Oleary	3		X	
	Mary Oleary	1		X	
	Timothy Oleary	14	X		
	James Okeafe	38	X		Cotton weaver
	Mary Okeafe	38		X	Cotton winder
	John Okeafe	14	X		Cotton weaver

Inhabited	Name	Age	Male	Female	Occupation
	Mary Gallagher	40		X	Fustian Cutter
	John Gallagher	46	X		Fustian Cutter
	Patrick Gallagher	12	X		Fustian Cutter
	Teresa Gallagher	18		X	
	Joseph Gallagher	7	X		
23	John Barry	46	X		Cotton weaver
	John Barry	18	X		Cotton weaver
	Ann Barry	10		X	Cotton winder
	William Barry	5	X		
24	David Cunningham	49	X		Cotton winder
	Frances Cunningham	68			Cotton winder
	Sarah Barry	3		X	
	Bartholomew Sweeney	64	X		Cotton weaver
24	Daniel Healey	22	X		Shoemaker
	Mary Ann Healey	22		X	
	Ellen Healey	2		X	
	Margaret McGinness	50		X	Pauper
25	Mary Oliver	70		X	
	Catherine Oliver	32		X	Plain sewer
	Catherine Curran	27		X	Hawker
	Jane Curran	31		X	Hawker
	Margaret James	48		X	Hawker
25	Patrick Docan	30	X		Powerloom weaver cotton
	Margaret Docan	24		X	Powerloom weaver cotton
	Ellen Docan	4		X	
	John Docan	2	X		
25	John Ryan	39	X		Hand weaver cotton
	Harriet Ryan	38		X	Hand weaver cotton
	Margaret Ryan	15		X	Hand weaver cotton
	John Ryan	4	X		
	James Ryan	2	X		
25	Thomas Armstrong	56	X		Hand weaver cotton
	Robert Armstrong	23	X		Hand weaver cotton
	Jane Armstrong	21		X	Powerloom weaver cotton
	Ann Armstrong	10m		X	
	Bridget Deniegh	40		X	Sorter of woollen ropes
	Margaret Thorp	16		X	Cotton weaver
	Winifred Sparks	60		X	Pauper
	Mary Ann Regan	10		X	
25	Michael Hays	44	X		Cotton weaver
	Margaret Hays	45		X	Cotton winder
	Catherine Hays	13		X	

Inhabited	Name	Age	Male	Female	Occupation
	Mary Hays	12		X	
	John Hays	6	X		
26	Thomas Hinnley	49	X		Cotton weaver
	Honora Hinnley	49		X	Cotton weaver
	Michael Hinnley	21	X		Cotton weaver
	John Hinnley	19	X		Cotton weaver
	Harrison Hinnley	15			Cotton weaver
	James Hinnley	9	X		Scholar
	Martin Hinnley	5	X		
	William Hinnley	2	X		
	Patrick Quinn	38	X		Cotton weaver
26	Michael Donovan	37	X		Cotton weaver
	Catherine Donovan	28		X	
	John Donovan	5	X		
27	James Eagan	54	X		Cotton weaver
	Rosamond Eagan	64		X	
	Edward Jones	19	X		Cotton weaver
	Edward Shannon	32	X		Carpenter
	Ann Shannon	7		X	
28	Lawrence McNamara	45	X		Cotton weaver
	Bridget McNamara	42		X	Cotton weaver
	James McNamara	21	X		
	Sarah McNamara	19		X	Cotton weaver
	John McNamara	14	X		Cotton weaver
	Mary McNamara	15		X	Cotton weaver
	Honora McNamara	9		X	
	Mathew Carrigan	24	X		Bolt and screw maker
	Anne Carrigan	24		X	Piercer in a cotton factory
	James Collins	38	X		Cotton weaver
	Hannah Collins	14		X	
	Margaret Collins	7		X	
	John Collins	12	X		
28	James Flynn	44	X		Cotton weaver
	Mary Ann Flynn	54		X	
	William Flynn	21	X		Frame labourer
	Catherine Flynn	18		X	Cotton weaver
	Margaret Flynn	11		X	
	Agnes Flynn	8		X	Scholar
	Louisa Flynn	3		X	
	Mary Ann Flynn	15		X	Cotton doffer
	James Flynn	1	X		
29	Anthony Kerley	66	X		Cotton weaver
	Jeremiah Kerley	50	X		Cotton weaver

Inhabited	Name	Age	Male	Female	Occupation
	Mary Kerley	15		X	General servant
	Henry McDermott	28	X		Bricklayer labourer
	Ann McDermott	27		X	
	Mary McDermott	6		X	
	John McDermott	3	X		
	Michael McLouy	51	X		Bricklayer labourer
	Michael McDermott	8	X		
	Betty Kealey	60		X	Reeler cotton
	Mary Ward	9		X	Reeler cotton
	Kitty Thorne	50		X	
	Mary Fletcher	20		X	Hawker
29	Timothy Murphy	60	X		Cotton weaver
	Catherine Murphy	45		X	Cotton winder
	Jeremiah Murphy	17	X		Cotton weaver
	Margaret Murphy	15		X	Cotton winder
	Elizabeth Murphy	8		X	
	Ann Murphy	6		X	
	Timothy Murphy	4	X		
30	Catherine Murphy	11		X	
	Patrick Rourke	54	X		Cotton weaver
	Teresa Rourke	50		X	Cotton winder
	Mary Ann Rourke	26		X	cotton doubler
	Frances Rourke	25			Cotton weaver
	Catherine France	27		X	Silk winder
	William France	25	X		Frame labourer
31	Patrick France	74	X		Formerly weaver pauper
	David Mangle	48	X		Cotton weaver
	Sarah Mangle	45		X	Cotton weaver
	Catherine Mangle	17		X	Cotton weaver
	Thomas Mangle	15	X		Cotton weaver
	Mary Mangle	8		X	Scholar
	David Mangle	5	X		Scholar
31	Catherine Murphy	55		X	
	Betty Murphy	25		X	Powerloom weaver cotton
	Timothy Murphy	22	X		Powerloom weaver cotton
	Charles Murphy	8	X		Powerloom weaver cotton
	Mary Gould	54		X	General servant
	James Davis	17	X		Powerloom weaver cotton
32	David Connor	40	X		Cotton weaver
	Ellen Connor	37		X	Cotton weaver
	John Connor	9	X		
	Mary Connor	7		X	
	James Quinn	10	X		Cotton weaver
	Edward Kelly	42	X		Cotton weaver

Inhabited	Name	Age	Male	Female	Occupation
32	Patrick Banner	40	X		Maker foot mats
	Bridget Banner	40		X	Hawker foot mats
	James Banner	13	X		Hawker foot mats
	Mary Banner	11		X	Hawker foot mats
	Margaret Banner	9		X	
	Bridget Banner	7		X	
	Edward Banner	5	X		
	Patrick Banner	4	X		
32	Morris Wren	57	X		Cotton weaver
	Ellen Wren	52		X	
	Ellen Wren	18		X	Cotton weaver
	Margaret Wren	17	X		Cotton weaver
	Elizabeth Wren	10		X	
	Catherine Wren	7		X	
	Ann Garin	21		X	Cotton weaver
33	Charles Reilly	60	X		Hand weaver cotton
	Catherine Reilly	57		X	Housekeeper
	Patrick Reilly	32	X		Bricklayer labourer
	Margaret Reilly	324 [sic]		X	Cotton weaver
	Thomas Murphy	35	X		Hawker
	Mary Holland	39		X	Sempstress
	Charles Barton	49	X		Cotton weaver
	Ellen Barton	52		X	Cotton weaver
	Ellen Barton	20		X	Cotton weaver
	Thomas hall	36	X		Whip maker
	Bridget hall	35		X	
	Edward hall	13	X		
	Elizabeth hall	11		X	
	Margaret hall	6		X	
	Anne hall	9m		X	
	Catherine mulligan	6		X	Scholar
	Ellen mulligan	2		X	
	Bridget mulligan	36		X	Cotton picker
	Margaret mulligan	35		X	Cotton picker
	Mary Ann Sargent	26		X	Fancy velt [sic] maker
	Catherine Ames	17		X	Assistant fancy velt [sic] maker
33	Michael Morris	43	X		Cotton weaver
	Mary Morris	34		X	Cotton winder
	Joseph Morris	14	X		
	George Morris	11	X		
	Michael Morris	8	X		
	John Morris	4	X		
	James Morris	3	X		

Inhabited	Name	Age	Male	Female	Occupation
	William Morris	3	X		
	Edward Martin	27	X		Cotton weaver
	Charles McCann	44	X		Cotton weaver
	Bridget Heys	20		X	Cotton winder
34	Robert Buttermore	40	X		Cotton weaver
	Alice Buttermore	44		X	Cotton weaver
	William Buttermore	15	X		Cotton weaver
	John Buttermore	13	X		Cotton weaver
	Elizabeth Buttermore	11		X	
	Margaret Buttermore	2		X	
36	Joseph Casanay	34	X		Master cotton weaver
	Mary Casanay	32		X	Master cotton weaver
	Patrick Grimes	40	X		Master cotton weaver
	Joseph Matthews	18	X		Master cotton weaver
	Margaret Matthews	25		X	Master cotton weaver
	Dennis Callahan	20	X		Master cotton weaver
	Henry Coats	29	X		Master cotton weaver
	Daniel Warner	30	X		Master cotton weaver
38	John Connally	41	X		Master cotton weaver
	Catherine Connally	42		X	
	John Connally	9	X		
	Terry Hurley	34	X		Cotton weaver
	John Mchonern	32	X		Cotton weaver
	Terrance Crawley	41	X		Cotton weaver
	Ennis Jackson	42			Cotton weaver
	Mary Jackson	19		X	Cotton weaver
	William Hinchie	48	X		Cotton weaver
	Edward Harrington	22	X		Cotton weaver
	Henry Mchonern	24	X		Cotton weaver
	William Elliot	21	X		Cotton weaver
40	Mary Maude	32		X	Keeps a school
	James Maude	9	X		
	Julia Fincey	60		X	Servant pauper
40	John Kelly	30	X		Cotton weaver
	Sarah Kelly	26		X	Cap maker
	James Kelly	4	X		
40	Michael Gill	46	X		Farm Labourer
	Jane Gill	41		X	
42	George O'neil	48	X		Cotton weaver
	Isabella O'neil	46		X	Cotton weaver
	Mary O'neil	9		X	Scholar
	George O'neil	1	X		

Inhabited	Name	Age	Male	Female	Occupation
42	Mary Wick	70		X	
	Thomas Wick	27	X		Cotton weaver
	Dennis Wick	24	X		Cotton weaver
	Mary Wick	20		X	Cotton weaver
	Bridget Wilson	41		X	Winds cotton
	Bridget McLoughlin	13		X	
44	Michael James	57	X		Pensioner
	Catherine James	50		X	Dress maker
	Jane James	22		X	Cotton winder
	James McNally	20	X		Cotton weaver
	Eliza McNally	18		X	Cotton weaver
	James Chandler	1m	X		
	Hannah Canoll	18		X	Cotton winder
	Ann Gallear	30		X	Rag clipper
46	Johanna Prindeble	47		X	Hawker fish
	John Prindeble	16	X		Labourer in market
	Joseph Prindeble	14	X		Labourer in market
	Mary Harrington	67		X	Cotton winder

LIST OF FIGURES

Figure 1	Site location map
Figure 2	Location of plots 2-5
Figure 3	The archaeological remains in Plot 2
Figure 4	Plot 2 phase plan
Figure 5	The archaeological remains in Plot 3
Figure 6	Plot 3 phase plan
Figure 7	The archaeological remains in Plot 5
Figure 8	Plot 5 phase plan
Figure 9	Elevations across the rear wall of Cellars C3 and C4 , and C9-11
Figure 10	Location of the NOMA and 2018 excavation areas
Figure 11	Plot 5 remains superimposed on William Green's map of 1787-94
Figure 12	Plot 5 remains superimposed on the Ordnance Survey 5ft:1mile map of 1850
Figure 13	Plot 2 and the 2012 excavation area superimposed on the Ordnance Survey 5ft:1mile map of 1850
Figure 14	Plot 3 remains superimposed on the Ordnance Survey 5ft:1mile map of 1850
Figure 15	Plot 2 and the 2012 excavation areas superimposed on the Ordnance Survey 1:2500 map of 1893
Figure 16	Plot 3 remains superimposed on the Ordnance Survey 1:2500 map of 1893
Figure 17	Plot 5 remains superimposed on the Ordnance Survey 1:2500 map of 1893
Figure 18	Plot 2 and the 2012 excavation areas superimposed on the Ordnance Survey 1:2500 map of 1908
Figure 19	Plot 3 remains superimposed on the Ordnance Survey 1:2500 map of 1908
Figure 20	Plot 5 remains superimposed on the Ordnance Survey 1:2500 map of 1908

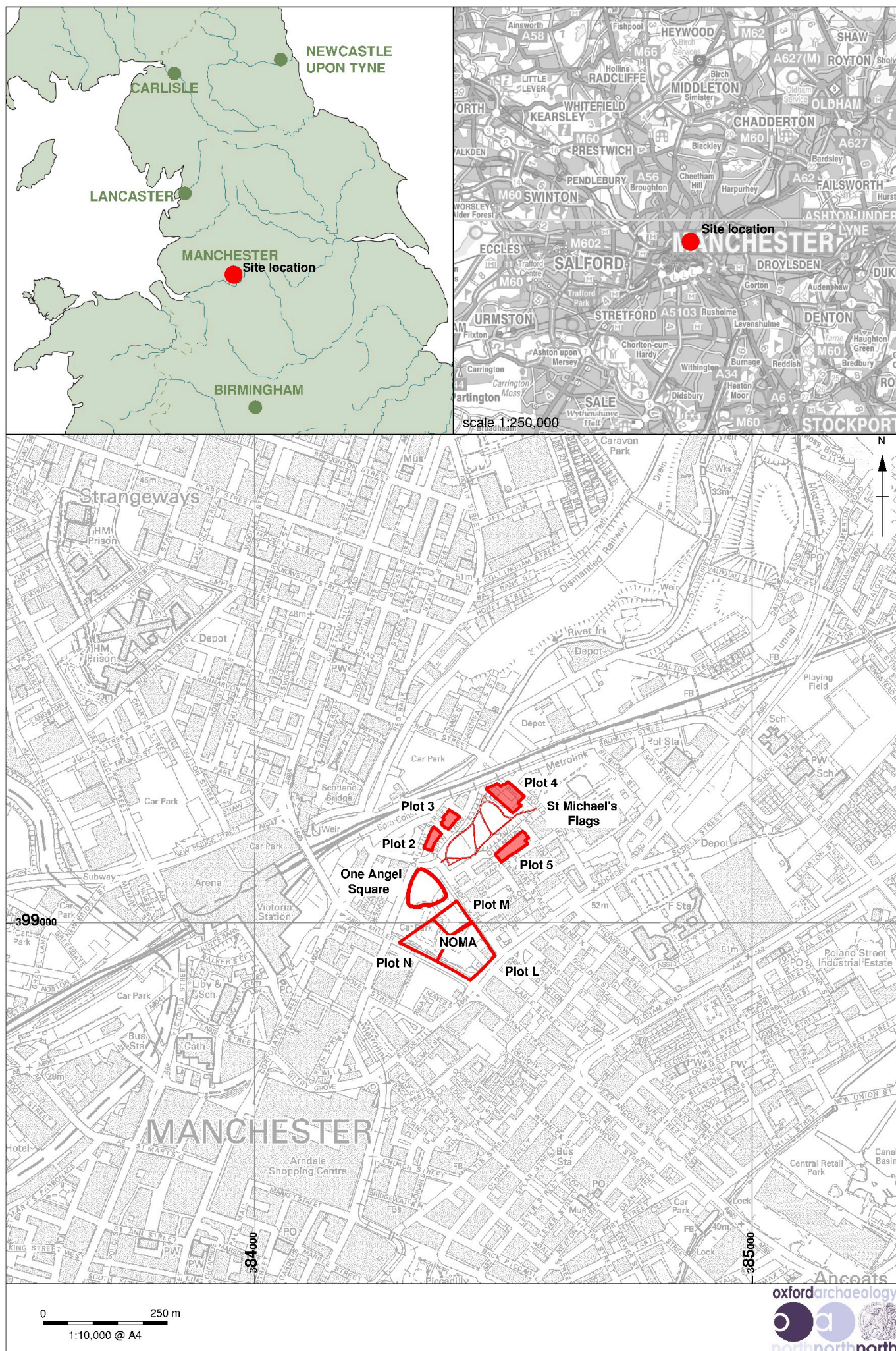


Figure 1: Site location

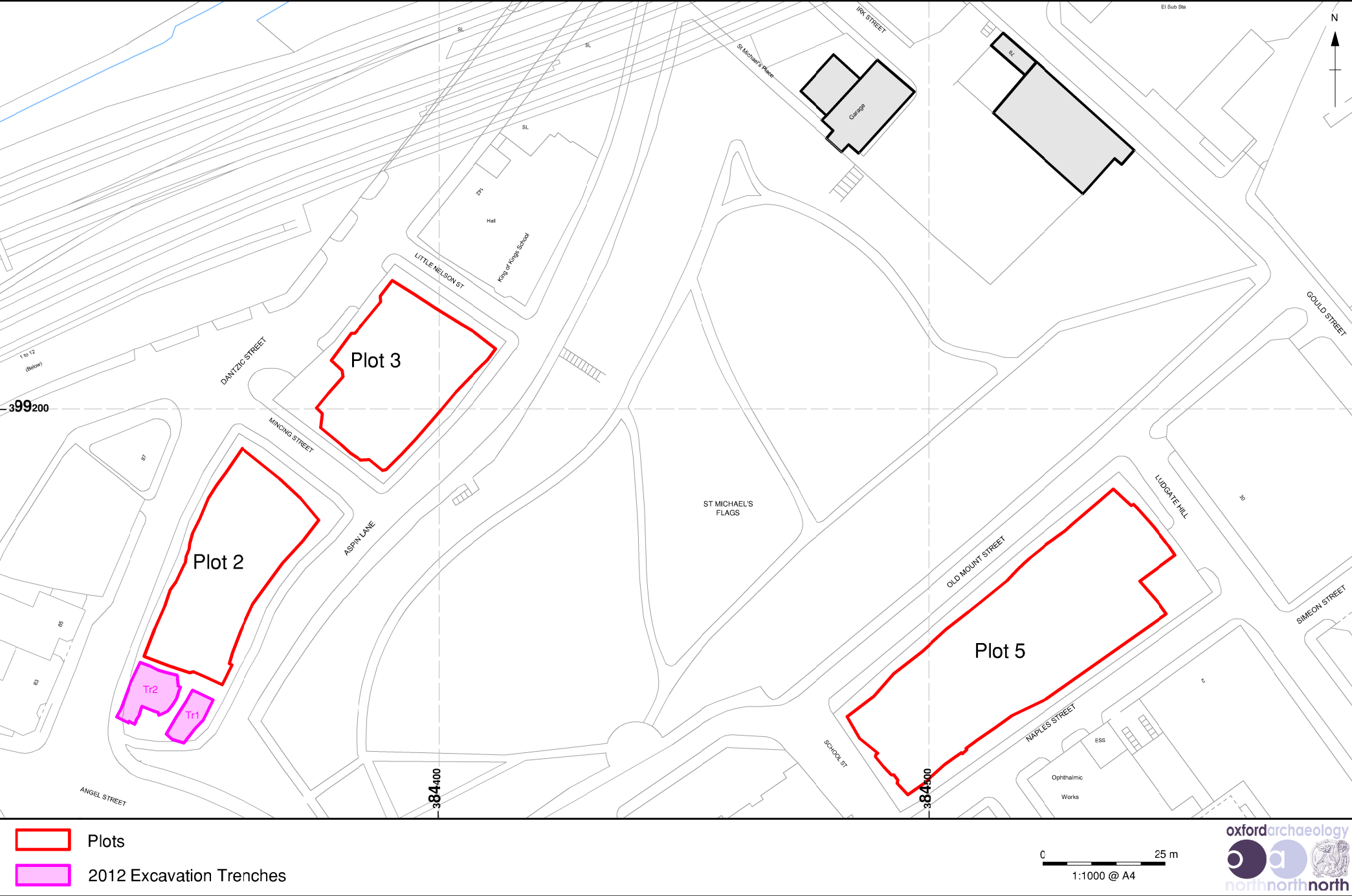


Figure 2: Location of plots 2, 3 and 5

Number	Height (mOD)	53	33.74	106	33.54	159	34.94
1	35.00	54	33.82	107	33.58	160	34.94
2	34.99	55	33.83	108	33.62	161	34.92
3	34.93	56	33.59	109	33.59	162	34.90
4	34.88	57	33.82	110	33.62	163	34.71
5	34.19	58	33.82	111	33.59	164	34.63
6	34.05	59	33.51	112	33.72	165	34.65
7	34.09	60	33.59	113	33.59	166	34.64
8	34.08	61	33.66	114	33.64	167	34.70
9	34.20	62	33.64	115	33.67	168	34.70
10	34.02	63	33.63	116	33.59	169	33.79
11	34.04	64	33.63	117	33.25	170	34.73
12	34.04	65	33.79	118	33.48	171	34.69
13	34.03	66	33.59	119	33.58	172	34.69
14	34.02	67	33.51	120	33.56	173	34.69
15	33.92	68	33.73	121	33.46	174	34.64
16	34.05	69	33.76	122	33.52	175	34.71
17	33.91	70	33.88	123	33.50	176	34.54
18	33.98	71	33.80	124	33.44	177	34.60
19	33.99	72	33.87	125	33.64	178	34.71
20	34.02	73	34.23	126	33.75	179	34.63
21	34.04	74	34.34	127	33.57	180	34.07
22	34.02	75	34.31	128	33.62	181	34.61
23	33.95	76	34.34	129	33.29	182	34.63
24	34.01	77	34.36	130	33.56	183	34.78
25	34.00	78	33.98	131	33.46	184	34.62
26	34.01	79	33.77	132	33.48	185	34.57
27	34.00	80	33.60	133	33.22	186	34.60
28	34.23	81	33.67	134	33.42	187	34.62
29	33.77	82	33.74	135	33.17	188	34.55
30	34.04	83	33.65	136	33.32	189	34.57
31	34.08	84	33.70	137	35.46	190	34.50
32	33.68	85	33.51	138	35.35	191	34.29
33	34.10	86	33.59	139	35.31	192	34.41
34	34.14	87	33.65	140	35.21	193	34.46
35	34.28	88	33.60	141	35.11	194	34.35
36	34.31	89	33.63	142	35.02	195	34.35
37	34.20	90	33.58	143	35.29	196	34.43
38	34.19	91	33.58	144	35.05	197	34.40
39	34.15	92	33.60	145	35.26	198	34.32
40	33.76	93	33.62	146	34.85	199	34.28
41	34.23	94	33.46	147	33.89	200	34.39
42	34.03	95	33.42	148	34.80	201	34.66
43	34.01	96	33.36	149	34.98	202	33.79
44	33.93	97	33.36	150	35.07	203	33.85
45	33.97	98	33.31	151	35.10	204	34.63
46	33.81	99	33.35	152	35.15	205	34.59
47	34.05	100	33.47	153	35.15	206	34.40
48	34.14	101	33.38	154	35.09	207	34.32
49	34.23	102	33.41	155	34.98	208	34.42
50	33.81	103	33.37	156	34.81	209	34.40
51	33.96	104	33.45	157	35.02	210	34.24
52	33.85	105	33.14	158	33.76	211	34.14



Number	Height (mOD)	212	34.31	265	33.67	318	34.71	371	35.05
213	33.86	266	33.88	319	35.17	372	34.93		
214	33.94	267	34.02	320	34.82	373	34.99		
215	34.36	268	33.81	321	34.72	374	34.89		
216	33.89	269	33.73	322	34.71	375	34.89		
217	35.00	270	33.72	323	33.91	376	34.89		
218	34.68	271	33.00	324	34.65	377	34.87		
219	34.35	272	34.62	325	34.65	378	33.67		
220	34.03	273	33.84	326	34.79	379	34.90		
221	33.70	274	33.79	327	35.04	380	34.99		
222	33.46	275	33.84	328	35.17	381	35.18		
223	34.27	276	33.87	329	35.22	382	34.97		
224	33.56	277	33.82	330	35.19	383	34.82		
225	33.58	278	33.90	331	35.38	384	34.89		
226	33.62	279	33.86	332	35.21	385	34.86		
227	33.57	280	34.08	333	35.28	386	34.87		
228	33.52	281	34.30	334	33.84	387	34.94		
229	33.68	282	33.87	335	35.41	388	34.85		
230	34.05	283	33.77	336	35.49	389	34.65		
231	34.31	284	33.77	337	35.41	390	34.87		
232	34.59	285	33.89	338	35.58	391	34.91		
233	35.52	286	34.56	339	35.34	392	34.92		
234	34.38	287	34.68	340	34.87	393	35.14		
235	35.25	288	34.10	341	35.34	394	35.35		
236	35.00	289	33.84	342	35.44	395	35.70		
237	34.75	290	33.91	343	35.59	396	35.78		
238	34.61	291	33.81	344	35.78	397	35.56		
239	34.38	292	33.88	345	33.95	398	34.87		
240	34.37	293	33.55	346	35.20	399	35.15		
241	33.93	294	33.90	347	35.05	400	34.47		
242	33.90	295	34.68	348	35.15	401	33.61		
243	33.95	296	34.79	349	34.87				
244	33.67	297	34.24	350	35.19				
245	34.40	298	34.82	351	35.28				
246	33.84	299	34.85	352	35.12				
247	33.84	300	34.84	353	35.38				
248	33.88	301	33.79	354	35.40				
249	33.99	302	34.05	355	35.19				
250	33.89	303	34.80	356	34.01				
251	34.29	304	34.96	357	35.13				
252	34.37	305	35.35	358	34.85				
253	34.39	306	35.31	359	35.06				
254	34.17	307	35.28	360	35.17				
255	33.99	308	35.21	361	35.00				
256	34.43	309	34.07	362	35.00				
257	33.94	310	34.08	363	35.00				
258	33.91	311	33.99	364	35.11				
259	33.71	312	33.95	365	35.00				
260	33.73	313	35.11	366	35.15				
261	33.88	314	35.01	367	33.93				
262	34.41	315	35.06	368	35.09				
263	34.46	316	35.08	369	35.00				
264	34.56	317	35.00	370	34.91				

Key

	Brick Wall
	Brick Floor
	Flag Floor
	Ceramic
	Iron

Label Key

R = Room	PC = Pail Closet
Y = Yard	WC = Water Closet
P = Privy	
C = Cellar	

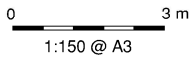


Figure 3: The archaeological remains in Plot 2



- | | |
|--|---|
| Phase-2 : 1808-18/19 | Phase-5 : 1889-1908 |
| Phase-3 : Early-Mid Nineteenth Century | Phase-6 : Twentieth Century (modern truncation) |
| Phase-4 : 1848-88 | |

0 3 m
1:150 @ A3

Figure 4: Plot 2 phase plan



Figure 5: The archaeological remains in Plot 3

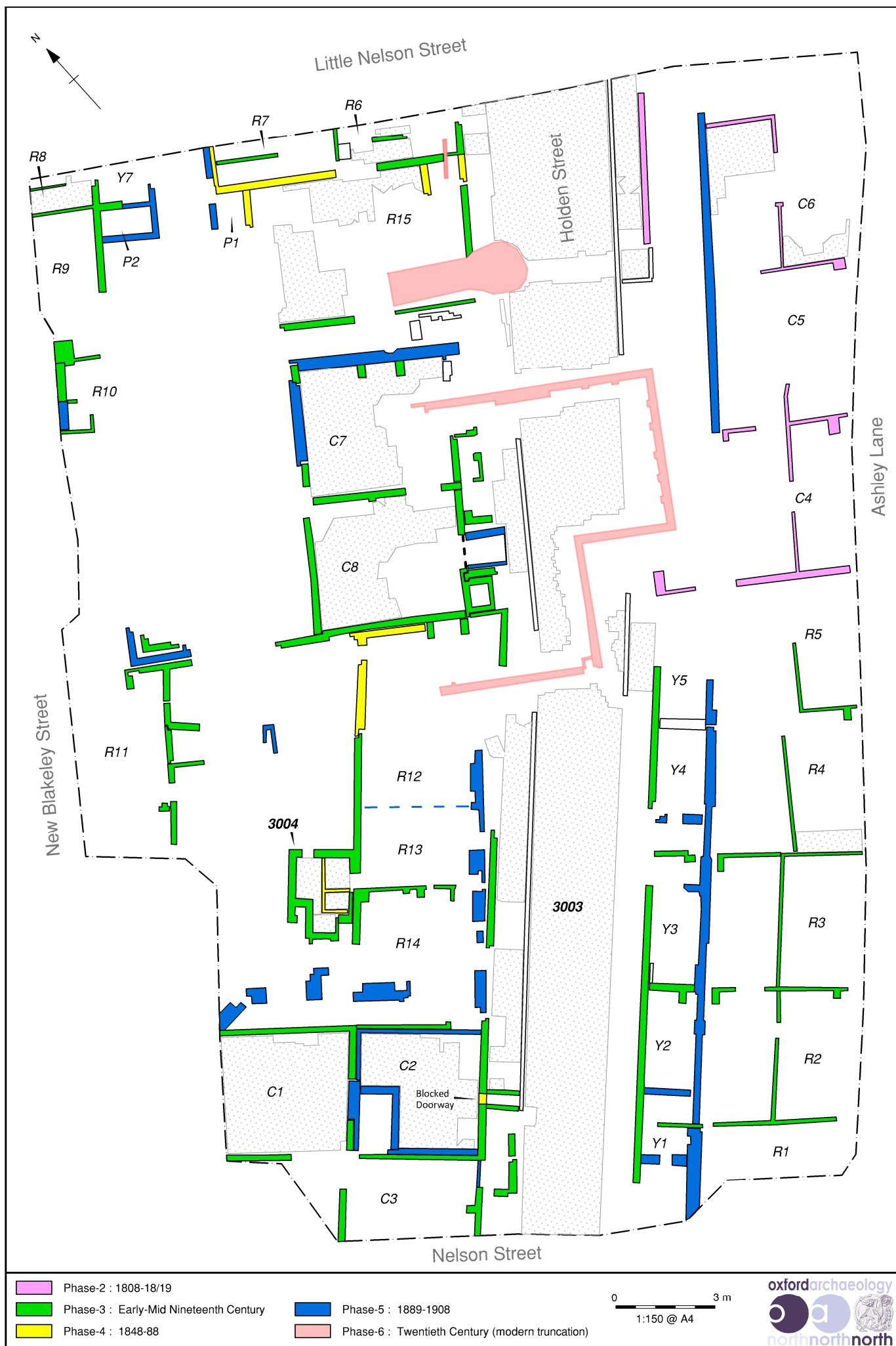


Figure 6: Plot 3 phase plan

Number	Height (mOD)						
275	43.44	330	44.21	385	44.08	440	43.08
276	43.80	331	43.78	396	43.78	441	41.86
277	43.77	332	43.41	387	43.66	442	41.64
278	43.73	333	43.49	388	44.09	443	41.88
279	43.86	334	43.55	389	43.79	444	41.98
280	43.70	335	43.58	390	44.12	445	41.97
281	43.57	336	44.17	391	43.92	446	41.96
282	43.67	337	43.98	392	44.07	447	42.10
283	43.78	338	43.73	393	43.91	448	41.96
284	43.70	339	44.22	394	44.25	449	41.95
285	43.78	340	43.73	395	44.13	450	41.99
286	43.99	341	43.42	396	44.03	451	43.02
287	43.78	342	43.41	397	43.72	452	41.84
288	43.88	343	43.20	398	44.18	453	41.73
289	44.19	344	43.23	399	44.18	454	41.90
290	43.97	345	43.03	400	44.08	455	41.92
291	43.83	346	43.00	401	43.96	456	41.98
292	43.71	347	43.33	402	44.13	457	41.83
293	43.76	348	43.26	403	44.12	458	41.97
294	43.75	349	43.31	404	44.30	459	42.74
295	43.85	350	44.13	405	44.13	460	42.11
296	43.88	351	42.99	406	44.06	461	42.14
297	44.24	352	43.41	407	43.86	462	42.06
298	44.23	353	43.33	408	44.06	463	42.15
299	43.74	354	43.40	409	44.21	464	42.29
300	44.01	355	43.47	410	44.28	465	41.92
301	44.14	356	43.19	411	44.14		
302	44.27	357	43.26	412	44.27		
303	43.73	358	42.67	413	44.38		
304	43.83	359	43.35	414	44.60		
305	43.92	360	44.29	415	44.32		
306	44.06	361	44.32	416	44.54		
307	43.83	362	44.14	417	44.66		
308	44.15	363	43.74	418	44.83		
309	44.21	364	44.31	419	44.28		
310	44.30	365	44.19	420	44.45		
311	44.01	366	44.25	421	44.87		
312	43.83	367	43.79	422	43.74		
313	43.50	368	43.90	423	44.54		
314	43.88	369	44.04	424	44.56		
315	43.79	370	43.77	425	44.25		
316	43.82	371	44.05	426	44.37		
317	43.75	372	44.08	427	44.21		
318	44.13	373	44.06	428	44.26		
319	44.04	374	44.07	429	44.28		
320	44.32	375	44.16	430	44.21		
321	44.14	376	43.84	431	44.27		
322	43.99	377	43.69	432	44.14		
323	43.90	378	43.73	433	44.20		
324	43.79	379	44.02	434	44.13		
325	43.86	380	44.14	435	44.28		
326	43.77	381	44.15	436	44.09		
327	43.93	382	44.19	437	44.25		
328	44.04	383	44.26	438	44.11		
329	44.18	384	44.32	439	44.23		



Number	Height (mOD)						
1	42.95	55	43.84	110	43.45	165	42.48
2	42.90	56	43.49	111	43.39	166	43.55
3	42.94	57	43.62	112	43.38	167	42.44
4	42.87	58	43.46	113	43.33	168	42.48
5	42.94	59	43.50	114	43.47	169	42.94
6	43.02	60	43.43	115	43.18	170	43.01
7	43.22	61	43.35	116	43.61	171	42.91
8	43.17	62	43.43	117	43.64	172	42.85
9	43.41	63	43.43	118	43.70	173	42.58
10	43.38	64	43.46	119	43.61	174	42.80
11	43.67	65	43.49	120	43.27	175	42.97
12	43.18	66	43.87	121	43.13	176	42.87
13	43.34	67	43.40	122	43.20	177	43.64
14	43.27	68	43.39	123	43.67	178	43.56
15	43.31	69	43.47	124	43.95	179	43.70
16	43.33	70	43.51	125	43.51	180	44.65
17	43.22	71	43.66	126	43.30	181	44.78
18	43.26	72	43.66	127	43.12	182	43.92
19	43.29	73	43.52	128	43.15	183	44.85
20	43.38	74	43.54	129	43.26	184	44.73
21	43.46	75	43.52	130	43.28	185	44.07
22	43.73	76	43.62	131	43.15	186	44.24
23	43.44	77	43.98	132	42.99	187	44.21
24	43.41	78	43.64	133	43.21	188	44.08
25	43.41	79	43.13	134	43.22	189	43.61
26	43.31	80	43.23	135	43.18	190	43.40
27	43.34	81	43.14	136	43.15	191	44.06
28	43.30	82	43.24	137	43.24	192	43.51
29	43.30	83	43.14	138	43.23	193	42.09
30	43.28	84	43.19	139	43.35	194	44.50
31	43.35	85	43.18	140	43.40	195	44.15
32	43.37	86	43.14	141	43.31	196	44.13
33	43.73	87	41.82	142	43.23	197	44.08
34	43.24	88	41.83	143	43.10	198	44.14
35	43.32	89	41.79	144	43.14	199	43.87
36	43.30	90	41.81	145	43.17	200	43.65
37	43.39	91	41.87	146	43.08	201	43.62
38	43.41	92	43.42	147	43.25	202	43.57
39	43.42	93	41.70	148	43.46	203	43.68
40	43.57	94	41.70	149	43.29	204	43.60
41	43.49	95	41.57	150	43.18	205	44.31
42	43.54	96	41.69	151	42.96	206	43.52
43	43.52	97	41.72	152	42.29	207	43.68
44	43.74	98	41.70	153	41.69	208	43.56
45	43.47	99	41.81	154	41.71	209	43.48
46	43.45	100	41.76	155	43.53	210	43.60
47	43.43	101	41.60	156	41.89	211	43.78
48	43.53	102	41.58	157	42.38	212	43.82
49	43.50	103	43.40	158	42.33	213	43.66
50	43.39	104	41.56	159	41.84	214	43.75
51	43.51	105	41.56	160	41.89	215	44.53
52	43.51	106	41.62	161	41.72	216	43.89
53	43.65	107	41.63	162	41.63	217	43.97
54	43.54	108	43.33	163	41.65	218	43.64
		109	43.46	164	41.68	219	43.65
						220	43.63
						221	43.50
						222	43.40
						223	43.63
						224	44.15
						225	43.48
						226	43.63
						227	43.56
						228	43.38
						229	43.47
						230	43.46
						231	43.50
						232	43.57
						233	43.86
						234	43.67
						235	44.19
						236	43.74
						237	43.85
						238	43.97
						239	43.62
						240	43.69
						241	43.63
						242	43.59
						243	43.40
						244	43.02
						245	43.55
						246	43.94
						247	43.42
						248	43.39
						249	43.58
						250	43.54
						251	43.52
						252	43.42
						253	43.76
						254	43.72
						255	43.53
						256	44.24
						257	43.79
						258	43.93
						259	43.94
						260	44.14
						261	43.88
						262	43.87
						263	43.80
						264	43.82
						265	43.92
						266	43.94
						267	44.03
						268	44.05
						269	44.12
						270	44.16
						271	44.15
						272	43.92
						273	43.97
						274	43.82

Figure 7: The archaeological remains in Plot 5



Figure 8: Plot 5 phase plan

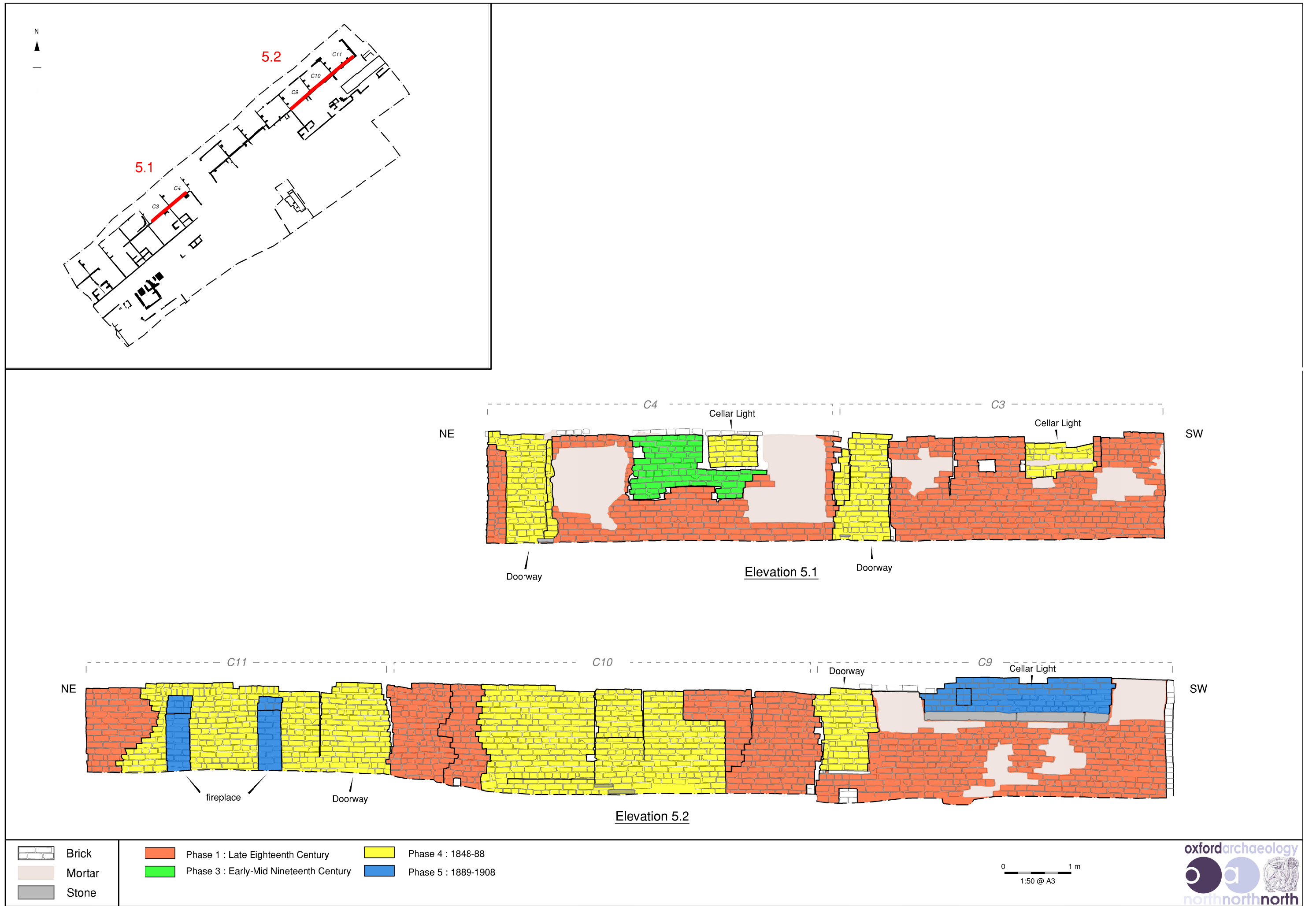


Figure 9: Elevations across the rear wall of Cellars 3 and 4, and 9-11

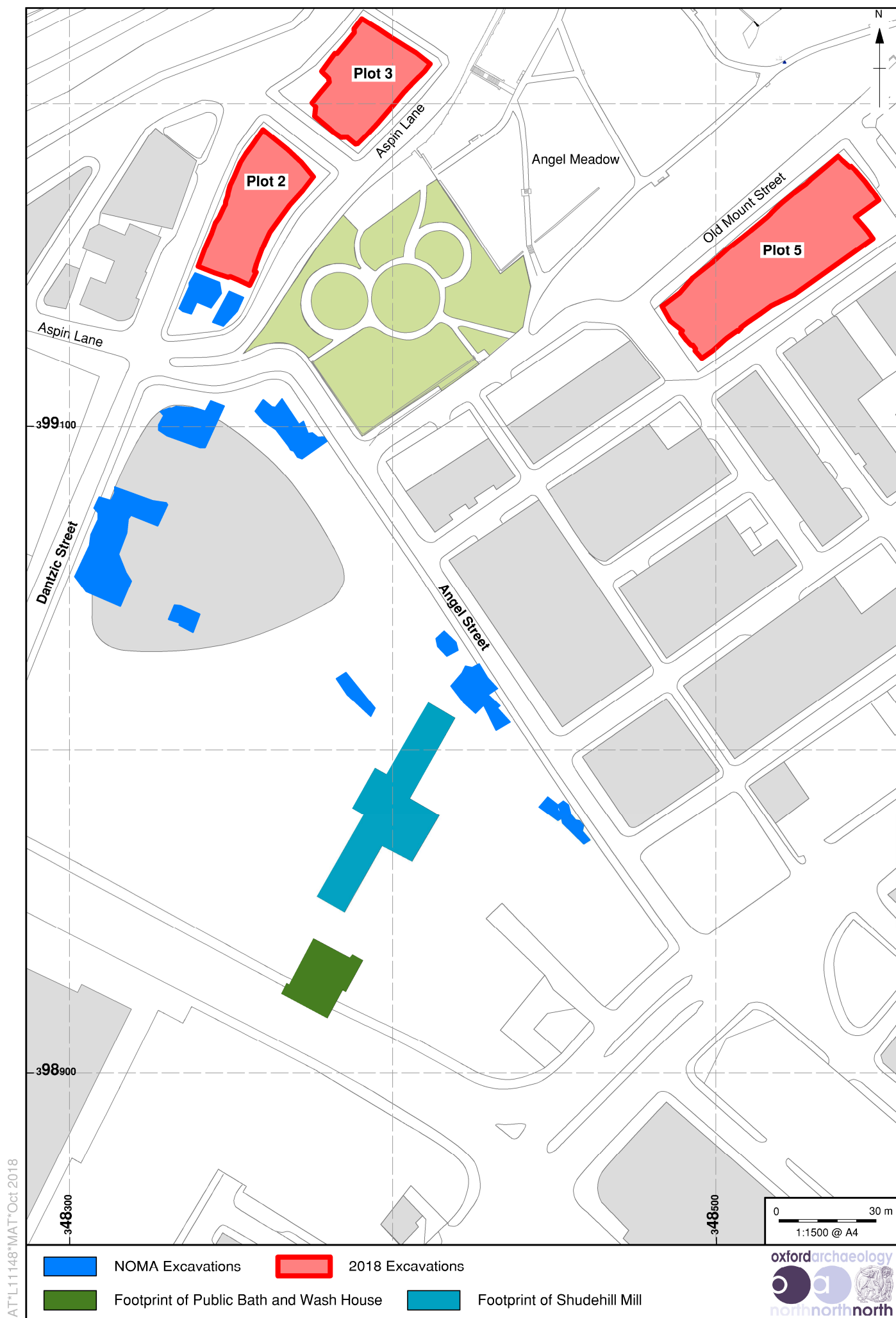


Figure 10: Location of the NOMA and 2018 excavation areas

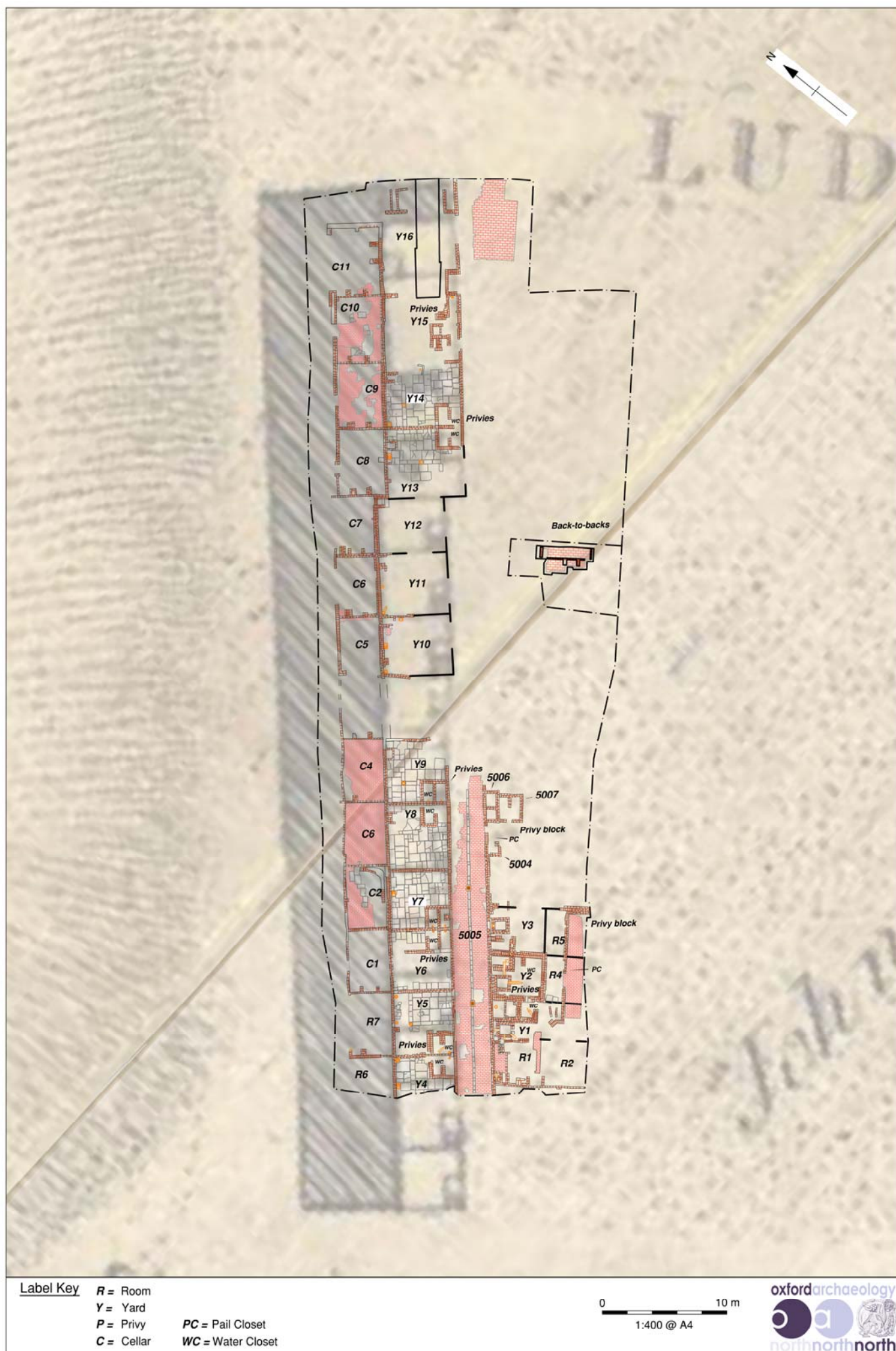


Figure 11: Plot 5 remains superimposed on William Green's map, 1787-94



Figure 12: Plot 5 remains superimposed on the Ordnance Survey 5ft:1 mile map of 1850



Figure 13: Plot 2 and the 2012 excavation area superimposed on the Ordnance Survey 5ft:1 mile map, 1850



Figure 14: Plot 3 remains superimposed on the Ordnance Survey 5ft:1 mile map, 1850



Figure 15: Plot 2 and the 2012 excavation areas superimposed on the Ordnance Survey 1:2500 map 1893



Figure 16: Plot 3 remains superimposed on the Ordnance Survey 1:2500 map 1893



Figure 17: Plot 5 remains superimposed on the Ordnance Survey 1:2500 map 1893

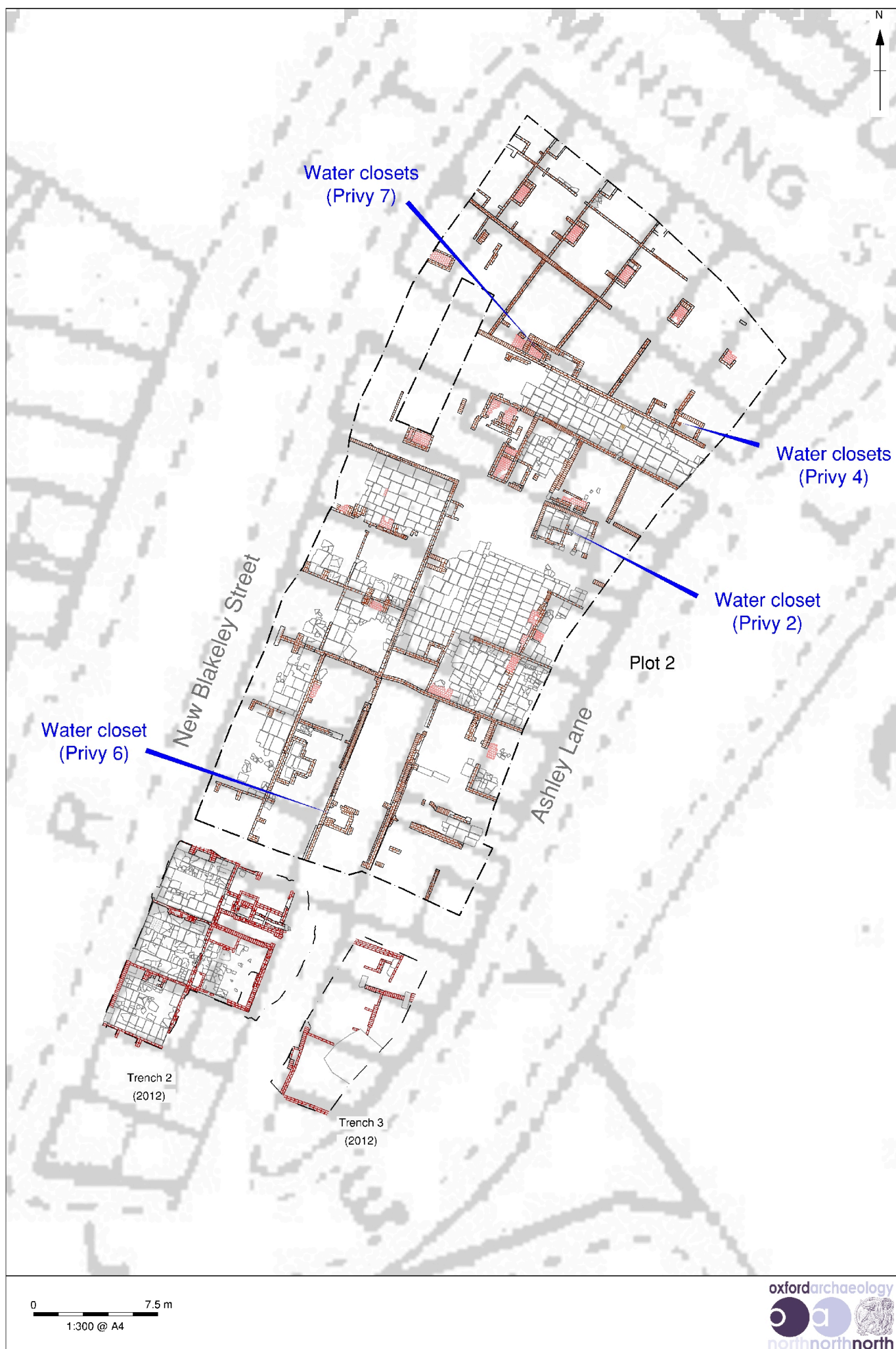


Figure 18: Plot 2 and the 2012 excavation areas superimposed on the Ordnance Survey 1:2500 map 1908

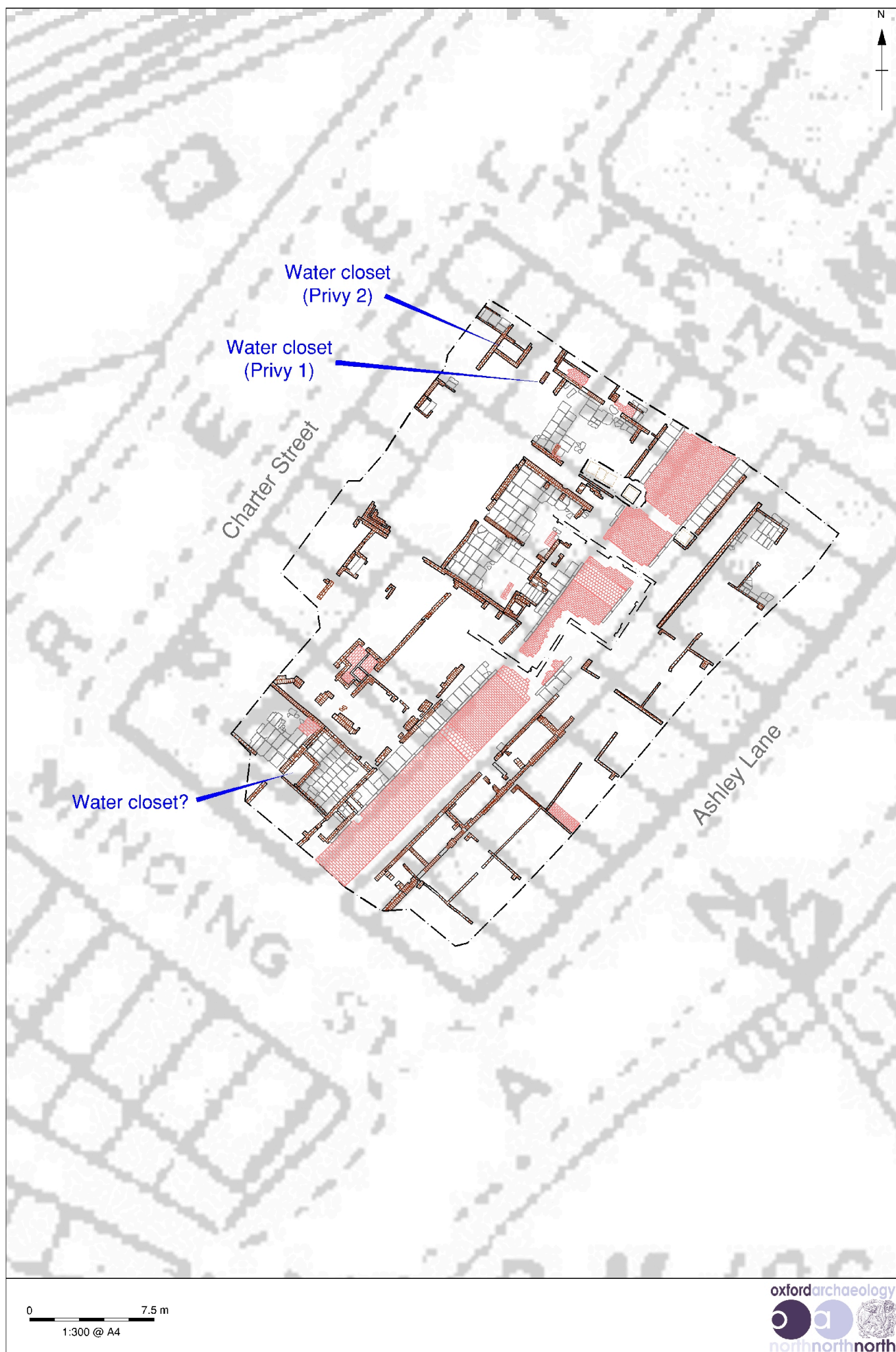


Figure 19: Plot 3 remains superimposed on the Ordnance Survey 1:2500 map 1908



Figure 20: Plot 5 remains superimposed on the Ordnance Survey 1:2500 map 1908



**Head Office/Registered Office/
OA South**

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: <http://oxfordarchaeology.com>

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850 500
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>



Director: Gill Hey, BA PhD FSA MCifA
*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*