

Archaeological Excavations and Watching brief at the Eagle Centre Derby

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Panoramic view across the site during groundworks ahead of the new Eagle Centre

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SUMMARY

- Following a desktop assessment of the Eagle Centre, Derby (Challis 2002), archaeological evaluations were conducted adjacent to the shopping centre in January 2004 (Kinsley 2004). A programme of larger scale excavations was carried out by Trent & Peak Archaeology (formerly Trent and Peak Archaeological Unit) between 2nd and 11th March and 7th to 18th April 2005, with watching brief continuing intermittently until February 2006.
- The development site lies to the south east of the Eagle Centre with Traffic Street forming its southern boundary and London Road bounding its western edge (Fig 1). Within these limits the archaeological desktop assessment identified two areas of archaeological potential: the medieval castle site in the Cockpit/Playhouse vicinity possibly extending into the development area and the former medieval street frontage on London Road (Challis 2002, 29).
- The 2004 evaluation excavations comprised 8 trenches/trial pits (01-08) located specifically to assess the potential for the survival of archaeological layers and features within the suggested castle site and its immediate vicinity (Kinsley 2004, Fig 1). The more extensive excavations of 2005 included six areas (09-13), located to search for evidence of the castle and any associated earthworks in the northernmost corner of the development area (Fig.1). A sixth trench (Area 14), was located in the south-eastern corner of the development site, along London Road, to investigate the possible survival of features relating to the medieval street frontage properties and their rear plots.
- Excavations within the vicinity of the purported castle (Area 09-13) revealed no evidence of any medieval activity with the possible exception of two scraps of late medieval or early post-medieval pottery from a patch of buried soil. Evidence was also recovered for a later buried soil of 18th-19th century date, previously noted during evaluations, and consistent with the historical mapping for the 'Castlefields' area, which until the first part of the 19th century, is shown as undeveloped, pasture and arable land. The only other feature of note comprised a pool/tank-like feature in Area 09, recorded on an OS map dated 1899 and probably linked to the steam engines powering the Castlefields Lace Mill (see Fig 3).
- Excavations adjacent to London Road (Area 14) revealed a high level of truncation resulting from the construction of the Eagle Centre in 1972. No surviving evidence for the medieval burgrave plots was observed and even more recent cellarage had been largely obliterated by the development.
- An archaeological watching brief conducted between 3rd April 2005 and February 2006 recorded very few archaeological features other than 19th century wells, with widespread evidence of modern disturbance and rubble. Geological and glacio-fluvial features were observed within the deeper excavations into the gravel terraces.

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ARCHAEOLOGICAL EXCAVATIONS AND WATCHING BRIEF

AT THE EAGLE CENTRE

DERBY

1 INTRODUCTION

Following a desktop assessment of the Eagle Centre, Derby (Challis 2002), archaeological evaluations were conducted adjacent to the shopping centre in January 2004 (Kinsley 2004). A programme of larger scale excavations was carried out by Trent & Peak Archaeology (formerly Trent & Peak Archaeological Unit) between 2nd and 11th March and 7th to 18th April 2005, with watching brief continuing intermittently until February 2006, and these form the subject of the current report. Excavations were carried out on behalf of Westfield Shoppingtowns in accordance with the specification *Extension of the Eagle Centre, Derby: Draft Archaeological Scheme of Treatment Rev E* (Kinsley 2003), approved by the Derbyshire County Council Development Control Archaeologist, Dr Andrew Myers. The archaeological works took place in advance of the construction of a new extension to the Eagle Centre, which included basement levels for car parking and below ground storage/warehousing and ancillary facilities (see Fig. 1 and 2). The development necessitated the demolition of later 20th century buildings along Traffic Street, Castle Street and Castle Walk (Plate 1).

The development site lies to the south-east of the Eagle Centre with Traffic Street forming its southern boundary and London Road defining its western edge (Fig 1). Within these limits the archaeological desktop assessment identified two areas of archaeological potential:

- i. the medieval castle site in the Cockpit/Playhouse vicinity possibly extending into the development area
- ii. the medieval street frontage on London Road (Challis 2002, 29).

The 2004 evaluation excavations comprised eight trenches/trial pits (01-08) located specifically to assess the potential for the survival of archaeological layers and features within the suggested castle site and its immediate vicinity (Kinsley 2004, Fig 1). The more extensive excavations of 2005 included six areas (09-13), located to search for evidence of the castle and any associated earthworks in the northern-most corner of the development area (Figs. 1 & 2). A sixth trench (Area 14) was located in the south-eastern corner of the development site, along London Road, to investigate the possible survival of evidence of the medieval street frontage properties and their rear plots.

2 GEOLOGY AND TOPOGRAPHY

The site is located within the centre of Derby, just to the west-south-west of the River Derwent, upon its gravel terraces and is bounded by Traffic Street on its east and south-east sides and London Road on its south and south-

east sides, see Fig 1. The gravel terraces overlie Triassic mudstones (of the Mercia Mudstone Group) at around 46.5m AOD.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The archaeological and historical background of the area have been considered in some detail (Challis 2002; Kinsley 2004), and only the key points will be addressed here. The development site lies to the south of the identified centres of Roman, Anglo-Scandinavian or Medieval settlement, but had the potential for the identification of Medieval burgage plots on London Road as indicated by Speed's map of 1610 (see Challis 2002, 21). Speed's map also provides possible evidence for an earthwork castle (perhaps built during the 12th century), depicted as a conical mound, which had been levelled and built on by the 19th century. Much of the development site lay in what has been identified as 'Castlefields', an area, which up until the first part of the 19th century, comprised undeveloped, pasture and arable land. Further to the south-east stood Castlefield House built in 1712-13 in geometrically landscaped gardens, perhaps by William Emes (1730-1803). During a period of marked growth in the 19th century the Castlefields area saw increasing suburban and industrial developments, including the establishment of the Castlefields Lace Mill in 1825 by the Boden family.

At the south end of the development area, Medieval buildings were swept away during the Victorian era and replaced by terraces, pubs and a new street layout that included Eagle Street, Traffic Street, Albion Place and eventually Union Street. In 1958 and into the 1960s the Castlefields Mill and the surrounding streets were demolished to build the Eagle Centre. Map evidence (Fig 3; 1899 OS map) shows the street layout and mill; the highlighted area shows the position of what may be condensation tanks or pools for the steam engines, linking with features investigated during the current excavations. An earlier OS map dated 1881 also shows 'reservoirs' in this area, which have obviously been modified by 1899 and then infilled by the 1947 OS map (Figs 3 and 4). Fig 5 shows an aerial photograph dated 1933, showing the Castlefields Mill complex in relation to the development site.

4 METHODOLOGY

All archaeological works were conducted in accordance with the approved specification *Extension of the Eagle Centre, Derby: Draft Archaeological Scheme of Treatment Rev E* (Kinsley 2003), and were agreed at all stages with the Derbyshire County Council Development Control Archaeologist, Dr Andrew Myers. Recording followed the format described in the Unit's manual, a copy of which has been lodged with the County Archaeological Officer. A photographic record was maintained, and sections drawn at an appropriate scale with a detailed proforma paper record of deposits and features encountered during the excavations. Trenches were located and the plans were drawn by EDM survey. Distinct areas of excavation were allocated a two digit Area number, continuing the numbering sequence began by the 2004 evaluations. All recorded contexts have been given a four-digit number, small finds are identified by a unique three-letter code (e.g. AAA).

Areas 09 to 13, were positioned in the northern corner of the re-development area, primarily to detect evidence of the suggested castle site (see Plate 2 for e.g.). They comprised elongated trenches approximately 16.5m long and 3.5m wide with the exception of Area 09, which was 8m wide. Area 14, approximately 20m square, was located in

Derby Eagle Centre

the south-eastern corner of the re-development, and was placed to investigate possible Medieval properties fronting London Road. Removal of overburden was carried out by 360° mechanical excavator, operating under archaeological supervision, whilst exposed sections and surfaces were cleaned by hand. Further machine excavation was conducted if deemed appropriate, to investigate features and deposits in greater detail.

Following the demolition of buildings in the vicinity of Areas 09-13, it was not possible to remove the overburden from site due to issues of possible contamination, and therefore because of limited storage space, a large single trench could not be opened. The decision was made to open a series of smaller trenches running roughly north - south, with spoil stored on the baulks between each trench.

Following the completion of the excavations, there followed a programme of watching brief, which in consultation with the site engineers took place intermittently between 3rd April 2005 and 21st February 2006. The watching brief permitted the monitoring of machine excavated overburden of up to 2m depth across much of the whole site. In some areas there was the removal of a considerable depth of gravels (c.6m+) for the basement levels and floor levels of the Eagle Centre extension.

5 RESULTS

5.1 The Castlefields area

Area 09 (Figs 6 and 7)

Modern floor slab and brick walling

A layer of recent demolition rubble (0052) and remnants of a concrete floor slab 0.25m thick, overlaid layers of mixed concrete, brick, tile and mortar in a matrix of loose brown soil 1.2m deep (0053 and 0065). Twentieth century footings and walls contiguous with the recently demolished building were found at the north and south ends of Area 09. These comprised substantial concrete beams and brickwork, with well-defined foundation trenches cut into the earlier levelling layers. Layers 0053 and 0065 were divided by a late 19th/early 20th century brick wall that ran east to west, forming a probable internal bay division with a later infill of rubble and soil 0068/0064. These layers overlay a phase of levelling and filled in a clay and concrete lined pool/tank-like feature 0060 (see below).

0060 - 19th century Lace Mill pool/tank (Plate 4, 5 and 6)

Feature 0060 was clearly industrial in nature and, as revealed within Area 09, formed the eastern end of a larger pool/tank structure relating to the Castlefields Lace Mill and hosiery factory, located on this site in the 19th to the mid 20th centuries. It had a rounded end some 8-9m across but had been truncated on its northern edge by a wall foundation, surviving to 1m in height. It was lined with a deposit of hard red clay 20cm thick, over which was a thin skin of concrete, up to 5cm thick, surviving only in limited patches. The pool was divided along its east - west axis by 0067 a substantial stone and clay jetty or damn-like structure, possibly doubling as a walkway. This

structure was composed of coursed stone rubble, roughly faced, two courses deep with a central space filled with hard red clay. A large ceramic pipe 60cm (2 ft) in diameter, had been laid at the base of the wall, perpendicular to its long axis. The red clay (0066/0050) is likely to have been poured into the wall as a liquid slip, acting both as a bonding medium and a waterproof seal. This jetty-like structure was built on a raft of laid wood planks immediately underlying the wall and ceramic pipe, apparently designed to level and support the weight of stonework on a clay bed (0051).

Overlying 0051 was a layer of greyish black silty clay the basal fill in a sequence of fill deposits, these showed limited evidence of occasional clearing out and subsequent infilling – making it clear that its use as a pool/tank ended some time before the final abandonment and demolition of the mill. The pool was infilled circa 1890 to 1920 with a dump of ash and cinders 0084, as well as brick, stone, tile and mortar in a compact, clayey soil 0076, and with a deposit of collapsed stonework 0063, perhaps from 0067 (Fig. 6). These deposits represented a series of distinct episodes of dumping, probably in a short space of time. Layer 0079, a loose layer of ash and cinders, showed evidence of being dumped into the pool when hot thus forming a hard, thick lamination of greenish plaster-like material. Demolition took place in the late 1950s and early 1960s (Challis 2002).

Following discussion with the Derbyshire County Council Development Control Archaeologist, Dr Andrew Myers, the possibility that the stonework for the jetty 0067 may have been salvaged from an earlier structure, possibly the castle, was considered. On inspection, some of the stones, which were millstone grit, do bear evidence of reuse, however, no piece of stone was sufficiently diagnostic to be able to attribute it to a specific type of structure or to a period although it is most likely they were of 18th or 19th century date (individual stones were photographed and measured, whilst a small number of them, those showing evidence of reuse were retained within the archive).

18th – 19th Century Buried Soil 0084, Plate 3

The pool 0060, cut a sequence of 19th century layers (0130 to 0133), interpreted as levelling deposits. In addition a buried soil horizon 0084 was identified, this comprised a dark grey silty clay with frequent flecks of charcoal c.0.20m thick with an indistinct boundary with the underlying yellowish-red gravelly clay natural formation. An identical or equivalent layer was also found in areas 10-13 (Figs. 8 to 12), and 0084 can also be correlated with layer 0005 identified to the north within evaluation areas 01-04, and interpreted as a 18th to 19th century buried soil (Kinsley 2004).

Areas 10 and 11 Plate 2 & 3

Areas 10 and 11 were overlain by recent demolition rubble up to c.0.60m deep, this overlay layers of 19th and 20th century levelling up to 1m thick, comprising compacted silty clay soils with frequent inclusions of brick and pottery (sample retained). Beneath these layers was (0090/0043) a soil horizon dating to the 18th-19th century. The foundations of several 19th /20th century east-west walls and drains had cut through this sequence of deposits. Towards the southern end of Area 11 at a depth of 0.10m was a surface of granite sets abutting the south facing side of a brick wall (Figs 9 & 10). At a depth of 1.45m and at the base of overlying sequence of levelling layers were two shallow scoops and two probable post-holes c.0.20m deep, all were modern, filled with a matrix similar

to the overlying deposit 0090, and containing inclusions of brick. At the northern edge of Area 11 a sub-circular shallow pit-like feature 0035, 2.10m wide and 0.48m deep, was discovered cutting the gravel terrace at a depth of 1.4m, this was filled with a hard homogenous reddish-grey sandy clay with frequent rounded stones (0036) but no finds (see Fig 6). Feature 0035 was thought to be of probable natural origin, relating to Holocene, periglacial or later hydrological processes.

Areas 12 to 13

Immediately below the recent demolition rubble and the formation level of the floor slab were surfaces of granite sets surviving to the north and south of Area 12 and over much of Area 13 (0094). A similar sequence of levelling layers (0123, 0145 & 0146) as evidenced in the other trenches, overlay 0147 the 18/19th century buried soil to a depth of 0.60m, shallower than in Areas 9, 10 and 11 to the west, and reflecting a rise in the underlying natural topography. Wall foundations and drainage pipes running east to west had cut through the levelling deposits, in some instances aligning with those in the other areas and dating to the later 19th- 20th centuries.

Plate 5 shows the west facing section of Area 10 and the sequence of deposits within the trench (see also Fig 6). Towards the base of a similar sequence in Area 12 at the merging interface of 0148 and 0149 interpreted as a rare survival of a pocket of an earlier buried soil horizon, three fragments of abraded yellow/green glazed pottery dating to the late medieval/early post-medieval period were found (Appendix 2 Summary Finds List).

A single possible post hole 0086, 0.13m deep with a diameter of 0.26m was found at the north end of Area 12. It contained a loose, light grey-brown clayey soil with a few rounded pebbles but no evidence of its date. This feature and the surviving subsoil 0149, indicates that elsewhere there could be significant truncation before the 18/19th century buried soil (0147 for example) was either deposited or formed.

5.2 London Road and the Medieval Street Frontage

Area 14 Fig. 2 & 13-15

Machine removal of modern overburden from Area 14 rapidly demonstrated the high level of truncation resulting from the construction of the Eagle Centre in 1972. The foundations and cellars of 19th and earlier 20th century buildings had been almost entirely removed and the area levelled with limestone hardcore and fly-ash to a depth of c.2.5m.

Only two small sub-rectangular areas (0156 and 0163), oriented approximately north-south, preserved traces of former cellarage (Fig.2). 0156 was positioned in the far south-western corner of Area 14 and measured some 8m long by 4-5m wide, whilst 0163 was located towards the north-north western part of the trench and measuring 8m long by 4m wide, both had been infilled with soil and limestone hardcore.

Only three additional features were identified and investigated, all were pits of 19th/early 20th century date and were heavily truncated by later construction work (Figs 7 and 8). Only pit 0162 merits more detailed description as it appeared to contain a large piece of iron, 0.55m wide by 0.70m long and 0.25m thick, attached to a skin of bonded

bricks beneath it (0168) (see Plate 4 & Fig 8). The pit also contained several planks of wood, in fair condition, which along with the underlying deposit 0164 seemed to represent a dump of rubble relating to the demolition of the 19th century buildings.

5.3 Results of watching brief, Areas 14-22 (Fig 9)

A summary of the results of an intermittent watching brief conducted during the clearance and excavation of Area 14 and Areas 15-22 is given below. Targeted visits were made to coincide with the demolition of buildings, and subsequent stripping of overburden to the levels required by the site engineers in representative areas of the site. No archaeological features or remains of significance were identified such was the level of 19th century and later truncation.

Overburden Strip: Areas 14-22 (Pl.9 & 10)

Within Areas 14-22 overburden was removed by machine to a depth of 2m, and comprised mainly 19th and 20th century rubble, mixed with clay and sand (0175). In the vicinity of Area 14 deposits of fly ash 0172 (up to 2.5m deep) extended to the east (under the access road to the old Eagle Centre), and north towards the spiral access ramp to the underground car-park beneath the old Castlefields Centre and west beneath the buildings of the Woolworths store, before giving way to rubble and mixed clays (see Pl.9).

In Area 15, the depth of overburden was *c.* 1.5m deep and consisted of the occasional 19th century wall footing, probably relating to the old streets that were demolished to build the Eagle and Castlefields Centre along with a large amount of brick rubble in a dark grey to black silty sand matrix. Areas 16 and 17 also contained no archaeological features of note, with the sand and gravel subsoil overlain by *c.* 1m of rubble, 0175, similar to that found elsewhere. In Area 20 and most of the northern portions of Areas 19, 22 and all of 21 the level of truncation was more significant than that seen in the other areas of the site and this was due to the construction of the earlier Eagle Centre (Pl.10). During the excavation of the sub-basement and car park levels in Areas 15, 16 and 20 three well-shafts were observed (Fig. 16 shows locations), all were brick-lined and of 19th or 20th century date, and sunk to the level of the Triassic Mudstone. Recording was constrained by their occurrence during the deep excavations, this limited safe access.

The results of the watching brief mirrored those of the larger open-area excavations, demonstrating considerable truncation across all parts of the site (but most significantly in the south and south-east portions). This appears to be attributable to the 19th century, occurring ahead of housing and factory construction, followed by subsequent phases of demolition, remodelling, levelling and new construction that continued intermittently up to the present period. This has resulted in no significant survivals of features or layers of archaeological significance, earlier than the 19th century.

Deep excavations for sub-basements and car-parking: Areas 15, 16 and 20

During a watching brief conducted in Area 15 a feature of glacial origin was recorded within the lower sands and gravels, at a depth of 46.43m AOD, some 6.87m below the level of the adjacent part of London Road. The feature, a probable meltwater channel, followed an approximate east - west course, and was filled with a distinctive grey clay (no organic material was present), 0.05m thick and less than 1m wide (Plate 11 & 12). A deep section was also recorded within Area 16 characterising the lower gravels and demonstrating the active glacio-fluvial/fluvial hydrological regime in this part of the Lower Derwent (Figs 17 & 18; Aitkenhead *et al* 2002:82-3). Occasionally, particularly within deeper cut sections where the base of the gravels directly overlay the Triassic Mudstone, there was an interface of sand and clayey silts containing pulverised coal fragments, presumably derived from rock exposures of Coal Measures Sandstone to the north and north-east (Figs 19-20). The coal, occurred in thin discontinuous layers laminated between sand deposits at a depth of around 47m AOD, within *c.*0.30m of the underlying Triassic Mudstone, and was noted in all the deeper excavations within Areas 09, 15, 16 and 20.

6 THE FINDS

Appendix 2 shows a summary finds table. Many of the finds from Area 09 were recovered during the machine removal of the pool deposits. Only three sherds of suspected medieval pottery were recovered, all derived from layer 0149 in Area 12. All of the other pottery sherds from Area's 09-13 dated from the 17th to the 20th centuries. There was also a quantity of 20th century pottery from most areas, particularly in the rubble make-up layers of the Castlefields Shopping centre. These layers also demonstrated their fairly intermixed nature by containing pottery and glass of 19th date. A number of the metal finds were also from Area 09, again these were from the excavation of the pool fills. Many of the objects were old washers and nuts. In Area 0- there were a number of glass bottles of late 19th to early 20th century date from local breweries, such as 'Offilers Brewery Ltd. Derby'. A limited number of broken pipe stems and bowls were recovered, the most interesting of which is described below. Finds from Area 14 were limited to 20th century pot and 19th/20th century brick and tile fragments.

The Elephant Pipe Bowl by Peter Hammond

The pipe bowl shown in figs 21 & 22, was probably manufactured by Charles Crop of London in the 1870s or 1880s (see Fig 23 for comparison). It was likely that this was made to commemorate the London Zoos famous elephant Jumbo, which was shipped to Barnum's Circus in the United States of America, with great controversy in 1882. Another pipe-maker, Thomas Holland of Manchester, was making similar pipes in the same decades.

7 CONCLUSIONS

7.1 The Castle area

Areas 09-13

The results of the excavation of Area 09-13 are consistent with the evidence from earlier evaluation and bore holes. Disturbance and truncation of the underlying gravels appeared minimal, but no evidence was recovered to resolve the issue of the potential location of a former castle site in the vicinity. The area appears to have remained open

space up to the 18th/early 19th centuries, as attested both by historic mapping for the area (Section 3, figs 3 & 4) and by the occurrence of a large spread of buried soil occurring across this portion of the redevelopment area. This overlay two undated features, 0035 a possible post-hole and 0086, which could be a natural feature. This was followed by successive phases of build-up and levelling culminating in the development of the Eagle Centre.

The only significant archaeological discovery comprised the suggested pool/tank-like feature in Area 09. The feature is shown on an OS map dated 1899 and was probably a condensation tank for the steam engines powering the Castlefields Lace Mill. However, by the c1920s the pool had been filled with rubble and built over, possibly reflecting the replacement of steam by electricity. Other features associated with the mill complex included cobbled surfaces that created courtyard areas within the complex, again a feature shown on the OS maps and the walls and drains, some of which were possibly related to a water management system for the Castlefields mill complex

7.2 London Road

Area 14

In marked contrast to Areas 09 to 13, the level of truncation observed within Area 14 was far greater. This appears to have been due in part to a rise in the underlying topography towards this southern part of the site but more especially due to the removal of late 19th/early 20th century cellars during the construction of this part of the Eagle Centre in 1972 and its subsequent infilling with compacted fly-ash. The heavily truncated bases of two 19th century pits were the only features of note in this area, and no evidence remained of the former tenements of medieval origin indicated in early historic mapping (Section 3).

7.3 Areas 15 to 22 (Watching Brief)

A watching brief conducted during the machine removal of overburden revealed evidence of substantial truncation across remaining areas of the development site (Section 5.3). Archaeological features were limited to a number of wells servicing former properties of late 19th or early 20th century date, and layers of levelling associated with building works of later 19th/early 20th century date. During the extraction of sands and gravels within the areas designated for sub-basement storage and underground car parking, the opportunity was taken to observe and record the deep cut sections that showed an active cryoturbated Pleistocene age Glacio-fluvial regime at work in this part of the Lower Derwent.

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APPENDIX 1

SUMMARY TABLE OF CONTEXTS

Area No.	Context No	Category	Interpretation
11	0025	Cut	Shallow, hollow/scoop
11	0026	Fill	Fill of [0025]. Mid grey orangey mottling, sandy silt
11	0027	Cut	Base of small, modern, heavily truncated pit.
11	0028	Fill	Mid to dark grey, clayey silt fill of post-hole
11	0029	Cut	Cut of post-hole, contains fill (0028)
11	0030	Fill	Mid grey, clayey silt fill of post hole
11	0031	Cut	Probable post-hole
11	0032	Fill	Mid grey, clayey silt containing gravel, fill of [0031]
11	0033	Cut	Post-hole cut through 19 th Cent. deposit (0037)
11	0034	Fill	Mid grey, clayey silt- fill of [0033]
11	0035	Cut	Large(ish) c2m L x 1.3m W x 0.30m D pit (modern)
11	0036	Fill	Dark reddish brown homogenous, sandy silt, freq. gravelly fill of [0035]. Undated- no finds. Underlay yellowish redep. natural/buried subsoil.
11	0037	Layer	Firm grey buried soil with a diffuse lower boundary merging into a yellow(ish) buried/subsoil. 19 th Cent. date
11	0038	Layer	Firm yellowish silty clay merging boundary to (0037) above and clear to natural. red gravels below.
11	0039	Layer	Firm, mid grey with orangey mottling, silty clay layer. A buried soil.
11	0040	Layer	Rubble, concrete, bricks and brown clayey soil- modern demolition layer
10	0041	Layer	Modern demolition rubble
10	0042	Layer	Hard, light reddish brown clay layer underlying buried 19 th cent soil
10	0043	Layer	Firm mid-grey buried soil, 19 th Cent.
10	0044	Layer	Modern demolition rubble
10	0045	Layer	Weak, dark brown silty clay layer, sub-soil horizon.
10	0046	Natural	Hard, light brown clay
9	0047	Cut	Cut of steam engine condensation (?) tank of Castlefields Lace Mill
9	0048	Cut	As 0047
9	0049	Structure	Wall of two skins of gritstone with a thick core of clay- a jetty that divides the condensation tank longitudinally
9	0050	Deposit	c0.25m thick layer of clay forming the lining of the condensation tank
9	0051	Wood	Laid planks to support weight of wall 0049 built upon clay lining 0050
9	0052	Layer	Concrete floor surface
9	0053	Layer	Loose modern CBM and rubble floor make-up layer
9	0054	Layer	Mid to dark grey silty clay- 19 th Cent. buried soil
9	0055	Cut	Cut for wall foundations c19th/20 th Cent.
9	0056	Deposit	Backfill of foundation trench [0055]
9	0057	Wall	Wall (modern c19th/20 th Cent.)
9	0058	Layer	Mid yellowish brown silty clay matrix frequent stones, bricks etc.- ground make-up layer
9	0059	Cut	Cut for wall foundations c19th/20 th Cent.
9	0060	Cut	Cut of steam engine condensation (?) tank of Castlefields Lace Mill (See 0047 and 0048)

9	0061	Deposit	c0.25m thick layer of clay forming the lining of the condensation tank. Also evidence that this tank had a concrete skin within it (see drawing 8)
9	0062	Deposit	Compact, mid greyish silty loam. Rubble backfill of tank
9	0063	Deposit	Collapsed wall material perhaps from 0049/0067
9	0064	Deposit	Mid grey clayey matrix and rubble- backfill of tank
9	0065	Deposit	Concrete and brick rubble mixed fairly loose
9	0066	Deposit	Reddish pink vertical deposit of clay
9	0067	Deposit	Blocks of roughly dressed sandstone
9	0068	Deposit	Mid grey rubble mix – compact
9	0069	Deposit	Compact clay, gravel, rubble mix
9	0070	Deposit	Cut for construction trench
9	0071	Deposit	Compact clayey silt and rubble mix deposit in [0070]
9	0072	Deposit	Compact clay, gravel and rubble mix
9	0073	Object	Large concrete pipe
9	0074	Deposit	Blocks of roughly dressed sandstone
9	0075	Deposit	Loose mixed rubble layer
9	0076	Deposit	Mid brownish clay
9	0077	Deposit	Dark greyish black silty clay
9	0078	Deposit	Cut of clay lined tank
9	0079	Deposit	Reddish clay lining of [0078]
9	0080	Deposit	Light brownish clay
9	0081	Deposit	Reddish clay
9	0082	Deposit	Mid yellowish silty sand with gravels, 7%>
9	0083	Deposit	Mid reddish grey silty sand with gravels 10%>
9	0084	Deposit	Dark grey silty clay 19 th century layer, charcoal rich
9	0085	Deposit	Loose pebble and CBM mix
12	0086	Cut	Small post hole in base of are 12
12	0087	Deposit	Fill of [0086]
11	0088	Layer	Demolition rubble form recent demolition works
11	0089	Layer	Mixed demolition rubble layers
11	0090	Layer	Firm, mid dark grey to black silty clay buried 19 th Cent. soil layer
11	0091	Layer	Firm, light grey silty clay sub soil horizon
11	0092	Natural	Light greyish brown natural
11	0093	Deposit	Mid grey silty sand and rubble. Rubble/demolition deposit or slump
13	0094	Floor	Granite sets- cobbled yard area
13	0095	Natural	Firm, yellowish brown silty clay
13	0096	Layer	Hard, dark grey silty clay- 19 th Cent. buried soil
13	0097	Layer	Mixed deposit of demolition rubble
13	0098	Cut	Cut for wall foundations c19th/20 th Cent.
13	0099	Deposit	Backfill of foundation trench
13	0100	Cut	Cut for wall foundations c19th/20 th Cent.
	0101	Deposit	Rubble and gravel compact deposit in [0100]
	0102	Cut	Cut of wall construction trench
	0103	Deposit	Pebble and gravel, compact deposition [0102]
	0104	Wall	Brick wall
9	0105	Deposit	Brown Silty sand. Silt accumulation within ceramic pipe
9	0106	Deposit	Soft grey-brown Silty sand. Silt accumulation within ceramic pipe
10	0107	Cut	Cut for wall foundations c19th/20 th Cent
10	0108	Deposit	Backfill of foundation trench
	0109		
10	0110	Cut	Cut for wall foundations c19th/20 th Cent
10	0111	Deposit	Backfill of foundation trench

11	0112	Cut	Cut for wall foundations c19th/20 th Cent
11	0113	Deposit	Backfill of foundation trench
11	0114	Cut	Cut for wall foundations c19th/20 th Cent
11	0115	Deposit	Backfill of foundation trench
12	0116	Fill	Rubbly pipe trench
12	0117	Wall	Brick wall
12	0118	Fill	Dark ashy leveling spread
12	0119	Wall	Foundation trench for [0117]
12	0120	Natural?	Natural gravel
12	0121	Fill	Pipe trench rubble filled
12	0122	Fill	Rubble layer
12	0123	Fill	Yellow sandy clay build up
12	0124	Deposit	Foundation rubble for [0125]
12	0125	Wall	Brick wall
12	0126	Fill	Sandy loam build up
12	0127	Fill	Leveling foundation for cobbles
12	0128	Fill	Rubble
12	0129	Natural	Sandy clay natural
9	0130	Deposit	Loose to firm mixture of CBM rubble sands and silty clay
9	0131	Deposit	Compact dark brownish black, silty clay small amounts of CBM charcoal rich
9	0132	Deposit	Compact mid reddish grey clay and gravels
9	0133	Deposit	Compact mid brownish grey silty clay gravel inclusions
9	0134	Deposit	Plastic reddish pink clay
9	0135	Deposit	Compact dark grayish silty clay frequent charcoal inclusions 19 th century deposit
9	0136	Deposit	Clay matrix between blocks of sandstone
9	0137	Deposit	Layered deposit grayish black lower levels of layer contain pond snail shells would have been waterlogged
9	0138	Deposit	Blocks of roughly dresses sandstone
9	0139	Deposit	Charcoal rich lens
9	0140	Cut	Modern feature
12	0141	Fill	Foundation trench rubble
12	0142	Cobbles	Cobbled floor
12	0143	Fill	Footing sand
12	0144	Fill	Ashy leveling layer
12	0145	Fill	Rubble layer
12	0146	Fill	Rubble layer
12	0147	Fill	Sandy clay loam dark
12	0148	Fill	Sandy clay loam light
12	0149	Fill	Natural sand
12	0150	Concrete	Concrete layer
12	0151	Fill	Rubble pit fill
9	0152	Deposit	Very soft creamy clay lines the outside of the pipe
14	0153	Deposit	Natural- firm, orange, silty, sandy clay
14	0154	Cut	Sub-circular, shallow, pit cut.
14	0155	Fill	Firm, mid orange brown silty, sandy, clay. Fill of [0155]. Interpreted as back filled cellars.
14	0156	Cut	Part of an earlier, machine cut feature- probably consistent with the removal of cellars (?). Filled by 0158, 0159 & 0160
14	0157	Fill	Firm, compacted, dark grey-brown sandy silty clay. Clear boundary
14	0158	Fill	Firm, dark, yellowish-brown sandy silty clay. Brick and tile frags. Clear boundaries.
14	0159	Fill	Firm, sandy silty clay. Mid yellowish-brown, no incs. Clear

			boundaries.
14	0160	Fill	Firm dark grayish-green/ dark grey mottled context; clayey silt. Rare incs. Fill of [0153].
14	0161	Cut	Pit contains a (possibly) collapsed brick structure.
14	0162	Layer	Re-deposited, firm reddish-brown silty clay. Lenses of darker grey, rubble filled silty clay. In-filled cellars?
14	0163	Cut	Artificial cut made by machine during excav. Of old cellars
14	0164	Fill	Mid dark orange brown sandy silt with 25% grey mottling 10%charcoal inclusions. No visible natural inclusions friable.
14	0165	Fill	Dark grey compact clayey silt contains small stones and charcoal and brick fragments
14	0166	Fill	Rusty orange concrete mix of sands clays silts and Fe deposits
14	0167	Fill	Same as (0165) except darker
14	0168		Masonry red brick
	0169	Fill	Same as (0164) except has less grey and less charcoaly no visible stone inclusions
14	0170	Fill	Mid brownish-grey firm silty clay, with dark grey mottling. Contained modern brick and tile fragments.
14	0171	Fill	Mixed rubble of [0170] Mid brownish grey silty clay mottled with patches of darker grey silty clay inclusions CBM bricks and tile fragments > 40% ceramic sherds 3%
14	0172		Fly Ash Deposit in Area 14 and adjacent locality
14	0173	Fill	Mid/dark creamy grey silty clay (20%-80%) compact, very rare, small sub rounded gravels rare charcoal inclusions
14	0174	Fill	As (0161) Except mid light yellow/brown
14-22	0175	Layers	Rubble overburden. Mixed 19 th /20 th century building rubble and hardcore
	0176		No details?
	0177		No details?
	0178		No details?

Appendix 2

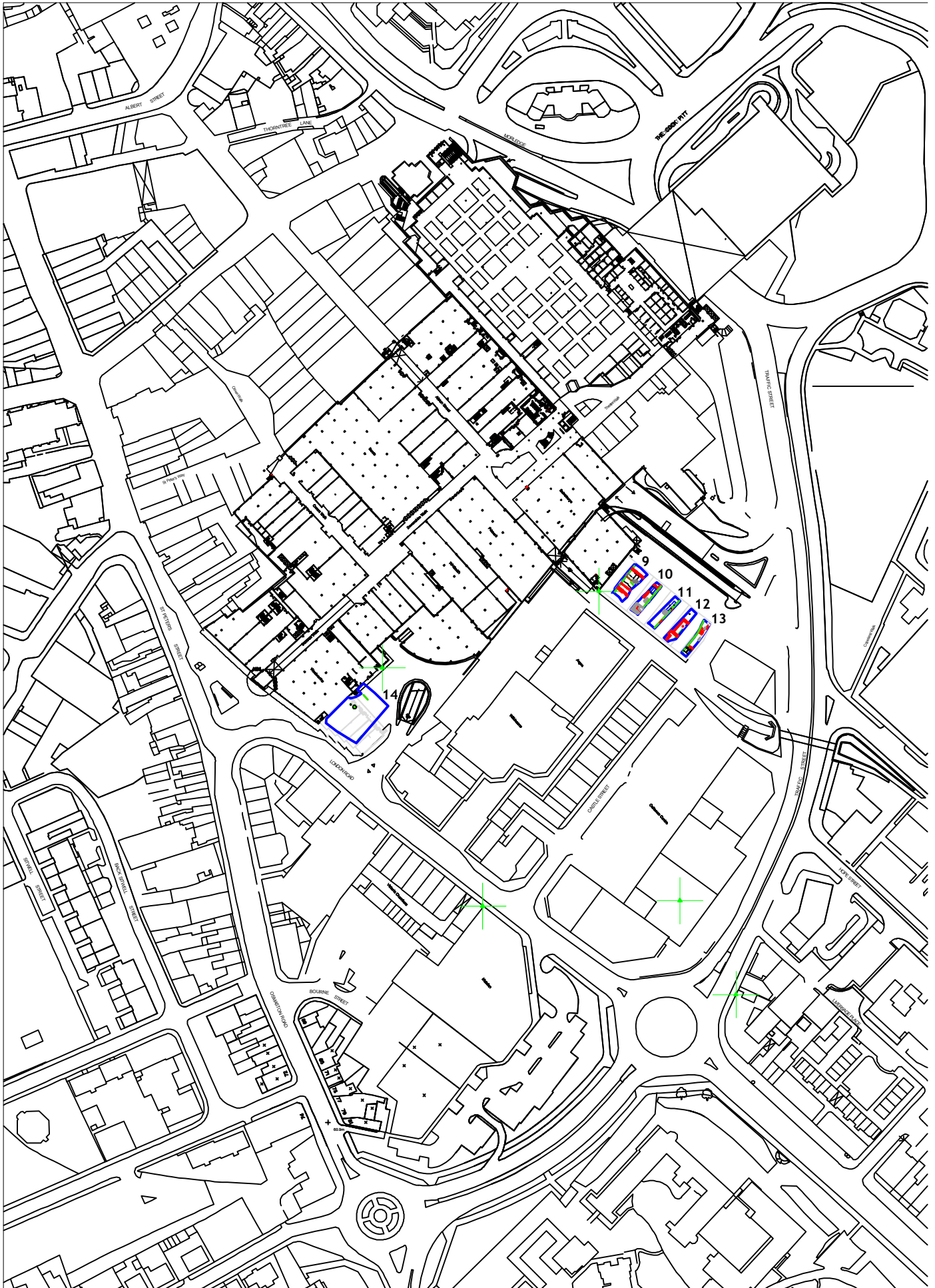
SUMMARY FINDS LIST

DEC FINDS						
Area	Context	FindCode	Material	Object	Period	Comment
14	0160		STONE	FRAGMENT		
14	0162		SLAG	FRAGMENTS		SAMPLE
11	0028	AAF	SLAG	FRAGMENT		
09	us		SLAG	FRAGMENTS		INCLUDES Cu ALLOY
12	0037		POT	BODYSHERD	PM	BROWN GLAZE
12	0037		POT	BODYSHERD	PM	PALE BLUE DECORATION
09	us		POT	FLOWERPOT, COMPLETE	PM	
12	0037		POT	RIM + BODYSHERDS	PM	YELLOW GLAZE
12	0037		POT	BODYSHERD	PM	BROWN GLAZE
14	0159		POT	BODYSHERD	PM	BROWN GLAZE
12	0037		POT	BODYSHERD	PM	BROWN GLAZE
12	0037		POT	BODYSHERD	PM	BLUE & WHITE PATTERN
12	0037		POT	RIM + BASE ANGLE	PM	BROWN GLAZE
12	0037		POT	RIM	PM	PART GLAZED
14	0159		POT	RIM	PM	
12	0037		POT	BODYSHERD	PM	BROWN GLAZE
12	0037		POT	RIM	PM	FLOWER DECORATION
14	0159		POT	RIM + BODYSHERD	PM	OFF-WHITE GLAZE
12	0037		POT	BODYSHERD	PM	WHITE GLAZE
12	0037		POT	BODYSHERD	MED	GREEN GLAZE
12	0038		POT	BODYSHERD	MED	TRACES GREEN GLAZE
09	us		POT	BODYSHERD	PM	WHITE GLAZE
14	0160		POT	BODYSHERD	PM	UNGLAZED BUFF EARTHENWARE
14	0160		POT	BASE ANGLE	PM	CREAM GLAZE
12	0037		POT	BASE	PM	DECORATED
12	0037		POT	BASE	PM	WHITE GLAZE
12	0037		POT	BASE	PM	WHITE GLAZE
12	0038		POT	BODYSHERD	MED	GREEN/BROWN GLAZE
09	us		METAL, IRON	RECTANGULAR BLOCK	PM	
09	us		METAL, IRON	RECTANGULAR PIECE	PM	SHAPED, PERFORATED, GROOVE, ?TOOTHED
09	us		METAL, Cu ALLOY	DISC	PM	82mm DIAMETER, CENTRAL HEXAGONAL HOLE
09	us		METAL, Cu ALLOY	DISC	PM	62mm DIAMETER, CENTRAL SQUARE HOLE
09	us		METAL, Cu ALLOY	DISC	PM	42mm DIAMETER, CENTRAL SQUARE HOLE
09	us		METAL, Cu ALLOY	DISC	PM	42mm DIAMETER, CENTRAL SQUARE HOLE
09	us		METAL, Cu ALLOY	DISC	PM	38mm DIAMETER, CENTRAL SQUARE HOLE
09	us		METAL, Cu ALLOY	DISC	PM	>40mm DIAMETER, CENTRAL SQUARE HOLE
09	us		METAL, Cu ALLOY	NAIL	PM	BENT
09	us		METAL, Cu ALLOY	DISC FRAGMENTS	PM	

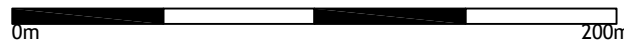
DEC FINDS

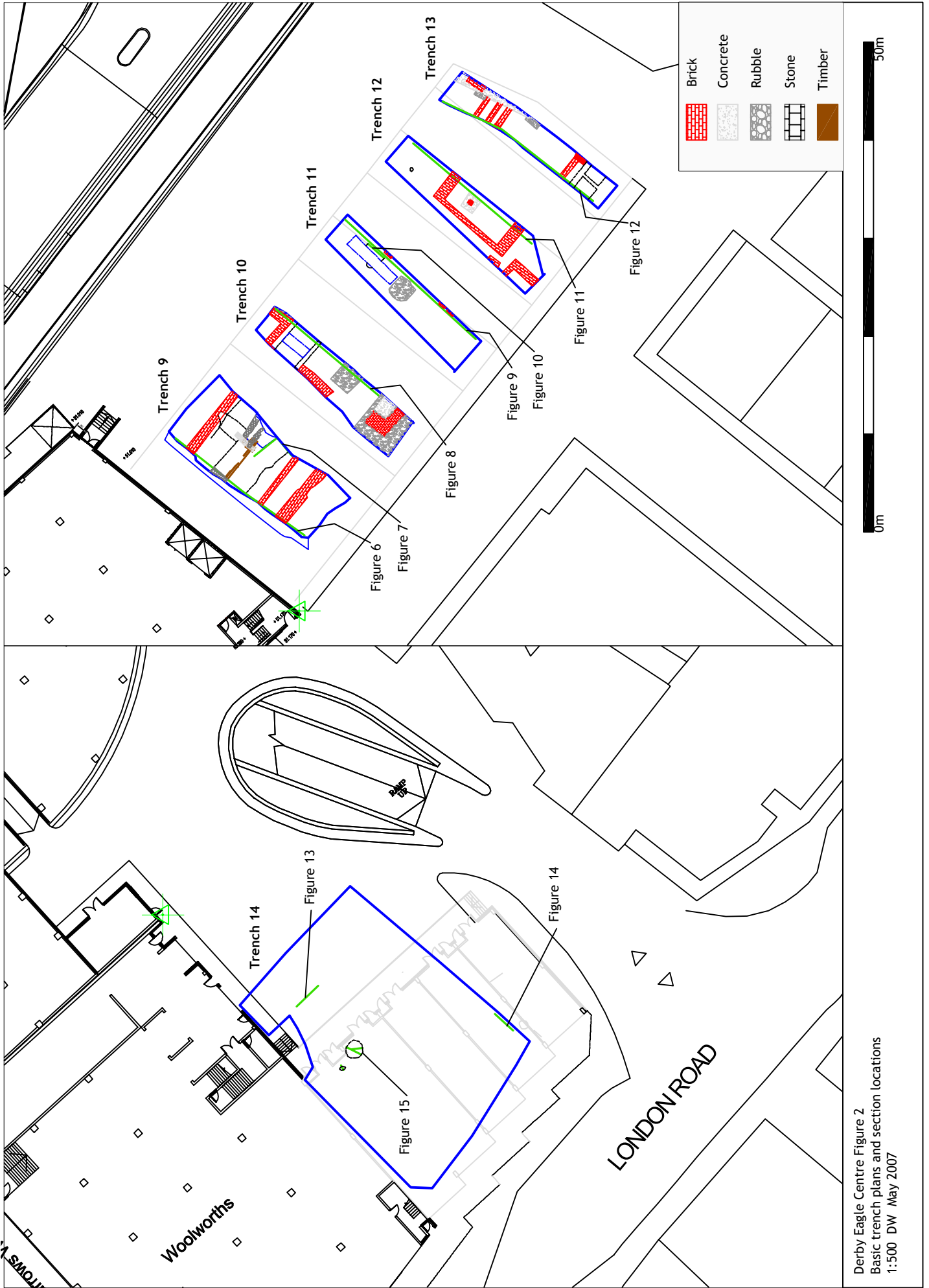
Area	Context	FindCode	Material	Object	Period	Comment
09	us		METAL & BONE	?KNIFE	PM	IRON BLADE, BONE HANDLE
09	us		METAL & ?RUBBER	RUBBER STRAP, COPPER RIVETS	PM	STRAP ?RUBBER
09	us		METAL	RECTANGULAR PIECE	PM	SHAPED, PERFORATED, ROW OF PINS
09	0039	AAH	METAL	COIN?	MED?	POINT ID: 1003
09	us		GLASS	FRAGMENT	PM	
09	us		GLASS	BOTTLE	PM	MEDICINE BOTTLE, COMPLETE BUT NO CORK
09	us		GLASS	BOTTLE	PM	COMPLETE BUT NO STOPPER. J LORD, DERBY
12	0037		GLASS	BOTTLE FRAGMENT	PM	FROM NECK
09	us		GLASS	BOTTLE	PM	COMPLETE EXCEPT FOR LIP
09	us		GLASS	FRAGMENTS	PM	
09	us		GLASS	BOTTLE FRAGMENT	PM	UPPER PART ...LBANY ...NDON
09	us		GLASS	BOTTLE & STOPPER	PM	COMPLETE. OFFILERS' BREWERY LTD, DERBY
09	us		GLASS	BOTTLE FRAGMENT	PM	NECK
09	us		GLASS	BOTTLE FRAGMENT	PM	LOWER PART. E COANEY & CO, BIRMINGHAM
09	us		GLASS	BOTTLE	PM	NECK MISSING. STURGESS & CO, DERBY
09	us		GLASS	BOTTLE	PM	COMPLETE EXCEPT FOR RIM
09	us		GLASS	BOTTLE & STOPPER	PM	COMPLETE. STURGESS & CO, DERBY
09	us	AAE	CLAY PIPE	BOWL, ELEPHANT & HOWDAH	PM	OR FIGURINE. SLAG ADHERING
09	us		CLAY PIPE	BOWL & STEM FRAGMENTS	PM	AT LEAST 5 PIPES REPRESENTED
12	0037		CLAY PIPE	BOWL & STEM FRAGMENTS	PM	
12	0037		BRICK/TILE	BRICK FRAGMENT	PM	
12	0037		BRICK/TILE	TILE FRAGMENT	MED/PM	
11	0032	AAG	BRICK/TILE	BRICK FRAGMENT	MED/PM	
11	0032	AAG	BRICK/TILE	TILE FRAGMENTS	MED/PM	
11	0028	AAF	BRICK/TILE	TILE FRAGMENTS	MED/PM	
14	0162		BRICK/TILE	FRAGMENT	PM	SAMPLE
14	0162		BRICK/TILE	BRICK FRAGMENT	PM	SAMPLE. COARSE
12	0037		BONE	FRAGMENT		

Us = un-stratified



Derby Eagle Centre Figure1
 Trench locations
 Scale 1:2500 DW May 2007





Derby Eagle Centre Figure 2
 Basic trench plans and section locations
 1:500 DW May 2007

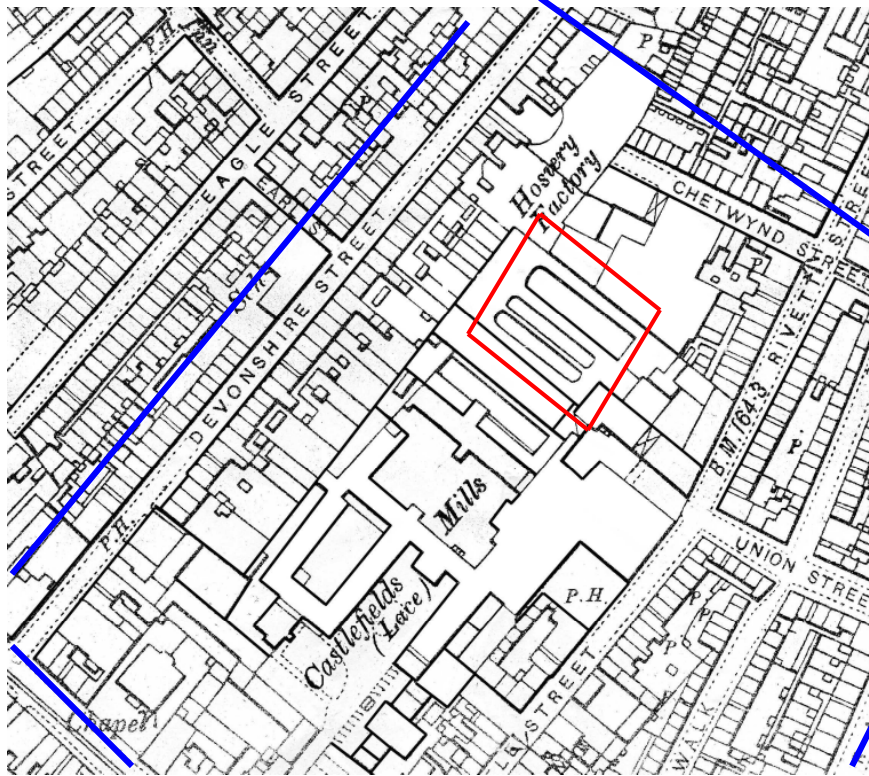


Fig 3 1899 map of Derby. Approximate outline of the site in blue and the tanks/pools described in Area 09 are outlined in red. The Castlefields Lace Mill covers a fair proportion of the site. The pattern of the housing in this part of Derby also appears quite dense, which accounts for the occurrence of foundation walls and brick rubble.



Fig 4 Map dated 1947. This map is a little over a decade before the final demolition of Castlefields Mill starts. The pattern and outline of the mill is very similar to the 1899 map. However, the pools/tanks appear to have gone by this time. The red square highlights their approximate former location.

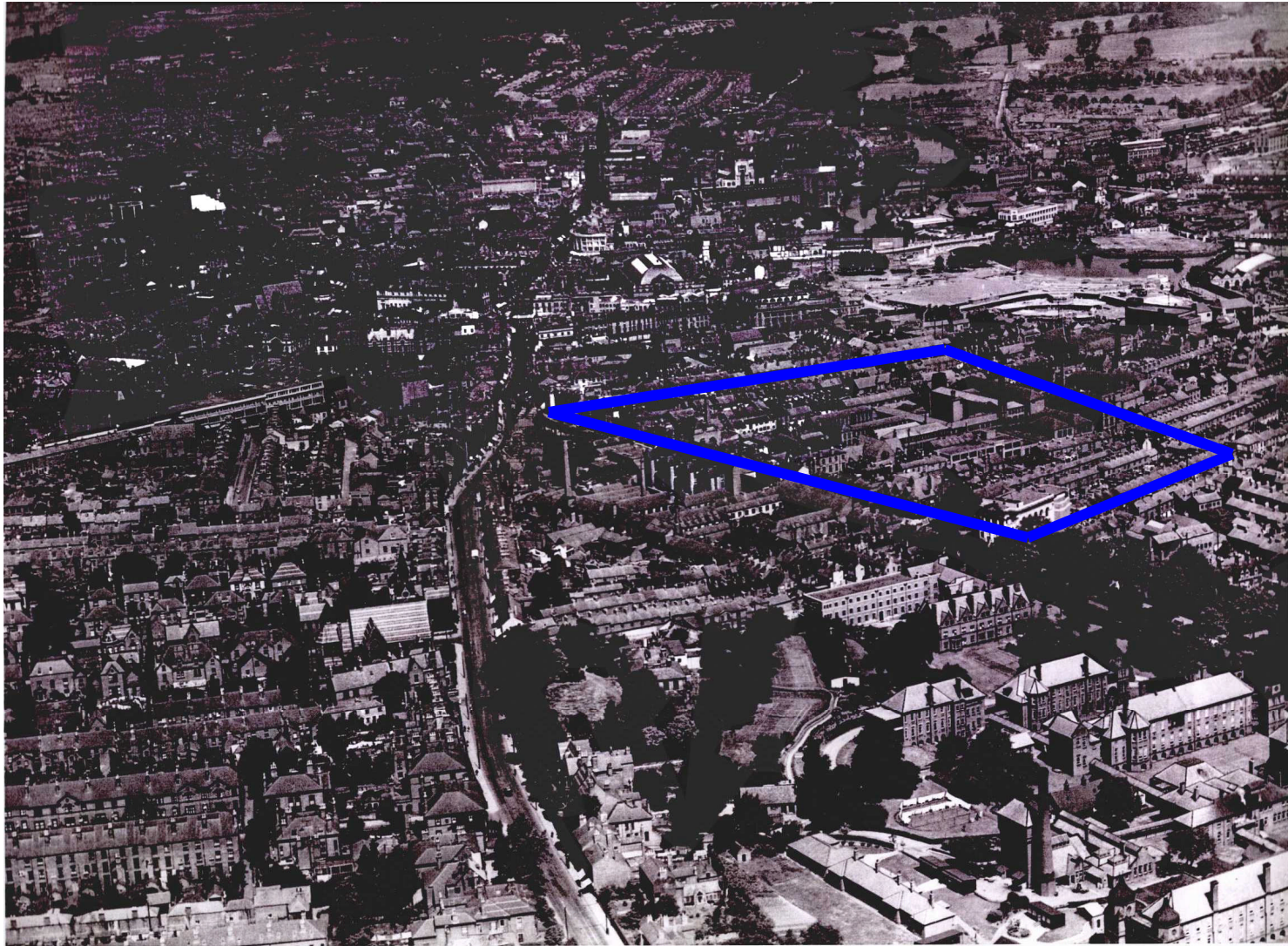
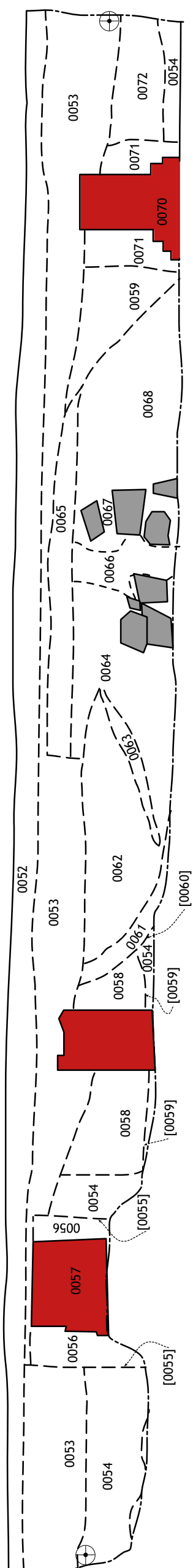


Fig 5 1933 aerial photograph of Derby (unknown source, supplied by Ron Mckeown Derby Historical Society). The area outlined in blue is the approximate extents of the development site and it can be seen to contain at least part of the Castlefields Mill complex. This photograph was taken some 25 years before its demolition.



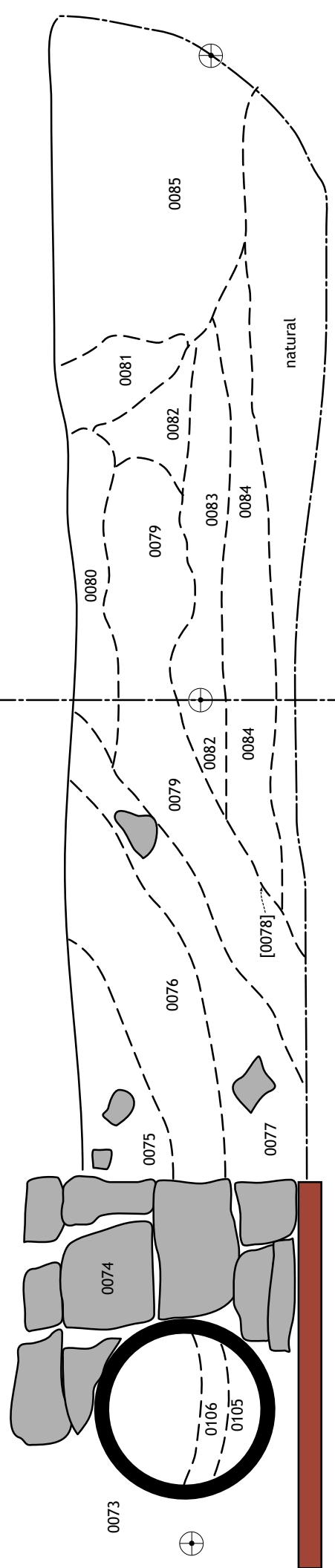
DEC Trench 9 Figure 6
SE-facing section of trench 9
1:50 MK/DW 15/03/05



NW

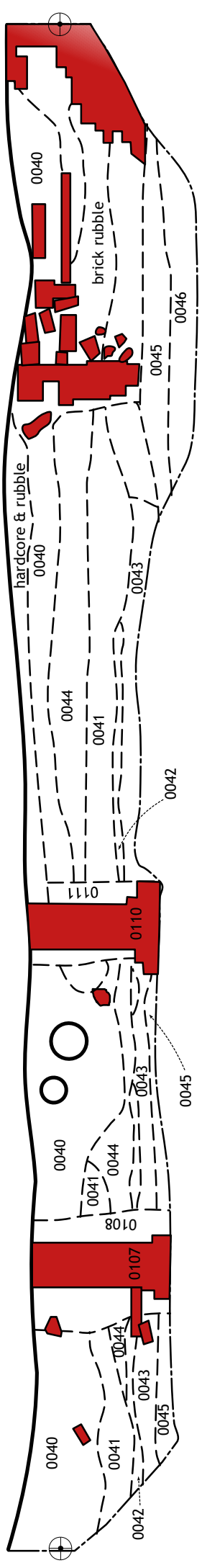
E

SW



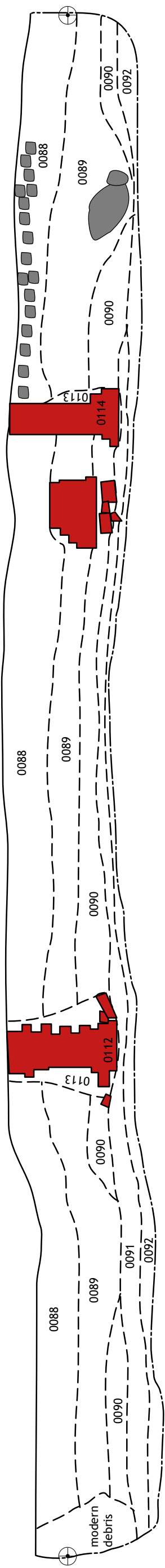
DEC Trench 9 Figure 7
SW- and NW-facing sections of trench 9
1:20 EG/DW 15/03/05



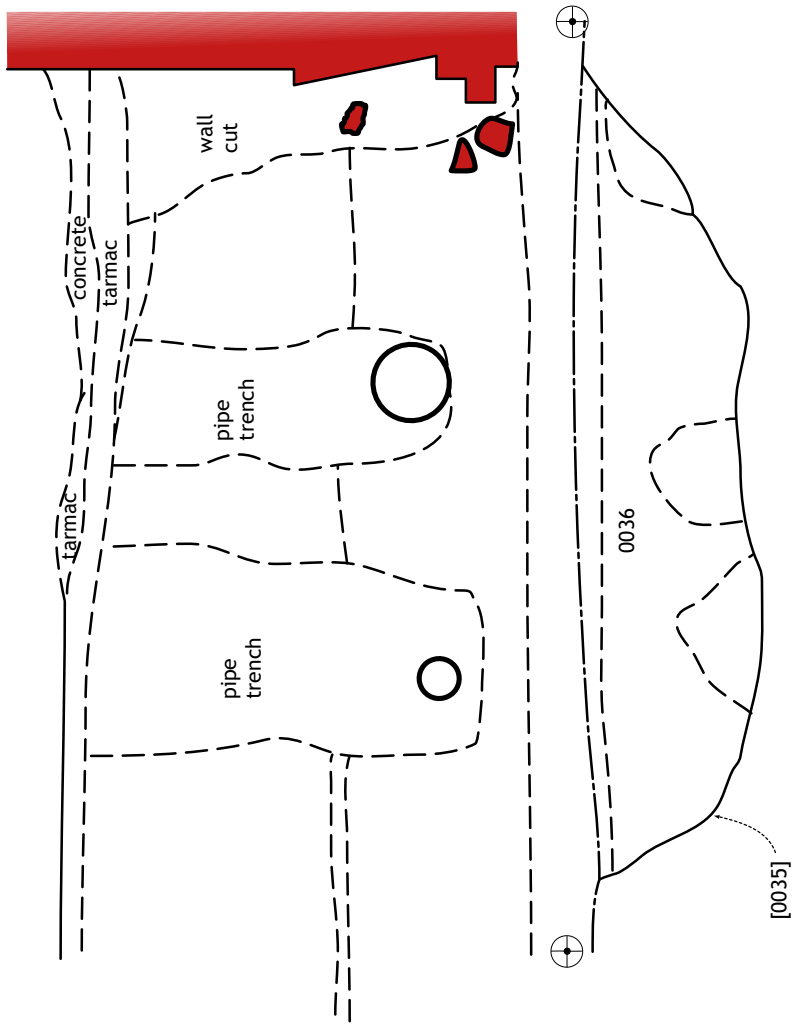


DEC Trench 10 Figure 8
NW-facing section of trench 10
1:50 JH/DW 15/03/05

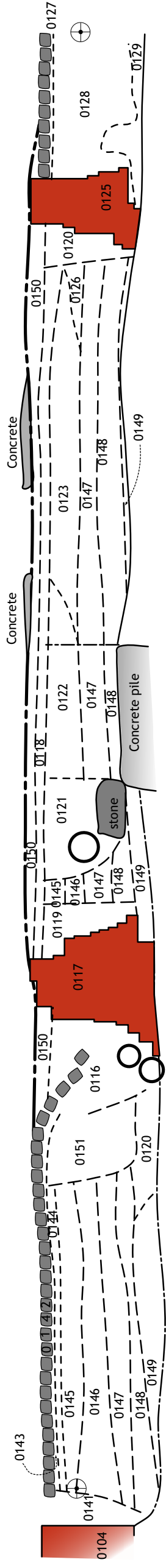




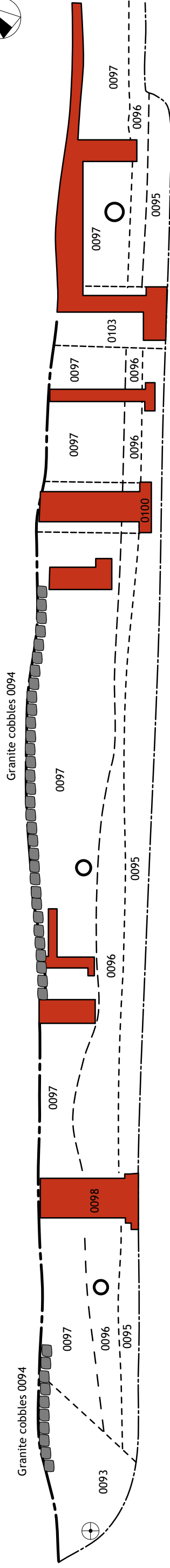
DEC Trench 11 Figure 9
NW-facing section of trench 11
1:50 JH/DW 15/03/05



DEC Trench 11 Figure 10
SE-facing section of ditch [0035],
and stratigraphy of trench 11 above
1:20 EG/DW 14/03/05

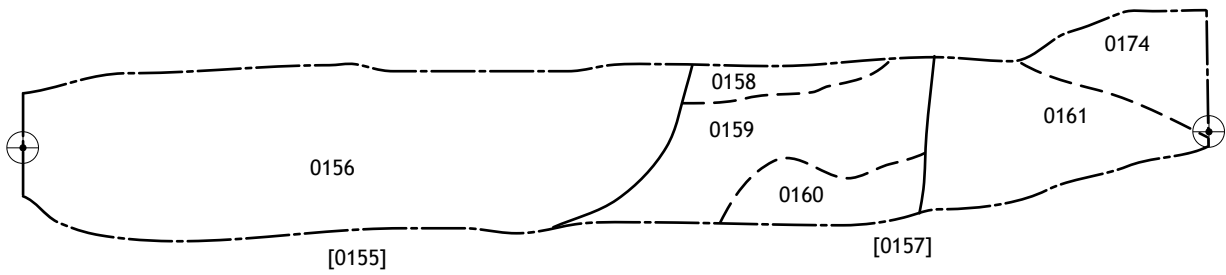


DEC Trench 12 Figure 11
W-facing section of trench 12
1:50 DW/DW 16/03/05

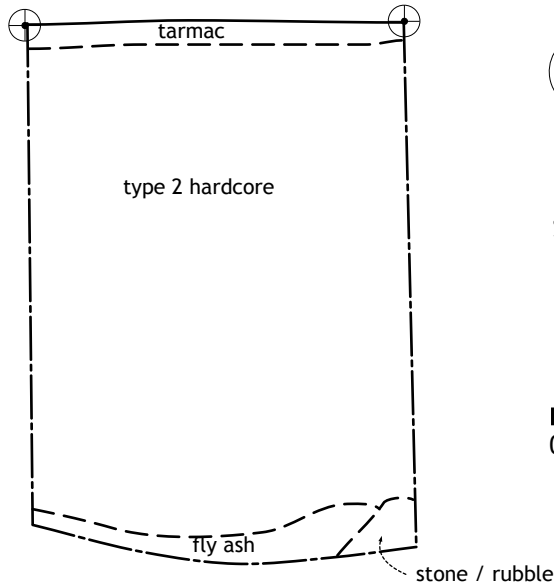


DEC Trench 13 Figure 12
SE-facing section of trench 13
Truncated by 1.5m at NE end
1:50 MK/DW 16/03/05

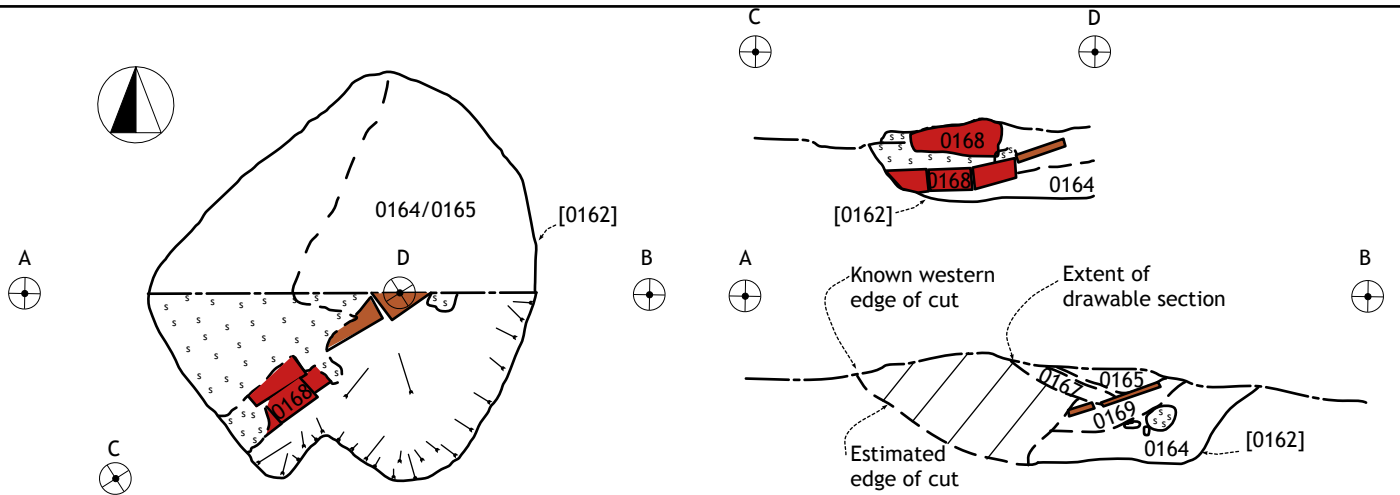




DEC Trench 14 Figure 13
 NE-facing section through [0155]
 Cut / dugout cellars?
 1:20 HS/DW 13/04/05



DEC Trench 14 Figure 14
 SW-facing representative trench section
 1:20 HS/DW 14/04/05



DEC Trench 14 Figure 15
 Plan and sections of [0162]
 1:20 MK/BL/DW 15/04/05

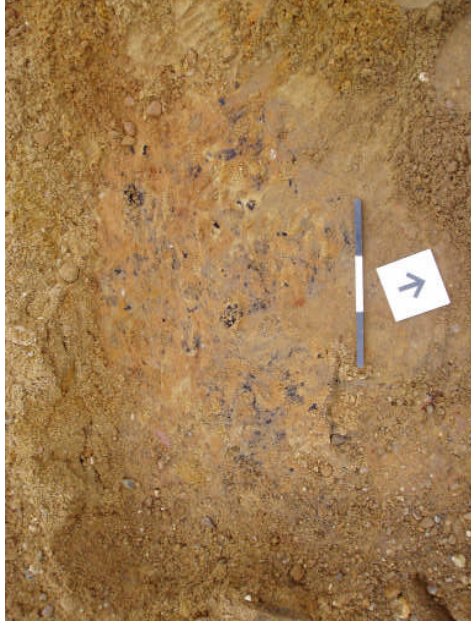
- Brick / tile
- Wood
- s
s Slaggy mixed iron deposit



FIG 17 Area 16 Section. The more obvious distinctions within the gravels are discernible from this photograph. There are a number of less obvious changes within the bands of gravels where there tended to be a higher clayey sand component, sometimes forming thin laminations within the gravels. The larger distinctions that are visible are marked out by their often larger clast sizes.



FIG18 Shows a longer section (for illustrative purposes only as this image was stitched using imaging software) in the gravels within Area 16. Again this demonstrates Devensian(?) lacustrine sand and gravels and glaciolacustrine clays.



FIGS 19 and 20 Area 16. These photographs show sands/clayey sands within the lower gravels, almost immediately overlying (within 0.30m of) the Triassic Mudstone of the Mercia Mudstone Group. Within these sands were siltier laminations containing crushed and pulverised patches of coal derived from glacial meltwater that had run-off land to the north and north-east.



Figure 21 Unusual, possibly commemorative type elephant clay pipe bowl, which may have associations with Jumbo the elephant, commemorating his controversial move from London Zoo to America. Note the hexagonal bowl shape. The stem would have attached to the rear of the elephant.



Figure 22 Opposite side of the elephant showing more detail. The hexagonal top – resembling a castle-type basket is held with the girth strap shown passing beneath the body. Compare this to the complete version in Fig 23.



Fig 23 Elephant clay pipe by Charles Crop, London c. 1880s. Compare to Fig 22
Photo taken by and used with the kind permission of Peter Hammond



Plate 1 General view of the Derby Eagle Centre site with the evaluation area (Areas 09 to 13) in the bottom left hand corner.



Plate 2 Area 10 evaluation trench showing brick floors in trench and walls in section.



Plate 3 Section within Area 10 (NW facing), showing a buried soil horizon dated to the 18th/19th centuries.



Plate 4 View of Area 09. The figures are standing within the area of a pool or tank (possibly for condensing) of the former Castlefields Mill Lace works. The jetty structure can be seen where there is a bent figure wearing a yellow helmet – this would have extended all the way across the tank.



Plate 5 Showing the wooden planks upon which the stone jetty was built onto the clay lining of the tank. Note the pink clay wall core in section.



Plate 6 Cleaning in progress on the jetty structure in Area 09. Note the walls of the later works that had cut through the filled in tank/pool. Also, in the middle right is the thick clay lining of the tank/pool.

Watching Brief Plates



Plate 7 Area 15: silts of the Palaeochannel that occurred at the base of the excavation of the sub-basements (6.87m lower than London Road). The thickness of the silts at the base was less than 0.05m and only slightly thicker in section.



Plate 8 Area 20 showing sands and gravels in section.



Plate 9 Area 19 showing the fly-ash deposits extending into this area.



Plate10 Area 21, at entrance to Eagle Centre in the area of the now demolished Castlefields Centre. Evidence of sub-basements to the bottom left of the plate and beneath the doors shows the depth and extent of the truncation that happened during the 1960s and 1970s.



Plate 11 The above channel viewed from roughly street level.