

An Archaeological Excavation at Stanley Bank, St Helens, Merseyside

NGR SJ 538 972

August 2007

M. Adams, S. Pevely & C. Ahmad

Produced for St Helens MBC



NATIONAL MUSEUMS **LIVERPOOL**



Supported by

The National Lottery[®]
through the Heritage Lottery Fund



Heritage
Lottery Fund

National Museums Liverpool
Field Archaeology Unit,
Dock Traffic Office,
Albert Dock,
Liverpool,
L3 4AX.

Tel: 0151 478 4260

Fax: 0151 478 4040

Email: mark.adams@liverpoolmuseums.org.uk

© Trustees of the National Museums and Galleries on Merseyside

Non-Technical Summary

This report describes the results of an archaeological excavation on land at Stanley Bank, St Helens, Merseyside. The project was run by National Museums Liverpool Field Archaeology Unit, in partnership with St Helens Borough Council, as part of a Community Archaeological Project funded by the Heritage Lottery Fund. The project took place over weekends during July and September 2006 and an additional week in May 2007.

The aim of the excavation was to assess the survival, nature, extent and preservation of any below ground remains associated with a late 18th century iron slitting mill. The mill was used to manufacture iron rod from iron bar which was being produced at Carr Mill Dams to the north. Documentary and cartographic evidence suggest that the slitting mill was constructed in the late 18th century and was converted to a corn mill in the early to mid-19th century. The mill area had been previously excavated in 1982 although documentation relating to this work is scant. It is known that one wheel pit was located and excavated, though it was common for slitting mills to have two water wheels. One of the aims of the project was to locate the second wheel pit associated with the slitting mill.

The excavation in 2006 consisted of eight trial trenches which found that much of the mill remained undisturbed by the excavation of the 1980s. It appears that this was largely confined to the removal of demolition debris to expose extant walls and floors and to the excavation of one wheel pit. The walls and floors exposed in the 1980s in fact lie over a c. 0.3-0.5 m thick deposit of clay which covers most or all of the site. This in turn lies over brick foundations likely to relate to an earlier structure. It is also clear from some of the trenches that some areas of the site were not disturbed at all by the earlier excavation

The week long excavation in May 2007 consisted of opening a further four trenches. The excavation concentrated on the continuing search for evidence of the earlier slitting mill and found walls which may relate to the second wheel pit and a floor surface of compacted ferrous material.

Given the limited extent of the excavation it was impossible to provide a conclusive interpretation of the results. However, it is possible that the structures exposed in the 1980s in fact largely relate to an early 19th century rebuilding following demolition of the slitting mill and levelling of the site with clay, and that the brick walls sealed by the clay are the actual remains of the slitting mill.

Contents

1. Background.....	1
2. Methodology	2
3. Results of the Trenching.....	2
4. Finds report.....	7
5. Conclusions	9
6. Bibliography.....	10
7. Figures.....	12
8. Plates	22

An Archaeological Evaluation Excavation at 'Stanley Bank Mill', Stanley Bank, St Helens, Merseyside.

1. Background

This report relates to an archaeological evaluation of land at Stanley Bank, St Helens, Merseyside (NGR SJ 538 972). The project was undertaken with the Stanley Bank Triangle Project Steering Group acting on behalf of St Helens Council, Mersey Basin Campaign, (Formerly Groundwork Trust for St Helens), St Helens Historical Research Society and Merseyside Industrial Heritage Society and was funded by the Heritage Lottery Fund. The project aimed to assess the survival of below ground archaeological deposits on the site in order to allow an informed decision to be made with regard to future strategies for the site.

The site is located within the 'Stanley Bank Triangle' part of the Sankey Valley Park, c. 3 km to the north-east of the centre of St Helens (Figure 1). The Stanley Bank area was one of the core areas of the industrial revolution in St. Helens and although currently set within a largely rural landscape, the area contains significant remains relating to its industrial past including the upper reaches of the Sankey Navigation, iron slitting mill (later converted to a corn mill and possibly also the site of a copper works) and wagon ways used to transport coal from workings on the eastern half of the site to the Sankey Navigation. A separate report will be produced on the full documentary and cartographic history of the site, which is being researched by local amateur historians. Earlier fieldwork (Adams & Ahmad 2005 and Adams, Pevely & Ahmad 2006) had been confined to the evaluation excavation of 'Copper House Row' and associated out-buildings c. 200 m to the South-East of the slitting mill. This found that little survived of these structures below ground, though substantial quantities of ceramic and building material were present.

This section of the project aimed to assess the survival of the iron slitting mill below ground level in areas that had not been previously excavated in the early 1980s and to assess the likely nature of deposits excavated in the earlier excavation. In addition the excavation sought to identify the location of a possible second wheel pit on the southern side of the slitting mill. The northern wheel pit was excavated in 1982 and analogy with contemporary mills suggests the presence of a second on the opposite side of the building. Its possible location was suggested by a large bore ceramic pipe running from the mill dam and feeding into a 'sump'. Other than the stubs of walls the mill building does not survive above ground, except for the mill dam wall, which survives in part. However substantial sections appear to have been rebuilt in the 1980s. Much of the area has been vandalised repeatedly and the site was heavily overgrown with vegetation at the time of the excavation.

General Historical Background.

The Stanley Copper works was established by Thomas Patten (Foster 2004, 255). Gregson's Fragments (1817, 187) provides a few details of the copper works, apparently 30 tons per week were cast into brass and copper ingots weighing seven ounces each for the East India trade, though works had ceased by 1813-14.

Documentation in the Sankey Valley Visitor Centre contradicts the below

Foster 2004, 255 dates the establishment of the iron slitting mill to the early 1780s when a Warrington Quaker business man, Alexander Chorley went into partnership with an unnamed individual. The business did not prosper and the mill was offered for sale in 1784, Chorley was bankrupt in 1785 but must have been able to satisfy his creditors as he was not expelled from the Society of Friends. Chorley became the salaried manager of the Stanley (Copper) Smelting Company who bought up and refurbished the old Patten works in 1785

2. Methodology

In general the strategy defined in the Project Design was adhered to, though alterations were made to the layout of the trenches informed by the results of the trenches excavated during the first weekend. All trenches were excavated by hand including, the initial removal of turf. All finds were collected, though material considered to date to post-1850 was discarded after processing.

3. Results of the Trenching

A total of eight trenches were excavated in 2006 (Trenches V – XII) with a further four (Trenches XIII, XIV, XV and XVI) excavated in 2007 at the locations in Figure 2. These are numbered in a sequence consecutive with that used in Adams & Ahmad (2005) and Adams, Pevley & Ahmad (2006).

3.1 Trench V

This trench was situated at the possible location of the southern wheel pit in the south-east corner of the mill complex (Figure 2). A ceramic pipe located during earlier survey work ran from the dam to the east, feeding into a 'sump' at the eastern end of this trench. A c. 0.5 m high bank aligned east-west formed the southern edge of the trench and was thought to represent deposits left in place after the 1982 excavation.

After the removal of undergrowth and humic topsoil [28], [31] and [35] it was found that the bank was composed of redeposited reddish brown clay [30], [34] (Plate 1, Figure 3), which also appeared at the eastern side of the trench. The clay appeared to be sealing a layer of demolition debris. An east-west aligned flagstone floor [38] was exposed directly below [35], running parallel to the northern edge of the trench and the brick wall to its north (Figure 4).

A small cluster of stones [37] was exposed in the eastern side of the trench, which further excavation revealed it to be a well constructed sump in brick and stone [64], fed by a ceramic pipe [59] running diagonally into the north east corner of the trench (Plate 2). The sump was 0.8 m deep from the lower lip of pipe [59]. Another pipe of uncertain diameter ran northwards from the base of the sump for an unknown distance.

A 1m wide sondage (Plate 3) running north-south was also excavated across the trench through clay deposit [34] where it was c. 10-20 mm thick. This revealed a 0.12 m thick layer of dark grey humic loam with frequent brick and mortar fragments [47] at the northern end which extended underneath flagstones [38]. It also exposed a dark greyish brown deposit [51], filling cut feature [53]. It measured 0.6m x 0.5m x 0.12m and was possibly a square cut post hole, the function of which was uncertain. Three iron lumps were found at the base and left in situ. Another distinctive dark greyish brown spread [52], heavily flecked with charcoal also lay in the clay to the south of [53] but was not excavated.

South of the sondage clay layer [34] was excavated to expose an oval area, 0.65m across, of dark grey gritty clayey sand [48] with inclusions of brick, mortar, coal and flagstone fragments (Figure

4). This was not fully excavated but reached a depth of 0.50m. The base of the cut [56] was very poorly defined and it is possible that this feature was in fact significantly deeper than as excavated. The function of this feature is uncertain.

3.2 Trench VI

This trench was positioned across a terrace below the mill dam wall, in the south east corner of the mill area, to the north-east of Trench V (Figure 2). It was aimed at establishing the survival of deposits potentially undisturbed by the excavation in the 1980s.

An area of 1.46m by 1.35m was cleared of loosely compacted topsoil and vegetation [29] from the top of the terrace. Following the removal of topsoil, it became clear that the reason for the terrace was a brick wall [55] 6 courses high and running north-south along the western edge of the bank (Plate 4, Figure 3). The terrace sloped up from the top of the wall [55] towards the dam wall to the east, although all the deposits below this were laid horizontally. Below the topsoil was a compact layer of dark grey sandy loam [32]. This was only a thin layer and quickly revealed a layer of redeposited clay [33] and demolition layers of rubble and soil [39], [40], [45]. After removal of rubble layer [45], an "L" shaped brick wall structure [54] appeared, with just 2 courses remaining, although lime mortar on top of the bricks suggested this had been a higher construction originally. Wall [54] butted against wall [55] (Plate 5) which suggests that one was later than the other, though given the limited extent of the trench it was impossible to establish the correct sequence.

3.3 Trench VII

Trenches VII and VIII were 1m² test-pits excavated to investigate areas from which flagstone floors exposed in 1982 had been removed. The aim of this was to establish the extent to which earlier deposits survived below the features exposed in the 1980s.

Trench VII was located to the west of Trench VI in the centre of the site, within the foundations of one of the mill buildings (Figure 2).

Topsoil [41] was excavated to a compact clay surface [42] (Figure 5). Beneath this, a clay layer [49] containing a higher concentration of bricks and brick fragments was excavated onto a distinctly darker layer of ash and clinker [50]. This in turn was excavated onto a layer of mid-grey silty clay with occasional flecks of coal which was at least 0.30 m thick. There were no significant archaeological features in this trench.

Trench VII was extended briefly during the 2007 season, c.0.50 m southwards, to see if another wall for a possible wheel pit could be exposed. This was based on measurements of wheel pit in Trench XIII. Nothing of any significance was found beyond the continuing clay deposit already recorded.

3.4 Trench VIII

This trench was located on the eastern side of the site, to the north of Trenches V and VI (Figure 2). After the removal of topsoil [43] (Figure 6) a similar clay deposit [44] to that found in Trench VII was exposed. The excavation of this trench was halted when a north-south aligned wall [57] was encountered at the western side of the trench at a depth of 0.60 m (Plate 6). The wall was composed of handmade bricks at the northern end and flagstones at the southern end. Another flagstone and a piece of charred wood lay at the eastern side, above a layer of silts and clays at the unexcavated base of the trench. This trench was not excavated further and the wall left *in situ*.

3.5 Trench IX

This trench was located to the north of the main mill area adjacent to a footpath leading up a sloped embankment to the canal basin (Figures 2 and 8). This trench aimed to locate the continuation of the dam wall beyond that exposed to the south and to assess the below ground survival of structures shown on late 19th and early 20th mapping of the area.

A thin layer of topsoil [60], which contained frequent inclusions of large pieces of 19th century ceramics, particularly black glaze ware was excavated to a layer of orange brown clay [61] which appeared to be the makeup for the slope (Figure 7). The clay at the east end of the trench only appeared to be a thin layer 0.05m thick in section but was more persistent and much deeper at the western end of the trench. Below the clay [61] at the eastern half of the trench was a layer of loose sandy loam [62] approximately 0.67m thick, which contained large amounts of ceramics, broken brick and tile. Excavation of this subsoil revealed a more compact coal rich layer [63] in the middle third of the trench, measuring c. 1.10m x 1.0m.

At the far eastern side of the trench, a wall [65] was exposed after removal of the remainder of the subsoil [62]. The wall was composed of a single skin of handmade bricks running north-south, and stood to a height of 6 courses. This wall leaned to the west by approximately 4cm, probably as a result of its partial collapse during demolition.

The removal of a rubble layer [66] in the north east corner of the trench revealed more of wall [65] and also a layer of broken flagstones [67] laid onto a buff coloured sandy lime mortar bedding [70] (Plates 7 & 8). Only the flagstones closest to the wall [65] remained, running under the wall, but it is presumed that they belonged to a larger floor area approximately 1.2m x 1m, as the mortar bedding [70] covered this eastern third of the trench. It is possible that [68], a grey stone slab formed a stone step onto the floor area [67] [70], as there was a distinctive step a few centimetres high down onto [63]. The removal of [66] also revealed a second wall behind [65] to the east. This wall [84] was mostly obscured by the trench edge but it was clear that it was constructed of the same handmade bricks laid as headers. A cavity between [65] and [84] was filled with loose mortar and rubble. The angle of the leaning wall [65] was more apparent after this as [84] had remained vertical.

The function of these structures is unclear, though the location and orientation of the brickwork would be broadly consistent with the dam wall to the south.

3.6 Trench X

This trench was located against the dam wall [73] with the aim of establishing its relationship with the ceramic pipe [59] exposed at the eastern end of Trench V (Figures 2 and 9). This section of the dam wall was principally constructed squared sandstone rubble blocks on a foundation of c. 2-3 courses of hand-made brick set onto the clay dam.

The removal of topsoil [71] exposed a very stiff brown clay layer [72] with a single sandstone slab [78], 0.54 x 0.60m set within the clay. The slab was removed to reveal that it capped a square, brick feature [79], which bounded a grey gritty sand [80] and acted as a bedding for the slab. The pipe [59] was exposed at the southern side of the trench and appeared to run in the same alignment as in Trench V though it was not bonded into the dam in any way and there was no obvious feed into it (Plate 9).

It seemed that this section of the dam wall was a repair to the clay dam, although the northern end of the wall was clearly built only of the clay [72]. The date of this repair is uncertain but the finds suggest no earlier than late 19th century. The pipe [59] feeding to the east appears to have functioned as part of this, perhaps removing water whilst the repair was underway.

3.7 Trench XI

This trench was located over the tail race for the northern wheel pit (Figure 2). The aim of this was to obtain evidence for the construction of the tail race and wheel pit.

A distinctive crushed mortar layer [75] was uncovered below the topsoil [74] and it was surmised that this was probably demolition debris. To the south of this layer, two bricks were initially exposed which, after removal of [75], became a neatly laid brick floor [76], composed of a single layer of handmade brick laid north-east south-west on a bedding of ash and cinders [77] (Plate 10). This was probably a brick floor to the mill building and was aligned with the tail race. The tail race itself was exposed below [77] as a slightly arched brick structure running north-east south-west over a water channel feeding from the dam. Excavation was halted at this point and the exposed features left *in situ*.

3.8 Trench XII

This trench was located to the north-east of Trench IX and was placed across the canal turn basin to assess its construction and to obtain any evidence for revetments (Figure 2). The trench consisted of two areas either side of the old canal, Trenches XIIa and XIIb. The canal itself was not investigated as the deposits silting it were potentially too deep to be excavated by hand in the limited time available. Therefore, an area of 1m² was removed either side of the old canal.

There was very little evidence of topsoil build up and the deposit was mainly made up of very stiff orange and grey clay [81]. This contained frequent inclusions of stones and 19th century ceramics and so this clay dump as in many parts of the site was probably laid down in the late 19th century. The clay was approximately 0.46m thick and laid onto a fine pale yellow clayey silty sand [83] at the base of the trench in both areas a and b. This was not excavated further due to time constraints but it is possible that [83] represents the silts at the bottom of the canal basin that have been compressed by the dump of clay [81] and [82]. No revetments, brick or stone structures were found at the edge of the canal and there were no archaeological features in either of the areas in this trench.

3.9 Trench XIII

This trench was positioned over a possible spread of industrial debris located by a geophysical survey carried out by Stratascan (Heard 2006). The trench lay to the north-west of Trench VIII and initially measured 5m x 4m, it was later extended by 1.5m x 2m in the north-west corner running up to wall [121] (Figures 2 & 10).

Topsoil [100] was removed to a depth of c. 0.15m to expose the top of a sandstone wall [101] running northeast – southwest in the north-west corner of the trench. Two Yorkstone flags [102], c. 0.60m x 0.50m x 0.06m, lay adjacent to [101] on the southern side and were probably the remains of a flagged floor (Plate 11).. A thin, loose clinker/cinder layer [103] covered the central area of the trench.

Layer [104] was observed in the southern area of the trench and as a patch in the far north-eastern corner. This layer consisted of very compacted dark grey/brown sandy ferrous material with occasional stone, brick, clinker and industrial waste inclusions. A sample of this layer was taken in order to determine the composition under microscope. It is possible that this surface represents debris deposited on the floor of the slitting mill which would account for its high ferrous content.

In the south-eastern corner of the trench two courses of narrow red bricks [105] one course high were visible below topsoil, running south-west – north-east. The north-east section of [105] was capped by stone slab fragments. A cavity between the brickwork was filled with loose loamy topsoil containing brick fragments, clinker and sandstone inclusions [106]. Two shallow, narrow strips of

firm clayey silt [114] lay on either side of brickwork [105], presumably as a backfill for the gully cut [107].

This feature probably that it served as a drainage culvert and had been cut through layer [104], suggesting that it post dated the slitting mill. Three of the bricks have patches of copper residue visible on the surface implying the bricks had been re-used.

A clearly defined, very dark greyish brown rectangular deposit of firm clay silt [112], 1.05m x 0.62m, lay adjacent to the northern section of [105]. This also cut through [104] as a shallow, undulating depression [113]. The feature was half sectioned and proved to be a very thin deposit only 30 mm thick. A moderate amount of brick and stone flag fragments were observed within the fill as well as a fragment of flue tile. The function of this feature was not determined.

A small sondage, measuring 2.30 m x 1.50 m, was excavated through clinker layer [103] in the mid-western area of the trench. A drainage gully [110]/[111] similar to [105] was exposed running in a south-west – north-east alignment. This lay over a compacted gingerish brown silty clay brick rubble layer [109]. The sondage was taken down further in order to establish the depth of context [109] which reached 0.20m. The full extent of this spread was not clearly defined. A layer of 'dirty' clay was then uncovered at the base of [109]. This was probably the same clay layer encountered in 2006 which sealed earlier features across much of the site, especially to the south.

It was decided to extend the trench in its north-west corner in order to investigate the possible presence of another sandstone wall running parallel with [101]. Topsoil [100] was removed to a depth of 0.10 m onto a loose clinker layer [103] as in the main trench. Drainage gully [110]/[111] continued on the same alignment into the trench extension, cutting through wall [101]. The gully was made up of two parallel courses of red brick [111] bound by a friable dark brown silty loam and had been capped by broken stone slabs [110]. The slabs at the far north-eastern end of the gully had been disturbed. The drain was not substantial enough to ascertain its exact function, but was probably related to [105] and the later corn mill. Two clay tobacco pipe stems and one post medieval darkware sherd were recovered from [111].

A section through drain [110]/[111] was taken out at the intersection with wall [101]. The drain post-dated the sandstone wall [101] having cutting [122] straight through. Once the stone slabs [110] and brick [111] were removed two parallel courses of sandstone blocks, c.0.65m, were visible below with a central cavity filled with solid mortar and sandstone fragments.

The remainder of the trench extension was covered with a compacted gingerish brown silty sand clay rubble layer [115] which contained a moderate amount of brick and stone slab fragments along with coal, clinker and ferrous inclusions. This layer was excavated to a depth of c.0.40 m before a waterlogged layer of redeposited clay [116] was reached. This layer was excavated to a depth of 0.80 m below ground level but was probably significantly deeper.

At ground level wall [121] was a linear red brick wall. As contexts [115] and [116] were excavated it became apparent that the brick wall consisted of three courses to a depth of around 0.34 m and overlay an earlier sandstone wall of ashlar masonry (Plates 12 and 13).. The top course of brick had evidence of later mortar pointing presumably to stabilise the brickwork at ground level. The brick courses appear to represent a later addition for the corn mill overlying the original sandstone block foundations for the earlier slitting mill.

Walls [101] and [121] are strong candidates for the walls of the second slitting mill wheel pit with contexts [115] and [116] being the in fill. The distance between the walls, at c. 2.50 m, corresponds with the width of the known wheel pit on site.

3.10 Trench XIV

This trench was situated on the northern side of wall [121], opposite to Trench XIII (Figures 2 & 3). The trench was a small 1.50m x 1.00m test-pit intended to investigate the north facing elevation of wall [121].

A thin layer of topsoil [117], c.30mm thick, was removed onto a 'clean' sand layer probably used for levelling the ground. The sand overlay a compacted lime mortar/clay surface [119] at a depth of 0.10 m. This layer proved very difficult to dig through due to the solid matrix of clay and mortar and had probably been used as a bedding surface for a flagged floor. The compacted yellowish brown sandy clay deposit [120] below contrasted sharply below [119] and contained a moderate amount of stone flag fragments. This layer was observed running across the trench to a depth of at least 0.50m, probably more. Although no corresponding wall was encountered it was speculated that this deposit [120] may represent the backfill for a pit wheel. Further investigation will of course be needed to determine the existence of another wall further northward and eastward.

Whilst excavating this trench the north facing elevation of wall [121] was exposed (Plate 13).

3.11 Trench XV

This trench was located just northwest of Trench VII against an existing mill wall running roughly east – west (Figure 2). The trench was a 1m² test pit used to investigate the construction of the existing red brick wall and compare with walls [101] and [121]. The trench lay within an area of known clay deposits recorded last season and became waterlogged after heavy rain.

A thin layer of topsoil, 50mms thick, overlay a thin clinker layer of a similar depth. This layer went straight onto a clay deposit. The clay deposit was excavated a further 0.10m. Having reached seven courses of brickwork down against brick wall a sandstone ledge was present at a depth of 0.68m, 0.20m wide from wall. The ledge was not able to be observed due to the rapid flooding of the trench. However, the ledge was confirmed by spaced probing with a metal road pin. The trench was then backfilled immediately. This wall section showed a similar construction to [101] and [121] with a corresponding width for the sandstone ledge seen in Trench XIV. This may have indicated the presence of a third wheel pit wall.

3.12 Trench XVI

This trench was situated over 8.00m east of Trench XIII, along wall [121] (Figure 2). The trench was excavated in order to investigate the extent to the east of the possible wheel pit observed in Trench XIII and possibly shown as a rectangular anomaly picked up by the geophysical survey (Heard 2006).

Topsoil [123] was removed to a depth of 0.10 m onto a clayey loam brown layer [124] with inclusions of stone flag fragments and brick rubble. Layer [124] ran across much of the trench. This make-up layer was removed to a depth of c. 0.35 m. Below lay a mixed rubble layer [125] which covered much of the central and northern half of the trench.

At the southern end of the trench lay two large Yorkstone flags [126], c. 0.40m x 0.35m, on top of a thin sand and mortar bedding. Severe root disturbance was also observed at this end of the trench causing the flags to lie unevenly. Both flags had been laid onto a clay deposit recorded in Trench VIII from last season. One post medieval pot fragment and large sandstone fragments were found within this clay deposit.

4. Finds report

The finds report includes a discussion of the material from the 2004 and 2006 excavations (Adams & Ahmad 2005; Adams, Pevley & Ahmad 2006). Finds from the 2007 season remain unprocessed at present but are discussed briefly.

4.1 Methodology

The finds were retrieved from the site within context groups and were processed at the National Museums Liverpool Field Archaeology Unit (NMLFAU), where they were recorded on the NMLFAU finds database having been identified by C. Ahmad and J. Speakman. Kathy Jason assisted as a volunteer. Quantification is by total number of pieces and by weight.

Due to the large quantities of material a discard policy was agreed on fragments of brick, glass, coal, clinker, shale, industrial waste, drainpipe, lead, most post medieval and modern pottery. Much of the material retained in the archive included substantial diagnostic fragments or unusual forms of mainly dark-glazed wares from large contexts such as [18], all clay tobacco pipe fragments, unusual ceramics, unidentified iron objects and flint.

Many of the finds have not been subject to specialist examination. Due to time constraints and the large quantities of material present this assessment has not looked at cross-context pottery joins or individual contexts in detail.

4.2 Description of the Assemblage

A total of 2838 finds were recovered, weighing over 113 kg from 43 contexts and from unstratified deposits.

The vast majority of the excavated material consisted of mid-late 19th century ceramics primarily dark-glazed wares, earthenwares and china recovered from topsoil and subsoil. The bulk of finds consisted of fragments of building materials of ceramic, plaster and stone; clay tobacco pipes, industrial waste, glass, metal, molluscs and animal bone, one worked prehistoric flint core was also recovered from the Copper House Row excavation. This dates to the Mesolithic/early Neolithic period (R. Cowell pers comm, NMLFAU).

The pottery is recorded by general ware/fabric type, with a count of the individual sherds present and a total weight for each record. Each record was assigned a unique identification number.

A number of different wares were identified (Table 1). Perhaps most interesting were 12 sherds of porcelain biscuitware from demolition debris in Trench IX. Biscuitware is produced as part of the porcelain manufacturing process and would have originally come from a kiln site, since no such kilns exist in St Helens it is presumed that these sherds are chance, dumped finds from outside of the area.

One large dark-glazed ware pancheon profile, from Trench XII weighing over 3 kg, (sf 233) was discovered from context 82, Trench XII. This vessel has an unusual 19th century form using 18th century production techniques. This is indicated by the more refined fabric, even black glaze, deep throwing marks on the exterior and the slightly hooked, flared rim. The profile represents c. 40% of the vessel. (J. Speakman pers comm.)

Pottery type	Total number of pieces	Total weight (g)
Uncertain	2	18.50

Pottery type	Total number of pieces	Total weight (g)
Biscuitware	12	186.50
Basaltware	1	17.50
China	1127	6340.30
Creamware	12	333.30
Dark-glazed ware (general)	452	19126.00
Late Coarse Dark-glazed ware	270	31361.10
Late Fine Dark-glazed ware	101	2759.00
Mottledware	7	138.90
Self-Coloured Earthenware (general)	3	234.40
Late Self-Coloured Earthenware	23	277.40
Slip-Coated ware	1	44.60
Shell-Edged Earthenware	16	856.70
Decorated Slipware	32	541.10
Turned Slipware	3	223.00
Stoneware	89	1228.00
Unglazed	20	442.10
Yellowware	3	128.80

Table 1: Pottery types

The ceramics includes a number of pieces of post medieval brick including three vitrified pieces, and modern drainpipe. The ceramic tile includes 61 fragments of wall tile possibly originally from the cottages. There are also a number of fragments of stone roof slate. A total of 8 fragments of malting oven floor were also identified.

154 clay tobacco pipe fragments were recovered 141 stems, 11 bowls and 2 spurs weighing 310.3g. Three of the bowls were moulded though all are 19th century in date. An unidentifiable pipe clay object (SF 20) is similar to objects found at the excavations at Lea Green (Site 76), St Helens. The function of these pieces has yet to be identified.

Large quantities of industrial waste were recovered which was to be expected considering the site location. Metal finds were confined to heavily corroded iron fixtures and fittings.

No material earlier than the 18th century was recovered from site with the exception of one worked early prehistoric flint found in Trench I topsoil.

In general the excavated material from 2007 was typical of finds groups already found on previous seasons at Stanley Bank, mainly 19th/20th century ceramics and clay tobacco pipe fragments. A representative sample of industrial waste from Trench XIII was kept for eventual analysis by Dr M. Adams (NMLFAU) in relation to the possible slitting mill floor [104] which had a high ferrous content.

5. Conclusions

One of the most significant results of this programme of trial trenching was that sections of the site, in particular the south-eastern corner, a strip c. 1-2 m wide against the steel fence and the areas outside the fence, were not disturbed by the excavation conducted in c. 1982. Furthermore, the nature of the deposits in the undisturbed areas suggests that the 1980s excavation was largely confined to the removal of top soil and demolition debris to expose floors and walls from the final

phases of the mill. Although the finds from that excavation have since been lost it is likely that they relate entirely to the later phases of the mill's operation and to its demolition in the early 20th century.

The deposits of reddish brown and orange clay found in Trenches V, VII and VIII appear to be have been a clay dump, c. 0.3-0.4 m thick spread over much of the site. In Trench VIII these seal a north-south aligned brick wall. Given the very limited extent of this trench it is impossible to provide a conclusive interpretation of this feature but it clearly relates to a structure pre-dating the walls and floors exposed in the 1980s. This, along with the results in Trenches XIII and XIV from the 2007 season, suggests that the 19th century corn mill was in fact a total replacement of the late 18th century slitting mill which had been demolished and the site levelled with the clay which it now seems likely covers much of the site.

The investigation into the possible southern wheel pit in Trench V produced evidence of cut features in the clay deposit, including a possible posthole of unknown date. Although the deposits of clay are at least 0.6 m deep in this area, no conclusive evidence for a second wheel pit was found in this part of the site.

The tail race uncovered in Trench XI was sealed by 19th century brick floors constructed using bricks on the same alignment as the tail race itself, although unfortunately the construction of the tail race could not be dated.

The flag floor and wall exposed in Trench IX also probably relates to a building or structure associated with the mill, possibly the dam. The evidence from Trench X suggested that the mill dam wall had been repaired in the late 19th century or later and the ceramic pipe feeding from the dam possibly functioned to remove water during the repairs. Whatever the function of the sump the pipe feeds into it does not appear to relate directly to a wheelpit as it carried water away to the north following a sharp right angle bend.

Sandstone walls [101] and [121] in Trench XIII are the best candidates located to date for the second wheel pit and with the ferrous floor surface suggest that significant remains relating to the slitting mill remain undisturbed. However, further excavation would be needed in order to confirm that these walls relate to the wheel pit, particularly as they do not appear to be parallel. The relationship between this wheel pit and the reservoir also remains uncertain.

Other than a single flint tool from the Copper House Row site, there were no finds earlier than 18th century in date. The vast majority of the assemblage is of 19th century date and all of the earlier material is in residual contexts, the large pieces of black glaze ware, including a large pancheon found in Trench XII, indicate that the fragments had not travelled far and were probably deposited from a local source.

The material present from this excavation is characteristic of the casual dispersal of domestic refuse brought possibly from Liverpool or surrounding farmsteads. This range of finds groups is typical of excavations within the Merseyside area.

6. Bibliography

Adams M. & Ahmad C. 2005 *An Archaeological Excavation at Stanley Bank, St Helens, Merseyside*. NGR SJ 538 972. Unpublished NMLFAU Report for St. Helens MBC.

Adams M., Pevley S. & Ahmad C. 2006 *An Archaeological Excavation at Stanley Bank, St Helens, Merseyside*. NGR SJ 538 972. Unpublished NMLFAU Report for St. Helens MBC.

Foster C. F. 2004 *Capital and Innovation-How Britain Became the First Industrial Nation. A Study of the Warrington, Knutsford, Northwich and Frodsham Area 1500-1780*. Arley Hall Press.

Stanley Bank Evaluation Excavation 2006/2007

Gregson M. 1817 *Second Part of a Portfolio of Fragments Relative to the History and Antiquities of the County Palatine and Duchy of Lancaster*. Liverpool.

Heard H. 2006 *Geophysical Survey Report, Stanley Bank Slitting Mill, St Helens, Merseyside*. Unpublished report for St Helens Council.

7. Figures



Figure 1. Site location.

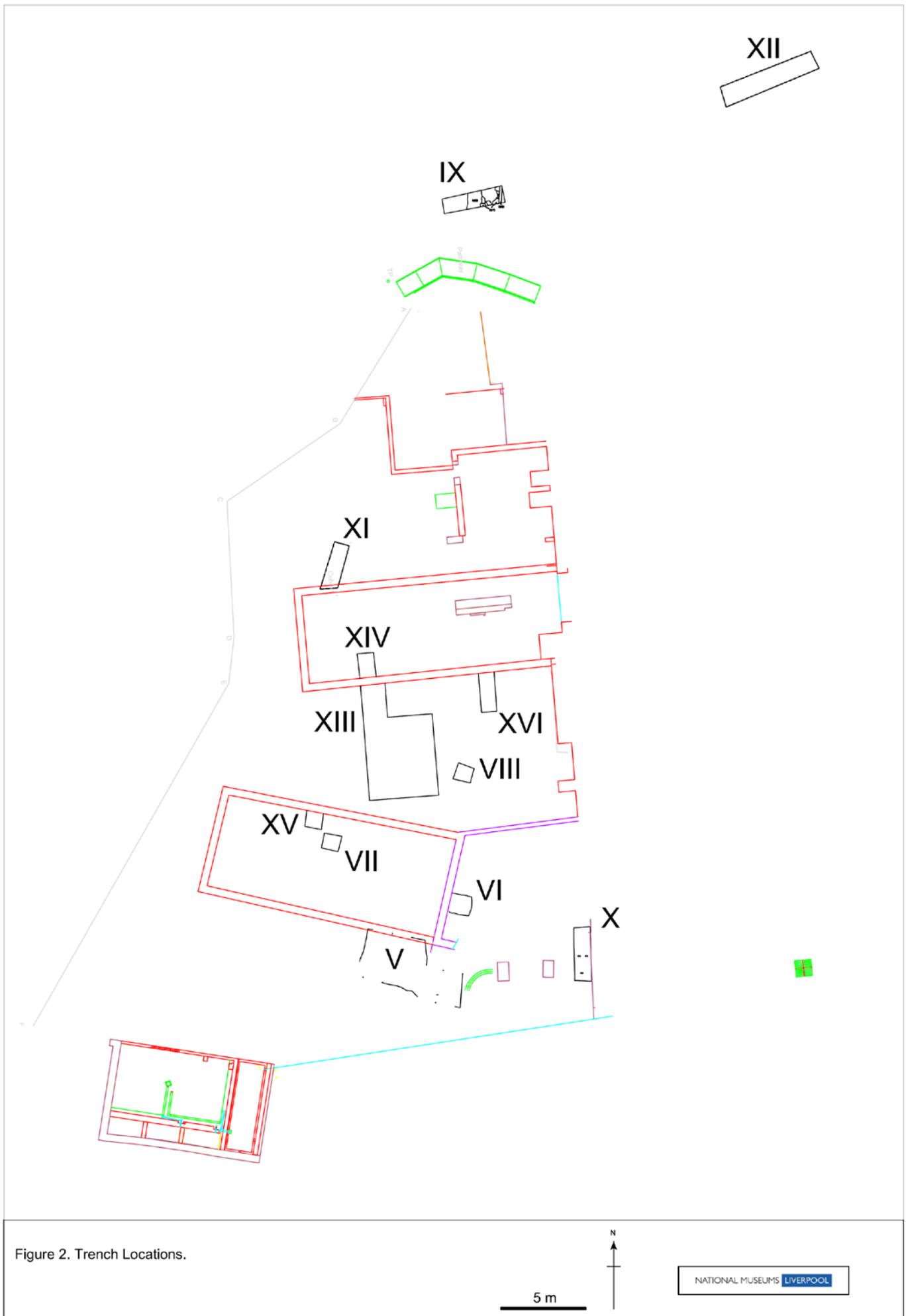


Figure 2. Trench Locations.

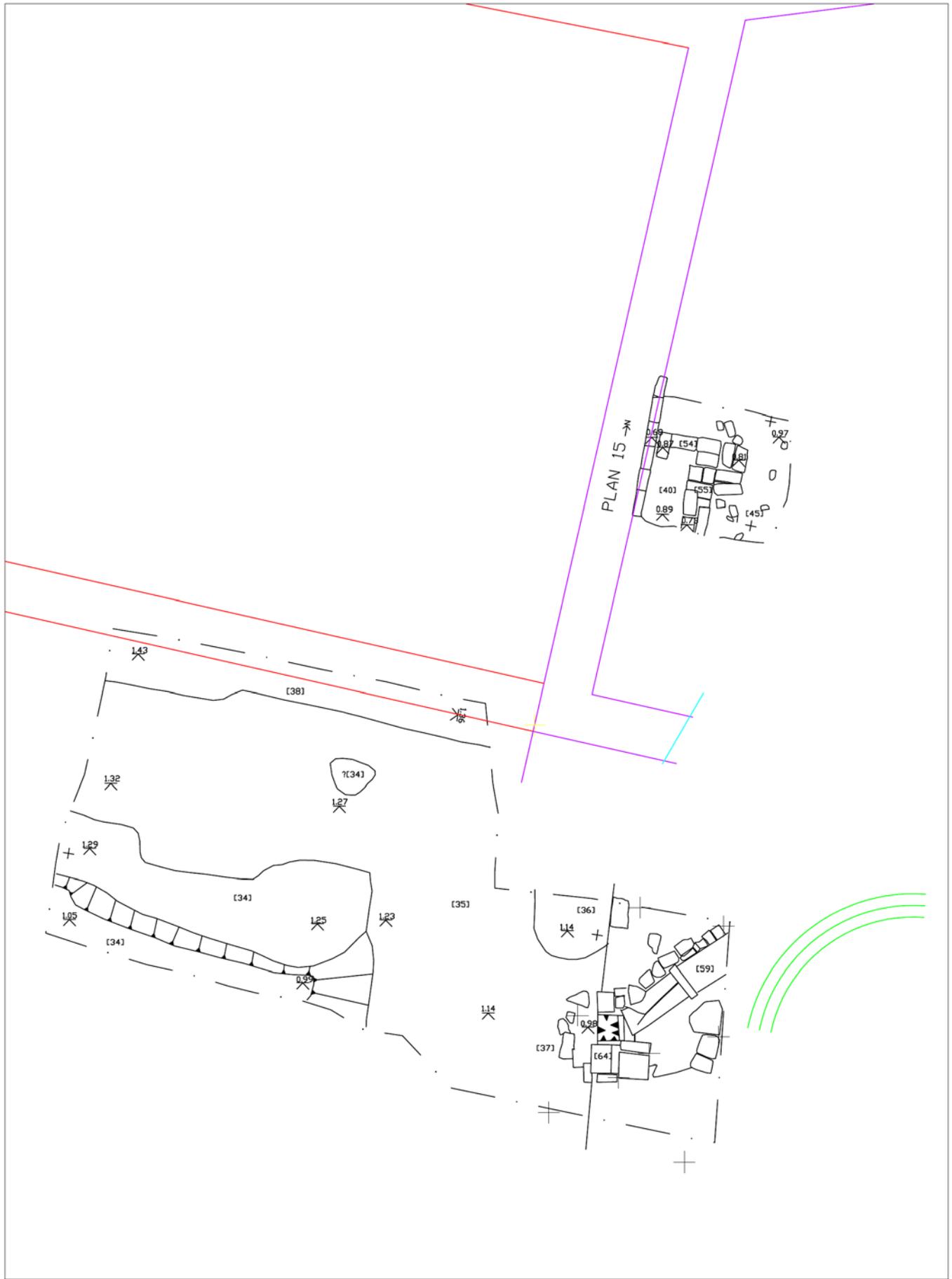


Figure 3. Trenches V and VI.
Deposits exposed following excavation of top soil.



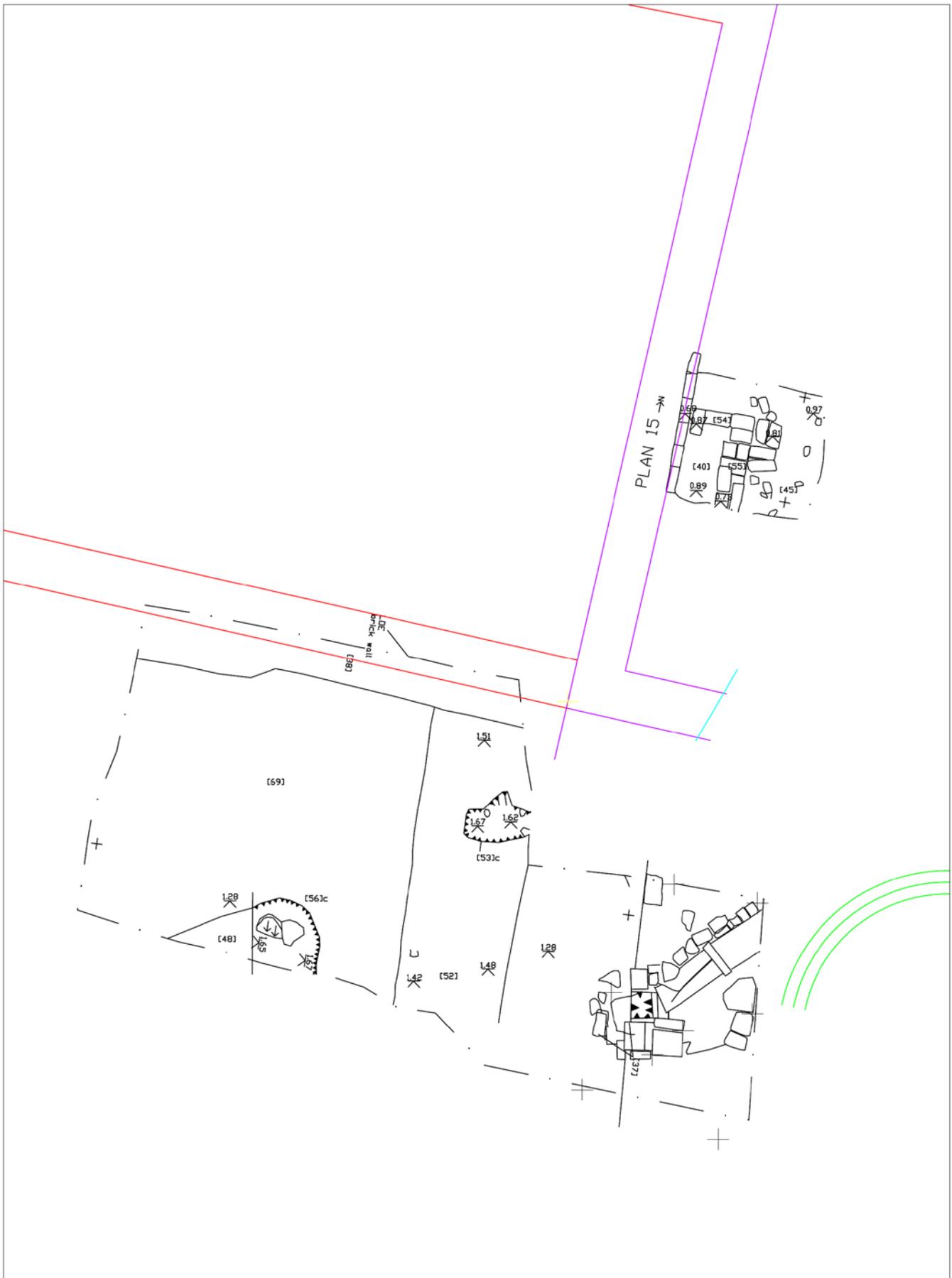


Figure 4. Trenches V and VI.
Deposits exposed following removal of layer [34].

1 m



NATIONAL MUSEUMS LIVERPOOL

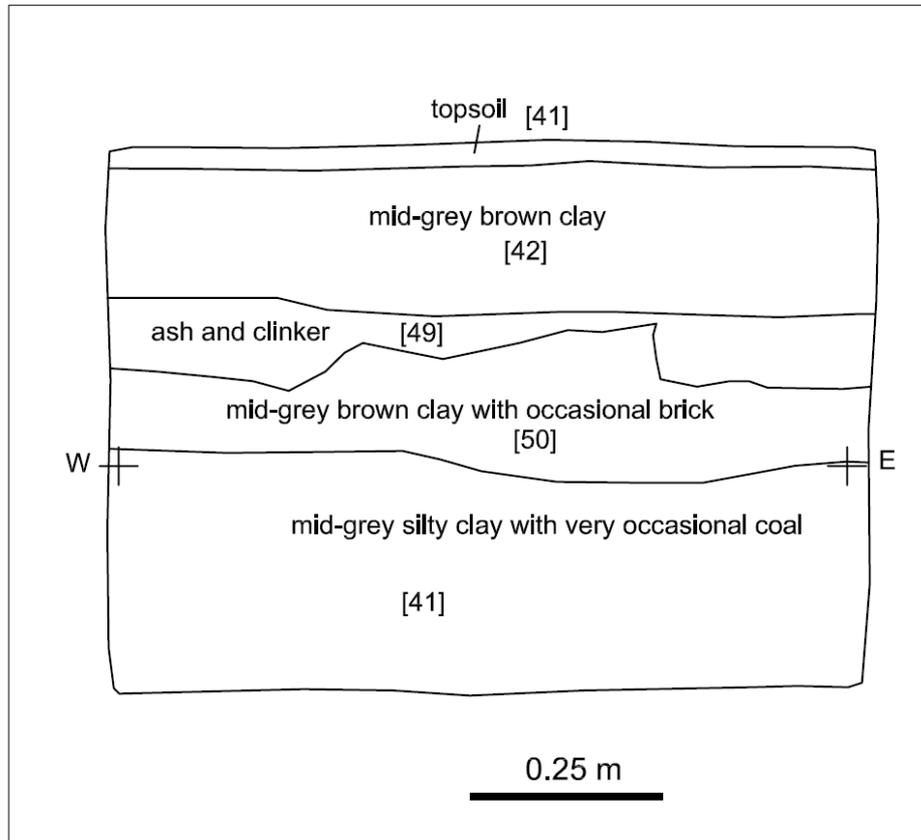


Figure 5. South facing section through deposits excavated in Trench VII.

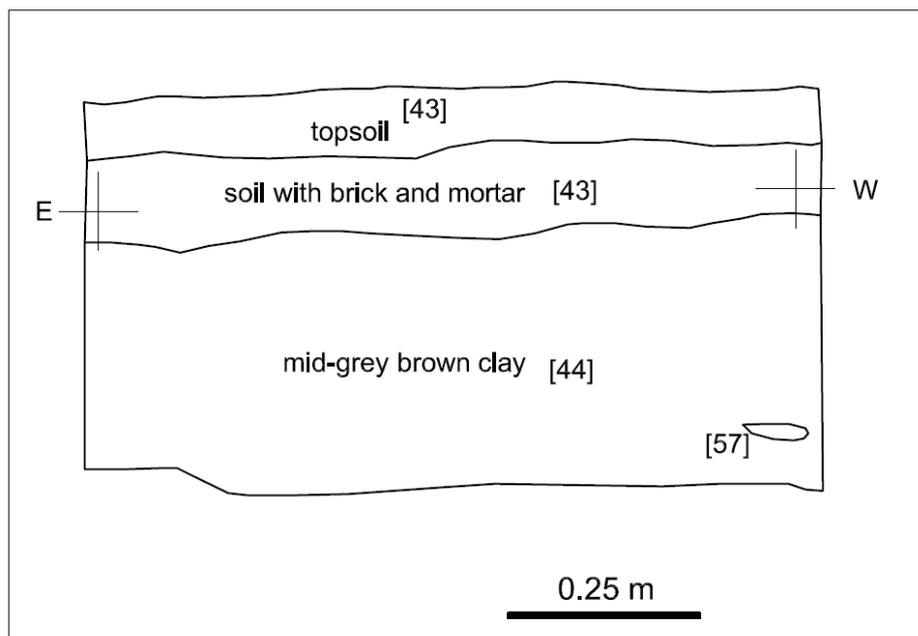


Figure 6. North facing section through deposits excavated in Trench VIII.

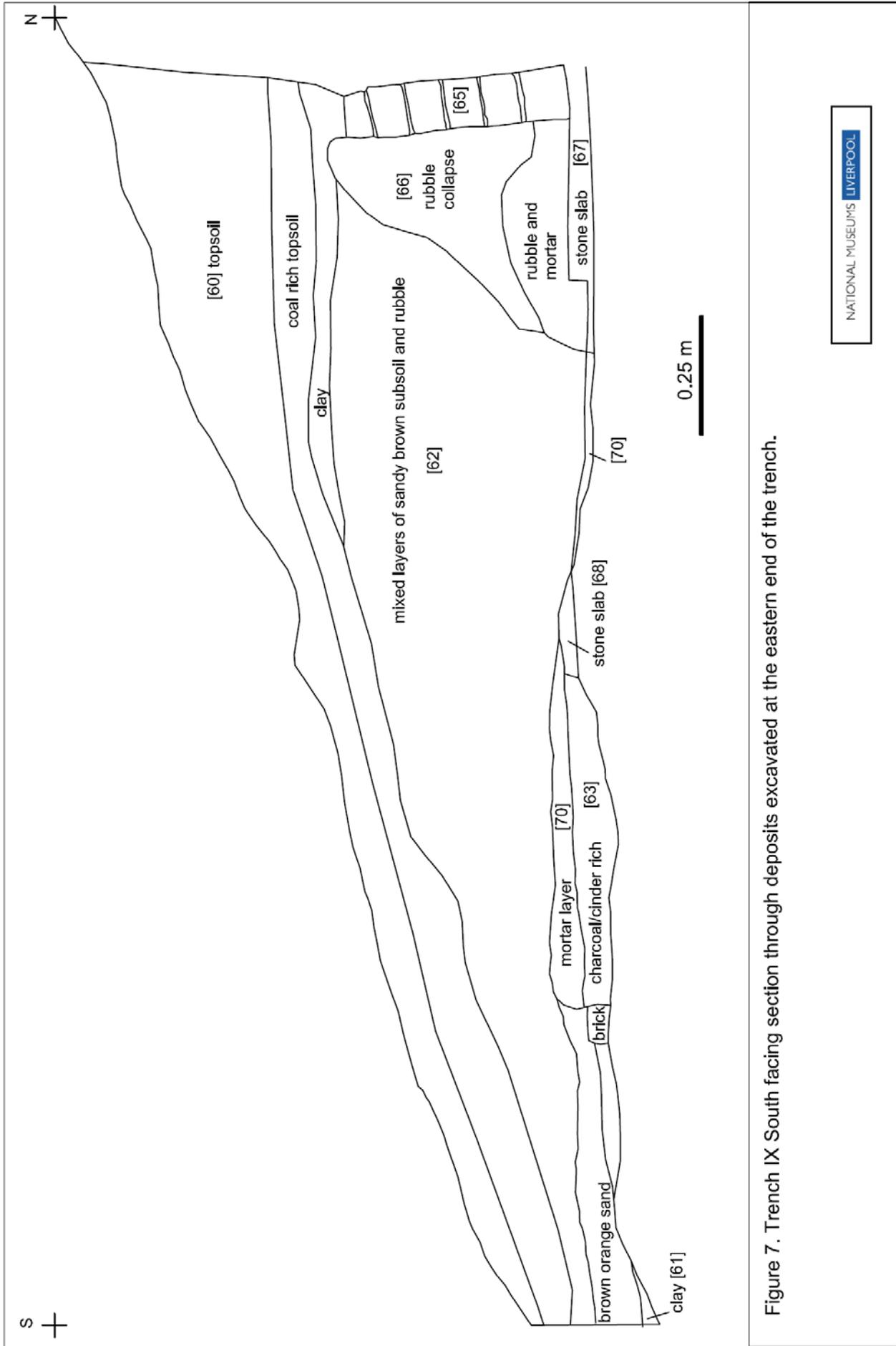


Figure 7. Trench IX South facing section through deposits excavated at the eastern end of the trench.

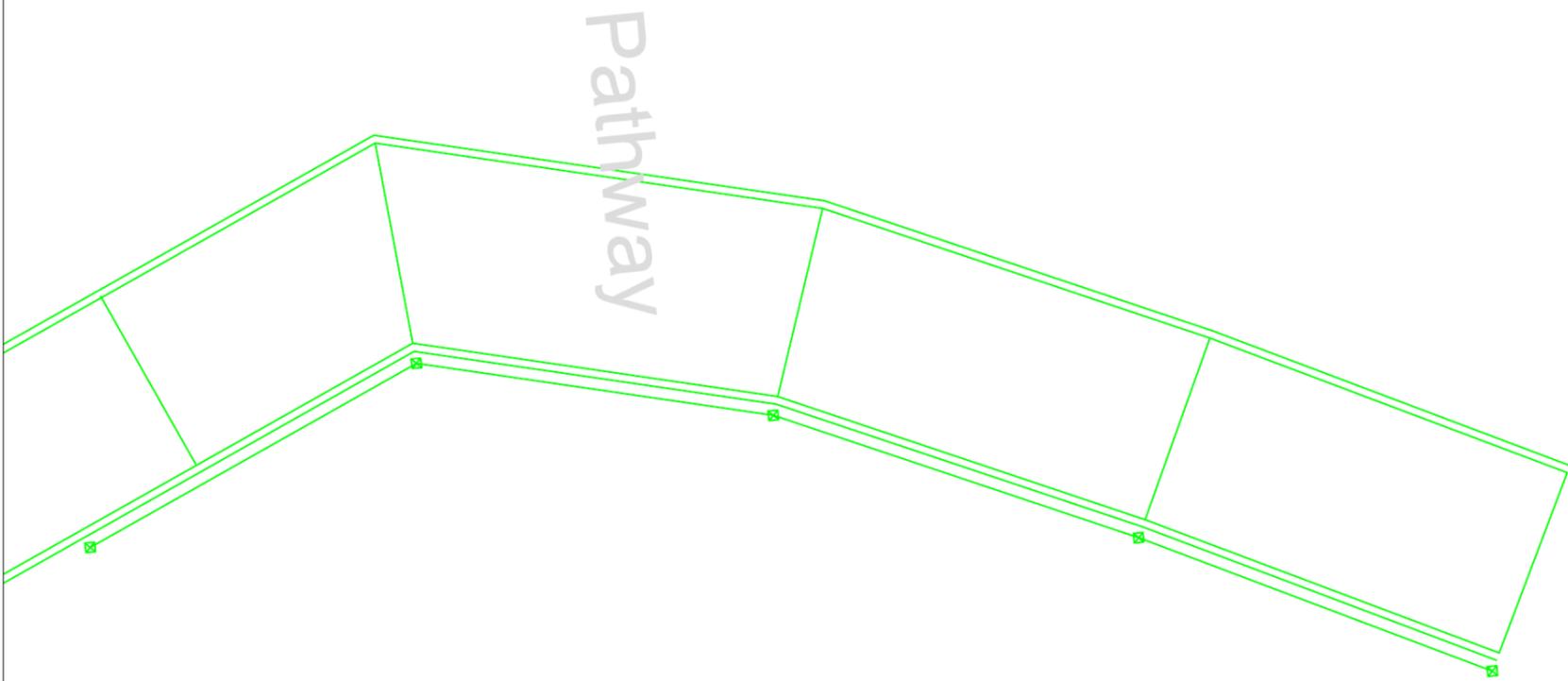
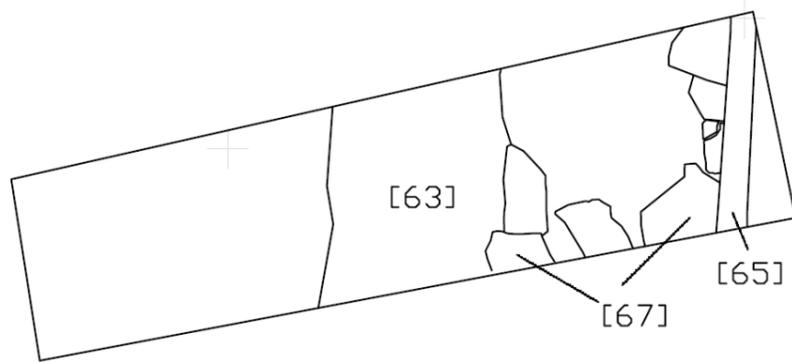
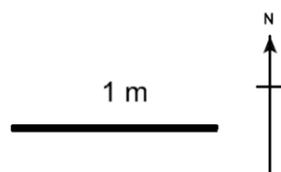


Figure 8. Trench IX.



NATIONAL MUSEUMS LIVERPOOL

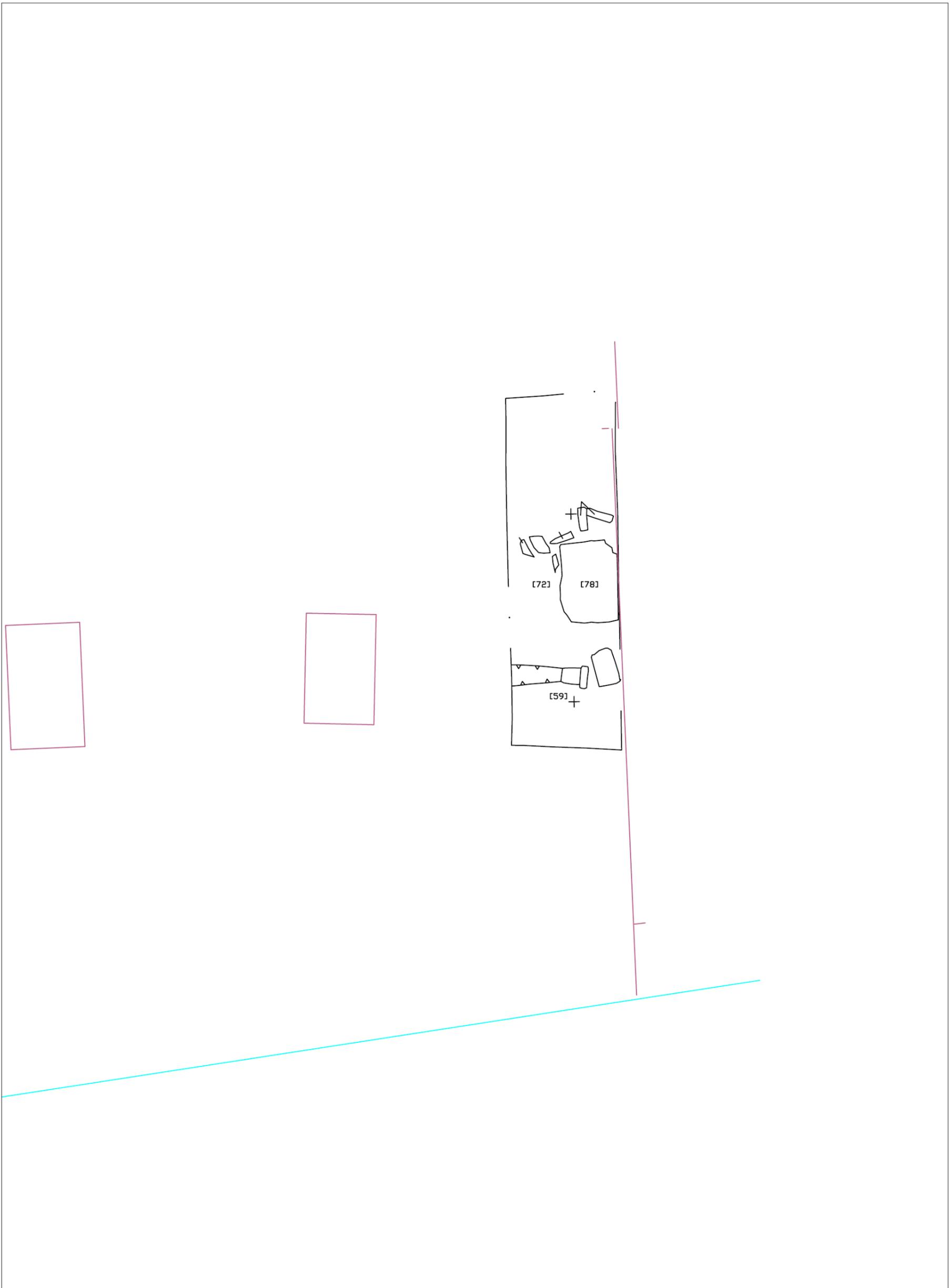
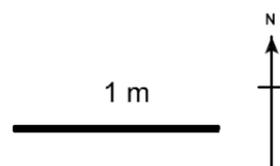


Figure 9. Trench X.



NATIONAL MUSEUMS LIVERPOOL

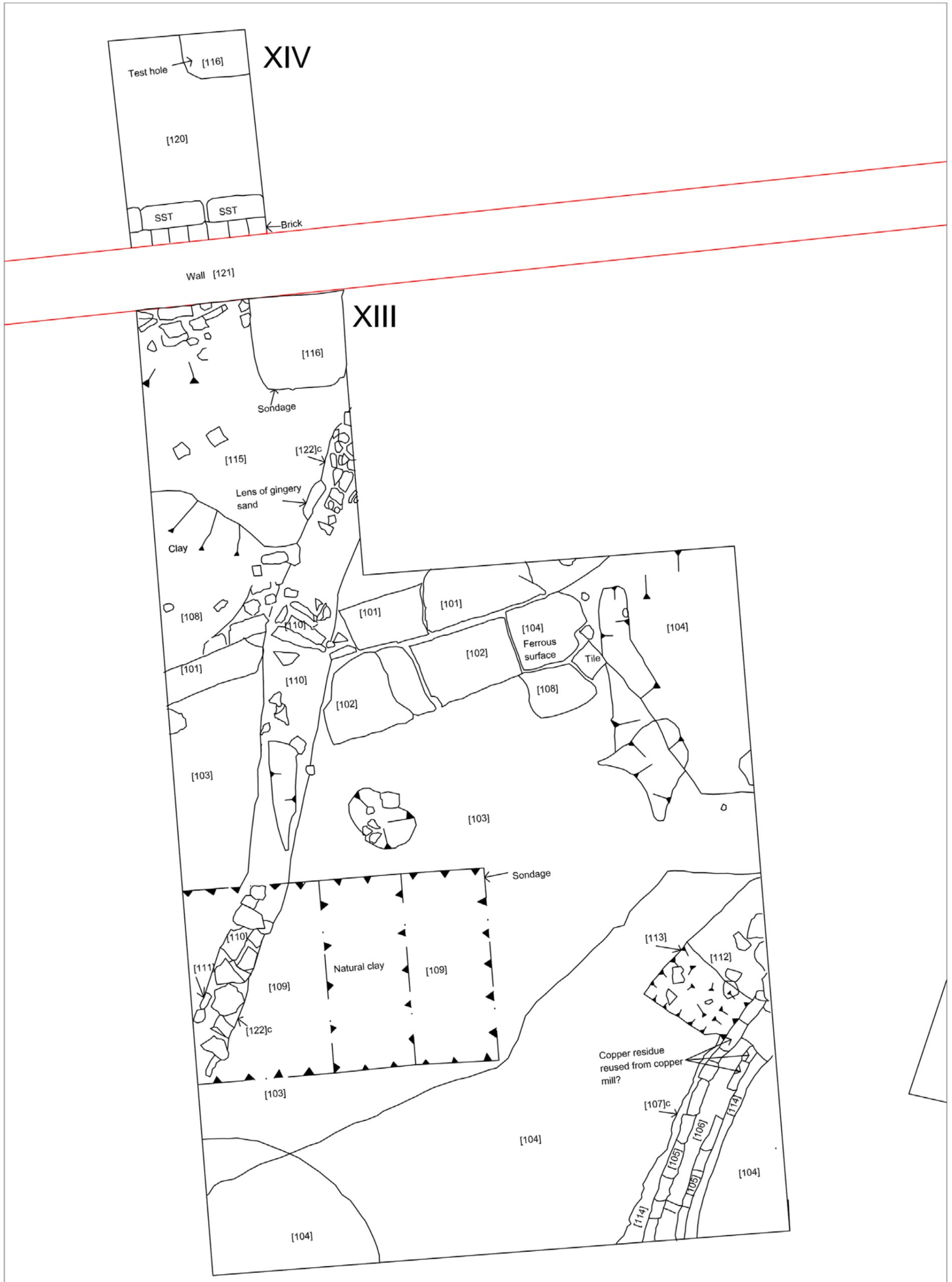


Figure 10. Trenches XIII and XIV.

1 m



8. Plates



Plate 1. Trench V following removal of top-soil. View looking south-east.



Plate 2. Trench V, pipe [59] and sump [64] from the south-west.



Plate 3. Trench V following excavation of sondage. View looking south-east.



Plate 4. Trench VI following removal of top-soil. View looking east.



Plate 5. Trench VI. Walls [55] and [54]. View looking south.



Plate 6. Trench VIII, north-south aligned wall at base of trench. East is at the top.



Plate 7. Trench IX. Wall [67] and flags [65]. View looking east.



Plate 8. Detail of east end of Trench showing walls [65] and [84].



Plate 9. Trench X. Pipe [59] in foreground, brick footings to slab [78] to rear. View looking north.



Plate 10. Trench XI. Brick floor [76] in foreground, the arched head to the tail race in the rear. View looking south.

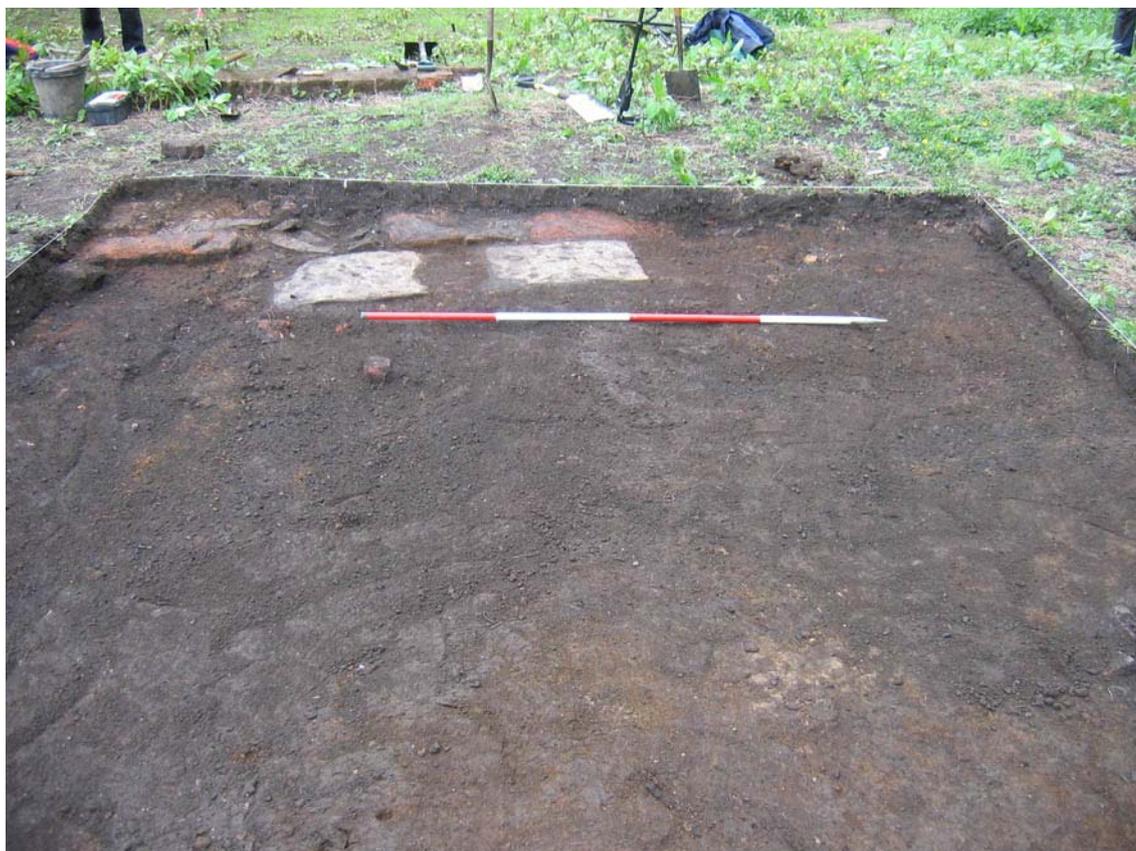


Plate 11. Wall [101] as first exposed in Trench XIII. View looking North.



Plate 12. Sondage excavated against wall [121], Trench XIII. View looking north.



Plate 13. Sondage excavated against wall [121], Trench XIV. View looking South.