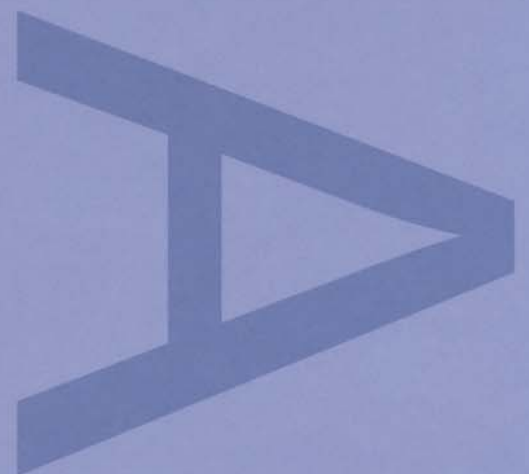
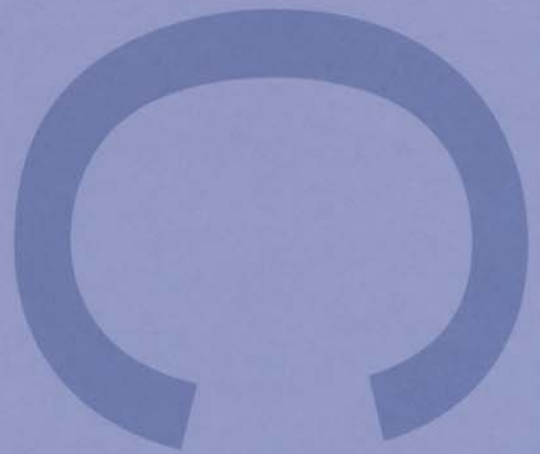
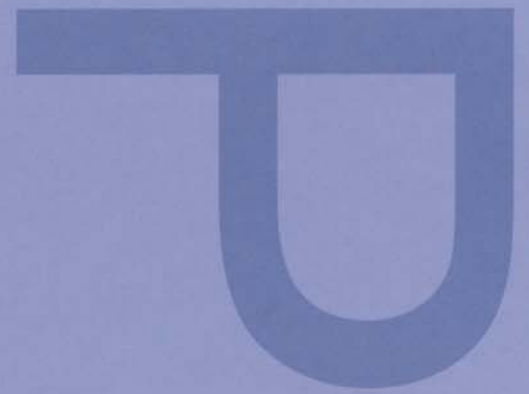


**AN ARCHAEOLOGICAL EVALUATION AT
THE FORMER RAWMARSH DAIRY,
CLAYPIT LANE, RAWMARSH,
ROTHERHAM, SOUTH YORKSHIRE**



PRE-CONSTRUCT ARCHAEOLOGY

**An Archaeological Evaluation at the Former Rawmarsh Dairy, Claypit Lane,
Rawmarsh, Rotherham, South Yorkshire**

Site Code: CLR 03

Central National Grid Reference: SK 4445 9655

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November 2003**

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1. NON-TECHNICAL SUMMARY

- 1.1 This report details the results and working methods of an archaeological field evaluation undertaken by Pre-Construct Archaeology Limited at the former Rawmarsh Dairy, Claypit Lane, Rawmarsh, Rotherham, South Yorkshire. The central National Grid Reference is SK 4445 9655.
- 1.2 The field evaluation was undertaken from 13th October to 17th October 2003 and was commissioned by Whelmar Homes Limited in advance of a proposed re-development of the site for residential purposes. The buildings of the former Rawmarsh Dairy - dating from the 1950's and later - were demolished immediately prior to the evaluation. The fieldwork was supervised by the author of this report and project managed for Pre-Construct Archaeology Limited by Robin Taylor-Wilson.
- 1.3 The broad aim of the work was to establish the degree of survival of remains of the Meadow Works, identified as having occupied part of the site by an earlier desk-based archaeological assessment. The Meadow Works was a pottery, brick and tile works dating from the early 19th century. Shortly before its closure in the early 20th century, the core of the complex comprised a main building, an ancillary building and four kilns, with extensive claypits to the north and east.
- 1.4 The evaluation was to comprise five trenches, each measuring 10m x 2m. However, Trench 3 was located in an area occupied by a substantial mound of crushed concrete and could not be investigated. Trench 1 measured 11.50m east-west x 3.50m north-south, Trench 2 measured 12.80m east-west x 2.40m north-south, Trench 4 measured 11.50m north-south x 2.80m east-west and Trench 5 measured 6.20m north-south x 3.00m east-west. Trenches 1, 2 and 4 were located outside the footprint of the main building of the former Rawmarsh Dairy to identify surviving remains of the Meadow Works buildings and kilns. Trench 5 was sited to investigate the area of the former claypit to the north-east.
- 1.5 In broad terms, the evaluation identified natural clay deposits, overlain by extensive ground makeup deposits of recent origin. In Trench 1, the remains of at least one 19th century building were identified. Constructed of firebricks, these probably represent part of the western ancillary building of the Meadow Works. In Trench 2, the relatively well-preserved remains of a brick-built bottle-kiln were encountered, this structure being one of four known from map evidence to have been associated with the Meadow Works. In Trench 4, a probable backfilled claypit was revealed and substantial made-ground deposits of 20th century date were identified in Trench 5, presumably relating to the landscaping of the site during the construction of the dairy in the 1950's.

2. INTRODUCTION

- 2.1 The archaeological field evaluation was conducted by Pre-Construct Archaeology Limited (hereinafter PCA), at the former Rawmarsh Dairy, Claypit Lane, Rawmarsh, Rotherham, South Yorkshire (Figure 1). The central National Grid Reference for the site is SK 4445 9655. The evaluation was undertaken from 13th October to 17th October 2003 and was commissioned by Whelmar Homes Limited, prior to the re-development of the site for residential purposes. The evaluation was supervised by the author of this report and project managed for PCA by Robin Taylor-Wilson.
- 2.2 The field evaluation was preceded by an archaeological desk-top assessment of the site.¹ The results of this work indicated that the site was formerly occupied by the 19th century Meadow Works, a pottery, brick and tile manufactory (Figure 2). In addition, extensive claypits had been excavated to the north and east of the works, these being gradually infilled during the 19th and early 20th centuries. From the 1950's, the site was occupied by the Rawmarsh Dairy; this being demolished immediately prior to the evaluation.
- 2.3 An archaeological watching brief during the demolition of the former dairy buildings suggested that remains of the Meadow Works could have survived outside the footprint of the dairy buildings.²
- 2.4 A brief for archaeological investigation of the site was prepared in 2001 by the South Yorkshire Archaeology Service (hereafter SYAS), at the time of an initial proposal to re-develop the site.³ The evaluation was undertaken according to an agreed project design compiled by PCA.⁴
- 2.5 The site is generally trapezoidal in shape, measuring c. 200m east-west x c. 70m north-south in the west, widening to c. 190m in the east. At the time of the evaluation, it consisted of an open area of demolition material occupied by several substantial mounds of crushed concrete. It was bounded by Claypit Lane to the north and west, Ash Grove to the south, and Walker Street to the east. In the north-eastern corner of the site was an elevated area, c. 5m higher than the rest of the site, level with Claypit Lane, while the south-eastern portion of the site was a lower-lying 'bowl-like' area.
- 2.6 The broad objectives of the field evaluation were to locate and identify the remains of the buildings and kilns of the Meadow Works and to identify the infilling process of the claypit in the north-eastern corner of the site. An additional aim of the evaluation was to assess the degree of preservation of these remains.
- 2.7 At the time of writing, the project archive is housed at the Northern Office of Pre-Construct Archaeology Limited, Unit N19a Tursdale Business Park, Durham and will ultimately be deposited with the Clifton Park Museum, Rotherham. The project was allocated the site code CLR 03.

¹ ARCUS, 2001.

² PCA Ltd., 2003a.

³ SYAS, 2001.

⁴ PCA Ltd., 2003b.

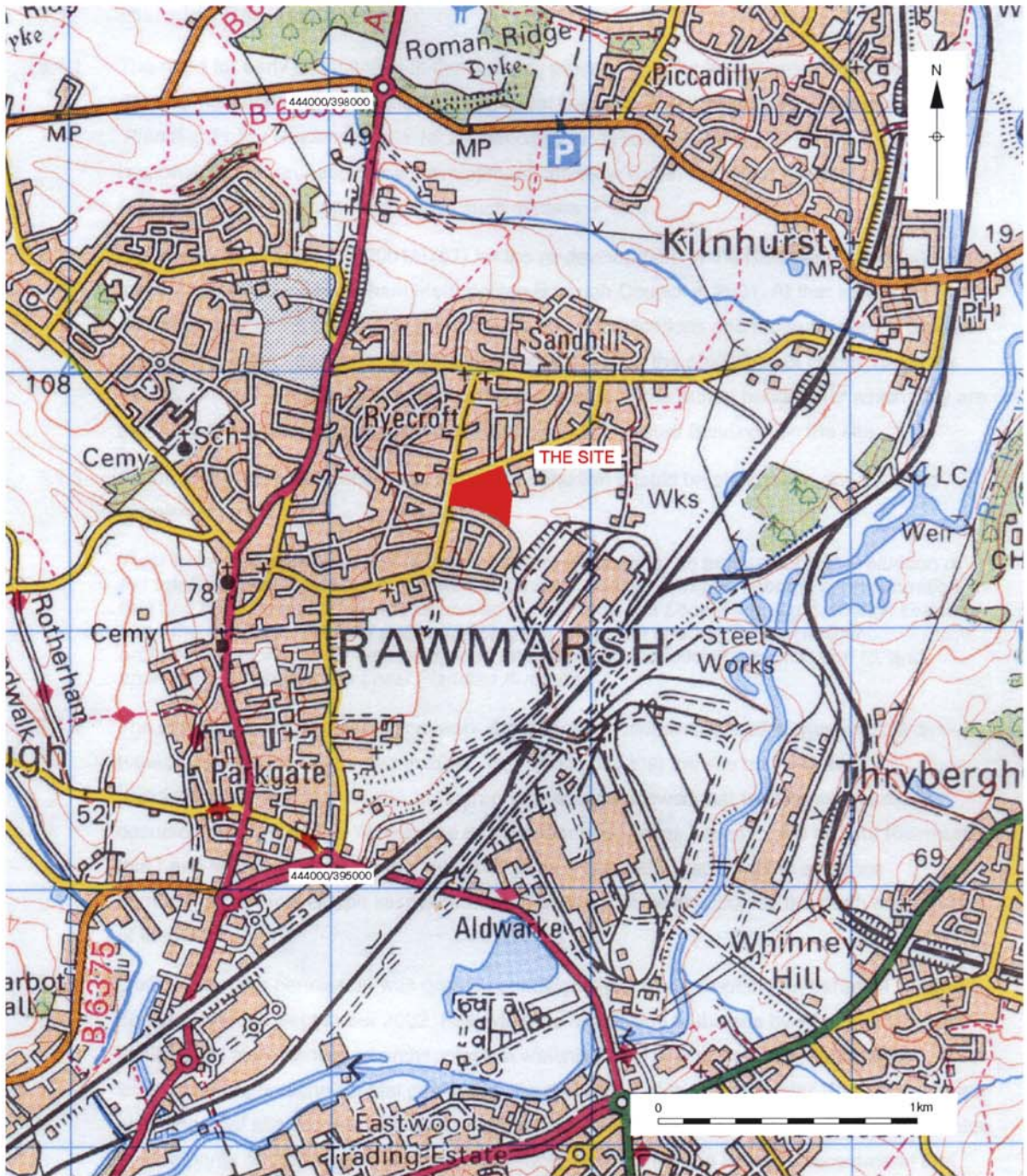


Figure 1. Site location
Scale 1: 25,000

3. PLANNING BACKGROUND AND RESEARCH OBJECTIVES

3.1 Planning Background

- 3.1.1 The need for early consultation in the planning process in order to determine the impact of development schemes upon the archaeological resource is identified in the document *'Planning Policy Guidance Note 16: Archaeology and Planning (PPG 16).'*⁵ The SYAS has responsibility for archaeological development control in South Yorkshire and advises all Local Planning Authorities in the county on such matters.
- 3.1.2 A planning application (RB2001/0761) for the re-development of the Rawmarsh Dairy site was initially submitted to Rotherham Metropolitan Borough Council in 2001. At that stage, the SYAS noted that the application had archaeological implications and recommended a phased programme of archaeological mitigation in order to satisfy the objectives of South Yorkshire County Council, which fully recognises the importance of the buried heritage for which they are the custodians. There are no scheduled monuments or Listed Buildings on the site.
- 3.1.3 Accordingly, the SYAS recommended that a condition should be attached to any planning permission, thus:
- 'Prior to the submission of any reserved matters application, an archaeological evaluation of the application area will be undertaken in accordance with a written scheme of investigation that has been submitted to, and approved in writing by, the Local Planning Authority. Drawing upon the results of this field evaluation stage, a mitigation strategy for any further archaeological works will then be agreed and implemented following submission to, and approval in writing by, the Local Planning Authority.'*
- 3.1.4 The initial phase of archaeological work comprised the aforementioned archaeological desk based assessment, completed in 2001. This concluded that the site had two-fold archaeological potential. Firstly, cartographic evidence showed that the site was formerly occupied by the Meadow Works, one of a number of potteries based in and around Rawmarsh that have antecedents to the late medieval period. Secondly, cartographic evidence demonstrated that a claypit associated with the works formerly occupied the north-eastern part of the site.
- 3.1.5 Outline planning permission was granted conditionally to Innes England on behalf of Northern Foods Limited in September 2002. Following the acquisition of the site by Whelmar Homes Limited, the aforementioned archaeological watching brief was undertaken during the excavation of geotechnical trial pits during the demolition of the former dairy. The results of the watching brief showed that archaeological remains of the Meadow Works could survive outside the footprints of the former dairy buildings. These findings led the SYAS to recommend that trial trenching evaluation of the site should be undertaken as the third stage of the mitigation programme.
- 3.1.6 In this instance, the results of the evaluation were required to enable a clearer assessment of the site's archaeological potential to be made prior to the determination of a detailed (i.e. reserved matters) planning application by Rotherham Metropolitan Borough Council.

⁵ Department of the Environment, 1990.

3.2 Research Objectives

3.2.1 The broad aim of the field evaluation was to determine, as far as reasonably possible, the horizontal and vertical extent, character, condition and quality of archaeological deposits within the site.

3.2.2 In specific terms, the aims and objectives of the field evaluation were:

- to determine or confirm the general nature of any remains of the former Meadow Works and associated features;
- to determine or confirm the approximate date or date range of any remains of the former Meadow Works and associated features by means of artefactual or other evidence;
- to determine the condition and state of preservation of any remains of the former Meadow Works and associated features;
- to determine the degree of complexity of the horizontal and/or vertical stratigraphy present;
- to determine or confirm the likely range, quality and quantity of any artefactual evidence present.

3.2.3 The objectives of the evaluation were to be addressed through the investigation of five trial trenches, each measuring 10m x 2m. The trenches were sited to investigate:

- Trench 1 – an ancillary building of the Meadow Works.
- Trench 2 – the area occupied by the kilns of the Meadow Works.
- Trench 3 – the main building of the Meadow Works.
- Trench 4 - the main building of the Meadow Works and an external area.
- Trench 5 – an area possibly used for dumping waste ceramic material.

3.2.4 Additional objectives of the project were:

- to compile a site archive consisting of all site and project documentary and photographic records, as well as artefactual material recovered;
- to compile a report that contains an assessment of the significance of the stratigraphic and artefactual evidence, along with an appraisal of the historical and architectural significance of the standing buildings.

3.2.5 In summary, the project has the potential to make an important contribution to archaeological knowledge at a local and regional level.

4. GEOLOGY AND TOPOGRAPHY

4.1 Geology

- 4.1.1 The site is located over the Middle Coal Measures of the Upper Carboniferous. These consist of a series of sandstones, siltstones and mudstones with numerous amounts of coal seams, which have been worked.⁶
- 4.1.2 The evaluation identified deposits of firm, dark greenish brown clay at c. 39.60m OD in Trench 2 and at 41.63m OD in Trench 4. These deposits are likely to represent the local Quaternary drift geology. Geotechnical investigations at the site have demonstrated that these deposits are at least 2m in thickness.

4.2 Topography

- 4.2.1 The highest part of the site is along the northern boundary, with existing ground level at c. 46m OD in the north-eastern corner. There are slopes from the northern boundary towards the central part of the site, much of which is fairly level, at c. 41.75m OD. The south-eastern portion the site is lower-lying, at c. 40m OD and below.
- 4.2.2 To the south of the site is a stream, Roundwood Brook.

⁶ Information taken from a report by B. Hudson Consulting Engineers, 2002.

5. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 5.1 The archaeological and historical background to the project is detailed in the 2001 desk-based assessment. The results of this assessment are summarised below and the research and reporting of those responsible is gratefully acknowledged.
- 5.2 Our understanding of the archaeology of the Claypit Lane development site is based, for the most part, on historical records, particularly map regression. There is no evidence of any archaeological activity before the post-medieval period in the immediate vicinity of the site. It is surmised that the site was probably utilised for agricultural purposes or given over to pasture prior to the post-medieval period.
- 5.3 The earliest references to the site being used for the manufacture of pottery can be found from 1836, when Thomas Taylor and Robert Ask owned the factory. It is, however, possible that production of firebricks had begun on the site some time earlier. After Robert Ask's death in the 1840's, the site was sold to John Edwards and Henry Howard who moved production away from earthenware to concentrate mainly on firebricks, tiles and pipes. Known throughout the second half of the 19th century as the 'Meadow Works (Brick and Tile)', the factory changed hands a number of times, but concentrated mainly on brick making, until it finally went out of business under the ownership of Thomas Roome in 1904.
- 5.4 Cartographic evidence suggests that during the lifetime of the Meadow Works, there was limited development of the core of the complex, including an area occupied by up to four kilns, construction of a row of presumably residential dwellings fronting onto Claypit Lane in the north-west corner of the site and excavation of substantial claypits to the north and east of the works.
- 5.5 By 1935, with the Meadow Works abandoned and mostly demolished, most of the claypits had been fully filled in. The kilns remained extant until the mid 20th century when they were demolished. No examples of the material produced at the Meadow Works are held by Rotherham Museum.
- 5.6 The Rawmarsh Dairy was constructed on the site in the 1950's. This saw the removal of the 19th century dwellings in the site's north-western corner and final infilling of the claypits to the east.
- 5.7 The archaeological watching brief conducted in early 2003 during the demolition of the standing buildings of the former dairy suggested that the remains of the Meadow Works could survive outside the footprint of the former dairy buildings.

6. ARCHAEOLOGICAL METHODOLOGY

6.1 Fieldwork

- 6.1.1 In advance of the evaluation fieldwork, PCA prepared and submitted a Project Design to the SYAS. The field evaluation was also carried out in accordance with the IFA document '*Standard and Guidance for Field Evaluations*'.⁷ The evaluation aimed to determine, as far as was reasonably possible, the horizontal and vertical extent, character, condition and quality of archaeological deposits within the site.
- 6.1.2 In accordance with the recommendations of the SYAS, the Design described that five trenches (Trenches 1-5) were to be excavated, each measuring 10m x 2m at ground level and amounting to 100 square metres. During setting out - undertaken using a Geodimeter Total Station EDM - it became apparent that Trench 3 was located in an area occupied by a substantial mound of demolition material. Consequently, this trench could not be excavated.
- 6.1.3 In practice, therefore, the evaluation comprised four trenches, located outside the footprint of the former dairy buildings. Trench 1 measured 11.50m east-west x 3.50m north-south, Trench 2 measured 12.80m east-west x 2.40m north-south, Trench 4 measured 11.50m north-south x 2.80m east-west and Trench 5 was 6.20m north-south x 3.0m east-west. Ground conditions and the depth of buried remains largely governed the final sizes of the trenches. The actual area investigated by the four trenches amounted to c. 120 square metres.
- 6.1.4 The evaluation trenches were excavated by a mechanical excavator, using a toothless ditching bucket, under archaeological supervision.
- 6.1.5 All faces of the trenches that required examination or recording were cleaned using appropriate hand tools. Following machine clearance of overburden, all subsequent investigation of archaeological levels was by hand.
- 6.1.6 For each trench a photographic record was made (colour slide and monochrome print), a plan was drawn at 1:20, a section was drawn at 1:20, and context descriptions recorded on pro-forma sheets.
- 6.1.7 Two Temporary Bench Marks (TBMs) were established on site during setting out, using existing survey data; the first was located in the elevated north-eastern corner of the site at a height of 46.06m OD, the second was located towards the centre of the site at a height of 41.67m OD.

6.2 Post-excavation

- 6.2.1 The project's stratigraphic data is represented by the written, drawn and photographic records. Post-excavation work involved checking and collating site records, grouping contexts, enhancing matrices (Appendix 1) and phasing the stratigraphic data. A written summary of the archaeological sequence was then compiled, as described below in Section 7.

⁷ IFA, 1999.

6.2.2 The contents of the written, graphic and photographic archive are quantified below:

Table 1. Quantification of paper archive

Item	No.	Sheets
Context register	1	1
Context sheets	28	28
Section register	1	1
Section drawings	5	13
Plans	4	11

Table 2. Quantification of photographic archive

Item	No.	Sheets
Colour slide register	1	1
Colour slides	30	1
Monochrome print register	1	1
Monochrome prints	30	1
Monochrome negatives	30	1

6.2.3 The artefactual material from the site comprised a small assemblage of ceramic material, principally brick. All material was washed, dried, marked, conserved and packaged, as appropriate, and according to relevant guidelines.⁸ Specialist assessment of the brick assemblages was undertaken (Appendix 3). No other categories of inorganic artefactual material were represented.

6.2.4 No bulk soil samples were recovered from the site, as no deposits considered suitable for assessment of their content of biological remains were encountered.

6.2.5 Survival of all materials recovered during or generated by archaeological projects depends upon suitable storage. The complete project archive, comprising written, graphic and photographic records (including all material generated electronically during post-excavation) and all recovered materials have been packaged for long term curation according to relevant guidelines.⁹ The depositional requirements of the receiving body, in this case the Clifton Park Museum, Rotherham, will be met in full. The Museum accession number for the project is 2003.9.

6.2.6 Data will be prepared for accession to the South Yorkshire Sites and Monuments Record. Since the SYAS is taking part in the pilot study for the Online Access to Index of Archaeological Investigations (OASIS) project, it was agreed in advance of the fieldwork that PCA would complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. A summary, of appropriate length, of the findings of the work, accompanied by appropriate illustrations, will be submitted to SYAS in digital format for inclusion in the South Yorkshire Archaeology Annual Review.

⁸ Watkinson and Neal, 1998; UKIC, 1983.

⁹ UKIC, 1990.

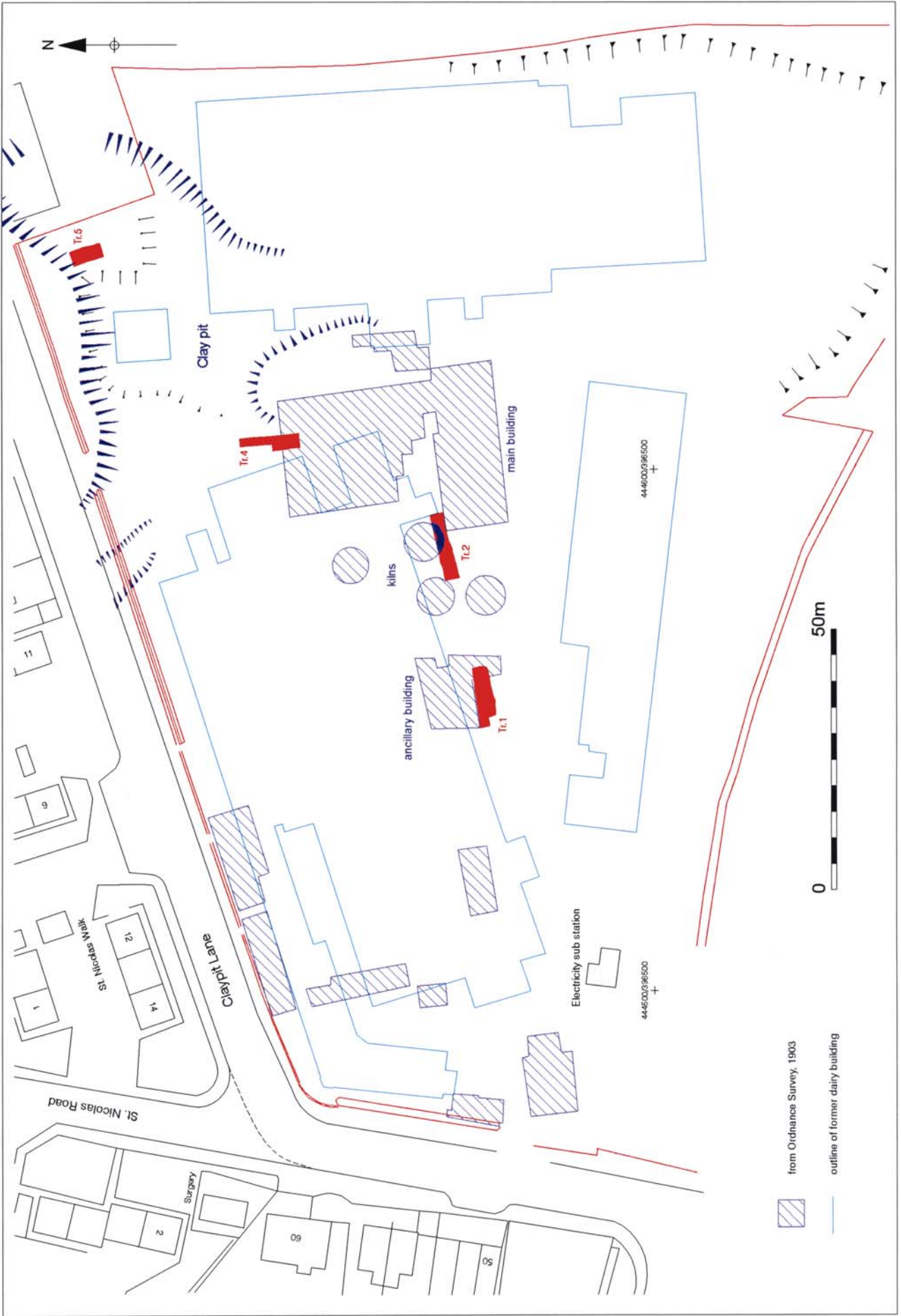


Figure 2. Trench location
Scale 1:1000

7. ARCHAEOLOGICAL SEQUENCE

Summary

In general, the archaeological evaluation identified the presence of natural clay deposits overlain by late post-medieval or modern ground makeup material. Of archaeological note were the remains of at least one 19th century brick building in Trench 1, a 19th century brick-built bottle-kiln in Trench 2 and a probable backfilled claypit in Trench 4. The archaeological deposits are described by trench, as there was no scope for using a scheme of site-wide phasing.

7.1 Trench 1 (Figure 4, Section 1)

- 7.1.1 Trench 1 measured up to 11.50m east-west and up to 3.50m north-south. Its location was intended to identify the western ancillary buildings of the Meadow Works. Modern ground makeup layers were encountered throughout the depth of the trench.
- 7.1.2 The earliest archaeological remains recorded in this trench were structural remains of 19th century buildings. To the west, within the south-facing section of the trench, were two brick walls, [2] and [5], comprising yellow, unfrogged firebricks, possibly of local manufacture (Plate 1). Both structures were aligned east west and did not appear to continue to the south. Wall [2] measured 2.90m east-west and survived to a height of 1.40m. It had an opening, presumably the location of a former window, with part of a large lintel surviving. This measured 0.70m x 0.10m x 0.30m and was made of the same firebrick material as the rest of the structure (Appendix 3). Stone tiles faced the internal north-south wall at the western end of the structure. Structure [5] was located c. 0.85m to the east of structure [2], the gap presumably representing the location of a former door. This brickwork measured 1.10m east-west and survived to a height of 1.42m, at c. 41.50m OD. These structural remains are interpreted as parts of the southern wall of the ground floor of the western ancillary building of the Meadow Works (Figure 2).
- 7.1.3 In the eastern part of Trench 1, a red brick wall, [7], was recorded in section. It was aligned north-south, measured 0.24m in width and survived to a height of 1.15m in height. This wall is also likely to have been associated with the western ancillary building of the works, which extended to the south at its south-eastern corner. Wall [7] may have been an internal wall, within the southern extension, although this is not certain.
- 7.1.4 Following abandonment of the works in the early 20th century, the buildings had been backfilled and buried by demolition material and general refuse, deposits [1], [3], [4], [6], [8] and [9]. Much of this material is likely to have been dumped during the construction of the dairy in the 1950's.
- 7.1.5 Archaeological activity in the trench was sealed by overburden comprising crushed concrete and other demolition material, recorded at a maximum height of 41.85m OD.

7.2 Trench 2 (Figures 3 and 4)

- 7.2.1 Trench 2 measured up to 12.80m east-west and up to 2.40m north-south. It was located in the centre of the site in an attempt to identify circular kilns of the Meadow Works, as shown on the 1903 Ordnance Survey map. A sondage was cut by machine through the western end of the trench in order to locate the natural sub-stratum.
- 7.2.2 The natural sub-stratum comprised firm, dark greenish brown clay, [27], located within the machine-excavated sondage at a maximum height of c. 39.70m OD.
- 7.2.3 The main archaeological feature in this trench was exposed in plan against the northern limit of excavation. It was the southern part of a large circular structure, [12], comprising various phases of brickwork and has been interpreted as the surviving part of one of the circular bottle-kilns of the Meadow Works (Plate 2). The structure was revealed at a maximum height of c. 40.80m OD, c. 0.70m below the existing ground level. The central area of the kiln could not be excavated as only a small part of it was revealed against the limit of excavation
- 7.2.4 The earliest structural element of the kiln was an inner circle of brickwork, [22], which was 0.50m wide and was exposed to a height of 0.50m. The bricks within this part of the structure were hand-made and can be broadly dated to the mid 19th century. To the outside of brickwork [22] was an outer circle of brickwork, [13], again comprising hand-made bricks. This part of the structure was 0.80m wide and it had been constructed directly against the inner, earlier element. A pair of brick 'shafts', [14] and [15], were recorded within the southern and eastern part of brickwork [13]. These were backfilled with demolition rubble and were not fully excavated. Their purpose is unclear, but they may have been for ventilation or temperature control. Shaft [15] may have been incorporated into the structure during construction of brickwork [13] (Plate 4). In contrast, shaft [14] may have been a later addition, as the bricks used for its construction were very soft and generally different in nature to those used for the construction of brickwork 13] (Plate 3).
- 7.2.5 Immediately to the east of shaft [14] was an area of brickwork comprising very large, grey machine-made, rounded bricks, [20]. This area measured 0.60m east west and 0.50m north south and has been interpreted as a patch or repair of the kiln fabric.
- 7.2.6 On the south-western edge of the exposed part of the kiln was a brickwork flue, [11], which penetrated both the inner and outer circle of brickwork (Plate 3). While this flue may have been part of the original fabric of the structure, it had certainly been rebuilt at a later date, being constructed of machine-made bricks. The flue was 1.20m in length and survived to a height of 0.40m to the limit of excavation. The aperture was c. 0.30m wide.
- 7.2.7 Within the inner circle of the kiln, a lining, [21], of the interior of the kiln was recorded. This was one brick in width and composed of firebricks in stretcher bond. The bricks were machine-made - suggesting that this was re-lining of the kiln interior - and heavily heat affected as one might expect.

- 7.2.8 To the south-west of the outer wall of the kiln, a hand-dug sondage was excavated to ascertain the depth to which the structure survived. This revealed two large flagstones, [28], at a height of 39.88m OD, generally 0.50-0.70m deeper than the main surviving structure of the kiln as exposed. The flagstones had been carefully laid to form paving, which respected the edge of the kiln. Excavation ceased at the level of the paving, interpreted as an external yard surface that formed the ground surface during the lifetime of the kiln.
- 7.2.9 In stratigraphic terms, the latest element of the kiln comprised a deposit of slag, [19], coating the inside of flue [11] and spreading east and west between the flue and the inner kiln lining, [21]. The slag was extremely concreted and glassy in nature.
- 7.2.10 Within the machine-excavated sondage at the western end of Trench 2, natural clay was overlain by a layer, [26], comprising fragmented brick and other demolition material. This layer was up to 0.80m thick, and was similar to a layer, [25], recorded in the main south-facing section of the trench. The latter material was up to 1.10m thick and overlay the abandoned kiln structure, [12]. Both layers presumably relate to the demolition of kiln [12] in the early 20th century. Layer [25] was recorded at a maximum height of c. 41.00m OD.
- 7.2.11 Sealing demolition layers [25] and [26] was a substantial clayey layer, [24]. Up to 0.90m thick, this deposit has been interpreted as modern made-ground. The uppermost part of the trench comprised modern overburden, forming the existing ground surface at a height of c. 41.70m OD.

7.3 Trench 4 (Figure 5)

- 7.3.1 Trench 4 was located on sloping ground in the northern part of the site and measured up to 11.50m north-south and up to 2.80m east-west. It was located in an attempt to identify the northern limit of the main factory buildings of the Meadow Works. A sondage was excavated by machine in the northern part of the trench in order to locate the natural sub-stratum.
- 7.3.2 Natural clay, [18], was located in the machine excavated sondage at a maximum height of 41.63m OD.
- 7.3.3 Overlying the natural clay was a substantial layer of re-deposited mudstone, [17]. It was up to 1.60m thick and fairly homogeneous. Two trivets for spacing pottery, two broken pottery saggars and several sherds of pottery were recovered within the deposit, along with some examples of brick. This material can be broadly dated to the 19th century (Appendix 3).
- 7.3.4 In the southern part of the trench, layer [17] was overlain by a layer, [16], comprising what appeared to be re-deposited natural yellow 'brickearth'. This essentially sterile material was up to 0.50m thick and was recorded at a maximum height of 42.70m OD.
- 7.3.5 A layer of modern overburden, up to 0.40m thick, formed the uppermost part of Trench 4. The existing ground surface stood at 43.50m OD at the northern end of the trench and at 42.70m OD at the southern end.

7.4 Trench 5 (Figure 5)

- 7.4.1 Trench 5 measured up to 6.20m north-south and up to 3.0m east-west. It was intended that this trench should try to locate the claypit shown on historical maps and to indicate the infilling processes used for such a feature during the 19th and 20th centuries.
- 7.4.2 Trench 5 was located on an area of sloping elevated ground, level with Claypit Lane to the north, c. 5m higher than the rest of the site. The trench was excavated to a depth of c. 1.30m OD below existing ground level, but only 20th century made-ground, [10], was identified. There was insufficient space in this area to allow further expansion of this trench to be able to investigate underlying deposits. Therefore, no archaeological remains of note were encountered in Trench 5. The existing ground surface stood at 46.07m OD at the northern end of the trench and 45.74m OD at the southern end.

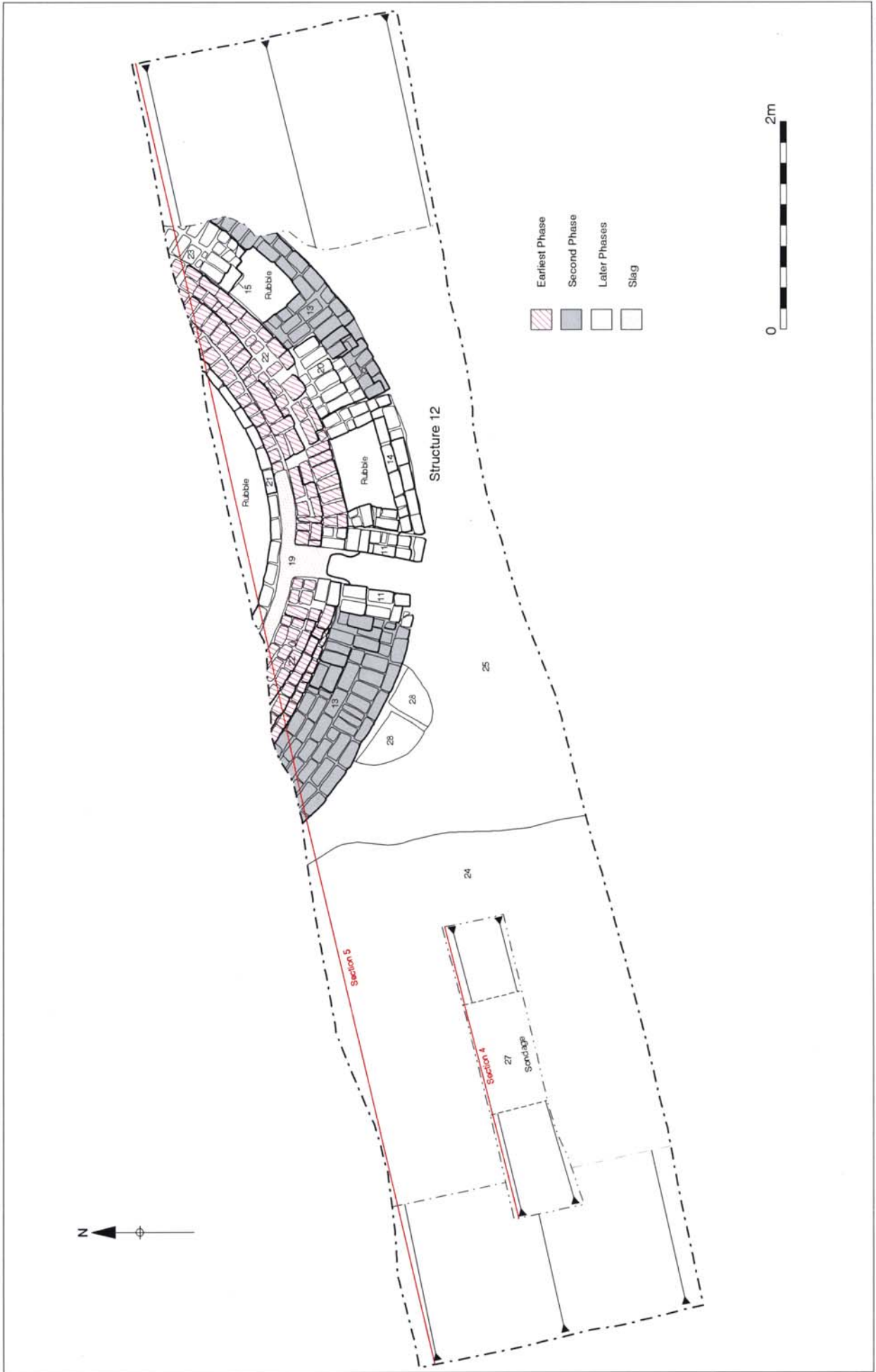


Figure 3. Trench 2 plan
Scale 1:50

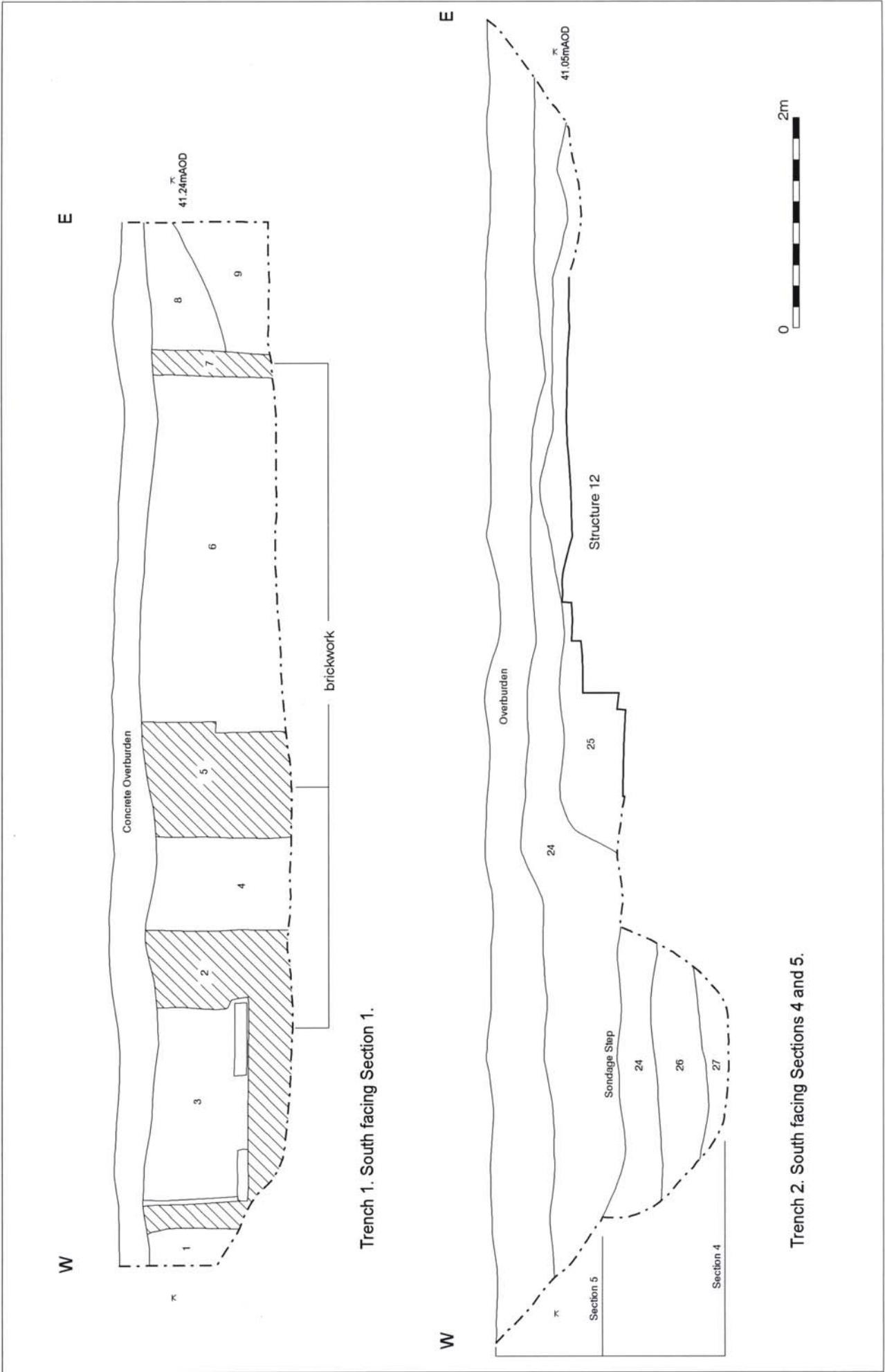
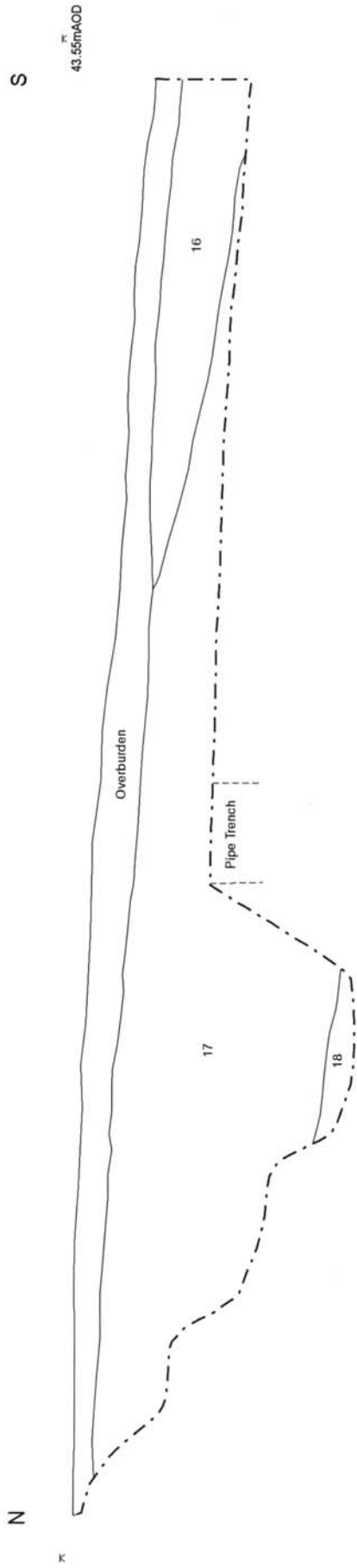
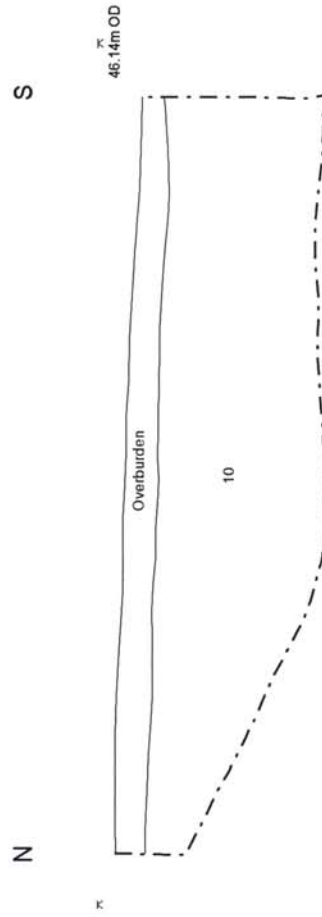


Figure 4. Trenches 1 and 2 sections
Scale 1:50



Trench 4. West facing Section 3.



Trench 5. West facing Section 2.



Figure 5. Trenches 4 and 5 sections
Scale 1:50



Plate 1. Trench 1, Structures [2] and [5] in section (*2m scale*).



Plate 2. Trench 2, Structure [2] (*1m/2m scale*).



Plate 3. Trench 2, Structure [12], detail of parts [11] and [14] (0.5m scale).



Plate 4. Trench 2, Structure [12], detail of part [15] (0.5m scale).

8. CONCLUSIONS

8.1 The Archaeological Resource

- 8.1.1 The natural clay sub-stratum was encountered at c. 39.70m OD in Trench 2 and further north at 41.63m OD in Trench 4. This may in part reflect naturally sloping ground, but is more likely to reflect some degree of truncation by development on the site in the 19th century. The natural sub-stratum was not identified in Trench 1 or Trench 5.
- 8.1.2 In Trench 1, brick walls thought to represent the southern wall of the western ancillary building of the 19th century Meadow Works were identified. The location of a probable window, door and north-south internal wall, can be suggested by the findings. The evaluation demonstrated that the structure had suffered some demolition and subsequent truncation by the construction of the dairy in the 1950's. These structural remains were located less than 0.50m below the existing ground surface and extend to a depth of at least 1.60m. The use of firebricks for construction implies that the structures were being internally heated, perhaps for drying bricks or pottery. It is possible, however, that firebricks, known to have been produced at the site, may have been used simply because they were readily available.
- 8.1.3 In Trench 2, one of the four kilns shown on the 1903 Ordnance Survey map was located. This proved to be a circular bottle-kiln, which could have been used for the manufacture of pottery or bricks. The kiln incorporated a number of phases of construction and repair and is of a type very common in the mid to late 19th century.¹⁰ A flagstone path or yard surface was identified in association with the south-western edge of the kiln. No evidence for a hovel around the kiln was recorded. The top of the surviving kiln structure lies at c. 0.60m below the existing ground surface and its base lies at a depth of c. 1.70m below the existing ground surface. There was no evidence of truncation to the north by the later dairy buildings, although it is likely that approximately only one-third of the whole kiln structure was revealed during the evaluation. The external diameter of the whole kiln is estimated to be c. 7.50m.
- 8.1.4 Trench 4 did not reveal any evidence of the main pottery building, but instead appeared to lie within the backfill of a substantial feature, possibly one of the claypits known from historical maps to have been excavated to the north and east of the works. Natural mudstone may have been utilised for backfilling in order to consolidate the ground. The relatively homogeneous nature of the infilled material implies that this activity took place over a fairly short period of time. The trivets and broken saggars found within the mudstone backfill in Trench 4 provide the only artefactual evidence from the evaluation for pottery manufacture on the site.
- 8.1.5 No archaeological material was recovered from Trench 5, as this part of the site had been raised and levelled to at least 5m higher than the rest of the site in the 20th century. The claypit backfill could survive beneath this build-up, but this could not be ascertained within the constraints of the evaluation.

¹⁰ Baker, 1991; Green, 1999; Killock *et al.*, 2003.

- 8.1.6 In conclusion, the extent of survival of the bottle-kiln in Trench 2 indicates that there is high potential for the presence of the other kilns known to have been in operation at the Meadow Works. Three out of four of the kilns marked on the 1903 Ordnance Survey map are located outside the footprint of the former dairy buildings and, as such, could survive as sub-surface archaeological remains. Structural remains of the western ancillary building survive at the site, despite some demolition and later truncation. Although no evidence was found for the main complex of pottery buildings, it is possible that the structures lay to the south of Trench 4. Furthermore, since the investigation of Trench 3 was impossible during the evaluation, it cannot be stated with any degree of confidence that remains of the main buildings do not survive at the site.
- 8.1.7 Further excavation of the kiln revealed by Trench 2 and the area of the probable infilled claypit identified by Trench 4 would be required in order to obtain both a greater understanding of 19th century ceramic manufacturing techniques in the area and a worthwhile assemblage of local examples of ceramic material.

8.2 The Impact of the Development Proposals

- 8.2.1 The earliest archaeological remains encountered during the evaluation evidently relate to the utilisation of the site as the Meadow Works in the 19th century. Structural remains of a brick kiln and an ancillary building of the former Meadow Works are of moderate to high archaeological significance, in terms of the objectives of the evaluation. Such remains survive within c. 0.70m of the existing ground surface in the central part of the site. A somewhat lesser range of archaeological value can probably be applied to the infilled former claypits in the north-eastern part of the site, although, as anticipated, examples of material produced at the Meadow Works are probably contained within the backfilled deposits.
- 8.2.2 At the time of writing, it is intended that the re-development scheme will not involve overall ground reduction across the site. However, across much of the development area, ground contouring is to be undertaken to create a project formation level prior to the main construction groundworks. Certain aspects of the proposed ground preparation, particularly compaction of material during contouring, and the actual construction works, particularly ground preparation in advance of the insertion of raft foundations, could have serious implications for sub-surface archaeological remains at the site. Therefore, it is considered that the proposed development could have significant impact upon buried archaeological remains.
- 8.2.3 Due to the possible impact of the development proposals upon the archaeological resource, mitigation measures should be explored to achieve physical or *in situ* preservation of archaeological remains of significance, such as structural remains of the Meadow Works. Where such remains are threatened by any aspect of the development proposals, including compaction of material during site preparation and invasive groundworks associated with the insertion of foundations, the appropriate archaeological mitigation would be additional fieldwork, preferably in advance of groundworks for the proposed development, in order to achieve preservation by record of remains of significance.

9. ACKNOWLEDGEMENTS AND CREDITS

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Other Credits

Survey: Jim Wright

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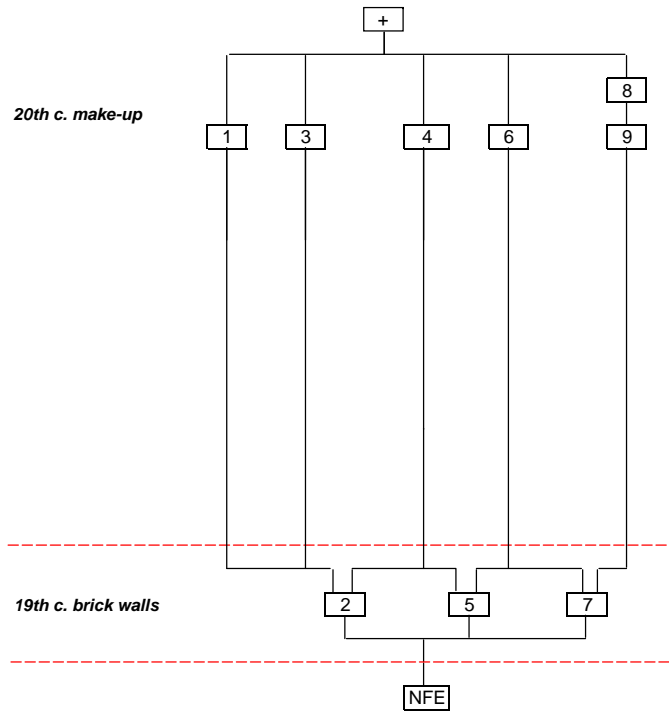
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APPENDIX 1

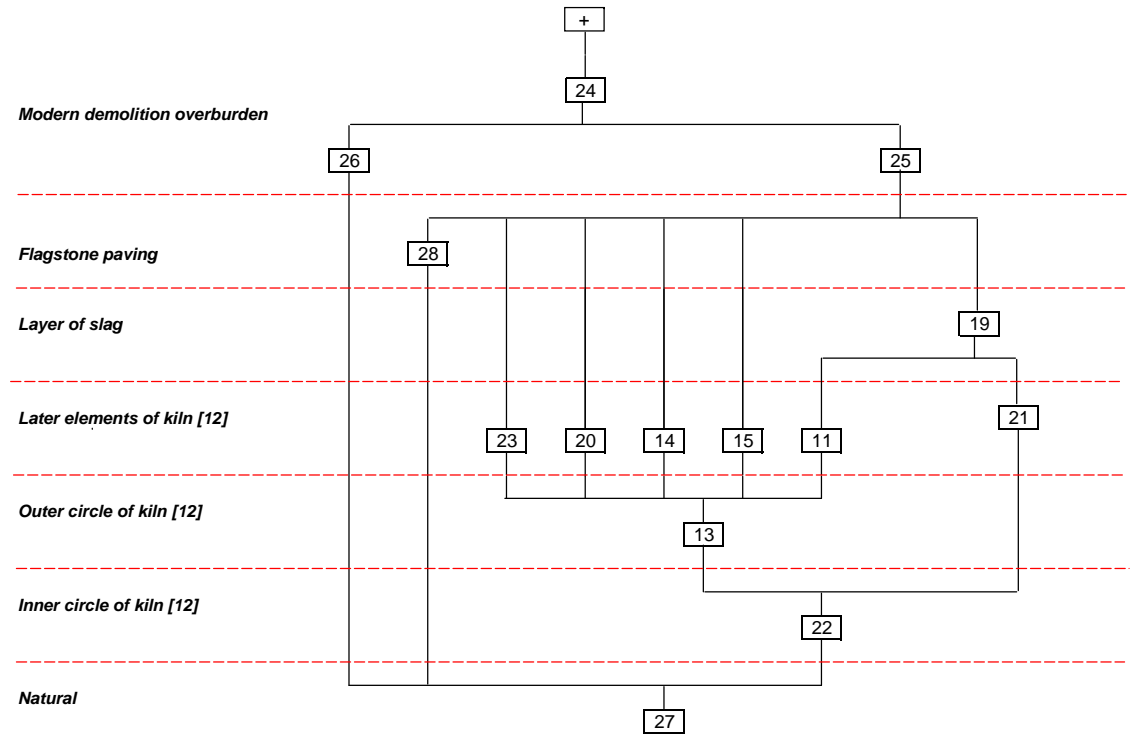
STRATIGRAPHIC MATRICES (TRENCHES 1 & 2¹)

¹ The inclusion of stratigraphic matrices for Trenches 4 & 5 was considered inappropriate.

Trench 1



Trench 2



APPENDIX 2

CONTEXT INDEX

SITE CODE : CLR 03			
Context No.	Context Type	Trench	Context Interpretation
1	Layer	1	20th c. ground makeup layer/backfill
2	Masonry	1	Brick wall; south wall of ancillary building
3	Layer	1	20th c. ground makeup layer/backfill
4	Layer	1	20th c. ground makeup layer/backfill
5	Masonry	1	Brick wall; south wall of ancillary building
6	Layer	1	20th c. ground makeup layer/backfill
7	Masonry	1	Brick wall; internal?
8	Layer	1	20th c. ground makeup layer/backfill
9	Layer	1	20th c. ground makeup layer/backfill
10	Layer	5	20th c. ground makeup layer/backfill
11	Masonry	2	Part of kiln [12]
12	Masonry	2	Structure number for brick-built kiln
13	Masonry	2	Part of kiln [12]
14	Masonry	2	Part of kiln [12]
15	Masonry	2	Part of kiln [12]
16	Layer	4	Re-deposited natural clay
17	Layer	4	Mudstone infill
18	Layer	4	Natural clay
19	Layer	2	Layer of slag in kiln [12]
20	Masonry	2	Part of kiln [12]
21	Masonry	2	Part of kiln [12]
22	Masonry	2	Part of kiln [12]
23	Masonry	2	Part of kiln [12]
24	Layer	2	20th c. ground makeup layer
25	Layer	2	Layer of demolition material
26	Layer	2	Layer of demolition material
27	Layer	2	Natural clay
28	Masonry	2	Flagstone paving

APPENDIX 3
CERAMIC ASSESSMENT

Ceramic Assessment: Site Code CLR 03

By Berni Sudds

Ceramic Material: Catalogues

The pottery

Context	Type	Quantity	Vessel number	Date
17	English porcelain ?jug	2	1	1745 - 1900
	Pearlware bowl rim	1	1	c. 1800 – 1860
	Refined white earthenware	1	1	1800 - 1900

The kiln furniture

Context	Type	Quantity	Date
17	White earthenware trivets/ stilts	2	1800 – 1900
	Fireclay saggar. Near complete profile. Straight sided. Remains of the clay used to seal the top of the saggar present on the rim and in runs down the inside.	1	?19 th century
	Fireclay saggar, small fragment with accidental glaze	1	?19 th century

The bricks

Context	Type	Quantity	Description
2	Unfrogged bricks, fireclay fabric.	2	Complete examples. Sharp arrises. Evidence of <i>in-situ</i> burning.
17	Unfrogged brick, local brickearth fabric	1	Seamed orange-red and white clay. Very coarse inclusions.
	Unfrogged brick, fireclay fabric.	1	Evidence of <i>in-situ</i> burning.
	Unfrogged brick, fireclay fabric. Large example. Possibly a kiln brick.	1	Burnt pinkish-purple.

Discussion of Bricks

The bricks sampled from the site at Claypit Lane, Rawmarsh are of two fabrics:

1) The first group are firebricks made from fireclay, presumably extracted from the Coal Measures underlying the site. The examples are all unfrogged and regular with sharp arrises. Fireclay is selected and used for bricks intended for exposure to high temperatures as the clay has high refractory qualities. Two firebrick samples were recovered from wall [2] of the western ancillary building and these demonstrate evidence of burning. It is conceivable that this structure was used as a drying room.

2) The second fabric represented appears to be a local brickearth type although the inclusions and presence of white firing silty clay lenses demonstrates similarities to the fireclay examples. The majority of the bricks used in the construction of bottle kiln [12] were in this fabric, although the recovered example was from dump deposit [17] in Trench 4. It is likely that these brickearth examples were also produced on site. Closer fabric analysis and local comparison will be necessary to reveal any more information.

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