



MILL STREET MARYPORT, CUMBRIA

Archaeological Watching Brief



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The fieldwork was undertaken by Vix Hughes, who also write the report. The drawings were produced by Adam Parsons and Emma Carter. The report was edited by Jamie Quartermaine and Carol Allen. The project was managed by Jamie Quartermaine.

SUMMARY

An archaeological watching brief was carried out by Oxford Archaeology North (OAN), on behalf of Groundwork, West Cumbria, in August 2002 on land adjacent to Mill Street, in Maryport, Cumbria (NY 035 362). The area was being landscaped by Groundwork for an ongoing programme of beautification which included new paths, the construction of bedding areas for planting and the installation of information boards. In the course of this work a circular brick structure was revealed and OAN were invited to supervise its exposure. The land lies within the extent of the Netherhall Blast Furnace and corn mill complex, which has been subject previously to large-scale excavations. Much of the site is now beneath a supermarket, but the coke ovens in the western part of the complex have recently been conserved for permanent display.

Over the course of one day a small area of open ground was briefly examined. In one area, just below the surface, were the remains of an annular brick structure, with an external diameter of 3.0m and an internal diameter of 2.3m. The structure was exposed by manual excavation, to a depth of 0.3m, around the perimeter. The western arc of the structure was incomplete, being interrupted by a deliberate slot, again of brick and appeared to be part of the original build. The bricks were unfrogged and were bonded with a mid grey mortar; the uppermost exposed coarse had the remains of mortar bonding indicating that the structure had at least one more additional coarse. The slot appeared to be an access point, built of the same materials but with slate lined depressions which may have acted as a lintel rest.

The structure was located to the south-east of the millrace and near the location of the former corn mill. Its immediate proximity to the corn mill suggests that it may be associated with the corn mill rather than the blast furnace. Although the overall form and function of this feature remain ambiguous it is probable that this was a corn-drying kiln, associated with the mill and probably dating to the nineteenth century.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 An area of land to the west of Mill Street, Maryport (centred NY 035 362) was being landscaped by Groundworks (West Cumbria, Fig 1). In the course of these works a circular structure was exposed. On a small plot of open ground, at the rear of Mill Street, and behind the new supermarket. This was adjacent to the site of the Corn Mill identified from historic mapping (Ordnance Survey 1st edition 1:2,500 map (1881)), which was excavated by Lancaster University Archaeological Unit (now Oxford Archaeology North) in 1993 (Miller 2000).
- 1.1.2 The area of the present investigation had not been part of the earlier excavations and, in order to determine the nature of the feature was and whether it could be disturbed or required further mitigation, a small-scale investigation was carried out by Groundworks (West Cumbria) under archaeological supervision by Oxford Archaeology North (OAN). The work was carried out, in accordance with a verbal brief by Cumbria County Archaeology Service, over one day at the start of August 2002.

2. METHODOLOGY

2.1 WATCHING BRIEF

- 2.1.1 A watching brief was maintained by OA North during the manual excavation of an annular structure by Groundwork (West Cumbria). A programme of field observation accurately recorded the location, extent, and character of the surviving archaeological features. This work comprised observation during the groundworks, the systematic examination and recording of the extant structures, and exposed subsoil horizons. The recording comprised a full description and preliminary classification of the features and materials revealed, on OA North *pro-forma* sheets. A plan was produced of the areas of groundworks showing the location and extent of the structures at a scale of 1:20 (Fig 3). The site drawing was digitised into a CAD system and superimposed with mapping produced as part of the earlier investigation (Miller 2000) (Fig 2). A photographic record, using black and white, colour slide and digital formats, was maintained. The feature was located by taped offsets from mapped elements.
- 2.1.2 No finds were retained in the course of the watching brief.

2.2 ARCHIVE

- 2.2.1 A full archive of the work has been produced to a professional standard in accordance with current English Heritage guidelines (1991) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The paper archive will be deposited with the County Record Office, Carlisle. In addition, a copy of the report will be forwarded to the County Sites and Monuments Record (SMR) and a summary sent to the National Monuments Record (NMR).

3. BACKGROUND

3.1 TOPOGRAPHIC BACKGROUND

3.1.1 The site at the rear of Mill Street, behind the new supermarket in Maryport, lies approximately half a mile from the mouth of the River Ellen (Fig 1), close to 'Mote Hill' and also to the line of a Roman road, on the south side of Maryport in Cumbria (NY 035 362). The site of Netherhall Furnace of 1752-83 was located to the south of the present study area. This occupied a level area on the north bank of the River Ellen, immediately adjacent to a steep slope, on which survives a bank of stone-built coke ovens (Miller 2000). To the north of the blast furnace, elements of a corn mill were also recorded, and ancillary buildings, constructed after the blast furnace had ceased production, were identified to the south and east (Fig 2).

3.2 HISTORICAL BACKGROUND

- 3.2.1 The presence of a Roman military site at Maryport has long been recognised. Camden (1610) records a Roman wall '*made to defend the shore in convenient places, for foure miles, or thereabout, by Stilico...There are also as yet, such continued ruins and broken walls to be seen as farre as to Elne Mouth*'. The surviving Roman material is now confined to the area of the barracks, on the northern side of the present town.
- 3.2.2 The evidence for medieval occupation in the area of Netherhall is limited to the large damaged ringwork of Mote Hill. The precise dating of this is not known but typologically it belongs to the mid to late twelfth century. Excavations undertaken in 1914 at Netherhall record fourteenth century pottery being present at the 'small camp' at Netherhall (CWAAS 1914). Netherhall was the seat of the Senhouse family, although no particular nucleated settlement is known apart from a corn mill. Prior to 1749, when Maryport was officially founded, there were only a few fishermen's cottages and a small landing stage referred to as Ellen Port. The founding of Maryport followed Humphrey Senhouse II being granted Royal Assent for a parliamentary bill enabling him to enlarge his harbour at, what was then known as, Ellenfoot.
- 3.2.3 The origins of the Netherhall Blast Furnace are closely linked with the founding of Maryport itself. Archaeologically, the Netherhall furnace is the most significant element within the locale. It was one of a group of eighteenth century Cumberland blast furnaces that made early use of coke fuel. Between 1752-83 the main phase of furnace construction and operation occurred; the site of the furnace was leased by Humphrey Senhouse II to seven partners, who built and managed the furnace. Maps of c1756 and c1769 show a simple arrangement with two rectangular buildings set at right-angles to each other, with the leat alongside (Lancaster and Wattleworth 1977, 22). The c1770 map (D/Sen/Maryport Town and Harbour c1770) shows a much expanded complex of buildings, and Slater's (1973) interpretation of this map suggests that the site contained the furnace, bellows and charging house, casting house, two sets of coke ovens, the leat,

dwelling houses, storage areas and other buildings. The furnace leat was in fact originally built as a branch of the earlier Estate Corn mill leat, at Netherhall to the north-east, which was split into the furnace leat and the by-pass leat. This by-pass leat was later adapted to provide power for the corn mill by the furnace.

- 3.2.4 The documentary evidence shows that a corn mill existed on the Netherhall Estate (but not the furnace site) prior to the construction of the blast furnace. An indenture of 1752, between Humphrey Senhouse II and the members of the Netherhall Furnace Company, was for a portion of land which comprised '*All that Watercorn mill and appurtenances known as Netherhall Mill. Also the kiln and stable of said miln and appurtenances called the Back of the Mill to Netherhall Bridge*' (D/Sen/1752-84). There was a way-leave within the indenture which permitted extensive alterations to the land between Netherhall and the furnace site, in order to supply the furnace with a water supply. This involved the construction of a branch leat from the pre-existing Netherhall mill-leat and allowed the developers to:

'... cut trenches and conduit for water from the mill race at the north-east of the kiln, in such a convenient manner as the same can be best afforded across the High Road leading from Netherhall Bridge to the aforesaid Mill into the inclosure called Calf Close and so directly on the south-east side of the said inclosure and close there called Bank Croft, in the nearest and most convenient manner to the foot of Moat Hill covered with stone until brought into Calf Close..'

- 3.2.5 In 1783 the furnace was put up for sale and, through lack of buyers, reverted to their owner Humphrey Senhouse II. The next reference to the furnace site within the Senhouse manuscripts dates from 1787 and is a letter from a Mr Smith to Senhouse. There is a reference to the lack of an adequate water supply as a factor in the potential cause for the furnace's failure. Indeed recent research has placed the lack of an adequate water supply as being the prime reason as to why the furnace failed. Slater states that since the furnace not only shared '*the [water] supply with the mill, with which it was bound not to interfere, but the system itself had a very low storage capacity to tide it over in times of drought*' (Slater 1973, 323). Improvements could not be made due to the clause which prevented the heightening of the dam, a scheme of works which would have flooded Netherhall itself (*ibid*).
- 3.2.6 Despite the existence of the estate corn mill in the documentary sources consulted, there is no reference to the corn mill on the furnace site prior to 1809, which was built, on the line of, and using, the furnace leat. Maps of 1869 (D/Sen/1869) and 1881 (D/Sen/1881) indicate that part of the expanded furnace complex was included with the lease for this mill. Late adaptations and expansions in the area of the furnace included the construction of a saw mill to the east of the furnace site prior to 1864 and a slaughter house also located east of the furnace, built pre-1899. By the 1950s the furnace complex was in use as a builder's yard (Gale 1988, 4) and during the 1960s a number of changes in the area included: a bus station built adjacent to the slaughter house, the demolition of the saw mill, the furnace site being used as a haulage, and subsequently County Council Highways, depot (Gale 1988, 4). Finally the slaughter house was converted to an ambulance station. These later developments do not appear to

have affected the Furnace Corn mill which, although derelict, survived as a standing structure until it was burnt down in 1976; a resident at No 15 Mill Street owns an original painting, of 1973, showing the standing mill building (Plate 4).

- 3.2.7 **Results of the 1993 excavation (corn mill site):** At the northern end of the excavation site a number of structures were revealed, which relate to the corn mill, including a mill race, leat, and water wheel pit (Miller 2000). The top course of the stone-lined waterwheel pit showed signs of heavy disturbance, suggesting later modification of the original waterwheel and mill-leat. The presence of industrial residues incorporated within both fills in the area of the waterwheel pit, suggested that one of the walls was a feature post-dating the initial operation of the blast furnace and that this indicated post-blast furnace modifications to the water system. There were also remains of the mill race, which was constructed of mortar bonded, large, worked rectilinear sandstone blocks and had a sandstone flag-lined base. It is believed that it continued for a considerable distance underneath part of Maryport and Senhouse Park to join the River Ellen at a point above the high tide mark, so as to maintain a constant water flow. Water flows were also controlled by means of sluice gates. The combination of the millrace, leat and several other structures provided the main water power source for the corn mill.
- 3.2.8 The waterwheel pit and millrace were both filled by accumulation debris which was a loose, gritty silt material, reaching a maximum depth of 3.07m. It contained a variety of modern debris, including oil drums, stones of all descriptions, bricks, slates, fragments of large mechanical objects, and household domestic waste. The nature of these fill components testify to the fact that waterwheel pit and millrace were only recently infilled.
- 3.2.9 Overlying the water power elements of the site was a demolition layer which contained a number of quern stone fragments, proving that this was the location of the corn mill. In addition, iron mechanical components found included several paddle-wheels and a bronze housing for a bearing, suggesting that the nearby water channel was used for motive power.
- 3.2.10 A circular structure, with a diameter of 2.92m and an overall height of 0.45m, constructed of mortar bonded, large, worked sandstone blocks, was located adjacent to the north-east extent of mill-leat. A slot, 2.15m long and 0.29m deep, was cut into the structure. Given its location adjacent to the waterwheel pit and the proximity to the corn mill, it was concluded that this circular structure was probably a corn drying kiln, as shown on Fig 2, especially since the sandstone flagged floor appeared to have been affected by burning (Miller 2000). A drying kiln for drying damaged corn was mentioned by Addison (1879, 238) and was fuelled by coke produced from the on site coke ovens.

4. WATCHING BRIEF RESULTS

4.1 INTRODUCTION

4.1.1 A small area of open ground with scrubby, low level, ruderal vegetation, through which the edges of a curved feature could be seen was investigated. The vegetation was manually cleared, allowing for the determination of the full extent of the feature (Plate 1). Subsequently the ground around the annular feature was taken down by an average depth of 0.3m, which exposed the character of the structure (Fig 3). A full photographic record was made and, once the feature was totally exposed, it was carefully recorded. At the completion of the work deeper areas of excavation were carefully backfilled so as not to constitute a risk to pedestrians, but the overall feature was left exposed.

4.2 SITE DESCRIPTION

4.2.1 The structure was a brick built interrupted annulus (ring), with an external diameter of 3.0m and an internal diameter of 2.3m. The western arc of the annulus was incomplete, being interrupted by a deliberate slot to enable access to the interior of the structure (Plate 2 and 3). The structure was composed of unfrogged bricks, each measuring 0.26m x 0.11m x 0.08m. These were arranged with their long axes in a radial pattern and around the inner side was a single line of yellow, probably refractory, bricks which apparently served as a lining (Fig 3). In three areas around the annulus there were no upper bricks but their positions could be determined from the ridges of mortar which remained. The bricks were bonded together with a mid-grey mortar and the uppermost extant coarse of bricks had the remains of mortar bonding indicating that the structure may have had at least one more additional coarse. In total four courses were visible and the structure was almost certainly deeper; however, insufficient time, and the limited scope of the project, meant that it was not possible to expose the feature to any great depth or examine the base. The slot, which interrupted the annulus, consisted of two protruding, parallel walls, 1m apart and aligned north-west/south-east. The walls were keyed into the primary build of the circular wall. It was not clear where the wall stubs ended, as they seemed to continue under the newly laid path. At the junction of the annular wall and the two protruding walls, were two small recesses with slate bases, it is unclear what purpose they may have served but one possibility is that they acted as a lintel rest (Plate 3).

4.2.2 The area within the access slot was excavated. The top 0.4m was found to contain very modern debris, and this recent material extended throughout the interior of the annular structure. It suggests, and is substantiated by oral accounts of local residents, that this annular feature had been exposed until relatively recently. This accords with the results from the excavation (Miller 2000) which showed that the waterwheel pit and millrace had also been infilled with recent material.

5. DISCUSSION

5.1 THE SITE

5.1.1 The watching brief produced evidence of an annular brick structure which was visible until very recently, it is shown on a painting by a local artist in the 1970s (Plate 4). The scope of the project did not allow for fuller excavation of the structure and therefore it was not possible to fully investigate it, however, the most likely suggestion is that it was the remains of a corn drying kiln and the access chamber would have allowed for the insertion of the corn or stoking fires. Although there was little direct evidence of heat affecting the brick structure; the yellow bricks lining the structure are refractory bricks indicating that the structure was required to sustain substantial temperatures. The latter suggestion would seem to best fit with the location adjacent to a corn mill, and the structure is comparable to the circular sandstone feature recorded in the course of the excavation of the corn mill, and which was interpreted as a corn drying kiln; the sandstone kiln is of a very similar size being 2.92m in diameter. Corn-drying kilns are highly varied in form but compatible examples may be found in Scotland (Hay and Stell 1986) and Northumberland (Phillipson 1977), all dating to the same post-medieval period, with this current example being of nineteenth century date.

5.2 RECOMMENDATIONS

5.2.1 The open area is probably going to be raked over and enriched to provide a grassed and planted area, this would have little overall impact on the surviving remains, which are relatively stable; the mortar being firm and showing no signs of cracking. Therefore the brick structure could be left exposed within the grassed area, with the proviso that the condition is monitored and any degradation dealt with. It has been suggested that permanent seating be established in this space; however, as such an item of exterior furniture would require foundations and that these would almost certainly be damaging to the brick structure, it is recommended that any seating be placed well away from the structure.

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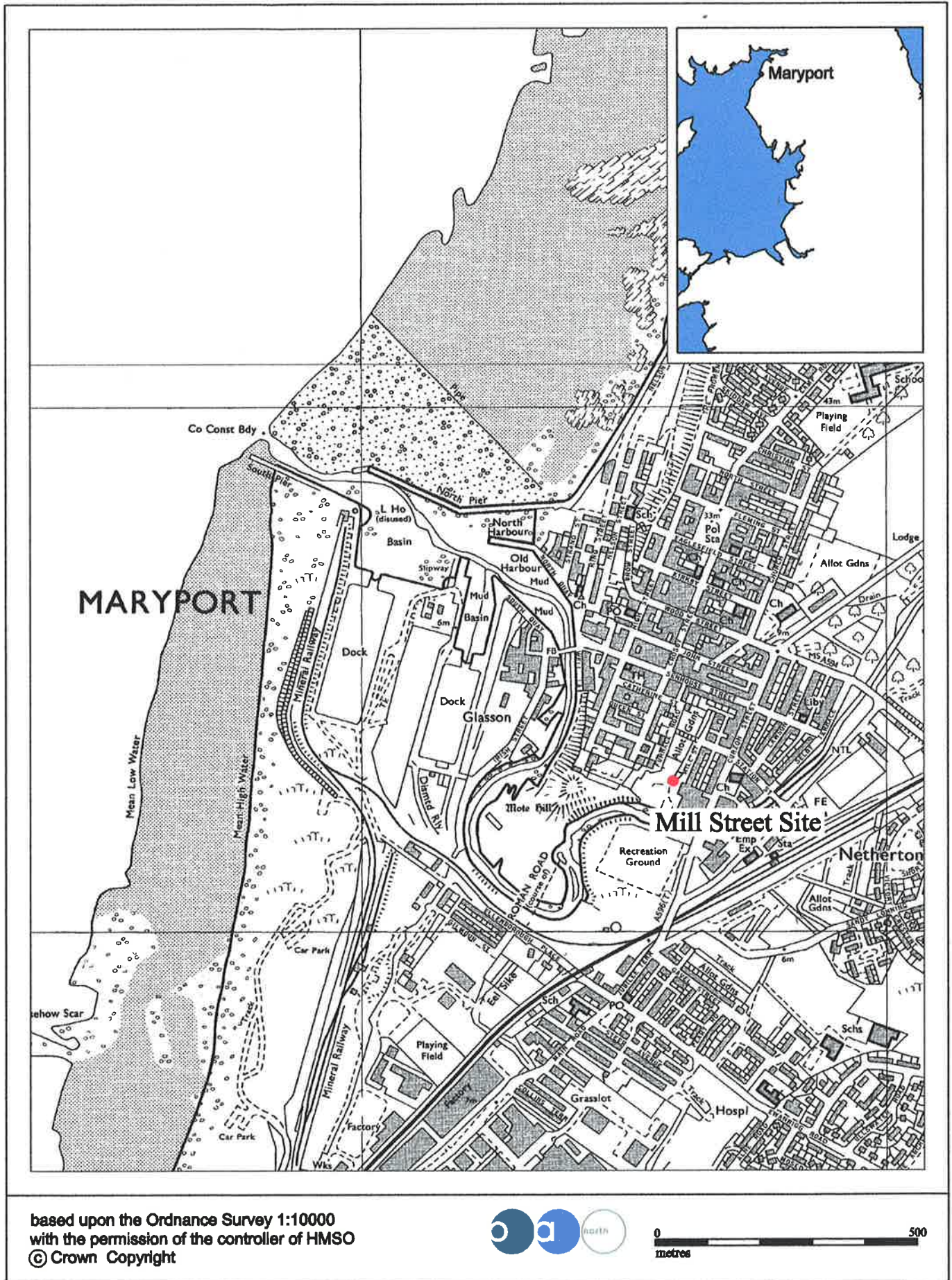
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ILLUSTRATIONS

Figure 1: Mill Street, Maryport: Site Location Map

Figure 2: Location of blast furnace, Corn mill and circular feature under investigation

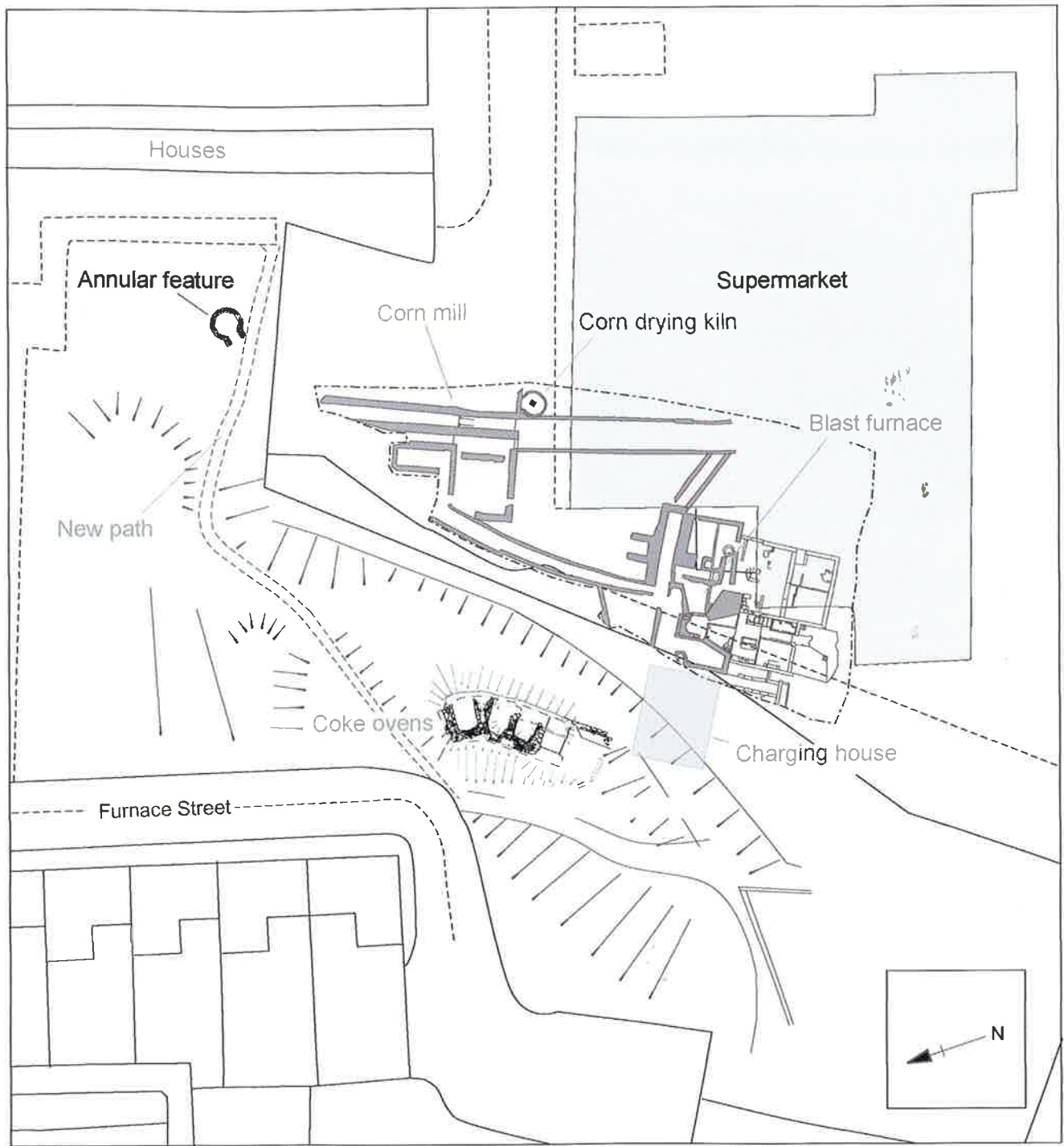
Figure 3: Plan of the Annular Brick Structure



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Figure 1: Mill Street, Maryport: Site Location Map



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PROJECT: Project title
 DRAWING No: 2
 TITLE: Site plan
 CLIENT: Groundworks, West Cumbria
 DRAWN BY: AJP
 DATE: October 2002

Key:

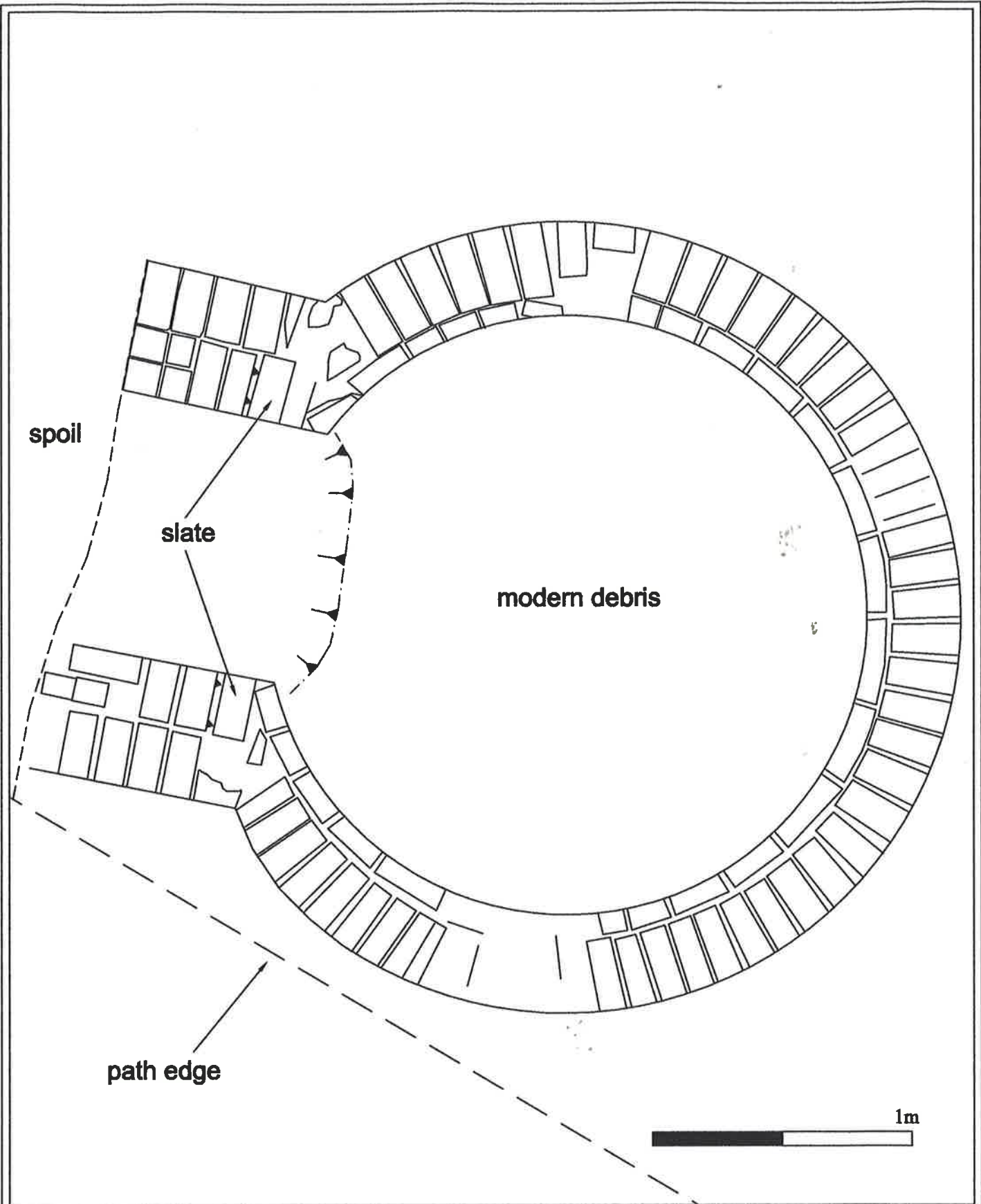


Circular brick feature
 under investigation

SCALE:




Figure 2 : Location of blast furnace, Corn mill and circular feature under investigation.





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PROJECT: Project title
DRAWING No: 3
SCALE: 1:20
TITLE: Plan of brick structure
CLIENT: Groundworks, West Cumbria
DRAWN BY: AJP
DATE: October 2002

LOCATION:


 N

KEY
 ——— Features
 - - - - - Limit of Excavation

Figure 3: Plan of Annular Brick Structure

PLATES

Plate 1: The site prior to work being carried out, looking north-west

Plate 2: The brick structure following excavation, looking east

Plate 3: The aperture with slate bedded recesses, looking west

Plate 4: Original painting held by the resident of No 15 Mill Street; produced in 1973,
which shows the former corn mill



Plate 1: The site prior to work being carried out, looking north-west



Plate 2: The brick structure following excavation, looking east



Plate 3: The aperture with slate bedded recesses, looking west



Plate 4: Original painting held by the resident of No 15 Mill Street; produced in 1973, which shows the former corn mill