

**ARCHAEOLOGICAL INVESTIGATIONS IN
NEWNHAM HOUSE COURTYARD,
CAMBRIDGE,
1991**

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Abstract

Archaeological excavations were undertaken in the courtyard of Newnham House, Newnham Road, Cambridge in advance of an extensive redevelopment programme for the courtyard.

Numerous nineteenth century services and wall foundations were revealed, all of which were contemporary with the construction of Newnham House and its successive phases of extension.

Despite the presence of two Medieval pits the Medieval agricultural land and housing, associated with a 14th century manor close by, was severely truncated and very little information was gained relating to that period.

INTRODUCTION

An extensive redevelopment programme was commissioned by Corpus Christi College for the courtyard area to the rear of Newnham House, Newnham Road, Cambridge (NGR TL 4448/5779). The extent of the building works necessitated that archaeological investigation take place and an excavation was carried out with two main objectives. Given that the Newnham site constitutes a prime settlement location, being raised above the floodplain on the first river terrace, the chance that early (prehistoric or Saxon) activity might have been located there demanded a close inspection of the primary layers above the natural. Secondly, with the proximity of Mortimer Manor (see below) it was hoped that evidence of either the structure or of the related Medieval landscape would come to light during the course of the excavations.

Between the 15th and 24th July 1991 a team from the Cambridge Archaeological Unit undertook the excavation work, funded by Corpus Christi College, in advance of the building operations. The level II archive is held by the C.A.U. (Site Code: NHC-91).

Archaeological and Historical Background

Within the area enclosed between Newnham House and Ashton House (to the north east), of major importance is the situation of Mortimer Manor, a 14th century manor house known to be located somewhere in the gardens between the two houses. Before 1311 the home had formerly been held by the Carmelite Order of Friars who for forty years inhabited the house and worked the surrounding demesne lands, then called the Carmedole, which was a large block of land immediately behind the house and its close. In 1311 the Prior of the Carmelites released the house to Sir Constantine de Mortimer, probably the owner of the

house, who had earlier rented it to a Michael Malherbe. It was from him that the Carmelite brothers obtained it.

From the land registers of the 15th century (copies of a possible original 14th century terrier) it is evident that a number of tenements stood along the road frontage of the Manor, all paying rent charges to Mortimer. These are indicated on Hammond's plan of 1592. Another built-up area occurred to the east of the Medieval high street (Newnham Road) in a triangle of land with a mill at its apex and these tenants also paid rents to Mortimer. Thus the demesne of the Manor was fairly extensive accounting for much tenant housing and associated in-field activity. From Hall and Ravensdale's study of the West Fields of Cambridge (1976) the Mortimer Manor site, having had buildings located in the area from an early date, is probably the only part of that agricultural system never to have been ploughed. It is not clear when Mortimer Manor was pulled down but it had vanished by the time of the late 18th century maps.

Newnham House stands approximately 40m to the west of Newnham Road (the Medieval High Street) and immediately north of Malting Lane, and was built c. 1820 to an L-shaped plan with south and west wings and outbuildings occurring to the north and south further west (RCHM 1959). Its plan was modified in the late 19th and 20th centuries when the house was extended to include the outbuildings as extra living accommodation. Prehistoric flints were found in 1971 in the garden of 'The Loft', south of Malting Lane. Situated on slightly higher ground, on a gravel ridge and near to the river, the Newnham House area is a prime location for the possible discovery of early prehistoric settlement.

Methods of investigation

The location of a suitable area for total excavation was determined by the services extant within the courtyard. Numerous manholes, sewer pipes, water pipes and drains were evident within the 9m x 8m yard as well as an external cellar and water catch pit, all of which reduced the area available for excavation. Consequently, a 3 x 3m trench was hand dug down to the surface of the natural gravels, although a large wall foundation, discovered within the centre of the trenches, subsequently defined the limits, north and south, of the excavation. (Fig. 1).

For ease of recording the east-west arm of the trench was labelled Trench 1 (see plan) and the north-south arm, Trench 2. A Unit-modified version of the Museum of London recording system was employed during the excavations (Spence 1990). Discrete stratigraphic entities (e.g. a cut, a fill) were assigned individual *context* numbers and these are indicated in the text as [#]. Within this report the archaeological sequence has been described by and organised into stratigraphic *phases* for the multi-period

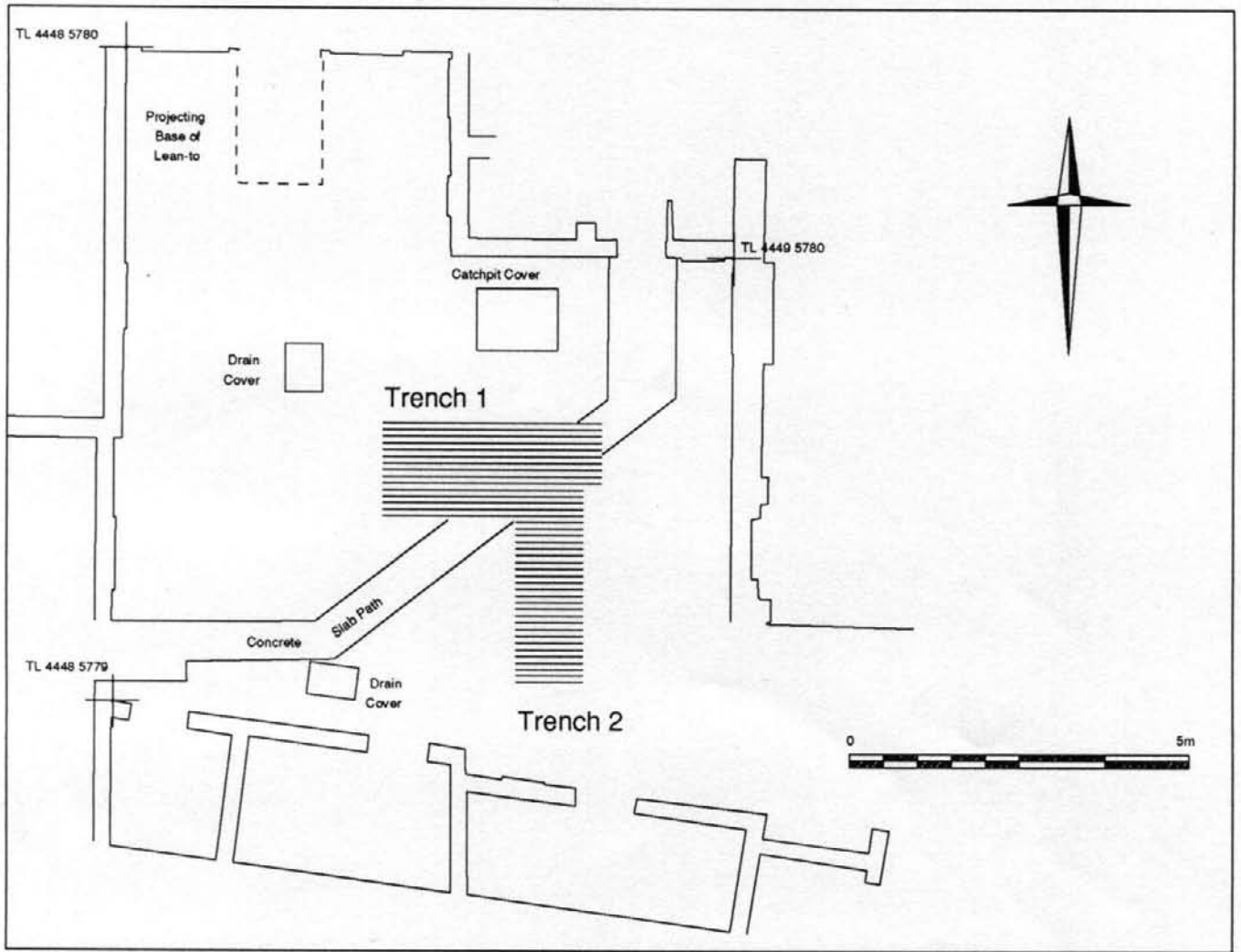


Figure 1 Area of Excavation

site. These are indicated by Roman numerals and their sub-division into text-sections by Arabic numbers (e.g. I.3).

While only the spot-dating of the pottery is referred to in the text a full catalogue of finds may be found in Appendix A.

ARCHAEOLOGICAL INVESTIGATIONS

A thin layer of very rubbly topsoil [001] consisting of a dark brown sandy silt loam survived for a depth of only c. 50-100mm across the courtyard area and, where removed to the west of the excavated area, revealed a cobbled yard which extended to the western walls of the 19th and 20th century conservatory extensions. A stray find of a Roman mortaria rim sherd was discovered within the topsoil, which is likely to have derived from elsewhere and been redeposited within the topsoil. The ground surface lay at an average height of 7.95m OD.

The geology of the area was seen to consist of very fine sands and gravels of the first river terrace. Fine pale grey alluvial silt deposits interbedded with these sands and gravels towards the top of the natural profile. The height of natural lay at c. 6.60m OD.

Phase I

I.1

053, 058, 052, 059, 051, 060

Three pits ([058], [059] and [060], Fig.2) were found cut into the surface of the natural gravels. Of these, the largest ([058]) was 0.70m wide and 0.50m deep, its base resting at 6.17m OD. Its eastern edge lay outside the trench but the western edge sloped gradually to a flat base. The pit contained a dark brownish grey clay silt ([053]) with moderate fragments of wood, occasional fine to medium sub-angular flints and fine clunch fragments. Sherds of Medieval pottery were recovered from this fill. The pit extended for 0.40m north into Trench 1.

The upper edges of a pit ([060]) were evident against the north section of Trench 2. As this pit occurred only 1m to the south of [058] it may be argued that these edges represent the southern edges of the larger pit. It, too, was filled with a dark brownish grey clay silt ([051]) containing occasional oyster and freshwater mussel shells, moderate fine to medium gravels and occasional charcoal flecks.

A small circular pit ([059]) was 0.20m in diameter with a steeply raked eastern edge (truncation by later features preventing the study of the western edge). The pit was 0.25m deep with its base lying at 6.52m OD. It abutted [058] but no clear relationship between them was evident. The pit contained a mid brownish grey clay silt ([052]) with tan staining at its upper contact. A sherd of Medieval splash glazed pottery dated the fill.

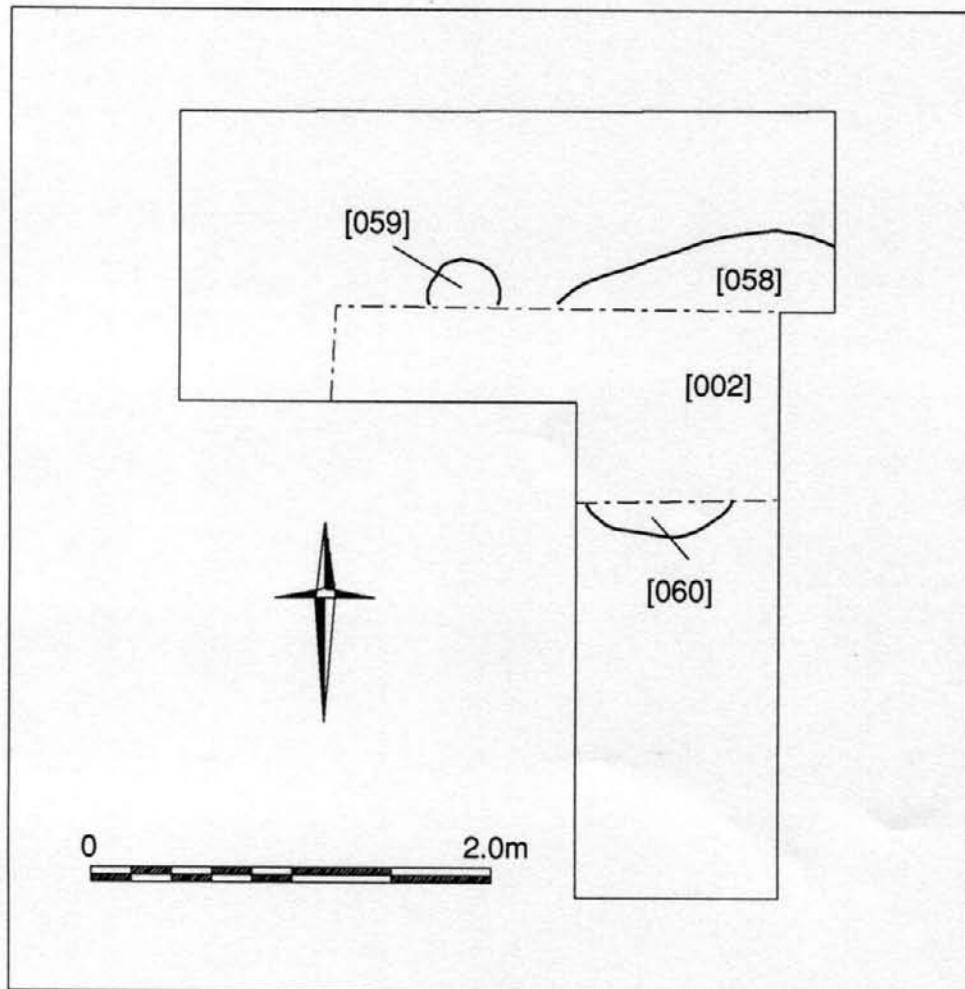


Figure 2 Excavated Features

I.2

044, 046, 050

Three contexts were assigned to what may be best described as garden soils, and were seen to overlie the I.1 pits in Trench 1 ([050], Fig 3) and further seen in Trench 2 ([044], [046]) where they were severely truncated by later features. They consisted of clayish silts varying in colour from dark brownish grey ([046], [050]) to dark greyish brown ([044]) and containing moderate fine to medium sub-rounded to sub-angular flints and fine fragments of clunch. Tan and olive green staining characterised these soils, probably indicative of fluctuating water levels and decaying organic matter within the soil structure. A sherd of Medieval pottery was recovered from [044] and occasional fragments of bone and undiagnostic pottery were recovered from the top 0.30m of [050].

Discussion

Three features were all that remained of the Medieval occupation of Newnham within the study area. Indeed, it is very likely that the pits [058] and [060] may have been a single pit, its upper edges remaining for study within Trench 2 as [060]. Of prime importance was the retrieval of Medieval pottery from the fills of the pits, which provides substantive evidence of a Medieval presence. The layers of the I.2 phase may represent the subsequent build-up of garden soils, probably late Medieval/Post-Medieval in date and their various context numbers may, in fact, be the over-recording of a single, much disturbed garden soil layer.

Phase II

II.1

043, 055, 056

A steep sided construction trench was evident in both trenches, on a NW-SE alignment. Its upper edge was mostly cut away by later features in Trench 1 and where it remained in Trench 2 it was excavated to 6.20m OD into the natural at which point no further excavation was possible. Generally its northern edge was near vertical with its upper edges splaying out towards the top. Its southern edge was truncated in both trenches by later features. It contained a large brick culvert ([055]) deeply embedded in the natural gravels with a roof span of c. 0.60m. Its construction resembled that of [042] (see below) but appeared more sturdy. The huge construction trench was backfilled in the main with a mid brownish grey silty clay ([043]). The lowest part of the fill was very clayey with frequent medium (< 30mm) sub-rounded gravels. Above this was a layer, c. 0.20m thick, of orange gravels containing occasional brick fragments. Most of the trench was subsequently backfilled with a rubbly greyish brown silt containing moderate brick, tile, coal, slate, clunch and mortar fragments and broken clay tobacco pipes.

II.2

041, 049, 036, 040, 048, 029, 028, 027, 030, 022, 034, 017

The foundations of a N-S wall of a mid-19th century conservatory extension were excavated ([041]). The foundation measured 0.22m wide and was constructed of three courses of header bricks laid on bed on a footing of headers and half bat bricks. The E-W return wall consisted of header bricks laid on bed on a footing of stretchers butting against headers

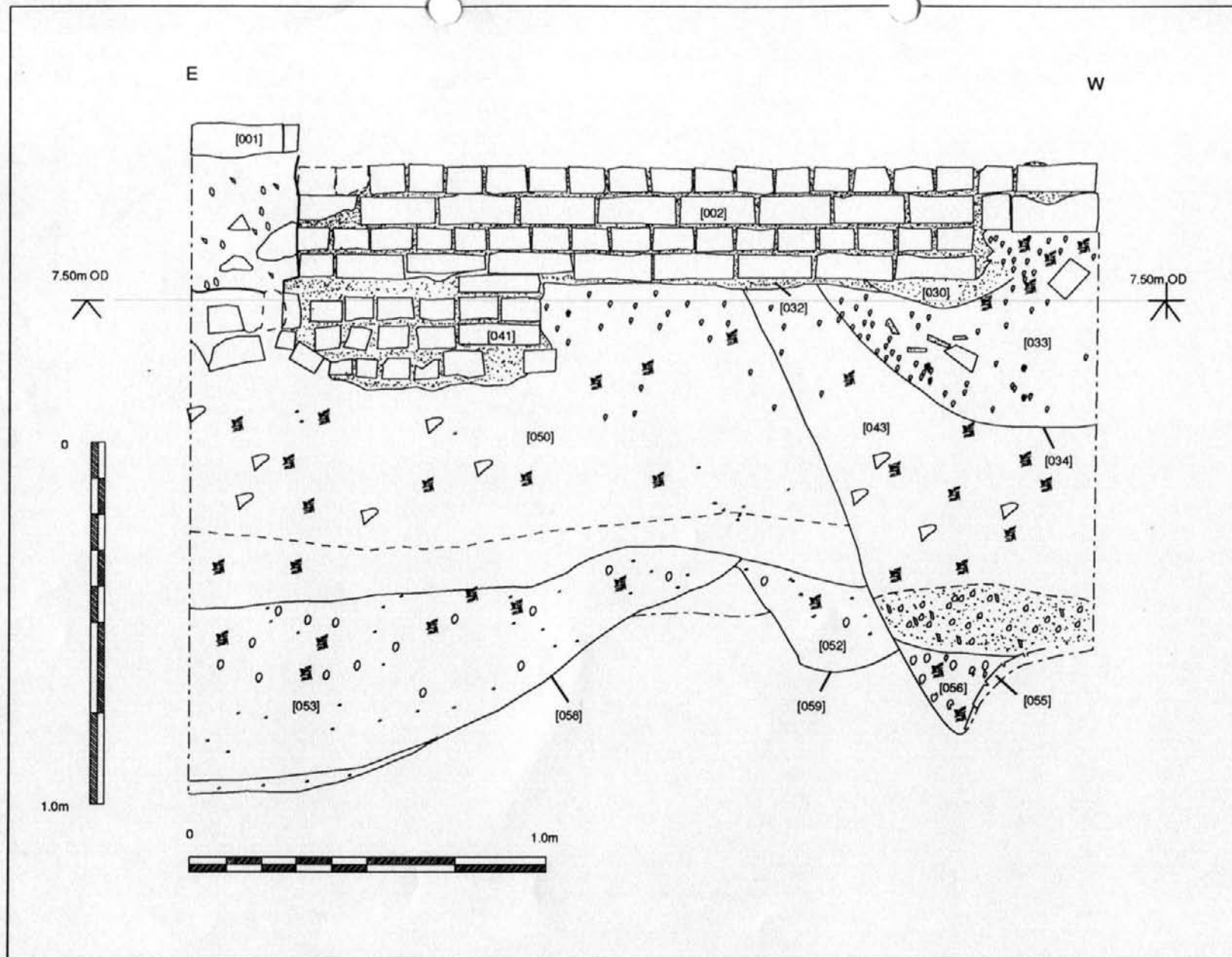


Figure 3 Trench 1 North Facing Section

(not half bats). The foundations were bonded by a hard, pale grey concrete-like mortar which, in some places, poorly filled the gaps between the bricks. A semi-circular arrangement of half-bat bricks ([049]) was also keyed into this corner foundation and the cavity between the semi-circular wall and the inner edge of the N-S foundation filled with very loose yellow mortar ([036]) making the entire construction appear to have had a circular recess within the entranceway.

Butting against the western wall of the conservatory a large semi-circular pit had been dug ([040]). It had vertical sides and measured 1.0m wide from N-S, 0.98m wide from E-W and 0.83m deep, its base lying at 6.74m OD. The basal 0.40m of the pit was filled entirely with large stone chippings ([048]) probably deriving from the dressing of the stone flags within the house or its conservatory. The rest of the pit was backfilled with loose dark greyish brown silts containing occasional brick/tile fragments, mortar, sand and gravel ([029]). No definite interpretation could be assigned in the field regarding the nature of this deep pit, but its proximity to the catch pit immediately to the north may suggest that it was a soakaway feature.

A shallow, slightly concave edged E-W trench-like cut ([028]) was only 0.25m deep (base level at 7.25m OD) and had a regular flat base. It was filled with a mid greyish brown silty loam ([027]) containing occasional red and yellow brick and tile fragments (<50mm), fragments of glass, mortar, coal, rusty iron nails and sherds of 19th century china. It may have been a garden feature (bedding trench) outside the conservatory extension.

A 0.45m wide U-shaped trench ([030]) had a slightly rounded base lying at 7.42m OD. The trench had evenly sloping edges and was dug for the insertion of a 40mm lead water pipe. It was aligned roughly NW-SE where seen in Trench 2. Its northern edge was truncated by [008] and its upper southern edge clipped by [022]. Where visible in Trench 1 it remained in section only, having been cut away by the sewer pipe construction trench ([034]). It was filled with a pale mid brown sandy silt ([017]) with frequent clunch fragments (<50mm), red brick, slate, tile, mortar and coal fragments.

Discussion

This phase consists of the mid-19th century conservatory extension and associated services to the south of Newnham House. It is likely, however, that the substantial brick culvert of II.1 was built as part of the service network for the house when it was built in 1820. The extension works of II.2 brought to light the use of a decorative construction technique employed elsewhere in the house. The doorway, as approached from the inside of the house, had a wide, gently curving recessed wall arrangement creating an air of greater space at the entrance. Of a more ambiguous nature was the large pit dug flush against the west extension wall. If this acted as a drainage feature it would, presumably, have rendered the west wall unstable and prone to rising damp. Other features discernible within this phase consist of a gardening trench in front of the rear entrance to the conservatory providing natural ornamentation for that area of the courtyard.

Phase III

III.1

002, 025, 016, 008, 006, 005, 019, 018, 003, 013, 007, 026, 042, 021, 055

A substantial brick wall foundation ([002]) was aligned E-W within the central area of the trenches, providing the limit of excavation to the south of Trench 1 and the north of Trench 2 (Fig. 1). It was truncated on its eastern edge by [034]. The foundation consisted of yellow gault bricks laid on bed set into a strong, yellow, sandy mortar. It measured approximately 1m high, surviving as two courses high in Trench 2 and three to four courses high in Trench 1. It was seen to contain a partial mortar foundation base towards the east end of the trench ([025]) comprising a rough, yellow, sandy mortar with small brick/tile fragments and fine gravels. Of note is the re-use of the corner foundation of the earlier conservatory by the later, larger extension ([002]). Having reduced the wall ([041], see above) to the last three courses, a thin (30mm) layer of mortar ([035]) was laid across the new internal area, capping the pit ([040]) and over the old foundation for two courses and for four courses where the old foundation did not extend. A thicker mortar and rubble footing ([025]) was used beneath the southern (external) edge of the new foundation in order to attain the same level. A layer, 0.15-0.22m thick, of fine, dark yellow builder's sand ([016]) was laid within the extension space. Its western limit was not seen, having been truncated by later service trenches.

A large construction trench ([008]) had vertical edges of 0.40m depth leading to a flat base and incorporated [002] and its associated heating ducts. In Trench 2 the ducts were 60mm cast iron pipes ([006]) set one above the other on an E-W alignment within brick-built trenches ([005]). In Trench 1 they were seen to be aligned N-S, where the pipes ([019]) were contained within a brick-built trench ([018]) and covered with grey sandstone capping slabs ([003]). The fill of the construction trench ([013] T.1; [007] T.2) comprised a gritty, mid brownish grey sand loam containing occasional clunch, yellow brick fragments and flecks of coal and mortar. Purpley-brown clinker had been used to fill the brick trench once the pipes had been laid and lenses of clinker also occurred within the construction trench and against the edge of the wall foundation.

Most of the cut of [026] had been truncated by the trenches of later services. Where it survived it was seen on an E-W alignment with an upper width of c. 1m tapering down to near vertical edges. It contained a brick culvert with an inspection hatch ([042]). The vertical shaft of the hatch was built of standard yellow gault bricks laid on bed, five courses high, corbelling slightly downward in the chamber to the top of the culvert. The bricks were bonded with a compact yellow gritty mortar. The inspection chamber had an internal measurement of c. 0.23m square. The culvert was built of U-shaped drain bricks 0.45m wide. These were roofed over by bricks laid on bed embedded in thick gritty mortar forming a curved roof. The construction trench was backfilled with a mid brown sandy silt ([021]) containing moderate inclusions of general building rubble. The entire construction of the culvert and inspection hatch was keyed into an earlier culvert ([055]) which took a NW-SE alignment.

Discussion

The late 19th/early 20th century enlarged conservatory extension and associated services were seen within this phase. A substantial wall foundation, and its heating and drainage system, occupied most of the area between Trenches 1 and 2. Prepared interior floor make-up levels

remained as layers of builder's sand. The new brick culvert was built to join it with the existing culvert, and an inspection chamber provided. This must surely relate to the period after which the west wing of the house was extended to incorporate and re-model the out-buildings which previously stood at the west end of the courtyard. It is likely that extra drainage was necessary in the light of the expanded accommodation.

Phase IV

IV.1

014, 015, 011, 010, 034, 038, 033, 022, 047

A pale yellowish brown clayey sand with mottled lenses of clean yellow and silty sand ([014]) was used as levelling material following the demolition of the 20th century conservatory extension. A dark greyish brown silty loam ([015]) further sealed the demolition layers in the interior of the extension. It contained patches of fine orange sand and moderate fine to medium sub-rounded gravels. A 0.30m wide and 0.30m deep vertically sided pit ([011]) had a flat base which lay at 7.60m OD. It was dug into the newly made-up ground ([015]) and contained a dark brownish grey silty loam fill ([010]) incorporating moderate fragments of coal, charcoal and flowerpot and represented a pit dug to contain mixed garden refuse.

A steep sided trench ([034]) c. 0.55m deep (7.29m OD), on a N-S alignment (in Trench 1), contained two 150mm diameter ceramic sewer pipes ([038]). The trench was backfilled with a mid brown clayish silt ([033]) containing moderate inclusions of red brick, mortar, flower pot, cement, tile and clunch fragments all of which constitute the general rubble debris consistent with building sites and demolition material. This service trench was also excavated in Trench 2 ([022]) although here it took an E-W alignment. Only one of the sewer pipes was contained within the trench, coupled with a replaced lead water pipe. [022] was backfilled with the material described above, represented in Trench 2 by [020].

A steep-sided cut ([047]) with near vertical edges was only partially excavated at the extreme southern end of the trench (the limit of excavation resting at 7.21m OD). It contained a mixed rubble, gravel and silty loam backfill. No further excavation was necessitated for this feature as it quickly became apparent that it was a second sewer trench on an E-W alignment, it being positioned between two manholes to the east and west of the trench.

Discussion

This phase encompasses the recently installed services for Newnham House. Evidence was also provided of the demolition of the early 20th century extension and rear entrance of the House.

DISCUSSION

The excavations proved an important exercise in understanding the sheer intensity of sub-structural features of a c. 170 year old building despite the fact that little positive information was gained concerning Mortimer Manor. The fact that very few Medieval finds were recovered redeposited within the 19th century workings surely suggests that we may have been operating within the garden area of that building (this being represented by the 'garden soil' layer as described in Phase I.2). It seems likely that the major activity of the Manor and its tenements took place immediately north and east of the Newnham House courtyard. However, the three surviving Phase I.1 pits, together with the assemblage of 14th-15th century pottery, provided firm evidence that Medieval activity, probably associated with the Manor, occurred on the site. This provides valuable information, hitherto unrecorded by excavation methods, concerning the development of Medieval Newnham.

It was unfortunate that so little of the Newnham House Courtyard could be excavated due to the presence of the 19th century service trenches and wall foundations. However, two major phases of conservatory extensions were in evidence, as well as their associated sewers, drains and water pipes. It must not be forgotten that the relocation of some of the services were not necessarily forced by the conservatories themselves, but may have been positioned as a result of modifications in the mid-19th century of the north and west wings and similarly the redesigned east wing.

References

- Hall, C.P. and J.R. Ravensdale, 1976. *The West Fields of Cambridge* Cambridge
- R.C.H.M., 1959. *City of Cambridge* Royal Commission of Historic Monuments England. London (H.M.S.O.)
- Spence, C. 1990. *Archaeological Site Manual*. London: Museum of London.

APPENDIX A
THE FINDS CATALOGUE

(context numbers in square brackets and catalogue entries in triangular brackets)

Phase I

I.1

[052]	<128>	Pot	1
	<129>	Bone	1
[053]	<130>	Pot	1

I.2

[044]	<103>	Pot	1
	<104>	Bone	4
	<105>	Tile	1
	<106>	Shell	3
[050]	<116>	Pot	4
	<117>	Bone	7
	<118>	Tobacco pipe	1
	<119>	Tile	1
	<120>	Building stone	1
	<121>	Brick	1
	<122>	Shell	2
	<123>	Coal	1

Phase 2

II.1

[043]	<095>	Pot	13
	<096>	Bone	15
	<097>	Glass	3
	<098>	Tobacco pipe	5
	<099>	Iron nail	1
	<100>	Tile	17
	<101>	Brick	13
	<102>	Stone	1
[023]	<046>	Pot	3
	<047>	Bone	3
	<048>	Tobacco pipe	2
	<049>	Glass	1
	<050>	Slate	2
	<051>	Mortar	1
	<052>	Tile	6
	<053>	Brick	5

II.2

[048]	<109>	Pot	3
	<110>	Bone	1
	<111>	Tobacco pipe	2
	<112>	Iron nails/fittings	11
	<113>	Brick	2
	<114>	Building stone	5
	<115>	Stone	1
[029]	<068>	Bone	25
	<069>	Pot	4
	<070>	Glass	10
	<071>	Tile	3
	<072>	Slate	6
	<073>	Brick	1
	<074>	Cinder	1
	<075>	Iron fitting	2
	<076>	Tobacco pipe	1
[027]	<054>	Pot	10
	<055>	Bone	4
	<056>	Tobacco pipe	4
	<057>	Glass	9
	<058>	Burnt flint	1
	<059>	Tile	12
	<060>	Coal/cinder	2
	<061>	Slate	2
	<062>	Building stone	1
	<063>	Brick	4

Phase III

[007]	<014>	Pot	12
	<015>	Bone	1
	<016>	Glass	1
	<017>	Tile	1
	<018>	Brick	5
	<019>	Mortar	1
	<020>	Slate	3
	<021>	Coal	5
	<022>	Iron fitting	2
[008]	<023>	Glass	3
	<024>	Iron fitting	1
[012]	<027>	Pot	9
	<028>	Glass	4
	<029>	Coal	3
[013]	<030>	Tile	1
	<031>	Brick	2
	<032>	Iron fitting	1
[016]	<039>	Glass	6

Phase IV

[010]	<025>	Pot	2
[014]	<033>	Tobacco pipe	1
	<034>	Iron fitting	1
[015]	<035>	Bone	1
	<036>	Tobacco pipe	1
	<037>	Tile	1
	<038>	Glass	6
[020]	<040>	Pot	2
	<041>	Bone	1
	<042>	Glass	8
	<043>	Tile	13
	<044>	Brick	1
	<045>	Iron fitting	3
[033]	<088>	Pot	2
	<089>	Bone	3
	<090>	Mortar	1
	<091>	Shell	1

Unstratified finds (miscellaneous categories) recorded from the topsoil total 65.

AN ARCHAEOLOGICAL WATCHING BRIEF AT NEWNHAM HOUSE

INTRODUCTION

A watching brief was conducted during the ground preparation of the Newnham House courtyard forming the second phase of the archaeological response within the development programme. This was to provide a broader scan of the area during reduction operations following the demolition of the west and east wings, and to enable the recording and analysis of archaeological remains if they occurred. As with the excavations, the second phase of works were funded by Corpus Christi College.

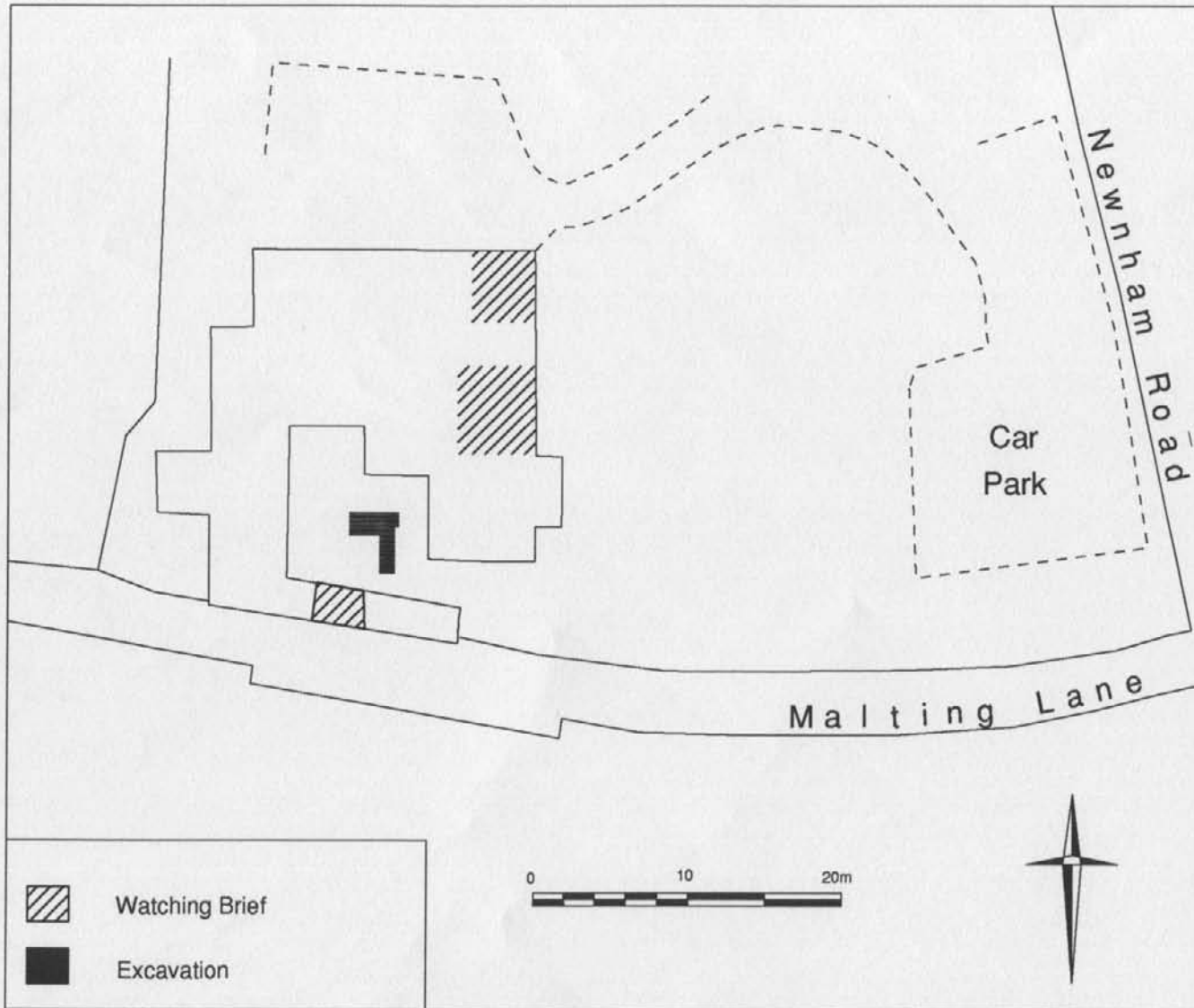
The report of the archaeological watching brief falls into two parts: Part 1 concerns pre-demolition work conducted in the outbuildings to the south of the courtyard and Part 2 refers to remains discovered during the ground reductions (Figs. 4 and 5).

PART 1

Archaeological observations were carried out in late August, 1991, in the coal cellar to the south of the courtyard at Newnham House. Following the cleaning out of the coal cellar by the Contractor's groundsmen the southern garden wall was entirely revealed showing, in particular, a substantial clunch-built foundation and several phases of wall construction and modification above it. Given that the Medieval Mortimer Manor is known to have been situated within the grounds of Newnham House and Ashton House it was necessary for the wall to be cleaned and recorded and for a 1m² test pit to be hand excavated to natural at the base of the wall in order to establish the earliest date of the construction. The top of the natural gravels occurred at 6.79m OD.

The Observations

As the wall contained three phases of construction they are described below in Phase categories with sub-divisions into text sections as previously outlined within the Method section of the excavation report.



Phase I

I.1

068, 070

A mid brownish grey, slightly sandy, silty clay layer ([068]) lay at 7.0m OD. It contained very occasional charcoal flecks and occasional small pea grits and fine sub-rounded/sub-angular gravels. It remained for a depth of roughly 0.15m and contained olive green staining and small molluscs throughout. Two sherds of Medieval coarse wares (14th century), one Post-Medieval sherd (17th century) and four bone fragments were recovered from this layer.

A compact layer ([070]) c. 0.15m thick, feathering out northwards to 5mm, and lying at 6.70m OD, consisted of a pale brownish grey silty gravel containing a high sand content. Occasional patches of pure, clean silt occurred within the layer.

Discussion

The Test pit dug against the garden wall foundation revealed a relatively undisturbed soil profile where the gravelly subsoil ([070]) situated above the natural gravels merged into a well developed silty clay 'garden soil' ([068]). It is likely that the garden soil encountered in the test pit equates with the Phase I.2 garden soils dug during the Courtyard excavations. No features were evident within the 1m² test pit although fragments of pottery and bone suggest nearby occupation of both Medieval and Post-Medieval date.

Phase II

II.1

064, 073, 077

A substantial wall foundation ([064]), lying between 7.34 and 7.84m OD, was built of two fairly regular courses of large clunch blocks. The clunch blocks were roughly shaped although their soft surfaces had become quite fragmented over time. The average size of the clunch blocks was 0.30m wide and 0.20m high with smaller fragments infilling any remaining gaps. They were widely jointed (30mm-50mm joints) with a slightly coarse yellow sandy mortar containing occasional brick fragments filling the joints. The mortar was seen to face some of the clunch blocks, suggesting that the foundation was trench built.

Built above the clunch foundation ([064]) was a free-standing brick wall of bright mid-red bricks (60mm x 0.235 x 0.11m) bonded in a white lime-based mortar with occasional fine pebbles. The uniform bonding joints were of 10-15mm widths. The bricks of the construction were well-coursed, laid on bed, in approximately the English Bond style. They were slightly weathered and were seen to contrast with bricks of the later coal cellar phase of the wall. The trench cut ([077]) for the construction of the wall foundation was not excavated, although obvious by the faced mortar oozing out of the joints and in front of the clunch blocks of the foundation.

Discussion

This phase concerned the garden wall and its foundation which stands on the north side of Malting Lane. Although the wall ([073]) had been altered in the 19th century into the external wall of at least two coal cellars, that it served as an exposed garden wall was evident from the weathering of the bricks. From the style of the building materials (English Bond brickwork above a substantial trench-built ([077]) clunch foundation ([064])) a late 18th century date is likely for the date of this construction (See Part 2 of the Watching Brief report).

Phase III

III.1

063, 067, 069, 072, 074, 076

A protruding 'foundation' of three courses of brickwork ([063]), was approximately 0.30m high and seen in the western half of the cellar. The upper course comprised headers (0.21 x 0.125m x 0.55mm), regularly spaced with 15-20mm joints. The protruding step of the upper course was very worn and fractured suggesting heavy wear. The middle course consisted of an unevenly laid row of stretchers laid on edge. The gap occurring between this and the upper course was filled with an irregular course of tiles (0.12m long and 10mm thick) embedded in a hard, pale yellow, coarse sandy mortar with frequent clunch flecks. Below this was an uneven course of headers with two stretchers amongst them, presumably to compensate in height for the uneven clunch foundation beneath them. A 30-50mm bed of mortar bonded this construction to the clunch foundation ([064]) below.

Above [063] a portion of brick wall ([069]) was built of uniformly laid headers and stretchers (0.21 x 0.125m x 55mm) with bonding joints of 15-20mm widths. They were bonded in a pale yellow, hard coarse sandy mortar and survived in the main for seven courses. An integral build within the walls was a vertical 'column' of bricks faced on both sides and built of two headers overlain by a stretcher in a repeating pattern for fourteen courses above the wall. The column served as the partition between two coal entrances in the newly modified garden wall signifying its changed function.

A 20-25mm thick layer of orange medium to sharp builder's sand ([067]) was lain at a depth of 7.04m OD and represented all that remained of the early cellar floor. The postulated brick floor which would have been laid on the sand bedding had been removed at a later date when this coal cellar was remodelled. Instead a thin layer of coal fragments and coal dust remained above the sand.

A five course high construction ([072]) was built of uniformly laid red and yellow bricks (0.21 x 0.125m x 55mm). The bottom course was a row of headers with 15-20mm joints and which protruded 50mm outwards from the courses above. The four upper courses consisted of roughly 4 or 5 headers to one stretcher. A fairly fine mid yellow mortar with small clunch inclusions bonded the bricks. This construction lay between 7.04-7.39m OD and served as the underpinning of the clunch foundation ([064]). It undercut the foundation by 0.12m. (This was also seen in section during the break-through of the garden wall for the Contractor's access where the underpinning extended c. 0.20m beneath the foundation). An integral build within [072] consisted of a 0.21m wide column of two headers overlain by a stretcher in a repeating pattern ([074]). The top of the column lay at 7.39m OD and may have extended to the same depth as [072]. It served as the lower dividing wall between two cellars. The inferred truncation cut ([076]) for the construction of the divided cellars and their underpinning was not seen within the investigations.

Discussion

Based on the finds evidence, during the mid-late 19th century the garden wall was modified to become the southern external wall of a row of outbuildings. At least two coal cellar cavities were dug at the base of the garden wall resulting in the necessary stabilising of the existing free standing wall by underpinning its foundation ([064]) with a new foundation block ([072]) to the depth of the dug cellars. A floor was placed at the cellar depth (represented by the bedding sand [067]). The garden wall itself was modified by new brickwork ([069]) containing a faced vertical 'column' which formed a partition between two coal holes through which coal entered the cellars from Malting Lane. As the wall now contained the coal holes, the strength of the underlying wall was weakened at these points. It was, therefore, necessary to secure the lower wall by means of an additional footing ([063]). A low partition wall between the two cellars ([074]) was emplaced and may have supported a freestanding party wall within the outbuilding. No evidence was seen of the contemporary northern external wall of the coal houses in the courtyard (the present brick wall on this side is later in date).

Phase IV

IV.1

062, 065, 066, 075

A new wall addition ([062]) was built above the Phase II wall and to the east side of the Phase III column and consisted of wide and irregularly jointed red and yellow bricks (0.21 x 0.11m x 60mm) containing many half bats built in an *ad hoc* English Bond pattern. The coal hole on the west side of the Phase III column was similarly bricked up ([075]) at this time. Two types of mortar were apparent: a light brownish yellow, slightly sandy lime-based mortar bonded the blocks although a hard, white mortar adhered to this, indicating later re-pointing of the brickwork. This wall build terminated in a horizontal row of bricks laid on edge forming the top limit of the wall at 10.05m OD. Within this construction a new coal hole was designed, 0.90m wide and 0.95m high, with faced internal edges.

A layer, 0.25m, thick consisted of moderate to frequent bricks of differing sizes (<50mm to full size: 0.22 x 0.11m x 60mm), occasional tile fragments and occasional to moderate clunch fragments ([066]). Late 19th century pottery, iron nails, broken bottles and occasional fragments of dressed limestone were recovered from the layer. All occurred within a pale to mid brown silty sand and mortar rich deposit. It constituted a demolition rubble backfill of the coal cellar. A new cellar floor ([065]) was built above [066] and consisted of red and yellow floor tiles (0.105 x 0.115m x 35mm) and whole or broken gault bricks (whole: 0.21 x 0.11m x 60mm) and lay at 7.39m OD. The tiles were laid on a bed of sharp sand 25-30mm deep. Late 19th and early 20th century pottery and fragments of bottle glass were recovered from the sandy layer.

IV.2

061

The top nine courses of the late 19th century garden wall ([061]) were built above the modified wall ([062] and [075]). The top seven courses of the internal east partition wall were also tied into [061] and therefore contemporary in date. The top of the wall was finished by a horizontal row of bricks laid on edge curving up gently where it became attached to the southern wall of the west wing of the house.

Discussion

During the late 19th century modification of the then extant coal cellars and garden wall occurred. This took the form of infilling the existing cellars with demolition rubble ([066]) and blocking up the original coal shoots built in the garden wall ([062], [075]). A new coal shoot was constructed within the new wall (in [062]) and a raised cellar floor level positioned in the re-designed coal cellar. The distance in height of the new floor in relation to the base of the coal shoot remained the same (1.45m) as that previously seen between the base of the old coal shoot and the old floor level. This may have been a result of the resurfacing and raising of the Malting Lane road height at that time as well as indicating a standard drop-height for the coal. The late height extension to the garden wall was added when the western outbuildings of the courtyard were remodelled and incorporated into the west wing of Newnham House.

DISCUSSION

The cleaning and recording of the coal cellar provided information largely concerning the development and incorporation of an early garden wall, situated along the north side of Malting Lane, into an external wall functioning as the south wall (with coal shoots) of at least two 19th century coal cellars. It was important to establish the date of the early clunch foundation and contemporary free standing wall segment (Phase II) and to see if it related to the Medieval occupation of the grounds of both Newnham and Ashton Houses. Such foundations are common from the early Medieval period and continue in use until the late 18th century. A number of Late Medieval examples have been excavated in Cambridge during the last year: at the Cavendish Laboratory (Hunter 1991) on the front lawn of King's College (Evans forthcoming) and at 21 Magdalene Street (Dickens 1991). Seventeenth century examples are known from the Trinity Library excavations (Evans forthcoming) and St. John's Chapel Court (Evans 1991). From the nature of the building materials (the brickwork of the surviving wall) the most likely date for the early garden wall at Newnham would be within a 17th-18th century date range. This is confirmed by the recovery of Post-Medieval (16th-17th century) pottery from the undisturbed 'garden soil' excavated 1m away from the wall foundation.

PART 2

Archaeological monitoring of the post-demolition stripping and ground reduction revealed a series of 19th century brick drains, wells and sewers. These were not recorded and are therefore not discussed in the Watching Brief report.

However, work undertaken by the contractors in the room to the east of the front entrance and the central room on the east side of the house entailed the lifting and replacing of the floorboards with a new concrete floor (Fig 5). In order to lay the concrete, the hardcore underlying the old floor boards needed to be dug out. This revealed an earlier wall foundation which was subsequently cleaned and recorded:

A foundation consisting of blocks of chalk, clunch, limestone and red bricks was bonded with a course, pale to mid yellow slightly sandy mortar ([079]). It was aligned roughly NNE-SSW and survived for a maximum width of 0.60m and for a length of 15.0m. It appeared to be trench built as no wider construction trench was visible ([081] was the inferred trench cut). A bed of mortar was laid in the base of the trench and where the mortar oozed from the joints between the composite blocks it partially 'faced' some of them confirming the trench built construction method. The foundation respected the slope of the ground surface in its lay (the ground rises northwards at Newnham). This was further evident from the 19th century reduction of this earlier wall (during the construction of Newnham House) creating a level surface on top of the foundation. In other words the lowest brickwork course of the wall remained at the southern, lowest lying, end of the wall foundation as a row of headers lying across the centre of the foundation with fairly uniform bonding joints between (10-15mm). Two rows of stretchers were placed above the headers, the gap between being infilled with loose rubble, lightly bonded with pale yellow gritty mortar. At the northern end of the foundation no wall was evident above it, but traces of mortar remained where the lowest wall course would have lain. The maximum depth of the foundation was 0.25m. The composite construction blocks of the foundation varied in dimensions from 0.20 x 0.24m blocks of chalk, 0.24 x 0.11m 0.25 x 0.15m blocks of limestone to 0.160 x 0.14m blocks of clunch. Re-used broken bricks with their mortar bonding still attached, infilled any major gaps between the roughly shaped blocks, as well as smaller fragments of limestone, chalk and clunch. The north end of the foundation was truncated by the construction trench ([082]) for the corner foundations ([078]) of Newnham House.

A dark brownish grey compact silty clay loam ([080]) containing moderate gravel pea grits, fine fragments of chalk and clunch and occasional charcoal flecks was evident beneath the 19th century hardcore of the Newnham House floors. Fragments of freshwater molluscs, brick and 13th century grey ware pottery were recovered from the layer in association with the base of a Post-Medieval vessel.

DISCUSSION

The substantial remains of a 17th-18th century house were revealed following the contractor's excavation of the Newnham House floors. A single foundation survived for a 15.0m length beneath two rooms (the north-east and the central room) on a slightly different alignment to the foundations on the east side of Newnham House. Maps dating from 1688

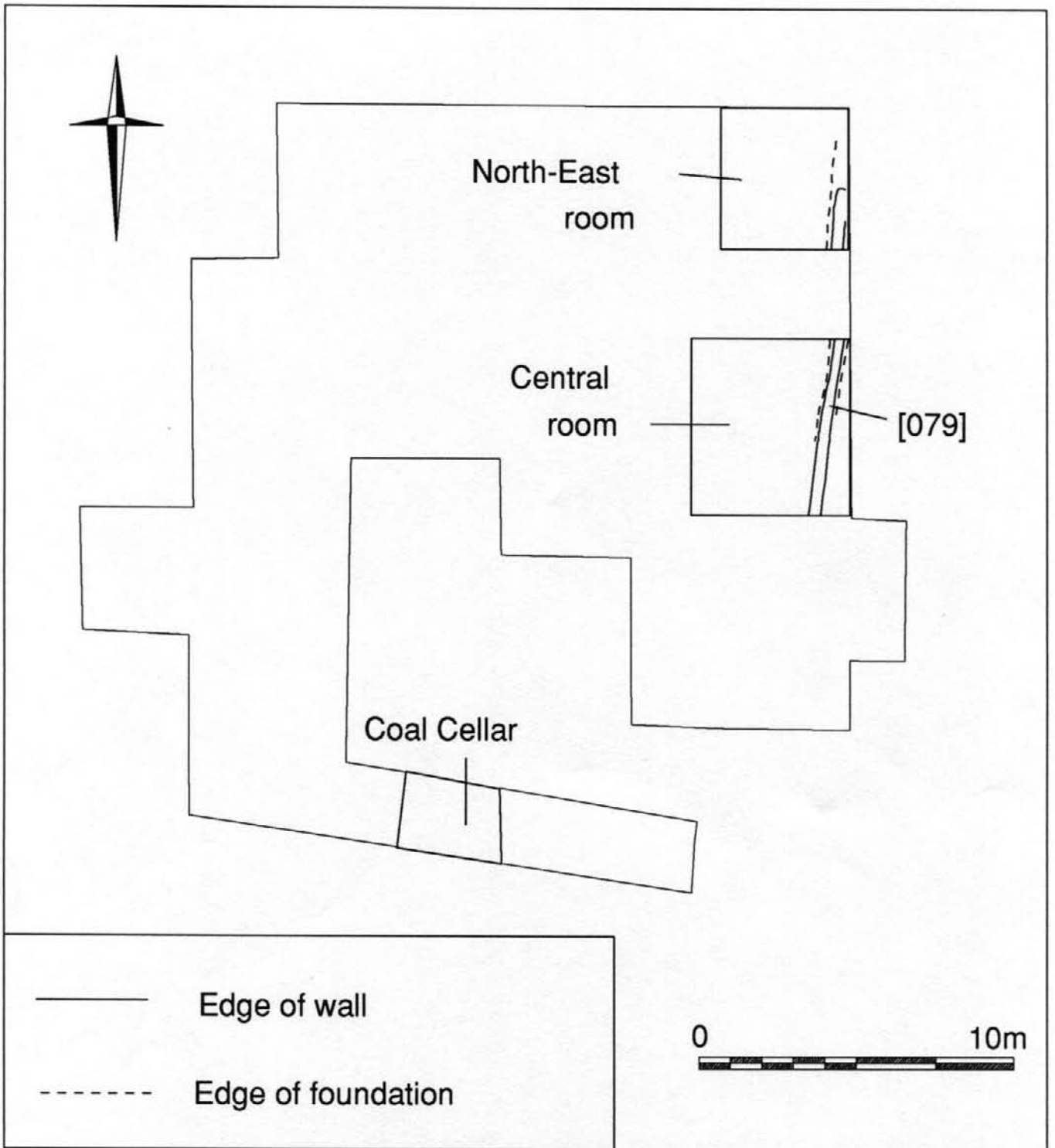


Figure 5 Watching Brief Findings

and 1798 indicate buildings on the Newnham site (Loggan and Constance respectively). The 17th century map shows a large L-shaped structure (perhaps representing several houses) bordering the north side of Malting Lane with a smaller building situated along the west side of Newnham Road. The 18th century map shows a different orientation of the buildings. Part of the long axis of the earlier L-shaped building was demolished westwards along Malting Lane and additional houses were built along the west side of Newnham Road. Two buildings, slightly skewed in their orientation between one another, were constructed a short distance north of Malting Lane in the area now occupied by Newnham House. It may well be that the wall foundation, revealed beneath the 19th century floor make-up, relates to the 18th century buildings noted on Constance's map of 1798.

Mention should here be made of the garden wall as described in Part 1 of the Watching Brief Report. It may follow that the wall was part of the 17th century structures bordering Malting Lane as shown on Loggan's map of 1688. Following the alterations in the period between 1688 and 1798 the south wall may have survived as the early garden wall of the Newnham plot. From the construction technique of the two observed wall foundations they were seen to be broadly similar, both comprising large clunch, chalk and limestone blocks and are likely to have been roughly contemporary. A less substantially preserved foundation on an east-west alignment was seen during the demolition of the out-houses and west wing of Newnham House when numerous re-used dressed and moulded limestone blocks formed part of a stone and clunch foundation. Although no plan is available for the orientation of the latter foundation, scale drawings of the limestone blocks are stored in the Newnham House archive. It is plausible that the garden wall may, therefore, be of 17th century date while the building foundations (comprising a large quantity of more durable limestone blocks) may relate to the known 18th century buildings which once occupied the area beneath Newnham House.

Apart from the findings of the 13th-14th century pottery in what appears to be a remnant early 'garden soil', seen in various locations within the study area, Mortimer Manor, however, remained conspicuous by its absence. The numerous, reasonably fresh pottery sherds are indicative of Medieval occupation in close proximity to Newnham House and it is, therefore, unfortunate that the location of the 14th century manor is still unknown and is left undetected by the present work. It remains to be situated "somewhere in the gardens of the present Newnham House and Ashton House, or possibly just in the Caius Fellow's Garden" (Hall and Ravensdale 1976).

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