I. Treboeth — the burnt town: a preliminary investigation of early Christian to early Modern industrial activity in Handbridge, Chester

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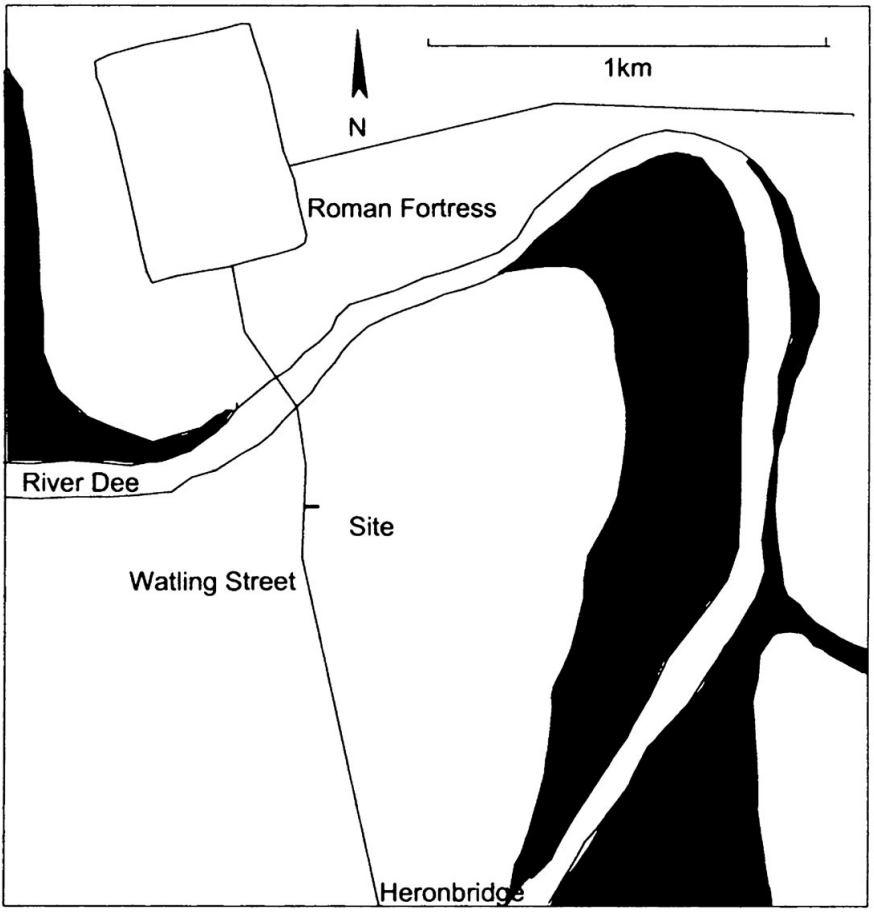
> The Welsh name of Handbridge, Treboeth — 'the burnt town', is sufficient to show that for ages it has been considered a destroyed site, and consequently that, unless some depth beneath the soil, it would be useless to look for anything of much interest occurring. (Watkin 1886, 216)

> And the Bridgegate, opening into an ancient part of the city, beyond the water over the bridge; or rather that part which some suppose was once the city itself, now called Handbridge. (Webb [fl. 1580–1620] in Ormerod 1882, 185)

The assessment excavation outlined in this report has revealed evidence of activities within the Roman cemetery in Handbridge, Chester, which indicate the existence there of a significant Late Roman Building. Demolition of this building led to the development of an industry based on glass recycling and craft production in post-Roman times. The origin of these activities is possibly ecclesiastical. Documentary evidence confirms that glassmakers were operating in Handbridge from late Medieval times onwards. The excavated evidence is consistent with the documents and demonstrates industrial activities developing during the course of the Medieval period and on into the eighteenth century. These comprised potting and glass working, as well as other crafts. Alongside local production, there is rich evidence of a lengthy tradition of imported ceramics, symptoms of lively commercial contacts between Chester and various British and Continental ports. From the fourteenth century onwards, the industrial processes can be connected with a local merchant family involved in glassmaking and glazing, the Dalbys, prominent guildsmen of the city.

Introduction

Over the past twenty years, the site reported here, a garden in Handbridge, has produced a great variety of finds of archaeological interest from a wide range of historical periods. It had generally been assumed that these finds derived from material excavated in other Chester locations by Professor Robert Newstead, who lived in the house from 1909 until his death in 1946 (Lloyd-Morgan 1996, 32; Ill. I.1). There were, however, some reasons to think that this was not a sufficient explanation for the wealth of archaeological finds



Ill. I.1: Sketch plan of the Roman fortress at Chester, with the River Dee, showing the approximate location of the site

regularly discovered in the property's boundaries. The soil in this garden, and in neighbouring properties to north, is a distinctive black, friable loam, rich in industrial waste. This loam is markedly different from the underlying heavy, deep orange boulder clay (natural). The area where the black soil is known to be present covers *c.*100m2, from Greenway Street on the periphery of Edgar's Field, up to and including gardens on the south side of Percy Road. Archaeological finds are distributed throughout this deposit in a widespread and homogeneous way, suggesting the operation of longer-term processes. Where it has been possible to observe the soil in several adjacent properties, the same characteristics have been noted. The finds from the property described here include many unusual items, which it is hard to imagine being casually discarded (had they indeed been collected by Robert Newstead): metalwork, human skeletal remains, glass jewellery and rare imported pottery from a range of periods.

The garden had been investigated by Robert Newstead himself, providing apparent, if inconclusive, evidence of Roman occupation (Newstead 1948, 130–31). Restoration of the

outbuilding and redesign of the garden provided an opportunity to carry out an assessment of the archaeological evidence with a view to establishing the origin of the material more definitively.

Investigations have established that most of the material finds from the garden originate in structures and activities local to the site. The test trenches distributed throughout the property show a remarkable absence of major disturbance in the stratigraphic sequences. There has been continuous occupation here and in the environs since late Roman times (third–fourth centuries), with various craft activities practised for most of this period, stopping only at the end of the eighteenth century or beginning of the nineteenth century. A small set of prehistoric artefacts may point to a hitherto unsuspected settlement in this part of Chester, from the Neolithic to the Iron Age; although, it may equally be possible that these items are secondary deposits, which found their way into later levels as a result of levelling operations, using soil imported from elsewhere in Chester. They are, nevertheless, of some value as symptoms of prehistoric activity on one side of the Dee or the other.

This paper presents a preliminary report on the fieldwork and finds. A final report is in preparation, which will include full analyses of the metallurgical, glass and other noteworthy finds. Here we address the excavation strategy, the stratigraphy, and the discovery of potential early medieval structures and artefacts. A preliminary report on the later, post-Medieval industrial activity, including the evidence for a glazier's workshop, has been published elsewhere (Archibald 2005).

Strategy

In order to minimise damage to any archaeological deposits, the strategy adopted by the authors of this paper, as current owners of the property, was one of minimum intervention. Only areas that were to be seriously disrupted were excavated, and only down to natural in locations where building or restoration work would have resulted in deep intrusions. Bearing in mind the potential presence of material derived from secondary deposition of Newstead's own finds, excavated elsewhere in Chester during the early decades of the twentieth century, our aim whilst investigating post-Medieval features was to establish an horizon below which we could be reasonably sure that lower deposits were uncontaminated by such comparatively unusual recent processes. Sections were made of medieval and earlier deposits in order to establish stratigraphic and chronological relationships. Less than 5 per cent of the garden surface was excavated. Despite the small scale of the excavation, enough evidence was gathered to provide new insight into Handbridge history and its relationship to the city of Chester north of the River Dee.

Previous archaeological investigations in Handbridge and its environs south of the River Dee

Handbridge (Ill. I.2), known as *Treboeth*, the hot or burnt town in Welsh, is located south of the Old Dee Bridge in Chester. It sits at the northern end of a sandstone ridge belonging to the pebble beds of the Permian/ Jurassic Sherwood Sandstone Group that outcrops in several places above the overlying boulder clay (Earp and Taylor 1986, 17, 67). The sandstone has been quarried from Roman times until the nineteenth century. Inside the Roman

quarry is the area's most famous archaeological feature, the Minerva shrine, one of the few European relief images of a Roman goddess in its original location (Watkin 1886, 191, 197–200; Petch 1987, 182; Mason 1987, 151 and fig. 3; Mason 2001, 183; Lewis and Thacker 2003, pl1). Watling Street crosses Handbridge on its way to the river crossing of the current bridge (Ill. I.1).

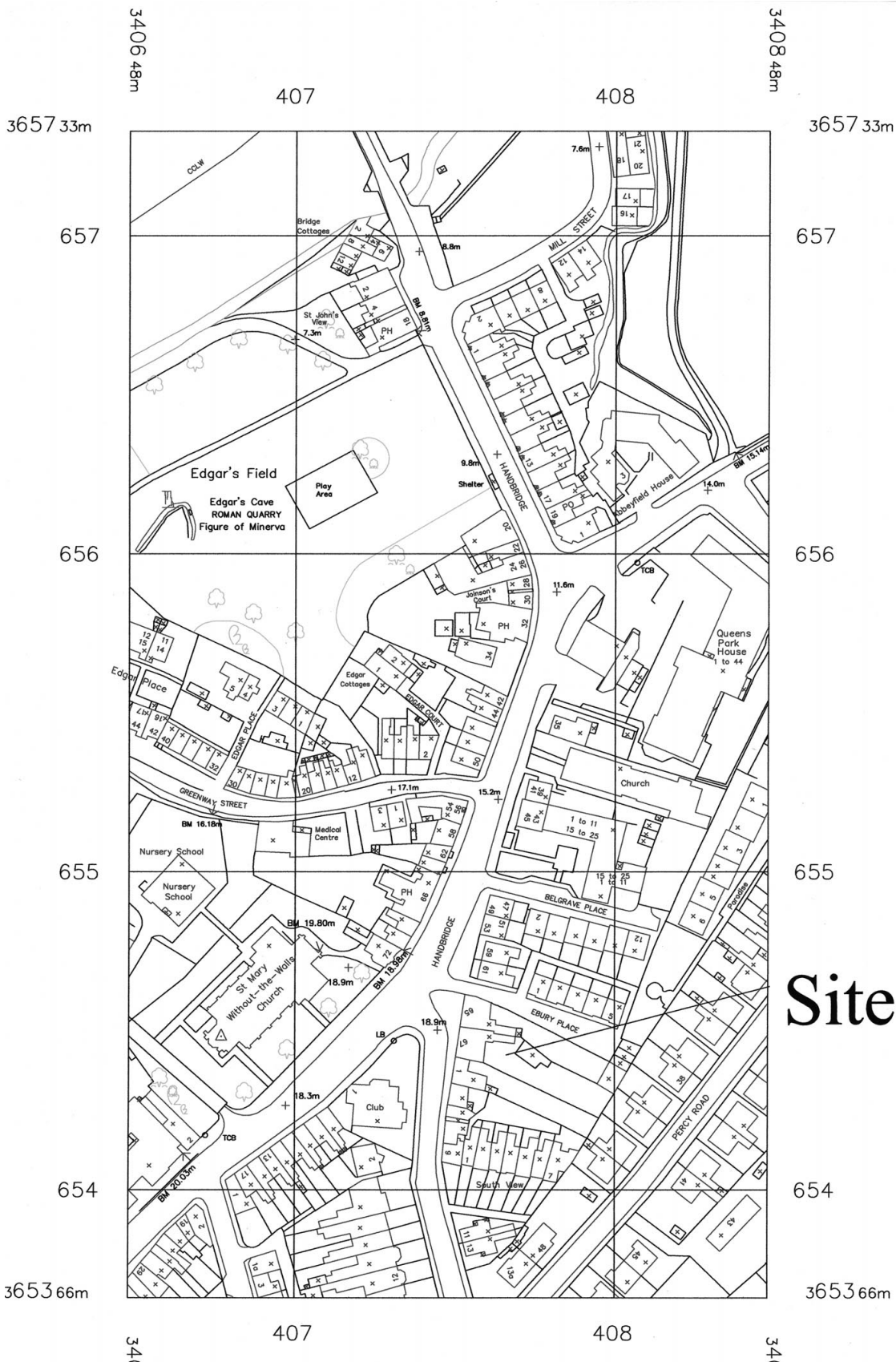
Handbridge and its environs has been the object of a number of excavations and chance discoveries. Cremation burials have been located on either side of Eaton Road in the Victorian era (Newstead 1948, 120–33; Petch 1987, 182–3; Mason 1987, 164–5). More recently Robert Newstead discovered a cremation burial in Ebury Place, 15m north of the current excavation (Newstead 1948, 123–4). A first century AD cremation burial was discovered on Eaton Road in 1986 and another in Greenway street in 1994. Inhumation graves have been discovered to the north of the site in Queen's Park, including one in a lead coffin (Petch 1987, 182; cf Mason 1987, 164–8). Of particular interest for the contents of this report is the discovery of moulded plinth stones adjacent to Eaton Road and attributed to the precinct wall of a more pretentious tomb monument (Williams 1929, 216–17). A foundation wall of dressed stone that can best be interpreted as belonging to an analogous funerary monument has recently been discovered (during 2006) on land belonging to West Cheshire College, more than 200m south from the start of Eaton Road. (Mike Morris, Chester Archaeology, pers comm)

Edgar's Field has produced putative evidence for the cult of Mithras, in the form of a terracotta figurine, and a high relief carving representing Cautopates, an assistant of Mithras, confirms the existence of a formal Mithraeum in the vicinity (Williams 1922; Newstead 1928, 103; Mason 1987, 151–2; Mason 2001, 182). Edgar's Field has also been the object of two excavations. The first, by Robert Newstead, revealed substantial post-seventeenth century disturbance, with a residual Roman course and fine ceramics, dated between the late second and early fourth century (Newstead 1928, 103–8). The second, in 1996 by Mike Emery, in advance of construction and redevelopment by Dee Water, revealed more disturbed Roman material and traces of solid construction adjacent to the main road (Handbridge), which has been dated to the mid second century, contemporary with pits containing dumped quarry material (Burnham *et alii*, 1996, 422). The results have not been fully published.

While the foundations for the Church of St Mary's Handbridge were being dug in 1885, a series of pits were discovered that contained ash with Roman glass and pottery debris, which may represent domestic or industrial activity rather than burials (Petch 1987, 182). Also close to the Church, a Corinthian column capital and a hypocaust *pila* were discovered (Watkin 1886, 219; Petch 1987, 183 with further refs).

Many Roman coins have been recovered from the area of Handbridge (Petch 1987, 183). Of particular interest for the current study are the coins of Theodosius I (379–95) from the east of Eaton Road; coins representing Constantine I (306–37) and his family from the

opposite: Ill. I.2: Ordnance Survey map, detail south of the River Dee, showing Handbridge (grid square = 100m) © Crown Copyright


3406 48m
3408 48m
407
408
3657 33m
657
656
655
654
3653 66m
Edgar's Field
Edgar's Cave
ROMAN QUARRY
Figure of Minerva
Play Area
Shelter
Bridge Cottages
St John's View
PH
MILL STREET
HANDBRIDGE
Aberfield House
PO
Johnson's Court
Edgar Cottages
EDGAR COURT
EDGAR PLACE
Edgar Place
GREENWAY STREET
Medical Centre
Nursery School
Nursery School
St Mary Without-the-Walls Church
Church
Queens Park House
1 to 44
1 to 11
15 to 25
BELGRAVE PLACE
EBURY PLACE
PERCY ROAD
Paradise
Club
South View
TCB
LB
BM 8.51m
BM 15.14m
BM 16.18m
BM 19.80m
BM 18.98m
BM 20.03m
7.6m
8.8m
7.3m
9.8m
14.0m
11.6m
17.1m
15.2m
18.9m
18.9m
18.3m
Site

area of St Mary's Church; and a copper alloy issue of Valentinian I (AD 364–75) from the Earl's Eye.

Further to the south, on the east side of Eaton Road, (approximately SJ 4120 6440) close to the water pumping station, a seal matrix with a flat bezel was discovered in the 1960s. It has a rare engraved design on the bezel which was identified as a figure in the 'Orans' position and dated AD 400–500 by a British Museum expert in 1965, in a letter to the discoverer (currently in the possession of Mrs. Alan McKechnie of Handbridge).[1] On the other side of the town ditch, in Heronbridge, David Mason has shown that there is good evidence for the battle of Chester having been fought there either in AD 613 or 616[2], with a mass grave of presumed participants (two of whom provided calibrated radiocarbon dates of AD 525–575, and AD 595–620) and a substantial earthwork, whose ditch contained flax seeds from flax-retting in the aftermath of the battle. Two seeds yielded calibrated radiocarbon dates of 650–830 (95% probability) and AD 680–775 (95% probability: Mason 2006, 520, 522; *idem* 2007, 43—56). A rim sherd belonging to a Saxon urn found at Heronbridge was published by Lloyd Laing, together with an Anglian brooch in the Grosvenor Museum that was reported as having been found in 'Deeside', with a glass bead (Laing 1976). The lead ingot and *Hacksilber* found near Eccleston in 2001 and dated *c.* AD 900 (http://www.findsdatabase.org.uk/hms/pas accessed 06/02/05, ref LVPL2071) may be relevant to the early Medieval phase identified below. The name Eccleston itself indicates the presence of an early church community close by (Thacker 2003a, 16).

Edgar's field has been held in popular accounts to be the site of the palace of King Edgar (AD 944–75) and there have been several accounts of buildings assumed variously to be Norman, Saxon, or Roman on or close to the site (Matthews, S. 2000/2001, 73–5). Handbridge has no surviving standing buildings of the Medieval period. The Dee was dammed in early Norman times (*Harleian mss* 2084, 157) and there were early fulling mills in Handbridge (Thacker 2003b, 52; 2005, 104—114). During the Medieval period much of Handbridge was the property of the Benedictine nuns of St Mary's in Chester. During the Civil War, Handbridge was razed to the ground twice in order to prevent its use by the attackers (Forster *et al* 2003, 117 with further refs). It was also the site, although the exact location is not known, of a fort built as an outwork by the defenders in 1645 (Forster *et al* 2003, 116 fig 6, 34; 118 n 10). Some place name evidence suggests a Norse presence in this area. Domesday Book entries for Handbridge are recorded in *carucates* and some field names are Norse derived (Lennard 1944, 52; Dodgson 1981, 162).

Since Roman times at least, Handbridge has been a centre of industrial activity with historical and archaeological evidence for quarrying, leather working, potting and various forms of milling (fulling, flint grinding, needle sharpening). Other industries included tobacco, copperas (ferrous sulphate) production and iron working (Wilding 1997).

Assessment Excavations 1994–2000

The compacted deposits of Bunter bed pebble sandstone visible in Edgar Park in the vicinity of the Minerva shrine occur as an outcrop again at the lower end of Eaton Road, at the front of the property (Ill. I.2). Towards the rear of the property, this outcrop drops and is overlain by boulder clay. Ground water tends to collect just above the boulder clay, so trenches

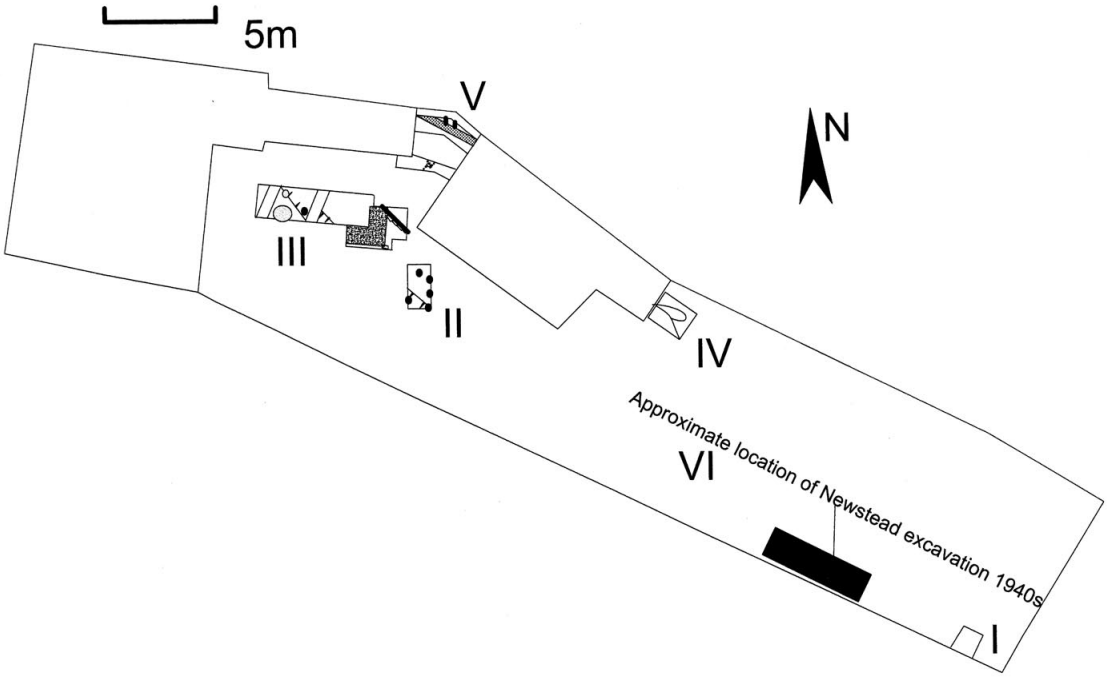
reaching down to the earliest deposits in this area very quickly become water filled. The high level of the water table has impeded systematic recovery of these earliest levels.

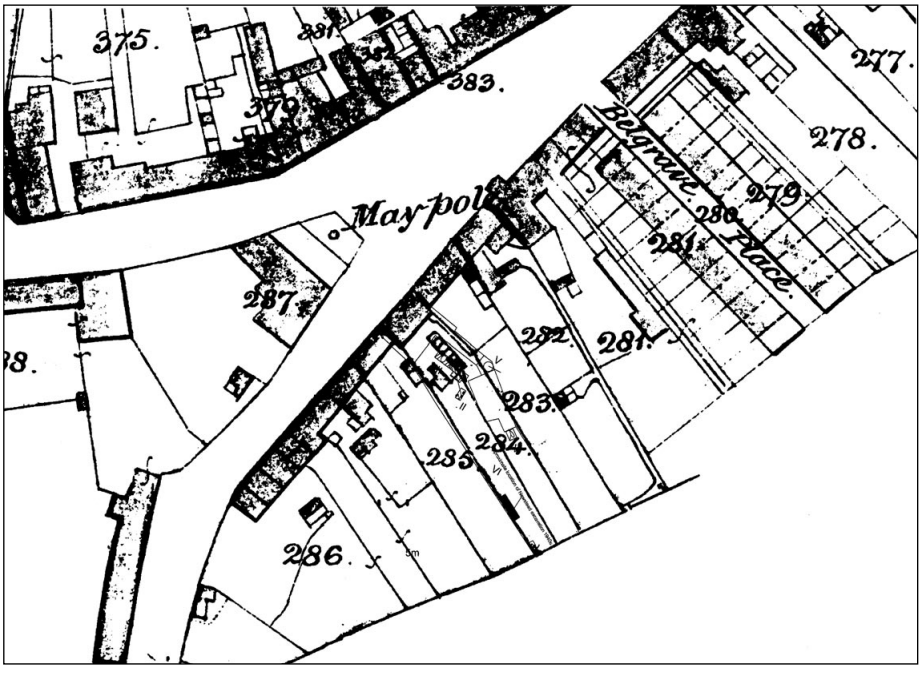
Trench I (0.50m x 0.43m: Ill. I.3:I) is close to the rear of the property and delimited on one side by the southern boundary fence and a concreted parking area on the other. It was surveyed to a depth of 0.98m, without having reached the natural. Substantial quantities of large and small unabraded Roman sherds, including storage *amphorae*, as well as coarse wares and table wares, together with post Medieval ceramic material, are present in the garden soil throughout the property, but particularly common towards the rear, where an area *c.*170m2 was cut in the late 1970s for the construction of two garages and a concrete parking lot, giving access to Ebury Place. A small 0.50m x 0.50m sondage was investigated here in 1994 to establish whether undisturbed archaeology existed in this part of the site, and to gain some understanding of the stratigraphy that was to be expected. In accordance with the strategy of minimum intervention set out above, Trench I was not investigated below 0.98m.

Trench II (1.00m x 2.00m), situated *c.*20m behind the front of the property, and therefore much closer to standing structures, was also dug in 1994, in advance of the construction of a deep pond (Ill. I.3:II). This was fully excavated to the natural boulder clay at 0.90m. Trench III is the largest and most complex (originally 5.36m x 1.49m, subsequently extended to the west by 0.70m, and to the south by 0.85m, giving a maximum length of 6.06m and maximum width of 2.34m). It is roughly perpendicular to Trench II and was opened in 1999–2000 to allow for the removal of a rather deeply rooted hedge (Ill. 3:III). This also offered the possibility of exploring the boundary between the two nineteenth century properties (now joined as one), shown on the 1842 map of the parish of St Mary on the Hill (Ill. I.4) and Ordnance Survey map of 1875; it allowed the later features to be dated and their relationship to Robert Newstead's residence to be determined. Excavation of Trench III was partly impeded by modern features that could not be removed (pipes, drains), as well as seepage of water into the lowest deposits. It was excavated in two parts below eighteenth century levels: first the western half, that is, west of the Victorian land drain that bisected the trench, then the eastern half. At the eastern end of the trench, a decision was made not to remove the remains of Roman constructions. At the western end, water seepage prevented complete investigation of Roman deposits.

Trench IV (1.40m x 1.70m, Ill. I.3:IV) is located immediately behind the western wall of what was formerly Newstead's 'laboratory', a structure built separately from the main residential block but contemporary with it. The trench was dug very rapidly in December 2001 to understand the origins of some human skeletal remains, which turned up in a contractor's trench. The earliest features lie below 1.00m, which is consistent with the sloping nature of the underlying clay deposits in a southerly direction.

Trench V (*c.*1.00m x 3.00m) was adjacent to the northern boundary of the property and located between the main residence and Newstead's 'laboratory'. This trench was excavated by contractors in September 2001, so only a watching brief was possible. Considerable disturbance was noted close to the modern boundary. The natural clay had formerly been cut to a depth well in excess of 1.00m, to within half a metre of the present





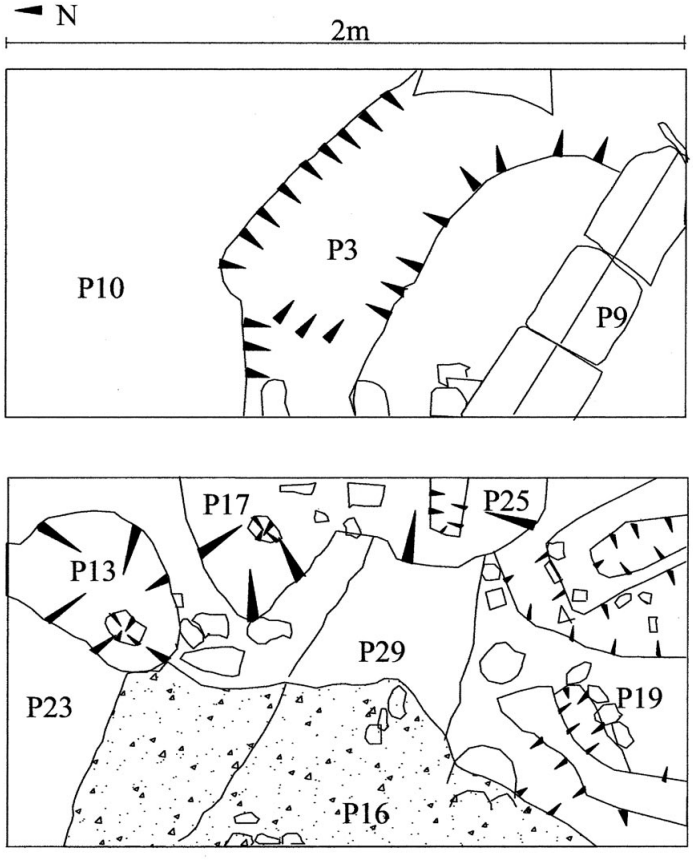
III. I.3: Location of the excavated trenches discussed in the text, within the modern property boundaries

III. I.4: Detail of 1842 map of the parish of St Mary on the Hill, showing the twentieth century property boundaries imposed on the mid-nineteenth century plan (the property is no. 284)

boundary wall, destroying any earlier deposits. In the rest of the trench, deposits below 0.50m were not disturbed. Trench VI consisted of an area approximately 120m2. This 'trench' consisted simply of the removal of the lawn turf to a depth of *c.*10m and field walking the exposed area. Investigation of the area became possible in spring 2002, after completion of the contractors' work.

Trench I

Underneath .30m of the dark, artefact rich, topsoil was a layer of brown clayey loam. Judging by the presence of black glazed pottery and Midland yellow ware, the latter was formed during the later seventeenth century. In this layer was found a cache of off-cuts from glazing activity. Small sherds of deep green glass, showing the marks of a diamond cutter, many with rounded edges, were found, thought to be the result of a cylinder pane formation process. The glass has been identified (Hurst-Vose, personal communication) as Haughton Green production of the early seventeenth century (Hurst Vose 1994). Glazed brick fragments were also found in this deposit. Abraded Roman and medieval sherds were found throughout. Deposits continued below .98m, which was the limit excavated.



Ill. I.5: Successive plans of Trench II; the post 1700 features are shown above (1), the pre 1700 features shown below (2)

Trench II

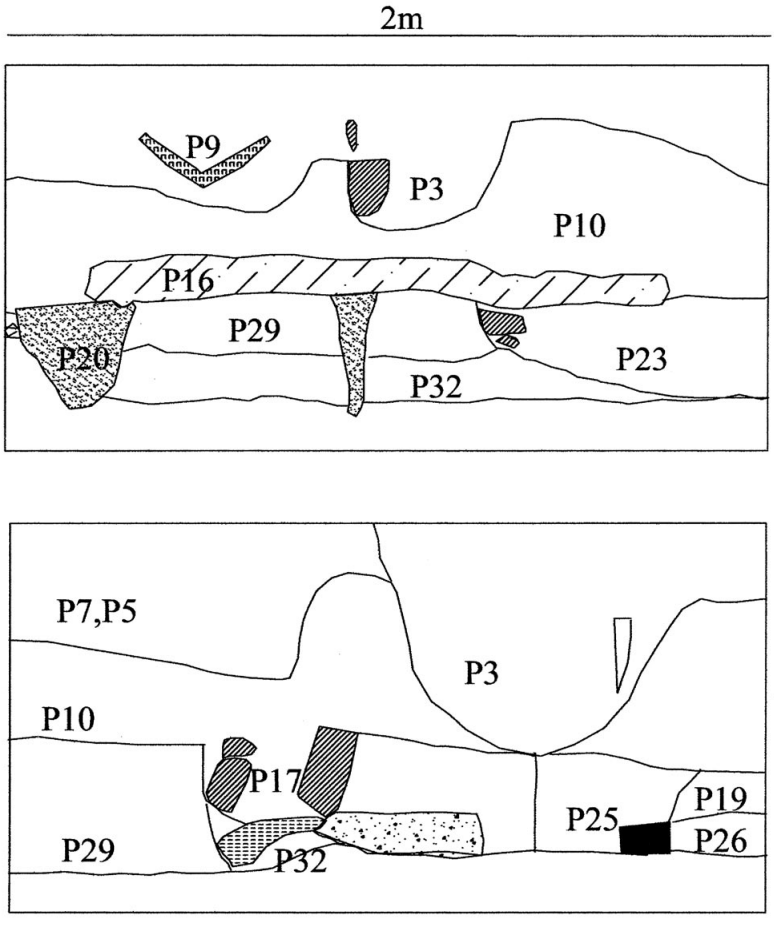
The earliest deposit throughout most of the trench was a light, sandy brown soil *c.*30m deep [P29] (Ill. I.5) directly overlying the boulder clay, which forms the underlying geology of the site. The only exception was a small lens of greenish clay at the south end [P32], which contained some first century Roman pottery, calcined bone, and animal bone. The soil matrix P29 contained many small, abraded sherds of Roman pottery (mainly first and second century), burnt clay, including fragments with wattle impressions, highly fragmented sandstone, a few pieces of Roman brick, an iron nail, a small fragment of haematite, some cattle bone and a few fragments of calcined bone. Other finds included a small fragment of a jet armlet and some carved shale.

The sandy deposit P29 was cut by two parallel linear features [P19, 23] (Ill. I.6 and I.7), and a series of stake holes [including P27, 31]. These were in turn overlain by a deposit of hard compacted clay and sandstone rubble [P16], which was cut by four post holes [P13,17, 25, 30]. The post holes are therefore the latest features on this surface. The northern linear feature was filled with a uniform, lighter, sandier soil, with only a very few sherds of Roman ceramic, the most notable of which was a much abraded fragment in a dark brown, micaceous (gold and silver), slightly ribbed laminar fabric, identified by the excavators as perhaps a sherd from a B4 amphora (Peacock & Williams 1986, 188–90 class 45 = Riley LRA3; Tyers 1996, 102–3: B4, Biv). It resembles neither the colour nor the mica-dusting of local Holt ceramics. A fragment of an unidentified greyware of closed form was found along with some soft orange fine ware. Fired clay was also present.

The four small stake holes [P27, P31, P34, P35] some .20m deep by .10m across may form part of an arc and cut the northern linear feature (P23), but are overlain by the rubble layer P16. The silty fill of one of these stake holes contained a sherd of samian pottery. The southern linear feature P19 was filled with a sticky, yellow clay, which incorporated a number of fragments of Roman brick, and into which were cut several rectangular depressions rich in charcoal. This fill contained Roman pottery sherds, including a fragment of obtuse angled Black Burnished[1]. A fine, silty fill covered the yellow clay [P26] and brick packing [P19].

The rubble-filled and compacted clay layer P16 contained highly abraded sherds of Roman pottery, including unidentified late Roman red slip, fragments of micaceous sandstone roofing tiles, and some fragments of fired clay containing crushed shell, suggesting the debris from an industrial process. Most notable among the pottery fragments were two hard fired, hand-made sherds. Among non-ceramic finds, the most unusual item was a lathe-turned pin head with third to sixth century Roman analogies (Crummy 1979 for general typology; see further below and Ill. I.30:4).

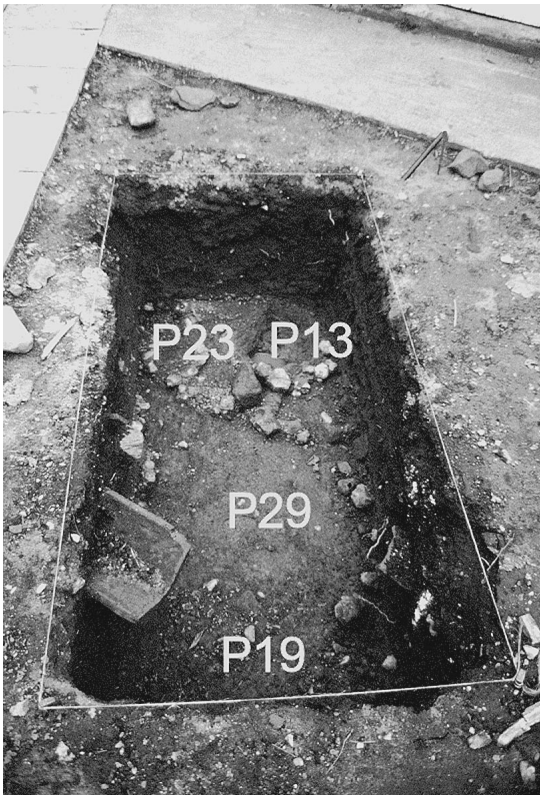
Post holes P17, 25 and 30 retained some vestiges of the original posts. In P 17, which appeared to be slanting towards the south, the packing stones were preserved (Ill. I.8), and in P25 a dark organic deposit traced the outline of the post pipe. Joining fragments of a Wilderspool *mortarium* were found in P17 and P25, and the shared fill of P25 and P17 shown in the section (Ill. I.6:2; I.8), strongly suggest that these three holes form part of a single structure. P25 contained a river pebble that appears to have been used as a rubbing



Ill. I.6: The west-facing (1) and east-facing (2) sections of Trench II

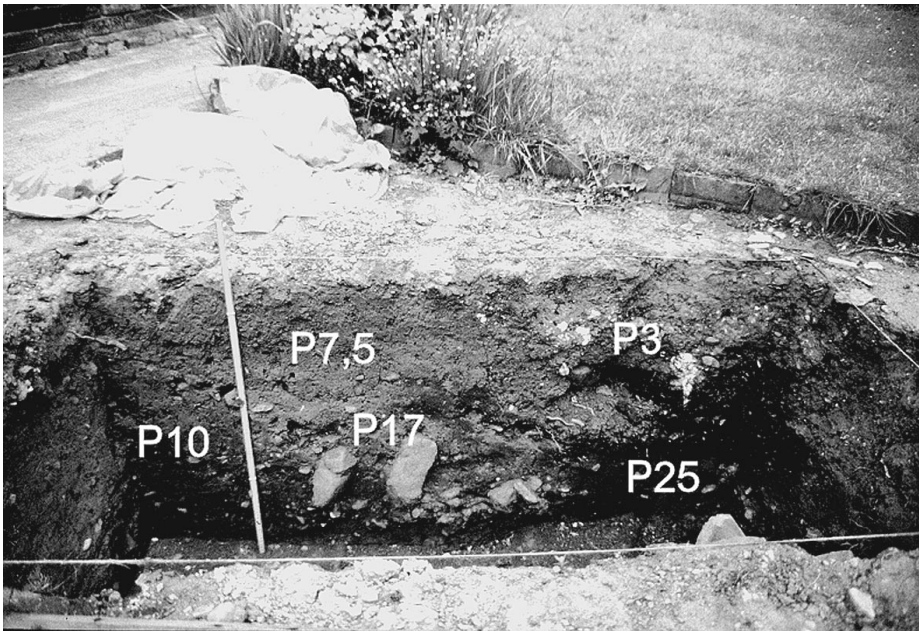
stone. P17 contained a small piece of industrial waste and a few abraded sherds of Roman pottery. P13, the fourth, more isolated post hole, contained burned clay and a stamped *mortarium* rim, possibly a Wroxeter product, stamped [?BON]OX[SE] (Type Wroxeter 1912, no 58, *c.*AD160) (A. Heke pers comm).

Underlying the Victorian yard surface [P5, P7] was a brown clay soil layer, some 30cm thick [P10], which contained pottery fragments from the eleventh to the late eighteenth century, with a few abraded Roman sherds, but was otherwise featureless. The late Victorian yard surface, with open drains constructed from ridge tiles (Ill. I.5:1), was found immediately below the modern patio slabs. The open drain construction included a tile with a black glazed surface and a soak away embedded in a layer rich in clinker. This indicated the lack of disturbance to the garden during the course of the twentieth century and gave confidence that earlier deposits would not have been contaminated by re-deposited material from Robert Newstead's own excavations.



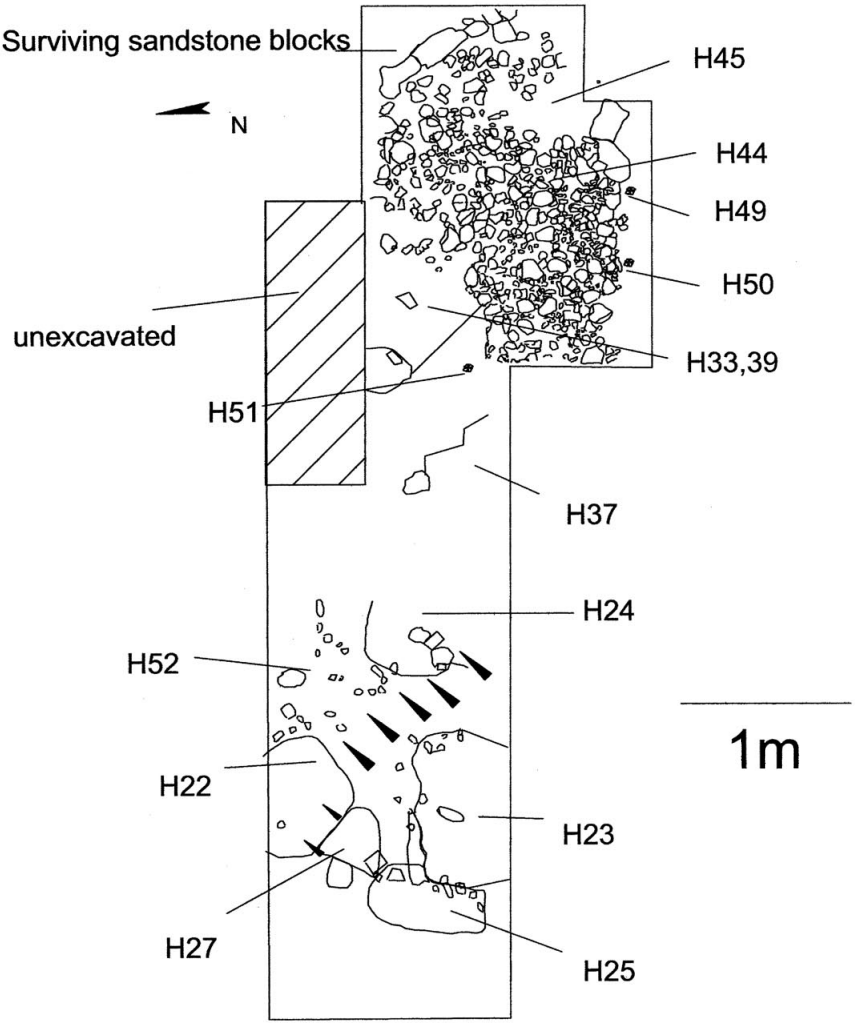
Ill. I.7: Trench II, showing features identified in plan (Ill. I.5:2)

Ill. I.8: Trench II, east-facing section (cf Ill. I.6:2); posthole P17 is visible to the right of the metre rule



Trench III

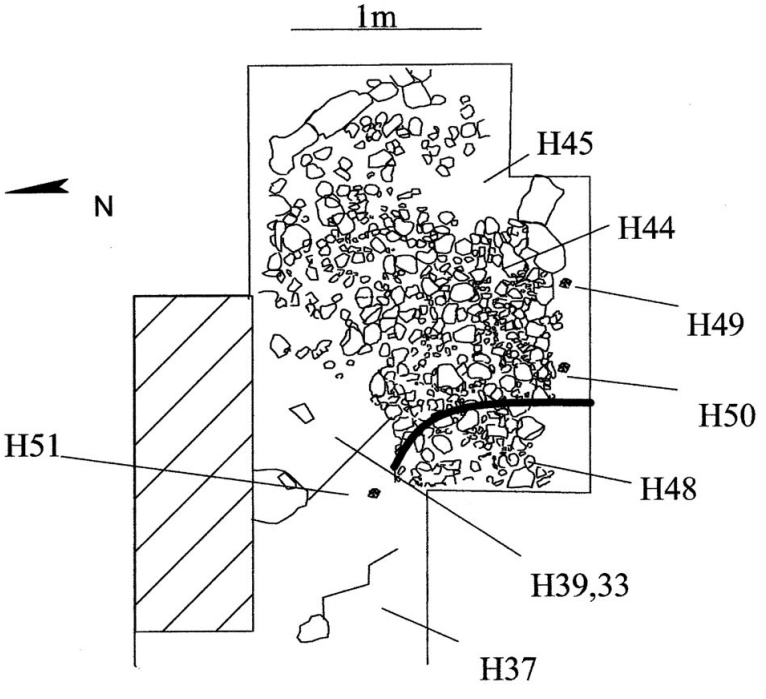
The earliest evidence in Trench III is located at the eastern end, i.e. that closest to Trench II (Ill. I.9). Pre-medieval features were suspected at the western end of Trench III, excavated first, but had largely been destroyed by later, post-medieval activity. When the eastern end of Trench III was first exposed, after the removal of post-Medieval soil, there was little to see other than a scatter of rubble in the south east corner and a small linear feature in the south west. The scatter of rubble ([H45]; Ill. I.10), which was aligned with linear feature P23 from Trench II, was composed of sandstone, river pebbles and iron slag. Pottery included abraded Roman material and fragments of *amphorae*. Much of the rubble and some of the pottery was covered in a sandy, yellow mortar. Cleaning the rubble revealed an underlying linear feature [H33], which appears to be a continuation of P23 from Trench



Ill. I.9: Plan of Trench III, showing the principal features prior to AD 1700

II. A small section of this feature, 0.25m deep [H39], revealed it to be similar in shape to P23, a steep-sided, flat-bottomed construction trench, of identical depth, which had largely been robbed out (Ills I.9, I.10, I.11, I.12). Both features were cut down to the natural boulder clay. The fill of H39, however, was slightly different from P23, being silty rather than sandy, and contained a much higher proportion of Roman pottery, some plaster and a large number of animal bone fragments, in contrast to the rather sterile fill of the former. The fill contained two joining sherds of a handmade coil-constructed pot.

The rubble scatter at easternmost end of the trench on cleaning was recognised as two distinct contexts, one [H45] immediately overlying the other [H33]. The rubble [H33] had originally formed the fill between two masonry wall faces. The rubble fill, and the masonry blocks that formed the original construction, were only preserved *in situ* in a small area at the eastern extremity of the trench (Ills I.10 and I.11). Seven roughly dressed sandstone blocks, part of a single course, were still in place, five of which would have been the north-eastern face and two on the south-western face, though one stone had been slightly re-positioned when the rubble core was partially reused for a subsequent construction (the 'sill' building, see below: SMH44). The blocks are irregular ashlars, but are well flattened above and below, though only roughly rectangular in form. They are 0.25m — 0.35m long and *c.*0.16m — 0.25m wide. The two sandstone blocks that formed part of the packing for the post in SMP25 are of similar appearance and dimensions, though more irregular in shape. Chisel marks are visible on the surfaces, showing that the stones had been roughly prepared for those sides that would not have been visible, while the faces



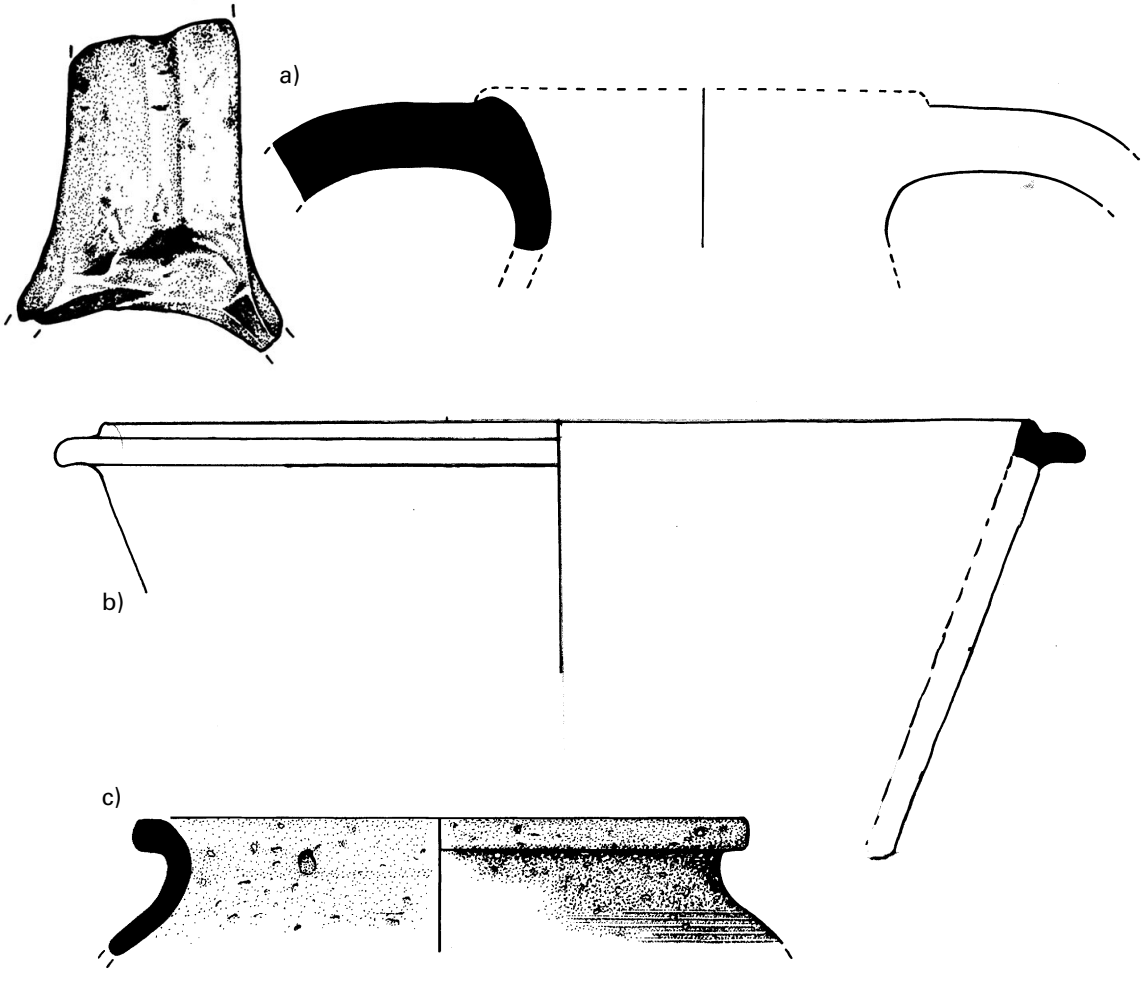
Ill. I.10: Plan of the eastern half of Trench III, beyond the land drain that bisects the prench (pre AD 1700)

III. I.11: Trench III, eastern end, with surviving sandstone ashlars from the masonry wall (far left and top right), and the rubble fill between the two faces

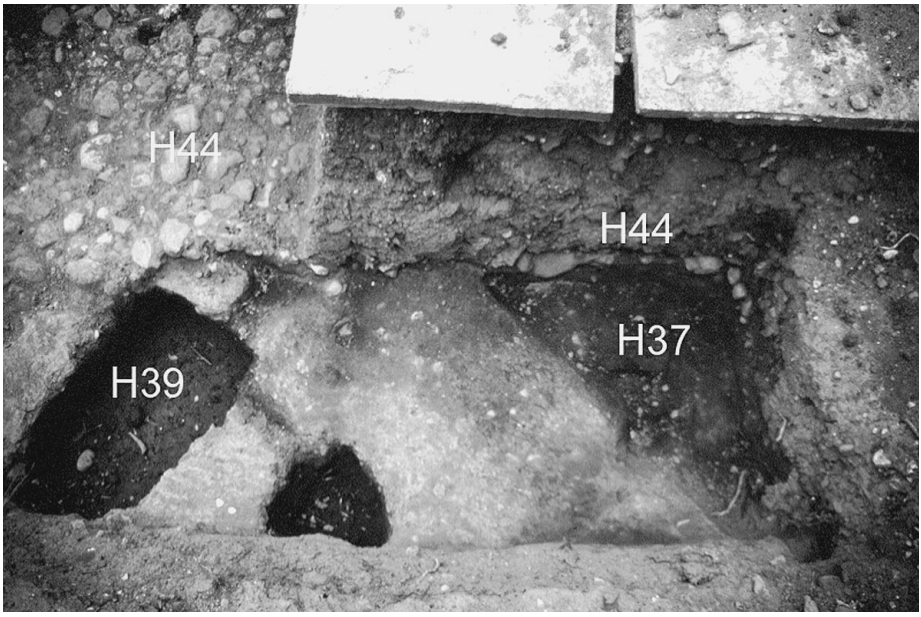
III. I.12: Trench III, eastern end: corner of the rubble sill construction (H44) and section (H39) through the wall trench of the masonry building (H33)

would have been smoother. The lime mortar used to bond the masonry blocks had a sandy texture with a bright yellow colour, and is quite distinct from the whitish mortar identified with the later reuse and reconstruction of the rubble core.

The width of the wall [H33] with two faces of masonry blocks was approximately 1.2m. The southern face survived only as a single sandstone block, interfacing directly with the quoin of the later construction (H44, Ill. I.11). The rubble core of the wall produced highly abraded Roman pottery sherds, including one example of obtuse-angled Black Burnished ware, and a flanged bowl rim in the same Black Burnished ware (see below and n.4 and Ill. I.13b), both securely mortared. This provides a *terminus post quem* for the construction of the masonry building during the course of the fourth century.



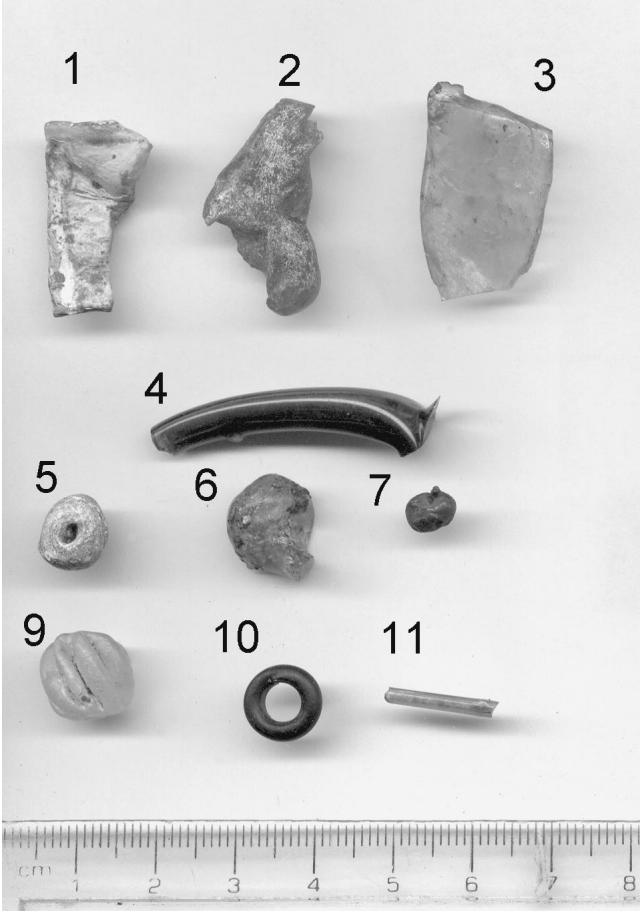
Ill. I.13: a) Plan and section of an imported amphora handle [H33] (south Gaulish, 1st–3rd centuries), b) Black Burnished dish rim [H33], close to Gillam no. 45, c) Rim of late Roman shelly jar (unstratified), perhaps imported. Scale 1:2



Ill. I.14: View of Trench III, showing the location of glass working debris (within H37), sealed by the sill construction [H44]

A linear feature H37, parallel to the masonry wall, 0.55m to the south-west, and cutting H32 at the same depth, had a layer of small stones on the bottom, in between which were holes, perhaps for stakes or planks. Over this was a dark organic silty fill (see Ill. I.14), which contained a twist of melted green glass (Ill. I.15:2), a small piece of Roman flat glass and several sherds of abraded Roman pottery. Further finds included fired clay with wood impressions, some very finely dressed sandstone fragments and animal bone. This feature [H37] aligns with and has a similar structure to feature P19 from Trench II, south-west of the similarly aligned P23. The same feature appears to continue on the western side of the land drain that bisects the trench ([H13]: Ills I.9 and I.10). Here it is represented only by a shallow depression (H52), having been largely destroyed by the creation of the post-medieval hearth area. A post hole ([H24] Ills I.9 and I.10), which has Roman sherds at the base of its fill (first century samian, Black Burnished ware; Dressel 20 *amphora* sherds) may also be associated with H37. H24 contained only Roman material, whereas H22, apparently on the same alignment, contained some residual Roman pottery but also medieval sherds and a small fragment of a pewter belt fitting. Since H22 cuts post-Medieval features, it is clear that the latter is of much later date than H24. The material within H52 also contained two fragments of melted glass, one of which (Ill. I.15:3) was analysed by Professor Julian Henderson of Nottingham University using electron probe microanalysis and determined to be a soda lime silica glass with low potassium and magnesium, indicating a mineral alkali composition, of either Roman or possibly early Medieval date. The other glass fragment appears to be a trail end or bead-making residue, showing the flattened area where it has been held at one end by pincers (Ill. I.15:1). H52 was also rich in charcoal fragments and contained 0.8kg of fired clay with wood impressions, made up of small pieces, *c.*2cm long, similar to those in H37.

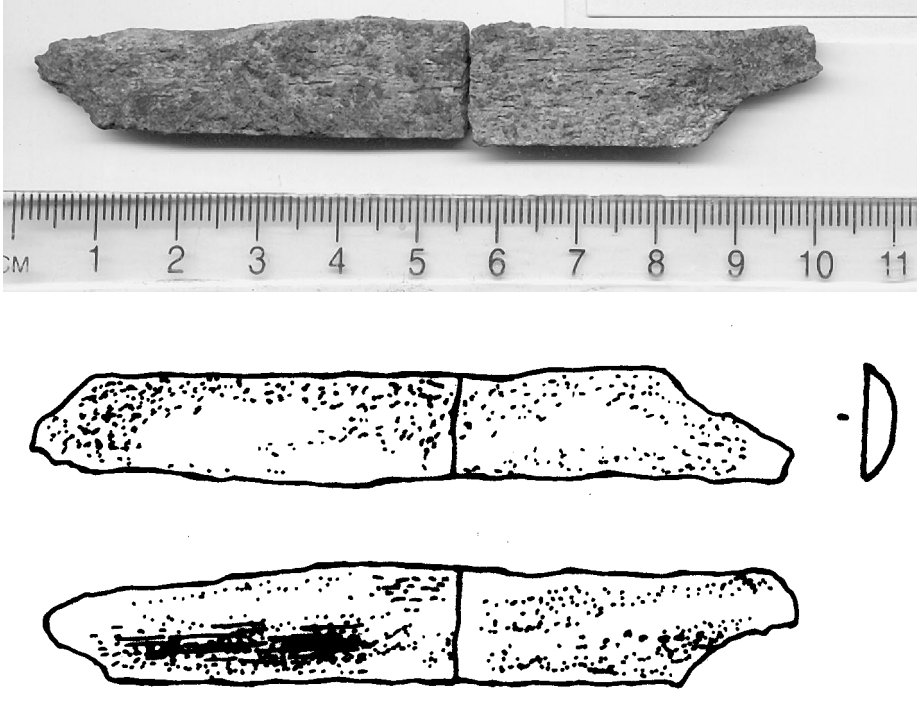
In the south section of the trench, a 10cm thick stony layer was identified overlying the masonry wall and associated features (H33, 37 and 52: Ills I.9 and I.10). In order to investigate this, the trench was extended to both south and east, revealing feature H44 (Ills I.9, I.10, I.12). This comprises a right-angled construction [H44] aligned north-south and east-west, and composed of a mixture of river pebbles, sandstone fragments, iron slag, including smithing hearth bottoms, plaster, Roman fine and coarse wares and *amphora* sherds. It is 0.90m wide and approximately 0.10m deep. Stake holes (Ill. I.10: H49, 50, 51) are found along the inside and outside of this construction. The south-east corner is marked by two rather larger blocks of sandstone, reused from the former masonry building. This corner lies directly over the southern edge of the cut for H33, the robbed wall construction trench H39. The second rubble structure therefore directly overlies the former masonry building, though on a different alignment. The width of this feature and the presence of the stake holes suggest that it may be the foundation or sill for a mud or cob walled building, with the stake holes holding wooden planks used to support the clay during construction. The large boulders would then form a quoin to protect the corner of the cob structure.



Ill. I.15: Glass working debris associated with bead or similar production

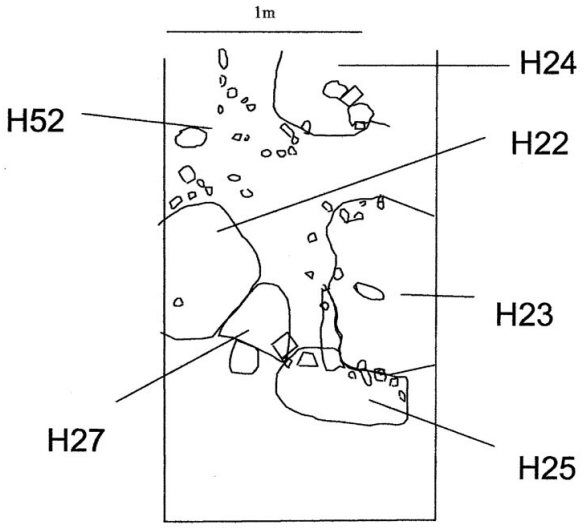
The position of the masonry wall in relation to the sill or cob building shows that the masonry wall to the east of the sill building must still have been standing at the time of the construction of the cob building, as the sill respects both edges of the masonry structure and would have made a perfect join (see Ills I.9 and I.10, top right hand corner). The masonry wall to the west of the cob building must have been robbed prior to the construction of the sill building, since the interior of the latter overlies the robbed trench of the former. The masonry foundation survives only under the south-east corner of the sill building, presumably in order to prevent subsidence.

The single most important piece of dating evidence for the sill construction, however, is an incomplete antler bone comb back of early medieval type, perhaps of tenth century date (see further below and Ill. I.16). It consists of two joining parts, broken at a remote time, which made up a side plate, similar to Dunlevy's type F1 (1988, 395–6), with the distinctive plano-convex section of early Medieval forms. The two joining parts were found close together in the south-eastern corner of the sill construction, flush with the quoin stone and are thus contemporary with it. The asymmetrical design, with a curved back and flat base distinguishes the early Medieval form of comb back from symmetrical Roman types. It is covered with a thin layer of mortar, similar to that of the sill construction. The absence of drill holes indicates that this was discarded during manufacture. The western end of the cob walled structure had been disturbed by a Medieval feature (Ill. I.10: H48), perhaps a



Ill. I.16: View (a, top) and drawing (b, bottom) of a discarded Early Medieval comb back blank from [H45] (Scale 1:1)

pit, which had reduced the thickness of the sill. The pit only survived to a depth of .05m, but did contain part of a rod handle from a thirteenth to fourteenth century green glazed jug. The fabric was heavily over-fired to a purplish hue and may have been a waster. Also found within the same feature was a fragment of heat distorted forest glass, perhaps from a window pane. This feature [H48] provides a *terminus ante quem* for the sill of the thirteenth to fourteenth centuries. Further sherds of fourteenth century green glazed grey wares were found overlying H44. The sill foundation could be traced for 2.20m in a westerly direction, but beyond that any further evidence was disturbed by more recent features throughout the rest of the trench, so the full dimensions of the structure could not be determined. (The modern house walls prevent further exploration to north and west beyond the trench).



Ill. I.17: Plan of the western half of Trench III (pre AD 1700)

The western half of trench III (which was excavated prior to the eastern half), was more difficult to investigate fully, because of water seepage. The primary deposit (H21, not illustrated) appears to be the same as H32 at the eastern end, cut by the nineteenth century land drain (H13) and P29 in trench II, on the basis of the sandy character of the soil, the comparable depth and the character of the finds. A *mortarium* rim (Hartshill-Mancetter type, dated *c.*AD 220–230), provides a *terminus post quem* for this deposit. Contexts H52 and H24, which cut H32, have already been referred to. The overlying deposits contain relatively few Roman finds and the whole of this end of the trench is heavily reddened by burning. The post Roman deposits contain a high proportion of fired clay and a spread of material associated with industrial activity: a large quantity of burnt clay with lath impressions, charcoal, coal, and burnt brick (Ill. I.17). Quantities of finely levigated but unburned clay were also present. Contemporary with this surface was a sub-circular feature [H23], which appears to be the rather degraded remains of a small hearth or kiln (Ill. I.17). It is very difficult to be categorical about the purpose of the kiln. A brick of voussoir form from the edge of the kiln feature might suggest that this was a small medieval tile kiln with an arched roof. However, the demolition debris associated with the hearth area contained, as

well as a few sherds of Medieval tile, thirteenth-fourteenth century pottery wasters (Ill. I.18); sixteenth century pottery wasters; drops of molten lead, a small pool of melted pewter; and many droplets of molten glass (Ill. I.19). Any of these could represent the function of the hearth. The bottom of this feature produced a fragment of Tudor greenware, of fifteenth to seventeenth century date, and a rim from a bowl with patchy purple glaze, perhaps of sixteenth century date. The scattered brickwork from the surface [H26] produced a tiny fragment of an early seventeenth century clay pipe. Pottery wasters of black and yellow glazed slipware would also indicate an early seventeenth century date. The hearth is cut into, and the burnt layer lies immediately on top of, a deposit containing only Roman material. We must assume, therefore, that the hearth or kiln and its associated stoke hole and working area were cut into an earlier surface. Unfortunately, this cut appears to have been removed by the land drain trench preventing more accurate dating. East of the land drain [H13], there is virtually no trace of the activities associated with the kiln.

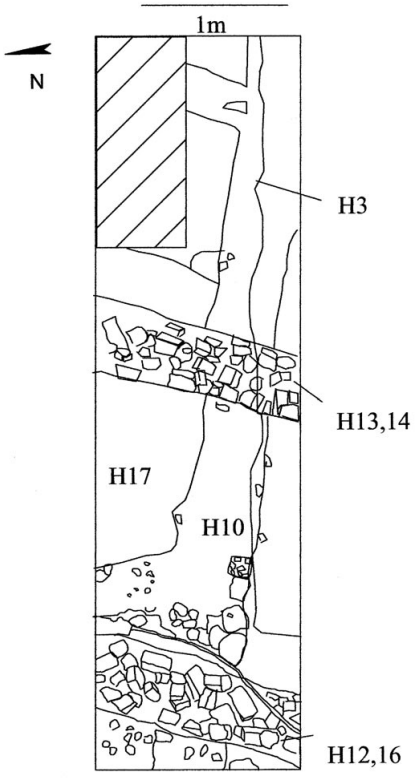
Ill. I.18: Thirteenth to fourteenth century pottery wasters [H25]

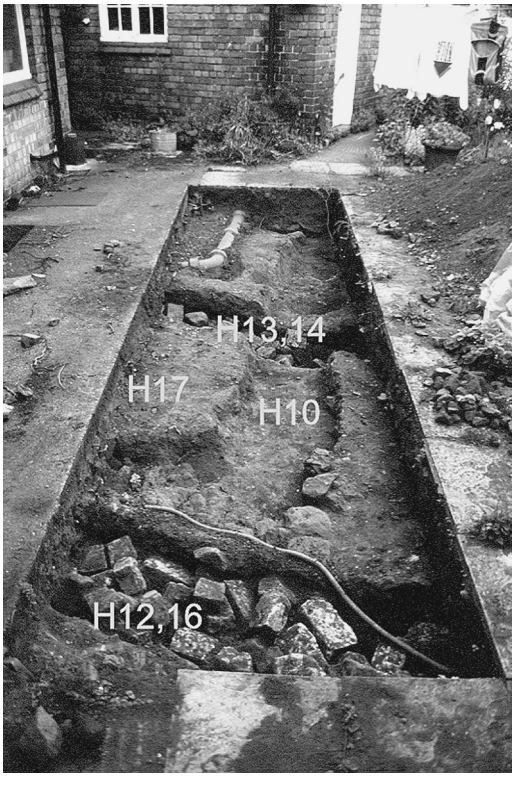
Overlying these features was a brown clay soil [H20, H21; H31, H32, H42], a uniform deposit throughout the trench similar to that found in Trench II above [P10]. Finds from this layer [H20, H21] terminated with white salt glazed stoneware of the mid eighteenth century, but most of the ceramic sherds were of black and yellow glazed ware. Clay pipe fragments from the period 1610 to 1710 were found in abundance. This deposit produced some pottery wasters of black glazed and yellow glazed pottery, some fragments of glazed crucible, a quantity of molten glass droplets (Ill. I.19), and some glazed and vitrified brick and sandstone. There was a significant difference in the range of finds in both halves of the trench. Although the brown clay-like matrix was similar, the finds from the eastern section (east of the Victorian land drain, H13) also included medieval and Roman pottery, whereas the finds from the western section were almost entirely post-medieval. This turned out to be a reflection of the underlying archaeology, presumably disturbed by later activity.

Ill. I.19: Melted glass droplets from Medieval and early post-Medieval deposits

The brown post-medieval deposits [H20, H21, H31,H32] were cut by the partially robbed foundations of a building [H10, H11, H17], which corresponds in position and form to a structure indicated on the 1842 Grosvenor Estate map and, from its configuration, and the report of Robert Newstead (Newstead 1948, 130; Ills I.4, I.20, I.21), apparently a stable block. The foundations of this structure were still *in situ* in the south western corner and consisted of re-used sandstone blocks loosely mortared together. Among the re-used fragments was a pivot stone.

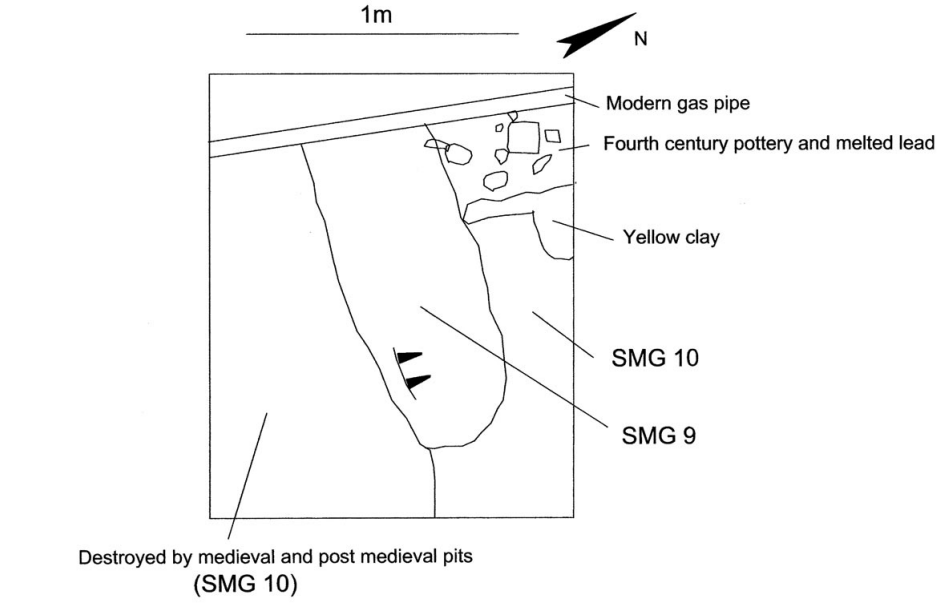
Two deep, brick-filled land drains [H12, H13], which penetrated through the entire stratigraphy to natural clay, were put in after the construction of the stable block. The brick packing in H13 contained a (forged?) Queen Anne shilling dated to 1711, presumably residual. The coin must have originated in earlier structures that provided the packing for the land drains. The land drain fill also produced some kiln furniture. The presence of some pearlware and creamware sherds would indicate that the land drains were constructed some time in the first half of the nineteenth century, as seems clear from their relationship to the stable block.

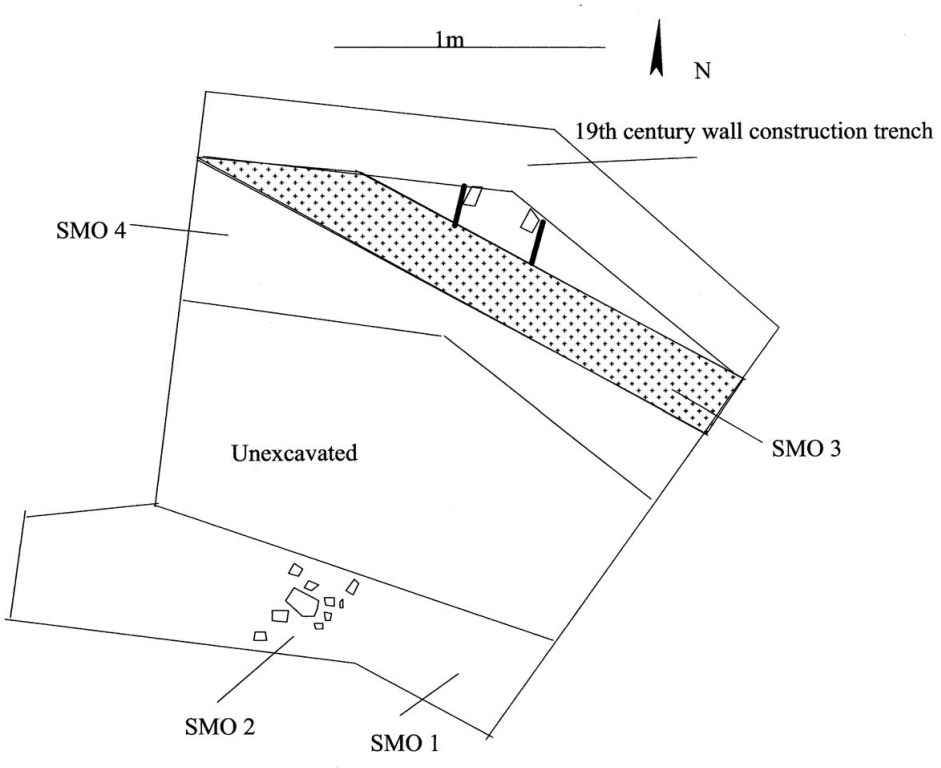




III. I. 20: Plan of Trench III (post AD 1700); H3 represents the 1875 property boundary; H13 and H12 are land drains

III. I.21: View of Trench III (post 1700), looking east





Ill. I.22: a) Plan of Trench IV; b) Plan of Trench V

The later nineteenth century was revealed immediately below the modern patio slabs and a thin layer of top soil. A linear feature [H3], running east-west for almost the full length of the trench, corresponds to the position of the property boundary that existed from at least 1842 until 1899, when the current property was constructed over two former land plots (Ill. I.4). This linear feature was filled with a very large amount of seventeenth, eighteenth, and nineteenth century pottery. On the same alignment were some concrete-packed post holes, and the vestigial remains of associated floors [H10, H11, H17] (Ill. I.20), belonging to the late Victorian outbuildings, shown on the 1875 Ordnance Survey map.

Trench IV

The discovery of human bones in a contractor's trench necessitated the opening of a new sondage at the rear end of the property (Ill. I.22a). The disarticulated skeletal remains consisted of the leg bones of two individuals, plus one arm and isolated fragments, also from the upper body, but no skulls, although human skull fragments are found scattered throughout the garden soil.[3] Disturbingly, they emerged from modern topsoil. When this topsoil was cleared, however, a separate deposit was distinguishable below it, which was subsequently identified as the fill of a Medieval pit [SMG8]. The pit contained sheep bone, a droplet of molten glass, some fourteenth or fifteenth century pottery, Roman pottery, a copper alloy and enamel strap pendant, sandstone, limestone and glass *tesserae*, micaceous

Ill. I.23: Carved grey sandstone fragment from Trench IV

roofing tile fragments, and some worked sandstone. At the bottom of the pit was a shallow depression *c.*0.5m deep, aligned east-west, which in all probability corresponds to a grave cut [SMG11]. It would seem that, when [SMG8] was dug, an earlier grave was disturbed, the contents becoming incorporated into the Medieval pit fill. Moreover, when this Medieval pit was truncated in more recent times, the bones found their way into the modern topsoil. The grave cut [SMG11] was east-west aligned (Ill. I.22a, SMG9). The fill of the depression identified as a grave cut, whilst contaminated by Medieval material, also contained a sherd of highly micaceous fabric (not identified; ?Oxfordshire) and a small fragment of carved fine grey sandstone, not the readily available local red sandstone, perhaps belonging to a grave stone marker. If this were a grave marker, then the carving might belong to a type of interlace (Ill. I.23). The deposit [SMG10] into which the grave had been cut contained obtuse angled Black Burnished pottery, a small drop of melted lead, and a sherd of Nene Valley ware (mid second to late fourth century: G. Dunn pers comm), a combination suggesting that the cut is unlikely to have been made prior to the late Roman period, perhaps in the fourth century or even later. The undisturbed soil beneath the grave produced samian and other Roman pottery. A decorated copper alloy mount, belonging to an item of dress or other personal accoutrement, whose closest analogies are early Medieval, was found unstratified in the upper soil layer within a metre of the Medieval pit (see below, Ill. I.32). This evidence might suggest a date for the burial between the seventh and ninth centuries, rather than in the post-Roman period.

Trench V

This corresponded to a contractor's trench between the main residential unit and Robert Newstead's laboratory (Ill. I.22b). The earlier property boundary, prior to the late nineteenth century, was clearly identifiable as a distinct band of darker colour on a different alignment from the modern boundary (cf Ill. I.4). Although modern contamination was strong in the metre closest to and parallel with the current property boundary, the fill of this trench was comparatively homogeneous further south. An uninterrupted dark brown, loamy soil, and the ceramic evidence within it, argue for a gradual accumulation of deposits from the Medieval period to the late eighteenth century. Nineteenth century pot was restricted to the topsoil. An eighteenth century brick lined feature on the south-east side of the trench, perhaps a drain, contained a large quantity of early eighteenth century pottery, including a complete sugar mould and a dump of finely levigated red clay. These features had disturbed earlier deposits, and a large quantity of Roman pottery, *amphorae* and *mortaria* were mixed up with the eighteenth century fabrics. Two joining pieces of a substantial Roman glass bottle, most likely a cinerary urn, were also found (Ill. I.24).

Within the earlier deposits there was a short section of compacted rubble and sandstone, perhaps a wall, perpendicular to the masonry wall [H33] in Trench III, but of narrower dimensions (*c.*0.50m). The robbed out section of this wall contained an *amphora* sherd of a thick, unusual fabric, with no analogy in the Chester Reference Collection (Grosvenor Museum). The fabric is very fine, with a reddish-pink core and buff margins, containing few inclusions, apart from small, white chalky spots. This looks to be of Mediterranean origin (G. Dunn pers comm and the authors). It resembles eastern rather than western Mediterranean fabrics and matches some descriptions of the so-called Bi type (Peacock and Williams 1986, 184; Thomas 1959, 91).

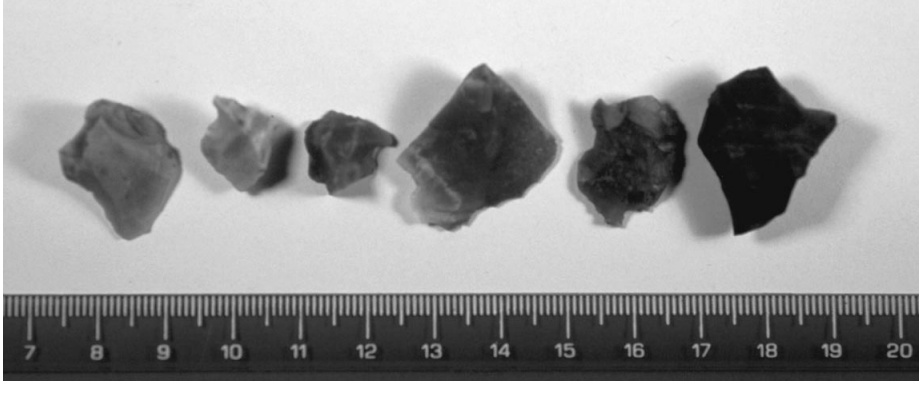
III. I.24: Base of a large Roman glass flask from Trench V

III I.25: Mosaic tesserae; glass (centre, two examples, one of these embedded in mortar); limestone and marble cubes (right); the remaining shaped tesserae are ceramic and sandstone

Trench VI

Removing the turf exposed a path (see Ill. I.3 for location), shown on the 1875 Ordnance Survey map. The path, which had a pebble surface, had foundations made up from demolition rubble, probably derived from a major reconstruction of the site around the turn of the eighteenth and nineteenth centuries. The rubble comprised window glass, roof slate, floor tiles, brick, but also present was a considerable quantity of Roman and Medieval material. That this material derived from the same excavated site was proved by the presence, within the rubble, of glass crucible sherds identical to those found in trench III [H37]. Roman and post-Roman sherds, Medieval pottery wasters, and iron slag also emphasise the particular and peculiar nature of this rubble deposit. It is the construction of this path that is likely to be responsible for much of the spread of pre Civil War material across the garden. This material would have been derived from deep excavation of house and outbuilding foundations.

During the refurbishment operations of 2001, the floor of the outbuilding that had been Professor Newstead's 'den' was removed. This action provided an opportunity to investigate another area indubitably uncontaminated by any of Newstead's own activities. Two test pits from below the floor produced Roman pottery (especially *amphorae* and *mortaria*), molten glass, pottery wasters, fragments of *opus signinum* (Ill. I.25), and metalworking debris, all of a similar nature to the material found elsewhere in the garden.



Ill. I.26: Prehistoric chipped flint tools

In contrast with the bulk of material from the excavated trenches, which is heavily fragmented, many of the sherds from these test pits were comparatively large, unabraded fragments. The totality of finds from the garden, both from excavated trenches and the 'field' walking exercises, have provided a very useful insight into long term anthropogenic activity at this location.

Interpretation and Finds

Phase 1: Prehistoric and Roman

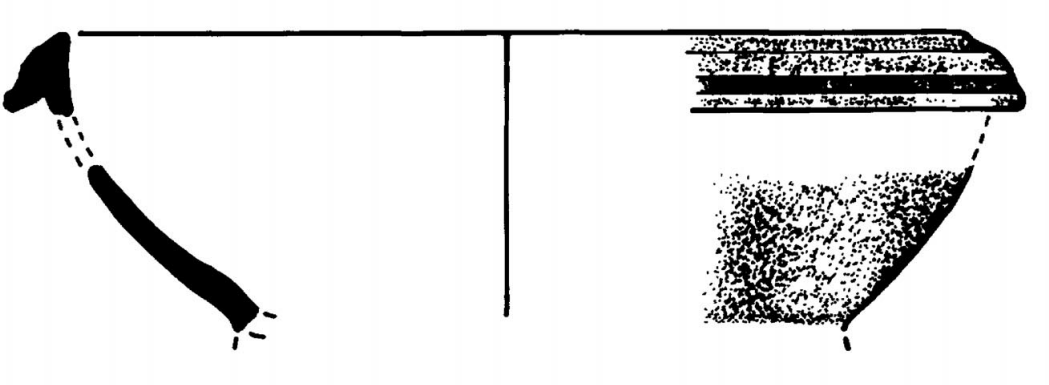
It is not clear whether any structures on the site can be attributed to the period before the mid fourth century, with the possible exception of the green clay layer overlying the natural clay in trench II (P32: Ill. I.6). The sandy soil matrix, rich in abraded Roman material of

the first to third centuries, into which most features on the site were cut or deposited was not properly sealed until the early Medieval period and was contaminated with later material. It is probably a levelling deposit relating to the construction of the phase 2 structure in the Late Roman period. The whole area between this site and Paradise, just north of Ebury Place, shows signs of levelling.

Nine flints were recovered during the investigations (Ill. I.26 shows six of these). These appear to be prehistoric in date. In addition, the rim fragment of a handmade bowl, which may be of a Neolithic date, was found in a late Roman context (Matthews K J 2000/2001, 13).

More than one thousand sherds of fine and coarse wares from the first to third centuries were recovered from stratified contexts. Preliminary study shows that much of this material corresponds to the principal ceramic types familiar from the Roman fortress: orange coarse wares manufactured at Holt and in unidentified locations of the Cheshire Plain, Cheshire grey coarse wares, coarse fabrics with a distinctive appearance, such as white wares from Warwickshire (Tomber and Dore 1998, 189 [MAH WH], pl 157a), imported *amphorae* from Southern Gaul and Spain, as well as some imported colour-coated fine wares of the late first century. British-made coarse wares include Black Burnished vessels (lid: [H45] cf Wallace and Webster 1989, 90). A small proportion of sherds, including a few imported Mediterranean *amphorae*, fine wares (including some later colour-coated fabrics), have proved difficult to identify on the basis of local analogues. It is likely that much of this material, particularly the *amphorae* and *mortaria*, was brought onto the site in the form of rubble for the masonry wall core and for levelling the site. Traces of this levelling deposit have been found in all trenches, suggesting that the area cleared was at least co-terminous with the modern property boundaries.

Although much of this re-deposited material echoes what is known from other sites in Chester, a number of items deserve attention in their own right. There is some evidence of pottery manufacture, three fragments of a single vessel are particularly noteworthy. It is colour-coated, with the inside slipped and the outside left matt (Ill. I.27). The form appears to be Roman but the fabric is unusual. It is definitely a waster, showing signs of severe



Ill. I.27: Post Roman pottery waster (Scale 1:1)

overfiring, bloating, deformation and burning. The waster fragments and the presence of other pottery-making debris, including lumps of fine, highly levigated clay, some with shelly inclusions, in the soil around the later Roman building [P16], sealed by later deposits [P12, P10] (see Ills I.9 and I.10), provide evidence of industrial activity during phase 1.

The other industrial activity that could be associated with this period is jet and shale working. The building platform or levelling deposit contained a small fragment of a jet armlet (Ill. I.28:6), and a small fragment of figurative shale carving (Ill. I.28:7). Lumps of partially worked (Ill, I.28:9) and unworked jet (Ill. I.28:8) are found residually. Another armlet (Ill. I.28:5) is D shaped, a later form, and might belong to the succeeding, early Medieval phase, or even later. Fragments of four shale pins (Ill. I.28: 1–4), one of which is clearly unfinished (Ill. I.28:4), might belong to the earlier, Roman phase.

It is clear from excavations elsewhere in Handbridge that the area was a cemetery during most of the Roman period (Newstead 1948, 120–1; Petch 1987, 182–3). A cremation urn was located some 20m to the North in Ebury Place by Robert Newstead in 1935 (Newstead 1948, 123–4). There are cremation burials to the west, on the other side of the main road through Handbridge, and to the south either side of Watling Street (Eaton Road). The current investigations do not contradict that view. The earliest features do contain fragments of calcined bone, which might derive from cremations, and the large Roman glass vessel from trench V may well be a cinerary urn. However, it could also be associated with the later glass working activity described below (i.e. as cullet). Inhumation burials have been recorded much more rarely (Mason 1987, 163–5). Newstead refers to a stone coffin that was found in 1852, in association with two Roman cinerary urns, close to the junction of Handbridge and Queen's Park Road (Newstead 1928, 127), and a handful of further inhumations was located a little further north (see above).

Ill I.28: Jet and shale: (1–3) finished and (4) unfinished shale pins; (5) D-shaped jet armlet; (6) jet armlet; (7) carved shale; (8) unworked jet; (9) partially worked jet

Phase 2: Late Roman (fourth century)

At some time towards the end of the fourth century, a large structure with a double base course of dressed sandstone blocks separated by a rubble core was constructed (H33 and the robbed extension P23). This, the first major feature in Trench III, has survived only in a small part of its original extent, due to the reuse of the rubble fill and of structural wall blocks in a subsequent reconstruction (phase 3.2). The sandstone wall blocks and the rubble fill were robbed on the north-western side of this later structure, as well as further north-eastwards, as was visible in Trench II. If the same materials continued higher up, the walls of the original building, 1.2m wide, would have been large enough to support a two storey edifice. As far as we can determine, the inside of the building lay to the north east of the excavated wall section. In Trench V, traces of a wall, *c.*0.5m wide, of slighter rubble construction than the wall in Trench III (H33), and perpendicular to it, may represent an internal wall. It was at a similar depth to H33, and had similar stratigraphic associations. In addition, the sandstone surface uncovered by Robert Newstead lies north-east of the projected line of H33. Moreover, there was no evidence of any floor in trenches II and III, whereas trench IV produced positive evidence in the form of *tesserae*, and some *opus signinum* was recovered from the topsoil in the vicinity. Although none of these artefacts was found *in situ*, the examples from trench IV belonged to the deposit into which the grave was cut. These flooring materials, particularly the greenish blue glass *tesserae* (Ill. I.25) suggest a building of some pretension. The *tesserae* are unlikely to have been brought specially to the site for the later glassworking phase, as they were associated with limestone and sandstone tesserae, although some of these may have been destined for re-cycling after the masonry structure had been demolished. Melted glass identical in fabric to the tesserae is reported from St John of Jerusalem, Clerkenwell (http://www.museumoflondon.org.uk/ceramics/pages/ accession no A27718). The excavators compare it to Roman material found in Southwark, and postulated that it was intended for *Cosmatesque* decoration, commonly made from reused Roman materials in the Middle Ages. The large quantities of greenish micaceous sandstone in all subsequent deposits suggest that the building was roofed, as was the case for many buildings in Late Roman Chester, with sandstone tiles (Mason 2001, 197). Fragments of plaster in the rubble from the demolished masonry wall, including a single dark red painted fragment, are again indicative of the high status of the structure.

The construction of the building is dated no earlier than the fourth century or later by the flanged bowl rim in Black Burnished ware, found mortared into the rubble core of the wall (Ill. I.13b)[4]. The deposit into which the wall foundation was inserted contained several sherds from a Hartshill-Mancetter *mortarium*, dated *c.*AD 220–230, and another sherd of obtuse angled Black Burnished ware. The level of activity on the site during the fourth century is enhanced by the presence, albeit unstratified, of other late Roman forms, such as Oxfordshire Red slip flanged bowls (Ill. I.13 d–f), and a late Roman shelly jar (Ill. I.13c; cf Tomber and Dore 1998, 212 [ROB SH], pl 177).

This pottery represents the latest ceramics common in late Roman contexts in Britain (the shelly jars became common in the late fourth century (Tyers 1996, 192)). The building, could, however, have continued in use beyond this period, if a small sherd of thinnish, highly micaceous brown fabric does indeed belong to a small type of late Roman amphora,

found in the deposit formed in the robbed wall trench [P 23]. These forms are normally given a date of AD 475–550 in western Britain (Tyers 1996, 102–3), although they do occur earlier elsewhere in the British Isles. The fragment of a late Roman amphora of similar date, possibly British B1 (LR2), in the robbed wall in trench V [SMO 01] could also be significant. A fragment with a distinctive red slip, identified by the excavators as a sherd of possible African Red Slipware (Ill. I.17g; Hayes 1972, type 103b, *c.* AD500–550/75) was found in the topsoil overlying the building.[5]

The orientation of the building requires comment. Investigations along Watling Street, as it approaches the River Dee at Chester, have confirmed the current alignment with Eaton Road (most recently: Frere *et al*., 1987, 321: map ref. SJ4079 6526), [6] *c.*200m south of the construction under discussion. Despite its proximity to Watling Street, this building was not aligned with it, but appears to be aligned with an extension of Overleigh Road, which makes a junction with Eaton Road immediately west of the modern property in which the building is located (see Ills 2). The extension of Watling Street between the junction with Overleigh Road and the Old Dee Bridge has not yet been confirmed. Excavations in Edgar's Field have shown that it cannot have run west of the current line of Handbridge (since there was a line of second century structures here) and must therefore have run east of it (Newstead 1928, 150–1; Mason 2002, 58). There are two possible routes that the road could have taken beyond the northernmost section so far identified. The shortest route would have followed the sandstone ridge east of the modern junction at Overleigh Road, joining the east side of the road Handbridge close to its modern junction with Queen's Park Road, i.e. departing markedly from the line of the modern junction, and requiring a drop from the ridge to the level of the quarry and associated structures somewhere near the junction with Queen's Park Road. The sandstone was heavily quarried close to this junction in the nineteenth century, but the 1842 map of St. Mary's parish shows a slight indentation in the rock before extensive quarrying took place, and this would be an appropriate position for the Roman road to have descended, just east of the final section of modern road approaching the bridge.

The other possible route for Watling Street would take it west of the sandstone ridge, to meet Overleigh Road a little further west of the present junction of Eaton Road and Overleigh Road. East of the junction between Overleigh Road and Eaton Road, the Bunter sandstone outcrops immediately below houses along Handbridge and has been quarried in places to allow for a pedestrian footpath. Keith Matthews has postulated that Overleigh Road may follow a pre-Roman track to a river crossing to Boughton (pers. comm.). In any case, Overleigh Road must represent the principal route between the River Dee and the late Roman settlement at Saltney, and beyond that to north Wales (Newstead 1935; cf Ward 1996, 8–9 on geomorphological study of the Dee estuary). The Roman predecessor of Overleigh Road east of the present junction with Eaton Road is unlikely to have run any further south than the modern road, because of the sandstone ridge. The road named Handbridge departs from the alignment with Overleigh Road beyond its junction with Eaton Road, in order to approach the Old Dee Bridge. If Watling Street followed the latter course, it would have incorporated a short stretch of the west-east road between Boughton and Saltney, and therefore two angular changes of direction near the bridgehead. Whichever route was taken by Watling Street, the orientation of the masonry structure [H33] suggests

that the route perpendicular to it was a significant one in the fourth century at least. One side of the masonry building faced this potential road. We have assumed that the building was rectangular in shape, but other designs would also be consistent with the identified remains.

Phase 3: Early Medieval (fifth to tenth centuries)

Phase 3.1

While the masonry building was standing, another, wooden, structure was built, following the same alignment. This is represented by feature P19 from Trench II (Ill. I.5: 2; I.6; I.7), feature H37 and post holes [H22, H24] from trench III (Ill. I.9). A *terminus ante quem* is provided by the antler comb from the sealing deposit already referred to (and see below), which has close analogies in the eighth to tenth centuries. The structure consists of a slight trench, some .20m deep, with stone packing at the bottom. Post holes deeper than the trench were inserted into this packing and there is a silty layer [H37] overlying the stones, presumably deposited after the structure was abandoned or removed. Among the finds from the silty deposit [H37] is the relatively homogeneous group of glass working debris. Since this material does not appear to be residual Roman glass, a post-Roman date seems appropriate for this production. The succeeding deposit [H44] sealed both this feature and the robbed wall foundation [H39]. This means that the post built construction was broadly contemporary with the destruction of the masonry building. This structure lies only 0.50m from the wall of the masonry structure and one possible interpretation may be that these were the remains of scaffolding erected to allow for the demolition of the masonry structure. The glassworking debris found in the post trench might represent re-cycling of glass components, window panes, or tesserae, from the earlier structure.

Ill. I.29: Roman moile in blue-green glass (top); droplet of similar glass (bottom)

Residual finds in later deposits from the immediate vicinity include a moile of a characteristic blue/green Roman glass, along with a melted glass droplet, showing that Roman glass was being reworked (Ill. I.29), and small fragments of window glass of Roman date. There is some evidence of bead making, in the form of blue drawn cylindrical beads and a piece of the tube from which it may have been drawn (Ill. I.15:11, I.15:I4). A melted green glass fragment (Ill. I.15:6) found unstratified in the uncontaminated deposits under the floor of Newstead's laboratory, is also bead making waste, having clay 'release' still present in what was the perforation.

Within 1.00m of these glassworking items was found a melon or gadrooned bead in an opalescent, colourless fabric, a 'black' annular bead (Ill. I.15:9, I.15:10); and a turquoise opaque heat distorted bead (Ill. I.15:5). The lathe-turned bone pin head, discovered in a post-Roman deposit in Trench II [P3] (Ill. I.30:4), has close parallels among finds from the Palatine in Rome, dated between the third and sixth centuries (St. Clair 1996, 370 and fig 7, first left). This may have belonged to a burial or was a chance loss. Lumps of opaque green, high lead glass have been found in the topsoil and appear to be the result or by-product of lead smelting. A small fragment of galena was also found and melted lead is a common find. Alongside this was a vitreous blue mass, perhaps a future bead on a mandrel, with a pair of copper alloy wires for attachment (Ill. I.15:7). This is clearly manufacturing debris.

Metallurgy is also evident from this phase. The foundation slot for H37 (Ill. I.9) produced a piece of melted pewter and a pewter strap guide came from one of the posthole fills. Pewter working, like the glass making and potting, was to continue for many hundreds of years. Some of the copper alloy objects are likely to derive from this phase. A copper alloy

Ill I.30: Worked antler and bone artefacts

foil with repoussé banded decoration of beading, cable, hatched wave patterns and spirals, which seems to have acted as a veneer for a wooden or leather object, is of a late Antique style (Ill. I.31). A copper alloy mount (Ill. I.32) shows a low relief interlace pattern resembling the 'beasts' of eighth to tenth century design. Examples of such zoomorphic designs are comparatively rare and difficult to date. The combination of foliage, the absence of a head lappet, the almond-shaped eyes, and the billeted form of parts of the beast's tail, suggest an Insular rather than Viking origin for the object (Webster 2001, 265 fig 18.1; contrast the Jellinge style disc brooch, Graham-Campbell and Lloyd Morgan 1994, 66–7 & fig 8.7; Mason 2007, 117 fig 36).

Iron smelting appears to have been practised close by during this phase, since the construction in phase 3.2 employed substantial quantities of iron slag. This slag includes smithing hearth bottoms and tap slag. Smelting is confirmed by the substantial portion of an iron bloom, and some small fragments of haematite, found residually. Many highly corroded iron objects, including many nails, await closer scientific study.

Phase 3.2

Phase 3.2 involved the construction of a new structure on an east-west alignment. The wide rubble foundation might suggest that this was a cob or mud structure. The construction can be dated to the eighth to tenth century on the basis of the partially made antler comb back already referred to found within this rubble foundation (Hill 1997, 479–84; esp. 483 fig 10.131 [AR70.1–70.6: mid ninth century; cf Ambrosiani 1981, 15–19, type B, first half of the tenth century; Dunlevy 1988, 395–6, type F1, for Irish parallels). Fragments of unidentified handmade pottery found in the fill of the robbed portion of the wall [H 39] (Ill. I.33) could confirm this date. There were thirteenth and fourteenth century pottery sherds in the deposits immediately overlying the wall foundations. Judging by the mortar on many of

Ill. I.31: Copper alloy repoussé foil (unstratified)

Ill. I.32: View (a, left) and drawing (b, right) of a copper alloy mount or brooch with interlace and zoomorphic decoration

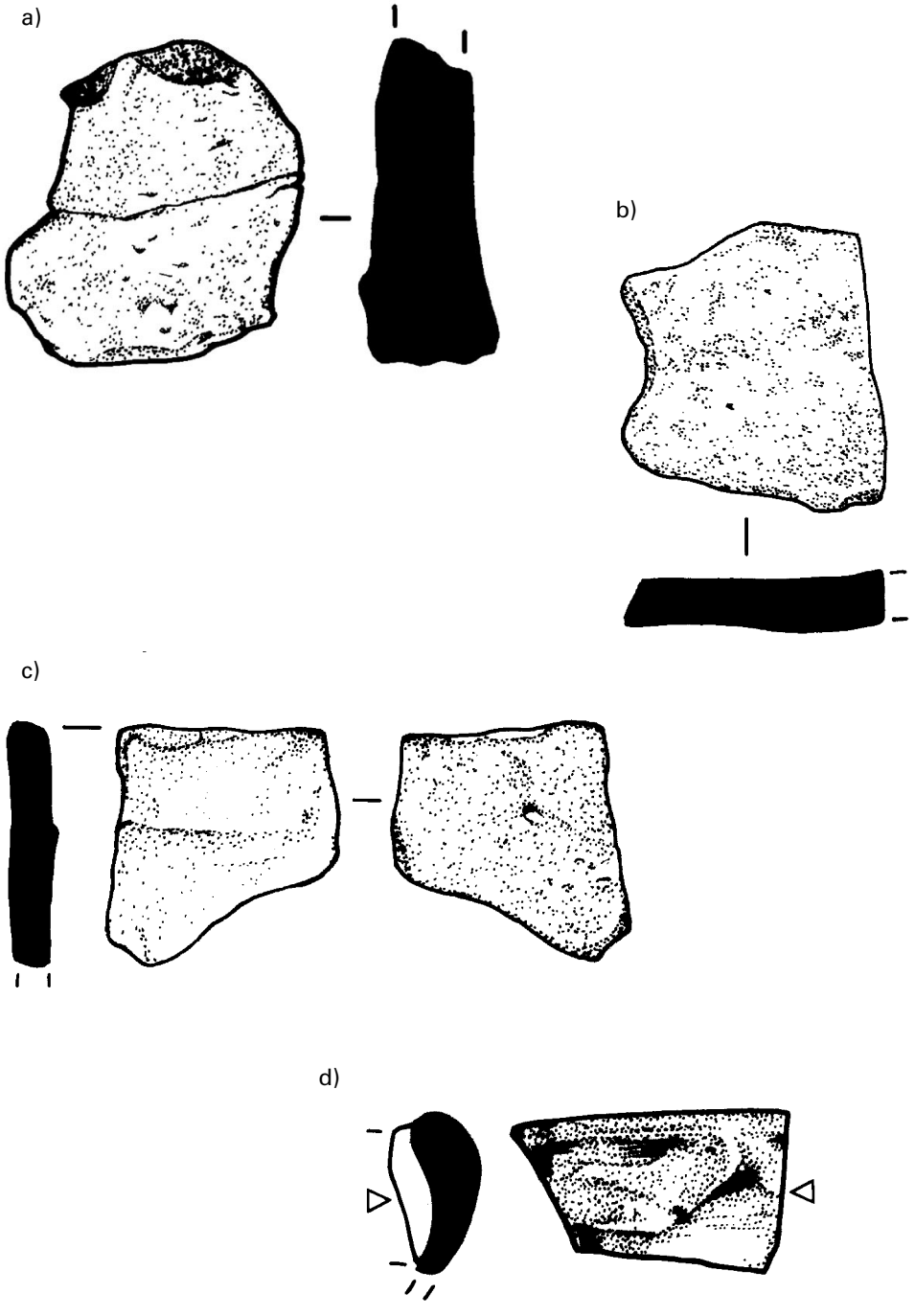
the pieces, and the fragments of lime plaster, the former material was derived from the core of the masonry wall that had been demolished, with the addition of iron slag from the previous phase.

The structure was relatively short lived, with the destruction deposits [P16] containing fragments of the same unidentified handmade pottery similar to those associated with the construction. In structural terms its closest analogy is the burial chapel (phase II/2) at Whithorn, (*c.*AD 730–845; Hill 1997, 164–5 and fig 4.23), which the excavator took to be a technical import from the south west of England (Hill 1997, 164–8). The building that replaced this phase 3.2 structure had post construction (Ills I.6:2, I.8). If the posts were originally of slanting type, then this is of a form normally found prior to the eleventh century (Chapelot & Fossier 1980, 296). The cob construction is in any case unlikely to have survived much beyond the tenth century.

It may have been during this phase that the burials from trench IV were inserted under the floor of the masonry structure. The disturbed grave contains micaceous roofing tiles and fragments of Nene valley pottery (mid second to late fourth century: G Dunn pers comm).

The post built feature, briefly referred to above, clearly post dates the masonry structure, since it cuts the fill of the robbed wall in that section that survived the phase 3.2 rebuilding, but still respects the east-west alignment established during the preceding period. The two post holes P17 and P25 (Ill 6: 2) produced only Roman ceramic material and some iron slag deriving from previous phases.

A river pebble, from one of the post holes, which shows signs of having been used as a rubbing stone, indicates that craft activity continued. It can be assumed that the potting,



Ill. I.33: (a–c) early Medieval handmade sherds; (d) wheelmade early Medieval jug handle

glass working, and metallurgy identified for the previous phases persisted during this phase, since these same activities reappeared in the course of phase 4. The possible interlace mount could as well belong to this phase as to the previous one, in view of the short time span of phase 3.2. The deposits from this phase are too restricted to have contained much evidence.

Phase 4: Medieval (eleventh to sixteenth centuries)

Built features belonging to this phase are rather sparse, but the finds evidence from contemporary contexts, and residually in later deposits, is very rich, and points to the continuation of the site as an industrial centre for glass working, potting, tile making, and non-ferrous metallurgy (perhaps following a period of disuse). It is during this period that the site takes on the appearance of a long, thin, burgage plot, and the documented features, especially the pits, are appropriate for such a back lot.

The high Medieval period is represented by two refuse pits (Ill. I.10, [H48]; Ill. I.22a [G10]). The first of these is vestigial and just cuts the sill of the phase 3.2 building. The contents of this pit do, however, provide evidence for the continuation of both glass working and potting with a single overfired thirteenth–fourteenth century rod handle and a piece of forest

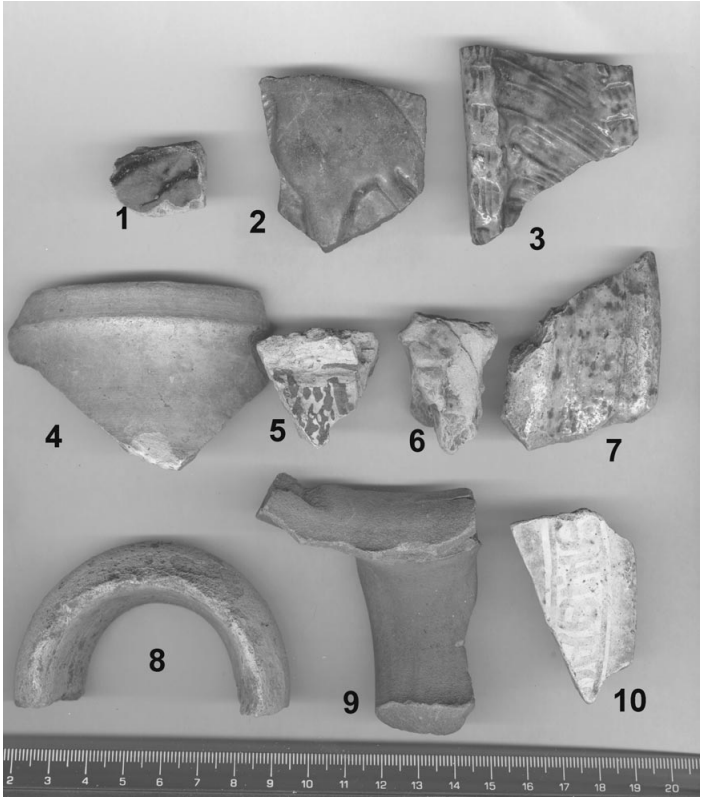
Ill I.34: Window glass: (1) matt/glossy, Roman or Medieval; (2) Roman; (3–8) Medieval; (8) has traces of blue flashing; (9–11) seventeenth century; (10) has a rounded edge, showing where it has been cut from a cylinder; (11) shows scouring marks; (12) deep purple fragment; (13–14) silver stained glass

glass quarry, much distorted by heat. The other pit also contains relevant evidence, this time from the fifteenth century, in the form of a droplet of melted glass and a tile waster. The soil layer overlying the early medieval building accumulated gradually over an extended period of time.

There is abundant evidence from residual finds in later deposits for continuity of the industrial activities already noted: window glass fragments from the eleventh to seventeenth centuries (Ill. I.34), fragments of lead from the thirteenth century or earlier (Ill. I.35), many droplets of melted glass (Ill. I.19), many pottery wasters showing glaze across breaks of a light, whitish, or buff sandy fabric, with a clear glaze appearing yellow, from the thirteenth or fourteenth century (Ill. I.18), jewellery of pewter, including a ring (Ill. I.35:4) and a strip with fourteenth century letters engraved in Gothic script, starting Ch- (Ill. I.35:2). There is a nail-headed pin with a screw-threaded finial (Ill. I.36), which follows a late Roman style, but the form is also found in subsequent periods. It appears to have been subjected to considerable heating, as much of the lead in this high lead copper alloy has melted out, leaving voids in the fabric. It is almost certainly manufacturing debris. The screw thread seems designed to allow the insertion of a glass bead and provides a link to the glass working industry on the site.

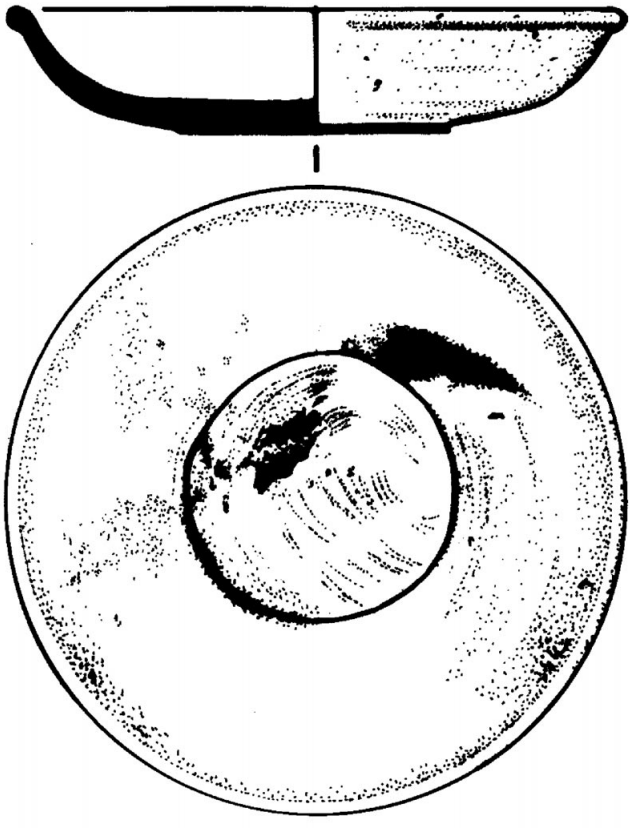
Of considerable importance for the overall interpretation of the site is the presence of imported pottery. This includes a single example of Developed Stamford ware (Ill. I.37:3) of the late twelfth to early thirteenth century; and several sherds from different vessels of thirteenth to fourteenth century mottled green Saintonge ware (several sherds: Ill. I.37:6 and 7). Three joining fragments of a lamp (Ill. I.38) appear be of Mediterranean (Spanish

Ill. I.35: Pewter artefacts (1–4); two joining fragments of molten pewter (5)



Ill. I.36: Copper allow screw-thread finial

Ill. I.37: (1) Tudor Greenware; (2) Midland Horse Jug, thirteenth century; (3) Developed Stamford Ware, thirteenth century; (4) French, probably Saintonge, unglazed, second half fifteenth–first half sixteenth century; (5) Saintonge, Polychrome, sixteenth-early seventeenth century; (6) Green glazed Saintonge spout, thirteenth century; (7) Mottled Green Saintonge; (8) Iberian olive jar, seventeenth century; (9) Merida-type ware, sixteenth–early seventeenth century; (10) Lustre Ware, Late Valencian, fifteenth–sixteenth century



Ill. I.38: Imported medieval lamp (Scale 1:1)

or Italian) origin, and certainly date to before the thirteenth century (Bacchelli and Pasqualucci 1998; for the shape cf Marchesi et al 1997, 263–5, fig 230 'lampes apodes'). The waxy burned deposit across one of the breaks indicates that this lamp was broken in use and therefore most likely belongs to this particular site. Green glazed and decorated ware from the Midlands, also of the thirteenth to fourteenth century, has been recovered. There is fourteenth to sixteenth century unglazed Saintonge ware (Ill. I.37:4), fifteenth to seventeenth century Tudor greenware, fifteenth or sixteenth century Hispano-Moresque lustre ware of the fifteenth or sixteenth century (Ill. I.37:10), sixteenth or seventeenth century Iberian micaceous ware (Ill. I.37:9), sixteenth century Saintonge polychrome ware (Ill. I.37:5) and a sixteenth or seventeenth century Spanish olive jar rim (Ill. I.37:8). The possibility that the site was of high status is enhanced by the recovery of many decorated tile fragments from the fourteenth century (Ill. I.39).

Phase 5: early seventeenth century glazing, glass working and potting

Although the evidence for kiln construction is limited, the vestigial traces identified as a kiln or hearth at the western end of Trench III represent but one firing construction within a lengthy history of pottery manufacture in the vicinity. The waster evidence implies the existence of earlier and later kilns nearby.

Ill. I.39: Medieval tiles

Associated with this phase we also have some perplexing evidence for the continuation of glass working, perhaps even glass making, represented by a crucible and molten glass of early seventeenth century type. According to Julian Henderson, the composition of the crucible lining matches that of the molten glass fragment analysed. This is not anticipated for Chester during the period of the Mansell glass monopoly (discussed further below). Window glass debris from cutting indicates that glazing was being carried out. The offcuts (Ill. I.34:9, 10, 11) appear to be a similar fabric to that associated with Haughton Green (Ruth Hurst Vose, personal communication). There appears to have been an attempt at forming glass vessels in the style *façon de venise*, but this activity represents the last throes of the glassmaking craft in Handbridge.

Potting, however, continued close to the site until approximately 1800, on the basis of waste material that was being dumped in the vicinity (Ill. I.40). The only spatial feature associated with this activity is a pit or soak-away filled with potting debris (Ill. I.22b, SMO3). Products of the kiln during the period include black and yellow earthenware (Ill. I.40), tinglaze (Ill. I.41), early stoneware, some copying tinglaze forms (Ill. I.42), and a range of white wares, culminating in late eighteenth–early nineteenth century pearlware, and including creamware, white salt glazed stoneware, and proto-porcelain (Ill. I.43). For all

of these types there is evidence of biscuit ware and kiln furniture, as well as wasters. The documentary evidence for potting activity in Handbridge is discussed below.

Phase 6: nineteenth century agriculture

Dumping of waste pottery stopped at around 1800, the old Medieval burgage plot was subdivided into four if we follow the 1842 Eaton estate map, and small artisans' cottages were built facing Handbridge. Behind these cottages a stable block was constructed in two phases. The first of these survived until the middle of the nineteenth century, the second until 1899, when the current house was built.

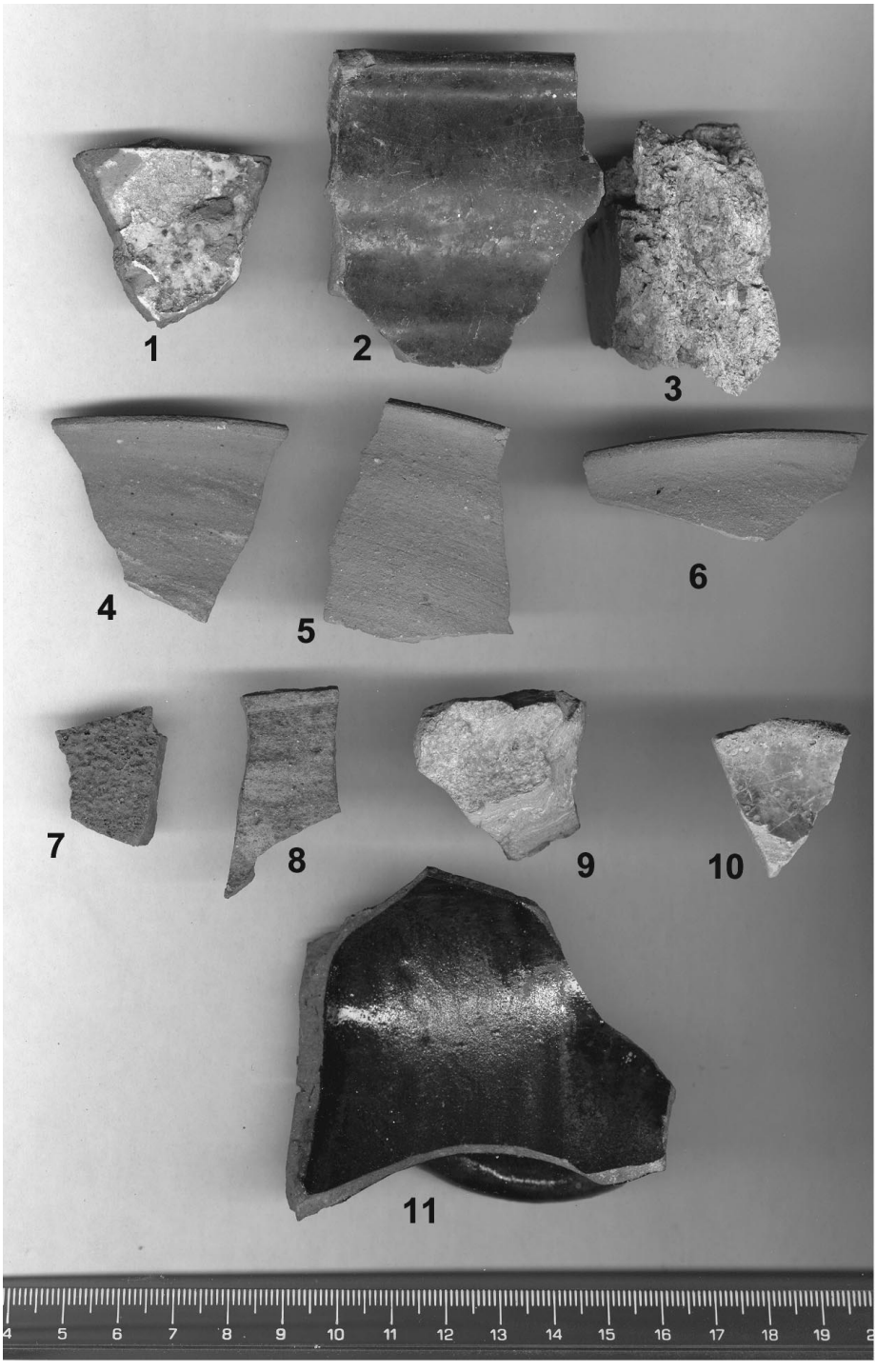
Phase 7: archaeologist's residence

Professor Robert Newstead was resident at the neighbouring house from 1900 until 1909 and in the current house from 1909 until his death in 1946. Although it is now clear that most of the material found can be attributed to much earlier activity on the site, some ten sherds and a piece of lead can definitively be attributed to Newstead, as they are marked in his handwriting! In some cases it is possible to allocate them to known excavations and pieces are attributed to Hunter Street (1914); the amphitheatre (1930, four sherds); St John's Street (1938); the Elliptical building (1939); and Love Street (1939). The sherds represent Roman, Medieval, and post-Medieval fabrics. The variety of origins suggests that these are casual losses over the period of Newstead's residence, rather than the systematic dumping of large collections of objects. None of the sherds is special in any way, which suggests that Newstead was in the habit of marking most of his sherds, for most of his career. This strengthens our conviction that the bulk of unstratified finds is of local origin. For ceramic wasters and glass production debris, it has been possible to compare our finds with his published evidence. None of the published pieces corresponds to any of our finds.

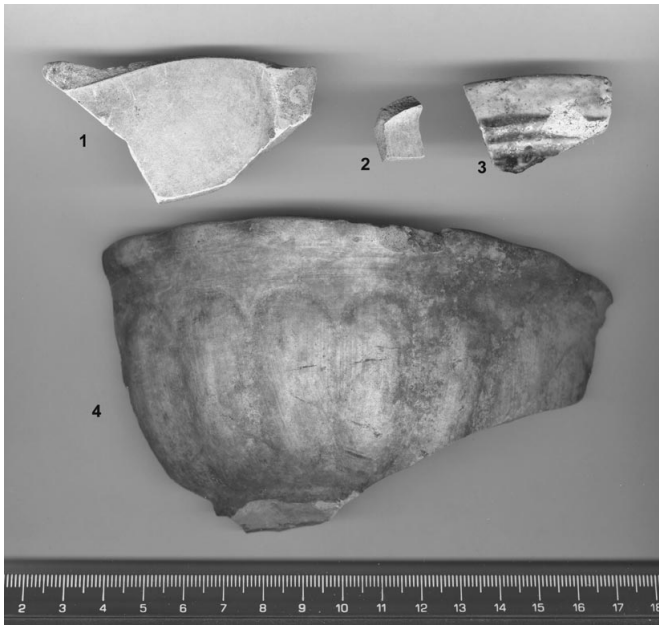
Documentary records of potting and glassworking in Handbridge

Previous work (Archibald 2005) has linked the later glazier's workshop with a family called Dalby from about 1500 until 1730. The Dalby family can be identified from earlier records back to William de Dalby, who appears to have been a member of Chester's civic élite and a merchant in the late thirteenth century (Bennett 1935, 10, 30th September 1328). He was also the underwriter for the construction of the Watergate Tower. Records confirm that he was the father of Alexander de Dalby, King's clerk, Clerk of Works to the Royal mint, Dean of St John's, Chester, and eventually constable of Bordeaux (Denbighshire Record Office, Ref DD/WY/787; DD/WY/82; DD/WY/81). William was probably also the father of Walter de Dalby, also a King's clerk and receiver of victuals at Calais and eventually Treasurer of Ireland based in Dublin; and John de Dalby, who apparently carried on as a Chester merchant. John was involved in the trade in forest products and rose to become Mayor of Chester.

The Dalby family was clearly very prosperous and well connected in this period, holding land in Denbighshire, Meols (Laughton 2007, 408), Barrow, as well as many properties in Chester. The family continued to be involved in shipping and trade throughout phase 4. The family's trading connections could provide a context for understanding the imported pottery and its impact on the manufacturing activity. The involvement of merchants in

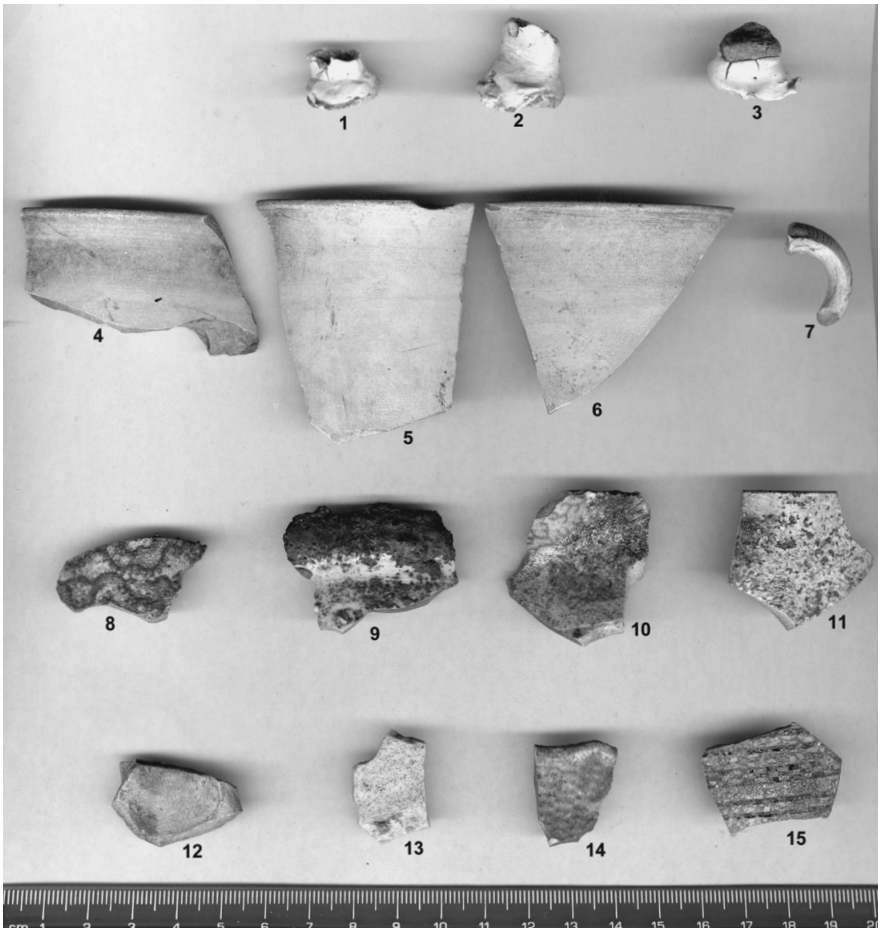


Ill. I.40: Earthenware wasters, early modern, black and yellow glazed; (4–6) biscuit sherds



Ill. I.41: Tinglaze wasters and production debris; (1, 2 and 4) biscuit-fired

Ill. I.42: Early stoneware (1–3) imitating tinglaze forms; (4) kiln furniture; (5–7) early eighteenth century coffee cups; (8) distorted Bellarmine sherd with applied decoration missing; (9) biscuit jug base



Ill I. 43: Small sample of eighteenth–nineteenth century whiteware wasters and production debris; (1–3) stilts; (4–7) biscuit sherds; (8) pearlware; (9) stoneware; (10–11) pearlware; (12) stoneware; (13) proto-porcelain; (14) stoneware; (15) annular creamware

manufacturing activity, based on the markets for imported commodities, is well known in this period (Spufford 2002, 228–85).

The Dalby family can be clearly associated with Handbridge and with both glazing and potting. The Churchwardens' accounts of Holy Trinity church indicate that Richard was paid 18s in 1562: 'to Richard Dawby of Handbridge glasior, for glassinge of windows that were broken'; and for general repair work to the windows from 1567 to 1569 (Beresford 1951, 124). He was the holder of land in Chester formerly belonging to the guild of St Anne (PRO SC 6, 11/99).

The earliest known reference to the Dalby glazing business is from 1533, also from Holy Trinity, when Henry Dalby, Richard's father, was paid 5s 4d for mending the steeple windows (Beresford 1951, 109). Henry appears with other Handbridge residents in a complaint regard-

ing access via Bottoms Lane in Handbridge to the meadows in 1543 (*Sheaf* 1921, 62 [4375]). Henry, Edward, and Moses were all active in glazing work in the cathedral (Burne 1948, 49; *idem* 1951, 76; *idem* 1953, 135; *idem* 1958, 59, 60). An earlier reference, 1504, to involvement in the building trade may be a dispute between a slater and one Laurence Dalby over a ladder.

The earliest known reference to Dalby residence in Handbridge is found in the rentals of the Nuns of Chester of 1482 (PRO SC 6, 11/99), where one Richard is charged 13d for a tenement and 13d for an adjoining tenement. An Edward Dalby appears in the Nunnery rentals of 1523. It is likely that this is the St Anne's land, as property belonging to the Guild was sub-let to the Nuns as a charitable gesture (Fergusson-Irvine 1907, 106; Jones 1957). The wealth of the Dalbys resident in Handbridge in the early sixteenth century is reflected in the status of Thomas Dalby, who was Constable for Handbridge between 1501 and 1507 (*Sheaf* 1917, 27 [3317]; CCALS, ZMB 9f.2). Another Edward, the most widely documented of the Dalby Glaziers, and Steward of the Painters and Glaziers guild, was active between 1572 and 1606 (Calendar of Chester City Council Minutes, 1603–1642; Bridges 1906; CCALS G17/1). He and his son Moses, appear not to have lived in Handbridge, being parishioners of St Bridget's and holding property in the immediate vicinity of St Bridget's Church. But the Handbridge property was retained, possibly for his mother, as the Painters and Glaziers Company assembled at Foxholes House in Handbridge on the burial of his mother Margaret (wife of Richard Dalby) in 1586. It may be that this property became, at least temporarily, a workshop at this point. This Edward Dalby is of particular interest because his will of 1611 appears to indicate an interest in potting:

> Item all the glass in the shoppe £5 13s 10d
> Item more shilfes boards and lead in the shoppe 6s…
> Item more a grate and basket and hearthe for a killin one former one coumbe a troughe to kneade in and a swim trough 57s 6d
> Item more 42 foote of boards and an olde wheel and a forme 2s 8d
> (CCALS WS 1612)

Moses, Edward's grandson, is described as glazier of Handbridge in his will of 1682. This will also indicates multiple property holding in Handbridge. Moses Dalby was named as the tenant of the former St Anne's Guild land in Handbridge (*Sheaf* July 1952, 62 [9514]) and Moses appears in the St Mary's Hearth Tax of 1665. His brother Edward also held property in St Mary's parish.

A Stephen Dalby was Alderman of the Painters and Glaziers Guild in 1697 (CCALS G17/2) and the last recorded involvement of the Dalby family's engagement with glazing in Chester was yet another Moses Dalby (great grandson of Edward the potter, who had John Percival, glazier, as an apprentice in 1723 (*Freemans' Rolls of the City of Chester*). Moses appears on the electoral roll for Claverton in 1727 (*Cheshire Sheaf* 1899, 99) and is named as a Vernon almsman in 1740–41. He was dead by 1745.

The history of the Dalby family, their professional and commercial interests and lifestyle, provide a close match, in terms of range and chronology, with the range and dating of

items identified from excavation. In particular they are the only glaziers identifiable within Handbridge for any part of this period. Late Medieval glazed tiles are rarely found outside ecclesiastical contexts, except in the homes of wealthy merchants. Imported pottery, or various styles and origins, is also best explained as the symptoms of commerce. The glazing evidence extended from the late Middle Ages to the eighteenth century, corresponding to the documented activities of the Dalbys, which include potting — not an automatic concomitant of glazing.

The Dalby family appear in glazing contexts elsewhere. A Henry Dalby is described as glazier of Liverpool in 1765 (*R.S.L.C. Wills in Probate Registry, Chester 1761–1780*, vol. 37, 1898, 76). Of potential significance to the interpretation of the later glassworking at the St Mary's Cottage site, there is also, apparently, glass making evidence (a process not necessarily associated with glazing). One John Dalby, of Ratcliffe, London, was a descendant from a prominent family of lawyers and merchants, who held the manor of Brookhampton in Warwickshire. He appears as partner to Thomas Robynson in a rental document of 1632 which refers to a capital sum of £2300 pounds and a rent of £400 p.a. payable under a lease for 'a glass house and appurtenances in Ratcliffe Stepney and all rights in several green drinking glass houses at Newnam, Gloucester, Ablecote, Staffs, Hidemilll, Lancs., Rualbon, Flint and Handsworth, Notts (*Deeds and Related Papers of the Salters Company Estates in England,* H1/25). For seven years John's status as a glassmaker is confirmed by his appearance in the 1640 Will of Daniel Hitch of Ratcliffe, as a glassmaker (Mahler 2003). The list of glasshouses includes most of the important centres of English glassmaking of the period and demonstrates John Dalby's significance for the glass trade. Handsworth Notts is presumably a misprint for Awsworth, where Sir Percival Willoughby had a glasshouse and where, in 1624, Robert Mansell commissioned a new glasshouse. Ratcliffe was the site of a glasshouse commissioned by Robert Mansell in 1616, Newnham in Gloucestershire is close to the known glasshouses of Newent, St Weonards and Nailsworth; Ablecote is presumably Amblecote in Staffordshire, where Edward Henzey had a glasshouse at his death in 1621. Closer to Chester, Hidemill, near Manchester, is the site of the Haughton Green Glasshouse excavated by Ruth Hurst Vose (Hurst Vose 1994). The glasshouse in 'Rualbon' is referred to by Godfrey in a case of infringement of the Mansell monopoly (Godfrey 1975, 119 n.8). We note that one of Robert Mansell's six window glass houses outside Newcastle and London was located near Chester (Godfrey 1975, 212 n.6). Godfrey observes that in London the retail glass merchants, ie glaziers and glass sellers, were influential in the owning and running of the glasshouses. Thomas Robynson was one such retail glass merchant (Godfrey 1975, 92). We note that an Edward Dalby was a glazier in St. Andrews Holborn between 1576 and 1615 (PRO Prob/11/126; PRO C 142/684/27).

John Dalby's grandson was the prominent merchant and writer Sir Dalby Thomas, Commissioner of Glass Duty in 1694. This role brought him into direct contact with the glassmakers and stoneware potters of London including John Dwight, once secretary to the Bishops of Chester, who is believed to have learned his potting in either Chester or Wigan.

There is a strong possibility that the London/Warwickshire Dalby families are related. The Glaziers guild records document one John Dalby, not otherwise identifiable as a member of the Chester Dalby family, or appearing in any of the later glazing records from Chester,

as a journeyman of the guild in 1597, a date perfectly consistent with John Dalby of Brookhampton, later Ratcliffe, born in or around 1576 (CCALS G17/1). The Warwickshire Dalby family were socially prominent lawyers, merchants and glass traders. The Chester Dalby family were also prominent merchants and at least two members of the family had some involvement with the legal profession alongside their glazing businesses. In the fifteenth century a Robert Dalby carried out legal work for the Handbridge mill. Thomas Dalby (son of Edward Dalby the 16th century glazier) was clerk to the pentice court of Chester. The grandson of Hawisa Hatton (née Dalby), Henry, married a relation of the Lucys of Charlecote, close neighbours of the Warwickshire Dalbys. This Hatton line was to lead directly to the Elizabethan courtier Sir Christopher Hatton. Warwickshire connections continued into the seventeenth century, when Aaron Dalby, brother of Moses (II) was married in Coventry in 1633 (*Marriage records of Holy Trinity Coventry,* 3/2/1633).

Handbridge Ceramic Industry

Apart from the possibility mentioned above, that Edward Dalby the elder was engaged in potting in Handbridge, the only pottery kiln noted in the literature for Handbridge is that at Mill Lane which operated between 1756 and 1776 at the latest (Hillis and Hillis 1981). The question arises as to whether or not the material described in this report is derived from that source and, if not, whether there is any evidence for other kilns. The waste material from the site reported here consists of much earlier material (thirteenth and fourteenth century), slightly earlier material (tin glaze and black glazed red earthenware from the seventeenth century), material contemporary with the Mill Lane kiln operations (cream ware and salt glazed stoneware) and material slightly later than the Mill Lane operations (blue glazed whiteware, similar to pearlware, and even a porcellaneous material, certainly post 1785). The presence of the whiteware biscuit sherds is also likely to belong to a pearlware industry, as white salt glazed stoneware was produced in a single firing, whereas later eighteenth and nineteenth century industrial slipwares, whitewares and porcelains had both biscuit and glost firings, which require multiple kilns (Charles 1974, 73: creamware; 280: whiteware; Tyler and Stephenson 2000, 29–30). There is only a single kiln at the Mill Lane site. Despite this, the Hillises suggest that creamware may have been made at the Mill Lane site. But there is a possibility that the potting infrastructure in Handbridge was more complicated, with kilns for different purposes located in different locations. Certainly, the range of waste material discovered at the site reported here implies kilns close by, operating over an extended period and making a variety of products. Randle Sorton, who operated a warehouse close to the Mill Lane site, might have sourced his ware from many kilns, as was the practice in Staffordshire.

Documentary evidence for kilns other than that at Mill Lane exists. L and M Hillis identify Messrs Dicas paying tax on the Pot House in 1767 from land tax returns, and assume that this refers to the Mill Lane site, although that site appears to have been in the hands of the Wrenches and a sub-lessee, Joseph Acherley, throughout the period in question. The Pothouse is referred to again in 1789, when the tax is paid by Thomas Reece. There is also a reference to the Potters Field, for which Alderman Cotgreave paid rates from at least 1767 until 1797. Fieldwalking in the town fields of Handbridge and Claverton owned by the Dicas family in the eighteenth century (following the 1737 Eaton Estate map) revealed whiteware wasters similar to those found at the site reported here, molten glass droplets

and other industrial waste. The hearth tax of 1665 reveals the Dicas family to have been neighbours of the Dalbys in Handbridge at that time. The Dicas family were well connected Chester businessmen with long term association with Handbridge. It is a reasonable inference that the Dicas' Pothouse was distinct from that of the Mill Lane kiln, that it continued in production until the late eighteenth century, and that it was close to the site investigated here. Pottery production continued in Handbridge until the 1830s, at which time one Holmes was working near the Feathers Inn (corner of Overleigh Road and Hugh Street some 200m west of current site: *Sheaf* May 1878 [16] p.6). The reporter to the *Cheshire Sheaf*, who fifty years earlier had witnessed the Holmes' pottery in operation, observed that 'the venture failed to be remunerative, as others had done before…'(ibid). Before dismissing the impact of Handbridge on the later ceramic industry, it is worth observing that Randle Sorton's granddaughter, Maria (*Sheaf* Dec 1929, 88 [5946]), married a direct descendant of Abraham Darby, Richard, of Coalbrookdale, that branch of the family thereafter taking the name Sorton-Darby. This would put the Handbridge potters in direct contact with the Coalport factory, one of whose owners was William Reynolds, who also married into the Darby family.

Discussion and origins of Treboeth

Handbridge and the suburban areas of Chester south of the River Dee are still comparatively underexplored archaeologically. Individual finds are difficult to put into context. A striking example is the seal matrix to which reference has already been made.[7] This was discovered in the area of the water pumping station on the banks of the River Dee close to Heronbridge. Another is a copper alloy coin, a native British copy of the so-called 'fallen horseman' type, found close to the Crook of Dee. Although these were isolated finds, they gain significance from the enlarged perspective that the finds from Meols have given to considerations of exchange in the north west of England during the late prehistoric, Roman and early Medieval periods (Philpott in Griffiths *et alii* 2007, 379–398; cf Griffiths in Griffiths *et alii* 2007, 399–406).The difficulty of contextualising this pair of finds is indicative of the gap between such exceptions and the current state of systematic knowledge about the area. The seal matrix points to a late Roman or post-Roman high status individual, of the kind perhaps also represented by the rock-cut tombs and fragmentary sculpted relief from Heronbridge (Mason 2003, 86–7, dated AD *c.*250). The cumulative evidence from the location in Handbridge examined here suggests that the structures of phase 2 represent an unusually large construction within the Roman cemetery area that extended on either side of Watling Street in the direction of the River Dee, perhaps a cemetery chapel or even a basilican church. An area at least equal to the modern property in extent appears to have been levelled to make way for this building. Activity associated with this building, including extension, partial demolition, and modification, continued throughout the post Roman and early Medieval period. One of these modifications provides the structure with a distinct east-west alignment. Adjacent to or within this building there were at least two east-west aligned inhumations. Its floors were decorated, however partially, with mosaics, and its walls with painted plaster. The context and associations suggest a religious building. Glass working is evident from the earliest phases, as are other crafts useful to a religious community.

This hypothesis also finds some support from place name evidence. Some 20m to the north is a street that takes its name from an earlier field, which has been known as Paradise, from

at least the fifteenth century (Dodgson 1981, 59). This name is often associated with religious landscapes, being the name given to the entrance courtyard of basilicas and to monastic gardens. A particularly relevant example for the current discussion is Paradise Croft by the church of St Michael le Pole in Dublin, which proved to be the grave yard of an early Medieval church dated between the eighth and tenth centuries (McMahon 2002). Also close to the site is Belgrave Place, which in the nineteenth century was known as 'Virgin Street'. The one aspect of the building that does not fit well with the church hypothesis is the alignment of the masonry structure, which is far from east-west.

The presence of an early Medieval church in Chester south of Dee, with its associated workshops and community, would explain some apparent anomalies in Chester's early history. The Anglo Saxon Chronicle of 893 describes Chester as being 'waste' (Matthews, S. 2000–2001, 64–5 with commentary). This is hard to reconcile with the persistence of activity in Chester at this time, for example the translation of the remains of St Werburgh for safekeeping there, and the statement that Viking settlers were seeking Chester's wealth. If it were the case that the walled fort was indeed in disrepair, and this is not unreasonable, but there was an active community on both shores of the Dee, then all these observations can be reconciled (Mason 2007, 76–77). An ecclesiastical centre of some sort would be necessary for the synod of 601 and a cemetery shrine may have been a rather more attractive site than the ruins of a military establishment for which there is only slight evidence of post Roman occupation. The site of the battle of Chester may recently been discovered some 1km south of the current site, and a church of importance in Handbridge might well provide a context for the intervention of the Bangor monks in the conflict. It may also account for the interest of Aethelfrith in the Chester location. The church community would have provided an attraction for specialist craftsmen and traders, as well as providing an appropriate institutional infrastructure for an international trading port. The existence of large monastic communities such as Bangor would surely require such a trading centre and organised church infrastructure, as would missionary activity in north Wales. An active trading port in Chester between *c.*400 and *c.*900 may well also account for Wat's Dyke, which certainly dates from sometime in that period and which, in terms of its topology, appears to be designed to protect the Dee estuary. Finally, pilgrimage to a shrine in Chester may account for the extensive river traffic to which the rich deposits at Meols testify (Griffiths, Philpott, and Egan 2007, 399–401). Presence of a church constructed out of Roman rubble also explains the discovery nearby of a Corinthian column capital and a hypocaust pila. The capital could well have been reused within the church building, as is the case in many Italian, Gaulish and Saxon churches. If the discussion relating to the alignment of Watling street above is valid, then the likely discovery site of the Corinthian capital would be on the same side of the road as the late Roman building. We would do well to take seriously the words of the early seventeenth century historian of Chester, William Webb, who says, referring to ruins in Handbridge, 'some suppose it was once the city itself.' (Ormerod 1882 I, 185).

Can any trace of such a church be discerned within the historical record? Handbridge is known to have been the site of three Medieval chapels. The first of these was a chapel of Basingwerk Abbey, located near the site of Overleigh Manor, now gone, but once located by the entrance to Eaton Hall at the roundabout at the end of Eaton Road. The second was

St James's Chapel, believed to be in Edgar's Field, and the site of both a chantry of Sir John de Delves, endowed in 1369 (Ormerod 1882, III, 518—19) and a hermitage. The third was Little St Mary's, which was also located in Edgar's Field 'in Kettle's Croft, close by the river side' (Hemingway 1831) and 'beyond the bridge now a fielde, the church not to be found' in the early seventeenth century (Harleian *mss* 2125, f 267). These all have identified locations and were all clearly active in the later Middle Ages. The buildings of St James's Chapel were in use in 1369, when the Delves' chantry was endowed, and in 1480, when it is known to have been a hermitage. It was still standing disused in 1560 (Dodgson 1981, 49). Little St Mary's survived long enough to be associated with the Benedictine nuns, whose order was founded in 1186. The chapel perhaps survived until the middle of the seventeenth century, when it 'tumbled into the river' (Harleian *mss* 7568 f 211a). The presence of two chapels in Edgar's Field is perhaps indicated on Braun's map of 1601. It is not possible, therefore, to associate any of these chapels with our site, the ecclesiastical structures of which almost certainly did not survive the tenth century.

Another possible candidate for the 'Virgin' commemorated in the former name of Belgrave Place may be St Bridget. Perhaps our structure was an earlier church, serving the Hiberno-Norse community known to have lived in Handbridge. The craft activity on site and the nearby Minerva statue make this an attractive possibility, but the fact that the site is not now in St Bridget's parish makes this less attractive and, in any event, this cannot have been the earliest dedication. There has been considerable controversy about the geographical location of the church dedicated to the early martyrs, Aaron and Julius, described by the sixth century cleric Gildas as *'Legionum urbis cives'* (*de excidio Britonum* 10, 2, citizens of the City of the Legions), a phrase copied exactly by Bede in chapter 7 of his *Ecclesiastical History*. The discoveries at Heronbridge and in Handbridge provide fresh evidence towards a reconsideration of Chester as an ecclesiastical centre in the early Middle Ages (cf. Hoffmann 2002, 86–7).

Whatever church, if any, was located on our site, the nature of activity changed after the tenth century, when ritual activity ceased, while the industrial activity continued. The skills acquired perhaps during the demolition of the building continued within the Handbridge community. If the church had been moved within the walls, into the newly constructed 'burh', it would certainly have been wise to leave the fire risk associated with glass, metallurgy and potting at a safe distance. The work that continued, however, was still very much in the service of the church, providing stained glass to the various church building and repair programmes. This situation continued until the middle of the seventeenth century, when the stained glass industry ceased. For much of this period, the site can be associated with the Dalby family (Archibald 2005).

Conclusions and Future work

Multicraft workshops originating in an early Medieval ecclesiastical setting, and the subsequent growth of a lay artisanal community, is similar in many ways to San Vincenzo al Volturno and other Continental sites (Moran 2003). Translation of the centre of political power to an ecclesiastical focus is also known in European contexts, where it led to the formation of dual foci in towns, the bishop's residence being associated with a cathedral inside the town walls, while commercial and industrial activities concentrated in river side

emporia, which sometimes happened to be in close proximity to martyrs' shrines (Reynolds 1984, 158–68, esp 160–61; Hodges 1989, 162–64; Knight 1999, 63–84; 148–9). This progression was modified in Chester by the intervention of Aethelflaed and the creation of the burh back within the existing walls.

The continuity of activity at Handbridge is exceptional and the ability to link this site to historical records over an extended period offers an exciting opportunity to comprehend the development and interactions of craft in Chester, including the development of the guilds, and the relationship of local manufacturing activity to that of merchants and traders associated with the port of Chester. In particular, further work on the Dalby family is required in order to clarify the link between the merchant family and the fourteenth century school of Chester glaziers. For example, the Chamberlain's accounts refer to the activities of John de Dalby in Chester between 1347 and 1355, and his absence after 1351 coincides with the period when St Stephen's church, Westminster, was glazed by one John of Chester (Stewart-Brown 1910, 121, 161, 224; Marks 1991, 280). Given his background and important connection to other Royal works projects, it is possible that this John was the master craftsman on that important project. It has been noted (Lewis 1970) that much of the glazing in churches in North Wales in the fifteenth century resembles stained glass in York. The glazier members of the Dalby family, with their putative connections to eastern England, might account for this. Furthermore, the nature and peculiar variety of metallurgical activity carried out on this site might indicate that William de Dalby of Chester might be identified with the contemporary Master William de Dalby, the alchemist called to demonstrate his skills before the young Edward III in 1329 (Rymer 1727, vol IV, 384).

We can now suggest another possible origin for the Welsh name of Treboeth. The name in Welsh means 'Hot town' and has been assumed to refer to deliberate burning in time of war. However, the long term metallurgical activity on the site might also account for the name. Hot Lane in Burslem is associated with potting, while Treboeth in Swansea lies in the copper smelting area of the city.

Further specialist work on the various groups of artefacts is required in order to understand more fully the development and interaction of the various industrial processes. Further investigation of the southern part of the site may reveal more details of the potential early medieval workshops, especially the potting and bead making. Geophysical survey may help to elucidate further the precise form of the masonry structure. Chance finds by one of the authors have revealed sherds of Chester ware and other early Medieval pottery over quite a wide area outside the site in Handbridge, along with fragments of lead slag and smithing waste. More systematic survey of the area should provide a better insight into the scale of the early Handbridge settlement. On a wider scale, the relationship between Handbridge and the exceptional set of finds at Meols needs to be better understood (Griffiths, Philpott, and Egan 2007). Preliminary analysis of selected pewter artefacts from Handbridge by Dr. Matthew Ponting of the University of Liverpool indicates a high lead-tin content, similar to the profile of many items from Meols (M Ponting in Griffiths *et alii*, 445–50). Finally, pre-Roman activity needs to be confirmed.

Acknowledgements

We would like to express our warm appreciation of the support shown to us over many years by members of Chester Archaeology, and thank in particular Peter Carrington, Gill Dunn, Julie Edwards, Alison Heke, Keith Matthews and Mike Morris, for specific advice and assistance with finds. We are grateful to Dr Ruth Hurst Vose for comments and advice on glassworking finds, to Prefessor Julian Henderson (University of Nottingham) for comments and analysis of glass samples, to Dr Matthew Ponting (SACE, University of Liverpool) for preliminary analyses of copper alloy and lead samples, to Dr Mark Redknap (National Museum of Wales, Cardiff) for comments on the probable comb back blank and to Ian Smith (Chester Archaeology) for observations on the human skeletal remains. We would also like to thank Peter Davey and Simon Ward for their helpful comments on an earlier draft of this paper. Any errors or oversights in identification and interpretation of finds and structures are solely the responsibility of the authors.

Warm thanks to Julian Heath for illustrations 13a, c, 27, 33 and 38. All other drawings and photographs were made by the authors, unless otherwise stated. Thanks are also due to the Research Committee of the School of Archaeology, Classics and Egyptology (SACE), University of Liverpool, for a small grant to cover finds illustrations. Clare, Tom and Ruth Archibald are also thanked for assistance with finds and for general support.

It is a matter of deep regret that Alan McKechnie, a Handbridge resident and enlightened researcher of the area for many years, did not live to see this report published. He was an immense inspiration.

Bibliography

Ambrosiani, K 1981 — *Viking Age Combs, Comb Making, and Comb Makers in the Light of Finds from Birka and Ribe.* Stockholm: University of Stockholm, Studies in Archaeology, 2

Archibald, I 2005 — *A Post-Medieval glazier's workshop in Chester and its antecedents. Annales du 16e Congrès de l'Association Internationale pour l'Histoire du Verre. Lochem:AIHV, 358–62*

Bacchelli, B and Pasqualucci, R 1998 — Lucerne dal contesto di VII secolo della Crypta Balbi. In: Saguì, L ed 1998 *Ceramica in Italia: vi–vii secolo. Atti del Convegno in onore di John W. Hayes, Roma 11–13 maggio 1995.* Firenze: Biblioteca di archeologia medievale, 343–350

Bennett, H E 1935 — The White Friars of Chester. J Chester Archaeol Soc 31 (1), 1–50

Bennett, J H E 1996 — *Freemans' Rolls of the City of Chester: Chester Freemen Rolls.* Part 1, 1392–1700, pp.1–205 Part 2, 1700–1895, pp.208–429. Transcribed and edited by J. H. E. Bennett for Chester City Record Office, The Record Society.

Beresford, T R 1951 — Churchwarden's Accounts of Holy Trinity. *J Chester Archaeol Soc* **38**, 95–172

Bridges, J C 1906 — Items of expenditure from the 16th Century accounts of the Painters', Glaziers', Embroiderers' and Stationers' Guild, with special reference to the Shepherds' Play. *J Chester Archaeol Soc* **20**, 153–91

Burne, R V H 1948 — The founding of Chester Cathedral. *J Chester Archaeol Soc* **37** (i), 37—68

Burne, R V H 1951 — Chester Cathedral in the reigns of Mary and Elizabeth. *J Chester Archaeol Soc* **38**, 49—94

Burne, R V H 1953 — Chester Cathedral after Restoration. *J Chester Archaeol Soc* **40**, 25–54

Burne, R V H 1958 — *Chester Cathedral.* London: SPCK

Burnham, B C, Keppie, L J F, Esmonde Cleary, A S, and Tomlin, R S O 1996 — Roman Britain in 1996 *Britannia* 28, 395–472

Groombridge, M J ed. 1956 — *Calendar of Chester City Council Minutes, 1603–1642. With a map* (Lancashire and Cheshire Record Society. Publications. vol. 106)

Casey, P and Davies, J L, with Evans, J 1993 — *Excavations at Segontium (Caernarfon) Roman Fort 1975–1979,* CBA Research Report no 90

CCALS — Cheshire and Chester Archives and Local Studies

Chapelot, J & Fossier, R 1980 — *The Village and House in the Middle Ages.* London: Batsford

Charles, B H 1974 — *Pottery and Porcelain. A Glossary of Terms.* Newton Abbot/ London/ Vancouver: David and Charles

Crummy, N 1979 — A Chronology of Romano-British Bone Pins. *Britannia* **10**, 157–63

Davies, R R 1974 — Colonial Wales. *Past and Present* **65**, 3–23

Dodgson, J McN 1981 — *The Place Names of Cheshire, Part 5 (Section 1:1).* Cambridge: Cambridge University Press

Dunlevy, M 1988 — A classification of early Irish combs. *Procs of the Royal Irish Academy* **88**c, 341—422

Earp, J.R. and Taylor, B.J. 1986 — *Geology of the country around Chester and Winsford.* British Geological Survey, London: HMSO

Farrall, L M 1914 — *Parish Register of the Holy and Undivided Trinity.* Chester: Griffiths *Freemans' Rolls of the City of Chester: Chester Freemen Rolls.* Chester City Record Office, 1996. Part 1, 1392–1700, pp.1–205 Part 2, 1700–1895, pp.208–429. Transcribed and edited by J. H. E. Bennett for The Record Society, 1906.

Frere, S J, Hassall, M W C, and Tomlin, R S O 1987 — Roman Britian in 1986. *Britannia* **18**, 301–77

Fergusson-Irvine, W 1907 — Notes on the history of St Mary's Nunnery. *J Chester Archaeol Soc* **13**/ 7, 67–109

Forster, G C F with contributions by N J Alldridge & A P M Wright 2003 — Early Modern Chester, 1550–1762. In: Lewis and Thacker eds 2003, 90–145

Godfrey, E S 1975 — *The Development of English Glassmaking.* Oxford: Clarendon

Graham Campbell, J & Lloyd Morgan, G 1994	Copper Alloy. In Ward et al 1994, 66–67
Griffiths, D, Philpott, R A, and Egan, G 2007	*Meols. The Archaeology of the North Wirral Coast. Discoveries and Observations in the 19th and 20th centuries, with a catalogue of museum collections.* Oxford University School of Archaeology, Monograph Series
Hayes, J W 1972	*Late Roman Pottery. A Catalogue of Roman Fine Wares.* London: British School at Rome
Hemingway, J 1831	*History of the City of Chester.* 2 vols
Higham, N J 1993	*The Origins of Cheshire.* Manchester: Manchester University Press
Hill, P 1997	Whithorn and St Ninian. *The Excavation of a Monastic Town, 1984–91.* Stroud: Sutton Publishing Limited
Hillis, L & M 1981	The Chester White Ware Manufactory. *Northern Ceramic Society Journal.* **4**, 37–45
Hodges, R 1989	*Dark Age Economics. The origins of towns and trade AD600–1000* 2 (New Approaches in Archaeology) London: Duckworth
Hoffmann, B 2002	Where have all the soldiers gone? Some thoughts on the Presence and Absence of soldiers in Fourth Century Chester. In: Carrington, P ed. *Deva Victrix, Roman Chester Reassessed* (Chester Archaeological Society) Chester, 79–88
Hurst Vose, R 1994	Excavations at the 17th century glasshouse at Haughton Green, Denton, near Manchester. *Post-Medieval Archaeology* **28**,1–71
Jones, D 1957	*The Church in Chester, 1300–1540.* Chetham Society
Knight, J K 1999	*The End of Antiquity. Archaeology, Society, and Religion, AD235–700.* Stroud: Tempus
Laing, L 1976	Some Pagan Anglian Finds from Deeside. *J Chester Archaeol Soc* **59**, 50–1
Laughton, J 2007	Medieval and Later Landholdings. In Griffiths, *et alii* 2007, 407–8
Lennard, R 1944	The Origin of the Fiscal Carucate. EHR **14**, 51–63
Lewis, C P & Thacker, A T eds. 2003	*A History of the County of Chester. Vol V Part 1, The City of Chester, General History and Topography* (Institute of Historical Research) Woodbridge: Victoria County History and Boydell and Brewer
Lewis, C P & Thacker, A T eds. 2005	*A History of the County of Chester. Vol V Part 2, The City of Chester, Culture, Buildings, Institutions* (Institute of Historical Research) Woodbridge: Victoria County History and Boydell and Brewer
Lewis, M 1970	*Stained Glass in North Wales.* Altrincham: John Sherratt & Sons
Lloyd-Morgan, G 1996	The Newstead Years: 1886–1947. *J Chester Archaeol Soc* **72**, 25–36
Mahler, L 2003	*Wills of Gloucestershire* http://www.genuki.org.uk/big/eng/GLS/ProbateRecords/WillsH.html (04/08/04)
Marchesi, H, Thiriot, J and Vallauri, L 1997	*Marseille, Les ateliers de potiers du XIIIe s. et le quartier Sainte* Barbe (ve-xviie s.). Paris: Éditions de la Maison des Sciences de l'Homme

Marks, R 1991 — Window Glass. In: Blair, J & Ramsey, N eds. *English Medieval Industries.* London/New York: Hambledon Press

Mason, D J P 1987 — Chester: the *Canabae Legionis. Britannia* **18**, 143–68

Mason, D J P 2001 — *Roman Chester, City of the Eagles.* Stroud: Tempus

Mason, D J P 2002 — The Town and Port of Roman Chester. In: P Carrington, ed, *Deva Victrix: Roman Chester Reassessed*, Chester: Chester Archaeological Society, 53–73

Mason, D J P 2003 — The Heronbridge Archaeological Research Project. An Interim Report on the 2002 and 2003 Seasons of the Society's New fieldwork Initiative. *J Chester Archaeological Soc* **78** 49–106

Mason, D J P 2006 — Heronbridge. AD616: the Battle of Chester. Current Archaeology **202** 516—524

Mason, D J P 2007 — *Chester AD 400–1066, From Roman Fortress to English Town* Stroud: Tempus

Matthews, K J 1999 — Rural Settlement in Roman Cheshire: a Theoretical View. In M Nevell, ed, *Living on the Edge of Empire: Models, Methodology, and Marginality. Late Prehistoric and Romano-British Rural Settlement in North-West England*, 27–34

Matthews, K J 2000–2001 — The Iron Age of North-West England. A Socio-Economic Model. *J Chester Archaeol Soc* **76**, 1–51

Matthews, S 2000–2001 — St John's Church and the Early History of Chester. *J Chester Archaeol Soc* **76**, 63–80

McMahon M 2002 — Early Medieval Settlement and Burial outside the Enclosed Town: Evidence from Archaeological Excavations at Bride Street, Dublin. *Proceedings of the Royal Irish Academy* **102C**, 67–135

Moran, M 2003 — San Vincenzo in the Making: the Discovery of an Early Medieval Production Site on the East Bank of the Volturno. In: Pestell, T & Ulmschneider, K eds. *Markets in Early Medieval Europe. Trading and 'Productive' Sites, 650–850.* Macclesfield: Windgather Press Ltd

Museum of London — http://www.museumoflondon.org.uk/ceramics/pages/ (accessed 06/02/05)

Newstead, R 1928 — Records of archaeological finds at Chester. *J Chester Archaeol Soc* **27** (2), 59–162

Newstead, R 1935 — Roman Chester: The Extra-Mural Settlement at Saltney. *University of Liverpool, Annals of Archaeology and Anthropology* **22**, 3–18

Newstead, R 1948 — Records of archaeological finds vi. *J Chester Archaeol Soc* **36** (2), 49–172

Ormerod, G 1882 — *The History of the County Palatine and City of Chester* (revised and enlarged edition by T Helsby)

Peacock, D P S & Williams, D F 1986 — *Amphorae and the Roman Economy: an Introduction.* London: Longmans

Petch, D F 1987 — The Roman period. In *A History of the County of Chester: Volume 1.* Harris, B F & Thacker, A T eds. London: Institute of Historical Research and the Victoria History of the Counties of England, 115–236

Portable Antiquities Scheme	http://www.findsdatabase.org.uk/hms/pas (accessed 06/02/05)
PRO	Public Record Office
Reynolds, S 1984	*Kingdoms and Communities in Western Europe, 900–1300.* Oxford: Oxford University Press
RSLC	Record Society of Lancashire and Cheshire
R.S.L.C.	*Wills in Probate Registry, Chester 1761–1780*, vol. 37, 1898
Rymer, T 1727	Foedera. London
Sheaf	*The Cheshire Sheaf, 1902–1950.* Chester Courant
Spufford, P 2002	*Power and Profit. The Merchant in Medieval Europe.* London: Thames and Hudson
St. Clair, A 1996	Evidence of Late Antique Bone and Ivory Carving on the Northeast Slope of the Palatine: The Palatine East Excavations. *Dumbarton Oaks Papers 50*, 369–74
Stewart-Brown, R ed. 1910	*Accounts of the Chamberlains and other Officers of the County of Chester, 1301–1360* (Record Society of Lancashire and Cheshire, **59**)
Thacker, A T 2003a	Early Medieval Chester, 400–1230. In: Lewis and Thacker, eds.2003, 16–33
Thacker, A T 2003b	Later Medieval Chester, 1230–1550. In: Lewis and Thacker eds. 2003, 34–89
Thacker, A T 2005	Mills and Fisheries. In: Lewis and Thacker eds. 2005, 104–14
Thomas, C 1959	Imported Pottery in Dark Age Western Britain. *Medieval Archaeology,* **3**, 89–111
Tomber, R and Dore, J 1998	*The National Roman Fabric Reference Collection, A Handbook.* London: Museum of London Archaeology Service
Tyers, P 1996	*Roman Pottery in Britain.* London: Batsford
Tyler, K and Stephenson, R 2000	*The Limehouse porcelain manufactory. Excavations at 108–116 Narrow Street, London, 1990.* London: Museum of London Archaeology Service (MoLAS Monograph **6**)
Van Alfen, P 1996	New Light on the 7th-*c.* Yassi Ada shipwreck: capacities and standard sizes of LRA1 amphoras. *JRA 9*, 189–213
Wallace, C and Webster, P 1989	Jugs and lids in Black-Burnished Ware. *Journal of Roman Pottery Studies* 2, 88–91
Ward, S et al 1994	*Excavations at Chester, Saxon Occupation within the Roman Fortress. Sites excavated 1971–1981* (Archaeological Service Excavation and Survey Reports no **7**) Chester: Chester City Council
Ward, S 1996	The course of the River Dee at Chester. In P. Carrington, ed, *'Where Deva Spreads her Wizard Stream', Trade and the Port of Chester.* Papers from a Seminar held at Chester, November 1995. Chester: Chester City Council, 4–11.
Watkin, T W 1886	*Roman Cheshire: Or a Description of Roman Remains in the County of Chester.* Liverpool: privately printed

Webb, W 1882 — *Description of Chester*, King's Vale Royal, in: *History of Cheshire, I. The County and the City of Chester, The History of the County Palatine of Chester,* George Ormerod, revised and enlarged edition by T. Helsby, 1882

Webster, L 2001 — Metalwork of the Mercian Supremacy, in: M P Brown and C A Farr, eds. *Mercia. An Anglo-Saxon Kingdom in Europe.* London and New York: Leicester University Press, 263–77

Wilding, R 1997 — *Miller of Dee.* Trowbridge: Redwood Books

Williams, W J 1922 — The cult of Mithra in Deva. *J Chester Archaeol Soc* **24** (2), 114

Williams, W J 1929 — Roman burials on Eaton Road. *J Chester Archaeol Soc* **28** (2), 216–7

[1] The authors are most grateful to the late Mr Alan McKechnie for allowing us to see the seal matrix and the letter in 1999. It is reproduced in the note following this paper.

[2] Bede does not give a precise date for the battle (*The Ecclesiastical History of the English People*, ii, 2, tr. B. Colgrave, with corrections, Oxford World's Classics, 1994). He merely states that the battle took place 'later on', meaning after Augustine's second synod with the British, allegedly in 601. The *Annales Cambriae* give 613 for the battle; other annalistic sources prefer 614 or 616. 'The relationship between these two events is entirely apocryphal' (Higham 1993, 87). Thacker prefers 616 (2003, 16).

[3] The skeletal material was first examined by Mr Ian Smith, osteologist at the Grosvenor Museum, Chester, who confirmed, on the basis of close visual examination, that the bones were pre-modern. They are currently undergoing detailed analysis by Dr Jessica Pearson, Lecturer in Bio-archaeology at the School of Archaeology, Classics, and Egyptology, University of Liverpool.

[4] Casey and Davies 1993, 284 with discussion; see nos 546 (fourth century = Gillam 1976, no 49); and esp. no 588 (early to mid fourth century).

[5] The fabric resembles Hayes' description: 'Thick, granular ware, with thick, smooth, semi-lustrous slip covering the inside and rim. Exterior self-slipped or plain and rough, with brush marks visible.' (Hayes 1972, 157).

[6] The map reference provided by Frere et al. 1987, at 321 re: Handbridge, SJ4079 0526, is a misprint, as is clear from later co-ordinates for locations in and around the city of Chester. A service trench showed cobbles set in a sandy clay, over irregular sandstone blocks, identified as the metalled surface of the Whitchurch-Chester stretch of the road.

[7] In the possession of Mrs Gerrye McKechnie. The authors are grateful to Mr Alan McKechnie, for allowing us to see the coin in 1999 (reproduced in the note following this paper).