



# **The Archaeology of Forty Hall and its Estate**

Martin J. Dearne



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by

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Cover Illustration: The North and East Fronts of Forty Hall (photo the author)

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# Introduction

Forty Hall<sup>1</sup> is a Grade I listed building representing a small Carolean manor house originally constructed by Sir Nicholas Rainton, a London haberdashery merchant who was Lord Mayor in 1632, as his country residence (e.g. Peats 2008, 33; Cherry and Pevsner 1998, 442). It is situated in the north of the London Borough of Enfield (TQ 3365 9854) and forms the focus of the Forty Hall estate which includes further farm buildings, ornamental grounds around the house itself (featuring a lake and viewing mound) and a wider area of designed parkland and water features, much of which is a Scheduled Ancient Monument as it comprises the site and grounds of the mainly earlier Elyng royal palace. The natural geology of the site of the hall and its immediate environs is (above Taplow Gravel) brickearth of the Enfield Silt Deposit overlain by Boyne Hill Gravel and this area represents the top of a low hill rising above the (brickearth over Taplow Gravel) land running down to the valley of Maidens Brook to the north.<sup>2</sup> The hall and its core service buildings established by Rainton and his eponymous successor were subsequently altered by a succession of owners who also added or developed Grade I and II listed ancillary buildings and the Grade II (Department of the Environment) listed park and gardens and the site is currently in the ownership of the London Borough of Enfield, with areas managed by Capel Manor College, and forms a publicly accessible park with the house significantly restored in 2009 - 11 with Heritage Lottery Fund support to form a heritage attraction. Parts of the attached buildings complex also now comprise a banqueting suite and a working farm while elements of the wider estate were also restored and augmented in 2013 - 15 again with Heritage Lottery Fund support.

Forty Hall though was never amongst the grand stately homes of England and its owners were never part of the aristocracy. It was from the start and throughout the ‘modest’ country house of members of the successful mercantile class, the locally significant gentry who, until well into the twentieth century, lived comfortable lives facilitated by reasonable but not huge numbers of servants and often funded by the profits of trade and other commercial enterprises, augmented by some farming of part of the attached estate. As fortunes waxed and waned it passed through the hands of several of these families by inheritance or purchase, as did many similarly sized houses and estates throughout the country including in Enfield. Its location within striking distance of London before the metropolis expanded to engulf it may have contributed to its desirability, but similar houses (if not all established as early as Forty Hall) and smallish estates existed widely and perhaps one of the notable aspects of it is more that it has survived, and with a reasonable amount of its grounds still attached, than that it was of particular note amongst all these other gentry houses.

Yet, though the hall itself is of some architectural interest, it is precisely because it was not that exceptional, except to some degree in the fact that the estate has survived intact, that makes its study worthwhile. The small gentry estate was for centuries a significant element of the social and spatial organisation of life outside of significant urban areas, not just for their owners, but for all those who worked on the estates, provided them with goods and services, rented land from them or experienced the society that on a local level was controlled by gentry and church. Where such houses and estates went often local communities (eventually and if they could) followed, in technological change, in recreational pursuits, in social customs and material culture. The detailed excavation, described below, of the hall’s original Kitchen Courtyard and areas around it, for instance, shows how technological change – in this case in the seemingly mundane matter of sanitation and water supply - drove life

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<sup>1</sup> Named from Forty Hill, in existence ante 1572 and presumably connected to Richard atte Forteye (not Fortye as Broadway Malyan 1997, 21) who held estates in the area in the fourteenth century (VCH, 212ff), though Broadway Malyan (op cit) are in error that Rainton purchased the estate from a Hugh Fortey rather than Sir Robert Cecil (Dearne *et al* 2022, 112; Gillam 1997, 9). The OS (e.g. 1822 edition) formerly gave ‘Four Tree Hall’ and e.g. a map of c. 1780 in the Enfield Local History Library marks similarly ‘Four Tree Hill’, likely reflecting a local or cartographer’s misunderstanding of the name.

<sup>2</sup> FXA10 D1 in fact gave good exposures of the natural drift geology to the east of the hall where there was evidence for paleoglacial mixing of the underlying Taplow Gravel and the brickearth at the time of the deposition of the latter. The brickearth was typically over 90 cm thick, but roughly north north east to south south west running paleochannels under 1.0 m wide were present in its surface and filled with the overlying Boyne Hill Gravel.

experience for both the hall's owners and servants. From the evidence for laboriously emptying chamber pots into an open drain and washing them out using a nearby water barrel in the seventeenth century through the gradual eighteenth century development of drains serving buildings and late eighteenth century provision of a privy block to the nineteenth century laying of piped sewerage and advent of piped water supplies. Similarly, across the wider estate as well as in the immediate environs of the hall changing fashions in how landscapes were manipulated and used recreationally at this local gentry level of society are revealed. Starting with the formality of a walled forecourt to the main house in Stuart times, the eighteenth century saw the creation and recreation of more open and naturalistic landscapes that could be viewed from raised terraces around the hall itself and that also emphasised the control and harnessing of water with lakes and river cascades. These became focal points enjoyed by taking walks along formal routeways that linked up summerhouses in the grounds, some of the latter of which remained in use into the twentieth century; though elsewhere water features were infilled during and after the Victorian period and new features such as a possible bog garden and tennis courts were established.

That the hall and estate have been able to be studied in the detail that they have is also down to the degree to which its value as a heritage asset has been recognised by both the local community and the borough; and to the continuity provided by one organisation having undertaken the majority of the archaeological work that has been done here. Thus, archaeological excavation and monitoring across the entire estate since the 1960s has been extremely extensive and mainly undertaken by the Enfield Archaeological Society, be it as research initiatives supported by, or acting as consultants or contractors to, the borough. Though until the 1990s the focus was solely on the site of the former Elsyng Palace (for which see Dearne *et al* 2022), since then, and initially led by its chairman, the late Geoffrey Gillam (with others including its former Director of Excavations and Research, Les Whitmore), increasing attention has been paid by the EAS to the whole estate and led to a series of excavations and the publication of the first modern study of it (Gillam 1997).<sup>3</sup> A further conservation management study commissioned by the borough (Broadway Malyan 1999) built on and expanded the understanding of the estate and from 2003 the EAS under the direction of the present author, in tandem with renewed excavations on the Elsyng Palace site, began to regularly undertake monitoring of any ground disturbing works on behalf of it, as well as selective small research excavations.

Working closely with Gavin Williams and later Hatice Abdullah, the successive managers of the hall, and other borough officers including Jan Metcalf, Val Munday and Sarah Kirkham from the Enfield Museum Service, this early twenty first century monitoring and excavation showed the potential for archaeology to compliment the work of the Paul Drury Partnership (now the Drury McPherson Partnership) who the borough engaged to produce a further conservation management plan (henceforward referred to as CMP) for the estate. As well as generating academic studies of the architectural significance of the hall (Harwood (2007) and Peats (2008)) the CMP informed two successful Heritage Lottery Fund applications and the EAS undertook, from 2009 to 2011, a large programme of excavation and monitoring within and around the hall in connection with the first of these, which generated much of the archaeological information contained in the earlier parts of this publication.

At times working alongside Northamptonshire Archaeology<sup>4</sup> the EAS then, from 2013, undertook two more programmes of monitoring in connection with another Heritage Lottery Funded project which focused on the rejuvenation both of more peripheral areas of the hall complex and of its grounds and the installation of a cycle track through the estate. As well as adding to what was known of the subsidiary courtyards attached to the hall and contributing to the understanding of how its immediate environs had developed, these expanded the scope of archaeological investigations to the north as far as Maidens Brook, complimenting EAS research initiatives led by Neil Pinchbeck (and ongoing monitoring of smaller ground disturbing projects) to provide a wider understanding of how significant a part water management had played in the development of the grounds of the hall.

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<sup>3</sup> There have also been individual standing buildings studies of elements of the main complex by other specialists which are noted below.

<sup>4</sup> By 2014 MoLA Northampton.

Since the mid 2010s the EAS has continued to monitor a range of works both to the environs of the hall and across its grounds – from CCTV installation trenches to pond creation and desilting – further adding to the amount of evidence available for the development of many aspects of the estate as a whole. Whilst those, very major, elements of the EAS’s work on the estate which relate to the former royal palace of Elsyng (up to 2019) have recently been published (Dearne *et al* 2022), each individual project relating to other aspects of the archaeology of the hall and estate has previously been reported only through the medium of a multiplicity of unpublished archive reports and briefer notes in the EAS’s bulletin; and some earlier work only through such notes, short mentions in works such as Gillam’s (1997) first study of the hall or is even only represented by material in the EAS’s archives.<sup>5</sup> It therefore appears an opportune moment to try to draw together the entirety of the archaeological information available for all parts of the hall and estate into one synthetic study.

Inevitably though, especially as so much of the work has been driven by the requirements of development works, what aspects of the site it addresses are unevenly distributed and many aspects have not been studied through archaeology but standing buildings work so, in order to contextualise the archaeological work at least to a degree, the account draws on the investigations of the fabric of the standing buildings and estate by Paul Drury, Richard Peats and others, published in Peats (2008), contained in successive iterations of the unpublished conservation management plan (CMP) or in specific reports by other investigators.

The author is very grateful to Neil Pinchbeck, who was responsible for the on the ground recording of a great deal of the EAS work drawn on here and was the principal investigator and or originator of many of the projects, for his contributions over many years to the study of both the environs of Forty Hall and its wider estate. Though redrawn, many of the plans below rely heavily on his work, most of the reports on individual projects that lay behind descriptions of their findings were to some degree collaborations between him and the author and some were almost solely his work. The author is also grateful to John Pinchbeck who again played a significant role in many of these projects as well as advancing the study of the Forty Hall estate significantly with his own extensive LiDAR and aerial photographic study (Pinchbeck 2013) which is drawn on at some points below and who has undertaken digital reconstructions of the hall’s appearance. Many other members of the EAS have also contributed to the work over many years and the author is grateful to all of them including Les Whitmore, Roger Dormer, Jon Tanner and Ian K. Jones, who also assisted in the preparation of this work by locating, and making available his own, archive materials.

The cooperation and assistance of borough officers and their contractors, too many to name individually, in commissioning and facilitating the work reported here is gratefully acknowledged, as is the willing cooperation of the staff of Northamptonshire Archaeology (and Pre-Construct Archaeology) who the EAS has worked alongside at times, while the work undertaken within the area of the Scheduled Ancient Monument would not have been possible without the support of Jane Sidell, the Chief Inspector of Ancient Monuments for London and other staff of English Heritage/Historic England.

The author has also benefited over many years from much fruitful discussion about aspects of the site with Paul Drury and is grateful to Laura Godfrey for assistance with the historical research into the owners of the hall. For their contributions to EAS archive finds reports drawn on occasionally in the text and especially in Appendix 1 the author is grateful to Neil Pinchbeck, Ian K. Jones, Ian M. Betts, Jacqueline Pearce and Beth Richardson.

Where not otherwise stated photographs are by the author, Neil Pinchbeck or John Pinchbeck and are © Enfield Archaeological Society.

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<sup>5</sup> Though full archives for all 2003 and later work by the EAS are held by the London Borough of Enfield Museum Service. The archives for earlier work by the EAS are also held by them with some additional material held by the Enfield Local Studies Library and Archive.

## Historical summary

As detailed below archaeology demonstrates that there was already a structure on the site before the standing Forty Hall was built, but it was Sir Nicholas Rainton (Pl. 1) who, in 1629 – 32, constructed the core residential part of the hall and a little later (probably in/by 1636) added further buildings, creating a Service Courtyard and perhaps Farm Courtyard to the west, as well as establishing a forecourt to the north. Rainton (b. 1569) was a puritan haberdasher, the third son of a family based at Washingborough in Lincolnshire who evidently moved to London and made his money importing expensive fabrics such as satin, taffeta and velvet from Italian cities including Florence and Genoa. With premises in Lombard Street, and then from April 1634 in Cornhill, in London,<sup>6</sup> he became a leading figure in the Haberdashers' Company which led to his being made Alderman for the Aldgate ward of the City of London in 1621, Sheriff in 1621 – 2 and Lord Mayor in 1632; he was knighted in 1633 and from 1634 was president of St. Bartholomew's Hospital.<sup>7</sup>



Pl. 1: Sir Nicholas Rainton, oil on canvas, ?circle of William Dobson, c. 1643 (© Museum of Enfield); a similar portrait is in St. Bartholemew's Hospital

Already though by the early seventeenth century he was evidently prosperous enough to invest in land with an eye to building himself a country residence and acquired the site on which the main complex of Forty Hall stands. It had been part of the Manor of Worcesters,<sup>8</sup> itself an integral part of the grounds of the royal palace of Elsyng (or Enfield House), until it was sold by the crown to Robert Cecil, Earl of Salisbury in 1602 and then by the Cecils to Rainton in 1616.<sup>9</sup> Following this purchase, Rainton had probably lived at least part of the time somewhere in the locality for several years before construction began as he had been renting a pew in St. Andrew's Church in Enfield Town since at least 1620.<sup>10</sup> Whilst he could have occupied the structure now known to have preceded the hall (p 20) and Peats

<sup>6</sup> Welch 1885/90.

<sup>7</sup> Taylor 1875, 696; Gillam 1997, 9f; Welch 1885/90.

<sup>8</sup> For its earlier history see Dearne *et al* 2022, 7ff.

<sup>9</sup> Op cit, 112.

<sup>10</sup> Gillam 1997, 9, citing Enfield Local Studies Library Document 1105.

(2008, 40) and Colvin (1982, 89) noted that manorial surveys dated 1635 and 1656/7 refer to Forty Hall as a ‘rebuilding’ of an earlier house, other reasonably sizeable houses in the vicinity such as ‘The Dower House’ may have been in existence at the time and obviously he could not have occupied the predecessor structure during the building of the residential part of the hall, the full completion of which seems to have taken at least three years.<sup>11</sup>

A decade after he had built the hall Sir Nicholas retired from his business in London at the outbreak of the English Civil War in 1642, turning down an offer of a place on the Committee of Safety and citing ‘many other employments’. He was 73 and, though, with other aldermen, he had been released after public protests, he had already briefly been imprisoned in the Marshalsea and then the Tower of London in 1640 for not lending Charles I money or detailing his associates’ wealths to the crown.<sup>12</sup> But whether his retirement was entirely due to the war or whether more personal factors may have been at play might be wondered as a number of his close family had recently died. His wife Rebecca (née Moulson, m. 1602; d. 1640) who was the sister of another Lord Mayor of London, their son (Nicholas, d. 1641), daughter-in-law (Rebecca, d. 1642) and their six children (Nicholas, Thomas, Thomas (sic), Rebecca, Anne and Elizabeth) all predeceased him and are commemorated on the same memorial as him in St. Andrew’s Church (Pl. 2).<sup>13</sup> Then again Sir Nicholas’s nephew (again Nicholas Rainton, d. 1641) who had married Rebecca (née Moulson, d. 1642, niece of Sir Nicholas Rainton’s wife) might well have been living at Forty Hall as well since both were apparently buried at Enfield,<sup>14</sup> but again predeceased him. On Sir Nicholas Rainton’s own death in 1646 aged 78 the hall therefore passed to what would appear by then to have been one of his few living close relatives, this nephew Nicholas Rainton’s young son (Sir Nicholas’s great nephew), yet again called Nicholas Rainton.



Pl. 2: The Rainton Memorial in St. Andrew’s Church, Enfield

<sup>11</sup> Gillam 1997, 9f. Rainton acquired the reversion of ‘Enfield Palace’ in the centre of Enfield Town in 1631 (Lysons 1795, 285 and fn. 26 and 29) and who was living there from 1623 is uncertain (Dearne *et al* 2022, 313), but there is no evidence that Rainton was. Statements that the hall was designed by Inigo Jones (e.g. in a 1787 sale catalogue (LMA ACC/0801/44) and Robinson 1823, i, 239) have no good foundation.

<sup>12</sup> Gillam 1997, 10; Welch 1885/90; Pearl 1961, 304f.

<sup>13</sup> e.g. Robinson 1823, i, 139 and ii, 34; Gillam, *op cit*.

<sup>14</sup> Taylor 1875, 696.

This younger Nicholas Rainton has been considered to have been born c. 1638,<sup>15</sup> but if he was the eldest of three sons (even ignoring his three sisters) born to a father who married in October 1632 and died in 1641<sup>16</sup> and was old enough to be expanding and so presumably fully in control of the Forty Hall estate by 1656 he was probably born nearer to 1633 – 35. He held Forty Hall for fifty years, eventually marrying a wife, Mary (née Harvey) from a London mercantile family and having one child, also Mary (b. 1659/60).<sup>17</sup> However, whatever his exact date of birth, he was still a child when he inherited so who was raising him (and his five siblings) is not clear. His aunt, Anne (his father's twin, d. 1672) and her husband, George Clarke of Hackney (d. 1668) were still living, as were another paternal aunt, Judith (d. 1668) and her fourth husband, Richard Chambers (d. 1658) who evidently lived in London,<sup>18</sup> but another possibility is that he might have been raised by some member of his mother and great aunt's family, the Moulsons, whose arms are fairly prominent on Sir Nicholas' memorial.

In any event, educated at Trinity College Cambridge, he seems to have had sympathies at least with Protestant dissenters, though as an MP from 1681 – 85 he was not particularly active, even if he was suspected, but cleared after a search of the hall, of involvement in the Rye House plot against Charles II in 1683 and he failed to be re-elected in 1685 or 1690.<sup>19</sup> Nevertheless he was clearly of local influence, serving for much of his adult life in the sort of judicial and militia roles then habitually occupied by the owners of significant estates.<sup>20</sup> He appears to have made some changes to Forty Hall, especially perhaps to the Service Courtyard, but most notably extended the estate.<sup>21</sup> Like his great uncle he was aggressive in enclosing local common land<sup>22</sup> and by 1656 he also owned the decaying Elsyng Palace (which was demolished shortly afterwards) with its grounds to the north of the hall, though the use to which the palace site was initially put is not entirely clear.<sup>23</sup> His daughter Mary married the minor Whig politician Sir John Wolstenholme Bt. of Minchington Hall, Southgate in 1675 and had two sons, (later Sir) Nicholas Wolstenholme and (later Sir) William Wolstenholme (b. 1689; d. 1724) and two daughters, Mary and Katherine.<sup>24</sup>

The hall passed on the second Nicholas Rainton's death in November 1696 to this daughter Mary (d. 1691) and her husband, and two years later, after his marriage to Grace Waldoe, was settled on their eldest son Nicholas who failed in attempts to follow his father into parliament, but appears to have embarked on an extensive scheme of renovation and extension of the hall, beginning perhaps in 1700 and not complete until c. 1708.<sup>25</sup> The work published here has shown that a westerly extension to the hall's north facade, previously thought to have been added in 1636, was actually added at this time along with a similar extension on the south and numbers of other changes to the environs of the hall are also suggested to have been his work. The layout of the grounds was probably now (or possibly under the younger Nicholas Rainton) also modified to feature a circular (but later remodelled) lake north of the hall from which a partly surviving double Lime tree avenue ran down to and beyond the former site of the palace.<sup>26</sup>

However, Sir John Wolstenholme had fought a decades long court battle over debts owed to his family that was not decided (if in his favour) until a week before his death in 1709 and, presumably at least partly as a consequence, Sir Nicholas Wolstenholme was clearly in financial difficulties by 1707 and Forty Hall was placed in the hands of trustees until his death in 1716, he having actually been incarcerated in the Fleet prison by his creditors in 1712.<sup>27</sup>

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<sup>15</sup> Cruickshanks 1983.

<sup>16</sup> Taylor 1875, 696.

<sup>17</sup> Taylor 1875, 696; Riley and Dethick 1820, 12; Cruickshanks 1983.

<sup>18</sup> Taylor 1875, 696 and 693.

<sup>19</sup> Gillam 1997, 10; Cruickshanks 1983.

<sup>20</sup> JP for Middlesex 1660 – 82 and 1689 - 96 and for Hertfordshire 1690 - ?96; commander of Middlesex militia 1660, for assessment 1665 – 80 and 1689 - 90 and for oyer and terminer in Middlesex in 1662 (Cruickshanks 1983).

<sup>21</sup> Peats 2008, 40; CMP 3.8 and 3.7.2.

<sup>22</sup> Pam 1990, 146 – 8.

<sup>23</sup> Dearne *et al* 2022, 203ff; p 122 below.

<sup>24</sup> e.g. LMA ACC/1057/045.

<sup>25</sup> CMP 4.2.1.

<sup>26</sup> CMP 4.3.1.

<sup>27</sup> Gillam 1997, 10; Gauci 2002.

The remarriage of his widow Grace (Pl. 3) in 1717 or 1718 to the Anglo-Dutch William Carey, Lord (8<sup>th</sup> Baron) Hunsdon (d. 1765), may have seen him make further changes to the estate surrounding the hall.<sup>28</sup>



Pl. 3: Grace Carey (néé Wolstenholme néé Waldoe)  
(Michael Dahl, oil on canvas, c. 1717, private collection)

However, on Grace's death in 1729 Hunsdon returned to Holland, only having been tenant for his wife's life and they having no children. The hall and estate then reverted to Elizabeth (b. 1720) and Mary, the young daughters of Sir William Wolstenholme (d. 1723/4) and so nieces of Sir Nicholas Wolstenholme.

As children whether they were living at Forty Hall may be doubted and presumably they were being raised by some member of the wider Wolstenholme family. Indeed, in March 1739 Elizabeth's interest at least in the estate was rented for a year to Michael Harvey of Coombe Neville, Surrey (and Thomas Foley of Stoke Court, Hereford).<sup>29</sup> Harvey was a minor Tory politician whose mother was Rebecca Wolstenholme (daughter of Sir John Wolstenholme), but he was also a relative of Mary Breton (néé Harvey), the mother of Elizabeth's future husband Eliab Breton,<sup>30</sup> and it is notable that Elizabeth's first son would be christened Michael Harvey Breton. In any event one suspects that, as was common, Elizabeth at least was raised as much as anything as a conduit for the transfer of property between interconnected families. When Elizabeth did marry Eliab Breton in 1740 then she settled her share of the estate on him,<sup>31</sup> though her unmarried sister Mary still held her half share of it and evidently lived with the couple and their six children (four – Mary, Michael, William and Eliab - surviving to adulthood) until her death in 1763.<sup>32</sup>

Breton (b. 1710) was the eldest surviving son of an established landed family from Norton in Northamptonshire whose father had died when he was six years old, so he already held significant estates.<sup>33</sup> Forty Hall was therefore not his only residence and clearly at times he and Elizabeth were at

<sup>28</sup> Gillam 1997, 10f citing Bodleian MS Gough Middlesex 10 (Gough's notes for a proposed history of Enfield).

<sup>29</sup> LMA ACC/1057/047.

<sup>30</sup> Sedgewick 1970; Baker 1822/30, i, 417.

<sup>31</sup> LMA ACC/0801/0037-0038.

<sup>32</sup> *The Gentleman's Magazine* 55 (1785) pt. 2, 1010f; Gillam 1997, 11; Baker 1822/30, i, 417. Gillam 1997, 11 notes three other children who died in infancy, presumably relying on Bodleian MS Gough Middlesex 10.

<sup>33</sup> Baker 1822/30, i, 417.



Norton.<sup>34</sup> However, he may have been responsible for some remodelling of the hall itself and for major remodelling of the estate, quite likely including the installation of cascades on Maidens Brook, and the redesign of the lake and area fronting the hall.<sup>35</sup> Breton presumably also had business interests and one house guest from Holland he entertained at Forty Hall in 1759 was Joan Loten, Governor of the East India Company, who was particularly taken with the Breton's daughter Mary (b. 1742) who he noted was educated in maths astronomy and experimental science.<sup>36</sup> Since her husband, John Hope, who she married in 1762, was a merchant working in Amsterdam<sup>37</sup> one then wonders whether Breton was in some way involved in international trade. However, his wealth was presumably mainly in his land holdings and he tried to sell the hall and estate in 1773, though exactly why is unclear. Gillam speculated that he might have wanted to move back permanently to the family seat at Norton and a letter of 1770 indicates that he was under doctor's orders to take a sea bathing cure at Margate or Bright Helmston (aka Brighton) which might be a hint that he was not in the best of health.<sup>38</sup> In any event he seems to have set his reserve price for most of the lots the sale was divided into too high so few sold and it appears that the aborted sale actually cost him a considerable sum (£1,200) in surveyor's fees,<sup>39</sup> but the estate sale map (Pl. 4) and survey so produced is the earliest detailed record of the hall and estate.



Pl. 4: Extract from the 1773 Sale Map (North at Top) (© Enfield Local Studies Library and Archive)

Breton's death in 1785 at the age of 76 left his widow Elizabeth in sole possession of Forty Hall with his surviving sons (his daughter Mary had died in 1767)<sup>40</sup> and grandchildren apparently comfortably provided for in his will<sup>41</sup> which suggests that he was still a rich man. She presumably continued living there, perhaps with at least her eldest son Michael (who had a wife, Agnes, and two children<sup>42</sup>). But clearly within two years something significant had happened to the family finances because in May

<sup>34</sup> Gillam 1997, 11.

<sup>35</sup> CMP 5.2 and CMP 5.4.1.

<sup>36</sup> Raat 2010, 188.

<sup>37</sup> Op cit, fn. 73.

<sup>38</sup> Gillam 1997, 11; letter to Lee Thornton of Brockhall, Northamptonshire Archives, Th 2726.

<sup>39</sup> Gillam 1997, 11 citing a letter amongst Bodleian MS Gough Middlesex 10 (notes for a proposed history of Enfield).

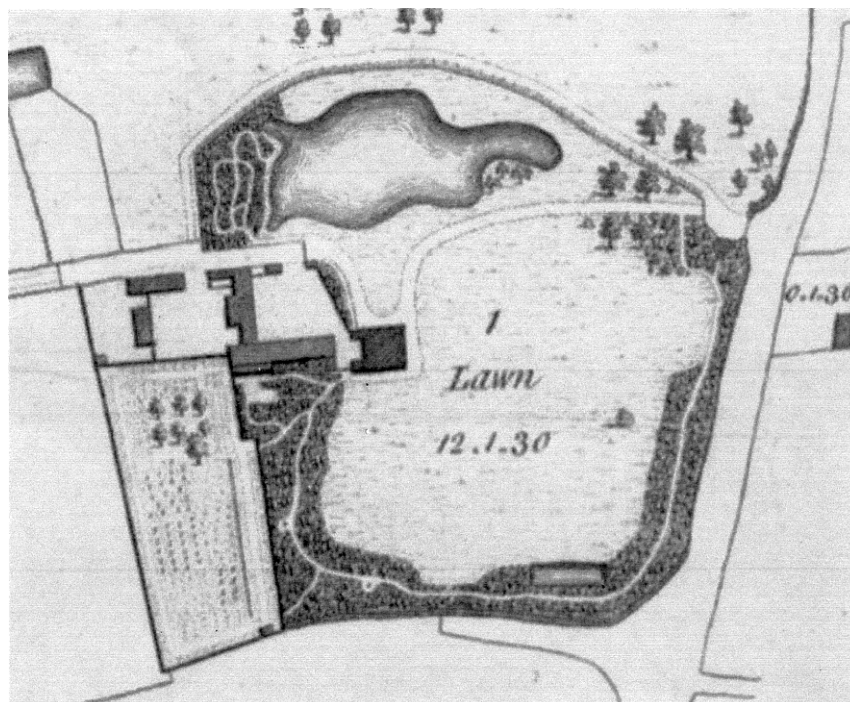
<sup>40</sup> *The Gentleman's Magazine* 55 (1785) pt. 2, 1011. She had three sons, Charles, John and William Hope (National Archives PROB11/1137/149).

<sup>41</sup> National Archives PROB11/1137/149; summarised by Gillam 1997, 11.

<sup>42</sup> Baker 1822/30, i, 417.

1787 they were forced, this time successfully, to put the estate up for sale, which led to the creation of a second sale map and survey of the estate (Pl. 5).

Elizabeth's obituary when she died at a house in Pall Mall in 1790 praised her resilience to the 'vicissitudes of fortune' and attributed the loss of 'a noble paternal fortune' to the 'misconduct' of her children.<sup>43</sup> Whether perhaps they had been engaged in land speculation or had gambling debts as Gillam wondered, evidently the financial problems were ongoing as in 1794 the Breton's Norton estate was also put into trust and eventually sold in 1800 after Michael's death at Epping Green in 1798.<sup>44</sup>



Pl. 5: Extract from the 1787 Sale Map (North at Top) (© Enfield Local Studies Library and Archive)

The purchaser of Forty Hall and core of the estate (though much of the rest of it was broken up) for £8,800 (of the overall sale proceeds of more than £50,000)<sup>45</sup> was Edmund Armstrong (b. 1735), the fourth son of Andrew Armstrong of Garry Castle, County Offaly in Ireland, though he was then living at Percy Street, Rathbone Place in London and would continue to maintain that house as well until his death.<sup>46</sup> The source of his wealth at the time of the purchase is not entirely clear, but, though not apparently in the army himself, his Anglo-Irish family was an often military and potentially well connected one and his known positions may suggest someone with social ambitions who was familiar with the profitable business of eighteenth century military and civil administration. Thus, Gillam's research established that he had been responsible for a specific customs tax on exports from Barbados since 1777, been made Gentleman Usher Quarterly Waiter in the Lord Chamberlain's department of the royal household in 1779 and (along later, in 1794, with his eldest son) made a fellow of the (socially prestigious) Society of Antiquaries in 1789. Subsequently he probably derived a significant income in commission from being army agent to five regiments of foot from 1794 during the early stages of the French Revolutionary Wars and the same year was promoted in the royal household to Groom of the Privy Chamber to George III.<sup>47</sup>

<sup>43</sup> *The Gentleman's Magazine* 60 (1790) pt. 1, 90.

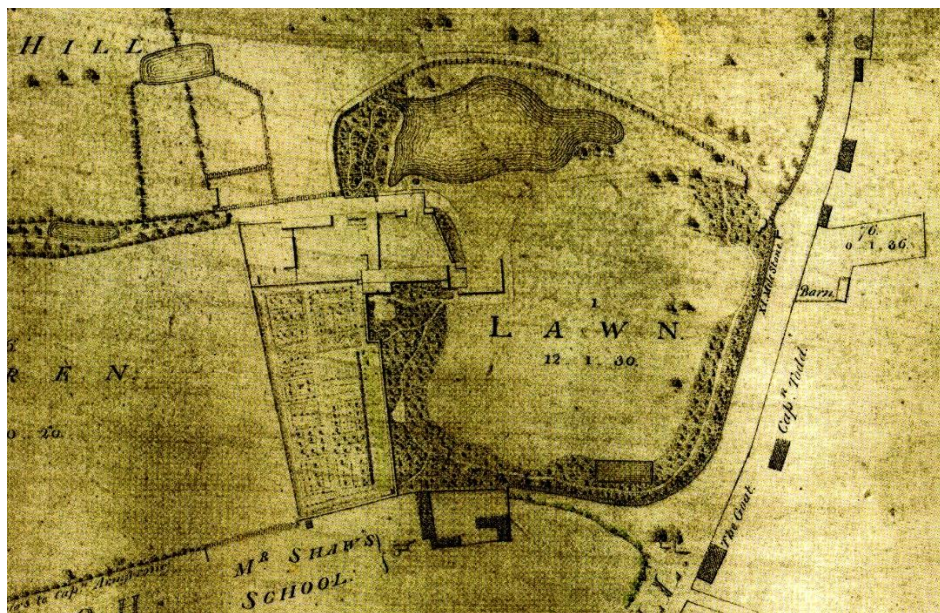
<sup>44</sup> Gillam 1997, 11; *The Gentleman's Magazine* 68 (1798) pt. 1, 544; Baker 1822/30, i, 417.

<sup>45</sup> Robinson 1823 i, 235.

<sup>46</sup> Kingsley 2015; Burke 1838, 349; *The Gentleman's Magazine* 67 (1797) pt. 2, 901.

<sup>47</sup> Gillam 1997, 12f; Burke 1838, 349; *The Gentleman's Magazine* 67 (1797) pt. 2, 901.

Presumably his (second) wife (Francis (Fanny)) and his children (William Archibald (b. 1770), George Andrew (b. 1771) and Harriet Anne)<sup>48</sup> also lived at the hall and, even if he was probably in London part of the time, he played some part in the life of the community, being co-opted onto a local committee for the defence of the constitution in 1794.<sup>49</sup> Robinson asserted that he had spent £4,000 on ‘repairs and alterations’ to the hall<sup>50</sup> and he did probably make numbers of changes to it and its environs, though they seem mostly have been subsequent to his producing a third extant plan of the estate in 1788 (Pl. 6).<sup>51</sup>



Pl. 6: Extract from the 1788 Map (North at Top) (© Enfield Museum Service Reg. No. Bc2239)

Much like the Breton family though when Edmund died in 1797 aged 62 it seems to have been with massive debts which Gillam suggests had been building up for some time leading to attempts in 1792 to transfer the hall to his eldest son William. Chancery records and Court of Chancery proceedings suggest that a significant part of the debts were due to the crown while other creditors included a cousin<sup>52</sup> and one suspects that Armstrong may have been borrowing money he could not repay and living beyond his means by exploiting government appointments. In any event William, despite his wife at least having considerable wealth,<sup>53</sup> was only able to stave off his father’s creditors for two years before the Court of Chancery ordered the Percy Street house and Forty Hall to be sold by auction.<sup>54</sup> The hall was bought for £11,940 at the auction in November 1799 by James Meyer (originally Meijer), a wealthy merchant from a Dutch immigrant family<sup>55</sup> who took possession in March 1800 and also re-unified parts of the estate sold off in 1787 or added to it, including by acquiring the adjoining manor of Honeylands and Pentriches or Capels.<sup>56</sup> Meyer (b. 1755 to Herman and Margaratte Meyer), by now

<sup>48</sup> His first wife had been a Miss Mackie by whom he had a daughter who died young; his second wife was also an Armstrong (a daughter of William Armstrong of Petworth and Gillam (1997, 12) suggested a cousin); Burke 1838, 349.

<sup>49</sup> Gillam 1997, 12.

<sup>50</sup> Robinson 1823 i, 237.

<sup>51</sup> CMP 6.2.

<sup>52</sup> Gillam 1997, 13.

<sup>53</sup> William entered holy orders and remained in Enfield, marrying, on the 2<sup>nd</sup> May 1796, A. M. Charlotte Hassell, ‘one of the daughters and co-heiresses of the late Richard Hassell, Esq., of Barnet, with a fortune of £10,000’ (*The Gentleman’s Magazine* 66 (1796) pt. 1, 438) and raising a large family of 10 children; his brother George joined the army, rose to the rank of Lieutenant-General and married twice (Gillam 1997, 13; Burke 1838, 349).

<sup>54</sup> Gillam 1997, 13.

<sup>55</sup> Said to have come from Hamburg c. 1750 (Walford 1868, 654).

<sup>56</sup> Gillam 1997, 13; Robinson 1823, i, 238f. Gillam states that Pentriches and Honeylands was inherited by James Meyer’s daughters, but he has unfortunately followed VCH, 228 who presumably confused this elder James Meyer with his great nephew below. ‘Katharine Meyer, spinster’ and ‘Mary Colvin Meyer, spinster both of Kingsland, Windsor Forest, Berks.,

largely retired from business, became a local magistrate, chairman of the Select Vestry of the parish and supported Enfield charities and the Forty Hall estate was to remain in the Meyer family for virtually the whole of the nineteenth century.

Though the family seem only to have made relatively minor changes to the hall, they were more active in developing the attached farm and grounds.<sup>57</sup> However, James Meyer himself (Pl. 7) died of a stroke in February 1826. He was unmarried, though his sister Catherine seems to have been living with him until her death aged 54 in 1807, and the estate was inherited by his brother Herman (b. 1757). He himself died, presumably without direct descendants, at Maxton House near Dover in June 1832. Thus Forty Hall came into the hands of Christian Paul Meyer (b. c. 1791), the son of James and Herman's brother Christian Paul and Ann (née Solly).<sup>58</sup>



Pl. 7: James Meyer (the elder) (Artist and Date Unknown, Oil on ?Board)  
(© Enfield Museum Service Reg No. Ba2165)

Christian Paul (Pl. 8), who it is possible was already living at Forty Hall when he inherited, had a fairly large family including six children by a ?first wife (Louisa neé Boddam) who had died in 1822 (likely in childbirth)<sup>59</sup> and would have three more (though one died in infancy) by a third wife, Anna Maria (née Lindegren) (Pl. 9) who he had married in 1831 in Brighton (where he seems at least later to have maintained a home).<sup>60</sup>

Though his eldest son (again Christian Paul) died aged 18 a month before he inherited Forty Hall,<sup>61</sup>

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Ladies of the Manor [of Pentriches and Honeylands]' as they are described in 1908 (LMA ACC/0016/002) surely cannot have been daughters of the elder James Meyer who died unmarried in 1826.

<sup>57</sup> CMP 7.2 and CMP 7.3 and 7.4.

<sup>58</sup> Gillam 1997, 13; Moens 1884, 154 and 170; *The Gentleman's Magazine* 77 (1807) pt. 1, 595; 96 (1826) pt. 1, 374f; 102 (1832) pt. 1, 573; N.S. 2, 15 (1841), 444; <http://www.thepeerage.com/p27160.htm> (accessed October 2022).

<sup>59</sup> As she was 27 (*The Gentleman's Magazine* 92 (1822) pt. 1, 646) and her youngest child, Eliza Maria, was born that year. Louisa was a daughter of Rawson Hart Boddam of nearby Capel Manor House who had been Governor of the Bombay Presidency.

<sup>60</sup> Gillam (1997, 13) notes that he married in all four times, relying on a family tree supplied by Patrick Streeter of Matching Green, Essex (op cit, 7). Walford (1889, 731) confirms three marriages, but it has not been possible to substantiate a fourth or the identity of his other wives.

<sup>61</sup> *The Gentleman's Magazine* 102 (1832) pt. 1, 573. Herman Meyer is identified as this Christian Paul's grandfather therein, which presumably is an error for great uncle. That they died a month apart and evidently both at Maxton House near Dover (where they were presumably staying with the Worthington family who owned it at the time

two more sons and four daughters<sup>62</sup> could have been living at the hall during the time he held it and his involvement in the local community is indicated by his providing the site and financing for the building in 1835 of the nearby Jesus Church.<sup>63</sup> However, in 1837 Christian Paul settled Forty Hall on his now eldest surviving son, James (b. 1815) and himself moved away, partly at least to rebuild another family seat at Little Laver in Essex, and died in 1857.<sup>64</sup>



Pls 8 and 9: Christian Paul Meyer (Photographer and Date Unknown) (© Enfield Local Studies Library and Archive/Enfield Museum Service) and his third wife Anna Maria (Artist and Date Unknown, Oil on ?Board) (© Enfield Museum Service Reg No. Ba2180)

James Meyer (the younger) (Pl. 10), educated at Eton and Trinity College Cambridge,<sup>65</sup> lived at Forty Hall for the next nearly 60 years and became a mainstay of the local establishment. Commander of a troop of the local yeomanry as a younger man, he later long served locally as Chairman of the Boards of Magistrates, Health and Enfield Grammar School Governors as well as Trustees of Enfield Charities, more widely was a JP in three counties, built and maintained an infant school near the hall and held senior appointments in the water supply industry.<sup>66</sup>

He though seems to have left it late in life to marry and was an old man by the time he had any children. His first wife, who he married in 1861, was Francis Sarah Solly, daughter of Samuel Solly of Serge Hill, Herts. (a merchant in the Baltic timber trade), but she evidently died without at least surviving children as emphasised by the fact that in e.g. 1868 James' heir presumptive is listed as his brother Philip Herman.<sup>67</sup>

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(<http://www.dover.freeuk.com/town/maxton.htm> (accessed October 2022) citing Jones (1907))) may well suggest that their deaths had a common cause such as a communicable disease.

<sup>62</sup> James (see below), Philip Herman (b. 1820, married Marianne Watkin 1853, d. 1871), Louisa Joanna (b. 1816, d. 1843), Ann Sophia (b. 1818, d. 1838) and Eliza Maria (b. 1822, married Henry Ibbetson 1841, d. 1843) were children of his ?first marriage and Anna Maria (b. 1833) of his third to her namesake mother Anna Maria (d. 1851), while other children by his third marriage were Herman Paul David (b. 1838, married 1<sup>st</sup> Constance Martin 1864 (d. 1873), 2<sup>nd</sup> Blanche Martin 1875 (d. 1876), 3<sup>rd</sup> Emily Butler (m. 1879)) and Christian Paul (b. and d. 1835) (<http://www.thepeerage.com/p27160.htm#i271595> (accessed October 2022); Walford 1889, 731).

<sup>63</sup> A Chapel of Ease built by Thomas Ashwell of Tottenham to a design, previously also used for Holy Trinity Church, Tottenham, by James Savage.

<sup>64</sup> *The Gentleman's Magazine* 202 (1857) pt. 1 (N.S. 2), 625.

<sup>65</sup> Walford e.g. 1868, 654.

<sup>66</sup> Gillam 1997, 14; Walford 1892, 715; 1889, 731.

<sup>67</sup> Walford 1868, 654. Not to be confused with another Philip Herman Meyer (b. 1822) of Stondon House in Essex listed, along with his own brother Herman (b. 1836) of Little Laver, by Walford (e.g. 1868, 654) who were sons of Herman Meyer snr. of Little Laver (Walford 1876, 715) and his cousins; the repeated use of the same forenames appears to have been particularly common in the Meyer family.



Pl. 10: James Meyer (the younger) (Photographer and Date Unknown) (© Enfield Local Studies Library and Archive/Enfield Museum Service)

Francis died in 1880<sup>68</sup> and James was married again on 8<sup>th</sup> December 1881 to Georgina (b. 1841), daughter of Sir George Maclean, KCB and widow of William Agnew Goldfinch (d. 1876) of the Bombay Civil Service by whom she already had two children (George and Alice).<sup>69</sup> James and Georgina themselves had two daughters, Katherine (b. 1883) and Mary (b. 1885) (Pl. 11), when James was in his late 60s (and even his wife was in her early 40s).<sup>70</sup>



Pl. 11: James the younger's daughters Katharine and Mary, Photographer unknown c. 1890 (© Enfield Local Studies Library and Archive)

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<sup>68</sup> Walford 1892, 715.

<sup>69</sup> *Allens Indian Mail* 12<sup>th</sup> December 1881, transcribed at [https://fibis.ourarchives.online/bin/aps\\_detail.php?id=1755233](https://fibis.ourarchives.online/bin/aps_detail.php?id=1755233) (accessed October 2022); Walford 1892, 715; <http://goldfinch.otiosus.co.uk/goldfinch.pdf> Tree 16.1 (accessed October 2022).

<sup>70</sup> <http://www.thepeerage.com/p27160.htm#i271595> (accessed October 2022); though Walford (e.g. 1889, 731) repeatedly only acknowledges one daughter.

By this point Forty Hall had largely attained the at least external appearance it has today (Pl. 12), though the Meyers had not made major changes to it, even if they had done more to modify its internal layout and expand the associated farm. Their ownership of it though came to an end with the death of James Meyer in 1894.



Pl. 12: Members of the Meyer Family in Front of Forty Hall ?c.1894  
© Enfield Local Studies Library and Archive<sup>71</sup>

In 1895 Forty Hall was bought by Henry Carington Bowles Bowles (sic) for just over £21,000.<sup>72</sup> Presumably then Meyer's widow Georgina (d. 1915)<sup>73</sup> and his daughters, who were still children, had decided to sell the hall, though the daughters retained the manor of Pentriches and Honeylands.<sup>74</sup> Bowles (b. 1830 as Henry Carington Treacher, d. 1918), came from a family of wealthy publishers who also had interests in the New River Company and had changed his name in order to inherit the adjoining Myddleton House (formerly Bowling Green House) estate.<sup>75</sup>

Forty Hall though was purchased for his and his wife Cornelia (née Kingdom, d. 1911)'s eldest surviving son (later Colonel Sir) Henry Ferryman Bowles (b. 1858) and his wife Florence (née Broughton) who owned it for the following nearly 50 years. A major programme of renovation (though not extensive remodelling) of the existing hall plus the construction of new additions to its south west, and within a former Kitchen Courtyard area, followed in 1897 at a cost of £8,000.<sup>76</sup>

The younger Henry (Pl. 13) had taken BA and MA degrees at Cambridge and become a lawyer and officer in the British Army reserves (successively the Militia, Volunteer Force and Territorial Force), eventually being honorary Colonel of the 7<sup>th</sup> Battalion, Middlesex Regiment and co-ordinator of volunteer forces in Middlesex during WWI. A long term member of Middlesex County Council and JP, he was created a Baronet in 1926, was High Sheriff of Middlesex in 1928 and sat as Conservative MP for Enfield constituencies 1889 – 1906 and 1918 – 22.<sup>77</sup>

<sup>71</sup> Kindly sourced and supplied by Gavin Williams, former manager of Forty Hall.

<sup>72</sup> Gillam 1997, 14; National Archives: IR58/29943.

<sup>73</sup> <http://goldfinch.otiosus.co.uk/goldfinch.pdf> Tree 16.1 (accessed October 2022).

<sup>74</sup> fn. 55 above.

<sup>75</sup> <http://www.bowlesfamilyhistory.ca/The%20Bowles%20of%20Myddelton%20House%20Family%20Tree.htm> (accessed October 2022).

<sup>76</sup> Gillam 1997, 14; National Archives: IR58/29943; CMP 8.2.

<sup>77</sup> Gillam 1997, 14; Walford 1919, 147.



Pl. 13: Sir Henry Ferryman Bowles (photo Benjamin Stone, June 1899) (© National Portrait Gallery)

Predeceased in 1935 by his wife, and in 1928 by their only daughter Wilma, Bowles died of a stroke in 1943, leaving Forty Hall to his grandson Derek Henry Parker Bowles (son of Wilma and her husband Eustace Parker,<sup>78</sup> d. 1952). Derek (b. 1915), his wife Ann (née de Trafford) and their four children (Andrew, Simon, Mary and Richard)<sup>79</sup> lived at the hall until Derek, in ill health, sold it and the estate to Enfield Urban District Council for £43,000 in 1951. The estate has subsequently been a public park while the hall, to which numbers of changes were made in the second half of the twentieth century, became the main museum for the London Borough of Enfield until the refurbishment of 2009 – 11.

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<sup>78</sup> Who assumed the name Parker Bowles by royal licence in 1920 after their marriage in 1913.

<sup>79</sup> Derek died in 1977 and his wife in 1987. Of their children the eldest, Brigadier Andrew Parker Bowles, OBE (b. 1939) is notable as the first husband (m. 1973; div. 1995) of Camilla (née Shand), the Queen Consort.



# The Organisation and Scope of the Archaeological Study

This study is organised by area of the estate (Figs 1 and 2) being described and then by phase. Thus, it begins with the built environment representing the residential parts of the hall (and the Kitchen Courtyard immediately west of its original core), then the main Service Courtyard (to the west of the main hall), and the original Farm Courtyard and Rick Yard west of that, together with the later development of Forty Hall Farm. It then takes in turn the areas fronting the north, east and south facades of the residential block or its service buildings, and the grounds/gardens attached to each, followed by the walled kitchen garden and the wider grounds around the hall complex. It continues with the post 1660 development of the wider estate, covering the summerhouses in the grounds which formed part of a *Ferme Ornée*, the Great Field north of the hall, the development of Maidens Bridge and Maidens Brook including its system of cascades, a channel system in the 'Mill Rounds' linking the brook to the New River and the development of the Pond Groves. It concludes with an appendix which presents selected finds from all elements of the work, but particularly from a seventeenth century midden deposit.

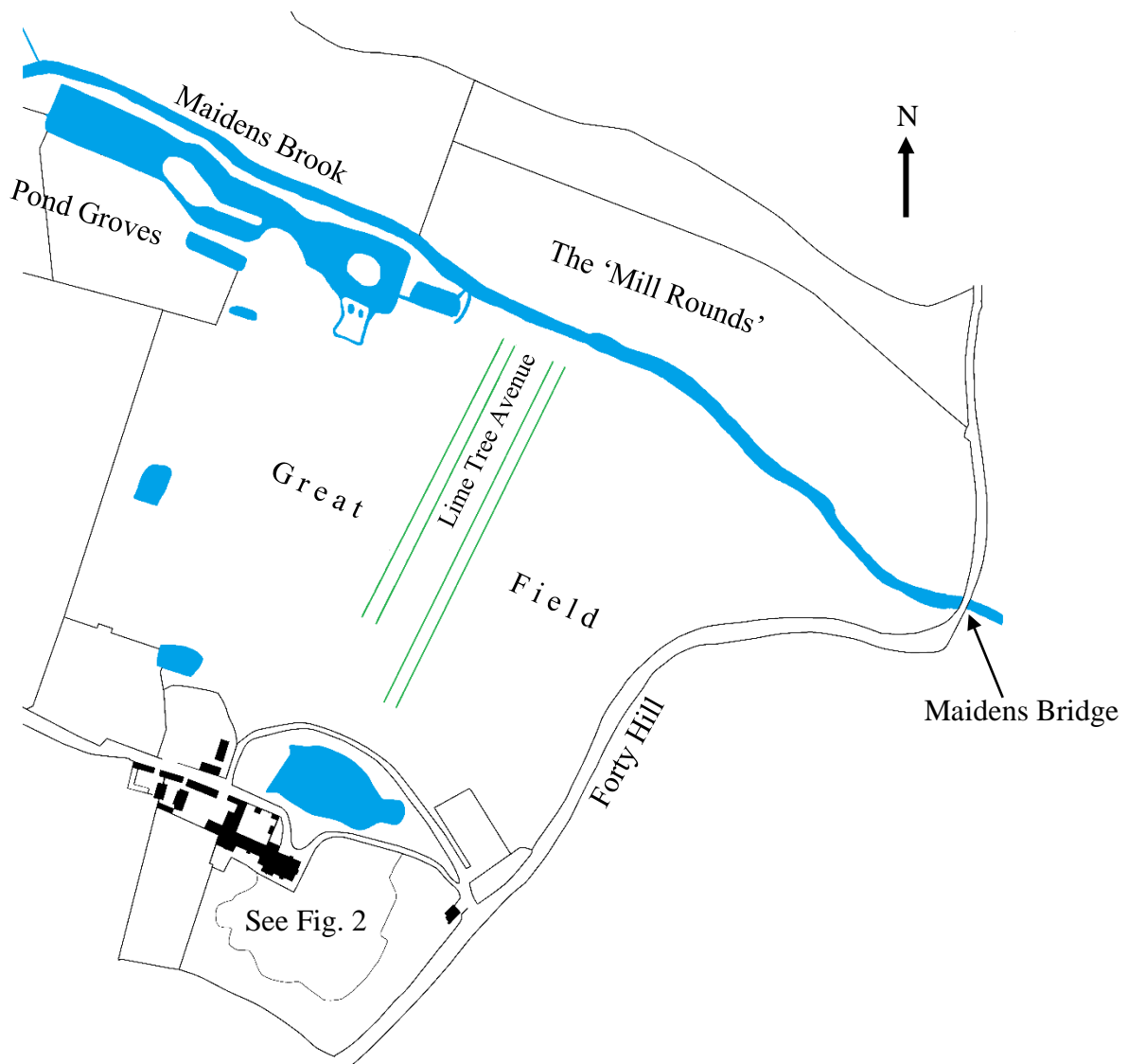


Fig. 1 The Core of the Forty Hall Estate (for the Wider Estate see Fig. 57)

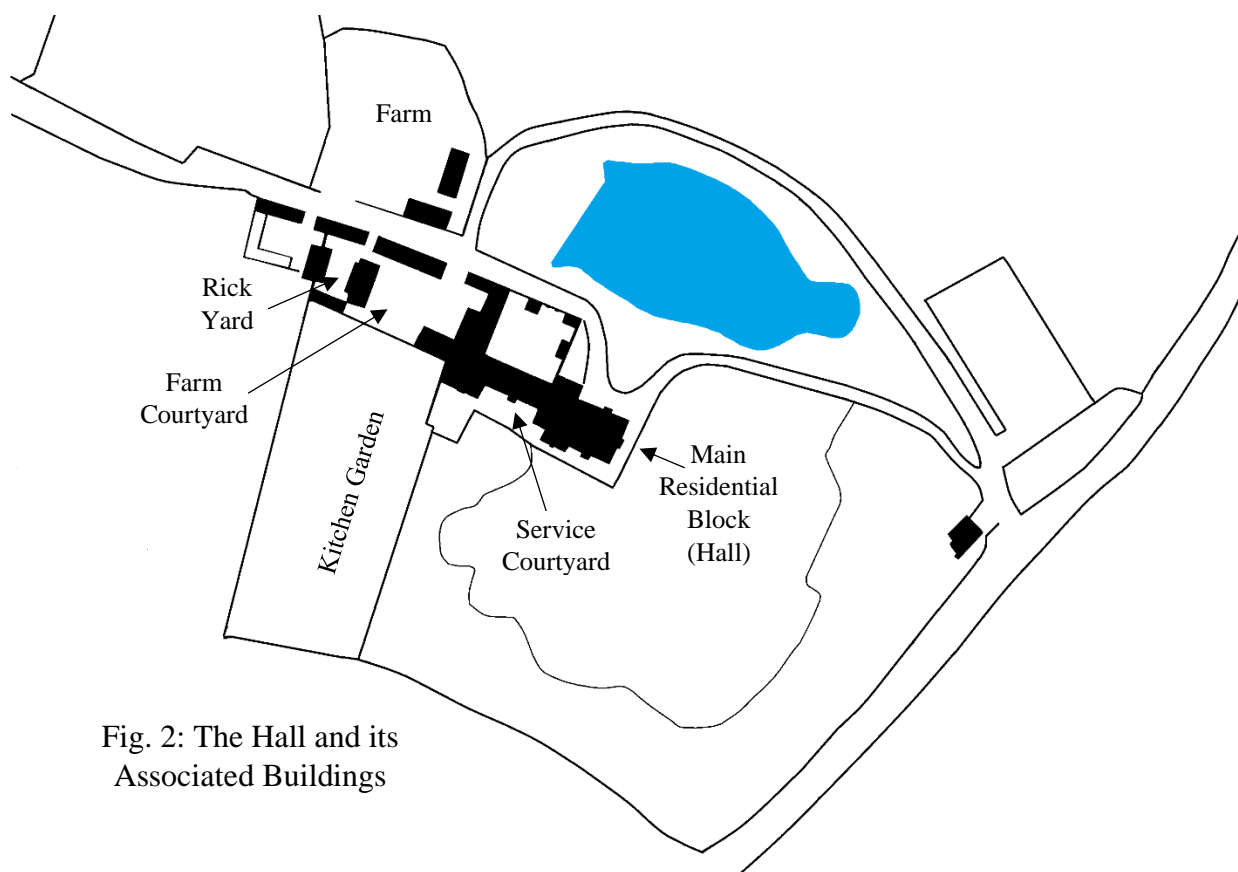


Fig. 2: The Hall and its Associated Buildings

The site phasing very broadly follows that used during the excavation of the Kitchen Courtyard (FXA10 Area C2), described in the first section and which has been the most complete stratigraphic sequence excavated anywhere on the site, but has been modified/subdivided in some instances to make it more widely applicable. It often, but far from always, follows the sequence of owners of the hall as it is clear that periods of alterations and additions in several cases were occasioned by a change of ownership of the estate (Table 1). Never the less it is only a broad organisational convenience, some features are not necessarily closely assignable to phase and the dating of the phases is often only very approximate.

Phase	Dates	Ownership of Hall	Notes
1	Pre 1629		
2	1629 - ?1632	Sir Nicholas Rainton	Main hall built
3	Probably 1636	Sir Nicholas Rainton	Service range built
4	Probably 1636 - 1696	Sir Nicholas Rainton/Nicholas Rainton the younger	
5a	1696 - 1708	Wolstenholme family	Major remodelling
5b	1708 - 1787	Wolstenholme trustees/Lord Hunsdon/Eliab Breton	
6a	1787 - 1800	Edmund Armstrong	
6b	1800 - c. 1850	Meyer family	
7	c. 1850 - 1897	Meyer family	
8	1897	Bowles family	Major modernisation
9	1897 - ?1939	Bowles family	
10	Post ?1939	Bowles/Parker Bowles family/LBE	

Table 1: The Phasing Scheme Used Compared to the Ownership of the Hall

All the work undertaken since 2003 resulted in ‘grey literature’ archive reports which describe it in far more detail than is necessary here.<sup>80</sup> Indeed, though it aims to cover in some way all phases of the development of the areas considered up to the present day, it treats evidence belonging to the mid to late nineteenth century and later in much less detail than earlier developments while most stratigraphic sequences, cut features and built structures of all dates have been summarised not described at the level of detail available in archive. However, it should be emphasised that this is still not intended to be a ‘popular’ summary of the findings of the work, but rather a systematic synthesis of data. It is then primarily descriptive as much as interpretative and written more with heritage professionals than others in mind. Whilst then it is hoped that the more casual reader will find it of interest, they may well find that the level of detail included is at times greater than they require. The production of a new less technical account that also married, as Gillam (1997) aimed to, the now far greater evidence available from standing buildings work with the equally expanded archaeological data would be desirable, but must be a separate project.

NB Individual excavation and monitoring projects are identified by their site codes (e.g. FXA10)<sup>81</sup> and in so far as context numbers are given, they are those assigned during the various excavations, but prefixed with the year the excavation began (thus, [0917] is context 17 assigned during a 2009 excavation). Where necessary which part of the built structure is under discussion is indicated by the room numbers or building numbers allocated (in 2009 or earlier) during standing buildings research and shown on Figs 3, 4, 26 and 30.

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<sup>80</sup> Inevitably in collating some 30 years of work on the site some of the conclusions drawn about the development of the hall and its environs in individual site reports have not stood the test of time and the opportunity has been taken to revise these.

<sup>81</sup> Site codes from 2004 onwards were allocated by the Museum of London, earlier site codes were self generated and so do not always follow the standard three letter two digit format.

# The Archaeological Evidence for the Residential Parts of the Hall and the Kitchen Courtyard Immediately West of its Original Core

## Scope and Background

This section presents the archaeological evidence for the development of the area within, and for convenience in some cases just immediately north of, the footprint of the hall's residential (and integrated household servants') buildings, but not for the development of the entrances to and immediate surroundings of these buildings (for which see p 49 onwards), nor, except in a few cases, for the larger service buildings/courtyards to the west (for which see principally p 54 onwards). The work represented here includes monitoring undertaken in 2003 (FHFL03), 2007 (FTA07) and 2013 – 15 (FXH13) in the vicinity of a former servants' hall (rooms A0037 – 40); 2005/6 research excavations at the south end of the east side of the residential block (FYH05/FYI06); and excavations immediately north of the west end of the residential block in 2009 (FHN09). But it principally comprises excavations and buried wall studies undertaken in the basements and ground floor rooms, and especially complete excavation of the remaining open part of a former Kitchen Courtyard at the west end of the original residential block, during the 2009 – 11 restoration of the hall (FHN09 and FXA10) (Figs 3 and 4).

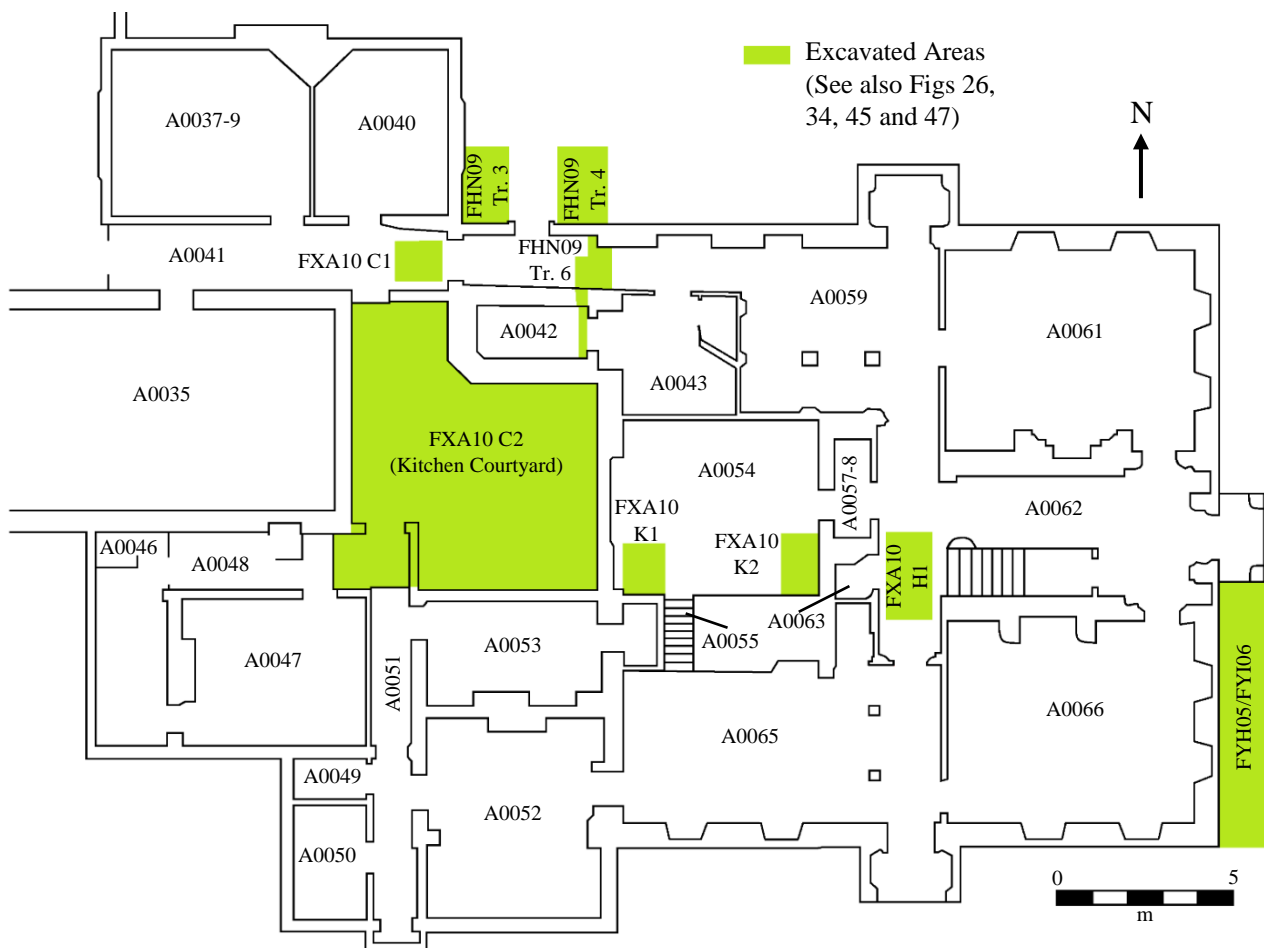


Fig. 3: Excavations in the Residential Block/Kitchen Courtyard Area in Relation to the Ground Floor Plan of the Hall Prior to 2009

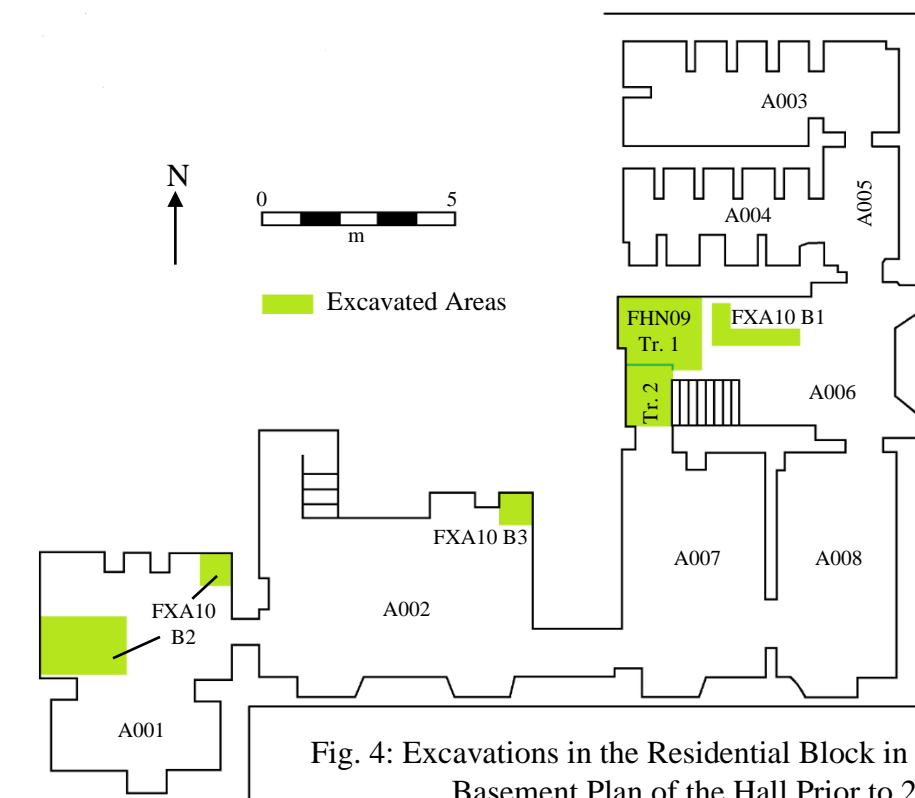


Fig. 4: Excavations in the Residential Block in Relation to the Basement Plan of the Hall Prior to 2009

This section therefore concentrates on the evidence for the predecessor structure to the standing buildings, that for the construction of the latter and the detailed picture that emerged of the continual changes made to the Kitchen Courtyard and nearby areas which provided an illustration especially of how the complex's drainage and water supply arrangements developed over three centuries as the courtyard was increasingly encroached on by extensions to the adjacent buildings.

### The Predecessor to the Standing Building (Site Phase 1; before 1629)

As noted, the land on which the main complex of Forty Hall stands had been part of the Manor of Worcesters,<sup>82</sup> itself an integral part of the grounds of Elsyng Palace until it was sold by the crown to Robert Cecil, Earl of Salisbury in 1602 and then by him to Sir Nicholas Rainton in 1616 (Dearne *et al* 2022, 112). What Cecil and then Rainton acquired, here at least, would seem to have been the land south of a former road (for which see p 71 below) which ran north west to south east across what is now the lawn fronting the hall. This southern part of the low hill which overlooked the standing palace, though nothing is known of it from documentary sources, appears to have already been occupied by a significant structure which, as it was replaced by the extant building in 1629, probably dated at least in its excavated form to some point in the Tudor/Elizabethan period.

Fragments of this structure have been encountered in three areas within the standing building during lift shaft insertion and other works connected to the restoration of the house in 2009 - 11 (Fig. 5). The most significant was part of a brick built cellar, probably with a timber floor including an open sump above a drained sub-floor level (at c. + 44.525 m OD) which was excavated in FHN09 Trench 1 below the floor of the current basement of the main hall in room A006 (Fig. 6 and Pl. 14). It was represented by a cut into the natural gravel, the edges of which had been faced with a brick wall, [0917/18], and within which two further features, [0929] and [0930], had been constructed. Little of the cut itself was seen since the wall and other features were left *in situ*, its base was below the current water table and it was impossible to excavate more than small areas of some deposits overlying its base. However, it

<sup>82</sup> For its earlier history see Dearne *et al* 2022, 7ff.

was clearly a straight sided and almost certainly flat based rectangular cut over 1.36 m north south by over 1.92 m east west, over 62 cm deep, and probably considerably truncated.

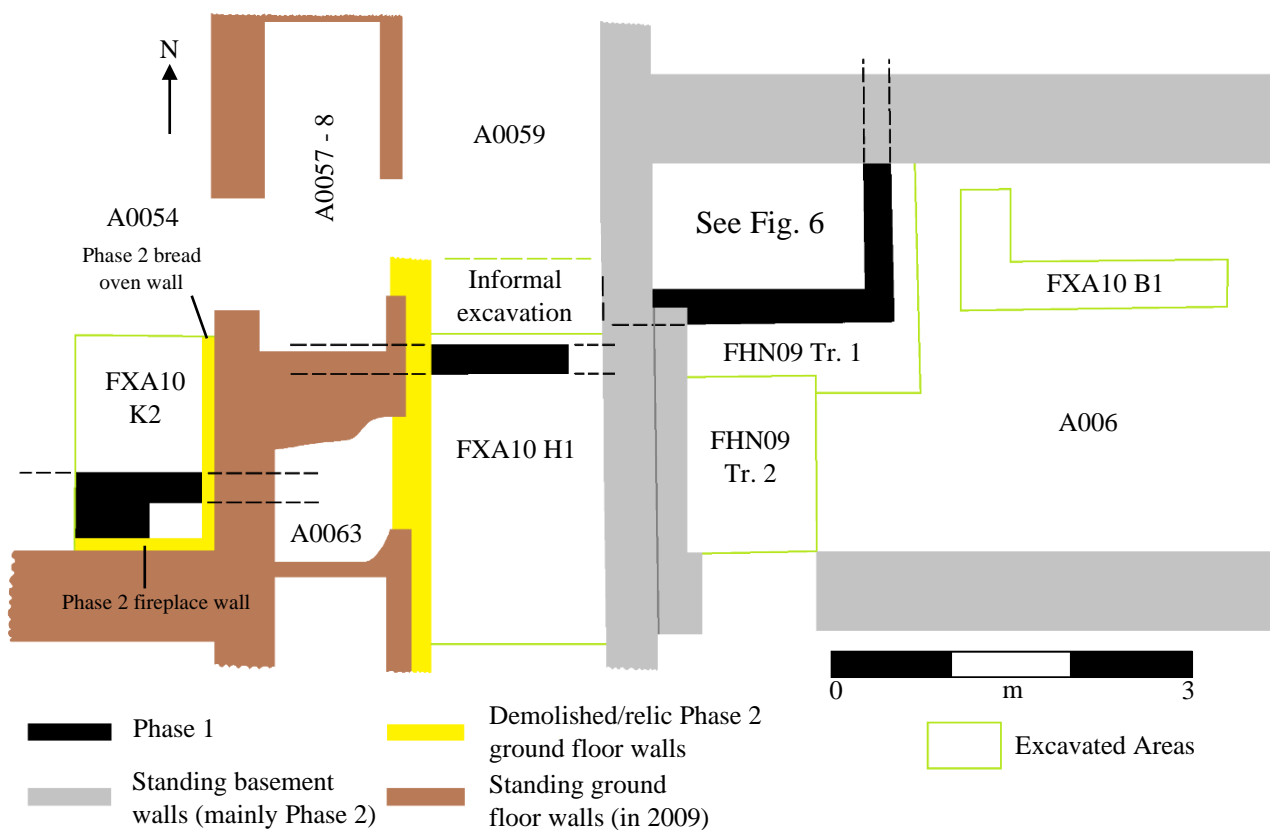


Fig. 5: Phase 1 Features Within the Footprint of the Residential Block

Both arms of the cut within the trench, meeting to form one of its corners, had been faced with a single skin brick wall, [0917/18], with a fair face, built 12 – 16 cm in front of it and backed by an engaged packing. The wall was preserved to five courses of (inconsistent) English bond brickwork in hand made, unfrogged, 23 x 10 x 5.5 cm bricks and decayed, but probably hard, white mortar. The bond meant that headers projected back from this single skin wall either consistently or intermittently to the edge of the cut, and, where they did not reach the cut, the gap had been filled with mortared mostly flint lumps and, at the level of a highest surviving course of headers, with mortared brick fragments. However, at the corner of the cut evidence survived for this being replaced by a reinforcement more often of mortared whole and part bricks.

Within the cellar the stratigraphically earliest feature seen was [0930]. A maximum of 1.40 m of this brick and tile constructed drain, likely at sub-floor level and which clearly continued to the north under the footings of the north wall of the basement room of the standing building in which excavation took place, was seen, curving towards the south east corner of the cellar. Though excavated and recorded in adverse conditions, it was clearly built of two parallel, or towards the south east slightly converging, lines of hand made, unfrogged, c. 24 x 12 x 5 – 6 cm bricks, set on a base of either bricks or tiles to form an open topped channel 5 – 6 cm deep and c. 8 cm wide, narrowing to 6 cm wide as it ran towards the south east. Conditions prevented identification of the presumed mortar bonding or removal of any part of the structure, but it was overall 31 cm wide (27 cm wide at its south east end) and its channel had been capped with unsecured complete peg tiles, one found *in situ*, one partly so and one, which had one blind and one rather small peg holes (so that they were probably roofing rejects), displaced and recovered from a layer above it.

This drain may have had a very slight fall to the north and was filled with a dark reddish grey stony silt. It clearly ran under a second feature, again left *in situ* and below the modern water table, at the south east corner of the cellar (so the drain probably functioned to drain both the second feature and

the rest of the cellar). This second feature, [0929], was a probable sump carried up to floor level in timber. It had a base comprising a slightly sub square, 39 x 40 cm, horizontal surface constructed of whole and part bricks bonded with a cream coloured mortar. This had been enclosed on the north, south and west by timber planking (perhaps leaving a slight (? c. 0.5 cm) slot between it and the fair face of the cellar wall on the east). The waterlogged planking survived to a maximum height of 7.5 cm above the brick surface and was c. 1.5 cm thick.

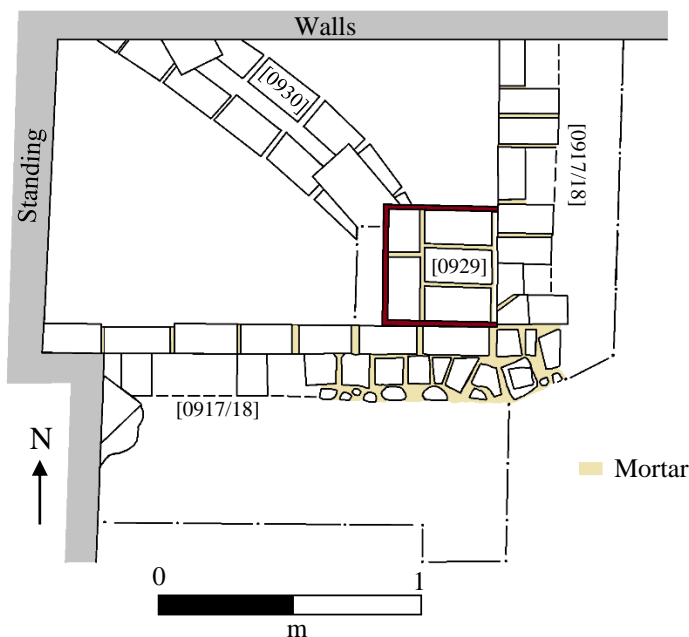


Fig. 6: Phase 1 Features in FHN09 Trench 1



Pl. 14: FHN09 Trench 1

This cellar, taking account of known levels for the natural in the area, may well have been c. 1.50 – 2.00 m high and was presumably larger than just the corner of it that was excavated (though excavation in Area B1 showed that there was no disturbance of the natural to the east of it and on the west the west wall of the Phase 2 basement could have been built on that of the Phase 1 cellar as no continuation of the south wall of the cellar was seen in a less formally excavated extension of FXA10 H1 to the north of the main trench). Probably representing ground water penetration or flooding, a 3 – 4 cm thick, fairly compacted layer of brown silty sand appeared to cover all of the cellar's sub-floor and its drain, but not the timber enclosed sump.

Of the two other fragments of the structure preceding the standing buildings known, one was a 1.01 m long stretch of east west wall, [10269], recorded in contractor works at the north end of Area H1 (Fig. 5). Built on to a horizontal surface created by stripping down 1.09 m into the natural, it appeared to be a very solidly built, though perhaps dwarf, wall of hand made, unfroged, 22 – 23 x 10.5 – 11 x 5 cm, sometimes over fired bricks and very hard very pale brown (or sometimes yellower) mortar. It seemed to have a butt end on the east, but it could not be ruled out that this was the result of Phase 2 demolition. Using thickish mortar joints, it had been constructed on a bulging mortar pad which continued for over 11 cm to the north as a variable, but generally 2 – 4 cm thick layer. The wall comprised a basal header course, a second stretcher course, but using paired whole and longitudinally roughly cut bricks to leave a 4 cm wide northern offset to the top of the basal course, and a third course (only the western two bricks of which survived) of headers overhanging the second course on the south. Mortar on the latter suggested at least one further course had been present and the wall as preserved was fair faced on the south and probably on the north, but the exposure was too small and encumbered by later structure to do more than speculate that it could have represented the south (?partition) wall (or floor support wall) of a ?sunken floored room or rooms, possibly including that which the cellar lay below.

The last fragment of the building was part of another internal east west wall, [10263], which was partly excavated in the south east corner of Area K2 (comprising room A0054). The available exposure (Fig. 7 and Pl. 15) was small and excavation constrained by adjacent Phase 2 walls which rested on it, but at

least five courses of the northern face of the 24 cm wide, English bonded, single skin wall were seen where some deeper excavation was possible. The wall expanded on the south to form an over 27 cm deep, over 58 cm wide integrally built probable chimney breast (unless what was represented was a wider wall into which a shaft had been incorporated on the south, which seemed far less likely). The three upper courses of the north face of the main wall were fair faced and the two lower rougher and probably originally within a large (unseen) construction trench. Only two courses of the south face of the wall and east face of the ?chimney breast were available for study, but both were fair faced and the latter built of coursed whole bricks. All parts of the structure seen were built of hand made, unfroged bricks, bonded with hard yellow mortar comparing well to that of the wall in area H1.

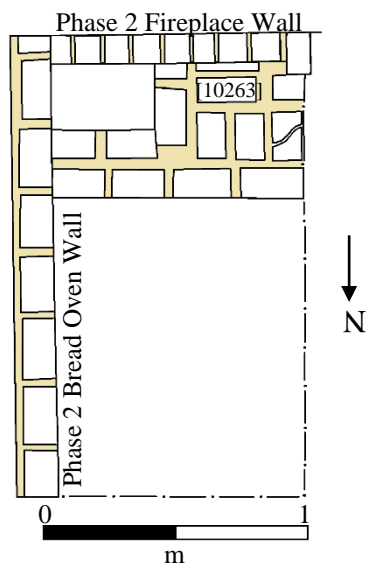


Fig. 7: FXA10 Area K2



Pl. 15: Phase 1 Wall [10263]

The presence of a brick lined cellar, probably with a drained sub-floor and sump, and of evidence at least for some solid brick construction, suggests that the building preceding the hall was fairly substantial and of moderately high status, though the relatively thin walls may suggest that its superstructure was largely of timber. Little can be said of its size except that it was in excess of 8.00 m east west, but negative evidence argues that it did not extend far to the west of Area K2 because complete excavation of what by the nineteenth century had become an isolated unroofed space (Area C2) between rooms A0035 and A0054 showed that here the Boyne Hill Gravel natural (at +46.506 to +46.648 m OD) was overlain by a 2 – 5 cm thick soil.

The soil contained one sherd of Late Medieval Hertfordshire Glazed Ware (LMHG) of 1340 – 1450, a small group of mostly unabraded Early Post Medieval Redware (PMRE) sherds of post 1480 and a few sherds (perhaps all from one vessel) of Post Medieval Redware (PMR) of post 1580, plus fair amounts of roofing slate and sometimes brick/tile fragments (?deriving from the predecessor structure) as well as a fragment from a ridge tile of c. 1120 – c. 1220. The deposit was well worm worked, but not obviously cultivated and probably represented land attached to the predecessor structure and perhaps used for casual (?including kitchen) rubbish disposal as the soil produced some oyster shells and charcoal fragments and especially a quantity of animal bone. This included a few pig and goose bones and horse teeth, but mainly ovicaprid and cattle bones often broken for marrow extraction and in some cases gnawed by rodents and particularly dogs.

It may well be then that the area in which the predecessor structure sat had seen some Medieval activity or even that the predecessor structure originated before the Tudor period (and residual fifteenth/sixteenth century floor tile and ?thirteenth/fourteenth century ridge tile fragments were also recovered from deposits associated with the construction of the standing hall in the excavation of Area C2). That predecessor structure probably had an at least partly domestic role and it could have been of quite a significant size. Being within the grounds of Elsyng Palace presumably it had some connection to it and one possibility is that it was the official residence of the keeper (? or under keeper) of the



palace, but too little is known of the infrastructure and administration of the manor in which the palace sat to make this more than speculation.

## The Construction of, and Excavated Earlier Seventeenth Century Features of, the Residential Block and Kitchen Courtyard (Site Phases 2 and 3, 1629 - ?36)

Though some of the standing hall's elements were built and many remodelled in subsequent centuries, and the development of the immediate environs of the hall are considered separately below, its residential block (together with the original brewhouse/bakehouse (room A0035) etc for which mainly see p 54 onwards), which still form the core of the hall, were built in the years following 1629 by Sir Nicholas Rainton.

Evidence for the beginning of the construction of the hall in 1629 is provided by a brick with this date cut in relief in its stretcher face at the base of the east end of the north facade of the main residential block (Gillam 1997, 21; Peats 2008, 33 and fn. 3) while another, now lost, brick inscribed 1632 was formerly at the top of the same facade (op cit). Additionally the date 1629 is in a plaster ceiling on the first floor (Peats 2008, fn. 3) and the base of the facade with the dated brick was begun in English bond (as were internal walls where excavated), but above this the bond pattern seems to break down with patches of various bond types and is then carried up in Flemish bond. This (and similar evidence from the eastern bay window; below p 28) then appears to provide further dating evidence as it would be consistent with the transition of the prevalent bond in fashionable brickwork from English to Flemish, an early example of the latter appearing, for instance, at the Dutch House (Kew Palace) in Kew Gardens built in 1631 (Brunskill 1990, 52).<sup>83</sup>

Whether the residential part of the hall was fully completed in 1632 cannot be certain and it could presumably have been a little later, but a formerly cited completion date of 1636 at least for the residential block was shown by the excavations published here to be unreliable. It was based on a third brick with the date 1636 cut in relief into its stretcher face (e.g. Peats 2008, fn. 29) and which is now built into the external west face of a western extension of the residential block (in Area C2). However, brick morphology, mortar comparisons and the stratigraphic sequence in FHN09 Trenches 3 and 4 (below p 30ff) now clearly demonstrates that this extension was in fact not built until Phase 5a, i.e. in c. 1700 - 8 (thus, the previously accepted chronology for the development of the west end of Forty Hall (e.g. Peats 2008, 40) must now be revised). It may well be though that the brick (though it could of course be a later, antiquarianising addition/carving and pebble dash surrounding it makes it impossible to fully evaluate that possibility) is genuine and derived from a Phase 3 porch or northern boundary wall to the area between rooms A0035 and A0054, both of which the c. 1700 - 8 extension did indeed demonstrably re-use parts of (below p 30ff). It is therefore highly likely that it in fact serves to date the Phase 3 service area additions (that had likely always been planned) evidently made to the original build not long after its completion, certainly well before c. 1650 and maybe effectively representing only the later stages of one continuous programme of construction.

### *Site Phase 2, 1629 – 32*

The main residential part of the hall was built as a three storey square block which has been argued to have had a traditional plan, but classicising appearance (Peats 2008, 33ff). The ground floor plan (Fig. 8) then featured a main entrance in the northern facade (see p 78ff), accessing a cross passage and then stairwell, separating a hall on the east from a kitchen on the west, itself divided from a probable buttery and pantry to its north by a kitchen passage. To the south a parlour on the east adjoined another chamber and probable closet. Meanwhile at basement level below the east and south of the residential block there were four cellars (later – perhaps in Phase 5b - subdivided into rooms A002 – 8 by walls between rooms A003 and 004 and A007 and 008, with another basement added in Phase 8). Whilst much of this plan relies on standing buildings evaluation (Peats 2008; CMP), archaeological work has illuminated

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<sup>83</sup> The author is grateful to Ian M. Betts of Museum of London Specialist Services for confirming and discussing these observations.

both no longer extant features at the east end of the block and the construction process as represented in the Phase 2 basement, at the west side of the kitchen and in one or two other areas within the building.



Fig. 8: The Ground Floor Plan of the Main Residential Block in Phase 2 (and 3) (After CMP Fig. 11)

Several excavations have recovered evidence relating to the construction process which evidently began with the demolition of the preceding structure, though evidence from Areas H1 and K2 (see above) shows that the stubs of some of its walls were reused as the foundations/underpinning of some of the new hall's. This was also the case with parts of the brick wall lining the earlier structure's cellar discussed above. Laying below the level of the new basement's floor in room A006 (see Fig. 9), its sub-basement sump was also filled with demolition rubble before a demolition cut was made from the back of one arm of the wall as it was probably systematically demolished to the level to which it was preserved. The Phase 1 sub-basement was then filled with a series of mortar fragment and brick dust rich brickearth and gravel dumps, including a timber lath and occasional pieces of grey roofing slate and, in the upper level, much brick and tile demolition rubble. The bases of the standing walls of Phase 2 room A006, again built of English bond brickwork using hand made, unfroged bricks and (in some cases softish) white mortar, with some headers probably replaced by part bricks in localised areas, were then built into broad c. 40 cm deep construction trenches backfilled with stony brickearth. One of these produced the rim of a German slipware bowl (see Appendix 1) of the first half of the seventeenth century.

Immediately following the construction of the standing walls in the excavated area of basement room A006 a 4 – 25 cm thick dump created (or was cut into to create) a surface incorporating a sunken channel and sump system including an outflow through the west wall of the newly constructed cellar. At least partly lined with fairly hard white/fawn coloured mortar, then the channel running through the wall given a brick floor on a 15 cm thick light yellowish brown sandy mortar base, this drainage system was then flanked by bedding deposits for a brick floor. There was also some possible evidence for the laying of probable rough surfaces of hard cream mortar containing brick dust and brick fragments in some areas, and only fragments of the actual brick floor survived, but the basements of the hall seem to have been at least largely brick floored and adequately drained from the start.<sup>84</sup>

Thus, the channel running through the west wall continued on the other side of it in FXA10 Area H1 as a brick built culvert, [10268], and was seen again in room A002 in FXA10 Area B3 (Fig. 9). Roughly

<sup>84</sup> Indeed there was also evidence elsewhere for a significant arched brick drain, [10212], serving room A003 (p 89).

built in a substantial cut partly into the natural, it was of mainly (brownish yellow sandy) mortar obscured bricks and essentially built as a vertically sided brick drain, perhaps 60 cm wide with a stretcher lain brick floor, an arched roof (at least at one point using a line of roof tile fragments as spacers along the apex) and a slight offset along the more northerly side which basally included one course of tiles not bricks. The far end of the culvert was in room A002 where it formed an opening in a Phase 2 wall, founded on brick rubble overlain by a band of mortar, and appears to have emptied into a 725 cm deep, 85 x 45 cm rectangular soakaway cut into the natural gravel, though its surviving fill was eighteenth to later nineteenth century in date. A 14 cm thick bed of coarse sandy mortar over a horizon of crushed brick was probably the bedding for the original or a replacement brick floor in this room, which may again have had drainage channels set into the floor (though the main evidence was from loose bricks moulded with an 8.5 cm wide, 5.5 cm deep U-shaped channel and flooring bricks tapering in thickness from 4 to 2.5 cm which may well have related to a much later phase).

Clearly in Area H1 on completion of the building of the culvert, the original (now redundant and partly demolished) east wall of rooms A0057 - 58 and A0063 and surviving west wall of basement room A006 had been built, using similar bricks to the culvert, but a finer, hard, white to very pale brown mortar. The former survived to a maximum of 20 courses of English bond brickwork (with a few headers in stretcher courses), the top nine fair faced if with rather casually struck joints and below more roughly if neatly built.

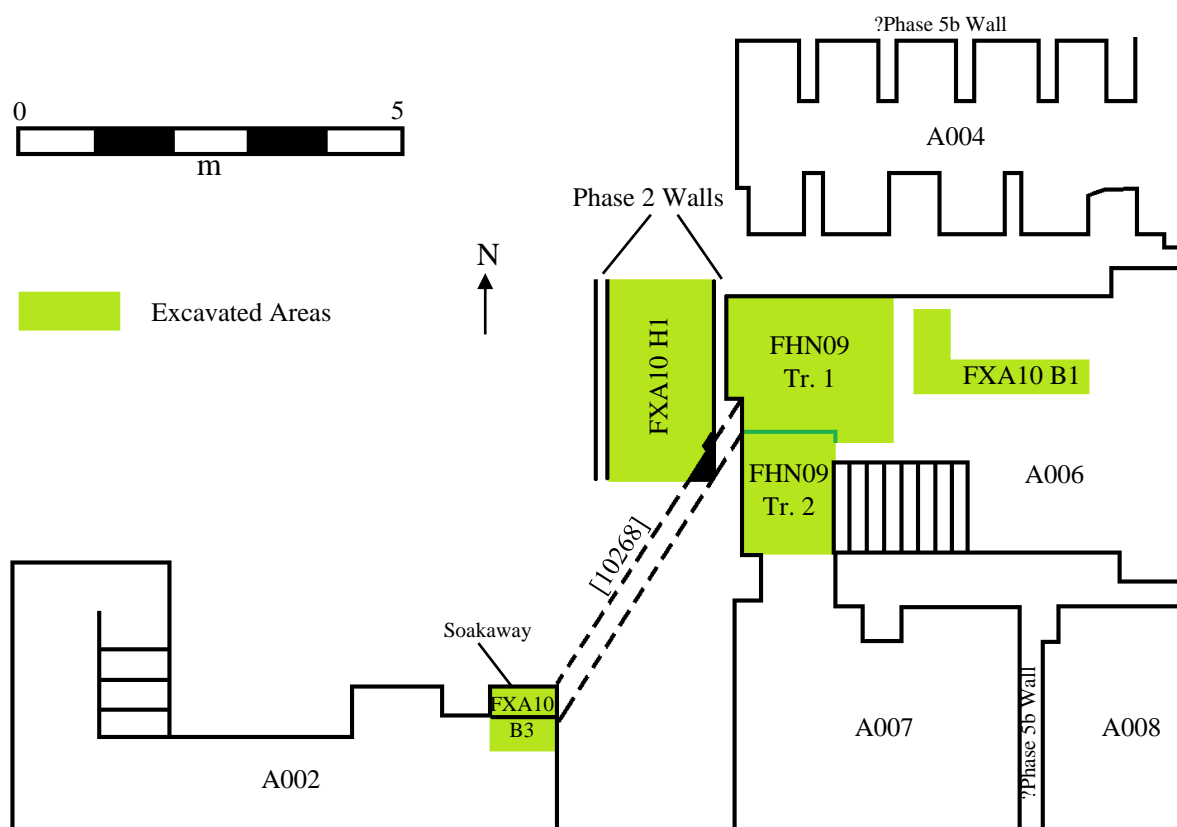


Fig. 9: Phase 2 Basement Drainage Features

The eighth and ninth courses from the top gradually projected more from the face as the wall ran south for no obvious reason, but a deliberate offset near the base at the south end of the exposure may have been connected to supporting a chimney stack to the south (or less likely spreading the load as the wall approached culvert [10268]). The latter wall, as noted above, was of English bond, but its west face included three successive header courses above/for a distance north of the culvert and its top eight courses were fair if casually struck, but below that the work was very rough. It incorporated a four plus course offset low down at the southern end of the area available for study to spread the wall load away

from the culvert and a group of bricks had been mortared against the culvert's north side as reinforcement where it met the wall.

The space between the two walls had then been filled with a general dump of redeposited natural gravels with some admixture of construction/demolition debris and brick dust before a loose, gritty, clayey silt deposit had been deposited, perhaps as floor bedding (though it had been truncated by as much as 17 cm and reworked, probably in Phase 8 when east west yellow stock brick and cement dwarf sleeper beam walls were inserted at either end of FXA10 Area H1, finds from it consequently ranging from green glazed Tudor floor tile fragments to a pair of nineteenth century needlework scissors).

The same basic sequence of dumping to make up the level within the hall following the building of the main Phase 2 walls was also apparent in Areas K1 and K2 in room A0054, the original kitchen of the hall (for location see Fig. 3), though neither saw excavation to the depth reached in H1. In Area K2 where Phase 1 wall [10263] was excavated (see p 22) material matching the lower dump seen in H1 had been introduced to level up to the top of this demolished wall before it was overlain (probably intentionally having been retained as its base) by a new English bond fireplace wall, while an English bond built brick bread oven wall had been built over it to the east. North of the remnant wall [10263], however, the level of the dump rose steeply, so clearly the construction of subsidiary features here was left until after this dumping was complete. Once these walls were built, a separate dump of moderately compacted pebbles in a brown silty sand matrix, had been introduced to level up the area and there had then been a hiatus in dumping marked by a thin layer of brick dust and brick fragments deriving from construction work. Finally a deposit equivalent to the upper dump in Area H1 had been dumped to a depth of 0.10 m. It was present throughout room A0054 and doubtless formed the bedding, with a surface at +47.484 m OD, for a flagged floor.

Elsewhere complete excavation of the isolated unroofed Area C2<sup>85</sup> between rooms A0035 and A0054 provided further evidence of the construction of the standing buildings (Fig. 10). (Before Phase 3 this

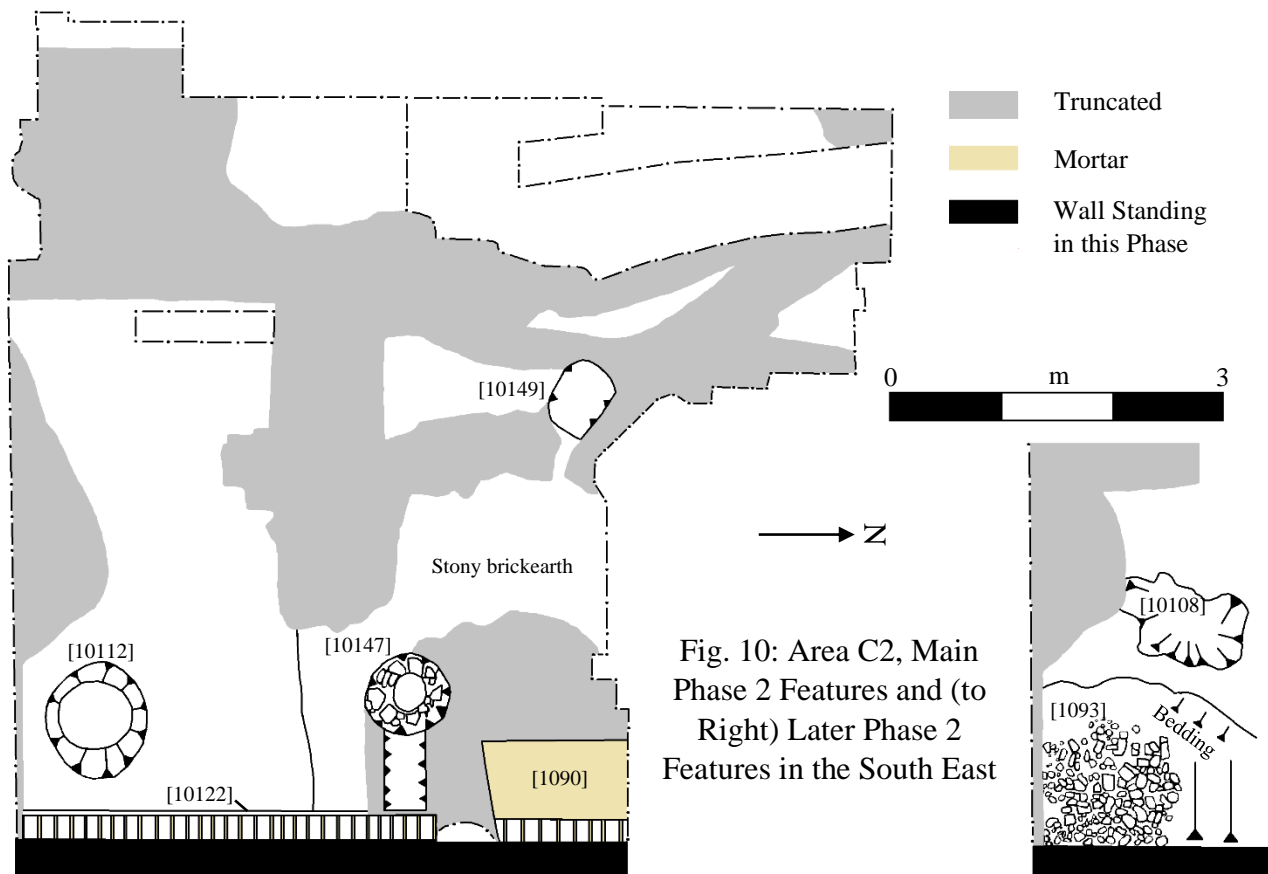


Fig. 10: Area C2, Main Phase 2 Features and (to Right) Later Phase 2 Features in the South East

<sup>85</sup> Since 2011 a glass roofed atrium space.

may well have been entirely open ground west of the hall, but in Phase 3 became (part of) a more enclosed Kitchen Courtyard area, though possibly still open to the south until sometime in or by later Phase 5b when cartographic evidence shows that it was defined on the south by a boundary wall.)

Here demolition of the Phase 1 predecessor structure may have been represented by a thin layer of mortar dust/decayed mortar over the pre-existing soil, a restricted deposit of brick, tile and mortar fragments (possibly from its west end wall) and ephemeral traces consistent with the resting of sections of mortared brickwork on the ground surface. Initial construction activity was then represented by a 17 cm deep construction cut, [10122], for, and extending 22 cm west of, the west wall of room A0054. It had a vertical western edge and held a one course brick offset to this standing wall, above a brick fragment layer on a sand bedding.

To the north in FHN09 Trench 6 (for location see Fig. 3), where this wall was also seen, but had been demolished in Phase 5a (see below p 39), the lower seven courses of it remained and nearly its full width was available for study, its west face was built of good quality English bond brickwork with well struck joints, facing a more irregularly coursed core of whole bricks lain at right angles to the face. The lower part of the wall in Area C2, its mortar left rough and bulging, showed that it had clearly been built from the east and the construction cut immediately backfilled, but then beside the northern part of its western (external) face an up to 5 cm thick sandy mortar surface, [1090], had been lain, probably as the base for a timber predecessor to a brick porch that was later built here (see Phase 3), or for an external stair, to give access to what would have been the hall's kitchen passage.

By contrast, further south a temporary low, brickearth surfaced, gravel 'ramp' appears to have been constructed, extending up to 3.10 m out from the wall line before a substantial scaffolding had been erected. This was represented by two of its packed postholes, spaced at c. 2.90 m centre to centre and c. 1.00 – 1.30 m out from the wall, whose upper levels must now have been being built. The postholes, [10112] and [10147], were flat based, cylindrical cuts with short flaring tops, 70 – 90 cm in diameter, 45 cm deep with evidence for 25 cm diameter posts packed with part bricks and in one case connected to a shallow cut running towards the wall being constructed, suggesting the use of a ground level bracing timber.

Within this part of the (slightly later more enclosed) area between the residential block and the (slightly later) brewhouse/bakehouse there was also evidence (if amongst widespread later truncation) for its initial surfacing which probably suggested some zoning of activity. Thus, whilst further west the area had just been roughly levelled with a complex of dumps mainly of brickearth containing construction debris, in the southern part of the area excavated nearer to the west wall of room A0054 a more formal surface, [1093], had been created. Here an up to 16 cm thick clayey bedding had been lain for a pitched white limestone fragment raised ?path, extending 1.20 m out from the wall and likely continuing south beyond the excavated area. A small ?domestic ash pit, [10108], had also been cut to the west of this. The northern part of the excavated area though had probably been left for a time with just a stony brickearth surface (at one point perhaps interrupted by a scoured channel, [10149]) running west from the mortar surface noted above until the latter was replaced by a new brick porch in Phase 3.

Archaeological work has also demonstrated that the original form of the residential block included, subsequently demolished, projecting bay windows on the east facade. Excavation of one of these at the south end of the facade in 2005/6 (overlapping trenches FYH05 and FYI06; for location see Fig. 3) showed it to have been a 2.80 m long bay projecting 94 cm from the main facade wall of the hall (Fig. 11). At this point the facade wall, now buried to a depth of over 1.30 m, again demonstrated the variability of the bond used in the early stages of the construction of the hall. Though much of the construction was in English Bond, and from its well struck joints (like those of the bay) clearly intended to be seen, both below and above a 5 cm wide offset there were runs of irregular and stretcher bond brickwork from two to four courses high at different points south and north of the bay (while the offset itself was one course higher north of the bay than south of it).

The bay was built integrally with the facade wall, but may have been the first element to have been begun as, in contrast to the hard white mortar of the facade wall and some parts of the bay, its lower courses were bonded with a sandy yellow mortar. It had been built on a four plus course irregularly English bonded (but on the east Flemish below header bonded) plinth/broadened foundation probably

overall 3.02 x 0.99 m. Above a variable (3 – 10 cm wide) offset, its northern and southern arms were 51 cm wide and its east west side 58 cm, leaving a c. 30 cm wide gap between its inner face and the main facade wall.

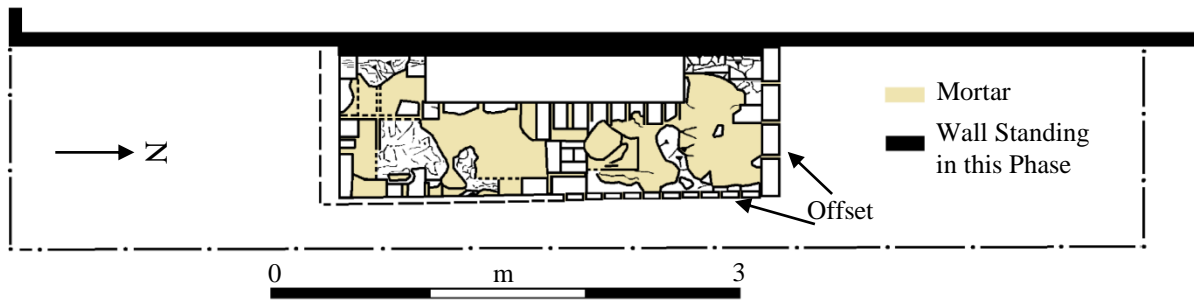


Fig. 11: The Demolished Projecting Bay Window in Trenches FYH05 and FYI06

*Site Phase 3, Probably 1636*

Probably within only a few years of Phase 2, surely always planned and maybe completed in/by 1636, further brick built structures were added west of the main hall to create service buildings attached to it and they began to define a Service Courtyard which is considered further below (p 54ff). Here though it is relevant to note that the east end of one, originally a brewhouse and bakehouse (room A0035), now created a western limit to the area west of the residential block which was also partly enclosed as a Kitchen Courtyard. This phase also saw a new porch constructed at the west end of the residential block, while the part of this Kitchen Courtyard which was fully excavated in the 2009 – 11 work (Area C2) revealed elements of an early drainage system that may also have belonged to this phase. Indeed, throughout the development of the hall complex this Kitchen Courtyard (and the area just to the north of it) would be used to route its services through and provides an illustration of their increasing complexity through time.

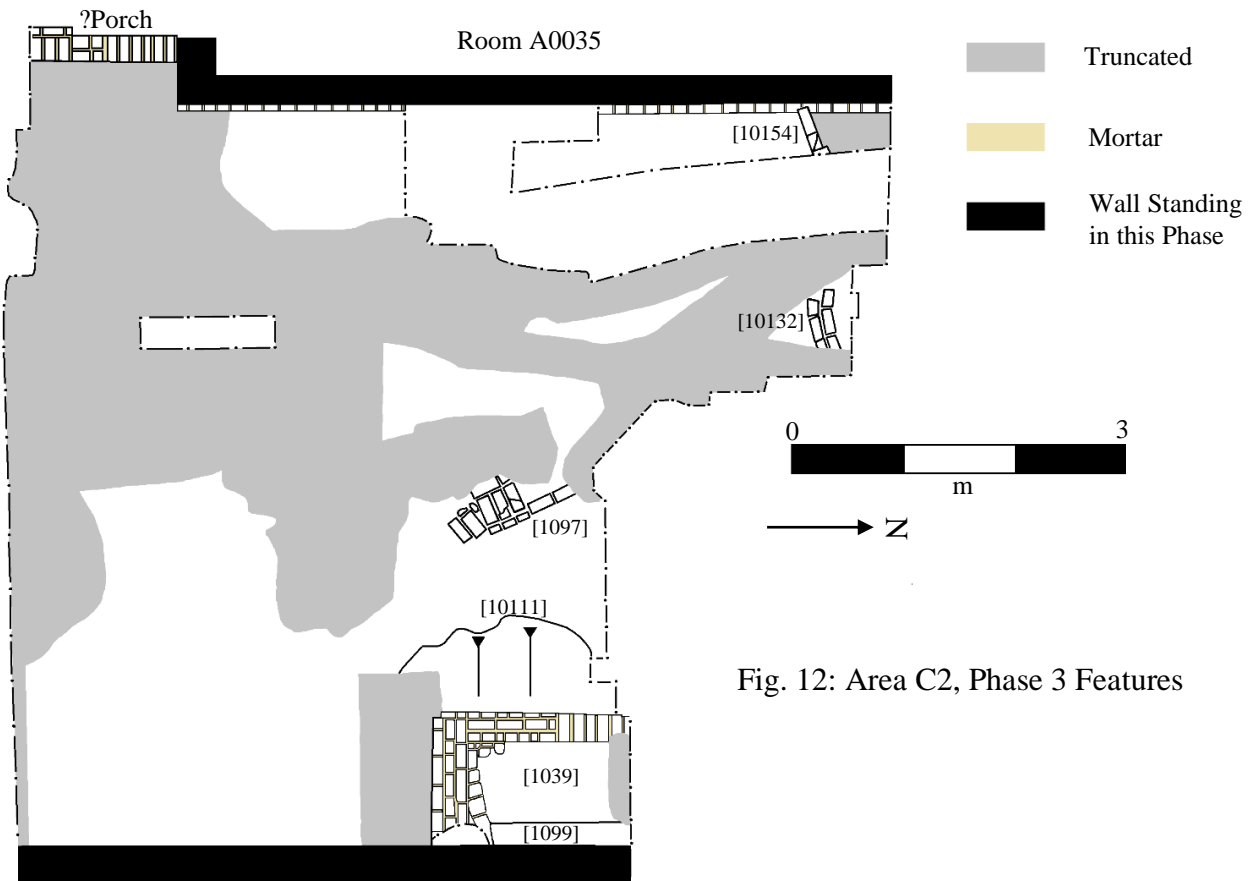


Fig. 12: Area C2, Phase 3 Features

Though the majority of the Phase 3 structures west of the Kitchen Courtyard have not been examined archaeologically, parts of the standing east wall of room A0035, 6.70 m west of and parallel with the west wall of Phase 2 room A0054, were examined during the excavation of Area C2 and it was clear that it had been built from the west in a construction cut extending only 6 cm east of the wall. The cut, c. 20 cm deep, was made from the top of the Phase 1 land surface and held an offset of four courses of rough brickwork or coursed mortared brick fragments below an English bonded wall with a more irregularly coursed basal offset and the construction cut had been back filled with brown sandy decayed mortar, covered by construction debris and then levelled with a mixture of natural gravels and brickearth.

A small part of the east end of the southern wall of room A0035 was also excavated in Area C2 and 40 cm west of its south east corner a further structure had been abutted against it. Although only part of its eastern wall was seen and it was not bonded into the original build, the fact that it used identical mortar to that of the main structure's south wall (itself almost identical to that in the structure's east wall), closely similar bricks and was again built straight on to the Phase 1 ground surface must make it nearly certain that it was broadly contemporary with that main structure even if it was built after its completion. Surviving to a maximum of seven courses, its wall was a single skin English bond construction 24 cm wide with a fair eastern face. However, its two lowest courses used more roughly laid part bricks as it approached the wall of the main structure and, at the south end of the exposure available, they became broadened (to 38 cm) as a foundation with broadened mortar joints to a skin of headers, faced on the east with stretchers in one course and on the west in the other. This broadening probably suggests that the western return of the wall was not far beyond the southern limit of excavation and that it was intended to take the weight of a lean to-roof. The original function of this feature can only be speculated about, but it is likely to have been a southern entrance porch to the brewhouse/bakehouse (indeed the 1773 estate sale map (Pl. 4) shows what can have been no more than a porch in this position).

As might be expected for a brewhouse/bakehouse, the east end of the building also seemed likely to have had drains serving it as a repeatedly reused point of egress for drainage and later water supply features at its north end was probably original to the build and almost certainly related to an excavated brick built probable drain fragment (or conceivably sump edge), [10154]. Built straight on to the Phase 1 land surface, it survived as only a short stretch of three courses of single skin stretcher bond brickwork abutting the wall at an angle, its bonding mortar sandy, but largely lost/dicoloured.

Also fragmentary due to later truncation, a second ?drain fragment, [10132] (Pl. 26 below), 1.25 m to the east was also clearly built in Phase 3, once more being bonded with mortar very similar to that used for the other main structures of the phase, and again being built straight on to the Phase 1 land surface. It only survived as a slightly curving 54 cm long line of stretchers (?representing the drain floor) with two courses of a single skin wall of stretchers to its south, the other side of the drain being lost. Whilst it was probably not part of the same ?drain as [10154], they are both likely to represent the remains of the same drainage system.

A third fragmentary brick structure, [1097], to the south east of [10132] was also presumably the remnant of another element of this first drainage system to be routed through the Kitchen Courtyard. It had again been heavily truncated and probably disrupted even where best preserved and no mortar remained bonding its bricks. It was represented by a short (70 cm) stretch of horizontally laid bricks forming a south east north west running floor that may have curved more to the east at the south east end, some stretcher laid horizontal bricks possibly representing the edges, and, elsewhere, some fragmentary vertically set bricks flanking the floor. In detail the remnants probably suggest a drain 26 cm wide internally that may have narrowed or slightly changed orientation again at the north west end where two further horizontal ?edge bricks appeared to be out of line with the rest of the feature. These drains (?and others) probably flowed into a larger drain excavated further north in FHN09 Trenches 3 and 4 (Figs 13 and 14; Pls 16 and 17).

Here, at the south end of Trench 3, a Phase 3 relieving arch (the edge of which had already been seen in earlier work in FHFL03 Trench 4) belonging to the northern boundary wall built in this phase (see below) survived (embedded in the Phase 5a extension to the residential block (below p 38)).

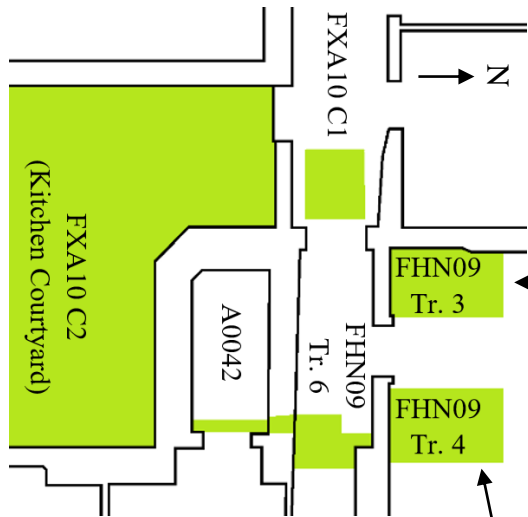


Fig. 13: Areas Excavated Just North of FXA10 C2



Pl. 16: FHN09 Trench 3, South Elevation of Standing Wall Showing the Phase 3 Relieving Arch and Drain [09113]/[09131]



Pl. 17: FHN09 Trench 4, Phase 3 Drain [09113]/[09131] (Phase 7 Drain [09116] Forming the Section to the Right)

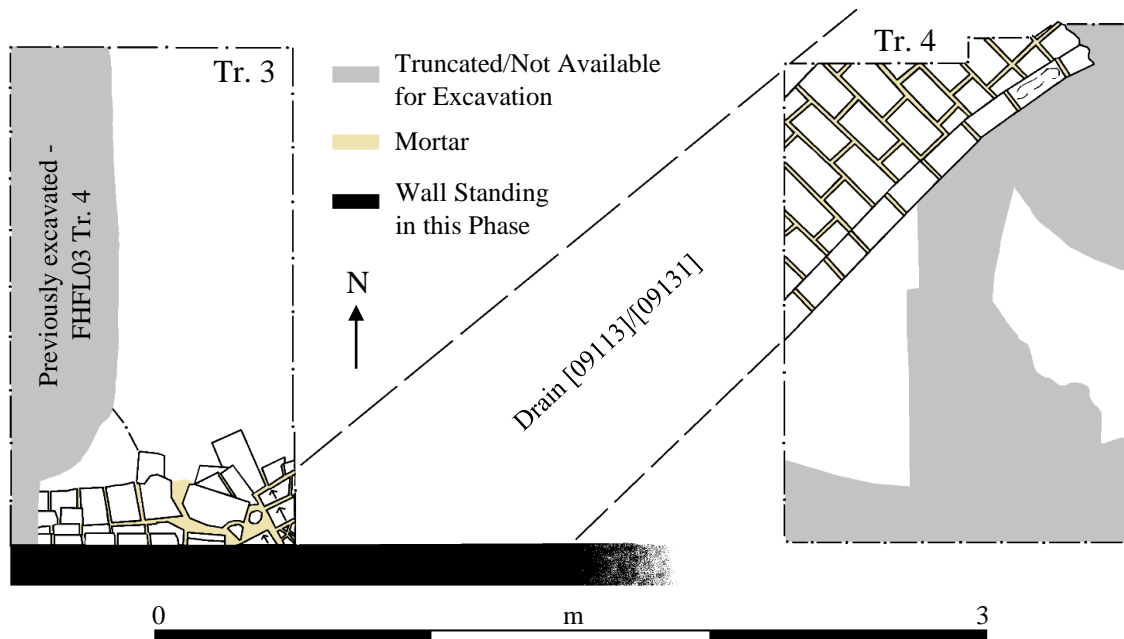


Fig. 14: FHN09 Trenches 3 and 4

The relieving arch had been built to accommodate a south west to north east running vaulted drain, [09113]/[09131], which here was abutted and partly obscured by a rough mortared brick packing, at



least seven or eight courses high, which could have been contemporary or conceivably have been a later construction. Only the extreme west end of the north side of the drain was seen here, but a second (partly demolished) section of it was also excavated in Trench 4. It was built of hand made, unfroged, bricks (and sometimes part bricks) and very pale brown mortar, was constructed in irregular stretcher bond to give a vertical side and a five course vaulted roof and had a floor of north south aligned stretcher bonded bricks/part bricks. In all it was over 72 cm high and internally 55.5 cm wide, its floor had only a very slight fall (c. 1 in 85) to the north east and it ran angularly through the relieving arch, the space between the top of the drain and the base of the relieving arch being infilled to a thickness of over 21 cm with similar bricks and mortar. Four courses/part courses of Flemish bond had been used here (but with stretchers replacing headers in the lowest of the courses above the apex of the drain) above a fifth offsetting course of headers, likely marking contemporary ground level.

Other excavated Phase 3 constructions served in some way to screen off the Kitchen Courtyard between the residential block and main service buildings and provide the former's kitchen passage with a brick built porch (raised with respect to the surface of the courtyard) (Fig. 15). The most problematic of these to fully evaluate was the wall, a fragment at least of which, as noted above, survived incorporated into a Phase 5a (standing) building at the south end of FHN09 Trench 3. However, it is very difficult to interpret how this, presumably just boundary wall, functioned. It must have at least partly run east west to screen off the Kitchen Courtyard, but there was no evidence that it ran as far east as the residential block (where FHN09 Trench 4 showed that it was only in Phase 5a that a wall was constructed running

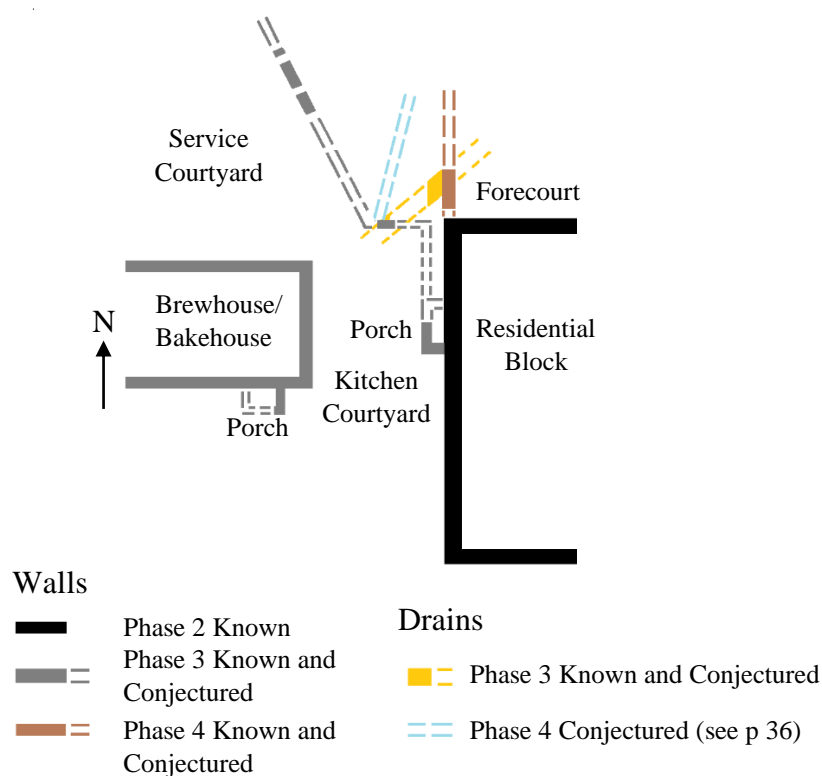


Fig. 15: Phase 3 and 4 Features at the North End of the Kitchen Courtyard

east from that block). So, if it didn't simply stop short of the residential block, presumably it turned south at its east end to meet the porch discussed below. Equally on the west one may doubt if it ran as far as the bakehouse/brewhouse (which its line was 1 – 2 m in advance of so it wouldn't have actually met). It might then have turned north west at some point to become the known east wall of the Service Courtyard (for which see p 56), no other early line for such a boundary being known despite excavation in relevant areas (but a third possibility is that that the wall just stopped and thus had entrance gaps at one or both end(s), maybe one giving access to the new porch). In any event, what actually survived of the Phase 3 rather than the Phase 5a wall that was grafted onto it, and was available for study, was limited to small exposures of Flemish bond brickwork including bricks cut to fit round the evidently

contemporary basally c. 1.30 m wide segmental relieving arch<sup>86</sup> of alternating whole and paired half bricks matching those of the Phase 2 residential block.

In the north east of Area C2 though, and presenting far less interpretative problems, the southern side of a probable porch, [1039], was excavated in the 2009 – 11 work. It used mortar identical to that in the east wall of room A0035 and, as noted, it may well have replaced a wooden porch/stair of Phase 2 and must have had steps ?to its west or north which, if on the west, would have been removed by a Phase 5a extension. Though a Phase 8 cut had removed any construction cut on the south side of it and it had later subsided to the south from the weight of much later concrete work, the construction was well preserved (Pl. 18). Its building was represented by a 20 cm wide cut, [1099], through the earlier mortar surface [1090] to re-expose the offset of the west wall of room A0054 (so that the porch could



Pl. 18: Area C2 Looking East at the West Wall of Porch [1039]

be built directly on to the top of the offset) and a construction cut for its west side. This, [10111], was a shallow (up to 18 cm), quite broad (at least 88 cm and perhaps 1.00 m wide), gently sloping cut, backfilled following construction with material including construction debris (unlike [1099] which was backfilled with gravel).

The structure itself was a 'box', 1.18 m east west and over 1.54 m north south (but under 4.18 m as it was absent in the northern part of FHN09 Trench 6). It was formed of a double skin wall, English bonded (except for the two lowest courses which were of mixed headers and stretchers on the south face) and built of hand made, unfrogged bricks. It survived generally to eight or nine courses (and to 11 where a later Phase 5a wall had been built around it and had made its eventual demolition harder) with fair south and west faces (the latter partly repointed with white mortar), but rough 'internal' north and west faces, and had variable offsets. On the south face there was a significant offset towards the base, on the west a slighter matching offset, on the 'internal' east face no offsets, but on the 'internal' north face there was an 'offset' that marked the top of a brick fragment packing to the lower part of the wall.

Though the 'internal' faces were slightly better finished for the top three usually surviving courses, clearly this 'box' had been built to be infilled as the solid base of a structure and the whole of it had been filled with a series of dumps of stony brickearth, crushed brick/brick dust with brick fragments (which produced a complete Tudor rose plaster ceiling boss (Pl. 19)) and brickearth with construction debris and pottery including sherds of a Post Medieval Black Glazed Ware (PMBL) mug, a Border Ware (BORDY) skillet or pipkin and at least two Post Medieval Redware (PMR) vessels, one a pancheon. They were capped off with a 30 cm thick strong brown silty sand forming a bedding for a damaged mortar floor. The latter survived in places to 18 cm thick, so that it likely levelled as well as

<sup>86</sup> Itself later repointed with late eighteenth/early nineteenth century penny struck hard white mortar.

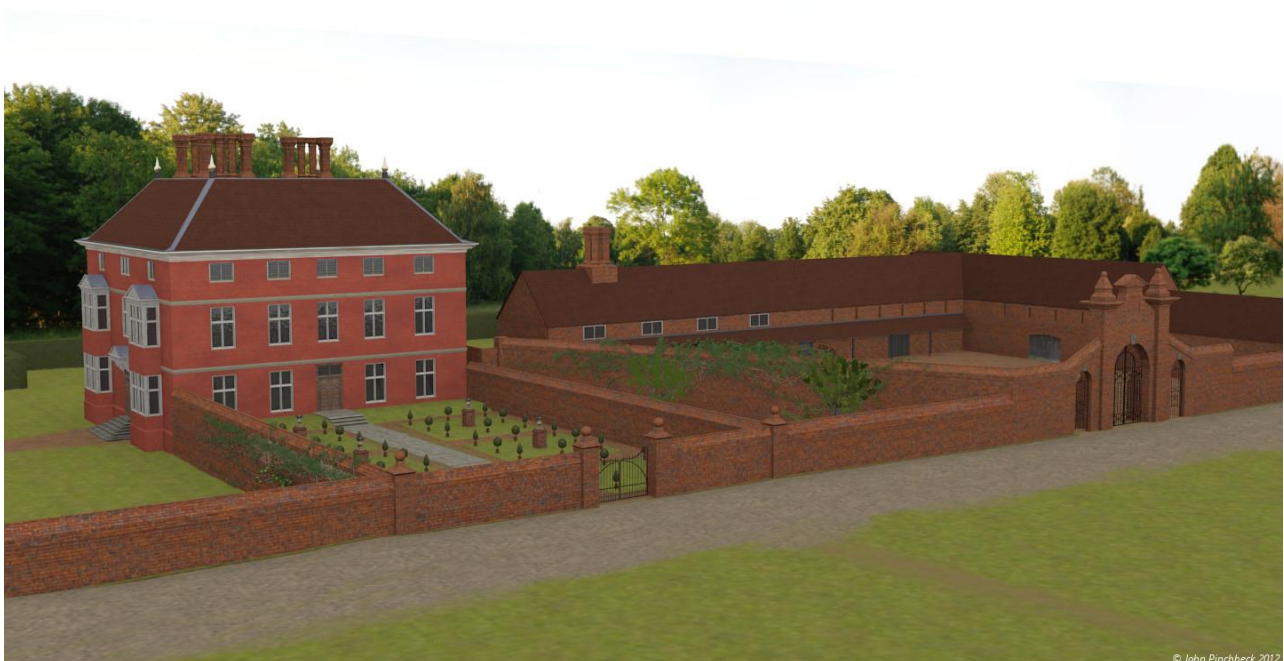
surfaced the area, though an upper pinkish white hardish mortar horizon was detectable over a slightly browner, crumbly, sandy horizon. This may have been the original floor of the porch at about + 47.45 m OD, but had also been cut by an originally rectangular, 78 by over 36 cm, 6 cm deep vertical sided, flat based feature filled with a hard, very pale brown sandy mortar which may have represented a step or threshold base.

Pl. 19: Tudor Rose Plaster Ceiling Boss



### Evidence for the Use and Maintenance of the Residential Block and Kitchen Courtyard Later in the Seventeenth Century (Site Phase 4, probably 1636 – 1696)

For the first 60 years of its existence Forty Hall was occupied by the successive Rainton families. There are not believed to have been major changes to the residential block until early in the eighteenth century, even if the Service Courtyard may have been altered (p 56), thus producing the appearance shown in Pl. 20. There was though some evidence relating to the Phase 4 maintenance of the hall's basement in room A006 (FHN09 Trenches 1 and 2) and in Area C2 and FHN09 Trenches 3 and 4 there was evidence during the 2009 – 11 excavations for domestic activity and rubbish disposal as well as a phase of drain renewal succeeding Phase 3 in and just north of the Kitchen Courtyard. In particular here it was possible to excavate part of a midden that provided significant evidence for the material culture of Forty Hall in the later seventeenth century.



Pl. 20: Reconstruction of the Appearance of the North Façade of Forty Hall and its Service Courtyard c. 1660 by John Pinchbeck

Whether the channel system draining basement room A006 was periodically cleaned of silt is unclear, but probably soon after the system originated a sump within it evidently filled up with what may have been a flood lain sand which included two fragments of probably reused late sixteenth century polychrome glazed floor tile (see Appendix 1). At some point probably in Phase 4 the basement room's west wall had also been thickened for part of its length with an additional skin of brickwork projecting 24 cm from the face of the original build and resting on the Phase 2 brick floor. Although the reason for this is not obvious, unless it was to help support something at a higher level in the hall, the drainage channel through the wall continued through this new skin of brickwork and a lead sheet gutter or channel was installed in it, projecting into the room. Subsequently, maybe towards the end of Phase 4, the channel system had become choked with a black silt, the upper levels of which produced two sherds of probably the same Delft drug jar of the second half of the seventeenth century, with a third residual in an immediately overlying layer (see Appendix 1).

Further west at ground floor level, initially (maybe up to c. 1650) the part of the Kitchen Courtyard available for excavation (Area C2; Fig. 16) probably saw a general contrast between its northern and southern parts. In the north the approach to the Phase 3 porch appeared to have seen little change for some time beyond perhaps the creation of a new very rough surface, up to 19 cm thick and formed of brickearth containing small stones as well as brick and roofing slate fragments. On the south by contrast general occupation material/domestic rubbish appeared to have accrued for a time in this part of the Kitchen Courtyard and covered the earlier pitched stone path beside the west wall of room A0054. The deposit, [1049], varied a lot, but on the west was up to 28 cm thick, contained charcoal and significant amounts of animal bone (dominated by ovicaprid bones, but with some records of cattle and lesser numbers of rabbit and chicken and some evidence for marrow extraction and occasional dog gnawing) as well as fair amounts of brick fragments, some mortar, roofing slate, chalk and oyster shells.

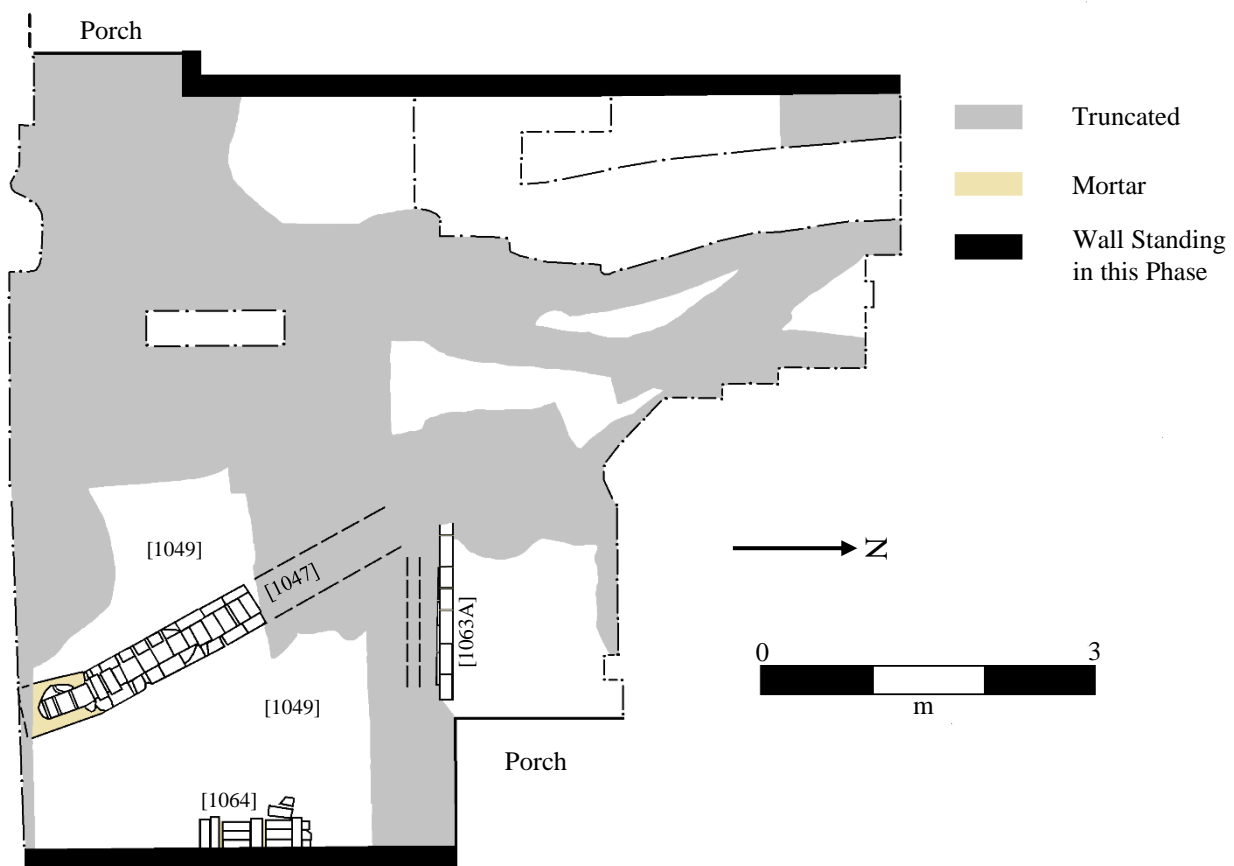


Fig. 16: Area C2, Phase 4 Features

At one point there was a 60 x 70 cm area of multiangularly laying whole and part bricks so an element in the build up may have been dumping from minor building works, but that it was at least in part a general build up in an area peripheral to domestic activity was suggested by a few finds such as a copper alloy weight (see Appendix 1) and thimble, both of c. 1630 - 50, a Tin Glazed floor tile fragment (see Appendix 1), many sherds of the same PMR pipkin and several sherds from a TGW fluted dish. A feature of the finds assemblage was also the number of small copper alloy dress pins present.

The date range of material from this deposit clearly included the second quarter of the seventeenth century and its accumulation may principally have belonged to before c. 1650, but there were single sherds of English Stoneware (ENGS) of post c. 1700 and pale blue glazed dark blue decorated Tin Glazed Earthenware (TGWH) of post c. 1680 amongst the small corpus of dateable material so, unless intrusive, in places final deposit closure may have been c. 1708 or even slightly later in Phase 5. However, probably sometime in the second half of the seventeenth century, new brick built drains appear to have been constructed in the Kitchen Courtyard. The Phase 3 drains here in Area C2 (see Fig. 12) may well have still been in use, but the addition of these new ones may have influenced the replacement/re-routing of the large one (FHN09 [09113]/[09131]) described above, which all the drains identified in this area had likely ultimately ran into, perhaps to be replaced by a new large drain evidenced some way to the north, discussed below (p 77) and its possible course extrapolated on Fig. 15.

Within the Kitchen Courtyard the new drains, though only found where surviving truncation (or reuse/modification in Phase 5), may then have been constructed at the time of the demolition of the larger one to the north c. 1650. One of these, [1063A], was preserved only as the northern side of a presumed drain (and then because it was reused as the northern edge of a Phase 8 construction cut) and ran west from the south west corner of the Phase 3 porch for a (surviving) distance of 1.55 m. What survived were two courses of stretchers simply lain on top of each other and the upper running somewhat out of line with respect to the lower, bonded with softish mortar, stains from which suggested a mortared brick roof. The presumed drain had then at least largely been buried by the dumping of 9 – 20 cm of sandy, clayey redeposited natural gravel which could now have provided a rather more formal surface leading to the porch built in Phase 3.

Presumably meeting [1063A] in a truncated area was [1047] (Pl. 21) which, despite further truncation, was traced running north west for 1.60 m from its point of origin as an open drain within an originally squared setting near the southern edge of excavation. Though it could not be isolated, it was evidently



Pl. 21: Area C2 Showing the Phase 4 Drain [1047] and Brick Platform [1064] with Phase 8 Pipe Conduit [1065] on the Left

built in a cut into the earlier general occupation/rubbish deposit [1049] and had a floor of peg tiles. Its sides were built on the tile edges and were two courses of edge lain bricks/part bricks high, supporting a roof of header lain bricks. Internally it was 17 x 20 cm and overall 34.5 cm wide, the bonding mortar not surviving, but the square terminal setting (in places on the east perhaps packed with reddish yellow silty clay) being of white mortar which also covered a capping of peg tile fragments around the opening. Also probably contemporary with this drain system, lain over [1049] and butted against the Phase 2 wall 1.50 m north east of the end of drain [1047], was a brick platform [1064] (Pl. 21). It consisted of single or paired unmortared edge set headers alternating with groups of three edge set stretchers (secured with pads of buff coloured mortar), between all of which gaps had been left. It was edged on the west by an only partly surviving ?single line of fully mortared stretchers horizontally lain on brick fragments to give the platform a more solid front edge. This flat platform, perhaps originally 1.00 x 0.50 m, was clearly not structural and probably formed the base for something such as a wooden water tank/barrel. If so, it is very tempting to functionally link it with the open drain and suggest that they were used for the open air emptying and rinsing of chamber pots in this Kitchen Courtyard.

What other changes in and immediately north of the Kitchen Courtyard were made is not known, but the Phase 3 large drain leaving it to the north certainly went out of use at this time to within a short distance of the relieving arch, via which it emerged from the Kitchen Courtyard, and was part demolished. This large drain ([09113]/[09131]) as excavated in FHN09 Trench 4 (Fig. 17) had been left as a 20 – 35 cm high remnant and had been used to dump domestic rubbish into, forming a midden which at some later point during the phase had been partly overlain by a forecourt wall (for which see principally p 76).

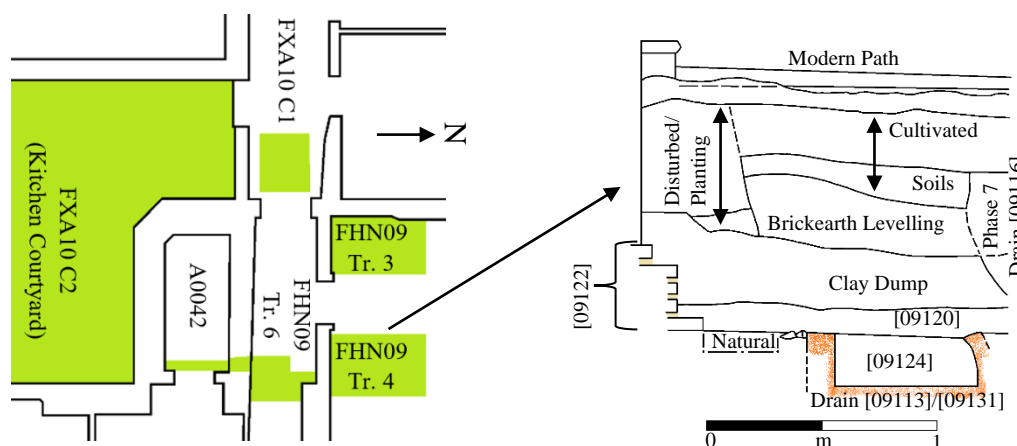


Fig. 17: Areas Excavated Just North of FXA10 C2 and West Section of FHN09 Trench 4

Evaluation of the contents of the initial midden within the drain and its later horizons above it and to the south suggested the deposition of general food waste and, from the start, kitchen vessels as well as broken fine glass and ceramics in use in the hall. But e.g. slate (be it in use for roofing or decoratively) some tile and brick fragments and later e.g. broken window panes also occurred in the earlier phases of accumulation. Therefore it was probably not just a kitchen but also a more general rubbish dump and there may have been some difference over time in its composition, more mixed rubbish forming the earlier horizons (representing only material accumulated during the first perhaps five to ten years) and more often specifically kitchen/household rubbish forming those parts of it that probably began to accumulate later and certainly continued to accumulate for far longer. However, it was a single and, at least for much of its life, probably continuous accumulation, and, whilst vertical translocation of smaller items had almost certainly occurred, such instances were sufficiently limited to show that the deposit had not been significantly reworked.

Indeed, the deposit was then covered by construction/demolition debris at the opening of Phase 5 (see p 38) then emphatically sealed by a clay dump and so represents a sealed group, with the caveat that disturbance from later drain construction throws some doubt on the origin of one or two important sherds and did clearly remove material because sherds joining/matching ones from the midden were

noted in several much later deposits. Analysis of the dateable finds suggests that the midden began to build up, probably both within and on the ground surface around the truncated drain, in the 1650s and may have entirely filled the truncated drain by c. 1660. Its continued accumulation may have slowed later in its life, but it appears to have continued to receive material into the first decade or so of the eighteenth century. The contents of the midden are catalogued and discussed in Appendix 1.

## Remodelling and Extension of the Residential Block Round the Kitchen Courtyard (and Other Changes) in the Early Eighteenth Century and Evidence for the Courtyard's use to the Later Eighteenth Century (Phase 5a and b, 1696 - 1787))

### *The Remodelling and Extension of the Residential Block and Associated Changes (Phase 5a, 1696 – 1708)*

In the second half of the seventeenth century excavationally represented changes to the hall had been focused on its adjoining forecourt (for which see p 69ff) and, excepting changes to its services, the main residential buildings were probably substantially as they had been since 1636 when a comprehensive modernisation of the hall was undertaken c. 1700 – 8 by Sir Nicholas Wolstenholme. The dating, as well as stylistic evidence, largely relies on antiquarian records of lead pipe heads dated 1708 (Robinson 1823, 235ff; Peats 2008, 34 and passim; CMP) that probably record the completion of works that may have taken several years and represented a thorough transformation of the hall into a classical house. Standing buildings work (CMP) has shown that this transformation included replanning of the first floor, changes to the location of stairwells, insertion of a new chimney stack and some more minor changes to the ground floor plan. Parts of a scheme to give the hall's exterior a classic 'early Georgian' look also featured changes to its porches (see p 82ff for archaeological evidence for changes to the north facade) and the reorganisation of its fenestration.

Gough, writing in the later eighteenth century, refers to the removal of 'bow windows' by Wolstenholme (Gillam 1997, 22) and this was represented archaeologically by evidence for the demolition of these projecting bay windows on the eastern facade, the site of one of which was excavated in 2005/6 (FYH05/FYI06). Here demolition to around the level of what may have been a recently created terrace (see p 28f and p 90ff) was also represented by deposits containing brick, tile, slate and mortar fragments (as well as an iron scythe blade) both between the bay and main facade walls and across the top of the demolished bay where it had probably been trampled.

As well as these major changes to the appearance and plan of the residential block, in FHN09 Trenches 3 and 4 especially there was evidence both for this phase of changes to the building including new building work to add extensions to the north (and south) of the west end of the residential block which further enclosed the Kitchen Courtyard (Fig. 18) and to confirm that that building work was of early eighteenth century date. Thus, in Trench 4 (Fig. 17 above) the Phase 4 midden, its latest material belonging to the first decade or so of the eighteenth century, was now receiving demolition/construction debris, some possibly from removing an adjacent fairly short lived forecourt boundary wall (for which see p 76), but much likely from renovation work to the hall as it included bricks, peg tile fragments and a 37 x 21 x 4.6 cm piece of diagonally lain Purbeck limestone flooring flag with surface wear.

Likely as an integral part of the same set of works, and partly over/cut to fit round the demolished edge of the forecourt boundary wall, the foundations, [09122], of a new wall were built, the wall running west from the east end of the Phase 2 residential block (with which it had a butt joint)<sup>87</sup> to the Phase 3 (Kitchen Courtyard) boundary wall with its relieving arch in FHN09 Trench 3. The original gritty, pale brown, white flecked mortar used in [09122] was completely different to that in this earlier boundary wall and, though there was a little ambiguity about whether its basal course could just conceivably have represented reuse of an earlier construction, the wall was clearly a Phase 5a construction. It had a five course foundation lain in a rather irregular mixed Flemish and English bond, 15 cm wider than the

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<sup>87</sup> And the bricks used in the foundations of [09122] were suggested by Ian M. Betts to be slightly later than those used in the 1629 – 32 (Phase 2) block.

Flemish bond wall it supported, with a top course of part brick headers giving a 5 cm offset. Its lowest levels had been covered by the latest (demolition material) additions to the Phase 4 midden and, almost certainly as soon as construction was complete, the area fronting it including the midden was sealed by a compacted yellowish brown clay dump. (Later a second rather sticky brown brickearth levelling layer and then a probable cultivated brickearth soil had been deposited over the area of FHN09 Trench 4, but these deposits cannot be well dated, even if the earlier at least is likely to belong to Phase 5.)

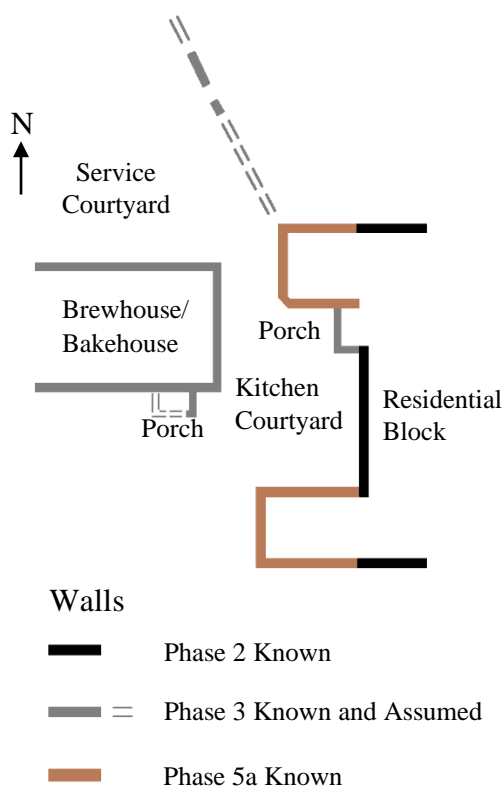


Fig. 18: Phase 5a Changes Around the Kitchen Courtyard

It is then clear that at least one section of the Phase 3 (Kitchen Courtyard) boundary wall had simply been re-used as part of this new Phase 5a construction, which formed the northern side of a (two storey) extension to the west end of the north side of the residential block (later rooms A0042 and part of corridor A0041), matching another (part of later room A0052) at the west end of the south side of the block (identified by standing buildings work; CMP). As part of these works FHN09 Trench 6 showed that the west wall of the Phase 2 original residential block had been knocked through to give access to the northern extension (but the lowest seven courses left standing, probably indicating the level of the new extension's (presumably slab) floor, a probable bedding for which just covered the wall stub). Similarly, the Phase 3 porch in the Kitchen Courtyard (Area C2) was partly demolished to make way for, but probably partly incorporated in, this new extension (Fig. 19).

Thus, a 26 – 41 cm deep construction trench, [1074], for the extension's (still standing) south wall (projecting 32 cm from its south face) only ran west from this porch, which suggests that the south side of the porch may have been retained as a single storey feature of some sort (a ?porch to a later removed doorway). The extension's wall, below up to six rather rough brick offsetting courses, was founded on a layer of rounded cobbles, then another of rammed brick and chalk and had an angled corner at its west end, where the construction trench was up to 54 cm out from the wall (but obscured by modern underpinning further north) and the foundations thickened and broadened.<sup>88</sup> The ground floor of this

<sup>88</sup> This suggests a perceived need for reinforcement of the 88 cm long north west angled section of the wall, carried up only to first floor level where the wall projects to attain a squared corner. The angling was probably required to retain accessibility to what was now a more enclosed and isolated kitchen courtyard; the angled line would maximise the clearance at the only point which now certainly provided access and might imply that small cart access was required here. I owe this observation to Neil Pinchbeck.



northern extension probably increased the hall's services provision (its first floor's function is unclear) and maybe the matching southern extension (probably below a study) did as well.

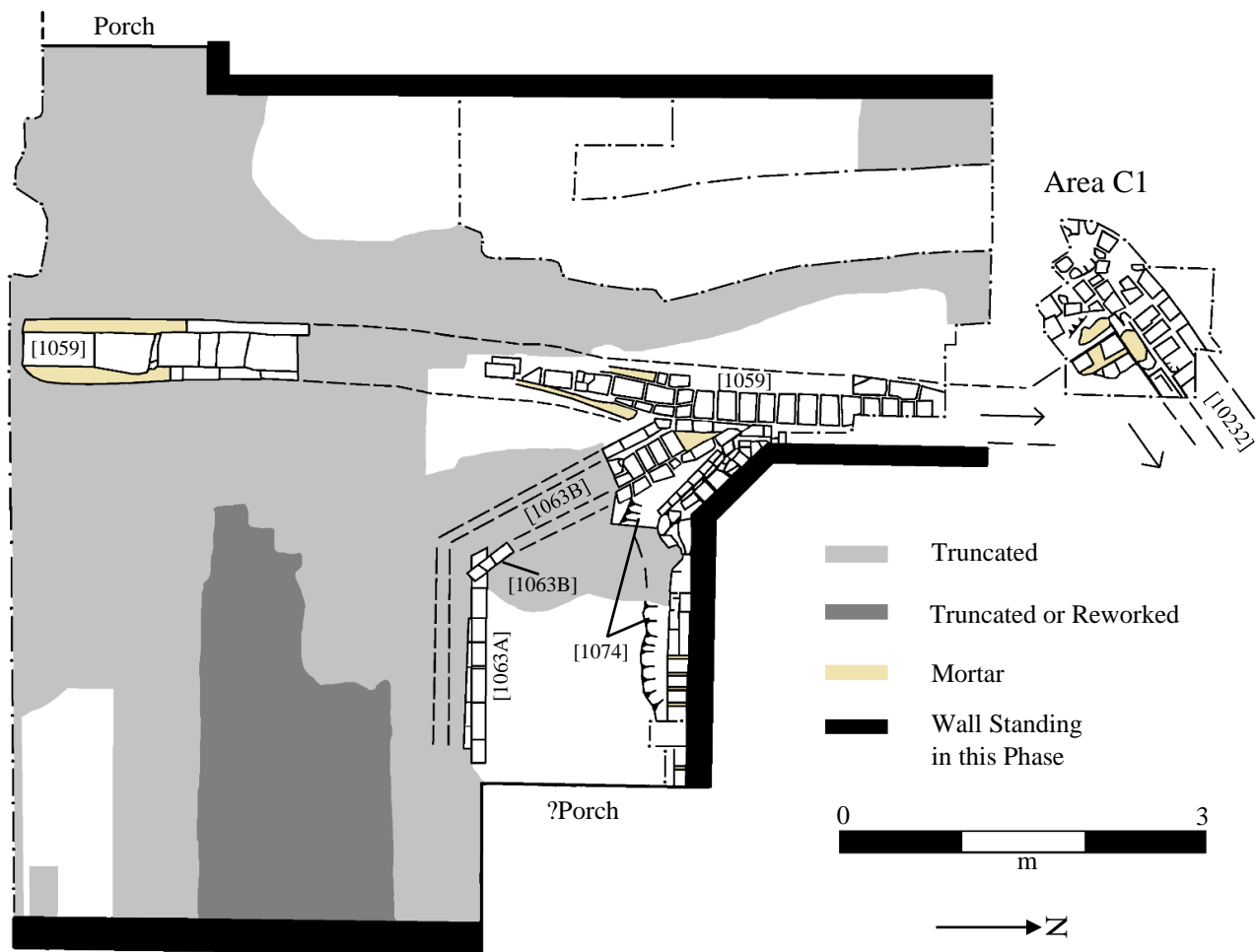


Fig. 19: Areas C1 and C2, Phase 5 Features

Although absolute proof of contemporaneity was lacking, the construction of the two western extensions to the original hall was almost certainly accompanied by the reorganisation of the drainage system in the Kitchen Courtyard, which will have become increasingly useful for routing services through as the hall tended to become a more integrated complex. In this instance Phase 4 drain [1047] was decommissioned, its open end being filled, including with part bricks; drain [1063A] was retained, but any turn/continuation to the north must have been removed; and instead a new drain, [1063B], was built over a ?levelling/make up dump to redirect it towards the north west and into a new larger drain, [1059]. Of at least three course high stretcher bonded sides, a floor of headers and using the same charcoally mortar as parts of drain [1059], which its north end was integrally built with, [1063B] had also been keyed into [1063A]. At [1063B]'s north west end its basal course was omitted so that it entered [1059] c. 0.05 m above the latter's floor, its own floor here formed by a raised triangular mortar mounding and its north side using wedge shaped cut bricks to engage with [1059]'s east side.

Drain [1059] ran north south and probably served the more southerly new extension and on the north likely, though not certainly, ran into another new drain (or rectangular junction tank/?inspection point) partly excavated in Area C1. If a drain, this probably then ran east below the northern extension for at least a short distance (?? before turning north again perhaps). Probably modified during construction (though conceivably somewhat later) as indicated by the use of four different mortars, [1059] was internally 16 cm wide and 19 cm high on the south, broadening where it met [1063B] to 22 cm wide and near the northern edge of excavation survived to 30 cm high. Floored with peg tiles which were probably seconds, its sides were built a little differently of edge set or stretcher bonded bricks on mortar bases at different points, in some cases right against the extension's west wall, and then, in the south at least, the drain had been broadened externally to 42 cm to take a roof of reused (presumably from

within the hall) part and whole Purbeck limestone flags. Indeed, there were slight indications that the drain roof had been exposed at ground level rather than being buried.

Only one squared corner of what was evidently a larger feature, [10232], at least 40 cm deep (and if it functioned with drain [1059] it would have had to have deepened considerably further east), was seen in Area C1, but it appeared to be either the south west end of a rectangular brick built drain over 0.40 m wide and orientated south west north east, or, perhaps less likely, the corner of a larger (perhaps up to 1 m<sup>2</sup>) tank orientated thus. It was built of single skin irregularly bonded brick work and again a variety of mortars – some similar to those used in [1059] – and, where seen, had a floor of part bricks set in mortar with patches of mortar on the top of the sides suggestive of the securing of a cover slab. But it was surrounded to the north and west by additional abutting brickwork 36 cm and c. 50 cm wide respectively, using further different mortars and sometimes clay packing.

### *Reflooring of the Cellars (Phase 5a, 1696 – 1708)*

Probably in Phase 5a (though it could have been late in Phase 4) all but fragments of the Phase 2 floor in basement room A006 (FHN09 Trenches 1 and 2; e.g. Fig. 9) were removed and it was replaced with the extant brick floor which lies at a slightly higher level and recreates the channel system of the earlier floor using integrally lain brick gutters and the Phase 4 lead channel entering the west wall of the room. Lain on a new, up to 10 cm thick bedding of crumbly pinkish grey sandy material (probably a decayed mortar), the floor shows some areas of later patching, one perhaps of eighteenth century date and others in connection with changes to the basement access arrangements and possibly (removed) nineteenth century features (not described in detail here).



Pl. 22: Extant Brick Floor in Basement Room A006 Showing the Gutters Running into the Phase 4 Lead Channel Through the West Wall

### *Evidence for the Kitchen Courtyard's use after the Phase 5a changes (Phase 5b, 1708 – 1787)*

Relatively few changes were made to the residential block during the remainder of the eighteenth century and what were, such as changes to the screens passage and creation of basement rooms A003 – 5 and 7 - 8 by subdivision of larger Phase 2 rooms, have been traced through standing buildings work. Archaeologically the only evidence for this period in the vicinity of that block came from Area C2 (Fig. 19). What exactly the character of the Kitchen Courtyard, which Area C2 formed part of, was though in the eighteenth century is unclear. It was now more hemmed in by the Phase 5a extensions and

cartographic evidence shows closed off on the south by a 'new boundary wall by 1787, but as a space relatively little was clear about it beyond that service features relating to the west end of the hall were still routed through it.

In Area C2 drains like [1059] then were overlain by different deposits on the south and north in this phase and some areas may have initially been levelled with construction debris, but the deposits, even where not, as often, truncated, tended to suggest redeposition and reworking of 'dumps in subsequent phases. Some contained domestic rubbish of seventeenth century date as well as earlier eighteenth century finds and it seemed quite possible that material had been dumped to form a bedding for a slab surface covering the whole courtyard and which the slab roofing of drain [1059] was intended to match. If so the surface was later removed and its bedding reworked, but the number of fragments of reused limestone slabs present as part of Phase 8 and 10 features and, often large, fragments of them present in deposits from Phase 7 on would be consistent with this and would explain a possible perceived absence of post Phase 5a deposits in some areas.

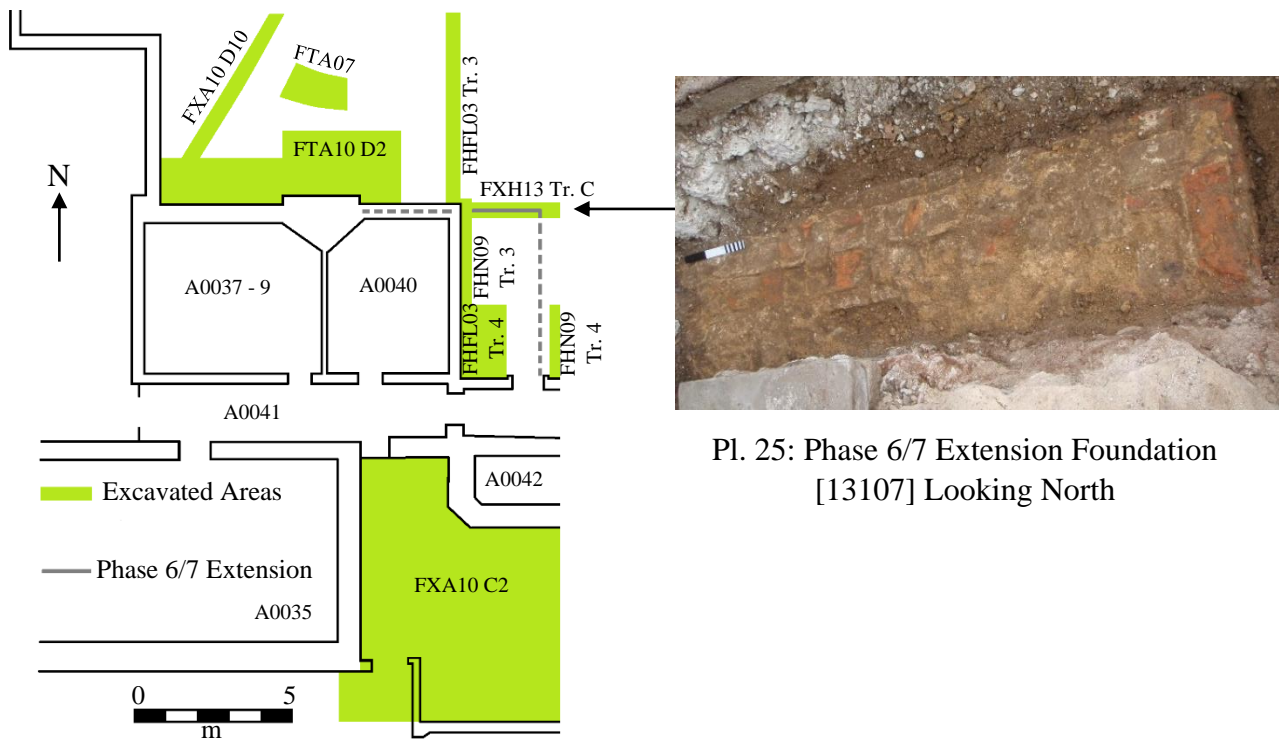
### Evidence for Changes to the Residential Block and Kitchen Courtyard from the Later Eighteenth to 'Mid Nineteenth Centuries (Phase 6a and b, 1787 – c. 1850)

The residential block continued to see mostly only relatively small changes during the tenure of Edmund Armstrong and the earlier members of the Meyer family. A few changes such as the subdivision of the Phase 5 northern extension to create room A0042 and an extension of corridor A0041, and some modifications to the house's porches, have been explored through standing buildings and cartographic work and the main hall staircase was probably replaced by the Meyers (for archaeological evidence for developments immediately south of the Kitchen Courtyard see also p 96ff). Cartographic and photographic evidence (Pl. 23) though shows that prior to the construction of the 1928 servants' hall (rooms A0037 – 40; see p 53) a small extension had been added to the north side of the northern Phase 5 extension (room A0042 and part of corridor A0041; the latter of which will have been extended further west in the process). It can be dated between 1823 when an engraving of the north facade of the hall (Pl. 24) fails to show it and 1866 when it appears on the first OS map so it probably belonged to Phase 6b (or possibly early in Phase 7).

The 1928 servants' hall was clearly later built over its western part, but a section of its north wall, including its north east corner and the beginning of its east wall (mainly under a modern slab path between FHN09 Trenches 3 and 4 so not accessible), were recorded in plan in CCTV trenches, first in FHFL03 Trench 4 where it was cut by the wall of the 1928 extension, and later immediately to the east in FXH13 Trench C (Fig. 20 and Pl. 25).



Pls 23 and 24: The North Front of the Hall ?c. 1894 Showing the Extension Preceding the 1928 Servants' Hall (Detail of Pl. 12) and (to Right) 1823 Engraving of the North Facade (Unknown Artist) Published in *Gentleman's Magazine* 93 (NS 16) pt. i, 536, Pl. II No. 1



Pl. 25: Phase 6/7 Extension Foundation [13107] Looking North

Fig. 20: Excavations North and East of the 1928 Servants' Hall in Relation to the Ground Floor Plan Prior to 2009

It showed that the extension projected c. 4.80 m north of the facade of the main residential block, as its 1928 successor does, and it was clearly of a similar width. The wall foundation, [03T4F1]/[13107], appeared to be of two stretcher lain skins of variable (probably in at least some cases reused) bricks, all appearing to be unfrogged, often relatively soft fired and from red to pale yellow, bonded with a fairly hard, light yellowish brown mortar. At least two further lines of bricks south of the wall appeared to represent an at least 86 cm long east west internal feature (monitoring circumstances meant that its full extent could not be determined), and there was evidence for an internal mortar floor. Seen only in plan on the east, adjacent to the 1928 extension in FHFL03 Trench 4 and the overlapping FHN09 Trench 3 the floor, probably with a final thin surface of hard white mortar, had foundations as much as 24 + cm thick comprising pebbles and brick fragments in yellow/buff mortar, but probably in two horizons and at one point lain over a layer of fragments of roofing slate up to 17 cm in size. The brick inclusions comprised frogged yellow stock brick, machine made red brick and machine made bluey green extruded brick (similar to those used in the foundations of the 1928 servants' hall) and suggest that this may have been quite a late replacement floor, maybe implying significant internal modifications late in the life of the extension.

However, monitoring of FHFL03 Trench 3 immediately north of the east end of the 1928 servants' hall (Fig. 20) also recorded a structure it seems likely was very broadly contemporary with (?or slightly earlier than) this extension. Though only a small exposure was available, and just to the west in FXA10 D2 no continuation of it was present (though here disturbance included the later installation of a modern manhole), a fairly substantial wall foundation in a large construction trench on the same alignment as the north wall of the extension but 80 cm in advance of it was excavated (Fig. 21).

The surviving lowest course of the wall was 62.5 cm wide, built of hard, pinky red bricks with shallow round cornered frogs and hard yellow mortar, lain as four skins of stretchers, but in one area as two skins of headers probably to achieve the necessary spacing to key in a second ?wall running south for (at least) 36 cm. The main wall had been built in a construction trench over 1.00 m wide on a c. 6 cm thick, c. 75 cm wide foundation of mortar and rubble. The brick morphology again suggests a date for the construction in the late eighteenth to early nineteenth centuries (Phase 6a or early Phase 6b), though a broken brown glazed sectional drain pipe encased in flint pebble concrete which ran towards the north south ?wall matched those of Phase 8 (1897) noted below (a (later removed) Phase 8 drain indeed

having been heading in this direction in Area C2 (Fig. 24)) and need not have had any relationship to either wall.

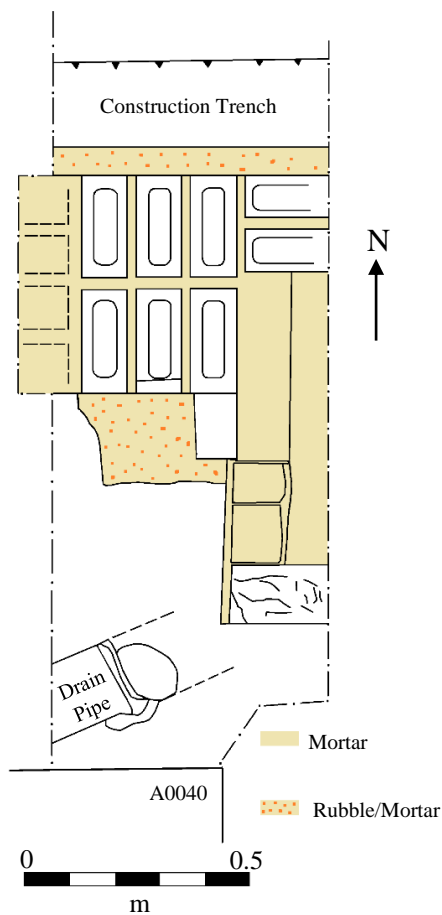


Fig. 21: The South End of FHFL03 Trench 3

Interpretation of this structure is problematic, especially as by 1867 it must have lain on or very close to the line of the east wall of the Service Courtyard (for which see p 56f), yet it was of very different build from it as far as can be ascertained and suggests a fairly substantial construction. It may be possible that it indicates that the known Phase 6/7 extension described above was preceded by another slightly larger one, or that the known extension had a northern outshoot demolished by the time it is shown on the 1867 OS map. However, a further possibility may be that it represents some rebuild of the end of the Service Courtyard wall (? where it turned south for a short distance to meet the Phase 6/7 extension), perhaps in order to support some ornamental feature.

In or after the later eighteenth century one further change was a reduction in the size of the Kitchen Courtyard as the southern Phase 5a extension to the residential block (believed to have been, at least later, a scullery) was expanded to the north and excavation of Area C2 allowed the north side of this (standing) structure to be studied (Fig. 22). But the construction date of this new extension (room A0053) was hard to establish. Its original mortar suggested an eighteenth not nineteenth century date, but it had been at least partly rebuilt (and extensively repointed where not) in Phase 8 and a cut associated with this as well as a Phase 6/7 sump, [1088], and Phase 8 truncation had removed much of the archaeological evidence relating to its construction. A further hint that that had occurred in the eighteenth century (? so under Edmund Armstrong, who standing buildings evidence suggests had remodelled the southern Phase 5a extension) was though provided by evidence that the Phase 5 Kitchen Courtyard drain complex apparently continued to function into the nineteenth century since its northern part was diverted when a new porch was built (see below). Nor was the southern part of it (i.e. drain [1059]) removed, though that would not have been entirely necessary, when an adjacent sump serving the new extension seems to have been created. At some point [1059] was truncated by the north wall

of the new extension, but whether that only happened in a Phase 8 rebuilding of it was not certain even if it seems very likely.

The sump, [1088], directly in front of the middle of the extension's north wall, continued in use for a protracted period and as excavated the complex of cut and scoured elements comprising it probably partly reflected Phase 7 activity so that its form in Phase 6 was difficult to isolate. But it is most likely that the lower, steep sided part of its 76 cm depth, cut 30 cm into the natural gravel, belonged to Phase 6 and in this phase it may have been semi-circular, projecting 1 m out from the Phase 6 wall and c. 1.80 m east west with a narrowing extension running further west. The flow into it had presumably at least partly been via two slab roofed voids which passed through, and appeared to be original to, the wall (even if a lead water pipe entering through one of them was presumably of Phase 8).

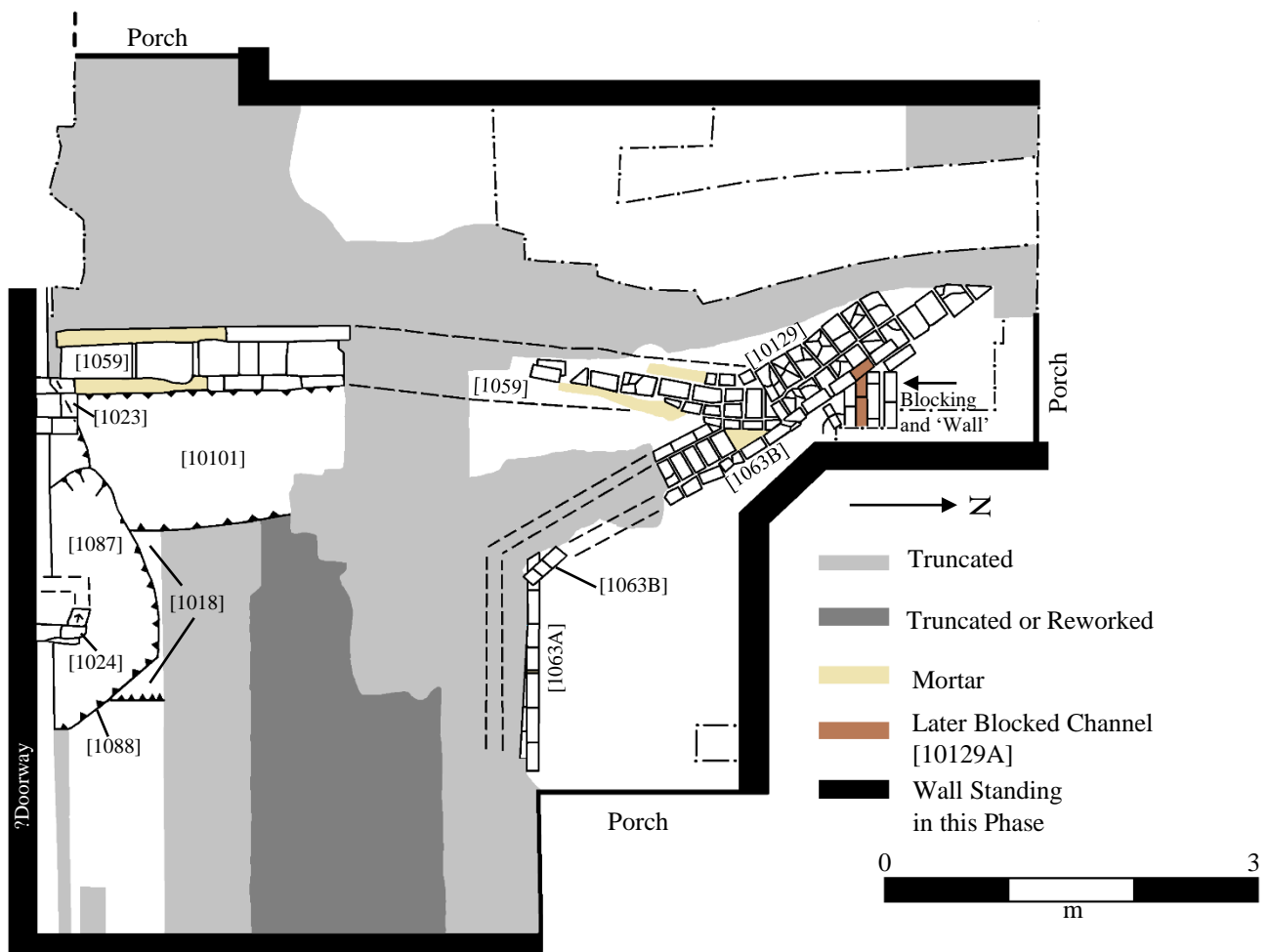


Fig. 22: Area C2, Phase 6

East of the sump, at the east end of the Phase 6 extension, there may well have been a doorway into the (conceivably slab surfaced) Kitchen Courtyard from the start (possibly with a porch added to it in Phase 7 (see below)) and, though there was no archaeological evidence, this and the sump might have been in a lightly built (?open) lean to fronting the extension (pers. comm. Paul Drury).

However, interpretation of much of the area occupied by the sump and west as far as drain [1059] was very problematic. Quite substantial cut(s) may have been made around the sump and to its north west, perhaps in part to form a very broadly rectangular deepening the sump sat in, but were hard to isolate and their fills, [10101] and [1018], difficult to date as they were likely at least in part redeposited and probably manually (?and fluviially) reworked into Phase 8. A clay pipe bowl of c. 1730 – 60 from [10101], an up to 30 cm thick ?dump of ?redeposited stony sandy silt with many small brick, tile and some slate fragments that seemed to be the lower filling of part of this cut complex, may suggest very broadly eighteenth century activity (?conceivably associated with the construction of the extension),

but [1018], a looser silt covering it and filling the rest of the complex, produced finds of seventeenth, eighteenth and probably nineteenth century dates.

What was a little clearer was that the sump's main fill, [1087], a dark yellowish brown extremely clayey silt with frequent stones, some mortar and brick fragments and rarer part bricks, tile fragments and pieces of charcoal, began to build up in Phase 6, in fact filling part of its east end by Phase 7, though the sump continued in use. At some point – though exactly when is impossible to say - the original slab roofed voids through the Phase 6 wall then ceased to function effectively or additional water discharge capacity was required, so two new voids were, presumably, but not necessarily, at the same time, knocked through the wall at a higher level. Whether then or later these had been fronted by brick built surrounds, [1023] and [1024], c. 42 cm wide and projecting 30 – 40 cm from the wall. The flow from the easterly (surrounded by [1024]) had evidently been considerable, necessitating the recutting of the upper parts of the sump to enlarge it, and the surround may have had a mortar base so that it functioned as a crude mortar floored trap to direct the waste water flow through a gap in its floor on its north side to avoid it scouring below the foundations of the wall. There may also have been some recutting below the void surrounded by [1023], but here the sump can never have been as deep (even if upper parts of it may later have been truncated).

Probably also belonging to Phase 6 were the traces of a probable porch which had been added to the west end of the northern Phase 5a extension to the residential block, its foundations/lower courses projecting 40 cm beyond its west end (with further traces identified in standing building evaluation; pers. comm. Paul Drury). It was constructed across the line of drain [1059] and was almost certainly responsible for that drain, into which drain [1063B] presumably still flowed, now being re-routed further to the west (Pl. 26) and the drain or tank it had flowed into in Area C1, which the porch would also have impacted, going out of use and being infilled and capped off with mortar and brick fragments.



Pl. 26: FXA10 Area C2 (North West Corner, Looking North) Showing Phase 5 and 6 Drains [1063B], [1059], [10129] and [10129A] with Remnant Phase 2 Drain [10132] in Front of Phase 9 Wall [1033]

A sherd of English Saltglazed Stoneware directly below the new drain, [10129], might suggest that the new drain was built, and so the porch was constructed, before, or at least not greatly after, 1770 when new creamwares significantly decreased the popularity of saltglazed stoneware. Whilst then it would be unwise to rely just on this single sherd, which could anyway have been residual, to draw this conclusion and so to assign these changes to the tenure of the hall by Edmund Armstrong (1787 – 97), that would fit with other architectural evidence from it (CMP 6.2).

Though later truncation only left a 1.63 m length of the new drain even partly preserved it was 31 cm wide internally with a peg tile floor and single skin brick built sides. But it had been augmented, or later adapted, using a harder whiter mortar than the initial build did, with an additional skin of bricks to its east side and a two skin, two course high ‘wall’ and a brick blocking of the obsolete course of the drain, the latter two flanking a probable channel/pipe slot running into the new drain course from the Phase 5a extension. Though at some subsequent point this channel had in turn been blocked with bricks, it emphasises the Kitchen Courtyard’s function as a space through which to route the increasing number of services installed in the hall in the eighteenth and nineteenth centuries.

Indeed, the succession of services following similar routes was also shown just to the north where other Phase 6 features excavated included, in FHN09 Trench 4 (Pl. 27; for location see Fig. 20), a foul water drain, [09115], of the late eighteenth or more likely early nineteenth century, running north from a c. 30 cm wide circular hole in the north facade wall of the building (the egress also seen in FHN09 Trench 6 within the hall). Built above a Phase 4 forecourt wall (see p 76) out of hard fired, very slightly frogged, 4.5 cm thick pavers and hardish mortar in a rough stretcher bond, it was cylindrical, c. 40 cm in external and 25 cm in internal diameter, and showed a later repair, doubtless following forced access to clear a blockage, with two very hard fired, shallow frogged, bricks and creamy white cement.



Pl. 27: FHN09 Trench 4 Showing Phase 6 Drain [09115] Over Phase 4 Wall [09121] and Under a Phase 8 or Later Drain (Phase 5a Wall [09122] to Bottom Right)



## Evidence for Changes to the Residential Block and Kitchen Courtyard from the ?Mid Nineteenth Century to 1897 (Phase 7, c. 1850 - 1897)

Once more in the ownership of the later members of the Meyer family, the residential block remained little changed while even in Area C2, as well as some uncertainty about the overall date of Phase 6, many of the developments occurring before Phase 8 in the Kitchen Courtyard are difficult to date closely. However, what survived (very extensive) later truncation and concrete work here were probably only elements of numbers of changes that did probably broadly belong to the second half, or perhaps later three quarters, of the nineteenth century (though one or two elements could alternatively have belonged to Phase 8). None were very major, but they do suggest continuing evolution of the space and continual modernisation of the services that ran through it.

The Kitchen Courtyard (Fig. 23) may now then have been made more accessible by the cutting of a doorway in the eastern (Phase 2) wall of room A0054 on its east and another of the changes was the possible erection of a porch fronting the suspected doorway at the east end of the Phase 6 extension (room A0053) noted above. It was represented by a dwarf wall, [105], perhaps for a timber construction supporting a pitched roof (suggested by slight traces of its abutting to the standing Phase 6 wall). The dwarf wall would also have abutted this wall when built (though it had been partly divorced from it in Phase 8) and projected over 1.15 m from it, surviving to (and perhaps only ever having been of) three courses of English bond brickwork, reusing hand made bricks, but bonded with hard white cement.

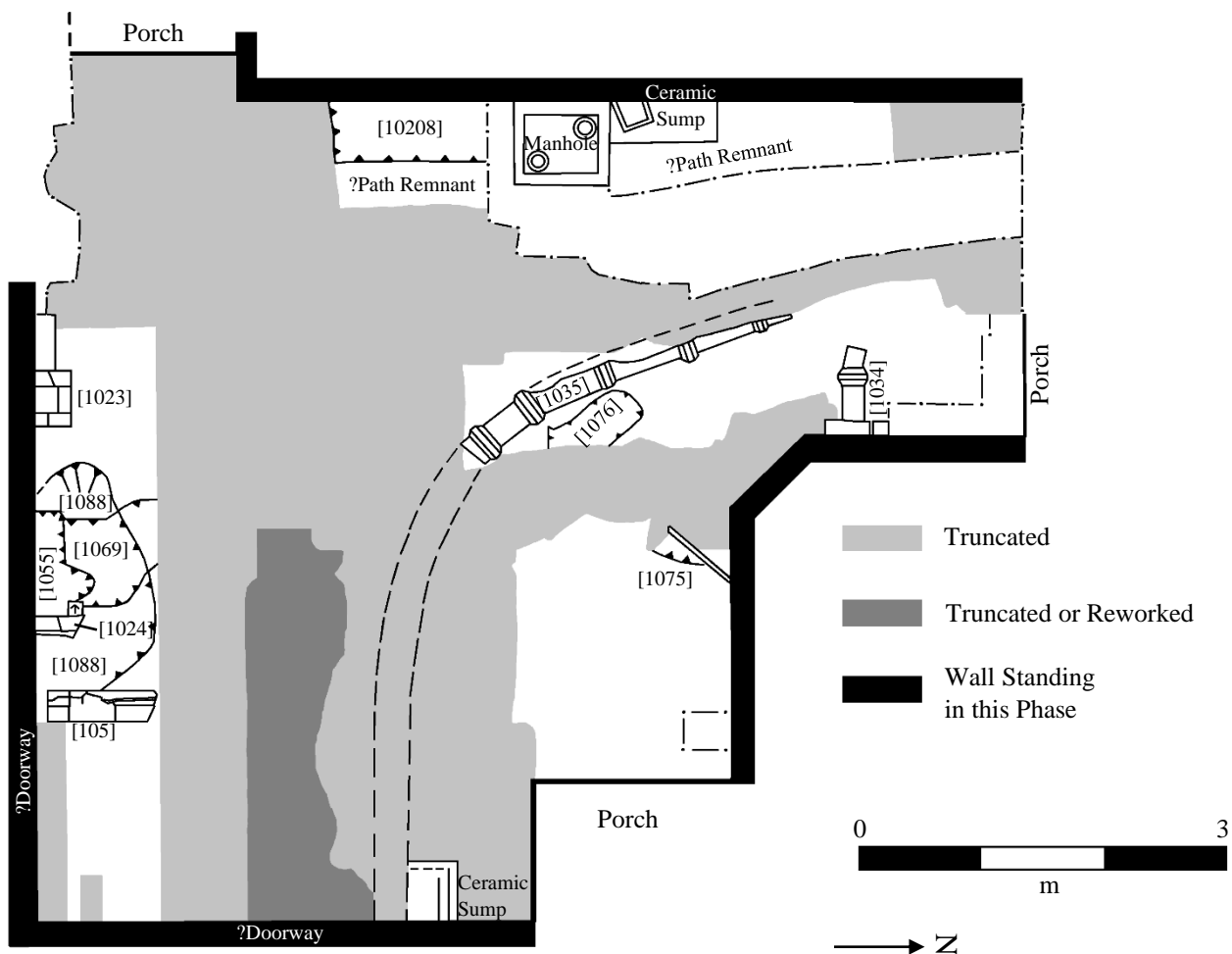


Fig. 23: Area C2, Phase 7 Features

Despite the Kitchen Courtyard's drain provision, the sump, [1088], further west along the front of room A0053, continued to be used, becoming more dished in profile, perhaps taking run off from the possible porch, but continuing to silt up, at first on the east, then, after a period of scouring, on the west and eventually filling entirely. At least one of the brick surrounded voids probably cut through the wall ?in

Phase 6, [1024], was, however, still evidently in use, if partly collapsed and probably discharging much less water, because a new, much smaller (32 x 40 cm) and shallower sump, [1055], was cut (or scoured) below this eastern discharge point (and probably also took a flow from the north via [1069], a ?short lived irregular U-shaped channel, up to 70 cm wide and 12 cm deep).

However, even the small sump and channel were filled in before the end of the phase, probably reflecting that the Kitchen Courtyard also saw one or more reorganisation(s) of the formal drains lain in it as the hall's services were again upgraded in line with developments in technology. Whenever the originally Phase 5 brick built drains went out of use, they were partly removed when much of the north west of Area C2 was covered by new dumps (including nineteenth century wine bottles and other glasswork) and new piped drains installed. Of them [1035] (24 cm in diameter and partly traced from a Phase 8 cut that removed it on the east) served the original (Phase 2) hall's kitchen (room A0054) and [1034] (15 cm in diameter), which may have been lain later, but was removed before the end of the phase, served the south side of the Phase 5a extension (room A0042). The use of sectional salt glazed stoneware drain pipes here means they should belong to after, broadly, 1840 and might have been contemporary with small surviving areas of ground raising dumps against the west wall of the courtyard that might have represented a raised path along that wall, skirting a void, [10208], left by something such as a small water trough. But it was impossible to fully evaluate other isolated (?relatively late Phase 7) features here and elsewhere (some alternatively of Phase 8) which related to piped or open drains and sumps, as well as water supply developments, because of Phase 8 to 10 truncation and concrete work. These features included an 80 x 70 cm brick built manhole; an adjacent glazed stoneware ?sump with an internal trap on a concrete based brick structure immediately north of and flowing into it; another similar ?sump against the middle of the east wall of the courtyard; a trench lain lead water supply pipe, [1075], running into the south side of room A0042; and a shallow, flat based cut, [1076], of uncertain significance. In any event though the Kitchen Courtyard was now probably becoming increasingly filled with buried and open drains, access points and water pipes.

### The 1897 Modernisation of the Residential Block and Kitchen Courtyard Area (Phase 8, 1897)

A major redevelopment of Forty Hall in early 1897 is recorded in press accounts following its purchase by Henry Carrington Bowles for his son Henry Ferryman Bowles (Gillam 1997, 14). Standing buildings and cartographic regression work have identified extensive areas of rebuilding and repair work, the insertion of a new main staircase and of much reinforcing steel work, alterations to some floor plans and a doubling in size of the Phase 5a southern extension by expanding it to the south, forming room A0052. New building work also infilled the space between this room (and A0053) and the east end of the original brewhouse/bakehouse (room A0035) with new structures (A0047, 49 and 50), creating corridors/vestibules A0046, 48 and 51 and in the process demolishing the brewhouse/bakehouse ?porch. Meanwhile there were minor changes to one basement room and a new basement room (A001) was created. Archaeologically the period was represented in the Kitchen Courtyard (Area C2) by major truncations, new dumping, the construction of two new manholes serving a new piped drainage system (also serving other parts of the hall), new water supply arrangements, two new structures and the surfacing of much of the area with concrete (Fig. 24).

That the lower part of the east end of the Phase 6 extension (room A0053) north wall had been rebuilt (?to underpin it following the removal of the suspected doorway here) was shown by a new construction cut, [1043], but the top course of the Phase 7 ?porch wall, [105], was reinstated with part bricks and hard white cement, emphasising that it at least was retained. Further west in the area of the former Phase 6/7 sump the wall had not been re-exposed where buried, but its west end clearly had been and here it had at least been cement repointed to its very base, and could have been partially rebuilt. A new lead water supply pipe had also been inserted through the western slab roofed Phase 6 void through the wall ([1023]) and into room A0053.

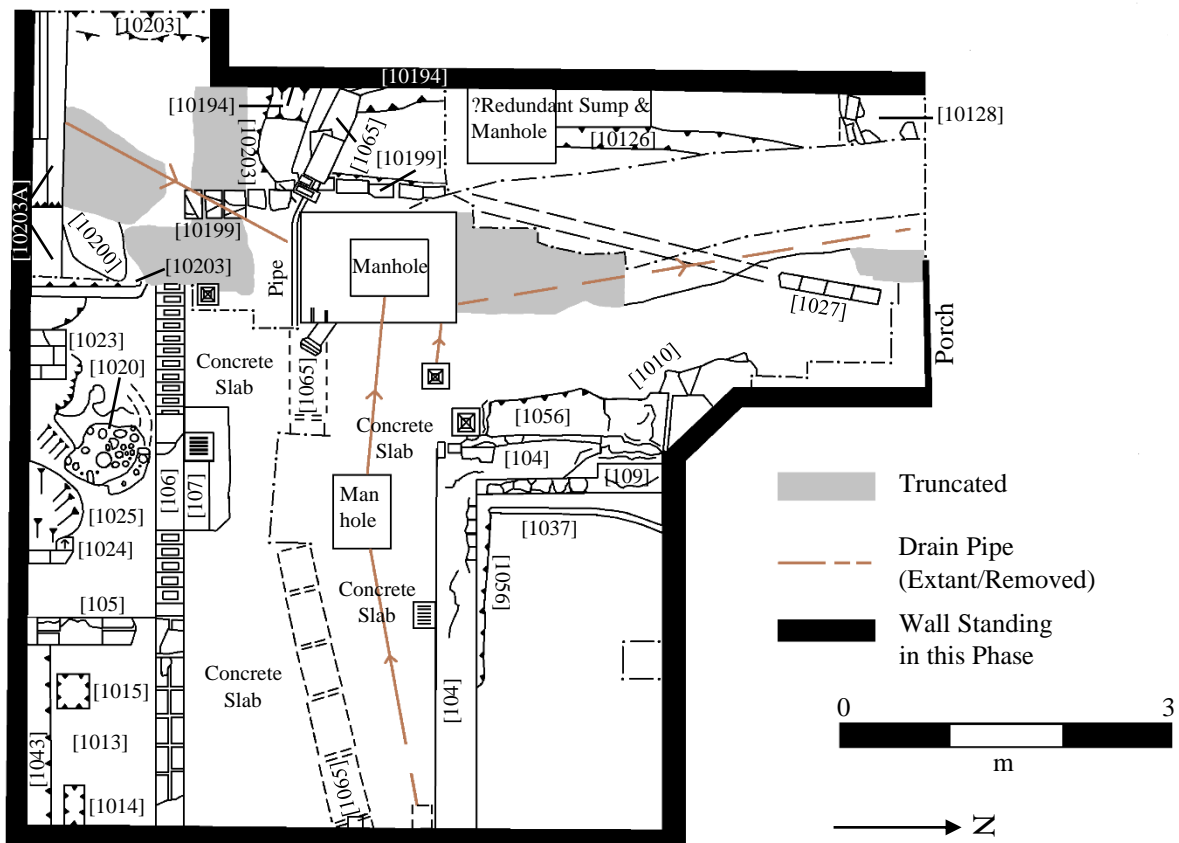


Fig. 24: Area C2, Phase 8 Features

But the major change on the south of the courtyard was the erection of a lean-to fronting the north side of this room, a Borough Valuer's plan of c. 1957,<sup>89</sup> evidently made (?just) before its demolition, indicating that it was glazed above a dwarf front wall. Substantially founded on flint pebble concrete in a flat based, 32 cm deep, up to 70 cm wide cut, the wall itself, [106], often survived to four courses of machine made yellow stock bricks and white cement, header bonded west of the retained Phase 7 ?porch wall and as two courses of header bond below two of stretcher bond east of it, each face having two (buried) offsets throughout. An 88 cm long white ceramic gutter leading to an iron grated drain, [107], with a cement surround to the west and north, lay against the outside of the middle of this wall where there may have been a floor level gap in it and the lean-to's roof drainage was also represented by a (later re-used) drain at its westernmost surviving point.

Later truncation prevented certainty, but the lean-to may have been c. 5.60 m long with some sort of entrance ?porch at its west end because the western part of a yellow stock brick built foundation, [10203A], had clearly extended the Phase 6 extension to the west to now create new corridors A0048 and A0051, in to which there had been a door here from the start. But the eastern part of this foundation (against the Phase 6 extension (room A0053) wall) may have been for such an entrance to the Phase 8 lean-to and there was also a remnant of a possible porch floor, [10200].

Within the new lean-to, the area to the east of the retained wall, [105], was given a new c. 5 cm thick floor, [1013], of compacted hard white mortar and brick fragments with some pebbles. Two cuts into it, [1014] and [1015], were straight sided, flat based, rectangular and, respectively, 16 and 3 cm deep. They suggested the installation of something freestanding which wall [105] might also have served to stabilise. However, there were few traces at least of a floor in the rest of the lean-to. At its west end there was a very thin, perhaps patched, decayed sandy mortar layer, but, as preserved at least, it cannot have been much more than a basic sweepable surface if it was a floor not a bedding for one of slabs. Sump [1055] seems to have been replaced by another, [1025], in the same position, bowl like, 30 cm deep and shallowing to the west with a new sterile water lain fill accruing; and just west of it part of a

<sup>89</sup> Kindly sourced and supplied in 2011 by Gavin Williams, then manager of Forty Hall.

?1.00 m diameter circular feature, [1020], of mortared stones and brick fragments enclosing a surface of scorched cobbles, tile, brick and mortar fragments covered in charcoal also suggested something such as a brasier setting. The lean-to apparently became a staff sitting room (CMP 8.2.9; though see also below) at least later during the Bowles family's ownership of the hall (?so roughly in Phase 9) and by Phase 10 the Borough Valuer's plan indicates that the adjoining Phase 6 extension (room A0053) was (?or was known to have been) a scullery, so the original function of the lean-to may have been as an adjunct to that or it may have had some other domestic role (??conceivably connected to laundry). Matching the new southern lean-to extension, was a similarly built but more massively founded second one on the north side of the courtyard. Internally it was 1.66 m wide and ran 3.18 m west from the west wall of room A0054, which it abutted, alongside the Phase 5 extension (room A0042). The Borough Valuer's plan adds the details that, by Phase 10, it had two windows, one towards the east end and one in its west wall (though this may have been a later insertion) and marks it as a kitchen. Its large foundations of brick rubble below flint pebble concrete were in an up to 76 cm wide, at least 30 cm deep construction trench, [1056]. The northern edge of this re-used the north side of the much earlier drain [1063A] and the south side of the Phase 3 ?porch (the remaining part of which must now have been demolished, any door from it into room A0042 been blocked and its floor cut away so that a gap in the wall of room A0042 it had hidden could also be blocked). The lean-to's wall, [104], was similar to that of the southern lean-to, but included a slate damp course. The wall forming the west end of the lean-to did not continue all the way to the Phase 5 wall, leaving a 60 cm wide gap for a doorway against it. This had a raised (?partly, re-used) slab surfaced threshold and external approach ([1010]) and an inner margin of stretcher lain reused hand made bricks (bonded with/covered by white cement) which continued along the inner side of the west wall, [109].

Though the former Phase 3 porch's floor had just been resurfaced with mortar, elsewhere no floor survived, but three distinctive ceramic trap, iron grated roof water drains (matching that beside the southern lean-to), lay at each end of and in the middle of the external face of the south wall (though one had later been moved). A buried 3.5 cm diameter lead water supply pipe, [1037], also survived emerging from the wall of room A0042 and running to the south west corner of the lean-to where it turned upwards, doubtless to supply a (?sink) tap.

Outside the new lean-tos the Kitchen Courtyard now became, even more than it had previously been, a hub for the drainage, and partly water supply, arrangements for the wider hall. The Phase 7 drains went out of use/were removed and the most major new features installed were concrete set salt glazed stoneware drain pipes and two new brick built manholes which formed parts of a drain system still in part functioning at the time of excavation and serving at least areas east ?and west of the courtyard and the lean-tos. Elements included a pipe in a very large cut, [10203], probably made at the same time as the ?porch at the south end of the former brewhouse/bakehouse (room A0035) was demolished, running into the westerly manhole and which was backfilled before the lean-to etc was built; and a later removed pipe running north from the same manhole and represented by a Phase 9 cut which removed it.<sup>90</sup>

At the same time the courtyard had also been used as part of the route of more than one element of a new water supply system. One 6 cm diameter sectional lead water supply pipe which had originated east of the hall was traced in Areas K2 and H1 running west across room A0054 and the former cross passage south of A0059 within buried 13 cm diameter salt glazed stoneware drain pipe sections, to emerge into the Kitchen Courtyard via what had been the egress of a Phase 7 drain. It then ran across the courtyard in to room A0035, mainly within an internally 25 cm wide, roofing slate floored conduit, [1065], with sides of unmortared edge set PLOWMANS FLETTON impressed bricks and a roof of large, reused, whole and part, weathered/worn 2 cm thick banded sandstone/gritstone flags.

Several of these features, including most of [1065], were then sealed by, or surrounded by, a new thick concrete slab over reworked earlier and new ground raising dumps. It covered the east end of the courtyard between the lean-tos, incorporated a surface drain linked to one of the manholes and might have had some additional surfacing as it had been left rather rough. The west end of the courtyard through was left unsurfaced or perhaps had a flagged surface as at the entrance to the northern lean-to, likely because it held so many (sometimes successive) drainage/water supply features. One was a

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<sup>90</sup> Further details of the drainage system of Phases 9 and 10 as recorded are available in archive.

second water supply pipe running north south and indicated by the remnants of another conduit, [1027]/[10199], peg tile based, with two courses of reused handmade bricks/part bricks forming its sides and bonded with the same mortar as used in the possible southern lean-to porch floor. Another was a 21 cm + deep, roof tile floored, cement faced waste water gully, [10128], with a four course single skin wall reusing older red as well as new yellow stock bricks and grey cement. It and other features here, including the (now redundant) manhole and adjacent open glazed stoneware sump that may have been installed in Phase 7 beside its wall, may in particular have related to the drainage needs of room A0035. Two more features, [10126] and [10194], also appeared to indicate changes to room A0035's water supply before the 1897 works were fully completed or even intended pipe routes that were never used as they were pipe trenches, one matching an egress point in the wall, but all backfilled with clay. However, disturbance due to repeated modification of drains etc had been too great to fully establish a coherent sequence for the latest phases here.

### Changes to the Residential Block and Kitchen Courtyard Area in the Early Twentieth Century (Phase 9, 1897 - 1939)

By Phase 9 much of the core of the hall had attained the form that it had before it was significantly restored in 2009 – 11. However, some changes and additions continued to be made in the Kitchen Courtyard and, as Phase 10 alterations are known to date to 1951 or later, and given that they are unlikely to have taken place during the World Wars, these changes probably belonged to the 1920s or 1930s perhaps specifically to 1928 when a servants' hall (A0037 – 40) was also built to replace the Phase 6/7 extension (see p 53); which had allowed corridor A0041 to be extended again. The buried construction of the servants' hall's east wall was recorded in FHFL Trench 4 (for location see Fig. 33), its Flemish Bond brickwork using much older bricks known to have been salvaged from the demolition of the Old Rectory, Chase Side (Gillam 1997, 35) resting on a slate damp proof course and, slightly irregular, foundations of machine made bluey green extruded brick.

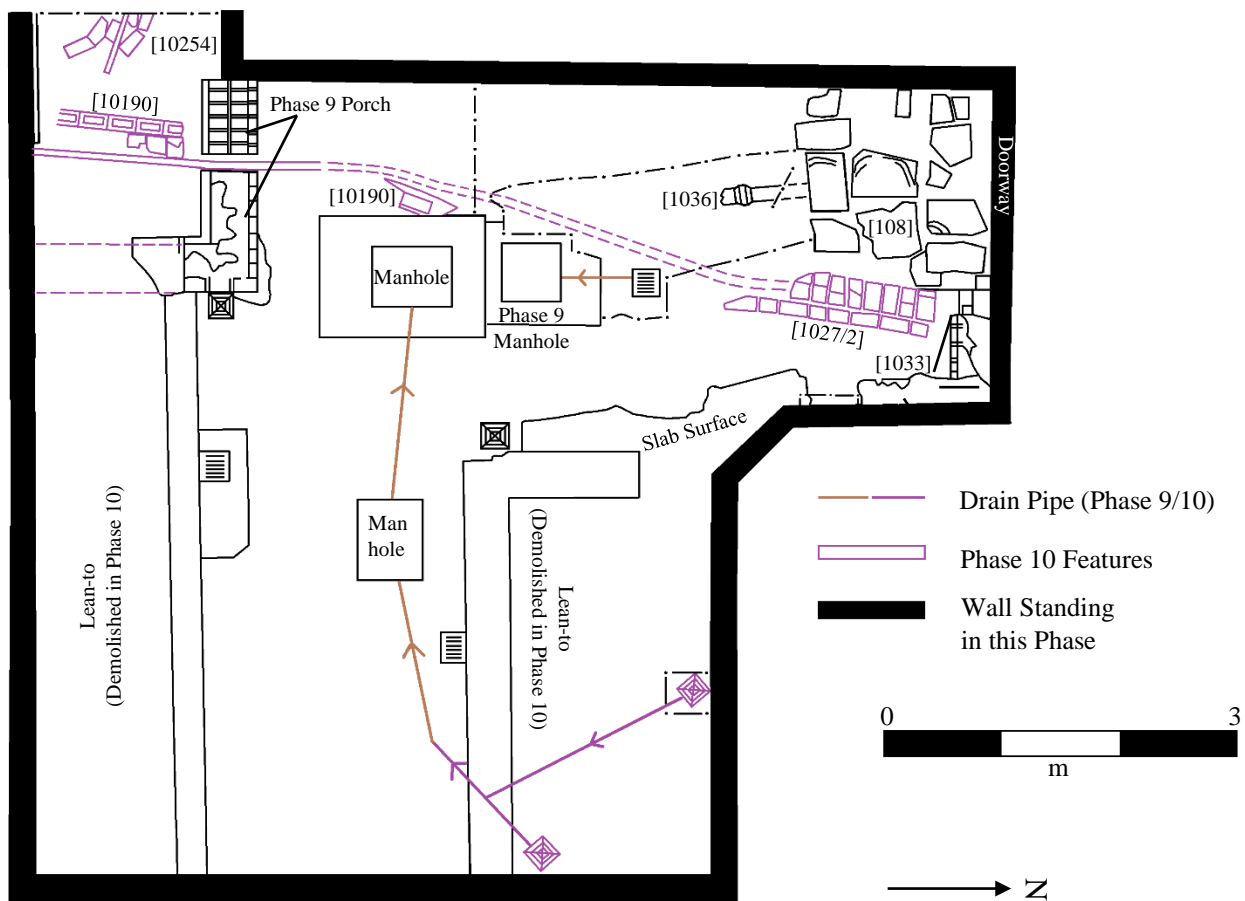


Fig. 25: Area C2, Phase 9 and 10 Features

By the early decades of the twentieth century though the small remaining part of the Kitchen Courtyard cannot have served much day to day purpose except to access some of the servants' areas of the hall without passing through other parts of the building and, while it continued to do this, it now became entirely isolated from the facade of the building. Thus, now (if not before) the Phase 6 porch at the west end of the earlier Phase 5a extension was (partly) demolished and to reinforce the north end of the west wall of that extension (room A0042) a single skin L-shaped dwarf brick wall, [1033], was built. A small wall with a doorway was then built east west to close off the gap between it and room A0035, along the face of which it was extended for a short distance. This now, with the new (1928) servants' hall (A0037 – 40), as noted, extended corridor A0041 to the west and the new doorway was also now fronted on its south by a c. 1.6 x 1.7 m area of fairly rough paving, [108], comprising 13 large reused limestone flag fragments lain (partly over demolition dumps where a Phase 8 drain pipe had been removed), fairly irregularly, not entirely level and with large gaps between them.

On the other side of Area C2, whether a porch had existed from the first at the west end of the Phase 8 southern lean-to (between the ends of corridors A0048 and A0051) or not, one was present here by Phase 10. It though seems to have replaced a Phase 9 one with access into the lean-to. Other Phase 9 changes were to the drainage system, as indicated by two new brick built manholes, one north of the more westerly Phase 8 one and another in corridor A0041, the laying of a new drain, [1036], to replace a Phase 8 one and some changes to surface drains.

### Final Changes to the Residential Block and Kitchen Courtyard Area (Phase 10, Post ?1939)

Phase 10 represents changes made to the hall up to 1951 when the London Borough of Enfield acquired Forty Hall and the period afterwards which saw it converted to public use and a series of changes made to it into at least the 1960s. Relatively small changes to the residential block, traced by standing buildings and documentary research (CMP), related to the creation of flats in parts of it and then its recasting as a museum with offices and e.g. a walk in safe (room A0042).

In Area C2 excavation showed that the water supply pipe in a tile based brick conduit running north south across the west end of the Kitchen Courtyard was replaced by a new conduit and lead pipe, [10190] and [1027/2], and a second pipe in a conduit, [10254], was installed in corridor A0048, running east probably to enter the east end of room A0047. The porch at the south west corner of the Kitchen Courtyard was also reconstructed with access only into corridors A0048 and A0051, because both the south and north Phase 8 lean-to extensions were demolished sometime after 1957 and access to the courtyard from the east was blocked. The whole of Area C2 was now levelled, partly with what demolition material had not been removed, and concreted over with the drains serving the lean-tos left intact, in some cases now redundant, but one now serving the roof pipe of the rebuilt porch, one being moved north from the east end of the northern lean-to and one placed against the Phase 5a extension wall to serve down pipes from roof gutters. They were connected into the Phase 8 drainage pipe system with new salt glazed stoneware pipes crossing the demolished lean-to's foundations and tapping into one of the Phase 8 pipes and the space now became almost unused, though there is oral evidence from former hall staff members to suggest that later in the twentieth century it served as a (presumably container) garden for a hall caretaker.

# The Archaeological Evidence in and North of the Main Service Courtyard West of the Residential Parts of the Hall

## Scope and Background

This section presents the evidence for the extent, nature and use of an open courtyard bounded on the south and west by large former service buildings (now a cafe, banqueting hall etc), a northern boundary wall with two pavilions and on the east bounded by a modern toilet block, Phase 9 servants' hall and short stretches of wall of various dates (Fig. 26). It also presents evidence for the nature of the area immediately north of the courtyard. The development of the courtyard's eastern boundary was studied both in 2007 (FTA07) during access path works<sup>91</sup> and in the 2013 - 15 work (FXH13). Much of the archaeological work within the courtyard was also conducted in 2013 - 15 when the courtyard was re-surfaced as part of the HLF supported improvement of the estate, though a little work was undertaken in the courtyard in 2009 - 11 (FXA10). Smaller interventions to the north of the present courtyard comprised monitoring of a drain run (FXA10 D12) in 2009 - 11, of the cutting of a petrol interceptor trap on the line of that drain run in 2013 - 15 and the cutting of new planting beds immediately north of the courtyard in 2013 - 15.

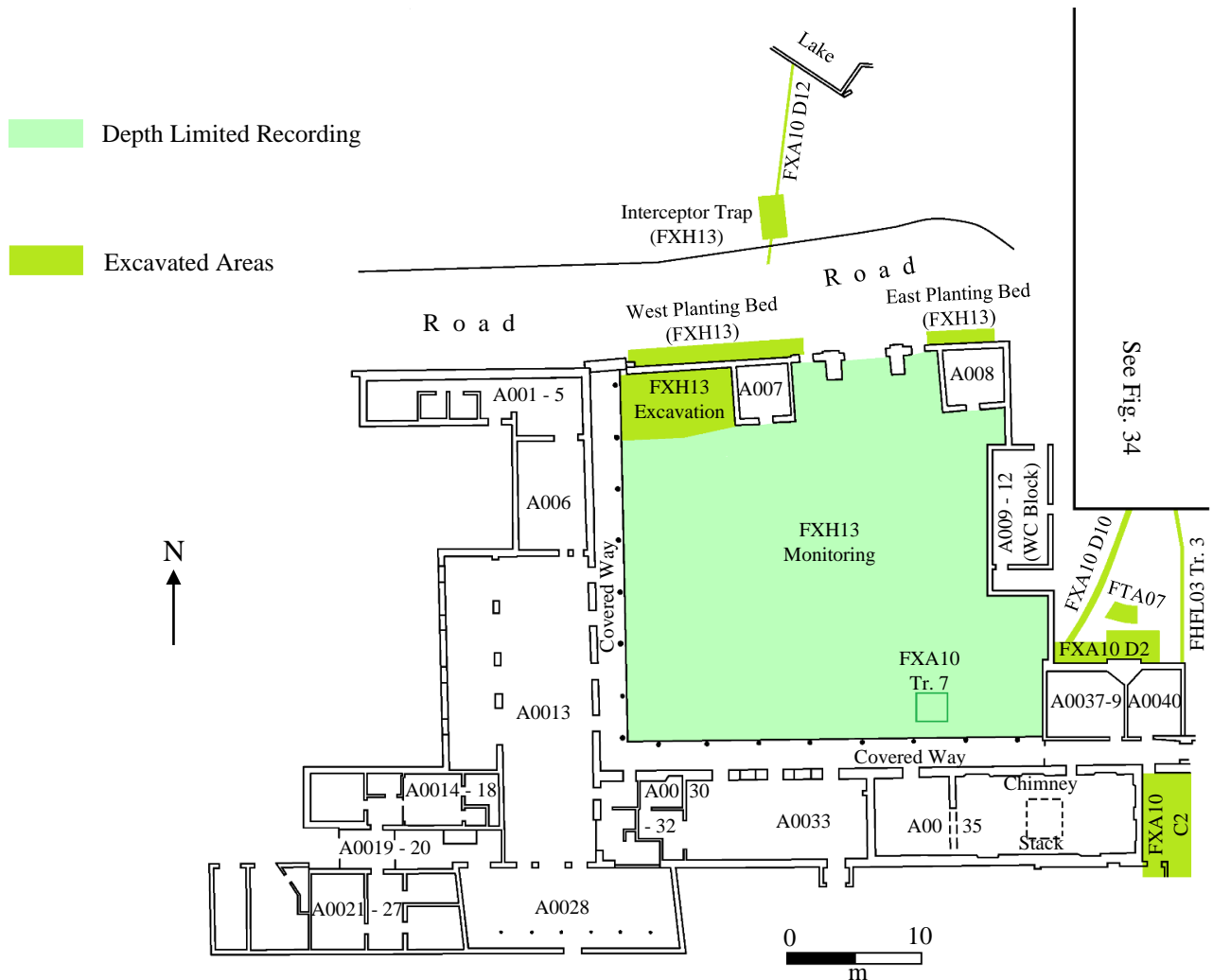


Fig. 26: Excavations in and near the Main Service Courtyard in Relation to the Ground Floor Plan Prior to 2009

<sup>91</sup> In a formally excavated area of a larger scheme of superficial path renewal cuts, monitoring of which was otherwise archaeologically negative so is not shown on Figures.

The evidence for the construction of one of the buildings defining the courtyard (that on the south) in Phase 3 (c. 1636) is noted above (p 30), but represents almost the only opportunity that there has been to archaeologically examine any of the structures defining the southern and western margins of the courtyard. Standing buildings research, though much standing structure is likely or known to represent later rebuilding, has established that the southern range, always fronted by a covered way, was built before the western which probably originated at some point in ?Phase 4 and whose matching covered way was added much later (?Phase 6a). The southern range originally had a large chimney stack indicating that its east end (room A0035) was a two story brewhouse and bakehouse with accommodation above while the rest of the range (rooms A0029 – 33) is likely to have begun as a stables with hay loft above (CMP).<sup>92</sup>

The southern part of the western range (now part of the banqueting suite) may well have begun as a barn with access further north into the farm courtyard to the west (for which see below) which it probably functioned as part of. Later in the seventeenth century this barn may have been extended to the north cutting off that access, but the extant western structures are largely a 1960s build/rebuild (Gillam 1997, 43). Recording of features below room A0013 by MoLAS during limited monitoring of disabled access works (Steele 1999) recorded two wall foundations, one interpreted as evidence for the subdivision of the building at some point after its construction, the other suggested to predate the standing building, but its bricks dated eighteenth century so that the findings of the work were ambiguous. It is then unclear on the western side of the courtyard how completely earlier buildings, which differed in plan, were later replaced and at what date(s) (CMP 9.2.1) and only the late eighteenth century (and later) cartographic evidence allows an idea of their basic footprint by 1773 to be shown on Fig 27.



Fig. 27: The Form and Putative Phasing of the Seventeenth and Eighteenth Century Service Courtyard

It seems quite likely that the early northern boundary of the Service Courtyard was formed by, or its line dictated by, the possibly Phase 1 wall that also formed the northern forecourt boundary wall (p 71ff) and a section of which appears to be preserved west of the courtyard (Fig. 27). Whether the northern courtyard wall was perhaps rebuilt in Phase 3 or 4 (which Fig. 27 assumes), it does seem on

<sup>92</sup> Room A0028, later, and conceivably though not necessarily from the start, an orangery, also appears from standing buildings work to have originated in some form in the seventeenth century, though it has subsequently been much altered. There has been little opportunity to examine it archaeologically, but FXH13 work did identify a blocked void in its east wall.



stylistic grounds that the present elaborate gateway (Pl. 28) at least was built between the 1630s and 1660s (CMP; Peats 2008, 40) and maybe, as its size might imply it was meant to be seen from a distance, once the younger Nicholas Rainton had acquired the land around Elsyng Palace (which he had by 1656) (CMP). However, the pavilions flanking it were not part of the same build and may well be early eighteenth century in date.

Though the surrounding buildings have been much modified then, the Service Courtyard had probably attained essentially its current form (except on the east; see below) by c. 1660, however much individual structures around it were later reconstructed, adapted and added to.



Pl. 28: The North Entrance to the Service Courtyard

### The Development of the Eastern Service Courtyard Boundary

The eastern courtyard boundary has demonstrably been altered considerably since it may be presumed to have been established in the seventeenth century. Thus, an apparently early stretch of standing (north south) eastern boundary wall approaching the north east corner of the courtyard (forming the east wall of one of the later pavilions) might be of Phase 3/4, but fairly clearly from three exposures of it (one in FTA07 and two exposures in FXA10 D2 and D10; for locations see Fig. 26) a demolished 49 cm wide wall on a line running south east from its southern end ought to be its continuation. In FXA10 D2 (Pl. 29) where this demolished north west to south east wall, [10177], survived to nine courses below and one above an offset, it was built with fair English bond faces (using part and whole (perhaps re-used) bricks) to an often part brick not regularly bonded core (though in the FTA07 exposure at least part of the core was of whole header lain bricks). So the eastern side of the courtyard at some date ran angularly from the northern edge of the Kitchen Courtyard (approximately the south end of FXA10 Trench 3) before turning to follow the surviving, straighter line at its north end (Fig. 28).

This wall line was in existence by 1773 (when it is marked on the estate sale plan of that date; Pl. 4) and, as its function will have been to screen domestic areas within the courtyard from visitors arriving at the north side of the hall, it seems unlikely that some such wall was not constructed in Phase 3 (even if possibly rebuilt in Phase 4). So, as noted above (p 32), this may have been a continuation of the Phase 3 wall that screened off the north side of the Kitchen Courtyard.

Clearly though two realignments of the eastern boundary wall took place sometime after the 1770s. The first (?in Phase 6/7) is represented cartographically on the 1867 edition 25" OS map (Pl. 30) and rerouted its south end so that it curved away to the east to meet or perhaps run alongside the north wall of the known Phase 6/7 extension (see p 42ff, including for the possibility that here the boundary wall could have had an ornamental terminal) preceding the standing 1928 servants' hall (rooms A0037 – 40). In FXA10 D2, though modern drainage features created substantial truncation, this re-routed boundary wall, [10178], partly overlay, and used as a foundation, its demolished predecessor (Pl. 29). It was a slighter wall, surviving to two courses of uncertain bond brickwork over a rubble and mortar foundation (re-)using bricks like/from its predecessor and yellow stock bricks (which presumably imply a maybe mid nineteenth century date).

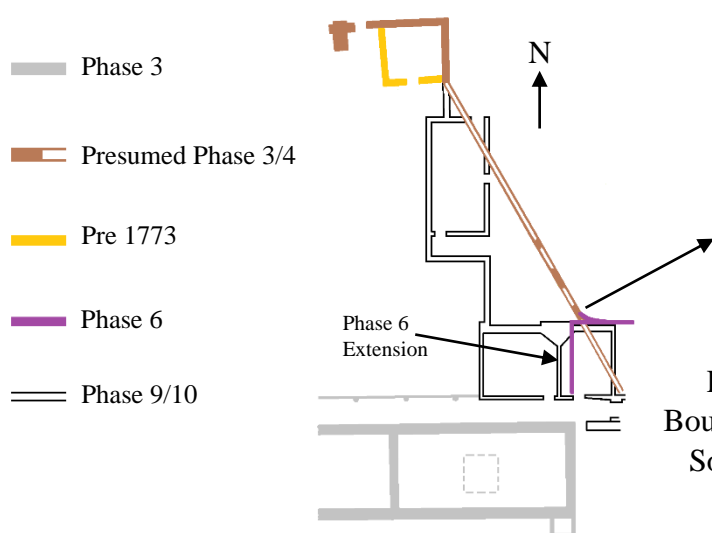
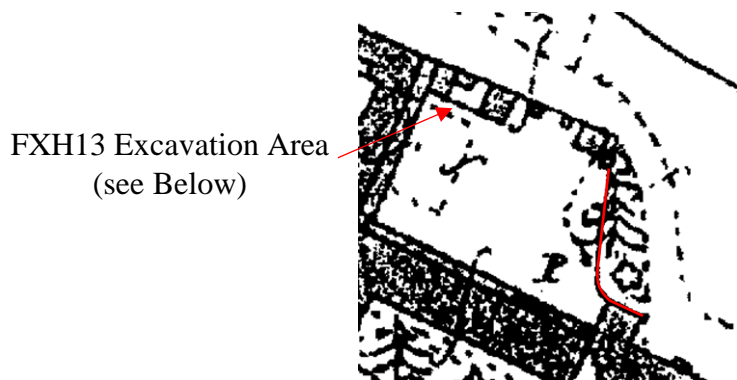


Fig. 28: The Development of the Eastern Boundary and Pl. 29: FXA10 Area D2 Looking South, Showing Phase 3/4 Wall [10177] (to Right) and Later Replacement [10178]



Pl. 30: Extract from the 1867 Edition 25" OS Map with the Eastern Boundary Wall Highlighted

A more radical change is known to have taken place in 1928 (Phase 9) when the standing servants' hall was built and the boundary wall moved to the west so that it now ran basically north south as it does today, if augmented by the building of the standing (now rebuilt) WC block in 1953 as far as a straight joint with the ?Phase 3 or 4 northernmost section (Fig. 28).

### The Interior of the Courtyard Prior to Later Phase 5b/Phase 6a (Before c. 1750 - 1800)

There has been almost no opportunity to examine deposits or features within the courtyard likely to relate to before some point in the mid/late eighteenth century since work has principally comprised monitoring of depth limited contractor removal of deposits in FXH13 work and earlier in FXA10 Trench 7. The exception is in the north west of the courtyard between the western gate pavilion and

west range where limited formal excavation was undertaken during the 2013 – 15 work following contractor disclosure of structural features (Fig. 26 and Pl. 30; FXH13 Excavation). Even here early deposits were restricted to limited exposures of a stony brickearth that may have formed an early courtyard surface and the lower part of the northern boundary wall which had an 8 – 10 cm wide offset to its two lowest courses.

## The Courtyard in Later Phase 5b/Phase 6a (c. 1750 – 1800) and perhaps a Little Later

Though throughout its lifetime the courtyard was presumably mainly an open space used for activities such as loading and unloading carts, clearly there were formerly more structures in it than there are today. Thus, in the same north western area of the courtyard a probable open fronted, brick floored lean to structure against the northern boundary wall, and with a smaller, slighter structure laying to its east, were represented archaeologically (Fig. 29). They showed a spatial relationship to the western gate pavilion and were cut by a probably late eighteenth/early nineteenth century drain so should probably be dated broadly to the eighteenth century. Moreover, they were probably in existence by 1787 when an estate sale map (Pl. 5) appears to show them.

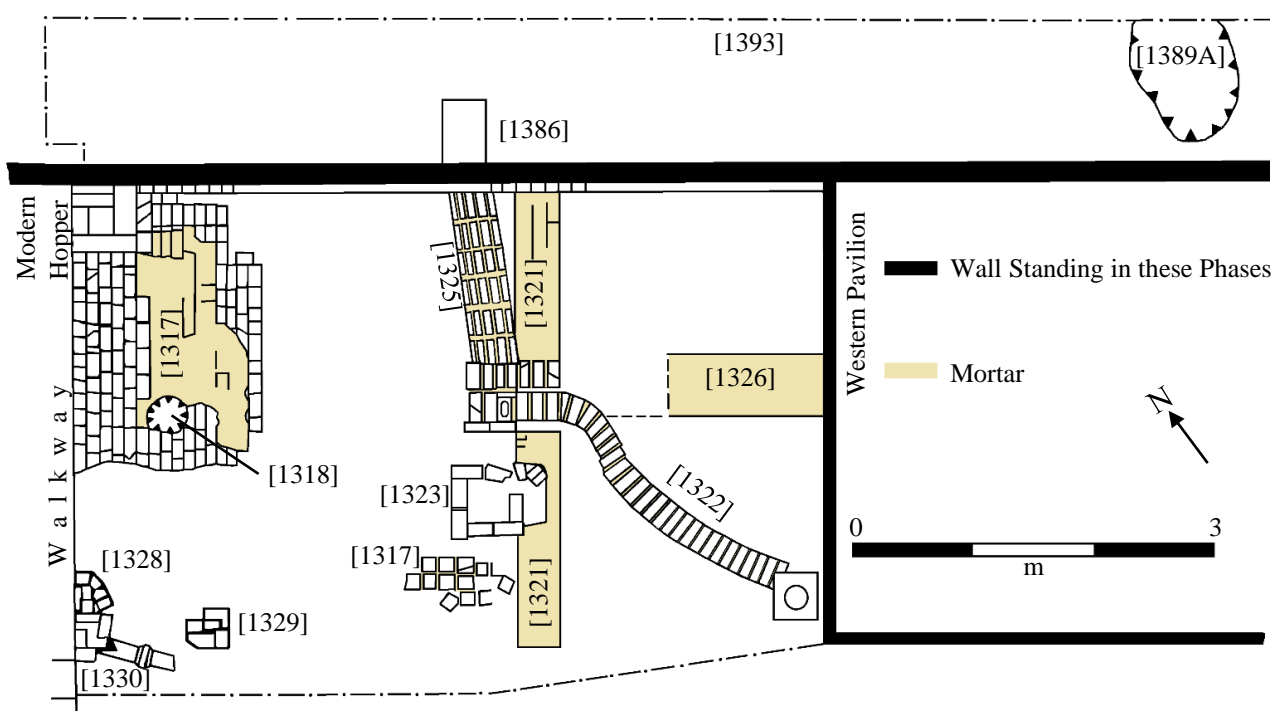
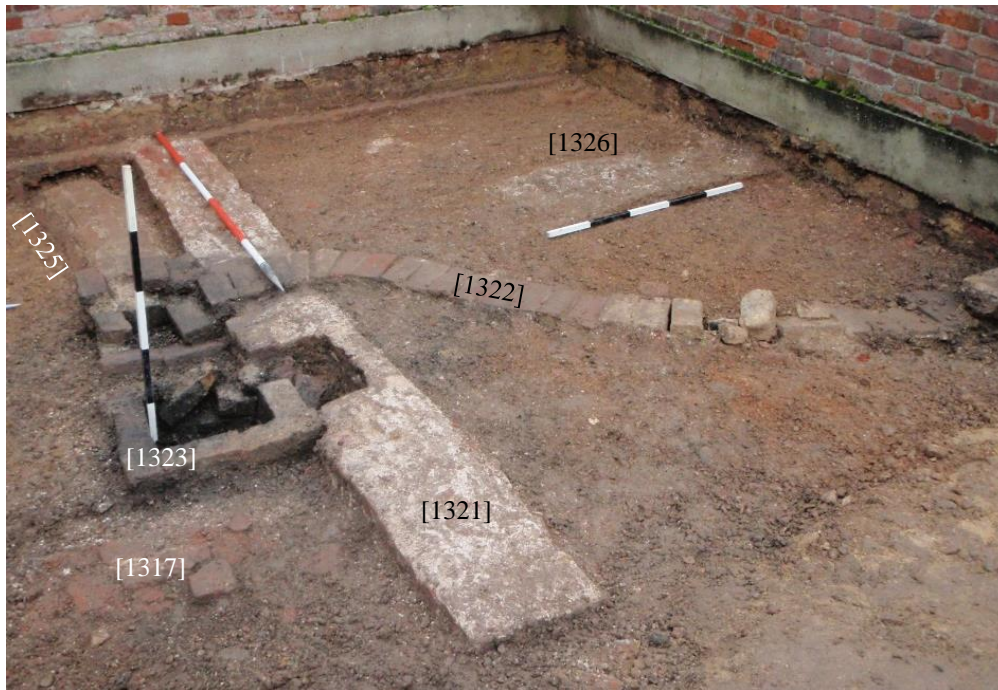


Fig. 29: FXH13 Excavation Area and Western Planting Bed

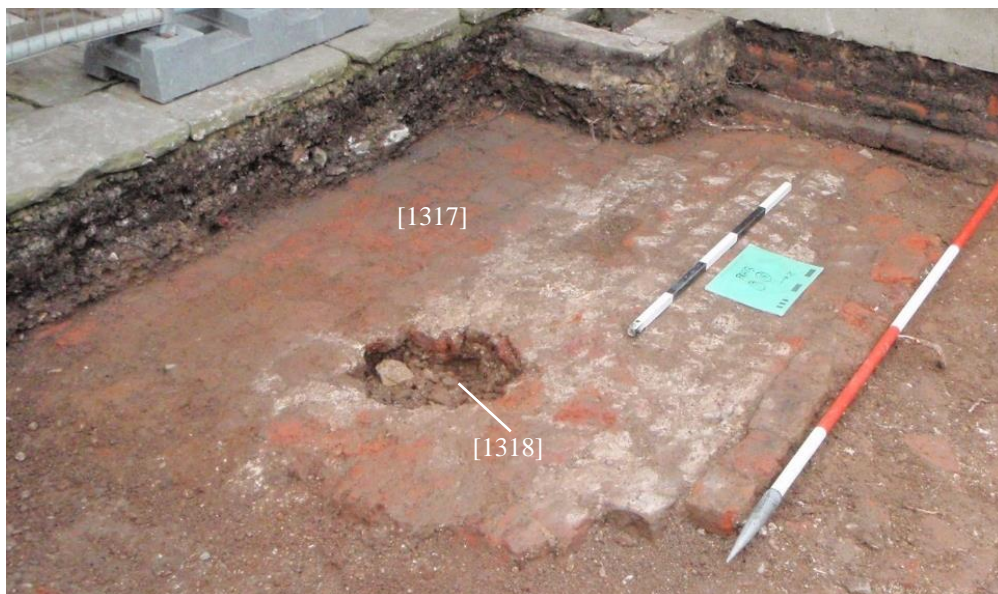
The east side of the larger structure was represented by [1321], up to three courses of a 3.80 m long, 37 cm wide foundation of mortared hand made part bricks and its floor, [1317], of north south orientated hand made part bricks, survived in two areas, its surface with a distinct, low, north south ridge flanked by possible broad rutting, covered by a skim of hard mortar (Pls 31 and 32). The structure's floor clearly continued under the extant paved (colonnaded) walkway along the east face of the western range defining the courtyard (which walkway is known to have been in existence by 1865 and was most likely inserted by Armstrong c. 1800 (CMP 6.2.2)), suggesting that the structure continued as far as the original west wall of the courtyard in which case it would have been 8.00 m east west internally. It could have had doors to this full width on the south and finds from an overlying deposit may hint at a pan tiled roof so, together with the rutting to the floor, this suggests that it may well have been a vehicle shed, perhaps for relatively small vehicles such as pony carts.

To its east a second smaller structure, internally 2.20 x 1.45 m, evidently existed contemporary with the larger one and occupied part of the space between it and the west side of the gate pavilion, again

presumably forming a lean to against the northern courtyard wall (Fig. 29 and Pl. 31). It may well have been quite flimsy as its presence was only indicated by a well defined but superficial mortar spread, [1326], forming the ghost of a removed 50 cm wide wall/foundation built straight on to the ground surface and running 1.30 m west from the gate pavilion, leaving a 0.90 m wide doorway adjacent to the ?vehicle shed. It seems very likely that this was a (?fuel) store.



Pl. 31: Walls and Drainage Features in the North West of the Cafe Courtyard



Pl. 32: Brick Surface [1317] in the North West of the Cafe Courtyard

Probably respecting both of these structures, south of the smaller and east of the larger, was a sand and pebble deposit (similar to hoggin) which may have equated to a similar up to 42 cm deep deposit also seen (if probably heavily disturbed) across much of the rest of the courtyard (and in FXA10 Trench 7 at its south east corner) so may well have formed the later eighteenth century surface throughout the area.

One small fragment of another, perhaps early nineteenth century, feature abutting the eastern boundary wall of the courtyard was also seen towards its south east corner in FTA07 (see Fig. 26). Represented by a short stretch of wall running west from that boundary wall, it was built of shallowly frogged red and one yellow stock bricks and incorporated a clay packed void holding a lead water pipe stub. It may then have been the foundation for a low domestic water feature such as a tank or another structure incorporating a water pump and at some (?later) point it had been rendered in cement.

### The Courtyard in Phases 6b – 10 (Nineteenth and Twentieth Centuries)

Cartographic evidence suggests nineteenth/twentieth century replacement of probably often relatively flimsy structures may well have taken place repeatedly after the later eighteenth century structures in the north western area of the courtyard had been demolished, but they had often left little or no archaeological trace, at least sufficient to survive surface renewal in the 1960s in the FXH13 excavation area. Thus, there were structures not matching the excavated ?vehicle store and ?fuel store in this area when the first edition OS map (1867) was surveyed (see Pl. 30 above) and structures are again shown on the 1896 and 1935 edition OS maps, though they differ in detail from each other and again do not match excavated structures. Those on the 1935 OS map do though match a plan made in 1957 identifying a westerly one as a dog kennels and yard with a fuel store to its east.

Archaeologically much of floor [1317] had been removed on the demolition of the larger of the later eighteenth century structures, but an overlaying 12 cm + thick deposit had probably been repeatedly disturbed and included demolition material and rubbish that may have been of a range of dates (including large kitchen vessels in Post Medieval Redware, sherds of transfer printed whitewares, wine bottles likely of early eighteenth to late eighteenth or early nineteenth century dates and a fragment of a Purbeck 'marble' ?work surface). Isolated traces of structures in this general area included (Fig. 29) [1328], a poorly preserved and built fragment of the stub of a 37 cm wide east west, part-brick wall; and a 38 cm diameter, ?15 cm + deep post hole, [1318], cut through the earlier brick floor and maybe related to the more westerly structure shown on the 1867 OS map.

What did survive, partly truncating the later eighteenth century ?vehicle store, was a brick built, serpentine, 14 cm wide, 12 cm high, brick roofed east west drain, [1322], probably serving the roof of the eastern pavilion (Pl. 31). Its bricks clearly included some earlier re-used ones and ?hand made, very shallowly frogged, pink bricks, suggesting a late eighteenth to early nineteenth century or later construction date. It led to [1325], a cylindrical or barrel vaulted 39 cm wide drain that passed through the north wall of the courtyard and which was built of machine made bricks that might have dated up to the mid nineteenth century. It fed into a brick built inspection chamber, [1386], which was seen in the western planting bed in the FXH13 work and which lay against the north face of the courtyard boundary wall. Built of rather variegated stock bricks with shallow frogs and capped by a sub-rectangular 5 cm thick stone slab, it comprised a 37 x 24 cm, 50 cm deep rectangular chamber.

Indeed, a succession of drainage features had likely been routed through the wider courtyard at least in the late eighteenth/early or mid nineteenth century and later, but only in the FXH13 excavation area and in part of the south west of the courtyard were they exposed by contractor's work in 2013 – 15. In the latter area (not illustrated) they included 5.80 m of an east west drain, clearly contemporary with and of the same construction as [1322] but considerably larger and which probably predated the (?c. 1800) colonnaded walkway on the west of the courtyard. It may well have served the western range at some point after it ceased to be a barn and its western end had later been encased in concrete and tied into a new sectional glazed terracotta piped drain; and later still sealed off with a new deposit of concrete. It in turn was truncated when a functional concrete encased foul water pipe connecting to a manhole near the south side of the courtyard, was installed.

Other later features in the FXH13 excavation area (Fig. 29) included [1323], a probable surface water soakaway built of shallowly frogged, machine made yellow stock bricks and perhaps of Phase 8 (1897). Maybe roughly contemporary was a brick fragment and cement built drain hopper, [1330], serving a former downpipe from the roof of the nineteenth century colonnaded walkway along the western courtyard edge, into which had later been inserted a sectional terracotta piped drain; and a nearby

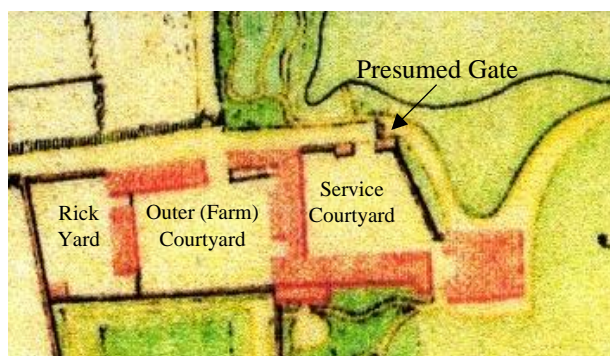
undated post setting, [1329]. However, much of the north western area may well have been heavily truncated prior to the laying of tarmac surfaces in the mid twentieth century.

### The Area North of the Courtyard

What may have been a seventeenth century road/driveway surface/sub-surface of dark greyish brown gravel in a sandy/gritty matrix with some clayey silt and occasional brick fragments and over 12 cm thick ([1393]) was seen immediately north of the courtyard in the FXH13 monitored planting beds (Fig. 29). Though it did not produce dating evidence, a small oval pit, [1389A], cut into it produced two partial clay pipe bowls of ?c. 1680 – 1710 and of c. 1700 – 70 (plus a little wine bottle/vessel glass, brick fragments and peg tile fragments and pieces of coal, charcoal and slate).

It is possible that a replacement surface here had been lain and subsequently entirely removed before a Phase 5b one had succeeded it, especially as further north in FXA10 D12 (for location see Fig. 26) all pre-Phase 5b deposits had probably been removed. But in any event the Phase 5b east west roadway was represented in the planting beds and the southern part of FXA10 D12, as elsewhere further east (p 82), by a 22 – 29 cm thick (in FXA10 D12 up to 44 cm thick) hoggin surface (which might itself have been a replacement for a removed original surfacing). In the western planting bed it overlay a levelling/make up comprising a c. 3 cm thick layer of compacted chalk fragments and oyster shells and then a c. 5 cm thick layer of compacted peg tile fragments and brick chips. However, in the eastern planting bed it overlay a 2.5 cm thick bed of creamy white mortar below a 10 cm thick layer of peg tile fragments and this might suggest the need for a more substantial underpinning where cartographic evidence indicates the position of a presumed gate across the east west drive in front of the eastern pavilion present by 1773 (Pl. 33).

Later developments included the installation of a concrete raft, over 40 cm thick, along and projecting 60 cm north from the north boundary wall of the courtyard in the eastern 4.40 m of the eastern planting bed, though its function and date are unknown; and several east west nineteenth century or later drains and other services seen in FXA10 D12.



Pl. 33: Detail of the 1773 Estate Sale Map Showing the Western Courtyards of the Complex and Presumed Gate

Further north, beyond the northern edge of the roadway, the FXH13 petrol interceptor trap cut (for location see Fig. 26) showed a sequence of undated redeposited brickearth and Boyne Hill Gravel deposits, in all over 2.30 m thick, which might have occupied a very large cut and in any event likely represented the southern edge of the dumping which created the Phase 5b viewing mound at the west end of the lake fronting the hall (see p 83ff). Here an overlaying dump of unfrogged bricks and peg tile fragments probably represented demolition material, but there was little to indicate its date of deposition beyond the fact that modern services had been installed through it and the top of the ?viewing mound dumps.

# Archaeological Evidence for the Development of the Original Farm Courtyard and Rick Yard West of the Main Service Courtyard

## Scope and Background

The original outer (western) Farm Courtyard and beyond it Rick Yard of Forty Hall, in existence by the later eighteenth century, are today just parts of a larger complex of buildings and defined spaces that reflect the development of a farm whose broader evolution has mainly been traced in standing buildings and cartographic regression work (Fig. 30). Archaeologically though it is only the courtyard and a small part of the Rick Yard that have been examined so it is these that are primarily focused on.

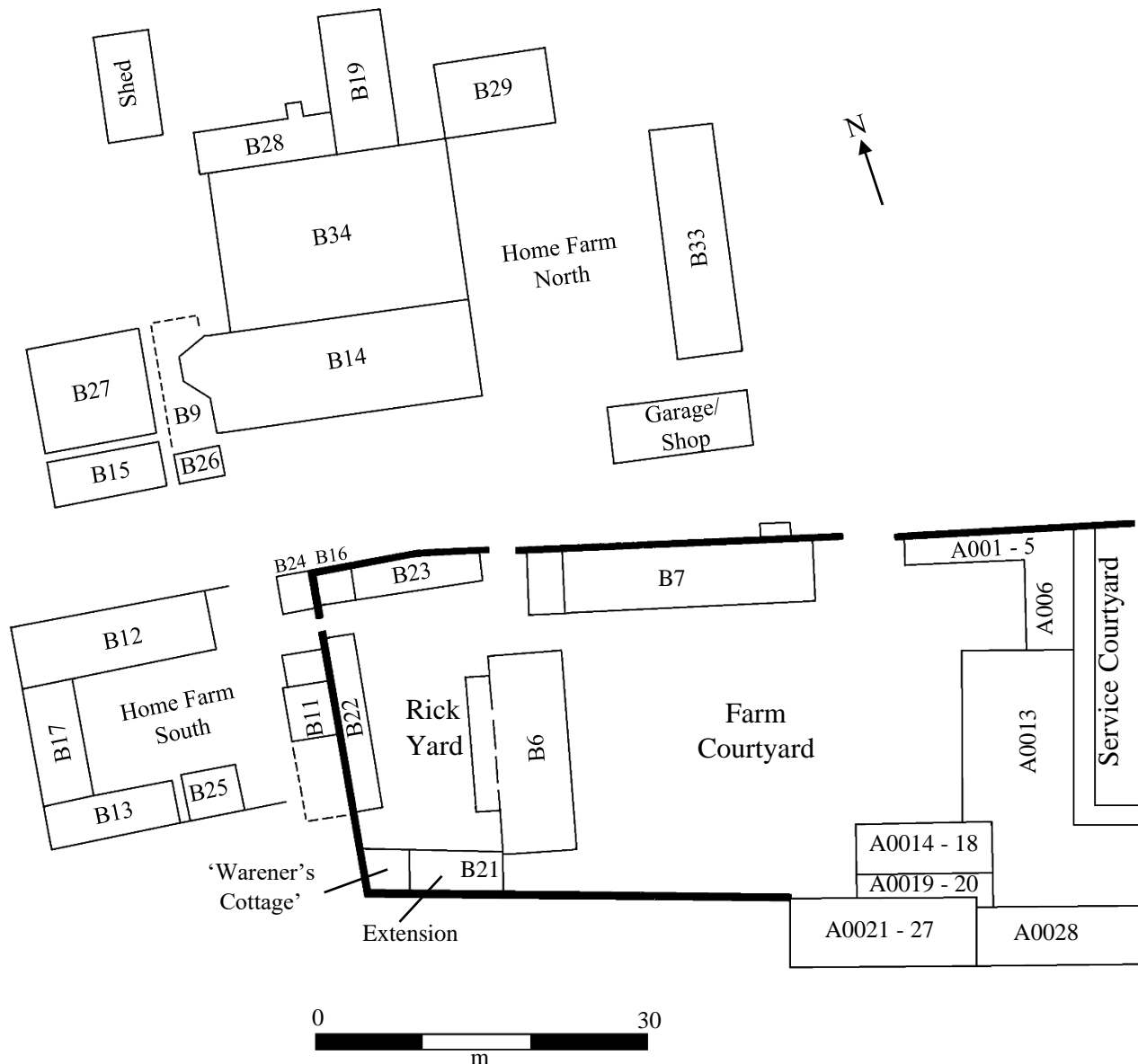


Fig. 30: The Farm Courtyard, Rick Yard and Rest of the Farm Complex as it Appeared c. 2009 (Structure Designations Follow Part of a Sequence Developed in the CMP)

In summary though, outside of these two areas and whilst several buildings were subsequently modified/rebuilt, the earliest was B9, an originally late eighteenth century (Phase 5b) timber framed, open sided bullock shed. Under either Armstrong or the Meyer family and before 1866 (Phases 6a/b) a new model home farm complex (Home Farm South) comprising cattle sheds and pigsties (B11, B12,

and B13) was later constructed (with the addition of B17 in Phase 7, and some Phase 9 additions made in 1914 – 35 and Phase 10 additions after 1936; inc. B24 - 5). In the early nineteenth century (Phase 7) a Home Farm North including a demolished farmhouse and standing elements B14 – 15 (a barn and shed) were added to form another home farm complex which was developed further in Phase 8/9 with additions including a saw mill between 1895 and 1911 (B19) and other structures (inc. B29). Though known to have fallen into disrepair during WWII, the Home Farm North complex was augmented further by several post war (Phase 10) constructions (B26 – 8 and 34) as well as two 1966 agricultural workers' cottages (B33) and a new barn/garages. This today is a working farm run by Capel Manor Agricultural College and the only archaeological interventions here have been largely negative 2014 monitoring (FXJ14) associated with the conversion of garages into a farm shop and some recording of stratigraphy in a cable trench in front of the cottages in 2024.

Today the outer (western) former Farm Courtyard is an enclosed banqueting suite car park. It comprises a space defined by a possibly Phase 1 wall (see p 71ff) and an east west building on the north (B7); the western range defining the Service Courtyard (A001 - 28; mainly now the banqueting suite considered above) on the east and south east; a free standing boundary wall on the south where it is not bounded by these structures; and a north south building (B6) on the west. Standing buildings, dendrochronological and limited archaeological studies of B6 and B7 by English Heritage and the Museum of London Archaeology Service (MoLAS) in the 1970s and 1990s preceded EAS monitoring of a number of planting bed and services cuts in the courtyard and to its south in the Walled Garden (for which see p 103ff) during the 2013 – 15 HLF supported estate works and were added to by monitoring of a further services cut in 2019. Opportunistic standing wall recording by the EAS in 2012 also provided some evidence.

Archaeological work in the Rick Yard (Fig 31), now mainly defined by buildings (B16 and 21 – 3) against a boundary wall, has been confined to some test pitting in 1994 which only showed a scatter of rubble from twentieth century building construction (Gillam 1997, 46) and then the monitoring of a cut

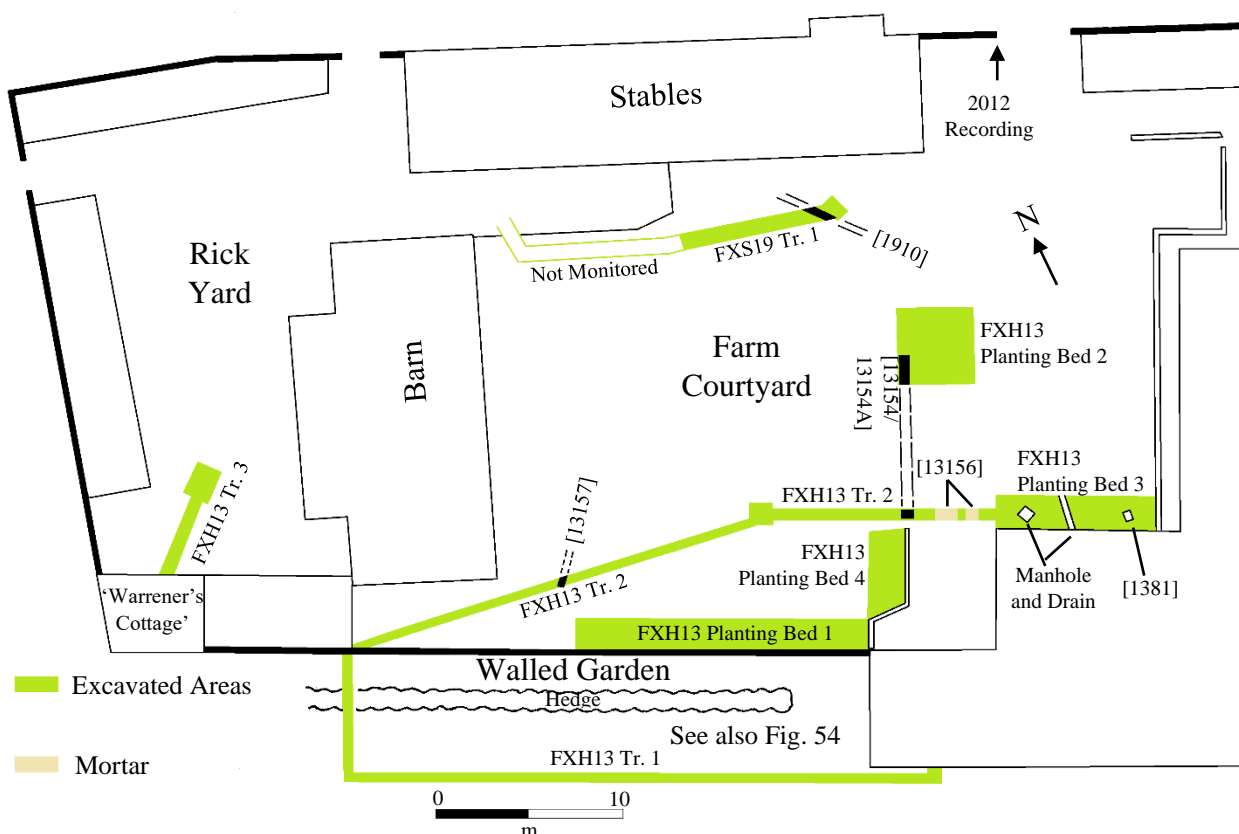


Fig. 31: Excavations in the Farm Courtyard, Rick Yard and Adjacent Walled Garden



for services adjacent to the ‘Warrener’s Cottage’ (B21) in its south west corner during the 2013 – 15 work, but this did augment standing buildings evaluation by English Heritage in the late 1970s and further (unpublished) studies in 2013 – 15 by Neil Pinchbeck.

### The Farm Courtyard ?Before c. 1773 (Phases 1 – Late 5b)

There is only limited evidence for what may be features of the Farm Courtyard dating earlier than the first cartographic representation of it in 1773 (Pl. 33 above). As noted, on the east of the current entrance its northern boundary wall may be of Phase 1, but whether the northern wall west of the entrance is, or at least represents rebuilding in or after Phase 2/3 on an earlier line, is less clear. Accidental demolition of a section of this wall forming the west side of the entrance in 2012 allowed Neil Pinchbeck of the EAS to record its structure in detail. Although showing several repairs, especially on the south face, the construction comprised three elements, a main wall, a dental course and a coping (Fig. 32). The first, 1.75 m high above ground level, comprised three irregularly bonded basal courses and, above a 5 cm offset plinth executed with cut stretchers, 19 courses of mortar and part brick cored construction with fair faces appearing to be English bonded, but with the header courses using bricks cut to a length of only 8 – 17.5 cm. Above this 39 cm wide main wall a toothed dental course, overhanging it by 6 cm, was built of whole bricks lain at an angle and formed the base of a 60 cm high, up to 46 cm wide conical coping in mixed headers and stretchers. The materials were typically 24 x 10.5 x 5.5 cm, very variably fired bricks and gritty, pinkish grey lime mortar.

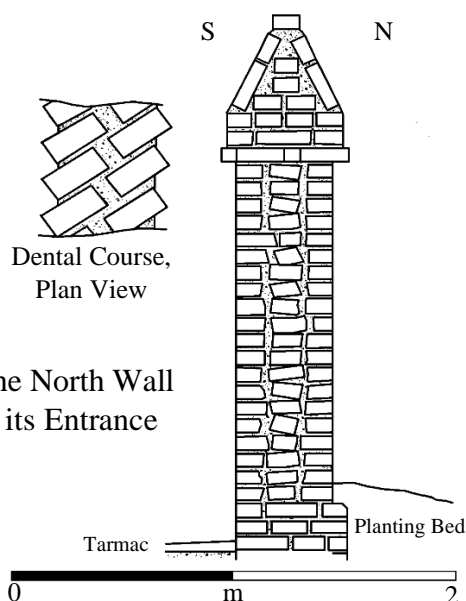


Fig. 32: Section Through the North Wall of the Courtyard, West of its Entrance

A sondage within FXH13 Planting Bed 1 and monitoring of FXH13 Trench 1 (Fig. 31) showed that the southern boundary wall of the courtyard could have been either of Phase 1 or of Phases 2/3. Here, though showing extensive/complete modern rebuilding/repair often in irregular Flemish bond and an offset above present ground level, the buried, apparently original, base of the wall showed up to eight courses of English bond brickwork, the lowest three forming a broadened foundation. The bricks were handmade and unfrogged, bonded with hard pink mortar in one exposure, but with a hard, very pale brown, very sandy mortar in another. The wall then need not have all have been of one build, but does seem to have defined the southern edge of an artificially landscaped area since the natural gravel lay as much as 92 cm lower within the southern part of the courtyard than south of the wall.<sup>93</sup> That the southern wall originated as some element of a landscape related to the Phase 1 building preceding the hall, and the introduction of Flemish bond brickwork, is then a possibility, but, as a purely functional wall, its construction in Phase 2/3 as part of the overall plan of the wider Forty Hall complex, or indeed later, perhaps in Phase 4, certainly cannot be ruled out. The same work suggested that the southern part of

<sup>93</sup> Possible evidence for landscaping of the general area was also noted by Steele (1999, 10).

the courtyard was initially given a surfacing of redeposited natural gravel up to 26 cm thick to bring the level up to that of the foundation offset of the southern wall. This surface was not found in the more central areas of the courtyard that have been monitored, but a perhaps equivalent 33 cm thick layer was seen in FXS19 Trench 1, overlain by a much thinner gravel layer that might have been a less widespread re-surfacing of unknown date.

### The Farm Courtyard in the Late Eighteenth Century (Late Phase 5b/Early Phase 6a)

Whether it originated earlier, which must be the assumption, or not, and how much earlier and in what form remains unknown, the 1787 catalogue for the sale of the estate refers to large barns, stables, cow and cart houses, pigsties, kennel and slaughter house (LMA ACC/0801/44) forming part of the farm. This, and similar evidence from the 1773 sale catalogue, show that it was a well developed mixed arable and pastoral enterprise by the later eighteenth century (Gillam 1997, 43ff), though some of the stated functions were presumably in the range separating the Service Courtyard from the outer Farm Courtyard.

Of those buildings present on sale plans of the 1770s and 1780s much of the northern side of the courtyard was formed by what at least came to be a stables (B7), though this may not have been its original function (Wittrick 1974 revised 1976, 13). This originally timber framed building has been partially rebuilt/extended in brick in stages and subdivided/changed function several times (Gillam 1997, 43; and below) while standing buildings analysis (Wittrick 1974 revised 1976, 9ff) suggested that it pre-dated the barn (B6, see below) and may have been of mid to late seventeenth century date (Phase 4), though dendrochronological work has shown that at least some of its timbers were felled 1476 – 99 (Bridge 1997), so were presumably reused (contra Gillam 1997, 43). Test pits beside its south wall by Paul Falcini of MoLAS in 1994 (part of initial work which led Howe to further examine the barn; see below) identified a cobbled surface (that may also have continued east of the barn) with additional surfaces below, which has led to speculation that an earlier structure stood nearby (Gillam 1997, 43; and cf. Wittrick 1974 revised 1976, 2).

The extant barn (B6), which by 1773 divided the courtyard from the Rick Yard, was studied by Wittrick (1974 revised 1976, 4ff) who concluded that it was likely to be no earlier than eighteenth century in date (presumably Phase 5a or later), conceived of as a three bay structure, extended to five bays during construction and with an outshoot (now aisle) added on the west perhaps in the nineteenth century. However, as he noted (op cit, 8) there was evidence from trial pits for the partial reuse of substantial brick foundations relating to an earlier structure on the same site and these were further recorded by Howe. Observations then (Howe 1997) may suggest that this earlier structure (though it is not possible to determine whether e.g. the 1773 sale plan shows the standing building or the predecessor) was of three bays with a small western outshoot/extension and was speculated to be of late seventeenth or early eighteenth century date (?Phase 4/5a).<sup>94</sup>

### The Farm Courtyard in the Early Nineteenth Century (?Late Phase 6a/Phase 6b)

An absence of cartographic evidence for nearly a century makes it problematic to assess the development of the Farm Courtyard given the small areas that have been investigated, but two walls identified in, respectively, FXH13 Trench 2 and FXS19 Trench 1 (Fig. 31) appear on brick morphology grounds likely to belong to the nineteenth century prior to the reappearance of cartographic evidence in 1866 (Pl. 34), by when they had clearly ceased to exist. What appeared to be the southern termination of one, [13157], was neatly built in Flemish bond in a construction trench cut down into the natural, a basal course with a small offset and two upper courses of the 46 cm wide wall surviving. It was of red,

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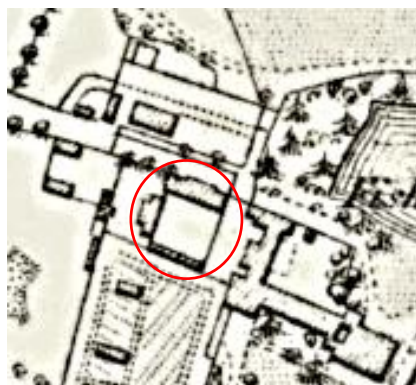
<sup>94</sup> Gillam's (1997, 46) assertion that the bricks used were shallowly frogged is not confirmed by Howe (1997) who makes no comment; the former was certainly wrong to compare them to those used in the construction of Forty Hall itself as many exposures have now shown, but, if the bricks were indeed shallowly frogged (and part of the foundations not other features), this would suggest a late eighteenth/early nineteenth century not late seventeenth/early eighteenth century date.

hand made, moderately hard fired, ?very slightly frogged bricks and hard grey lime mortar using fineish sand. The other, [1910], survived to only one course, built, straight onto the gravel surface of the courtyard, of header lain very shallowly frogged Kentish stock bricks and one softish, dark red brick, replaced on the south by two courses of 2 cm thick, flat rectangular pieces of stone bonded with ?cement which may have formed a doorway threshold.

Whether the two walls were contemporary and or related is unclear, but the latter is unlikely. Their orientations invite interpretation as two sides of a large rectangular construction, but the projected line of [13157] in FXS19 Trench 1 would cross a section of it which was unfortunately cut without archaeological supervision, they would meet against the wall of stables B7 and it is quite difficult to suggest what they might represent. [13157] might then suggest a boundary wall sub-dividing the courtyard,<sup>95</sup> or, maybe more attractively, part of a free standing structure (e.g. a pigsty), but too little of it has been seen to draw conclusions. [1910] might also have functioned as some sort of courtyard subdividing wall or part of a (fairly insubstantial) free standing structure, but all that seems clear is that structures or spatial divisions orientated differently to the main components of the courtyard were constructed at some point(s) before, and removed by, 1866.

### The Farm Courtyard in the Late Nineteenth Century and Later (Phases 7 - 10)

By 1866 OS mapping shows the courtyard had been sub-divided by a north south wall or fence (Pl. 34) and a c. 4.00 m wide (perhaps lean to) structure had been added along its southern edge. By 1895 (Pl. 35) a structure had been added to the southern part of the west side of the north south wall or fence and the southern building extended east (the extension being visible on a drawing of c. 1900 (Gillam 1997, Fig. 34) and shown as a cottage (presumably the gardener's cottage referred to by Gillam (op cit, 44)) and still standing on a plan of 1957 (CMP).



Pl. 34: Extract from the 1866 OS 6'' Map



Pl. 35: Extract from the 1895 OS 6'' Map

The east wall of the structure added to the southern part of the west side of the north south wall or fence was seen in FXH13 Trench 2 and Planting Bed 2 (Fig. 31). It, [13154/13154A], was built on a 74 cm wide, over 5 cm thick concrete foundation in a presumed construction trench. It survived to two courses of frogged, ?machine made, pale olive ?Kentish stocks or red bricks, the lower offset by 4 cm and of two header lain skins, the upper of a header lain western and stretcher lain eastern skins. In FXH13 Planting Bed 2 there was also evidence for what was probably the late nineteenth/early twentieth century lain brick surface of the eastern side of this now divided courtyard, along with a disrupted ?peg tile ?base for something such as a water tank.

By c. 1910 (Pl. 36; and for pictorial evidence c. 1900 see Gillam (1997, Fig. 34)) the stables (B7) had been extended to the east and a short lived structure or enclosure (removed by 1935) lay east of the south end of the north south wall. Two exposures of a c. 10 cm thick floor of pale yellow mortar with

<sup>95</sup> Although the west side of an enclosure shown much later on the 1935 OS (Pl. 37) map appears to perhaps have had a similar alignment to this wall, that evidently lay c. 3.00 m further east and the morphology of the bricks and use of lime mortar not cement forming [13157] clearly argues against such a late date for the wall.

brick/tile fragments, [13156], seen in FXH13 Trench 2 almost certainly belonged to the latter and probably had an east west extent of c. 2.50 m. At the east end of FXH13 Planting Bed 3<sup>96</sup> the insertion of a rectangular ?stand pipe chamber, [1381], 40 x 50 cm and surviving to 22 cm deep with an associated 4.5 cm diameter iron pipe, also belonged to this phase as it was built of ‘LBC’ impressed London Brick Company bricks, not standard ‘Fletton’ stocks, so probably early products of c. 1905 – 1925. By 1935 (Pl. 37) the structure west of the north south wall or fence also had some form of enclosure attached to the west of it as far as a point c. 6.00 m east of the east side of the barn. However, all these nineteenth and earlier twentieth century developments except the stables extension were removed in the second half of the twentieth century, the cottage perhaps specifically in 1968 (CMP), and monitoring showed that the courtyard was given a tarmac surfacing over demolition material throughout.



Pl. 36: Extract from the 1910/12 6'' OS Map



Pl. 37: Extract from the 1935 OS 6'' Map

### The Rick Yard ?Before c. 1773 (Phases 1 – Late 5b)

If the Farm Courtyard did originate before late Phase 5b presumably the Rick Yard to its west did as well and again here there is some standing buildings evidence that might suggest a relatively early genesis. This relates to the only building in the yard by 1773 (Pl. 33 above), which is known as the ‘Warrener’s Cottage’ (B21) and lay in the south west corner of the yard. Its name relies on the fact that it looks out onto the known warren associated with the hall,<sup>97</sup> but it is probably too small to have originated as a cottage and a possible origin as a dog kennels seems more likely. The structure was summarily assessed by Wittrick (1974 revised 1976, 15f ) who noted that, at least in part, it was contemporary/integrated with the adjacent boundary wall of the yard (though there do seem to be some butt joints) and began as a small single storey structure built mainly in English bond. Based on the fact that ‘on two elevations openings for windows are spanned by flat or cambered brick arches with gauged voussoirs with cross joints’ he suggested a date for this of c. 1620, so likely contemporary with the establishment of Forty Hall (i.e. Phase 2/3) and noted that such high quality brickwork is unusual in a building of this likely low status. However, the existence of the Phase 1 predecessor to the hall was unknown to Wittrick and it must be possible that the origin of the structure, potentially like that of the southern boundary wall of the Farm Courtyard/Rick Yard, in fact lay with this earlier development of the site. Wittrick found convincing evidence though that the building was raised to two storeys in the early eighteenth century (Phase 5a/b).

Monitoring of FXH13 Trench 3 again suggested that the Rick Yard had seen landscaping modification early in its existence, involving truncation of the natural as in the Farm Courtyard, though here how far its absolute level was due to such truncation and how far to the existence of a likely natural slope down to the west it was difficult to say.

<sup>96</sup> Which also coincided with a modern manhole and drain.

<sup>97</sup> It was in existence by and covered 8 acres in 1656 (VCH, 239 citing M.R.O., Acc. 16/8)

### The Rick Yard in and after c. 1773 (Late Phase 5b to Phase 10)

Nothing beyond the existence of the 'Warrener's Cottage' (B21) is known of the Rick Yard in the 1770s and 1780s, but no other buildings appear to have been present in it until the late nineteenth century, and even then the only development would appear to have been the construction of a similarly small building (B16) at its north west corner by 1895 (Phase 7). It was only in Phase 9 that probably slightly imprecise OS mapping shows that a larger structure (B22) had been added along the western perimeter of the yard (by 1910/12), and (between c. 1910 and 1935) that a larger building (B23) had been constructed along the north edge of the yard, paralleling an extension of the 'Warreners Cottage' (known latterly to have been used as a potting shed) to the east.

Archaeologically FXH13 Trench 3 (Fig. 31) identified a probable former courtyard surface composed of large cobbles lain on a bed of pea shingle over the natural and overall c. 8 cm thick. A very dark grey to dark brown organic loam, perhaps containing burnt material, filled the gaps between the cobbles, but there was no dating evidence present and the surface seemed to have a western edge within the expanded part of the trench, much of the rest of which was too shallow to encounter it. It may therefore have been associated with the barn to its east rather than being a more widespread surface and above it and elsewhere an undated dump most likely represented fairly modern deposition to raise the ground level when the area was resurfaced in Phase 10.

# The Archaeological Evidence for the Forecourt Fronting the Residential Block of the Hall and the Wider Development of the North Frontage and its Landscape

## Scope and Background

Perhaps the area where archaeology has made the largest contribution to the understanding of the development of Forty Hall and the landscape it is set in is in tracing the evolution of the area running from the north facade of the hall north as far as a (modern) road that today lies between the large lake that the hall overlooks and the open parkland beyond.

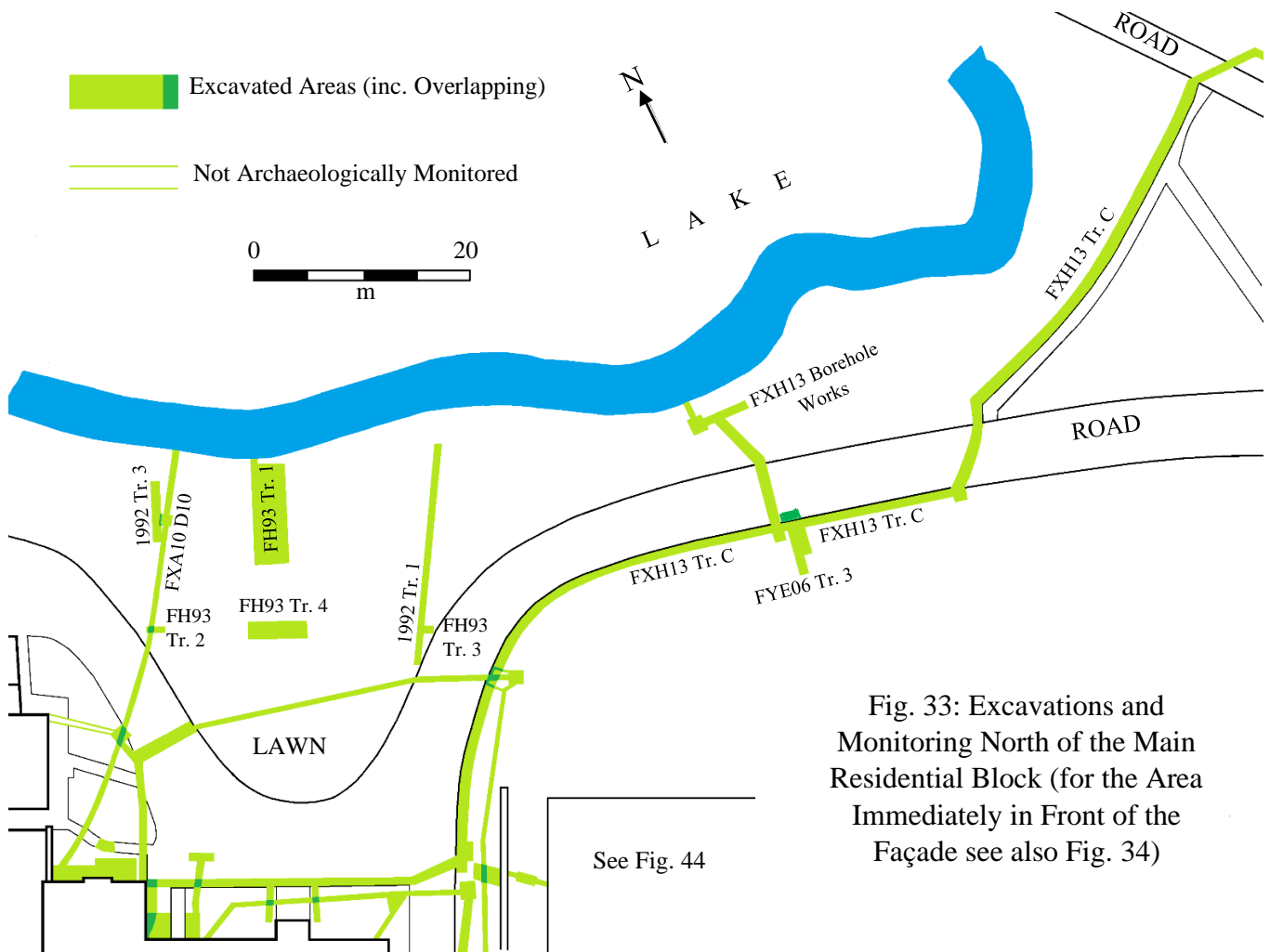


Fig. 33: Excavations and Monitoring North of the Main Residential Block (for the Area Immediately in Front of the Façade see also Fig. 34)

Some of the earliest archaeological work undertaken by the EAS was in 1992 (Fig. 33) when two north south LBE machine cut evaluation trenches connected to an (abandoned) relandscaping project were recorded on the lawn north of the hall and a little further excavation undertaken; and in 1993 (FH93) when four further shallow trenches were excavated (at the request of the LBE to inform decisions about the maintenance of the lake beyond it) and located significant seventeenth century features (cf. also Gillam 1997, 47 – 9).<sup>98</sup> Monitoring of CCTV cable trenches in 2003/4 (FHFL03) also added further information about the development of the area (Fig. 34), however, it was the excavation of FHN09 Trenches 4 and 5 and then monitoring of a number of services trenches both across this lawn (FXA10 D10) and across the area immediately in front of the hall (FXA10 D19 and parts of D1) during 2009 – 11 that enabled the 1993 findings to be better understood. Other work by Pre-Construct Archaeology

<sup>98</sup> Trench designations for this may not be those in use at the time of the work.

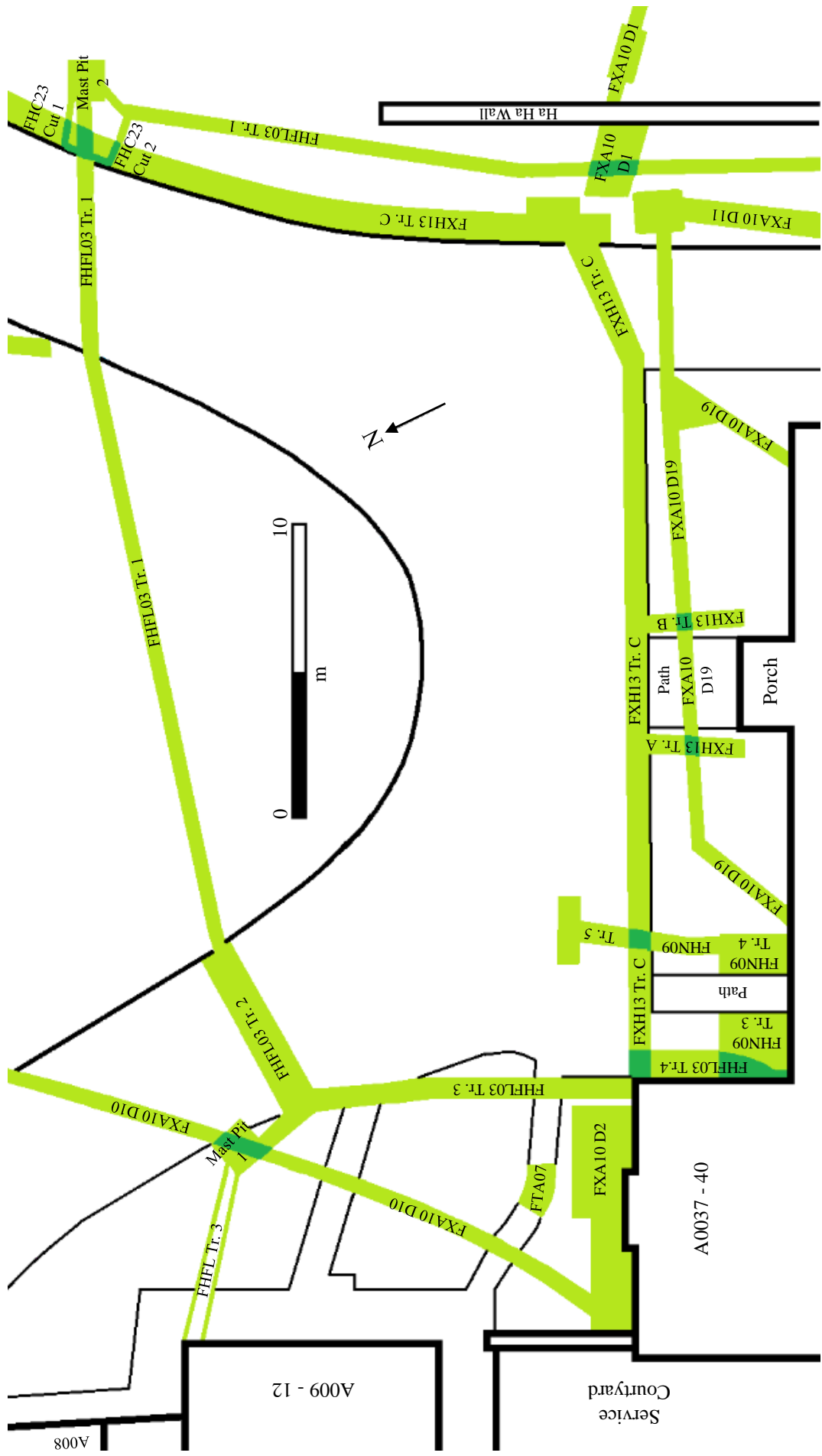


Fig. 34: Excavations and Monitoring Immediately North of the Main Residential Block (Key as Fig. 33)

(Figs 33 – 34 ‘Mast Pits’) on the 2003/4 CCTV system installation (FOH04) and EAS monitoring of further CCTV and other cable trenches during the 2013 – 15 HLF supported landscape restoration project (FXH13) and in 2023 (FHC23) is also relevant here.

### Possible Phase 1 (Pre 1629) Features North of the Hall, the Initial Layout of the Forecourt (Phase 2/3, 1629 – probably 1636) and Modifications to it in Phase 4 (probably 1636 – 1696)

As initially built, or at least soon after in Phase 3, which the mortar in its eastern boundary wall at least hinted it may have been (below), a relatively small forecourt had been established fronting the main residential block of Forty Hall. The space available for one would have been limited by the area owned by Sir Nicholas Rainton senior, which is likely to have been bounded on the north by a (Phase 1) roughly north west to south east road separating it from the grounds of Elsyng Palace, which at the time was still in royal hands. However, the limited evidence recovered to date allows of more than one precise developmental scenario to be proposed for some elements of the forecourt, especially as there is little or no close dating evidence on which to rely and the materials of the structures involved allow of a wide date range.

The Phase 1 road (Fig. 35) may have been represented in the northern part of FXA10 D10 by a 50+ cm thick dump of redeposited natural gravel that could have had a surface of denser, smaller pebbles. However, later truncation on the south and quite possibly north, the limited area available for study and largely machine excavation of D10 here meant that little in detail could be established about it, though it seemed to be c. 9.00 m wide. It may also have equated to smaller exposures of gravels seen further east in FH93 Trench 2 and 1992 Trench 1 (not shown on Fig. 35 as the evidence was equivocal), but the latter trench’s findings may suggest that the road perhaps didn’t always extend as far to the south here and a c. 70 cm wide mortar spread was identified north of the wall described below, even if what could have been road gravel was then deposited over it. (see Fig. 36).

Better exposures of what was presumably the same road were obtained considerably further south east in 2006 (FYE06 Trench 3) and in 2014, when FXH13 Trench C cut across the road at an angle. Here it was perhaps c. 4 m wide and composed of compacted, small rounded pebbles, with some larger cobbles in its lower horizons, in a strong brown sandy/gritty matrix and had a disturbed southern edging of worn hand made bricks. Nearby in FYE06 Trench 3 interpretation was complicated by the possibility that the road could have been reused and ?broadened to form a ?Phase 5/6 ??coach turning circle. But here the road was represented by a compacted pebble surface, incorporating some brick and tile fragments and over 28 cm thick and was again perhaps c. 4 m wide, undamaged and south sloping so may have been part of a cambered surface. But a considerably more damaged continuation to the south had possible east west ruts and this may either have been a broader makeup dump or a later addition to form the putative ??coach turning circle.

The exact form and line of the road does then remain in doubt as exposures have been small, in less than ideal circumstances or at points where an edge was not present. The 2006 and 2014 exposures, even if the surface recorded in FXH13 Trench C did not survive to its full width (as the FYE06 Trench 3 evidence might suggest), also imply a much narrower road than that suggested by the FXA10 D10 evidence. Since the broader presumed make up dump has only been confirmed in the area now occupied by the lawn fronting the lake this makes it possible either that the original (presumably Medieval) road had been realigned in or by the seventeenth century or, far more likely, that this dump served not just as a foundation for the road, but also as a more localised levelling and or ground raising measure. It might well then have formed a broadened road/hard standing along the front of the forecourt, either a pre-existing one relating to the known Phase 1 structure preceding the hall (which may well have been accessed from this road), or one created at the time of the forecourt’s establishment.

However, it is apparent that along part of the southern margin of this (broader) Phase 1 road there was either a Phase 1 wall which was at least partly reused as the northern wall of the forecourt in Phase 2/3 (supported by the fact that it extended further east and west than the edges of the forecourt) or such a wall may have been partly or wholly removed in building one. It probably did not continue far south east of the edge of the lawn area that today fronts the hall because FXH13 Trench C failed to find any



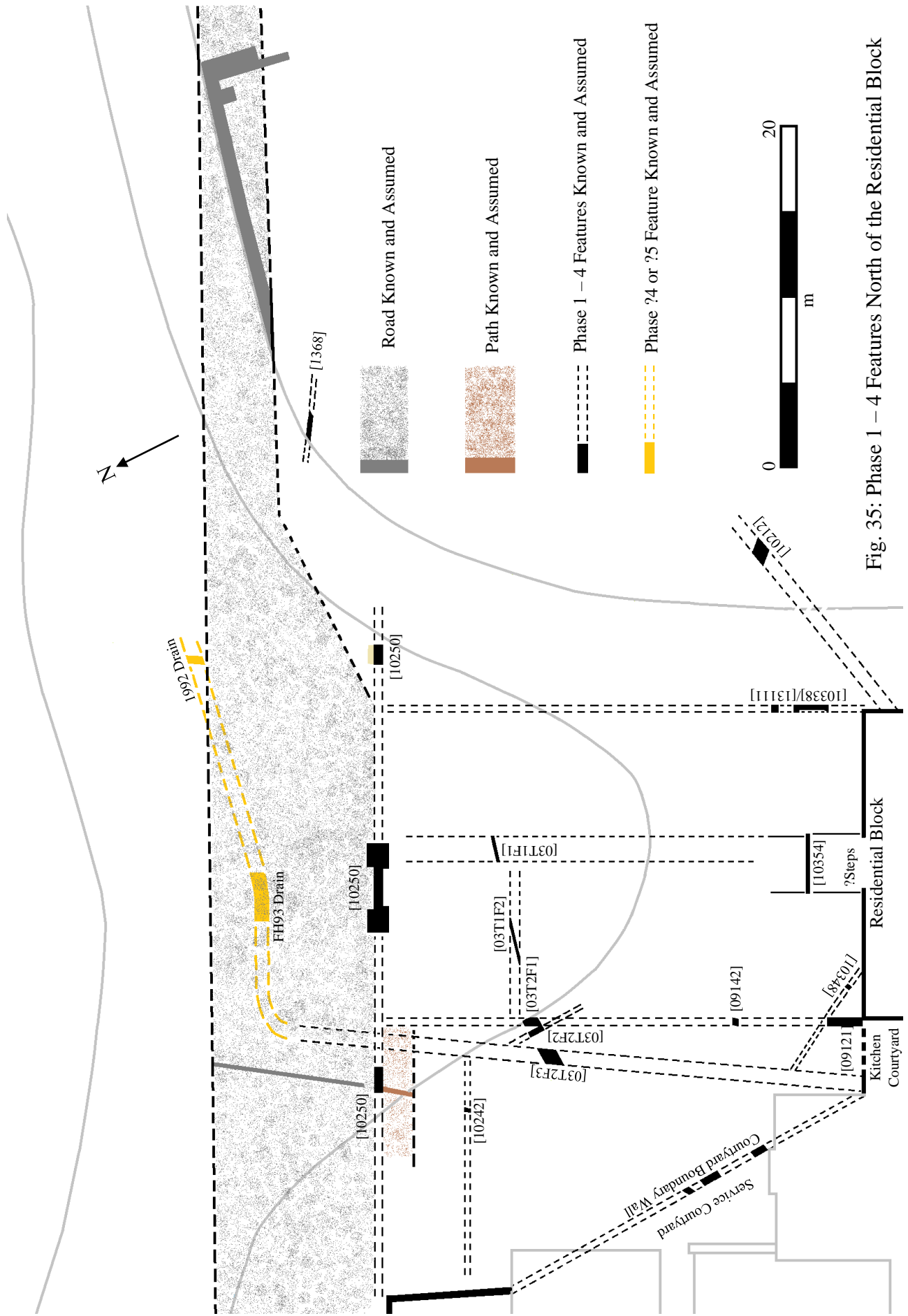


Fig. 35: Phase 1 – 4 Features North of the Residential Block

obvious boundary wall on this line and instead, c. 3 m south of the (narrower) road, recorded one and sometimes two surviving courses of a small (25 cm wide) west north west to east south east wall, [1368], built of half and quarter bricks on one or two layers of slate fragments in a 38 cm wide construction trench and incorporating a small dog leg. It was almost certainly a garden feature.

In any event though the forecourt's northern wall was identified at three points in limited monitoring/excavations on the lawn now fronting the hall in 1992/3 and further confirmed in FXA10 D10.<sup>99</sup> Parallel to the facade of the residential block and 27.4 m in advance of it, FXA10 D10 showed that this wall was built in a 3.22 m wide, well over 50 cm deep cut, partly into the dump forming the ?road and partly into another over 50 cm deep landscaping deposit to its south. The presence of the landscaping deposit probably again suggests Phase 1 activity here, if only in connection with levelling a possible slope between the predecessor structure to the hall and the road, and the size of the cut could, as noted, imply that an earlier (Phase 1) boundary wall along the road line had been removed before a Phase 2/3 wall had been built in it, if indeed the wall was not wholly of Phase 1. The clearly free standing wall, [10250], be it of Phase 1 or Phase 2/3 in origin, had though been built against the vertical northern face of the cut to a width of 42 cm and survived to at least six courses of stretcher bonded brickwork using hand made unfrogged bricks and soft sandy mortar, the fair faces lain in stretcher bond, but with a brick fragment core. To its south it also had an only butted on offset or reinforcement, 12 cm wide, formed by a single skin of brickwork at least five courses high.

The 1992 Trench 1 exposure of the wall, to the east of the limits of the forecourt, also had a southern offset/reinforcement, more fully preserved on the west side of the trench than the east, as was the wall itself (Fig. 36). Here the limited recording possible did not at least clearly identify a construction trench for the evidently rather irregularly bonded wall, against both sides of which a stony soil with some cbm (?construction debris) may have been dumped before a layer of mortar was deposited running away from its north face and a layer of brickearth (that may have created a surface) was deposited running away from its south face. The road north of the wall might then have been ?extended south at some date to meet the wall at this point by a dump of 'dirty' gravel. However, interpretation is complicated by a still later ?cut (with a humic soil fill) probably relating to the demolition of the wall (and perhaps also cutting what might have been a re-landscaping deposit over the brickearth ?surface on the south) in what was anyway only a rapidly monitored contractor's trench.

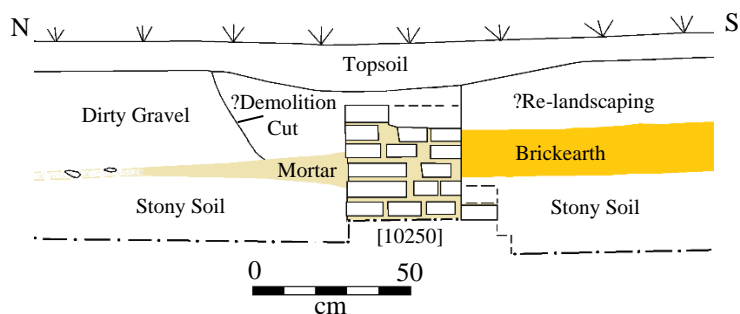


Fig. 36: Section Through Wall [10250] in 1992 Trench 1 (East Section)

The wall's central section though, which was revealed by topsoil clearance, but not fully excavated in FH93 Trench 4 (Fig. 37; Pls 38 and 39), appears to have been modified at some date to provide an entrance. The wall here (though interrupted by two later north south features including a sectional piped land drain) was of the same width, but without the southern reinforcement at least being noted. It only survived to three courses, and the structural relationships could not be established, but it appears that two rectangular pier bases had been built on the wall line. Described as 'of unmortared brick construction, with an irregular infill of incomplete bricks' (EAS archives), they were 50 cm wide, 2.50 m apart, the western 1.10 m long and the eastern 1.30 m long, each broadened by 10 cm along 34 cm of their inner faces coincident with the wall line.

<sup>99</sup> The FXA10 D10 exposure coincided with one in 1992 Trench 2, but the latter only represented superficial excavation to establish the wall line. For convenience all exposures of the wall are referred to by the FXA10 context number assigned it.

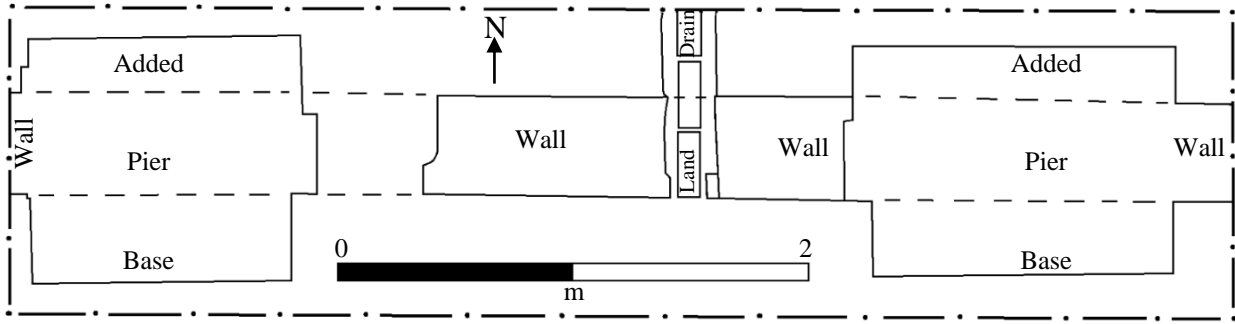


Fig. 37: Outline Plan of the Entrance Through Wall [10250] in FH93 Trench 4



Pl. 38: FH93 Trench 4 Looking East (photo Geoffrey Gillam (© Enfield Local Studies Library and Archive))



Pl. 39: FH93 Trench 4 Looking South Showing Wall [10250] Cut by Two Later Features Including a Land Drain (photo Geoffrey Gillam (© Enfield Local Studies Library and Archive))

Whether then the wall here was a reused Phase 1 construction, later demolished to ground level or lower for at least 4.80 m and that the foundations for two probably entirely brick piers flanking a 2.20 m wide gateway had been added in Phase 2/3 or that the wall was a Phase 2/3 construction with similar demolition and gate piers added in Phase 4 when Nicholas Rainton the younger acquired the land to the north of Forty Hall cannot be certain. But the former scenario seems far more likely or the forecourt as conceived would not have had the entrance to be expected from the start. Moreover, if projected to the west the line of the wall would match that of the northern boundary wall of the Service Courtyard as it existed at least by c. 1650 (Phase 4)<sup>100</sup> and a section of wall on the same line just beyond the west end of the Service Courtyard may indeed be both earlier than Phase 4 and potentially of Phase 1 (pers. comm. Paul Drury; above p 63ff). Thus it seems very possible that a Phase 1 road with a wall along its southern edge, or laying back from it with a hard standing between the two here, had defined the north side of both the Service Courtyard and forecourt in Phase 2/3 and that the wall itself had just been selectively demolished to create entrances.

In any event a significant exposure of another wall, [10338]/[13111], defining the east side of the forecourt was excavated in FXA10 D19 near to the hall facade (with a further exposure in FXH13 Trench C, though it was not seen in the superficial and here much disturbed FHFL03 Trench 1; Figs 33 - 35; Pl. 40). The level which the wall survived to, combined with the level down to which its mortar joints had been fully struck, probably suggests a ground level here at the east side of this facade at the time of the wall's construction of around +46.236 m OD or a little higher. As this was approximately 30 cm lower than the level of the Phase 1 ground surface in the Kitchen Courtyard area, either a natural slope existed or more likely cuts in connection with the Phase 2 construction of the hall (and or its Phase 1 predecessor) and e.g. installation of a drain ([10212]) seen nearby in FXA10 D1 (see p 89) were already present here.



Pl. 40: Phase 4 Forecourt Wall [10338]/[13111] in FXA10 Area D19 Looking West

<sup>100</sup> Given the small exposures available the precise line of the Phase 1 wall is difficult to map with accuracy so that the slight discrepancy between its line and that of the northern wall of the Service Courtyard on Fig. 35 may not be real, but equally it may be that the northern Service Courtyard wall was moved slightly south when perhaps rebuilt in ?Phase 4.

Built in a probably 50 cm wide construction trench with a vertical east face whose backfill may have included demolition material from the Phase 1 predecessor to the hall, but only two sherds of pottery, broadly dateable to 1480 - 1660, the wall was 40 cm thick and survived to 14 courses of brickwork. Well built and bonded with mortar very similar to that used in Phase 3 work in the Kitchen Courtyard, it comprised two skins with a coursed part brick core. On a basal tile course and with three successive offsets to the lowest brick courses, it was built in a mixed bond, mainly header bonded in the lowest courses, then with one header course separating that from five courses of Flemish bond, but often using double not single headers between stretchers. It thus strongly suggested construction at a similar date to the main hall probably in the early 1630s, and probably construction by someone not yet fully familiar with the new Flemish bond. Its centre line aligned precisely on the outer (east) face of the corner of the residential block (though it was truncated even within the southern part of FXA10 D19), the upper courses of both sides were fair faced and it is likely to have stood to a considerable height. The forecourt's east west extent is though problematic. No confidently assignable Phase 2/3 wall that might have formed its western side is known, however, if one lay approximately in line with the western end of the residential block as one might speculate most excavation and monitoring to date (Figs 33 - 35) would probably not be expected to have found evidence for it. Thus, the cut monitored in D10 would have lain too far west to have encountered it, FHN09 Trench 5 did not penetrate much later hoggin deposits and a shallowly buried wall seen in both it and the fairly shallow FHFL03 Trench 2 appears likely to have been of Phase 4, though some evidence that might point to its rebuilding may allow of the possibility that it originated in Phase 2/3 (see below). But only FHN09 Trench 4 was in the right location and deep enough to have certainly been expected to encounter a Phase 2/3 predecessor to the Phase 4 forecourt west wall that was indeed excavated here. Since the ground level here immediately west of the west end of the facade of the residential block was lowered considerably in the 1650s when drain [09113]/[09131] serving the Kitchen Courtyard was also partly demolished and a midden built up in it (p 37f), it might then be that any traces of an original 1630s forecourt wall would have been removed in the process (or lain immediately to that trench's east). However, an alternative may well be that the original forecourt in fact continued west as far as the eastern wall of the Phase 2/3 Service Courtyard (perhaps giving it a width of around 16 m).

In any event though in Phase 4, but not that long after the ground level at the west end of the residential block's facade wall had been reduced, part of a new western wall to the forecourt, [09121], had been built at this point so that now anyway the south end of the forecourt will have been 14.50 m wide. As noted, the section of this wall excavated in FHN09 Trench 4 showed that it had been built while the midden in and around the former vaulted drain was still building up and, while its date depends on estimates of its speed of development and initial date, the amount of midden material that it rested on tends to suggest a date c. 1660 or earlier. The wall was significantly truncated by later features (Pl. 27 above), but was, at least in its lowest three courses which survived in some way, relatively poorly built without a construction trench, its basal course 65 cm wide with a 35 cm wide core of brick fragments and its faces using rather battered and relatively soft fired brickbats to give two offsets to the west face of headers and a stretcher lain east face, all bonded with extremely sandy, poor quality mortar. An analysis of the bricks used by Ian M. Betts suggested that some of them may have been reused from a sixteenth century structure, so it is tempting to suggest that they derived from the nearby Elsyng Palace which was demolished c. 1657.

Without any independent dating evidence whether two wall exposures, [03T2F1] and [09142], seen further north in FHN09 Trench 5 and FHFL03 Trench 2 (Fig. 35), were also part of the western boundary of the forecourt, and were contemporary with [09121] must remain less than certain. But if they were then there may have been a slight variation in the line of the wall as it ran north, possibly as a result of a rebuilding. [03T2F1] was again quite poorly preserved, but c. 38 cm wide, built of at least four and probably five surviving courses of stretcher bonded unfrogged bricks and very sandy cream coloured mortar, but using part bricks irregularly as it abutted a drain, [03T2F2], and the lowest course seen appeared to run out of true with the rest of the construction (thus suggesting slight realignment). Some 4.7 m to the south, only a very small section of [09142] survived modern services truncation and only one and part of a badly damaged second lower course of it were available for study. However, it represented the foundation of a 36 cm wide wall of irregularly lain whole and, mainly, part bricks

bonded with very pale brown sandy mortar. Its orientation may have been slightly at variance to that of [09121] and [03T2F1], but the exposure was very small and the presumption must be that, even if the wall had been marginally realigned in a rebuild at some point during its lifetime, it did again represent the western forecourt boundary.

Certainly it is difficult to suggest different functions for [03T2F1] and [09142] other than as parts of the same wall line as [09121], while a hypothetical developmental sequence for the drainage system serving the west end of the residential block/Kitchen Courtyard would be consistent with [03T2F1] at least belonging to some point in Phase 4 (without ruling out that it represented rebuilding on a line established in Phase 2/3). Thus, west of and roughly parallel with [03T2F1] a large drain, [03T2F3], suggests that the area west of [03T2F1] may have been seen as convenient for services routing and so more likely outside the forecourt. The drain was aligned as if it had emerged from approximately where the earlier vaulted drain [09113]/[09131] (p 31f) had left the Kitchen Courtyard, but been removed during Phase 4 and [03T2F3] may then have been the replacement for [09113]/[09131] which must, potentially somewhat inconveniently, have run angularly under the forecourt.<sup>101</sup> Clearly [03T2F3] was a similar if somewhat smaller drain to it, again with a fall to the north east, overall 72 cm wide, internally 33.5 cm wide and 30.5 cm high, tile floored and constructed with sides of two skins of handmade, unfrogged bricks/part bricks and some tile fragments and a gently vaulted five course brick roof built using slightly sandy white mortar. It is possible that this was the same drain as one seen in FH93 Trench 1 which is not as fully recorded as one might like, but appears to have been 40 cm wide internally (Fig. 35 and Pl. 41). This may also have been the same drain seen in the limited recording that was possible in 1992 Trench 1, though if so it had expanded to 55 cm wide and was internally at least 35 cm high, so retained its vaulted roof. If it was the same drain then it had turned to run east to the north of the forecourt across the line of the Phase 1 road (perhaps the edge of Nicholas Rainton's property before c. 1656), but that this was a later (?Phase 5) drain constructed after the road went out of use must also be possible.

Equally, and clearly belonging to before Phase 5 as a cut filled in that phase truncated it, a south west to north east orientated drain ([10242]) seen in FXA10 D10 likely ran into [03T2F3]. It was 35 cm wide (12 cm wide internally), had a peg tile base and probably stretcher bonded brick sides surviving to two courses and seems very likely to have originated somewhere in the Service Courtyard.



Pl. 41: FH93 Trench 1 Looking West at the Drain (Bisected by a Later Land Drain)  
(photo EAS Archive)

<sup>101</sup> Though any trace of a continuation of [03T2F3] in FHN09 Trench 3 appeared to have been removed including by a large cut preceding the installation here of [09116], a ?Phase 7 drain (and FXH13 Trench C was too shallow to have encountered [09113]/[09131]).

The forecourt wall [03T2F1] was also seen at a point where it had been built up to and presumably originally across the top of, another small (internally 11.5 x 13 cm), rectangular sectioned brick built drain, [03T2F2], which must have been stratigraphically, but need not have been significantly chronologically, earlier than it (Fig. 35). The (?roof water) drain, which presumably ran under the forecourt from the vicinity of the north entrance to the hall, again to connect to [03T2F3] just outside the forecourt, was tile floored with a skim of mortar or limescale, built of two courses of dressed brickbats and sandy off white mortar and roofed with bricks lain across its axis. Indeed, its construction matched another drain, [10348], seen in front of the northern facade in FXA10 D19, though only the tile base and two course stretcher bonded sides of it survived, and suggests that they were parts of a coordinated rain water drainage system.<sup>102</sup>

It therefore seems possible that a series of changes to the northern environs of the hall had taken place in Phase 4 involving the re-routing of main and provision of new ?roof drains as well as separately walling the west side of the forecourt, either for the first time, or more likely by rebuilding an existing boundary wall.<sup>103</sup> This perhaps left the strip of ground west of the forecourt as just servants' access to the Kitchen Courtyard. Whether the changes were all essentially coeval or occurred over a period of time is hard to be sure. There was some evidence in FHFL03 Trench 2 for the larger drain ([03T2F3]) being covered by a later truncated pebble dump or surface with the smaller drain [03T2F2] and the wall [03T2F1] cut through that and it then being 're-lain'. However, this was in a very far from ideal exposure and, even if this sequence is correct, it need not indicate any great lapse of time between the construction events. It might well be then that all the drainage changes, the (re)walling of the west side of the forecourt and laying of a pebble surface west of it belonged to c. 1660.

Relatively little is known of the interior of the Phase 2/3 or 4 forecourt, however, a basically axial path to its full length must be presumed and probable or certain evidence for one has been excavated at two points (Figs 35 and 38). FHFL03 Trench 1 encountered [03T1F1], a 1.72 m wide north south rammed pebble path edged, where seen, with header lain bricks and aligned on the (east side of the) north entrance of the hall, even if not exactly on the northern entrance to the forecourt (suggesting that internally the forecourt was not exactly symmetrical). Whilst undated, this path seems likely to have belonged to Phase 2/3 or 4.

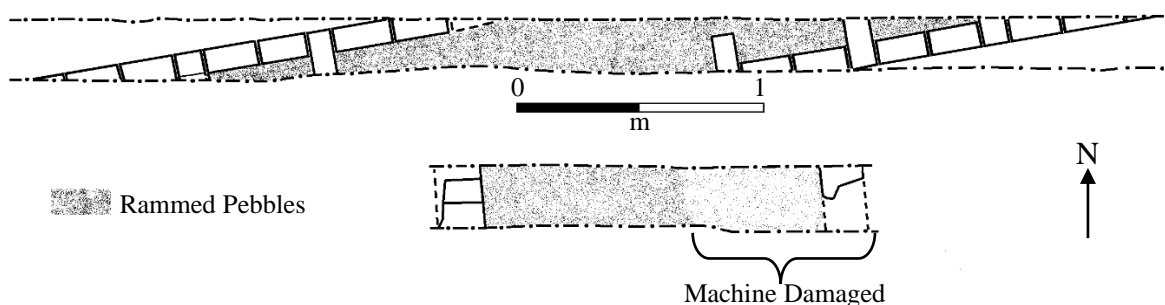


Fig. 38: FHFL03 Trench 1 Exposures of Path [03T1F1] (below) and Feature [03T1F2] (above)

Meanwhile, close to the front of the hall in FXA10 D19, in its earliest form, a path to the full width of the entrance was represented by a redeposited brickearth dump, [10360B], and a thin overlaying clayey silty sand layer, [10360A], in all 34 cm thick, which probably formed a path or more likely foundation for a slab path, 2.90 – 3.20 m wide (Fig. 39). It led up to [10354], a 3.22 m long, linear, double skin part brick foundation perhaps of Phase 4, parallel with and 2.70 m in advance of the entrance to the residential block and which may have supported the leading edge of the first of a short flight of stone

<sup>102</sup> [10348]'s orientation would have taken it across FHN09 Trench 4's north east corner, but here it had been removed by late eighteenth/early nineteenth century truncation.

<sup>103</sup> It is not impossible that some of these changes, especially the forecourt walling further from the hall, alternatively belonged to early in Phase 5, but this seems far less likely.

slab steps up to that entrance and there are Jacobean parallels for such a feature, e.g. at Chastleton House in Oxfordshire (pers. comm. Paul Drury).

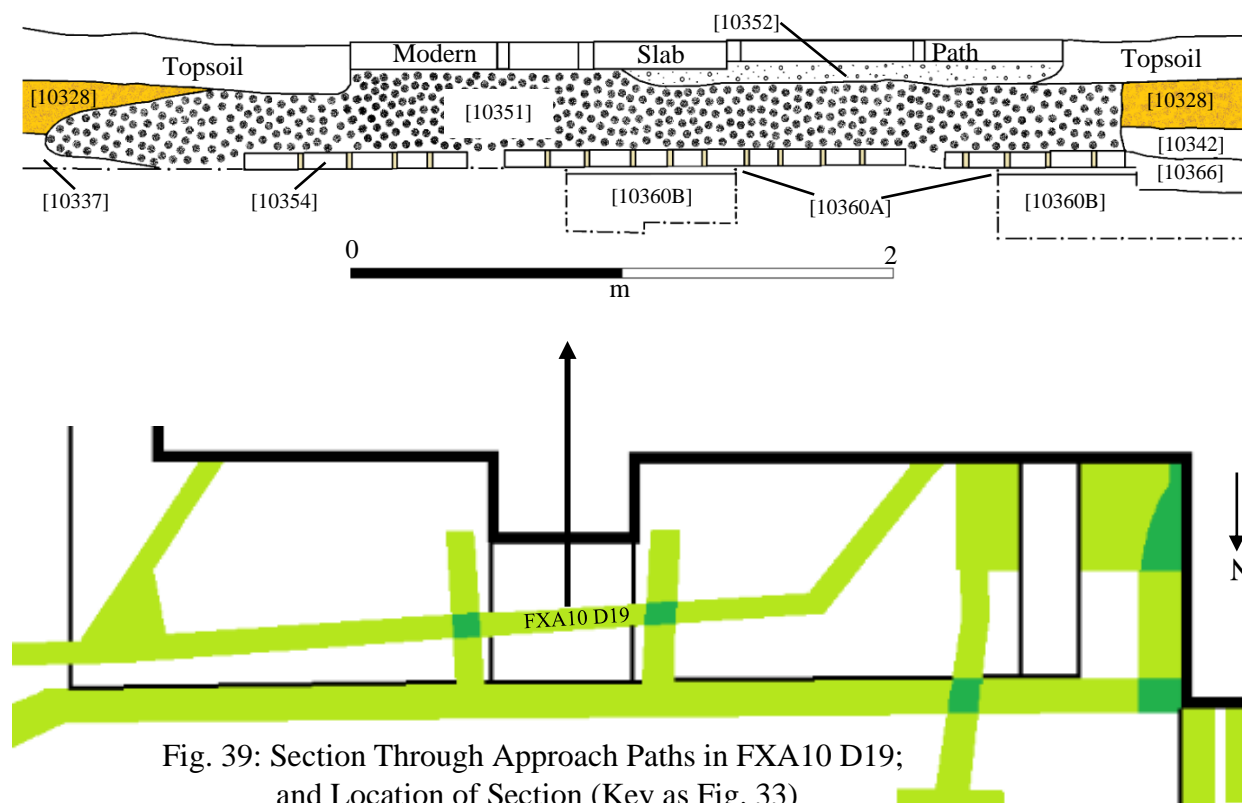


Fig. 39: Section Through Approach Paths in FXA10 D19; and Location of Section (Key as Fig. 33)

FHFL03 Trench 1 also, and in an area that must have been within the forecourt, showed that at some point a feature, [03T1F2], had been created running east west across its western part at least (Figs 33, 35 and 38). Linear and c. 50 cm wide, it appeared, though the exposure was very limited, to comprise edges formed by at least three courses of brickwork infilled with rammed pebbles, the edging brickwork (though no mortar was preserved at least) comprising stretcher lain bricks, but with every third one replaced by a header. Though presumably intended as well to be decorative, this construction may suggest that it was a small terrace retaining ‘wall’. Unfortunately the intersection of the probable axial path and this feature was not within the monitored trenches and again no dating is available for it, but if it belonged to Phases 2/3 or 4, and especially if it was continued on the other side of the axial path (where monitoring could only record possible disturbed dumping further north and in adverse conditions), the forecourt may have been on two levels. That immediately north of the possible retaining ‘wall’ a compacted layer of pebbles, but containing some tile and brick fragments, was present might hint at the presence of a path following the wall line and reinforces the possibility that the forecourt could have been subdivided by paths into ?unequal ?quadrants, perhaps on different levels. However, the difficulties of interpreting features only seen in narrow machine cut trenches means that this must remain hypothetical.

Somewhat west of the western side of at least the Phase 4 forecourt a c. 2.00 m wide east west path also probably existed on the south side of the wall that defined the northern end of the forecourt and ran on towards the Service Courtyard (Fig. 35). It was represented in FXA10 D10 by three 5 – 6 cm thick layers of sandy stony clays perhaps representing two surfacings over a make up layer and is likely at least to have belonged to some point in Phases 2/3 or 4. Such a path has not at least been encountered in any work within the Phase 4 forecourt area, though, especially if the forecourt had a greater east west extent in Phase 2/3, it might have continued into that area and or might imply a subsidiary gateway at the north west corner of the forecourt in Phase 4. East of the courtyard 1992 Trench 1 (Fig. 33) recorded what may have been a brickearth surface running up to the back of the wall continuing the northern edge of the forecourt.



There is also evidence for extensive dumping, perhaps not all at the same time, in front of the residential block facade either side of the axial path and the most likely interpretation of what were multiple layers forming different sequences (including [10366], [10337] and [10342]; Fig. 39) is that much of the dumping belonged at least to Phase 2/3 or 4 (though it is possible that some or all of it was introduced in Phase 5 and the only direct dating evidence was a partial clay pipe bowl of c. 1640 – 60 from [10342]). Repeated disturbances here associated with many changes to the approach to the residential block's main entrance and services works as well as the small areas available for examination mean that interpretation is problematic, but at some point the dumping probably again served to create a terrace fronting the facade of the hall or at least raised the general forecourt area above its surrounds. Whether in these phase(s) any more formal surface(s) or more likely gardens existed in front of the house where these dumps occurred either side of the approach path to the entrance is unknown, but must be likely. (How areas just east of the forecourt were treated is unclear, though FXA10 D19 did record a sandy, stony clay probably deposited soon after the construction of its eastern boundary wall which might have represented a contemporary surface.)

### The Area North of the Hall in the Eighteenth Century, Perhaps into the Early Nineteenth Century (Phase 5b, 1708 - 1787 and Perhaps Phase 6, 1787 – c. 1850)

There is no specific evidence for the date at which the north wall of the forecourt fronting the north of the hall was removed and the demolition of its east wall, to a regular level so that it is not impossible that its stub served some function such as a ha ha, is also hard to date. Dumps both east and west of it (though not certainly introduced after its demolition) included residual material or were sterile, but none included material that need be later than c. 1700. Similarly, the demolished west wall of the forecourt in FHFL03 Trench 2 and FHN09 Trench 5 (Fig. 35) was directly overlain by hoggin presumed to be of Phase 5, but truncation may have preceded its deposition. However, the section of its west wall adjacent to the hall ([09121]) which had been built perhaps c. 1660 in Phase 4 was demolished at approximately the time that the midden which had built up to its west, partly in an earlier drain, received its final material including a horizon of demolition material. That was almost certainly c. 1700 – 1708 and the forecourt was therefore presumably dispensed with in favour of a much more open landscaped vista fronting the hall around this time.

Either now or a little earlier (in Phase 4 under the younger Nicholas Rainton), but quite likely in tune with the significant remodelling of the residential block c. 1700 – 8, a 40 m diameter circular pond (its footprint identified in a contour survey of the later lake incorporating it and in Northamptonshire Archaeology observations during desilting works (Simmonds 2014, 9)) was excavated north of the Phase 1 road (whether it was removed, which seems more likely, or not). Rocque's map of 1754 (Pl. 42) shows that by then an already mature arc of trees existed in front of the house so it is likely that this was planted at this time and ran round the pond and then to the north was continued by the still partly extant double lime tree avenue which ran down the hill from the hall (see Fig. 1 and further below), across the site of the now demolished Elsyng Palace and originally up the slope the other side of Maidens Brook.

Archaeologically most of what is known of this remodelling of the area north of the hall early in Phase 5 relates to how the hall and its service buildings were now being accessed and relies on the relatively small exposures in FXA10 D10, FXH13 Trench C and FHFL03 Trenches 2 and 3 (Figs 33 - 35 and 39 - 40). In the first it seemed possible that the path running along the south side of the wall north of the forecourt and on to the west might have been retained for a time after the forecourt itself was removed, but north of this the date of a fairly thin topsoil over the probable Phase 1 road was uncertain and how far any re-landscaping had happened here at whatever dates is unknown. South of the path in FXA10 D10 by contrast there was evidence for a midden preceding, or perhaps more likely midden material being dumped as part of the foundations for, the first phase of a new road running in from the east, curving round to the south to give access to the hall and then back to the north and west to serve the Service Courtyard (basically the access road that exists today).



Pl. 42: Extract from Rocque's 1754 Map of Middlesex Showing the Tree Avenue Curving Round the Pond (and Continuing North of Both Maidens Brook and the New River)

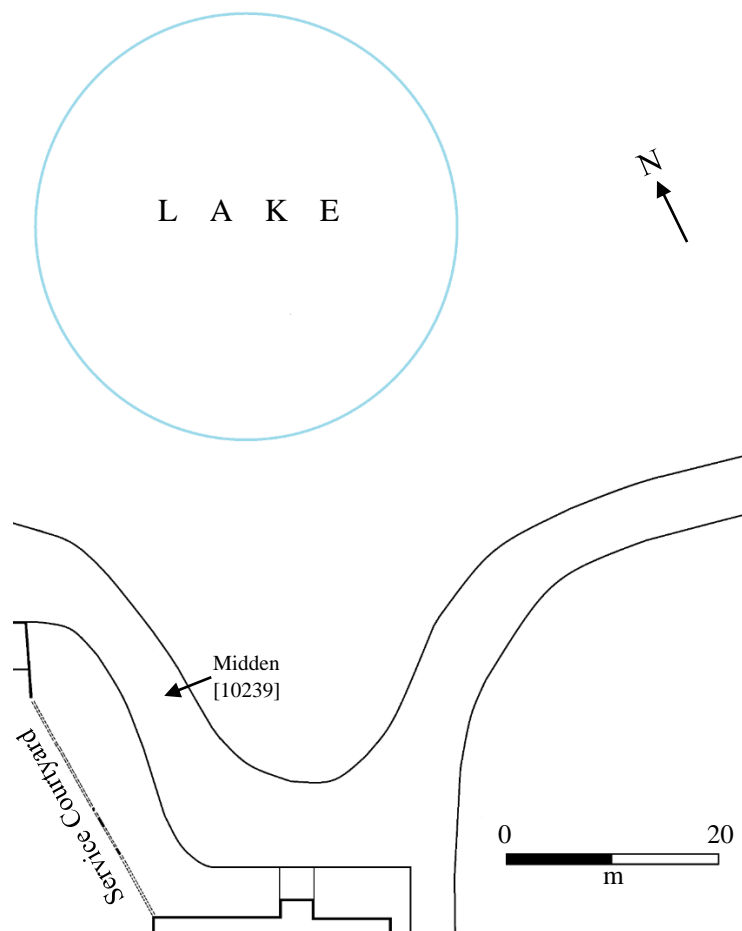


Fig. 40: The Area North of the Residential Block in Phase 5

Where FXA10 D10 crossed this current road line, and a heavily disturbed modern planting bed to its south, there was a cut or other large depression in the widespread landscaping deposit that had probably not been significantly disturbed since Phase 1. The section given across the cut/depression suggested it had a north south width of c. 4.22 m and a maximum depth of 13 cm as surviving, shallowing as it ran north. Its fill included a broad band c. 64 cm wide of mainly peg tile fragments at its southern end, but its deeper parts were mainly filled with a dark greyish brown slightly clayey silt with 60 – 70 % fine

charcoal, suggesting that much of it may have been hearth debris. This possible midden, [10239] (Fig. 40), produced pottery, complete olive green glass wine bottle bases, butchered animal (mostly cattle) bone, clay tobacco pipes and metalwork such as a shoe buckle, a ?candle snuffer arm terminal, lead window came fragments and a lead bung. The origins of the rubbish being dumped may therefore have been varied. Clay pipes of c. 1700 – 40 and c. 1730 – 60, bases of onion shaped wine bottles of c. 1675 – 1730, together with a Frechen Bartmann Ware bottle rim and Tin Glazed Earthenware (Delft) vessels including a porringer and one or more chamber pots suggest a date of c. 1700 – 1730/40 (Phase 5a or early in Phase 5b) for the deposit.

Overlaying this material, in a cut which also truncated earlier drain [10242] (Fig. 35), which was then infilled with sterile clay, was an up to 5 cm thick layer of oyster shells and some chalk fragments (thinner and patchier in the north), then a brick fragment layer, which also filled the shallower northern parts of the cut where there was no midden material and which throughout formed the basal levelling/drainage foundation layers for a road surface. This, up to 24 cm thick, surface was of a moderately compacted yellowish red mix of rounded and angular stones in a slightly silty sand matrix; a material akin to hoggin. Whether the cut/depression was actually earlier than the ‘hoggin’ road and held a (perhaps truncated) open midden or represented a cut contemporary with the road (??maybe removing some earlier feature) it was just convenient to fill with domestic rubbish cannot be certain. But it would have been in the space between the forecourt and Service Courtyard until the former was removed, so in an area probably little used except by domestic servants and well away from the hall’s buildings.

In any event what had been created was an approach road to the hall, perhaps flanked on the east by planting beds as today since FHC23 Cuts 1 and 2 (Fig. 34) recorded a substantial depth of probably cultivation created subsoil, and the straight southern edge it today has parallel to the north facade of the hall was probably also essentially created at this time. It was marked by a slightly different construction found, where not later truncated, throughout the part of FXH13 Trench C which ran along this line (Fig. 34). Here a bed of white mortar and two horizontally lain ‘courses’ of tile fragments provided a 3 – 5 cm thick bedding for the same 24 – 30 cm thick hoggin like material seen elsewhere, though the single sherd, probably of White Salt-Glazed Stoneware (SWSG; 1720 – 1780), from it provides only limited dating evidence and the road might well be expected to have been fully or partly resurfaced during its long period of use. Further evidence for the creation of this approach road also came from earlier work. Thus, a similar ‘hoggin’ underlain by brick/tile fragments (sometimes capped with a pebble layer) and with oyster shells below them was also found in FHFL03 Trench 2 and adjacent parts of FHFL03 Trench 3, while in FHN09 Trench 5 the ‘hoggin’, though often disturbed/truncated and perhaps of more than one phase, was in places over 40 cm thick.

Monitoring of CCTV trenches across the approach road further east (FXH13 Trench C; Fig. 33) found a less elaborate structure to the road. Below modern tarmac there was just a reddish brown to yellowish red compacted deposit of rounded stones in a sandy/gritty matrix and this presumably represented the make up and surface(s) of this road. However, as noted above (p 71) excavation in 2006 adjacent to the line of the modern road (FYE06 Trench 3) suggests that here it is possible that the obsolete Phase 1 road, the line of which this Phase 5 road crossed at this point, may have been re-used (?and extended) as something such as a coach turning circle and, if so, this may have been in Phase 5/6 as the whole was overlain by a brickearth landscaping dump presumably of Phase ??7.

The one other area where archaeological traces of the probable earlier Phase 5 changes, and or some other features that might have dated to broadly somewhere within Phase 5 or early in Phase 6, were present was immediately in front of the entrance to the residential block (Fig. 39). Here, at least sometime prior to Phase 7, the probable steps approaching the entrance were removed and an at least 29 cm thick, c. 4 m wide loose dump of large rounded pebbles, [10351], had been introduced over their foundations and along the line of the approach path. They may have been dumped in a cut and formed a cambered path running from the new access road to a new entrance porch, probably that still standing today, which is dated stylistically to the early eighteenth century (CMP 4.2.11), but (probably Phase 7) truncation meant that not all the details of the path could be established.

The other feature was a drain seen close to the house, [10341]/[13115] (Fig. 41). It was internally 12 cm wide and 14 cm high with a peg tile base, two course stretcher bonded hand made, unfroged brick

sides and an intact header laid roof of matching bricks. It ran north west from the hall, but extrapolation suggests that it was not the same drain as [03T2F2] seen in FHFL03 Trench 2 (above p 78) and [T2F2] was built of (often part) orange red bricks and hard white mortar unlike [10341]/[13115] whose bricks, which appeared to be consistent with a later eighteenth century date, were fired to yellow/purple and bonded with soft light yellowish brown mortar. It therefore seems to have been part of a new later eighteenth century roof drainage system rather than a rebuild of one that probably originated in Phase 4.

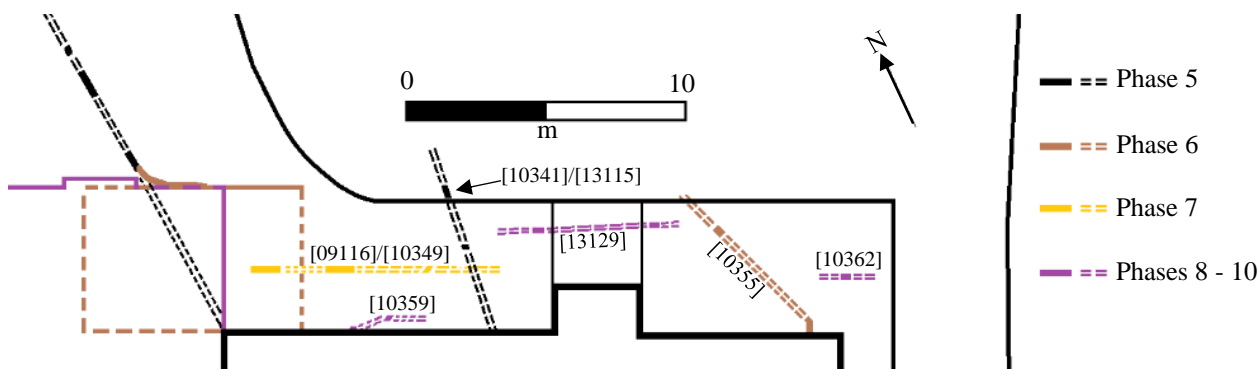
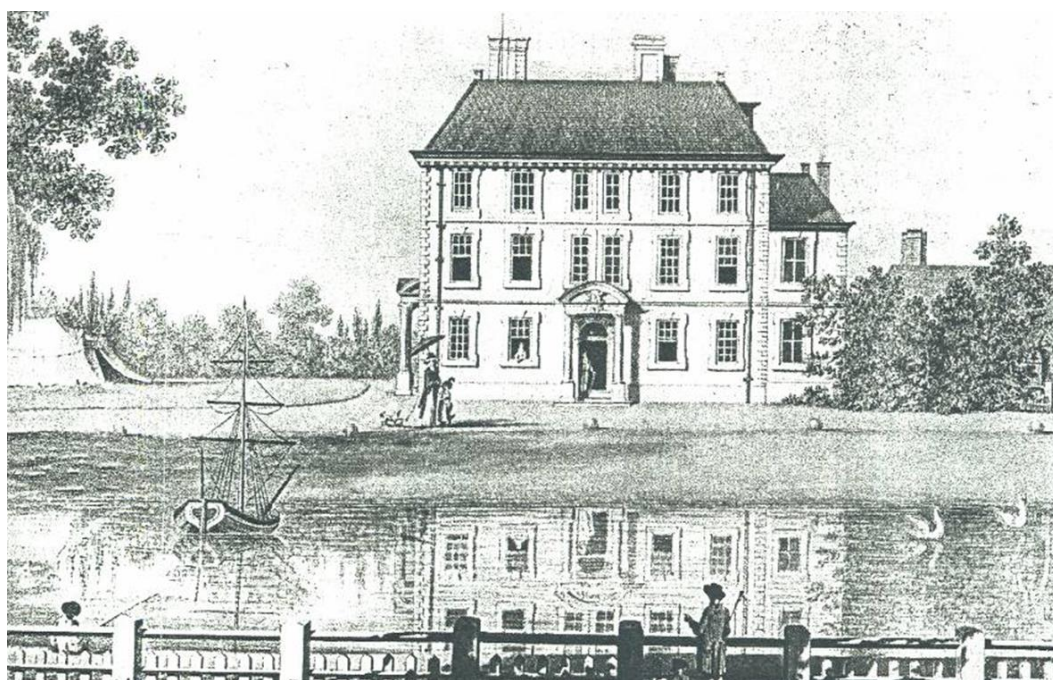


Fig. 41: Phase 5 – 10 Features and Structures Just North of the North Facade

Later in Phase 5 than the c. 1700 – 1708 remodelling of the landscape north of the hall there were though evidently further landscape changes, essentially meaning that the vista in front of the hall attained the full form it has today (Pl. 43). That they were complete by 1773 is confirmed by a sale plan of that date (Pl. 4) and it seems almost certain that they were undertaken by Eliab Breton who gained control of Forty Hall in 1740 when he married Elizabeth Wolstenholme. The changes were to the pond, which was now considerably extended to form a more irregularly shaped lake with a roadway running in an arc round its north side, and to the area at its west end.



Pl. 43: 1793 Watercolour of the North Facade by Edward Dayes

At this west end of the lake, doubtless using the upcast from its excavation, a crescentic, 50 m long and up to 33 m wide, up to 5 m high mound was formed which featured a network of paths on three levels of terraces and ornamental planting (Fig. 42).

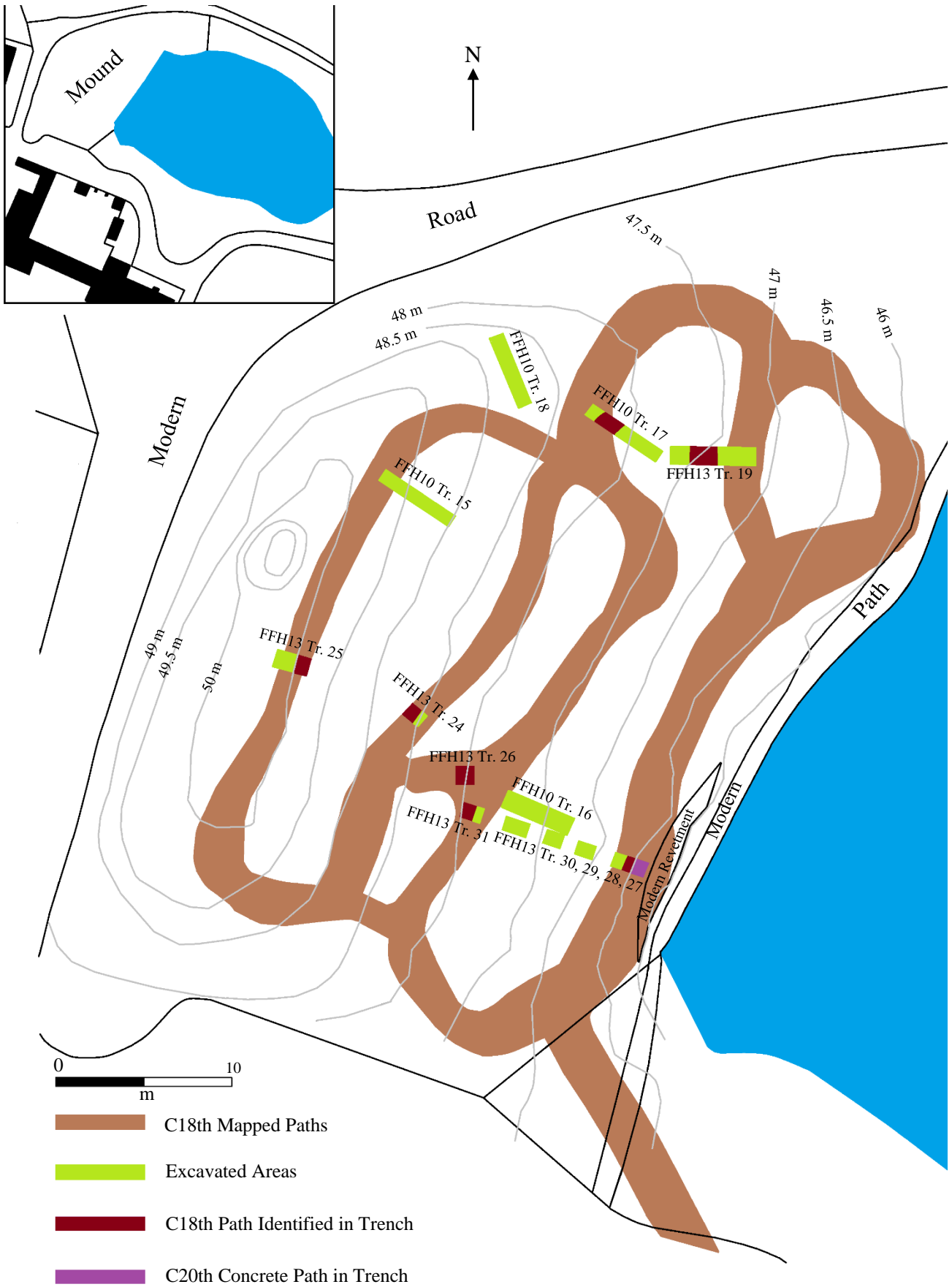


Fig. 42: Cartographic and Archaeological Evidence for the Form of the Promenading Mound (After Simmonds 2013a, Fig. 5)

This promenading mound was examined archaeologically by Northamptonshire Archaeology in 2010 and 2013 (FFH10/FFH11/FFH13) to inform its restoration in the 2013 – 15 work (Prentice 2010a; Simmonds 2013a; Simmonds 2014). In summary the mound was found to be formed of sands/gravels and silty clays and its paths, where sampled 1.3 – 1.5 m wide, of coarse gravels in a sandy matrix. The network of paths, known from all of the late eighteenth century sale plans, was confirmed, though the work suggested that the cartographic evidence had slightly misrepresented the exact position of some.

### Minor Features in the Area North of the Hall of Phase 6 (1787 – c. 1850)

Partly probably due to Phase 7 truncation the only features to be allocated to Phase 6 in front of the residential block were elements of a replacement roof water drain system installed in 1800 by James Meyer (Fig. 41). Seen at the base of one of the lead down pipes whose hoppers bear his initials and that date near the north east corner of the hall was the east side of one of these drains, [10355], (truncated by the modern brick and cement built trap which replaced it). North of this in FXH13 Trench C (Fig. 34) it had evidently been removed without trace, but it matched a full exposure of another such drain in FXA10 D19 a short distance to the north west. Internally 16 cm wide, 14 cm high and tile based with two course stretcher bond sides and an intact header laid brick roof, it used unfrosted, very hard fired, sometimes orange red, but usually yellow/purplish brown bricks and was built in a 62 cm wide, well over 42 cm deep cut. A second such drain was recorded in FXA10 D15 on the south side of the hall (p 99).

### The Area Immediately North of the Hall in Phase 7 (c. 1850 – 1897)

The basic form of the landscape north of the hall had come fully into existence in the middle of Phase 5 and saw little further change, but the area immediately in front of the hall likely continued to be altered to a degree while periodically being disturbed to install updated hall services (Figs 39 and 41). However, how e.g. this area was surfaced is unclear until Phase 7. Thus, there were indications that much here had been truncated before a generally 20 – 30 cm thick<sup>104</sup> hoggin (gravel and clayey, very sandy silt) surface, [10328], was laid, a surface that seems from a photograph of ?c. 1894 (Pl. 12) to have run right up to the hall, presumably being continuous with the main access road established early in Phase 5 (though it was probably lost to later truncation along the actual line of the path to the north entrance which may have been raised with respect to the areas either side of it). It was presumably equivalent to at least part of the hoggin seen in FXH13 Trench C and FHN09 Trench 5, though differentiation of Phase 5 and later hoggin-like surfaces was often problematic. The surface was also continued to the east of the area immediately in front of the residential block, where up to 56 cm of sterile clay was dumped before it was laid so that the level of the area in front of the hall was replicated here and the surface matched the only slightly east sloping one that by now ran along the east side of the hall (p 93).

Services renewal was particularly represented by a large cylindrical brick built drain, [09116]/[10349], running east west along much of, and a short distance in front of, the north facade, seen in FHN09 Trenches 3, 4 and 5 and FXA10 D19 (Figs 17 and 41 and Pl. 17). It was probably in use in Phase 7 (though without ruling out an earlier origin), but had been built of both very shallowly frosted bricks and in places (presumably reused) unfrosted bricks and hard, very pale brown mortar. It was externally 60 cm in diameter, built in an often only slightly larger construction trench.

### The Area Immediately North of the Hall in Phases 8 - 10 (1897 to present)

Though changes south of the lake were again limited to the area immediately in front of the residential block and to its east, the details of the surfaces, paths and services here continued to be changed almost up to the present (Figs 39 and 41). Probably in 1897 the path approaching the entrance was evidently re-created by removing the hoggin surface for a width of c. 3.28 m, re-exposing the late Phase 5/early Phase 6 pebble dump, and an 8 cm thick concrete path, [10352]/[13133], surviving at least to only 1.80 m wide, was laid along at least the west side of the strip. But this was evidently a short lived change

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<sup>104</sup> Though this thickness may have included a resurfacing in Phase 9 (see below).

because by 1932 (Phase 9) a photograph (Gillam 1997, Fig. 16) shows again an uninterrupted surface in front of the entrance area and the fact that now only two steps are visible fronting the porch suggests that the hoggin surface had been reinstated throughout and raised in level (and a FXH13 Trench C section suggested at some point maybe given a northern edging of granite chips in sand). It was, however, evidently removed again along the line of the path to the entrance when (?in 1964; Phase 10) the extant slab path was laid. At some point, presumably also in Phase 10, a soil was also dumped to a thickness of 10 – 30 cm either side of the entrance path to form the existing planting beds and fronting lawn areas.

Further to the east the hoggin surface was similarly raised in level at some point (evidently in the twentieth century), probably to give it rather more of an easterly slope for drainage, with a new dump and hoggin layer; and it was itself covered by the extant tarmac road, probably sometime after 1932. Indeed, the whole access road running up to the hall and back round to the Service Courtyard, perhaps reduced in width to c. 4.50 m at least in the vicinity of FXA10 D10, was also tarmacked at this date (and retarmacked later in the twentieth century). Similarly drain replacement in the area in front of the residential block continued. This included the laying of sectional salt glazed stoneware pipes, [10362], [10359] and [13129] (Fig. 41), belonging to Phases 9 and 10, some perhaps being connected with areas of clearly modern disturbance including a deep pit and the last evidently having been re-exposed at some date ?for repair/replacement.

Meanwhile on the lawn in front of the lake (Fig. 43) and probably mainly west of FXA10 D10 and in or soon after Phase 8 a re-landscaping occurred leading to, in its central section, the truncation of the arched brick drain seen in FH93 Trench 1 (p 77) and deposition of a new make up deposit. This may well have raised and better defined the southern edge of the lake, though it had already gained a defining brick edge by 1894 (Gillam 1997, Fig. 14) even if an (?earlier or idealised) engraving published in that year (Pl. 44) shows the lawn just sloping down to an unmarked edge.

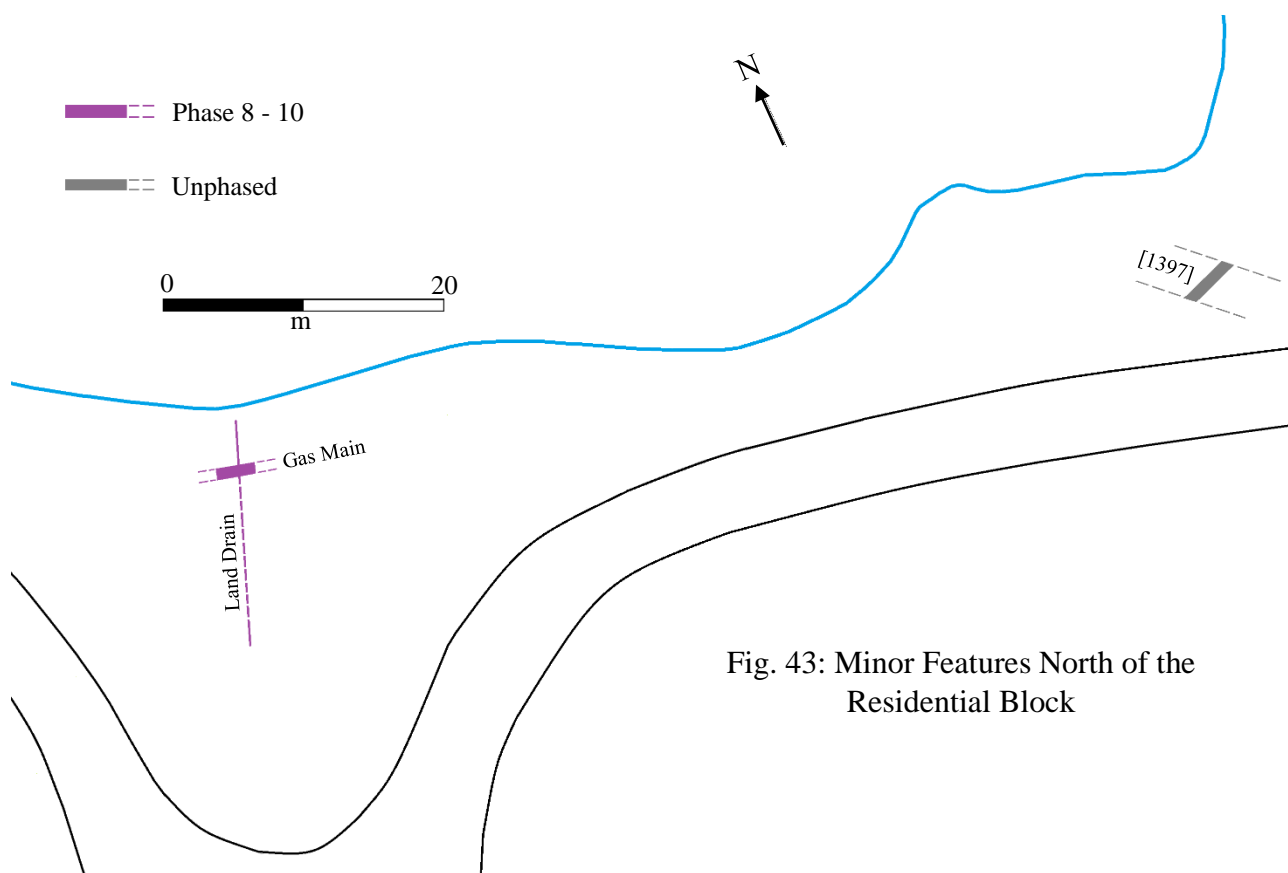


Fig. 43: Minor Features North of the Residential Block



Pl. 44: The North Facade (with the Service Courtyard Entrance Inset) from Walford 1894, 360

A north south sectional land drain (Pls 38 - 39) seen in FH93 Trenches 1 and 4 running towards the lake was perhaps laid at the same time to improve drainage of the lawn and at some point two phases of east west gas main installation seen in FH93 Trench 1 also occurred (in ?Phase 8 and Phase 9/10). Monitoring of FXH13 Trench C also identified a perhaps 2 – 4 m wide path, [1397], perhaps with a flanking ditch, likely running from the approach road to the lake and formed of a 15 cm thick dump of compacted brown gravel in a sandy matrix, but it was undatable.

The profile of the lake edge saw further modifications in Phase 10, recorded in FXA10 D10, to produce the brick walled perimeter seen today and an island was established in the centre of the lake in the twentieth century (Simmonds 2014, 14), though it was relocated to the east end of the lake in 2014. The mound at its west end was also given a brick edged concrete path to its eastern perimeter in the twentieth century, sandy material was dumped across much of its south east area (Simmonds 2013a, 8) and it was recently restored to its original form (Pl. 45).



Pl. 45: The West End of the Lake and the Restored Viewing Mound as it is Today



# The Archaeological Evidence for the Development of the Eastern Frontage and the Landscape East of it

## Scope and Background

The excavation of one of the former projecting bay windows and observations at the current eastern porch in 2005/6 (FYH05/FYI06); the 2009 – 11 monitoring of a drainage cut in advance of the east frontage of the residential block (FXA10 D11), together with the eastern part of FXA10 D19; the monitoring of a very long services cut across the area to the east of the hall (FXA10 D1); and CCTV cable trench monitoring in 2023 (FHC23),<sup>105</sup> all allowed the development of what is today a raised ha-ha wall retained terrace along the east side of the hall to be studied to a degree (Figs 44 and 45). The FXA10 D1 monitoring also gave some information about the development of the area, now of lawn dominated by a historic Cedar tree, between this terrace and a former boundary wall on its east, while an excavation in 2006 (FYE06 Trench 1) across a sudden change of level that runs east west at the southern edge of that area and the monitoring of water pipe works in 2023 (ORT23) provided further information on the development of the grounds to the east of the hall. Other minor archaeological work close to the house included recording of a drainage feature in 2008 and monitoring of a CCTV mast pit by Pre-Construct Archaeology in 2004 (FOH04).

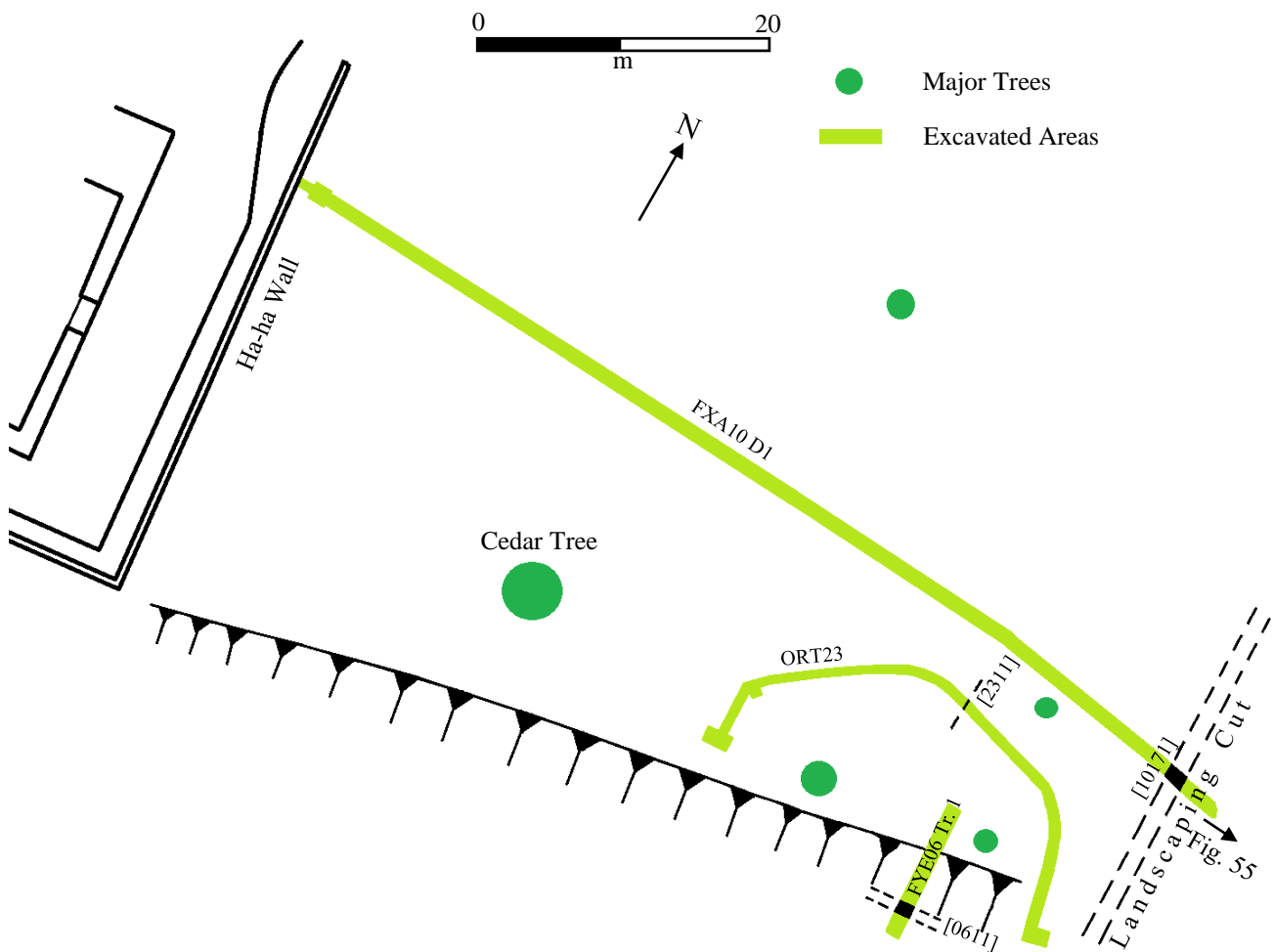


Fig. 44: Excavations and Monitoring East of the Main Residential Block (for the Area Immediately in Front of the Facade see Fig. 45)

<sup>105</sup> Though the western end of FHC23 Cut 3 did not penetrate below topsoil so was uninformative.

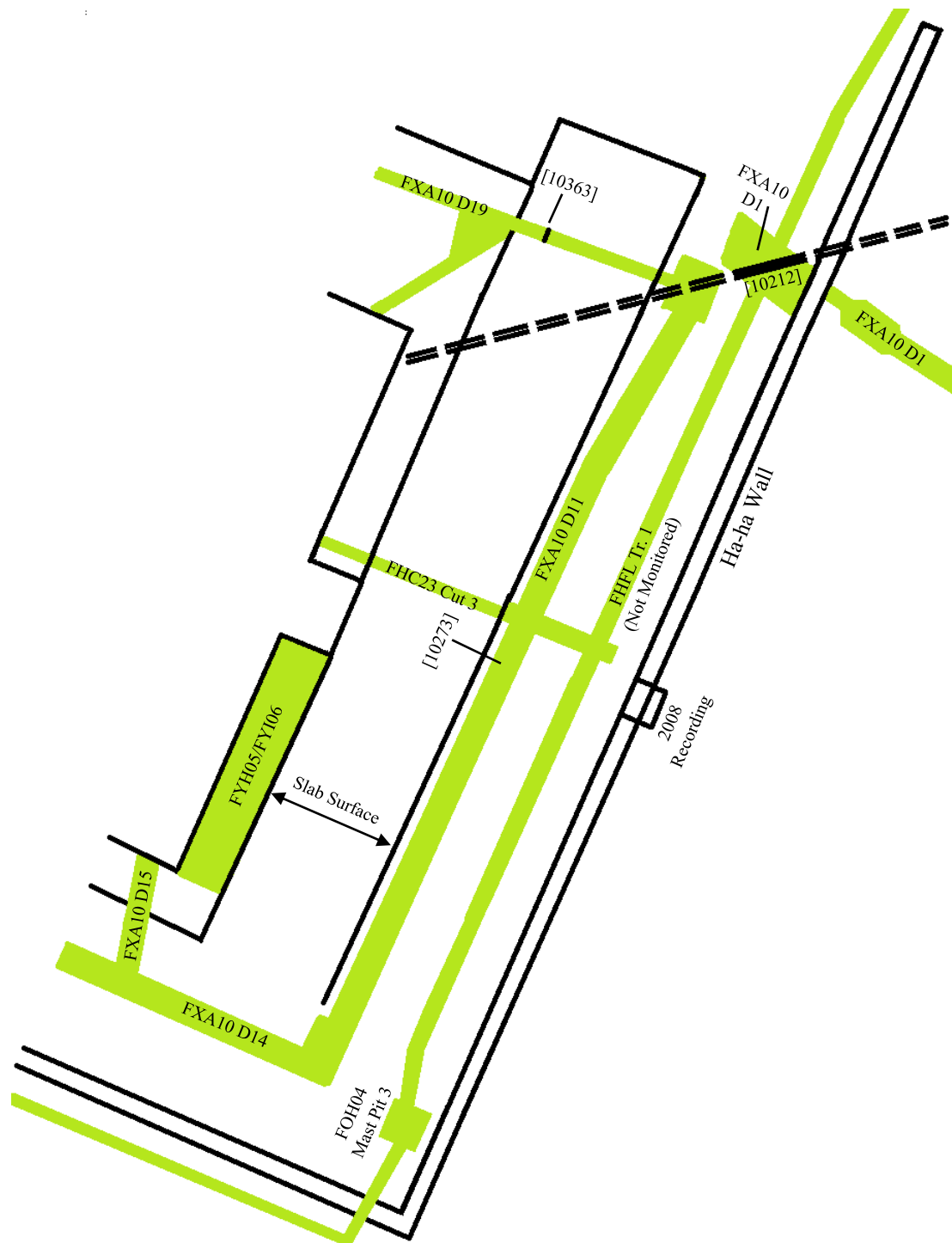


Fig. 45: Excavations and Monitoring Immediately East of the Main Residential Block  
(Key as Fig. 44)

### Evidence for the Eastern Frontage in Phase 2/3 (1629 to probably 1636)

The only known Phase 2/3 feature (except for the bay window in FYH05/FY106 described above (p 28f)) relating to the area where there was later a terrace fronting the east facade was a drain excavated in a small area at the western end of FXA10 D1.<sup>106</sup> The north east to south west arched brick drain, [10212], internally 54 cm wide and 54 cm high at its apex, was well built and floored in stretcher bond brickwork using hand made unfroged bricks bonded with mortar very similar to that used in Phase 3 structures in the Kitchen Courtyard. Remote investigation (Pl. 46) showed it running undamaged for at least tens of meters to the north east (towards Forty Hill) and running intact towards the north east

<sup>106</sup> Not seen in the adjacent FXA10 D11 as excavation here was too shallow.

corner of the Phase 2 residential block. Its floor at +45.165 m OD, compared to that of the original floor of the Phase 2 hall's basement excavated in room A006 at c. +45.270 m OD, makes it virtually certain that it was a main drain for the original basement, presumably serving the north east corner of room A003.



Pl. 46: FXA10 D1; Internal View South West Along Phase 2/3 Drain [10212]

### Evidence for a ??Phase 5 (1696 - 1787) Terrace Along the East Side of the Hall and ?Contemporary Landscaping East of it

Excepting where the above drain was encountered, again the projecting bay window site and FOH04 Mast Pit 3, archaeological work close to the east side of the hall has not penetrated deep enough to contact deposits or features likely to belong to before Phase 5. So at what date a terrace was created along the east facade of the residential block cannot be certain. However, the 2005/6 excavation of the more southerly bay window in FYH05/FYI06 showed that the demolition of this projecting bay c. 1700 - 1708 (p 28f) was preceded by the raising of ground level immediately beside it. Thus, here there was an at least 42 cm thick dump of stony brickearth, mounded at least against the north side of the excavated bay window and with an undulating surface which had been levelled with a further, typically 15 cm thick, layer of brickearth to bring it up to the level to which the bay was then or later demolished (+46.00 m OD). This then may well imply the creation of a terrace perhaps fronted by a ha-ha wall in or by c. 1700 - 1708. As the basement windows here were not realigned with the fenestration above when it was altered by Wolstenholme (pers. comm. Paul Drury), implying that they were barely visible, and the bays demolished only sufficiently to be covered by soil or paving, this would also tend to point in this direction.

Further possible evidence for terrace creation was recovered a little further north in FXA10 D19, but its dating is equivocal. Thus, 2.90 m east of the Phase 2/3 east wall of the forecourt (see p 75) was another north south wall, [10363] (Fig. 45), built from a higher level than it in a 60 cm wide, perhaps U-shaped construction cut. It had been almost completely demolished, leaving only parts of three courses of a 30 cm wide, irregularly bonded foundation of hand made, unfrogged bricks and thick mortar joints. It clearly pre-dated a widespread Phase 7 surface, while the mortar used was reminiscent of that used in the privy block to the south of the hall built in Phase 6 (see p 96f) and the bricks (though they could have been reused) would be consistent with a seventeenth or earlier eighteenth century date. However, it is possible that it might have belonged to the widespread changes to the hall made by

Wolstenholme c. 1700 - 1708, conceivably to the middle decades of the eighteenth century when Eliab Breton is believed to have created the modern layout to the north and east of the hall (see below) or indeed to modifications made by Edmund Armstrong in the last decade of it.

In any event, a 56 cm thick dump deposit including (?largely residual Phase 1) domestic rubbish such as a group of copper alloy dress pins just overlay the demolished wall and might have slumped to the east over it on its demolition, so originally have been retained by it, forming a terrace, assuming the wall continued south, along the east facade of the hall, but the most reliably sealed part of it produced only one sherd, of a Midlands Purple Ware (MPUR) butter pot of 1580 – 1700. However, less well sealed areas included Late Medieval Hertfordshire Glazed Ware (LMHG) of 1350 – 1450, Raeren Stoneware (RAER) of 1480 – 1610, Early Post Medieval Red Earthenware/Early Post Medieval Calcareous Redware (PMRE/PMREC) (1480 – 1600), Post Medieval Redware (PMR) of 1580 – 1900 and the latest sherd may have been one of Tin Glazed Earthenware (Delft; TGW), possibly of eighteenth century date. Thus, tentatively, one might postulate that the east facade was first given some form of, fairly narrow, fronting terrace c. 1700 – 1708. If so, and there is some further supporting evidence in the form of the dating of a matching terrace along the south facade (p 95f)), the east porch may well date to this period as well, though 2006 excavations here (FYI06) were very limited for safety reasons and only tentatively supported such a date from brick morphological evidence.

Further east (and south east) nothing again bears on the wider landscape setting of the hall before perhaps Phase 5. The presumption is that there were gardens of some sort here from Phase 2/3 onwards and a possible cultivation soil did precede Phase 5 activity in FYE06 Trench 1. But that trench, FXA10 D1 and ORT23 suggested that significant re-landscaping of what was originally an area with a general and consistent slope down to the south occurred probably in Phase 5 and most likely c. 1740. It created two areas, a higher level more northerly platform in front of the east facade of the hall, likely grassed and dotted with specimen trees including an extant large Cedar, and a lower lying one to its south that might have been a more formal garden. Only small archaeological interventions have though occurred at any distance south of the hall (p 106ff) so the latter cannot be confirmed.

Evidence for this probably Phase 5 landscape modification initially came from FXA10 D1 which showed that a boundary wall, [10171] (Figs 44 and 46), had been built along the west side of a major natural-truncating cut running approximately north south 72 m east of the modern ha-ha wall to define the re-landscaped area.



Fig. 46: FXA10 D1, Section Through Wall [10171] and Flanking Deposits

The lower part of the boundary wall, 90 cm thick, survived to nine courses (85 cm) of part, and at least in one course on the east face whole, bricks, comprising a fairly roughly built/coursed core with rather tidier (?English bond) faces. The five lowest courses appeared to have been stepped back around 8 cm from the line of the west face above them and probing suggested that the lowest, laying at the top of the water table at the time of excavation, had been stepped back again on the west. Excavation showed that this basal course had incorporated a constructed water conduit running along the line of the wall, while on the east the wall had been broadened by a further 45 cm at this level into an offset overlain by redeposited gravel. The broadening continued down for at least one further probed course below the eastern half of the wall and used, at least in its top course, a skin of part brick headers faced with a skin of whole brick headers.

The conduit was constructed of a line of north south lain, hand made bricks moulded with a longitudinal 5 cm deep, 7.7 cm wide U-shaped channel in their upper surface, covered by a second line of hand made, unfrosted, bricks, at the level of which to the east, but separated from them by a gap, were a line of whole, unpierced, (roofing) tiles which would have marked the level of the channel on the east face of the wall.

The landscaping cut, into the west side of which the wall had been built, had removed a considerable depth of the natural Boyne Hill Gravel and underlying Brickearth and Taplow Gravel, the cut having thus left a raised platform at least c. 70 cm, and probably, given that dumping took place west of it (below), nearer to 1.00 – 1.20 m, above the level east of the wall. The function of the wall must, in part at least, have therefore been to retain the platform, as emphasised by its broadened foundation to the east, but how far it was only a retaining wall and how far a boundary wall of some height is problematic as the depth of its foundations may well have been as much due to a desire to tap ground water by use of the conduit as for structural reasons. The presence of the conduit built into the wall indeed suggests that part of its function could have been, depending on how far south it ran, to feed one or more pools at the south end of the gardens on the east side of the hall, possibly the pond in the south east corner of the pleasure grounds discussed below (p 107f).

Dating evidence here was limited and a redeposited natural gravel probably contemporary with the wall's construction, adjacent to it and over its eastern offset, did not produce any evidence while an overlying soil, [10174], likely accumulating during its lifetime, produced only a few broadly dated sherds. Better evidence though came from landscaping dumps west of the wall and all the way to the modern ha-ha retaining the terrace along the facade of the residential block, which are presumed to have been contemporary with the boundary wall.

What happened in this area may well have been the stripping down to the natural of the eastern part of the area to produce material to dump over and raise the level of its western part, then the importation of further material to raise the eastern part to a similar level. However, whatever the details of the stripping and dumping involved, which dumping ORT23 showed was of a greater depth to the south than further north in FXA10 D1, it resulted in a series of hollows being created in the surface of the Boyne Hill Gravel natural in the eastern part (perhaps from the grubbing out of bushes and trees), and the dumping of brick, tile and mortar rubble, some animal bone, possibly worked stone fragments, pottery, glass and clay pipe fragments in them and in discrete patches across the ?stripped area. The best dating evidence for this phase of landscaping was provided by these finds and they included a sherd of English White Salt Glazed Stoneware (SWSG) of 1720 – 1780, probably an eighteenth century Tin Glazed Earthenware (Delft; TGW) sherd, certainly others of c. 1670 – 1740, of 1630 – 1680 and of 1740 – 1770, as well as the near complete bowl of a clay pipe of c. 1700 – 40. Thus, it is likely that the landscaping occurred c. 1740.

Presumably as part of the same landscaping a southern edge to the raised platform was created (Fig. 44), separating it from the area sunken with respect to it (involving reducing the ground level here, as shown by ORT23 where the Boyne Hill Gravel had been removed at the south east end of the cuttings monitored, just within the lower southern part of the east lawn). Marking that edge and doubtless to some degree retaining the dumping that helped create the raised platform, an east west ha-ha wall [0611] was built in a cut from the terrace fronting the hall to the eastern boundary wall. Limited excavation of this in FYE06 Trench 1 identified the 47 cm wide footings of this probably dwarf wall, constructed by facing, on the south, roughly layered, randomly orientated, unmortared broken bricks

and pieces of stone with a single skin of irregular, but basically Flemish bonded brickwork using unfroged bricks, three courses of which survived.

### Evidence for (late) Phase 5b (1708 – 1787) or Phase 6 (1787 – c. 1850) Changes to the Landscape East of the Hall

Perhaps still within Phase 5 though possibly in Phase 6, it seems that the grounds east of the hall were later somewhat opened up. Thus, wall [10171] bounding the raised platform to its east was demolished and dumping created a more gentle slope from the platform into what had become a tree and shrub belt to its east. Whether this happened along the whole length of the east edge of the platform is unknown, but by 1787 the estate sale map (Pl. 5) shows the lawn east of the hall extending for several meters east of the platform along much, but not all, of its eastern edge. The same plan fails to mark the ha-ha wall defining the southern edge of the raised platform and this too may by then have become the grassed slope which today disguises that wall. Again closely dating these changes is though problematic (and the cartographic evidence is far from definitive). Never the less, over demolished wall [10171], and west and east of it, a ?dump of brickearth based soil, [10172], which included demolition material (more concentrated in [10175] which it sealed) produced sherds of olive green wine bottles and several Post Medieval Redware (PMR) vessels (1580 – 1900), but also sherds from an English Saltglazed Stoneware (SWSG) vessel (1720 – 1780) plus a little Tin Glazed Earthenware (Delft; TGW) including part of a possibly Dutch wall tile of 1740 - 1800. A tentative late eighteenth century date might then be advanced, but the exposure of [10172] was small, some material could have been residual and the deposit was unsealed, so a nineteenth century date cannot be ruled out.

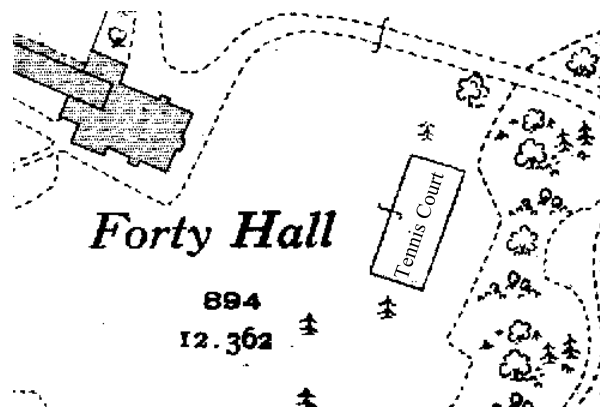
### Evidence for the Later Development of the Terrace Fronting the East Facade of the Residential Block and the East Lawn in Phases 6b - 10 (1800 to Present)

When the terrace along the east facade was created, or if it originated in Phase 5, as seems likely, was broadened to its current width, is not precisely known. The earliest deposits forming it seen in archaeological work (in the watching brief on FOH04 CCTV Mast Pit 3 (Carew 2004) and in the eastern part of FHC23 Cut 3) were brickearth dumps, but close to the facade of the hall in the 2005/6 excavation on the site of the former southern bay window they were directly overlain by deposits likely of Phase 6b. However, there may well have been some deposit truncation here at the time of the creation of a Phase 6b surface, which will have run under a photographically known climbing plant canopy supported on slim iron columns which ran the length of the east facade from some earlier point in the nineteenth century to 1897 (Gillam 1997, Fig. 14). This surface, overall 5 – 12 cm thick, was basally of very stony brickearth with lenses of light grey clay, becoming just of brickearth in its higher levels, and produced transfer printed blue and white decorated pottery. It was only overlain by modern topsoil. Further east FXA10 D11 and FHC23 Cut 3 found that the earliest dated surface above brickearth dumps was a hoggin-like or pebble rich deposit which produced nineteenth to early twentieth century material suggesting it may have been lain sometime between Phases 6b and 8 (perhaps most likely in Phase 7), while at the south end of the terrace FOH04 CCTV Mast Pit 3 also found later nineteenth century dumping in a comparable stratigraphic position (Carew 2004). However, the terrace surface in FXA10 D11 and other exposures on the (today grassed) east edge of the terrace was not that seen in the middle section of FHC23 Cut 3 (today slab surfaced) where a finer, reddish coloured hoggin had been lain. Comparison of successive OS maps probably narrows the date of the hoggin/pebble rich surfaces to 1865 – 1882 and certainly they were in place by, and the reddish hoggin was probably in fact replaced in, Phase 8 (1897). Thus, there was evidence for a grey cement surface (consistent with other Phase 8 developments) being lain over the (truncated) reddish hoggin in the middle section of FHC23 Cut 3. Equally opposite the east entrance to the hall (Fig. 45) a 61 cm wide east west services cut, [10273], over 71 cm deep and with vertical sides had been made through the hoggin-like/pebble surface along the eastern edge of the terrace no later than Phase 8. It was rather large for the services it held, and a ceramic gully trap within the backfill raised the possibility that it had originated earlier and carried

larger pipes. But as excavated it held the Phase 8 lead water supply pipe also seen in Areas FXA10 H1, K2 and C2 (p 51) plus a 12 cm diameter ceramic drain pipe. This almost certainly run, as part of a storm water drain system, east to a two chamber brick built settling tank under the stone steps that access the terrace from the east which was separately recorded in detail in 2008 and was built integrally with the ha-ha wall which retains the eastern terrace.

Features of Phase 8 or later dates (not illustrated) also seen in FHC23 Cut 3, FXA10 D11 and FXA10 D1 included, at the west end of the latter, possible Phase 8 or Phase 9 brick and concrete features that may have been the predecessor of a Phase 10 manhole and an iron foul drain pipe. In FXA10 D11 part of a perhaps Phase 9 rubble filled cut of uncertain function and a Phase 10 surface water drain were recorded, as well as the mortar over sand bedding for the terrace's current slab surface lain in 1963 – 4, which was recorded again along with a north south grey concrete encased ?services feature in the middle section of FHC23 Cut 3.

Meanwhile the flat, raised northern part of the east lawn presumably gradually lost most of the specimen trees it may have been planted with (excepting the large Cedar tree that now dominates it) and in Phase 9, specifically some time between 1912 and 1935 (when it appears on OS mapping; Pl. 47), became the site of an enclosed lawn tennis court. Only the ORT23 work encountered any element of the enclosing structure and as this ([2311]) was a concrete foundation with a wooden post set on its western side it is likely that this was just a fenced enclosure supported by intermittent concrete set posts. It was presumably removed either in or shortly after WWII.



Pl. 47: Extract from the 1935 Edition OS 6'' Map

# The Archaeological Evidence for the Development of the Southern Frontage

## Scope and Background

Monitoring of a number of interconnected services cuts (FXA10 D3 – D15) running along the south side of the Phase 2 residential block, the Phase 3 Service Courtyard buildings to its west and the Phase 8 extensions (rooms A0046 - 48 and A0049 - 53) between them (while the modern slab surface here was temporarily removed) in 2009 – 11 allowed limited observations to be made of the ha-ha wall bounded terrace fronting the south side of the hall complex. With the contractors' co-operation it was also possible to more extensively excavate one Phase 6 feature in FXA10 D14. However, several areas were too disturbed, encumbered by relatively modern services or provided too small exposures for evaluation or close interpretation. Subsequently in 2014, during the FXH13 work, the relaying of the slab surface allowed further observations on the terrace, though only at two points, in the vicinity of FXA10 D3 and at the top of the steps leading off of the terrace to the south, did they provide new information. A CCTV mast pit monitored by Pre-Construct Archaeology in 2004 (FOH04 Mast Pit 4) also lay in the area (Fig. 47).

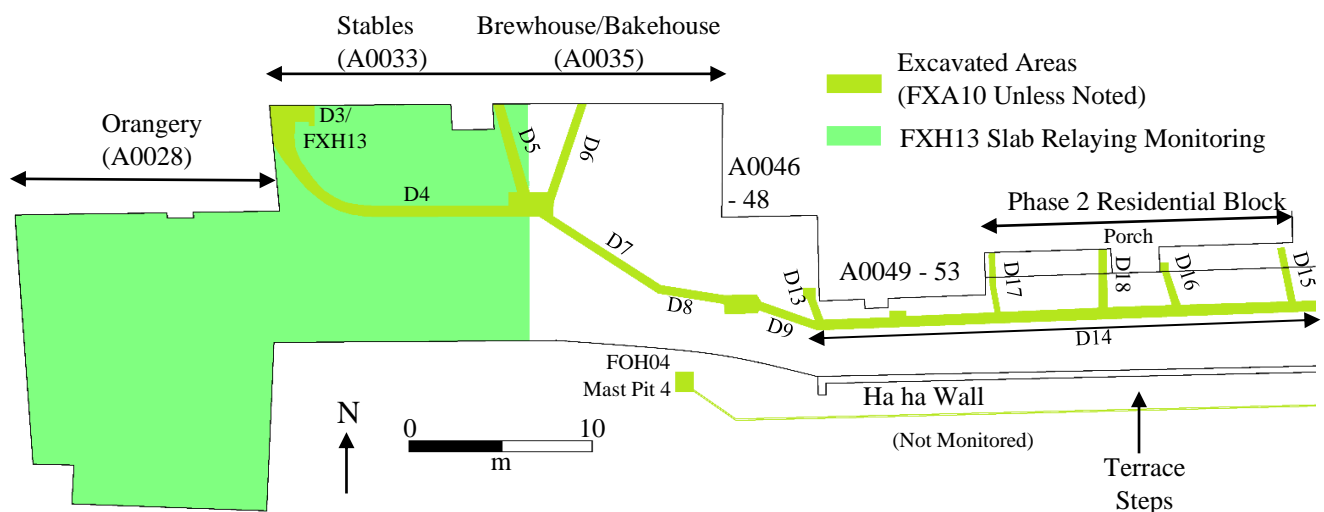


Fig. 47: Excavations and Monitoring South of the Main Hall Complex

## Evidence for a ??Phase 5 (1696 - 1787) Terrace Along the South Side of the Hall

As with the east facade of the residential block it may well be that the existing terrace along its south facade was first created c. 1700 – 1708, early in Phase 5. Thus, where evaluation was possible, in the western part of the area fronting the Phase 2 residential block and Phase 8 extensions the same dump deposit as seen fronting the east facade was present and it, [10308], probably overlay the surface of the natural. It was up to 32 cm thick and produced no further dating evidence, but it was sealed by a layer which itself was demonstrably associated with activity allocated to Phase 6. Though further east, any interface lost to truncation, a different dump deposit without dating evidence appeared in an equivalent stratigraphic position so that its contemporality cannot be certain, creation of the terrace in Phase 5 seems likely and that the basement windows on the south façade of the original main block of the hall were not aligned with the refenestration above when changes were made to it in Phase 5, implying that they were barely visible (pers. comm. Paul Drury), as on the east face, again supports this.

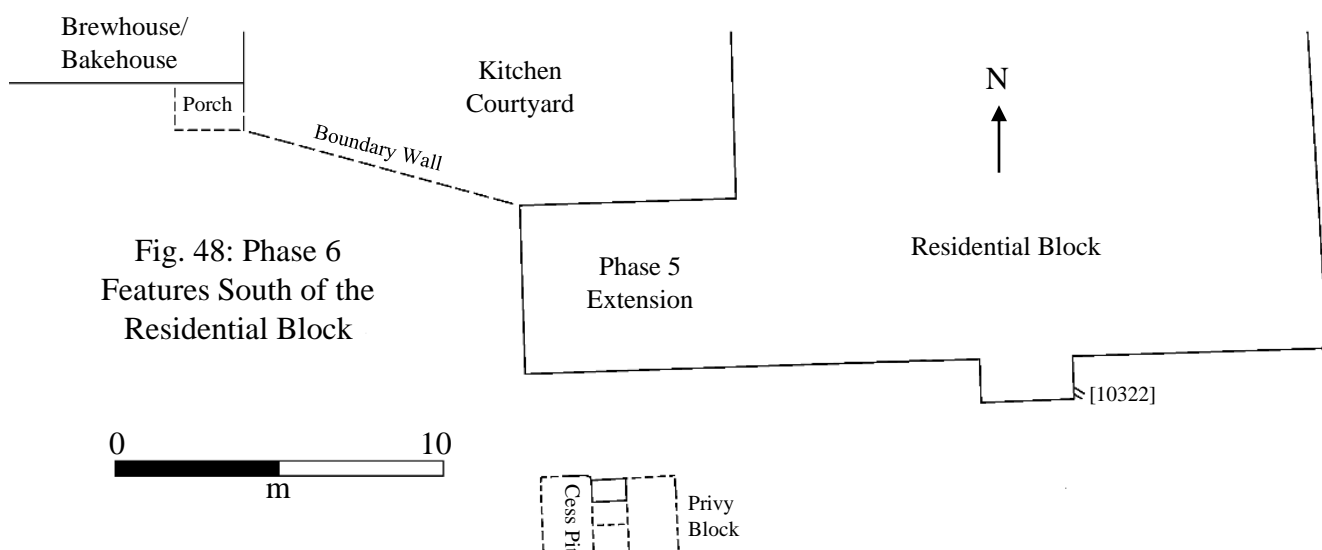
A 74 cm wide, 6 cm thick north south band of dusky red sandy gravel, seen 1.30 m east of the south porch of the Phase 2 residential block might have been an early surface over this terrace, but might more likely have been related to levelling for a more certain surface created in Phase 6.



West of the east end of the Phase 3 brewhouse/bakehouse (room A0033) by contrast there is no certain evidence for a terrace. Exposures of the brewhouse/bakehouse south wall in the FXH13 work suggested that it had been extensively rebuilt above a basal offset, but the area in front of it, though it may have been modified by some dumping which produced part of a carved stone Ionic pilaster capital, could have featured a shrub and tree belt with informal paths (which is the implication of the 1787 estate sale map (Pl. 5)) at least from the beginning of Phase 5. This would also be consistent with the findings of FOH04 Mast Pit 4 (Carew 2004) within a planting bed south of other work which found only a reworked brickearth ?dump below a thick cultivated topsoil.

### Excavation of a Probably Phase 6 (1789 - c. 1850) Privy Block and Contemporary Developments

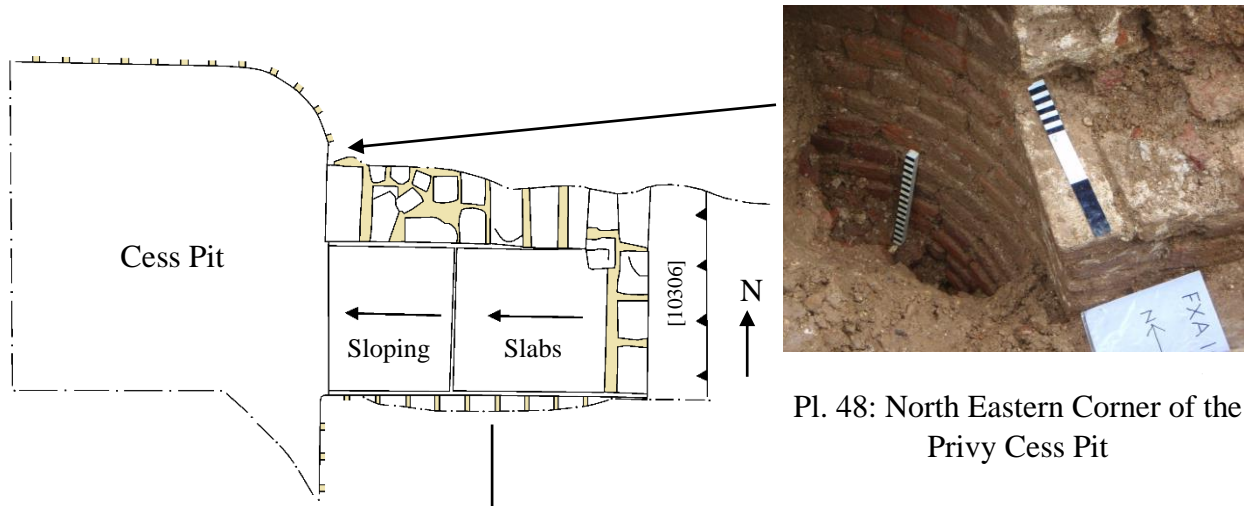
The earliest formal surface of the south terrace to certainly be encountered was a widespread redeposited natural Boyne Hill Gravel layer, [10300], at least 3.50 m wide and which must have extended the entire length of the south facade of the residential block as extended in Phase 5. Immediately south of part of the later Phase 8 extensions (rooms A0049 - 53) that linked the earlier residential and service blocks, it was also possible in 2009 - 11 to partly excavate a privy block and integral cess pit, [10297], encountered in contractor's works and contemporary with that surface (Figs 48 - 9 and Pl. 48). By Phase 6 it would have lain to the south of the Phase 5 western extension to the south end of the residential block with easy access from the south end of the Kitchen Courtyard which may have been open on this side until a boundary wall was, on cartographic evidence, created in or by Phase 5b.



It was possible to entirely excavate the northern privy, (of almost certainly a line of two and perhaps three) and to clear to a significant depth the eastern part of the adjacent cess pit to its west. The cess pit was rectangular with rounded corners, over 1.20 m east west (but almost certainly under 1.70 m) and over 1.50 m north south, with vertical header bonded brickwork walls changing to English bond for the east wall adjacent to the privies and some slight suggestion of corbelling to the upper of the 15 or 16 courses seen in detail so that it perhaps had a gently arched roof. Its north east corner probably survived to near its entire height so that it was seen to be over 1.14 m deep, probed to 1.44 m and minidigger working of its basal rubble fill suggested (though this could not be confirmed) that it might have been in all c. 2.00 m deep with a slightly dished floor.

Integrally built, to its east near its north east corner, were the well preserved north and south side walls and internal structure of a privy which would have been internally 52 by over 96 cm and which a separately built east wall, [10314], suggests formed part of a block 2.76 m in east west extent. The privy itself had (? double skin, and possibly thicker) English bond brick walls to the north and south

which survived to seven plus courses in places, and a single skin north south wall between them forming the front of the seat and surviving to five courses. This wall had been built in a 40 cm deep north south construction trench, [10306], with a vertical eastern side. The wall had been built in it on a mortar raft with mortar also against the east face of the two lowest courses. Abutting the third course of this wall on the west was a chute into the cess pit (Pl. 49) sloping to the west at 69° and formed of two 50 x 49 cm limestone flags with polished upper and rough lower surfaces, the eastern 5 – 6 cm thick and lain on a bed of mortar over a sloping skin of bricks lain on their faces; and the western, 3 – 4 cm thick, lain on a bed of mortar over a thinner slab. The upper slabs had been mortar bonded to the walls north and east of them, but a gap left between them and the south wall was filled with sterile sandy silty clay.



Pl. 48: North Eastern Corner of the Privy Cess Pit

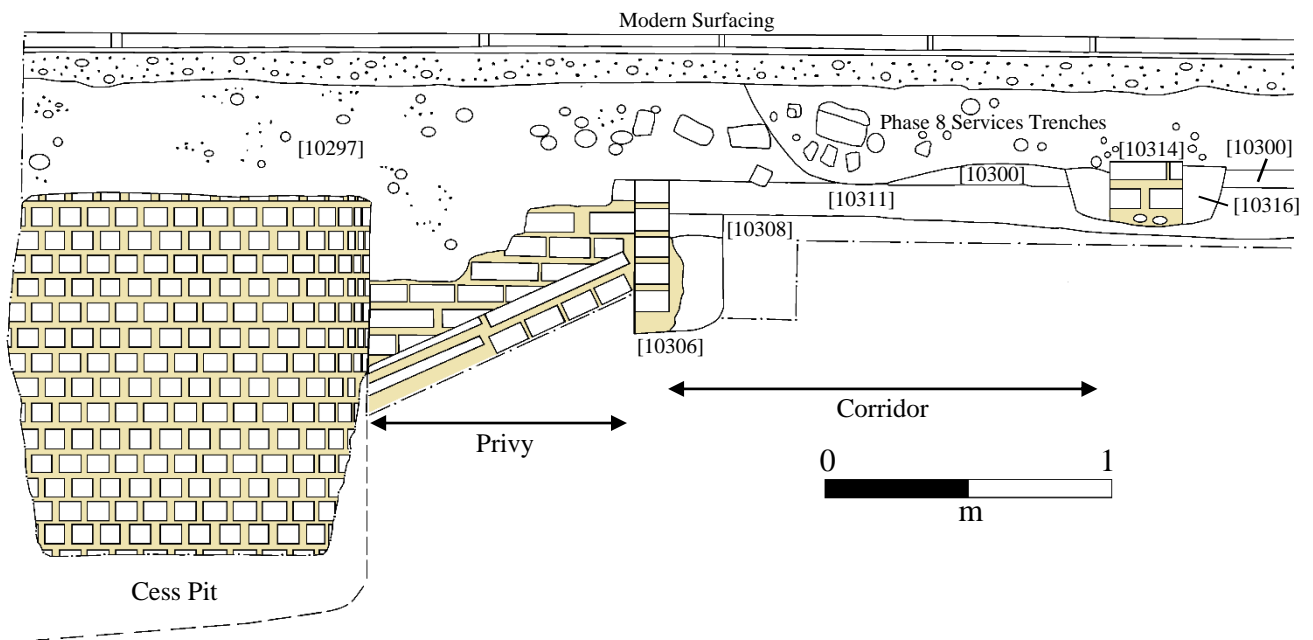


Fig. 49: North Section/Elevation and Part Plan of Privy [10297]

The redeposited natural Boyne Hill Gravel surface, [10300], appeared to have been lain before the privy block was fully built, though presumably once the cess pit had been roofed. It overlay the dusky red gravel noted above and what was evidently a widespread, 12 cm thick probable levelling/make up layer, [10311], of sandy clayey silt (covering the fill of the construction trench for the wall at the front of the privy seat). But it also overlay the fills of two probably quite large linear north south cuts (not illustrated) about a meter apart near the south porch of the Phase 2 residential block. Neither could be fully investigated, but one was perhaps 5 – 6 m wide, both c. 30 cm+ deep and they suggest that the construction of the privy block was not the only significant work going on in Phase 6.

Whatever they represented though once the main surface, [10300] (surviving to up to 28 cm thick and of gravel in a matrix of sterile, strong brown very gritty/sandy clayey silt), was laid the building of the privy block resumed. It was represented by the east wall, [10314], of the block, built in a 54 cm wide, 20 cm deep construction trench, [10316], which lay c. 1.60 m east of the wall for the privy seat (probably suggesting open privies ranged along the west side of a corridor). The wall, using whole and part bricks, only survived to a maximum of three courses above a mortar raft and was 26 cm wide. Demolition rubble in the cess pit included brick, peg and ridge tile as well as (less) roofing slate and some (?whitewashed) plaster, suggesting something of the superstructure of the privy block.



Pl. 49: Sloping Slabs in Privy [10297], Looking East

Unfortunately there was virtually no closely dateable material associated even with the later demolition of the privies and filling of the cess pit with rubble (a TGW (Delft) sherd of 1680 – 1720 came from the upper cess pit fill, but could easily have been residual if not introduced by Phase 8 disturbance which was considerable). However, the morphology of the hand made and unfrosted bricks, quality of the stony mortar used and cartographic evidence strongly suggests the privy should be assigned to Phase 6a and the changes to the hall made by Edmund Armstrong after 1787. It is not marked on the 1787 sale map (Pl. 5) or the more detailed plan of 1788 (Pl. 6), which do show other features like the ?brewhouse/bakehouse porch, clearly of smaller size, so cannot belong to earlier phases. By contrast its materials seem to preclude a date far into the nineteenth century, it is absent from the 1867 edition OS map and it must be likely that it was demolished in Phase 7 by the Meyer family as improvements in piped sewage systems began to replace cess pits in and after the mid-nineteenth century. As with other of Armstrong's changes to the hall then the privy block may well date to the 1790s and was perhaps primarily for servants' use, being accessed from the brewhouse/bakehouse and the Kitchen Courtyard (by 1787 a wall separated this from the privy block, but it must be likely that a gate in it still gave access to the south).

What other developments to the southern frontage of the complex occurred in Phase 6 is uncertain due to the small areas available for study and level of disturbance or encumbrance by relatively modern services. But features recorded in Area D16 (Fig. 48) again suggest that the privy block could have been part of a larger set of works. Here, immediately east of the porch of the Phase 2 residential block, a drain, [10322], may then have been of this phase as it seemed to be within the redeposited natural Boyne Hill Gravel surface, though in this instance the stratigraphy and the drain had been significantly disrupted by the roots of a Magnolia planted on the other side of the porch in the late nineteenth century. This internally 12 cm wide probable roof water drain had a tile base and single courses of the stretcher bond brick built sides remained. It projected for c. 60 cm beyond the steps at the front of the porch, had run west north west to east south east and it appeared likely that the drain had been partly removed when the standing porch was constructed or at least remodelled.

It was impossible to be sure at what date this occurred, but the roof drain system was replaced in 1800 (Phase 6b) by James Meyer, extant lead hoppers monogrammed JM bearing that date, and in Area D15 one of the drains, [10321], serving the down pipes installed at this time and cut into surface [10300] survived largely intact for 1.40 m out from the facade wall (though comparison with a second seen in D19 (p 85) probably suggests that it may have been a slightly later replacement for the original). It (Fig. 50) comprised a 20 cm wide, 14 cm deep rectangular gully, with sides of two courses of hand made, very shallowly frogged, stretcher bond lain bricks, lined with lead sheet. Its partially surviving roof was of similar, header lain, bricks.

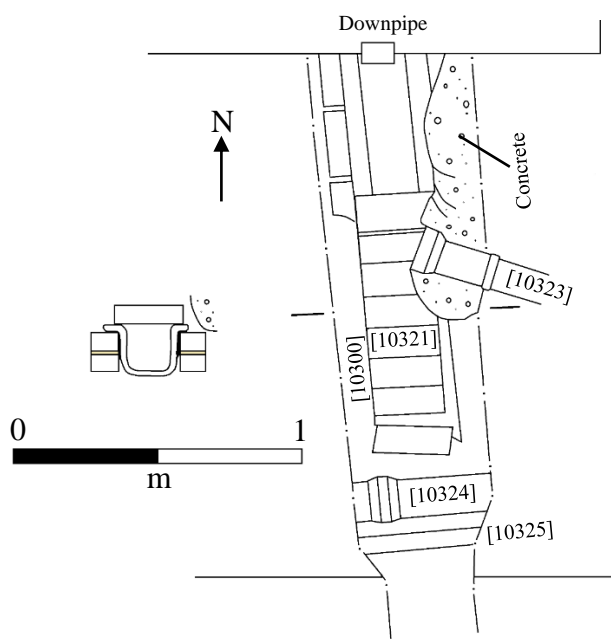


Fig. 50: Drain [10321] in FXA10 D15 (for Other Numbered Features see Below)

### Evidence for Phase 7 – 10 (c. 1850 to Present) Services, Surfaces and ?Gardens

The privy block and cess pit may have been fairly short lived and were probably demolished/filled in and the site levelled with a dump, [10297] (Fig. 49) early in Phase 7, around the middle of the nineteenth century. However, there is no evidence for the Meyer family making any further substantial changes to the environs of the south side of the hall and it is probably the surface lain by Armstrong that is still visible along the facade terrace in a photograph of 1894 (Gillam 1997, Fig. 15).

Rather the major changes which largely completed the creation of the south side of the hall seen today belonged to Phase 8 (1897) when the hall's buildings were extended (rooms A0046 - 48 and A0049 – 53; Fig. 47), the concrete footings for which were seen in Area D17 projecting 20 cm from its double offset brick built east face. At the same time the hall's services (only fragments of which have been traced for Phase 8 and later) were extensively replaced/augmented and the hall's facade was given a concrete skirt now invisible below the modern slab surface of the terrace. Clearly from work elsewhere

during the 2009 – 2011 project, the extant ha-ha wall here must also belong to this period, but, as the ground level around the hall had already been raised to give a terrace in Phase(s) 5 and 6, it must be likely that it replaced an earlier stabilising wall.

In areas monitored in 2009 – 2011 in front of the Phase 2 residential block and Phase 8 extensions (Fig. 51) services changes were represented by a major north south cut, [10295], in line with the entrance into the new extension at least partly to take new water mains leading into the hall at this point. Overall as much as 4 m wide and opposite the porch perhaps 90 cm deep, it ran in part across the unexcavated western side of the former privy cess pit and held three lead water supply pipes running towards the porch and a capped off gas main, [10292], ran into it from the east with a capped off gas supply pipe running towards the porch from that ([10292] was also seen much further east and probably ran the length of the south facade of the hall). Never the less, cut [10295] opposite the porch was much larger than necessary for all these and one suspects that major piped drainage also ran north south within it, but below the level exposed during the monitoring (and a later trench probably from the removal of another drain was recorded in Area D8). Just to the west of [10295] another parallel 40 cm wide, 47 cm deep cut, [10301], held another (Phase 8 or 9) water supply pipe while a concrete encased foul drain [10229] was recorded in D9 and D14.

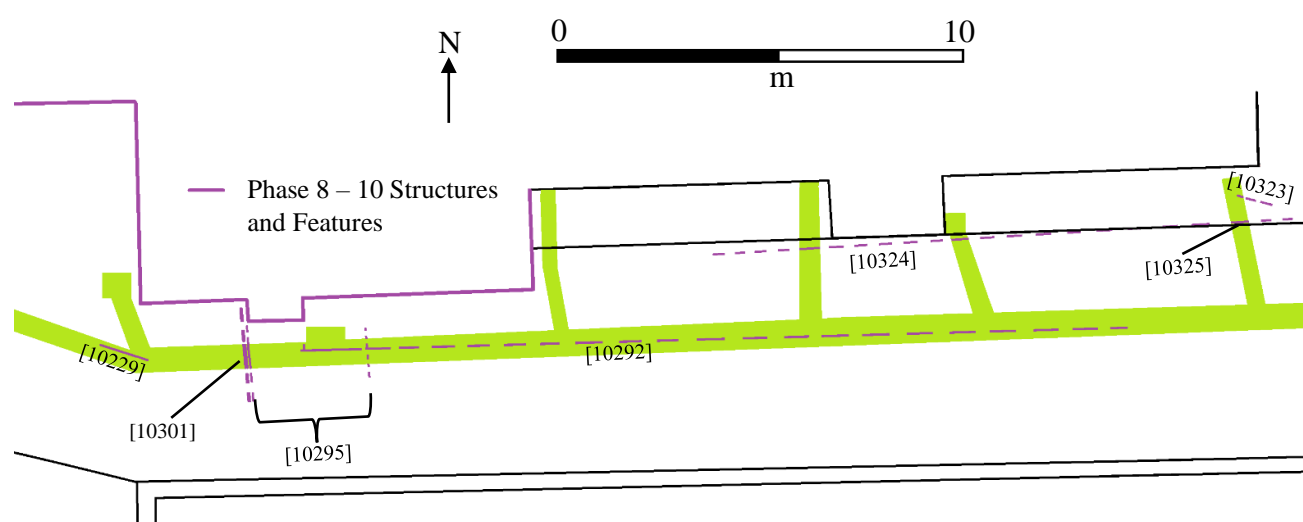


Fig. 51: Phase 8 – 10 Extensions and Features South of the Main Hall Complex

Evidently following the completion of the new extension a c. 6 - 10 cm thick grey flint pebble concrete surface had been laid right along the south facade of the hall, projecting 1.4 m south of the facade of the new extension and 3 m or more (probably widening as it ran east) from the facade of the original (Phase 2) build. An over 1.30 m wide, 10 cm thick path of compacted very dark grey cinders was also laid from the south west corner of the newly extended section of the hall, likely to give access to the tree belt surrounding the lawns to the south and east of the hall.

Subsequent features (Figs 50 - 51) were all related to later services replacement and included a Phase 9 or 10 (post 1897) concrete encased sectional terracotta pipe drain, [10323], in Area D15 and a probably Phase 10 east west salt glazed sectional piped drain, [10324], running roughly parallel to the facade of the hall seen in D15, D16 and D18. Another lead water main, [10325], may also have been of either Phase 8 or Phase 9 and the final change was the laying of the modern slab surface to the terrace.

Further west there had clearly been repeated use of the space in the angle between the south wall of the Phase 3 brewhouse/bakehouse and stables (rooms A0035 and A0033) and the east wall of the orangery (room A0028) for drainage features as well possibly as small structure(s), maybe such as a gardeners' tool shed or e.g. water tanks, probably from Phase 7 onwards (Fig. 52). But the presence of modern features including a drain hopper, lightning rod box and electricity supply cable further complicated interpretation of the disparate elements seen in both FXA10 D3 and the FXH13 monitoring. Of them [10216], a 1.04+ m east west run of 62 cm wide cement bonded brickwork using a variety of (re-used) bricks and including yellow stocks was presumably a ?Phase 7 ?wall foundation and a continuation of

the brickwork to the north could have represented a brick floor. Slightly further east [13123], a c. 23 cm wide, at least as surviving, 90 cm long north south dwarf wall comprised three courses of Flemish bond brickwork with struck joints, (conceivably re-) using shallow frogged brindled stock bricks, above a fourth offset course which projected 8 – 12 cm and re-used some older, softer fired red bricks. The top of the ‘wall’ had been given a cement render skim and at the level of the offset an over 10 cm thick light grey concrete raft, [13124], continued over 30 cm further south of it and over 80 cm to the west. However, the phase of these features and what, if any, relationship they had to [10216] was unclear. Maybe later than one or both of these a brick built drain gully, [10215], presumably for an adjacent roof downpipe, had been built in the corner of the area, then blocked with part bricks when it went out of use. Subsequently it and [10216] had been truncated by the installation of a presumably Phase 8, active, concrete encased salt glazed stoneware drain serving the downpipe via a new smaller gully/trap. Meanwhile, maybe in Phase 7 and 1.6 m east of [13123], a brick built presumed soakaway/sump, [13118], internally c. 55 x 48 cm and 53 cm deep, had been built abutting the south wall of the Phase 3 stables (room A0033). It comprised a single skin of brindled, shallow frogged stock bricks seven courses high, capped with an 86 x 66 cm, 4 cm thick stone slab. The slab was almost certainly re-used

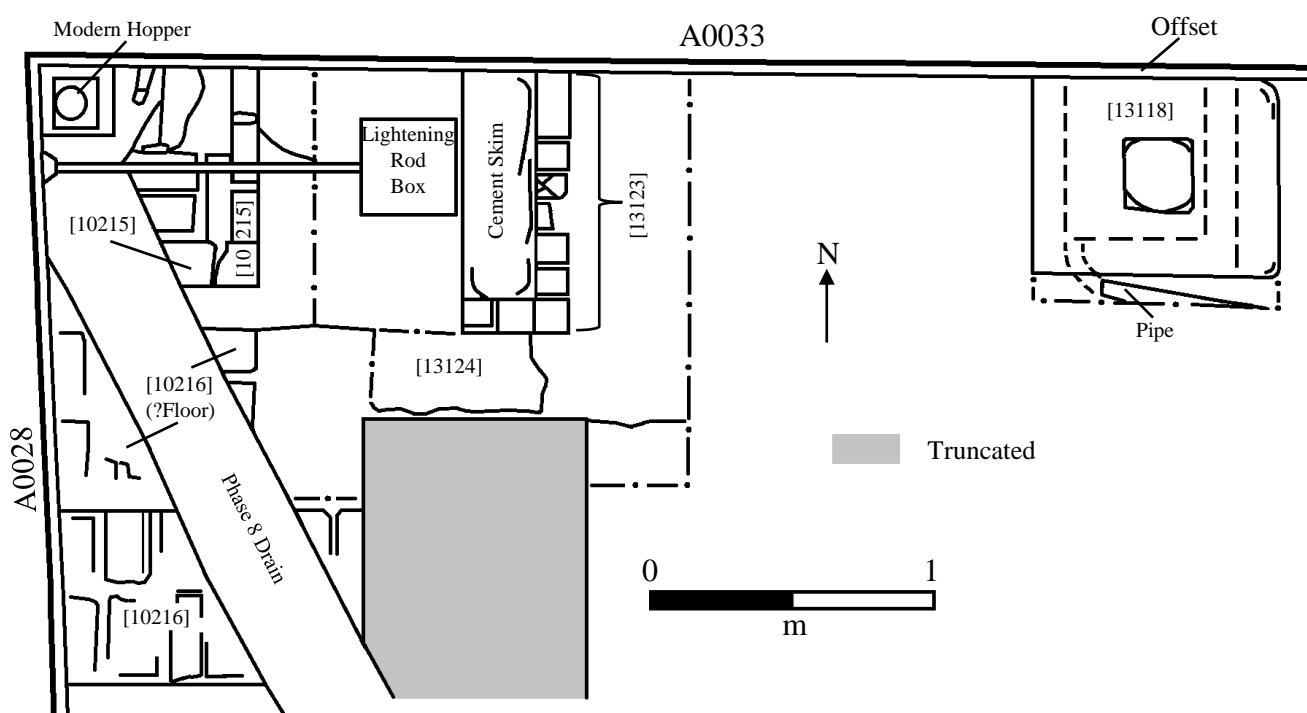


Fig. 52: ?Phase 7 Features in FXA10 D3 and Adjacent FXH13 Areas

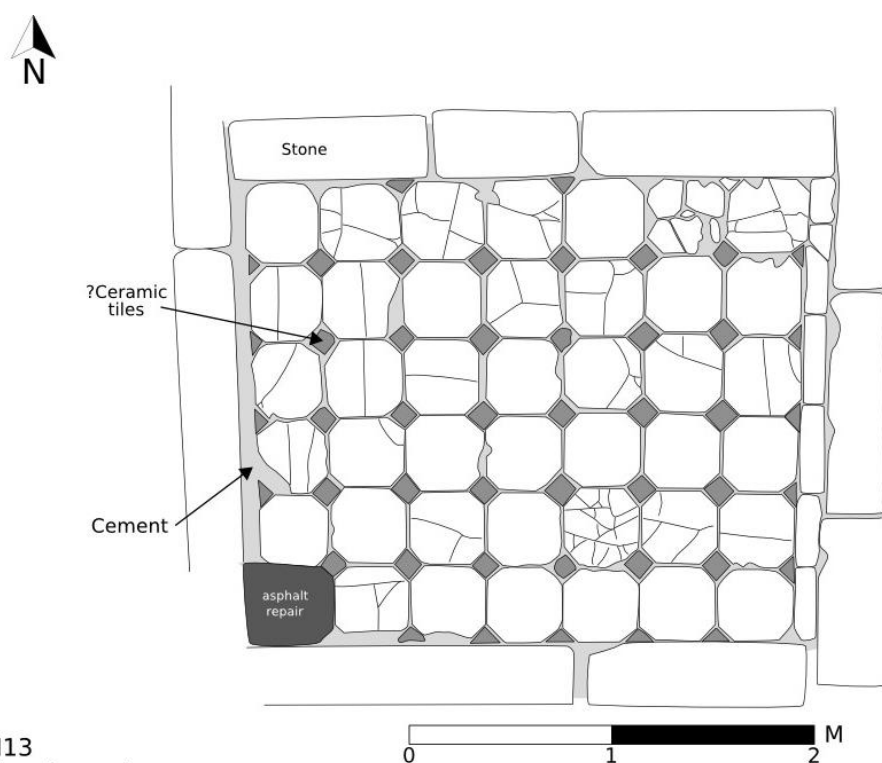
and had a central, 23.5 cm square hole cut into it and a small (c. 5 cm diameter) iron pipe appeared at some point to have been fed into the top of the south west corner of the sump/soakaway from the east, but had been cut off before reaching it. One suspects that it was originally intended for limited quantities of waste ?water from some outside activity (probably at least latterly carried in the iron pipe from further east) rather than roof drainage as its position would obviously have presented a damp problem for the standing building if it had been for the latter.

It is quite likely that in Phase 8 or a little later (?in the early twentieth century) some form of cultivated garden (?or at least lawn) was, however, created south of rooms A0035 and A0033 as in FXA10 D4 – 7 (Fig. 47) a two horizon cultivation soil had been ?dumped over the area, perhaps around a large tree (the area in question is indeed shown as separated off by a bordering path on the south on the 1913 and 1936 edition OS maps). Subsequently, maybe partly related to the removal of any such tree (? in 1951 or later), a very large (15 x 11 m) ??cut feature at least 30 cm deep had been created here. Its fill, also present as a 6 cm thick layer in the base of the ?redundant sump/soakaway [13118] (Fig. 52), was a probably water lain, fairly compacted, very homogeneous and sterile very dark brown very clayey,

organic silt, perhaps suggesting leaf/vegetation decay in a water lain deposit. Its exact nature was difficult to establish and perhaps it represented a gardeners' dump, but, even if it filled rapidly, it must effectively at times at least have been a large shallow 'pond' (though it may have had some sort of eastern overflow channel) running up to the south wall of the buildings. In any event in 1963/4 the area was given the extant York stone surface lain on beddings of hard core and then sand.

### The ?Phase 8 Decorative Surface at the Top of the South Terrace Steps

A damaged decorative stone and tile surface forming the top of a set of steps up onto the terrace south of the hall from the south was replaced during the 2013 – 15 works and was recorded and its elements evaluated. The surface comprised 41 (originally 42) small, octagonal (square with truncated corner) stone slabs with lozengiform hard fired unglazed black ceramic tile inserts between them, an edging on the east of six small stone blocks and one of three larger ones on the north (Fig. 53).



FXH13  
Tile/Stone Pavement  
South Terrace, Forty Hall

Fig. 53:

Decorative Surface at the Top of the South Terrace Steps  
(Digital Record by John Pinchbeck)

The

It was evident that at least parts of the surface recorded represented reuse of material from one (or two) small flights of steps and probably a column flanked porch as two edging blocks were from steps and a third was part of a base for a (probably wooden) column, moulded with convex and concave elements separated by flat strips around three sides, all carved from a fairly coarse limestone.<sup>107</sup> The rest of the stone might well have represented reused paving originally associated with the same feature and to which tiles, unlikely to be earlier than (mid-)late nineteenth century, had been added to create an *ad hoc* decorative surface. It is attractive to postulate that some or all of the stonework therefore derived from the reconstruction of one of the porches of the hall and the nearby original south porch has, indeed, been suggested to have been reconstructed no earlier than Phase 7; so one strongly suspects that this was opportunistic reuse of surplus materials, most likely under the Bowles family in 1897.

<sup>107</sup> Stonework analysis by Ian K. Jones of the EAS.

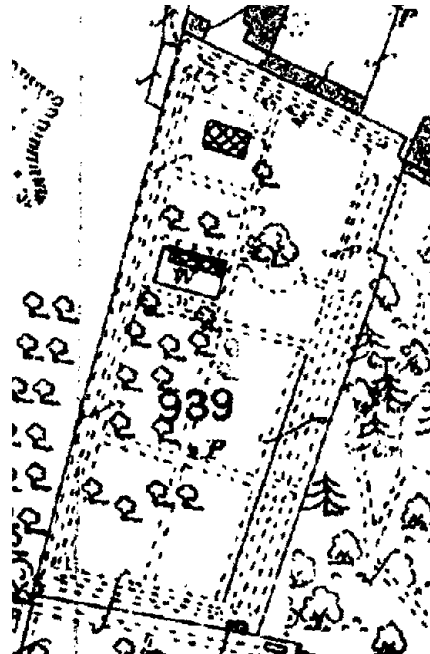
# The Walled Kitchen Garden

## Scope and Background

The walled former kitchen garden south of the Farm Courtyard and Rick Yard has seen relatively little archaeological work. However, the fairly superficial cuts to create the current path network in what is now the rose garden at the north end of the walled garden were archaeologically monitored in 2003 (FHRG03) and a single test pit was excavated under the same site code, while a single cable trench (FXH13 Trench 1) was monitored at the extreme north end of the garden as part of the 2013 - 15 Heritage Lottery Fund supported works (Fig. 54).

Presumably established in Phase 2, the two acre garden was enclosed by eight foot high walls, though they have subsequently been significantly altered or partly demolished. Little is known about it in the seventeenth century, except that it was referred to as ‘...the orchard garden and close adjoining inclosed [sic] by a Bricke wall’.<sup>108</sup> However, until it was blown down in the 1987 storm there was also an extant Mulberry tree which could have been of considerable age and might have related to seventeenth century schemes to try and raise silk worms as promoted by James I.

By the time of the first plans of the hall in the late eighteenth century much of the garden appears to have been occupied by blocks and rows of fruit trees with the rest probably divided into rectangular plots for vegetables by a basically rectilinear network of paths, as reflected in the sale catalogue of 1773 (‘The Kitchen Garden ... is walled round and planted with Fruit Trees, and capable of producing vegetables in vast profusion’; LMA ACC/0696/001; Gillam 1997, 52). With the addition of greenhouses for growing fruit (demolished by 1935), its plan seems to have changed little into the later nineteenth century (Pls 50 and 51).



Pls 50 and 51: Extracts from (Left) the 1788 Estate Map and (Right) the 1867 OS 25” Map, Showing the Walled Kitchen Garden

The function of the garden changed, probably gradually, during the earlier twentieth century as growing produce became less vital to country houses and, though in the Second World War it was brought into cultivation again, by the 1950s it had become more ornamental.

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<sup>108</sup> ‘An abstract of all the lands and tenements appertaining to the estate of Nicholas Rainton, Esq 1656’ LMA ACC/0016/008.



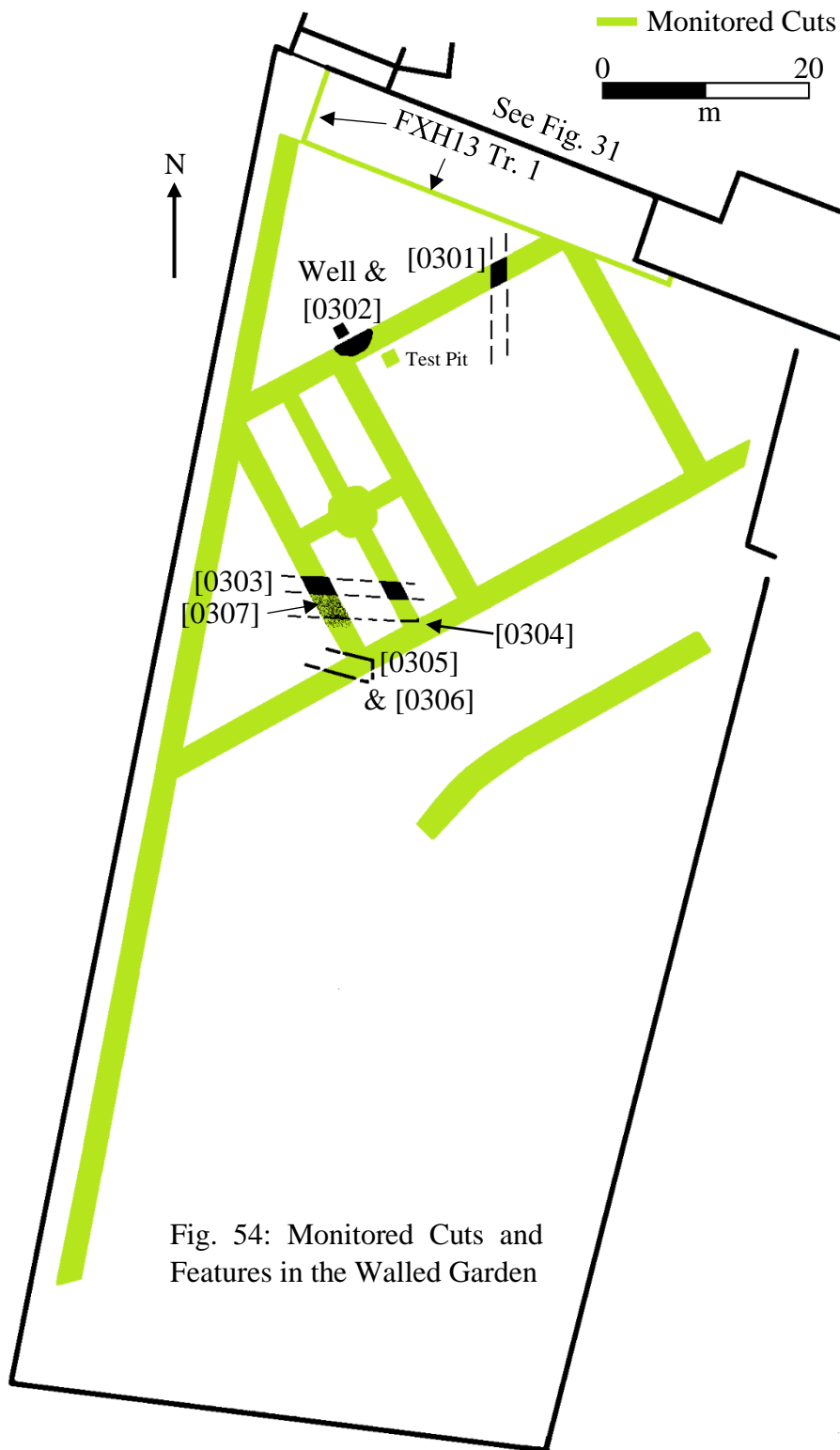


Fig. 54: Monitored Cuts and Features in the Walled Garden

### Archaeological Evidence

Features recorded in the 2003 monitoring largely just confirmed cartographic evidence. Two of the network of paths presumably in existence into the earlier twentieth century were identified ([0301] and [0303]) and had hoggin like surfaces of rounded and angular stones in an orange brown gritty matrix. [0301] was 75 cm wide and [0303] at least 21 cm wide, but its southern edges were poorly defined so it is likely to have been wider. Similar material formed a 3.00 m diameter hard standing, [0302], surrounding a now capped off well and a less defined spread to the south west of [0306] probably represented another, more disturbed path surface with a fourth, probably extending some meters to the north, implied by a similar spread adjacent to the east end of a structure formed by [0305] and [0306].

A linear brick foundation ([0304]), traced for at least another 2.00 m to the west as parch marks presumably related to the more southerly of the two greenhouses on the 1867 OS map. However, the foundation differed in the two exposures recorded, perhaps suggesting that the structure had been modified/extended at some point. A western exposure comprised two stretcher bonded skins of pinky purple bricks with shallow frogs bonded with cream coloured mortar, probably surviving to at least three courses, and had a 37 cm long single skin buttress to the south whose mortar retained an impression of a brick stamped 'WDC'. (It was overlain and flanked to the north by ([0307]), a perhaps early twentieth century dump of quite varied demolition material probably brought in from elsewhere.) The eastern exposure by contrast was of a 44 cm wide foundation, formed of three skins of irregularly bonded part yellow stock bricks largely obscured by sandy orange mortar and had a rectangular expansion at its east end.

Somewhat to the south of this greenhouse were elements ([0305] and [0306]) of a rectangular construction (?raised bed, water tank setting etc) built of two skin stretcher bonded 'walls' 1.55 m apart, using frogged red bricks and cream coloured mortar.

Monitoring of FXH13 Trench 1 identified an iron water pipe towards its west end which might have supplied the garden and at its east end encountered rubble and part of a concrete raft which represented the floor and demolition of a presumably lean to glazed ?conservatory attached to what is now the south side of the banqueting suite, which from OS mapping was in existence in some form by 1867 and was not demolished until after 1935. Later than this and the pipe was another east west hoggin path that ran much of the length of the monitored trench.

In the north south arm of the west end of this trench a probable hedge planting trench was also located against the south side of the garden's northern boundary wall and was associated with a root baffle/watering deflector (to prevent root ingress under the wall and divert water away from it). It consisted of complete horizontally lain peg tiles, running 70 cm out from the wall, with further tiles, dipping slightly to the south, having been lain at an angle on to them/the top of an offset on this face of the wall.

# The Wider Pleasure Grounds South and East of the Hall

## Scope and Background

South and east of areas so far considered, the pleasure grounds attached to the hall continue to the east as far as Forty Hill and the main entrance to the estate with its lodge; west up to the east boundary of the Walled Kitchen Garden; and south as far as the estate boundary which separates it from the grounds of houses including the Dower House (Fig. 55). These areas comprise an east lawn (for which see p 88ff) and a south lawn, historically edged by tree/shrub belts with a circular walk through them, perhaps established sometime in Phase 5, and certainly in existence by 1773 when the sale catalogue advertises them as ‘the PLEASURE GROUND (an elegant greenhouse) the lawn bordered by a rich Plantation of Shrubs and Evergreens, that conceal and adorn circuitous walks, that gradually slope to the Lodge at the Approach’ (LMA ACC/0696/001; Gillam 1997, 49).

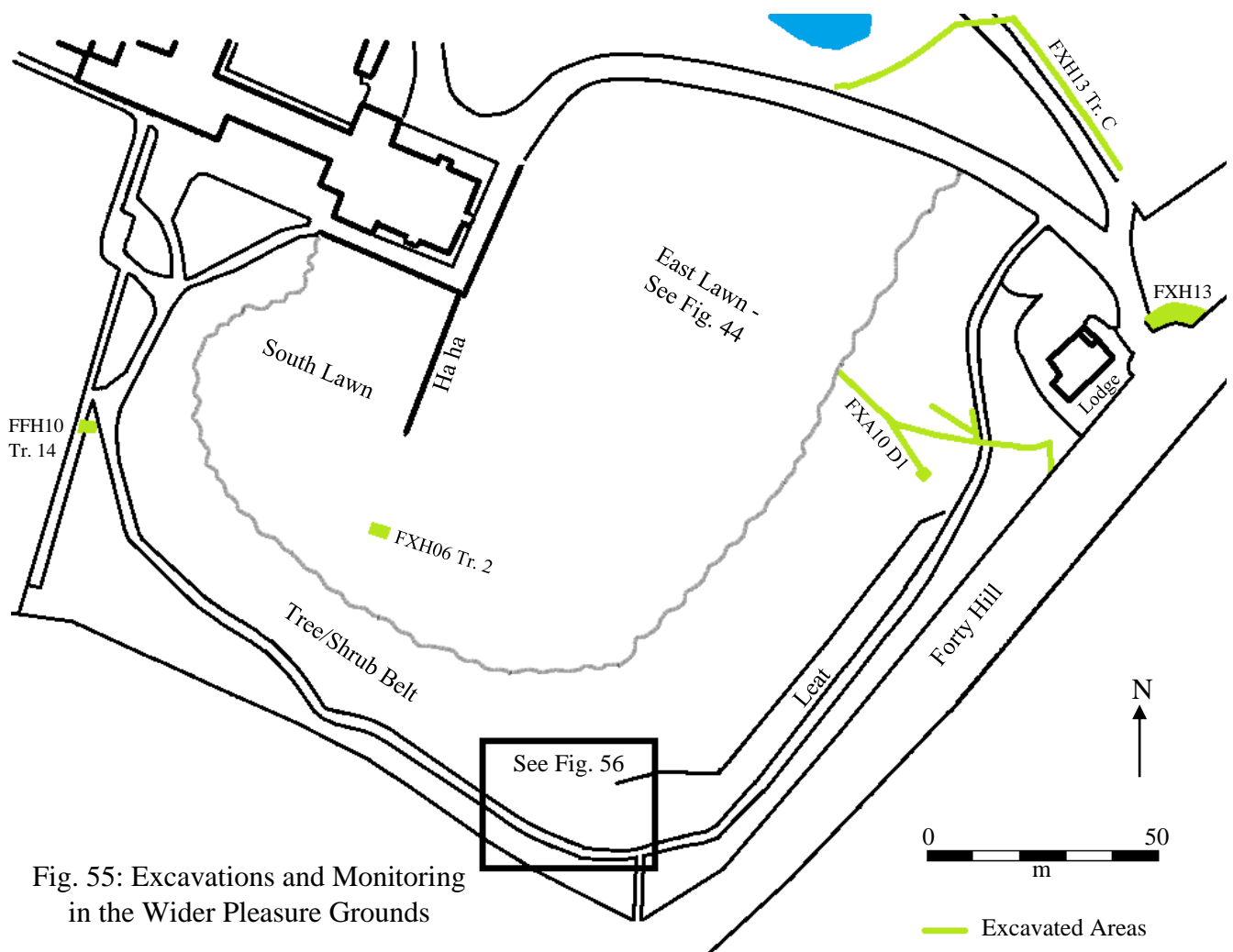


Fig. 55: Excavations and Monitoring in the Wider Pleasure Grounds

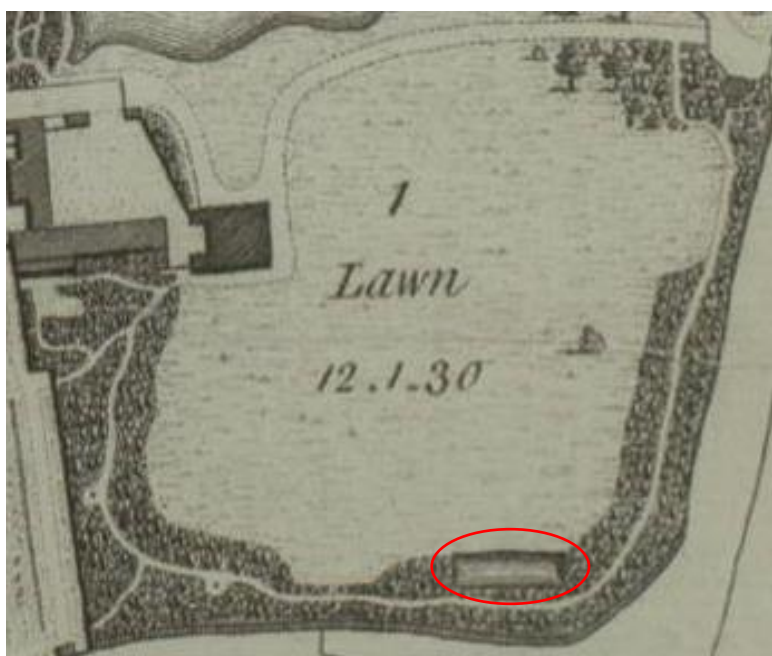
Archaeological work to the east has comprised services trench monitoring during the 2009 – 2011 HLF supported project (the eastern parts of FXA10 D1), the monitoring of a CCTV trench (the eastern part of FXH13 Trench C) and remodelling works to the estate entrance, both during the 2013 – 2015 HLF supported works. To the south east Northamptonshire Archaeology<sup>109</sup> also carried out limited evaluations of the site of a ?Phase 5 pond that might subsequently have been the site of a bog garden/fernery (FFH10 Trenches 9 – 12; FFH13 Trenches 20 – 23; FFH11 monitoring) while a small research excavation in 2006 (FYH06 Trench 2) and limited evaluation work by Northamptonshire

<sup>109</sup> By 2014 MoLA Northampton.

Archaeology (FFH10 Trench 14) south of the main hall aimed to establish certain details of the landscape design of the south lawn and adjacent tree/shrub belt area.

### Archaeological Evidence for a ?Phase 5 (1696 – 1787) Pond and its Possible Re-use as a Bog Garden in Phase 9 (1897 - ?1939)

Cartographic evidence shows that by 1787 a fairly large rectangular pond existed at the south east corner of the pleasure grounds (Pl. 52). There is no evidence for how long it had been in existence by then, but if the pleasure grounds were re-modelled in the eighteenth century as seems very likely it might well have been conceived of as an integral feature of the circular walk through the tree/shrub belt established at this time.



Pl. 52: Extract from the 1787 Sale Plan with the Pond Ringed

Though appearing oval on the OS 6" map of 1866, the OS 25" map of 1867 again shows the pond as more rectilinear, if with one quite rounded corner, but it does not appear on subsequent maps so that it was presumably filled in at some point after that. The area today is one of damp and sometimes waterlogged ground with traces of a long 1.00 – 2.00 m wide, 30 cm deep rill or leat leading downslope to it from much further north.

Detailed ground survey and a total of eight trenches (FFH10 Trenches 9 – 12; FFH13 Trenches 20 – 23; Fig. 56 herein) cut by Northamptonshire Archaeology (Prentice 2010a, 6f; Simmonds 2013a, 14ff), together with monitoring of a larger (30.00 x 8.00 m) superficially stripped area and desilting of the rill or leat (Simmonds 2014, 12),<sup>110</sup> identified the possible base of the pond, likely towards its southern and western edges (FFH10 Trenches 11 and 12) and the unlined, sloping cut into natural gravel forming its northern edge (in FFH13 Trench 22 and possibly in monitoring). In Trench 22 the pond was over 1.55 m deep. All the trenches except FFH10 Trench 10 were within the footprint of the pond and showed that it had been filled, perhaps in three phases, with a sequence of often ashy deposits, silts and sands and gravels including much domestic rubbish, pieces of concrete, coal, clinker etc and capped by a humic soil. The infill included significant amounts of nineteenth century ceramics and glass including material strongly suggesting deposition c. 1900 which must make it almost certain that the pond was decommissioned or at least infilled in Phase 8 (1897) when the Bowles family undertook

<sup>110</sup> The report does not include a location plan of this work and few details are available.

a major refurbishment of the hall. FFH10 Trench 10 sampled the rill or leat running into the area at approximately the northern edge of the pond. The rill was a c. 50 cm deep U-shaped cut into the natural with two soil blocked earthenware land drain pipes set side by side running along it and a probable replacement iron pipe lain at a higher level within it.

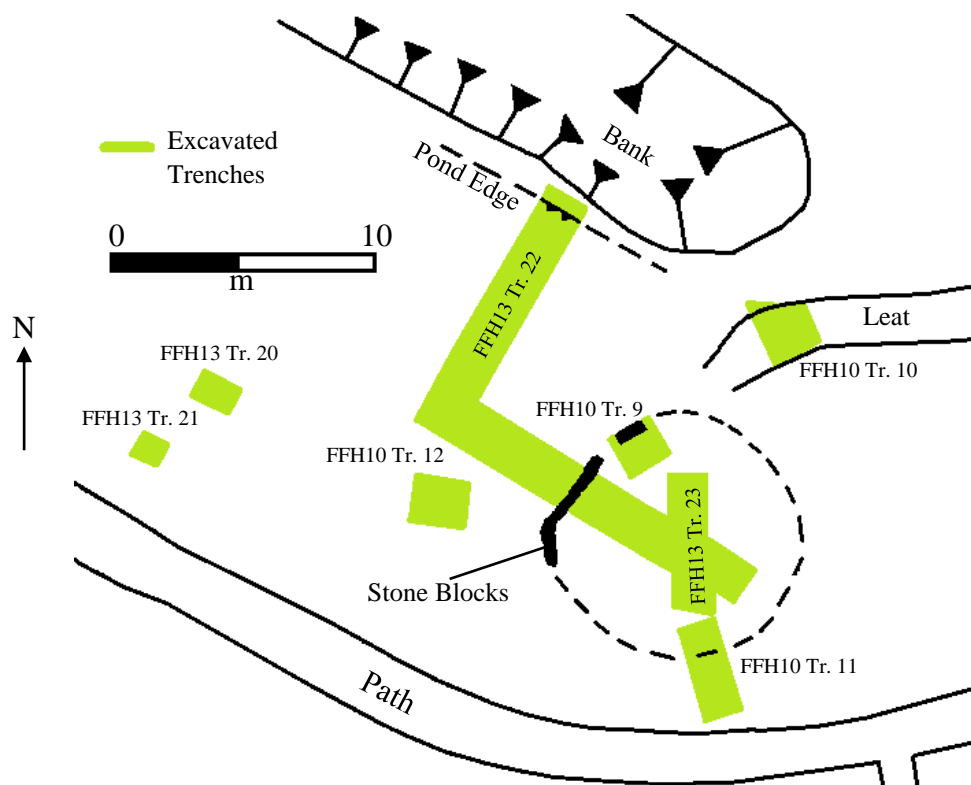


Fig. 56: Trenches and Features in the South East of the Pleasure Grounds  
(After Simmonds 2013a, Fig. 10)

Subsequently, presumably sometime in Phase 9 (1897 - ?1939), a c. 8.00 m diameter sunken circular area had been defined on the west by a series of large undressed Limestone blocks, where excavated bedded into a curving 40 cm wide, 50 cm deep, vertical sided cut into the pond fill. An earthwork bank, at least 12 m long, 7 m wide and 70 cm high running north west from the rill along the line of the northern edge of the pond might well have been contemporary with this and together form the evidence for the possible establishment of a small bog garden (? perhaps more specifically a fernery).

### Archaeological Evidence in the North East of the Pleasure Grounds and at the Estate Entrance

East of the boundary wall and landscaping cut on the east side of the current lawn east of the hall (for which see p 88ff) FXA10 D1 (see Fig. 55) recorded little of archaeological significance and generally a humic topsoil directly overlay the natural. A south easterly spur of the trench being monitored which ended in a rain collection tank cut did though show the dumping of a 36 cm thick dark coloured stony silt with frequent charcoal flecks and moderately frequent fragments of, and up to quarter, bricks which produced a small group of eighteenth and nineteenth century pottery. Although this did not allow of close dating, it may be that it represented some relandscaping ?in or before Phase 8.

The most easterly arm of D1 also ran south up to the current estate boundary wall and here a fairly steeply east sloping surface to the brickearth natural suggested a cut and led down to a dump of whole and part hand made bricks overlain by 66 cm of redeposited natural gravel and brickearth. The dump appeared to occupy a 3.00 m wide strip parallel to the adjacent estate boundary and, whilst the area

had probably been repeatedly disturbed, it may well be that the bricks represented an earlier (?seventeenth/early eighteenth century) demolished estate boundary wall.

Monitoring of the eastern part of a CCTV cable trench (FXH13 Trench C; see Fig. 55) that ran towards the estate entrance beside a modern road found that around 30 cm of probable levelling material likely associated with earlier versions of the roadway lay over the natural, though at one point there was a large gravel outcrop or gravel filled ?cut that might have been a soakaway.

Monitoring of a widening of the estate entrance recorded the concrete foundation for the then existing gate and what was probably re-landscaping dumping behind the entrance embayment wall, likely following its construction or an earlier modification of it. The dump comprised brickearth containing fragments of a variety of red brick types and moderately frequent sherds of bowls, jars, lids and a small jug handle in glazed stonewares and transfer printed refined whitewares, together with some glass including part of a clear glass bowl or tray. The dating of the material may suggest that the dumping occurred in Phase 7 or 8 and it was partly overlain by a burnt deposit of clinker and ash with burnt pottery, burnt clay pipe fragments, some burnt glass and disintegrating animal bone fragments that may have belonged to the early years of the twentieth century (perhaps being contemporary with the rebuilding of the nearby gate lodge in 1903 (CMP 8.4.2)).

### Archaeological Evidence on and West of the South Lawn

Little is known of the development of the south lawn, which today runs east as far as a small modern ha ha wall running south part of the way towards the southern tree/shrub belt from the corner of the terrace surrounding the hall. In particular it is unclear whether this wall replicates some older feature that might have delimited a more formal garden and a small research excavation in 2006 (FYH06 Trench 2; see Fig. 55) sought to establish whether any such feature existed towards the edge of the tree/shrub belt beyond the end of the modern wall. It recorded two interleaved dumps, one of brickearth and one of hoggin, which together may have raised ground level here by as much as c. 45 cm. Whether the hoggin represented a path/surface or not, above these deposits a possibly damaged up to 9 cm thick rammed pebble/cobble surface had been created.

Though the implication here is that significant re-landscaping had taken place, clearly at least this far south there had never been a wall delimiting the south lawn to the east. But whether the pebble/cobble surface was localised or more widespread and whether it was a path or not the excavation was not large enough to determine.

The only other archaeological work in this area has been a single trench (FFH10 Trench 14; see Fig. 55) cut by Northamptonshire Archaeology to investigate the identity of one of two cleared areas appearing to contain some form of feature (conceivably a statue) within the tree/shrub belt west of the south lawn shown on e.g. the 1787 estate sale map (Pl. 52). Excavation here failed to find a formal surface and the only feature, other than nineteenth/twentieth century probable tree supports, was a possible planting hole that might suggest that the feature mapped was a specimen plant. However, accurate siting of excavations from maps of this date is often problematic and the area could have been re-landscaped so no firm conclusions could be drawn from the work (Prentice 2010a, 8f).

# The Post c. 1660 Development of the Estate North of the Lake

## General Introduction and the *Ferme Ornée*

Archaeological work across the wider Forty Hall estate (primarily restricted to the ‘Great Field’ north of the lake fronting the hall, much and latterly all of it a Scheduled Ancient Monument, some areas north of it and specific structures west of it) has been undertaken for two different reasons. The largest component has been research excavation, geophysical, aerial photographic and LiDAR survey work, most of which has been directed at exploring the former Elsyng royal palace, though some initiatives have aimed to study individual structures of a later date. Where it was concerned with the palace such work up to 2019 has been published in Dearne *et al* (2022) and archive reports continue to be issued covering subsequent palace excavations, so none of this work is considered here.<sup>111</sup> But a number of projects, one or two from the late twentieth century, but mainly in the twenty first century led by Neil Pinchbeck, have examined eighteenth century and later features, especially connected to Maidens Brook, and comprise a lot of the archaeological work detailed here. The other main driver of work has been a series of projects to improve the facilities of the modern park (both the 2013 - 15 Heritage Lottery Fund supported project and other initiatives including to install a cycle track in 2013) and to maintain and improve elements of the site’s drainage features.

Much of this work is again detailed below, but other than these specific archaeological interventions the evolution of that part of the estate directly north of the hall can mainly be assessed through cartographic/documentary evidence and extant landscape features, though much of it is now far more wooded than it once was which presents significant problems for interpretation. In brief, relatively little is known about the landscape around the palace at the time that Nicholas Rainton the younger acquired it (by 1656), thus greatly expanded the land attached to the hall and had (at least much of) the palace demolished c. 1660. There had undoubtedly been significant gardens, and orchards, attached to the palace and these survived in some form in 1656 (Dearne *et al* 2022, 130). Similarly the date at which the ‘pond groves’ (the complex of woodland, lakes, ponds and islands at the north west edge of the estate) came into existence is unknown, but they may well have been created or adapted as water gardens at some point during the lifetime of the palace (Dearne *et al* 2022, 215). More clearly to the south of the palace a large parterre garden had almost certainly been created c. 1610 (Dearne *et al* 2022, 221ff).

The latter was relatively close to, and might indeed have been in line of sight from, the Forty Hall Service Courtyard entrance,<sup>112</sup> but what parts of these landscape elements were retained by Rainton is unclear. Widespread gravel deposits that may have formed surfaces and or paths (though some probably just represent re-landscaping) have been excavated across parts of the former palace site (Dearne *et al* 2022, 210ff), the approach road to the palace was almost certainly still a landscape feature and there is LiDAR and excavation evidence for areas of drainage channel separated cultivation ridges north east of the palace site that probably belong to the later seventeenth century (p 122 below). However, what form(s) of cultivation these parts of the former palace grounds were used for and how far Rainton may have made parts of this area into a working agricultural not purely recreational landscape before c. 1700 is unclear.

As noted above (p 80) the partly extant double Lime tree avenue that is now the major feature at least of the part of the estate directly visible from the hall was probably planted at or by approximately this date (be it by the younger Nicholas Rainton or the Wolstenholme family). Its creation clearly marks the point at which that part of the estate became, if it had not already been, a recreational park. It, and the wider estate, was subsequently developed further, some at least of the developments most likely carried out around the middle of the century by the Wolstenholme family. Some of these landscape features (mainly associated with Maidens Brook) are discussed below, but in a wider estate context they also included the creation in Phase 5b (specifically c. 1740 – 1770 under Eliab Breton) of a *ferme*

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<sup>111</sup> For the location of the excavations in which no post c. 1660 features were revealed up to 2019 see Dearne *et al* 2022, Figs 6 and 7).

<sup>112</sup> Before LiDAR survey evidence was available the more recognisable traces of this garden had been interpreted as post palace raised walks leading up to the hall and preceding the planting of the double Lime tree avenue (CMP).

*ornée*. This comprised a network of raised hedge lined walks through the arable and meadow farmland west of the former palace site, also linking ponds (presumed, but not all certainly, created as part of the scheme)<sup>113</sup> and three summer houses (two considered in detail below). Landscape survey undertaken for the CMP, though elements of the walks were already well known, more systematically identified a number of remnants of these grassed, mown banks with gravel paths along them that may have been up to c. 5.00 m wide and 1.00 m or more high, in some cases with flanking ditches; and one further hedged walk added between 1896 and 1913 (Fig. 57). How far this *ferme ornée* path network extended along Maidens Brook, let alone to the eastern edge of the estate where e.g. there was formerly a pond that could have been created as part of it (Fig. 57), is unknown, but presumably some of the paths running along the south bank of the brook (see p 122) and which accessed the cascades on the brook allowed circular walks to be taken that at least tied in with elements of the *ferme ornée* network. Parts of the area immediately north of the lake in front of the hall have also though probably been adapted to serve the farm attached to the hall, from cartographic evidence presumably in the eighteenth and nineteenth centuries.

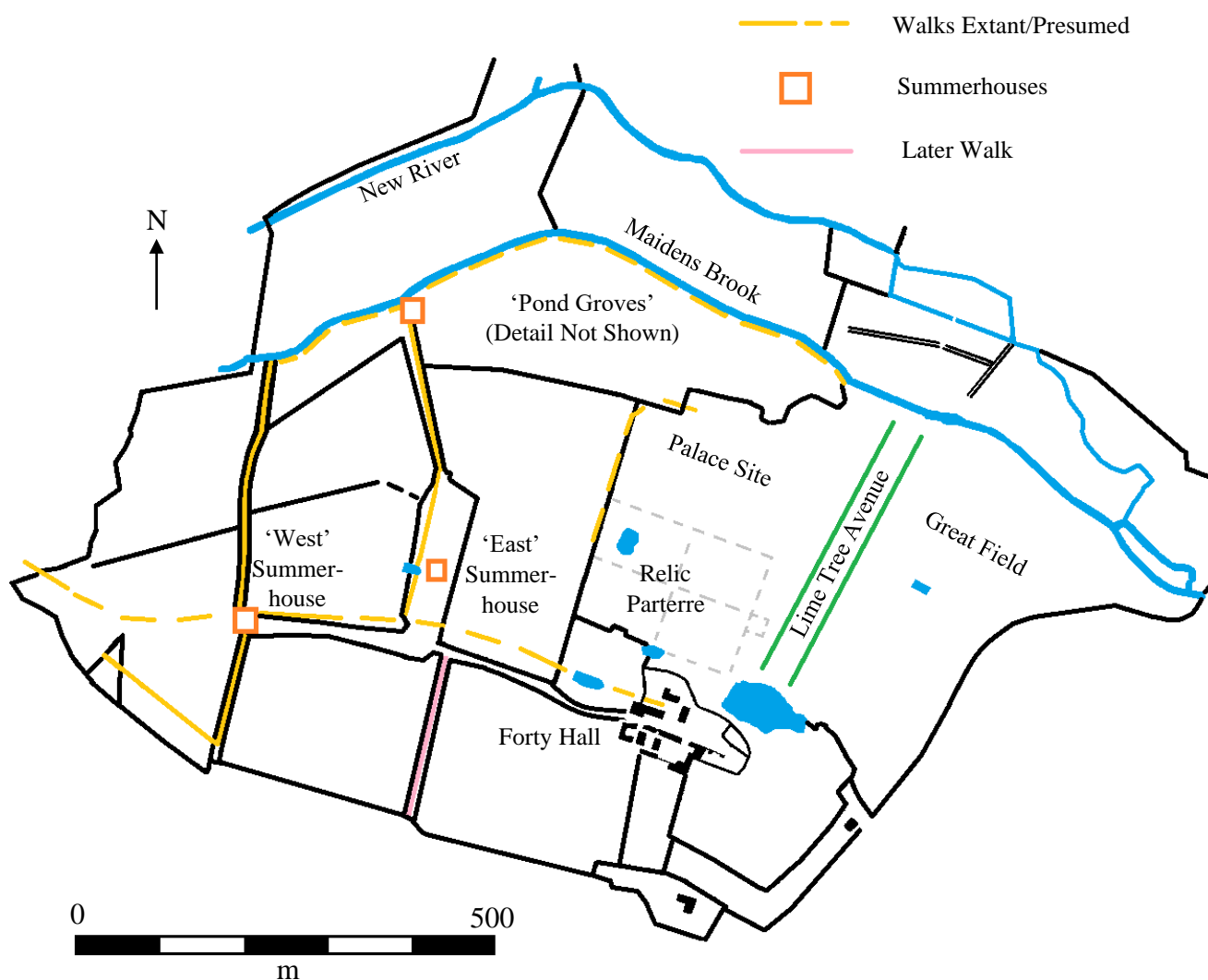


Fig. 57: Evidence for the *Ferme Ornée* in the Wider Estate (After CMP Plans)

<sup>113</sup> Recognition of the existence of the parterre garden belonging to the palace and study of the development of the 'pond groves' have suggested that some other ponds once tentatively assumed to belong to the *ferme ornée* scheme are likely to have originated earlier than it and are less likely to have formed part of it.

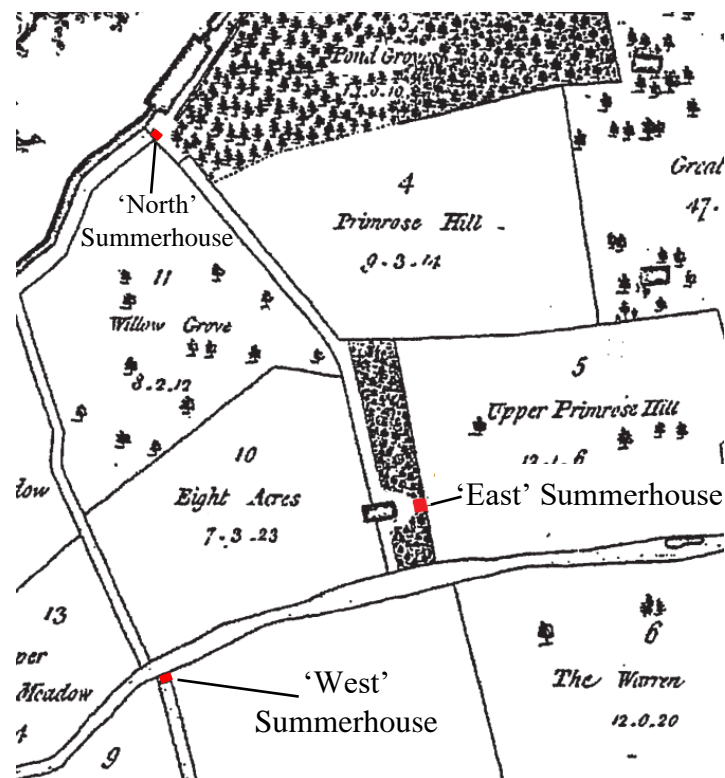


## Archaeological and Survey Evidence for the ‘East’ and ‘West’ Summerhouses

### *Scope and Background*

What may for convenience be designated the ‘North’, ‘East’ and ‘West’ Summerhouses existed by the early 1770s when they are marked on the early estate sale maps (Pl. 53), but are presumed to be rather earlier and specifically to be of Phase 5b, having been established by Eliab Breton c. 1740 – 1770 as part of the *ferme ornée* recreational landscape. The north summerhouse is entirely lost, but both the east and west summerhouses have been subject to excavation and one of them to two formal surveys of limited standing remains. Less is known about the west summerhouse, though a local resident recalled it in the 1990s as, in the 1930s, a three sided roofed timber structure that was demolished by the borough when they acquired Forty Hall in 1951 (Gillam 1999, 5).<sup>114</sup> It lay at the north end of a section of one of the raised, ditch flanked walks of the *ferme ornée* where it was interrupted by an east west track (presumed to be part of the network of walks), on the other side of which the raised walk changed orientation to a degree (Fig. 57 and Pl. 53). It seems likely that it was a small shelter at the meeting of two walks, used in inclement weather or for brief rests.

The more substantial brick built east summerhouse, at least by the later eighteenth century, lay in a glade in a tree belt so that it may partly have been intended as a quiet garden pavilion for longer stays. Taking advantage of wider vistas to the east and the view over an adjacent and probably contemporarily created pond to its west, which widens as it runs west to appear longer than it is, the fact that it was evidently heated probably underlines that it was a destination used for informal meals brought in hampers from the hall by servants and perhaps for activities such as painting or amateur botany. A Forty Hall visitors’ book, supported by the recollections of Andrew Parker-Bowles, confirms that in the 1930s and until its demolition by the borough around 1951 it was also used by shooting parties (Gillam 2000, 8) and this may have been another of its functions from the start, possibly in part targeting waterfowl attracted to the adjacent pond.



Pl. 53: Annotated Extract from the 1773 Estate Sale Map

<sup>114</sup> The demolition of both summerhouses resulted from fears that they would be used by squatters.

The west summerhouse was excavated and the east, parts of which still stand to about 2 m high, cleared of rubble and overgrowth, partly excavated to various levels and surveyed by the EAS in 1999 (Gillam 1999; 2000; site code FOR99).<sup>115</sup> The east was cleared of overgrowth again and surveyed by Northamptonshire Archaeology in 2010 (Prentice 2010b; site code FFH10).

*The West Summerhouse*

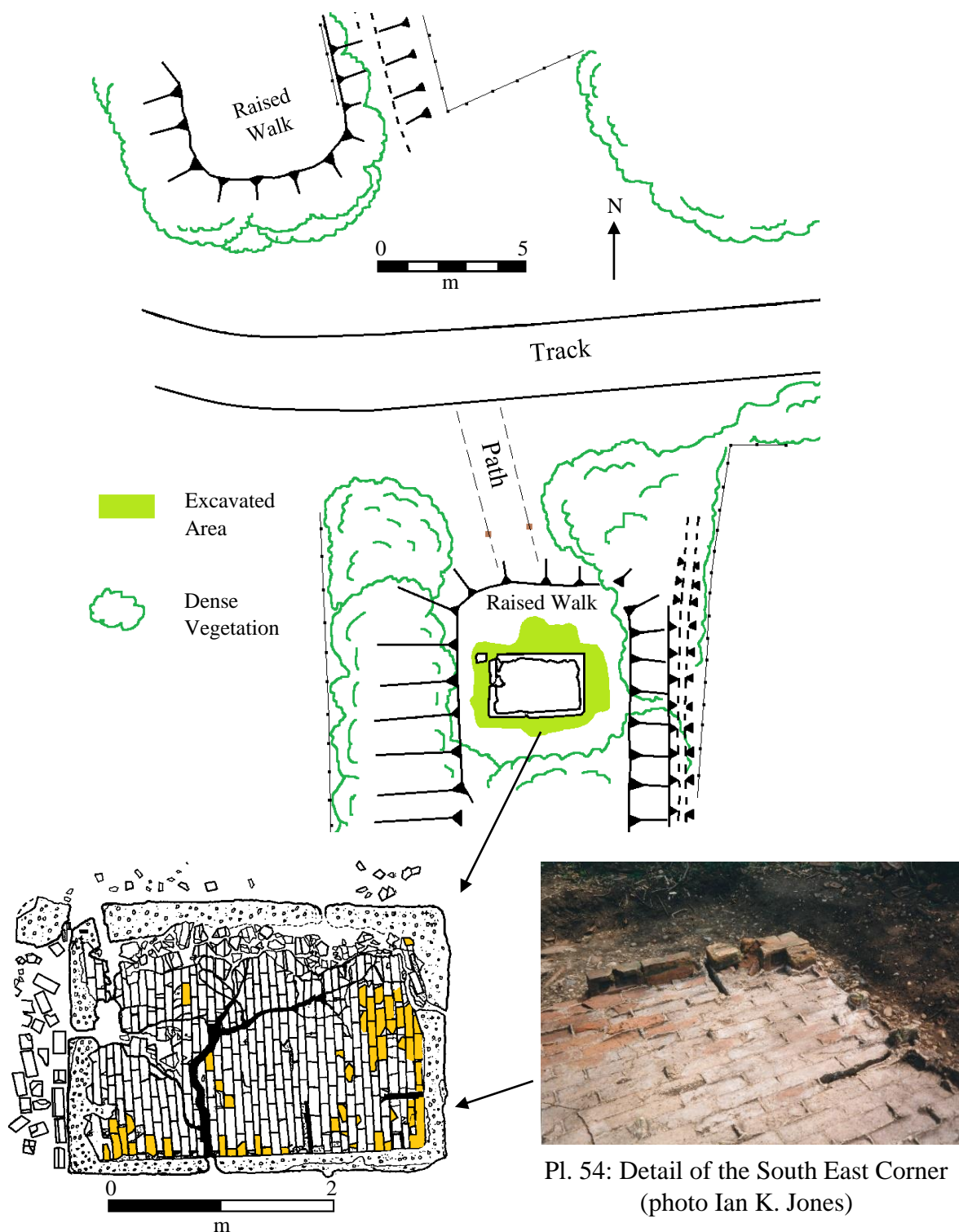


Fig. 58: The West Summerhouse and its Setting

<sup>115</sup> The surveys, held in the EAS archive, were by Jon Tanner and form the basis of Fig. 58; Fig. 59 draws on both surveys by Jon Tanner and by Northamptonshire Archaeology in Prentice (2010b); the plan of the east summerhouse omits some irregularities due to the movement of some walls. The 1999 clearance and excavation work was not recorded or reported in the detail or manner that allows it to be as fully evaluated as one might like.



Pl. 55: The West Summerhouse Looking South West and Inset *in situ* Stamped Brick  
(photos Geoffrey Gillam (© Enfield Local Studies Library))

Excavation of the site of the west summerhouse (Fig. 58 and Pls 54 - 55) showed that whatever had stood here earlier had been replaced, almost certainly in the late nineteenth century, by a brick floored largely timber building. Covering an area of 3.2 x 2.3 m, it was represented by a rammed gravel platform (which could presumably have been pre-existing) edged with a 30 cm thick, 23 – 61 cm wide band of concrete. The gravel acted as the base for a c. 2.9 x 2.0 m mortared floor of edge set bricks, mostly removed but represented by impressions in the mortar, which also indicated the positions of timber base plates for uprights around three sides of the floor. Slots (Pl. 54) suggested the settings for a bench or seat within the north facing building which was accessed by a c. 1.2 m wide gravel path leading from it, through a gate represented by two timber posts, to the east west track.

That one of the base beam impressions carried a decorative moulding suggested the use of some salvaged materials and loose brick finds (be they from this structure or a predecessor) were thought to have been of a variety of dates, the structure (and or an earlier one) might have had glazed windows as window glass fragments were recovered and multiple peg tile fragments with one from a pantile might point to tiled roof(s) on the building represented and perhaps a predecessor. Two *in situ* bricks from the externally rendered edge of the floor were stamped BHP (Pl. 55 inset) and were products of the Bush Hill Park brickworks which began production in 1875 and must strongly suggest that the structure excavated belonged to Phase 7 or later.

#### *The East Summerhouse*<sup>116</sup>

The east summerhouse (Fig. 59) was basically an externally 4 m square, internally 2.8 m square single storey brick structure with externally thickened corners (imitating clasped buttresses) and internally plinthed corners, a 1.4 m wide chimney projecting by 44 cm on the north, an internally 1 m wide three sided canted bay projecting 1.5 m from its east end and a ?1.2 m deep (sub)basement to the main block. It was mainly built of unfroged, very variably fired and so coloured bricks (23 - 24 x 10 – 11 x 5.5 – 6.0 cm)<sup>117</sup> laid in English bond with some irregularities and a single brick string course projecting by 5 cm externally, bonded with fairly coarse sand white lime mortar, in places repointed with different

<sup>116</sup> This is only a brief description, summarising Gillam (1999; 2000) and Prentice (2010b). For further detail and architectural context see particularly the latter.

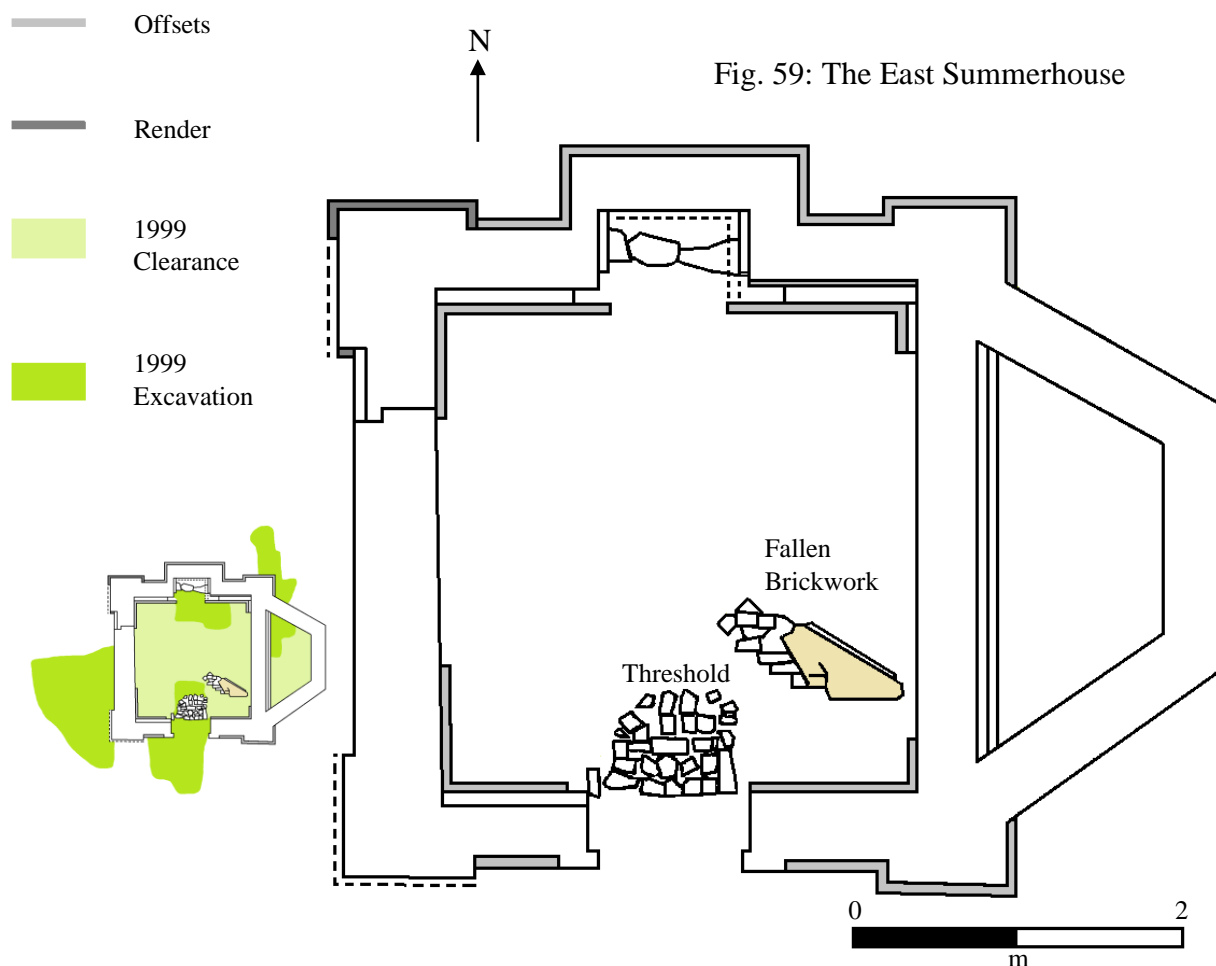
<sup>117</sup> Gillam (2000, 8) speculated that the use of a bullnosed brick in a wall foundation and of a 5.5 cm thick vitrified one in the south wall implied reuse of materials deriving from the demolition of Elsyng palace. Whilst not impossible, at most this must have been the occasional opportunist use of casually acquired items. However, the recovery of shallowly froged including yellow fired bricks and of fully froged purple fired, 7 cm thick bricks stamped SG in the demolition rubble of the structure does suggest that at least small modifications and repairs are likely to have been carried out, broadly in the later eighteenth to nineteenth centuries.

lime mortar and patched in places with Portland cement. An external chamfered rusticated finish (render), perhaps only on the thickened corners of the west face, as surviving is of cement (?replacing lime mortar) and on these thickened corners imitates ashlar masonry quoins (Pl. 56).

The bay (Pl. 57) is presumed to have featured large windows and, though nothing of it survives above floor level, has a thickened foundation (as has at least the south wall), but there is some divergence of opinion about whether it was an original feature or a modification to the structure, the former seeming more probable. Though it too had a void below floor level there was no communication between it and the (sub)basement, there being a north south sub-floor wall between the two, so that if it was used in any way it would have had to have been accessed by a trap door in the (lost) floor (which is probably unlikely).

The west side, also poorly preserved, appears from one partly surviving jamb to have featured a (presumably glazed) double doored main entrance of indeterminate, but perhaps c. 1.5 m width (which would also have provided views of the adjacent pond) and apparently was accessed by a gravel path. Broken, including fine grained grey sandstone, slabs may indicate that the curtilage to the entrance was slab surfaced and or featured slab steps.

The chimney on the north, the best preserved part of the summerhouse, served a partly surviving ground floor fireplace, originally 93 cm wide, supported at (sub)basement level by an arched recess built of edge set bricks (Pl. 58) with the remains of a second arch at right angles to support the fireplace's hearth slab. However, the hearth slab had clearly been replaced with a new limestone one, perhaps contemporaneously with the relining of the sides of the fireplace with edge lain bricks. Finds suggest that the fireplace, at some point, had a cast iron fireback and grate. Whether 30 cm square, 3.8 cm thick red clay tiles in demolition rubble were connected with the hearth or some other part of the structure is perhaps less clear (and the origin of some 12.5 cm square white glazed tiles more so).



Evidence survives for a north south joisted wooden floor in the main block (finds indicating covered with green linoleum by the date of the summerhouse's demolition), with skirting boards, and on the north perhaps wainscoting or a dado rail. The walls otherwise appear to have been plastered and painted brown, and then green in a redecoration, with white painted plaster speculated to represent the ceiling. A brief evaluation by Paul Drury (pers. comm. 2010) of moulded plaster work (Pl. 59) believed to have framed the fireplace suggested that it included late nineteenth century or later Ionic capitals cast on lost wooden armatures in gypsum plaster. This would be consistent with a remodelling of the fireplace in Adam revival style in Phase 8 (1897).



Pls 56 and 57: The North West Corner and (to Right) the East Bay of the East Summerhouse (photos Geoffrey Gillam (© Enfield Local Studies Library and Archive))



Pl. 58: The Interior of the East Summerhouse Looking North, Showing the (Sub)Basement Arched Support to the Partly Lost Fireplace Above (photo Geoffrey Gillam (© Enfield Local Studies Library))

A section of fallen brickwork in the sub-basement (Pl. 60) suggests a roof with shallow pitched gables ?on the east and west and finds of a variety of oval or rectangular, angularly or rounded edged, Westmoreland (or Cornish) and Welsh slates and 25 x 15 x 1.2 cm peg (and ridge) tiles may imply two phases of roofing or two contrasting roofing finishes. Recovery of elements of a cast iron gutter and down pipe from a small trench at the north east corner of the building also probably suggest the upgrading of the roof drainage in the ?nineteenth century.



Pl. 59: Moulded Plasterwork from the East Summerhouse  
(photo Geoffrey Gillam (© Enfield Local Studies Library and Archive))

The (sub)basement was too constrained to have been used other than as a basic storage space and was accessed externally by a 86 cm wide doorway centrally in the south wall, surviving springing indicating that it was arched and had internal rebates for door posts,<sup>118</sup> though no floor surface is known beyond a 0.9 m square rough threshold of reused bricks (Pl. 61).

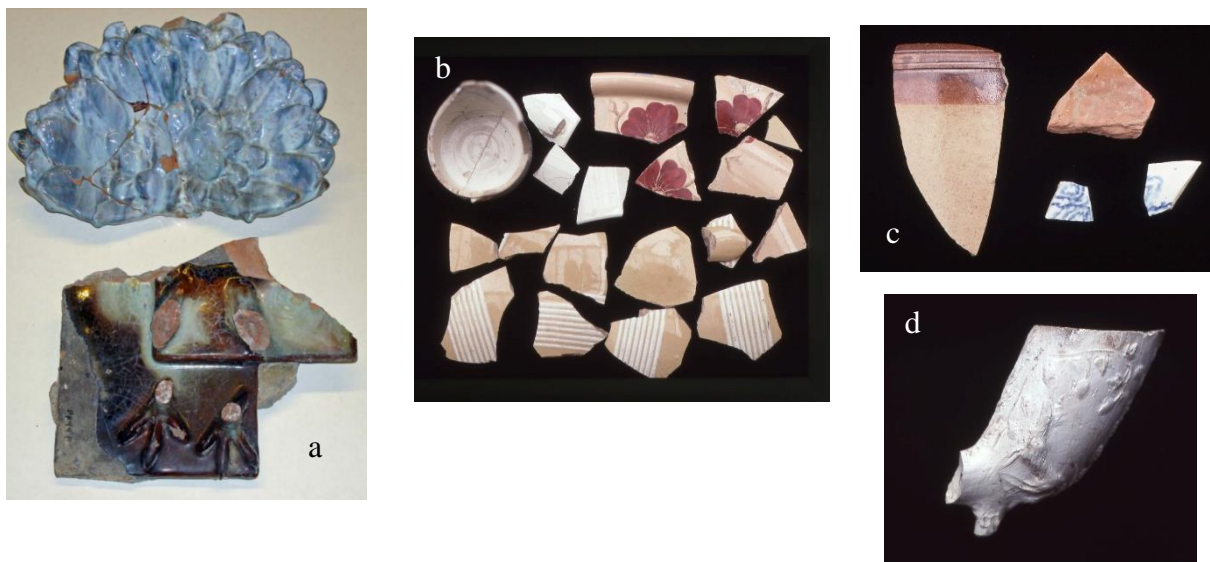


Pls 60 and 61: Fallen Brickwork in the Sub-basement of and (to Right) the Entrance to the East Summerhouse (photos Geoffrey Gillam (© Enfield Local Studies Library and Archive))

Finds during the 1999 clearance from the demolition rubble in the (sub)basement and below the bay included (Pl. 62a - d) fragments of a glazed, probably nineteenth century ceramic figurine, of a ?Turkey, stoneware and earthenware storage vessels and jugs, some tableware and nineteenth century clay pipe fragments.<sup>119</sup>

<sup>118</sup> Gillam (1999, 7) believed that the door was a replacement for just a vent, but this seems unlikely.

<sup>119</sup> The finds have not been adequately appraised except briefly for the glazed figurine (by Paul Drury; pers. comm.) and some identifications should be treated with caution, but other finds appear to have included gun flints, shot gun cartridges, glass wine/spirits bottles, scallop and oyster shells, butchered ovicaprid bones, glazed and plain flower pots, a blacking bottle, whetstones and iron work including a cold chisel, door fittings and a gin trap.



Pl. 62a - d: Selected Finds from the East Summerhouse Including Fragments of a ?Nineteenth Century Glazed Ceramic Figurine of a ?Turkey (photos Paul Drury (62a) and Geoffrey Gillam (© Enfield Local Studies Library and Archive))

## Evidence for the Development of the Area Immediately North of the Lake Fronting the Hall and the Car Park

### *Scope and Background*

The relatively flat area north of the main lake in front of the hall, at the top of the steepening slope that runs down to the former palace site, has seen a number of pieces of archaeological work, but most have suggested that, other than adaptation of ponds probably originating as parts of a large parterre garden belonging to the palace, this area has seen little modification since c. 1660. The ‘Great Field’, which it represents the south end of, has clearly always been mainly recreational, but former field boundaries in existence by the later eighteenth century (Pl. 63) around one of these two large ponds imply that on the west its south end at least was probably more agricultural.



Pl. 63: Extract from the 1788 Sale Map Showing the West Side of the South End of the ‘Great Field’

On the west the only archaeological intervention has been 2018 EAS monitoring of the desilting of the other of the ponds (FXP18) and earlier casual and superficial investigations of a nearby pit by Mike Dewbrey of the EAS (see Fig. 61). Equally (Fig. 60), centrally in line with the lake in front of the hall the EAS has only monitored some investigations of the overflow arrangements for the lake under site code FXH13. However, further east (east of the lake and north east of the hall’s car park)

Northamptonshire Archaeology carried out trial trenching and geophysical survey (FFH10; Prentice 2010a; Simmonds 2013b) as parts of the preliminary works for the 2013 - 15 Heritage Lottery Fund

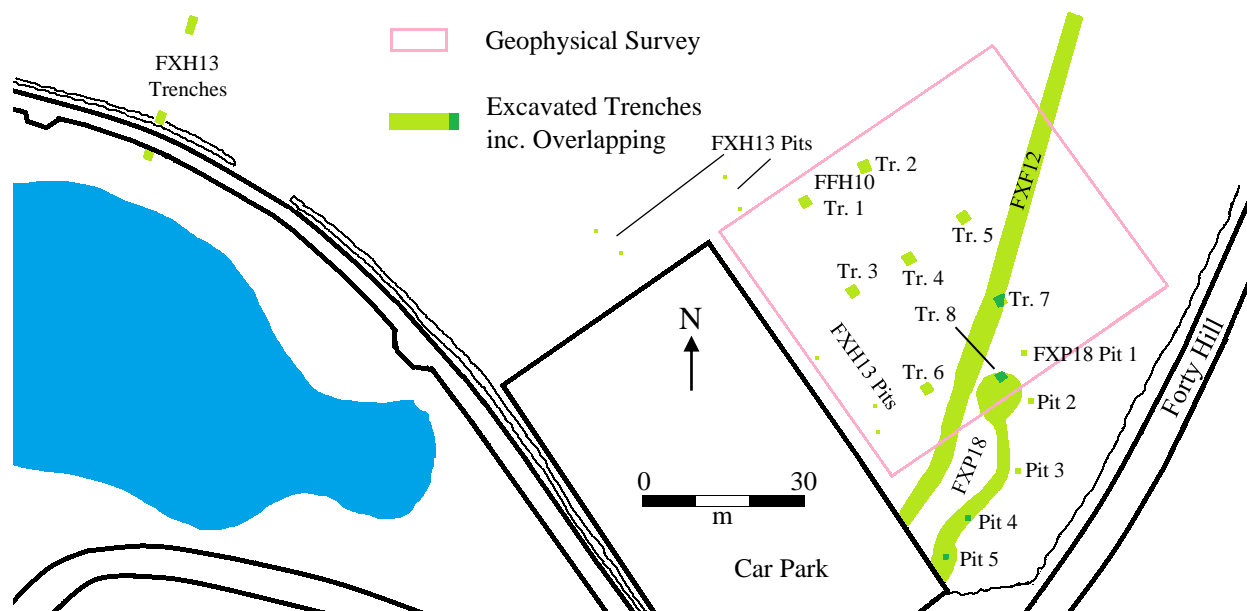


Fig. 60: Areas and Trenches Excavated/Monitored North and East of the Lake

supported project, the EAS monitored small (archaeologically negative) installation pits under site code FXH13 as part of the same project, and the installation of the southern part of a much longer cycle track crossing the area was EAS monitored in 2012/13 under site code FXF12, while the creation of a new ‘rain garden’ in 2018 was similarly monitored and associated test pits cut under site code FXP18.

#### *The Archaeological Evidence*

Monitoring of the pond desilting (Fig. 61) showed that the current form of the pond is the result of its extension, probably to achieve a gentle approach to it on the north so that it was suitable for watering livestock, sometime after its creation (perhaps in the eighteenth century), but its origins are believed to have been as a feature of the grounds of Elsyng Palace and it may pre-date the palace parterre garden that it became part of in 1610 (see further Dearne *et al* 2022, 221ff).

No other archaeological work has taken place in this area, except for some casual sampling of probably nineteenth century or later deposits in a large circular pit (Fig. 61) north of the desilted pond (and prior to its inclusion in the scheduled area). This suggested that it contained alternating layers of ash and pig foot bones, likely representing dumping, including of the residues of rendering gelatine from pigs feet, from the hall.

FXH13 trenches (Fig. 60) to investigate a blocked 30 cm, to the north decreasing to 18 cm, diameter overflow pipe for the lake only revealed a possible trace of a gravelled path and, in the most southerly one, a (?Phase 8 or 9) shuttered concrete constructed trap chamber and connecting outflow chamber.

Further east the area north of the hall car park has clearly seen little historic activity. Magnetometry survey failed to identify any significant anomalies (Walford in Prentice 2010a, 5f) and FFH10 Trenches 1 – 7 recorded only a 15 – 25 cm thick subsoil, though Trench 8 identified part of a pit containing some tile and four sherds of seventeenth century Martincamp ware (Prentice 2010a, 6). The greater area which could be evaluated in (fairly shallow stripping) works to install the southern part of the new cycle track and was sampled in FXP18 Test Pits 1 – 5, then more extensively monitored when the ‘rain garden’ was created, suggested that there had also been some (probably discontinuous) dumping of redeposited brickearth containing brick fragments, probably confined to eastern parts of the area, but not continuing as far as the eastern edge of the estate.



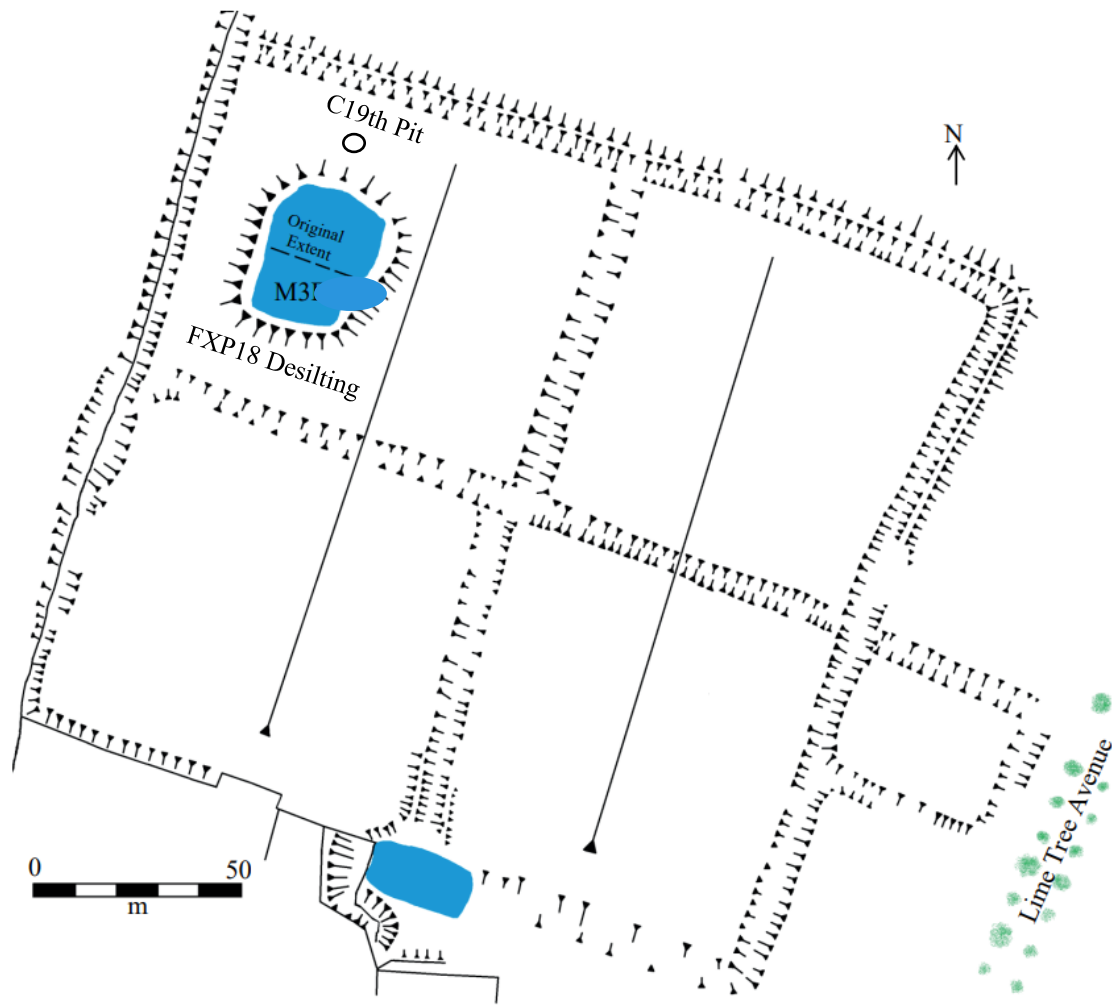


Fig. 61: Features Investigated in the Relic Parterre Garden (for its Location See Fig. 57)

However, at most parts of the area might have been re-landscaped a little and in some places undulations in the ground surface may have been levelled, as far as a break of slope around 90 m north of the car park. This probable re-landscaping was dated by the fact that towards its northern end it overlay a palace phase access path and pottery filled pit (for which see Dearn *et al* 2022, 221) and by a little pottery (of which the latest sherd was post c. 1613) from Test Pit 1 where a rise in the underlying gravel natural may have been reduced in level. The pit in FFH10 Trench 8 was not further identified in the FXP18 work, but a tree throw, east of the edge of the re-landscaping, was partially excavated in Test Pit 3 and had probably been used for casual rubbish dumping, including of some ironwork and pottery, broadly at the same time as the re-landscaping, which most likely occurred in Phase 5b.

## Evidence for the Development of the Northern Parts of the ‘Great Field’ East of the Lime Tree Avenue

### *Scope and Background*

The rest of the ‘Great Field’ represents a fairly steep slope down to much flatter land south of Maidens Brook and a large part of this comprises the former site of Elsyng Palace. Though extensively excavated (Dearn *et al* 2022) very little of the evidence recovered here relates to developments after c. 1660.<sup>120</sup> As noted above, the character of the former palace site immediately after this is not clear, but

<sup>120</sup> Exceptions include an eighteenth or nineteenth century brick built land drain replacing a collapsed section of a palace phase drain near the edge of the brook and recorded in the cycle track monitoring; and a number of nineteenth century sectional terracotta pipe land drains encountered during palace excavations.

widespread re-landscaping with deposits of gravel had certainly occurred on demolition of its eastern parts (ongoing work on the palace site has at least not yet ruled out that some western elements of it might have been retained for a time). Whatever the younger Nicholas Rainton used the former palace site for though clearly most of the ‘Great Field’ became a recreational space, that has since been almost unaltered, once the double Lime tree avenue that runs down its centre was planted, likely within a few decades of the demolition of the palace. The exceptions are areas to the north and north east of the former palace site, some of which are considered separately below in connection with the archaeological evidence for modifications to Maidens Brook and its immediate environs.

The only recent archaeological work undertaken to the east of the former palace site (other than the partial excavation of a most likely palace phase brick clamp and its environs already published (Dearne *et al* 2022, 219)) has been the monitoring of the continuation of the cycle track installation by the EAS in 2012/13 under site code FXF12 (Fig. 61). Much of this track installation indeed involved the building up of the land surface so no cuts were monitored along a significant amount of its length and the most important features encountered where the installation required cuts were the access road for Elsyng palace (fully described in Dearne *et al* 2022, 136f) and a 1970 informal access road used during major gas main installation (see Fig. 61). The same project, however, monitored the installation of a connecting east west track along the line of the brook at the north end of the field which, east of the Lime tree avenue (for its continuation further west see p 122 and p 151), did encounter features and deposits for which there is also LiDAR evidence and it, and two very minor and never fully excavated 1960s trenches (Dearne 2022a, 2), represents the only work not considered separately below.<sup>121</sup>

#### The Archaeological Evidence

The only feature encountered along the north south cycle track was a 1.8 m wide, 20 cm deep ovoid cut into the natural brickearth, with a brickearth fill containing handmade, unfroged brick fragments. As much of this area is suspected to have seen significant, more likely pre 1660, digging of brickearth for brick making this feature may well have been related to that activity.

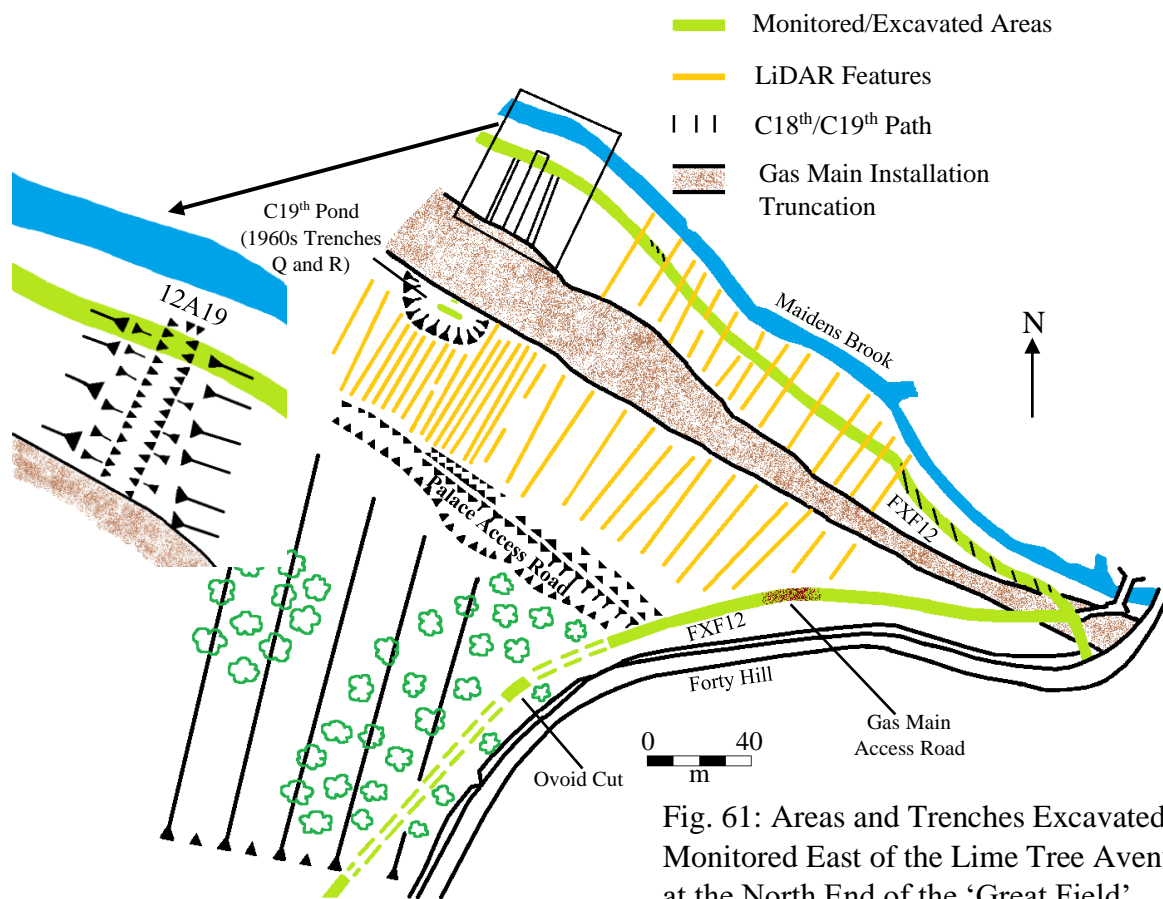


Fig. 61: Areas and Trenches Excavated/ Monitored East of the Lime Tree Avenue at the North End of the ‘Great Field’

<sup>121</sup> Very minor and archaeologically entirely negative monitoring of hedge planting works and signage installation in 2017 in multiple locations in the ‘Great Field’ and adjacent areas under site codes FXM17 and FXN17 is not detailed.

Though interrupted by both a probably short lived nineteenth century pond only mapped by the OS on the 1895 6" map and only superficially investigated by 1960 trenches Q and R, and by 1970 gas main installation, monitoring of the new east west cycle track, together with LiDAR evidence, shows that between the palace approach road<sup>122</sup> and Maidens Brook a large area of land (whose previous use if any is unknown) was probably given over to agriculture, likely soon after the demolition of the majority of the palace. An up to 29 cm thick redeposited brickearth layer had been widely spread here and, whilst at the eastern end of the area it was overlain by more variable dumps a c. 80 x 60 m area showed the development of a c. 13 cm thick, yellowish brown probable cultivation soil. This area was also crossed by 1 – 1.5 m wide, 10 – 25 cm deep shallowly concave profiled drainage channels, 8.5 m apart and aligned at right angles to the brook, the areas between them formed into low ridges. Together with other LiDAR indications of possible cultivation features closer to the palace site (Fig. 61), this may imply the development of reasonably widespread cultivation at some point.

The dating evidence for this is less than one would like. However, a double field boundary bank and drainage channel, [12A19], running north south at the west end of the area nearest the brook did produce some dating evidence for it at least. Small scale excavation showed it to be composed of a 7 m wide western bank surviving to a height of 45 cm and an eastern 10 m wide, c. 20 cm high bank, the two bounding a 20 cm deep, 6 m wide channel. Though one bank had a base only of redeposited brickearth, both were principally composed of a brickearth dump with pebbles, much peg tile and some brick fragments which produced sherds of FREC (c. 1550 – 1700) and in one instance a piece of greensand (a non local stone clearly used in one or more phases of the palace). The banks therefore appear to belong to the second half of the sixteenth century or later and the inclusion of what might be demolition material tends to suggest, though not clearly demonstrate, that they may belong to after the demolition of most of the palace c. 1660. Dumps which lay immediately east of the banks and may mark the levelling of a hollow on the disuse of the cultivation area, produced Delft (TGW.H) of post c. 1680. It is therefore tempting to see this cultivation as representing relatively brief activity after palace demolition. Indeed there was probable evidence that the broader area north of the palace further to the west where there had been a dispersed midden at some point during its lifetime (see Dearne *et al* 2022, 218) had also seen later dumping and cultivation which could have been contemporary. This produced sherds of c. 1640 – 80, c. 1550 – 1700 and 1700 – 1900, but some of these may have been intrusive. Other evidence for the development of the landscape here east of the Lime Tree avenue though only comprised that for later rammed gravel path(s). One, up to 20 – 30 cm thick and over 2.7 m wide and which evidently followed the line of the brook (Fig. 61), was seen over a distance of 85 m and again for 10 m further west. It produced little dating evidence, but what there was would allow of an eighteenth or nineteenth century date.

## Evidence for the Development of Maidens Bridge

### *Scope and Background*

Much of what is known about the development of the Grade 2 Listed Maidens Bridge, the main crossing point of Maidens (Turkey) Brook which today lays immediately to the west of the Forty Hill estate boundary on Forty Hill, comes from documentary evidence. However, there was also an opportunity in 2008 to record features, within and just beyond the estate, connected to the development of the crossing when repair of a weir and a variety of other works in the vicinity were monitored under site code ENH08.<sup>123</sup>

There has probably always been a crossing point of the stream in this vicinity and Forty Hill likely represents the approximate course of Roman Ermine Street (Dearne *et al* 2017, 11). The bridge's name seems to be Saxon in origin, the *Codex Diplomaticus Aevi Saxonica* giving *Maegdene Brycg* (Avery 2000, 19), but whether Avery is right to trace it etymologically to a specific Saxon noblewoman might

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<sup>122</sup> Probably still in use and possibly resurfaced in the later seventeenth if not into the eighteenth century (Dearne *et al* 2022, 136f).

<sup>123</sup> Elements of the cycle track installation in 2013 (see Fig. 61)) also crossed the general area, but were archaeologically uninformative, partly because of the presence of the 1970 gas main installation disturbance.

be doubted and Maidens Bridge is not uncommon as a bridge name so that a more generic origin in ultimately Celtic female deity associations of rivers may be relevant. The first Medieval record of a bridge here is in 1484/5 when a feoffment under Richard III records one (Robinson 1823, 73 fn. 8 and 233) and there are scattered references to it in Duchy of Lancaster records in 1572 and in 1638, as *Maydenbridge* (VCH, 209; EPNS 1942).<sup>124</sup>

In the 1720s and 1730s the bridge was clearly still in use and attained some notoriety as the favoured haunt of the highwayman William Shelton who would rob victims travelling north from Enfield here, having pre selected his victims by overhearing conversations in the Kings Head in Enfield market place on market days. He was apprehended here, found guilty of highway robbery (having on a previous occasion been acquitted for lack of evidence) and hung in 1732 (Humanities Research Institute).

By 1759, however, the bridge was recorded as impassable (VCH, 209)<sup>125</sup> and it is evidently to this period that Robinson's (1823, 37 fn. 8) comment that 'formerly there was a narrow [bridge] ... of wood, and the traveller had his choice of passing over it or going through the water, of which there is, after heavy rains, a great body' applies and maybe implies the presence of a footbridge and a ford. A new bridge (omitted by VCH) was though evidently 'built of brick and timber' in 1761, 'at the expense of the Division' (op cit). By the 1770s Forty Hall estate sale maps also seem to show a ?footbridge west of the main bridge within the estate, though this might relate to the eastern cascade considered below (p 139ff).

A new single arched bridge was constructed in 1795 (VCH, 209)<sup>126</sup> and was evidently that 'built of brick, the complete width of the road' (Robinson 1823, 37, fn. 8). By 1815 there were sluice or flood gates by the bridge (omitted by VCH) which by 1822 had been damaged by ice and then collapsed resulting in damage to the bridge and a proposal for a new bridge costed at £629, though whether it was built is unclear.<sup>127</sup> The current bridge, be it the 1795 construction or a nineteenth century replacement/reconstruction, has a brick weir under and east of it and the bridge was repaired after lorry damage in the early 1970s (VCH, 209).

#### *Archaeological Evidence*

The 2008 monitoring or mitigation investigation of six trenches (ENH08 Trenches 1 – 6) to the west of Maidens Bridge (Fig. 62) unfortunately showed little more than that this area had been repeatedly disturbed by modern drainage features, footpath and footbridge installation works. The earliest deposit located was probably nineteenth century in date and might have been dumping related to a phase of bridge (re)construction, but no other deposits appeared to relate to its development.

However, traces of the likely approach to the 1761 bridge, a footbridge and adjuncts to the 1795 or 1820s bridge were recorded in 2008 when the brook's flow was pipe constrained to allow repair of a damaged later weir under and east of the bridge and other works in the vicinity were monitored. Though only limited recording of the footbridge (Fig. 62), before it was destroyed by a new concrete extension to the current weir, was possible, 12, clearly of originally 14, c. 12 cm square timber piles were seen forming two staggered north south lines, c. 1.87 m apart, the piles at 87 cm to 1.0 m intervals centre to centre. The more westerly line retained c. 5 cm thick timber boards between them on the west, and in some cases metal retaining plates on the east faces, while the more easterly line only appeared to have the timber boards between them, again on their west.

On the north bank of the brook east of the current bridge (Fig. 62) and behind the present bank revetment/retaining wall (itself of yellow/grey, shallow frogged bricks matching those used in the Flash Lane, Enfield aqueduct, dated to 1820), areas of three surfaces were also recorded. A small area of a pebble surface may have represented a west east path by which e.g. the footbridge may have been accessed, but closer to the bank two brick surfaces were present.

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<sup>124</sup> Hodson and Ford (1873, 194) note an alternative name of Cole's Bridge.

<sup>125</sup> Citing Diocesan Records 4 (Enfield Parish)/1/7 in Greater London Records Office (Middlesex Records).

<sup>126</sup> Citing *Report on Bridges in Middlesex*, 103.

<sup>127</sup> Correspondence between James Meyer of Forty Hall and the County Surveyors Office in LMA Acc/MJ/SP/B/0083 – 0090.

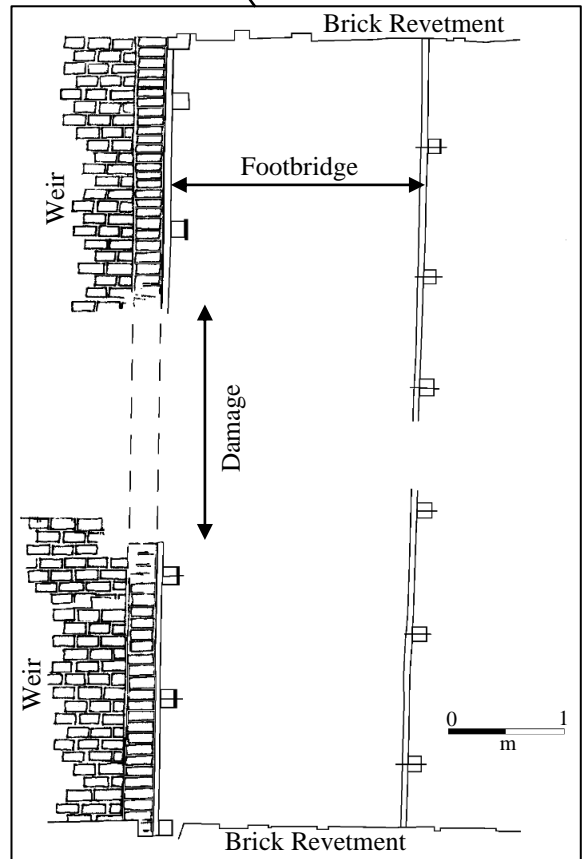
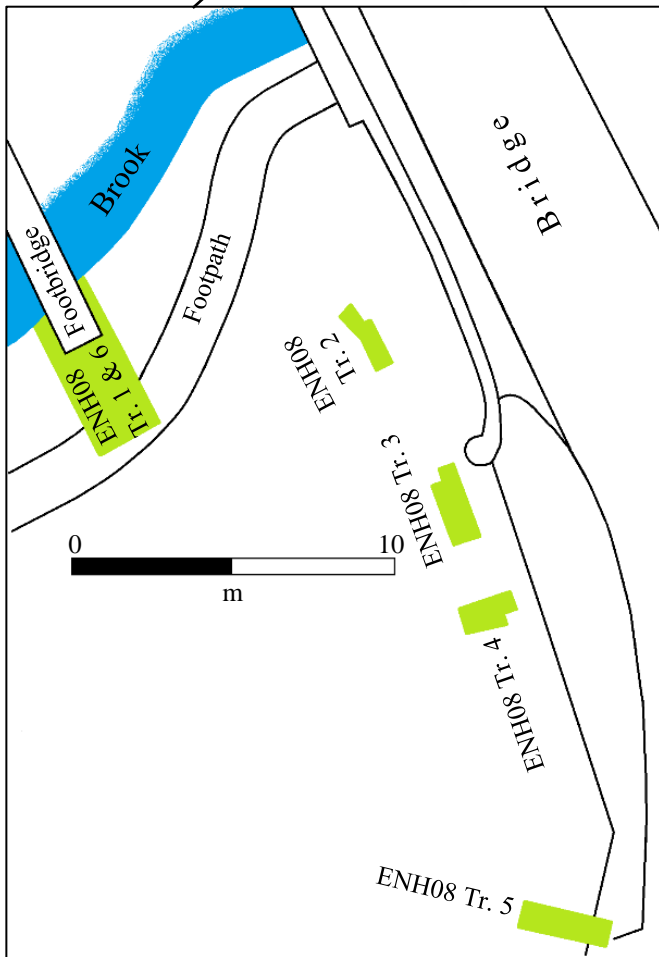
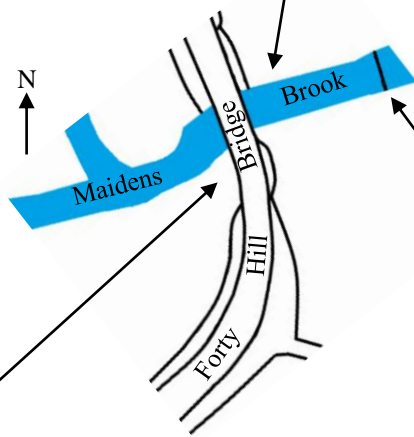
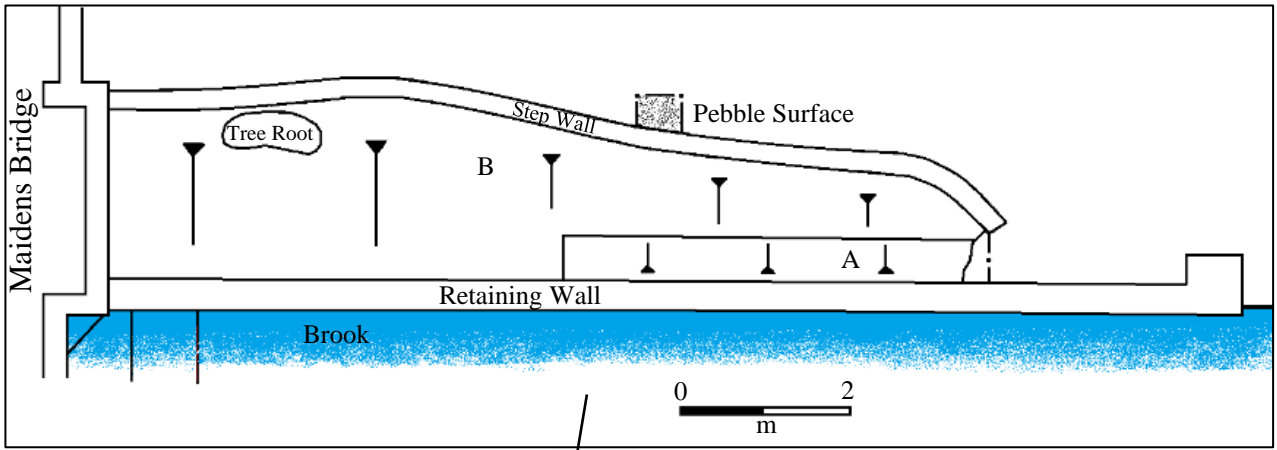


Fig. 62: Monitoring and Recording in the Vicinity of Maidens Bridge

The earlier (A on Fig. 62) appeared to be part of a one brick thick surface of orange/red unfrogged bricks, sloping up to the south and which likely formed part of the approach to the 1761 bridge. It had later been incorporated into a much more extensive brick surface (B on Fig. 62) presumably intended to stabilise the bank and provide an aesthetic flanking to the 1795 (or 1820s) bridge. It had extended for 20.85 m east of the current east side of Maidens Bridge, near the bridge been up to 4.43 m north south but narrowing as it ran east. It was bounded on the north by a rather sinuous 'step wall' or kerb, surviving to two courses above the level of the single brick thick surface and ending at the east end of that surface in a curve ?originally continued to the edge of the stream. The wall and surface were constructed of a mixture of bricks similar to those in the earlier surface and of red/grey, shallow frogged bricks, suggesting partial reuse of earlier bricks and of new ones, perhaps of the second or third quarters of the nineteenth century so that works to the bridge area even if not its full reconstruction in the 1820s seems to be likely.

# Evidence for the Development of the Brook

## Scope and Background

The nature and usage of Maidens (Turkey) Brook west of its main crossing point of Maidens Bridge is not significantly evidenced before the eighteenth century. It may well have been a significant locational factor in the siting of what became Elsyng Palace, but appears to have mainly been used during the heyday of the palace for effluent disposal, at least east of the ‘pond groves’ (Dearne *et al* 2022, 218). The form and flow of the stream prior to the construction of a cascade system along it is likely to have been more dynamic and meandering than today and the existence of a water mill north of the stream from an unestablished date (before the 1520s) is indicated not least by the historic field names Upper and Lower Mill Rounds,<sup>128</sup> but whether the mill lay on the brook itself or an ?artificial water course north of it is unknown. Similarly, bridging points in the vicinity of the palace will undoubtedly have existed and are often referred to in contemporary documents, but their positions are unknown. One of the main contributions of archaeology to the study of the development of the recreational landscape of the wider estate has though been the recording and excavation work that has been done on the management and modification of the watercourses laying at and beyond the north end of the ‘Great Field’ (Fig. 63).

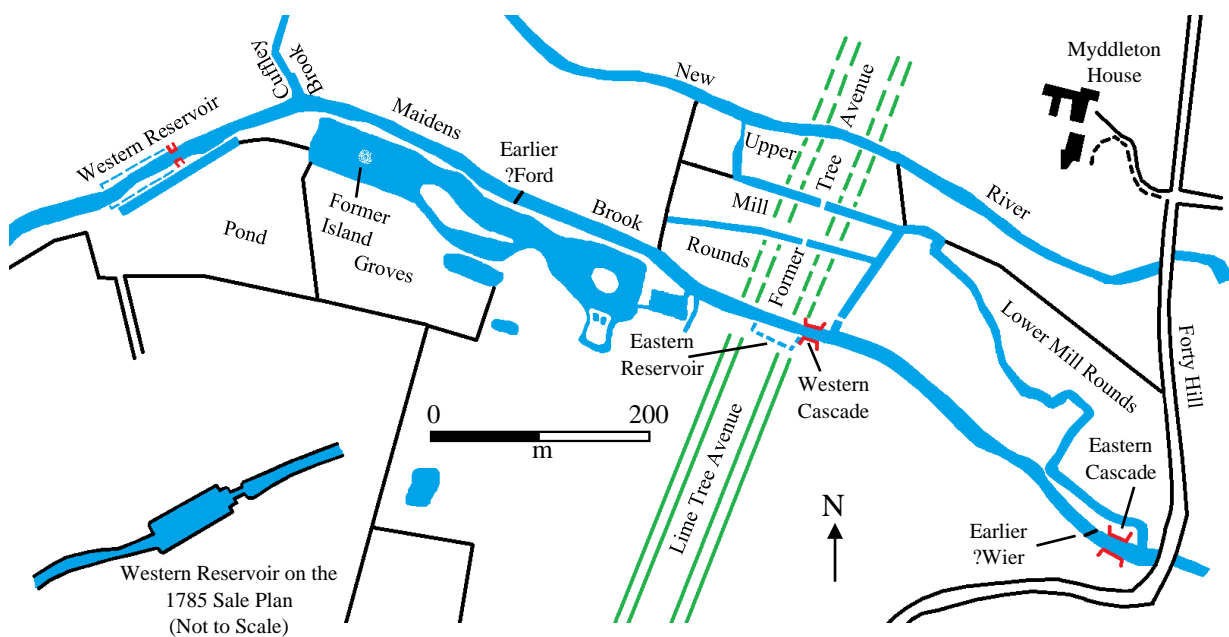


Fig. 63: General Plan of the Watercourses North of the ‘Great Field’

This work was initiated by Neil Pinchbeck of the EAS who undertook research and recording projects in 2007 and 2008 to study how Maidens Brook had been linked to the New River to its north (considered separately below). Subsequently the evidence for the canalisation of, and creation of reservoirs, weirs and cascades along the course of the brook became the subject of another research project, again led by Neil Pinchbeck, between 2008 and 2010. This sought to understand the, by then often decaying, remains of the ornamental cascades and reservoir system feeding them and comprised ground and total station survey, a programme of low water recording within the stream itself and one minor excavation at the eastern cascade. It was augmented in 2010 by limited excavation (under site code FXC10) of two trenches which examined one reservoir as part of the preparation for the 2013 – 15 Heritage Lottery Fund supported improvements to the estate; and in 2012/13 (under site code FXF12) by study of the cycle track installation. Then in 2014 the estate improvement project itself sought to ‘restore’<sup>129</sup> one of the cascades and as part of that work (under site code FXH13) further EAS excavation of two trenches and monitoring of extensive contractor works allowed the earlier studies to be built upon and some

<sup>128</sup> The ‘rounds’ element probably indicates that the fields were used for archery practice during Tudor times.

<sup>129</sup> Though the modern ‘restoration’ does not necessarily fully reflect the original form of the cascade.

erroneous conclusions to be corrected to give a fuller understanding of the hydrological engineering involved in creating the cascades system. In particular the temporary enipement of the brook through the western cascade, removal of obscuring rubble and monitoring of contractor footings trenches for the replacement of its south and part of its north retaining walls, as well as cutting of an access ramp down to the cascade floor, gave the opportunity for Neil Pinchbeck to record not just the brick structure, but also some wooden elements of the cascade.

### Evidence for Features Preceding the Cascade System

Excavation in 2014 within the western cascade gave the only exposure to date of the pre-cascade form of the brook (see Fig. 67). It was represented by a rounded, presumed natural cut over 84 cm deep, projected to have had a base at + 23.757 m OD or lower, and filled by fluviually deposited clayey silt with occasional rounded pebbles which formed the stream bed at the time of the construction of the cascade. So at some point, though this could have been centuries or even millennia before the cascades system was established, the brook may have been a more significant water course than in the eighteenth century.

To the west of the site of Maidens Bridge the ornamental cascade system developed along Maidens Brook at some point after 1660 was also almost certainly not the first modification of the stream to have occurred, but only a few traces of earlier features seem to have survived. Perhaps the earliest feature that has been recorded is what may be a seventeenth or even sixteenth century ford in the stretch of the brook between the western and eastern reservoirs in the vicinity of the 'pond groves' (Fig. 63). Here a, today 5.40 m wide, largely intact, brick surface, 2.10 m long, crosses the bed of the brook and is, at least as preserved, at the same level as the stream bed, disappearing into both banks. It consists of at least two courses of east west lain hand made bricks, flanked by single lines of north south lain bricks. It is clearly not part of any sluice or cascade arrangement, in its present form at least would not seem to represent a weir and seems unlikely to be connected to any early bridge. Here the banks of the brook are today too high and steep for it to have been accessible if it were a ford; however, the canalisation of the brook as part of the cascade system may have obscured any approaching slopes/tracks and it is difficult to suggest what other function it served than as a ford.

The archaeological survey of the cascade system in 2008 - 10 also recorded a probably earlier weir just west of the eastern cascade (Figs 63 and 68). It, near the west end of a surviving section of the cascade associated bank revetting (see below), crosses the current and revetted courses of the stream at an angle, suggesting that it predates the revetting and indeed, though it may continue into the north bank of the stream, it has a ragged south end short of the revetting, strongly suggesting that it was truncated when the channel was straightened and revetted. In section at this truncation it appears that the 85 cm wide weir is formed of three courses of (now) fairly soft, orange/red, hand made, unfrogged, bricks bonded with white lime mortar on a grey/white clay base, the base and brickwork retained by 5 cm thick Oak (*Quercus* sp.) edging boards, themselves retained by flanking grey/white clay packing. The date and specific function of this feature must be conjectural, but the brick morphology probably again points towards an at least seventeenth century if not earlier date.

### Evidence for the Cascade System

#### *Dating Evidence and Overview*

Elements of the cascade system itself today identifiable clearly date to before 1773 when the catalogue for an abortive sale of the estate notes 'The canals are fortunately placed for Embellishments, and form Cascades that rush impetuous' (LMA ACC/0696/001) and the sale plan marks a reservoir at the west end of the cascade system. Whether it also marks the cascades themselves as suggested by Gillam (1997, 55) or approximately co-incident bridging points could be open to question, but certainly the OS mark these points as 'weirs' by 1895 and so it is probably the cascades themselves that are marked in 1773 (though it could still be that footbridges were coincident with them). Fifty years later Robinson (1823, 240) comments that 'the canals in several places form cascades, which add greatly to the beauty of the place', suggesting that the system was still functioning at this date and the OS mark the cascades as identifiable into the twentieth century. How much earlier than 1773 the cascade system was in



inception cannot be certain though. The morphology of the bricks in use (below) appears more likely to be eighteenth than seventeenth century and the tenure of the estate by Eliab Breton from 1740 appears to present a very likely context, but specific evidence is so far lacking. Clearly though some brick built elements of the system were rebuilt and or repaired at probably various times through the nineteenth and indeed into the twentieth centuries while in one instance a now largely lost bridge was added to it in the nineteenth century. How extensive the other nineteenth/twentieth century works were remains open to some doubt, so that in the case of the western cascade, for instance, suggestions that it was completely rebuilt (Gillam 1997, 55; Broadway Malyan 1999) over state the case, but clearly even before a programme of reconstruction in 2014 significant elements of the system had already been replaced at least once.

The 2008 - 10 archaeological survey and cartographic study by Neil Pinchbeck (to whom the author is particularly indebted for much of the description and analysis presented here) with John Pinchbeck shows that the entire cascade system appears to have occupied/modified a c. 820 m stretch of the brook and to have consisted of probably four principle elements (a main reservoir, a second overflow/reservoir and two sets of brick built cascades), with the connecting stretches of channel being timber revetted. Within the system total station survey shows that the surviving top of the weir of the western cascade (described below) lay at +24.664 m OD and that of the eastern at +23.547 m OD. Neither survive to their full height so that any estimation of the hydrological implications for the flow rate of the system has to have a degree of uncertainty. However, clearly the stream level fell by something of the order of 1.117 m between the two which, as they are 338 m apart taking a direct line, would equate to a fall of 1 in 340. This is relatively little and was probably a factor in deciding the distance between the cascades as well as in what was deemed necessary in terms of the provision of reservoirs and a sluice gate at the entrance to the western cascade, though some additional flow to the eastern cascade would have been provided by tapping water from the New River (for which see further below).

#### *The Western Reservoir*

The west end of the system is represented by a now largely infilled reservoir immediately north east of the point where a (probably much earlier (?Medieval)) canal might have left the brook.<sup>130</sup> The canal's function is not entirely clear, though it was presumably connected to the 'pond groves', the complex of ponds and lakes south of Maidens Brook (for an analysis of the genesis of which see Dearne *et al* 2022, 215), but the reservoir was presumably created by expanding and revetting both banks of the stream. The 1773 and 1787 estate sale plans show it as rectangular and c. 70 x 15 m with a two stage narrowing at its eastern end (Fig. 63, inset), funnelling the head of water into a short length of particularly narrow channel before the presumably canalised brook broadened again (? to its c. 3 m width seen further east or perhaps a little wider). Maidens Brook today appears to have reverted to an unexpanded channel here and detailed survey of this element of the system has not been possible so that the extent of the reservoir cannot be confirmed on the ground. But a single pile exposed by erosion near the south east corner of the area marked on the sale maps for the reservoir does suggest that it was timber revetted.

There is also surviving brickwork at its eastern end, superficially at least comparable to that in the brick cascades (below). It consists of north and south bank retaining walls with returns into the banks similar to those forming the cascades and the remains of a centrally damaged brick weir, retained on the east by timber revetting, between them (both as with the cascades below). This weir now has a modern concrete overflow conduit set in its north bank, the eastern apron of which appears to mask an original ?Oak (*Quercus* sp.) revetment scheme. The likelihood is that what survives is the only brick built element of the reservoir, representing the second narrowing shown on the sale maps. By 1867 the OS mark this reservoir (with a footbridge to the east) as marshy and cease to mark it thereafter, so it almost certainly silted up to the point where its form was lost in the 1870s. The constricted section of the brook beyond it (again presumably timber revetted) was probably lost to erosion resulting in the reversion of the stream to its 'normal' width prior to this.

#### *The Western Channel*

Beyond this initial element which charged the system, the brook ran approximately east for c. 120 m to the point where it met Cuffley Brook. Here it appears that the timber revetting was extended for a

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<sup>130</sup> This is known to have been re-cut in 1981 (Gillam 1997, 56).

distance along this tributary stream as, though the revetting has rotted away, the banks are formed by dumps including demolition material (possibly from Elsyng Palace). Indeed, similar material is evident in the banks of the current stream throughout the section of Maidens Brook from the reservoir just described to the western cascade and provides the main evidence for the channel being revetted throughout.

Beyond its meeting with Cuffley Brook the main stream then swung south east and followed a presumably artificially straightened (though not perfectly straight) course for another c. 460 m as far as the point where the (presumably pre-existing) double Lime tree avenue meets it. However, 40 m before reaching the Lime tree avenue the 1773 estate sale map, and an 1803 Enfield Enclosure map, show that the brook also fed both a short 'canal' and a square pond, via a channel, to its south (Fig. 63). The 'canal' might be a relic feature connected to water gardens associated with the palace or even to earlier fish ponds from which they may have been created, but had evidently silted up or been filled in by 1867 while the pond is extant, but the channel probably narrowed. It is possible that these features may have resulted in some decrease in the flow of water along the brook and may have contributed to the need to create a second reservoir/overflow at the southern end of the Lime tree avenue.

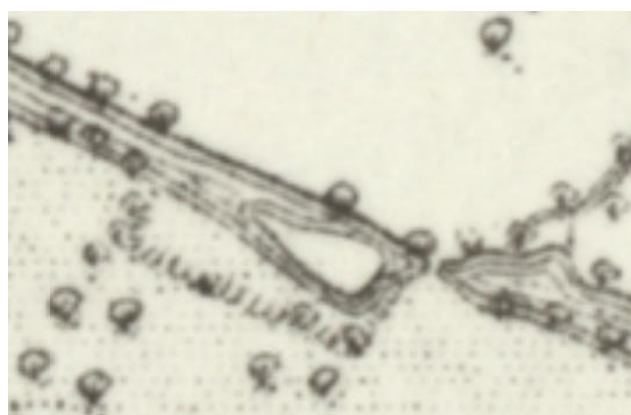
#### *The Eastern Reservoir*

Maps show that by 1773 the eastern reservoir took the form of a basically rectangular cutting back of the slope running down to the south bank of the brook, and the 1787 sale map (Pl. 64) shows the same, while the north bank of the brook today lies a little further south than it is likely to have at this time (Fig. 64). This artificial broadening of the brook, to the same width as the Lime tree avenue, may have served the dual function of creating a second reservoir/overflow increasing/regulating the flow of water to the first cascade immediately to the east and creating the optical illusion that the brook was considerably wider than it actually was, probably when viewed from the second floor of the hall down the avenue or from the now lost section of the avenue to the north of the brook. Admittedly, the sight line when walking down the southern section of the avenue would make it invisible until one was virtually upon it; but this 'surprise' might itself have contributed to the impact of the feature.

However, the 1866 edition OS map suggests that the reservoir had silted up and gone out of use by at least this date and probably considerably earlier as mature trees extending the Lime tree avenue are marked within its south east corner (Pl. 65). Indeed, by then an island had formed within the stream/reservoir towards the latter's east end, dividing the brook into two channels, one flowing along the north side of the original (canalised) brook, and the other looping south of the island into the reservoir area before turning north to re-join it. By the 1897 edition of the map though the northern part of the island appears to have been removed to restore the flow of the brook with the southern channel only remaining a relic feature, still present on the 1913 edition but omitted by 1935.



Pl. 64: Extract from the 1787 Estate Sale Map



Pl. 65: Extract from the 1866 OS 6'' Map

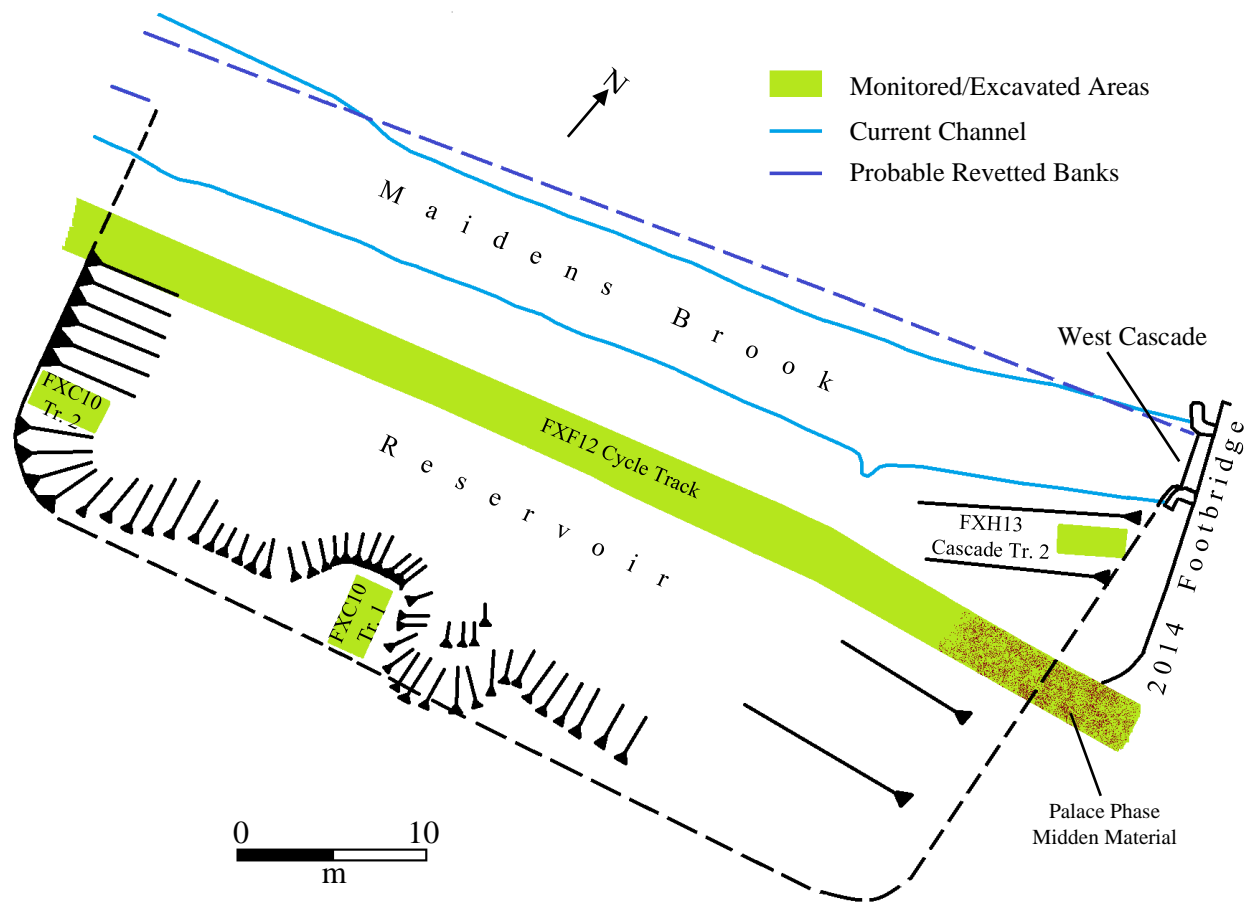


Fig. 64: Excavated/Monitored Areas in the Eastern Reservoir

Whilst, therefore, the 1867 edition OS 1:2500 map suggests that the cutting was c. 56 m long, perhaps including some embanking at the east and west ends of the reservoir, and ran south from the brook's (1867) south bank for around 14.30 m at its west end, broadening out to c. 17.86 m wide at its east end, this probably represents only that part of the reservoir not by then effectively fully silted up. Its form today has clearly in addition been considerably modified/obscured by silting, erosion, hillwash, and especially very considerable dumping, and its southern side now appears to be a U-shaped irregular break of slope or bowl at the northern end of the Lime tree avenue. However, its western edge remains a prominent landscape feature which topographic survey confirms extended c. 19 m from the current south bank of the brook.

Further evidence for the original form of the reservoir was provided by FXC10 Trenches 1 and 2 and perhaps FXH13 Cascade Trench 2. Of these excavations FXC10 Trench 1 targeted the southern edge of the reservoir. It found its cut to have a long, reasonably steeply sloping profile, flattening out to form the floor of the reservoir, c. 2.5 m north of the south end of the trench.<sup>131</sup> Although the edge of the cut clearly lay slightly further south than the limit of excavation (by perhaps 60 – 80 cm) and little of it was seen beyond the point where the floor began, it thus seems certain that the reservoir here was c. 28 m wide with a c. 3 m long slope down to a reasonably flat base (at around +26.895 m OD) and a depth of c. 1.30 – 1.40 m. It was though apparent that the cut was deepening fairly markedly as it ran east and so it must be likely that the reservoir deepened to some degree in this direction and if the current stream bed level is a guide it could have deepened by perhaps 2 m as it ran north.

FXC10 Trench 2, just within the western edge of the reservoir, found that the cut, here penetrating the natural Taplow gravel, was shallow, more gently east sloping and flattened out on the east at the point where the reservoir proper began. The cut had been lined with an at least 17 and up to 33 cm thick, fairly heavily compacted redeposited brickearth with occasional to rare brick and tile fragments, which

<sup>131</sup> For a large palace phase drain which it truncated see Dearne *et al* (2022) 151.

had been smoothed out except on the west where a probably rammed c. 3 m wide brickearth and gravel bank was then formed over it. The reservoir may then have been given a second 4 – 8 cm thick lining of clean, moderately compacted brickearth, though this could alternatively have represented fairly rapid erosion of bank material before the bank stabilised. In any event the western edge of the reservoir was clearly shallow, having a depth of only around 80 – 85 cm even below the crest of the bank, though presumably, and again if the modern stream bed is a guide, the reservoir floor fell by perhaps c. 1.73 m to the stream.

FXH13 Cascade Trench 2, on a fairly steep slope down to the west from the cascade, provided less clear evidence for the extent of the reservoir on the east. It did show a cut c. 40 cm into the brickearth natural and perhaps overall around 1 m deep, but the cut could not be characterised in the small, stepped area at the limit of safe working depth which it was possible to principally machine excavate at the west end of the trench. Here the cut might well have formed part of the 'flat base of the reservoir, but this cannot be quite certain. The extent of material suggesting the presence of an earlier palace phase midden (Dearne *et al* 2022, 218) in monitoring of the cycle track installation cut nearby (Fig. 64) also seemed to imply, though the installation cut was not deep enough to confirm it, that the edge of a large truncation, which might have been the cut for the reservoir, may have lain further west than cartographic and perhaps current topographical evidence seems to suggest. It might then imply an eastern edge running angularly towards the western cascade not at right angles to the brook as cartographic evidence might suggest. The line of the east side of the reservoir therefore remains a little conjectural, but this inferential evidence, given the amount of disturbance and redeposition likely to have occurred in the area, cannot necessarily be relied on, and it is the cartographic evidence that is preferred on Fig. 64.

Both FXC10 trenches suggested that the reservoir's construction was intended to produce a naturalistic, lake-like appearance and there was no indication of any form of revetting to the edges beyond the low bank seen in Trench 2. Some degree of waterproofing was required here where underlaying gravel was contacted, and some indications in the south bank of the present stream may suggest that brickearth lining was more extensive than this. However, at this end of a reservoir that probably deepened as it ran east and north a more often standing water environment rather than flowing water might be expected and this is also implied by the presence of only a 7 – 12 cm thick loose, homogeneous, dark brown clayey silt above the lining. A more energetic water flow carrying a greater silt load would principally be expected in the centre and south of the reservoir (thus the development of the mapped island, in the vicinity of which a 1960s gas main trench crosses the reservoir area and erosion has exposed a layer of silt in section). FXC10 Trench 1 indeed recorded a typically around 28 cm thick very dark greyish brown clayey silt with horizons of small stones, suggesting periodic increases and decreases in flow. Silts had also built up to a thickness of about 45 cm at the top of the here steeper sloping edge of the reservoir, creating a 'shelf' and probably effectively reducing the reservoir's southern extent by up to 1.5 m. However, water levels had probably often not approached the top of the cut and here silting may have been due as much to hillwash from the south as anything while some dumping (possibly intended to stabilise the reservoir edge) or rubbish disposal had probably also contributed to these deposits as they contained some roofing slate, occasional oyster shells and a significant amount of mainly bovine and ovicaprid faunal material as well as much of a probably nineteenth century hand thrown flower pot or planter. Further east and north FXC10 Cascade Trench 2, presuming it was within the reservoir, might be expected to have seen less silt deposition during the active life of the reservoir and the 30 m thick black, probably very humic, very clayey silt recorded here strongly suggested the slow build up of organic rich silts in a still water environment, likely as the reservoir became choked.

FXC10 Trench 2 showed that only 17 – 20 cm of topsoil overlay the silt at the west end of the reservoir and here at its shallow margin it may have effectively silted up entirely before any deliberate infilling commenced, as the 1866 OS map (Pl. 65) suggests. However, the other two trenches recorded evidence for the deliberate infilling of the reservoir by dumps of material. In FXC10 Trench 1 mixed brickearths, reworked natural gravels and sandy silts up to 1 m thick had been dumped in or after the early twentieth century and towards the northern end of the trench a linear series of loose bricks, cemented blocks of bricks and ironwork running east west suggested the former presence of a fence line set into the dump. In FXH13 Cascade Trench 2 large quantities of building rubble had either been dumped into the humic

black silt throughout its build up or been dumped into it and sunk not just to its base, but become impressed into the underlying natural by the weight of supervening deposits. Pan tile, roofing slate and garden edging set fragments, and especially up to quarter bricks mostly probably of late eighteenth to early nineteenth century date, were present with two sherds of probably nineteenth century bottle glass all suggesting dumping – continuously or in one event – in some part of the nineteenth century. Above the humic silt a 24 – 55 cm thick dump of redeposited natural then marked the beginning of a more concerted process of complete infilling, continued, possibly episodically, by deposition of a 40 cm thick dump of clayey silt with gravel and some brick fragments which produced a little evidence for a date in or after the late nineteenth/early twentieth century.

*The Western Cascade*<sup>132</sup>

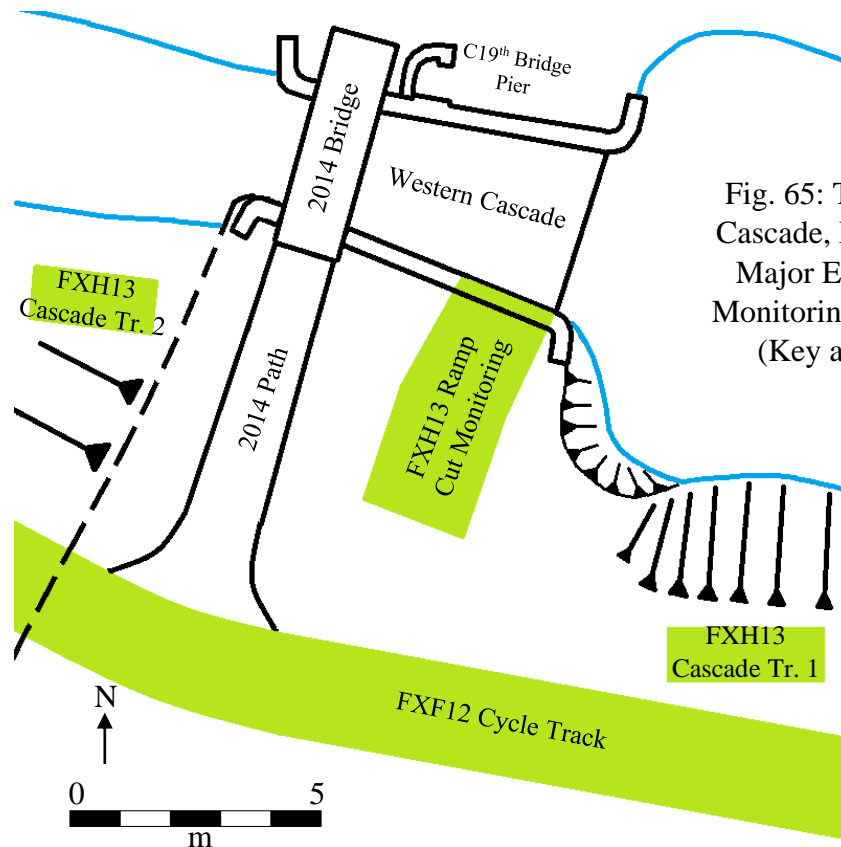


Fig. 65: The Western Cascade, Location and Major Excavations/ Monitoring to its South (Key as Fig. 66)

This reservoir will have served to provide a head of water during periods of low stream flow to the western cascade, now restored and crossed by a footbridge installed at the same time in 2014, but prior to that in a ruinous condition with much of its retaining walls largely collapsed, only fragments of its internal features surviving and parts of it choked by brick rubble. This is the part of the whole system which there has been the greatest opportunity to study, partly through excavation and monitoring in its vicinity (Fig. 65), but particularly because of the extensive removal of rubble and cutting of new footings trenches for its ‘reconstruction’ in 2014; and these studies showed that it consisted of several elements (Fig. 66).

Construction of it presumably began with the two retaining walls on the north and south which stabilised the stream banks, prevented their erosion and concentrated the water flow as it entered the cascade. The structure was overall 7.36 m long and its edges were formed by these angled north and south retaining walls, 2.5 m high above the stream bed and 45 cm thick (except for part of the northern which is 80 cm thick, perhaps having been strengthened when a bridge was built here; see below). On the north two terracotta drain pipes set into the retaining wall (whether they are original features or later additions) had also presumably been built in to drain ground water from behind it.

<sup>132</sup> NB the opportunity has been taken to correct several errors in the dimensions of the cascade and its elements given in archive reports.

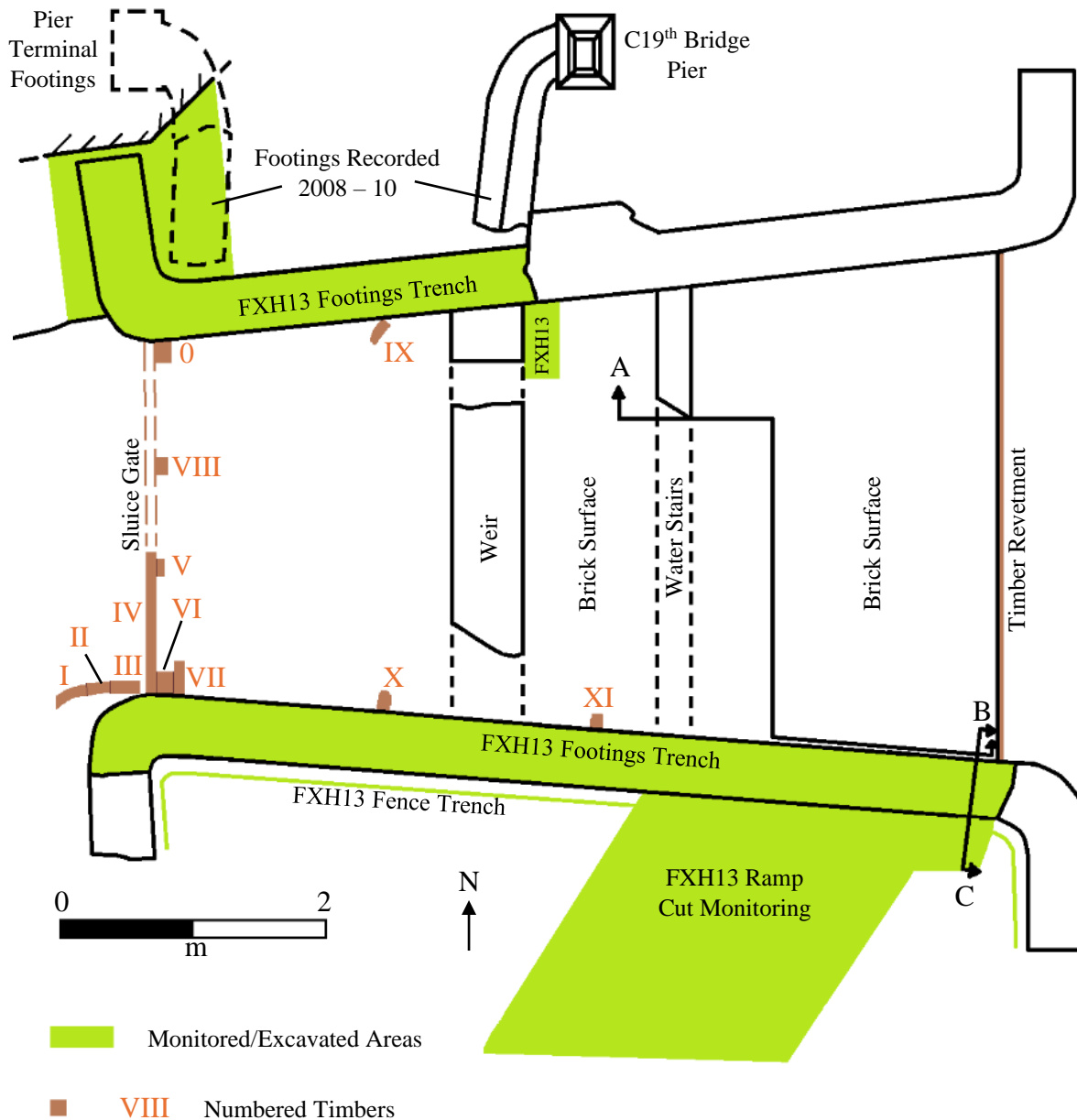


Fig. 66: The Western Cascade, Original Features, Areas Excavated/Monitored and Section Locations

From a width of 2.7 m at its west end the angled walls allowed the stream to broaden to 3.95 m at its east end, the ends of the walls turning to run into the banks via rounded returns for c. 1.2 m and these retaining walls, and other elements of the cascade (described below), all seem originally to have been built of hard fired, unfrosted, orange/red bricks measuring 22.5 x 10 x 6.5 cm and of eighteenth century character, using a mainly light grey lime mortar and in English Bond. The retaining walls had presumably been built into construction trenches, only cut shallowly into the brook channel's silt base (e.g. the base of the southern retaining wall lay only 34 cm (five courses) below the top of it), with no separate footings (Fig. 67).

However, study in 2008 - 10 of a large section of the east end of the south wall which had collapsed intact into the stream showed that this wall was a (?later nineteenth century) partial or complete reconstruction, incorporating yellow stock bricks bonded with cement (presumably the source of assertions that the whole cascade system was rebuilt in the 1890s; Gillam 1997, 55; Broadway Malyan 1999). Similarly, on the north a significant amount of what was visible, at least of the face of the wall, towards the eastern end before the 2014 reconstruction work, was again later repair/reconstruction (in English Bond but using more modern bricks) which might have been later nineteenth century in date, though it is believed that further repair/reconstruction may have occurred as late as the 1970s.

Beginning on the west, the first north south running element of the cascade comprised a timber built sluice gate, joining the revetting of the channel as it approached it, but only small elements of which survived to be recorded in 2008 – 10 and 2014. Coincident with the east end of the reservoir on the north only one timber (Fig. 66, Timber 0) survived and may have both represented the north end of the sluice gate construction and the beginning of the north bank revetting. But preservation on the south was better (Pl. 66) and here a 56 cm long line of closely spaced pales revetting the channel ran west from the west end of the southern cascade retaining wall and then began to curve south west, doubtless towards the east end of the eastern reservoir. The pales comprised a roughly adze sharpened rectangular (23 x 8 cm) sectioned one of much knotted Oak (*Quercus* sp.), surviving to 79 cm and driven in to a depth of 42 cm (Timber I); and two less regular, sub-rectangular sectioned Silver Birch (*Betula* sp.) pales, one 75 cm long, 17 x 8 cm in section, crudely pointed, retaining some bark and driven in to a depth of 40 cm (Timber II) plus a similar but 16 x 8 cm section and 42 cm long pale driven in to a depth of 16 cm (Timber III). The use of closely spaced rectangular sectioned pales rather than the post and plank construction revetment recorded elsewhere along the brook presumably reflects the degree of erosion expected at this point while the use of two Silver Birch pales retaining sap wood, whereas other timbers recorded here were of Oak, might suggest repairs being carried out during the life of the cascade.



Pl. 66: Western Cascade Sluice and Revetment Timbers

At right angles to the eastern end of the revetting, the sluice was a post and plank construction running north from the west end of the southern retaining wall across the mouth of the cascade. A 16 x 17 cm corner post (Timber VI), flanked to its east by a 24 x 8 cm reinforcing block (Timber VII), both over c. 24 cm long, formed the southern end of the construction (Pl. 66). A second upright (Timber V) lay 81 cm north of the first, was of Oak (*Quercus* sp.), 10 x 3 cm in section, survived to a length of 75 cm, had saw marks on one face and retained a copper alloy spike matching one recorded in a timber revetting the brook further downstream. These uprights retained, to their west, a 15 cm wide, 3 cm thick, Oak (*Quercus* sp.) plank (Timber IV), which survived to a length of 1.20 m and had saw marks on one face. The line of the sluice was almost certainly continued by another post in the centre of the mouth of the cascade (Timber VIII), only the position of which could, unfortunately, be recorded.

How substantial the sluice construction was is unclear, but the stubs of two more posts (Timbers IX and X) were recorded further east, one each against the south and north walls, which suggests that there may have been more to it than a simple linear barrier. However, this area was long choked by debris from a collapsed nineteenth century bridge and not further cleared even after its removal, so that all

that is clear is that today it only shows a modest drop in the level of its base from that of the stream bed to the west; and whether that level is original or the result of silting, conceivably over a lower brick surface, is unknown. Though not enough of the construction survived to speculate on how the sluice was accessed or operated then, it does suggest that the rate of flow through the cascade could be regulated and emphasises that its function was primarily to create a display which could probably be made more impressive when required.

East of Timbers IX and X a partially preserved, and now reconstructed, weir was the first certainly brick built north south element of the cascade. It was a 53 cm wide wall, surviving, where best preserved, as a stub up to c. 25 cm high above the modern stream bed on the north, but to lower levels further south. On the north it had been built into a construction trench only penetrating 6 cm into the stream bed silt, however, its central section continued down to at least seven courses below the surface of the silt, suggesting a perceived need for greater strength here to resist the hydraulic pressure in the centre of the channel.

East of the weir there was a 1.07 m long relatively flat brick surface which continued as far as angled brickwork forming the leading edge of a set of raised water stairs, which themselves led to a second brick surface (Fig. 67). The first and second surfaces were underlain by two deposits above the stream bed, the lower a 4 – 7 cm thick layer that might have represented disturbance/trample etc during the process of constructing the retaining walls of the cascade. It was overlain by 13 – 17 cm of ?puddled brickearth/clay levelling/sealing before a brick foundation layer for the surfaces themselves was lain. This foundation layer, of a single course of horizontally lain bricks in mortar, continued under the water stairs and the second surface beyond it and the first surface was formed by a single course of unmortared end lain bricks over it. However, two horizontal foundation courses appeared to be present at its eastern end and under the water stairs, probably to raise the level of, and reinforce, the surface at the start of them.

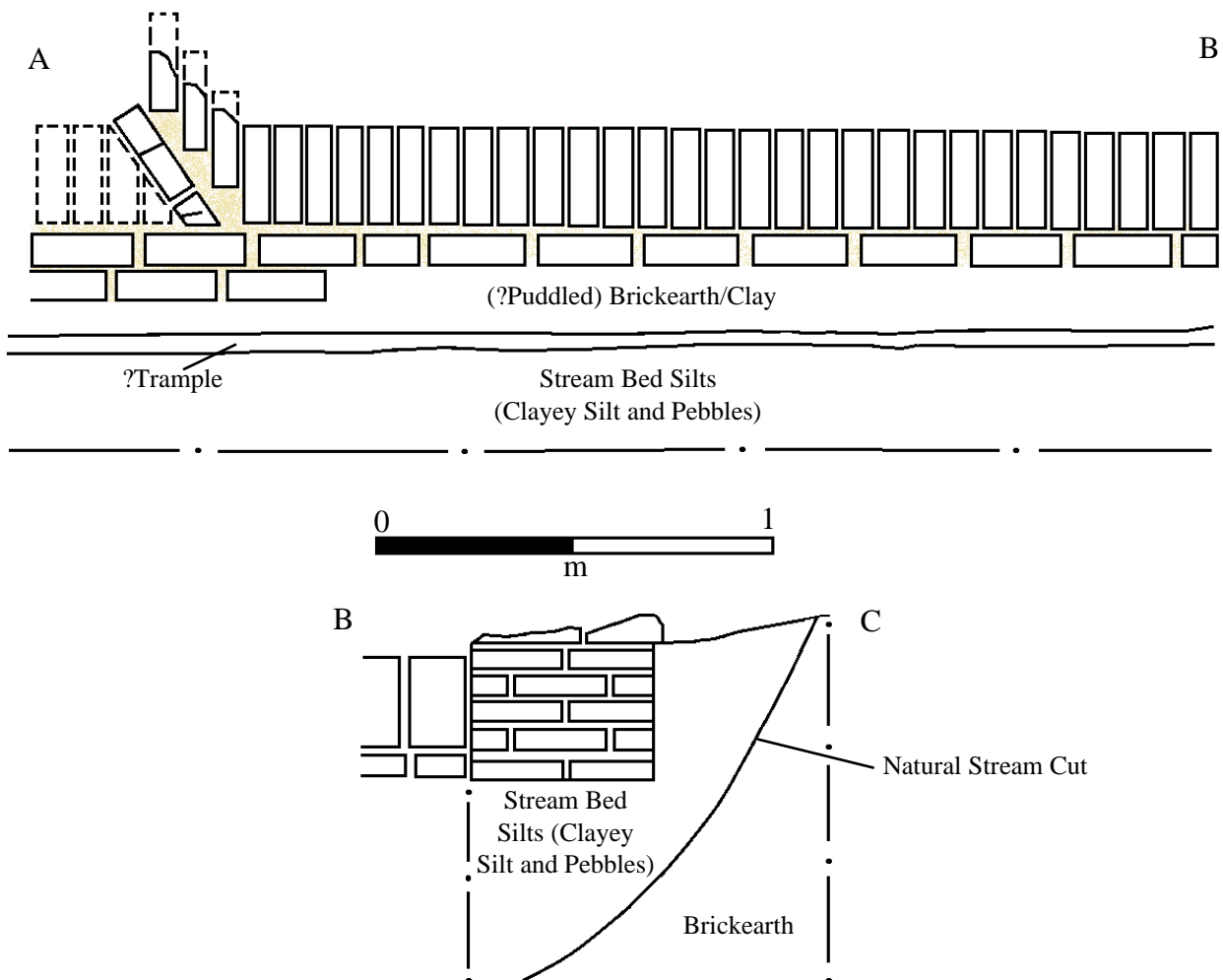


Fig. 67: Sections Across the Brick Surfaces and Water Stairs; and the South Retaining Wall (for Section Locations see Fig. 66)



These stairs, lost before their replacement in 2014 except for the northern c. 1 m, were overall 24 cm high and comprised three steps (Pls 67 - 68). Their construction had begun with the end setting of part (cut) bricks on to the upper of the horizontal foundation courses and the continuation of their line upwards with whole bricks, to establish an upright surface at the western margin of the stairs, sloping back at about 60° (Fig. 67). This determined the angle of the whole construction, which was continued by end setting three stepped rows of whole bricks in mortar vertically in front of it. It seemed very likely that at least parts of this construction process would have required the use of shuttering and a vertical, 5 cm square, 70 cm long Oak (*Quercus* sp.) post (Timber XI) with saw marks on one face and a tapered adze to a point survived, driven 38 cm into the channel base c. 50 cm west of the water stairs at the southern edge of the cascade floor could have related to such shuttering (or to some other element of the process of the construction of the cascade).

Beyond the water stairs the second, very slightly east sloping, 2.4 m long and still largely intact, surface, laid over the same horizontal brick foundation course, was formed of end set bricks (Pl. 69). Its eastern end was retained by timber revetting (which it has not been possible to study in detail) where the flow of the brook fell c. 30 cm as it left the cascade, providing a final visual and audible water effect.



Pls 67 and 68: The Remains of the Water Stairs on the North Side of the Cascade



Pl. 69: The Southern Edge of the Second Brick Surface Seen in Section in the 2014 Footings Trench

### *The Bridge Over the Western Cascade*

At the western end of this cascade a substantial bridge had clearly been added sometime in the nineteenth century, likely at the same time as the north retaining wall of the cascade was, as noted above, thickened and perhaps coincident with wider repairs to, or reconstruction of, further elements of both retaining walls. Gillam (1997, 55) suggested that the bridge should date to c. 1895 (Phase 8) and at this date the bridge would have served to link the Forty Hall and Myddleton House estates which were both owned by members of the Bowles family. But brick morphology probably also allows of a rather earlier date for its initial construction. Whilst some elements of it may well have been repaired/rebuilt at later date(s) then and the reuse of earlier bricks is clearly a complicating factor, it is possible that in inception the bridge might have belonged to some point in the long tenure of Forty Hall by the Meyer family who re-unified parts of its estate from 1800 (Phases 6b – 7) and so might well have felt the need for a substantial crossing point of the brook to access different parts of it.

Indeed, one would be surprised if a bridge of some sort had not long existed at this point if only to connect the two arms of the Lime tree avenue, which once ran on from the brook to the north, and or to view the cascade from. Specific evidence for earlier bridges here is lacking, but the FXH13 Access Ramp monitoring (Fig. 66) identified a mortar spread which, though more likely of palace phase date, could have represented traces of one end of such a bridge. Moreover FXH13 Cascade Trench 1 found a rammed pebble surface, 20 – 22 cm thick with a scatter of large brick and tile fragments in its surface. It produced only a little ambiguous dating evidence, but appeared most likely to be of eighteenth century date and, whilst only a restricted exposure of it was seen, it probably represented either a stream side path or more likely the path leading to the western cascade shown for example on the 1787 sale map (Pl. 64 above) which likely implies the existence of such a bridge. The bridge of which parts are extant, likely to have been a substantial timber construction supported on brickwork piers at either end, might well then only have replaced earlier ones, though the construction of those substantial piers might have removed any traces of predecessor bridges.

In any event, the only traces of this bridge on the south by 2008 were two large fallen blocks of parapet brickwork on top of the ruined south retaining wall of the cascade and a relic approach platform, with a mass of brick rubble in the stream bed.<sup>133</sup> On the north, however, the bridge's c. 1.05 m high eastern parapet and terminal pier remains largely intact, in 2008 – 10 the parapet's lower footings were recorded in a large bank collapse and a section of partly collapsed footings from the west parapet of the bridge which lay behind the return of the west end of the retaining wall were available for study (Fig. 66). The latter were removed in a machine cutting in 2014, but this also revealed the footings of the west terminal pier, around 2.6 m west of the surviving eastern one.

The east parapet and terminal pier is principally brick built in English Bond, the 50 cm wide lower parapet wall footings predominantly using pale red bricks very similar to those of the cascade (?possibly derived from its retaining walls' partial removal) and off white mortar. But higher up the footings narrow and include (though some could indicate repairs) nineteenth/twentieth century bricks including ?Kentish stocks and modern brindled stocks. The 31 cm wide main parapet wall above the footings is constructed of a variety of modern bricks, some probably re-used, and capped with irregular paving slab fragments secured with concrete, while the parapet's terminal pier is of modern brick capped with a probably machine cut moulded stone block (40.5 x 14.5 x 14.5 cm), from its asymmetry probably re-used from elsewhere.

Meanwhile, parts of two faces (at 45° to each other and one over 76 cm long) of the evidently multi angular block of 1.06 m high footings for the now demolished western parapet terminal pier were recorded in 2014. These footings, began 1 m above the cascade floor and had presumably been built in a cut into the natural brickearth. At their base they used irregular dressed stone blocks, between 8 and 15 cm thick and above these irregularly bonded brickwork. Similarly to the eastern parapet (and sections of the collapsed bridge on the south), this was in hard fired, ?machine made, unfrosted, stock bricks of very variegated colour ranging from olive yellow to dusky red. They were bonded with very pale brown, hard, gritty mortar with wide (up to 1.5 cm) joints. In summary then the bridge piers seem to have been solidly built if of a variety of materials, some obviously reused, some probably

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<sup>133</sup> Much removed in 2014, but one block on the south remaining.

representing repairs, but clearly not solidly enough to prevent their partial collapse, presumably at some point in the earlier twentieth century.

### The Eastern Channel

Beyond the end of the western cascade and an area of significant modern bank erosion (doubtless resulting from its presence and probably to judge by the 1867 edition OS map in train by this date) the brook's flow was augmented by additional water drawn ultimately from the New River (see further below). From here the brook ran east, then east south east, but again (from the estate sale maps) always including minor bends and directional changes even before significant modern erosion especially of the south bank had occurred, for a little under 300 m to the east cascade. The one feature related to the cascade system along this stretch of the stream is a short distance east of this cascade, where the presumed eighteenth century timber revetting of the channel is reasonably well preserved, possibly because of the presence here of the earlier ?weir noted above (Fig. 68).

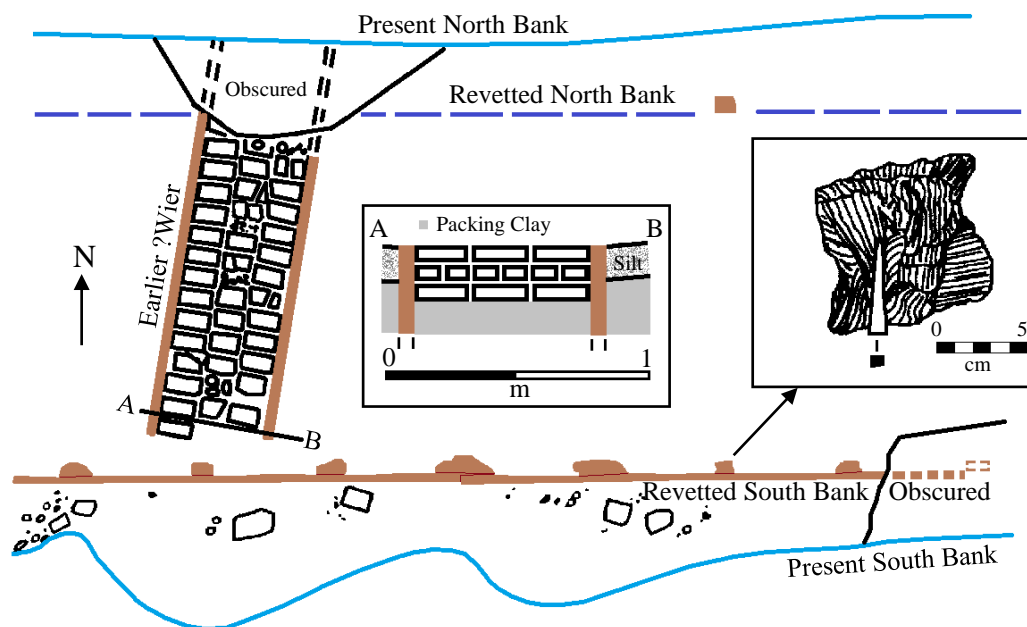
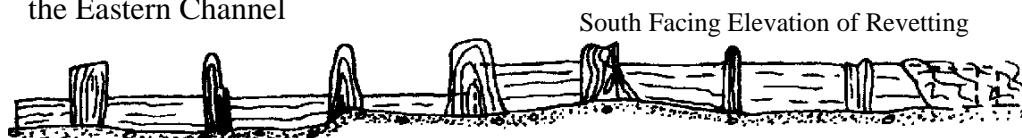


Fig. 68: Revetting and Earlier ?Weir in the Eastern Channel



Although only a single timber post survives on the north where there has been some bank erosion, up to eight ?Oak (*Quercus* sp.) posts spaced at approximately 91 cm (i.e. 3 ft) intervals centre to centre survive on the south and retain two of the basal ?Oak (*Quercus* sp.) planks (surviving thickness 5 and up to 7 cm), representing an over 7 m length of the original post and plank construction. One of the posts retains a c. 5 cm long rectangular sectioned copper alloy spike, showing how the planks were fastened to the posts. Significant erosion south of this stretch of revetting has left it well out into the modern stream, but it is apparent that here the revetted channel was originally 2.70 m wide.

Elsewhere between the western and eastern cascades traces of the post and plank revetting are rare and it is apparent that significant erosional broadening of the channel has occurred, especially on the south. However, in the vicinity of the surviving revetting and elsewhere material emerging from the south bank suggests that this erosion may be cutting into at least partly artificial deposits including peg tile, brick, window glass, animal bone and pottery fragments. How far these are pre-revetting deposits, how far backfilling dumps behind the revetting and how far more recent deposits it is impossible to be sure and nineteenth century material noted in the vicinity of a known palace drain's probable meeting with the brook may emphasise that multiple depositional events could be involved in some areas. However, a likely source for much of the material, which includes e.g. Frechen Bartmann sherds, is the demolition

of Elsyng Palace, whether forming *in situ* dumps or more likely material sourced for backfilling by excavation elsewhere.

*The Eastern Cascade*

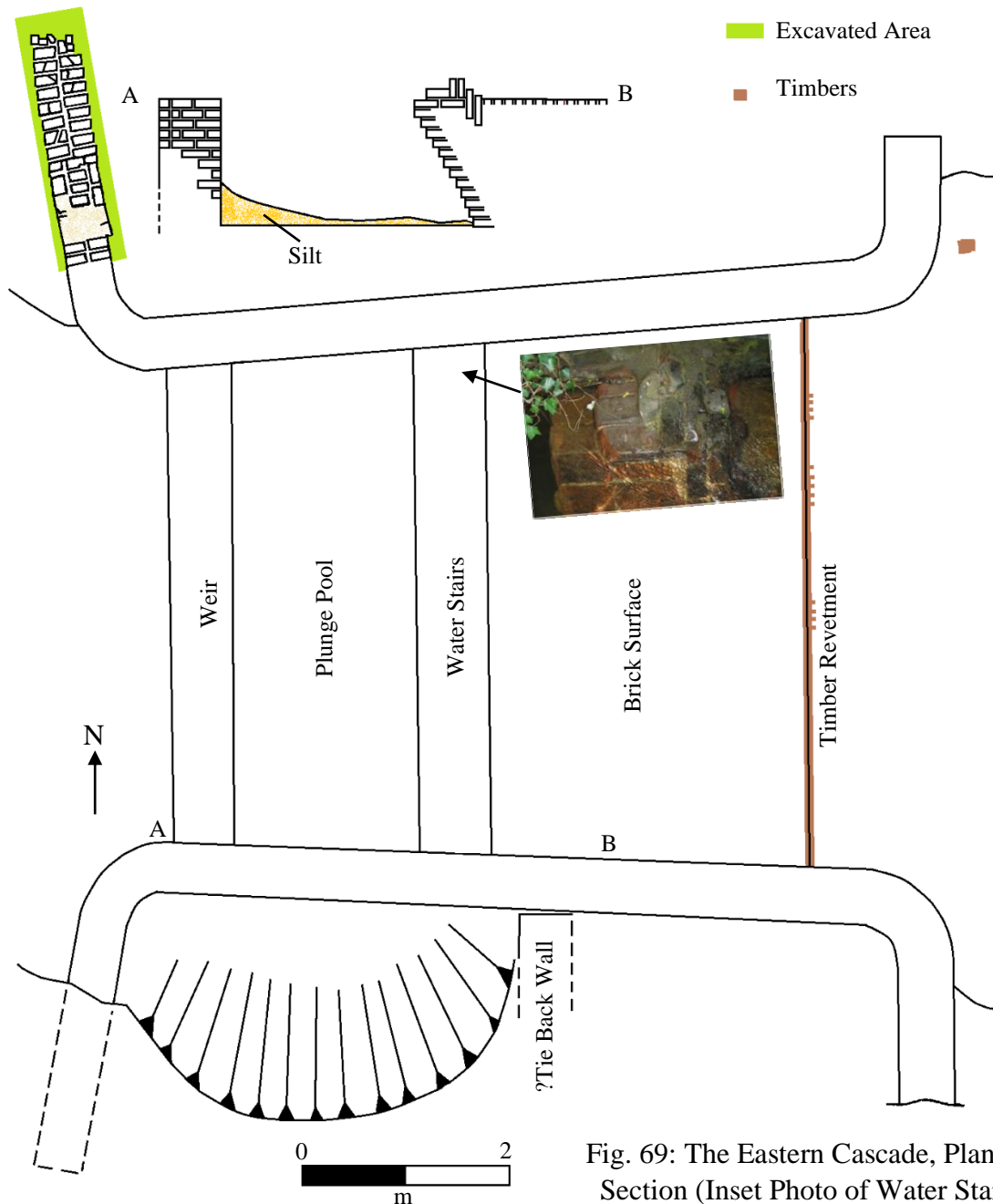


Fig. 69: The Eastern Cascade, Plan and Section (Inset Photo of Water Stairs)

The final, and at the time of the 2008 – 10 survey still moderately well assessable if in areas collapsed or lost, brick built element of the system is the eastern cascade (Fig. 69). Of very similar plan to the western, but shorter at 8.3 m, it also expands, from 4.50 m on the west to 5.35 m at its east end, probably implying that the revetted channel broadened as it ran up to it. The English bond north and south retaining walls survived reasonably well in most areas, now at least c. 1.50 m high above the stream bed (compared to 2.50 m at the western cascade) and again 50 cm wide, also again with rounded returns into the banks, but here c. 1.00 m long at the west end and c. 2.50 m long at the east. However, by the time of the survey there had been some collapse of the northern wall at the west end (and signs of structural instability elsewhere appear to have been partly stabilised at some point by the use of two

cross ended iron tie bars and a large iron strip). Meanwhile on the south a considerable area of upper wall collapse<sup>134</sup> had also resulted in the collapse of the south bank behind it.

Though there has not been the opportunity to study the eastern cascade in the same detail as the western one, a superficial EAS clearance/excavation of the return of the north retaining wall at the west end showed that it had at least been repaired if not rebuilt, using nineteenth century yellow stock bricks and it must be likely that other elements of the cascade have also been repaired, if not rebuilt, presumably at the same time as the west cascade was. However, the collapse of the southern retaining wall and bank, and the development of a consequent erosion void (Fig. 69), shows that another brick wall ran back into this south bank from the mid point of the retaining wall for over 70 cm. This 55 cm thick, c. 1+ m high English Bonded wall may have slumped due to this erosion and so may have been engaged with the south retaining wall, however, this is not certain (Pl. 70). Limited EAS clearance of an equivalent point behind the north retaining wall demonstrates that the wall is not matched on that side of the structure, which tends to argue against, but probably does not rule out, it being a bridge pier and it is possible that it represents a tie back wall addressing some perceived instability confined to the south bank here.



Pl. 70: The 'Tie Back Wall Behind the South Retaining Wall

Excepting the initial 'sluice the north south features broadly match those of the western cascade, but with the initial weir on the west in the jaws of the cascade and a plunge pool east of it rather than a brick surface leading to the water stairs and a brick surface (Fig. 69). The weir was formed by a 60 cm wide wall, best preserved on the north where it survives to c. 50 cm above the stream bed to its west, but its eastern face has a maximum height of 1.15 m where it forms the western end of the plunge pool beyond, so it was clearly built at the west end of a cut to at least 1.00 m below the stream bed. Damaged areas show that the lower parts of the wall were probably constructed of irregularly coursed bricks, and in some cases brick fragments in mortar, between two fair faced skins while the upper parts were built in English Bond.

By 2008 – 10 large parts of the now silted plunge pool were occupied by two sections of fallen brickwork, each with a terracotta drain pipe set into it, one and probably both representing the collapse of the south retaining wall. However, the pool seems to have been 1.5 m deep and presumably brick floored as probing indicated a solid flat surface 2.2 m long. At its east end it appears that the water stairs were constructed differently to those of the western cascade. Here the east face of the plunge pool had been angled backwards by constructing a two plus skin wall of stepped header lain brickwork

<sup>134</sup> Which even by 2008 - 10 had worsened since it was photographed by Gillam (1997, 58 Fig. 47). Though note that this photograph is miscaptioned implying that it shows the western cascade.

(surviving to its full height only at the extreme north and south ends) and the three steps of the water stairs (giving a vertical fall on the east of 30 cm) had been built on it using end set bricks. Beyond them a 3.1 m long, fairly well preserved, very slightly east sloping brick surface was retained on the east by wooden planking secured with piles and again gave a c. 30 cm drop as the stream left the cascade.

*The Approach to Maidens Bridge*

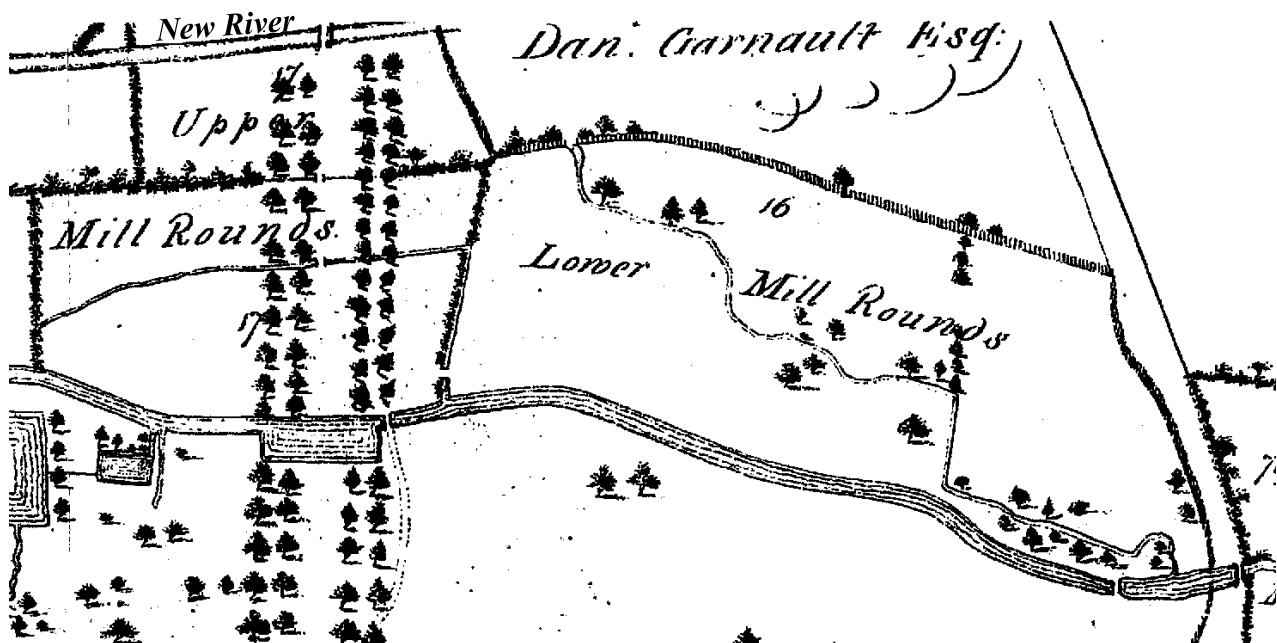
East of the eastern cascade the only features relating to the system are isolated post stubs, including one just east of the cascade, that demonstrate that the stream was revetted towards (and probably up to) Maidens Bridge c. 50 m to the east. However, by 1913 'weirs' are marked by the OS between the east cascade and Maidens Bridge and might be connected to a crossing point of the stream represented by a later wooden footbridge which was renewed in steel in 2008 (ENH08 Tr. 1 and 6, above p 123).

# Evidence for the Mill Rounds Channel System Linking the Brook to the New River

## Scope and Background

The New River, an artificial waterway to provide central London with fresh water from Hertfordshire which opened in 1613, originally closely followed the 100 ft contour west of the R. Lea, so its route described a large loop around north Enfield which meant that it ran east west some 160 m north of Maidens Brook and a letter of 17<sup>th</sup> December 1783 from the son of the then owner of the Forty Hall estate, Eliab Breton, to the New River Company notes that his father paid 2/6d a year 'for a pipe to supply his River' from the New River (LMA P6270015JPG). Whether 'pipe' here should be taken literally or was being used as shorthand for e.g. a culvert or channel, this seems to confirm that the flow of the brook was augmented by extracting water from the, here west flowing, New River, perhaps from the inception of the cascade system and potentially at least until 1859 when the building of the Docwra aqueduct across Maidens Brook to the east of Maidens Bridge cut off this 'New River loop'. Indeed, the section of the 'loop' north of Maidens Brook was redundant, but still presumably a water course after this because in 1889 it was reopened when Whitewebbs Pumping Station (now Whitewebbs Museum of Transport) opened around 1.6 km north west of the Forty Hall estate and this part of the 'loop' was used to carry a flow from it east into the active part of the New River up to c. 1950 (and the channel may still have been in water until about 1960).

Significant parts of a channel system surviving as relic features in the fields known as the Upper and Lower Mill Rounds between the brook and the New River could therefore have related to this extraction of water from the latter (and other minor water courses in the vicinity) and, as noted above, research and recording projects, including some small scale excavation, in 2007 and 2008 and led by Neil Pinchbeck, sought to study this system. Cartographic regression shows that all the elements of the system might be shown as some sort of features on the sale maps of 1773 and 1787 (Pl. 71). Indeed, with some field boundary changes and perhaps the straightening of one of the longer channels, they match fairly well what can be mapped today (Fig. 70). However, only some of the southern and eastern elements of the system are shown as water courses on these maps and the rest appear to be field boundaries, so that no connection to the New River can be shown to have existed before the full system seems to be shown as water courses on the 1866 OS 6" map.



Pl. 71: Extract from the 1787 Sale Map

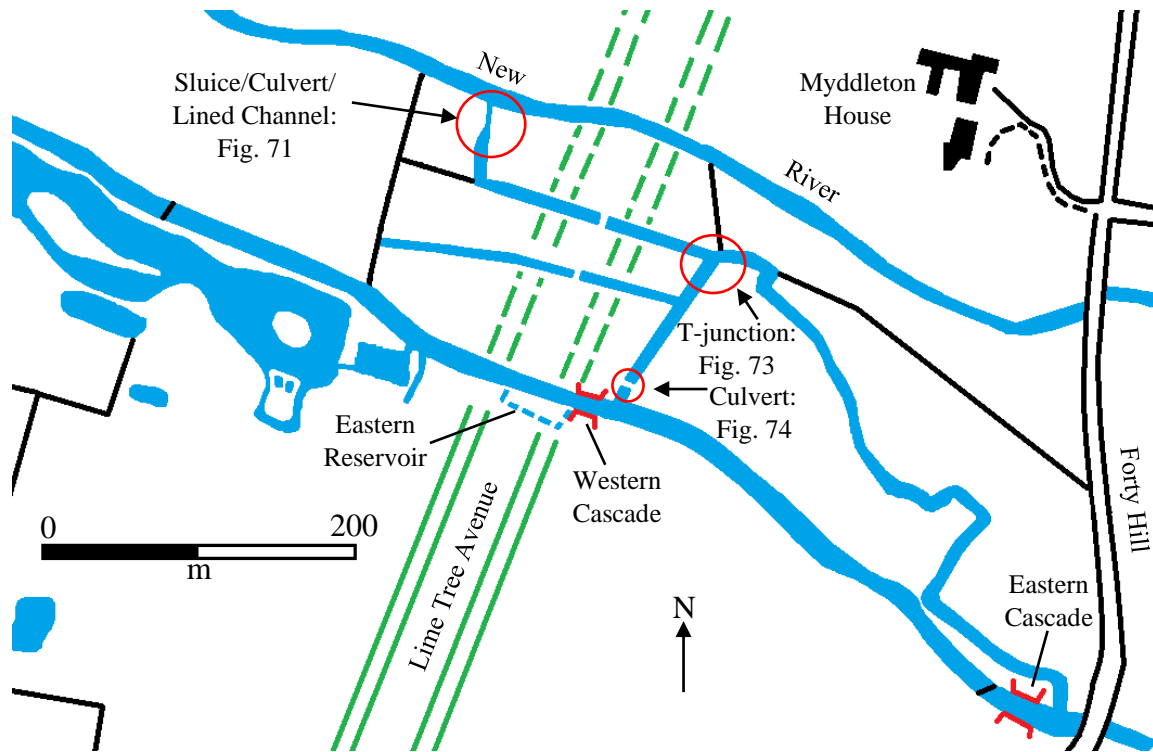


Fig. 70: Mappable Relic and Active Watercourses and Locations of More Detailed Figures

#### *Archaeological Evidence*

The 2007 – 8 surveys found that water had indeed evidently been extracted from the New River via a sluice and south flowing culvert then brick lined and unlined channels before being led east by a then usually dry water course to a T-junction. From there it evidently flowed south in another channel, including a culverted section, into the brook and or could have flowed south east along a more sinuous channel that presumably once entered the brook further east. However, all the dateable features of the system appeared in their present forms most likely to belong to no earlier than the nineteenth century and establishing the original date, and exact function, of the various elements of the system is problematic.

As currently surviving then<sup>135</sup> the system was clearly intended to draw a controlled flow of water from the New River 160 m north of Maidens Brook where it forms the northern limit to the field known as the Upper Mill Rounds. Here (Fig. 71 and Pls 72 – 73) a 1.1 m high hand operated cast iron sluice with a lockable ratchet winding mechanism is recessed into the southern bank of the river and opens into a 1.8 m deep rectangular (90 x 70 cm) manhole on its southern side. The manhole is also provided with an overflow pipe on its east side which turns back north and leads into an open concrete tank set into the southern bank of the river 2 m to the east of the sluice. The same distance to the west of the sluice the full width of the former river is spanned by a box-like concrete feature edged with twentieth century engineering bricks and including a sealed 1.1 m square manhole on its west whose cover has a circular hole for a square sectioned iron bar that might have operated some form of watergate to isolate the river section in which the sluice lays.

It seems that these features belong to the period when the New River ‘loop’ was used to pump water east from the Whitewebbs Pumping Station and they may have been intended primarily to help regulate the flow of the New River as much as, if at all, to regularly extract water to augment that of Maidens Brook. However, they are likely to have removed any evidence relating to the function of any earlier extraction point here even if they do imply that the channel system was capable of dealing with a substantial flow of water at least by this time.

<sup>135</sup> Note that some of the channel system described below now again has a water flow into Maidens Brook east of the eastern cascade from a new drainage sump in front of the slice gate which serves the Tottenham Hotspur training ground.



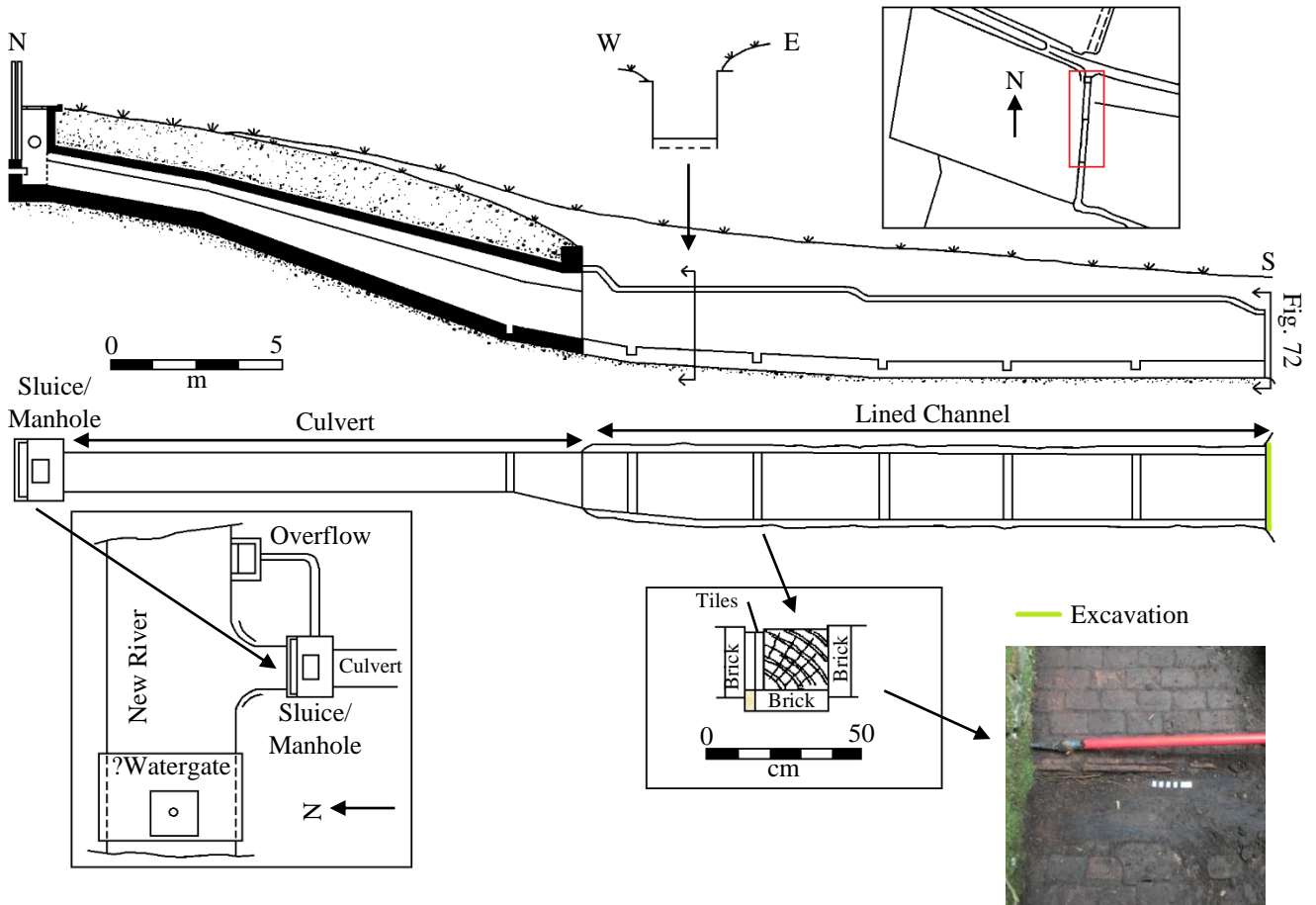


Fig. 71: The Sluice/Manhole, Culvert and Lined Channel with Other New River Features and Detail of the Channel Floor Timber Setting Inset



Pls 72 and 73: North (to Left) and South Faces of the Sluice with the Manhole Infront

Indeed, the manhole discharges to the south into a 90 cm wide, up to 70 cm high vaulted brick culvert which slopes down to the south at  $10^\circ$  for 3.9 m, then runs for a further 7.8 m with an apex height gradually increasing to 1.6 m and the floor sloping down at  $20^\circ$ , before, for a final 1.85 m, expanding on the west to give a width of 1.3 m and returning to a  $10^\circ$  slope (Fig. 71). At this southern end the culvert entrance is marked by a 1.6 m high rounded arch formed of a ‘soldier course’ of bricks below a retaining wall of four courses of yellow/grey stock bricks. It gives into an open topped brick lined channel (Fig. 72) running south for 16.4 m and continuing to fall slightly (by 60 cm over its course). Though now tree root and ground pressure distorted, it was probably 6 ft (1.83 m) wide with slightly asymmetrical retaining walls, the eastern c. 1.75 m high and the western a little lower. Both had stepped

down tops at the north end and the east stepped down again c. 6.5 m along the channel and at its south end. The walls, apparently more than 70 cm thick at least at the south end, show two construction phases, the earlier, of 23 x 10 x 6 cm unfrosted red/grey stock bricks (matching its floor) in stretcher bond and mirroring the fall of the floor; the later above it of harder 25 x 10.5 x 6.5 cm unfrosted yellow/grey stock bricks in English bond lain horizontally throughout and using cut bricks and tiles to fill the resultant gaps.

A small excavation across the south end of the channel showed that its floor was of three courses of bricks, the two lower mortared and edge lain along the orientation of the channel and the surface itself formed of unmortared end set bricks in staggered rows. The surface included five east west slots at 10 ft (3.05 m) centre to centre intervals, with a sixth one 6 ft (1.83 m) back into the culvert, one or two rows of edge set tiles (and elsewhere perhaps mortar fillets) used to achieve the precise spacing where the brick pattern did not allow for them (which might hint that they were later insertions). Two empty slots confirmed the presence of at least a second brick layer to the floor of the open channel elsewhere, while four of the slots retained 20 cm square timber beams set flush with the floor surface which might have acted when wet as expansion joints to compress the brick floor surface or have anchored wooden structure(s), perhaps to slow the water flow along the gully. The excavation also showed that at the south end of the channel the floor at least had been retained by 10 cm wide vertically set timber boards.

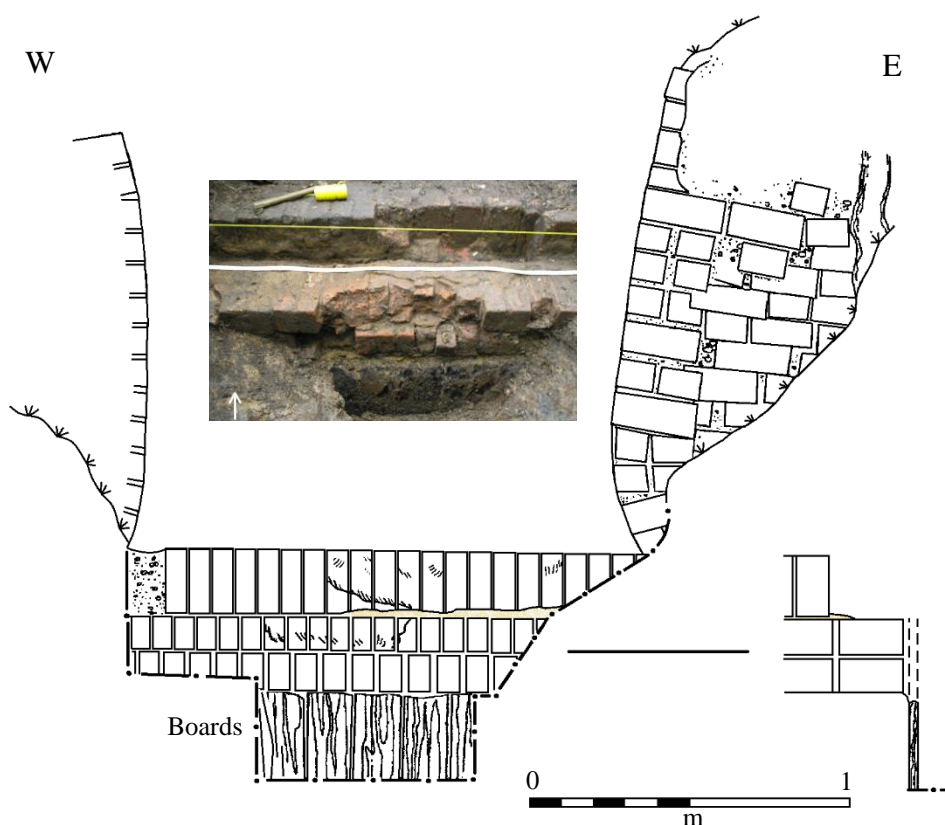


Fig. 72: Section at the South End of the Lined Channel

This appears to have been the end of the fully brick built part of the channel system and it seems very likely that these features were in existence by 1866 when OS mapping shows a gap between the New River and a channel which can only have been fed from it; and this is even clearer on the 1897 OS 6" map which may differentiate the brick lined channel from an unlined continuation of it to the south. Whilst then close dating is not possible and two phases of construction appear to be present, the brick morphology might be compared to that of the New River's Flash Lane aqueduct of 1820 and this part of the system was perhaps originally constructed in the early nineteenth century with its walls repaired/raised somewhat later in the century. Whether it replaced an eighteenth century predecessor though it is impossible to say.

In any event the system seems to have continued south for 18.7 m as an unlined, by 1897 rather broader, channel, the excavation at the end of the brick lined section suggesting that it was simply cut into presumed natural brickearth (Fig. 70). It then turned east to run 151.5 m across the Upper Mill Rounds field to its boundary with the Lower Mill Rounds field. The turn is shown in 1866 as curved, but by 1897 as more of a right angled meeting with the eastern channel and possibly even with a sluice gate here. This east flowing section of the system has not been examined in detail, but cartographic evidence almost certainly implies that by 1866 it included a short culvert or bridge where it crossed the Lime tree avenue (already largely lost south of it) and that at least a gate in a field boundary if not a bridge/culvert is already present in this position on the 1787 sale map (Pl. 71) may strengthen the case for this channel already existing in the eighteenth century. By 1866 the channel clearly led to, at the Upper/Lower Mill Rounds field boundary, a T-junction where further brickwork was recorded, including in a small excavation, in 2007. Here (Figs 70 and 73) the channel appears to have been around 19 m wide as it approached from the west and its flow presumably divided, a similar width channel leading on further east and a second, around 17 m wide, leading south.

Most at least of the eastern channel, now usually dry, existed by 1773 and that its most western part is shown on estate sale maps (Pl. 71) more as a field boundary again suggests that on these maps channels and coincident field boundaries are not always being differentiated. The channel itself follows a sinuous course so is presumably natural in origin (even if cartographic evidence suggests it may have been straightened to a degree) before turning south and running on a straightened line towards and presumably into the brook between the eastern cascade and Maidens Bridge. However, here modern (unauthorised) landscape modification connected to civil war re-enactment (including the installation of a large concrete block) is known to have occurred. The southern channel, joined by another east flowing (presumably field drainage) channel, again shown from the late eighteenth century as interrupted by a bridge if not culvert where it crossed the Lime tree avenue, formed the boundary between the Upper and Lower Mill Rounds fields and both are in this case clearly shown as channels, the former flanked by a field boundary hedge, at least by 1787 (Pl. 71).

At the T-junction two sections of the banks have been brick revetted, at the meeting of the east and south channels and at one point on the north side of the east channel (Fig. 73). In the former case the 30.3 cm wide revetment, which is battered at 85°, extends for 2.7 m along the east channel and, with evidence for an iron fence behind it, 5.0 m along the south from a rounded corner, with its ends also describing curves where they turn back to run for 1.0 m into the bank. Survey, and limited excavation of the west face of the northern part of the southern arm shows that, above a mixed gravel and brickearth (which may or may not be the natural), the revetment (or at least that part of it excavated) was founded on a layer of brick fragments in what may have been decayed mortar. Above this, a basal stretcher and two header courses of 23 x 10 x 7 cm orange/red stock bricks, with every third brick substituted by a creamy white stock brick in the middle course, appear likely to represent an earlier phase of construction to the rest of the revetment.<sup>136</sup> Above this level the brickwork changes to nine courses of English bond, now executed in 22.5 x 11 x 6 cm red/grey stock bricks, patched with cement/mortar, showing repointing and finished with a top course of bricks lain on end giving an overall height of 1.17 m. The 2.5 m long revetment on the north side of the east channel is similar at least in its upper levels, again 30.3 cm wide and battered at 85° with its ends describing curves where they turn back to run for 1.0 m into the bank, but without excavation cannot be further characterised.

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<sup>136</sup> If the substitution of white stocks for red was intended to create a pattern as seems likely it would have been invisible at this level so one must assume that it was originally continued upwards and has been truncated.

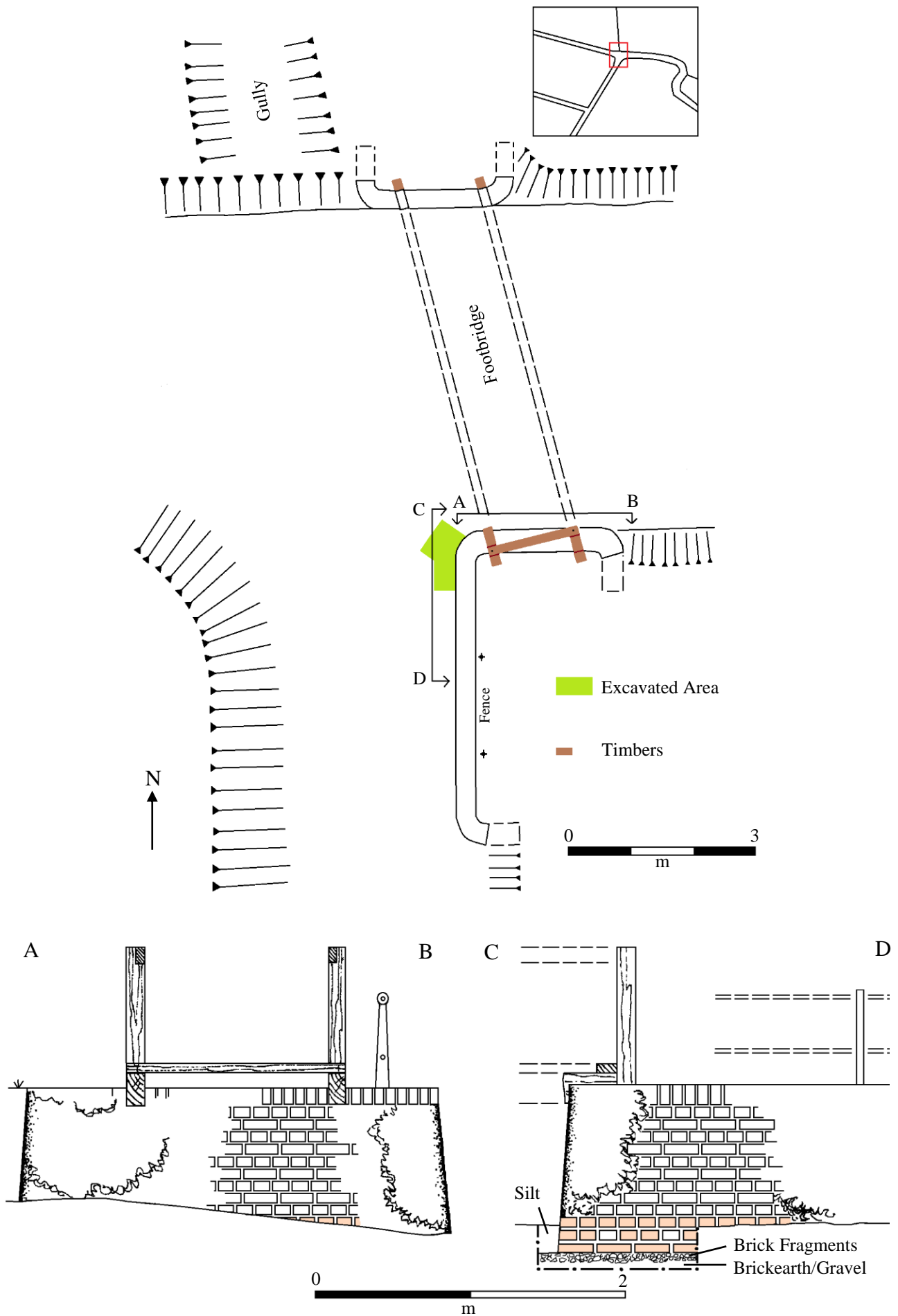


Fig. 73: The Revetments and Footbridge at the T-Junction  
147

The function and perhaps original date of the two revetments could though have differed since both formed the ends of a footbridge (see below), but the northern does not seem to be at a point vulnerable to erosion, whereas the southern was surely at least in part intended to resist the erosive power of a flow coming in from the west and perhaps especially turning to the south. However, the possibility that some form of sluice gate existed between them which served to shut off the eastern channel except when it was required as an overflow should also be considered and might be attractive, even though no evidence for one was noted in what was, however, fairly limited work. Indeed, both revetments were clearly used, even if it was not their primary purpose, as the abutments for a wooden footbridge, but that it ran at an angle across the east channel seems to argue against the northern revetment being built where it was, and as solidly as it evidently was, if it was solely to form a bridging point.

In any event, the 5.2 m long, 1.18 m wide bridge was represented by the sawn off stubs of its 20.4 x 11 cm deck edge beams which were recessed into the top brick course of both revetments and at one point still carried a single 1.4 m long, 10 cm wide, 5 cm thick deck board nailed to them. In line with the beams, but set just behind the brick revetment, each end had a surviving pair of 11 cm square, 1 m high posts recessed at their tops for a hand rail and the southern retained the hinges and latch for a lost gate. This bridge<sup>137</sup> is one of the few elements of the channel system that can be more closely independently dated as it is absent from the 1896 edition OS map and first marked in 1913, so, as Gillam (1997, 55) argued, it almost certainly relates to the tenure of Forty Hall by Sir Henry Ferryman Bowles whose father, Henry Carrington Bowles, held the adjoining Myddelton House estate to the north, which the bridge, with others across Maidens Brook and the New River (Pl. 74), would have facilitated private access to. If then it was built integrally with the (upper levels of the) revetments as seems likely, it, and their rebuilding, should date to Phase 8 or 9 (in or after 1897). The origin of at least the southern revetment might well then be earlier than this and could well be contemporary with the first phase of the culvert and brick lined channel.



Pl. 74: Extract from the 1913 OS 6" Map

The final element of the system to have been archaeologically examined is a second culvert by which the southern channel (which again has not otherwise been examined in detail) passed under a field gate between the Upper and Lower Mill Rounds a short distance north of its now heavily silted and obsolete entry point into Maidens Brook. Although largely choked with dumped concrete and brick rubble through which an iron pipe (presumably to take a residual field drainage flow when the culvert became obsolete) runs, it was possible to survey the upper part of the face of this, and to examine part of its

<sup>137</sup> Not to be confused with two modern wooden footbridges which have been installed at the T-junction since the 2007/8 survey work.

east side, through a small excavation on its north side (Fig. 74). The length of the culvert is uncertain, but surface indications suggest a possible length of c. 5.5 m while it was clearly 1.75 m wide, in excess of 1.5 m high at the apex of its vaulted roof and had been constructed of 23 x 10 x 6.5 cm, unfrosted, red/grey stock bricks and lime mortar. Its 57 cm thick eastern side wall had been constructed of over 10 courses of Flemish bonded brickwork with an outer skin of stretchers, built in a construction trench 16 cm wider than it, cut into brickearth and backfilled with a dark loam containing ?chalk fragments and a single chip of porcelain. Its roof, at least at the entrance, comprised a pointed arch springing flush with the inner face of the side wall and constructed of two courses of bricks lain on end.

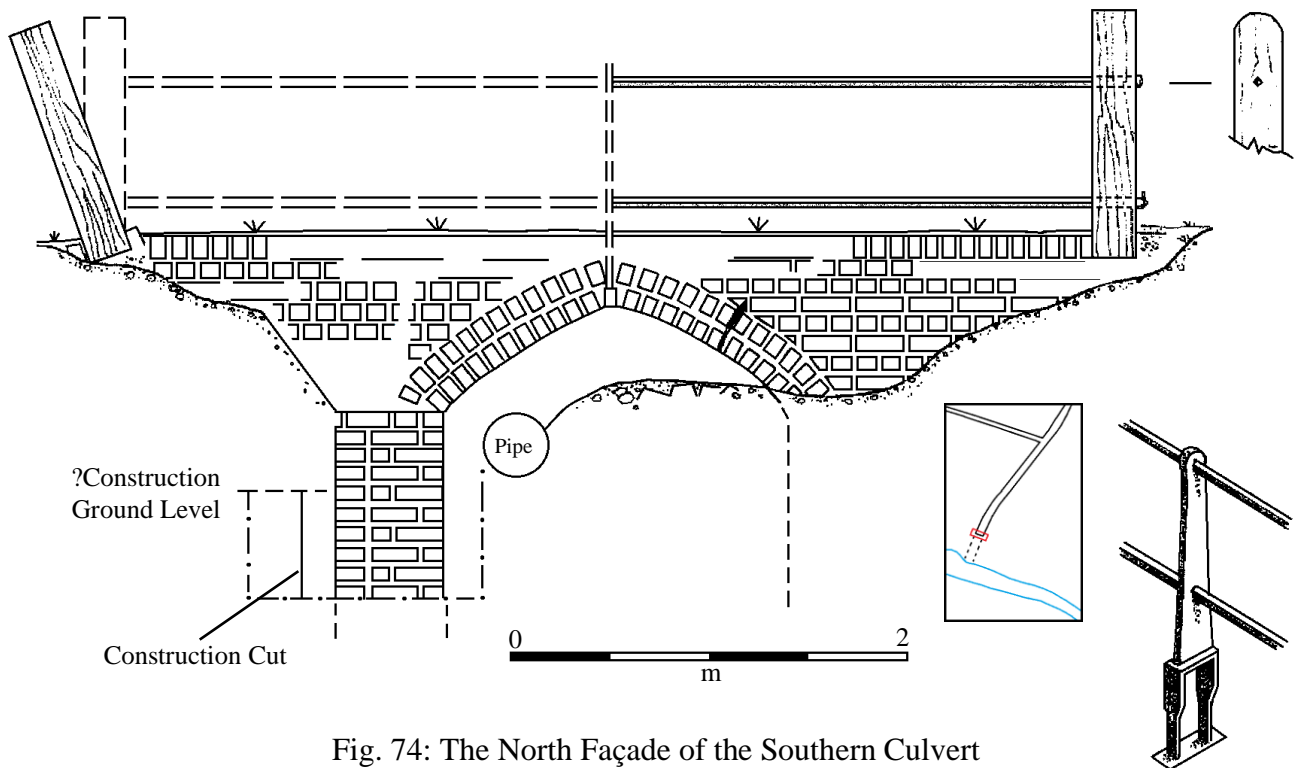


Fig. 74: The North Façade of the Southern Culvert with Detail of the Cast Iron Fence Post

The vaulted roof had been encased, again at least at the entrance, in a 4.88 m wide raft of brickwork, partly obscured and its face missing on the east where its exposed core may have been almost entirely of headers, but better preserved on the west where the face was of at least five courses of English bond brickwork below two of headers and topped with a course of bricks set on end. Spanning the width of the raft was the remains of a ?contemporary fence formed of two outer 20 cm square, 1.25 m high Oak (*Quercus* sp.) posts and a relatively elaborate, but now collapsed, central, 1.46 m high cast iron post (once set 43.5 cm into the brickwork) holding two 2.5 cm square, lozengiform set cast iron, bolt secured rails.

The date of this culvert is once again less than clear. The bricks used compared favourably to those in the original walling of the brick lined channel at the north end of the system and what must have been either a bridge or a culvert is shown here by 1787 (Pl. 71), but nothing seems to be marked here on the 1866 OS 6" map, when the final stretch of the channel in fact looks to have been diverted to the west. It is then possible that the 1787 map shows a bridge that later collapsed and that the culvert was not initially built until after 1866. But an alternative is that an original culvert had collapsed sometime in or by the mid nineteenth century, the channel been re-routed around it and then it had been rebuilt, perhaps reusing salvaged bricks. The different design of the arched entrance to that of the culvert near the New River may support this and in any event the partial survival of the timber and cast iron work of the fence, which is similar to some seen along the course of the New River, also argues for it being unlikely in its present form to be earlier than the late nineteenth century.

In summary, it is possible that the whole system was eighteenth century in origin and initially designed to augment the flow of Maidens Brook as it left the western cascade and flowed towards the eastern

(though that would not be incompatible from the first with a role in providing an overflow facility for the New River) and even if only elements of it originated this early the southern channel was presumably fed, given the evidence of the 1783 letter, in some way from the New River. It seems likely though that at some point, most probably in the earlier nineteenth century, much of the system was if not created then significantly reinforced in brick where the greatest erosion might be expected from where there was an, at times at least, quite considerable south (rather than east) flow of water, perhaps with the addition of flow control features. One suspects this was early in Phase 6b during the tenure of the Meyer family and, if so, that the brick lined channel seems to have been repaired/augmented likely indicates that the system was then in use to bolster the flow of Maidens Brook for a considerable time, even if individual features of it need not all be of the same date.

But any water flow cannot have been that significant after 1859 and the system may well have done little more than carry field drainage water for 30 years and become neglected with parts of it, perhaps such as any culvert near the brook, consequently deteriorating. However, the reopening of the New River 'loop' in 1889, must have made it viable again and likely led to the last of the Meyers, or more likely the Bowles family, either bringing the system back into operation or allowing the New River's operators to do so, which resulted in some rebuilding of elements of it in the 1890s. Whether that was through a desire to reinvigorate the brook, at the (doubtless paid for) behest of the water company operating the Whitewebbs pumping station to provide an overflow for the New River, or – most likely – some combination of the two is hard to be sure. But this is the likely juncture at which the sluice on the New River was installed (likely replacing earlier ones) and probably when the T-junction revetments and culvert near the brook were built or re-built. How late the system continued to function is unclear, but one would be surprised if it survived much after WWII and it could presumably have fallen into disuse well before that.

# Evidence for the Use and Development of the ‘Pond Groves’

## Scope and Background

The ‘Pond Groves’ (Fig. 75) comprise a series of lakes with islands and smaller ponds in a now heavily wooded area to the west of the north end of the ‘Great Field’ and since 2015 have been part of the Elsyng Palace Scheduled Ancient Monument. The likelihood is that their ultimate origin was as ponds to raise freshwater fish for the table in the Medieval and early Modern periods and so were an adjunct to the palace or a suspected predecessor Medieval ?manor. However, they may well have been developed into recreational water gardens at some point in the Tudor or Stuart periods (see Dearne *et al* 2022, 215). In a post c. 1660 context relatively little is understood about their usage and how they may have developed, though clearly some elements of the complex have been lost since the estate sale map of 1787 was prepared (op cit). The larger lakes were certainly used for recreational boating in the nineteenth century though and the only significant archaeological interventions in the area have been the EAS monitoring of desilting of the western lake in 1981, excavation of a ??boathouse (or perhaps ice house) in 1993 (site code FH93) and the monitoring and limited excavation of one section of the new cycle track in 2012/13 (site code FXF12) where a feature was already suspected and which recorded what could have been e.g. a landing stage.

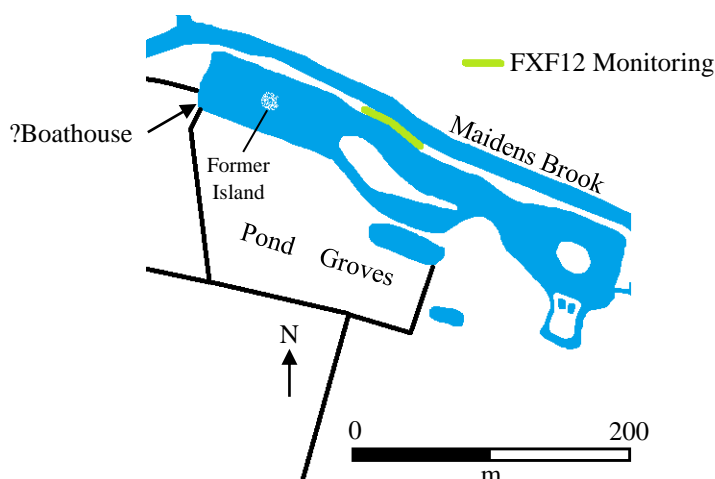


Fig. 75: Location of Excavations in the ‘Pond Groves’

## Archaeological Evidence

The feature recorded in the cycle track monitoring was at a point where the south bank of Maidens Brook and even the current (not necessarily historic) north bank of one of the larger lakes of the Pond Groves were only 6.5 m apart and appeared to be a lain brick surface at least 4.30 m in east west extent. It was generally very badly preserved, but limited surface clearance and excavation suggested it may have been up to 3 m wide and its southern edge, today c. 3 m north of the lake edge, was lain on ?natural brickearth. But its more northern parts overlay a probable makeup dump that had then accrued a humic deposit before the surface was lain (perhaps suggesting path/lake bank reinforcement here sometime before the feature was built). At its straight south edge a band of flint cobbles had been packed to a thickness of c. 14 cm against (and just under) the edge of the single course brick surface. However, at one point this edge had been set back 18 cm to respect a 20 cm square, over 24 cm deep post void indicating that at least one substantial post had been driven in to form part of the feature edge. How far the surface was intended to solely be a path, perhaps with a fence at the southern edge, and how far it represented something such as a landing stage, if the lake had originally extended a little further north than it does now, was not certain. Equally there was little evidence to date the feature as the bricks were too poorly preserved to characterise in most instances, but they were handmade, some were 5 – 5.5 cm thick and there were occasional drip glazed examples, so it might be suggested that they ultimately derived from Elsyng Palace, even if they represented reuse.



The 1981 EAS monitoring of the removal of c. 90 cm of silt from the bed of the western lake by the LBE summarily recorded a 3.65 m square, six course high, four ‘skin’ thick brick feature set in to the bed of the lake. The two central ‘skins’ were apparently of ‘broken bricks and rubble’ (Stevens 1981) and the inner and outer of ‘good quality brick’ (Gillam 1997, 57). While this clearly represented the former island shown on estate sale maps, but not later cartographic sources, its date and function can only be speculated upon as there was presumably so little opportunity to record detail about it and no excavation was undertaken. Functionally, a summerhouse, fishing ‘temple’ and even water lily filled enclosure have all been suggested, the latter seeming to be highly unlikely, but one would hesitate to speculate about it having been a building as opposed to a basic dry platform on the basis of what is known. Equally any dating would seem to be impossible on the basis of the little information available. The EAS excavation of a brick structure at the south west corner<sup>138</sup> of the same lake in 1993 (cf. also Gillam 1997, 57)<sup>139</sup> (Fig. 76 and Pl. 75) found that it was internally 2.5 m in length, 1.6 m wide and about 2.0 m high (however excavation ceased at a level equivalent to the water level of the lake at the time of excavation). Set into the south bank of the lake c. 6.5 m from its (then) edge, it had c. 40 cm thick side walls and a 22 cm thick vaulted roof just below ground level, believed to have remained intact at least until 1981, but fallen by 1992. There were two roof ‘buttresses’<sup>140</sup> at least on the better preserved, if still partly collapsed, west side, probably matched on the more damaged and evidently not fully excavated east side, and the structure was built of 23 x 11 x 6 cm unfroged bricks in an English bond, but with considerable irregularities, using lime mortar and with Portland cement repairs. An iron staple, 7 cm wide and projecting by 6 cm, was recorded as inset into the back wall, 90 cm above ‘water level’, the same wall had a basal irregular 90 x 60 cm void (?due to a collapse) with undisturbed deposits behind it and tumble from a collapse was excavated on the west at its north end. The structure had been encased in ‘clay’ (i.e. brickearth) so that it was essentially subterranean.

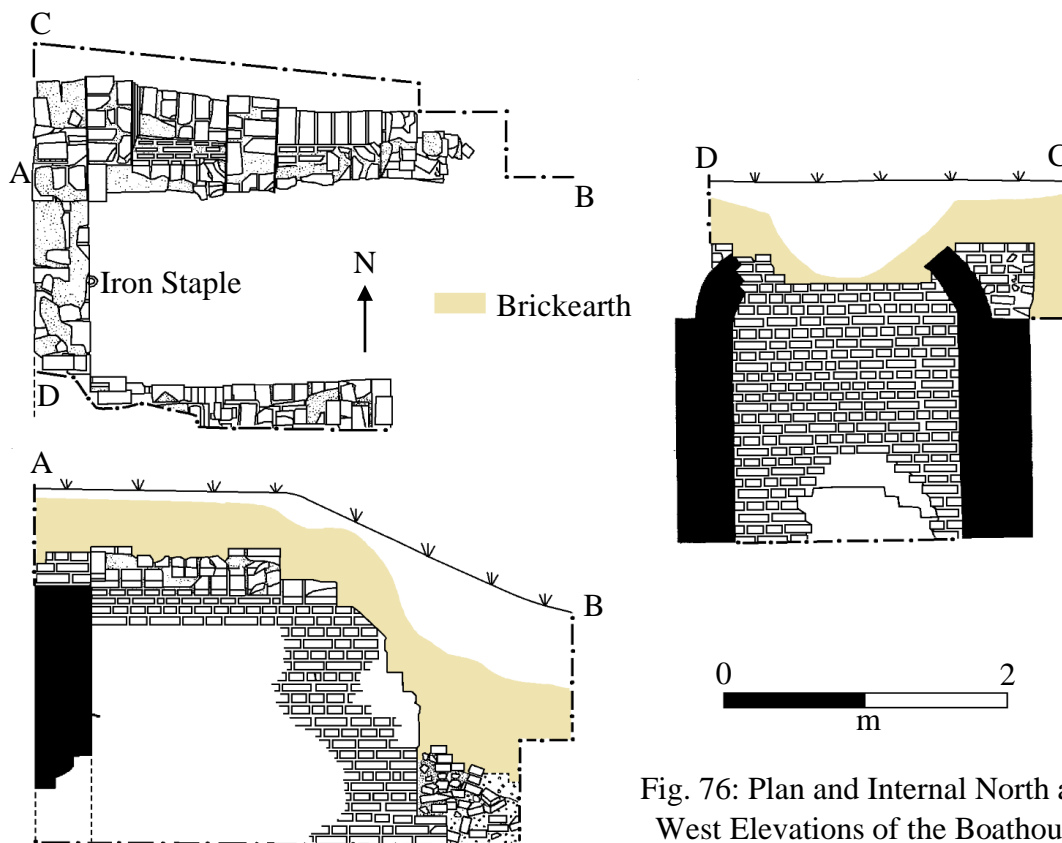


Fig. 76: Plan and Internal North and West Elevations of the Boathouse

<sup>138</sup> Gillam (1997, 57) says the eastern end and is presumably a misprint.

<sup>139</sup> Known from an archive note, plan and ‘sections’, though the ‘sections’ appear to be more projected views than actual sections and their precise conventions are not all obvious; unfortunately the level of detail in which the work was recorded was not that which might be expected today.

<sup>140</sup> In fact east west ribs formed by carrying the side wall up at its full width to above the springing of the arched roof, whereas the side wall otherwise narrowed at springing level to form that roof.

As its base lay lower than the contemporary water level in the lake, and it was suggested at the time that this would have spoiled the ice, an identification as an ice house was rejected (though this argument is perhaps not conclusive) and it was suggested, partly on the basis of a (Parker-Bowles) family tradition, to be a boathouse. Indeed, local informants at the time of excavation recalled it as in use as a boathouse in the 1940s, providing housing for a small, clinker built rowing boat called the 'Daisy' which was secured by the staple.

Whilst then, presuming that the lake edge has receded, how the boat was accessed from land remains unestablished, that the structure was used as a boathouse into the twentieth century seems to be clear. However, brick building a vaulted structure back into a bank seems to be a rather elaborate and costly exercise just to store a small boat and it is presumably not impossible that it had been repurposed for this. Thus, whilst an eighteenth century origin may well be the most likely and it must be very possible that the structure was built as a boathouse e.g. to allow *ferme ornée* walks to take in boating or facilitate fishing or wildfowling on the lake, interpretation as an eighteenth century ice house should not be completely excluded without further evidence.



Pl. 75: The Boathouse Looking South  
(from Gillam 1997, Pl. 48)

# Appendix 1: Finds

## Introduction

A large number of the archaeological interventions described above resulted in no or only a few relatively unimportant finds and where they have a bearing on the date or function of features and deposits encountered they have been mentioned in the main text. Full finds reports are also available in archive for all sites examined by the EAS from 2003 (and for non EAS work in archive reports produced by commercial providers). However, a smaller number of excavations have produced material of inherent interest, especially from one particular midden, and this appendix seeks to publish that finds group and selected individual finds, particularly where they may be of use to finds researchers. The potential significance of the midden assemblage means that it is desirable to repeat an only slightly edited version of the full archive finds report for it.

## The Midden Outside the Early Entrance to the Kitchen Courtyard

by

Martin J. Dearne

with contributions by

Ian M. Betts, Ian K. Jones, Jacqueline Pearce, Beth Richardson and Neil Pinchbeck

The midden which built up in and around a 1.63 m length of a disused and partly demolished drain just north of the interface between the west end of the original residential block of the hall and the probably then open entrance into its adjoining Kitchen Courtyard has been briefly discussed above (p 37f). It was clearly larger than the sample of it which was excavated in 2009 and there was some disturbance by later drain installation that obviously removed at least a little material, but essentially it was a group sealed by a clay dump, almost certainly dating to c. 1708. It had probably begun as a general kitchen waste dump sometime in the 1650s, but fine glass and ceramics in use in the hall as well as slate, some brick and tile fragments and window glass also occurred in its lower horizons, while higher horizons appeared to consist more exclusively of kitchen/household rubbish, before, in the highest horizons, it became mixed with demolition material linked to a phase of redevelopment of the hall around 1708. Whilst there was evidence of some vertical translocation of smaller items and perhaps some reworking, such instances were sufficiently limited to show that the deposit overall had not been significantly disturbed before it was sealed.

The midden was excavated under a series of (FHN09) context numbers to preserve any evidence for internal stratification and differentiate finds recovered in formal excavation and in a two stage sieving process of all spoil. The earliest horizons of the midden were probably [130] and [129], 2 – 9 cm thick deposits within the drain, respectively on its north and south sides, [130] perhaps the earlier and [129] a slightly later greasy deposit suggesting the deposition of kitchen fats. The remnant drain was then filled with midden material contexted [124] while at some point similar, but slightly different, material contexted [120] began to accrue on the ground surface ([123]) surrounding it and above [124]. Finds from the interface between [124] and [120] were collected separately as [124]/[120] and finds from the lowest stratum of [120] where it accrued outside the drain were also differentiated as ‘Base of [120]’. A few finds also came from ‘Trample Over [123]’ and, whilst probably from [120], may have included section fallen material. Finds from ‘Top of [120]’ came from its latest horizon where it was mixed with demolition material while finds collected as ‘Base of [118]’ lay at the top of this horizon at the interface between it and the clay capping ([118]). Most finds were recovered by excavation, but some material from [120] and [124] was recovered in discrete coarse sieving of spoil from these deposits and a little more (‘[120]/[124] Second Sieving’) from re-sieving and trowel combing of the amalgamated spoil from these contexts.

Great variation in fragment size, and original vessel/object size, between different categories of finds (from near complete profiles of large ceramic vessels to chips from small glass vessels) means that it is difficult to find a meaningful way of expressing the quantification of the midden finds, but by crude fragment count (excluding unglazed cbm and animal bone/shell) they broke down as follows for the midden as a whole:

Category	%
Window Glass	23
Undifferentiated Window/Vessel Glass	5
Wine Bottle Glass	9
Finer Vessel Glass	13
Clay Tobacco Pipe	4.6
Metal Objects	2
Pottery	42
Other (e.g. Delft Floor Tile)	1.4

The finer vessel glass represented a possible minimum of 41 vessels and the ceramics 88 vessels (including 40 (45.5%) in Tin Glazed Earthenware (TGW); 28 (31.8%) in Post Medieval Red Earthenware (PMR); 7 (8.0%) in Surrey/Hampshire Borderwares (BORD/RBOR); 3 (3.4%) in Metropolitan Slipware (METS); 3 (3.4%) in Post Medieval Black Glazed Ware (PMBL); 2 (2.3%) in Frechen Stoneware (FREC); and 4 (4.5%) in Porcelain (POR)). Variation between different horizons of the deposit is difficult to illustrate given the differing volumes of material excavated and may not be of significance, but comparatively little animal bone and oyster shell came from [124]. More unglazed cbm (if the closing horizon of [120] is ignored) came from [124] and its ceramic vessel assemblage tended also to have a smaller sherd size and it may be that it represented rather more general rubbish disposal in the early accumulation of the midden than [120] where more bone and oyster shell, less cbm and larger fragments especially of utilitarian ceramic vessels suggested a more specifically kitchen derived deposit. Indeed, overall the use profile of the ceramic and glass vessels emphasised food storage, preparation and serving with some, but fairly limited numbers, of liquid serving and drinking vessels.

## CATALOGUES

Context numbers follow catalogue entries thus [120]; \* indicates illustrated items; where relevant numbers of (in brackets) and nature of sherds, differentiated by context, follow entries. Where sherds belonging to midden vessels were also recovered as residual in supervening (mainly not closely dated) deposits, probably having been translocated by later drain installation cuts, the context number is replaced by [S].

### 1 Metal Objects

- 1.1 Ae Lace chape (L. 1.75 cm). [120].
- 1.2 Ae Rod. Cast oval sectioned rod with casting flanges on both 'edges', bent/twisted and with a cast on strip fragment (probably with a central ridge) crossing it at an angle. L. 7.2 cm. [120].
- 1.3 – 1.8 Pb Window came fragments. Bent, crushed and sometimes twisted. Including a curved section joining a straight arm and a possible T-junction. Traces of double incised lines centrally and edge thickening, on one side only, in some cases. W. c. 7 mm; Max. Th. c. 3 mm; estimated straightened L. up to 9.5 cm. [120].
- 1.9 Fe Bar. Two joining fragments of rectangular (1.4 x 0.5 cm) bar. L. 8.6 cm. Very concreted including to a piece of grey slate. [120].
- 1.10 – 1.20 Fe Nails. Generally incomplete and often very concreted, heads often bent. Square sectioned shanks and round heads. One 7.2 cm long, probably near complete, and another 11 cm long. [120].
1. 21 – 1.23 Small concreted ?nail fragments. [124].

## 2 Ceramic Vessels by Fabric

*Chinese Porcelain (CHPO)* by Ian K. Jones and (*CHPO.BW*) *?Residual from the Midden (No. 2.5)* by Jacqueline Pearce

- \*2.1 Fine quality tea bowl, white int. and ext. glaze. Rim Di. c. 112 mm. Probably from a vessel of the type known as Te-hua/Dehua or *blanc de Chine* made in kilns in Fukien/Fujiang province from the Song dynasty onwards. The products of these kilns first became famous in the sixteenth century during the Ming dynasty and seem to have reached their peak in the mid seventeenth century during the early Qing (e.g. Medley 1986, 232 and 259; Kerr 1998, 52f; Sheaf and Kilburn 1988, 73, Pl. 113). Rim (2) [120].
- 2.2 Small body sherd, int. and ext. white glaze, underpainted with pattern of red lines. The pattern appears to be an example of a red stone wall border, a motif seen on the neck/shoulder of vessels, though more regular and elaborate red line patterns occur on all parts of vessels either in bands framing the decoration (Kerr 1998, 101) or as background (Butler and Wang 2006, 345). The latter example dates from the Shunzhi era around 1650 – 60 and includes the red stone wall border. Body (1) [120]/[124].
- 2.3 Lobed bowl (?a bowl of a smaller diameter than that suggested for 2.1), white int. and ext. glaze overpainted with scattered green veined leaves and yellow tendrils in lead glazes (cf. Kerr 1998, 87ff). The decorative technique was developed around 1200 and was extensively used during the Ming and Qing dynasties. Lobed vessels have existed since at least the Song period, but were seemingly not widespread during the Ming and early Qing. Body (1) Trample Over [123].
- 2.4 Probably tea bowl, blue tinged white int. and brown ext. glaze. Brown copper glaze first appeared under the Song and was produced in the imperial kilns at Jingdezhen from the early Ming dynasty onwards, but such products do not seem to have come into Europe in noticeable amounts until the early eighteenth century. A shallow bowl in the Shanghai Museum also with a faint blue tinged inner glaze dates from the Shunzi reign period (1644 – 1661) (Butler and Wang 2006, 222f). Body (1) Trample Over [123].
- \*2.5 Small cylindrical vessel, probably a mug, in Chinese blue and white export porcelain. Part of a handle scar remains near the rim, which is 60 mm in diameter. It is decorated with a diaper border and scrollwork (possibly lotus-and-cloud), and probably dates to the early eighteenth century (Kangxi period, 1662 – 1723). Rim (1) [S]. NB This sherd came from a deposit associated with nineteenth century drain disturbance of the midden and, whilst it may well have derived from it, this cannot be certain.

*Tin Glazed Earthenware (TGW) (Delft)* by Martin J. Dearne except 2.9, 2.10, 2.16, 2.18, 2.19 and 2.46 by Jacqueline Pearce

One hundred and seventy eight sherds and 33 chips of TGW were recovered from the midden (or were residual in later contexts, but belonged to vessels represented in the midden). They represented an MNV of 38 and probably at least 40 vessels were present. Substantial parts of a few were recovered, but most were represented by a small number of sherds and post breakage deposition is likely in all cases (except perhaps 2.38). Sherds of the same vessels came from different horizons of the midden in several cases. Forms were mainly large ‘drug’ jars, dishes/bowls and plates with some chargers, mugs and chamber pots, but there were also a posset pot and a salt at least. Most material is likely to have derived from the south London pothouses, but there was at least one imported (?Dutch) vessel. Decorated material, especially the large jars, was often of Orton’s (1988, 327) group D, typical perhaps of the second half of the seventeenth century, though Wan Li ornament (included in Orton’s (op cit, 321) group A) on chargers probably highlights the period before c. 1650, even if in these cases the chargers may belong to not greatly before the mid century. However, a little of the material belonged to the ‘chinamen in grasses’ style (Orton’s (op cit, 327) group F) of c. 1670 – 90 and two vessels were or could have been as late as the early eighteenth century. (There were 27 white glazed sherds and numbers of chips not allocatable to forms which are not catalogued

below.) Only 15 sherds, or often just chips, of Delft came from deposits overlaying the midden, but could not be specifically matched to vessels certainly represented in it and, given the small area excavated and certain midden disturbance by later drain installation cuts, there must be a very high probability that 2.46 – 2.48 also derived from it, so are included in the catalogue.

- \*2.6 Charger. Pink fabric. Ext. lead glaze heavily blistered except at rim where white. Int. white glaze with central large yellow and lightish blue flower within broad and two thin light blue lines (one darker at edge). Outer zone (possibly closer to central motif than illustrated) of light blue double arcading infilled with pairs of alternating light blue and yellow triple chevrons and stylised leaves. Outer margin of broad and two thin light blue lines. ‘Crawling’ to glaze and centre decoration, small area of trivet fused to vessel. Orton (1988, 327) decoration group D. Majority of base [120], body (3 join) [120]/[124], rim (3) [120]/[124] and [124].
- \*2.7 Probably charger. Slightly yellow buff fabric. Ext. lead glaze. Int. white glaze with mid blue decoration including horizontal bands and fragmentary Wan Li ornament. ?Mid seventeenth century. Rim (1) [124], joining body (1) [120], (1) [120]/[124], (1 and chips) [S].

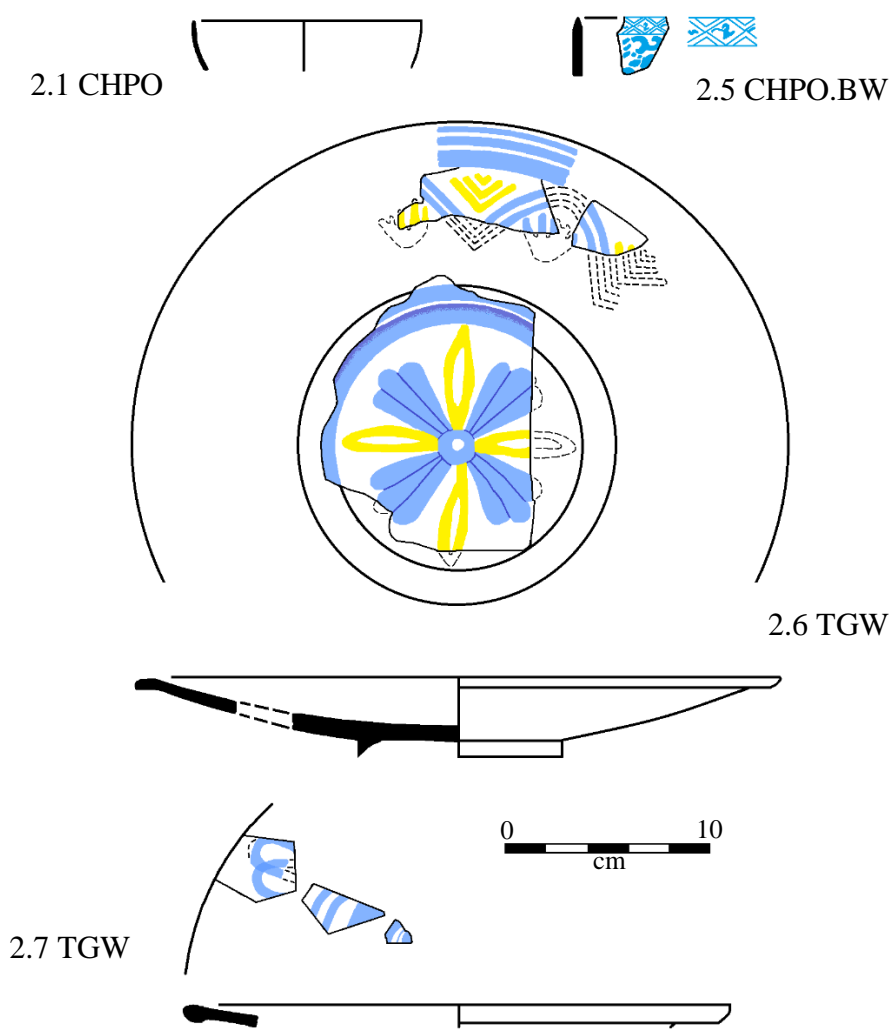


Fig. 76: Porcelain and TGW Vessels (1:4)

- \*2.8 Charger. Buff fabric. Ext. lead glaze. Int. white glaze with dark blue line along rim bordering vertical dashes separating double arcs (alternating upward and downward if one vessel); stylised festoons on body sherd. Probably very similar to Orton (1988, Fig. 137) No. 1368 (cf. also Archer 2005, 75 No. 18 with further parallels) in his decoration group A (op cit, 321) with Wan Li ornament and, like it, decorated in deep blue on opaque white glaze so perhaps a late product of the style.

?Mid seventeenth century. One rim sherd has post glazing indentations at its edge not on other rim sherds. It is possible that two (or even three) separate but similar vessels are represented, though all could be from the same vessel. Rim (1) [120], rim (2 join) [S], body (1) [S].

\*2.9 Plate. Buff fabric. (?Bluey) white ext. glaze. Decorated with stylised foliage in a rich blue over a white glaze (with lighter blue lines delimiting rim). Although the base is missing, the plate appears to conform to Britton's Shape I, an early form dating to the late seventeenth to early eighteenth century (Britton 1987, 194). The decoration has affinities with that on a plate or dish from a supervening deposit which might be residual from the midden, and could date as early as the last quarter of the seventeenth century. Early eighteenth century examples with similar decoration are also known in London (*ibid*, Nos 114 – 17), and the style was also popular in Bristol at the same date (*cf.* Ray 1968, No. 56). Rim/body (2 join) [120], rim and chip [120]/[124].

\*2.10 Plate. Buff fabric. Pale blue ext. glaze. Int. painted in shades of blue on a white glaze. The sherd is too small to allow the style of decoration to be identified, but the painting and palette suggest the style known as 'chinamen among grasses' (TGW F), which was popular c. 1670 – 90 (e.g. Garner and Archer 1972, Pl. 43B). The style, made in both London and Bristol, was characterised by Clive Orton as Group F in his analysis of the delftware from Mark Brown's Wharf (Orton 1988, 327). Rim (1) [124].

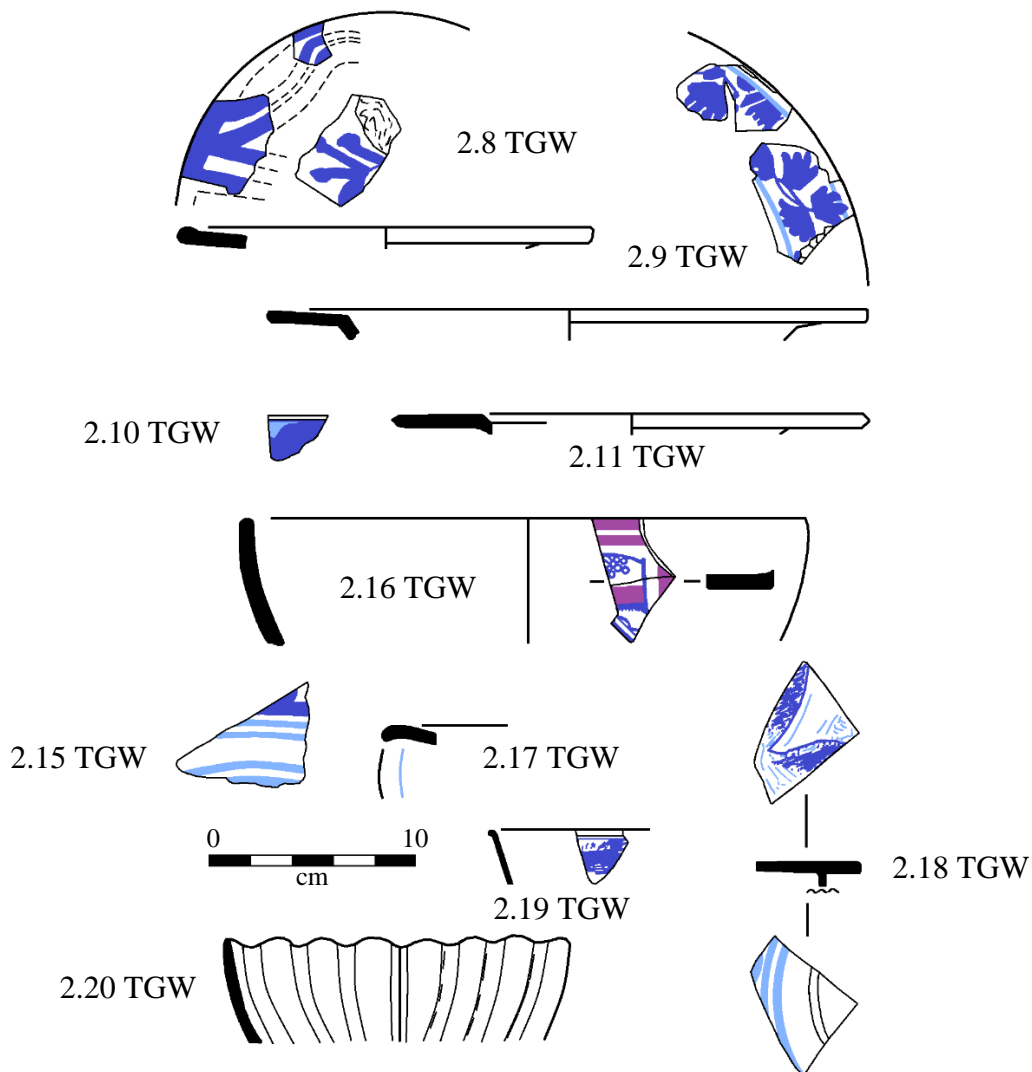


Fig. 77: TGW Vessels (1:4)

- \*2.11 Plate. Buff fabric. White ext. and int. glaze. Orton (1988, 313) type b as his Fig. 132 No. 1309. Rim (2 join) [120] and [U/S].
- 2.12 ?Plate or charger. Buff fabric. Ext glaze lost. White int. glaze. Rim (1) [124].
- 2.13 Possibly plate. Badly abraded. Buff fabric. Traces of white glaze. Rim (1) [124].
- 2.14 ??Plate. Buff fabric. Int. and ext. white glaze. ?Int. marginal blue line. Rim (chip) [124].
- \*2.15 Probably dish or bowl. Buff fabric. Ext. lead glaze. Int. slightly matt white glaze with pairs of horizontal blue lines and part of darker blue line below a motif probably from towards the outer edge of the vessel. ?Orton (1988, 327) decoration group D. Body (1) [120].
- \*2.16 Lobed dish. Buff fabric. Ext. (bluey) white glaze. Int. decorated in dark blue and manganese over a white glaze. The rim is divided into panels in a style that harks back to the late Ming decoration popular in the 1620s and 1630s. However, the decoration has more in common with the ‘chinamen in grasses’ style (TGW F), while the use of manganese and the glaze are more in keeping with later seventeenth century wares. Rim/body (2 join) [120].
- \*2.17 ?Bowl (or charger). Yellowish buff fabric. Int. and ext. white glaze. Ext. narrow light blue line. ?Orton (1988, 327) decoration group F. ?1680s. Rim (1) [120].
- \*2.18 Plate. Buff fabric. Ext. white glaze. Int. painted in shades of blue on a glossy, thick white glaze. Probably made in the Netherlands (DTGW). The base has a narrow footring (incomplete). The free, almost ‘sketchy’ style of painting and the quality of the glaze are unlike London tin-glazed ware. Although the sherd is too small to allow the design to be recognised, it may include figural elements, possibly with an animal such as a horse. The sherd probably dates to the early eighteenth century. Base (1) [124].
- \*2.19 Bowl. Buff fabric. Ext. off-white glaze with pale bluish tinge. Int. decorated in shades of blue on an off-white glaze with pale bluish tinge. Although little survives, the decoration is typical of the ‘chinamen in grasses’ style (TGW F; cf. Britton 1987, No. 94) and can be dated to c. 1670 – 90. Rim (1) [120], rim (1 ?matching) [124], detached glaze [120]/[124].
- \*2.20 Fluted dish with lobed rim. Buff fabric. White int. and ext. glaze. The form is represented at the Rotherhithe pothouse (active c. 1638 – 84) (Tyler *et al* 2008, Fig. 107 No. P112). Rim (2) [120].
- \*2.21 Large ‘drug’ jar. Buff fabric. Int. white glaze with dark blue splashes. Ext. white glaze, often blue speckled, painted, between two zones of four manganese purple horizontal lines, with aubergine (dark blue, nearly black) crosses in a continuous chain. Orton (1988, 327) decoration group D; cf. his Fig. 138 No. 1378 and generally e.g. Archer (2005, 95) No. 128. Base/body (7 with joins, giving virtually complete profile and c. 70% base/lower wall) [120].
- \*2.22 Large ‘drug’ jar. Yellow buff fabric. Int. slightly blue tinged white glaze. Ext. slightly off white, slightly matt glaze painted, between two zones of three manganese purple horizontal lines, with manganese purple horizontal dashes and above with a zone of dark blue ?flowers. Orton (1988, 327) decoration group D, especially his Fig. 135 Nos 1360 – 61. Base (2 join) [120] and [S], body (8) [120], body (4 and chip) [120]/[124].
- \*2.23 Large ‘drug’ jar. Yellowish buff fabric. Int. slightly blue tinged white glaze with slight pink flush. Ext. white glaze painted with two zones of dark manganese purple decoration, the upper a cable pattern, separated by two mid blue horizontal lines with (probably) three more and some pink flushing below the rim. Orton (1988, 327) decoration group D. Rim (1) and body (3) [120], body (3, 1 joins preceding) [120]/[124], [124] and [120]/[124] Second Sieving.
- 2.24 Large ‘drug’ jar. Yellowish buff fabric. Int. and ext. white glaze, ext. painted with two light manganese purple horizontal lines below rim and similar bounding light blue ?crosses. Rim (3) and body (2) [124], body (2) [120] and [120]/[124].
- 2.25 Large ‘drug’ jar. Buff fabric. Int. and ext. white glaze, ext. painted with ?two groups of two horizontal light manganese purple lines above badly run blue decoration. Probably Orton (1988, 327) decoration group D. Body (2 join and chip) [120].



- 2.26 Large 'drug' jar. Buff fabric. Int. and ext. slightly blue tinged white glaze, ext. painted with dark manganese purple horizontal line and dash decoration (cf. 2.22). Rim (2 join) and body (2 and 2 chips) [124].
- 2.27 Large 'drug' jar. Buff fabric. Int. and ext. white to slightly blue tinged glaze, ext. painted with washed out manganese purple horizontal line. Conceivably the same vessel as 2.26. ?Base (1) [124].
- \*2.28 Jar. Buff fabric. Int. white glaze with pink flush. Ext. white glaze painted with light pinky purple horizontal lines on and below rim. Vessel diameter uncertain, but weak rim profile reminiscent of some small 'drug' jars. Rim (1) and chip [124].
- \*2.29 Large 'drug' jar. Buff fabric. Int. white glaze. Ext. glaze lost. Rather constricted rim. Rim (2 join) [120].
- \*2.30 – 31 Jar(s). Buff fabric. Int. and ext. white glaze. Probably, but not certainly, two separate 'jars' intermediate in size between small and large 'drug' jars and 2.31 at least with a more pronounced and defined indent at base of the wall than either. 2.30's relatively unconstricted rim may well suggest an ointment pot rather than a jar and this may point to a late seventeenth/early eighteenth century date. 2.31 with part of a second glazed vessel fused on in the kiln. 2.30: Rim (2) [120]; 2.31: Base/lower body (1) [120].
- 2.32 ?Mug. Slightly yellowish buff fabric. Int. and ext. white glaze. Body and handle (1) [124].

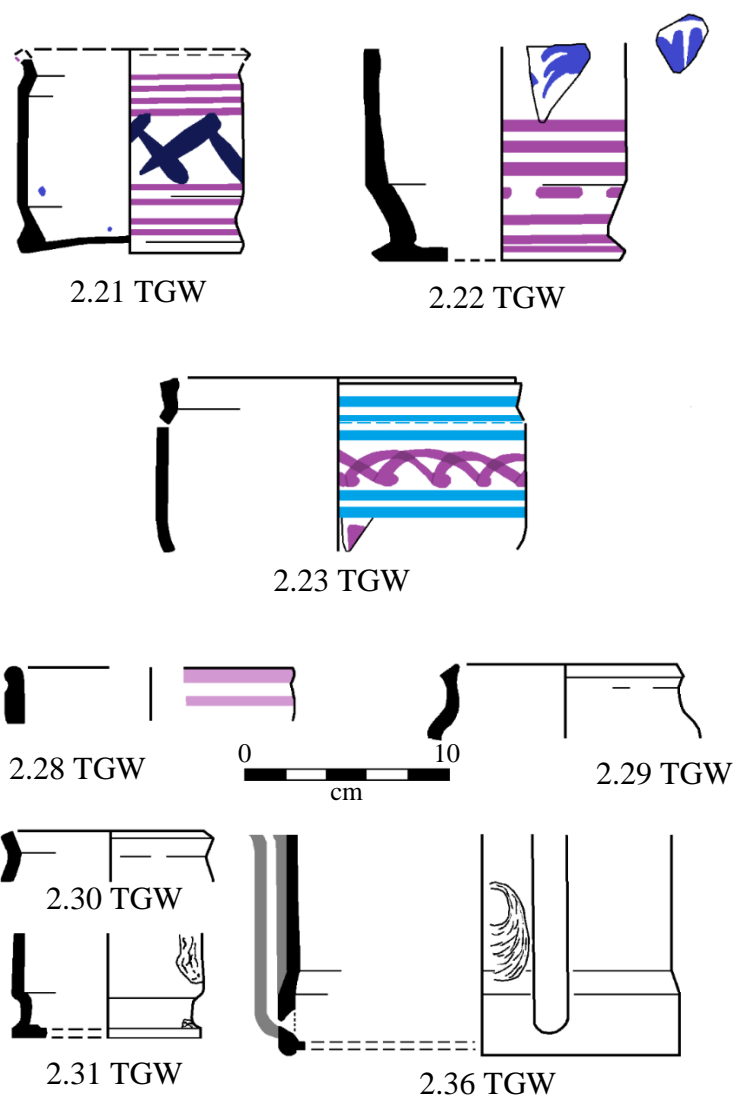


Fig. 78: TGW Vessels (1:4)

- 2.33 ?Mug Yellowish buff fabric Int. and ext. white glaze. ?As Orton (1988, Fig. 132) No. 1318, but fragmentary and wall pushed out at one point. Base (3) [124].
- 2.34 Mug. Buff fabric. Int. and ext. white glaze. Rim (1) [120].
- 2.35 ?Mug. Buff fabric. Int. and ext. white glaze, ext. manganese speckled. Orton (1988, 321) decoration group B, c. 1640 – 80. Body (2) [120].
- \*2.36 Posset pot. Slightly yellowish buff fabric. Int. and ext. white glaze (with distinctive, dense, black stained cracklier). Possibly matching rim sherds (not illustrated) suggest a plain rim. Separately made spout connecting to interior via crudely made hole. Body pushed out within depressed area beside spout (? during its attachment). See also 2.41 below. Base/body (2 join inc. spout) and body (6 and chip) [124]; rim (2) and body (5) [120] may belong.
- 2.37 Salt. Buff fabric. Ext. white glaze. Int. (of base) white glaze above unglazed zone. As Orton (1988, Fig. 132) No. 1290. Mid/late seventeenth century. Base (1) [124].
- \*2.38 Chamber pot. Buff fabric. Int. and ext. blue tinged white/light duck egg blue glaze. Circular boss under handle, springing from out turned rim, at wall junction. Illustration a probable reconstruction from non-joining sherds and vessel height especially uncertain. Glaze colour may suggest a date c. 1670 – 80. Rim/handle (1) Base of [118], handle (1 joins last) and large body (11) Base of [118] and [120]; base (1) and body (2) [S] probably match.
- 2.39 Chamber pot. Buff fabric. Int. and ext. white glaze. Rim (1) and upper body (1, probable match) [124].
- \*2.40 Chamber pot. Buff fabric. Int. and ext. rather matt white glaze. Rim (1) [120]/[124] Second Sieving.
- 2.41 ?Posset pot/mug (or possibly chamber pot). Slightly yellowish buff fabric. Int. and ext. white glaze. Conceivably from 2.36. Body/handle (1) [120].
- \*2.42 Chamber pot. Yellow fabric. Int. and ext. white glaze, ext. with aubergine speckles in some areas. Rim (2 join) [124], body (8, 1 joins last) [124]; body (5 and 3 chips) [120]/[124] and chip [120] may match.
- 2.43 Uncertain. Buff fabric. Int. and ext. white glaze. Base (2 join) [120].
- 2.44 Uncertain. Buff fabric. Int. white glaze, ext. glaze lost. Base or rim (2 join) [124].
- 2.45 Uncertain. Yellowish buff fabric. Int. and ext. white glaze with slight blue tinge. From a vessel with a sharp constriction below a globular upper body. A wet drug jar is a possibility, but some ?flower vases (e.g. Orton 1988, Fig. 133 No. 1321) are generally similar and a possible ewer or spouted bottle from Rotherhithe pothouse (Tyler *et al* 2008, 77, Fig. 133 <P115>) also appears to be a candidate. However, there is too little of the vessel for certainty. Body (up to 8 inc. join, but all may not match) [120].
- \*2.46 Dish or plate, with stylised foliage painted in a rich blue over a white glaze. Decoration of this kind, with small, neatly painted tufts of foliage developed in both London and Bristol at the end of the seventeenth century and continued into the early eighteenth century. The scarcity of Bristol delftware on London excavations and the appearance of the glaze and painting indicate a pothouse in Southwark or Lambeth. The characteristic manner of painting foliage can be seen on London vessels as early as the 1670s, such as a caudle cup dated 1676 in the Museum of London Ceramic and Glass Collection (MOL C2437: Britton 1987, No. 78). In the early eighteenth century, the small tufted leaf motifs may be combined in a dense style of decoration with clusters of four dots (e.g. Ray 1968, Pl. 16 top right, dated 1700; Austin 1994, No. 601, also c. 1700). Examples with comparable decoration continue as late as c. 1740, as shown by a posset pot in the Museum of London (MOL A23804: Britton 1987, No. 125). It is difficult to be more precise in dating this sherd, in view of its small size and the absence of other decorative elements. Body (1) [S].
- 2.47 Chamber pot. Buff fabric. Int. and ext. white glaze. Rim (1) [S].
- 2.48 Porringer. Ditto. Base (1) [S].

*Frechen Stoneware (FREC)* by Martin J. Dearne (2.49) and Jacqueline Pearce (2.50)

Frechen Bartmann stoneware jugs, drinking vessels and bottles were imported into England in very considerable quantities from c. 1550 and throughout most of the seventeenth century, but only two vessels were represented in the midden. As they were extremely common in demolition deposits of c. 1660 at the immediately adjacent Elsyng Palace (Dearne *et al* 2022, 265)) their limited appearance here may well have more to do with the low representation of liquid serving/drinking forms present in the midden than with e.g. the date of the midden.

\*2.49 Complete rim and neck and most of the profile of the body of a small, single handled (?drinking) jug with slightly thinned rim and slight cordon at the base of the neck. Int. light grey and ext. mottled dark brown glaze. Rim/neck/body (17, mostly joining) [120], body (1, joins) Base of [118], body (1, joins) [U/S].

\*2.50 Jug. Int. tan and ext. freckled tan glaze. Two joining sherds include part of the border of an applied medallion, but the centre has not survived. Body (4, 3 join) (Base of) [120].

*Guys Ware (GUYS)*

2.51 Chip. Buff c. and yellowish ext. s., red int. m. and white slipped s. Thin patches of clear glaze int. and ext. Pre early seventeenth century. ?Base (chip) [120]/[124] Second Sieving.

*Surrey/Hampshire Border Ware (BORD)*

Including Red Border Ware seven border ware vessels were present, including what might almost be thought of as a 'set' of Type 1, 2 and 3 deep bowls from the same horizon of the midden ([120]). Border Ware appears though to have represented only a small component of the food preparation/cooking and perhaps serving vessels in use (possibly providing smaller as much as finer vessels) compared to the Post Medieval Redware (PMR) catalogued below. (A possible RBOR chip with rather matt olive glaze int. came from [S] and so may or may not have originated in the midden).

2.52 Tripod pipkin. Int. deep green glaze (BORDG), also ext. on poorly finished leg plus finger smudge. Green glazed tripod pipkins are uncommon and appear to be mid to late seventeenth century in date (Pearce 1992, 20). Base (1) [124].

\*2.53 Bowl. Int. light olive glaze. Pearce (1992, 13f) Type 3 deep bowl, very close to her Fig. 24 No. 88 which is the only olive glazed example listed from London. Seventeenth century. Rim/upper body (4, joins, c. 75 % of rim) [120], body (3) [120], [120]/[124] and [120]/[124] Second Sieving.

\*2.54 Bowl. Int. yellow glaze (BORDY), ext. burnt black on rim/upper body. Pearce (1992, 13) Type 2 deep bowl. Seventeenth century. The illustration is a probable reconstruction. Body and base (4, inc. join) [120], rim and body (2) Base of [118], base (1) [S].

\*2.55 Bowl Int. and ext. yellow glaze (BORDY) except under base. Pearce (1992, 13) Type 1 deep bowl. Seventeenth century. Rim and base (4 inc. joins) [120], body (1, ?join to last) [120]/[124].

2.56 ?Bowl. Int. yellow glaze (BORDY). Small fragments probably from a Pearce (1992, 13f) deep bowl. Seventeenth century. Body (1 and chip) [120].

*Surrey/Hampshire Red Border Ware (RBOR)*

2.57 Porringer. Int. clear to olive green glaze sometimes also on ext. rim. Mid seventeenth century or later (cf. Pearce 1992, 17). Rim (2 join) [124].

2.58 Dish. Possible wipe of glaze. Base (1) [120]. (Fabric ID kindly supplied by Jacqueline Pearce).

*Post-Medieval Black Glazed Ware (PMBL) ('Metropolitan Ware')*

\*2.59 Single handled flared mug. Broad pad base with slight marginal groove, but very low internal basal diameter. Plain wall rapidly splaying above slight double cordon overlapped by base of applied oval sectioned handle. The general type is common at Harlow (Davey and Walker 2009, 48), but the base here is broader even than on one from Latton Riddings (op cit, Fig. 26 No. 129). Seventeenth century. Complete base and lower body/handle [124].

2.60 Probably mug. Part of int. s. glaze uneven and dark brown not black. Rilled. Body (1) [124].

2.61 ?Jug (possibly more than one vessel/vessel type). Only thin, patchy dark brown glaze int. on some sherds but all rilled. ?Jug only int. glazed at top. Body (4, 1 join) and burnt chip [120].

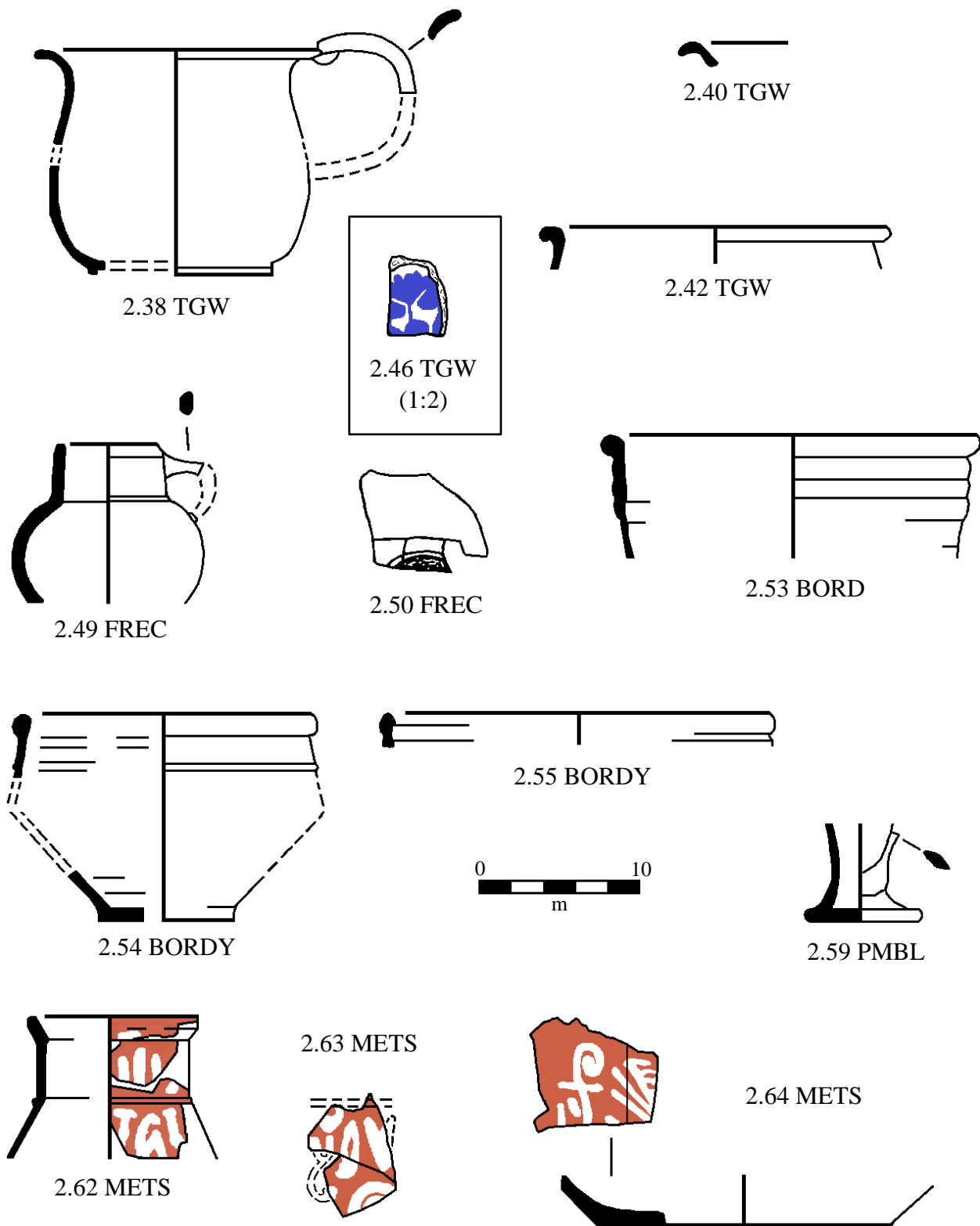


Fig. 79: TGW, FREC, BORD, PMBL and METS Vessels (1:4 Except Where Indicated)

*Metropolitan Slipware (METS)*

\*2.62 Large rounded jug (as Davey and Walker (2009, 59)) or less likely large everted neck rounded jug (op cit). Ext. brown glaze with black specks (continued int. to just above neck/body cordon) and good thick white slip standing out in relief. Incomplete 'rim' pattern including ?groups of ?three

vertical and horizontal ?and angled strokes on neck. Part of motto on top of body [TGI[ or ]TGL[ (op cit, Fig. 39 letter forms including T3 and for the G see Fig. 59 No. 327) with slight trace of vertical or angled descending stroke of a following letter. Body (3, join) and rim (2, join, ? and to body) [120].

- \*2.63 Similar. Conceivably the same vessel but the glaze is more red brown. Part of motto on top of body ]YOV[ above a scroll end probably from a trident (e.g. op cit, Fig. 46.4). The motto “When this you see remember me” is common at some Harlow production sites and a dated example of 1666 is known (op cit, 89), though it cannot be certain that this is the correct expansion. Body (2, join) [120].
- \*2.64 Dish. Dark grey core to wall. Brown glaze with black specks and thickish white slip standing out in relief. Part of a Davey and Walker (2009) ‘wall pattern’ with dashed edges, probably used axially, and a barred S-scroll ‘wall pattern’. The first is (op cit) Fig. 35 No. 29.12 with an extra central bar and the second No. 27.6, but single not triple barred. The barred scrolls are characteristic at Harlow of the S1/S190 production site material where they can occur on dish bases horizontally as here (op cit, Fig. 51 No. 232; cf. 116, Design 17) and one suspects that this dish derives from the work (?of potter 3) at the production site represented by the Latton Riddings S190 material which dates to the 1660s (op cit, 96). Base (2, join) [120] and [124].

#### *London Area Post-Medieval Red Earthenware (PMR)*

One hundred and eighty sherds (and a number of chips) of PMR, virtually all showing some indication of coming from glazed vessels, were recovered from the midden. Many were large (in some cases representing complete profiles or large percentages of very large vessels) and joins were common, allowing many vessels to be partly reconstructed. Where not joining, it was possible to confidently match many sherds on the basis of form, glaze characteristics and colour variations on unglazed surfaces so that around 90% of the material was allocatable to specific more or less identifiable vessels (leaving 25 small body sherds or chips unallocated).

At least 28 and probably 29 or 30 such vessels were present, though the unallocated sherds are unlikely to represent more than one or two – if any – additional vessels. Sherds of the same vessels did again often come from more than one horizon of the midden but, with the exception of 2.87 (where two very similar vessels may be involved), it was clear that most if not all the sherds of individual vessels had been deposited soon after breakage/(further) broken in deposition and subjected to only limited vertical translocation. Sherds were generally unabraded and, where joining, usually fitted precisely. A majority of the vessels came from the upper part of the midden ([120] and the Base of [118]) and included the most complete vessels (some of which might possibly have been deposited as part of a ‘clear out’ rather than individually after breakage), but PMR vessels were present to the base, with large sherds in [129] and [130].

No detailed fabric evaluation was undertaken, but little variation was superficially apparent. However, one vessel (2.77) appeared to be particularly micaceous and one (2.88) more finely finished so that it is probably unlikely that all vessels were from a single source. One or two parallels to published material from Harlow are drawn in the catalogue, but it is unlikely that the vessels derived from this source and most probably derived from Post Medieval Course Redware (PMRC) production centres such as Lambeth, Woolwich and Aldgate. All vessels had orange margins, most commonly with reduced grey cores only where thickened at the rim, though several had grey cores more or less throughout, and usually with external surfaces reduced to some degree. Glazes, except for spots and splashes, were restricted to the interior of all vessels except the pipkins 2.78 and 2.81 and the bowl 2.73. They varied considerably in quality, including between different parts of the same vessel, from consistent and glossy to dull, blistered or patchy/thin (especially below rims) with several vessels showing under fired matt white areas and one jar (2.87) having a very bubbly ‘rough’ glaze. Honey to mid brown glaze, sometimes tinged olive green, was common with three

dark olive green vessels and seven dark brown vessels, often with black spots in the glaze. A single black glazed (but not PMBL) vessel was represented by a large body sherd (2.92).

The corpus clearly represented the main food storage, preparation and cooking wares of a substantial kitchen (along with some smaller vessels and a pipkin in Border Wares (above)). There were six flared dishes or pancheons in PMR and at least five large straight sided or two handled bowls, with probably at least five jars. At least two more large vessels were either jars or bowls and up to five normal sized pipkins were present, while two very large ?pipkins/cauldrons (if not lid seated jars) might particularly suggest the cooking of food in quantity.

- \*2.65 Flared dish/pancheon. Grey core throughout. Int. honey brown glaze, thin/patchy towards/on rim, splashes to outer rim and ext. s. Ext. s. fired red. Externally grooved everted rolled rim with groove to inner edge. Similar to Harlow (Davey and Walker 2009) Fig. 69, especially No. 387. Rim/body (1) [124].
- \*2.66 Flared dish/pancheon. Grey core. Int. often dull honey brown to brown glaze in most areas under fired to dull white. Ext. s. fired to pinky brown. Everted hooked rim with slightly grooved surface. Knife trimmed under and just above base. Some possible post firing knife cuts to rim. Rim, base and body (6, inc. joins and complete profile, c. 30% of vessel) [120].
- \*2.67 Flared dish/pancheon. Grey core to most of rim and body. Int. mid honey brown glaze. Ext. s. slightly reduced to pinky grey and grey on rim. Everted rolled rim. Thickened and ?knife trimmed above base. Rim and body (3, join) [124], body (1) [120]/[124].
- \*2.68 Flared dish/pancheon. Int. good mid brown glaze. Ext. s. slightly reduced to patchy pinky grey and orange. poorly finished ext. edge to everted rim with sunken surface (making profile a little uncertain). Rim (2 join) [124].

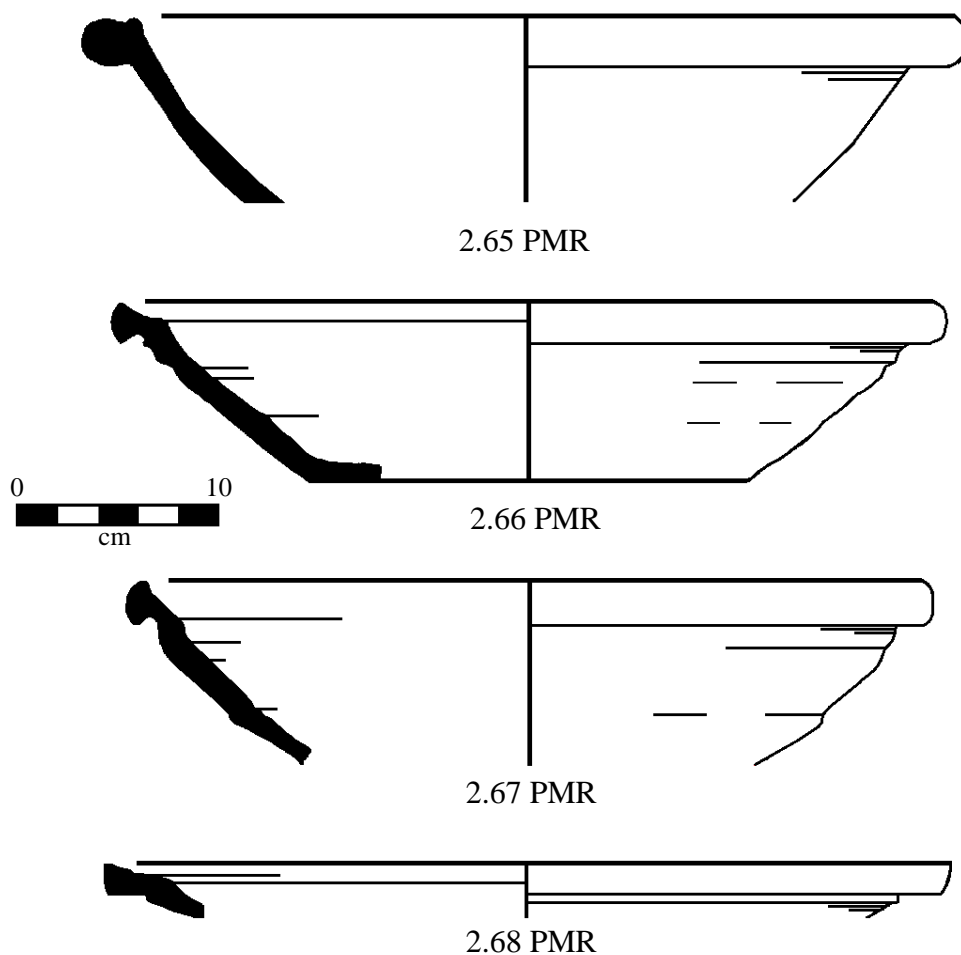
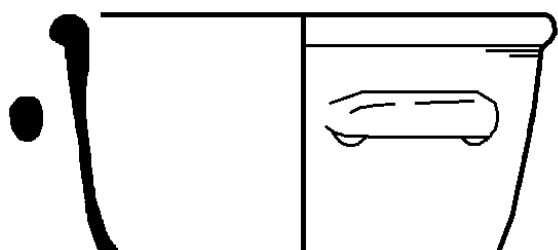
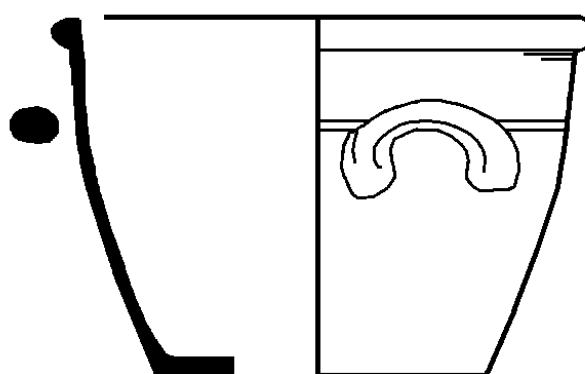


Fig. 80: PMR Vessels (1:4)

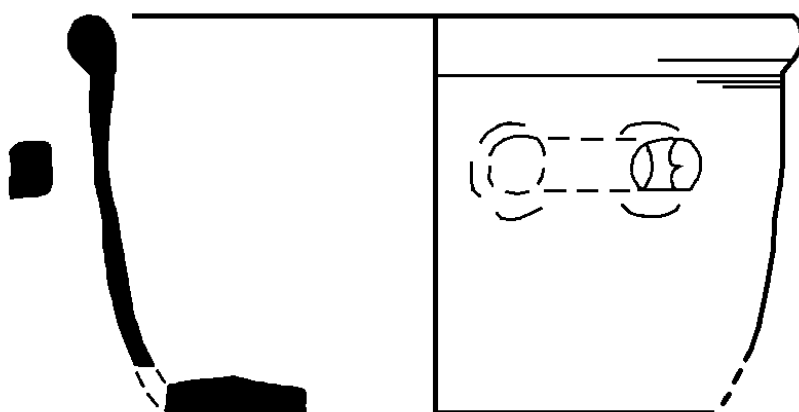
- 2.69 Probably flared dish/pancheon. Int. mid brown glaze with some blisters and under fired white/grey areas. Ext. s. fired to fairly bright red. Knife trimmed at base of wall. Base (1) and chip [124], base (1) [S] ?matching.
- 2.70 Probably flared dish/pancheon. Int. brown glaze with black specks and streaks. Ext. s. fired to orange red and light grey further up wall. Base (1) [130].
- \*2.71 Two handled bowl. Int. honey brown glaze tinged olive and blistered. Ext. s. fired to red with glaze smears under rim and handle fired to black in places. Rim/ body (2) [120].
- \*2.72 Two handled bowl. Int. dark brown glaze with black specks. Ext. s. reduced to pinky grey with two grooves at level of top of upturned horizontal handles. Rather triangular bead rim. Illustration a probable reconstruction, vessel height and handle level slightly uncertain. Rim, body and base (16 and chips) [120], body (1) [S].



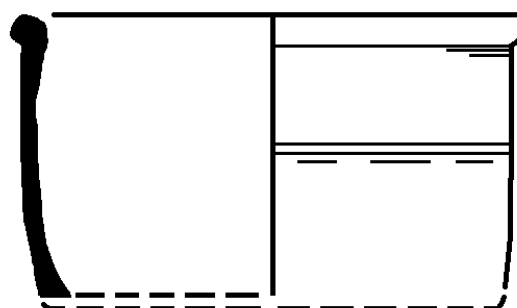
2.71 PMR



2.72 PMR



2.73 PMR



2.74 PMR

Fig. 81: PMR Vessels (1:4)

- \*2.73 Two handled bowl. Grey core throughout. Int. honey to mid brown glaze with olive and rough bubbly patches and large area under fired to dull white. Ext. mid brown and often olive brown glaze, under fired to dull white in large areas, especially on thinly glazed rim, and parts of lower wall unglazed. Bead rim with int. drying crack. Stubs of horizontal handle with finger marks. Broad ridge near edge of int. base. Rim, body and base (16 large sherds, many joins) [120], body (1, joins last) Base of [118] (30 – 40% of vessel inc. complete profile).
- \*2.74 Straight sided bowl. Int. brown glaze, thinner/redder towards rim and with powdery white streaks and patches. Ext. s. with slight groove/double groove half way down wall, fired to red, glazed under rim and extensive glaze drips/smudges. Bead rim. Rim and body (up to 13, many joins) [120], body (1, large, joins last) Base of [118].
- 2.75 Straight sided bowl. Grey core to base. Int. dark brown to dark olive green glaze, thin/patchy near/on base. Ext. s. and m. reduced to grey except one area, several prefiring marks from four pronged 'comb'. Base showing some wire marks and glaze spots. Base/body (3 join, giving c. half of vessel) Base of [118] and [120], body (4 and chip, 1 joins last) [120], chip Base of [118]; body (6 and chip, many joins) Base of [118] and [120] and body (1) [120]/[124] may also belong.

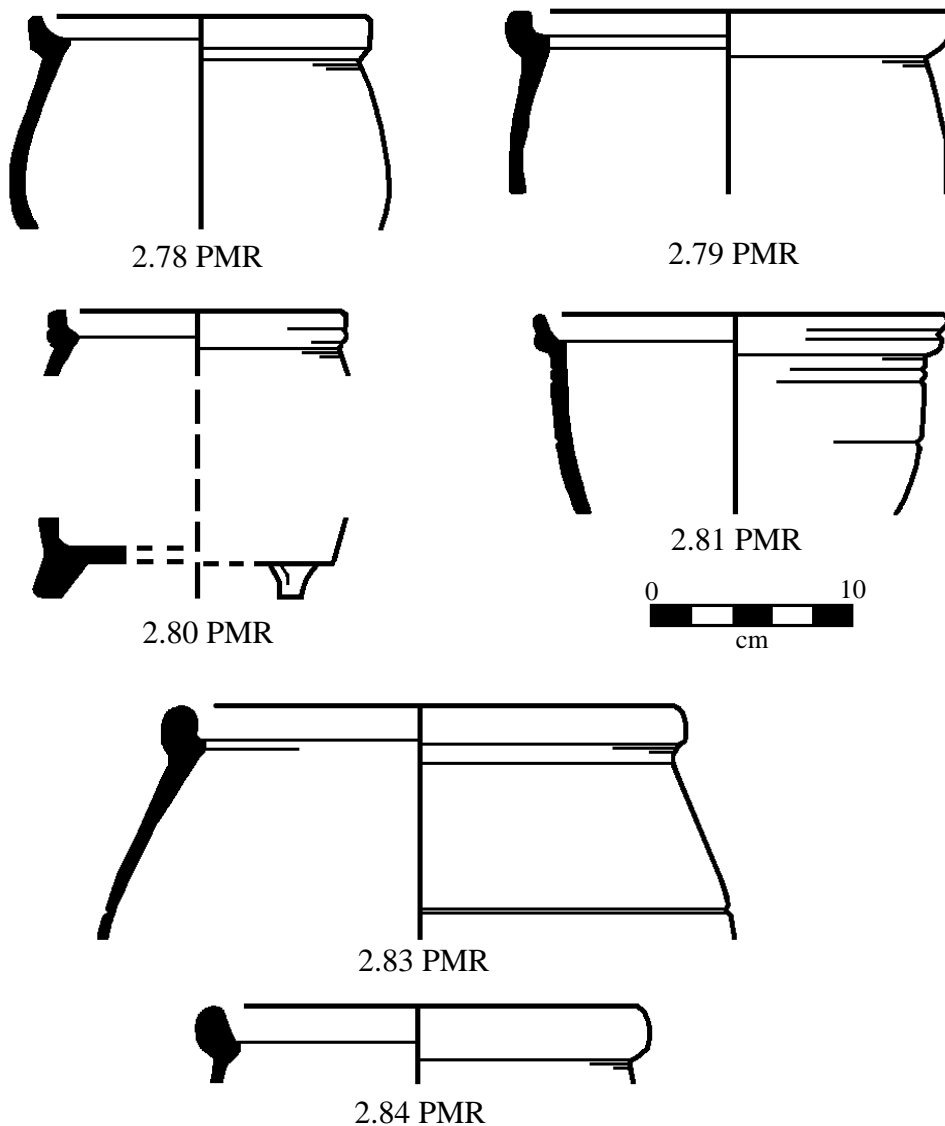


Fig. 82: PMR Vessels (1:4)



- 2.76 Bowl. Int. honey brown glaze with under fired white patches, worn and chipped. Ext. s. fired to pinky grey with glaze spots especially under base and groove at base/wall junction. Base (1) Base of [118].
- 2.77 Bowl (or jar). Very micaceous fabric. Int. mid brown glaze, many areas under fired to matt white and flaked off at base. Ext. s. fired to pinky grey with area of dense glaze spots at base of wall. Pad base. Base (2 join, giving c. 25% of) and body (5 and 3 chips) [120].
- \*2.78 Pipkin. Int. and ext. brown glaze, rather thin and patchy for several cm below rim int., ditto ext. below this level and ext. may cease below a slight cordon. Some sherds probably burnt after breakage. Rim/body (5, 4 join) [124], body (2) [120]/[124], chips (2) [120]/[124] Second Sieving.
- \*2.79 Large pipkin. Int. dark olive glaze. Ext. s. reduced to pinky grey. Rim/body (3, 2 join) [120].
- \*2.80 Pipkin(s) Int. honey brown glaze at rim, darker brown towards base, patchy below rim. Ext. fired to red. Slightly fluted legs. Base and body burnt/sooted. All sherds could belong to one vessel but two similar ones could be represented. Rim and body (2) [130], base (2) [129] and [124], body (1) [129].
- \*2.81 Pipkin. Int. mid brown glaze, crazed and flaked off, surface burnt black, almost completely worn off on lower wall. Ext. mid brown glaze burnt to red black, crazed, flaked off and with surface burnt black and very heavily sooted on rim and upper body. Two grooves below rim ext. and a slighter one further down. Rim (1), body (1, large) and chips (2) [124], body (2, joins to last) [120].
- 2.82 ?Pipkin. Int. dark brown glaze with black spots. Ext. s. fired or more likely burnt to purplish grey with patchy surface loss. ?Burning (and thin base) suggest a pipkin. Base (1) [120].
- \*2.83 Very large pipkin/cauldron (or lid seated round bodied jar). Variable orange to grey core. Int. fairly well dark olive green glazed, but thin/patchy/absent (showing reduced grey s.) for 6 cm below rim and above slight groove. Ext. s. reduced to pinky brown with glaze splashes/drips and groove slightly below int. one. Comparison of int. glazing to 2.78 adds to the suspicion that this is an outsized pipkin not a jar. Rim/body (5 join) [120], body (1) [U/S].
- \*2.84 Very large pipkin/cauldron (or storage jar). Grey core. Int. dark brown glaze with under fired white patches. Ext. s. fired to grey with glaze smears. Similarities to some vessels regarded as storage jars at Harlow (Davey and Walker 2009, Fig. 72 Nos 413 – 7), but again this may be an outsized pipkin. Rim (2 join) [120].
- \*2.85 Storage jar. Grey core at rim. Int. deep brown glaze with black specks. Ext. s. with patchy reduction, glaze smears and slight groove well below squared rim. Rim/upper body (1) [130].
- \*2.86 Storage jar. Int. dark honey brown glaze much blistered and fired to black in places on/below rim. Ext. s. reduced to grey in places with slight groove a distance below bead rim. Rim/body (3 join) and body (1) [120].
- \*2.87 (?Handled) storage jar(s). Grey core at rim. Int. dark brown glaze, often distinctively rough from presence of small bubbles, and at least one groove. Ext. s. reduced to dark grey with broad vertical and diagonal glaze drips, slight double groove well below rim and probably other slight grooves. Very heavy everted rim with slight groove and zone of two fingered impressions ext. The heavy thumbing (here done with two fingers) is found on similar rims from the city of London (e.g. Fetter Lane (Siegel 1978, Fig. 5 No. 13)). Rim (2) and body (4) [120], body (13, some join and to last) and chips (2) [124], chips (2) [120]/[124] Second Sieving, body (2) [130]; sherds from [130] and some from [124] could be from a similarly glazed but separate vessel to the rest.
- \*2.88 Jar. Grey core to rim, very crisply finished vessel. Int. patchy/thin slightly olive brown glaze. Ext. light orange m. and s. Everted rim above pronounced externally grooved collar matching deep internal groove. Unusual. Rim (2 join) [120].
- \*2.89 Jar. Grey core to rim. Int. variable brown glaze with olive patches. Ext. s. reduced to pinky grey with glaze line at base of rim in places. Rim/body (3, 1 ?join) [120].
- \*2.90 Round bodied ?jar or ?bowl. Int. mid brown glaze. Ext. s. oxidised to dull red with glaze spots/smears and double incised line below neck. Incomplete rim, but presumably with lost bead

above the external thickening (which has finger impressions) and so similar to a bowl from Staines (Crouch 1976, Fig. 21 No. 5) from a late seventeenth/early eighteenth century group. Cream ?glaze ?drip ext. on one sherd. The vessel has been assumed to be a bowl for the purposes of illustration. Rim/body (11 often join) [120].

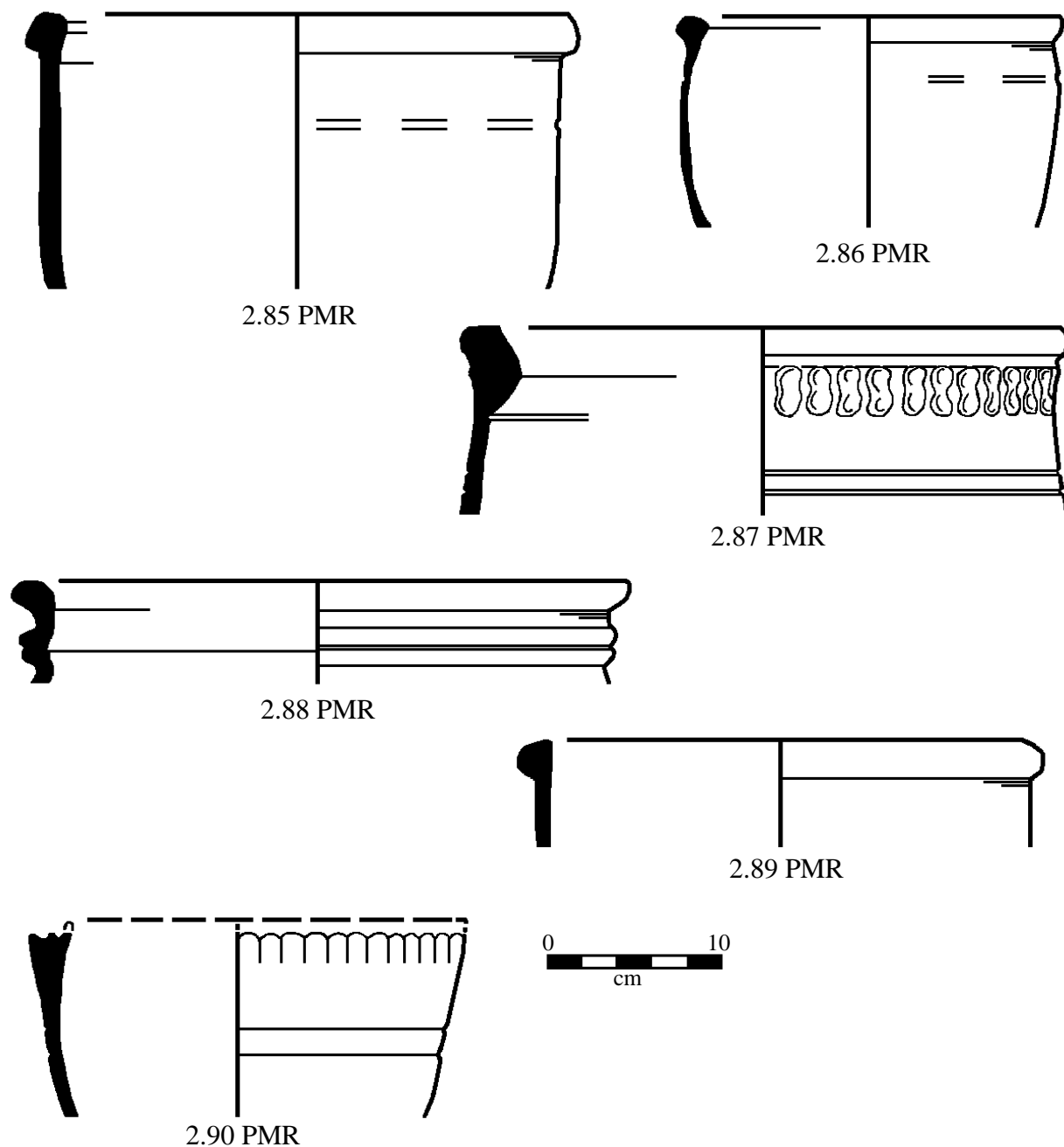


Fig. 83: PMR Vessels (1:4)

- 2.91 Uncertain. Int. good dark brown glaze. Ext. s. reduced to dark grey with glaze smudges. Body (5 and chip) [120], [124], [120]/[124] and [120]/[124] Second Sieving; possibly material from more than one vessel.
- 2.92 Uncertain. Int. black glaze, rather thin with fabric showing through in many small spots, partly due to heavy wear shown by many small scratches. Ext. s. reduced to mid grey with glaze smudge. Whilst the int. glaze is black it does not match that of PMBL, however it is presumably possible that this style of glazing was being imitated. Body (1, large) [124].

## Miscellaneous

2.93 Small body sherd. Grey c., one orange s., other lost. Not identified. [120]/[124].

### 3 Vessel Glass Other Than Wine Bottles

by Martin J. Dearne, except 3.1 by Beth Richardson

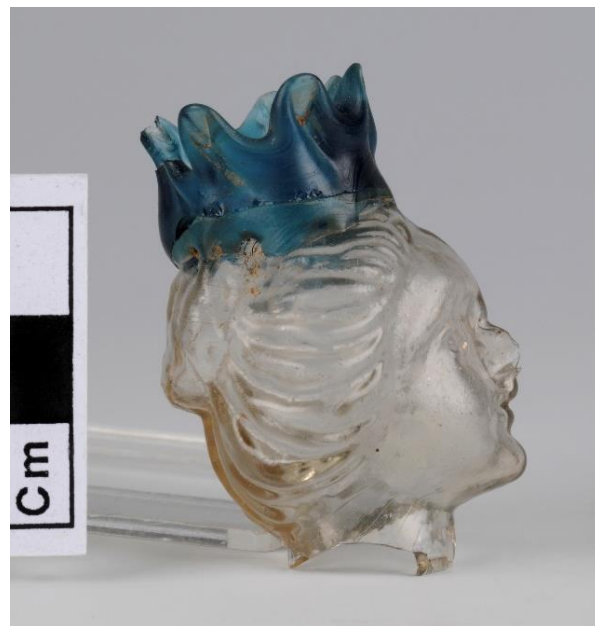
The midden produced 139 sherds and chips certainly of vessel glass (72 sherds and chips that may include greenish prismatic vessel material as well as window glass are considered below). One or two sherds probably matching midden material and likely derived from it through disturbance, but recovered from later contexts are also noted here. However, only a few vessels were represented by large sherds or multiple sherds, fragments under 2 x 2 cm predominated and a significant proportion of the material was made up of fragments less than 1 x 1 cm in size. With three sherds unassigned, 41 potentially separate vessels were recognised, but it must be emphasised that the nature of the material meant that many correspondences and differentiations had to be based solely on the colour, bubblyness, thickness and surface weathering characteristics of the metal alone, some or all of which can vary within the same vessel. Thus, the 41 catalogue entries should not be taken as necessarily signalling that 41 vessels were present, only that this is the number of vessels likely to be represented by assuming that sherds which show similar characteristics belong to the same vessels and the actual number may be somewhat at variance to this. Fragment size also means that vertical translocation of sherds of glass vessels (except for larger items such as 3.1) within the midden is particularly likely to have occurred, and that a disproportionate amount of the material came from [120]/[124] Second Sieving, so that it would be unwise to attempt to draw conclusions about variations between the glass in different horizons of it (thus only a summary of provenance is given in the catalogue).

Never the less, it was apparent that very small percentages, but of many vessels were present with numbers of vessels being represented by single or a handful of small sherds or even chips. Inevitably this meant that many vessels could not be closely identified and only a small number could be illustrated, but *cristallo* or clear soda glass and thin (blue) green (?mixed-alkali) vessels predominated over more utilitarian rather thicker walled green potash glass vessels (and even amongst the greenish glass some only light to mid green potash or mixed-alkali thin walled vessels occurred). This, along with fragment size, makes it probable that the glass derived primarily from the clearance of breakages to finer glass (table) vessels in use in the hall (rather than service areas) and perhaps the deposition of household sweepings. This finer glass (in so far as forms are identifiable) appears to emphasise shallow dishes (some perhaps used as salts and sweetmeat dishes etc) and the number of goblets is perhaps unexpectedly low. However, this pattern of higher proportions of table display as opposed to liquid consumption vessels has been noted as a characteristic of elite 'rural' as opposed to urban sites especially in the sixteenth century (Willmott 2002, 26) and the Forty Hall material might suggest that this continued to be the case into the second half of the seventeenth century. One possible explanation for this is that rural elites may have disproportionately favoured metal drinking vessels while servants used more wooden ones outside urban areas. In origin, given their date and quality, it is likely that numbers of vessels are of Venetian origin, but others may have been imported from other sources or have been made in England (probably in London). The more utilitarian English green glass is too fragmentary to be very informative, but includes the forms to be expected at this date such as case bottles.

The catalogue has been organised by glass colour and fineness, beginning with *cristallo*, clear and blue green fine glass (3.1 – 3.21), then coarser (blue) green glass (3.22 – 3.25), finer green glass (3.26 – 3.27), utilitarian green glass (3.28 – 3.40) and finally miscellaneous material (3.41). The organisation thus retains an element of the traditional differentiation between clear potash and green soda glass, but primarily emphasises the apparent fineness of the glass as it is increasingly apparent that the colour of and alkali used in seventeenth century glasses was probably less straightforwardly

potash or soda and less rigidly related to vessel function than used to be assumed (e.g. Willmott 2002, 6).

- \*3.1 Crowned female head, thought to be the upper part of a conical bird feeder or a decorative knob from a goblet-cover. The head is hollow, and is mould-blown from clear soda glass with an applied eight-pointed crown made from turquoise-blue glass. It is broken at the neck, but would almost certainly have terminated in a ruff before expanding into the rest of the vessel or lid.



Pls 76 - 79: Crowned Female Head (photos Trevor Springett/LBE Museum Service  
(© Enfield Museum Service)

The head is very similar to crowned female heads from decorative bird feeders (also known as bird fountains) in the Museum of London's Glass Reserve Collection, particularly A5102, A5103 and A1432. Other bird feeder heads were made in the form of men with tricorn hats (e.g. MoL Reserve Collection A13378 and A12126); these are more common and date to the eighteenth century (e.g. Shepherd nd, No. 235; Egan in Vince and Egan 1981, 170 - 1). An early eighteenth century English

glass ceremonial goblet-cover also has a moulded head with tricorn hat on the knop of its glass cover (A34.139/14). Both the female and male heads vary in mould - and glass - type (some are made of lead glass), and are thought to have been made in English and European glasshouses at different dates.

The Forty Hall example is interesting because it is well-stratified in a mid- to late-seventeenth century context, and also particularly well moulded, made from high quality soda glass and (because of its date and quality) likely to be a Venetian import. It is also possible that it is not a bird feeder but (for example) a decorative knop from a vessel cover like the early eighteenth century English glass ceremonial goblet-cover. [124] (recovered in two precisely joining pieces, but tip of nose missing).

\*3.2 and 3.3 Two (?a pair) of freeblown shallow dishes (?possibly salts). Clear/*Cristallo* soda glass with a smoky grey cast and frequent small (in the base some larger) bubbles. Rims folded out and down giving a tubular rim in some sherds and just a thickening in others (?differentiating the two vessels), then horizontally creased internally, and externally part way down the rim, the external crease absent on some sherds where the rim is narrower. Sides slightly flaring above thickened flat bases with central 1 cm diameter pointil marks (one base pitted). Rim Di. 11 cm; Height 3 cm; Base Di. 9 cm. Probably Venetian. Complete wall profile, 5 other rim sherds, most of two separate bases with further body sherds and chips (total 20) mainly from [120] with smaller fragments [124] and [120]/[124] Second Sieving; probably matching sherd [S] and chips Trample Over [123] and [S].

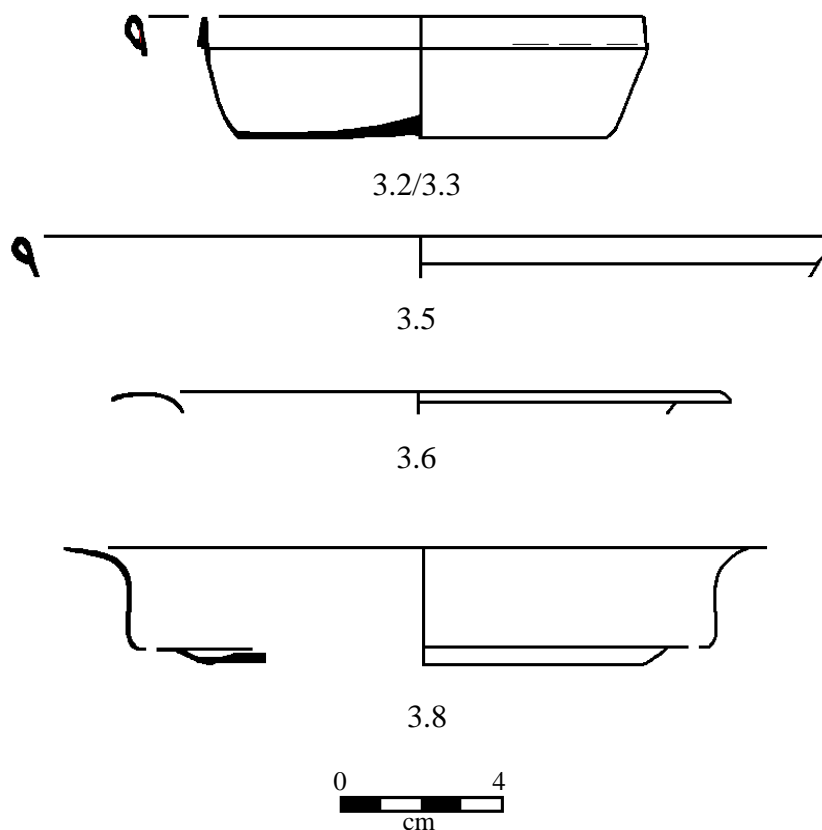


Fig. 84: Vessel Glass (1:2)

3.4 Very similar to the last. Slightly bubbly, clear with slightly iridescent surfaces. Thinner than 3.2 and 3.3 with band of slightly wavy stretching marks below non-tubular rim. Rim Di. 11 cm; Base

- Di. 9 cm. ?Venetian. Rim and probably matching mainly base sherds/chips mainly from [120], but inc. [124], [120]/[124] and [120]/[124] Second Sieving.
- \*3.5 Shallow dish. Clear soda glass. Rim under turned. Perhaps a sweetmeat dish as Charleston (2005) Nos 50 and 51. Rim Di. c. 20 cm. ?Venetian. Rim from [120]/[124].
- \*3.6 ?Bowl. Clear soda glass with slightly iridescent surfaces. Fire rounded edge to convex horizontal out-turned rim. Rim Di c. 15 cm. ?Venetian. Rim (2) [120] and [U/S].
- 3.7 Similar, but fully horizontal out-turned rim. Rim Di. c. 15 cm. ?Venetian. Rim (2) [120].
- \*3.8 Bowl. Clear glass with slight green cast (? mixed-alkali) and some bubbles in base. Fire rounded edge to broad, very slightly concave horizontal out-turned rim, slightly flaring wall with basal constriction or step and centrally thickened base (for the base form only cf. Willmott (2002), 96 Form 30.1). Rim Di. c. 17.6 cm; Base Di. c. 11 cm; Height c. 2.8 cm. Nearly full profile from rim (3), probably matching base (3) and body sherds and chips (total 10) [120], [120]/[124], [124] and [120]/[124] Second Sieving.
- 3.9 ?Bowl. Clear soda glass with a few bubbles. Very slightly thickened fire rounded edge to horizontal out-turned rim (similar to 3.7 above). Rim and possibly matching base/body sherds (3) [124] and [120]/[124] Second Sieving.
- 3.10 ?Bowl. Clear glass with slight green cast (?mixed-alkali). Slightly flaring wall probably turning out to rim. Slight vertical mould blown ribs. Two (?matching) body sherds [130] and [120]/[124], but quite possibly two vessels given the degree of stratigraphic separation.
- 3.11 Ribbed vessel. Clear soda glass with overall iridescent surface. Vertical ribs, but larger vessel than 3.10. Body (1) and possibly matching base (1) [124].
- 3.12 Handle fragment (?small jug/posset/bellied tankard). Clear soda glass, but with dull surface from abrasion and slightly iridescent surface. D-sectioned with external median ridge. Bellied tankards can occur in opaque white glass (Willmott 2002, 56), but this appears semi-opaque only due to abrasion and the balance of probability is probably in favour of a small jug. [124].
- 3.13 ??Small bowl(s). Clear/*Cristallo* soda glass with purplish brown cast and a few small bubbles. Probably centrally thickened base. ?Venetian. Small sherds and chips (19) from [120], [120]/[124]. [124] and [120]/[124] Second Sieving.
- 3.14 ?Bowl. Semi-opaque colourless soda glass with close set opaque white trails externally. ?Venetian. Body (1) [124].
- 3.15 ?Prismatic vessel. Clear soda glass with a few bubbles. Body (1) [120].
- 3.16 Goblet. Blue green (?mixed-alkali/potash) glass, many large bubbles. Round-funnel bowl. Body (3) [124] (one or more vessels).
- 3.17 Goblet. Very slightly blue green (?mixed-alkali) glass with many small/medium and occasional large bubbles. Round-funnel bowl. External ?wheel finishing marks. Body (1) [120].
- 3.18 Uncertain form. Clear/*Cristallo* soda glass with slight grey cast. Chips (4) [120]/[124] Second Sieving.
- 3.19 Uncertain form. Clear/?*Cristallo* soda glass. ?Neck sherd [120]/[124] Second Sieving.
- 3.20 Uncertain form. Very thin, very slightly blue green to clear (?soda) glass with overall iridescent surfaces and common fairly small bubbles. Body (3 or 4) [120] and [120]/[124] Second Sieving.
- 3.21 Uncertain form. Similar, but beige overall patina. Body (1 and chips) [120] and [120]/[124] Second Sieving.
- 3.22. Uncertain form. Blue green (?mixed-alkali) glass. Very badly eroded. Body (1) [124].
- 3.23 ?Prismatic vessel. Blue green (?mixed-alkali) glass, dull gloss. Body (1) [120]/[124] Second Sieving.
- 3.24 Uncertain form. Fineish light green (potash/mixed-alkali), fairly bubbly, glossy glass with iridescent weathering. Body (1) [124].
- 3.25 Uncertain form. Strong blue green to turquoise (?mixed-alkali), dullish glass with iridescent weathering. Body or base (1) [124].

- 3.26 Uncertain form. Thin light green (potash/mixed-alkali), extremely bubbly glass. Body (5) [124], [120]/[124] and [120]/[124] Second Sieving.
- 3.27 Uncertain form. Similar and possibly same vessel as last. Body (9 and chips). [120], [124] and [120]/[124] Second Sieving.
- 3.28 Uncertain form. Mid green glossy potash glass with some small bubbles. Flat base, centrally thickened with neat pointil mark and slightly sloping margin. Base Di. c. 5 cm. Base (2) [130].
- 3.29 Round shouldered 'English' bottle. Mid green, rough, dull potash glass with iridescent weathered surfaces. Shoulder (1) and (?matching) body (4 inc. chips) [120] and [120]/[124] Second Sieving.
- 3.30 Small case bottle. Mid green, rough, dull, potash glass with slightly iridescent weathered surfaces. Mould blown, square sectioned. Body (1) [120]/[124] Second Sieving.
- 3.31 ?Bottle(s)/flask(s). Light olivey green, very bubbly potash glass with iridescent weathering and rather eroded surfaces. Body (5) [130], [124], [120]/[124] Second Sieving (quite possibly more than one vessel).
- 3.32 Probably bottle. Light green, fairly glossy potash/mixed-alkali glass with iridescent weathered surfaces. Body (2) [120]/[124].
- 3.33 Fairly fine, small, straight necked vessel. ?Green potash glass, but all over iridescent surfaces. Body/neck (1) [124].
- 3.34 Uncertain form. Reasonably glossy olive green potash glass with iridescent weathering. Body (1) [124].
- 3.35 Similar, but thinner and more iridescent. Body (1) [124].
- 3.36 Uncertain form. Mid green potash glass with iridescent weathering. Body (1 and chip) [120]/[124] Second Sieving.
- 3.37 Uncertain form. Light green potash/mixed-alkali glossy glass. Body (1) [124].
- 3.38 ?Bottle. Mid green ?glossy potash glass, but badly eroded. Body sherds from [120], [120]/[124] and [110].
- 3.39 Uncertain form. Fineish light green potash/mixed-alkali glass with large bubbles. Body (1) [120]/[124] Second Sieving.
- 3.40 Uncertain form. Mid green potash glass. Very badly eroded. Body (1) [124].
- 3.41 Uncertain form. (?Devitrified to) black glass. Body (2) [124].

#### **4 (Olive) Green Wine Bottle Glass**

by Martin J. Dearne

Ninety six sherds of wine bottles (and one wine bottle seal) were recovered from the midden (with one sherd from an overlaying deposit which may or may not have derived from it). Importantly for the dating of the deposit one (4.1) was the complete rim and part of the neck of a bottle from [129], actually laying on the floor of the truncated drain which the deposit began to accrue in. However, otherwise the initial midden horizon produced only four sherds from [130], three of them believed to be from one of the bottles represented by material in [124] above it. [124] itself produced 34 sherds which may have represented as few as four or five bottles based on colour and a notable variation in the degree of chemical attrition they had undergone. Two of these were fairly light (olive) green in colour, particularly chemically attacked and included base sherds (4.2 and 4.3). [120]/[124] produced 18 further undiagnostic sherds while [120] produced 28 sherds including part of a moderately high kicked base (4.4) plus what appeared to be a wine bottle sherd in blue green glass. Nine further sherds and chips came from [120]/[124] Second Sieving and one from Trample Over [123]. Sherd size, especially amongst the catalogued material, makes it relatively unlikely that much vertical translocation of wine bottle glass took place.

The morphological development of wine bottles (e.g. Biddle and Webster 2005, 266 ff) after their inception c. 1640/50 is not straightforward, but some characteristics such as the kick to the base increasing in width and height in the 1660s and 1670s appear to be linear (op cit, 274), and (limited)

numbers of dated bottles show that small diameter low kicked bases, as seen in 4.2 and 4.3, tend to belong to the 1650s and 1660s (op cit, Figs 127 – 8). Though a small sample, the Forty Hall midden fragments, comparing 4.2 and 4.3 to 4.4 from the succeeding horizon, appear to bear out this observed trend for base kick height and width to quite rapidly increase in the later seventeenth century. However, linear regression of the characteristics of bottles from Nonsuch would place 5 – 7 mm high kicks in the late 1640s and early 1650s (op cit, 277ff) and this projection should not necessarily be accepted without further data as is underlined by 4.2 here, directly associated with a clay pipe of c. 1660, which may well show that such small kicked bottles were still being deposited at least rather later than the linear regression would suggest. Similarly the neck and rim from [129] suggest that linear regression on rim height above string undertaken on the Nonsuch material (op cit, Fig. 135 No. 8) is unlikely to be a useful prediction of anything more than general trends, as was noted therein (op cit, 283).

- 4.1 Rim and neck. Probably shaft and globe form (c. 1640/50 – 1665). Surviving Height 8 cm; int. rim Di. 2.4 cm; ext. rim Di. 3.45 cm; Di. below string course 3.34 cm; rim Height above string course 0.95 cm. [129].
- 4.2 Base. Form uncertain. Prominent large pointil mark and low kick. Kick Height 5 mm; kick W. 43 mm. [124] (in physical contact with 7.3, dated c. 1660).
- 4.3 Base. Form uncertain. Low kick. Kick Height c. 7 mm; kick W. 44 mm. [124].
- 4.4 Base. Form uncertain. Kick Height 13 mm; kick W. ?60 mm. [120].
- \*4.5 Virtually complete applied seal from a bottle in bubbly green rather than olive green glass (plus matching body sherd). Seal diameter 4 cm. Raised rectangle carrying ‘NA’ below running greyhound and six pointed star from a single matrix. The initials do not obviously relate to anyone known to have been associated with the hall and the NA probably relates to the proprietor of a tavern which one might speculate was called the greyhound (or even the dog star). [124].



Pl. 80: Wine Bottle Seal 4.5



## **5 Poorer Quality Green (Potash) Window Glass**

by Martin J. Dearne

One hundred and thirty eight sherds and 107 chips of flat, c. 1 mm (to occasionally 1.5 mm) thick, green or blue green window glass, but more or less entirely covered in an often detaching brownish and sometimes black iridescent layer of laminar devitrification, were recovered from the midden. The largest sherd was 5 x 9 cm, but this was exceptional, no certain pane edges were noted and sherd size was generally small (c. 1 x 1 to 2 x 2 cm) as underlined by nearly half the material being chips below 1 x 1 cm. The glass may well represent 'forest-tradition' potash glass of relatively poorer quality and or earlier date (and so possibly entirely potash rather than perhaps mixed-alkali composition) than other ?window glass present (below). Despite sherd size probably making it especially susceptible to vertical translocation it was very heavily concentrated in [120] which, with Trample Over [123], accounted for 167 sherds and chips, while only 16 sherds and chips came from [120]/[124] and only six from [124] (61 mainly chips from [120]/[124] Second Sieving emphasise the small size of much of the material).

Fifteen sherds and four chips of light green glass (thickness 0.4 – 1.2 mm) may have represented less than usually weathered window glass in this category, from [120], [120]/[124], [124] and [120]/[124] Second Sieving. However, some could conceivably have come from thin walled prismatic vessels in rather better quality/later potash or mixed-alkali glass similar to the following.

## **6 Better Quality Green (Potash or Mixed-Alkali) Window Glass (or Prismatic Vessel Glass)**

by Martin J. Dearne

There were 57 sherds and chips of flat green glass, varying in thickness from c. 0.4 to 1.2 mm, mostly with some iridescent weathering (and a few rough from surface loss due to weathering), but lacking the distinctive laminar devitrification of the bulk of the preceding material. The largest sherd (from [120]) was 8.4 x 2.8 cm and sherd size was generally a little larger than for the preceding category and with far less chips. At least some of this material in [120] represented window panes (the context producing a rectangular pane corner and four probable rectangular pane edges and several thicker sherds also suggested window more than prismatic vessel glass) and the differential weathering probably suggests that they were in better quality, ?later potash or mixed-alkali metals. However, some of the thinner material particularly could well have derived from prismatic vessels not window panes and it may therefore be that such vessels are under represented above. The material was again concentrated in [120] with 34 sherds and three chips from [120], six sherds and two chips in [120]/[124], a single sherd in [124], and three in [129] (with six sherds and two chips from [120]/[124] Second Sieving).

Compared to the probably poorer quality (?earlier) potash window glass this material may well suggest that two types of glass were in use for glazing at Forty Hall in the seventeenth century, though both concentrated in the 'upper' part of the midden so that little window glass of any type may have entered the midden till after c. 1660. The poorer quality potash glass might in fact though represent the reuse, ?alongside new better quality potash/mixed-alkali glass, of panes from nearby Elsyng Palace, demolished c. 1660 after its acquisition by Nicholas Rainton the younger, but where the robbing out at least of lead and glass from its fabric is documented as early as 1597 (Dearne *et al* 2022, 109). Certainly very similarly devitrifying, plain and painted, window glass to the poorer quality material from the midden has been recovered from demolition deposits on the palace site (op cit, 239ff).

## **7 Clay Tobacco Pipes**

by Martin J. Dearne

The midden produced 50 fragments of clay tobacco pipes (with one stem fragment from an overlying deposit which may or may not have derived from it) including 17 bowls, many of the latter complete

and unabraded and probably matching often large stem fragments at least in [124], [120] and the Base of [118]. Thus, the pipes are mainly likely to represent deposition at time of breakage and their size probably makes their vertical translocation unlikely so they represent some of the best dating evidence for the accumulation of the midden. The bowls were as follows:

- \*7.1 Milled rim. Atkinson and Oswald (1969) Type 18 variant as Atkinson (2005) No. 16 (c. 1650 – 60), but quite small bowl. [124].
- 7.2 Plain rim. Incomplete. Atkinson and Oswald (1969) Type 9 (c. 1660). [124].
- \*7.3 – 7.6 Milled rims. All identical. Atkinson and Oswald (1969) Type 9 (c. 1660), but very small spurs. [124].

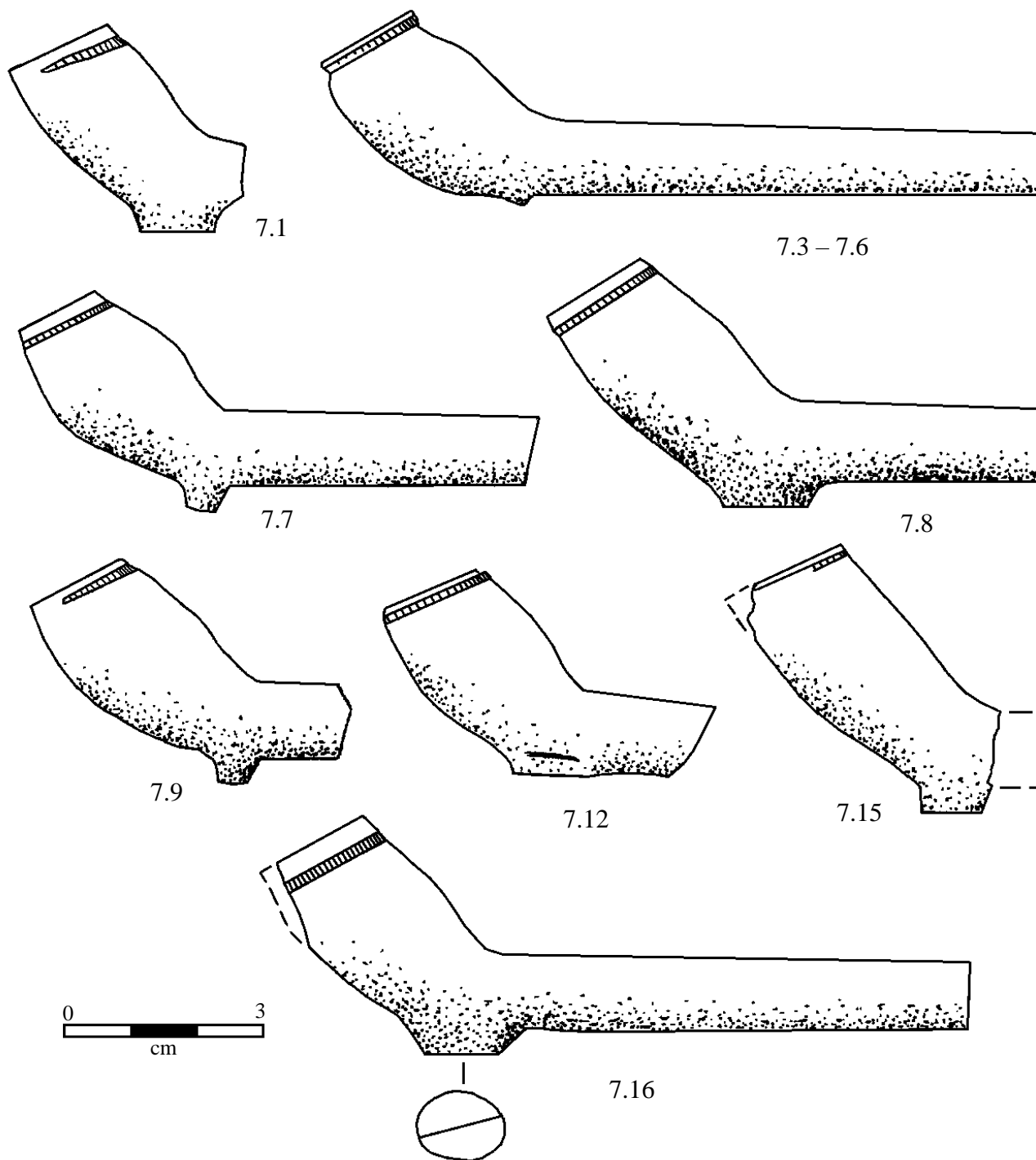


Fig. 85: Clay Pipe Bowls (1:1)

- \*7.7 Milled rim. Atkinson and Oswald (1969) Type 15 (c. 1660 – 80). [124].
- \*7.8 Milled rim. Atkinson and Oswald (1969) Type 18 variant as Atkinson (2005) No. 16 (c. 1650 – 60). [120]
- \*7.9 Milled rim. Atkinson and Oswald (1969) Type 15 (c. 1660 – 80). [120].
- 7.10 Part bowl. Atkinson and Oswald (1969) Type 9 (c. 1660) or Type 15 (c. 1660 – 80) and more likely the latter. [120].
- 7.11 Ditto. [120].
- \*7.12 Milled rim below chamfer. Atkinson and Oswald (1969) Type 10 (c. 1640 – 60). [120].
- 7.13 Ditto. [120].
- 7.14 Milled rim. Part bowl. Possibly Atkinson and Oswald (1969) Type 9 (c. 1660) or 15 (c. 1660 – 80). [120].
- \*7.15 Partly milled rim below chamfer. Atkinson and Oswald (1969) Type 20 (c. 1680 – 1710, but see now for a revised date c. 1670 – 90 Atkinson (2005) Nos 17 – 21). Base of [118].
- \*7.16 Milled rim, knife cut across base of heel. Atkinson and Oswald (1969) Type 18 variant as Atkinson (2005) No. 16 (c. 1650 – 60). [120]/[124].
- 7.17 Part bowl. Type uncertain. [120]/[124].

### 8 Tin-Glazed (Delft) Floor or ?Fireplace Tiles

by Martin J. Dearne, Incorporating Outline Identifications and Notes Kindly Supplied by Ian M. Betts  
 Ten fragments and six chips were recovered, but, although none joined, probably represented only four or five tiles in three or four designs. However, except for 8.1 – 8.3 the material was in an extremely poor state of preservation with much surface loss and flaking, in addition to which some designs were badly blurred. Some of the tiles could have been made in the Netherlands, but a London origin for all is quite likely and some were more specifically probably made at the Pickleherring or Rotherhithe pothouses (and if they derived from the initial construction of the hall from Pickleherring as Rotherhithe did not begin production until c. 1638).

- \*8.1 Corner. Pickleherring Design 8 or 9/Rotherhithe Design 15 (bunch of grapes or pomegranate with *fleur-de-lis* corners) (cf. Tyler *et al* 2008, 54 and Fig. 75; 88 and Fig. 141). Closely similar to published Pickleherring fragments of Design 8 (grapes with flanking leaves) and perhaps specifically Style 2 of that design. [124].
- \*8.2 Edge. Ditto, but perhaps more likely Pickleherring Design 9. [120]/[124].



Pl. 81: Tin Glazed Floor Tiles 8.1 and (Below) 8.2

- 8.3 Surface fragment. Probably showing part of the bunch of grapes from Pickleherring Design 8 and so possibly the same tile as 8.1. [120]/[124].
- 8.4 Corner (large surface fragment shattered from two base fragments, but only traces of glaze), second fragment and a chip. Pickleherring Design 24 (star with *fleur-de-lis* derivative corners) (cf. Tyler *et al* 2008, 57 and Fig. 77), but with the half flowers on the edges infilled yellow not blue and a (now) brown infilled leaf on the second fragment. [124].
- 8.5 Corner and two side fragments. Barred ox-head corner motif in blue as used at Pickleherring (Tyler *et al* 2008, 57 and Fig. 77 Designs 21 and 22) and Rotherhithe (op cit, 88 and Figs 142 – 3 Designs 16 – 19), but the (badly blurred) central design is polychrome (blue, green and yellow) unlike these. Ian Betts comments that these are almost certainly fragments of flower tile(s), examples with similar decoration and colours being known from and probably made in London, although a Dutch origin cannot be discounted. He further notes that they have previously been dated c. 1640 – 90, but their presence at Forty Hall, if they were part of the initial decoration of the house, would suggest that they were in production in the 1630s. [120].
- 8.6 Corner. Similar to the last. [124].
- 8.7 Edge, only retaining a small area of glaze. Blue and yellow design, but unidentifiable. [124].
- 8.8 Five chips. Blue decoration, but unidentifiable. [120]/[124].

## 9 Waterlogged Wood

by Martin J. Dearne

Two fragments of ?one probable scrubbing brush consisting of a 0.71 cm thick piece of wood, probably with a rougher upper than lower face, the larger fragment with at least five lines (0.7 cm apart) of, in the outer lines slightly angularly, drilled 0.53 cm diameter holes, 1.36 cm centre to centre. Smaller fragment with similarly spaced and sized holes set and drilled more diagonally (?from curved end of brush). Max. fragment W. 5.2 cm; Max. fragment L. 8.6 cm. [120].

## 10 Animal Bone Summary

by Neil Pinchbeck incorporating bird bone identifications by Joanne H. Cooper of the Bird Group, Department of Zoology, Natural History Museum (Tring)

The midden assemblage, principally from [120], was dominated by bovine material suggesting, though the assemblage is not that large, the consumption particularly of beef (though it is notable that the ‘lower’ horizon of the midden ([124]) produced far less material and almost all ovicaprid) with a little pork. Its origin primarily from a kitchen is obvious from instances of butchery and marrow extraction marks. The inclusion of one or two records of pigeon (*Columba livia*) presumably also relates to its consumption, though other birds present (Tawny Owl (*Strix aluco*) and Wagtail/Pipit (*Motacillidae*)) are accidental inclusions. There were also one or two Domestic Dog (*Canis familiaris*) teeth/bones.

## Selected Finds from Other Excavated Areas in and Around the Hall

No other stratified groups of material warrant publication here, but a small number of individual items, mainly from the extensive work under site code FXA10, are worth specific mention as they may contribute to ongoing research into the material culture of smaller seventeenth and eighteenth century gentry households or typological and distributional studies of e.g. pottery supply at the time.

From the construction trench for a Phase 2 wall of the hall in basement room A006 (p 25):

- \*1 Rim and upper body, handled bowl. Weser (German) slipware (WESE). Club rim and quite crude trailed slip decoration internally of wide brownish red zones and alternating red and green wavy

vertical/angled lines on cream ground. Scar from lost handle on rim. Similar to examples from Norwich (Jennings 1981, Nos 566 - 7). First half of the seventeenth century.

From the Phase 4 silting of the drainage channels in basement room A006 (p 35):

\*2 Rim and body, three sherds, all unabraded and probably from the same TGW 'drug' jar. Tin-glazed earthenware with a good white glaze. Ext. polychrome decoration including dark blue horizontal, mainly slightly wavy, lines on/below carination and below rim, thicker line on shoulder and rows of horizontal oblique dashes/dots above and below line bounded zone with chevron pattern of alternating triangles infilled in blue and diffused brown (yellow). Rim Di. 13 cm; Estimated Ht. c. 13 cm. Orton's (1988, 327) Group D, dated to the second half of the seventeenth century and parallelable in Tyler *et al* (2008, 78, Fig. 116).

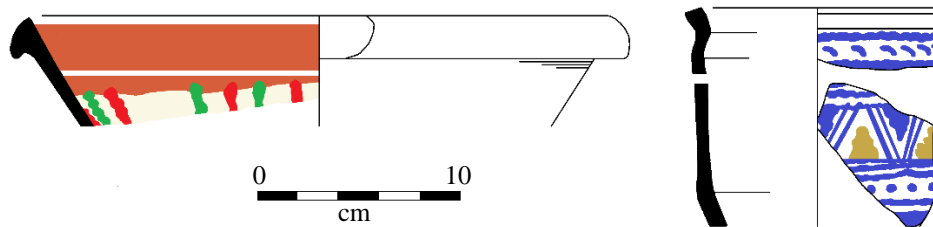


Fig. 86: Selected Finds 1 and 2 (1:4)

From the Phase 4 ?flood lain sand in the drainage channels in basement room A006 (p 35):

\*3 Two fragments (one illustrated) of tin glazed, polychrome, delftware floor tile. Ian M. Betts kindly writes: the tile measures 19 mm in thickness with a reconstructed length of 144 mm with bevelled edges. The tile is in the medallion style with corner foliage designs and a circular central border of five concentric rings, the central ring being purplish brown in colour with the outer two in a blue colour. The central design appears to be of an animal rendered in yellow standing on green grass next to a plant with yellow foliage and a sky background of white and blue. No corner nail holes were visible indicating the tile is more likely an English copy of a Dutch design. The tile probably originated from the Aldgate pottery in London with a date range of 1570 to 1600. Mortar adhering to some of the broken edges and face suggests the tile has been reused.



Pl. 82: Selected Find 3

From Phase 4 kitchen courtyard occupation deposit (p 36):

\*4 Ae circular weight, Di. 4.7 cm, Max. Th. 5.8 cm, Weight 55.9 gms. Upper face with raised border, slightly recessed ring around chuck mark and concentric turning marks. Lower face with concentric mould marks and extensive multi-directional file marks. Strongly registered ewer stamp on upper face, but very weakly registered 'A', probably from crowned I/sword/A stamp of the reign of James I (authentication mark of the London Founders Company). Two ounce avoirdupois (standard 56.8 gms), ?but a little under weight even allowing for corrosion. A virtually identical example from Southwark (Egan 2005, 163 No. 832) came from a context of c. 1630 – 50.



Pl. 83: Selected Find 4

From a Phase 4 kitchen courtyard occupation deposit (p 36):

\*5 Corner (6.8 x 6.0; Th. 2.0 cm) of a tin glazed, polychrome, delftware floor tile. Medallion tile of Tyler *et al* (2008, 54 and Fig. 76) Pickleherring design 14 Style 1, green, brown and blue-dashed chequerboard, here within a blue and brownish multiple medallion with blue (?very stylised *fleur-de-lys*) corner motifs. The medallion colours almost certainly indicate that it is a Pickleherring product (pers. comm. Ian M. Betts) and so c. 1618 – c. 1650; it is therefore likely to have belonged to one of the original floors of the hall.



Pl. 85: Selected Find 5

From a disturbed deposit in Area H1:

\*6 Rim/body/handle (3, join), globular FREC jug. Cordon at junction of body and neck, cylindrical straight-sided neck with two surviving small ?identical ?grotesque masks and simple thinned rim (similar to an example in the Museum of London and another with beardman masks came from the 1629 *Batavia* wreck (Green 1989, 124, BAT 2809-20455)). c. 1600 – 1650.



Pl. 84: Selected Find 6

## Abbreviations and Bibliography

Abbreviations used in the text:

LMA = London Metropolitan Archives

CMP = Drury McPherson Partnership (2013) *Forty Hall and Estate Enfield, Conservation Management Plan*, Unpublished Document for the London Borough of Enfield.

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