

**ARCHAEOLOGICAL EXCAVATIONS
AT HARTS HOSPITAL, PHASE III
WOODFORD GREEN
LONDON BOROUGH OF REDBRIDGE**

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1 ABSTRACT

Excavations on the northern side of Harts House, a Grade II listed building, in Woodford, revealed extensive archaeological structures and deposits dating from the medieval period to the twentieth century. Several phases of building were recorded, dating from the mid fifteenth to the early nineteenth centuries, the earliest of which contained a pitched tile hearth. There was also evidence for occupation as early as the 11th century, which predates the earliest documentary evidence from the early 13th century.

2 INTRODUCTION

Newham Museum Service was commissioned by Persimmons Homes to undertake an archaeological evaluation in advance of their housing development on the site of the Harts Hospital at Woodford Green between 31st July and 11th August 1995 (Figure 1). This evaluation was part of Phase III of the archaeological excavations, following on from the investigation to the west of the grounds in April 1995, which preceded the construction of an access road to the proposed houses (Beasley, 1996). The work was required to fulfil an archaeological condition imposed on the planning permission for the re-development of the site (Planning Application No. 0292/91ZZG). This condition was imposed by the London Borough of Redbridge on advice from English Heritage. A project design detailing the methodology for the evaluation (Meddens, 1995) was drawn up to fulfil a specification for the 1995 works (Pontin, 1995).

The structures and deposits uncovered and recorded in the evaluation were sufficient to merit a rescue excavation, which commenced on the 18th of October 1995 and ran for six weeks.

The site is encircled by Monkham's Avenue, with Woodford Common situated to the west (Figure 1). Previous archaeological excavations were undertaken by Newham Museum Service in 1991 and 1995; these uncovered archaeological structures and deposits dating from the 14th to the 19th centuries and subsequently identified an area within the housing development as an area with high archaeological potential.

The site was managed and negotiated by Dr. Frank Meddens and supervised by the author.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The earliest documentary reference to the site can be found in a survey, undertaken by the lords of the manor in 1235 (British Library Cotton Mss Tiberius c ix f.205, after Meddens, 1992). The court of rolls from 1270 mentions the name of Richard Hert, who held the copyhold of the property, and his wife, who was charged with breaking the assize of ale (Public Records Office: SC 2/173/30, after Meddens, 1992).

Up until the 16th century, the property appears to have been used largely for agriculture, animal husbandry and woodland farming, managed by a succession of tenant farmers (Meddens, 1992). The area of Woodford, due to its proximity to London, would have made an appealing residence for the London merchant classes. In 1527, Richard Reynolds and John Ashford acquired copyhold of part of the site. This association of the site with city merchants is cemented in the second half of the 16th century, when haberdasher Roland Elrington takes up residence (*ibid.*).

The construction of a substantial house on the site, completed by 1619, gave rise to a succession of leaseholders, including a scrivener, a former MP and a linen draper. In 1742, Richard Warner, a director of the Hon. East India Company, became a copyholder. It was during his association with the property that Harts became regarded as a botanic garden (Eames, 1989).

The current outline of the estate was largely formed at the end of the 18th century by Sir Robert Preston and consisted of the amalgamation of three former tenements, namely Harts, Marshalls and Dandyvilles. Part of the common enclosed between 1600 and 1617 and property held by the Archer and Cambell families in the 17th and 18th centuries, as well as the Icehouse and Brewhouse plots were also included in the Harts estate (Beasley, 1996).

The first reference to the Brewhouse was in 1539 (Essex Record Office D/DCw M16 after Meddens, 1992). Although there are 17th century references to beer being supplied to unlicensed alehouses by Woodford brewers (Essex Record Office Q/SR 313(51/52/69) after Meddens, 1992), there is no direct evidence of brewing on the site (Meddens, 1992). A new house was built on the site, and the property enlarged in 1719. The Icehouse, located in the north-eastern area of the site, dates to the same period and is likely to be associated. It is known from documentary evidence that the boundary of the property encroached on common land, to the west of the site, some time during the 19th century (*ibid.*). The present house was built in 1816 (Powell, 1973).

Harts became a hospital, dealing largely with Tuberculosis, around the turn of the 20th century, and remained so until the land was sold for housing development in 1986 (Beasley, 1996).

Archaeological excavations on this site by Newham Museum Service commenced in 1991 (Beasley, 1991), continued in 1994 and 1995 and have produced a considerable amount of valuable information concerning the layouts of buildings and gardens from the early post-medieval to the twentieth century.

Evidence of major structural remains were first revealed close to the existing Harts House in 1991 (Meddens, 1992). These included substantial wall foundations, an elaborate drainage network and a large pitched tile hearth similar in type to one discovered during the present excavations (see page 8). These excavations highlighted changes in the use of the land from agrarian to botanical and illustrated a trend on the estate of constructing successive buildings over the remains of their predecessors and of recycling building materials.

Phase III of the archaeological excavations was designed to locate and assess remains from the north-western area of the residential development. This area lies between the Harts and Brewhouse properties and should be considered in conjunction with the report on the roadway trench (Beasley, 1996). This trench revealed structures and pits dating to the 17th and 18th centuries and again highlights the transition from agricultural to residential activities in this area.

4 METHODOLOGY

The excavations of Phase III of the project were effectively split into three separate stages. The first was a watching brief which was carried out in April 1995 on an area to the west of the site, for the proposed roadway into the residential area (Beasley, 1996). This was modified to a rescue excavation in light of the significance of the archaeological remains. The second stage of this phase of the project commenced in July 1995. Four evaluation trenches were positioned across an area to the north-east and south-east of the roadway, where the proposed housing units were to be located (Figure 2). These trenches were numbered 27E, 28E, 29E and 30E.

Due to a number of problems with the layout of live electricity and gas services, two of the four evaluation trenches had to be reduced in size from the proposed 10m by 2m. The trenches were machine excavated under archaeological supervision, cleaned by hand and the deposits investigated and recorded, using the single context system. This was in accordance with the English Heritage Archaeological Guidance Paper: 3. Recording numbers were carried on from the previous period of excavation. The excavation in each trench reached a maximum depth of 1.20m, due to Health and Safety considerations, and natural deposits were recorded at a depth of 1.20m in Trench 28 and approx. 0.80m in Trench 30.

The structures and deposits recorded in the evaluation trenches dated from the late 15th century. The results of the evaluation led to a rescue excavation, which commenced on the 18th of October 1995 and ran for six weeks.

The rescue excavation effectively enlarged the evaluation trenches to the full size of each house plot (c.8m by 10m). These were numbered 27 to 30, to reflect the spatial disparities between them and the evaluation trenches (Figure 2). A further two test trenches (Trenches 31 and 32) were machined under archaeological supervision within two designated garage plots to the north-west of the area under investigation. These measured approximately 2m by 1m by 1.20m. Similarly, these were hand cleaned, planned, photographed and recorded, using Newham Museum Service pro-forma sheets. Deposits considered of value for environmental assessment were sampled; unfortunately, none of these produced results of any significance. All of the archaeology trenches have been tied into the national grid.

The matrix for the entire site was too large to be included in this report and has instead been stored with the site archive at Newham Museum Service.

The archive is currently stored at Newham Museum Service (Archaeology Section), 31, Stock Street, Plaistow, London, E13 OBX.

5 PHASE DISCUSSION

Phase 1

This phase represents the natural geology, which consists of sandy clay and gravel. This was recorded in Trenches 27 to 30 and would have been alluvially deposited. This phase of geology is titled Claygate Member (British Archaeological Survey, North London, England and Wales, sheet 256, 1993). It was not observed in either of the garage slots (Trenches 31 and 32) due to the limits on the depth of excavation.

Phase 2

Phase 2 represents a ploughsoil, which dates to the medieval period. Although there was no direct evidence of settlement, the presence of pottery in these agricultural deposits suggests habitation of the area. The ploughsoil was present in Trenches 27, 28 and 29.

Phase 3

A number of postholes, a pit and a shallow butt-ended ditch had been cut into the ploughsoil in Trench 29. One of the postholes contained Medieval sandy ware (MS), which has a date range of between 1100 and 1300 (Appendix III). These features did not appear to form the outline of any kind of structure, although the size of the area of excavation limited a wider interpretation.

This phase was only represented in Trench 29.

Phase 4

The discussion for Phase 4 has been divided into three sub-phases to highlight different periods of architectural development and function at Harts in the late 15th to early 16th century, with particular regard to a building recorded in Trench 30. This was a brick building with a possible timber structure to the north and associated pitched tile hearth. The various construction styles and types of building materials outlined in Phase 4 suggest a change in the use of the building over a relatively short time, perhaps coinciding with an increase in affluence of the estate.

These structures may relate to the residence of John Holmes, who is recorded as holding a croft of land in this area in 1539.

Phase 4.1

A number of stakeholes had been cut into the bedding sand on which the pitched tiles of the hearth were set. It is likely that these accommodated a wooden scaffold support to aid in the construction of the walls in Group 227.

Two postpads were recorded, one to the north-west of the area of the stakeholes and one to the north-east (Figure 3a). These suggest the presence of a timber framed building, which would have accommodated the pitched tile hearth.

A third postpad, possibly associated with another timber framed building was recorded in Trench 29. It was composed of large pebbles and a residual broken quernstone fragment, which may have dated originally to the Roman period (pers. comm. Ken Sable, 1996). This postpad was recorded in isolation, although, again, the limits imposed by the extent of the excavation negated a wider interpretation.

A substantial pitched tile hearth was constructed between the postpads in Trench 30 (Figure 3a) and contained tiles dating to the medieval period, although the latest tile fabric can be dated to between 1480 and 1520 (see Appendix V). A surround to the hearth was recorded to its south and east and comprised two rows of horizontally laid roof tiles, with tile fragments in between. With repairs and extensions, the dimensions of the surviving hearth measured approximately 1.60m by 0.85m. As with the pitched tile hearth in Phase I of the excavations in 1991 (context 587), the hearth in Trench 30 also appeared to be open to the north.

The discovery of a large vessel (context 2528) of Late medieval slipped ware (LMS), which had been set into the hearth in an area to its south-west, may suggest the possibility of an industrial use for the hearth, rather than a domestic one. The jar was standing upright, but with its base missing, possibly being re-used as a drainage sump. This vessel dates to between the mid 15th and late 16th centuries, although its fill contained pottery and clay pipe fragments dating to the late 17th century, suggesting that pot and hearth were still in use throughout this period. It is likely that the hearth and associated buildings related to an unknown agricultural or semi-industrial process.

Four conjoining walls (Group 227, contexts 2228, 2229, 2490 and 2519) were recorded to the south of the hearth in Trench 30 (Figure 3a). Dating from the bricks gave a date range of between 1450/80 and 1700. As the walls respected the line of the hearth surround, it seems likely that this building related to the timber framed structure. The stratigraphy suggested a contemporary period of construction for both of these structures, affording the walls a late 15th or early 16th century date.

The positioning of a section across a north-south robber cut from the 18th century (Phase 9) revealed evidence for the original construction cut for a robbed out wall, which appeared to have been a continuation south of wall (2519) (Figure 3a). To the east of this cut was a green sandy layer, which appeared to be either the bedding layer for a floor surface, or else the remains of the floor surface itself. A metallised gravel surface (2460) was recorded to the west of this phase of building and it is likely that this would have served as a courtyard.

Two postholes were also recorded in Trench 29, associated with a large pit (3m by 2m by at least 1m in depth) in the centre of the trench, which contained a variety of late medieval to early post-medieval pottery and building materials. Traces of organic remains towards its base may suggest its use as a rubbish pit. Due to its proximity to the building in Trench 30, these features may be associated with this period of tenement.

Phase 4.2

Phase 4.2 dates to the mid 16th century and contains two repairs/extensions to the pitched tile hearth. The tiles in contexts (2222) and (2426) were laid onto orange bedding sand, as opposed to the grey sand below the rest of the hearth; it therefore seems likely that this

represents a repair (Figure 3b). A single row of pitched tiles was also added to the northern edge of this portion. This tile rebuild also covers the eastern postpad, suggesting the demise of the timber frame structure. To the south, a substantial tile surround (context 2344), which was built in Phase 4.1 (Figure 3a), had both brick and tile additions above it (Figure 3b). There is a possibility that these additions may have been to accommodate the foundations of a chimney breast (pers. comm. Ken Sabel, 1995), although the masonry did not appear to be of an adequate density to support such a structure.

Phase 4.2 is singular to Trench 30.

Phase 4.3

This phase dates to the late 16th century and again contains brick and tile additions along the southern and eastern edging of the hearth (Figure 3c). These additions may have been rebuilds and although they have been badly truncated, a congruent layout can be clearly seen. It is unlikely that the hearth still existed in its original form, however, as the construction of a brick foundation (2599) truncated a central portion of the tiled area. This may have been built as a buttress for wall (2229) and appears to be associated with a change in the function of the building.

Trench 30 also contained a short section of wall (2158), running north-south and situated directly to the west of the hearth. This wall is the likely remains of a western wall which may have replaced the original wall of the possible timber framed building which contained the hearth.

This phase was not present in Trenches 27, 28, 31 and 32.

Phase 5

Phase 5 can be dated to the late 16th century or early 17th century. It relates to a transitional period, possibly in tenancy on the estate, which by 1627 was held by John Holmes, most likely related to the John Holmes associated with Phase 4.

In Trench 30, this phase relates to the period after the hearth (2296) went out of use. A sequence of dumped deposits, some containing traces of burnt debris, overlay the hearth; others resembled bedding sand, which may have been laid as part of the fabrication of a floor surface.

This phase also contained a series of ploughsoils and horticultural layers, dating to the late 16th century; these were identified in Trenches 27 and 28. Trench 27 also produced a small pit containing pottery from this period. Trench 29 had a number of rubbish pits and dumps, which contained a variety of early post-medieval pottery, animal bone and a fragment of a bronze cooking pot (SF 224, Appendix IV and Figure 9e). Another of the rubbish dumps produced a residual conical, decorated, lead weight, which may date to the Saxon period (SF 205, Appendix IV and Figure 9d). A fragment of knife blade with possible decoration was also recovered (SF 219, Appendix IV).

There were also a number of postholes in Trench 29 and of particular interest was a small pit filled with mortar. This appeared to have been used for the sole purpose of mixing mortar, in association with building construction. However, no associated structures were found.

Phase 5 was not recorded in Trenches 30, 31 or 32.

Phase 6

A substantial wall (2006) was recorded in Trench 27E (Figure 4, Phase 6), running east-west and comprising bricks dating to between the late 15th century and the early 18th century. Associated with this wall was a return at the east, running north-south with a brick structure set against it to the north, which resembled a floor surface (2071). Cartographic evidence (Ero: D/Dcy P2B, John Doyley, 1815), along with dating from the building materials and evidence from the stratigraphic sequence suggests that these structures may have been part of Handford House, which was built between 1617 and 1619 by Sir Humphrey Handford.

This phase is singular to Trench 27E.

Phase 7

Phase 7 contained evidence of buildings which may be associated with work undertaken by Sir George Caswall, who acquired possession of and enlarged the Harts plot in 1719.

A north-south orientated wall (2001) in Trench 29E was dated to between the late 17th and the mid 18th centuries. It appears to be a continuation of a cellar wall which was recorded in the roadway phase of the evaluation (contexts 1645 and 1646) (Beasley, 1996). This wall had a return (2066) to the west, which was abutted by wall (2069) to the north (Figure 5).

Two fragments of wall in Trench 30 were either built with reused brick or else repaired in the 18th century. Either way, it appeared that the structures had either been robbed or badly truncated over time, leaving little information concerning their purpose. They were in the same alignment as the walls in Phase 4.1 and may have been rebuilds or repairs.

The evaluation trench for house plot 27 revealed a large pit containing a quantity of Chinese porcelain. This was uncovered at a depth of 1.20m and so could not be fully excavated due to Health and Safety considerations, but the porcelain which was retrieved can be dated to the early 18th century (Figure 9 a,b).

This phase was not represented in Trenches 28, 31 or 32.

Phase 8

Phase 8 is 18th century in date and represented by phases of building in two of the trenches.

Trench 30 revealed evidence for two buildings in this phase. At the northern end of the trench, four walls (2057), (2058) and (2059) and (2157) (Figure 6) had been built directly onto walls (2228), (2229), (2490) and (2519) (Phase 4.1) to provide a substantial foundation, although their alignment was slightly askewed. Repairs were made to the north (2455) and

south (2450) of wall (2158) (from Phase 4.3), which then appears to have been incorporated into this building.

At the southern end of Trench 30, there was evidence for a second building, three walls of which (2081), (2082) and (2083) (Figure 6) were uncovered by the evaluation. Although both buildings were contemporary, they were situated at slightly different angles. An associated drainage sump was located between these buildings.

A bone knife handle (SF 206, Figure 9c) was associated with this phase of occupation, although it may possibly date to the 16th or 17th century (see Summary and Conclusions). Similar items found on the Harts estate suggests the comparative affluence of its occupants and it is likely that such an item would have been in use over a considerable time.

A square drain inspection hole (2012) in Trench 27E (Figure 4, Phase 8) had incorporated wall (2006) (Phase 6) as a foundation for its southern side. Trench 27 revealed a square drain which was contemporary with this episode of construction.

Trench 29 revealed two rubbish pits containing residual pottery dating to the late 17th century. Their position in the stratigraphic sequence, however, dated them to the 18th century.

This phase was not represented in Trenches 28, 31 or 32.

Phase 9

This phase dates to the late 18th century and contains a series of demolition/ construction dumps with spreads of tile and mortar fragments, ground levelling layers and evidence for the robbing out of walls from Phases 4 and 8 in Trench 30. The northern rebuild (2455) (Phase 8) to wall (2158) (Phase 4.3) had been robbed and the subsequent backfill contained a residual coin of Charles II (1660-85) (SF 203, Appendix IV).

Similar demolition deposits were also observed in Trench 32, situated to the south-west of Trench 30. A notable lack of building material dumps in Trenches 29 and 31 suggests an approximate southern limit for this building and demolition activity, which probably related to the demolition of the 18th century buildings in Phase 8.

This period of demolition may relate to the change in tenancy from Charles Foulis to Sir Robert Preston in 1783.

This phase was not recorded in Trenches 27, 28, 29 or 31.

Phase 10

Phase 10 represents development on the Harts estate in the latter half of the 18th century. Two parallel and substantial walls (2023) and (2056) were recorded, running east-west across Trench 30. These appeared to be conjoined by a north-south running wall (2159). The remains of an associated drainage system was also recorded (Figure 7). It is likely that these structures were associated with the property known as the Brewhouse, which was associated with the amalgamation of the previously separate tenements by Sir Robert Preston.

An impressive drainage system was recorded in Trench 28 (Figure 8). The network consisted of three 18th century brick lined culvert drains, all of which fed into a wider drain (2360) to the east. A well or brick-lined sump was recorded in the south-facing section of Trench 27: this is likely to be associated with the network of drains in Trench 28. One of the drains (2358) continued west into Trench 26 of the roadway as context (1543) (Beasley, 1996). A comparable culvert drain was also recorded in the evaluation trench for 27, running east-west (Figure 4, Phase 10).

Two retaining walls to the north of the drains (Figure 8) contained what appeared to be undisturbed medieval ploughsoil and were likely to have been built in order to terrace the grounds, either for the purposes of construction or horticulture. This episode of terracing would have involved the truncation of earlier deposits and accounts for the lack of stratigraphy to the south of these walls.

A pit in Trench 32 contained building material dating to the late 18th century, as well as a copper alloy button (SF 200 Appendix IV).

Phase 11

This phase was represented in all of the trenches, with the exception of Trench 30. It dates to between the late 18th and early 19th centuries and consists mainly of a series of demolition dumps, pits and layers. It is possible that this may reflect a period of clearance and ground levelling, prior to the construction of the present house in 1816.

A badly truncated east-west wall and associated tile surface were recorded in Trench 29, although this is the sole evidence of construction relating to this phase.

Phase 12

Phase 12 contains the remains of an electricity sub-station, situated to the south of the area under investigation and to the north of the house. It dates to the early part of the 20th century and housed all of the service points for the hospital.

The top-soil and underlying sub-soils for Trenches 28 to 32 can also be dated to this period from their fragments of green bottle glass, Victorian pottery and sporadic dumps of hospital vials.

Phase 13

This was the most recent phase of the site, dated to the twentieth century. It consisted mainly of modern services, a few dumped deposits, modern make-up and a concrete roadway (2013). A trench for a modern sewer pipe (2164) truncated Trenches 29 and 30. These intrusions, however, left the underlying archaeology largely undisturbed.

6 SUMMARY AND CONCLUSIONS

Introduction

The archaeology revealed by the completion of the Phase III excavations at Harts Hospital shows evidence for several phases of occupation, dating from the early medieval period. It is clear from the dating of the recorded structures and associated deposits that the earliest occupation in the area, most likely associated with the activities of tenant farmers, dates from 1100 at the latest. This is of particular interest, as the earliest documentary reference to the property dates to 1235. It is known that the land accommodated a succession of tenant farmers until the 16th century. This is substantiated by the evidence of a late medieval ploughsoil in the area under investigation.

Structural Evidence

Trench 30, the northernmost house plot, contained three periods of major construction. The earliest took the form of a brick building (one wall of which was robbed) with evidence of a timber structure to the north containing a substantial pitched tile hearth. Due to the presence of a large jar set within the tiles, it is possible that the hearth related to industrial, rather than domestic use. Both the hearth and the vessel dated to the late 15th or early 16th century and were contemporary with the foundation for timber postpads in Trench 30 and in Trench 29. These structures may relate to the residence of John Holmes, who is recorded as holding a croft of land in this area in 1539.

The second period used part of the aforementioned building in Trench 30 as a foundation on which to build walls on a similar alignment and lay a floor surface over the hearth. The remains of a contemporary building were recorded to the south of Trench 30, with an associated drainage sump located between these two structures. This phase dates to the 18th century. Associated with this period was a drainage 'inspection hole' in Trench 27E and a square drain in Trench 27. At this time, the Brewhouse plot, consisting of a croft with four acres, was held by Sir George Caswell from 1719 and Charles Foulis, a sea captain, from 1770 (Meddens, 1992).

The third period, dating to the early 19th century, consisted of a number of large, substantial walls, which truncated the earlier structures. It is thought that this latest building was part of the Brewhouse (refer Meddens, 1992), which related to the occupancy of Sir Robert Preston, who amalgamated the previously separate tenements of the Harts estate. This redevelopment could account for the relatively rapid demise of the 18th century buildings.

The network of culvert drains in Trench 28 is associated with this latest phase of building. An estimated eighty gallons of water could be required in one process of brewing (Corran, 1975) and a comprehensive drainage system would be needed to accommodate this. Even if this evidence is unsubstantiated, the drainage system may reflect an increase in the number and size of the outhouses, stables and gardens associated with the estate.

Domestic and Construction Activities

Although there is no conclusive evidence that beer brewing took place on the Harts estate, there is a history of licensed and unlicensed brewing in the Woodford area. In 1617, there is a reference to the fining of Humphrey Handford of Harts for altering the course of water from the common to near his house (pers. comm. Ray Sinclair, 1991). It is known that standing water was preferred to spring water (Corran, 1975).

One particularly notable trait to emerge from all of the excavations at Harts from 1991 to 1995 is the amount of reuse of bricks for later buildings and recapping of drains in order to maintain an extensive and efficient drainage system. Successive buildings have been built in the same locations over time and while this is significant in terms of the continuity of the occupation of the site, it also means that some of the evidence from previous phases has been systematically destroyed.

It is evident from Trench 30, in particular, that several of the walls from Phase 4 and Phase 8 had either been robbed or badly truncated, probably in the 18th and 19th centuries. The majority of the tiles from the hearth are roof tiles from an earlier period to that of its construction.

The impressive drainage network in Trench 28 comprised a variety of dates in the range of bricks utilised; drain (2364), in particular, was made up of an assortment of frogged and unfrogged bricks, although the actual date of construction is related to the 18th century. The frogging feature first appeared on bricks c.1690, although unfrogged stock bricks continued to be manufactured into the early 19th century (Sabel, 1996). The Harts estate demonstrates various changes in both the manufacturing techniques of its building materials and the changing designs of construction (see Appendix V).

Artefactual Evidence

A number of remarkable artefacts were uncovered: the earliest, a lead weight, possibly dating from the early 11th century, predating the earliest documentary reference for the site. Other finds mentioned below substantiate the increase in affluence associated with the establishment of the mercantile classes on the estate in the 16th and 17th centuries.

The conical lead weight (SF 205, Appendix IV, Figure 14) is of special interest due to the rarity of such weights being retrieved from excavations in London. It had a number of raised ribs from top to bottom with small bosses of lead in between and a small iron loop attached to the top. A similarly shaped weight, with raised crosses alternating between the linear ridges, was found at Barking Abbey (pers. comm. Ken MacGowan, 1996) within an early medieval context. It is possible that both these weights may even date to the late Saxon period and could have been used either as flat or suspended weights.

The presence of a fragment from a bronze skillet (SF 224, Appendix IV, Figure 14), or cooking pot, discovered in a rubbish dump in Trench 29, reflects the comparative affluence of the estate in the late 16th century; the majority of these vessels would have been made from clay or wood (pers. comm. Graham Reed, 1996). The skillet would have had three legs and a handle and would have been used either in an open fire or suspended above it (Margeson, 1993).

A bone knife handle was retrieved (SF 206, Appendix IV, Figure 14) from a pit in Trench 29 which has been dated by phase to the early part of the 18th century. This had a separate bone plug in the end and is comparable to a bone handle uncovered in excavations at Winchester (Biddle, 1990). The Winchester handle dated to the 16th or 17th century.

Several sherds of Chinese porcelain (context 2036) were recovered from a pit in Trench 27E. These can be dated to the 18th century and may be connected with the residence at Harts of Sir Richard Warner, who became a director of the East India Company in 1760. A much earlier sherd of Chinese porcelain (context 2379), pre-dating 1650, was significant by its comparative rarity (pers. comm. Chris Jarrett, 1996).

A number of coins were recovered from the excavations: a jetton (c.1580-1610) and a William III (1689-1702) coin from Trench 28 and two Charles II (1660-1685) coins from Trench 30. These finds are consistent with the occupation of the property by the merchant classes.

Conclusion

Although the first known documentation of the Harts site relates to the 13th century, dating evidence from this phase of the excavations suggests occupation in the area at least a hundred years earlier. In the 13th and 14th centuries, the Harts site was divided into rural tenements with an economy dependant on subsistence agriculture. Little archaeological evidence was retrieved pertaining to the 14th century and this may relate to events in London at this time. It has been suggested that there was a decline in the population even before the Black Death of 1348 (Jacob, 1987).

From the end of the 14th century to the middle of the 15th, changes in land use became apparent and associations of merchants were gradually set up, as industry and the economy became more efficient (Jacob, 1987).

It is known that between the late 15th and the early 17th centuries the population of London increased from approximately 50,000 to 200,000 (Weinstein, 1994, P.3). The city was experiencing a boom time as trade developed and the merchant classes established themselves. From the 17th century onwards, they often settled in areas such as Woodford, Wanstead and West Ham (Powell, 1973) to enjoy the benefits the countryside had to offer, whilst maintaining a proximity to the centre of the capital. The Harts estate effectively mirrors the climate of change in London over several centuries and the archaeological works undertaken since 1991, together with the documentary evidence provide a valuable insight into the development and gentrification of rural Essex.

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