

UNION RAILWAYS LIMITED

MERSHAM

ARC MSH 97

An Archaeological Evaluation

Contract No. 194/870



Museum of London Archaeology Service

January 1998

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MERSHAM

ARC MSH 97

An Archaeological Evaluation

Final Report

Volume 1 of 1

Contract No. 194/870

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Museum of London Archaeology Service
January 1998

MERSHAM

ARCHAEOLOGICAL EVALUATION

SUMMARY

As part of a programme of archaeological investigations along the route of the Channel Tunnel Rail Link, Union Railways Limited (URL) commissioned the Museum of London Archaeology Service (MoLAS) to undertake an evaluation comprising nine trenches situated in c 2ha. of land 5km to the south-east of the centre of Ashford, Kent. The area of investigation was bounded by the existing London to Folkestone Railway to the south, Church Road to the west, Court Lodge Farm and the parish church of St. John the Baptist to the north, and open fields to the east.

Archaeological features were found in seven of the nine trial trenches. Pottery was recovered from twelve features and was generally of 13th century date.

Two parallel ditches were aligned with the southern perimeter of the field. The ditches may have formed part of a land boundary; perhaps associated with Court Lodge Farm.

Industrial activity was concentrated in the central southern area of the site with iron slag, derived chiefly from iron smelting, found in varying quantities in most excavated features. Of note were two large pits almost completely filled with lumps of iron slag, ironstone and cinder. Postholes and beamslots may also suggest the presence of associated timber buildings.

References which relate to the Wealden iron industry refer mostly to the 13th and 14th centuries, mainly covering the period 1250-1400. Production was mainly situated in the northern and central parts of the Weald, with a lack of evidence for medieval iron production in the eastern Weald.

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Fig 1 Site location plan

Fig 2 Plan of the evaluation trenches

Fig 3 Trench *1821TT* with profile of feature [8]

Fig 4 Trench *1822TT* with plan of oven [11], with profiles of feature [13] and oven [11]

Fig 5 Trenches *1823TT* and *1824TT* with profiles of features [2], [4] and [18]

Fig 6 Trenches *1828TT* and *1830TT* with profiles of features [20] to [28]

SECTION 1: FACTUAL STATEMENT

1 BACKGROUND

1.1 Introduction

- 1.1.1 The Museum of London Archaeology Service (MoLAS) was commissioned by Union Railways Limited (URL) to carry out an archaeological evaluation in the village of Mersham, approximately five kilometres south-east of the centre of Ashford, Kent. The area of investigation was bounded by the existing London to Folkestone Railway to the south, Church Road to the west, Court Lodge Farm and the parish church of St. John the Baptist to the north, and open fields to the east (URL Grid 85173/19321) (Fig 1). The work was undertaken between the 29 October and 4 November 1997. The evaluation forms part of a larger programme of archaeological investigation along the line of the Channel Tunnel Rail Link, the aim of which is to assess the effect of the construction of the new railway upon cultural heritage. An Environmental Assessment has been prepared (URL 1994). This evaluation is within route window 34.
- 1.1.2 The work was carried out according to the 'Specification for Archaeological Investigations' prepared by URL, which details the scope and methodology of the evaluation. The preparation of this report is included within that specification. The evaluated area is shown on Fig. 2.
- 1.1.3 Part of the medieval village of Mersham was found to the east of Mersham church in 1967, along Bower Lane. Finds included wells, pits, hearths and quantities of ironwork and pottery. The area between the railway and the church therefore has particular potential for early settlement.

1.2 Geology, landscape and landuse

- 1.2.1 Mersham is set on the top of a slight but distinct spur on the edge of the Hythe Beds, which drop away onto low-lying Atherfield and Wealden Clays. It is one of a number of dispersed settlements which seem to be concentrated on the slopes of relatively fertile well drained soils overlooking the heavier clays to the south.
- 1.2.2 The site is adjacent to Mersham Church, first recorded in 1040, and the 14th century manor of Mersham, a court lodge of the monks of Christ Church, Canterbury.
- 1.2.3 The site was on the north side of the present railway line. The field is under pasture with its highest point (about 65m OD) in the north-east corner of the field, adjacent to the churchyard. From this point the ground drops away to the south to a level of approximately 61m OD. The western half of the field may have been quarried and is therefore slightly lower at 58m OD.
- 1.2.4 Mersham is part of a conservation area (OAU No. 2073), including not only the Grade 1 listed church and Grade II* Court Lodge and barn but also the Forstal, a group of eleven buildings of historic interest (seven of which are listed Grade II).

- 1.2.5 The field was under pasture and used by the riding stables of the adjacent Court Lodge Farm.

2 SPECIFICATIONS

2.1 Aims

2.1.1 The 'Specification for Archaeological Investigations' described the general aims of the archaeological works, that all the evaluations aimed to provide information to determine:

- the presence / absence, extent, condition, character, quality and date of any archaeological remains within the area of the evaluation;
- the presence and potential of environmental and economic indicators preserved in any archaeological features or deposits;
- the local, regional, national and international importance of such remains, and the potential for further archaeological fieldwork to fulfil local, regional and national research objectives.

2.1.2 The site specific aims described in the specification were to:

- determine the presence/absence etc. of any subsoil features or deposits of archaeological interest which may be associated with, or in close proximity to, anomalies recorded during geophysical prospecting; specifically, whether there is any evidence for Anglo-Saxon or medieval settlement south of the church and manor house.

3 METHODS

3.1 General

3.1.1 A detailed project design for the evaluation was agreed by URL with the County Archaeologist and English Heritage. The following summarises the archaeological aspects of the methodology and notes any deviation from the original specification.

3.2 Survey

3.2.1 The trench locations (Fig 2), specified by URL were established using a total station EDM from URL permanent ground markers.

3.2.2 The standard error of the trench positioning was set to normal engineering standards, a traverse accuracy of +/- 15mm over 1km. The trench location plan is based on this information. Drawn plans have been digitised using an AutoCAD graphics program.

3.2.3 Individual features in trenches were planned at 1:20 and occasionally 1:50, taking as a grid the line between the two survey pegs used to mark out the trench. Sections, drawn at 1:10, 1:20 and 1:50 were also positioned using these lines. These survey pegs were accurately positioned and marked out the western side of a north/south trench or the southern side of an east/west trench.

3.2.4 The central site coordinate, according to the given URL grid, was 85173/19321.

3.3 Excavation

3.3.1 Nine trenches were located and excavated. Each trench measured 30 x 1.5 metres, representing 2% of the total site area of 2 ha. (Fig 2).

3.3.2 Trench numbers were allocated by URL. The trenches were excavated using a 360° tracked mechanical excavator fitted with a ditching bucket; topsoil and any overburden were excavated to deposits of archaeological significance and in some cases deepened to test the natural geology. Archaeological deposits were partially excavated by hand to assess the nature of individual features, to obtain dating material and to allow an assessment of environmental survival.

3.4 Recording

3.4.1 Recording procedures followed the MoLAS Archaeological Site Manual (1995). Each archaeological deposit and cut feature was given a context number and descriptions recorded on context sheets. Scale plans and sections were drawn of features and all heights indicated on the field drawings were related to Ordnance Datum heights above sea level. Individual sheets were prepared for each trench, recording the nature and depth of each observed deposit and recording the archaeological features contained within each trench.

- 3.4.2 A photographic record of the site was kept.
- 3.4.3 Artefacts and samples were collected for dating and identification.
- 3.4.4 A site code was provided by URL, all records can be referenced from this code.

4 RESULTS

4.1 General

- 4.1.1 The main components of the trenches are described below. A summary of all the archaeological contexts and associated finds are listed in the Archaeological Context Inventory (Table 2). Detailed reports on the pottery, flint, building material, animal bones and plant remains are contained in Appendices 1-5. The site archive has been prepared and includes URL datasets for the Fieldwork Event, Contexts and Bulk Finds. The environmental samples were sterile and no dataset had been produced.

5 TRENCH DESCRIPTIONS

5.1 General

- 5.1.1 All trenches will be described in order from west to east.
- 5.1.2 The majority of archaeological features were recorded cutting natural sandy clay deposits.
- 5.1.3 The south-western corner of the site, comprising an area of about 5600 square metres, may have been a ragstone quarry (Kentish ragstone outcrops across much of the northern half of the field). This area was lower lying than the remainder of the field, with a near vertical edge on the north side and a steep slope on the east side. The apparent truncation by the quarry of two large ditches of probable 13th century date (see 7.2.2 below) suggests that the quarry was either late medieval or, more likely, post-medieval in date.

5.2 Trench descriptions

5.2.1 *Trench 1729TT* (Fig 3)

- 5.2.1.1 Base North: 59.24m OD: South: 58.39m OD. Depth 0.40m. Topsoil over yellow clay sand. Two linear features were located:
- 5.2.1.2 An east-west aligned ditch [22] was excavated. It measured 1.20m wide, 0.70m deep with a pronounced V-shaped profile stepped in on the north side. Ditch [22] was filled with a light grey sandy clay [21] with charcoal fragments. The pottery was dated 1300-1400.
- 5.2.1.3 An east-west aligned slot or ditch [24] was excavated. It measured 0.90m wide and 0.50m deep, with a steep U-shaped profile. Ditch [24] was filled with a light grey sandy clay [23] with charcoal fragments. The pottery was dated 1300-1400.

5.2.2 *Trench 1730TT* (Fig 2)

- 5.2.2.1 Base West: 60.85m OD: East: 61.81m OD. Depth 0.50m. Topsoil over yellow sandy silt.
- 5.2.2.2 The trench crossed a pronounced break in slope, probably the edge of a quarry (described in 5.1.3 above). No archaeological features were located.

5.2.3 *Trench 1731TT* (Fig3)

- 5.2.3.1 Base North: 63.69m OD: South: 62.81m OD. Depth 0.50m. Topsoil over rubblely ragstone with patches of green sand.
- 5.2.3.2 A narrow east-west aligned ditch [2] was located in the centre of the trench. It measured 0.90m wide, 0.30m deep with a gently curving U-shaped profile. Ditch [2]

was filled with light brown sandy silt [1] with occasional fragments of ragstone, tile and pottery. The pottery was dated 1200-1300.

5.2.4 *Trench 1732TT* (Fig 4)

5.2.4.1 Base West: 58.43m OD: East: 61.15m OD. Depth 0.40m. Topsoil over light brown sandy silt over yellow brown sandy clay. Two ditches were located in the western half of the trench, with a possible beamslot at the eastern end.

5.2.4.2 A north-south aligned ditch [52] was excavated. It measured 2.4m wide and at least 0.80m deep and was filled with a mid grey brown sandy silt [51] with occasional small fragments of ragstone, slag, bone and pottery. The pottery was dated 1200-1300.

5.2.4.3 A north-south aligned feature [50] was excavated. It was located at the base of a break-in-slope which might represent the edge of a quarry (described in 5.1.3 above). Feature [50] measured 4m wide and was excavated to a depth of 0.75m. It was filled with dark grey brown organic silt [49] which contained modern artefacts. It may be that [50] was not a cut feature but simply backfill of the quarry.

5.2.4.4 A narrow L-shaped slot [48] was located and excavated at the eastern end of the trench. It measured 0.80m wide and 0.20m deep. The north edge of the cut was near-vertical, whereas the southern edge was more gently curving. Slot [48] was filled with dark brown organic silt [47] with occasional small fragments of ragstone and slag. It may be a beamslot, representing the corner of a building or the junction between an internal and an external wall.

5.2.5 *Trench 1733TT* (Fig 4)

5.2.5.1 Base North: 61.76m OD: South: 60.40m OD. Depth 0.40m. Topsoil over light brown sandy silt over yellow brown sandy clay. Five cut features were located in the trench.

5.2.5.2 Two east-west aligned ditches [14] and [16] were excavated which converged in trench *1734TT* immediately to the east, to form cut [20]. Ditch [14] measured 2.30m wide and 1m deep with a V-shaped profile and a slight step in on the south side. It was filled with a mid brown sandy silt [13] with occasional charcoal flecks, iron slag and pottery. Ditch [16] was 1m wide and 0.65m deep with a V-shaped profile and with a similar fill [15] to that of [14]. The pottery was dated 1200-1300.

5.2.5.3 A small pit or posthole [18] was excavated. It measured 1.30m in diameter and 0.30m deep and filled with mid brown sandy silt [17] with occasional lumps of iron slag. The pottery from fill [17] was dated 1000-1250.

5.2.5.4 An east-west aligned linear cut [54] was excavated. It measured 0.90m wide and 0.50m deep, with near vertical sides and a flat base. Feature [54] was filled with dark brown sandy silt [53] with occasional fragments of ragstone and iron slag.

- 5.2.5.5 A small sub-rectangular pit [56] was excavated. It measured 1.3m east-west by 0.90m wide and 0.20m deep with a shallow U-shaped profile. Pit [56] was filled with mid brown sandy silt [55] with occasional lumps of iron slag.
- 5.2.6 *Trench 1734TT* (Fig 5)
- 5.2.6.1 Base West: 61.06m OD: East: 62.08m OD. Depth 0.40m. Topsoil over light brown sandy silt over orange brown sandy clay.
- 5.2.6.2 Ditches [14] and [16] continued eastwards from *1733TT* into trench *1734TT*, converging to form cut [20]. Cut [20] was at least 1.80m wide and 0.40m deep, with two interconnecting U-shaped cuts. It was filled with dark brown organic sandy silt [19] with occasional charcoal flecks, ragstone and iron slag. Cut [20] had obviously been re-cut but it was not possible to establish which was the earlier and which was the later cut. Only one cut and one fill number were therefore allocated. Pottery was dated 1200-1300.
- 5.2.6.3 To the north of [20] a small posthole [34] was excavated. It measured 0.30m in diameter, 0.20m deep and filled with dark brown sandy silt [33].
- 5.2.6.4 A small pit or posthole [58] was excavated. It measured 0.80m in diameter and was filled with dark brown humic silt [57]. Posthole [58] was cut by a sub-rectangular slot [36] which was 1.10 m long, 0.50m wide and 0.70m deep. Slot [36] had vertical sides and a flat base and was packed with large fragments of ragstone, iron slag and clayey silt [35]. It may have been the setting for a large post.
- 5.2.6.5 Two large postholes, [38] and [40], were located immediately to the east of large posthole [58]. Posthole [38] was 0.70m in diameter and filled with dark brown silty clay [37]. Pottery was dated 1000-1250. Posthole [40] was 0.60m in diameter and filled with dark brown silty clay [39].
- 5.2.6.6 Two large pits, [42] and [44], were located at the eastern end of trench *1734TT*. Pit [42] was sub-rectangular in plan and measured 4m east-west and at least 1.40m wide and 1m deep. The sides of the cut were almost vertical and the base was flat. It was filled at the base with solid large burnt fragments of ragstone [59], under a fill of brown clayey sand [41] with fragments of iron slag and burnt ragstone. Pit [44] to the east was associated with pit [42], although on a different alignment. It was similar in shape, being sub-rectangular, but smaller measuring 2m east-west, at least 1.40m wide. It also containing quantities of iron slag [43].
- 5.2.6.7 A small posthole [46] to the west of pit [42] measured 0.20m in diameter and 0.25m deep and was filled with brown loam [45] with charcoal flecks.
- 5.2.7 *Trench 1735TT* (Fig 6)

- 5.2.7.1 Base West: 58.80m OD: East: 61.06m OD. Depth 0.20m-0.60m. Topsoil over light brown sandy silt over yellow brown sandy clay.
- 5.2.7.2 An east-west aligned ditch [8] was excavated. It measured 6m wide and 1.25m deep and was filled with dark grey brown silty sand [7] with occasional small fragments of ragstone, tile, slag, bone and pot. Pottery was dated 1200-1300. Ditch [8] was noted as an undulation in the surface of the field and was also located in trench *1736TT* as [32].
- 5.2.7.3 A sub-circular pit [6] was excavated. It measured 1.30m in diameter and 0.40m deep with a shallow curving profile. It was filled with dark grey brown sandy silt [5] with occasional small fragments of ragstone.
- 5.2.7.4 A sub-rectangular pit [4] was excavated. It measured 1.40m by at least 1.60m with steep sides and a shallow, flat base. It was filled with mid brown sandy silt [3] with occasional fragments of ragstone and iron slag.
- 5.2.7.5 A sub-rectangular pit [12] was excavated. It measured 1.20m north-south by 1m east-west and was filled with dark grey brown sandy silt with occasional small fragments of iron slag [11]. Pottery was dated 1200-1300.
- 5.2.7.6 A posthole [10] measuring 0.60m in diameter and 0.40m deep was excavated. It was filled with dark grey brown sandy silt [9] with fragments of charcoal.
- 5.2.8 *Trench 1736TT* (Fig 6)
- 5.2.8.1 Base North: 61.94 OD: South: 60.24m OD. Depth 0.40m-0.70m. Topsoil over light brown sandy silt over yellow brown sandy clay.
- 5.2.8.2 An east-west aligned ditch [30] was excavated. It measured 7.5m wide and at least 1.20m deep and was filled with dark brown sandy silt [29] with occasional charcoal flecks, ragstone, iron slag and bone. Ditch [30] could be seen as an undulation in the ground surface and probably continued westwards as ditch [20] in trench *1734TT* and as ditch [14] and [16] in trench *1733TT*.
- 5.2.8.3 An east-west aligned ditch [32] was at least 2.40m wide and 0.90m deep. It was filled with dark brown organic sandy silt [31] with occasional charcoal flecks. Ditch [32] was noted as a distinct undulation in the ground surface and probably continued westwards as ditch [8] in trench *1735TT*.
- 5.2.8.4 Two east-west aligned slots or gulleys [28] and [26] were located towards the northern end of the trench. Slot [28] was 0.50m wide and 0.30m deep with near vertical sides and a flat base. It was filled with dark brown sandy silt and ash with occasional fragments of slag. Slot [26] was 0.40m wide with near vertical sides and a flat base and was filled with dark brown sandy silt [25] with occasional charcoal flecks, bone and iron slag.
- 5.2.9 *Trench 1737TT* (Fig 2)

- 5.2.9.1 Base West: 64.01m OD: East: 63.96m OD. Depth 0.35m. Topsoil over mid brown sandy silt over rubbly ragstone with patches of yellow brown sand. No archaeological features were located.

6 ARCHAEOLOGICAL DATASETS

6.1 Table 1: Events dataset

| |
|---|
| EVENT_NAME: Mersham |
| EVENT_CODE:ARC MSH 97 |
| EVENT_TYPE:Evaluation |
| CONTRACTOR:Museum of London Archaeology Service |
| DATE: 29/10/97 - 4/11/97 |
| GRID:85173/19321 (URL Grid) |
| PROJECT:CTRL |
| COUNTY:Kent |
| DISTRICT:Ashford |
| PARISH:Mersham |
| SMR: |
| SITE_TYPE:Grassland, Heathland 2 - Undisturbed Grassland |
| PERIOD:Medieval |
| METHOD:Mechanical removal of topsoil; hand excavation and recording of archaeological features. |
| PHASING:Medieval |
| ENVIRON: A total of 5 contexts produced a hand recovered total of 7 bone fragments weighing 0.14kg, while four bulk samples provided 306 fragments weighing 0.06kg. The preservation of charred plant remains was poor in all the samples. |
| FINDS: A total of 37 sherds (184g) of medieval pottery were recovered. There are sand and shell tempered sherds that date from the 11th century, but the greater bulk of the sherds date from the 13th possibly through to the mid 14th century. |
| GEOLOGY:Hythe Beds of the Lower Greensand. |
| CONTEXT_NUM:58 (+ 9 trench sheets) |
| THREAT:CTRL |
| SAMPLE:2% |
| SUMMARY: Archaeological features were found in 7 of the 9 trenches. Two parallel ditches were aligned with the southern perimeter of the field. The ditches may have formed part of a land boundary, perhaps associated with Court Lodge Farm. Industrial activity was concentrated in the central southern area of the site with iron slag found in most excavated features, including two large pits almost completely filled with lumps of iron slag, ironstone and cinder. Postholes and beamslots may also suggest the presence of associated timber buildings. |
| ARCHIVE: |
| ACC_NUM: |

6.2 Table 2 : Archaeological context inventory

| TRENCH | CONTEXT | TYPE | PERIOD | ASSOCIATION | COMMENTS |
|--------|---------|---------|--------|-------------|------------------------|
| 1731TT | 1 | deposit | | 2 | fill of ditch |
| 1731TT | 2 | cut | | 1 | ditch |
| 1735TT | 3 | deposit | | 4 | fill of ?pit |
| 1735TT | 4 | cut | | 3 | ?pit |
| 1735TT | 5 | deposit | | 6 | fill of ?pit |
| 1735TT | 6 | cut | | 5 | ?pit |
| 1735TT | 7 | deposit | | 8 | fill of ditch |
| 1735TT | 8 | cut | | 7 | ditch |
| 1735TT | 9 | deposit | | 10 | fill of posthole |
| 1735TT | 10 | cut | | 9 | posthole |
| 1735TT | 11 | deposit | | 12 | fill of posthole |
| 1735TT | 12 | cut | | 11 | posthole |
| 1733TT | 13 | deposit | | 14 | fill of ditch |
| 1733TT | 14 | cut | | 13 | ditch |
| 1733TT | 15 | deposit | | 16 | fill of ditch |
| 1733TT | 16 | cut | | 15 | ditch |
| 1733TT | 17 | deposit | | 18 | fill of pit |
| 1733TT | 18 | cut | | 17 | pit |
| 1734TT | 19 | deposit | | 20 | fill |
| 1734TT | 20 | cut | | 19 | feature |
| 1729TT | 21 | deposit | | 22 | fill |
| 1729TT | 22 | cut | | 21 | feature |
| 1729TT | 23 | deposit | | 24 | fill |
| 1729TT | 24 | cut | | 23 | feature |
| 1736TT | 25 | deposit | | 26 | fill |
| 1736TT | 26 | cut | | 25 | feature |
| 1736TT | 27 | deposit | | 28 | fill |
| 1736TT | 28 | cut | | 27 | feature |
| 1736TT | 29 | deposit | | 30 | fill |
| 1736TT | 30 | cut | | 29 | feature |
| 1736TT | 31 | deposit | | 32 | fill |
| 1736TT | 32 | cut | | 31 | feature |
| 1734TT | 33 | deposit | | 34 | fill |
| 1734TT | 34 | cut | | 33 | feature |
| 1734TT | 35 | deposit | | 36 | fill of posthole |
| 1734TT | 36 | cut | | 35 | posthole |
| 1734TT | 37 | deposit | | 38 | fill of posthole |
| 1734TT | 38 | cut | | 37 | posthole |
| 1734TT | 39 | deposit | | 40 | fill of posthole |
| 1734TT | 40 | cut | | 39 | posthole |
| 1734TT | 41 | deposit | | 42 | fill of pit |
| 1734TT | 42 | cut | | 41 | pit |
| 1734TT | 43 | deposit | | 44 | fill of pit |
| 1734TT | 44 | cut | | 43 | pit |
| 1734TT | 45 | deposit | | 46 | fill of posthole |
| 1734TT | 46 | cut | | 45 | posthole |
| 1732TT | 47 | deposit | | 48 | fill of ?trench |
| 1732TT | 48 | cut | | 47 | ?trench |
| 1732TT | 49 | deposit | | 50 | fill of linear feature |
| TRENCH | CONTEXT | TYPE | PERIOD | ASSOCIATION | COMMENTS |

| | | | | | |
|--------|----|---------|--|----|------------------------|
| 1732TT | 50 | cut | | 49 | linear feature |
| 1732TT | 51 | deposit | | 52 | fill of linear feature |
| 1732TT | 52 | cut | | 51 | linear feature |
| 1733TT | 53 | deposit | | 54 | fill of ditch/slot |
| 1733TT | 54 | cut | | 53 | ditch/slot |
| 1733TT | 55 | deposit | | 56 | fill of posthole |
| 1733TT | 56 | cut | | 55 | posthole |
| 1734TT | 57 | deposit | | 58 | fill of posthole |
| 1734TT | 58 | cut | | 57 | posthole |

SECTION 2: STATEMENT OF IMPORTANCE

7 CONCLUSIONS

7.1 Extent of archaeological deposits

7.1.1 Archaeological features were located in 7 of the 9 trenches:

- Two parallel ditches were aligned with the southern perimeter of the field. The ditches were noted as undulations in the ground surface and sections of both ditches were subsequently located in trenches *1733TT*, *1734TT*, *1735TT* and *1736TT*.
- Two large pits in trench *1734TT* contained quantities of iron slag.
- Possible slots and postholes were located in trenches *1732TT* and *1734TT*, perhaps representing two buildings.
- Pits and narrow ditches or slots were located in trenches *1729TT*, *1731TT*, *1733TT*, *1735TT* and *1736TT*.

7.1.2 The majority of features were dated to the 13th century

7.2 Nature of archaeological deposits

7.2.1 All deposits of archaeological significance were located within cut features. Features varied from possible structural slots and postholes to pits and ditches.

7.2.2 Two parallel ditches were aligned with the southern perimeter of the field. The east-west aligned ditches were initially noted as undulations in the ground surface, extending across the eastern half of the field. Ditch 1, the southern of the two ditches, was located in trench *1736TT* as [32] and in trench *1735TT* as [8]. A narrow gap separated ditch 1 from ditch 2, which was located in trench *1736TT* as [30], in trench *1734TT* as [20] and in trench *1733TT* as [14] and [16]. An earthen bank between the two ditches is also postulated. The ditches did not extend into the western half of the field, although their absence may be due to later quarrying. The ditches may have formed part of a land boundary, perhaps associated with Court Lodge. Pottery of 13th century date was recovered from both ditches.

7.2.3 Industrial activity was concentrated in the central southern area of the site, in and around trenches *1732TT*, *1733TT*, *1734TT* and *1735TT*.

7.2.4 In trench *1734TT* two large pits [42] and [44] were almost completely filled with fragments of iron slag mixed with ironstone and some cinder. Most of the slag was derived from smelting; the bulk being tap slag. There was very little material which could be from a hearth superstructure, but this included a small amount of vitrified hearth lining, some cinder and a small amount of burnt clay. Although no furnace was located any such structure is likely to have been fairly small. The only excavated

example from the Weald, the base of a furnace found at Minepit Wood, Withyham (Money, J.H., 1971) was only 0.30m in diameter. Iron slag was also found in varying quantities in most other excavated features and it is therefore likely that bloom iron was produced on-site.

- 7.2.5 Smaller pits were found scattered across the site in trenches *1733TT* and *1735TT*, each containing small quantities of iron slag.
- 7.2.6 Five postholes [34], [36], [38], [40] and [58] were located towards the eastern end of trench *1734TT*, suggesting the presence of an earth-fast timber building. All features contained quantities of slag and [38] contained pottery dated to the period 1000-1250. An L-shaped slot [48], in trench *1732TT*, may have been the corner of a timber building. Documentary evidence, relating to a 14th century smelting site at Tudeley, near Tonbridge (Cleere, H. & Crossley, D., 1995), indicates that smelting was sometimes carried out within wooden cover buildings. This was confirmed by excavations at the Minepit Wood site.
- 7.2.7 Narrow ditches or slots were found in trenches *1729TT*, *1733TT*, *1731TT* and *1736TT*. Some may have been structural in nature (for example [26] and [28] in trench *1736TT*).
- 7.2.8 The site was subjected to a detailed gradiometry scanning survey (URL 1996) in advance of the evaluation. Two areas were tested: a northern area A and a southern area B. The results from Area A were largely influenced by a high level of background noise and, during the evaluation, proved to be archaeologically sterile. In Area B a linear anomaly was located in the west of the survey area and was associated with pit type responses. At the time the high level of ferrous disturbance cast doubt on the interpretation, but the results of the evaluation indicate that iron slag was probably responsible for the high readings. The survey located a number of features, mainly pits, which were subsequently found in the evaluation, but failed to find most of the linear features. The linear anomaly (4 in the Geophysical Report) is likely to correspond with ditch [52] in trench *1732TT*.

7.3 Character of the site

- 7.3.1 Industrial activity was concentrated in the central southern area of the site, in the vicinity of *1732TT*, *1733TT*, *1734TT* and *1735TT*. Buildings may be located in the same area. Non structural features, such as ditches, were more widely spread. Archaeology may therefore be expected across most of the site.
- 7.3.2 There appears to have been little or no agricultural activity on the site post abandonment. Archaeological survival is therefore likely to be good.

7.4 Date of occupation

- 7.4.1 It is probable that a single phase of medieval activity is represented. Pottery was recovered from twelve features, and was generally of 13th century date, with some sherds being of 11th or perhaps 12th century date.

8 IMPORTANCE OF THE ARCHAEOLOGICAL REMAINS

8.1 Survival and conditions

- 8.1.1 The site is adjacent to Mersham Church, first recorded in 1040, and the 14th century manor of Mersham; a court lodge of the monks of Christ Church, Canterbury.
- 8.1.2 Cut features were located immediately beneath the topsoil, with no indication of recent agricultural activity. There is some evidence that the field was an orchard in the recent past, but the field is at present under pasture. Archaeological features therefore survive relatively untouched.
- 8.1.3 The preservation of charred plant remains was poor in all the samples and can only give an indication of the range of cereals used at the site. Uncharred seeds were probably intrusive given the soil conditions at the site. A small quantity of animal bone fragments were recovered.

8.2 Period

- 8.2.1 References relating to the Wealden iron industry are concentrated in the 13th and 14th centuries, mainly covering the period 1250-1400 (Straker, E., 1931). Production was concentrated in the northern and central parts of the Weald, with a lack of evidence for medieval iron production in the eastern Weald.
- 8.2.2 In military terms the industry may have developed to meet the demands of the wars of Henry III and his successors. It was also during the 13th century that increasing population led to greater land clearance and an increased demand for agricultural land. This resulted in a greater demand for iron agricultural implements. The iron industry was to some extent curtailed by the Black Death of the second half of the 14th century (Cleere, H. & Crossley, D., 1995).
- 8.2.3 It is often assumed that medieval iron production was essentially a rural industry, with the production of blooms taking place within the forest and secondary working, such as smithing, being carried out in villages and towns. The location of an iron smelting site apparently within the village of Mersham indicates that this was not always the case. This may also have implications for establishing ownership of the site, especially if the large ditches, 1 and 2, which ran almost parallel across the southern side of the site, represented boundaries forming part of an estate associated with Court Lodge.

8.3 Rarity

- 8.3.1 There is little evidence for medieval iron smelting in the eastern Weald. There may have been Roman smelting of marcasite on the Downs above Wye and a charter of 689 refers to an iron producing site at Lyminge, north of Hythe, but there is no known medieval iron smelting site in the Ashford region, or further east (Cleere, H. & Crossley, D., 1995). However, this area has not been studied with the intensity of the Sussex Weald and further undiscovered sites may exist.

8.4 Fragility and vulnerability

- 8.4.1 Evaluation work has confirmed that archaeological features survive cut into natural geology overlain by topsoil. Any intrusive work undertaken in connection with the CTRL is likely to damage features and deposits of archaeological interest.

8.5 Diversity

- 8.5.1 Only one phase of activity was identified: industrial and possible settlement activity of 13th century date.

8.6 Documentation

- 8.6.1 Saxon references to the village of Mersham are known from 734, 835 and 863 (the last two from the reign of Ethelbert, King of Kent). A Saxon will of 1040 states that 'John Siward and his wife Edith gave a hide of land for a church at Mersham.' A Saxon cemetery was also found at Mersham but its exact location is not known.
- 8.6.2 In Domesday the village was owned as Demesne land by the Archbishop of Canterbury. This continued until it was handed over to the prior and monks of Christ Church Canterbury in c.1200. After the Dissolution of the Monasteries it was handed back to the Dean and Chapter of the cathedral.
- 8.6.3 The church was rebuilt c.1100 and again in the second half of the 14th century.
- 8.6.4 Quarrying to the east of the church in 1967 located part of what was thought to be the medieval village of Mersham.

8.7 Group value

- 8.7.1 The importance of the site lies in its location to the east of the main Wealden Iron industry. There are no known medieval iron producing sites in east Kent.
- 8.7.2 During the 13th and 14th centuries documentary sources suggest that the Wealden iron industry was centred on East Grinstead and Crawley (Tebbutt, C.F., 1979). There are fewer 15th century references but activity was maintained to the north of Ashdown Forest (Hart, E & Winbolt, S.E., 1937). The marked concentration in the northern and central Weald may have been due to better ores and/or proximity to the London market. Iron producing sites further east, such as Mersham, may have produced iron for local consumption or for export, for example through the channel ports.
- 8.7.3 A number of bloomeries were run as part of landed estates, for example Tudeley, near Tonbridge, which was operating in the 14th century (Guisseppi, M.S, 1912). The proximity of Court Lodge and the presence of a possible boundary at the southern limit of the site may point to a similar situation existing at Mersham. During the 13th century Court Lodge was owned by Canterbury Cathedral, which may have leased the land out to a local iron producer. Fourteenth century court rolls of the manor of

Wakefield, Yorkshire, for example, indicate that mining, wood cutting and smelting was often carried out on short leases under tight control from the landowner (Faull and Moorhouse 1981). The location of Mersham as an iron smelting site, away from the major iron ore sources, may therefore be a function of property ownership. Similarly, a charter of 689 refers to an iron producing site at Lyminge, north of Hythe (see 8.3.1), which is also away from the main ore bearing rocks.

8.8 Potential

- 8.8.1 That the site appears to have survived relatively untouched will allow for a comprehensive study of a medieval bloomery site. It is entirely possible that furnaces may be located, along with associated buildings and waste pits. It will also be important to identify the nature of the ironworks, to identify whether smithing was also carried out on site and to locate possible sources of raw material (the iron ore and areas of coppice woodland which may have supplied fuel for smelting).

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APPENDIX 1**1 POTTERY***By Roy Stephenson***1.1 Introduction**

1.1.1 The evaluation produced a total of 37 sherds (184g) of medieval pottery. Sherds were abraded with any shell and chalk inclusions generally leached out. The pottery was examined using a x 20 binocular microscope and recorded using standard MoLAS codes, where possible, on pro-forma sheets. Quantification of the assemblage was by sherd count and weight. Pottery was recorded from twelve contexts.

1.2 Fabrics

1.2.1 The fabrics identified have been identified in broad fabric type. The fabrics have been identified on the basis of their main inclusions, coupled to a partial overview of the literature on pottery from this region of this date, although some can be divided into defined sources. Where possible established fabric codes are utilised, these are MoLAS fabric codes, and Canterbury Archaeology Trust codes, (CAT) see (Blackmore 1988). The CAT codes are marked below + thus. It should be stressed that some of these identifications are tentative.

1.2.2 Fabric Groups

Medieval

'Ashford ware' 28 sherds 125g

Earlswood ware (EARL) 1 sherd 14g

Sand and Shell tempered ware (SHS) + 4 sherds 43g

Unidentified misc. 4 sherds 2g

1.3 Forms

1.3.1 The medieval pottery sherds present are mostly unassignable, due to small size and abrasion. Despite this there are a number of medium size sherds which suggest the forms they belong to, these are Ashford ware cooking pot fragments from [19 and 23] and a bowl rim from [25]. There is a possible Earlswood ware jug rim fragment from [1].

1.4 Chronology

1.4.1 The evaluation recovered sand and shell tempered sherds that date from the 11th century, but the greater bulk of the contexts date from the 13th possibly through to the mid 14th century. These contexts are typified by the presence of a sandy fabric with an

inconsistent range of colours, from grey to pink, which are assumed to be products from the nearby Ashford kiln (Groves and Warhurst 1952). In addition there are sherds of pottery which are commonly occurring types produced in Surrey such as Earlswood ware.

1.5 General Comments

- 1.5.1 The range of vessels are indicative of medieval domestic activity on or near the site.

1.6 Assessment of potential and further work

- 1.6.1 The fabric identifications should be confirmed by comparison with an existing type-series, allowing the use of existing fabric codes.

TABLE 3: BULK DATASET, POTTERY

| TRENCH | CONTEXT | MATERIAL | COUNT | WEIGHT | COMMENTS |
|--------|---------|----------|-------|--------|--------------------------------|
| 1731TT | 1 | POT | 2 | 25 | |
| 1735TT | 7 | POT | 2 | 3 | enviro. sample 3 (1mm residue) |
| 1735TT | 11 | POT | 1 | 5 | |
| 1733TT | 13 | POT | 3 | 15 | |
| 1733TT | 13 | POT | 4 | 2 | enviro. sample 4 (1mm residue) |
| 1733TT | 15 | POT | 2 | 5 | |
| 1733TT | 17 | POT | 1 | 3 | |
| 1734TT | 19 | POT | 1 | 20 | |
| 1729TT | 21 | POT | 7 | 30 | |
| 1729TT | 23 | POT | 7 | 15 | |
| 1736TT | 25 | POT | 3 | 25 | |
| 1734TT | 37 | POT | 2 | 30 | |
| 1732TT | 51 | POT | 3 | 10 | |

1.7 Bibliography

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APPENDIX 2

1 BUILDING MATERIALS

By Terence Paul Smith

1.1 Introduction

1.1.1 This site (ARC MSH97) yielded several fragments of daub, a few fragments of burned mortar, some rubble stone, two floor tile fragments, and a number of fragments of roofing tiles. Contexts [7] and [51] yielded tiny fragments of unidentifiable red ceramic material; these are not referred to again.

1.2 Daub

1.2.1 This was recovered from contexts [1], [15], [21], [27], and [41]. It is brown in colour and ranges from tiny fragments of 20 gm to larger pieces from context [41] (70 gm) and context [1] (480 gm). Two of the smaller fragments - one each from contexts [15] and [27] - preserve slight traces of wattle impressions, although these are insufficient for measurement of the wattle diameters. The other pieces are featureless.

1.3 Burned Mortar

1.3.1 From contexts [21] and [51] came small fragments of burned mortar. Beneath the burned surface they are white in colour.

1.4 Stone

1.4.1 Pieces of rubble stone were recovered from contexts [7], [13], [27], and [41], ranging in size from 10 to 100 gm. All are of Kentish Ragstone, commonly used in Kent and elsewhere in south-east England from Roman times to the 20th century. None of the small fragments from this site shows mouldings or tooling, and it is not *certain* that any of them are building material at all.

1.5 Floor Tiles

1.5.1 From context [7] came part (370 gm) of a floor tile in a fabric similar to that of MoLAS fabric 1678; this is orange in colour and contains frequent quartz and, its most distinctive characteristic, numerous tiny white calcium carbonate specks as well as occasional red iron oxides. It is associated with floor tiles of Flemish manufacture and the example from this site is also probably Flemish in origin. It shows a very dark green - virtually black - plain glaze on its upper surface. Such tiles are usually characterised by small nail holes in two or more corners - a result of the particular method of manufacture employed; the piece from this site, however, does not preserve its corners. The tile is 32-4 mm in thicknesses; other dimensions are not preserved. Such tiles were imported into England from *c.* 1300 down to the early 16th century, perhaps somewhat beyond.

- 1.5.2 From context [1] came a piece (480 gm) of a further floor tile in a light orange fabric containing numerous red ‘grog’ (that is, broken fired ceramic) inclusions as well as some calcium carbonate and crushed shell and a few white or cream silty streaks. The tile is unglazed and is 40-42 mm in thickness; other dimensions are not preserved. It is probably part of a paving tile - used either internally, in areas such as kitchens, or externally, in such situations as backyards. Such unglazed paving tiles are often referred to as ‘Flemish’ although in fact they were manufactured in, and exported from, elsewhere in the Greater Netherlands too. Like the earlier plain glazed tiles (see above, 5.1) they are characterised by nail holes in the corners; insufficient was preserved of the example from this site to show this feature. They were imported into England probably from the early 17th century and continued to be brought in down to the 18th century and perhaps beyond.

1.6 Roofing Tiles

- 1.6.1 Roofing tile fragments were recovered from contexts [7], [29], [31], [49], and [51], ranging in size from 20 gm to 120 gm. No full dimensions are preserved although in a number of instances thicknesses are intact; they range from 11 to 13 mm, with most being of the latter size. Fabrics may be divided into four types.

Fabric 1: This equals MoLAS fabric 2271, orange to red in colour, of a hard, well-fired texture, and with little quartz.

Fabric 2: An orange colour with some quartz and also tiny black iron oxides and larger red iron oxides; there are also crushed shell fragments and a little silty streaking.

Fabric 3: An orange colour with white silty streaks, generally smooth but with some quartz and red iron oxides; the silty streaks give a somewhat ‘marbled’ appearance.

Fabric 4: Red in colour with a smooth texture but with numerous crushed shell fragments; there is some cream silty streaking.

Tiles in fabrics 1 were found in all contexts containing roofing tiles; tiles in fabric 2 were found in context [49], tiles in fabric 3 in context [7], and tiles in fabric 4 in context [31].

- 1.6.2 Clay roofing tiles can be fixed to the roof battens either by nibs (small lugs formed from the clay itself on the top edge of a tile) or by wooden pegs or metal nails placed in holes made for the purpose. Only one tile from this site preserves sufficient to show which method was used: a tile fragment from context [49], in fabric 2, has a square-shaped hole 11 x 10 mm at the upper surface and tapering (as normal) to the lower surface, where it is circular in form with a diameter of 8 mm. Such holes were probably made by pushing a wooden dowel of appropriate shape through the newly moulded tile.
- 1.6.3 Plain roofing tiles have been in use in south-east England from the late 12th century (but usually in urban contexts at this earliest date) down to the present day, although from Victorian times they have been increasingly machine-made. None of those from this site is machine-made. Because their forms show little change over time, it is

extremely difficult to date them. Square holes probably indicate a date after the 15th century, and indeed this particular example has a smooth finish and a lack of the ‘pushed-up’ edges common in earlier tiles which suggest a fairly recent date - say of the 18th century or later. None of the tiles fragments showed glaze, which is fairly common (although by no means universal) on roofing tiles of medieval date.

1.7 Assessment of Potential and Further Work

1.7.1 The presence of the Flemish/Netherlands floor tiles is interesting in that it contributes to the distribution pattern of such tiles, although it does not add significantly to our knowledge, since the vigorous trade between the Greater Netherlands and Kent, including trade in building materials, is already well established. Comparison of the roofing tile fabrics with the fabrics of other roofing tiles known from Kent *may* aid in our understanding of the provenance of these examples. Otherwise, the building material from this site does not call for further work.

Table 4: Bulk dataset, building material

| TRENCH | CONTEXT | MATERIAL | COUNT | WEIGHT | COMMENTS |
|--------|---------|---------------------------|-------|--------|--------------------------------|
| 1731TT | 1 | CERAMIC BUILDING MATERIAL | 1 | 460 | |
| 1731TT | 1 | DAUB | 1 | 20 | |
| 1735TT | 7 | CERAMIC BUILDING MATERIAL | 4 | 430 | |
| 1735TT | 7 | CERAMIC BUILDING MATERIAL | 1 | 2 | Enviro. Sample 3 (1mm residue) |
| 1735TT | 7 | STONE | 5 | 55 | Enviro. Sample 3 (1mm residue) |
| 1733TT | 13 | STONE | 6 | 180 | |
| 1733TT | 13 | STONE | 1 | 5 | Enviro. Sample 4 (1mm residue) |
| 1733TT | 15 | DAUB | 1 | 15 | |
| 1729TT | 21 | DAUB | 1 | 5 | |
| 1729TT | 21 | STONE | 1 | 5 | |
| 1736TT | 27 | DAUB | 4 | 20 | Enviro. Sample 1 (1mm residue) |
| 1736TT | 27 | STONE | 19 | 350 | Enviro. Sample 1 (1mm residue) |
| 1736TT | 29 | CERAMIC BUILDING MATERIAL | 1 | 35 | |
| 1736TT | 31 | CERAMIC BUILDING MATERIAL | 2 | 55 | |
| 1734TT | 41 | DAUB | 8 | 60 | Enviro. Sample 5 (1mm residue) |
| 1734TT | 41 | STONE | 1 | 10 | Enviro. Sample 5 (1mm residue) |
| TRENCH | CONTEXT | MATERIAL | COUNT | WEIGHT | COMMENTS |
| 1732TT | 49 | CERAMIC | 6 | 225 | |

| | | | | | |
|--------|----|---------------------------|---|----|--|
| | | BUILDING MATERIAL | | | |
| 1732TT | 51 | CERAMIC BUILDING MATERIAL | 5 | 30 | |
| 1732TT | 51 | STONE | 3 | 20 | |

APPENDIX 3

1 ANIMAL BONES

By Kevin Rielly

1.1 Introduction

- 1.1.1 This report discusses the animal bones from Mersham (ARC MSH97).
- 1.1.2 The bones were recovered by hand, as well as through sorting the residues produced by wet sieving a number of bulk samples. The sieved material was caught on a 1mm mesh using a Siraf tank.
- 1.1.3 All the bones provided by these methods were analysed, recording condition, quantity, species, skeletal part and presence of age and size data. This information was used to deduce the potential value of the bone assemblage, and the possible value of increasing the sample size by further excavation. The value of the assemblage is dependant on the information it can impart concerning animal usage, this in turn being dependant on the availability of well dated bone bearing deposits.

1.2 Results

- 1.2.1 A total of 5 contexts produced a hand recovered total of 7 bone fragments weighing 0.14kg, while four bulk samples provided 306 fragments weighing 0.06kg. All the bones were found in relatively deep features, including pitfills, postholes and ditch/linear cut fills. The hand collected bones were thinly scattered amongst four out of the five trenches which produced bone. Conversely, the sieved assemblage was largely provided by a ditch fill [13] in trench 1733TT and a pitfill [41] in trench 1734TT.
- 1.2.2 Dates were available for just three of the bone-bearing contexts i.e. linear fill [51] in trench 1732TT, ditch fill [13] (as described above) and ditch fill [7] in trench 1735TT. Each of these contexts produced small amounts of pottery, all of which could be dated to 1200-1300 AD.
- 1.2.3 The dated deposits produced a cattle distal radius (a measurable item) from an adult individual (from [7]) and a horse maxillary molar from a medium pony sized animal. All of the remaining hand recovered bones were shaft pieces, and all, including the latter two bones, were less than 25% complete and reasonably well preserved. Cattle dominated this collection with the exception of one sheep/goat pelvis from posthole fill [35].
- 1.2.4 Cattle-sized fragments dominated the sieved assemblages in terms of weight, while fish bones accounted for the greater quantity in terms of numbers. Just one of the cattle-sized bones was identifiable to cattle, a mandible piece from a mature/adult individual. Fish bones were found in the samples from fills [13] and [41], these

deposits providing 40 and 35 fragments respectively, of which 10 bones in each context should be identifiable to species. All parts of the fish skeleton are represented. These two deposits also produced a few sheep-sized fragments, a small rodent limb bone (from [41]) and a few amphibian bones (from [13]). The remaining two sieved deposits, [7] and [27], provided two dog-size and two cattle-size fragments respectively.

1.3 Conclusions

- 1.3.1 The dating evidence is rather sparse, and yet, perhaps significantly, it is consistent i.e. showing a general early medieval dumping horizon. By association, it can perhaps be suggested that most, if not all, of the bone bearing deposits date to this period. These deposits probably represent the remains of a series of relatively small-scale dumps of food waste material. The overall good state of preservation may suggest little to no movement of these deposits since burial. Of significance here is the good survival of fish bones, as seen within two deposits.
- 1.3.2 Overall the site assemblage, though small, appears to be well dated and well preserved. It is to be hoped that further excavation will reveal similarly rich sample assemblages. The potential value of these and future deposits is to provide a full range of animal species exploited by the local population during a close-dated period. However, without substantially larger bone assemblages, the analysis regarding the use (meat, milk, work etc) and type of animals exploited will be somewhat limited.

Table 5: Bulk dataset, animal bone

| TRENCH | CONTEXT | MATERIAL | COUNT | WEIGHT | COMMENTS |
|--------|---------|----------|-------|--------|---|
| 1735TT | 5 | ANBN | 1 | 6 | cattle |
| 1735TT | 7 | ANBN | 2 | 80 | cattle and unidentified |
| 1735TT | 7 | ANBN | 2 | 4 | sample .3: unidentified |
| 1733TT | 13 | ANBN | 65 | 56 | sample 4: cattle, sm mammal, fish, amphib, unidentified |
| 1736TT | 27 | ANBN | 2 | 1 | sample 1: unidentified |
| 1734TT | 35 | ANBN | 2 | 18 | sheep/goat and cattle |
| 1734TT | 41 | ANBN | 37 | 2 | sample 5: ?mouse, fish and unidentified |
| 1732TT | 47 | ANBN | 1 | 7 | cattle |
| 1732TT | 51 | ANBN | 1 | 30 | horse |

APPENDIX 4

1. PLANT REMAINS

By John Giorgi

1.1 Introduction

- 1.1.1 Five environmental soil samples were collected during the evaluation and assessed for the presence of charred plant remains. The samples were taken from the following medieval features: the fill [27] (sample <1>) of a slot; the fill [11] (sample <2>) of a small pit/posthole; two ditch fills [7] (sample <3>) and [13] (sample <4>); and a pit fill [41] (sample <5>). The size of all the samples was ten litres.
- 1.1.2 The aim of the assessment was to evaluate the quality of preservation and the abundance and diversity of charred plant remains in the samples and present recommendations on the analysis of the material.

1.2 Methods

- 1.2.1 The samples were processed in a flotation machine using sieve sizes of 0.25mm and 1mm for the recovery of the flot and residue respectively. The residues were dried and sorted for biological and artefactual remains.
- 1.2.2 Once dried, the material from each flot was scanned under a binocular microscope. Modes of preservation, abundance and diversity of organic remains were noted. A summary of the results is shown in the environmental dataset.

1.3 Results

- 1.3.1 *Medieval Slot Fill [27] 1738TT (sample <1>, flot vol. 10ml.):* This flot consisted mainly of charcoal fragments. A small number of charred cereal grains were also identified including several grains of free-threshing (*T.aestivum* s.l.) wheat. Occasional uncharred seeds were also recovered, eg. stinging nettle (*Urtica dioica*) plus root fragments. Several land snails were also present in the flot, eg. *Cepae nemoralis*, *Discus rotundatus*. The residue consisted of occasional charcoal and mollusc fragments, and abundant building material fragments.
- 1.3.2 *Medieval Pit/Posthole Fill [11] 1735TT (sample <2>, flot vol. 20ml.):* This flot consisted virtually entirely of small charcoal fragments and root fragments. Occasional uncharred seeds were also recovered, eg stinging nettle. The residue consisted of one charred seed, occasional charcoal and bird bone fragments, plus occasional building material and slag fragments.
- 1.3.3 *Medieval Ditch Fill [7] 1735TT (sample <3>, flot vol. 5ml.):* This small flot consisted almost entirely of uncharred elder (*Sambucus nigra*) seeds. A small quantity of charcoal flecks and root fragments were also present. The residue consisted of

occasional large mammal bone fragments, plus occasional pot, building material and slag fragments.

- 1.3.4 *Medieval Ditch Fill [13] 1733TT (sample <4>, flot vol. 5ml.):* This flot consisted of a single charred barley (*Hordeum* sp.) grain, a moderate amount of flecks and small fragments of charcoal, and root fragments. The residue consisted of occasional large and small mammal, and fish bone fragments, plus occasional pot, building material and slag fragments.
- 1.3.5 *?Medieval Pit Fill [41] 1734TT (sample <5>, flot vol. 20ml.):* This flot also consisted mainly of small charcoal fragments and root fragments. Very occasional indeterminate cereal grain fragments were also present. A small number of uncharred seeds were noted, eg, goosefoots etc (*Chenopodium* spp.), brambles (*Rubus* spp.), stinging nettle. The residue consisted of occasional large and small mammal, and fish bone fragments, plus occasional building material and abundant slag fragments.

1.4 Statement of Potential

- 1.4.1 The preservation of charred plant remains was poor in all the samples and can only give an indication of the presence of cereals used at the site. The uncharred seeds are probably intrusive given the soil conditions at the site and the presence of root fragments in virtually all the samples. Apart from the plant remains, a small quantity of animal bone fragments were recovered in the residues which appear to be well dated and well preserved. (see Appendix 3).

1.5 Recommendations

- 1.5.1 On the basis of the assessment results, it is recommended no further work on the plant remains from the flots is required.

Table 6: Environmental dataset, plant remains

| TRENCH | CONTEXT | SAMPLE | METHOD | SUMMARY | COMMENTS |
|--------|---------|--------|--------------------------------|---|--|
| 1738TT | 27 | 1 | flotation (0.25mm sieve) | uncharred seeds+; root fragments++ charred grain+; charcoal frags+++; land snails+ | mainly charcoal; occasional grains; little potential (cereals used on site) |
| 1735TT | 11 | 2 | flotation (0.25mm sieve) | uncharred seeds+; root frags+++; charcoal frags+++ | mainly charcoal - little potential |
| 1735TT | 7 | 3 | flotation (0.25mm sieve) | uncharred seeds+++; root frags++; charcoal frags++ | little potential - uncharred seeds probably intrusive |
| 1733TT | 13 | 4 | flotation (0.25mm sieve) | root frags++; charred grain+; charcoal frags++ | mainly charcoal; occasional grains; little potential (cereals used on site) |
| 1734TT | 41 | 5 | flotation (0.25mm sieve) | uncharred seeds++; root frags+++; charred grain+; charcoal frags+++ | mainly charcoal; occasional grains; little potential (cereals used on site) |

APPENDIX 5**1. IRON SLAG***By Lynne Keys***1.1 Introduction**

- 1.1.1 A total of 31.6kg of iron slag was recovered from the evaluation at Mersham, Kent. The material was visually scanned and categorised on the basis of morphology, density, vesicularity and colour. Each category within each context was also quantified.

Table 7: Bulk dataset, slag and one nail

| TRENCH | CONTEXT | MATERIAL | COUNT | WEIGHT (g) | COMMENTS |
|--------------|---------|----------|-------|--------------|-----------------------------------|
| 1731TT | 1 | SLAG | 1 | 65 | |
| 1735TT | 3 | SLAG | 3 | 55 | |
| 1735TT | 5 | NAIL | 1 | 2 | |
| 1735TT | 5 | SLAG | 4 | 266 | |
| 1735TT | 7 | SLAG | 10 | 1420 | |
| 1735TT | 7 | SLAG | 13 | 75 | enviro. sample 3 (1mm residue) |
| 1733TT | 13 | SLAG | 9 | 1475 | |
| 1733TT | 13 | SLAG | 2 | 35 | enviro. sample 4 (1mm residue) |
| 1733TT | 15 | SLAG | 1 | 165 | |
| 1733TT | 17 | SLAG | 1 | 15 | |
| 1734TT | 19 | SLAG | 4 | 65 | |
| 1736TT | 27 | SLAG | 10 | 25 | enviro. sample 1 (1mm residue) |
| 1736TT | 29 | SLAG | 1 | 20 | |
| 1734TT | 35 | SLAG | 6 | 240 | |
| 1734TT | 37 | SLAG | 5 | 205 | |
| 1734TT | 41 | SLAG | - | 16505 | |
| 1734TT | 41 | SLAG | - | 10220 | enviro. sample 5 (1mm residue) |
| 1732TT | 47 | SLAG | 4 | 790 | |
| 1732TT | 51 | SLAG | 2 | 15 | |
| TOTAL | | | | 31648 | |

1.2 The process represented

- 1.2.1 Most of the slag (volume and weight) was derived from smelting: the manufacture of iron from ore and a flux in a furnace. The bulk of the material had been derived from slag being purposely allowed to flow out through a hole at the bottom of the furnace.

1.3 Types of evidence present

- 1.3.1 The largest category of slag present (26.1kg) was tap slag, a dense, low porosity, fayalitic (iron silicate - $2\text{FeO}\cdot\text{SiO}_2$) slag with a ropey flowed structure. This is the slag which was allowed to flow out of the bottom of the smelting furnace.
- 1.3.2 1.9kg of dense slag was present; it is of low porosity and also represents smelting activity.
- 1.3.3 1.64kg of undiagnostic iron slag was present and could represent either smelting or smithing activity. In view of the amount of smelting slag present it can almost certainly be attributed to the smelting process.
- 1.3.4 Only one piece resembled a smithing hearth bottom (SHB): the product of smithing activity. It was not of great size and may well be an oddly shaped piece of smelting slag. The absence of other secure evidence for smithing activity may support this thesis.
- 1.3.5 Very little material which could represent a furnace superstructure was present amongst the slag. There was a small amount of vitrified hearth lining (VHL), some cinder (CIN) - formed at the interface between the alkali fuel ashes and siliceous materials and usually the lighter portion of vitrified hearth lining; and a small amount of burnt clay.
- 1.3.6 Several fragments of a brown sandy stone were found amongst the slag and may be local ironstone (iron ore). Another fragment may represent burnt ore.

1.4 Assessment of potential and further work

- 1.4.1 The slag is significant as there is as yet little evidence for ironworking in this part of the Weald in most periods, and for the 11th and 12th centuries (to which the material from Mersham has been dated) there is a dearth of evidence from the Weald as a whole.
- 1.4.2 It is important that any future fieldwork attempt to locate the site of the furnace(s), which (hopefully) are somewhere nearby. A rapid geophysics survey may be useful in pinpointing these prior to, or in the absence of, excavation.
- 1.4.3 Using different techniques, including sampling for hammerscale, it may be possible to determine during excavation whether the primary smithing of the rough iron bloom(s) (produced by the smelting operation) took place on the site or not.
- 1.4.4 No recommendations are made for further work on the slag at this time although it may be useful to have the potential ore identified if this is possible.
- 1.4.5 Iron slag, because predominantly fayalitic, does not deteriorate so requires no special storage. It is recommended that at this stage all the slag is retained. It may be necessary to revise this if further work recovers more slag.

Table 8: Quantification of iron slag

(All weights are in g, all measurements in mm.)

Key: Tap tap slag
 Undiag undiagnostic slag
 VHL vitrified hearth lining
 Dense dense slag
 F. clay fired clay
 SHB smithing hearth bottom

| TRENCH | CONTEXT | SAMPLE | IDENTIF. | WEIGHT | LENGTH | BREDTH | DEPTH | COMMENT |
|--------|---------|--------|----------|--------|--------|--------|-------|--|
| 1731TT | 1 | | Tap | 65 | | | | |
| 1735TT | 3 | | Tap | 45 | | | | |
| 1735TT | 5 | | Tap | 266 | | | | |
| 1735TT | 7 | 3 | Tap | 75 | | | | |
| 1735TT | 7 | | Tap | 1420 | | | | |
| 1733TT | 13 | 4 | Tap | 35 | | | | |
| 1733TT | 13 | | Tap | 1395 | | | | |
| 1733TT | 13 | | Undiag. | 65 | | | | |
| 1733TT | 13 | | VHL | 15 | | | | |
| 1733TT | 15 | | Dense | 165 | | | | |
| 1733TT | 17 | | Undiag. | 15 | | | | |
| 1734TT | 19 | | Tap | 65 | | | | |
| 1736TT | 27 | 1 | Undiag. | 25 | | | | |
| 1736TT | 29 | | Tap | 20 | | | | |
| 1734TT | 35 | | Cinder | 5 | | | | |
| 1734TT | 35 | | Ore? | 10 | | | | Burnt? |
| 1734TT | 35 | | Tap | 55 | | | | |
| 1734TT | 35 | | Undiag. | 170 | | | | |
| 1734TT | 37 | | Undiag. | 205 | | | | |
| 1734TT | 41 | 5 | Cinder | 185 | | | | |
| 1734TT | 41 | 5 | Dense | 660 | | | | |
| 1734TT | 41 | 5 | F. Clay | 60 | | | | |
| 1734TT | 41 | 5 | Mixed | 1280 | | | | Broken frags tap, cinder + undiag. |
| 1734TT | 41 | 5 | Ore | 70 | | | | Sandy reddish stone |
| 1734TT | 41 | 5 | Tap | 7800 | | | | |
| 1734TT | 41 | 5 | Undiag. | 165 | | | | |
| 1734TT | 41 | | Dense | 1120 | | | | |
| 1734TT | 41 | | F. Clay | 35 | | | | |
| 1734TT | 41 | | SHB | 110 | 65 | 45 | 20 | |
| 1734TT | 41 | | Tap | 14900 | | | | |
| 1734TT | 41 | | Undiag. | 210 | | | | |
| 1734TT | 41 | | VHL | 130 | | | | |
| 1732TT | 47 | | Undiag. | 790 | | | | |
| 1732TT | 51 | | Tap | 15 | | | | |
| | | | TOTAL | 31648 | | | | |

APPENDIX 6**1 FLINT***By Jonathan Cotton***1.1 Introduction**

- 1.1.1 Two pieces of worked flint and one burnt unworked piece were recovered.
- 1.1.2 The two worked flints are both blade pieces from single-platform cores. Both have a milky blue patination.
- 1.1.3 The dating of these flints could be Mesolithic or Early Neolithic.

| TRENCH | CONTEXT | MATERIAL | COUNT | WEIGHT | COMMENTS |
|--------|---------|----------|-------|--------|-------------------------------------|
| 1733TT | 0 | FLINT | 1 | 5 | at base of topsoil middle of trench |
| 1735TT | 0 | FLINT | 1 | 10 | from base of topsoil W. end |
| 1732TT | 51 | FLINT | 1 | 10 | burnt flint |