

CHANNEL TUNNEL RAIL LINK

UNION RAILWAYS LTD

ARC THB 95

**ARCHAEOLOGICAL
EVALUATION REPORT.
PEPPER HILL**

Contract No. 194/63

Canterbury Archaeological Trust Ltd

92a Broad Street

Canterbury

Kent

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20th April 1996

Fieldwork Report.

1.0 The Circumstances of the project.

1.1 It is proposed to construct four head houses in association with the relocation of existing electricity cables prior to the construction of the Channel Tunnel Rail Link (CTRL). The head house were the subject of planning applications to Dartford and Gravesham Borough Councils: Gravesham is the local planning authority (LPA) for the area north of the A2 and Dartford is the LPA for the area to the south of the A2. Mindful of the high archaeological interest of the area and the desirability of conserving and recording archaeological heritage, planning consent was granted with the following conditions:

Gravesham Borough Council:

“During construction works, an opportunity shall be allowed for a recognised archaeological body, approved by the District Planning Authority, to maintain a watching brief and to record and/or remove from the site, as appropriate, any finds which may be discovered”.

Dartford Borough Council:

“No development shall take place until the applicant has secured and had implemented a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority.”

A specification for the archaeological evaluation of the site of the two head houses south of the A2 was prepared by URL and submitted to the LPA and the County Council for agreement. The consultees were satisfied that this represented an appropriate programme of work and the evaluation was implemented on this understanding.

2.0 Site Location, Landscape, Geology and Landuse.

2.1 The evaluation area is located immediately to the south-west of Northfleet astride the A2 trunk road at the head of the Ebbsfleet valley (Fig 1). The site comprises a piece of wooded waste ground adjacent to the A2 and to the rear of the Kent County Council Waste Disposal Depot.

2.2 The Ebbsfleet valley is a relatively deep cut feature in an otherwise undulating landscape. The land to the south of the valley supports arable farming, while Gravesend dominates the landscape to the east and north. Modern railways and the A2 cross the area.

2.3 The Ebbsfleet is now a small stream but historically it was a tidal river (OE *fleot*). A considerable area was floodable to either side of the stream, and it must have presented a considerable barrier to east-west communication. The Roman road across the area, for instance, conspicuously avoids having to cross the river, skirting the point where it rises (‘spring head’).

2.4 The geology of the Springhead/Ebbsfleet area is dominated by chalk, which has attracted extensive extraction in the 20th century, while the valley bottom also contains significant deposits of head brickearth, alluvium, colluvium and peat. The British Geological Survey also shows Thanet Beds and a small pocket of plateau gravel in the area of Pepper Hill.

3.0 Construction work

3.1 The proposed works are illustrated on Union Railways Limited Drawing D/DZ/500/460/00001. They include two 2.1 metre diameter cable tunnels with 3 metre vertical access shafts at each end. The cable tunnels will be located approximately 24m east of the existing tunnels. Each proposed tunnel will be approximately 130m in length and will be positioned to provide a minimum clearance of 4m between the underside of the CTRL base slab and the top of the cable tunnels. Head houses, measuring 6m square will be constructed over each vertical shaft. To the north of the A2 the head houses are located adjacent to the perimeter fence of the Northfleet sub-station. The site occupies open waste ground on a south facing slope. To the south the head houses are located in a low lying area of dense scrub and woodland, located between the A2 and a Kent County Council Waste Disposal Depot.

4.0 Archaeological background

4.1 The Springhead area has been of interest to antiquaries and archaeologists for at least three hundred years. Much of the earlier work consisted of the recovery of artefacts, including a large quantity of Roman coins and metalwork (Arnold 1889) although there are several 19th century references to structural remains being unearthed. These included a bath-house (OAU No 1554¹), and substantial structures and foundations. Early publications were mainly concerned with establishing the site of the *Vagniacis* of the Antonine Itinerary, which is recorded as lying between *Noviomagus* (Crayford, Kent) and *Durobrivae* (Rochester, Kent).

4.2 Roadworks in the 1920s and 30s revealed sections of Watling Street and building remains (OAU No. 1857) while a walled cemetery (OAU No 1551) discovered in 1801 (Jessup 1959), was destroyed by construction of the Northfleet switching station. The area was scheduled as an Ancient Monument in 1954 (No 158). During the 1950s the Gravesend Historical Society began systematic excavations at Springhead, revealing six temples, the so called bakery, a well, and a number of smaller features such as kilns and corn dryers (Penn 1957-1968). Widening of the A2 in the 1960's revealed further archaeological features and finds. Work has continued in the area in recent years, with evaluations and excavations undertaken by Kent Archaeological Rescue Unit (Philp and Cheney 1992) and Oxford Archaeological Unit (OAU forthcoming).

4.3 The Roman Scheduled Ancient Monument of *Vagniacis* consists of a settlement and religious complex which is generally referred to as a small town. The scheduled part of the site comprises two distinct areas, each of which has been bisected by modern features.

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* Each number refers to an entry in the gazetteer of archaeological sites and historic structures (Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects Final Report, Volume 3, November 1994) prepared as part of the CTRL Environmental Statement. Each data entry is located on associated mapping. (Channel Tunnel Rail Link: Assessment of Historic and Cultural Effects Final report, Volume 2, November 1994).

4.4 The larger Scheduled Area (Kent SAM 158) covers the major part of the settlement's supposed extent. However, at the time of scheduling it was assumed that the town straddled Watling Street. Subsequent work has indicated that Watling Street diverges to the north and the main area of Roman activity at the west end of *Vagniacis* is north of the A2 and not to the south. The site is bisected by the former Gravesend West railway line. The smaller area (Kent SAM 198) lies to the south of the New Barn Road roundabout, and is bisected by that road. The site comprises a Roman temple and enclosure (OAU No 1550).

4.5 Three scatters of prehistoric flint (OAU Nos 1801, 1828, and 1830) and a well defined concentration of Roman pottery and tile (No. 1801) have been identified during fieldwalking of a large arable field on the east bank of the Ebbsfleet.. The Roman finds lie close to the southern end of the Ebbsfleet inlet in Springhead itself; this may be the site of a Roman harbour, and the Roman road runs towards this site.

4.6 The site lies to the immediate north of the main scheduled area (Kent SAM 158) of the Roman town of *Vagniacis*. The potential for Roman archaeology in this area is relatively high, based on observations made during work in the adjacent Springhead nursery. However recent fieldwork and excavations have provided a useful insight into the relative concentrations of Roman activity across the monument. It was demonstrated that whilst deeply stratified Roman deposits exist to the immediate north-west and to the south-east of the former Gravesend West railway line near to the Garden Centre, few Roman features either exist or have survived further north-west. However, since no previous assessment has been undertaken of the land to the north-west of the Roman town, apart from the work within the Springhead Nursery, its true potential remains uncertain.

4.7 Widening of the A2 in the 1960's and subsequent work has revealed a Roman road, probably the original line of the Roman Watling Street, running north-westwards towards the area affected by the Ebbsfleet Station access works.

4.8 The Ebbsfleet Valley is also an area of high Palaeolithic, Mesolithic and Neolithic potential.

5.0 Fieldwork Results

5.1 The fieldwork comprised the excavation of two trenches which were located on the position of the two head houses to be constructed on the south side of the A2. Their position is shown on Union Rail Drawing No: D/DZ/500/460/0001. Each trench measured 7m x 7m in plan. Their size was dictated by the size of the proposed head house and does not represent a systematic percentage sample of the archaeological deposits present at the site. Recent geotechnical observations within the southern work area indicate the presence of at least 1.6m of topsoil and colluvium above brown sandy clay and rounded flint gravel. Chalk was located at a depth of 3m.

5.2 Coding of Sites and Trenches

5.2.1 The site code was designated as ARC THB95. The two trenches were designated ARC 1256TT and ARC 1257TT.

5.3 Excavation Methodology

5.3.1 The two trenches were excavated by JCB using a toothless ditching bucket. After the initial modern overburden had been removed this was carried out in 0.20m spits. After the machine excavation of each spit the whole area was cleaned using a hoe and artefacts were retrieved at the interface of each of the spits. During this process it became clear that there were no archaeological features present in either trench, though a buried soil horizon between the modern overburden and undisturbed natural clay silt. In order to establish the true nature of this material a keyhole was excavated along the side of each trench. Each keyhole measured 7m in length x 1 metre in width, with a depth of 1.2m. In the case of 1256TT a small area was excavated through the brickearth to the top of the chalk beneath. This proved to be at 2.75m below the present ground surface.

5.4 Stratigraphic details: 1256TT. Description

5.4.1 In the following summary of the Stratigraphic units from each trench each unit is identified by the trench code and a single additional number, E.G. 1257TT/1. Heights are given below ground level (BGL).

1256TT/1: 0.0M - 0.10M BGL. Mid/dark grey/brown clay loam with occasional small and medium sized rolled and pebble flints and some modern brick and other debris.

1256TT/2: 0.10M - 0.32M BGL. Mid orange/brown brickearth with occasional small and medium flints, occasional small and medium chalk fragments and occasional large modern brick fragments.

1256TT/3: 0.32M - 0.57M BGL. Mid grey/brown clay loam with occasional small and medium flints (rolled and pebbles) and occasional chalk fragments.

1256TT/4: 0.57M - 0.77M BGL. Mid orange/brown compact brickearth with occasional small chalk fragments.

1256TT/5: 0.77M - 1.20M BGL. Mid/dark orange/brown brickearth with occasional small and medium rolled flints.

5.5 Stratigraphic details: 1256TT. Interpretation

5.5.1: **1256TT/1** was clearly of extremely recent origin as it contained a considerable amount of modern detritus much of which had apparently emanated from the adjacent Kent County Council Waste Disposal Depot. **1256TT/2** was also relatively recent in date although it comprised a brickearth deposit. It is clear however that the area had been landscaped and planted with trees during the last occasion that the A2 immediately to the north had been widened. This deposit has therefore been interpreted as a levelling material associated with this process.

5.5.2 **1256TT/3** is interpreted as a buried soil horizon, measuring 0.25m in thickness. No features were present either in or beneath this deposit.

5.5.3 1256TT/4 and 1256TT/5 are both interpreted as natural head brickearth. The uppermost of them, 1256TT/4 was slightly more compact and very similar in nature to 1257TT/4. It has therefore been interpreted as the original ground surface associated with the nearby site of *Vagniacis*.

6.0 Stratigraphic details: 1257TT. Description

6.1 In the following summary of the Stratigraphic units from each trench each unit is identified by the trench code and a single additional number, E.G. 1257TT/1. Heights are given below ground level (BGL).

1257TT/1: 0.0M - 0.10M BGL. Mid/dark grey brown clay loam with occasional small and medium sized rolled and pebble flints and some modern brick and other debris.

1257TT/2: 0.10M - 0.32M BGL. Mid orange/brown brickearth with occasional small and medium flints, occasional small and medium chalk fragments and occasional large modern brick fragments.

1257TT/3: 0.32M - 0.57M BGL. Mid grey/brown clay loam with occasional Post medieval pot sherds, occasional small and medium flints (rolled and pebbles) and occasional chalk fragments.

1257TT/4: 0.57M - 0.77M BGL. Mid orange/brown compact brickearth with occasional Roman potsherds, medium Roman tile and brick fragments, occasional small and medium burnt flints and occasional small chalk fragments.

1257TT/5: 0.77M - 1.20M BGL. Mid/dark orange/brown brickearth with occasional small and medium rolled flints.

6.3 Stratigraphic details: 1257TT. Interpretation

6.3.1: 1257TT/1 was clearly of extremely recent origin as it contained a considerable amount of modern detritus much of which had apparently emanated from the adjacent Kent County Council Waste Disposal Depot. 1257TT/2 was also relatively recent in date although it comprised a brickearth deposit. It is clear however that the area had been landscaped and planted with trees during the last occasion that the A2 immediately to the north had been widened. This deposit has therefore been interpreted as a levelling material associated with this process.

6.3.2 1257TT/3 is interpreted as a buried soil horizon. It was 0.25m in thickness and contained a small number of artefacts of post- mediaeval date. No features were present either in or beneath this deposit.

6.3.3 1257TT/4 and 1257TT/5 are both interpreted as natural head brickearth. The uppermost of them, 1257TT/4 was slightly more compact and did contain some cultural material of Prehistoric and Romano-British date. It has therefore been interpreted as the original ground surface associated with the nearby site of *Vagniacis*.

6.4 List of Artefacts

Excavation Area ARC 1256TT

No finds were recovered from this excavation area.

Excavation Area ARC 1257TT

Post Medieval Pottery:	Context 1257TT/3	2 sherds
Brick and Tile:	Context 1257TT/4	2 fragments
Roman Pottery:	Context 1257TT/4	1 sherd
Scorched Flint:	Context 1257TT/4	2 flints
Struck Flint Flakes:	Context 1257TT/4	6 struck flint flakes
Struck Cores	Context 1257TT/4	3 struck cores_

6.5: Assessment of Potential and Recommendations for further action.

6.5.1 The absence of archaeological features and deposits at this precise location is surprising, given the presence to both the north-west and the south-east of scheduled ancient monuments. (Kent SAM Nos. 158 and 198). Additionally to the south-west there is an area of Romano-British pits and ditches and a single inhumation burial (OAU1566). A geophysical within SMR No. 158 (URL 1994 Vol. 3 Fig. B7) also indicates a high degree of potential right up to the south-eastern edge of the scheduled area, a distance of less than 50 metres from the location of the evaluation trenches.

6.5.2 However the results of the evaluation work clearly indicate the presence of an undisturbed soil horizon with no associated archaeological stratification or features over brickearth natural. It can only be assumed therefore that the complex of known features and geophysical anomalies which are present within SAM 158 to the north-west do not extend as far south as the area under consideration. The limit of that part of the site must lie between the southern edge of the scheduled area and the location of the evaluation trenches. It would also indicate that SAM 198, the Roman temple site to the south-east of the evaluated area was isolated from the large settlement to the north (SAM 158).

6.5.3 The evaluated area is apparently therefore of low archaeological potential between two areas of considerably greater importance. Given the negative results of this evaluation it is not reasonable to undertake further archaeological works at this location beyond the watching brief required by planning condition.

7. Bibliography

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(prepared by OAU)

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Pepper Hill Archaeological Evaluation (ARC THB95) Fieldwork Report

Contract No. 194/630

Final Report

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