

## **PRE-CONSTRUCT ARCHAEOLOGY LIMITED**

### **AN ARCHAEOLOGICAL INVESTIGATION OF LAND AT JOYCE GREEN LANE, DARTFORD, KENT**

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# **An Archaeological Investigation of Land at Joyce Green Lane, Dartford, Kent**

Peter Moore and Adrian Gollop <sup>1</sup>

## **INTRODUCTION**

An archaeological investigation was undertaken by CgMs Ltd. on behalf of Fairview New Homes plc between 17th of February and 19th of March 1997 and between 19th and 24th November 1997. This was on land at Joyce Green Lane, Dartford, Kent, in advance of a new housing development (Fig.1). A watching brief was also conducted on the western part of the site<sup>2</sup> during soil stripping and construction works.

The site lies to the north of Dartford town centre and consisted of several parcels of land centred around the northern end of Joyce Green Lane<sup>3</sup> but is not located in an Archaeological Priority Area, as defined in the Borough of Dartford Local Plan.<sup>4</sup> However, Kent County Council's Archaeology Officer for Dartford, Ms L. Dyson, advised that the site had a modest archaeological potential. In particular air photographs suggested the presence of several sub-circular enclosures of possible prehistoric date in the immediate vicinity. Accordingly Fairview New Homes plc commissioned an archaeological desk-based assessment which indicated that the general archaeological potential for the study site was low to moderate.<sup>5</sup> As a result discussions were held with Ms Dyson and a specification was drawn up for the archaeological evaluation of the site.<sup>6</sup> The project was directed by Duncan Hawkins of CgMs. Ltd.; the project was managed by Peter Moore and Frank Meddens and supervised by Adrian Gollop and Cate Davies.

## **GEOLOGY AND TOPOGRAPHY**

The site is located on the low lying northern edge of a large headland of gravel extending out into the floodplain of the Rivers Darent and Thames. The site itself is broadly level at just below 7m AOD.

An extensive geotechnical investigation was undertaken which showed the gravel to lie between approximately 1m and 1.3m below existing ground level. The archaeological excavation showed this gravel to consist of heavily compacted small to medium flint pebbles with pockets of pea-grit, light orange-yellowish brown coarse sands and occasional silt. These gravels probably equate with the East Tilbury marsh gravels and are likely therefore to be Devonian in date.

Above this lay a generally thin layer of mixed or disturbed gravels and silty sand forming an interface layer between the underlying natural gravels and overlying ploughsoil and probably equating with the Crayford brickearths. The ploughsoil consisted of a clayey silt with occasional small pebbles, small irregular lenses of pea-grit, and some white flecks of chalk. Nineteenth-century pottery, glass, and building materials were observed within this horizon. Topsoil and grass covered most of the area of investigation apart from within the gardens of Joyce Green

House, East House, Southfield House and Joyce Green Cottage, all to the eastern end of the project area, where vegetational overgrowth covered much disturbed garden soil.

## **ARCHAEOLOGICAL BACKGROUND**

No archaeological finds have been recorded previously from the site which appears to have been located in open agricultural land throughout the medieval and post-medieval periods. Isolated Palaeolithic and Iron Age find spots are located within 1000m of the site, Roman activity, occupation and burial sites have been identified to the south and west, and an Anglo- Saxon cemetery is recorded to the south-east.

However a greater potential for Bronze Age activity in the vicinity of the site was identified. A short linear ditch associated with a pit was recorded immediately to the east of the site<sup>7</sup>, and a number of probable Bronze Age ring ditches were recorded on an aerial photograph<sup>8</sup> immediately north-east and to the south-west of the site.<sup>9</sup> Ring ditches are commonly all that survive of ploughed-out burial barrows and air photographic evidence shows a considerable concentration of these on the North Kent Coastal Plain.<sup>10</sup> In their intact form barrows usually contain evidence of cremation burials although survival of burials or features associated with these monuments, once truncated down to ring ditch form, is often poor and there is evidence that some barrows deliberately contained no burials at all.<sup>11</sup> The absence, therefore, of such features, as at Barrow 1, Site 9, along the A2<sup>12</sup>, cannot necessarily be interpreted as being deliberate. There is also evidence for burials, both crouched inhumations and cremations, taking place outside, but in definite association with, barrows such as at the three barrow groups at Monkton, Isle of Thanet.<sup>13</sup>

## **ARCHAEOLOGICAL FIELDWORK**

The evaluation consisted of twenty-one trenches spread across the whole development area (Fig.1). The length of the trenches varied between 9m and 20m, with an average width of 1.8m. They were excavated with a mechanical excavator, under archaeological supervision, to a maximum depth of 1.2m unless an archaeological horizon or natural deposits were reached at a higher level. All trenches were hand cleaned, recorded, planned and a section drawn.

The majority of the trenches contained no archaeological features but revealed a geological formation extending across the site. This consisted of a grid formed of meandering linear gullies. Excavation revealed that they had a "V" shaped profile of between 0.05m and 0.50m cutting through the natural gravels. They contained a yellowish orange/brown sterile sand which appeared to be water-lain and are interpreted as being natural 'ice-cracks' in the drift geology.

Two sub-circular cuts in Trench 20 and linear and curvilinear cuts in Trench 21 contained fragments of ceramic building material, clay tobacco pipes and coal, which together with other modern disturbances, have been interpreted as being the result of garden activity.

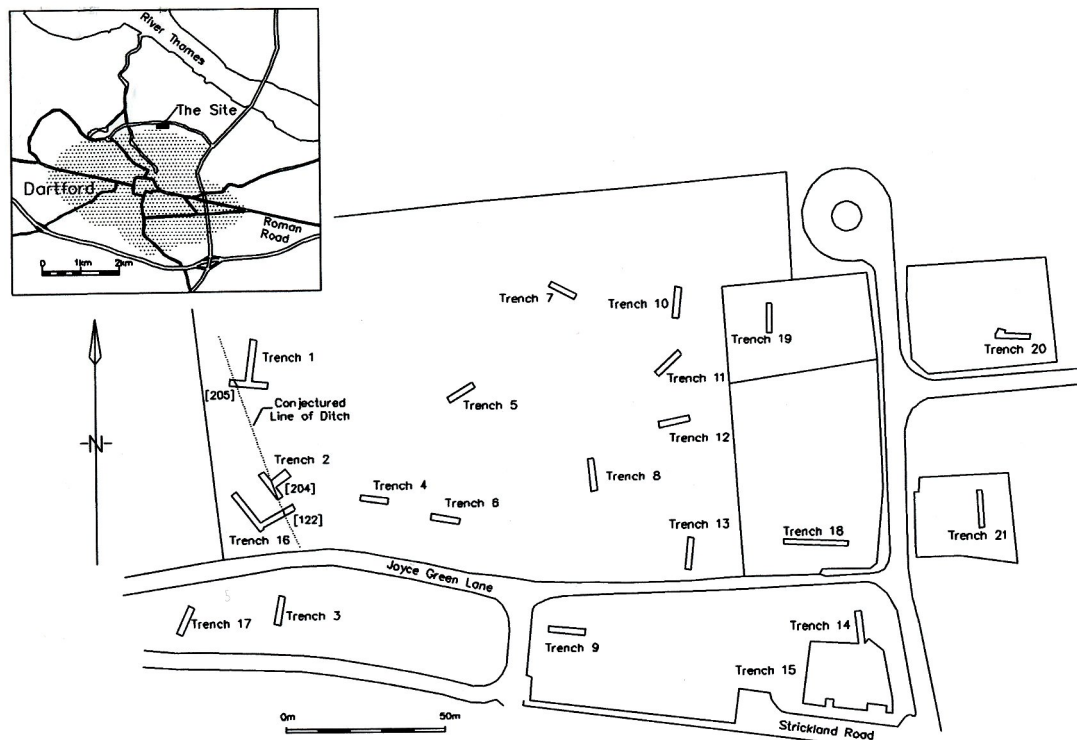


Figure 1. Site location, trench location and conjectured line of ditch along cuts [122], [204] and [205]

A number of features were recorded across the site which contained no artefacts but which have nevertheless been identified as being archaeological in nature. Three wide but shallow pits were found isolated in Trenches 1, 8 and 9. As all three continued beyond the limits of excavation and contained no anthropogenic material their nature and dates are uncertain, though as they were cut from a high level within the ploughsoil they are presumed to be relatively recent in date.

Seven linear features, interpreted as field boundary or drainage ditches were found in Trenches 6, 9, 13 and 16. Five lay on east-west orientations and two lay on north-south orientations; they varied in width between 0.20m and 0.80m and in depth between 0.08m and 0.42m. Both of the features in Trench 9 appeared to be terminals of ditches but could alternatively be long pits. No finds were recovered from any of these features but as they were cut from a high level within the overlying ploughsoil they are presumed to be recent in date.

Two features produced a small number of artefacts and required further clarification and excavation. Trenches 1, 2 and 16 were extended to clarify the extent, orientation and nature of a ditch originally found in Trench 2. Trench 15 was extended to clarify the nature of a circular gully, originally found against its eastern section, and to identify any internal or external features associated with it.

#### Linear Ditch

The linear ditch excavated in Trench 2, recorded as [204], was subsequently located in extensions to Trenches 1 and 16, recorded as [205] and [122] respectively (Fig.1). It was found to run in an almost straight north-south alignment

and was recorded over a total distance of 46m. Its width varied from 0.90m to 1.20m and its depth between 0.25m to 0.32m. The base was fairly uniform in shape, being slightly concave, with sloping sides.

The fill [203] of this ditch was a light to mid-brown, sandy silt, with inclusions of small flint pebbles, pockets of pea-grit and occasional larger pebbles. Most of the inclusions were present in the lower areas of the fill towards the base and the sides of the cut.

The only artefacts located within the fill of the ditch consisted of some flint fragments that show evidence of being possible waste flakes, and one piece of burnt flint. A small sherd of residual flint-tempered pottery was retrieved from the ploughsoil [202], directly above ditch fill [203], and is thought to date to the Late Bronze Age/Early Iron Age period. However, all the finds may be residual and the ditch is likely to represent a post-medieval field boundary or drainage ditch.

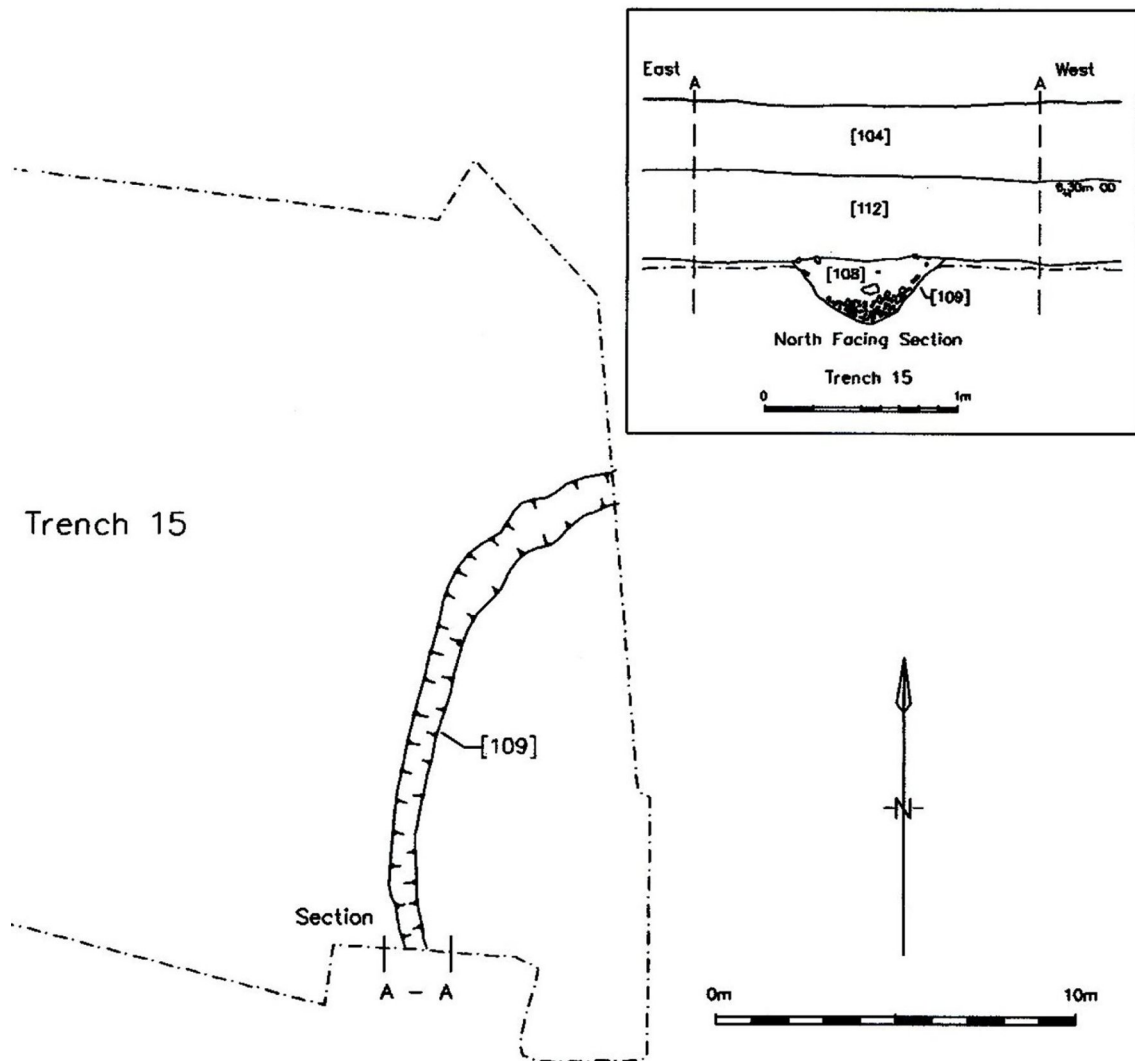


Fig. 2. Ring ditch [109] and north-facing section

## Ring Ditch

Located in the south-west corner of the site in Trench 15 a gully [109] was found cutting through the interface soil and natural gravels (Fig.2). In plan this feature represented the north-western quadrant of a possible ring ditch, with most of the feature lying outside the area of excavation. It was not a smooth arc, rather it had the appearance of being composed of a number of interlinked straight segments. The sides were varied being steeper to the south and shallower to the north, with a slightly concave base (Fig.2). In all a length of almost 16m of this gully was excavated with a width that varied from 0.64m to 1.00m, with a depth of between 0.25m and 0.36m.

The fill [108] of the gully consisted of a light to mid yellow-orange brown, slightly clayish silty sand, with inclusions of mostly small flint gravel, pockets of pea-grit, occasional larger pebbles and very occasional large flint nodules. The majority of the inclusions, with the exception of the largest flint nodules, were present in the lower and more compacted areas of fill towards the base and the sides of the cut.

The only cultural artefacts located in fill [108] were three fragments of a shoulder-neck pottery sherd from a coarseware vessel and two struck flint fragments (see below). Date analysis places the pottery in the first millennium B.C. Analysis of the flint shows that there is strong evidence for the fragments being waste flakes produced from core reduction, and is probably evidence for prehistoric activity.

It is likely that gully [109] represents a ring ditch and, in view of the frequency in this area of such features, remnants of Bronze Age barrows, it appears likely that this feature also indicates a former barrow of this period. However, close inspection of its internal area revealed no evidence for any features, similarly there was no evidence for any associated features outside the gully.

The subsequent watching brief carried out on the site to the north, south and west of Joyce Green Lane during the soil stripping and construction works revealed no additional archaeological remains.

## CONCLUSIONS

As suggested in the desk based assessment of the site<sup>14</sup> a low density of archaeological features was uncovered. Only the ring ditch in Trench 15 is believed with any certainty to be of prehistoric date although no internal or external features were associated with it and only a single sherd of pottery of prehistoric date was recovered from it. The evidence of air photography and previous fieldwork suggests that this ring ditch was part of a group of such features, possibly representing a small "barrow cemetery". It is likely that further remains may be encountered immediately south of the study site, and north towards Joyce Green Hospital.

## FINDS

### Pottery

Nigel Macpherson-Grant

- Context [108], Trench 15

1 Sherd (3 fragments), weight 10g. Conjoining underfeed body sherds in fragmentary condition. Fabric is organic-tempered in a fine sandy matrix with partially reduced drab buff-grey firing colours. The minimal formal data suggests a shoulder-neck sherd from a slack profiled, weakly shouldered coarseware vessel with a diameter range of c. 160-180mm.

Organic-tempered fabrics occur sporadically throughout the first millennium BC but usually with better fired or more accentuated body profiles. The poor quality of the sherd may be due to soil conditions.

- Context [202], Trench 2

1 Sherd, weight 4g.

Single body sherd, fabric is sparsely flint-tempered in a fairly fine sandy matrix with probable fine organic inclusions; partially oxidised firing colours; drab pale brown-pink externally, pale grey internally. From a thin walled large diameter coarseware, probable storage jar.

The limited data available suggests that this sherd from above linear ditch [202] is unlikely to pre-date circa 1000 BC date. The combination of wall thickness, diameter-type, and external firing colour is typical of regional first half millennium BC Late Bronze/Early Iron Age assemblages and the sherd can be broadly placed between circa 1000/900-600 BC with some confidence.

### Flints

Barry John Bishop

A total of six pieces of flint was recovered from three different contexts, consisting of two natural pebbles, two burnt pebbles and two deliberately struck flints. Although some of the pieces were natural in origin the presence of burnt flint and struck flint demonstrates human activity on the site.<sup>15</sup>

- Context [108], Trench 15

1 abraded and partially recorticated thermally fractured flint flake weighing 16.8 grams.

1 abraded and recorticated flake showing a possible bulb of percussion, but too abraded to discern whether or not it was deliberately struck, weighing 3.8 grams.

1 unabraded fine grained translucent grey deliberately struck flint flake with a trimmed striking platform 6 mm wide, a pronounced bulb of percussion and a

hinged distal termination. The dorsal surface contained three irregularly shaped negative flake removal scars and a small amount of hard, smooth cortex typical of derived pebble flint. 27 mm X 28mm X 6 mm. 4.1 grams.

1 unabraded fine grained translucent grey deliberately struck flint flake showing a shattered striking platform 7 mm wide, a pronounced bulb of percussion and a hinged distal termination. The entire dorsal surface, excluding the striking platform, was composed of a hard smooth cortex typical of derived pebble flint. 54 mm X 34 mm X 12mm. 23.5 grams.

- Context [304], Trench 2

One burnt flint pebble weighing 54.2 grams

- Ploughsoil, Trench 11

One burnt flint pebble weighing 20.2 grams

The natural flint consists of angular to sub-angular recorticated pebbles. Both examples show fracture scars originating from thermal fracturing, most probably due to freeze-thawing. Both also have irregular concoidal fracture marks around the edges, most likely due to mechanical fracturing from abrasion caused by alluvial displacement.

The burnt flint shows colour changes and surface crazing caused by being heated to a high temperature, most likely as a result of being in or very close to a hearth. They are therefore indicative of human activity on the site.

The struck flint recovered may be regarded as debitage, was in a good, unrolled condition and was made of the same good quality material, probably obtained from alluvial gravel pebbles. All show characteristics of hard hammer technology. The flakes can only be dated with any certainty to the Prehistoric period, although their morphology and the technology of manufacture is more consistent with the Later Prehistoric period (Neolithic and Bronze Age).

## ACKNOWLEDGEMENTS

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## ENDNOTES

<sup>1</sup>Pre-Construct Archaeology

<sup>2</sup>Duncan Hawkins, CgMs. Ltd.

<sup>3</sup> National Grid Reference TQ 5460 7560

<sup>4</sup>Dartford, Borough of, "Local Plan", Deposit Written Statement 1991

<sup>5</sup>Hawkins, D., "*Archaeological Desk Based Assessment of Land at Joyce Green Lane, Dartford, Kent*", 1996

<sup>6</sup>Hawkins, D., "*Specifications for an Archaeological Evaluation of Land at Joyce Green Lane, Dartford, Kent*", 1997

<sup>7</sup>NAR No. TQ57 NW 38; TQ 5482 7535

<sup>8</sup>MR Air Photographs, Frame No. 90 No. 1662, date photographed 18/7/1979; TQ 547 756

<sup>9</sup>Hawkins op. cit. in note 5

<sup>10</sup>Drewett, Peter, Rudling, David, and Gardiner, Mark, *The South-East To AD1000*, 1988, p.79

<sup>11</sup>Ibid. p.83

<sup>12</sup>Macpherson-Grant, Nigel, "Archaeological Work Along The A2: 1966-1974. Part 1: The Late Bronze Age And Early Iron Age Sites", *Archaeologia Cantiana*, Vol.XCVI, 1980, p166-7. It should be noted that Barrow 2 on this site did contain cremation burials.

<sup>13</sup>Bennet, Paul, and Williams, John, "Monkton", *Current Archaeology* 151, p.262-4

<sup>14</sup>Hawkins op. cit. in note 5

<sup>15</sup>All measurements follow Saville, A., "On the measurement of struck flakes and flake tools", *Lithics* 1, p.16-20





