

LONDON GATEWAY

SETTLEMENT, FARMING AND INDUSTRY
FROM PREHISTORY TO THE PRESENT
IN THE THAMES ESTUARY

ARCHAEOLOGICAL INVESTIGATIONS AT DP WORLD LONDON
GATEWAY PORT AND LOGISTICS PARK, ESSEX,
AND ON THE HOO PENINSULA, KENT



SPECIALIST REPORT 6
FLINT
BY MICHAEL DONNELLY

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Introduction

Flint assemblages were recovered from various sites during archaeological work at London Gateway, including material from both Essex and Kent. The assemblages tended to be small and many contained typically later prehistoric flintwork. In total, 169 struck flints and 431 burnt fragments (2198g) were recovered, most of which came from the Access Road (COARD12; 108 flints and 248 burnt fragments/1248g), with the remaining four assemblages containing between eight and 24 flints (Table 6.1). Despite the significant tool component, the bulk of the assemblage lacked diagnostic tool forms. Early prehistoric material was generally rare but small amounts of blade forms and related technology was recovered from COARD12 and the Proposed Development at Great Garlands Farm (COLP15). Cores and related debitage were common but there were few classic core types to assist in dating. The majority of the flintwork was residual but some small groups of flints may have been contemporary with the features they were found in.

The flintwork was in mixed condition but was largely made up of edge-damaged residual material. A range of sources had been exploited, including good chalk flint, while much of the Essex material was struck from secondary gravel/beach pebble sources with rolled and battered cortex. Recorticated pieces were also present, indicating that the scavenging of residual material from earlier phases of activity was practised here.

Access Road (COARD12)

This site contained the largest assemblage at 108 pieces and 248 burnt fragments (1248g), recovered from several excavation areas. However, the bulk of the flintwork came from a limited number of contexts in just two (1 and 8) of the five excavation areas with flint.

Area 8 yielded 57 flints, which were generally in good condition and from a limited number of contexts, suggesting that much of the assemblage may have been

contemporary with the features they were found in. Some of these groups looked to be Neolithic or early Bronze Age in date and included material from medieval ditches 8058 (10) and 8060 (9) that probably truncated an earlier buried soil, resulting in the redeposited flintwork. In contrast, ditch fills 8088 and 8089 from ditch 8087 contained 10 flints that were largely mid-late Bronze Age in character, as was the assemblage from ditch fill 8106 (6).

Area 1 contained 34 flints in quite poor condition, suggesting that most were residual. One group from context 1006 was in better condition and consisted of six flakes and two tools, including an end scraper that possibly represented a contemporary later prehistoric assemblage. The remaining pieces included stray finds of Mesolithic, Neolithic and Bronze Age dates dispersed across numerous features.

Areas 2, 3 and 5 had just six, seven and four flints, respectively. The flints were largely later prehistoric in character but there were some blade forms and debitage such as a core tablet from Area 5 that probably pre-date the Bronze Age.

Rail Corridor (COMWR12)

This site had the smallest assemblage at just eight pieces. Three were in pit fill 124 while pit fill 133 had five. The flints included four blade forms that were clearly of early date, while the flakes were largely undiagnostic. This site possibly only contained limited evidence of early prehistoric activity but some of the flake debitage was crude and could easily be later in date.

Cooling Marshes, Salt Fleet Flats (CSCOX13)

This site yielded 24 struck flints and limited amounts of burnt material weighing just 24g. The assemblage was largely comprised of later prehistoric flake debitage alongside two heavy informal tools, perhaps expedient knives. One crested flake was present, suggesting a very limited earlier element to the assemblage.

Proposed Development at Great Garlands Farm (COLP15)

This site contained 15 struck and 23 pieces of burnt unworked flint (351g). All the flints were recovered from related contexts, alluvial deposits 604 and 605. The

assemblage largely contained later prehistoric flake debitage and typically late expedient piercer tools, but also contained a very limited blade component that was clearly in a poorer state of preservation, indicating a limited early prehistoric presence here.

Pipeline Diversion (COLP15)

This site had just 14 flints but also contained a sizeable assemblage of burnt flint fragments, totalling 158 pieces and weighing 576g. The struck flints were very similar to those from the Proposed Development at Great Garlands Farm, with mostly later prehistoric squat flakes alongside a limited early component. Burnt flint concentrations in contexts 2639 (a fill of pit 2640) and 3202 (a fill of depression or hollow 3201) suggest the use of flint for domestic water heating and cooking. These contexts also contained typically prehistoric flake debitage and it might be the case that these flakes are in fact late prehistoric in date (McLaren 2012).

Discussion

The assemblages from London Gateway indicate a similar range of activity to that seen at Stanford Wharf Nature Reserve (Biddulph *et al.* 2012), with limited early prehistoric material alongside a larger mid-late Bronze Age or later component. These assemblages, including those from the Access Road and the Rail Corridor, include high incidences of tools, broken pieces and burning and are all indicative of domestic activity. Stanford Wharf also had high levels of tool forms dating to the middle Neolithic (Anderson-Whymark 2012), while across the other London Gateway sites, a more varied date range might be expected with possible Mesolithic or early Neolithic activity shown by the presence of many bladelets and one putative microburin or end truncated piece. The small collection of blades from the Rail Corridor probably represented a limited phase of activity during the earlier part of the Neolithic period. The levels of activity at these sites suggest only occasional visits by mobile populations.

In terms of the probable Mesolithic material, such limited small-scale knapping events or flint use sites would appear to make up the bulk of activity during these periods, particularly along stretches of land very suitable for hunting, gathering and fishing activities. The more formal sites that we more readily associate with this period

would have probably been quite rare. As such, this continued discovery of what may be seen as a 'background noise' of early prehistoric flint-related activity may actually be quite significant. The blades could be early Neolithic in date and similar levels of land use may also be envisaged then, although these may also be associated with pit clusters and more formal monuments such as causewayed camps (Edmonds *et al.* 1999; Garrow *et al.* 2006).

By later prehistory, flintwork has become more common with several, small expedient collections that are very probably contemporary with the features they were found in. These assemblages are similar to the early element in that they largely represent the opportunistic use of flint for very short-lived tasks, coupled with denser assemblages with domestic activity, potentially involving the use of flint nodules to heat water. These pits and ditches form part of a domestic landscape with the flint representing very expedient assemblages produced to meet immediate needs. Many of the tools are informal knives, piercers or scrapers. Limited cores were recovered from this phase of activity and while this might be a true reflection of the limited knapping that had occurred here, more probably the extremely crude later prehistoric examples have been missed during excavation.

At the Proposed Development at Great Garlands Farmand the Pipeline Diversion, the assemblages recovered may have been middle-late Bronze Age in date. However, a late Bronze Age/early Iron age date contemporary with the pottery with which the flint was recovered would appear to be more likely. Iron Age knapping is still a controversial subject in Britain (McLaren 2012; Humphrey and Young 1999) but the arguments against it lack a certain logic. The fact that Iron Age material is not distinctively different from middle-late Bronze Age flintwork does not preclude the use of flint in the Iron Age. Iron Age communities would probably have reacted to solving the immediate need for a knife in the same manner that farmers have done before and since, they would have broken a local flint nodule, used a flake from it and discarded it.

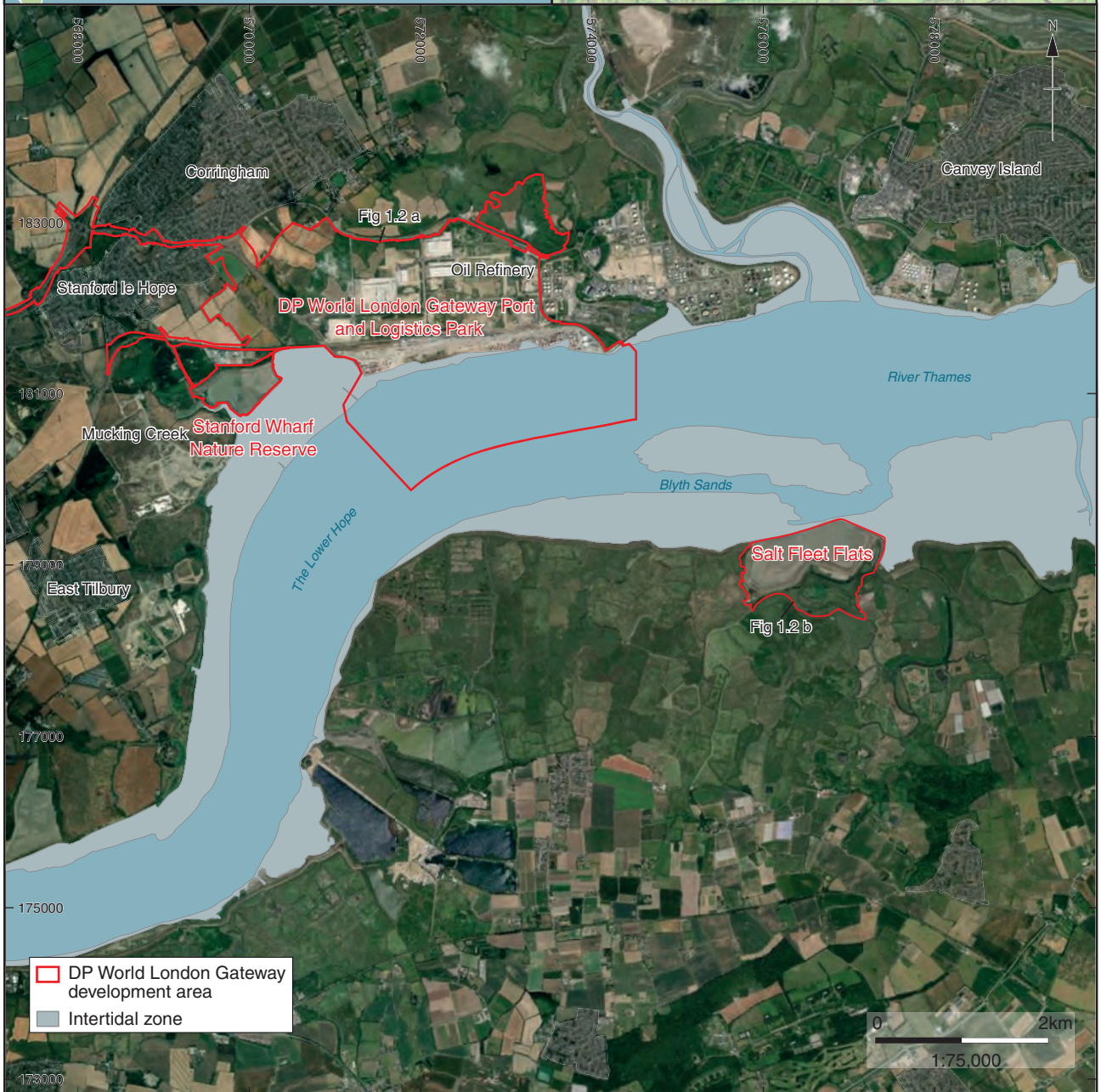
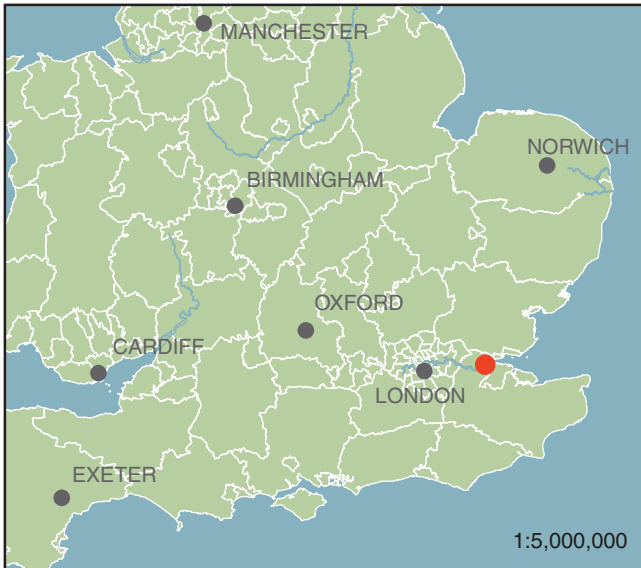
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Flint Table

TABLE 6.1: FLINT FROM LONDON GATEWAY

SITE	COARD12 (Access Road)	COMWR12 (Rail Corridor)	CSCOX13 (Salt Fleet Flats)	COLP15 (Proposed Development at Great Garlands Farm)	COLP15 (Pipeline Diversion)	Total
TYPE						
Flake	64	4	16	11	6	101
Blade	4	2		1	5	12
Bladelet	6	2		1	1	10
Blade index	13.51% 10/74	50.0% (4/8)	0%	15.38% 2/13	50.0% 6/12	17.89% 22/123
Irregular waste	12		2		1	15
Microburin	1					1
Chips 10-2mm	6					6
Core tablet	1					1
Crested flake			1			1
Core SPF	1					1
Core MPF	1					1
Core on a flake	1					1
Core tested nodule			1			1
Core fragments	1		2			2
Scraper end	1					1
Scraper side					1	1
Scraper other	2					2
Awl	1					1
Piercer	3			2		5
End truncation	1					1
Knife other	1					1
Retouched flake	1					1
Retouch other	1		2			3
Total	108	8	24	15	14	169
Burnt unworked	248/1248g		2/24g	23/351g	158/575g	431/2198g
% burnt	7.84% 8/102	12.5% 1/8	4.16% 1/24	13.33% 2/15	14.29% 2/14	8.28% 14/169
% broken	22.55% 23/102	37.5% 3/8	16.67% 4/24	26.67% 4/15	14.29% 2/14	22.09% 36/163
% retouched	10.78% 11/102	0%	8.33% 2/24	13.33% 2/15	7.14% 1/14	9.82% 16/163



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