

Chapter 21

Lithic artefacts, miscellaneous collections from outside the main sequence: Phases T-1, 9, 9-10 and 11

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INTRODUCTION

The lithic remains presented in this chapter represent some disparate collections from the later phases of the site sequence, as well as a collection of out-of-context Palaeolithic material (Table 21.1). These collections are reviewed in turn below, in broad stratigraphic/dating order working towards the present-day.

The material from Transect 1 ('Group T-1', below) is probably broadly contemporary with the main Phases 3-8 of the site sequence. The material from the brickearth and its stripped surface to the north of the site ('Group 9.1', below) is all regarded as equivalent to Phase 9. A small group of material was recovered from the highest Pleistocene context in the site sequence, context 40176. This was a sand bed capping the brickearth at the north end of the site; this is studied below as 'Group 9-10' (below), since it is unclear how much of a hiatus, if any, occurs depositionally between context 40176 and the top of the brickearth.

Above this, the final two assemblages, attributed to Phase 11, represent material that was out-of-context or came from modern made ground, including late prehistoric features. One of these assemblages, designated as 'Group 11.1' (below), contains lithic artefacts that appear Lower/Middle Palaeolithic on technological/typological grounds or by their staining and patination. The other group, designated as 'Group 11.2', contains a technologically distinct subset of the Phase 11 material that was unstained and unpatinated, and also in mint condition;

this group is interpreted here as an 18th-century gunflint manufacturing industry.

GROUP T-1: TRANSECT 1

This group of material (Table 21.2) was all recovered from the stripped surface in and near Transect 1, about 50m north-east of the site (Fig. 21.1a). The transect surface was stripped by machine using a toothless bucket, and then cleaned by hand prior to recording of the exposed deposits (Fig. 21.1b). Seven artefacts were recovered from the transect during cleaning, and an additional artefact was recovered from the ground surface near the east end of the transect. It was not possible to integrate the sediments from which artefacts were recovered into the phased sequence of the main site, but they were clearly broadly contemporary with Phases 3-8, and suggestions for possible correlations are given in the artefact summary table (Table 21.2).

The artefacts from contexts 40083 and 40084 comprised two flakes and a core, all of them in mint condition. The two flakes, both of which came from context 40083, were technologically undiagnostic. The core from context 40084 was quite a large angular core reflecting removal of flakes from a migrating platform. As such, it fitted in with the technological character of the material recovered from Phases 3-7 at the main site. The two flakes from contexts 40081 and 40082 were also both technologically undiagnostic; the former was in

Table 21.1 Miscellaneous collections examined in Chapter 21

<i>Assemblage group</i>	<i>Details of artefact context/s</i>	<i>Artefacts (n)</i>
11.2	A technologically distinctive group that was mostly found in what was thought to be modern made ground at the base of Southfleet Road, and above the Pleistocene sequence	12
11.1	Various obviously-Palaeolithic material (eg bits of handaxes) that was found out-of-context, in modern made-ground or in Late Prehistoric features	42
9-10	From context 40176, a sand lens at the top of the Phase 9 brickearth, which was cut into by Late Prehistoric features and overlain by the made ground underlying the original Southfleet Road surface	10
9.1	From stripped surface of brickearth bank to north of site, and a few in situ from Phase 9 brickearth at site	18
T-1	From stripped Transect 1, to north of main site	8

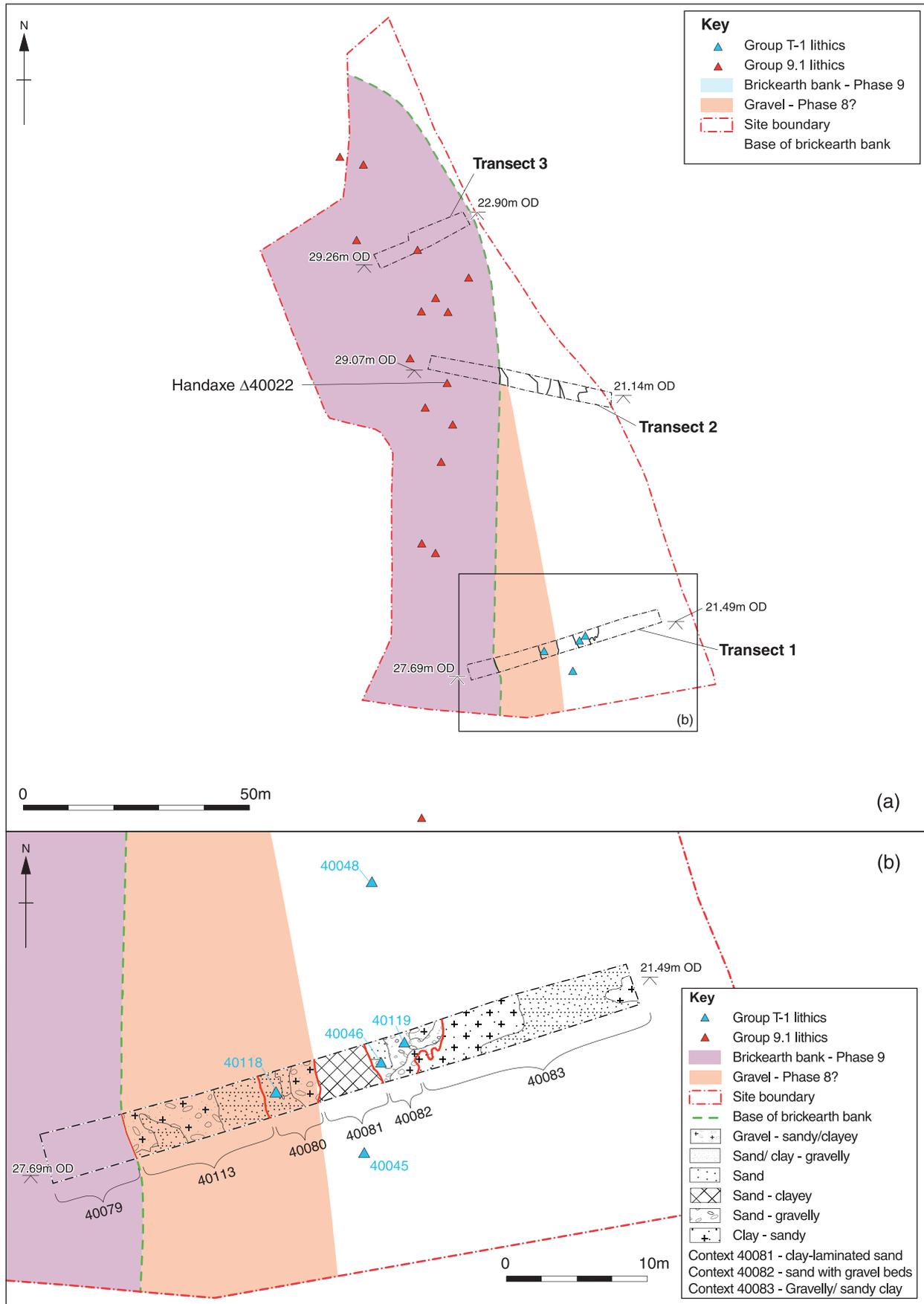


Figure 21.1 Northern part of site: (a) Transects 1, 2 and 3, showing exposed sediments and lithic findspots for Groups 9.1 and T-1; (b) closer view of Transect 1, showing internal stratigraphy and Group T-1 lithic findspots (for finds with XYZ co-ordinates available)

mint condition, and the latter was in moderately abraded condition. And context 40080, thought quite likely to be equivalent to Phase 8, contained the broken proximal end of a flake that appeared to have been crudely bifacially worked and therefore was interpreted as a broken handaxe-on-flake; it was in abraded condition. Context 40080 also produced two flakes, both of which were technologically undiagnostic; one was in abraded condition and the other in fresh condition.

Although this small assemblage does not add anything to the understanding of the main site, its existence, with the presence of mint condition artefacts, emphasises the continuing potential Palaeolithic significance of the uninvestigated deposits that survive in a north-south strip approximately 250m long by 50m wide to the north of the site, between Southfleet Road and the access road to Ebbsfleet International Station.

GROUP 9.1: BRICKEARTH

The majority of this group of material (Table 21.3) was collected from the machine-stripped surface of the brickearth bank (context 40076) to the north of the site, between the west ends of Transects 1 and 3. One artefact

was also recovered directly from the brickearth (context 40053) at the north end of the site, and three were recovered from the top bulk sieve-sample <40118> into the brickearth at Trench A (Fig. 20.1b).

The artefacts collected from the surface of the brickearth bank were quite widely distributed (Fig. 21.1a), and comprised one handaxe and thirteen pieces of debitage. This assemblage did not appear to represent a specific scatter disturbed by the machine as they were in a wide variety of conditions. The handaxe (Δ .40022), which was a large, very bluntly pointed sub-cordate (Fig. 3.10), was in fresh condition and was unstained/unpatinated on one face; it was however moderately patinated and light brown stained on the other face, suggesting a substantial period of exposure lying flat on a palaeo-landsurface before its eventual incorporation in buried sediments. The majority of the debitage was in mint or fresh condition; most pieces were unstained and unpatinated, or lightly stained/patinated, but a few were more strongly patinated and/or strongly brown/ochre stained. The majority of the debitage was technologically undiagnostic. However, one of the pieces in mint condition (Δ .40027) was clearly from thinning/shaping a large handaxe. Another piece (Δ .40037) also in mint condition, showed numerous parallel blade-like dorsal

Table 21.2 Group T-1, from Transect 1 to north of site: technological overview

<i>Context</i>	5 - Percussor	10 - Tested nodule	20 - Core	30 - Core-on-flake	40 - Core-tools	50 - Handaxe-on-flake	60s - Fl-tools	80 - Fl-flakes	90 - Flakes	100 - Irreg. waste	110 - Chips	Sub-total (n)
40080 - sandy/clayey gravel [Phase 8??]	-	-	-	-	-	1	-	-	2	-	-	3
40081 - clay-laminated sand [Phase 5??]	-	-	-	-	-	-	-	-	1	-	-	1
40082 - sand/gravel [Phase 3??]	-	-	-	-	-	-	-	-	1	-	-	1
40083 - gravelly clay [Phase 3??]	-	-	-	-	-	-	-	-	2	-	-	2
40084 - [Phase 3??]	-	-	1	-	-	-	-	-	-	-	-	1
All	-	-	1	-	-	1	-	-	6	-	-	8

Table 21.3 Group 9.1, from brickearth bank: technological overview

<i>Context</i>	5 - Percussor	10 - Tested nodule	20 - Core	30 - Core-on-flake	40 - Core-tools	50 - Handaxe-on-flake	60s - Fl-tools	80 - Fl-flakes	90 - Flakes	100 - Irreg. waste	110 - Chips	Sub-total (n)
40053 - brickearth (Phase 9) capping Pleistocene sequence at north end of main site	-	-	-	-	-	-	-	-	2	2	-	4
40076 - collected from machine-stripped surface of brickearth bank to north of main site	-	-	-	-	1	-	-	-	10	3	-	14
All	-	-	-	-	1	-	-	-	12	5	-	18

scars, suggesting perhaps a Levalloisian blade-like sequence, well-known in the MIS 8/7 deposits of the Ebbsfleet Valley and at nearby Crayford (Wenban-Smith 1995a and 2007).

The artefacts recovered directly from the brickearth were all in mint or fresh condition. Three of them were technologically undiagnostic, but one of them – Δ.40094, from Trench A sample <40118> – was from the later stages of thinning/shaping a handaxe.

Overall, although the majority of this assemblage was not found directly *in situ*, it draws attention to the potential of the brickearth as a possible source of lithic remains in good condition. Whether these might represent undisturbed material on undisturbed palaeo-landsurfaces within brickearth, or whether they represent colluvially transported material, remains uncertain. However, as was proven by the spectacularly fine handaxe recovered from Station Quarter South Test Pit 25, dug in 2006 (Wessex Archaeology 2006b; this volume Chapter 4 *Deposits in the site vicinity*) the brickearth is a poorly understood deposit that nonetheless produces lithic archaeological remains, and merits further investigation.

GROUP 9–10: SAND CAPPING BRICKEARTH

This group of material (Table 21.4) was all recovered from a sand bed (context 40176) overlying the brickearth at the north end of the site, towards the end of the Watching Brief. All of the assemblage is in moderately to very abraded condition, and moderately stained/patinated, apart from one flake that is in mint condition and unstained/unpatinated. The core (Δ.50180) is small (maximum length = 52mm; weight = 75g) and intensively worked. It is approximately pyramidal in shape, and each face has numerous parallel removals of small blade-like flakes; it would not be out of place in a Mesolithic or Neolithic assemblage. One of the flake-tools (Δ.50178) is a large, thick flake with one area of edge-crushing that is interpreted as either a concave scraping edge or macro use-wear. The other two are medium-size flakes approximately 60–70mm long and 50–60mm wide that have a crude convex scraping-type edge made by 2–3 small secondary removals. One of these retains a faceted butt that is

slightly indicative of having been removed from the surface of a radially flaked Levalloisian/Mousterian-type core, but the dorsal scar pattern is uni-directional rather than radial. Alternatively, this flake could be a ‘core tablet’ representing rejuvenation of the platform of a core similar to that recovered here and what looks like facetting could merely be proximal ends of a series of parallel flake removals. The remainder of the debitage is technologically undiagnostic.

As a whole, this assemblage is not particularly informative, and its date is uncertain. It is most likely Palaeolithic, despite the small pyramidal blade-flake core. Such pieces are not unknown in the Lower/Middle Palaeolithic (Pradel 1944), although often disregarded as intrusive when encountered; for instance, there is a similar one in the APCM Baker’s Hole collection at the British Museum. It probably represents residual evidence of the later MIS 8/7 occupation of the Ebbsfleet Valley, remains from which were so abundantly found in the deposits that (prior to extraction by quarrying) were present in the more central part of the Ebbsfleet Valley to the north-east of the site (Wenban-Smith *et al.* forthcoming).

GROUP 11.1: DERIVED PALAEO LITHIC MATERIAL

This group of material (Table 21.5) mostly represents artefacts that appear obviously Palaeolithic on grounds of typology/technology and size/condition, but were found out-of-context or in the modern made ground. Several artefacts from the excavation for which their provenance was misplaced are also included in this group. Many of the pieces are handaxes, or broken bits of the same. They are of little interpretative value in themselves and add nothing to the excavated collection due to their lack of provenance. They do, however, represent a useful case-study of the type of collection that might be recovered prior to any detailed investigations in an area of rich Lower/Middle Palaeolithic archaeology, which would highlight an area as meriting further investigation for better provenanced material. They also have value for teaching/handling/display as a relatively expendable material representation of this very distant past, for which minor physical damage and loss of some items would cause no reduction in the future research potential of the

Table 21.4 Group 9-10, from context 40176: technological overview

Context	5 - Percussor	10 - Tested module	20 - Core	30 - Core-on-flake	40 - Core-tools	50 - Handaxe-on-flake	60s - Fl-tools	80 - Fl-flakes	90 - Flakes	100 - Irreg. waste	110 - Chips	Sub-total (n)
40176 - sand lens at the top of the Phase 9 brickearth at north end of main site	-	-	1	-	-	-	3	-	6	-	-	10
Total	-	-	1	-	-	-	3	-	6	-	-	10

Table 21.5 Group 11.1, derived and out-of-context Palaeolithic material: technological overview

<i>Context</i>	5 - Percussor	10 - Tested nodule	20 - Core	30 - Core-on-flake	40 - Core-tools	50 - Handaxe-on-flake	60s - Fl-tools	80 - Fl-flakes	90 - Flakes	100 - Irreg. waste	110 - Chips	Sub-total (n)
0 - out-of-context, not <i>in situ</i>	-	-	-	-	9	-	1	-	1	-	-	11
40001 - modern made ground	-	-	-	-	1	1	-	-	-	-	-	2
40012 - modern stripped ground surface, above bank to west of site	-	-	-	-	1	-	-	-	-	-	-	1
40133 - fill of Late Prehistoric feature	-	-	-	-	-	-	1	-	-	-	-	1
40039? - uncertain provenance	-	-	-	-	-	-	-	-	1	-	-	1
40048? - uncertain provenance	-	-	-	-	-	-	-	-	1	-	-	1
40069? - uncertain provenance	-	-	-	-	-	-	-	-	2	1	-	3
40100? - uncertain provenance	-	-	-	-	-	-	-	-	-	-	1	1
40100?? - uncertain provenance	-	1	1	-	-	-	2	-	12	5	-	21
Total	-	1	1	-	11	1	4	-	17	6	1	42

site archive. This is, of course, in contrast to the better provenanced material, which needs to be more carefully curated and preserved for future research.

GROUP 11.2: AN 18th CENTURY GUNFLINT INDUSTRY

In amongst the wider collection of Group 11, a very curious lithic assemblage instantly stood out during initial analysis. Despite being provenanced to the 'Made Ground' capping the sequence of the main site, which occurred between the top of the Pleistocene deposits (usually the Phase 8 gravel, but the brickearth at the north end of the site) and the asphalt surface of the old Southfleet Road, there were several clear lithic artefacts that were all in absolutely mint condition. These were unstained and unpatinated, on typical local slightly coarse Swanscombe-area grey flint with inclusions. These were initially regarded by myself as most likely something late prehistoric, or perhaps some by-product of 19th or early 20th century road construction. They were

therefore passed to Hugo Anderson-Whymark, who was dealing with later prehistoric flint work from the HS1 projects in the Ebbsfleet Valley. However, he rejected them and passed them back to me! There are not that many flints involved (only nine initially from context 40001, although three others were later added on grounds of their condition and technological similarity, Table 21.6). This probably resulted from the minimal attention given to recovery of material from the made ground overlying the Pleistocene sequence, which was the focus of the archaeological work.

The assemblage is very coherent technologically. It mostly comprises quite large and very chunky flint flakes, violently struck, with notches from flake-flakes struck sideways across the ventral surface, sometimes a single notch, sometimes double opposing notches (often with the distal ends of their flake scars intersecting). Of the twelve artefacts in the assemblage, nine are secondarily worked debitage of this nature, two are elongated flakes with opposing notches across the ventral surface (Fig. 21.2b; c), three of them chunky flakes with single notches (Fig. 21.2d; e), and the remainder chunky

Table 21.6 Group 11.2, 18th century gunflint industry from 'made ground': technological overview

<i>Context</i>	5 - Percussor	10 - Tested nodule	20 - Core	30 - Core-on-flake	40 - Core-tools	50 - Handaxe-on-flake	60s - Fl-tools	80 - Fl-flakes	90 - Flakes	100 - Irreg. waste	110 - Chips	Sub-total (n)
0 - out-of-context, not <i>in situ</i>	-	-	-	1	-	-	-	-	-	-	-	1
40001 - modern made ground	-	-	-	7	-	-	1	1	-	-	-	9
40039? - uncertain provenance	-	-	-	1	-	-	-	-	-	-	-	1
40100? - uncertain provenance	-	-	-	-	-	-	1	-	-	-	-	1
Total	-	-	-	9	-	-	2	1	-	-	-	12

debitage with various less structured notching. In addition to these, there is one secondary flake-flake from this notching, which has itself then been struck to leave the notch scar from what might be termed a Tertiary flake, that is a flake from what was already a flake-flake (Fig. 21.2f). The notches (excepting the latter small notch on the flake-flake) are constantly about 20mm long (parallel with their axis of percussion) and 40–50mm wide (transverse to their axis of percussion). Finally, there are two secondarily worked flakes with a few small areas where minor retouching seems to have taken place; these were classified as flake tools, but the apparent retouch may merely be damage, or an incidental part of the debitage removal process.

Having been rejected as a late prehistoric industry, and having consulted with Alan Saville and Frances Healy, who mentioned gunflints, I remembered there had once been a couple of articles in the Lithic Studies Society journal *Lithics* on this topic. After a quick trawl through back-issues I re-encountered an article by McNabb and Ashton (1990) that describes and illustrates a technologically identical assemblage (Fig. 21.2a), found by A. T. Marston near Dartford on the Thames foreshore. It describes the so-called ‘Wedge technique’ for gunflint manufacture, which apparently died out in about 1780 when it was superseded by the better-known blade-based approach exemplified by the 19th century Brandon gunflint tradition (Forrest 1983;

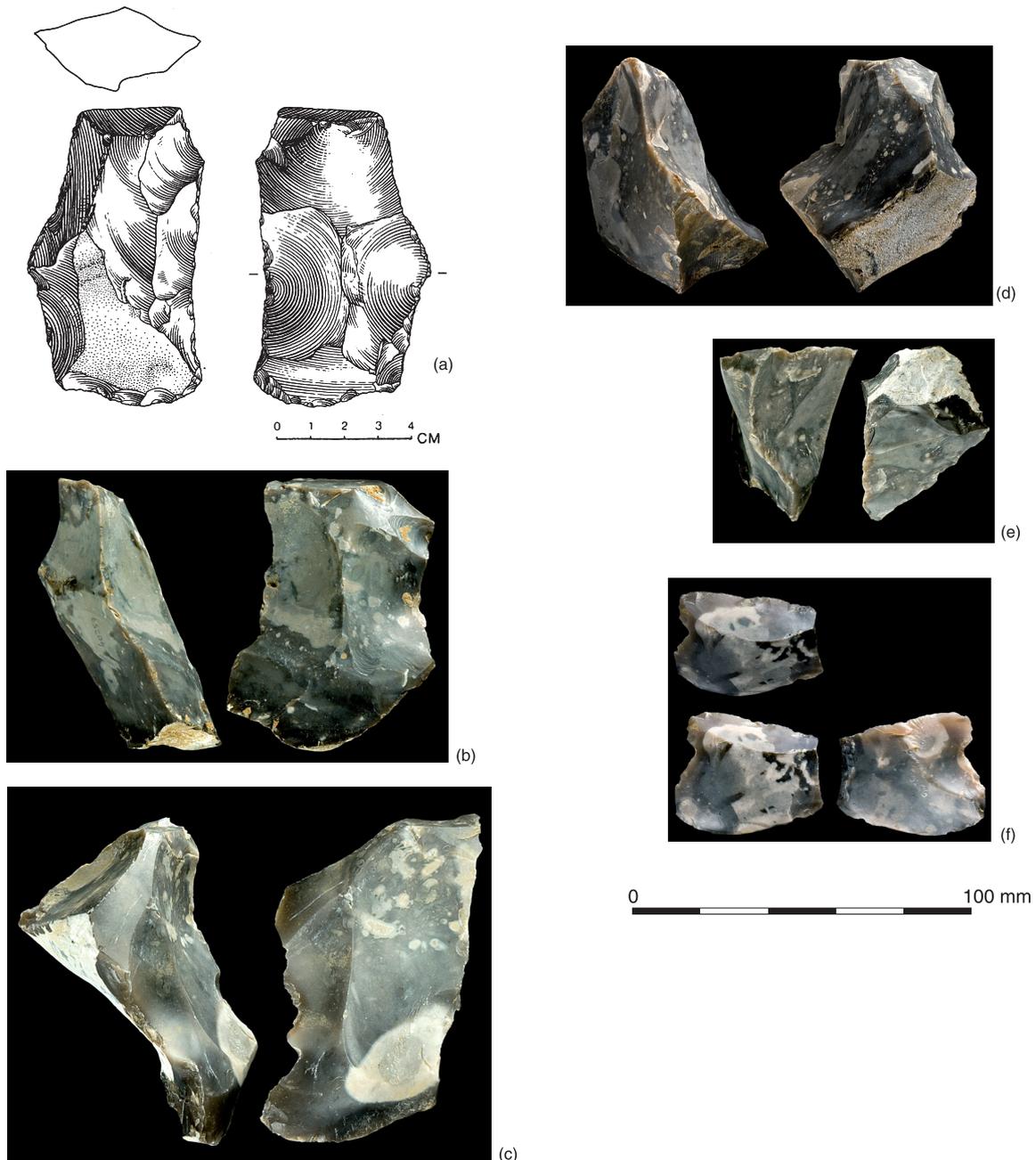


Figure 21.2 Group 11.2, 18th century gunflint industry: (a) Wedge core (double opposed) example from Thames foreshore (McNabb and Ashton 1990); (b) Wedge core (double opposed), Δ.40257; (c) Wedge core (double opposed), Δ.40259; (d) Wedge core (single), Δ.40251; (e) Wedge core (single), Δ.40253; (f) Wedge flake-flake blank, Δ.40256

Karklins 1984). They also, quoting Lotbinière (1977), mention by name a gunflint manufacturer W. Levett who was active in the Northfleet area in the mid-late 18th century. They suggested as an irony that the typically Clactonian approach of creating notched flake-tools from flake blanks was not the cause of Marston's original attribution to Clactonian. However, there is in fact quite a contrast between the typical genuine Clactonian approach to notching, as exemplified in Phase 6 (see, for example, Chapter 18 *Secondary flake modifications and flake-tools*) – which involves striking notch removals on the ventral surface of a flake – and the gunflint approach, as exemplified here (Fig. 21.2), which involves striking on the dorsal surface with

the secondary removal therefore coming off the ventral surface, parallel with it rather than orthogonal to it. Even more ironic in this case is that, not only does the gunflint assemblage display the classic wedge technique, using thick chunky flakes as cores, but also that it was incorporated in the uppermost deposits of a *bona fide* Clactonian site. One can therefore surmise that perhaps Levett himself, or one of his contemporaries, must have taken advantage of the outcropping exposure of the same deposit rich in nodular flint that provided the source of flint raw material for early hominin tool manufacture 400,000 years earlier, and sat knapping gunflints by the roadside leaving the waste to confuse later archaeologists.

