



# A RARE KENTISH EXAMPLE OF A VERY EARLY POST-GLACIAL FLINT-KNAPPING SITE AT COURT STAIRS, RAMSGATE

PETE KNOWLES AND TIM ALLEN

*An archaeological excavation was undertaken by Kent Archaeological Projects (KAP) on land at Court Stairs Country Club, Pegwell Road, Ramsgate, during the summer of 2020. The excavation was undertaken in response to recommendations from Heritage Conservation, Kent County Council, following archaeological evaluation undertaken in August 2019. Archaeological excavations have confirmed the presence of a Mesolithic pit containing a large assemblage of worked flints.*

Kent Archaeological Projects was commissioned by Inspired Assets Ltd to conduct the archaeological excavation at Court Stairs Country Club, Pegwell Road, Ramsgate (NGR TR 36697 64197) (**Fig. 1**). A flint knapping site was identified during the excavation, with a large assemblage comprising flake blade tools, scrapers, notched tools, burins, microliths and bladelet, worked cores, hammerstones, nodules, test pieces and debitage being present. This assemblage represents all stages of the *chaîne opératoire*.

The flint work was concentrated in a small area, with ninety percent being recovered from the fill of a sub-circular pit measuring approximately 2m by 3m, the basal layer of which consisted of brecciated chalk. A raised chalk hummock, most likely formed under periglacial conditions, protruded from the western lateral and extended to the centre of this feature and may have been used opportunistically as a raised working platform. The majority of the flint debitage and one test nodule were recovered from the upper surface and around this hummock, supporting the view that it was a convenient natural working platform or anvil used for flint knapping (**Plate I**).

The presence of 21 microliths within the assemblage indicates that it was of early Mesolithic date, pointing to a date of production during the late glacial/early post-glacial period. However, the absence of characteristic types makes further refinement in the dating problematic.

## Archaeological background

The site lies within an area of rich and complex archaeological history and potential. In May 2019 KAP carried out an archaeological evaluation of the site (KAP

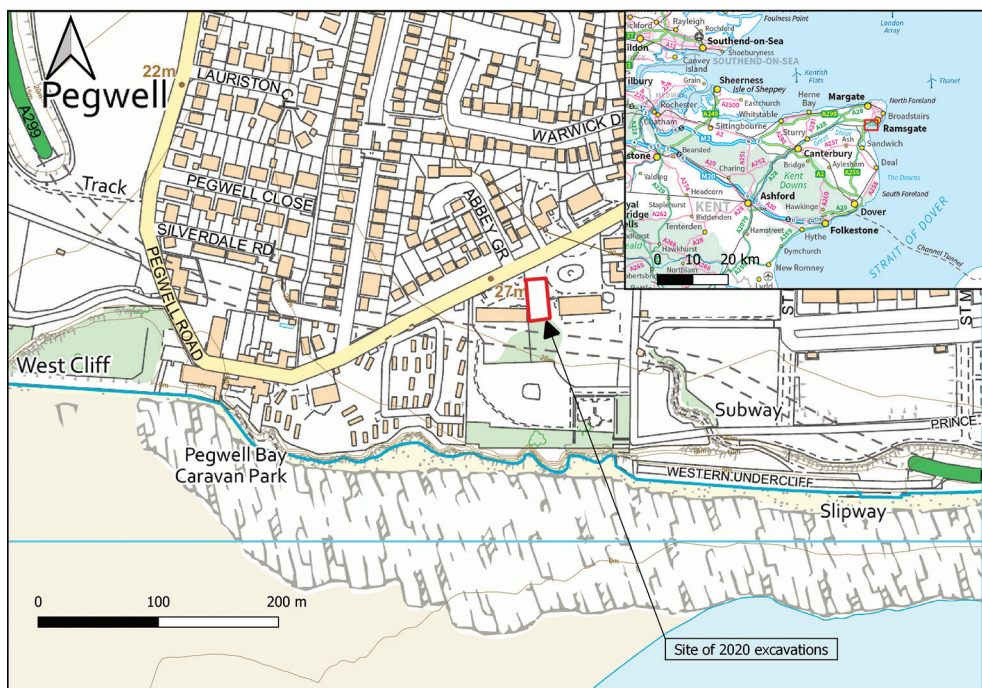


Fig. 1 General map showing location of 2020 excavations.

2019). The evaluation showed that the earliest and only significant archaeological remains, exposed in the southern end of Trench 1, consisted of an elongated pit or discontinuous linear feature exposed at a depth of 0.72m below the present ground surface. Its brickearth-dominated fill produced a total of eleven purposively struck flint flakes during sample excavation of the feature. Although not closely diagnostic in terms of date, the flintwork was undoubtedly of Neolithic or Early Bronze Age manufacture. It was therefore possible, if not probable, that this feature was contemporary and/or associated with a possible Neolithic causeway camp, parts of which were previously excavated some 40m to the north-east (KAP 2020). No other archaeologically significant remains were exposed during the evaluation, which otherwise exposed argillaceous Palaeogene and Drift deposits overlying chalk in the area and two modern, mechanically excavated trenches underlying the levelled surface of a tennis court. In 2007 the Trust for Thanet Archaeology recorded the presence of a Neolithic curving ditch approximately 40m to the north-east (TFTA 2007). The ditch measured 2.6m in depth, with short, interlinked gaps and had a projected diameter of approximately 104m forming a causewayed enclosure (KCC HER TR 36 SE 693). A large flint assemblage was recovered; however, due to the continuation of flint working technologies from the Mesolithic into the Neolithic, establishing the Mesolithic component was problematic and analysis suggested that in this assemblage it appeared to not be significant (Moody 2007).



Plate I Pit CRN 29, showing flint debitage and nodule.

#### THE 2020 EXCAVATION

The excavation aimed to ascertain the range of past activities, and specifically whether the evidence suggests transient human activity, domestic/settled occupation, burial, industry, agriculture and/or combinations of these. Linked to this, the excavations also sought to recover stratified assemblages of artefacts and ecofacts which are suitable for analysis and research to assist in determining the date and function of the site during different periods.

A relatively common stratigraphic sequence was recognised across the site (**Fig. 2**) comprising a modern tennis court surface (01) overlying a construction formation layer (02). Directly below, redeposited modern demolition material (60, 61 and 63) overlay redeposited brickearth which sealed the natural chalk (05). Localised layers of colluvium (03, 04) were recorded within the north-western extent of the site. All recorded archaeological features were cut into the natural chalk (05) at a level of ranging between 26.99m and 26.62m AOD.

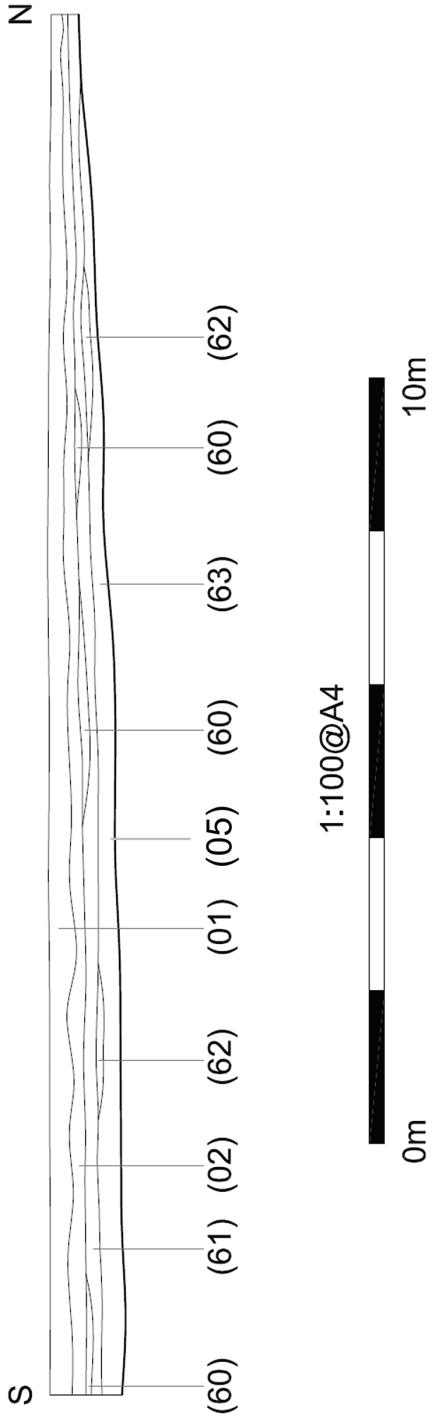


Fig. 2 Representative section across the site.

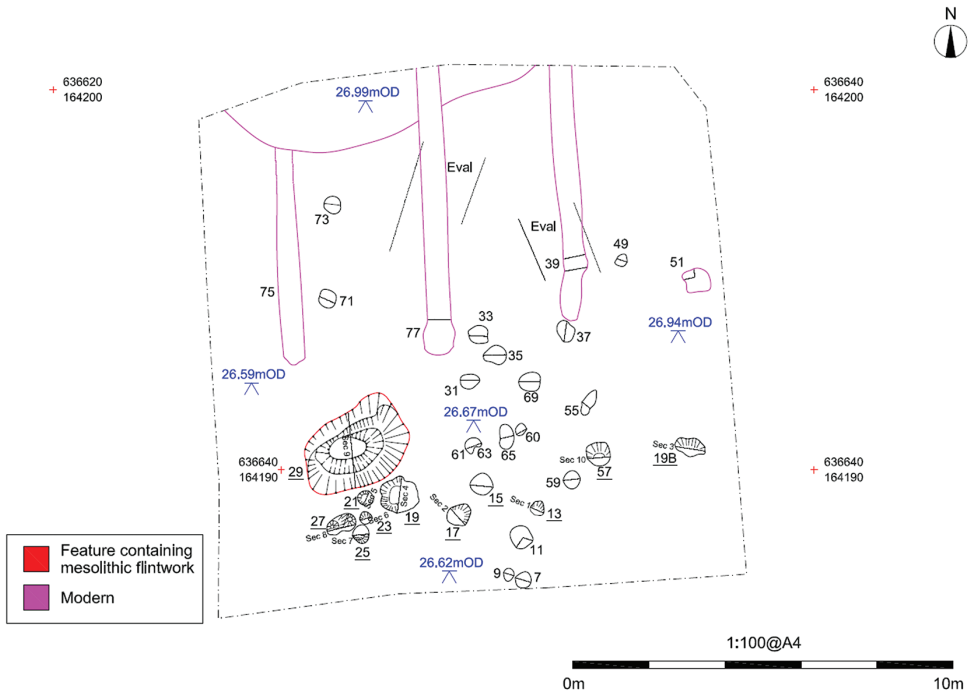


Fig. 3 Site plan.

### Discrete Features

Archaeological features recorded within the excavation areas include pits and possible post holes (Fig. 3). The assessment of lithics and the spot dating of pottery sherds from within some of these features has enhanced the results by providing data so these features can be chronologically phased. Two chronological phases were recorded, the Mesolithic (Phase 1) 10,000-9700 BP, and the Iron Age (Phase 2) c.50 BC-AD 50.

#### *Oval pit (CRN 29)*

The earliest feature investigated on the site was the pit-like feature (Fig. 4) provisionally identified during the evaluation as of possible Neolithic date. When fully investigated, this proved to be a large, roughly oval pit measuring 3.35m north-east/south-west and 1.98m north-west/south-east, with a maximum depth of 0.24m. The feature, which could have been a naturally occurring deep hollow or have been deliberately cut into the natural Chalk and Brickearth, had a slightly undulating base and gently sloping sides. The pit's single fill (CRN 28) of slightly orange-tinged, mid-brown brickearth contained a large amount of purposely-struck flint, with a total of 138 pieces recovered during the 2020 excavation and 11 during the 2019 evaluation (see section Flint Assemblage below, for a detailed description of the assemblage overall and the particularly diagnostic implements).

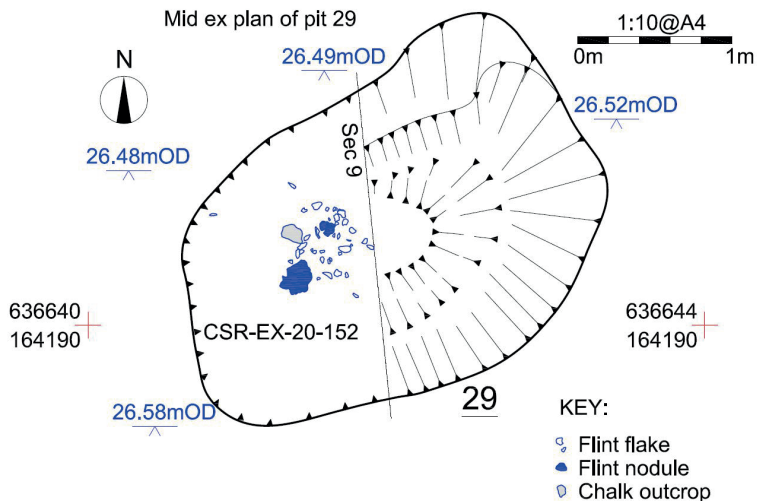


Fig. 4 Plan of pit CRN 29.

*The pit and post hole-like features (CRNs 7-55, 59-68)*

A large number of smaller pits and/or post hole-like features (27 in total) were also identified on the site. Excluding modern examples (CRNs 51, 71 and 73), most were interpreted as originating via natural solution hollows as their fills consisted in nearly all cases of mid-orange-brown paste-like, inclusion-free homogenous brickearth. They also occurred predominantly within or at the terminations of the many discontinuous south-west/north-east orientated natural corrugations that intersected the Chalk surface on this site.

An exception was the fill of a 0.27m-deep roughly circular pit (CRN 57), which had a diameter of 0.61m. The fill of this feature consisted of dark brown silty clay (CRN 56) with higher humic content than any of the others excluding modern pits 51, 71 and 73. It contained five Late Iron Age potsherds with a date-range of *c.*50 BC-AD 25 and was undoubtedly a purposely cut pit. In addition, two post-hole-like features (CRNs 19B and 33), both containing mid-orange-brown paste-like, inclusion free homogenous brickearth, produced Late Iron Age potsherds (respectively, four potsherds and one potsherd), all with a broad date-range of *c.*100 BC-AD 25. These sherds may have been intrusive or simply deposited as part of a natural colluvial process; the identity of these features remains ambiguous. In addition, an overlying natural clay-silt deposit (CRN 3) also produced three potsherds of the same date-range.

**The Flint Assemblage**

A summary **Table 1** shows the total proportions of the lithic material recovered for both the 2019 evaluation and the 2020 excavation.

TABLE 1. LITHICS RECOVERED FROM COURT STAIRS, RAMSGATE

<i>Lithic</i>	<i>Amount</i>	<i>Weight (Kg)</i>	<i>% of Total</i>
Nodules Large	4	0.6	13.6
Nodules Pieces (primary)	204	18.2	41.3
Protuberances (primary)	217	6.2	14.1
Primary Flakes	181	5.6	12.7
Secondary Flakes	149	2.6	5.9
Tertiary Flakes	59	0.5	1.1
Shatter	265	3.3	7.5
Burnt Flint	6	0.12	0.3
Implements including Cores and Hammer Stones	149	1.5	3.4
<i>Totals</i>	1,234	44.02	100

*Condition*

The majority of the assemblage was in a fresh condition, with a minimum of rolling or abrasion on even the thinnest pieces. Although many of the blade pieces were snapped, it is likely this occurred in antiquity as part of the *chaîne opératoire*. The majority of the assemblage was patinated with the characteristic white-to-mottled, blue-grey surface associated with the weathering of flint in chalk Downland regions. A small percentage of the material had patination indicative of having been worked at different remote periods and re-cortication has occurred on a few pieces.

*Raw Material*

The raw material is fine grained grey/black Cretaceous flint which occurs locally across Thanet and can easily be found today around the coastal perimeter. The majority of the nodules and debitage have an un-rolled buff/sandy or light grey cortex varying from <1mm to 3mm thick. About 8% have a coarser pitted rolled and white or light grey cortex more typical of beach cobbles or surface flints. A smaller percentage of the material, less than 3%, is of the distinctive glauconitic-coated flint of the Bullhead bed. One Tertiary pebble (CSR-EX-20-155 {Court Stairs Ramsgate, Excavation, 2020, accession number}), is typical of the type found in the Harwich Eocene beds eroding from the cliffs at Reculver (Knowles *pers. obs.*), notably this pebble had been quartered and has been utilised as a core.

The nodules were small and of poor-quality flint that easily shatters, most were of the pipe flint elongated type, and one large nodule had small thumb sized protuberances some of which had been removed. The debitage contained a large amount of these protuberances.

Only six pieces of fire-fractured flint were found, all from context 28, these were all patinated light grey/white with the cracking associated with exposure to fire, one of these pieces was the remnant of a worked flake.



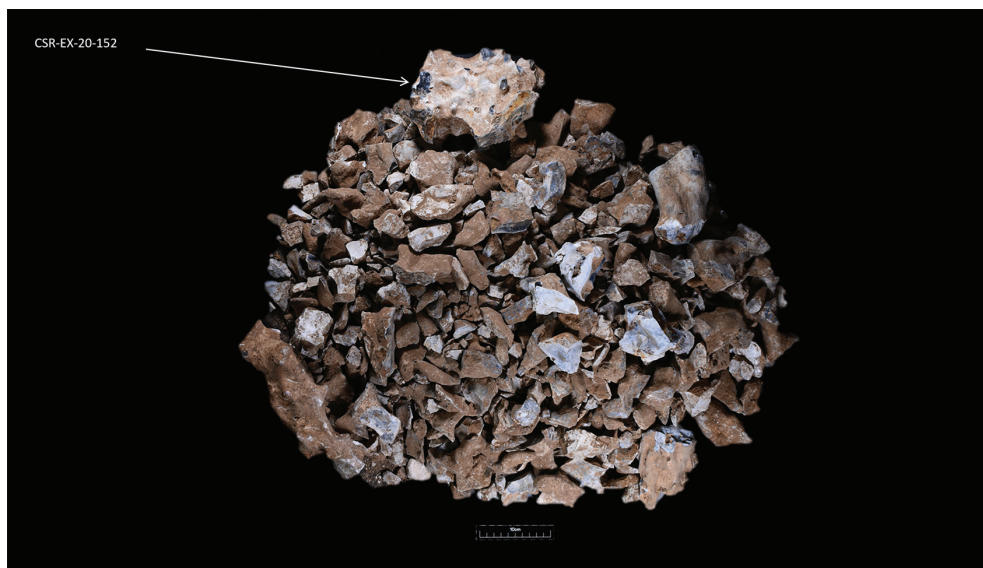


Plate II Raw nodules, cores and debitage - from CRN 29.

### *Origin of the Flint*

There was a residual surface scatter of flint across the site, and it may be presumed that a number of artefacts were not recovered during the surface stripping. Although the site was cleaned mostly down to the chalk bedrock there were no flint seams exposed on the site. The flint assemblage cores and debitage were highly concentrated, indicating that they were not in their original geological context. Six rounded pebbles were recovered from within this concentration and were similarly identified as not being their original geological context as surface pitting indicated that they had been utilised as hammer stones. The size and condition of the flint nodules recovered from the site indicate that they were collected from primary or near-primary geological source. Due to the geological characteristics of Thanet, this is unlikely to have been any great distance from the site, as minimal dressing had been performed on the largest remaining largely intact nodule CSR-EX-20-152 (**Plate II**). An Echinoid fossil in one of the flint nodules (CSR-EX-20-170) may prove useful in identifying the chalk seam from which the flint nodules derived, most likely the Upper Chalk (Gallois 1965).

All stages in the reduction sequence of the *chaîne opératoire* were represented, no refitting was attempted although it is likely that sequential refits are present. There were many large and varying sized fragments of nodules and a similar number of protuberances and other irregularities that had been removed at this site. This suggest that the nodules were brought to the site unprepared. For a small lithic assemblage there are, surprisingly, several distinct and unusual implements, described forthwith.

[Note: for all descriptions in this report reference proximal as top and dorsal as facing.]



Plate III Mesolithic flanc de nucleus (core).

### Cores

Distinctly absent from the assemblage are pyramidal cores associated with the production of microlith bladelets, although bladelets and microliths were recovered. Two small core pieces, one heavily battered (CSR-EX-20-02), could be pyramidal core remnants, the other (CSR-EX-20-33) incomplete (due to recent fracture) on bullhead flint has two longitudinal negative scars indicative of narrow blade production.

The other core remnants are multi-faceted, the detachment scars show the intentional production of wide short flakes. One is heavily battered, which is indicative of reutilisation as a hammer stone. Some of the cores are fully worked out and the remnant core is almost cuboid; this reflects processes preferred during the early Neolithic.

The assemblage contains a *flanc de nucleus* (CSR-EX-20-07), these occur due to the occasional practice of the complete removal of the main flaking surface of a core (Barton, 2003). The *flanc de nucleus* has three longitudinal negative scars one with a hinged fracture, indicating the production of blades of 4-5cm in length (Plate III).

A single ovate uni-facial flake tool (CSR-EX-20-09) was recovered. The flake is in a fresh and sharp condition with a concaved cutting edge on the right lateral which also has a subtle Z-twist (Plate IV), the flake removals on the dorsal were performed before removal from the core, no cortex remains apart from a small patch on the striking platform, there is some minimal light retouch on the right lateral. The ventral face is flat and smooth with a large bulbar scar and fissures on the right lateral.



Plate IV Ovate flake tool CSR-EX-20-09 from CRN 29.



Plate V Blade tools from left to right, Notched blade CSR-EX-20-135, Knife CSR-EX-20-85, Denticulate CSR-EX-20-06, Graver CSR-EX-20-42, from CRN 29.

This type of implement has not been described in any of the literature studied for this report. It has some characteristics of flint knives from the early Neolithic, but these were generally D shaped with retouch on both faces, equally it has some affinity with a Levallois knapping tradition.

### Flake Tools

The majority of the recovered assemblage can be described as flake tools of the following types: scrapers, blades, notch tools and burins, indeterminate utilised flakes (**Plate V**).

*Scrapers*: eight scrapers were recovered, both primary and tertiary flakes which have had their distal ends retouched to create the edge required for scraping. Three scrapers were attributed as surface finds, CSR-EX-20-144, 146, 147:

CSR-EX-20-144: is a possible combination tool as abrupt retouch at proximal has created a notch and burin, it has been made on primary flake with semi-abrupt retouch on dorsal right lateral to create the scraper edge. The patination is consistent with the implements from context 28.

CSR-EX-19-2: was recovered from the evaluation trench which was the context fill 28 of the excavation. Scraper made on thick secondary flake with abraded platform, crude abrupt retouch on left lateral and distal of dorsal face, cortex remaining on right lateral and part right distal.

CSR-EX-20-34: utilised primary flake with large hollow inclusion on ventral, invasive retouch on dorsal left lateral and ventral.

CSR-EX-20-48: was made on a primary flake it has had semi-abrupt retouch on dorsal right lateral to create a useable scraper edge.

A similar utilisation of primary flakes is noted on the other scraper tools in the assemblage.

*Burins*: eleven flakes have been identified as burins or potential burins. Burins can occur in both early and later Mesolithic sites and from the upper Palaeolithic through to the early Neolithic. Nearly all the burins recovered from this site had been produced on broken or waste flakes with the retouched burin point generally being central on one lateral edge. One may be on a composite scraper/burin tool.

*Notched Tools*: are found through most periods of prehistory. Ten flakes have been identified as gravers or notched tools. These are on flakes of various thicknesses as they exhibit deliberate retouch to create a notch or burin beak on predominately left lateral, some are on right lateral. Does this characteristic reflect the handedness of the people who used them?

CSR-EX-20-135: notched blade (Plate 5), is of particular note, being created on a curved back blade truncated at the distal end with a semi abrupt flake removal on the dorsal face creating the notch on the left lateral, which has been retouched on the ventral face. The presence of notched tools is considered evidence of a hunting camp and that the notches were used to shape arrow shafts.

*Blades*: twenty-two flakes can be classed as either blades, remnant blades, crested blades, backed knives denticulated blades or other utilised flakes. Implements of note are:

CSR-EX-19-06: obliquely truncated blade

CSR-EX-19-06: curved back blade

CSR-EX-20-85: curved pen-knife blade, complete

CSR-EX-20-42: hooked graver

CSR-EX-20-06: coarse denticulated blade

CSR-EX-20-10: blade with truncated distal missing but with fine denticulation on concaved right lateral.

*Microliths*: of the recovered flakes twenty-nine could be classed as microliths due to their diminutive size, sixteen pieces are indicative of systematic blade base technologies and are listed in **Table 2**. One bladelet (CSR-EX-20-40, **Plate VI**) has two longitudinal ridges a diffused percussion bulb and a snapped distal end which has affinity with early Mesolithic assemblages, the patination of this bladelet is white which differs from the majority of the assemblage which is mottled blue/grey. The bladelet could be residual possibly indicating the site is a palimpsest of

TABLE 2: MICROLITHS RECOVERED FROM COURT STAIRS, RAMSGATE (DIMENSIONS IN MM)

Accession No	Segment	Shape	Edge retouch	Cortex	Cortex position	Length	Breadth	Thickness	Description
CSR-EX-19-8	mesial	rectangular	yes	yes	left lateral	22	16	3.3	broken mesial segment of bladelet small oblique edge at right distal, right lateral edge retouched
CSR-EX-19-9	proximal	flake		yes	left lateral	12.5	16.8	2.5	break at distal, possible flint chip, miss hit flake scar at proximal on dorsal, percussion bulb on ventral
CSR-EX-20-18	proximal	blade	yes	no		29.8	16	4.2	very thin oblique snapped blade
CSR-EX-20-19	proximal	blade	yes	no		15.7	13.3	1.8	obliquely truncated
CSR-EX-20-20	proximal	micro-burin	yes	no		19.1	12.6	2.7	obliquely truncated with break notch on dorsal right lateral
CSR-EX-20-21	whole	blade	yes	no		16.5	12.2	3.4	whole micro blade
CSR-EX-20-22	mesial	blade	yes	no		19.3	13.1	3	ridge left of left lateral, oblique breaks on right left laterals towards proximal
CSR-EX-20-23	proximal	flake	yes	no		14.8	12.9	2.1	either proximal end of blade or waste flake
CSR-EX-20-26	burin	spool				16.2	4	2.8	probable waste flake
CSR-EX-20-27	mesial	blade		yes		16.1	11.2	2.2	obliquely truncated
CSR-EX-20-40	proximal	bladelet	no	no		27.8	10.9	1.8	classic elongated proximal bladelet snapped, with two longitudinal ridges giving three longitudinal flake scars
CSR-EX-20-45	proximal	flake		yes	proximal	12.9	13.4	2.8	probable waste flake
CSR- EX-20-112	proximal	flake		yes	left lateral	20.9	12.7	3.2	probable rejuvenation flake

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CSR-EX-20-113	proximal	micro-burin	yes	yes	dorsal	19.9	8.5	1.8	micro-burin with notch on dorsal right lateral
CSR-EX-20-115	mesial	blade	no	no		15.3	8.6	2.9	trapezoidal section
CSR-EX-20-116	distal	micro burin	no	no		20.6	13.2	3.9	oblique break proximal, micro-burin at distal
CSR-EX-20-139	distal	trapezoidal	yes	yes	proximal	16.1	21.2	5.4	recortication at proximal break at right lateral white patinated
CSR-EX-20-140	distal	symmetrical point	yes	no	distal	24.6	15.2	4.3	group C or E after Clarke, or Jacobi 10c
CSR-EX-20-160	distal	flake	yes	yes		21.2	16.8	6.5	indeterminate sub triangular flake
CSR-EX-20-167	distal	trapezoidal	yes	yes		11.8	18.4	5.2	truncated trapezoidal distal
CSR-EX-20-168	distal	triangular	yes	yes	left lateral	12.8	14.9	3.2	dorsal flake scars

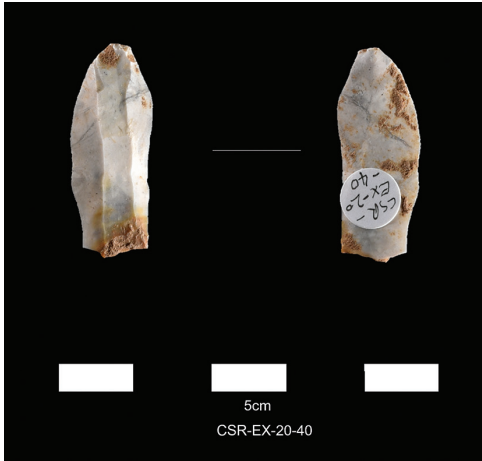


Plate VI Microlith bladelet, proximal end.

different occupation phase. There are three micro burins, all proximal end pieces with the notch on the right lateral of the dorsal face this is evidence of the micro-burin technique for microliths production. The rest of the microliths are either indeterminate, or possibly small, utilised flakes or debitage. Several small flake blades are of an ovoid shape and could be classed as thumb nail size blades or scrapers. Core rejuvenation flakes (CSR-EX-20-112) were recovered that are indicative of the production of small narrow blades.

*Hammer Stones*: the presence of several hammer stones within the context adds to the evidence that this was a flint working site, although these hammer stones are too small to split the larger nodules recovered, they could certainly have been used for the flake production.

#### DISCUSSION AND CONCLUSIONS

The lithic implements in this assemblage could be attributed to technologies associated with all periods from the final late upper Palaeolithic (14,600 BP and 11,500 BP) through to the early Neolithic (6,000 BP). The inclusion of bladelets, micro-burins and small blades in the assemblage are associated with microlith production, this being a characteristic technology of the Mesolithic. There is an absence of very small microliths, with some of the blades being relatively large, suggestive of an early Mesolithic manufacture (smaller microliths are associated with a more closed boreal environment with larger blades being associated with an open pre-boreal environment of the period 10,000-9,700 BP (Bishop, B., *pers. comms*).

Several blades have fine denticulation, the results of a knapping technique that appears in assemblages of the early Mesolithic but is not present in later Mesolithic or early Neolithic assemblages. Blades from the early Mesolithic can be hard- or soft-hammer struck and predominately have concave edges, whilst those from the early Neolithic have convex edges. The blades from the Court Stairs excavation have denticulations on both concave and convex edges.



A possible explanation for the absence of cores used for bladelet production is that cores were a valuable commodity, meaning that only fully exhausted cores were left with the associated rejuvenation flakes, and that useable cores were retained and remained with the knappers when they abandoned the site.

It has not been possible to date the assemblage with absolute confidence due to the conflicting typological evidence. For example, a microlith bladelet found within the assemblage may have been residual within context (28). If so, the other material could date to the terminal Mesolithic or early Neolithic (approximately 6,000 BP). However, as seems more likely given the apparent integrity of the assemblage within a single, discrete feature, it is more likely to be of early Mesolithic manufacture, a view supported by the presence of larger microliths and blades, these being more typical of manufacture during the period *c.*10,000-*c.*9,700 BP. The presence of micro-burins within the assemblage is also indicative of the early date-range.

Excluding the debitage, the flintwork assemblage from Court Stairs therefore probably consists of tools used by early Mesolithic hunter-gatherers occupying a pre-boreal open tundra environment. During this period, the site, which lies on the south facing slope of the Thanet chalk uplands, overlooked a low-lying plain that, following the subsequent sea-level rise, is now Sandwich Bay and the Goodwin Sands. It is therefore plausible that the hunter gatherers chose this spot due to its proximity to the raw flint, using the site to prepare tools before then returning to hunting in the resource-rich lowland that has now been subsumed by the sea. If so, the raw nodules present in the assemblage may have been stored for later preparation of more cores and blades following a return to the site which, for whatever reason, did not take place.

The large amount and the variety of tools and debitage within the flintwork assemblage allowed it to be dated on typological grounds with a high degree of confidence to the Early Mesolithic. The flintwork, therefore, almost certainly represents rare evidence for the re-occupation of south-east Britain at the end of the last Ice Age, sometime during the period 10,000-9,700 BP, when the environment was still largely open and unwooded. Furthermore, the presence of 90% of the worked material within a large, oval pit suggested that the assemblage was *in situ* within the pit which, whether naturally formed, man-made or partly modified, had been used specifically for the purpose of flint knapping.

Survival of this kind of intact features from this period are generally rare, particularly in low-lying areas in south-east Britain and more particularly in Kent:

Kent, for example, still appears to have an under-representation of either directly-dated or typotechnologically early Mesolithic sites, while West Sussex and Surrey have a very apparent dense concentration of sites on Lower Greensand geologies. Only a truly regional investigative approach to these distribution patterns can unpick the underlying controls over these differences (Pope *et al.* 2019, 7).

A total of 149 pieces of flintwork were eventually recovered from the above-mentioned pit (CRN 29) following full excavation. Subsequent specialist analysis identified the flintwork as an early Mesolithic assemblage, indicating that the pit was the earliest feature identified on the site and that the assemblage represented

an important and rare example of anthropic activity associated with the first occupation of south-east Britain at the end of the last Ice Age (the Devensian). This occurred during the early part of the climatic amelioration following Oxygen Isotope Stage 2 (the terminal and coldest part of the Devensian, see Darvill 1994, 28). During the early part of this climatic amelioration (OIS1) Britain remained part of the North European mainland, the area that is now the southern North Sea and English Channel was part of an extensive landmass known as Doggerland meaning that, at that time, the site would have been at a considerable distance from the sea, overlooking an extensive rolling plain to the south, a higher part of which is now represented by the Goodwin Sands. The interpretive significance of the *in-situ* Mesolithic material in the Court Stairs site in Ramsgate can therefore be categorised as high.

If, as seems highly probable, the recovered assemblage of flint implements and debitage were associated with a Mesolithic temporary camp for flint preparation, then this is potentially one of the more significant early post-glacial sites in Thanet, if not in east Kent.

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