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THE MEDWAY FORMULA – A SEARCH FOR EVIDENCE THAT THE ROMAN AUTHORITIES IMPROVED THE RIVER'S NAVIGABILITY TO FACILITATE THEIR EXTENSIVE RAGSTONE QUARRYING INDUSTRY

In 1983 Raymond Selkirk published *The Piercebridge Formula*, his controversial theory that the Roman military deployed in the North-East of England were principally supplied not by road but by waterways. These were physically controlled with locks and weirs which allowed the rivers to be made navigable for larger boats much further up-stream than was naturally the case. The theory met with strong resistance at the time and indeed still does.

When finalizing a UCL Archaeology MA dissertation which focused on the Medway Valley during the Roman occupation, the author determined that Selkirk's hypothesis could provide a useful template for his study. He has begun an investigation as to whether the Roman authorities exerted control of the Medway as Selkirk had speculated for the North-East.

The River Medway has been a major transportation route since at least the Iron Age. In pre-modern times this activity reached its peak during the Roman occupation when the Medway Valley experienced much industrial activity, being a thoroughfare for goods produced by the iron and tile industries of the Weald (Millett 2007, 178) and also the centre of an extensive ragstone quarrying industry on and upriver of the tidal reach at Allington. With regard to the latter, significant Roman-period activity is well documented at sites such Tovil, East Farleigh, Barming and Teston. Yet until the advent of the Medway Navigation Company in the 18th century the Medway was un-navigable above the tidal reach.

The Piercebridge Formula

Selkirk knew the North-East intimately, being a native of Chester le Street – as a pilot and aerial observer he was instrumental during the 1970s and 1980s in helping identify Roman sites in the region. Professionally he was at various times an airline pilot, air traffic controller and merchant marine officer and it is perhaps in the latter context that he originally found himself contemplating riverine transport in the occupation period. Here he first interpreted a Roman bridge pier as more likely being part of a weir or dam which he concluded had been a component of an inland harbour, 14 miles from the sea (Selkirk 1983, 73). Having identified four potential such sites on the River Wear, he next cast his net further afield and alighted on his ultimate type-site at Piercebridge. This town was a key crossing point for Deere Street over the River Tees and featured a fort built in a number of

stages. Here Selkirk developed his weir/dam/ inland harbour theory to investigate the likelihood that heavy or bulky goods were routinely moved by river rather than road to supply Roman sites up to Hadrian's Wall. He associated the weirs and dams with locks which, together, would have provided the means of control and of navigable access to the river, thus allowing vessels to fulfill the transport function he envisaged (1983, 103).

It is widely accepted that marine transport in the pre-modern era was the preferred method of transporting heavy/bulky goods. Yet Selkirk faced sharp criticism from professional and academic archaeologists. Anderson (1992, 212) reasoned that, because of the nature of the rivers in the North-East (which feature troublesome shoals and currents and are prone to strong tides and high winds), navigation by medium sized boats, barges and ships would have been problematic upriver of Wallsend to the tidal reach, and impossible thereafter. Anderson maintained that the cargo-carrying capacity of rafts and small boats up to the tidal reach would not have provided any economic advantage over the use of the Roman road/native trackway system. Despite this well-argued case, however, the author still believes that Selkirk's theories have merit and therefore decided to review them in the context of the Medway.

The Classis Britannica and Quarrying

The Roman fleet operating in Britain's waters was the *Classis Britannica* which also covered the northern Continental coast as far as the Rhine and the Channel (Milne 2000, 127). This fleet had its origins in the Claudian invasion of AD 43 to facilitate the invasion, later being recognised as the provincial fleet. The fleet would not only have been used for maritime purposes but to perform other functions too. One example was quarrying, a direct analogy being the *Classis Germanicus*. Evidence here comes from numerous naval inscriptions in the Trass quarries on the left bank of the Brohol Valley, and similar evidence that *vexillations* of this fleet quarried Tufa for the Trajanic *colonia Ulpia* at Vetara. Russel (2002) points out that:

The fleet also contained specialists in engineering and construction. Inscriptions at Benwell and Halton show the fleet not only brought the grain, but constructed the granaries that held it, and contingents of the *Classis Britannica* were responsible for stretches of Hadrian's Wall.

There would have been an economic imperative behind the use of the *Classis Britannica* for quarrying, given that the *Procurator* would have been under great pressure to make the new province pay, and the availability of the resources of the *Classis Britannica* was one of the keys to this. In a Medway context, clearly maritime transport and technology would have been central to the successful operation of the commercial enterprises which used the river. Two distinct periods appear evident – a large-scale one until the middle of the 3rd century under the probable aegis of the *Classis Britannica* and then much more localized activity following its demise. Russel (2002) says that the latest recorded date for the *Classis Britannica* is given by the testament of *Saturninus*, ex-Captain in the British Fleet, which is dated to 244-249, and the disappearance after this of the fleet in Britain ties in well with the new, less sophisticated building phase in London.

It is likely that the *Classis Britannica* was not just involved in transporting the quarried material but would have also been heavily involved in the quarrying activity itself. Jones and Mattingley (1990, 217) specifically name the ragstone quarries near Maidstone as a likely example of a State-run enterprise and it is probable that the extraction of ragstone from these quarries began within 20 years of the conquest. Greene (1986, 155) argues that within this timeframe the geology of southern Britain was well enough known for limestone and sandstone quarrying to begin while Pearson (2002, 82) goes further in proposing a timeframe for the ragstone quarrying industry, saying that while the stone had been quarried since the 1st century, it was at the beginning of the 2nd century that it began to be transported across South-East England.

The economic contribution of the Classis Britannica as part of the State's wider role in exploiting the island's resources appears to have peaked in the early 3rd century and evidence for the post-Classis Britannica demise of the Medway quarrying industry on the scale previously seen can be found in the later bastions and river wall of London. Far from being the well worked Kentish ragstone of the initial circuit, these are comprised of roughly reworked local materials, reused from demolished public buildings and mausoleums.

A typical transport vessel is the Blackfriars 1 wreck discovered in the Thames in 1962 by Peter Marsden. Significantly carrying 26 tonnes of Kentish ragstone when found, this ship was some 14m long and 6.5m wide and is estimated to have had a maximum capacity of up to 50 tonnes with a draught of 1.5m and a maximum speed of around 7 knots in favorable conditions (Pearson 2002, 85). Milne (2000, 131) believes this vessel is significant further evidence of the *Classis Britannica* being directly involved in the quarrying and transport of ragstone from the Medway Valley, given that the design is unique to the areas of activity of the *Classis Britannica*. He says similar wrecks have only been found in New Guy's House in London, Bruges in Belgium, St Peter Port in Guernsey and Barland's Farm in Gwent.

With regard to the operations of the smaller *codicaria*, these would have required a towpath, likely the northern/ western bank of the Medway. Such barges would have needed a break of bulk point at some stage though before their loads could be transferred to vessels suitable for the lower reaches of the Medway and Thames Estuary.

Evidence to support the Medway Formula

The author has separated out physical evidence of attempts to control the river during the occupation and other types of evidence. Evidence of physical control would include inland harbours, dams, locks, weirs, quays, docks, canals, bridges and all infrastructures associated with these. As regards other evidence, analogy is used where possible to examine likely sites along the Medway which do not feature *direct* evidence of attempts to physically control the river with a view to determining if they would have required such infrastructure. The specific sites investigated are:

Rochester: its key man-made physical feature is the bridge, which Yates and Gibson (1994, 3) conclude was initially of wooden construction and built early in the occupation. This was replaced by a more durable structure later in the 1st



Map 1 Locations in the Medway valley reviewed in the text.

century featuring nine ragstone piers and a wooden roadway with a drawbridge to allow riverine passage. This later bridge was around 183m in length, shorter than the London crossing of the Thames. The robust nature of the pier construction was illustrated in the experiences of the builders of the current cast-iron bridge's Strood pier (the only one aligning with the Roman structure, which was located slightly to the north of the current bridge), with Hughes (1850/51, 365) detailing:

... a mass of Kentish ragstone, of the nature of rubble without mortar, is found to a depth varying from 4m to 8m below the present bed of the river. Pieces of timber of considerable dimensions, and which had been used as piles, or framing, occurred in this bed of rubble stone, penetrating a foot or two into the gravel, which proved to be 2m to 2.5m thick. This timber was oak, elm and beech – all except that last perfectly sound and tough ... some fragments of iron proved that the piles had been shod with that material.

Significantly Yates and Gibson are clear that a bridge of this sophistication would have been built and maintained by the State (1994, 5).

Cuxton: the HER records a number antiquarian finds at Cuxton on the western bank of the Medway, including the mortared walls and floors of buildings of Roman provenance unearthed in close proximity to St Michael's Church.

Snodland: this is the location of a significant number of finds dating to the occupation, indicating a major presence on the western bank of the Medway between the traditional crossing points of Halling and Aylesford. Sites include a well-documented villa very close to the river which was initially identified in 1844, featuring high quality foundations, wall courses, roof tile, hypocaust and tesserae. A stone bath is recorded earlier in the antiquarian record while, later, stone flooring was found in an adjacent field known locally as 'stone grave field'.

Wouldham/Burham: occupation period activity in the vicinity of these villages should be seen in the context of the significant site at Eccles (below), and also as a likely location for the Claudian river-crossing battle.

Eccles: is the location of one of the finest and largest villas in the country and shares a number of characteristics with other Medway villas, for example having a very early phase – perhaps as early as AD 55. The villa itself is a very large complex excavated between 1963-1976. The quality of this complex has led to speculation that it was owned by a philo-Roman magnate or was the home of a Government official, while site finds indicate some military connections.

Aylesford: is a significant crossing point on the Medway with a long association with riverine commercial activity. Occupation period sites include a large rectilinear structure located at Tottington Farm in the 1990s, with test pitting revealing Roman provenance roof tile and *opus signinum*.

Allington: a number of finds have been found at Allington though no definitive building. These include hypocaust pillars to the west of Allington Castle, found in 1844, and Roman pottery and wall plaster have also been found nearby.

Maidstone: Roman Maidstone is an enigma. Located as a transport node on a major bend of the Medway (also marking the natural extent of the river's tidal reach) and the Rochester – Maidstone – Hastings road which opened up access to the Wealden iron and tile industries, the site is an ideal location for a Roman small town. However, it is not recorded in any occupation period itinerary and its first historical reference is a passing mention in the Textus Roffensis around 975. Detailed analysis of the Roman period has been hindered by urban growth in the town centre, particularly along the path of the Roman road (modern Sandling Road, Week Street and Gabriel's Hill). Taking into account the proliferation of Roman provenance material from around Maidstone, the principal sites found to date are: the major villa at The Mount (Houliston 1999); another likely villa site identified on Florence Road; the walls of a major courtyard type villa uncovered in 1870 and 1929 on Barton Road (featuring hypocaust pillars, tessellated pavement of geometric design and an octagonal room thought to be part of a bath-house); an urban site found at the junction of Bower Lane and Florence Road in 1893 and

defined as a probable villa; and another villa site located in 1835 at Little Buckland Farm. Taking the above evidence into account, the author currently believes that Roman Maidstone was not a small town but simply a series of villas along the River Medway or, in the case of the Barton Road site, on the Rochester-Maidstone-Weald Roman road. [But see article in this volume, pp. 131-151, which examines possible evidence of a focus of settlement.]

Tovil: the historical record has revealed a number of features which seem to support the view that Tovil would have been the main riverine facility supporting quarrying activity at Dean Street (see below). Studying the 1797 Ordnance Survey map of Maidstone, it is apparent that two islands of equal size sit parallel to each other in the Medway at Tovil, with a road leading down to this point on the river on the northern side (modern Bower Lane). The southernmost is still shown on the 1st edition 25in. map (1862-75) but has gone by the time of the 2nd edition (1897-1900), apparently incorporated into the modern river bank. The importance of these islands is reflected in J. Smith's 1839 The Topography of Maidstone and its Environs which details it as an ancient crossing point (Smith, 1839, 57), it also being in a modern context the site of the current footbridge crossing. In the author's opinion these islands had the potential to be the remains of Roman-style bridge piers or weir foundations as described by Selkirk (1983, 54).

Examination of the same map reveals what appears to be a previously unrecorded weir close to the same site in the Medway, with a very straight roadway leading from it to Lower Road in East Farleigh in the direction of the Roman site detailed below. The straightness of this road is evident as a very clear crop-mark on the 3rd November 2006 sequence of satellite images on Google Earth.

Dean Street: Dean Street, linking Heath Road in Coxheath (bordering the Weald) and Tovil Road on the outskirts of Maidstone (and adjacent to the Medway), has the potential to be one of the most significant industrial sites in Britain from the occupation period, featuring as it does a 2.5km long Roman quarry. The relevance to the author's research is that such a quarry would have been the single biggest factor behind any attempts to physically control the Medway, given that any quarried stone would have been loaded onto riverine transport at Tovil or East Farleigh (potentially linked to the quarry by a road, see below). Specific sites related to the quarry are:

The quarry itself, known locally as 'The Roman Quarry' and which was bought to the author's attention by a local landowner. Supporting this view are a number of immediately adjacent sites with 'Roman Foundations' detailed in the antiquarian record and HER, for example at Pimpe's Court. In terms of scale, Darvill and McWhirr (1982, 137) point out that while quarrying was in evidence in Britain before the Roman occupation period, the magnitude of operations increased dramatically after their arrival. In this context Dean Street could be the ultimate example, given its huge size and reflecting the potential industrial capabilities of the *Classis Britannica*. There appears to be no fluvial material in the fill of the 'quarry', this comprising around 2m of alluvial hill wash covering a solid rock base. Additional confirmation of the presence of this deep layer comes from Ward's (1999, 1) report for the Canterbury Archaeological Trust. This covers an archaeological watching brief from 1999 at Tovil Mill where

the Dean Street Quarry descends towards the Medway, and reports that that within a 1.7m observation trench: '... brown clayey loam was ... visible. This latter soil was probably not made ground and may consequently be the result of hillwash ...'.

A potential Roman road identified by the author and examined by Dr P. Wilkinson links the quarry to the East Farleigh river site and the Roman ford at Barming.

East Farleigh: seems a place of significance within the wider context of the Roman occupation of the Medway Valley and is particularly illuminating given that it is upriver of the naturally navigable reach. In the wider environs of East Farleigh the following features are known:

A major Roman site is currently the subject of a thorough excavation by the Maidstone Area Archaeological Group (MAAG) on the south bank of the river. This site features to date five buildings at least two evident phases of occupation, the most significant being that dating to the early 3rd century which features a likely Romano-Celtic temple associated with a river deity. This latter's provenance has been furthered by the finding and recent deciphering of a lead curse scroll detailing the names of 14 local inhabitants. In the author's opinion the East Farleigh site is likely to have been a large villa for much of its period of occupation, similar to that at Thurnham given its Romano-Celtic Temple and associated with the elites who controlled the Dean Street quarry. A similar site is detailed in the antiquarian record on the opposite side of the river.

Dr Wilkinson has identified Roman tufa, almost certainly from the river site, incorporated in the churches at both East and West Farleigh, probably from a bath-house in the case of the former and either a bath-house or monumental arch the latter.

Worked ragstone showing mason's marks of potential Roman provenance are incorporated in the churchyard wall at East Farleigh, as are capstones showing evidence of marine erosion.

The historical record shows that prior to the Medway being modified in the 19th century an island existed to the west of the bridge, this being visible both in the 1797 Ordnance Survey and on an earlier 1773 estate map held by the Centre for Kentish Studies (ref. U82 P2) of 'The Bull and another tenement belonging to David Kennard, by Benjamin Barham'. It is very tempting to surmise that this was once part of the Roman riverine infrastructure. The island was almost certainly removed as part of the activities of the Medway Navigation Company, while a stone shelf on the island was removed in 1630, this being documented by Coles (1630, 134).

Barming is one of the historic crossing points on the lower Medway, today featuring a footbridge which local believes is built on the cobbles of a Roman ford visible when the river is very low. In checking the historical record one of the clearest references to the Roman effort to physically control the river was found. Crucially, Coles (1630, 134) notes: 'A foundation of a weir and many stones and Hafsocks and a (stone) shelf at St Ellen's.' St Helen's is an historic reference to Barming and the name of the road from Lower Road in East Farleigh to the current footbridge. Given this is even further upriver than East Farleigh, and far removed from the

navigable Medway, there appears little explanation for a weir foundation here unless it dates back to the occupation.

Teston: located here is the furthest upriver evidence of possible Roman improvements to navigation: i.e. another reference from Coles (1630, 134) detailing many 'loose stones' being found under Teston Bridge which required removal to assist navigation. These are not related to the 14th-century bridge.

In 1872 a substantial villa site was excavated at Teston on the north bank of the Medway featuring hypocaust and flues associated with a bath-house and including an attached apsidal building with built in drainage. Further examination in 1991 uncovered four walls associated with a building, three of which had been robbed out and one of which featured a thin coat of painted wall plaster on the remaining ragstone courses, perhaps reflecting the experience at East Farleigh. Scott (1993, 109) and Severn (1975, 7) record additional finds at the site including window glass, pottery, coins (most recently a *denarius* of Trajan), roof tile and a bone pin. More recently Dr Wilkinson and the author field-walked the site, it rapidly becoming clear that this was a site of great significance. The author then engaged David Staveley to carry out an initial earth resistance meter survey in two areas of likely settlement activity. The findings were remarkable, indicating a number of rooms including one featuring an apsidal feature.

The site has since been excavated to follow up the field walking and geophysical surveying activities and early indications are that the site is very large indeed and may ultimately rival Eccles in terms of size along the Medway. Specifically, the southern wall of the main range of what looks like a winged courtyard design has been found, with foundations substantial enough to carry three stories. A high quality hypocaust has also been found, including the associated hypocaust channels.

Conclusion

His researches led the author to conclude that the Roman authorities exerted physical control over the lower Medway valley during the occupation to underpin their considerable economic interests there. This view relied upon the anecdotal, historical, archival and analogous evidence detailed above, given the general lack of physical evidence today. The vigorous campaigns by the Commissioners of Sewers in the 17th century and, to greater effect, the Medway Navigation Company in the 18th and 19th centuries to open up the Medway to navigation above Maidstone provide many insights to support the thesis. The extent of this remedial work is evident in the wording of the 1665 Act for the Making the River of Medway Navigable in the Counties of Kent and Sussex (Medway Navigation Company, 1800, 149) which says those charged with the work must:

begin and continue to cleanse, scour, dig, widen, deepen and make navigable the said River of Medway ... (and to) cut, dig, and make new rivers, channels of trenches in, or upon, the lands of grounds thereto adjoining or near thereunto for the better effecting of the said work of navigation in the most convenient place or places.

As we have seen, this work was carried out to the extent of removing entire islands from the river at Tovil and East Farleigh, and further physical modifications would have resulted from the building of the Medway Valley Line by the South Eastern

Railway in the 1840s from Paddock Wood to Maidstone, and on to Strood in the 1850s

As to why the river was modified, there seems no doubt that ragstone quarrying was an industry as significant, if not more so, than the iron and tile industries in occupation-period Kent. Its principal focus would have been the lower Medway and to facilitate this industry it can be asserted that physical interaction with the river would have been required to an extent as great as that speculated by Selkirk. It is highly probable that in the first half of the occupation, to c.AD 250 this quarrying industry was run by the State through the Classis Britannica. This industry facilitated the early urban development of the south-eastern parts of occupied Britain, and later the initial phases of wall construction around the towns and cities of the region and the building of the early Saxon Shore forts. After the demise of the Classis Britannica it is clear that the quarrying industry continued, but on a more local scale as part of the late flowering of provincial economies at the edge of Empire. Within these wider conclusions a number of points can be highlighted:

- Many Medway Valley villas associated with regional elites, perhaps connected with ragstone quarrying, tend to be founded early and to be close to the river.
- These sites all seem to go through a number of phases of occupation and are maintained until the end of the Roman occupation, becoming more localised in their activities in the later stages.
- Industrial and transport activity in the valley appears to have been the catalyst for the founding of a number of small towns (certainly at Rochester and perhaps Maidstone?), and these appear early phase of occupation.
- After the end of the occupation the Medway valley appears to have been abandoned until the arrival of Anglo-Saxon settlers in the 8th or 9th centuries, evidenced by the original Saxon church at East Farleigh for example.

The author now aims to further develop the above research, focusing on the East Farleigh and Teston sites but also looking further upriver to look for any evidence of Roman activity. The Medway's tributaries will also be investigated to see how quarrying activities during the occupation period at Boughton Monchelsea on the River Loose and Plaxtol on the River Bourne fit into the bigger Medway valley picture. His aim is then to see how the template of these findings fits the occupation-period experiences of other parts of the county, including Folkestone and the Weald, before generating a picture of Kent as a whole during the occupation.

SIMON ELLIOTT

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INVESTIGATIONS OF AN HEXAGONAL FEATURE AT STAR HILL, BRIDGE, 2003-2006: EVIDENCE OF IRON AGE AND EARLIER OCCUPATION; ANGLO-SAXON BURIALS

In 2003 the Kent Archaeological Field School (KAFS) was invited by the Bridge and District History Society to investigate a crop-mark on top of Star Hill in the shape of a hexagon (Fig. 1). The NMR Monument Report (2003) summarises the feature as an 'Hexagonal feature with dark centre seen on air photographs, possibly a World War II installation'. Other archaeologists are emphatic that it is a garden feature associated with 18th-century landscaping of Bourne Park in which the site is located. However, excavation of the fill of the hexagonal ditch in 2003 retrieved 14 sherds (72gm) of flint and grog-tempered ware with a spread of dates from 150 BC to AD 50. Subsequently each Easter from 2004 to 2006 the KAFS carried out a

Programme of Assessment and Archaeological Excavation on this area of densely crop-marked land at Star Hill, Bridge, near Canterbury. The site centre is taken as NGR 6188 1536.

The land is currently under pasture. Aerial photographs show that the Scheduled Monument burial mounds (KE 71) to the east of the area of investigation by the KAFS had been destroyed by ploughing. With any future change of the farming regime back from pasture to plough there could be consequential further loss of buried archaeology.

Research by the KAFS prior to field work had found a 19th-century map drawn by the Rev. F.T. Vine, Vicar of Patrixbourne, and published by him in the 2nd edition of his book *Caesar in Kent*. Vine thought the hexagonal feature was a Roman fort, one of two in the grounds of Bourne Park (Vine 1887).

An ideal opportunity had therefore arisen to carry out an archaeological training excavation on a cropmark considered to be either a feature of the Park or built as a military installation during World War II. The initial investigation carried out during May Bank Holiday in 2003 by the KAFS of two points of the hexagonal ditched enclosure enabled the students to find the centre of the hexagon where stripping of the turf revealed a circular pit, about 3m in diameter cut into the chalk. The pit had been pillaged sometime in the past but sherds of Late Iron Age pottery with burnt bone, and Medieval pottery suggest a cremation deposit of Late Iron Age/Early Roman period plundered during the Medieval or antiquarian periods. Further stripping of the topsoil in 2004 within the perimeter of the hexagon failed

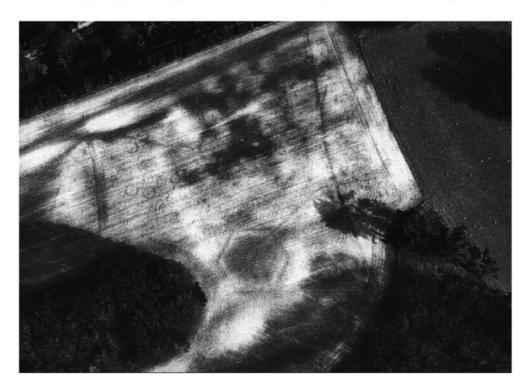


Fig. 1 Aerial photo showing the hexagon feature.

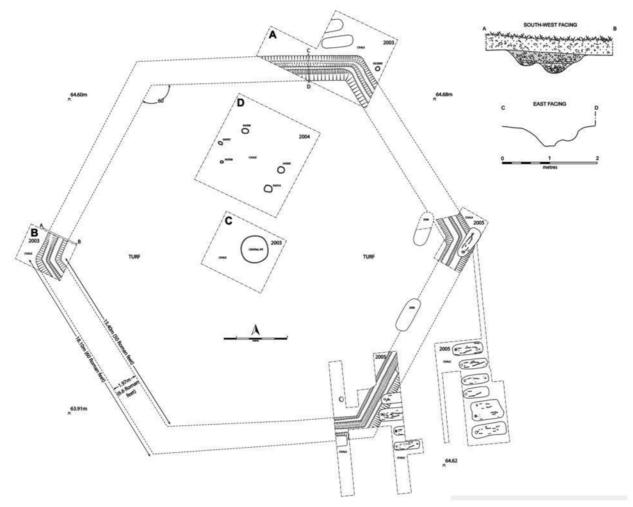


Fig. 2 The complete hexagon as excavated.

to find any tree-planting pits, indeed the only features revealed were a number of prehistoric post-holes and rubbish pits dug into the chalk during the First and Second World Wars. In 2005 further work was undertaken on the south side of the hexagon where almost immediately an east-west orientated grave cut into the chalk was revealed with a number of 7th-century Anglo-Saxon coins exposed in the disturbed fill. Investigation revealed a possible family group of 12 graves orientated to the hexagon feature with Graves 3, 4, 4a, and 7 cutting the fill of the hexagon feature ditch (Fig. 2). The graves were an obvious target for treasure hunters and full excavation proceeded with the appropriate Burial Licence obtained. Most of the graves contained artefacts that were Treasure Trove and include a gold pendant, glass palm cup, Frankish pottery vessels, beads, buckles, spears, knives, cowrie shells, loom weights and over 60 silver Anglo-Saxon coins dating to AD 680-690.

Worked flint and Iron Age pottery sherds were also retrieved by sieving the topsoil within the excavated area. The worked flint is the subject of a specialist report which dates the assemblage to the Neolithic and suggests that stone tool manufacture was taking place on site (Hardaker 2005, pers. comm.).

As a result in 2006 further investigation comprising an area excavation of a 50m strip was undertaken to the east of the hexagon (Fig. 3). The results were spectacular. Over 90 Anglo-Saxon inhumation graves cut into the chalk were revealed overlaying 5th-century Anglo-Saxon cremation deposits which in turn overlay Iron Age cremations, post-holes, rubbish pits, stake holes, ditches, and hut platforms, which in turn overlay Bronze Age and earlier features. The date of the hexagonal ditched enclosure has now been firmly established as pre-Anglo-Saxon as no fewer than seven Anglo-Saxon inhumations cut into the fill of the ditch. Pottery sherds were retrieved from the fill of the ditch which gave a tentative date from 150 BC to AD 50. It can only be assumed that the hexagonal feature was shortlived, and is of an early Roman date and could be either an important early Roman burial or *tropaeum*.

Key Issues and Implications Abstract

The site is located at the north-western tip of the Kingston-Barham Downs chalk ridge, on a spur overlooking the Nailbourne river valley and within a general area already known for evidence of prehistoric and later activity. The original intention of this sample excavation was to examine the nature, and determine the date of, a previously un-examined hexagonal ditched enclosure recorded via aerial photography. In addition to the hexagon, the site produced evidence of multiperiod activity, Earlier Prehistoric-post Roman (Fig. 1). Overall, 12 phases were recorded – 5 implied (represented by residual or intrusive material only) and 7 site-phases (represented by archaeological features). The latter are:

- 1. Late Neolithic-Early Bronze Age,
- 2. Earliest Iron Age, Early-Mid Iron Age (not shown as a separate phase),
- 3. Late Iron Age-Early Roman,
- 4. Mid Roman (the hexagon),
- 5. A+B. Early-Mid Anglo-Saxon
- Late Post-Medieval.

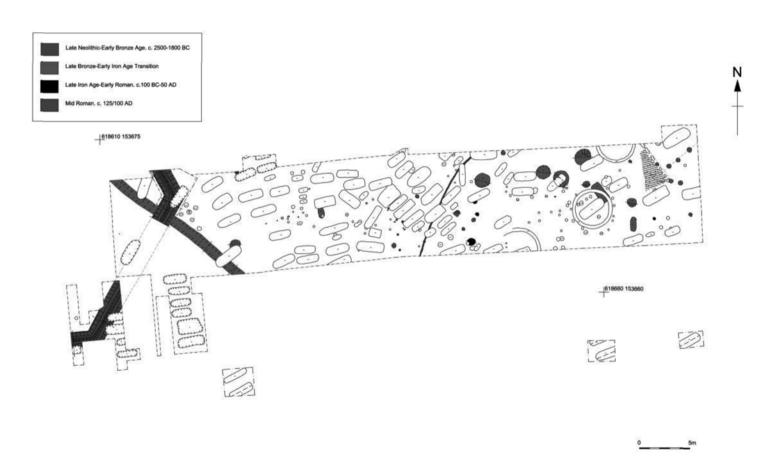


Fig. 3 Plan of the full extent of the investigated area.

Though earlier Neolithic activity may be represented in the flint scatter and one or two possible sherds collected during the excavation, the first firm evidence is a single pit containing Late Neolithic-Early Bronze Age type flints (Site-Phase 1). Possibly contemporary with this is a thin curving split-post palisade trench and an associated concentration of flint flakes. In view of the frequent regional occurrence of Bronze Age burial ring-ditches associated with earlier, Neolithic, activity and, here, in view of the nearby concentration of MBA and possibly earlier BA barrows, it is not entirely unrealistic to assume that this concentration could have been preceded here by some sort of non-secular later Neolithic activity. However, this possibility requires greater confirmation.

If the above potential is correct, the area may have remained marginal and reserved for burial and any other non-domestic activities throughout the rest of the second millennium BC. Only at some time in the earlier first millennium, during the Earliest Iron Age (EIA), was there any further structural activity, with the establishment of a farmstead (Site-Phase 2). Other broadly contemporary regional examples are surrounded by single ditches - and a single lightweight pre-Roman ditch towards the western end of the site may represent the farmstead's enclosure ditch. Irrespective, within the area selected for occupation, at least one rectangular post-built structure was built and provided with an area of flint cobble paying on its south-west side. Whether this paving was in front of a dwelling or formed part of a vard surface associated with animal byres, is uncertain. Sherds from well-paralleled fineware bowls were found in some of the building's post-pits. Four large storagetype pits were clustered close to this building - and at least some of the postholes and smaller pits scattered across the site are contemporary. Interestingly, one or two of these pits, and a small quantity of features and residual material, also produced pottery typical of the Early-Mid Iron Age (EMIA). The conjunction of both pottery types, from among a series of pits that are obviously grouped together, in the same part of the site, sharing the same size and therefore likely function, and with broadly similar wear patterns, implies contemporary usage. The quantities of definite EMIA-type pottery are comparatively low and there are no indicators implying subsequent longterm EMIA activity – at least from the excavated area. It is not possible with the available range of evidence, to determine how long the EIA settlement had been in existence prior to the arrival of EMIA-type pottery – but the above does imply that, towards the end of the EIA occupation, continental-style EMIA ceramic types were adopted and used for a short time before the site was abandoned. This same sociologically important trend – peaceful adoption rather than invasive imposition – and implied sets of cultural implications has also been recorded from Highstead, Chislet (Couldrey 2007) – and is only the second or third example from among an increasingly large number of known eastern Kentish EIA and EMIA sites. It is not present in the material from the EIA settlement sited on the Kingston Downs a little further south along the chalk ridgeway (Bridge Bypass Site 5; Macpherson-Grant 1980, fig. 1) – and it is not obviously present, but may be implied, at the dual- or multi-phase settlement at Coldharbour Lane (op. cit., Site 8) on slightly higher ground only three-quarters of a mile north-east of Star Hill. Elements from Coldharbour suggest it was partly contemporary with Star Hill. It may have either replaced it or been concurrent and a chronology- and land-use based assessment of these 3 sites – perhaps even of broadly contemporary

settlement sites along the whole north-west to south-east ridgeway – is now required. In the interim, a reliable settlement start-date for Star Hill is difficult to estimate, partly because new scientific dating is necessitating a review of the chronology currently applied to the regional EIA. Despite the latter, there are indications that the 1980 typological c.1000-800 BC dating applied to Kingston Downs was realistic (Cunliffe 1980, 174-7). Comparison between the latter, and other eastern Kentish sites, suggests that the Star Hill finewares are not radically later. Accommodating this likelihood and the presence of the EMIA rusticated pottery an initial date between c.900-650 BC is initially suggested for this site-phase.

There is no further activity until the Late Iron Age (LIA). A few small pits and some tentative residual material may be of indigenous (pre-'Belgic') LIA date (Site-Phase 3). This likelihood is strengthened by the recovery of an early-style grog-tempered 'Belgic'-style storage jar rim - formally related to similar types made in the indigenous flint-tempered tradition. By comparison with material from Bigbury, near Canterbury, this indicates a date within the first half of the first century BC. The nearby Bridge Hill LIA settlement (a relatively short distance east around the spur of Bridge Hill) produced both indigenous LIA and 'Belgic'-style LIA pottery, together with an early Dr1A amphora and a potin coin. The currency of that settlement appears to be from c.150/100 BC through until the Early Roman period. Star Hill also produced a small number of 'Belgic'-style sherds and 2 Gallo-Belgic imported sherds – but insufficient to suggest occupation in the immediate locale. Though most of these sherds are small intrusive or residual elements, a few are relatively large and fresh enough to suggest discard not too far from a settlement - or at least within its periphery. The Star Hill evidence suggests no obvious activity before c.75 BC - and possibly later than Bridge Hill. With Bridge Hill so close, it is a little unlikely that another farmstead would be established 'just round the corner'. It is more realistic to see the Bridge Hill settlement establishing itself, growing in relative wealth, and taking in more adjacent land - in this case the Star Hill area. The recovered ceramic from Bridge Hill indicates cessation (or settlement shift) by the earlier second century AD. The same trend appears to apply at Star Hill – strengthening the possibility that both sites could be part of the same settlement and sharing the same basic history. At Star Hill, to date, there is little or no Roman pottery dated later than c.125/150 – despite its proximity to the Roman road between Dover and Canterbury.

The creation and use of the hexagon-shaped enclosure is represented by Site-Phase 4. It definitely post-dates the potentially EIA ditch at the western end of the site. In addition, its neat rational form suggests it is unlikely to be of pre-Roman Iron Age date. It could be Caesarian, but that would mean imposition into land possibly farmed by the Bridge Hill LIA settlement. Not impossible – but its form does not automatically suggest a military function – the only realistic explanation for its presence during that phase of Roman activity. Since it clearly pre-dates the Anglo-Saxon graves that cut into its ditch, its construction ought to be of Roman date. However the stripped area was only sampled, not completely excavated, and there are very few features that can be reasonably allocated to this phase. Of the pottery, the few sherds large enough to suggest on-site activity are exclusively of first century BC date, whereas the remaining Conquest-period and Early Roman sherds are all small and abraded. Their low quantities and condition

suggests derivation from manure spreads and implies that the immediate locale was maintained solely as arable land throughout most of the first century AD. With only a few sherds of specifically Early Roman or Mid Roman pottery, and none apparently later than c.125/150 - a change in land-use is indicated – and one that appears to have remained virtually constant until the Early-Anglo Saxon use of the area as a cemetery. It is strongly suggested that it is within this temporal space that the hexagon was constructed – sometime after $c.150 \, \text{AD}$. It was not entirely excavated so it is not certain whether it contained any internal structures (none show on aerial photographs), but its shape does not suggest a utilitarian function – more certainly a non-secular, perhaps memorial or gazebo-type use on reserved or marginal land.

The topographic conjunction of the hexagon and the Anglo-Saxon cemetery (Site-Phase 5) is unlikely to be coincidental. Several of its graves are almost exactly aligned with its south-eastern side, reinforcing the likelihood that their positioning was influenced by a still visible ditch. However, since some graves cut the hexagon's ditch it is likely that by the mid or later fifth century any visible traces were probably slight. A cremation burial, enclosed within a substantial 4post structure, was almost certainly similarly influenced - as may a thin scatter of other graves from the main cemetery area. Overall, and including the latter graves, there are at least 4 main alignment trends. Of these, three can only be placed broadly within the fifth-earlier seventh centuries (Site-Phase 5A). A fourth, represented by a closely-clustered group partially cutting the hexagon and neatly aligned east-west, is of late seventh-century date (Site-Phase 5B). For Phase 5A - there are obvious kin-type grave groupings that include mixed-age and child clusters and, towards the east end of the stripped area a string of three south-west to north-east aligned barrow ring-ditches. Interspersed amongst all these are a scatter of heavily plough-damaged urned cremation burials. Without further excavation it is not possible to say which are the earliest graves – but there are indications. Adjacent to one ring-ditch was a cremation contained in a small angle-shouldered bowl with horizontal grooved above-shoulder decoration. Its decoration and form suggest it may be a devolved version of the early faceted carinated bowls found in East Anglia and related to similar types from the Elbe river area of northern Germany – and dated there to between c.AD 375-450. The implication is that some East Anglian Saxon villages pre-date c.AD 450. Such a claim is not made for Star Hill, but the basic similarity of type could suggest an early date - around 450 or shortly after. Within the same ring-ditch, and probably pre-dating it, was another cremation, this time in a large globular urn decorated with 'stehende bogen' or 'standing arches'. The type of decoration is not unusual but the fabric is profusely coarsely sanded, more so than most Star Hill cremation pots and very similar to the fabrics of some of the earliest Saxon pottery from the Canterbury sequence which, if not close to c.450, are unlikely to be later than c.450-475. Since studies indicate that Early Saxon fabric recipes appear to be fairly consistent across the region, it is not unreasonable to expect that the Star Hill cemetery began c.450, or shortly after. Site-Phase 5B is at the other end of the cemetery's currency. Four female graves all produced Anglo-Saxon silver pennies datable to 675-690. One of these also contained a Frankish-style wheel thrown roulette-decorated bottle, possibly from a Kent workshop. In addition, at least two of the graves were dug at the same time. Both contained apparently deliberately placed deposits of prehistoric sherds – with

a same-vessel conjoin linking both graves – presumably derived from disturbing an earlier feature and re-buried as an act of ancestor honoration or propitiation.

Site-Phase 6 is antiquarian, represented by a central pit excavated within the hexagon, and containing a mixture of residual and contemporary finds, pottery, tile, coal – and presumably a bi-product of inquisitiveness during the late eighteenth and nineteenth centuries.

[The full report is can be found on-line at www.kafs.co.uk]

PAUL WILKINSON AND NIGEL MACPHERSON-GRANT

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A RING DITCH IN SITTINGBOURNE

Archaeological excavation took place on a site towards the northern end of Hawthorn Road, Sittingbourne, between November 2002 and September 2003 (Fig. 1). The work was carried out by Compass Archaeology Ltd as part of the planning process prior to, and during, residential redevelopment (approx. centre NGR 90085 639985).

The initial evaluation consisted of three trenches, each of which was c.20m in length and 2m wide (Fig. 2). Trenches 1 and 3 revealed no significant archaeology (simply made-ground deposits overlying natural deposits, plus later post-medieval cultivation soil and a single boundary ditch). However, Trench 2 revealed evidence for prehistoric activity, in the form of a substantial ditch feature containing frequent pieces of struck flint.

Further excavation extended Trench 2, revealing a gently curving arc of ditch which, if projected, may have formed part of a circular earthwork or ring ditch, measuring just over 30m in diameter (Fig. 3). Examination of the local topography reveals that the ditch occupies a projecting spur of land, and would have formed a prominent feature in the ancient landscape. The struck flint assemblage contains elements of Mesolithic and possibly Neolithic or Bronze Age type.

The site lies at the northern end of Hawthorn Road, Sittingbourne, and was bounded by Hawthorn Road to the south-west, the mainline railway to the north, and private housing to the east/south-east (Fig. 1). It measured approximately 80m east-west by 50m north-south. It is situated at 17.5m AOD on a northward projecting spur of heavily weathered Upper Chalk mantled by up to 2m of Head Brickearth

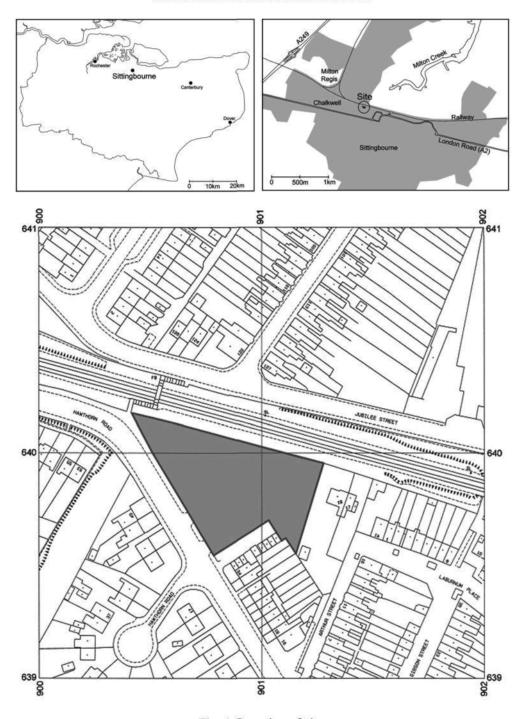


Fig. 1 Location of site.

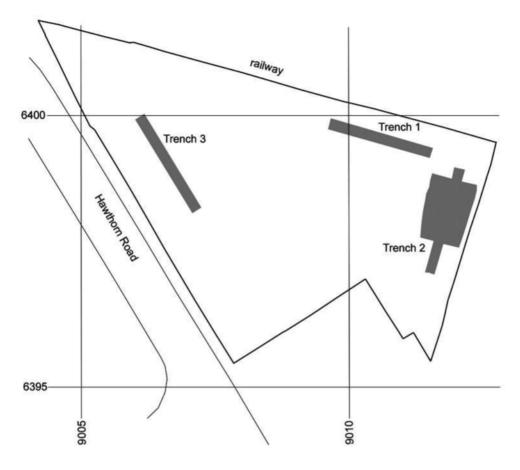


Fig. 2 Trench location plan.

(BGS, 1977), containing various silt, loam, clay, gravel and chalk inclusions. The land falls away between 6-10m to the east and west.

Some evidence for prehistoric activity has been found in the Sittingbourne area, including a Palaeolithic handaxe (HER TQ 96 SW 223); a Mesolithic flint assemblage in Church Field (Baxter 1977; Champion and Overy 1989, 20); a late Neolithic to early Bronze Age axe (HER TQ 90 63); and a Bronze Age burial and weapons uncovered in the nineteenth century (HER TQ 96 23). Since 2008 more significant discoveries have been made by the CAT at The Meads, c.1 km to the north-west of Hawthorn Road (www.canterburytrust.co.uk; Weekes 2012). These included a probable Bronze Age barrow some 15m in diameter, and a larger (c.30m diam.) feature interpreted as a Neolithic henge.

The Hawthorn Road site also lies 150-200m to the north of the projected line of Watling Street with Roman urn burials having been found between Milton Creek and Sittingbourne station (HER TQ 96 SW 27). Anglo-Saxon burials have been recorded just to the east of the site (Jacobi, 1982, 16) and more recently, a major cemetery of some 230 burials and numerous grave goods excavated at The Meads

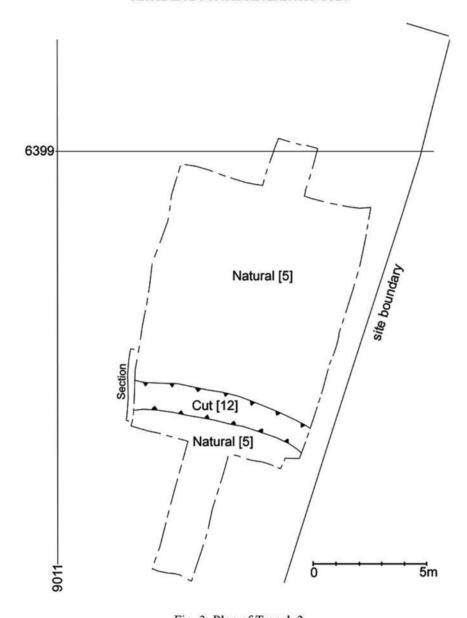


Fig. 3 Plan of Trench 2.

(www.canterburytrust.co.uk). In the medieval and post-medieval periods, the site and surrounding area was agricultural land.

Results

The upper deposits in all three trenches took the form of later post-medieval soil horizons and reworked subsoil deposits (with nineteenth- century pottery), related

to the site's history as open agricultural land. In Trench 1, for example, a later post-Medieval ditch was recorded.

Natural deposits were revealed in all three trenches. This took the form of Head Brickearth deposits [5] overlying the Upper Chalk [6].

Ditch [12] and fill [10]

In Trench 2 ditch [12] was observed running approximately east-west for a length of 8m (continuing into both sections) (Figs 4, 5 and 6). It was up to 1.35m in width, had slightly sloping sides ($c.45^{\circ}$) and a flat base, and was at least 0.4m deep, although it had been truncated slightly in the upper layers (analysis of the section suggests that it would have been at least 0.25m deeper). Its base was recorded at between 16.18-16.42m AOD.

The feature contained a clean and quite homogeneous fill [10]. This comprised a fine-grained mid to light orange-brown clay silt. A total of 260 pieces of struck flint were recovered from this fill (see discussion below) along with 85 pieces of burnt

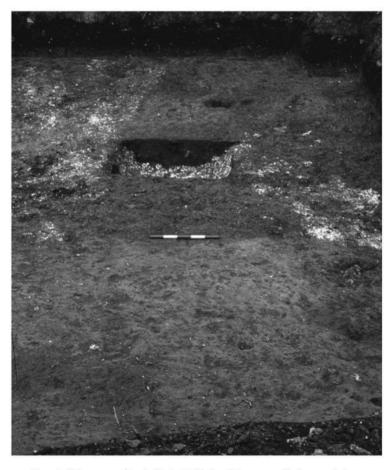


Fig. 4 Photograph of ditch [12], looking east (0.5m scale).

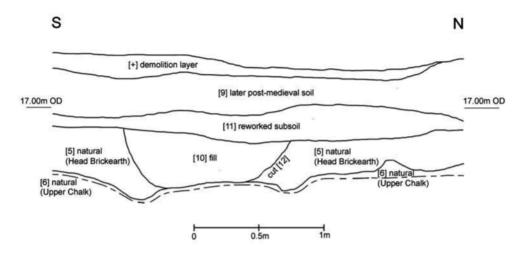


Fig. 5 Deposits recorded in the east-facing section of Trench 2.



Fig. 6 Photograph of the ditch cut [12] in trench 2 (0.5m scale).

flint, one grog-tempered and abraded Roman potsherd, and a few small fragments of bone, shell, wood and charcoal. Other struck flint recovered from subsoil contexts [11] and [16] may comprise material disturbed during the truncation of the upper fill(s) of ditch [12].

The Struck Flint (Fig. 7)

A total of 339 struck flints were recovered during the excavation. The composition of the collection is summarised in **Table 1**.

TABLE 1. FLINT TYPE BY CONTEXT

Туре	[10] ditch fill	[16] lower subsoil	[11] upper subsoil	Total
Flakes	65	7	10	82
Chips/spalls	9	-	2	11
Narrow flakes/blades	39	7	4	50
Fragmentary flakes/blades	71	7	6	84
Blades (complete)	20	₩	6	26
Blades (distal fragments)	14	1	2	17
Blades (proximal fragments)	7	3	1	11
Blades (segments)	4	2	3	9
Shattered pieces	12	2	12	12
Cores	5	2	5	12
Core fragments	9	=	5	14
Core tablet	S#1	5	1	1
Miscellaneous retouched/ utilised pieces	3	2	-	5
Flaked core tool fragment	1	1	1	3
Microlith	1	7.	-	1
Scraper/notched piece	575	5	1	1
Totals	260	32	47	339

The majority of the flints (260) were recovered from the undifferentiated fill of ditch [12] – context [10]. 32 were recovered from the lower subsoil [16] and 47 from the upper subsoil [11], both of which overlay the ditch [12]. In terms of material and technology, however, there was little to distinguish the flints in these three contexts and in post-excavation analysis the flints were treated as a single (but probably chronologically mixed) assemblage.

The surviving, unworn, light buff cortex on many of the flints indicated that the raw material was obtained from local surface sources of chalk-derived flint. A few pieces had a smooth, worn cortex and thermally fractured surfaces, indicating they came from gravel deposits.

The assemblage was mostly fresh, with just a couple of pieces exhibiting surface re-cortication, which in one case was very well developed. Despite the quantities of burnt flint recovered, only one piece of struck flint had been affected by fire.

Flakes, blades and fragments

85 per cent of the total assemblage was made up of flakes, blades and fragments.

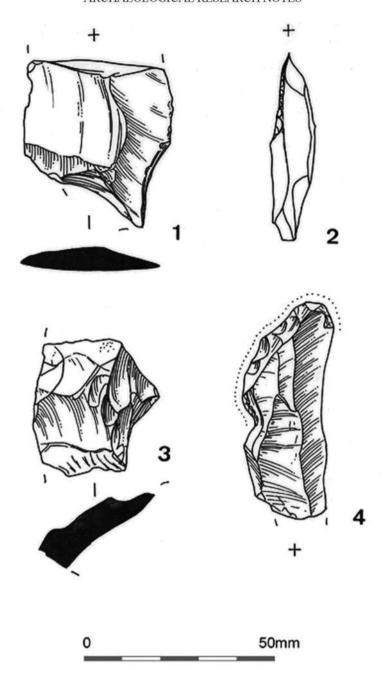


Fig. 7 Struck flint from the ditch fill (10) and overlying subsoil (11). 1 – blade segment from context (11); 2 – large obliquely-backed microlith from context (10); 3 – fragment of flaked axe / adze from context (10); 4 – composite end scraper / notched piece from context (11)

TABLE 2. PRIMARY, SECONDARY AND TERTIARY FLAKES AND FLAKES/ BLADES BY CONTEXT

Type	[10]	[16]	[11]	Total
Flakes: primary (>90% cortex)	11	3	-	14
Flakes: secondary (>5% cortex)	45	2	7	54
Flakes: tertiary (<5% cortex)	9	2	3	14
Narrow flakes/blades: primary	5	-	(=)	-
Narrow flakes/blades: secondary	25	5	2	32
Narrow flakes/blades: tertiary	14	2	2	18
Fragmentary flakes/blades: primary	3	-	-	3
Fragmentary flakes/blades: secondary	30	3	5	38
Fragmentary flakes/blades: tertiary	38	4	1	43
Totals	175	21	20	216

The proportion of blades and narrow flakes/blades is relatively pronounced, and taken in conjunction with the cores, for example (see below), may well have chronological significance. Complete blades vary between 70-50mm in length. One blade segment 38mm in width from context [11], with a well-developed glossy white surface patina, is exceptional and looks to be of earlier derivation.

Many of the complete flakes were relatively small and broad; the largest was over 90mm in length by 60mm in width, though most were much smaller. There were few primary flakes; secondary flakes out-numbered tertiary flakes by a ratio of five to three (Table 2). The high proportion of broken and fragmentary pieces can also be noted

Cores and core maintenance pieces

Twelve complete cores were recovered, together with fifteen fragments; the latter included seven platform renewal flakes and a single core tablet. The complete cores included three of one-platform pyramidal form; five of two-platform pyramidal and prismatic form; one multi-platform piece, and three of irregular form (**Table 3**). All retained varying amounts of cortex. All eight of the one- and two-platform cores had been used for the production of blades. Measurable blade removals varied between 35-70mm in length, which equates broadly with the size range of the complete surviving blades.

Retouched pieces

Ten pieces bear traces of deliberate retouch, though only five can be considered as formal tool types. The latter comprise three fragments of flaked axes/adzes (including one from context [11] re-used as a core); a single large obliquely-backed microlith (length 48mm; width 11mm) from context [10]; and a composite end scraper/notched piece from context [11].

Discussion of the struck flint

Although recovered from three separate contexts ([10], [16] and [11]), the struck

TABLE 3. CORES BY CONTEXT

Core type	[10]	[16]	[11]	Total
One-platform	1	- 8	2	3
Two-platform opposed	3	1	1	5
Multi-platform	1	-	160	1.
Irregular	0.40	1.	2	3
Totals	5	2	5	12

flint presents a broad homogeneity. There is nothing in terms of raw material, technology or condition, for example, to suggest that the majority of the material recovered from ditch fill [10] is in any way different to that recovered from the subsoil deposit(s) [16] and [11] immediately to the north. As a result, the collection is considered here as a single, albeit probably somewhat chronologically mixed, unit. Moreover, on this basis it could perhaps be argued that some (perhaps a majority?) of the flintwork recovered from ditch fill [10] was incidentally incorporated, and that the material recovered from the subsoil deposits [16] and [11] represents flint work disturbed during the later truncation of the upper ditch fill(s).

In terms of its condition, the earliest piece in the collection is the single segment of a broad blade of glossy, white-patinated aspect from context [11]. Recent breakage at its distal end indicates that the patination is well developed. It is conceivable that this single piece is of Early Mesolithic or possibly even Upper Palaeolithic date. Jacobi (1982, 12-14) has summarised the Kent evidence; this includes a small but important flint assemblage from Bapchild, east of Sittingbourne.

A good proportion of the collection, comprising the blade cores, blades and narrow flakes/blades, together with the fragments of core axes/adzes and the microlith, are likely to belong firmly within the Mesolithic. The single obliquely-backed point from context [10] hints at an Earlier rather than a Later Mesolithic setting for this activity. Furthermore, the high proportion of debitage and low numbers of retouched pieces are suggestive of a procurement/manufacturing assemblage, rather than one linked directly to settlement or immediate use (e.g. Ford 1987). The proportion of broken pieces within the collection may also hint at a degree of re-working through trampling or other disturbance by human and/or animal agency. Locally, Mesolithic material has been recorded from Church Field, Milton Regis, to the north-west (Baxter 1977; Champion & Overy 1989, 20); the well known (though poorly understood) sites at Lower Halstow lie a little further beyond (e.g. Jacobi 1982, 16). Mesolithic material was also recorded during excavation in 2008 at The Meads, c.1 km to the north-west (www.canterburytrust.co.uk, 2008).

It is likely that there is also a later prehistoric (i.e. Neolithic/Bronze Age) component to the collection though diagnostic pieces are few. The composite scraper/notched piece might belong here, as might a number of the small squat flakes and a single large multi-platform blade/narrow flake core from context [10].

A Prehistoric Ring Ditch?

The cut is slightly curving in plan, suggesting that it is part of a probably circular

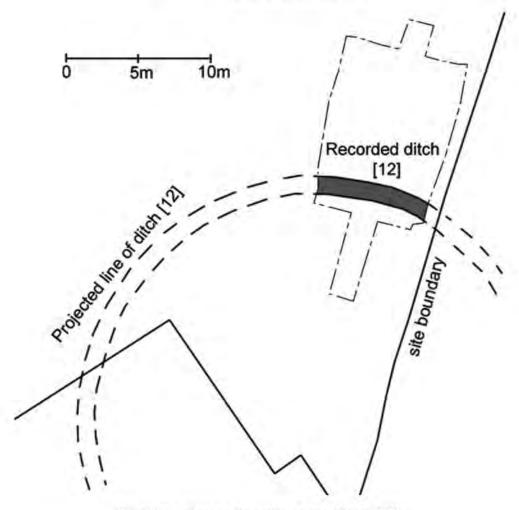


Fig. 8 Plan showing the projected line of ditch [12].

(or, alternatively, oval or egg-shaped) monument. Projections of its curvature from the exposed ditch (Fig. 8) suggest that it had a diameter of just over 30m. Given the short stretch of ditch exposed, it is difficult to ascertain precisely what type of monument is represented; the most economic explanation perhaps is that the ditch encircled a round barrow, or, less likely, a small henge-type monument.

Although much of the flint assemblage dates to the Mesolithic period, these pieces are likely to have been residual. Other material appears to be of later prehistoric date (i.e Neolithic to Bronze Age), with one probably intrusive Roman potsherd. The flints recovered therefore do not provide a clear indication as to the date of the feature, but do raise the possibility that the location retained some significance over a considerable period of time. It is worth noting that recent investigation of the henge feature at The Meads also indicated a lengthy period of use, from Neolithic to ?Early Bronze Age, in this case accompanied by evidence for recutting/clearance of the ditch (www.canterburytrust.co.uk, 2012-13).

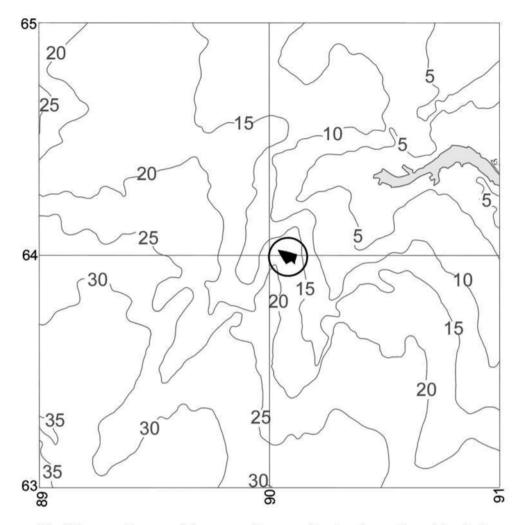


Fig. 9 Topographic map of the surrounding area, showing the position of the site in relation to this.

The monument stands on a northward-projecting spur of land overlooking Milton Creek 500m to the north-east. It is not on the highest point of the spur, but would certainly have been a prominent feature in the ancient landscape when viewed from the lower ground towards Milton Creek (Fig. 9).

Conclusion

The most compelling interpretation of the curving ditch feature [12] is that it formed part of a prehistoric monument such as a barrow. Although the exact nature of this potential monument is not fully understood, the excavation has certainly provided evidence for further prehistoric activity in this central northern part of Kent.

Acknowledgements

The archaeological investigation was commissioned and funded by Moat Housing Group, the developers of the site. Further assistance prior to and during the project was given by R.J. Barwick Construction Services (Andy Hyde), AHP architects and surveyors (Neill Hoad), and Jenner Jones (Andrew Jenner & James Hunter). Valuable help was also given during the fieldwork by the Barwick site managers, John Manning and Richard Davis.

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EMMA JEFFERY, JONATHAN COTTON AND GEOFF POTTER

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AN UNUSUAL COIN COLLECTION FROM A POND IN SMARDEN

During the summer of 1976 a pond on the Romden Road, near Smarden (TQ 884 413) dried up. Material exposed in the pond mud was collected; bottles, a tea pot, sugar bowl and a group of coins found together in a lump.

In 2013 25 of these coins were brought for identification to the Portable Antiquities Scheme Finds Liaison Officer in Kent, Jennifer Jackson. The collection includes pieces from the mid-eighteenth century through to perhaps the late nineteenth or early twentieth century. The set is unusual for a number of odd inclusions and modifications, most notably a quarter Anna of the East India Company, minted in Bombay, a Maundy set 3d. piece of Victoria and the coins of Napoleon III, one of which has been counter stamped with 'PEAR'S SOAP', perhaps for use as a token. Other tokens include one of Robert Warren – 'Inventor of Japan Liquid Blacking' and a tag of the London Property Recovery and Accident Company, of Victoria Street, London, offering a 5d. reward for the return of whatever it was once attached to. Several of the coins and tokens are pierced and one of the tokens has a suspension loop attachment. It was issued by the Northern Publishing Company of Belfast, features Biblical quotes and the company's address in Ann

RULER	DENOMINATION	DATE	REFERENCE	NOTES
George II	Half Penny	1740	Spink 3718	
George II	Half Penny	1748	Spink 3719	
George III	Half Penny	1771?	~	Counter stamped with IF
George III	Half Penny	1772	Spink 3774	
Probably George III	Farthing	c.1770-1775	~	Very worn
George III	Penny	1797	Spink 3777	
George III	Half Penny	1799	Spink 3778	
George III	Half Penny	1806	Spink 3781	
George III	Penny	1806-1807	Spink 3780	
George III	Half Penny	1807	Spink 3781	
Probably George IV	Farthing	1825?	~	Wom
East India Company	One Quarter Anna	1835	~	Minted in Bombay. Pierced 6 o'clock
Robert Warren Token	Half Penny Token	uncertain	~	R. Warren – inventor of Japan liquid blacking
Napoleon III	Dix Centimes	1856	2	170
Napoleon III	Dix Centimes	1855	~	
Napoleon III	Dix Centimes	1862	~	Counter stamped with Pear's soap
Victoria	Half Penny	1865	Spink 3956	•
Victoria	Penny	1862?	Spink 3954	Pierced 12 o'clock
Victoria	Farthing	1881	Spink 3958	
Victoria	Maundy Set 3d	1883	Spink 3918	
Victoria	Sixpence	1889	Spink 3929	
Victoria	Half Penny	1895	Spink 3962	Pierced 12 o'clock
Victoria	Half Penny	1899	Spink 3962	Pierced 12 o'clock
London Property Recovery and Accident Company	Token	late 19th/ early 20th C	~	22449 - 5d reward for return of lost property
Northern Publishing Company	Token	early 20th C?	~	"By grace are ye saved" EPH 2:8

Street. There were, according to the finder, many more coins originally and the missing pieces included more issues of the Georges as well as a piece of Charles II. It would appear, given the date range, piercing, unusual tokens and their having been found in 'one lump' that these are an early twentieth-century coin collection. How it ended up in the pond, along with the tea set, is a matter of some mystery.

BEN CROXFORD