

RESEARCHES AND DISCOVERIES

BRONZE AGE RIVER AND PASTORAL LIFE ON THE FORESHORE AT SWALECLIFFE

This preliminary report summarises the results of fieldwork carried out 2017-2019 on the foreshore at Swalecliffe, situated on the much-eroded north coast of Kent. The studies formed part of a Masters dissertation in Environmental Archaeology at Reading University, and focussed on using animal bones, molluscs and other biota preserved in alluvium to determine the terrestrial environment of the foreshore before its inundation by rising sea levels.

The area investigated lies near the mouth of the Swalecliffe Brook. The archaeology of the surrounding foreshore and hinterland has been the subject of a number of previous publications. Worsfold (1926) reported the finding of Acheulean hand-axes and evidence of Mesolithic flint-working, as well as the discovery on the beach of a Bronze Age cinerary urn and a nearby Bronze Age hoard. Almost fifty years later a Bronze Age Beaker dated to *c.*1800 BC was found near the mouth of the Swalecliffe Brook (Reedie, 1976; Tatton-Brown 1977). Subsequently, a scatter of wells dated to *c.*1210-700 BC was discovered at the Swalecliffe Wastewater Treatment Works, located a hundred metres behind the promenade (Masefield *et al.*, 2003, 2004). The locations of principal finds are shown in **Fig. 1**.

A brief investigation of Swalecliffe's foreshore archaeology by Macpherson-Grant (1992) reported the bed of a former 'stream or creek which had received domestic rubbish from prehistoric occupation along its banks', and broadly datable from a decorated flint-tempered potsherd to the Late Bronze to Early Iron Age. It was shown that the stream-bed was likely to be a prehistoric northward continuation of the Swalecliffe Brook.

Isolated areas of soft grey alluvium, similar to those seen by Macpherson-Grant, are still sometimes exposed on the foreshore over a distance of approximately 250m, measured northwards from the present-day mouth of the Brook. The alluvium contrasts clearly with harder light-brown 'brickearths', gravels and clay that comprise the majority of the foreshore under the shingle. In places the grey alluvium contains brushwood and peat-like organic remains, just as described by Macpherson-Grant. Vertical roundwood posts and strands of wattle have also been found preserved in these sediments.

During fieldwork in 2018 a twisted yew withy-tie was found embedded in soft grey silt 227m north of the high tide line and at approximately 1.1m below OD. **Fig. 2** shows the withy and the 'heel' where it was removed from the parent tree. A carbon date of 1742 cal BC-1559 cal BC (UBA 40352) was obtained, and provides an indicative date for the deposition of grey alluvium in this area of the foreshore.

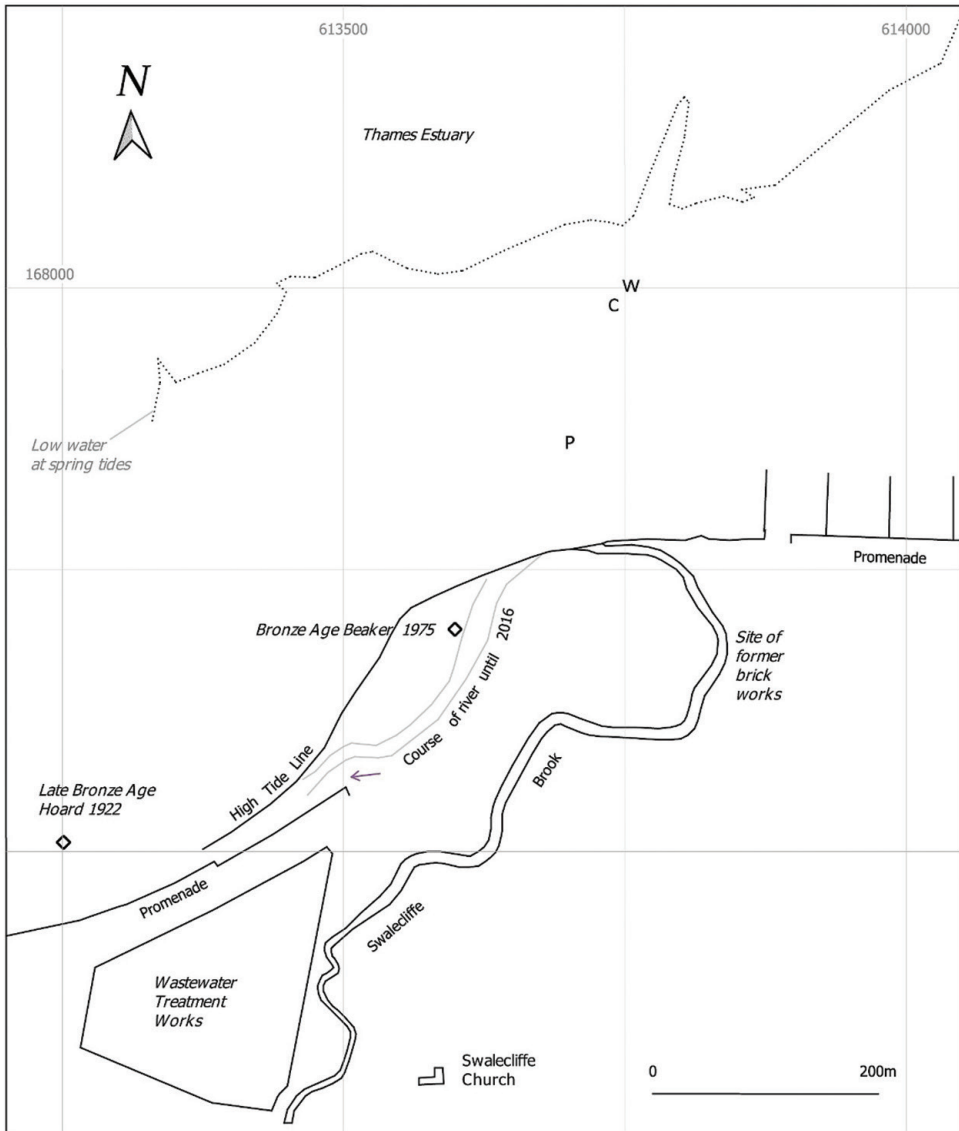


Fig. 1 Outline plan of coastline and foreshore at Swalecliffe showing locations of carbon-dated specimens, C – wooden artefact with cleat; P – post; W – withy-tie.

Approximately 24m north of the withy-tie, investigation of samples from an apparently contiguous area of silty sediment revealed the remains of eight identifiable mollusc shells. Two of these were from *Bithynia tentaculata*, whose typical habitat is slow-moving well-oxygenated water in lowland rivers and lakes. Three others were freshwater bivalves, the remainder being wetland and terrestrial molluscs that could perhaps have been redeposited there by floodwater. The alluvium here fills a shallow depression or channel in the surrounding 'brickearth'.



Fig. 2 Bronze Age yew withy-tie found embedded in alluvium near the low-tide line at Swalecliffe. The scale is in centimetres.

Further work is required to clarify whether this represents a former course of the Swalecliffe Brook, or a flood channel, or simply flood deposits adjacent to the river.

Research for the dissertation included analysis of 93 animal bones found from 2016 onwards embedded in the soft grey alluvium within 25m north and east of the withy-tie. The bones in this assemblage were shown to come from a minimum of three pigs, two goats, one cow, one dog and one red deer. Many of the bones showed signs of butchery, although not in the case of the dog bones or red deer antler fragment. It appears that the bones (and associated scatters of burnt flints) may constitute domestic refuse discarded into the alluvium from adjacent areas of firm ground (e.g. possible river bank).

The combined evidence from animal bones, molluscs and carbon-dating suggests that, at least as far as 250m north from the present day high-tide line, the area that is now foreshore was, in the later Early Bronze Age, habitable land where pastoral farmers lived with pigs, goats and cows in the vicinity of the Swalecliffe Brook.

The dissertation work included a review of a fragment of hand-carved woodwork discovered in 2016 embedded vertically in grey alluvium, approximately 200m north of the high-tide line and north of the area examined by Macpherson-Grant. Its dimensions are approximately 120 x 176mm and the thickness is 9-12 mm. As can be seen from **Fig. 3**, it features a cleat comparable with those used on Bronze Age sewn-plank boats, such as those found at Dover, Ferriby, Kilnsea and Caldicot (Clark, 2004). It is difficult, however, to envisage exactly how this artefact would be used on a boat. It is noteworthy that it has been carefully thinned, presumably for lightness, whilst retaining a thick edge, presumably for strength. It should also be noted that prehistoric cleat-like lugs are not restricted to boats, as shown by wooden containers buried in bogs in Ireland and at Glastonbury lake village (Damian Goodburn *pers. comm.*, Smyth *et al.* 2019). Nevertheless, noting that this artefact was found near the sea, in alluvium close to a river, this is one of the most likely places to find the remains of a boat.

Carbon dating a sample of the wood yielded the result 2194 cal BC-1982 cal BC (UBA 40353), somewhat earlier than the carbon dates from the Dover boat timbers, and essentially earlier than any other known date of a sewn-plank boat (Bell 2020, van de Noort 2011). Nevertheless, the spread of possible dates (statistical



Fig. 3 Bronze Age wooden cleat found embedded in alluvium on the foreshore at Swalecliffe. Scale in centimetres.

uncertainty) of the Swalecliffe specimen partially overlaps with the uncertainty of the carbon dating of the boat known as Ferriby 3. The above dates suggest that if the artefact was part of a sewn-plank boat, it could be the oldest one yet discovered. It needs to be borne in mind, of course, that the Swalecliffe cleat could have been carved significantly more recently than the carbon date of the wood.

A third carbon-dated sample was taken from a vertical roundwood oak post set in soft grey silt c.90m north of the high-tide line. This formed part of a cluster of roundwood posts of various diameters (approximately 1-8cm), interpreted as a possible fish trap, located in an area where Iron Age potsherds had been found embedded in the alluvium. However, carbon dating the post yielded the result AD 894-1015 (UBA 40354). To the writer's knowledge, this provides the only evidence for human activity at this site at the end of the first millennium AD. This area of foreshore subsequently became covered by a thick layer of shingle before further investigations could be concluded.

A full report is being prepared to provide greater detail of the findings described above, together with significant additional aspects of the archaeology of the Swalecliffe foreshore.

ACKNOWLEDGEMENT

The writer would like to express heartfelt thanks to all those who made this report possible, firstly to Kent Archaeological Society for funding three of the carbon dates obtained for this project, and also to the following who have shared their extensive knowledge and skills, and in various other ways helped to achieve a successful outcome: Professor Martin Bell, Dr Tom Walker and Dr Chris Speed of the University of Reading, Dr Marion Allison, Dr Gill Campbell, Dr Ruth Pelling, the late Nigel MacPherson-Grant, Keith Parfitt, Dr Damian Goodburn, Martin Rayner, Bernd-Klaus Ebeck, Nick Easton, Chris Riddell – and others who have provided advice, useful information and field assistance.

PETER SLAUGHTER

BIBLIOGRAPHY

- Bell, M., 2020, *Making one's way in the world*, Oxford, Oxbow books.
- Clark, P. (ed.), 2004, *The Dover Bronze Age Boat*, English Heritage.
- Kerney, M.P., 1999, *Atlas of Land and Freshwater Molluscs of Britain and Ireland*, Great Horkeley, Harley Books.
- Macpherson-Grant, N., 1992, 'Long Rock, Swalecliffe', in *Canterbury's Archaeology 1991-1992*, pp. 38-39, Canterbury Archaeological Trust. Accessed on-line 18th May 2019 at: https://issuu.com/alfalfa2/docs/canterburys_archaeology_1991_1992
- Masefield, R., Branch N., Couldrey, P., Goodburn, D. and Tyers, I., 2003, 'A later Bronze Age well complex at Swalecliffe, Kent', *Antiquaries Journal*, 83, pp. 47- 121.
- Masefield, R., Bayliss, A. and McCormack, G., 2004, 'New scientific dating of the later Bronze Age wells at Swalecliffe, Kent', *Antiquaries Journal*, 84, pp. 334-339.
- Reedie, K.G.H., 1976, 'Beaker', *Archaeologia Cantiana*, 92, 235.
- Smyth, J., Berstan, R., Casanova, E. *et al.*, 'Four millennia of dairy surplus and deposition revealed through compound-specific stable isotope analysis and radiocarbon dating of Irish bog butters', *Sci Rep* 9, 4559 (2019). <https://doi.org/10.1038/s41598-019-40975-y>.

- Tatton-Brown, T., 1977, 'Beaker from Swalecliffe', *Archaeologia Cantiana*, 93, 212.
- Van de Noort, R., 2011, *North Sea Archaeologies: a Maritime Biography 10,000 BC -AD 1500*, OUP.
- Worsfold, F. H., 1926, 'Observations on the provenance of the Thames Valley Pick, Swalecliffe, Kent', *Proc. Prehist. Soc. East Anglia*, Vol 5 (for 1926), pp. 224-231.

EXTENDED CONTINUITY OF LATE IRON AGE LANDSCAPE FEATURES
REVEALED IN ARCHAEOLOGICAL INVESTIGATIONS AT MOAT ROAD,
HEADCORN

The site at Moat Road, Headcorn, is situated on the south-eastern outskirts of the village and occupied a narrow strip of land immediately north of the water treatment works (centred on NGR 583062 144253; **Fig. 1**). The site was located at around 20.00m AOD and was in use as pasture at the time the work took place. The underlying geology was recorded as Weald Clay Formation-Mudstone and this was encountered at approximately 19.60m AOD. The geological horizon was overlain by around 0.50m of subsoil and topsoil containing a high concentration of artefacts. None of the recorded features were visible in the subsoil. The site was well-watered with the River Beult flowing to the south and a small tributary of the Beult running northwards a little way to the west.

Evidence of a probable farmstead dating from the Iron Age to Early Roman period was discovered by fieldwork undertaken by the Kent Archaeological Society between 1993-95 at Little New House Farm on New House Lane, approximately 775m south of the site. Evidence for iron smelting and a small cemetery with three Roman cremations in pottery vessels was recovered, as well as several ditches and part of a roundhouse dated to the Iron Age (Aldridge 2010).

The Moat Road site (Fig. 1) was located adjacent to the boundary of a Grade II* Listed Building – Headcorn Manor (constructed *c.*1516), which is located *c.*50m west of the St Peter and St Paul's Church. The Moat (Grade II Listed) (TQ 84 SW 5) lay immediately north of the site (north side of Moat Road) and comprises an early/mid 16th-century former farmhouse with later additions and alterations.

Results

Many of the recorded features were able to be dated using recovered artefacts, some of those that did not produce dating evidence were phased stratigraphically or by association. A 'background scatter' of residual Mesolithic or early Neolithic finds were recovered from overburden deposits and suggest that occupation of the hillside, albeit transient, occurred across these distant periods.

Period 1: Mid/Late Iron Age

During the Mid/Late Iron Age there was evidence for land division in the form of a boundary ditch in the south of the site (D1) (Fig. 1). This ditch ran from north-east to south-west and had been heavily truncated by later features. An open area to the north of this ditch OA1 contained a single pit or large posthole. To the north of this a curving gully had been excavated (D2) into which three postholes had

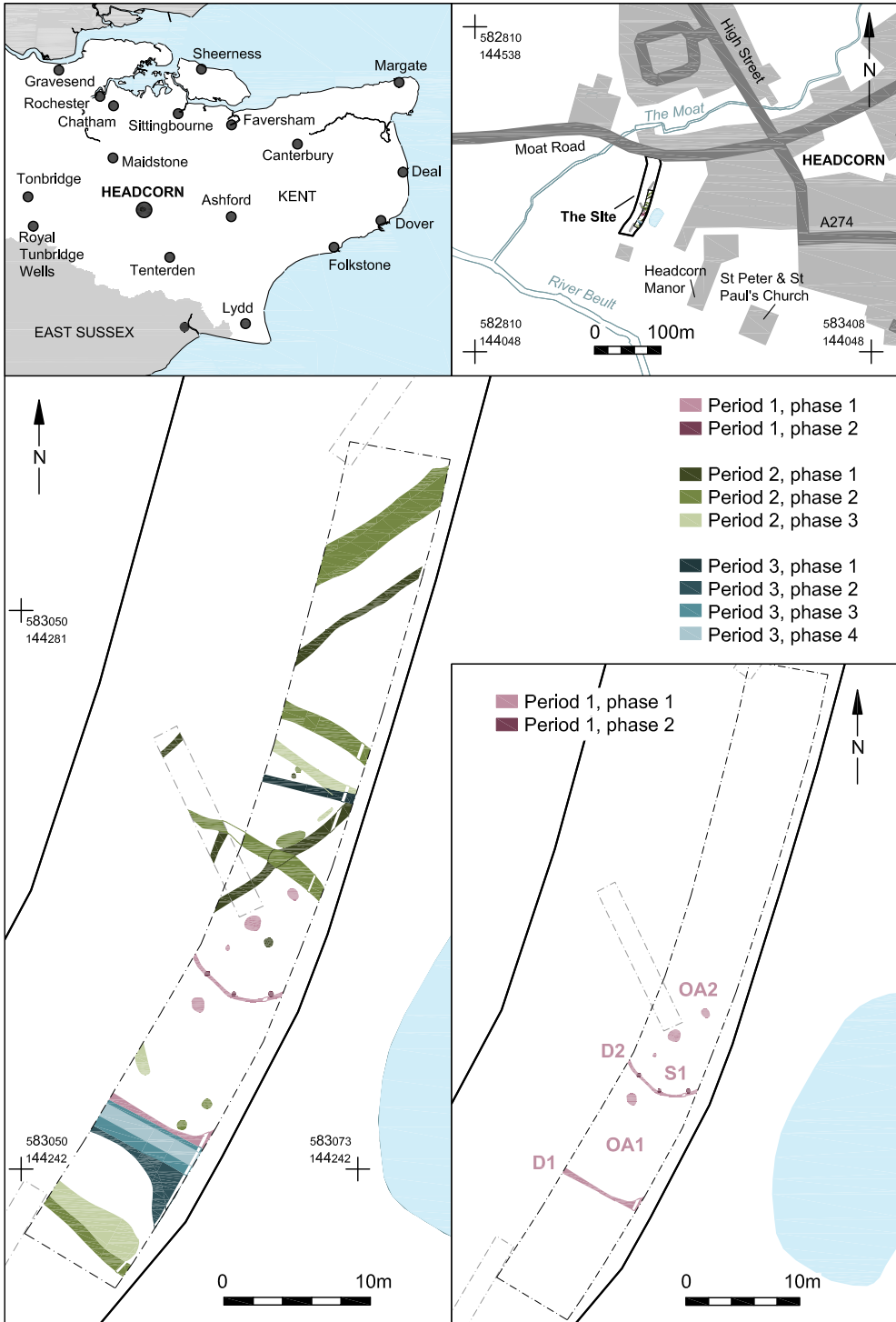


Fig. 1 Site location and Period 1 plan of excavated features.

been excavated forming a fence or stockade possibly for livestock or as a small working area (S1). It is not clear if these postholes were integral to the initial construction or had been added as later repairs. Environmental evidence from the postholes showed the presence of wheat, barley and oats as well as a fragment of hazelnut shell. An open area to the north of the stockade (OA2) contained three pits or large postholes. Recovered pottery consisted of predominantly handmade jars. Much of the recovered animal bone appears to have been subjected to very high temperatures probably as the result of being incinerated on a bonfire. The recovered charcoal was predominantly of oak. The site appears to have been peripheral to any settlement in the Middle to Late Iron Age although the presence of domestic waste and fuel residue in the features suggests that settlement may have been located nearby.

Period 2: Late Iron Age/Romano-British (Fig. 2)

Period 2.1

By the Late Iron Age/Early Roman period the stockade had gone out of use and was possibly deliberately dismantled. Two parallel ditches running north-east to south-west possibly formed a routeway, R1. The intervening space contained a single posthole, as did the area to the south (OA3). A single small ditch or gully was noted to the west of the main excavation during the evaluation phase on a north-east to south-west course. This feature did not appear to continue into the main excavation area. Environmental samples from these features again revealed oak being used as a fuel source. Activity in this period still appeared to be at a low level, although the presence of an apparent routeway hints that a focus of activity may lay nearby.

Period 2.2

Three parallel ditches were then excavated after R1 had gone out of use. and appeared to form a second routeway (R2) this time heading from north-west to south-east. The area that they enclosed contained a pit and a posthole. A third ditch on this alignment was dug to the south (D3) and the open area it enclosed OA 4 contained two pits or postholes. A fourth, much larger, ditch was also dug at this time in the north of the site (D4) but on a contrary north-east to south-west alignment with an open area OA 5 between it and the routeway.

Period 2.3

The final phase of Period 2 activity witnessed a large terminating ditch (D5) dug in the south of the site into earlier feature D3 which had presumably silted up and gone out of use. A smaller ditch D101 had been dug to the north on the same alignment as the earlier routeway (R2). The open area between (OA 6) contained a small number of pits and postholes as well as a small terminating ditch. The large ditch in the north (D4) was recut showing a continuation of use into this later period. The open area between the recut boundary ditch and the smaller ditch D101 (OA5) was empty of features from this period. The pottery assemblage was again characterised by handmade jars that appear to have been locally made (Fig. 3). Oak charcoal continued to be prevalent, with apple/pear, hawthorn and rowan

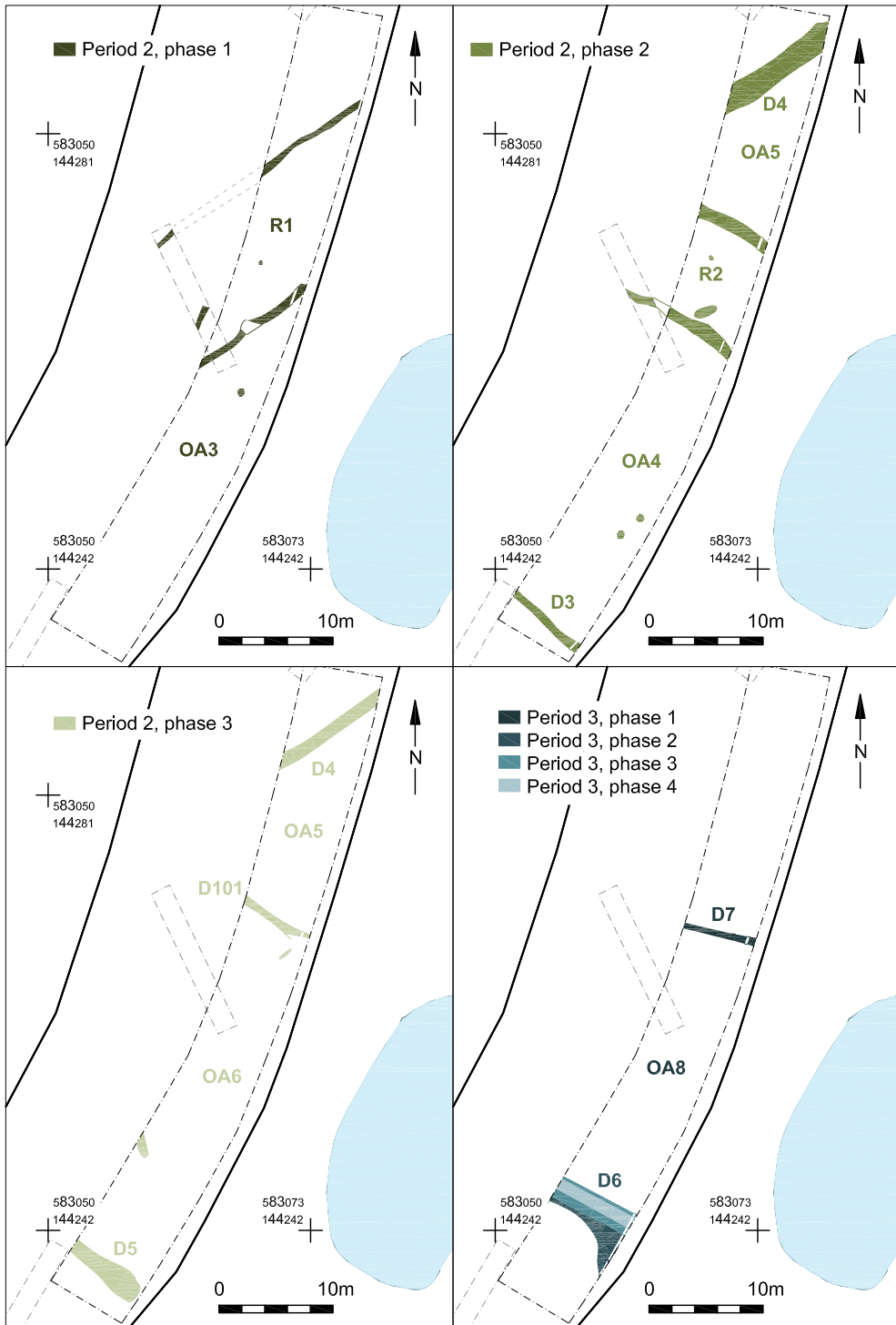


Fig. 2 Plans of Period 2 and 3 excavated features.



Fig. 3 Late Iron Age/early Roman handmade jar from ditch D7.

also in evidence. Animal bone once more showed signs of having been subjected to very high temperatures.

Period 3: Late medieval/Early post-medieval

Period 2.3 was followed by an extended hiatus of noticeable activity at the site. Though medieval artefacts were recovered from overburden deposits, the next set of datable features consisted of two ditches of late medieval/early post-medieval date. The southernmost ditch (D6) was continually recut and also straightened before going out of use and silting up. It is of note that these late medieval/early post-medieval ditches occupy the same space as a much earlier features suggesting either a long-lived boundary or that the location is somehow naturally suited to drainage. This large southern ditch may relate in some way to the nearby post-medieval house and moat with which it was contemporary. The northern ditch D7, being small and shallow in comparison, most likely represents a short-lived field boundary. The area between the two ditches OA8 was devoid of any internal features relating to this period.

Discussion

The earliest recorded activity at Moat Road dated to the Middle/Late Iron Age with the greatest number of features being Late Iron Age/Early Roman in date. The rural landscape over these periods is thought to consist of dispersed farmsteads linked by fields, with an intensification of activity occurring over time (Smith *et al.* 2016, 83). The number of Middle/Late Iron Age features noted at Moat Road is relatively small, although a structure S1 was recorded; some domestic refuse was

present perhaps suggesting that settlement was located nearby and also hinting that the structure was deliberately dismantled and back-filled. Activity increased in the later Iron Age with the construction of a trackway heading from north-east to south-west. The historic field boundaries in the region of Headcorn follow the same alignment and appear orientated on the road network in the north and the river in the south. Perhaps these factors have influenced land division for an extended period of time?

There was then a dramatic shift of focus with a routeway and other ditches being constructed but on a contrary north-west to south-east alignment. Quite what the reason was for this shift in focus is unclear. There may be a political stimulus, or this change may be in response to environmental factors. The large ditch dug in the north of the site D4 appeared to be long lived and retains the earlier north-east to south-west orientation. It may be that this formed part of a political or settlement boundary.

Resource management evidence from Periods 1 and 2 show continuation of practices across the Mid to Late Iron Age. Pottery was being made locally, cereal crops appear to have been cultivated and utilised and domestic refuse was being burnt on bonfires. This last process has probably allowed the better survival of faunal remains in the wet clay soils of the area, although the great majority were unidentifiable to species. Oak appears to have been used as a fuel source suggesting the species was sufficiently common to be used as firewood.

The closest analogous site of this date is at New House Farm *c.*750m to the south of Moat Road. The limited excavations there uncovered a roundhouse of Iron Age date with an associated occupation layer. A small fragment of a Late Iron Age ditch was uncovered on the same alignment as routeway R1 dated to Period 2.1 at Moat Road. Later Roman cremation burials, evidence of iron working and Roman military artefacts were also recovered, none of which were encountered at Moat Road.

Following the Early Roman period, no evidence of activity other than unstratified artefacts of a medieval date were recovered until the late medieval/early post-medieval period. The contemporary remains almost certainly relate to the adjacent Headcorn Manor and cartographic evidence suggests that the small nearby tributary of the River Beult once fed the moat at Moat Manor to the north of the site. It is possible that the large ditch noted in the south of the excavation area (D6) once did the same for Headcorn Manor. This feature appears to be very long lived, having been recut on more than one occasion. Clay tobacco pipe fragments dating to the 18th century were recovered from the fill showing that the feature was still in use at that time, but it does not appear on 19th-century Ordnance Survey maps. Early post-medieval brick was also recovered from the ditch possibly deposited during a phase of demolition or remodelling at Headcorn Manor. The smaller ditch to the north hints that the area to the west of the manor house was once divided into smaller plots.

Conclusion

The most striking thing about the evidence from Moat Road is the extended continuity of orientation and location of landscape features following a Late Iron

Age reorganisation. Quite what the driving force behind the reorganisation was is unclear, but the whole system of ditches shifts on its axis from heading north-east to heading north-west. Once the Late Iron Age orientation was established it remained into the post-medieval period, a trend noticed elsewhere within the Weald (see Margetts 2018a; 2018b). The environmental evidence provides a valuable insight into resource management and waste treatment in this period. Added together with the evidence from New House Farm to the south, a more complete picture of the Iron Age rural landscape and economy and settlement of the Headcorn and wider Wealden region is emerging. The later, post-medieval evidence from the site at Moat Road suggests that there may have been a cutting from the tributary of the Beult just to the west feeding a moat and that the land to the west of the house was once subdivided.

CHRIS RUSSEL

REFERENCES

- Aldridge, N., 2010, 'Investigations at a Prehistoric, Romano-British and Early Medieval Site at Little New House Farm, Headcorn', *Archaeologia Cantiana*, 130, 173-190.
- Margetts, A., 2018a, *Wealdbæra: Excavations at Wickhurst Green, Broadbridge Heath and the Landscape of the West Central Weald*, Spoilheap Monograph series 18.
- Margetts, A., 2018b, 'A World of Summer and Autumn: The Romano-British to Early Medieval Weald and Signs of Continuity', *Archaeology International*, X (X), 89-94.
- Smith, A., Martyn, A., Brindle, T. and Fulford, M., 2016, *The Rural Settlement of Roman Britain. Britannia Monograph Series*, Vol. 29, The Society for the Promotion of Roman Studies, London.

FIELDWORK IN KENT UNDERTAKEN BY MOLA 2019-20:
SUMMARY REPORTS

Lewisham, Forest Hill: Our Lady and St Philip Neri Primary School
(TQ 35881 172255)

A Historic England Level 2 building survey was undertaken at the former Our Lady and St Philip Neri School building in Forest Hill. The former school building was a red brick two to three storey building with an earlier Victorian structure incorporated at the north end which had a pitched roof with gables. The main school building was a c.1950s flat-roofed structure with large cold rolled steel windows. This building replaced a later 19th-century house which had been in use as a convent during the early part of the 20th century and was destroyed during WW2 bombing. The earlier house was built for the Architect Alexander Hennell who was responsible for much of the 19th-century development of the area surrounding Mayow Road. The 20th-century interior building plan was a simple, utilitarian design of classrooms, offices and other rooms extending from a central corridor. Interior materials included terrazzo stone flooring in the main corridor and wood block floors laid in a herringbone pattern within the classrooms and offices. Access to the first-floor classrooms was via a simple but impressive imperial style staircase which rose above the main entrance in the centre. In the

north-west section of the 1950s building there was a large assembly hall/gym with oak flooring and timber casement windows on the west elevation. The earlier structure at the north end of the building had been used as a chapel and later as an infants' school. Due to the destruction of most of the earlier convent structure, the only evidence which remained for the building's use as a convent was a piscina or holy water stoop recorded in the former chapel. (Brigid Geist and Luke Tremlett, standing building survey, January 2020, Savills, MYO20)

Deptford: Old Tidemill School (TQ 37330 77192)

A Level 2 survey was carried out on the main building and annexe of the former Tidemill School in advance of redevelopment of the site. The main building dated from c.1926-28 and had replaced a late Victorian school which appears on the Ordnance Survey map of 1895. A large E-W oriented steel-framed building constructed from yellow London stock bricks with red brick and tile dressings, it consisted of two storeys with a rooftop playground. The north elevation featured large arched windows while the south elevation had several large double-glazed timber doors opening directly onto the playground outside. A brick lean-to structure had been constructed in this area during the 1970s, apparently to improve the warmth of the ground-floor classrooms from which the doors opened. The annexe dated from c.1886-87 and was located to the west of the main building. Built from yellow London stock brick with rubbed red brick dressings and terracotta and stone ornamentation, it was originally a single-storey building which was extended and enlarged during the 1890s, both on the ground floor and by the construction of a new first floor above. It had large hopper-style timber-framed windows and a main entrance on the south elevation which once gave access to Stanhope Street (which no longer exists). The original 19th-century walls which marked the limit of the playground still stood along the southern boundary of the site. The survey included a salvage list of fixtures and fittings as well as building features to be retained *in situ*. (Brigid Geist, building recording, September 2019, Mulalley Construction, FRH19)

Beckenham: Langley Court, South Eden Park Road (TQ 37773 68057)

Following work in 2015-2016, four geotechnical test pits in the south-east of the site were monitored. These test pits were in close proximity to the 2016 watching brief observations of a possible burnt mound but in this instance no similar evidence of such deposit was observed. Modern made ground and disturbed natural sand was seen to directly overlie natural sand or gravel. (Phil Jefferies, watching brief November 2019, RSK Environment Ltd, LGY12.)

Greenwich: Morden Wharf (TQ 39221 78994)

A geoarchaeological watching brief was carried out within the Greenwich Peninsula and Foreshore area which is of high archaeological potential. The earliest deposits observed were the Pleistocene floodplain gravels, belonging to the Shepperton Gravel formation. These were overlain by Holocene deposits, which comprised Mesolithic/Late Bronze Age peats indicative of a marshland environment. The peat deposits were, in turn, overlain by thick alluvial clay deposits which formed

in the late Iron Age and are indicative of a mudflat/saltmarsh environment. Post-medieval to modern made ground sealed the sequence, and mainly consisted of demolition rubble relating to the 19th/20th century buildings which previously occupied the site. (David Taylor, geoarchaeological watching brief, October 2019, Ramboll UK Ltd (Blackfriars) MRW19.)

Greenwich: Millennium Village (TQ 40128 78981)

As part of Phase 4, six geoarchaeological boreholes were sunk across the site, revealing a Quaternary sediment sequence. Sub-samples were taken throughout the sequence, from two boreholes, for radiocarbon dating, microfossil and plant macrofossil assessments, to assist with the overall site interpretation. The sequence comprised Pleistocene gravel deposits belonging to the Shepperton Gravel formation at the base. These were overlain by Late Pleistocene bedded sands which are typical at the margins of active river channels, with banded clays and silts indicative of occasional episodes of overbank deposition. Mid to Late Holocene organic muds and peats overlying these banded sand deposits are likely to equate to Devoy's' Tilbury (III) peat which has previously been dated to the Neolithic/Bronze Age. This was overlain by Late Holocene mineral floodplain alluvium, indicative of an estuarine floodplain. A sub-sample taken from the base of these deposits dated this transition at 2280-2030 cal BC, during the late Bronze Age. The sequence was capped by modern made ground. (Phil Stastney, geoarchaeological evaluation, January 2019, Greenwich Millennium Village Ltd, GMP12.)

Bexley: Burt's Wharf (TQ 50156 80512)

At Burt's Wharf a geoarchaeological watching brief was carried out, during which 11 geotechnical boreholes were dug, the revealed sediments recorded, and 3 geological window samples taken from across the site. By modelling the buried stratigraphy and preliminarily reconstructing the evolving landscape of the site, three deposits or facies of varying archaeological and palaeoenvironmental potential are identified. The site is situated at the centre of the River Thames floodplain. The underlying deposits of archaeological interest consist of Pleistocene floodplain gravels. The floodplain gravels were found to be overlain by a 7.5m layer of Holocene floodplain deposits consisting of sequences of by sandy/silty clay alluvium interspersed with bands of peat. Across the site, the Holocene deposits are sealed by an average of 1.4m of made ground. Potential for artefactual recovery is considered low for the site although palaeoenvironmental potential is high. As a consequence, further analysis work such as some proxy environmental analysis of the alluvial and organic deposits (i.e. through pollen, diatom/ostracod assessment) coupled with radiocarbon dating may be required. (Graham Spurr, geoarchaeological evaluation, November 2019 – February 2020, Lidl Great Britain Ltd, BWF19.)

Gravesend: Canal Basin Floodgate (TQ 65654 74243)

A watching brief was carried out on the Grade II listed canal basin at Gravesend, Kent as part of the Thames Estuary Asset Management Programme 2100 (TEAM2100), the Environment Agency's 10-year programme to refurbish and replace tidal

defences in London and throughout the Thames Estuary. The canal basin, sea wall, and lock chamber, were designed by civil engineer Ralph Dodd and constructed in 1799-1801. The work consisted of the removal and replacement of the existing 20th-century floodgate but, although the original 19th-century brickwork of the canal basin still exists, the structure could not be examined due to site constraints and the fact that the entrance to the canal had been coated with a modern concrete lining. (Tony Mackinder, watching brief Apr 2019, Environment Agency, KT-CBG19.)

Cliffe Marshes, Lower Hope Point: (TQ 71753 78979)

Emergency work to the existing flood defences adjacent to the site of the Cliffe Explosives Works Scheduled Monument (Historic England Ref. 1428315) was monitored as part of the Thames Estuary Asset Management Programme 2100 (TEAM2100), the Environment Agency's 10-year programme to refurbish and replace tidal defences in London and throughout the Thames Estuary.

The site was originally used from 1890 for manufacturing gunpowder, becoming the Curtis's and Harvey Ltd Explosives Factory (1898-1920) manufacturing cordite. Although not directly affected by the current works the remains of two timber jetties were recorded. Documentary records show the western jetty (J1) was built 1891-92; first appearing on the 1895 OS map. Only a few truncated posts survive but there were 3 parallel timber revetments running NE-SW which were probably mud wall reinforcement pre-dating the jetty. The eastern jetty (J2) was built after 1904, first appearing on the 1907 OS map and was evidenced by 3 rows of upright, high quality timbers c.30-40m from the sea wall. One timber had carpenter/merchant marks on all 4 faces and another evidence of circular saw use. To the west was a single line of upright stakes forming a revetment. Both jetties appear to have been partially destroyed in 1940 as part of anti-invasion works. (Tony Mackinder and Paul Thrale, watching brief, August-October 2019, Environment Agency, KT-CLF19.)

Chatham: Kitchener Barracks, Dock Road (TQ 75925 68580)

An intermittent watching brief continued at Kitchener Barracks, during the main construction phase of the project. The remains recorded consisted predominantly of a series of east-west aligned brick drainage culverts of varying sizes, contemporary with the construction of the infantry barracks soon after 1757. In order to create the barracks, the ground surface across the central and west half of the site had been artificially raised by dumping large quantities of chalk-based deposits to compensate for the natural hill slope. (Ian Blair, watching brief, throughout 2019, Latis Homes, KT-KBC17.)

The intermittent watching brief continued in 2020. During heading works near the southern gate on Khartoum Road a bronze cannon was recovered at a depth of 0.5m. The 18lb cannon probably dates to the 18th century and is likely to be one of two on display outside the guard room, which originally fronting east onto Khartoum Road, near the southern entrance. This cannon can be seen *in situ* in a 1966 photo of the guard room (Royal Engineers Museum and Library Archives). (Ian Blair and Dave Sankey, watching brief, throughout 2020, Latis Homes, KT-KBC17.)

Maidstone, Kent Medical Campus, Junction 7 M20, Newnham Court Way
(TQ 78165 56888)

An evaluation was carried out on the site of Junction 7 M20 as part of roadworks carried out by Kent County Council. At the southern end of the site, a small number of cut features suggested land divisions and agricultural land use dating to the post-medieval period. The features comprise an undated pit, a probable post-medieval former field boundary, and two shallow pit features dating to the post-medieval period. Natural was reached in different parts of the site and was formed of soft greyish orange sandy clay with occasional patches of gravel and flint. (Cat Gibbs, evaluation, November 2019, WSP, KT-MED19.)

Hoo St Werburgh: significant prehistoric finds at Kingsnorth Quarry, Jacob's Lane (TQ 79372 72327)

Following on from previous archaeological work across the site, archaeological investigations at Phase D took place between August 2019 and March 2020. A large quantity of pits and post holes were recorded including a number of cremations. Sample sections were excavated through a number of large linear features and areas likely associated with quarrying were also excavated. In addition, prehistoric surfaces were uncovered including evidence of trackways being maintained with gravels. Large quantities of Bronze Age and Iron Age pottery, fire-cracked flint and evidence of salt drying were recorded across the site and the remains of a Neolithic longhouse was also recorded. A deep cut feature possibly a water supply was excavated on the site. Beneath this feature an interesting and potentially significant group of objects were uncovered. This included a bronze sickle, other bronze objects and beads made of jet/shale, faience, amber and possibly glass. Evidence of a timber structure was also recorded that may represent shoring or a revetment for the deep cut feature. (Paul Thrane, strip, map and sample excavation, August 2019-March 2020, Tarmac Trading Ltd, KT-KNQ16.)

Hollingbourne: Woodcut Farm (TQ 82029 55079)

An archaeological evaluation was carried out at the site between the 16th November and the 14th December 2020. This evaluation was preceded by a phase of pre-determination evaluation (Site Code: KT-AHB15) undertaken on the site in November/December 2015. As a result of these investigations, archaeological remains spanning from the Late Neolithic to the 19th century were identified and recorded.

The site is located across a broad valley and the evaluations have shown that Middle/Late Iron Age archaeological deposits survive in the north-western corner of the site, reflecting the significance of the higher ground and its attractiveness for early occupation. Several Late Neolithic, Middle/Late Iron Age and medieval features, such as ditches, pits and posthole, were excavated further down the slope, but their dating and spatial deposition indicated some reworking of these features with artefacts brought down into these contexts by hillwash (colluvium). Apart from a large Roman pond, the low-lying valley appears to have not been so favoured for early archaeological settlement activity. The pond may have been constructed for

livestock to obtain drinking water during summer pastoral grazing. Archaeological activity on the higher ground to the east of the site is sparse, except for much later features associated with the 19th-20th century ‘Hollingbourne Union Workhouse’, which once stood adjacent to the site.

A geoarchaeological assessment of the sectional recording of the trenches indicates two phases of hillwash deposition on the slopes of the valley: a lower horizon formed during the later prehistoric and an upper horizon formed during the medieval period. (Ian Blair, evaluation, November-December 2020, Clearbell Capital LLP, KT-WFA20.)

Canterbury, Rhodaus Town (Phase 2, 5-5a) (TR 614883 157364)

Two boreholes were monitored between 28th and 30th May 2019 in advance of the demolition of the Former Arts Centre and the proposed construction of student accommodation on the site. The site lies adjacent to land excavated in 2015-16 that produced archaeological evidence from the prehistoric, Roman (a 4th-century cemetery projected to extend eastwards across the site), Anglo-Saxon, post-medieval and 20th-century pitting dated to the Second World War. The boreholes established a sequence of undated deposits on the northern limit of the site with the natural terrace gravels at c.4m below current level sealed by redeposited/reworked brickearth, possibly indicating backfills within a pit, quarry or grave on the north side of the site. (Portia Askew, watching brief, May 2019, Canbury Holdings Ltd, KT-RHC19.)

VINCE GARDINER, KAREN THOMAS,
CECILIA LEVRATTO FRANCESE
AND ANNALISA RIVOLI