

# ARCHAEOLOGICAL INVESTIGATIONS AT NEW HAINE ROAD, WESTWOOD, BROADSTAIRS: FURTHER OBSERVATIONS OF A PREHISTORIC AGRICULTURAL LANDSCAPE ON THE ISLE OF THANET

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*Between 2015 and 2017 three archaeological investigations were conducted by the Canterbury Archaeological Trust on two parcels of land immediately to the south-west of the Westwood Cross shopping and leisure complex. An archaeological evaluation was conducted during January 2015 within the northern parcel which revealed a series of archaeological features provisionally dated to the Bronze Age period. These findings were followed up with an excavation conducted during February and March 2015. This revealed evidence for activity from the Mesolithic to early Roman periods; the principal findings demonstrate occupation within the locality during the Neolithic period and the establishment of a field system and associated agricultural features during the middle to late Bronze Age. (During January 2017, an archaeological evaluation of the southern parcel of land found no archaeological features or deposits.)*

*The site lies within an area of known archaeological potential with a number of excavations having taken place recently. The findings at New Haine Road are reviewed in the light of those of the neighbouring sites and overall suggest that during the middle to late Bronze Age a mixed farming system involving cereal production and animal husbandry was developing in this vicinity.*

The New Haine Road site lies at approximately 52m AOD in an area which occupies some of the highest ground on the Isle of Thanet (centred NGR 636080 167427; **Fig. 1**). The underlying geology comprises Margate Chalk Member overlain by Head deposits of clay and silt (British Geological Survey 2017). Excavation revealed that the geological deposits were sealed by a layer of pale grey-brown silty-clay subsoil which extended across much of the site. This subsoil was patchy at the south becoming increasingly thicker towards the north, reaching up to 0.38m thick. It is not understood what processes were involved in the formation of this layer. A comparable deposit was encountered during the archaeological investigations to the north at Westwood Cross (Gollop 2004, 20). In this instance, the formation of the ‘brickearth-like’ deposit was thought to begin around, or after, the late Bronze to early Iron Age period (*ibid.*). Similar deposits were recorded

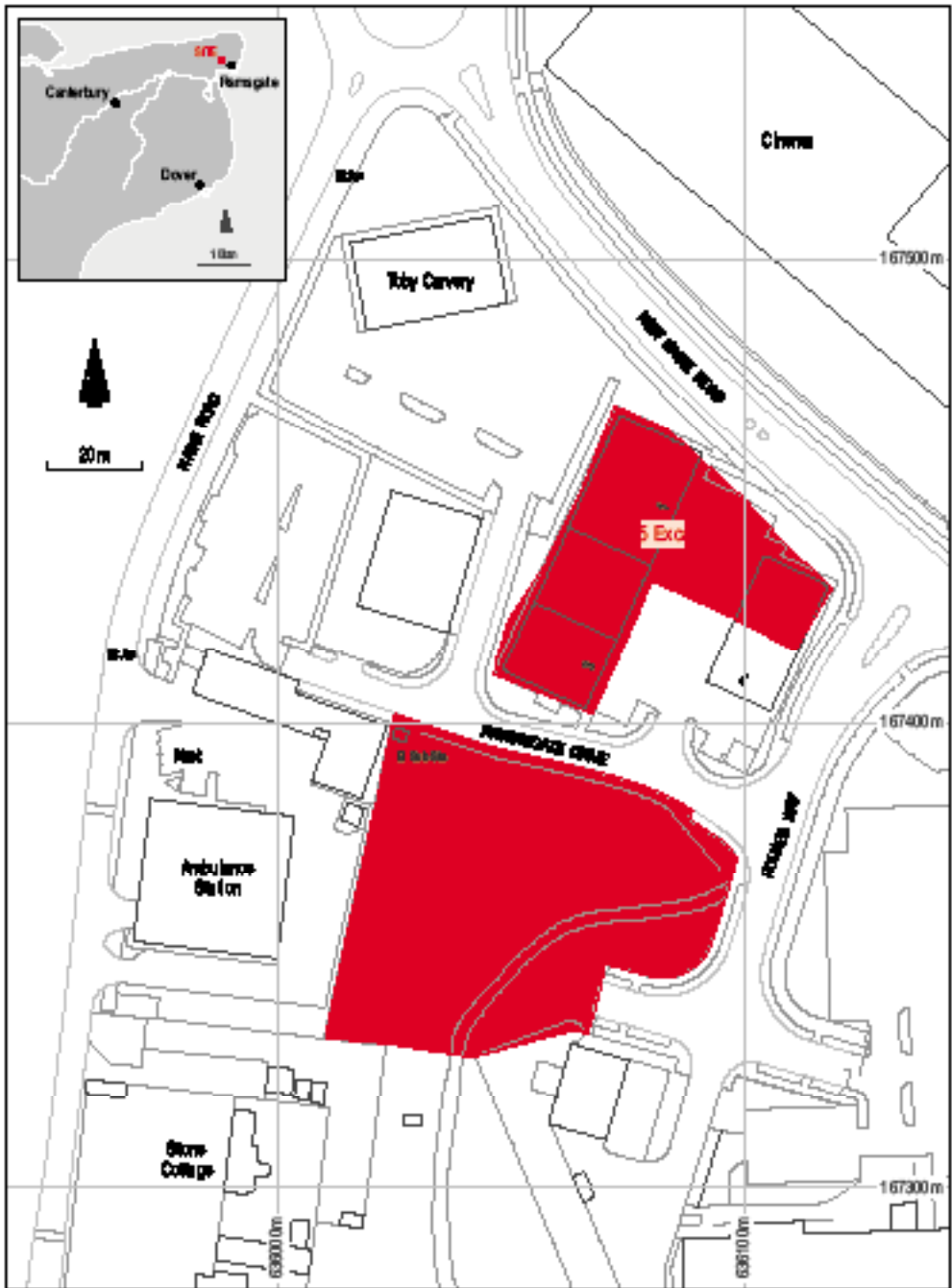


Fig. 1 Site location plan.

some distance to the south at Chalk Hill, Ramsgate which there were thought to have been laid down between the late Neolithic/early Bronze Age and the later Bronze Age period (Shand 2002, 11).

At New Haine Road, all the archaeological features cut this subsoil. Definition of the features was however quite diffuse, suggesting that the deposit had been reworked by later ploughing. This action had also resulted in the incorporation of artefacts including Roman pottery and tile and Anglo-Saxon pottery into the subsoil and the fills of features.

In general, dating of the features was highly problematic. Cultural material was relatively scarce and, where pottery was recovered, the feature assemblages were too small to provide confident dating. Further to this, feature assemblages presented a high degree of chronological mixing, highlighting the likelihood of intrusive and residual finds. Hence the approach to phasing of the archaeological features is cautious.

The site lies within an area of known archaeological potential, and numerous cropmarks have been recorded in the locality. Worked flint dated to the late Neolithic to Bronze Age periods has been recorded at adjacent sites now occupied by the Toby Carvery Public House and the ambulance station on Haine Road (Linklater 2004; Trust for Thanet Archaeology 2004). Late Iron Age, early Roman and medieval pottery was also recovered at the latter (Trust for Thanet Archaeology 2004). Archaeological features principally dated to the Bronze Age, Iron Age and Romano-British periods have been recorded to the north-east at Westwood Cross (Gollop 2004, 10) and, to the south and east, on the route of the New Haine Road (Wessex Archaeology 2008, iv). To the south-west of the site, seven cremation burials dated to the first to second century AD were recorded during pipeline works (Wessex Archaeology 2006, 13). More recently, on land to the west of Haine Road, archaeological investigations have revealed evidence for activity during the later prehistoric, late Iron Age to early Roman, later Roman and medieval periods (O'Shea-Walker and Helm 2017, 1).

## Results of the New Haine Road excavation (Fig. 2)

### *Mesolithic*

Activity of Mesolithic date was represented by a small quantity of worked flint, suggesting low-level probably transitory behaviour. One residual obliquely-blunted flint point characteristic of a Mesolithic date was recovered. It is possible that other elements of an industry of this date are present within the worked flint assemblage, but the bulk of the material is likely to be Neolithic in date (see below). This find nevertheless suggests the potential for low-level activity within the area at this time.

### *Early to middle Neolithic*

During the early to middle Neolithic period, occupation of the area was attested by an assemblage of cultural material comprising pottery, worked flint and charred plant remains. Some potentially contemporary pits were also recorded.

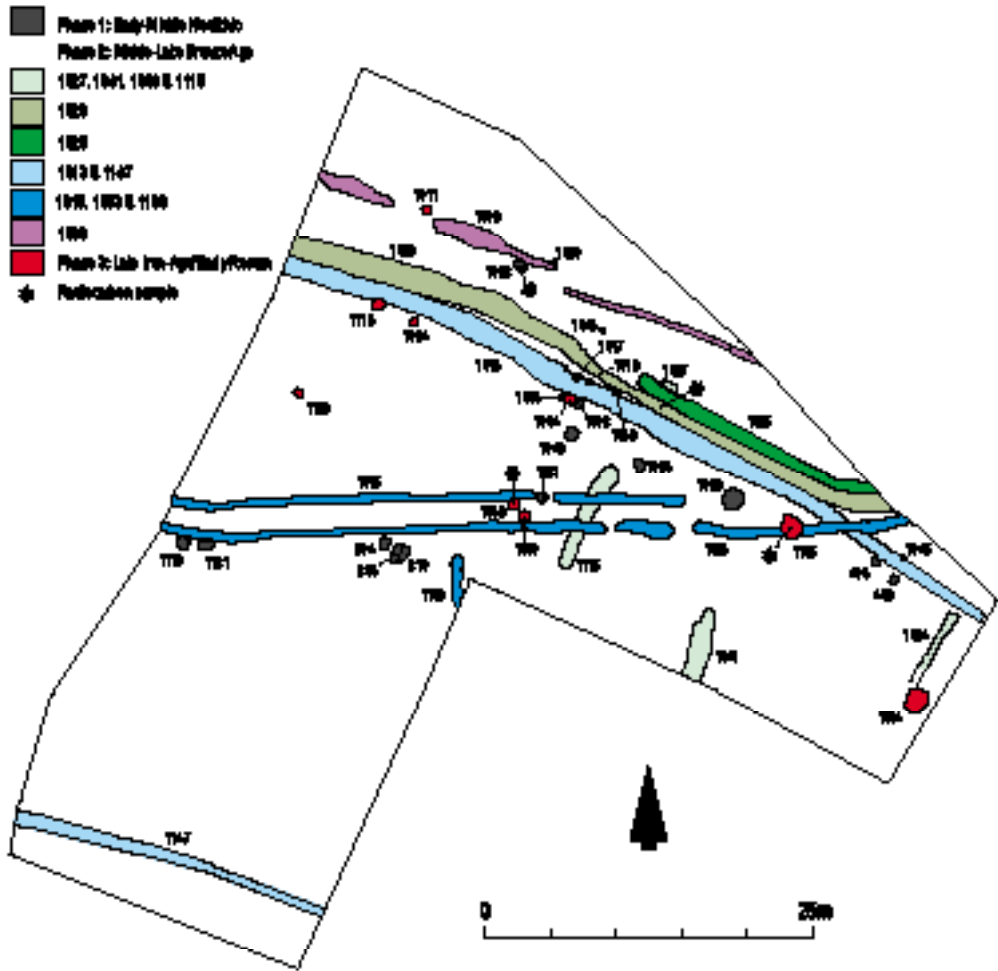


Fig. 2 Site plan showing the archaeological features and location of radiocarbon samples.

In general, a lack of stratigraphic relationships, difficulties with dating, and similarities in morphology, have made phasing of these features difficult. In the majority of cases the pits were backfilled as one event with each containing very similar fills and assemblages. In total, just four pits [1002, 1048, 1080 and 1082] produced pottery exclusively of early to middle Neolithic date. The pits were bowl-shaped in profile and ranged in size between 0.4m and 1.02m in diameter, with depths of between 0.1m and 0.22m, being similar but perhaps slightly shallower than those attributed to a later date (see below). Arguably the most convincing in terms of dating, pit 1082, produced ten sherds of pottery dated to the middle Neolithic (3350-2800 BC) period alongside hazelnut shell which returned a radiocarbon date of cal BC 3012-2878 (at 2 sigma 95.4 per cent probability; UBA-31823; 4294 +/- 36 bp; intcal13.14c (Reimer *et al.* 2013)). Some twelve further

pits of similar shape and depth were also recorded. These features, which produced no pottery and rare finds of worked flint, could be attributed to this period.

In addition to these pits, an assemblage of residual cultural material of Neolithic date comprising pottery, worked flint and charred plant remains was present in several features. Given the broad redistribution of this material, it would seem likely that further features of this date were destroyed by later activities. Two stratigraphically later pits [1068, 1105], for example, produced Neolithic pottery, worked flint and hazelnut shell, which returned radiocarbon dates of cal BC 3693-3521 (at 2 sigma 95.4 per cent probability; UBA-31822; 4819 +/- 38 BP; intcal13.14c (Reimer *et al.* 2013)) and cal BC 3661-3389 (at 2 sigma 95.4 per cent probability; UBA-31824; 4808 +/- 39 BP; intcal13.14c (*ibid.*)) respectively.

The overall composition of the Neolithic assemblage would suggest settlement-related activities. In total, some 108 sherds of Neolithic pottery (weighing 601g) were recovered. The pottery is in a fragmentary and abraded condition which may in part be attributed to its residuality, but it has also been suggested that it may have come about as a result of being middened prior to deposition (McNee 2015, 19). Sherds of Peterborough Ware (c. 3510-2890 cal BC, 65 per cent probability; Woodward 2009, 96) were recovered which included examples decorated with twisted cord impressions, some forming a herringbone pattern. Other fragments possibly decorated with fingernail impressions, may also belong to Peterborough Ware vessels. Perhaps of slightly earlier date, two rim sherds and one body sherd decorated with two small dot impressions have affinities with examples recovered from Kingsborough, Sheppey (McNee 2015, 18).

The majority of the worked flint assemblage is likely to be contemporary with this phase of activity. In total, some 435 struck flints were collected. The assemblage is principally comprised of unretouched debitage (93 per cent) of which blades, bladelets and blade-like flakes are well represented (34 per cent of debitage), a proportion consistent with Mesolithic and early Neolithic assemblages (Ford 1987, 79). Whilst there remains a potential for additional Mesolithic flintwork within this assemblage, analysis of the remainder of the group suggests it is more characteristic of a Neolithic date. Of the ten cores recovered, none were used for the production of blades and the majority had multiple striking platforms. Some 17 retouched pieces were collected which included end-retouched scrapers, serrated blades and flakes, and a fragment of a ground and polished axe.

In addition to the recovery of hazelnut shell, environmental samples also produced an assemblage of cereals comprising emmer wheat (*Triticum dicoccum*) and barley (*Hordeum* sp.) and a fragment of a pip of apple or pear (the pip apex; cf. *Malus sylvestris*/*Pyrus communis*). All of which are considered characteristic of Neolithic assemblages (Carruthers 2016, 3). Unfortunately, due to the problems with the redeposition of material and the evidence for later cereal production (see below), it was not possible to confidently attribute the cereals to this period of activity.

### *Late Neolithic to early Bronze Age*

Slight evidence for late Neolithic to early Bronze Age activity at the site was represented by fragments of a decorated Beaker vessel recovered from one pit [1105]. Stratigraphic evidence and later pottery suggest that this pit was associated

with the later phase of pit-cutting dated to the late Iron Age to early Roman period (see below). The Beaker decoration comprised horizontal lines, lattice hatching and pendant triangles bearing similarities to East Anglian Beaker forms. A comparable beaker was recovered during excavations at Thanet Earth some 7km to the west of the site (McNee 2015, 18).

### *Middle to late Bronze Age*

This later prehistoric period saw the construction of a series of boundary ditches which likely formed part of a more extensive field system. Evidence suggests that during the middle to late Bronze Age period this area was developing into a broad agricultural landscape.

The principal features recorded at the site were ditches and gullies representing multiple phases of a field system. All the ditches were 'U'-shaped in profile, measuring between 0.7m and 1.75m wide and 0.13-0.48m deep. Each ditch contained similar uniform fills, suggesting that the features gradually silted up over time. As such, any datable material gathered from the ditch fills is likely to be more representative of a date for the decline of the use of the ditches, rather than the construction. The allocation of this group of features to this phase therefore, has been based on morphology and the dating of similar features previously recorded within the wider landscape (see Discussion).

The earliest ditches comprised three parallel NNE-SSW aligned ditch segments [1041, 1084, 1115] (Fig. 2). The ditches were set apart at distances of approximately 10m and 13.5m west to east. To the north of this group, feature 1027 may represent the remains of another ditch segment, as this lies on the same alignment as the west ditch [1115]. The east ditch [1084] proved to be heavily truncated and it was not possible to trace its full extent. The east ditch [1084] produced a single sherd of pottery dated to the middle to late Bronze Age (c.1300-1100 BC) period. Other cultural material comprised residual Neolithic worked flint, and one possibly intrusive sherd of late Iron Age to early Roman (c.100 BC-AD 50) pottery.

Situated towards the north of the excavated area was a series of later ditches, laid out on a north-west to south-east alignment. The earliest of these ditches [1028], measuring up to 1.4m wide, turned to an east to west alignment at the east. The ditch produced an assemblage of residual finds comprising one sherd of early to middle Neolithic pottery (c.3800-3200 BC), worked flint including one flake core and a serrated flake, and a small quantity of burnt flint. Environmental samples recovered from the ditch yielded a small assemblage of charred plant remains including one emmer/spelt wheat grain (*Triticum dicoccum/spelta*) and chaff including emmer and spelt glume bases. Radiocarbon-dating of spelt chaff returned a middle Iron Age date, cal BC 361-170 (at 2 sigma 95.4 per cent probability; UBA-31825; 2183 +/- 31 BP; intcal13.14c (Reimer *et al.* 2013)).

Ditch 1028 was subsequently cut to the north by ditch 1025. This ditch terminated at its western end but, to the east, maintained the alignment of the earlier ditch [1028]. Measuring up to 1.35m wide, this ditch produced a small assemblage of burnt flint and residual worked flint including the fragment of Neolithic polished flint axe.

At a later date two parallel ditches [1013 and 1147], situated 43m apart and aligned north-west to south-east, were constructed. The ditches, which measured up to



1.75m and 1.1m wide respectively, produced a small assemblage of residual burnt and worked flint. Four sherds of pottery dated to the late Iron Age to early Roman period were recovered from the north ditch [1013], in addition to a single sherd of second- to third-century Roman pottery, all of which is thought to be intrusive. A small assemblage of poorly preserved cereal grains including examples of emmer/spelt wheat (*Triticum dicoccum/spelta*) was recovered from the south ditch [1147].

The next phase of activity comprised the construction of two parallel gullies [1015 and 1053] which bisected the site on an east to west alignment. The gullies were set 1.8m apart and measured up to 0.82m and 1.05m wide respectively, both with a maximum depth of 0.32m. A small quantity of residual worked and burnt flint, and pottery dated to the early to middle Neolithic period, was recovered from both features. The southern gully [1053] also produced an assemblage of charred plant remains which included one possible emmer/spelt grain, one barley grain (*Hordeum* sp.) and a small quantity of hazelnut shell. Perhaps also associated with these gullies, feature 1109 lay to the south on a perpendicular alignment. This gully measured up to 0.83m wide and terminated at the north.

The final ditch cannot be placed within the stratigraphic sequence, but it would seem likely that it was broadly contemporary with the ditch complex. This north-west to south-east aligned linear feature comprised three segments of a dis-continuous ditch [1008] measuring between 0.45m and 1.3m wide. This ditch produced some twenty-two sherds (weighing 54g) of pottery dated to the middle to late Bronze Age period, in addition to small quantities of residual worked and burnt flint, early to middle Neolithic period pottery and two sherds of intrusive early Roman pottery.

#### *Late Iron Age to early Roman*

Agricultural practices probably continued into the Iron Age as some evidence was recovered that suggests cereal production. It was characterised by a group of thirteen pits which, on the basis of stratigraphic relationships and/or datable finds, has been allocated to this period, perhaps indicating nearby settlement. As noted above, dating for this site has proved problematic and it is possible that the pits are not all the same phase. In total, just eight pits cut the earlier ditches [1004, 1017, 1019, 1038, 1045, 1068, 1105 and 1113].

Overall, the pits ranged in size between 0.32m and 1.52m in diameter, with depths of between 0.14m and 0.56m. Cultural material recovered from the pits included residual worked and burnt flint, pottery and charred plant remains. A small number of pits produced traces of fragmented animal bone, but bone survival was generally very poor. In many of the pit assemblages, where pottery was present, a broad chronology was represented with fragments dated to the early to middle Neolithic, Bronze Age and late Iron Age to early Roman periods.

#### *Post-medieval and modern*

No archaeological features or cultural material of medieval date were recovered. A buried plough horizon, containing a notable quantity of chalk flecking, and measuring up to 0.15m thick sealed the subsoil and the archaeological features. This was in turn sealed by the present topsoil.

*Discussion*

Evidence for occupation during the *Mesolithic* period across the Isle of Thanet currently remains relatively scarce (Moody 2008, fig. 23). The evidence for activity of this date, recorded during these investigations, adds to nearby discoveries made at Thanet Reach Business Park (Perkins 1997, 229) and Ramsgate Road (Kent HER No. TR 36 NE 188), 1km to the east and north respectively.

The recovery of a wide range of cultural material suggests that settlement-related activities were taking place in the locality during the early to middle *Neolithic* period. Despite difficulties in confidently attributing features to this period of activity, it seems likely that a number of pits are Neolithic. In addition to those with datable material, several undated features were shallow and bowl-shaped, traits that are often associated with pits of this period (Thomas 1999, 64). Further to this, there is also some evidence to suggest that midden material had been deposited in the pits, a practice often associated with Neolithic activity (Anderson-Whymark 2012, 192). These discoveries fit into a wider pattern of occupation in the area. A short distance to the east, on Margate Road, a group of some forty-eight pits dated to the early Neolithic was recorded in 2005 (Poole and Webley 2008, 77). The pits produced very little artefactual material and it was suggested that the features reflected low-level or episodic occupation within the area (*ibid.*, 102).

Charred plant remains characteristic of Neolithic assemblages were also recovered. Whilst radiocarbon dates demonstrated evidence for hazelnut consumption during this period, it was not possible to confirm a Neolithic date for the cereals. Evidence for early cereal production in the locality was recorded to the north of the site at Westwood Cross. Here, one pit produced a large assemblage of charred grain which included emmer wheat (*Triticum dicoccum*) and naked barley (*Hordeum vulgare var nudum*). Emmer grains from this feature have been radiocarbon-dated to the early Neolithic period (three samples returned dates ranging from 3940-3650 cal BC). This date is broadly contemporary with the Neolithic structure at White Horse Stone and provides one of the earliest dates for grain so far recovered from Kent (Stevens 2011). Archaeological investigations conducted during 2009-2010 on the route of the East Kent Access road scheme, some 3km to the south, also produced evidence of Neolithic cereal production. Charred emmer wheat and flax seeds recovered from Neolithic pits returned radiocarbon dates of 3650-3380 cal BC and 3640-3380 cal BC respectively (Andrews *et al.* 2015, table 2.3).

Current evidence suggests that during the later Neolithic to early Bronze Age period, low-level activity was taking place in the immediate area, with perhaps a focus for occupation being situated further to the east at Thanet Reach Business Park (Perkins 1997). At Westwood Road, approximately 600m north-east of the site, a seemingly isolated pit of this date was recently discovered which produced one sherd of Beaker pottery and a fragment of charcoal which returned a radiocarbon date of 2467-2215 cal BC (Lane 2015, 215). Environmental evidence and the results of micromorphological analysis of these pit fills suggested that cereal production and animal husbandry was taking place in the surrounding area at this time (*ibid.*, 218). The discovery of the Beaker pottery during the investigations at New Haine Road adds to the current understanding of distribution.

By the middle to late Bronze Age period, evidence suggests that large-scale



land division and associated agricultural practices were taking place in this part of Thanet. The boundary ditches recently recorded at New Haine Road are almost certainly associated with these wider practices. Investigation of these features also revealed the sequence of development of these boundaries, with evidence showing the re-establishment and subsequent re-alignment of ditches.

Similar boundary ditches have been identified to the north of the site at Westwood Cross (Gollop 2004, 10-19), to the east at Westwood Road (Lane 2015, 215) and Margate Road (Poole and Webley 2008, 80-82), to the south at the Spratling Street/New Haine Road roundabout (Wessex Archaeology 2008, 9-11), and to the west and south-west of Haine Road (O'Shea-Walker and Helm 2017, 12-13; Wessex Archaeology 2006, 12-13; **Fig. 3**).

In addition to these field systems, other features associated with animal husbandry have been identified. A possible droveway was recorded during the Westwood Cross investigations (Gollop 2004, 10) and features including a possible waterhole were recorded at Margate Road (Poole and Webley 2008, 103). The later parallel gullies bear strong similarities to examples recorded nearby at the Margate Road site and the Spratling Street/New Haine roundabout site (see *ibid.*, fig. 2 and Wessex Archaeology 2008, fig. 3). Such features have also been recorded more widely within southern England (Yates 2007, 137) and in north-west France (see for example Marcigny and Ghesquière 2003). In general, the gullies are discontinuous and closely set, often ranging between 1.5m and 2m apart. Too narrow to have acted as a droveway for large stock such as cattle, it is thought that the function of these features may have been to operate as sheep runs. This arrangement would allow livestock to be inspected and sorted, with breaks in the ditches providing gates into individual enclosures (Yates 2007, 137).

Research has shown that field systems generally represent mixed farming practices (*ibid.*, 144) with evidence for both crop production and livestock management. Plant remains recovered during this excavation have yielded evidence for cereal production in the area. Whilst some of this assemblage is potentially Neolithic in date, there is also evidence for the cultivation of crops during later prehistory. The presence of spelt within the assemblage can be used as a chronological indicator. The earliest dates for spelt in southern England are middle Bronze Age (Carruthers 2016, 3) and it is generally accepted that spelt wheat was a principal cereal crop during the Iron Age period (*ibid.*, 5). Fragments of spelt chaff recovered at this site have been radiocarbon-dated to the middle Iron Age. Within the wider area, features dated middle to late Bronze Age at Westwood Cross (Stevens 2011), and late Iron Age at Margate Road (Pelling *et al.* 2008, 100) have also produced spelt. This suggests therefore, that some cereal production evidenced in these investigations was contemporary with the field system.

The overall findings suggest that during the middle to late Bronze Age cereal production and animal husbandry were taking place in this area. This adds to a growing body of evidence across the Isle of Thanet and southern England, which demonstrates the development of structured land-use and mixed farming practices at this time (see Yates 2007).

The results of recent investigations suggest that land to the west of the site was a focus for Roman activity (O'Shea-Walker and Helm 2017, 18). At the present site, intrusive finds of both Roman and Anglo-Saxon pottery suggest low-level activity

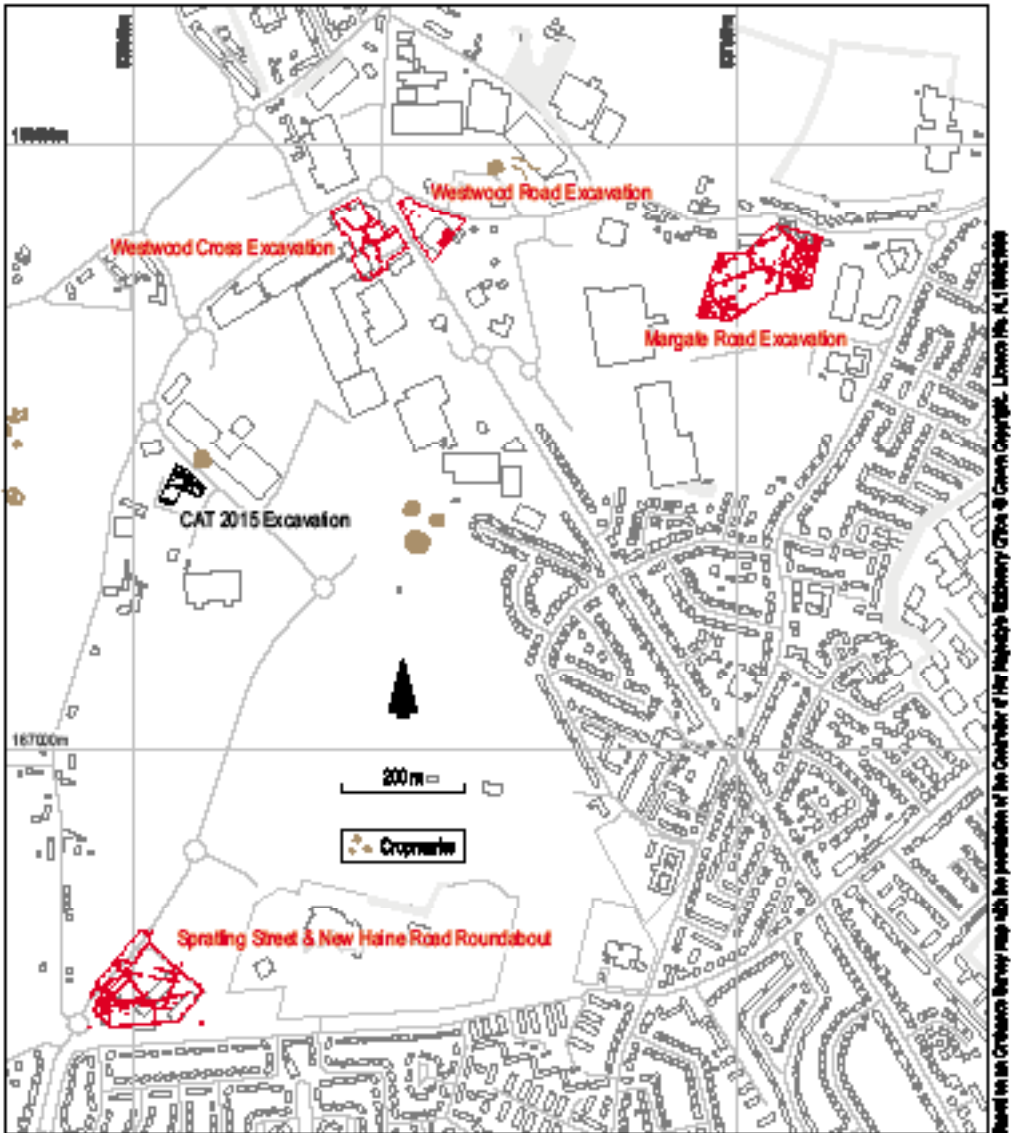


Fig. 3 The New Haine Road area showing the location of previous excavations with evidence of later prehistoric field systems.

within the immediate area. In general, evidence for early medieval activity in the area is scarce. However, several Anglo-Saxon cemeteries have been recorded in the wider area, including those at St Peter's, Lord of the Manor (Diack *et al.* 2002, 5) and on the route of the East Kent Access (Andrews *et al.* 2015, chapter 5).

To the north of the site, an oven/bakery structure was recorded during pipeline works. This structure was situated within an enclosure defined by a ditch and has been dated to the eleventh to twelfth century (Wessex Archaeology 2006, 9).

Further medieval activity dated to the eleventh century and also to the thirteenth to fourteenth centuries, has recently been recorded to the west (O'Shea-Walker and Helm 2017, 18).

The paucity of evidence for medieval activity within the immediate locality of the New Haine Road investigations may indicate that either there was a hiatus in land-use during this time or that the land was used principally for agricultural purposes. Undoubtedly this area has long formed part of an arable landscape. Fleet Farm, located to the west of the site, is mentioned in a marriage settlement dated 1674 (Sweetinburgh 2002, 12) and Haine Farmhouse, immediately south-west of the site, dates to the early eighteenth century (Kent HER No. TR 36 NE 2326). The buried plough horizon identified at the site may relate to post-medieval farming of the area.

It was not until 1876 when the Northwood Hospital for Infectious Diseases was constructed on land to the north that changes to land-use in the area began. However, at the site of these investigations, the land remained largely unaltered up to the present development.

## Conclusion

The results of these archaeological investigations contribute to a growing understanding of this area of the Isle of Thanet during the Neolithic and later prehistoric periods. The principal findings demonstrate evidence for occupation within the locality during the Neolithic period and the establishment of a field system and associated agricultural features during the middle to late Bronze Age.

Archaeological investigations in the wider area have produced evidence for some of the earliest cereal cultivation in the region. During the early Neolithic period, agricultural crops comprising emmer wheat and flax were being produced, and by the later Neolithic/early Bronze Age period evidence suggests that cereal production and animal husbandry were taking place. Excavated evidence indicates that during the middle to late Bronze Age period, a broad agricultural landscape was being developed with mixed farming practices taking place. A continuation of cereal production into the later prehistoric period is attested by the recovery of spelt dated to the middle Iron Age period.

The data gathered during these investigations demonstrate a lengthy heritage of agriculture in the Isle of Thanet. Today's crops include asparagus, brassicas and potatoes, but the seeds of cultivation were sown in the Neolithic period.

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