Landscape investigation on the Surrey greensand: fieldwork at Abinger and Holmbury, 1985–9

KEITH WINSER, KEN WATERS, JUDIE ENGLISH and DAVID FIELD

with contributions by ROGER ELLABY, STEPHEN NELSON and FRANK PEMBERTON

A programme of fieldwalking and woodland inspection carried out between 1985 and 1989 G329shed light on the changing pattern of settlement and land-use within the Tillingbourne valley. A 1km wide transect across the greensand lithologies provided a sample that can be cross-checked and used for comparison elsewhere. The Tillingbourne valley is shown to have been an important focal point for settlement throughout the past and while prehistoric activity is seen to be wide ranging across the landscape, that of the Roman and later periods is more nucleated.

In memory of Pat Nicolaysen 1923–2010

Introduction

This report describes a programme of landscape investigation that took place at Abinger and Holmbury between 1985 and 1989. The focus was partly defined by the topography itself, a 6km transect bounded by the dramatic chalk escarpment in the north and the equally striking Lower Greensand escarpment that overlooks the Weald Clay in the south. The area encompassed known archaeological sites: Holmbury hillfort, the then little-known Roman villa at Abinger, while north of centre, and just beyond the eastern boundary of the transect, lay the Abinger Manor Mesolithic (reputed) pit-dwelling. In each case little was known of their hinterland or landscape context and the intention was to remedy this and provide some idea of landscape use, change and development. The investigation thus not only provides an assessment of the local archaeology but also a benchmark for comparison elsewhere on the greensand.

Topography and geology

The area is situated centrally within the block of greensand hills that lie between Guildford and Dorking (fig 1) and which is bounded by the Wey drainage in the west and the Mole valley in the east (fig 2). The river Tillingbourne, a tributary of the Wey, and here barely more than a stream, runs east to west acting as a focus for modern settlement, while a series of feeder streams drain into it from the Lower Greensand hills around Abinger Common, Leith Hill, Holmbury, Peaslake and Winterfold Heath, leaving a number of obsequent combes around Wotton and Abinger Commons where former minor streams have affected the topography. Of relevance here is an unnamed stream, but referred to locally as the Sutton stream, which rises from springs at Holmbury St Mary, flows north through the hamlet of Sutton and joins the Tillingbourne at Abinger Hammer. The often deeply incised rivers and streams leave bluffs overlooking them, particularly on the south side of the Tillingbourne. In the south of the area springs issue along the greensand escarpment from the junction of the Hythe Beds and Atherfield Clay and drain to the south, in one case sapping back northwards leaving a watershed around Holmbury St Mary.

The respective escarpments of the chalk and Lower Greensand provide striking landscape features, both acting as natural barriers, particularly when approached from the south. Each provides a commanding view when looking south, and frames the view when looking north from respective southerly locations. The dip slope of the greensand faces north, gently sloping

towards the Tillingbourne. The soft sands with patches of resistant seams have resulted in a picturesque landscape of hills, some undulating, others steep and dramatic. The higher ground of the greensand escarpment in the south around Holmbury Hill, for example, is the result of harder layers of chert that have resisted weathering. Within the study area the Folkestone Beds ridge, less than 0.5km south of the chalk escarpment, stands out, leaving a narrow east—west valley situated between. To the south of the Tillingbourne, the Tolt, a conical hill reaching 148m OD is locally prominent providing extensive views and from which land slopes rapidly northwards towards the river.

The geology of the area comprises ribbons of sand and clay, each with their own topographical and vegetal characteristics, arranged east to west and situated between the chalk escarpment in the north and the Weald Clay in the south (fig 3). At the foot of the chalk escarpment is a narrow deposit of Upper Greensand little more than 100m wide. Abutting this is an equally narrow deposit of Gault clay, a sticky impervious material, blue/grey on exposure but weathering to a brown colour and interrupted on the ground by an east—west railway line. Moving south again a rather wider deposit of Folkestone Beds occurs, comprising quartzose sands sometimes stained various colours but often clean and white. Seams of ferruginous sandstone or carstone as well as ironstone occur within this and such material is often spread around on the surface by cultivation. The major deposit of Hythe Beds – coarse brown sand interspersed with layers of tabular sandstone and seams of chert – extends for over 4km southwards as far as the escarpment at Holmbury Hill. However, spreads of Sandgate Beds, here mostly the lower deposit known as the Bargate Beds, overlie it on either side of the Tillingbourne (Gallois 1965, 34). Terrace gravel and alluvium also fringe the river in places.

Today, cultivation is mostly confined to the areas of Sandgate Beds and the gravel terraces. Early cartography, for example Roque's map of 1768, indicates that for the most part fields in cultivation today are those that were cultivated during the 18th century and presumably much earlier. Any earthworks here were destroyed long ago in contrast to those on the Hythe Beds where traces can survive among the woodland. The latter deposit, located in the south of the transect, incorporates part of the Hurtwood, an extensive area of manorial common land, partly planted with trees, but formerly quite open, being depicted as heath on Roque's map.

Both geology, with its laminar divisions, and topography lend themselves to a north–south transect across the various features. Thus, it should be possible to investigate uses to which different components of the landscape were put, as well as investigating settlement activity in relation to its topographical position.

Method

The study area lies at the heart of Surrey's central block of greensand and the chosen transect can be considered to represent a sample across the various lithologies and thus generally representative of the whole. It was considered that an area 1km wide, a little less than the width of a parish, should provide enough information without the project becoming unmanageable. The area of study thus formed a transect across geological formations defined by Ordnance Survey eastings TQ 10–11 and northings 43–49, an area of 6km from north to south and 1km in width (figs 1 and 2). It was estimated that the fieldwork would take three winter seasons although in the event this proved insufficient as investigation was severely hampered by vegetation for much of the year, while fieldwalking of cultivated fields was restricted to winter months. Nevertheless, reports on some of the more interesting sites encountered during the project, a particularly intense flint scatter at Paddington Farm (Field *et al* 1987), a gunpowder processing site at Abinger (English & Field 1992), and a Late Iron Age site enclosure (Field 1989a) at Felday, were published as work developed.

In 1985, at the beginning of the project, systematic fieldwalking methodology was in its

infancy and undergoing an experimental phase. Most fieldwalking projects were exploratory in this respect and each adopted different methods of recording. Accordingly, it seemed necessary to prepare a standard method that would allow comparison across the area, or even with the same fields should work need to be replicated.

Cultivated fields were generally of relatively small area, and consequently each was taken as a collection unit (fig 4). Within each unit, line walking was adopted as a method of recovering material in a systematic manner, as laying out each collection lane was relatively rapid. This process identified sites on which grids would be placed in subsequent seasons to provide greater precision, although in the event only one site, Field 28 (Field $et\ al\ 1987$), was treated in this way. Each collection unit was laid out on a north to south axis so that every field was walked in the same direction regardless of the orientation of its boundaries, lines being walked at 10m intervals with participants returning between lines and providing effective ground cover every 5m. The approach helped to eliminate biased recovery factors on slopes, or in different lighting conditions, and ensured a standard method across the area, although use of fields instead of grids as collection units did, with the benefit of hindsight, present difficulties with the presentation of results. Field units were walked after ploughing, harrowing and seeding had taken place and crop grown to c 10cm. This ensured that the surface was weathered and visibility enhanced.

In contrast, extensive areas of woodland and heath posed problems for investigation, particularly on the Folkestone Beds and Hythe Beds. The most problematical areas were closeplanted plantations where visibility was restricted to a few metres, while elsewhere bracken and extensive tracts of bilberry (known locally as hurt) also rendered much of the surface unobservable. Here the woodland was walked at convenient intervals, north to south, using compass and voice estimation to ensure reasonably straight lines, while rides and firebreaks were walked at 5m intervals, although in this case the north to south axis could not be adhered to. Notes of the position and description of earthworks were made as they were encountered and probably correct to c 10m, but given the potential for error in positional accuracy, observations are presented within 100m grid squares. An enclosure discovered in woodland above Felday was surveyed and given further treatment (Field 1989a). Subsequently, a walkover inspection of this area as part of a historic landscape survey of Hurtwood Common in 2004 identified and reported on many recent and modern features that were incorporated into the Surrey Historic Environment Record (HER) (Bannister 2004). Consequently, and in order to avoid duplication, this area has been given a light touch here and comments reserved for areas where worthwhile additional contributions can be made.

In the north much of the Folkestone Beds were covered with open secondary woodland, probably derived from what Rackham (1976) might describe as wood pasture. A simple walkover suggested that the woodland was bounded to north and south by earthworks representing boundaries visible on early mapping that related to the 18th/19th century agricultural regime while little was noted within the woodland itself.

Only a few areas were under pasture and reconnaissance of these pointed to areas that needed earthwork survey. Such survey was carried out at a series of earthworks in pasture at Abinger Hammer (English & Field 1992).

The survey

Results are presented in two parts: a) where surfaces have been levelled and artefacts have been collected from the surface of cultivated fields, and b) where the surface evidence of activity is extant as visible earthworks.

CULTIVATED FIELDS

Material recovered from the surface of cultivated fields is mostly flint. Only a few sherds of

prehistoric pottery were found, and Romano-British and medieval material was similarly relatively sparse.

The results of the recovery of material are presented here as a series of plots each showing the recovery of selected artefact types. In order to ensure meaningful presentation, in each case the average number of finds per hectare has been multiplied by the hectarage of each field and fields containing above average finds highlighted as a percentage above the norm (see appendices). Material can be seen to cluster more strongly in some areas than others and this provides an indication that some parts of the landscape were favoured for certain activities over others. Note that material from Field 28, which lies on the river bluff to the east of Tanke Field and from which great quantities of material were recovered, is the result of an additional method of collection and was reported separately (Field *et al* 1987).

Flint

Analysis of the struck flint was carried out after the *chaîne opératoire* method outlined by Froom (1976), ie before the more recent work by Reynier (2005). Including burnt pieces and all categories of waste, a total of 15,586 pieces of flint was recovered during the survey and details of these are presented in Appendices 1 and 2. The presence of struck flint was ubiquitous, and a low-density scatter was evident right across the area: in no case was a field completely devoid of flint. Most raw material appears to derive from the chalk, although this is hardly surprising as the chalk escarpment exists in full view immediately to the north and where natural exposures of flint seams might be expected to be found in, for example, the sides of combes or in tree-throw holes. Nodules also accumulate at the base of the escarpment as a result of continual weathering of the scarp face. However, there are exceptions and a minor component of the assemblage appears to come from the narrow gravel terrace alongside the Tillingbourne, while other pieces derive from the Bullhead Beds at the junction of the chalk and Tertiaries. Some of the ground axe-head fragments are a light-grey in colour and may have come from elsewhere – perhaps the flint mines in Sussex.

In terms of nodule reduction, primary flakes occur in any quantity only in Field 29 (55 flakes), Field 34 (39), Field 04 (44), Field 08 (101) (this unit is referred to elsewhere as Barnfield East, eg Hooker *et al* 2014) situated immediately below the chalk escarpment, and Field 11 (45) which contribute the only pieces struck with a hard hammer and present a number of favoured knapping locations, although the presence of reasonable numbers of secondary flakes and cores elsewhere indicates that further tool reduction and tool manufacture was taking place right across the area. Above average numbers of secondary flakes came from Field 08, Field 29, with lesser quantities at Field 11, Fields 04 and 06, Fields 09 and 34 (fig 5a). In each case Fields 29 and 08 stand out as preferred locations with Field 34, Field 06 and Field 11 close behind.

Many cores and artefacts were discarded when relatively large and there appears to have been little concern to conserve raw material. Above average numbers of flake cores came from Fields 08 and 29, with smaller quantities at Field 06, 34, 09 and 17 (fig 5b). Above average numbers of blade cores came from Fields 08 and 29, with smaller quantities at Fields 16, 11, 06, 10 and 31 (fig 5d). Similarly, above average numbers of blades (all sizes as per Froom 1976) were found at Fields 08, 29 and 06, with Field 11 close behind, others from Field 09 and 04 (fig 6c). The distribution of blades and flakes mirrors that of their respective core types indicating that most flakes/blades were discarded close to the main knapping sites rather than being taken elsewhere.

Snapped blades predominate in the fields either side of the river (fig 6a) but there are also good numbers on the higher ground around Fields 02, 15, 11 and 09, not to mention Field 08 in the north. Burnt flint, potentially an indicator of domestic activity, is more widely scattered (fig

6b) with the greatest concentrations in Fields 08, 28 and 29 but also distributed across the slopes and higher ground.

When it comes to tools, above average numbers of scrapers, here undifferentiated, again accumulate alongside the river and below the chalk escarpment in Field 08 (fig 6c). Field 11 stands out on the higher ground with a thin scatter elsewhere. The picture is similar for utilised flakes (fig 6d) although there are above average numbers at Fields 02 and 15. Again Field 11 stands out on the higher ground but now joined by Field 10.

A total of 21 microliths was recovered (fig 7a), a relatively small number given the size of the area and these are commented on by Roger Ellaby (Appendix 4). They occur in greatest quantity at Field 29 (9), and Field 11 (3); only one was recovered from Field 08. Among them are five or possibly six Horsham points, three of them from Field 29. A large but broken obliquely-backed point comes from Field 34, while other obliquely-backed or blunted pieces come from Fields 08, 09, 16, 29 and 34. The only geometric pieces come from Field 29. The 20 microburins recovered mirror the microlith distribution, with concentrations in Field 29 (9) and Field 06 (3), but none from Field 08. Burin distribution mirrors that of microliths, a total of eight being recovered, with Field 29 (3) providing the only site with more than one.

Tranchet and radially sharpened adze-heads (Field 1989b) were recovered from Field 28, 29 and Field 05, both river bluff sites and in addition there were fragments from Fields 11 and 08 (fig 7a).

The distribution of Mesolithic axe-heads can be compared with Neolithic ground axe-heads in order to appraise spatial occupation between the periods (fig 7b). The distribution of ground axe fragments is slightly more widespread with fragments from Fields 02, 20, 29 (x2), 09 (x2), 11 (x2) and Field 18, while flakes from ground axe-heads were recovered from Fields 20, 04 (x2) and 34. A small chipped axe-head of indeterminate date was recovered from Field 04 and a chisel from Field 10. Field 29 alongside the river and Field 11 on the higher ground to the south provide common denominations.

In contrast arrowheads are distributed rather more widely within the landscape (fig 7b). In addition to Fields 29 and 11, leaf-shaped arrowheads were recovered from Fields 15, 13 (x2), 04, 09, 17 and 18. Petit tranchet derivative arrowheads were recovered from Fields 13, 04, and 06 (x2) and a barbed-and-tanged arrowhead from Field 09. A hollow-based example was found in Field 29 together with several indeterminate pieces, while other fragments were recovered from Field 26 (tip) and Field 17 (tip).

Pottery

Prehistoric pottery is all but absent; just five sherds of probable Bronze Age pottery were recovered from Field 08 and another from Field 24 nearby. Single sherds of undiagnostic prehistoric pottery came from Fields 06, 33, 11 and 34 (see Appendix 5).

Small quantities of Romano-British pottery were recovered from eight locations (fig 7c) and the material is commented on by Frank Pemberton in Appendix 6. Two sherds came from Field 08 and 18 from Field 11. The location of six sherds found in Field 33 was re-visited after further soil weathering and supplemented by the recovery of 61 additional sherds. At Field 06, the site of the Abinger villa, ten sherds of Roman pottery were recovered together with sixteen pieces of tile. In the adjacent Field 03 just a little further away from the villa, three pieces of Roman tile were recovered, a surprisingly small amount of material from a major Roman site. At least eight pieces of Roman tile including two fragments of *tegula* were recovered from Field 27, one from Field 30 and a possible Roman flue tile was recorded from Field 33 all indicating that there may be other Roman buildings in the area.

A single Saxon sherd was noted from Field 08. Medieval pottery occurred in greatest numbers in Field 33 (46 sherds), with smaller numbers in Fields 04, 11 and 07 (fig 7d). Single

sherds or small numbers from other fields may be the result of manuring. Medieval sherds are commented on by Steve Nelson and the number of medieval sherds recovered together with their fabric type and date (derived from Jones 1998) is given in Appendix 7. The total is remarkably small and only the scatter in Field 33 is suggestive of more than fragments spread by manuring. That the majority falls within the date range 1150–1250 is perhaps surprising and may suggest changes in farming practice after that period.

WOODLAND

Given the density of woodland, locating position was a major problem. Activity was carried out before the availability of Light Detection and Ranging (LiDAR), Global Positioning by Satellite (GPS) or indeed data logging electronic distance measuring (EDM), although given the extent of conifers, such methods are unlikely to have made a significant difference. Almost half the 100m grid squares contained earthworks of one kind or another (Appendix 8) and the number is greatly increased when 31 squares containing modern settlement is subtracted from the total. Systematic walking of the rides and firebreaks produced little material, although it should be noted that recovery of almost 1500 pieces of flint of mixed date was reported by Barfoot & Cotton (1989).

The major feature recorded in the southern woodland was an enclosure subsequently named the Felday Enclosure after the hamlet of Felday immediately to the south (Holmbury St Mary is a 20th century catch-all term for the two adjacent hamlets of Felday and Pitland Street). This was surveyed and two trenches across its rampart excavated in 1984–5, establishing a 1st century AD date (Field 1989a), although recent re-analysis of the pottery has identified a Middle Iron Age component (Seager Thomas 2010). Within the enclosure are the remnants of a First World War prisoner of war camp and both enclosure and prisoner of war camp have since received further investigative work (Newell *et al* 2016), but by which time beam slots of huts formerly visible in the leaf litter had been lost to forestry operations.

Aside from the enclosure and the previously known Holmbury hillfort, the largest number of observations in this area was of quarries (see also Bannister 2004). These varied from small shallow pits that rarely exceed c 1m in depth and some of which may even have been tree-throw holes, to huge irregular excavations many tens of metres across. Some quarries take on a linear form where it is likely that the target was a particular seam of chert. The sharp profile of most suggests they are likely to be of relatively recent date and cart access into some additionally serves to rule out prehistoric working. A large shallow depression within the Felday enclosure, however, is an exception that may prove to be settlement related rather than industrial.

The spatial distribution of quarries is variable and irregular. Single pits are often widely spaced and may reflect exercise of local rights of common, although occasionally nucleated groups occur. There seem to be accumulations of digging on the summit of the hills and it may be that particular seams of greensand were being targeted for certain purposes. Material here will have been particularly resistant to erosion and therefore good for building. In the south, natural folds in the topography may account for the linear arrangement of some quarries.

Where access into quarries is provided it is usually from the north-east or, less often, the north-west and this is likely to be an indicator of the area for which the stone was being procured. An obvious location is the appropriately named 'Pitland Street', referred to, no doubt colloquially, as 'Pedland Street' on Roque's map of 1762, although Pitland Street is referred to in documents of 1622 and several other occasions in the 17th century (SHC: G85/13; G53/150/58; G120/30/1, 2) this may be an indication that the 17th and perhaps the 18th centuries were the heyday of quarrying operations. Quarries at TQ 105 435 were clearly long abandoned when the Ordnance Survey described them as 'Old Quarry' and 'Old Gravel Pits' on

an edition of the OS 25-inch map surveyed in 1895.

Most of the ditches and banks observed are likely to be related to industrial activity. Logging is one such that may have left scars behind particularly when timber was hauled to a sawmill. At least one 'ditch' has what appears to be a walkway alongside that may have been used for horses rather than people. It is conceivable that some 'ditches' contained tramways, a common method of shifting timber until the middle of the 20th century and one such, a Decauville railway, was more recently noted to the north of the Felday Enclosure (Newell *et al* 2016, 160). Where the associated sawmills are located is unclear. One sawmill was recorded as formerly sited at Hurtwood Car Park no 9 (*ibid*), but there may have been others and the main ditch or tramway also leads north towards Woodhouse Farm.

Other ditches on and near the escarpment, particularly the slit trenches, will have a military origin. The escarpment formed a formidable barrier and was utilised in defence programmes during the Napoleonic as well as the First and Second World Wars. Use of the promontory above Felday as a prisoner of war camp during the First World War may have been the tip of the iceberg in terms of recognised military activity.

PASTURE

Aside from those alongside the Tillingbourne few fields were under pasture and only Hammer Meadow, south of the forge at Abinger Hammer (TQ 0975 4720), contained earthworks. These were surveyed, analysed in 1989 and reported separately (English & Field 1992). The unusual nature of a series of platforms, mounds and depressions linked by ditches and apparent hollowways cast doubt over initial considerations that they represented deserted medieval settlement. Instead, the presence of water-related channels led to the view that they were of an industrial nature and a plan of c 1789 (SHC: 53/107) showing the position of a corning house and charge house suggests that the site was prepared for gunpowder manufacture, in which case the water channels may have been constructed to move materials around the site by barge.

Discussion

This is the first methodical archaeological field survey on the Surrey greensand and it might be expected to help place some of the earlier sites and finds in broader context. Observation of open and forested areas of course required a different approach and comparison of the two is consequently difficult. The technique of controlled fieldwalking was in its infancy when the project was established but has since become widespread, although invariably as a prerequisite of Planning Policy Guidance Note 16 (PPG16) interventions and rarely as a research tool in its own right. Undoubtedly, using traverses as a method of reconnaissance, even though north—south collection lines were rigidly adhered to, was a mistake, as it is difficult to make direct comparisons between other areas or indeed to relocate and re-check the work itself. Although planned here as a second phase, in the event only one area received gridded treatment. Since then, experience of this and other projects, both in Surrey (Field *et al* 1987; Field *et al* 1999) and elsewhere, is that collection units need to be based on sub-divisions of the National Grid and such practice is now widely carried out. Of particular concern is the large amount of material recovered and the time spent sorting and analysing, not to mention the not insignificant problem of storage.

At Abinger, the narrow intervals between collection lanes was considered essential to ensure adequate coverage and indeed proved particularly important in the case of, for example, Roman sites, where in contrast to other geological formations, even scatters around an important villa site did not present enormous quantities of material. One Romano-British site in Field 11 would have been completely missed if 25 or 30m intervals had been employed. The same would be true of sampling by grid. Other factors such as fatigue, the slope of the land, brightness of the

sunlight, time spent on stints and similar recovery factors were also taken account of, so that retrieval was consistent across the area.

In all some two-thirds of the area was covered, the rest being accounted for by private housing, gardens or otherwise inaccessible areas. The small amount of chalk woodland in the north and the chalk escarpment itself were not inspected but otherwise all geological formations were investigated. The results indicate that the Tillingbourne was a major focus of activity throughout and that the head of the Pipp Brook valley, just below the chalk escarpment, was also attractive throughout prehistory. There are indications of a broader use of the landscape during prehistory than in the historic period with activity areas spreading across the higher ground ultimately as far as Holmbury Hill, whereas historic use of the high ground appears to have been for industrial or commoning activities.

PALAEOLITHIC

Little evidence relating to pre-Holocene activity was encountered although, it must be admitted, traces of earth movement – solifluction and the like – were specifically sought. Not one single struck flake recovered had Palaeolithic characteristics although it should be noted that an ovate handaxe was found behind the school at Abinger Hammer in 1935 (Collins 1936), while recent recovery from Field 08 of several flakes with a creamy patina were considered potentially to be of Palaeolithic age (Hooker *et al* 2014, 202). Aside from these, there is no record in the archive of Palaeolithic activity. The soft sands of the district offered little resistance to the weathering that occurred during several periglacial periods and consequently little may remain in situ. According to the British Geological Survey, small patches of high level river terrace remain along the southern flank of the Tillingbourne, in the northern, lower part of Fields 18, 19 and 28, while linear patches of head, derived from solifluction material originating upslope, occur around the lower slopes of the latter two fields and alongside the valley of the unnamed stream at least as far south as The Volunteer public house at Sutton. However, no extensive patches of gravel and head of the kind mapped on the greensand around Limpsfield where there is abundant evidence of Palaeolithic activity (Field *et al* 1999), remain here.

MESOLITHIC

No field was entirely devoid of material but at a glance it is clear that some sites were favoured over others. The chalk escarpment and Gault Clay were avoided. In contrast, however, the sandy Folkestone Beds produced massive numbers of finds of both tools and waste material. Sites in Field 08, immediately below the escarpment, might be seen as a continuation of those sites recorded in Sandy Meadow immediately to the east (Hooper 1927, 223; Carpenter 1961, 110-11; Corcoran 1963, 18; Winser 1987), which accumulate around the spring of an unnamed stream that feeds into the Pipp Brook and which, in turn, drains into the river Mole near Dorking. More recent work here encountered additional evidence of Mesolithic activity that included finds of an obliquely-backed point and a Horsham point (Hooker et al 2014) and, considered in conjunction with the earlier finds, indicate that activity occurred during all phases of the Mesolithic period. The location was clearly attractive, the escarpment providing shelter from northerly winds, the sands well-drained, but with the Gault clay nearby providing different ecological possibilities. It undoubtedly became a favoured locale, evidently being persistently visited in the manner outlined by Barton et al (1995) at the former lake basin at Waun Fignen Felen in the Black Mountains of Wales, or within Surrey at North Park Farm, Bletchingley (Jones 2013). Whether it was the spring in particular that attracted attention might be tested by investigating the landscape to the east in order to ascertain whether Mesolithic presence was commonplace further along the stream. A small scatter of struck flint apparently of Mesolithic affinities found between Park Farm and Coombe Cottages (c TQ 123 458) may indicate that it

does (Winser Records); certainly, springs elsewhere appear to have attracted Mesolithic interest. One need only refer to the sites at Farnham (Clark & Rankine 1939) and Carshalton (Orton 1979), in Surrey, or further afield at Ulwell (Rankine 1962) and Blashenwell (Calkin 1953) in Purbeck, or Culver Well on the Isle of Portland (Palmer 1999) or, more recently that at Blick Mead, Amesbury, Wiltshire (Jacques 2014) to make the point.

It is perhaps of little surprise that Field 29 and those fields on the bluff around Crossways Farm overlooking the Tillingbourne contain Mesolithic material. Field 29 may be particularly important, being positioned at a confluence of a feeder stream from the south, but is also adjacent to Field 28 from where enormous quantities of material were recovered (Field et al 1987, 91–102). The fields are separated by a shallow gully and both occur on iron-rich Bargate Beds with a remnant gravel terrace closer to the river, although whether this and the potential of the Bargates as a source of ochre had a bearing on choice of location is unclear. Nodules and primary flakes indicate that knapping of raw material was taking place in both fields although some of this might of course be attributable to later periods, but the presence of tranchet adzeheads and a sharpening flake do suggest some heavy activity. Blades, blade cores and snapped blades are all numerous and the spread of burnt flint might be taken to represent at least some domestic activity. Study of the microliths from Field 28 led Roger Ellaby to suggest that the site was visited during the Horsham as well as Later Mesolithic periods. His assessment of material from Field 29 is similar; one and probably two obliquely-backed points, along with three Horsham points, one isosceles triangle and one four-sided piece, collectively indicate a considerable timeframe (Appendix 4).

Other sites of slightly less intensive activity occur along the river banks. Blade cores occurred in high proportions in Field 16 as well as Field 06 and to a lesser extent Field 03 along the northern bank, while above average numbers of blades occurred in Fields 16 and 06, as well as lesser quantities in Field 04. Whether there is near-continuous activity along the northern bank is unclear because of the interruption in cultivated spaces by the buildings of Abinger Hall and Cocks/Eversheds Farm. However, a tranchet adze was recovered from Abinger Hammer by A E P Collins (Rankine 1938), while a few Mesolithic flints from Crossways Farm, which would otherwise interrupt the sequence, also exist among his collection (Wymer 1977, 267). A little further west another site was identified at Southbrook Farm (ibid, 285). Again, just west of the transect, a prolific site that extends southwards to Fulvens Farm occurs on the bluff overlooking the Abinger Hammer cricket pitch (Winser Records). Burnt flint that might be related to this period occurred in Field 19 as well as Fields 04 and 06 along the northern bank of the river. Whether this distribution on both banks of the river is confined to the Abinger Hammer stretch of the Tillingbourne is unclear but needs testing. However, a scatter of flakes and blades from 'Chalketts', Horsley Copse, Wotton (TQ 128 473) and others from the fields between Crossways Farm and Brickyard Cottages, Wotton (Winser Records) hint that this may be the case. Given the evidence, here such accumulations might stretch for considerable lengths alongside the river.

Further south, scatters are less intense although no less important; those in Fields 11, 09 and 15 stand out. Field 15 lies close to the Abinger Manor reputed pit-dwelling site but it is curious that the field containing the pit-dwelling itself was not prominent in terms of material collected from the surface, except perhaps for snapped blades and utilised pieces. Major Beddington Behrens' surface collection of Mesolithic material from the field that led to Leakey's excavation was, however, confined to a relatively small area (Leakey 1951, 7) and it may be that this is now all but covered by the protective hut.

The nature of the pit-dwelling site itself has been the focus of debate (Ellaby 1987), the asymmetry in profile and roughly V-shaped cross-section have led to a suggestion that the pit is in fact a tree-throw hole. Whether this is so, the presence of two postholes at one end along with

a group of charred stones and two hearths beyond the confines of the pit indicate that a structure of some kind was erected and occupation extended beyond the life of a single fire. Similar controversy concerns a structure excavated in Weston Wood, Albury further to the west (Anon 1967; 1968; Harding 1968) where a shallow pit 4m diameter x c 0.3m deep was surrounded by stakeholes in a similar manner to an undoubted Mesolithic house at Broom Hill, Hampshire (O'Malley & Jacobi 1978), although a Neolithic date is just as likely for the Weston Wood site as Neolithic pottery was found close to the feature while petit tranchet arrowheads were present among the flint assemblage (Ellaby 1987, 67; Field & Cotton 1987, 77 and see also Russell 1989).

In the case of the Abinger pit, an even smaller scatter of Mesolithic flints closer to the Manor House included Horsham points and geometrics that did not occur in the pit-dwelling, the patina on them being quite different from those in the pit. If the amount of flint recovered is any guide, these appear to be small sites, just over 200 pieces were recovered from the topsoil around the pit-dwelling during excavation and while a nearby spring provided fresh water, it does not seem to have attracted the same degree of interest as the spring in Sandy Meadow. Traditionally, the Abinger pit site is envisaged as a hunting camp and the small, well-defined area of activity when compared with say, Field 28, indicate that it was visited rarely.

The degree of use of the Hythe Beds remains uncertain due to the lack of opportunity for flint recovery. Little was noted on firebreaks or forest rides, but Barfoot & Cotton (1989) recorded the presence of microliths, microburins, blades, blade cores and adzes in the area, while a tranchet adze was found on the south-west escarpment of Holmbury Hill in 1931 (Guildford Museum acc no 7690).

If the evidence from the present survey holds good for the rest of the greensand, and support can be found in the work of Rankine and other collectors that it does, the implication is of relatively intense activity across the length of the greensand throughout the Mesolithic. The greensand, particularly in West Surrey, has often been noted for the large number of flint implements collected from local fields. The Rev W Edge, S Allden, Canon O'Farrell, Mangles, the Rev C Kerry, and others all amassed large collections of material. Much of this was summarised by W F Rankine in his contribution to A Survey of the Prehistory of the Farnham District (Oakley et al 1939), but equally large concentrations of material were found elsewhere on the greensand. East of the Mole gap the task fell to John Shelley and W Hooper (1933), while material from excavations at Franks' Sandpit, Betchworth (Williams 2017) and North Park Farm, Bletchingley (Jones 2013) testify to repeated interest in those areas. Between the rivers Wey and the Mole, a number of other collectors were at work. C H Grinling and A E P Collins assembled material from Shere, Abinger and Peaslake, Godwin-Austin from around Blackheath, Albury, and Dr W Watson and A V Keeble from Shere and Holmbury. Little of this was collected on a formal basis and it cannot be assessed in relation to its landscape, or to other sites. It is not even clear how representative some of the collections are, but the material does provide some background and a rough framework. Excavation of a Bronze Age round barrow in Deerleap Wood found Mesolithic flintwork incorporated within the mound (Corcoran 1963).

Whether, as Ellaby (1987) suspects, small numbers are involved is not clear, though we might expect the population to increase towards the latter part of the period. Similarly, while the greensand lends itself to a natural home range, it is not clear whether such a range might be restricted to that formation alone or whether it might incorporate a wider area as part of an annual resource round. The increasing amount of Mesolithic material found in the Low Weald (eg Ellaby 2004; English 1990) certainly needs to be taken into account. Mellars and Rheinhardt (1978, 281–2) point out that sites appear to favour locations where two or more ecological zones can be exploited, and on the greensand a variety of different geological beds and soil types can be exploited within a short distance of 6km or so and it might rarely be necessary to travel

greater distances. To subsist here, it is not necessary to ascend to the chalk or descend to the Low Weald, for life on the greensand can be self-contained. It may even be that such a rich variety of resources encouraged increasing sedentism. If anything this tends to support Rankine's view of the topography here having significant influence over settlement locations.

Individual Mesolithic sites appear to be very small and this might suggest occupation by a nuclear family, perhaps the most economical group size for exploiting the countryside within a home range. Such a family unit may, however, have been only part of a kinship band of a small number of related families operating over a wide area, while a connection with more distant bands of unrelated groups may have been necessary for mating rituals and gift exchange (Ellaby 1987, 66). Given widespread ethnographic evidence that home ranges were based on drainage patterns, we might consider that possibility here. If different groups are to be envisaged, then the Tillingbourne drainage provides an obvious natural catchment zone. In terms of movement, however, the presence of odd pieces of Bullhead Beds flint found on the greensand during the present survey hint at contact beyond the valley and with the northern edge of the chalk.

Rankine (1949, 6) believed that the Mesolithic concentrations on the greensand in west Surrey were the result of the topography, being 'a fortunate mingling of favourable geological and topographical factors [...] unlimited stores of flint, and well drained soils which favourably influenced ecological conditions'. He thought that the altitude of the chalk scarp and degree of slope of the chalk were factors in affecting accessibility of flint and identified four types of site: a) flint gathering sites on the fringe of the chalk; b) fishing camps along the rivers; c) a series of hilltop sites that were not easily explained, and d) hunting camps, the dominant site type but which usually lie remote from the chalk outcrop. Seen like this Field 08 could be interpreted as a flint procurement site, Field 29 and the Crossways Farm sites as fishing camps, and Fields 11 and 09 as hunting camps, although if this were to be accepted, it would be a gross oversimplification. Undoubtedly Field 08 is more than procurement, while location along the Tillingbourne might be for a number of factors other than fishing.

In terms of hunting, while game might move freely along the east to west corridors, at the foot of the chalk or along the Tillingbourne, or northwards along the Holmbury valley, certain bluff sites would be ideal for observing progress, although social conventions may impede movement for humans. In any case the human relationship with animals is likely to have been more intimate (Ingold 2000). They too will have had bases and a home range.

NEOLITHIC

As noted above, leaf-shaped arrowheads are distributed widely across the topography. Fields 29, 04 and 18 are all situated close to the Tillingbourne, others in fields to the south including Field 11 and the higher ground approaching the Abinger pit-dwelling field (Field 02). It is worth noting that Major Behrens was surprised at the number of leaf-shaped arrowheads encountered during his search of the pit-dwelling field, two of which were illustrated and were found together with two ground flint axe-head fragments (Leakey 1951, 42 and fig 12). Also illustrated was a petit-tranchet derivative arrowhead, a type generally assigned to the 3rd millennium BC, examples of which were found during the present survey in the riverside fields around Crossways Farm. A further ground axe-head fragment was found in Field 02 – the Abinger pit-dwelling field – during the present survey and others were recovered from Fields 09 and 11 adding to the interest in the higher ground but in particular around Field 02.

If the flake cores and secondary flakes are taken as indicative of Neolithic activity, Field 08 below the chalk escarpment stands out as do the riverside sites at Fields 29 and 04. These would appear to be the more intensely occupied sites. All these saw earlier activity during the Mesolithic and it might be considered that the reason for initial occupation of these spots persisted, but also that over time these places became embedded in tradition to the extent that

tenurial rights may have attached, the presence of ancestral artefacts on the surface adding to the symbolic significance of the 'place'. Fields 16 and 06 along the northern bank of the Tillingborne produced good numbers of flake cores and whether distribution continued further west is uncertain as cultivated fields are interrupted by the buildings and grounds of Abinger Hall and Cocks Farm/Eversheds. It is perhaps noteworthy that the blade of a Neolithic ground flint axe-head was found to the north of Eversheds in 1965 (Surrey HER 65).

In the north, many flakes and cores and all types of arrowheads are recorded from Sandy Meadow (Hooper 1927, 223; Carpenter 1961, 110–11) and more recent work here has helped define the separate areas of Neolithic and Mesolithic activity (Winser 1987).

Leaf-shaped arrowheads and a ground axe-head together with other Neolithic flintwork have been found across the paths and rides of the Hythe Beds, in particular around Holmbury Hill where at least twenty scrapers have been found (Barfoot & Cotton 1989; Hooker & Williams 2016; VCH 1902; Winser Records) and a basalt-like stone spearhead from the lower eastern slopes (Elmore 1983). A ground flint axe-head was also found on the eastern slopes (at TQ 1077 4388) when an area was being levelled for Holmbury St Mary cricket pitch (Anon 1902, x) and it is noteworthy that the survey observed that the area levelled for the pitch cut into a long bank or mound c 15m wide, reaching no more than 1m in height and c 60m in length (see Bannister 2004, 72). Of shallow profile, this is oriented north to south with a ditch or hollow on the west. It is by no means clear whether it is a natural feature or of human construction. Other finds have been made in the area of the cricket pitch particularly from the tracks to its east and around the car park (Winser Records). Nearby, disturbance resulting from the 1987 storm revealed a concentration of struck flints at Bluebell Walk (TQ 1095 4365). Two further axeheads, one of them ground were found on the lip of the scarp overlooking Felday hamlet (TQ 1065 4430) according to annotations on a map prepared by A E P Collins. How representative of the Hythe Beds these finds may be is unclear, but similar finds come from Heathy Brow in Pasture Wood to the east of the transect as well as in the southern part of Pasture Wood (Winser Collection). Clear felling of Heathy Brow following a fire in 1976 allowed recovery of Neolithic material that incorporated leaf-shaped arrowheads, ground axe-heads and scrapers, mixed with Mesolithic microliths and blades (Winser Records). A ground axe-head from here was found by A V Keebles (Keebles Collection – now dispersed), another by A Newman, another (from TQ 112 453) is among the H Potter Collection, while part of an axe together with a flake from an axe were found by one of the authors (Winser Records and Collection). A bank and ditch roughly aligned east-north-east at TQ 116 450 remains uninvestigated.

A single rim fragment of what may an Ebbsfleet bowl was recovered from the southern valley slopes close to Ellix Wood (Appendix 5), but other than this evidence of the Neolithic period is only provided by the flintwork. Like its Mesolithic counterpart, knapped flint is generally of a higher quality on the greensand than on the chalk downs, that is to say, it is finely and more keenly knapped, a point appreciated long ago by Frank Lasham (1893a and b). There are none of the crude artefacts or flakes associated with Neolithic sites on the chalk (eg Care 1979; Field *et al* 1990). Intensity of distribution also appears to be greater on the greensand; compared with the chalk at Norbury Park, where fieldwalking of 51.3ha produced 1395 pieces of flint (Hooker & English in prep), an average of 27.2 per ha, compared to 12,510 from 156ha at Abinger, an average of 80.1 per ha. As the present survey has demonstrated, flint artefacts are ubiquitous across the area, but a number of accumulations can also be identified from adjacent areas. From Postford Farm, Albury come arrowheads, a ground axe-head flake, a 'slug knife', and a good number of flakes, although the extent of the recovery area is unknown (Grinling-Collins Collection, Guildford Museum; Hooper Collection, Guildford Museum and Holmesdale Natural History Club Museum).

Just to the west of the transect, a house off Wonham Way known as Far Corner (now

Drovers), Peaslake lies close to the Fulvenden Farm struck flint concentration on the edge of a north-facing spur 1km to the south of the Tillingbourne. From here a number of diagnostic pieces including leaf-shaped arrowheads were recovered (Winser Records), but particularly notable is the material in the Grinling-Collins Collection (Guildford Museum), which includes parts of five axe-heads (listed in Appendix 9). Less than 1km to the west lies Burrows Wood, site of a cache of three Neolithic axe-heads (Bruce-Mitford 1938). In addition to the pieces recovered by the present project some 33 complete or fragmentary ground axe-heads have been found in the area either within the transect zone or nearby (Field & Woolley 1984, microfiche). Many of these are of good quality and well formed, at least seven having faceted sides. The broken and fragmentary pieces indicate that these were used tools and the flakes show that the material was being reused. In addition, the three unground axes found at Burrows Wood are often taken to represent products from the Sussex flint mines (Barber *et al* 1999). All these can be compared with the 49 complete and broken ground axe-heads from the greensand around Limpsfield (Field & Wooley 1984, microfiche).

While predominantly material of Mesolithic date, the extensive Grinling-Collins Collection (Guildford Museum) also contains much of Neolithic interest from the Shere, Peaslake and Abinger areas. Large numbers of leaf-shaped, tranchet derivative and barbed and tanged arrowheads are present, as are scrapers. Twenty-five mixed-period scrapers are present from Tower Hill Farm, Shere, 27 from Lane End Farm, Shere, and 33 from Kingslands, Abinger, all very clearly a product of selective recovery techniques. Between Raikes and Paddington Farms in Abinger a scatter was noted containing flakes and various scraper forms (Wood 1952, 23–4). There is some indication that higher ground, or knolls, set back from the Tillingbourne provide a focus for settlement. Thus, in addition to the flintwork recorded here, Neolithic material has been recovered from Weston Wood (Russell 1989), from the higher ground around the aforementioned Far Corner, Peaslake, and Bury Hill, Westcott. Further east, material including a Peterborough bowl from Box Hill Sand Pit (Appendix 10) and flintwork from Franks' Sandpit (Williams 2017), comes from a similar position overlooking the Mole at Betchworth.

To the east of the Mole gap the greensand is less well explored; however, in those places where collectors have operated activity matching that in the west is revealed. The Hooper Collection (Guildford and Holmesdale Natural History Club Museums) contains plentiful flint material from the greensand, much of it Neolithic in date, especially from the Reigate Heath and Redhill Common areas. In a field on the east side of Ladbroke Road, close to Redhill Station, two circular patches of black greasy earth marked by luxuriant vegetation and containing calcined flints and fragments of burnt bone were observed by John Shelley and were presumed to have been the sites of tumuli (Evans 1860, 71). Apparently from the same field, a large collection of flintwork was made by Shelley, but the description and the presence of a number of large obliquely-backed points now in the Pitt Rivers and Ashmolean Museums, Oxford suggests an Early Mesolithic date (*ibid*, 72–3; Ellaby 1987, 61).

Box Hill Sand Pit lies on the northern slopes of a knoll on the Folkestone Beds with the terraces of the river Mole looping around less than 1 km to the west and south. Finds attributed to a number of archaeological periods have been recovered here since 1928 as quarrying has progressed (eg Hooper 1933, 69–70; Williams 2017). The Neolithic finds make up a neat group similar to those from Far Corner even though there is no evidence of direct association or indeed how close together they were found.

Even further east, investigation at Moorhouse Sandpit, Tatsfield, revealed a ground axehead sealed in an occupation floor, apparently in association with sherds of pottery that were considered too fragmentary for dating (OS Records), but Montgomerie Bell's collecting during the late 19th century demonstrated the importance of the area. Until recently, lost among the

reserve collections at the Pitt-Rivers Museum at Oxford, the material provides evidence of an interesting series of surface sites grouped around the springs of the river Darent with a large number of complete and fragmentary ground axe-heads. Of the most prolific sites, Rocks Farm produced borers, a fabricator, eight scrapers, a south-western group stone axe-head, and nine ground flint axe-head fragments. Payne's Hill, produced ten fabricators, a core, a scraper, two ground axe-heads, and six axe-head fragments, while Ridlands Farm accounted for five scrapers, a fabricator, ground axe-head, four axe-head fragments and three other core tools, and from Ballards, an axe-head, a retouched knife and over 40 scrapers, and finally from Lombarden came two scrapers and five ground axe-head fragments (Pitt-Rivers Museum). All these collections are selective and biased in favour of the more prestigious tools but nevertheless allow these sites to stand proud in relation to adjacent parishes.

Whether these groups of sites identified are genuine discrete home bases or otherwise favoured areas is unclear. To a degree, of course, one supposes that each reflects the stomping ground of local collectors, but the present survey indicates that scatters are ubiquitous and if investigated the rest of the greensand may provide similar evidence. Settlement on the greensand during the Mesolithic and Neolithic periods was evidently quite intense.

BRONZE AGE

Evidence of Early Bronze Age activity is less visible. A plano-convex 'slug knife' was found in Field 09 and a barbed-and-tanged arrowhead was found in the same field during the present survey. At least five other barbed-and-tanged arrowheads were formerly noted at The Chalks by Major Behrens (Leakey 1951, fig 12) and a further example from Field 08 was illustrated in an article by John Pull (1935, 637), while two others were found at Holmbury Hill (Barfoot & Cotton 1989; Thompson 1979, 269). These are located in areas of former Neolithic activity and may be casual losses, but such locations on the upper slopes of valleys are frequently adopted for barrow construction. Some of the other material found on rides and excavations on Holmbury Hill may also be Bronze Age in date although it is difficult to determine how the area might have been occupied or utilised. Whether the Hythe Beds were being quarried at this time is unknown, but becomes an intriguing possibility given the cargo of Bromsgrove Sandstone found in the bottom of a Middle Bronze Age log boat from Shardlow near Derby (Derby Museum).

A number of sherds of Bronze Age pottery were recovered from Field 08, together with a more diagnostic Late Bronze Age sherd found in Field 24 a little further west. More recent work at Field 08 has added significantly to this numerically, by identifying further Late Bronze Age material and by providing greater precision regarding location in the south-east portion of the field (Hooker *et al* 2014). In addition, some 300 sherds mostly of post-Deverel-Rimbury type are in the Winser Collection (Winser Records). To the south of this, at Cocks Farm, overlooking the Tillingbourne, a Deverel-Rimbury pot containing a cremation was recently discovered (Corke 2017) and it may be that the palimpsest of successive episodes of Iron Age and Romano-British activity there may have masked others.

Of relevance here is an obscure reference to a 'Stone Age Village' at Abinger Rough that was made in the *Sussex County Magazine* in 1935 and the location plan depicts the site as being in East Barn Field, ie Field 08 (fig 8). The site is described as being discovered by Frank and Stanley Carnzue of Abinger. The field had been almost levelled by cultivation but:

traces of a line of circular huts [...] in the north west corner of the field [his plan depicts them in a line extending from close to Bishops Cross (Wilberforce Monument) northeastwards to the junction of Effingham Lane (White Down Lane) with the railway line.] [...] most plainly seen in the north-east corner of the field near the railway. A well-marked

zone, where burnt and fire cracked flints are extremely numerous and charcoal is admixed with the sandy sub-soil, is also fairly well preserved. In the vicinity of these vestiges of dwellings and a great communal fire, flint implements, flakes and the flint cores from which they were struck, are very numerous indeed [...] The original outline of the ancient village seems to have been confined to a straggling street of circular dwellings, the bases of which had been well dished out in the sand [...] covers about two acres of ground (Pull 1935, 636–8).

The activity described by Pull largely corresponds with the evidence recovered by Hooker *et al* (2014), but together it would appear that settlement activity of one form or another extended across the field. Already cultivated in Pull's day a further 80 years of ploughing has eradicated any surface indication of the 'huts', if indeed that is what they were.

John Pull surveyed and excavated Neolithic flint mine sites at Blackpatch, Church Hill and Cissbury in Sussex and his field recognition was first class, although in 1935 he was just beginning his archaeological investigations. On an unfamiliar geology he may have been misled by the sheer quantities of material on the ground. The features noted might be explained as pits, but although he gives no dimensions the impression is of rather large features. The blade-like nature of some of the flints that Pull (1935, 637) illustrated might point to a Mesolithic rather than Neolithic date, and it is interesting to observe the approach of a stranger to the greensand (Pull's work was all but confined to the chalk of the South Downs) in identifying undiagnostic flintwork.

No barrows were recorded during the survey, although an undoubted example was noted subsequently overlooking Field 08 and another close by (Hooker & English in prep) while several mounds occur elsewhere along the Folkestone Beds ridge. One of these in Deerleap Wood, overlooking Sandy Meadow, is thought to be a natural sand knoll; another, undoubtedly a bell barrow was, like others on the sands of Sussex, found to cover no burial. To the west a mound, in Weston Wood, Albury had modified a natural knoll but the deposits were dated to the 18th century (Hanworth & Hastings 1961) and may have been part of a landscaping scheme. It is by no means clear whether a Food Vessel recovered from Fulvenden Farm immediately west of the transect (Wood & Thompson 1966) was formerly covered by a mound, but it nevertheless provides a clue that settlement was comfortable here during the Early Bronze Age. Food Vessels are rare within south-east England, indeed southern England as a whole, so its presence is not without significance. Elsewhere, the presence of place-names Frolbury (Field 09) and Foxbury (Field 17) could provide an indication of former earthworks, while on the Hythe Beds to the south of the Holmbury St Mary cricket pitch, disturbance following the 1987 storm revealed six Bronze Age sherds potentially from different vessels (Waters Records and Collection).

The lack of Bronze Age fields is of some concern. Absence on the Hythe Beds appears to be genuine as almost certainly earthworks would have survived at least between areas of quarrying. Bronze Age field boundary earthworks are extant on sandy subsoil at Whitmoor Common, Worpleson, for example (English 2016). Spade-dug plots were evident at Weston Wood, Albury, although there is little but proximity to tie them to the two Late Bronze Age huts situated alongside the Tillingbourne there (Russell 1989) and in any case the excavator, J Harding, had her own doubts about them (Hanworth 1978). Otherwise, the Surrey greensand is devoid of known prehistoric fields, the nearest recorded are those on the chalk downs around the Mole gap near Leatherhead (Hanworth 1978; English 2013, 33–6) and possibly Puttenham (Briggs 2017). This might be considered surprising given the former suitability of the area south of the chalk escarpment for early cultivation (Wooldridge & Linton 1933). It may be that a critical population size was necessary before formal fields were laid out. Recent geophysical investigations and excavation at the Cocks Farm villa have located a Middle Bronze Age

cremation burial (Corke 2017), Late Iron Age activity including a number of pits within an enclosure ditch (Bird 2015; 2017) and notably a ditched field system of Romano-British date (Bird 2010). It can only be surmised that subsequent episodes of cultivation, perhaps coupled with extensive turf cutting for fuel (Brandon 1984, 96–9), may have eradicated surface evidence of the Bronze Age as well.

IRON AGE

The hillfort on the lip of the greensand escarpment at Holmbury has long been known to antiquaries, being noted by John Aubrey for example, although he does appear to have confused it with Anstiebury (Aubrey 1718, 171). It saw initial excavation in 1930 when S Winbolt cut sections through the defences and again when F H Thompson carried out further excavations in 1974 (Winbolt 1930; Thompson 1979). Its location suggests that it has more to do with the Low Weald from where it would have a prominent siting rather than the greensand, and even today the Ockley parish boundary makes a tortuous curve around its ditches in order to quite deliberately incorporate it. The origin of that boundary is uncertain, but it presents a tenurial link of some antiquity. Recent survey of the earthworks (Hooker & English 2016) has highlighted just how odd its siting is, set astride a prominent seam of chert that ensured that one half of the enclosure was c 6m below the other and which restricted use of the interior. The weatherresistant chert had resulted in a 'nose' projecting south at the escarpment and the earthwork construction incorporated a circuitous diversion around this. Dense vegetation, steepness of slope and more recent interventions resulted in difficulty establishing the extent to which there might be earlier construction here, but the presence of a spring below the 'nose' would add symbolic integrity to the location and, as indicated by the flints recovered during excavation by Winbolt and Thompson respectively, not to mention the presence of Late Bronze Age sherds (Seager Thomas 2010, 2), the place had evidence of some considerable ancestry.

In contrast, the enclosure at Felday lay on the dip slope. Its location on a spur overlooking Felday ties it to activity along the adjacent valley and the watershed between the unnamed streams that drain to north and south. As with Holmbury hillfort its purpose remains unknown; use as a stock enclosure seems unlikely as its siting makes access difficult for animals. A large shallow scoop within the interior may be contemporary and could easily harbour one or more huts. Recent reanalysis of the pottery has identified a Middle Iron Age component (Seager Thomas 2010 and pers comm) though it is not clear whether this was simply a late survival or curated piece, but it could indicate that the site was, in part, contemporary with Holmbury hillfort. The place-names of Frolbury and Foxbury mentioned above may equally indicate the presence of enclosure earthworks as companions to Felday, while Frogbury, so-named in a survey of Paddington and Mills farms in 1772 (SHC: 329/13/10) is situated north of the Tillingbourne west of the Abinger villa site. Paired enclosures, for example, on Longbridge Cow Down and Swallowcliffe Down are well known in Wessex, (Field & McOmish 2017) and would not be out of place here. It may well be that historic cultivation has truncated surface evidence. The base of a ditch with a probable Iron Age date that David Bird suggests may have enclosed the hilltop north of the Cocks Farm villa was revealed during recent excavation. Pits within the enclosure are thought to have been dug for grain storage (Coombe et al 2016, 223). A second enclosure together with a number of pits was recorded in subsequent excavations (Corke 2017). Further east, at Westcott, a sub-rectangular enclosure known in part from aerial photographs has recently been shown by excavation to comprise substantial ditches (Rapson 2017 and pers comm), but pottery there indicates predominant use in the Late Iron Age/Early Roman period.

Only two sherds of Iron Age pottery were recovered during fieldwalking of the transect, which makes the nature of activity here is difficult to assess. The construction of enclosures at

Felday and Holmbury Hill indicate the presence of a significant workforce, yet there is little from the survey to indicate areas of occupation or activity.

ROMAN

Small spreads of pottery and tile from Fields 03 and 06 suggest that buildings associated with the Abinger villa at Cocks Farm may exist to the east of the main complex. Little is known of the villa itself although ongoing excavations by David Bird (Bird 2010; 2015; 2017: Corke 2017, 2–7: Coombe *et al* 2016, 223) will undoubtedly resolve that. Buildings are thought to have been arranged on the north, south and west of a courtyard, while the recent excavations have shown that there is phased building construction with an associated field system to the north and east. To the south features may have been damaged by the construction of the A25 road and perhaps by movement of the Tillingbourne. One might expect garden features around the villa perhaps extending to the south of the river, but none are obvious and it is not clear that the present field boundaries bear any relationship to the villa.

Tile was recovered from Field 27 and may indicate the presence of a building and, given its position on the clay at the base of the chalk, potentially a tilery, while to the south of the Tillingbourne, the pottery and flue tile from Field 33 point to the presence of a potential building. Just to the east of the transect further cremations in urns, one dated to the 1st century AD, were found when a sand pit was dug in Sandy Meadow (TQ 1158 4832) during the 1920s (Hooper 1927).

South of the Tillingbourne the main focus was in Field 33 close to the western edge of Ellix Wood. Romano-British sherds recovered from line walking were supplemented by further work by two of the authors (KW and KW) resulting in recovery of a spread of material that included sherds of a re-fitted 2nd phase Alice Holt cordoned jar dating to AD 90–150. This was evidently originally placed inverted in the ground as the plough had removed the base. Other pottery covered a wide date range and while a fragment of potential Roman tile may indicate a building the spread is very localised. Similarly, the datable pottery from Field 11 covered a wide range. Both of these sites are worthy of further investigative work.

SAXON

Little evidence was found for post-Roman activity. A single Saxon sherd was recovered from Field 08, but perhaps of equal significance a sherd was earlier recovered from the sandpit mentioned above at Sandy Meadow (Hooper 1927). Domesday Book (Morris 1975) indicates that both Paddington and Abinger were royal holdings before and after 1086. Each contained enough land for nine ploughs, while in addition two ploughs were in lordship at Abinger. Both possessed a mill and were valued similarly. The population was also similar: twelve villagers at Paddington and ten at Abinger, with five smallholders at Paddington and seven at Abinger. Pigs appear to have formed a major part of the economy, with 55 pigs noted at Paddington and 40 at Abinger. Given that the tax levied was at one in ten pigs or sometimes one in seven, the actual number of pigs could have been very much larger. These may have considerably influenced the vegetation contributing towards wood pasture away from any cultivated areas. There is a widely held view that transhumance arrangements led to pigs being pastured in the woodland of the Low Weald (eg Turner & Briggs 2016), but there is no direct evidence of such a practice here. The Holmbury valley, however, provides an easy route and it would be no surprise if it was used as a droveway. Turner and Briggs (*ibid*, 189) emphasise how the OE term *feld* refers to open country often close to woodland and within which denns, swine pastures, often occur. For the moment the antiquity of the place-name Felday is uncertain; while the unnamed hamlet is depicted on Roque's map of 1768, the earliest documentary references occur in the early 19th century. Similarly, the antiquity of the place-name Pasture Wood, situated to the east of the

transect, is uncertain, but implies this kind of land-use.

The mills mentioned are likely to have been located on the Tillingbourne and it might imply that both settlements also occupied the valley. Paddington undoubtedly occupied the area around the historic Paddington Farm, but in contrast, Abinger itself is now located on higher ground. The earliest spelling of the latter, Abinceborne, so called in the Domesday Book, appears to refer to a stream, although the place-name has been considered erroneous (Gover *et al* 1934, 259 – 1982 reprint) presumably on account of its present location at a distance from any such stream. However, it may be that Crossways Farm or perhaps the nearby Abinger Mill masks the original location of the Saxon settlement (the late Shirley Corke, pers comm); the crossroads themselves indicating a need to travel to and from that location, and that a Late Saxon riverside settlement, typical of others in the Tillingbourne valley, was later moved to an elevated position close to the Norman motte and church via way of Field 33.

No early church was present at either settlement although that on the hill at Abinger Common was certainly present by 1220 (*VCH* 1911, 131), while St Mary's at Holmbury was not constructed until the early 20th century and ecclesiastically linked the hamlets of Felday and Pitland Street. Early mapping suggests that communication routes led north from Paddington towards the downs and south to Sutton. (SHC: 329/13/10; 329/11/3 and A9 Abinger Tithe Apportionment).

Sutton, now a small hamlet on the unnamed stream between Abinger Hammer and Holmbury St Mary, was also mentioned in the Domesday Book as a manor that appears to have lost value after 1066 when the Bishop of Bayeux took over the estate. Its position confined to a narrow valley suggests that it may never have been prosperous and, given its name, may once have been a daughter settlement to Paddington, or conceivably, Abinger. Its history is uncertain as there are links to manors elsewhere, notably in Cranleigh (*VCH* 1911, 116) and this may be an indicator of early transhumance activities.

MEDIEVAL

Given the above it may be considered surprising that little medieval pottery was recovered from around Paddington or Crossways Farms. A small number of sherds were, however, recovered from Field 04 on the south-east of the crossroads, but the greatest number of medieval sherds occurred in Field 33 on the middle valley slopes and part-way between Crossways and the Abinger motte. It may be that this represents a degree of gradual, perhaps unsuccessful or unenthusiastic, settlement shift from one place to the other. Set on the interfluve between the Holmbury St Mary and Friday Street valleys, the Abinger motte is thought to have been constructed around 15 years after Domesday and may have marked a symbolic statement of ownership by William fitz Ansculf on obtaining the land from the king. It is well positioned to keep an eye on the road and to dominate travellers. Aside from remnants of prehistoric settlement, the motte may have been quite isolated until a church was built two centuries later, though possibly on an earlier site, though even this did not attract settlement, the manor house being re-sited from elsewhere by Evelyn in the 17th century.

Field 33, on a bluff above the Tillingbourne, produced the highest density of both medieval and Romano-British pottery, and may have contained some form of settlement during both periods. The limited date range of the medieval pottery suggests only a relatively short-lived occupation. The single sherd of scratch-marked pottery is well to the east of the usual range of such material, but further examples were found during excavation of Abinger motte (Hope-Taylor 1950, fig 9).

POST-MEDIEVAL AND MODERN

Artefact recovery provided little evidence of post-medieval activity in the wider landscape. No

doubt the Tillingbourne provided a focus for industrial activities throughout history, but the establishment of an iron forge at what became Abinger Hammer sometime before 1557 (Hodgkinson 2004, 238; Brandon 1984) was a notable event and subsequently the establishment of other mills further east provided landowners with fresh income. Mill ponds and leats increasingly obscured the natural valley floor among the alders and withy beds: it is quite possible that Paddington Mill occupied the same site as that noted at Domesday, while the location of a mill upstream at Abinger, just north of Lower Mill Field, (TQ 1100 4715) may mark the site of a second one. A pond bay along the unnamed stream south of Sutton marks the position of another. Fuel for the furnaces may have contributed to denudation of parts of the landscape of its woodland and much was converted to heath (Brandon 1984, 91–4). Subsequently, towards the end of the 16th century coppices were enclosed to provide fuel for furnaces, examples being recorded within the Hurtwood (Bannister 2004), while coppices in Pasture Wood and Heathy Land became main providers of fuel for the Abinger forge (Brandon 1984, 94).

It may have been the presence of the ironworks that led to the abandonment of the Paddington to Sutton track and the opening of a new route alongside the Sutton stream leading directly to the forge. The old route was already out of use by 1746, the date of Roque's survey. Cottages had also spread alongside the Dorking to Guildford road by that date and fields to the north located east of Hackhurst Lane shown in cultivation at what had become Abinger Hammer. These are depicted as divided into strips on the tithe apportionment presumably as a result of the desmesne strips being enclosed by Richard Evelyn in 1625 (Brandon 1984). Paddington House, depicted by Roque in 1762, was no longer present by the time of the Tithe survey but instead the site is shown as occupied by Abinger Hall built in 1783. The iron works themselves are not depicted on the Tithe Map and had gone out of use by that date (SHC: Rates P1/5/1, 2: Land Tax SHC 3557/1-5).

The antiquity of Pitland Street as a settlement is unclear though it is mentioned in documents of 1622 (above) and it is worth noting that 'land' place-names to the west in Blackheath Hundred appear to be associated with occupation that occurs at a distance from main settlements (English & Turner 2004, 107). Brandon (1984, 100) suggests that its origin is linked to William Morgan's improvements of Birchetts. Situated in the Low Weald, the latter was cleared of trees in 1594 for the Abinger Hammer forge and the land cleared for smallholdings (*ibid*, 94). Kiln Field, so named in the tithe apportionment and situated immediately east of The Volunteer public house at Sutton was not investigated and consequently its nature, for the moment, remains unknown.

Aside from the mills and the water engineering structures that supported them, for the most part the river flood plain comprised beds of alders and osiers. However, Brandon (1984, 86) refers to the existence of engineered water meadows here from at least 1622. This is an embryonic date in the development of these structures; elsewhere the earliest mention of floated water meadows is Alfpuddle in Dorset, where manorial records date them to 1605 (Smith 2013; Taylor *et al* 2006). No typical corrugations were noted within the transect, but the Abinger example may therefore repay further work both in the field and among documents to establish the nature of its development. Among other things their presence implies an intensification of agriculture and the presence of significant flocks of sheep to manure the fields. In part, these may have been kept on Abinger Sheep-Walk on the summit of the chalk escarpment (Brandon 1984, 95) before being folded nightly on the cultivated fields but it may be that they also played their part in the denudation of woodland.

Conclusion

Fieldwork on a 1km wide transect through greensand topography has provided evidence of a

settlement pattern largely dependent on the river Tillingbourne and possibly on the springline at the base of the chalk escarpment. It would appear that following the Neolithic period when flint scatters indicate that occupation activities took place widely, although perhaps intermittently, across the valley slopes, the pattern of settlement nucleated and focused alongside the Tillingbourne. In some respects, while probably shifting locally, it was relatively stable throughout the historic period, exhibiting little change in foci from that seen in the landscape today. Industrialisation of the valley resulted in a degree of local wealth and growth may have resulted in settlement at the former centres migrating to the new industrial complex at Abinger Hammer. Development at Sutton, together with the establishment of settlement at Pitland Street and Felday may be attributed to this period as well, while the founding of a church, St Mary's, in the late 19th century, led to the ecclesiastical unification of the latter hamlets.

ACKNOWLEDGEMENTS

The authors warm thanks go to Mr P Evelyn, Mrs Bray and the Hurtwood Estate, to the late Shirley Corke for The Abinger Hall Estate Co and to Mr S B Osborn of Paddington Farm, for kindly allowing the survey to take place on their land. Also to Alan Barnett, Gillian Barnard, Julian French, Jo Jones, Pat McKenna, the late Pat Nicolaysen and Mike Youkee for their commitment to fieldwalking and artefact sorting through several successive winters. Thanks also to Gabby Rapson for kindly sharing details of her excavation at Westcott prior to its publication and to Emma Corke for similarly assisting us with details of the excavations at Cocks Farm and with other aspects of Abinger's history. The material is housed at Surrey History Centre.

BIBLIOGRAPHY

Manuscript sources

SHC: Surrey History Centre, Woking

G85/13 Land near to Pitland Street in the Manor of Shere Vachery G53/150/58 Manor of Gomshall Towerhill , Shere: Stewards papers G120/30/1, 2 Assignment of 1000 year lease to Thomas Seaman and Thomas Chasemore

G53/107 Plan of proposed gunpowder works in Abinger parish on land belonging to Sir Frederick Evelyn, Bart. Surveyor, John Rennie. Plan shows Abinger Hall, Hackhurst Farm, Paddington Farm, and Abinger Hammer with forge and Hammer Pond

G329/11/3 Map of the Wotton Estate

G329/13/10 Wotton Estate papers. Map of Paddington and the Mill Farms, Abinger, part of the estate of Sir Frederick Evelyn

A9 Abinger Tithe Apportionment

Rates P1/5/1, 2 Appointment of overseers: Abinger Parish Records Land Tax 3557/1–5 Tax collection for Abinger parish

Waters Records and Collection: private archive and material held by Ken Waters Winser Records and Collection: private archive and material held by Keith Winser

Published and secondary sources

Anon 1902 Reports of proceedings, SyAC, 17, ix-vx

Anon 1967 Weston Wood, Albury: Mesolithic settlement, in Report of the Council for the year ended 31st December 1966, *SyAC*, **64**, [3–4]

Anon 1968 Weston Wood, Albury: Bronze Age and Mesolithic settlement, in Report of the Council for the year ended 31st December 1967, *SyAC*, **65**, [3–4]

Aubrey, J, 1718 The natural history and antiquities of the county of Surrey, 4, Dorking:

- Kohler & Coombes 1975 facsimile
- Barber, M, Field, D, & Topping, P, 1999 *The Neolithic flint mines of England*, Swindon: RCHME
- Barfoot, J, & Cotton, J, 1989 A collection of lithic debitage from the Lower Greensand at Holmbury Hill, *SyAC*, **79**, 147–60
- Bannister, N 2004 *The Eastern Hurtwood: Holmbury and Felday*, unpubl rep (copy available in SyAS library)
- Barton, R N E, Berridge, P J, Walker, M J C, & Bevins, R E, 1995 Persistent places in the Mesolithic landscape: an example from the Black Mountain uplands of South Wales, *Proc Prehist Soc.* **61.** 81—116
- Bird, D, 2010 Excavations at Cocks Farm, SvAS Bull, 422, 12–15
- —, 2015 Excavation at Cocks Farm, Abinger, 2014, SyAS Bull, **450**, 2–5
- —, 2017 Excavations at Cocks Farm, Abinger, 2015 SyAS Bull, 460, 8–11
- Brandon, P, 1984 Land, technology and water management in the Tillingbourne Valley, Surrey, 1560–1670, *Southern Hist*, **6**, 75–101
- Briggs, R 2017 Field system earthworks on Puttenham Common detected by LiDAR, *SyAS Bull*, **460**, 15–21
- Bruce-Mitford, R L S, 1938 A hoard of Neolithic axes from Peaslake, Surrey, *Antiq J*, **18**, 279–84
- Calkin, J B, 1952 A Mesolithic site at Ulwell, *Proc Dorset Natur Hist Archaeol Soc*, **74**, 48–9 Care, V, 1979 The production and distribution of Mesolithic axes in southern Britain, *Proc Prehist Soc*, **45**, 93–102
- Carpenter, L W, 1961 Flint arrowheads from Surrey some recent finds, *SyAC*, **58**, 109–11 Clark, J G D, & Rankine, W F R, 1939 Excavations at Farnham, Surrey (1937–8): the Horsham
 - Culture and the question of Mesolithic dwellings, *Proc Prehist Soc*, **5**, 61–118
- Collins, A E P, 1936 A Palaeolithic ovate from Abinger Hammer, SyAC, 44, 137
- Coombe, P, Egginton, A, Grew, F, Howe, T, Jackson, G, Maloney, C, Randall, N, & Truckle, N, 2016 Archaeology in Surrey 2013–14, *SyAC*, **99**, 213–68
- Corcoran, J X W P, 1963 Excavations of the bell barrow in Deerleap Wood, Wotton, *SyAC*, **60**, 1–18
- Corke, E, 2017 Cocks Farm Abinger 2016, SyAS Bull, **461**, 2–7
- Corke, S F, 1989 Abinger Roughs, *Leaves*, 9–15 (copy in SyAS Library)
- Darwin, C, 1881 The formation of vegetable mould through the action of worms, with observations on their habits, London: John Murray
- Dyer, S, 1996–7 Cocks Farm, Abinger Hammer: excavations 1996, *SyAS Bull*, **305**, 3 and 8–12 —, 1998 Excavations at Cocks Farm, Abinger in 1997, *SyAS Bull*, **320**, 5–6
- Ellaby, R, 1987 The Upper Palaeolithic and Mesolithic in Surrey, in J Bird & D G Bird (eds), *The archaeology of Surrey to 1540*, Guildford: SyAS, 53–69
- —, 2004 Food for thought: a late Mesolithic site at Charlwood, Surrey, in J Cotton & D Field (eds), *Towards a New Stone Age: aspects of the Neolithic in south-east England*, CBA Res Rep, **137**, 12–23
- Elmore, G, 1983 Holmbury: Neolithic spearhead (TQ 109 439), SyAS Bull, 184, 5
- English, J, 1990 Flint working sites in Cranleigh, SyAS Bull, 245, 6
- —, 2013 Pattern and progress: field systems of the second and early first millennia BC in southern Britain, BAR Brit Ser, **587**
- —, 2016 A probable prehistoric field system on Whitmoor Common, Worplesdon, *SyAC*, **99**, 200–6
- —, in prep Surrey Historic Landscapes Project: fieldwalking on Bockett's Farm and in Norbury Park, Fetcham and Mickleham, in preparation for *SyAC*
- English, J, & Field, D, 1992 A survey of the earthworks at Hammer Meadow, Abinger, SyAC,

- English, J, & Turner, D, 2004 Medieval settlement in the Blackheath Hundred, in J Cotton, G Crocker & A Graham (eds), Aspects of archaeology and history in Surrey: towards a research framework for the county, Guildford: SyAS, 103–18
- Evans, J A, 1860 Proceedings of the Society of Antiquaries, 19 January 1860, *Proc Soc Antiq London*, 2 ser, **1**, 63–77
- Field, D, 1989a Felday, Holmbury St Mary: an earthwork enclosure of the 1st century AD, *SyAC*, **79**, 99–116
- —, 1989b Tranchet axes and Thames picks: Mesolithic core tools from the west London Thames, *Trans London and Middlesex Archaeol Soc* **40**, 1–26
- Field, D, & Cotton, J, 1987 Neolithic Surrey: a survey of the evidence, in J Bird & D G Bird (eds), *The archaeology of Surrey to 1540*, Guildford: SyAS, 71–96
- Field, D, Graham, D, Thomas, S N H, & Winser, K, 1987 Fieldwalking in Surrey: surveys in Waverley and at Paddington Farm, Abinger, *SyAC*, **78**, 79–102
- Field, D, & McOmish, D, 2017 The making of prehistoric Wiltshire, Stroud: Amberley
- Field, D, Nicolaysen, P, & Cotton, J, 1999 The Palaeolithic sites at Limpsfield, Surrey an analysis of the artefacts collected by A M Bell, *SyAC*, **86**, 1–32
- Field, D, Nicolaysen, P, Waters, K, Winser, K, & Ketteringham, L L, 1991 Prehistoric material from sites near Slines Oaks and Worms Heath, Chelsham, *SyAC*, **80**, 133–46
- Field, D, & Woolley, A R, 1984 Neolithic and Bronze Age ground stone implements from Surrey: morphology, petrology and distribution, *SyAC*, **75**, 86–109
- Froom, F R 1976 Wawcott III: a stratified Mesolithic succession, BAR Brit Ser, 27
- Gallois, R W, 1965 The Wealden district, British Regional Geology, 4 edn, London: HMSO
- Gover, J E B, Mawer, A, & Stenton, F M, 1934 *The place-names of Surrey*, Cambridge: English Place Name Society
- Hanworth, R, 1978 Surrey the evidence at present, in H C Bowen & P J Fowler (eds), Early land allotment in the British Isles: a survey of recent work, BAR Brit Ser, 48, 61–6
- Hanworth, The Viscountess, & Hastings, F A, 1961 Excavation of a mound in Weston Wood, Albury, *SyAC*, **58**, 92–103
- Harding, J, 1967 Albury: Weston Wood, excavations 1966/7, SyAS Bull, 36, [3]
- Hodgkinson, J, 2004 Iron production in Surrey, in J Cotton, G Crocker & A Graham (eds), Aspects of archaeology and history in Surrey: towards a research framework for the county, Guildford: SyAS
- Hooker, R, Seager Thomas, M & Winser, K 2014 Results of fieldwalking at Barnfield East, Abinger, *SyAC*, **98**, 201–5
- Hooker, R, & English, J, 2016 Analytical surveys of Holmbury and Hascombe hillforts, *SyAC*, **99**, 111—18
- Hooker, R, & English, J, in prep A possible new barrow adjacent to Sandy Meadow, Abinger Hooker, R, Seager Thomas, M, & Winser, K, 2014 Results of fieldwalking at Barnfield East, Abinger, *SyAC*, **98**, 201–5
- Hooker, R, & Williams, D, 2016 Flints from Holmbury Hill, SyAS Bull, 458, 13
- Hooper, W, 1927 A Romano-British burial ground at Wotton, SyAC, 37, 220–3
- —, 1933 The pigmy flint industries of Surrey, SyAC, 41, 50–78
- Hope-Taylor, B, 1950 The excavation of a motte at Abinger in Surrey, *Archaeol J*, **107** (1952), 15–43
- Ingold, T, 2000 *The perception of the environment: essays in livelihood, dwelling and skill,* London & New York: Routledge
- Jacques, D, & Phillips, T, 2014 Mesolithic settlement near Stonehenge: excavations at Blick

- Mead, Vespasian's Camp, Amesbury, *Wiltshire Archaeol Natur Hist Soc Magazine*, **107**, 7–27
- Jessup, R, 1970 South-east England, Thames & Hudson
- Jones, P, 1998 Towards a type-series of medieval pottery in Surrey, SyAC, 85, 211–38
- —, 2013 A Mesolithic 'persistent place' at North Park Farm, Bletchingley, Spoilheap Monogr, **8**
- Lasham, F, 1893a Palaeolithic man in west Surrey, SyAC, 11, 25–9
- —, 1893b Neolithic and Bronze Age man in west Surrey, SyAC, 11, 244–51
- Leakey, L S B, 1951 Preliminary excavations of a Mesolithic site at Abinger Common, Surrey, SyAS Res Pap, 3
- Mellars, P, & Reinhardt, S, 1978 Mesolithic land-use in southern Britain, in P Mellars (ed), *The early post-glacial settlement of northern Europe*, London: Duckworth, 243–94
- Moore, J, 1997 The infernal cycle of fire ecology, in P Topping (ed), *Neolithic landscapes*, Oxbow Monogr, **86**, 33–40
- Morris, J (ed), 1975 Domesday Book: Surrey, Chichester: Phillimore
- Newell, J, Winser, K, & English, J 2016 The Iron Age enclosure and First World War Prisoner of War camp at Felday, Holmbury St Mary, near Dorking, *SyAC*, **99**, 149–64
- O'Malley, M, & Jacobi, R M, 1978 The examination of a Mesolithic occupation site at Broomhill, Braishfield, Hampshire, *Rescue Archaeology in Hampshire*, **4**, 19–38
- Oakley, K P, Rankine, W F, & Lowther, A W G, 1939 A survey of the prehistory of the Farnham district, Guildford: SyAS
- Palmer, S, 1999 Culverwell Mesolithic habitation site, BAR Brit Ser, 287
- Pull, J H, 1935 The Stone Age villages of Downland, *The Sussex County Magazine*, **9, pt 9,** 636–8
- Rackham, O, 1976 Trees and woodland in the British landscape, London: Dent
- Rankine, W F R, 1938 The tranchet axes of south-west Surrey, SyAC, 46, 109
- —, 1939 Mesolithic and Neolithic studies, in Oakley et al 1939, 61–132
- —, 1949 A Mesolithic survey of the west Surrey Greensand, SyAS Res Pap, 2
- —, 1950–1 Mesolithic research in Surrey: with a tribute to Wilfred Hooper LLD; FSA, *SyAC*, **52.** 1–10
- —, 1962 The Mesolithic age in Dorset, *Proc Dorset Natur Hist Archaeol Soc*, **83**, 91–9
- Rapson, G, 2017 A Late Iron Age/early Roman enclosure at Westcott, SyAC, 100, 143–62
- Reynier, M, 2005 Early Mesolithic Britain: origins, development and directions, BAR Brit Ser, 39
- Russell, M J G, 1989 Excavation of a multi-period site in Weston Wood, Albury: the pottery, SyAC, 79, 3–52
- Seager Thomas, M, 2010 A re-contexualisation of the prehistoric pottery from the Surrey hillforts of Hascombe, Holmbury and Anstiebury, *SyAC*, **95**, 1–34
- Smith, N, & Stamper, P, 2013 *Introduction to heritage assets: water meadows*, Swindon: English Heritage
- Taylor, C, Smith, N, & Brown, G, 2006 Rowland Vaugn and the origin of downward floated water-meadows: a contribution to the debate, *Landscape Hist*, **28**, 35–51
- Tilley, C, 1994 A phenomenology of landscape, Oxford: Berg
- Thompson, F H, 1979 Three Surrey hillforts: excavations at Anstiebury, Holmbury and Hascombe, 1972–77, *Antiq J*, **59**, 245–318
- Turner, D, & Briggs, R, 2016 Testing transhumance: Anglo-Saxon swine pastures and seasonal grazing in the Surrey Weald, *SyAC*, **99**, 165–93
- VCH 1902 The Victoria history of the county of Surrey, H E Malden (ed), vol 1, London: Archibald Constable & Co

- —, 1911 *The Victoria history of the county of Surrey*, H E Malden (ed), vol 3, London: Archibald Constable & Co
- Williams, D, 2017 Excavation of a prehistoric and Romano-British site at Betchworth, 1995–6, SyAC, **100**, 71–141
- Winbolt, S E, 1930 Excavations at Holmbury Camp, Surrey, SyAC, 38, 156–70
- Winser, K, 1987 Prehistoric flint sites at Sandy Meadow, Wotton, SyAC, 78, 184–7
- Wood, E S, 1952 Neolithic sites in west Surrey, SyAC, 52, 11–28
- Wood, E S, & Thompson, N P, 1966 A food vessel from Abinger Hammer, Surrey, *SyAC*, **63**, 44–50
- Wooldridge, S W, & Linton, D L, 1933 The loam terrains of south-east England and their relation to its early history, *Antiquity*, **7**, 297–310
- Wymer, J J (ed), 1977 Gazetteer of Mesolithic sites of England and Wales, CBA Res Rep, 20

Appendix 1
STRUCK FLINT RECOVERED BY TYPE AND FIELD NUMBER

Type	1	2	3	4	5	6	7	8	9	10	11	12
Nodule		1		3		1			1			
Primary flake	21	21	4	44	4	22	25	101	32	16	45	3
Secondary flake	70	109	18	283	8	257	302	497	280	137	549	52
Core tool												
Flake core	8	7	3	13	1	16	11	38	21	5	22	3
Blade core	4	1	2	5		8	1	16	5	8	17	1
Blade waste	4	15	1	30	2	32	3	45	22	7	34	6
Core rejuv	2	2	1	12	1	10		14	10		14	
Blades	5	6	1	15	1	28	5	30	21	6	35	4
Butts	3	46	2	9		25	26	31	29	8	50	3
Segments	5	16	1	7		11	6	9	15	2	15	1
Tips	3	17		6		24	5	12	15	1	15	2
Microliths	2			1				1	5		3	
Microburins	1			1		3		1			1	
Scrapers	3	2		19	3	11	24	11	14	12	34	1
Burins											1	
Awls		1				2		6	4	3	13	
Saws							1					
Utilised pieces	1	16		11		10	7	15	9	18	32	2
Spall	3	9			1	3	4	11	32	5	10	1
Bashed lump	1	5	2	17		4	16	4	13	4	26	
Waste	28	102	25	235	10	225	154	178	224	119	442	18
Burnt pieces	42	44	10	114	3	59	91	161	104	64	220	6
Other	1	1	1	6	1	3	5	3	9	5	9	
Arrowhead												

STRUCK FLINT RECOVERED BY TYPE AND FIELD NUMBER (contd)

Туре	13	14	15	16	17	18	19	20	21	22	23	24
Nodule				1								
Primary flake	12	6	18	24	19	7	5	10		14	8	4
Secondary flake	101	41	117	256	168	94	100	61	39	91	90	47
Core tool												
Flake core	2	1	5	18	15	6	14	5	2	6	5	
Blade core	3	3	8	14	6	2	6	1	1	1	2	
Blade waste	12			15	7	1	2		1	3	1	3
Core rejuv		1	24	6	3					1	2	
Blades	8	1	12	15	7	2	7	6		2	1	
Butts	18	2	25	27	4	7	2			1	4	
Segments	2	1	9	11	2	2	2				1	
Tips	6	4	8	7	4	1					1	
Microliths	1		2	1			1					
Microburins							2		1			
Scrapers	9	2	9	29	4	6		5	1	2	11	1
Burins						2	2					
Awls	1		8	2		4					1	
Saws												
Utilised pieces	4	4	23	23	7	1	10		1	1	6	
Spall	4	2	13	13	8		3				3	
Bashed lump	6	2	6	25	4	4	8				4	1
Waste	127	24	196	231	86	48	87	21	22	30	72	23
Burnt pieces	26	26	44	29	68	24	99	20	9	25	68	6
Other	3	1	1	10	4	2	3	2		1		13
Arrowhead												

STRUCK FLINT RECOVERED BY TYPE AND FIELD NUMBER (contd)

Туре	25	26	27	28	29	29b	30	31	32	33	34	35
Nodule				33	1		1	1				
Primary flake	4	5	5	339	55	28	17	4	5	13	39	3
Secondary flake	39	16	16	1352	430	111	90	53	28	181	292	11
Core tool	2			5								1
Flake core	1	6	2	132	34	6	8	7	1	5	25	4
Blade core		2	1	135	21	8	4	6	1	4	4	
Blade waste	1			704	112	18	4	5		3	15	
Core rejuv				68	22	5	2	1		1	5	
Blades				174	46	19	3	8		2	11	1
Butts				373	103	23	7	4		7	16	
Segments				186	40	12	2	2		4	3	
Tips				148	68	9	1			3	10	
Microliths				25	7						1	
Microburins				24	9						1	
Scrapers	1	2		15	16	3	9	4	5	15	10	
Burins				1	3							
Awls			1	7	1		1			1	1	
Saws												
Utilised pieces	2	2		142	16	4	1	5	2	7	18	
Spall				341	37	5	4	1	1	2	4	
Bashed lump				377	31	3	4		4	4	12	1
Waste		1		5184	547	120	54	22	36	132	184	4
Burnt pieces	14	9	6	783	353	52	106	19	7	49	136	6
Other	2	1			8	6	1	3	1	5	10	

Note: a different method of collection was employed in Field 28 (see Field *et al* 1987) and these pieces are excluded from the figures in Appendix 2.

Flint type	Totals	Average per field	Average per ha
Nodule	10	0.29	0.06
Primary flake	615	18	3.94
Secondary flake	4923	144.79	31.55
Core tool	2	0.05	0.01
Flake core	320	9.4	2.05
Blade core	158	4.46	1.01
Blade waste	386	11.35	2.47
Core rejuv flake	134	3.94	0.85
Blades	286	8.4	1.83
Butts	459	13.5	2.94
Segments	169	4.97	1.08
Tips	213	6.26	1.36
Microliths	21	0.73	0.16
Microburins	20	0.58	0.12
Scrapers	275	8.0	1.76
Burins	8	0.23	0.05
Awls	50	1.47	0.32
Saws	1	0.02	0.00
Utilised pieces	252	7.41	1.61
Spall	174	5.11	1.11
Bashed lump	208	6.11	1.33
Waste	3707	109.0	23.76
Burnt pieces	2076	60.79	13.25
Other	115	3.38	0.73

MICROLITHS, by Roger Ellaby

Field no	1	8	9	11	15	16	19	29	34	Total
Obliquely-backed point		1	2			1		1	1	6
Possibly obliquely-backed								1		1
Horsham point	1			1?	1			3		6
Unclassified			1	1						2
Convex-backed				1						1
Fragment								1		1
Isosceles triangle								1		1
Four-sided								1		1
Bi-truncated point (broken)							1			1
Straight-backed								1		1
	1	1	3	3	1	1	1	9	1	21

Appendix 5

PREHISTORIC POTTERY

Field 04 - 1 rim sherd with vesicular fabric, perhaps leached vegetable temper. **Probably Saxon**

Field 06 - 1 sherd with flint grit in matrix probably Bronze Age

Field 08 - 5 sherds probably Bronze Age, one similar fabric to that from Scarp 1 (below).

Field 11 - 1 abraded sherd sandy matrix, probably Iron Age

Field 24-1 small sherd with black sandy matrix and small calcined flint temper probably Bronze Age

Field 33 - 4 sherds, one a small sherd similar to that from Scarp 1 and probably Bronze Age, a second in sandy fabric with small flint temper probably Iron Age and two others of indeterminate date.

Field 34 - 1 sherd of indeterminate prehistoric pottery.

Additionally, a rim fragment decorated with a bone and whipped cord impressions, probably from an Ebbsfleet bowl was recovered by K Winser from Field 33 close to Ellix Wood.

Field no	4	6	8	11	24	33	34
Neolithic						1	
BA	1	1	4			1	
IA				1	1	1	
Indet						2	1

ROMAN POTTERY, by Frank Pemberton

Field no	Sherds
6	10
11	18
12	2
23	2
30	1
31	1
33	67
34	1

Field 06

Among material from Field 06 are light-grey sand Alice Holt sherds; an everted rim jar, in early Alice Holt Surrey (AHSU) ware dating to *c* AD 50–160 Lyne and Jefferies 1979 (L&J) class 3b. A stubby flanged bowl rim with burnt burnished surface in Alice Holt ware like L&J class 5B10. *c* AD 270–420. A plain platter rim in oxidised (OXID) ware and plain jar base in AHSU ware. Additionally, an upright beaker rim in Shell ware and a mica dusted OXID ware beaker sherd.

Field 11

In addition to a collection of grey sandy ware sherds, the material includes a lid in fine grey ware, a body sherd of large jar in grey sandy ware. *c* AD 50–160. There is also a body sherd in local OXID ware with burnished slip, brown surfaced OXID sandy ware. *c* AD 50–400.

Field 12

Shell- and flint-tempered body sherds of Early Roman date c AD 40+.

Field 30

A white slipped body sherd. c AD 70–160

Field 33

Much sandy grey ware, some abraded, mostly from Alice Holt and including a slipped light grey sandy ware bowl fragment Late Alice Holt c AD 250+ in date; a large bead-rimmed jar in AHSU ware, and a body sherd. c AD 50–160; an oxidised light-grey core sandy ware jar with white slip and squared lattice design of c AD 180–250 in date – a late Alice Holt (AHFA) ware; a flat-based jar of c AD 200–350; a mid-grey sandy ware flat rimmed bowl of c AD 50–400; sherds of light-grey sandy Alice Holt Farnham (AH) ware; an everted rim jar – abraded . c AD 50–400; a flat rim jar in AHSU ware L&J class 3A9 & 3A11 dating to c AD 90–150. Additionally, there are OXID body sherds; OXID sandy ware body sherds dating to c AD 50–400; dark-grey flint/quartz tempered wall sherds (2) of c AD 40–400; a body sherd in GROG ware of c AD 40–420; and the base of a Roman samian cup form 35. c late 1st century AD that would have formed part of a dining set with a bowl and dish.

Subsequent collection from the site (at the east end of the field adjacent to Ellix Wood recovered: sherds of early AHSU grey ware, c AD 60–150 that reconstructed into a necked jar; a bead rim jar of AHSU grey ware. c AD 50–160; fragments of a samian bead rim cup?; a narrow necked jar in OXID fabric, same as Alice Holt up to c AD 250; small black burnished body sherds; various OXID and SAND abraded body sherds; a shell-tempered sherd and a collection of grey sandy ware sherds. Fragments of tile could be Roman but flat tiles also occur in post-Roman contexts.

Field 23

Abraded and burnt OXID body sherds.

Field 31

A round bodied necked jar with Figure 7 rim. c AD 60–150.

Field 34

A large bead rim jar in GROG temper, similar to L&J class 4 of c AD 40–150.

Appendix 7MEDIEVAL POTTERY, by Steve Nelson

	S2	S 3	Q2	QFL	GQ2	LQ	FOQ	OQ	GOQ	WW1A	WW1B	WW2	RWW
Field no	1050- 1150	1140- 1220	1150- 1250	1080- 1200	1150- 1250	1150- 1400	1200- 1400	1200- 1400	1200- 1400	1270- 1500	1240- 1400	1350- 1500	1450- 1550
4	1		6	1						1	2		
7	1		4					4		1	1	1	
9			1			1	1						
10			1										
11		1	5										
17			1										
18								1		1			1
23								1					
25								1					1
30								3					
32			1										
33	1	2	9+13					17	1		1	1	1
35					1								1

Two additional inspections of Field 33 account in part for the higher numbers. One piece from the south-east of the field is scratch marked, a style here east of its normal distribution range although present at the nearby Abinger motte (see Hope Taylor 1950, fig 9). Subsequent collection from the east side of Field 33 adjacent to Ellix Wood also revealed a collection of medieval and post-medieval stoneware sherds.

FEATURES NOTED IN WOODLAND IN OS GRID SQUARES TQ1043 AND TQ1044

TO1044

TQ 100 441 Minor quarrying

TQ 100 430 Ditch 3.5m wide x 1.5m deep oriented west-north-west but curving southwards at the east end can be traces across grid square.

TQ 100 447 Small shallow quarries

TQ 101 442 Hollowed trackway 3m wide x 1m deep oriented east-north-east

TQ 101 444 Pit with remnants of batteries in base-wartime. Quarry

TQ 101 449 Hollow, potential dew pond

TQ 102 440 Ditch oriented north-west traced for c 150m into 30 and beyond

TQ 102 441 Ditch or hollow way

TQ 102 442 Disturbance near track

TQ 102 443 Hollowed path

TQ 102 444 Ditch oriented north-west but fading out in general disturbance: hollow to north of former

TQ 102 445 Area of subsidence and general disturbance. Old hollowed path: Small mound.

TQ 102 447 Area of general disturbance

TQ 102 449 Shallow ditch oriented north-west

TQ 103 442 c Small mound with ditch: ?slit trench 0.5m wide to north of former

TQ 103 443 General disturbance, more tree holes than quarrying. Deeply cut ditch oriented east-north-east

TQ 103 446 Shallow ditches oriented north-west c 5m apart; Ditch 4m wide x 1.2m deep oriented west—east

TQ 103 447 Ditch 1.5m deep oriented north-west: shallow ditch to north-east of it on similar orientation; two small ditches

TQ 103 449 Disturbed ground

TQ 104 440 Ditch set at 10% from north–south deep ditch; slit trenches 2 x 0.5m: small hole 8 x 2m deep

TQ 104 441 Linear quarry, with hollow to the south of it. General disturbance mounds over considerable area. Ditch oriented north—south. Hollowed path.

TQ 104 442 Mound; linear quarry and continuous disturbance probably the result of quarrying and access routes: bank on edge of ride. Pit. Double ditch separated by c 3m with camber between. Ditch 5m long x 1m wide x 0.5m deep

TQ 104 443 Quarries with approach. Shallow north—south oriented quarry. Hollowed path north—south.

TQ 104 444 Ditch 6m wide at top x 2m deep and oriented north-north-west – fades out to south. ?circular trench.

TQ 104 445 A group of shallow quarry pits partly in square 35. Very disturbed. Shallow c 0.5m deep ditch oriented north-north-west can be traced for c 200m through 46

TQ 104 446 Convergence of two hollow ways. Shallow c 0.5m deep ditch oriented north-north-west can be traced for c 200m from 45. V-profiled ditch c 2m deep on the north-west alignment traced for c 50m

TQ 104 448 Hollows: quarry: shallow double V-profiled ditch oriented north-north-west traced for *c* 30m

TQ 104 449 Ditch 5 x 2m oriented north-north-west for a considerable distance

TQ 105 440 Quarries

TO 105 441 Ditch identified in 53 is cut by woodland ride, extends for almost 200m

TQ105 442 Holes and ditches over area 5 x 7m

TQ 105 443 Large ditch 8m wide at top, 4–5m deep oriented north–south. Irregular pits. Holes and ditches over area *c* 7m x 5m

TQ 105 444 Irregular pits

TQ 105 445 Small pits and quarry – extends into 65. Quarries, area of continuous disturbance; double V-profiled ditch c 1.5m deep with ledge on one side: linear quarry and pits.

TQ 105 4467 Ditch 2m wide x 1m deep oriented north-west: continuous hollows with subsidence

TQ 105 448 Low sinuous bank c 50m long: ditch c 2.5m wide x 1m deep to south of former oriented west-north-west: hollows. Much linear quarrying and pits

TQ 105 449 Ditch 5m wide x 2m deep extends north-north-west for considerable distance: quarrying/treefalls.

TQ 106 441 Rifle range

TQ 106 442 Group of shallow quarry pits with a more extensive area of quarrying to the south of it. Old hollowed footpaths.

TQ 106 443 Group of quarry pits: ditch or engraved path south of the former. Extensive quarries

TQ 106 444 Group of shallow irregular quarry pits: group of shallow coarser quarry pits south of the former: hole 1m deep with ditch extending to west. Old hollowed footpath oriented north-west. Old tennis court extending into 65.

TO 106 445 Area of shallow holes ?tree holes

TQ 106 446 Bank approaches path from west

TQ 106 447 Hollowed path from west

TQ 106 449 Platform, possible charcoal burning: similar to south of former

TQ 107 446 Quarries

TQ 107 447 Pit

TO 107 448 Pit

TO 108 447 Small local hollow.

TQ 109 442 Pits

TQ1043

TQ 100 432 Linear quarry extends to northeast into TQ 100 433 and TQ 101 434

TQ 100 433 Rabbits. Linear quarry

TQ 100 436 Shallow platform c 8 x 6m

TQ 100 438 Shallow platform c 8 x 6m

TQ 101 431 Hollow 1m deep just below 250m contour. No finds. Pits

TQ 101 433 Quarry pits, some linear following north-easterly seam

TQ 101 434 Quarry pits

TQ 101 438 Tile on ride with three large stones. Struck flint scatter

TQ 102 431 Small hollow max 1m deep. Quarry pits, small ditches

TQ 102 432 Quarry pit

TQ 102 433 No surface finds. Ditch or old path

TQ 102 434 Quarry pits; three parallel ditches/hollow-ways leading from linear quarry northeastwards, ie towards Pitland Street.

TQ 102 435 Hollow

TQ 102 439 Deep ditch oriented north—south traced for c 100m: parallel and a little to the east of former are two shallow parallel ditches; all extend north into TQ 1044–20. Ditch leading to north-north-east traced for 200m from quarry in 37

- TQ 103 431 Irregular quarry
- TQ 103 432 Scraper
- TQ 103 433 Quarries
- TQ 103 434 Shallow depression
- TQ 103 435 Double ditch with camber between oriented north-east traced for c 100m into 36.
- TQ 103 436 Slit trench and bank. Double ditch with camber between oriented north-east traced from TQ 103 435. Small ditch 3 x 0.5m
- TQ 103 437 Ditch and bank adjoining path to quarry. Quarry, with ditch leading to north-north-east traced for 200m into 29
- TQ 104 431 Quarry adjacent to hillfort rampart
- TQ 104 432 Small quarries
- TQ 104 433 Ditch oriented north-south
- TQ 104 434 Quarries with approach
- TQ 104 435 Quarrying, Crescent shaped trench 4m from ride; holes, perhaps tree holes; gully
- TQ 104 438 Quarries
- TQ 104 439 Ditch small: linear quarries
- TQ 105 432 Quarry
- TQ 105 433 Three linear quarries extending north into 54. Irregular quarries
- TQ 105 434 Quarry with ditch extending northwards: hollow way north-south: Irregular quarries
- TQ 105 435 Two large quarry pits
- TQ 105 436 Quarries set into slope; Short ditches one deep, one shallow
- TQ 106 432 Linear quarrying
- TQ 106 433 Linear quarrying
- TQ 106 435 Shallow quarries. Deep quarry with access way
- TQ 106 436 Hollows: Large and small hollows and shallow ditch to south of former
- TO 107 434 Small quarry and mound: subsidence with tree growing out of it. Quarry
- TQ 107 435 Depressions c 3m diameter. ?Tree holes
- TO 107 436 Series of small hollows
- TQ 107 437 Wedge shaped depression. Path cuts through ridge ?natural. Small depression *c* 2m diameter.
- TQ 107 438 Small shallow depression: small flint scatter. Pits
- TO 108 436 Small mound
- TQ 108 438 Hollow
- TQ 108 439 Mound, probably spoil from levelling cricket pitch. Linear bank north of cricket pitch.

NEOLITHIC MATERIAL FROM FAR CORNER (NOW 'DROVERS'), PEASLAKE IN GUILDFORD MUSEUM

- 1. Among flint from the garden of the house are seventeen scrapers and two fragments of a ground axe-head, one of them type C (GM 5250, GM 5332)
- 2. Leaf-shaped arrowhead (GM 5335)
- 3. Leaf-shaped arrowhead (GM 5336)
- 4. Transverse arrowhead (GM 5339)
- 5. Butt fragment: possibly from a Seamer type axe-head. Not ground although some battering is evident at the butt. 40 x 60mm (GM 5263)
- 6. Blade portion of ground flint axe-head type B. Ground and polished light-grey flint, rechipped to form pointed implement. 2.25" x 2", found 6" deep under an ironstone slab. (GM

3684/R83)

- 7. Butt of a ground flint axe-head with flattened oval section, type A. Ground and polished light-grey flint 53 x 50mm (GM 3685)
- 8. Blade half of ground flint axe-head with flattened oval section, type A, ground and polished light-grey flint. Much mutilated and reused as a core. 3.25" x 2.25" (GM 3678/R83)
- 9. Blade half of ground flint axe-head with lenticular section, type B. Ground and polished light-grey flint, reused and knapped into a waisted pointed implement similar to GM 3684. 4.3/8" x 21/2". Found at `Four Ways' (house adjoining Far Corner), Peaslake (GM 3683/R83)
- 10. Chisel, well knapped in light-grey flint but with no evidence of grinding 27/8" x 1" (GM 3682/R83).

Appendix 10

NEOLITHIC MATERIAL FROM BOX HILL SAND PIT, IN GUILDFORD MUSEUM

- 1. Miscellaneous flakes and blades (GM RB1066)
- 2. Chipped flint axe. Blade end only, well knapped in grey flint. Narrow curved cutting edge has marked junction with the sides. Found 1930. (GM S7677)
- 3. Ground flint axe. Blade end only, grey flint apparently reused as a scraper or wedge. Found 1932 (GM S7679)
- 4. Ground flint axe. Blade end only. Ground and highly polished in light-grey flint. Rounded cutting edge merges with sides. Apparently reused in similar manner to others as a core. Found 1930. (GM S7680)
- 5. Ground flint axe. Butt fragment in light-grey flint. Found 1930 (GM S7678)
- 6. Barbed and tanged arrowhead (GM RB1066)
- 7 Fragment of Peterborough ware described as having come from Betchworth gravel pit, which is probably identical with Box Hill Sand Pit (GM —)
- 8. Chipped flint axe. Found 1938 (BM)

Figures

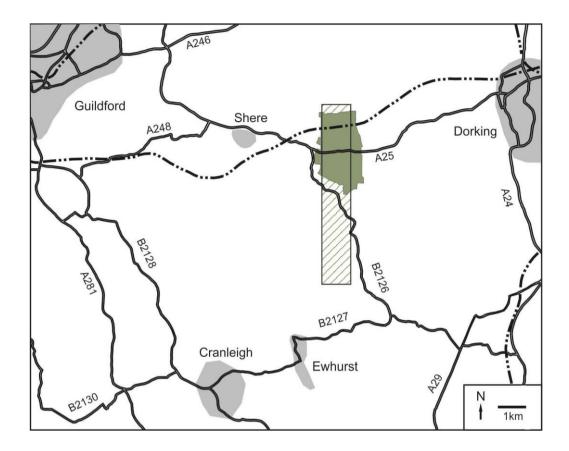


Fig 1 Abinger/Holmbury. Map of the local area showing the survey transect (black outline rectangle). The location of the areas shown in figures 4–7 are in green; most of this land was fieldwalked. The area shown hatched is mainly heathland and woodland and the subject of a topographical survey. The dotted and dashed line shows the course of the railway.

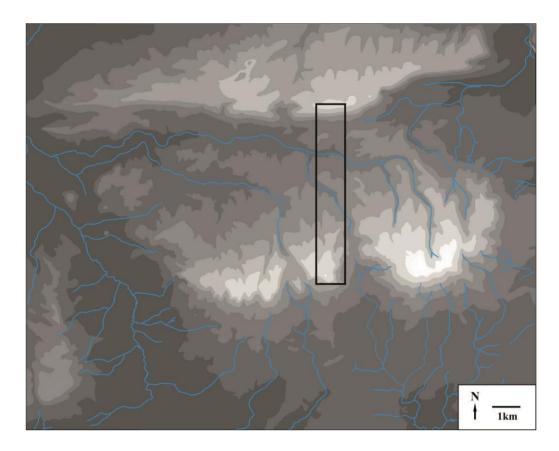


Fig 2 Abinger/Holmbury. Topography of the greensand between the rivers Wey and Mole, showing the position of the survey transect. Contours are depicted at 10m intervals with land below 45m OD darkest grey.

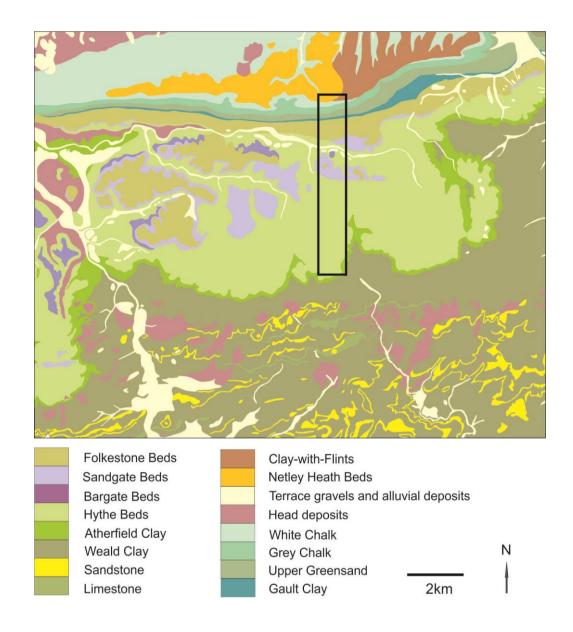


Fig 3 Abinger/Holmbury. Geology of the area between the rivers Wey and Mole showing the location of the survey transect.

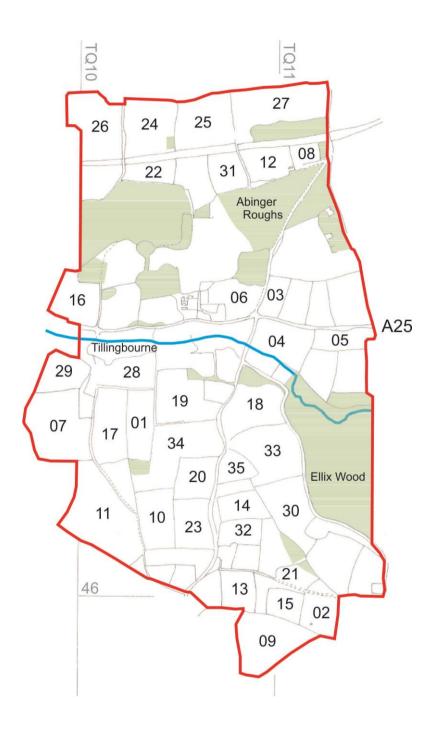


Fig 4 Abinger/Holmbury. Ploughed fields that formed collection units (numbered); unnumbered fields (not walked); woodland (green tone)

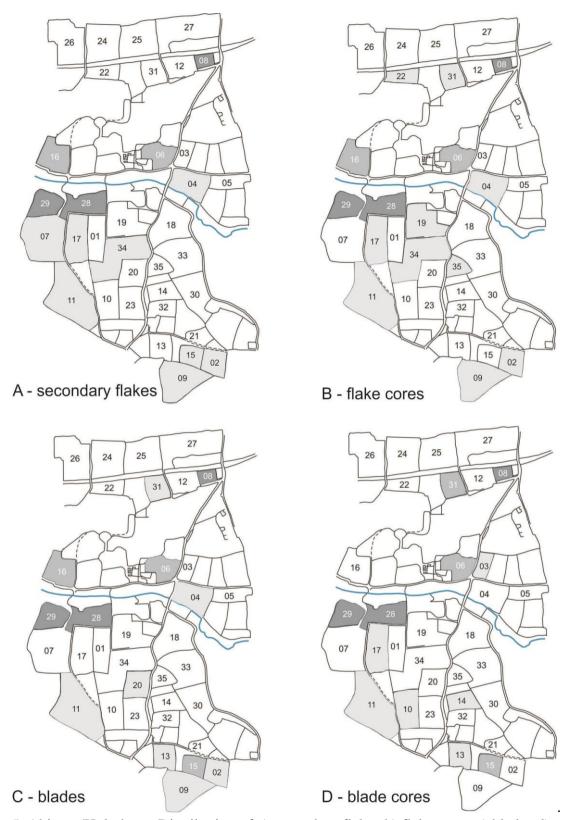


Fig 5 Abinger/Holmbury. Distribution of a) secondary flakes b) flake cores c) blades d) blade cores. Finds density: pale grey - 1 x standard deviation (SD); mid-grey = $2 \times SD$; dark grey = $3 \times SD$ above the average for the area fieldwalked.



Fig 6 Abinger/Holmbury. Distribution of a) snapped blades b) burnt flint c) scrapers d) utilised pieces. Finds density: pale grey - 1 x standard deviation (SD); mid-grey = $2 \times SD$; dark grey = $3 \times SD$ above the average for the area fieldwalked.



Fig 7 Abinger/Holmbury. Distribution of a) microliths and tranchet adzes b) arrowheads and ground axe-heads c) Romano-British pottery d) medieval pottery.

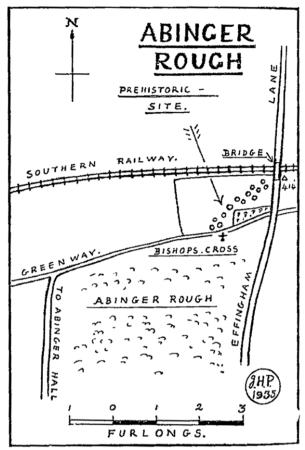


Fig. 1. Sketch Map of the Prehistoric Village Site at Abinger Rough

Fig 8 Abinger/Holmbury. John Pull's plan of settlement in Field 08 (from the *Sussex County Magazine*, 1935).