# Analytical survey of prehistoric barrows and other mounds on Reigate Heath

#### JENNY NEWELL and JUDIE ENGLISH

Mounds on Reigate Heath scheduled as prehistoric burial mounds, and one other potential barrow, have been subjected to analytical survey and their landscape context examined. Most of the mounds were used for planting groups of pine trees in the early 19th century and several are considered to have been enhanced at that time. Assuming that all the mounds are prehistoric in origin they form a linear cemetery occupying a spur between the multiple sources of two streams; this type of location is increasingly recognised in the Rother valley in West Sussex and the Upper Wey valley in south-west Surrey.

### Geology, topography and present land use

Reigate Heath lies on the Folkestone Beds division of the Lower Greensand, overlooked from the north by the chalk of the North Downs and separated from them by a band of Gault clay, and to the south the Heath overlooks the clays of the Low Weald. The soil is mainly a dry, acidic, infertile podzol (571e Fyfield 2) supporting heathland vegetation of bracken and heathers, but lack of grazing has also allowed the growth of scrub and secondary woodland. As with many heathland areas 'enhancement' during the 19th century saw stands of conifers being planted and, particularly regrettably, groups of conifers were planted on the barrow mounds to create landscape features. Lowland heath is a vulnerable and an increasingly rare habitat; part of Reigate Heath is designated as a Site of Special Scientific Interest and the north-east section has also been included within the Colley Lane/Flanchford Road Conservation Area (Reigate and Banstead Borough Local Plan 1994). The location of Reigate Heath and topography of the surrounding area are shown in figure 1.

The heath lies across a saddle of land at *c* 70m OD between land rising to the north-east towards the North Downs, which here attain a height of 225m OD, and to the south-west to where the windmill and golf club house stand on Galley Hill, prominent within the immediate topography and attaining a height of 88m OD. To the east of this saddle are damp pasture fields known as The Beastmoores while to the west is another wet area called The Alders; these low-lying areas contain the headwaters of the Wallace Brook and Shagbrook respectively, both tributaries of the river Mole. Much of the heath is now a golf course established in 1896 (Sheldon 1982) and there is also a sports ground used for football. A number of public rights of way, permissive rides and bridle paths cross the heath and are used extensively by walkers and for dog walking and horse riding.

#### Archaeological and historical background

A large number of prehistoric sites have been discovered on the Lower Greensand and a 1km-wide transect from the North Downs to the Low Weald at Abinger showed a clear emphasis on that geology in terms of finds of prehistoric flintwork (Winser *et al* 2018). Excavation of a multi-period site on Lower Greensand some 3km west of Reigate Heath revealed a number of pits containing Grooved Ware with adherent organic residues that were radiocarbon dated to the early to mid-3rd millennium BC and suggestive of some form of 'ritual' activity (Williams 2017). Numbers of Mesolithic flints have been found particularly in the area around the barrows (Surrey Historic Environment Record (HER) 1000; TQ 2360 5020) and a possible working site was located at Buckland Corner (HER 1001; TQ 2376 5055). Neolithic flints have also been found on the heath including ground axes and leaf-shaped arrowheads (HER 1020; TQ 2375 5051; TQ 2341 5005 & TQ 2380 5029). Evidence

of later prehistoric usage is limited to a Late Bronze Age looped palstave found close to the barrow cemetery (HER 995; TQ 2368 5048). (The two bronze armlets mentioned in the *Victoria County History (VCH* 1911, 230) are now known to have come from Handcross, West Sussex, not from Reigate Heath (Phillips 1967).)

The presence of axes suggests that clearance of the land which was to become Reigate Heath may have occurred during the Neolithic period, although it has been suggested that some areas of heathland may have developed in the Mesolithic (Ellaby 1987, 58). The podzols, typical of heathland soils, represent an environment degraded by unsustainable farming techniques which, in destroying the structure of the easily exploited brown earths, produced the present infertile, acid, arid sands. Such farming has often been shown to have occurred during the prehistoric period (Dimbleby 1962), and degraded soils have been found associated with a Neolithic site (Dimbleby & Bradley 1975), and underlying barrow mounds on Bagshot Sands at Ascot, Berkshire (Bradley & Keith-Lucas 1975) as well as the boundaries of prehistoric field systems (English 2016).

The earliest monuments on the heath are a series of barrows, which probably date to the Early Bronze Age. Eight mounds have been Scheduled (under seven Scheduled Monument (SM) numbers) as barrows and six of these comprise a linear cemetery running northwest/south-east along a ridge of higher ground at the northern end of the saddle between the Downs and Galley Hill. A further four mounds have been identified as possible barrows; however, the difficulties in distinguishing between natural and man-made mounds on sandy soils are well known (eg Graham *et al* 2004) and place some uncertainty on these identifications. The detailed topography and location of the barrows and other mounds are shown in figure 2.

Excavations are reported to have taken place either in 1759 (Sheldon 1982, 3–4) or in 1795 (notes by Bushby held by Holmesdale Museum, Reigate), but neither results from such intervention nor, indeed, any bases for the report have yet been located. Later, four of these mounds were excavated prior to their being utilised for planting clumps of conifers to form features in the landscape. Glover (1814) reported on this intervention:

At the north-west corner of the common called Reigate-Heath, part of the waste of the manor of Reigate, belonging to Lord Somers, and just at the entrance of the road leading from Reigate towards Dorking, were four hills of a conical shape, very near to each other, which had generally been considered to have been natural formations. In the autumn of 1809, some plantations being about to be made under my directions, by way of adding scenery to the spot, I ordered some clumps of trees to be planted on these eminences. On removing the earth, I found that it was composed of a blackish mould, mixed with a white sand, being exactly the same soil as the superstratum of the common. Having learned so much, I caused the earth to be removed, till the workmen came to the rock of the sand of which the substratum of the common consists. Below the largest of these barrows (for such I was satisfied they were) was found a circular space of about eighteen inches in diameter and fifteen inches in depth, formed out of the solid rock, in which was found a great quantity of ashes mixed with much charred wood. The depth from the crown of this barrow to the sand rock below was about six feet. This discovery being made the workmen were directed to proceed with greater care; and, on examining another of these barrows, was found an urn of coarse baked clay, of a palish red colour, but unfortunately this was broken by the workmen, who, coming suddenly upon it, struck it with their tools, and broke it into pieces. This also appeared to contain ashes, with some small pieces of

charred wood. The rim and body of the urn were rudely ornamented with rows of diagonal lines. The ware seems to have been badly tempered, is but little baked, and is very easily broken. The two other barrows were composed of the same soil, but, upon opening them nothing was found.

It is not certain which of the mounds were excavated, but it is clear that at least two were correctly identified as barrows. The mixture of ash and charcoal suggests burial of debris from cremation pyres (McKinley 1997; 2000) and burial of such matter in a pit cut into the natural sand and then covered by a mound was also found during excavations by Lane Fox (Pitt Rivers) on heathland on Whitmoor Common, Worplesdon (English 2011). The description of the urn, now lost, makes any identification less than certain, but it has been compared with a collared urn found at Kingston (Longworth 1984); the decoration described would not be out of place in an Early Bronze Age context. The lack of any finding of burial evidence within the remaining two mounds does not preclude their having been constructed during the prehistoric period; uncremated bone from an inhumation burial may have been destroyed by the acidity of the soil as appears to have happened elsewhere beneath heathland barrows (Drewett 1976) although some barrows appear never to have been used for burial. The report of mixed 'blackish mould' and 'white sand' within the matrix of the barrow may hint that it comprised a turf stack, a finding that would have parallels on Surrey heathlands (Graham et al 2004). See also Gardner (1924, 12-13) and Hooper (1945, 16) for additional notes on this excavation.

In 1931 seven mounds were recognised (Grinsell 1934) although the identity of only four was considered certain, with the remaining three thought to be barrows. Although the four certain barrows were identified as those excavated in the early 19th century, no 6 was also noted as having a cavity in the centre. A warning was sounded that earthen rings elsewhere on the heath that could be mistaken for 'ring-barrows' (ie disc barrows the small central mound of which had not been recognised) were, in fact, afforestation circles. Similar observations were made some 50 years later (Grinsell 1987) with the addition that in the interim barrow no 1 had been cut by the construction of the A25 road (TQ 2378 5054). However, ring-bank or enclosure barrows have been proven by excavation elsewhere on heathland in the Western Weald (Needham & Anelay 2016) and, without further investigation, this possibility should not be dismissed lightly.

The archaeological and historical background to human use of Reigate Heath has been investigated (Bannister 1997).

#### The survey

The Scheduled barrows and other mounds were surveyed during the winters of 2009–10 and 2010–11 using plane table and alidade or tape and compass methods as appropriate (Bowden 1999, 62–5). On each of the figures depicting the surveys numbers placed within circles indicate Scots pines (*Pinus sylvestris*) bearing numbered metal discs).

# **Round barrow 1** (TQ 2378 5054; SM 20161; HER 16211 (997A); fig 2, no 1)

The survey results are shown in figure 3. Of the mounds Scheduled as barrows this is located farthest north-west of the linear group and at the highest point of the ridge of erosion-resistant sandstone. It is a fairly substantial, flat-topped mound (a) standing some 1.5m high. Its northern side has been truncated by the present line of the A25 road removing about 20% of the mound. In addition, there are slight signs of some removal of the matrix of the mound on its western side (b).

The ridge on which the mound is located has been cut by a major hollow-way and by quarrying, presumably of the harder rock of which it is formed. To the west of the mound a

deep cut running north/south (c) appears to have been a quarry possibly accessed from the present route of the A25, but in use prior to the placing of that road within a cutting. This quarry crosses a hollow-way (d), but at no point is the chronological phasing of these two features clear, and it is also possible that the quarry was dug on either side of an existing track rather than that from the A25 route. This hollow-way, deeply cut at its western entrance from the present A25 route and followed by a modern path, turns northward to fade out on level ground on the top of the ridge to the east of the barrow while the modern path (e) leaves it to follow an eastward course, suggesting that the hollow-way gave access to the heath rather than it represents an earlier route of the Dorking/Reigate road (present A25). There is further evidence of slight quarrying activity at the north-eastern corner between the quarry and the hollow-way (f).

Although clearly reused for tree planting there is no specific reason to doubt the identification of this mound as prehistoric in origin. A soft area in the centre of the top of the mound suggests it may have been excavated.

### **Round barrow 2** (TQ 2368 5048; SM 20162; HER 16212 (997C); fig 2, no 2)

This the western of two mounds Scheduled as SM 20162; the survey results are shown in figure 3. It is a substantial, flat-topped mound (a) bearing a number of mature conifers and with signs of a surrounding ditch. It has been encroached upon and damaged by sand digging on its northern and north-western sides, and by a track on its southern side; gullies that have masked the line of the ditch may have been formed through natural water erosion.

Approximately 30m to the north of the mound is a deep hollow-way (b) running east—west and possibly an earlier route of the Dorking/Reigate road. On high ground on the southern side of this hollow-way is a small slit trench (c), some 2 x 1m facing onto the road in the Dorking direction.

Between the hollow-way and the mounds is a steep-sided quarry (d) some 10m deep on its southern and eastern sides. A terrace down the north-eastern corner of the quarry (e) appears to be modern and may result from illegal use by mountain bikers; the original entrance is from the north-west corner (f). This quarry, effectively dug into the side of the ridge on which the mounds are situated, was probably for the extraction of stone for building purposes from a hard stratum of greensand. There is also evidence of digging into the north-western side of the mound possibly for the recovery of sand.

The modern track (g) largely skirts the southern perimeter of the mound and has probably only cut into slump from its matrix.

The mound itself has a maximum diameter of 20m and a height of 1.9m. Other than where it has been damaged by quarrying it is circular in plan and has a notably flat top with no sign of any excavated shaft. Again, there is a break in slope approximately halfway up the side of the mound. There is some evidence of a surrounding ditch particularly to the southwest and east (h) of the mound. The arc on the south-western side has been truncated by the top of what becomes a narrow, steep-sided gully, of uncertain origin, but which is now being deepened by water erosion (i). To the south of the path skirting the southern base of the mound there is a further, slight, arc-shaped ditch (j) that may also relate to the mound. This feature runs into a more pronounced ditch presently being eroded by water action (k). South of these features is a lynchet (l).

A modern path (m) gives access to the top of the mound and has caused some minor damage; the top of the mound bears two mature conifers. There seems no reason to doubt the identification of this mound as a bowl barrow but, as detailed above, it is possible that the mound was enhanced when reused for planting a clump of conifers.

#### **Round barrow 3** (TQ 2373 5049; SM 20162, HER 16212 (997B); fig 2, no 3)

This is the eastern of two mounds Scheduled as SM 20162; the survey results are shown in figure 3. It is a substantial, flat-topped mound (a) bearing a number of mature conifers, with signs of a surrounding ditch, and has been encroached on all sides by hollow-ways and sand extraction.

To the north-east of the mound is an area of small scoops, probably quarries, and their spoil (f), and into one of these heaps another probable slit trench has been cut (g). Further features to the west of the mound, and cutting into its western side, (h) and (i), are probably also quarries.

To the south of the mound is a path (j), now heavily used by pedestrians, and occasionally by horse riders, which has clearly cut into, and caused considerable damage to, the mound. A small but deep cut has been made from this path into the southern side of the mound (k).

The mound itself has a maximum diameter of 30m and a height of 2.4m. Other than where it has been damaged by paths and quarrying it is circular in plan and has a notably flat top with no sign of any excavated shaft. There is a break in slope approximately halfway up the side of the mound possibly indicating phased construction. There is some evidence of a surrounding ditch particularly to the north-west and north-east of the mound (l). Modern paths give access to the top of the mound and these have caused some minor damage.

There seems no reason to doubt the identification of the origins of this mound as a barrow. However, its height, very sharp profile and flat top, and particularly the break in slope, may suggest that an existing mound was enhanced when reused for tree planting. This possibility must throw some doubt on the origins of the surrounding ditch—it seems unlikely that on this easily eroded geology a ditch would remain visible at the foot of a steep slope over a period of several millennia. The most cogent explanation would seem that the visible ditch results from removal of the material used to enhance the mound in the 19th century.

**Round barrow 4** (TQ 2372 5042; SM 20163; HER 16213 (997D); fig 2, no 4) This barrow lies some 50m to the south-east of the pair described above (SM 20162). The survey is shown in figure 3.

The mound (a) stands c 1.2m high and is surrounded by a ditch (b) on its northern, eastern and southern sides. The top is not flattened to the same extent as those scheduled as SM 20161 and 20162 and there are no mature conifers on the mound; however, the trees on other mounds are unlikely to represent the original early 19th century planting and the current lack of pines should not be taken to indicate that none were planted at that date.

To the west and north-west of the mound is a series of inter-cutting hollow-ways. Those to the north-west run from south-west to north-east with the middle of three (c) having been truncated by a change in direction of that to its south (d). A relatively modern cut (e) has given access from that middle route to one to its north (f) which is also accessed from a north/south hollow-way running to the west of the mound (g). The age and purpose of these hollow-ways cannot be determined with any certainty, but there was a pond 'of considerable size and depth', but now drained, on the lower ground to the west of the barrow, known as

the Long Pond (Sheldon 1982, 11), and it may be that some of the hollow-ways have been worn by stock being taken to water.

The identification of this mound as a prehistoric barrow is likely to be correct.

**Round barrow 5** (TQ 2376 5035; SM 20170; HER 16216 (997F); fig 2, no 5) This location is Scheduled as the site of a barrow and, although described as a platform-shaped mound some 0.5–0.6m high in 1931 (Grinsell 1934), the Surrey HER records no evidence visible above ground. The survey reported here was undertaken at the appropriate OS grid reference and shows the slight remains of a circular earthwork (fig 4). This location continues the line of barrows south-easterly along the top of the ridge.

A roughly circular scarp (a) spiralling to give an inner scarp within the south-west quadrant may indicate the disturbed position of the platform recorded in 1934 but, if so, the height has now been reduced to little more than 0.2m. To the north-west two linear features, a lynchet running south-west/north-east (b) and a bank running south-east/north-west (c), meet at right angles and this junction appears to respect the possible barrow position. The lynchet is truncated by a further, curved, scarp (d) that runs round the eastern side of the possible barrow position. A hollow-way (e) runs from the low-lying area to the west, south past these earthworks, towards the present bridleway, which is itself the site of the race course constructed in 1834 (Sheldon 1982, 7). This hollow-way appears originally to have been funnel-shaped but a bank in the centre (f) indicates that it became divided as it passed downhill.

To the south-east is a series of parallel hollows running down the slope (g). In view of their number, proximity to each other and termination in a steep bank at their north-eastern ends, these are unlikely to be hollow-ways. They may be the result of extractive industry, but their form is unusual; a role as planting ridges is another possibility.

The identification of this site as having once borne a barrow must remain uncertain, but it is strange that unlike most of the others this was apparently not planted with conifers in the early 19th century.

**Round barrow 6** (TQ 2382 5029; SM 20164; HER 16214 (997E); fig 2, no 6) This location, north of Flanchford Road, lies towards the south-eastern end of the ridge as it loses height, but still commands long views to the west. Survey results are shown in figure 4.

A small mound (a), c 8m in diameter, has been planted with conifers and to the south of this is a small crescent-shaped scoop (b). Outside this, and particularly visible over the southeastern quadrant, is a further scarp (c) and outside that a ditch (d) and a counterscarp bank (e). On the southern side these are truncated by a path (f) that has destroyed any evidence of the latter two features but the scarp appears for a short distance south of the path.

Between the mound and the main bridleway is a small bank (g) that may relate to the early 19th century racecourse but may simply have resulted from upthrow from horses and pedestrians using the track. This bank is broken by a path (h), which traverses the northern side of the mound to join the path leading in a north-westerly direction (f). From this a further path leads south-west and crosses a small scoop, probably a quarry (i). A further scarp forms an arc between the main bridleway and the southern path (j).

The measurements given make it clear that only the small mound (a) was considered part of the barrow in 1931 (Grinsell 1934) but a more likely explanation is that this was a planting mound constructed in the early 19th century with material taken from the crescent-shaped scoop. The barrow is represented by the larger, albeit now low, mound which surrounds it, marked by the slight scarp (c). If this interpretation is correct a diameter of about 25m, as opposed to 8m, would be closer to those of the other barrows on the ridge. This barrow is close to, and above, Flanchford Road and the increased elevation of the small

mound, visually increased again by scarping the end of the spur (j), would have enhanced the setting of the conifer clump when viewed from the road.

The position of this mound following the line of barrows along the ridge is a strong suggestion that it originated as a prehistoric burial mound but it appears to have been reshaped when reused for tree planting.

## **Round barrow 7** (TQ 2389 5022; SM 20165; HER 16215 (997G); fig 2, no 7)

This mound is situated on relatively flat ground towards the end of the north-west/south-east ridge at the edge of a car park on the southern side of Flanchford Road. The results of the analytical survey are shown in figure 4.

The shape of the mound (a) has been severely compromised by surrounding and surmounting paths, and it has been truncated on its eastern side by a permissive bridleway (b). No signs of any ditch were located but the car park on the north, the bridleway on the east and dense vegetation on the west and south sides may disguise or have destroyed above-or below-ground evidence. The top of the mound, standing about 0.2m high, is planted with mature conifers.

To the south of the mound a straight track (c), bounded by slight banks bearing mature oak pollards, forms a now disused but once major route from north-east to south-west across the heath. A lynchet (d) runs to this track from the north-west. This lynchet is cut by a slight hollow (e), which, with other minor scarps (f), may represent minor episodes of quarrying.

A bank (g) skirting the southern side of the mound continues, first westwards and then north-westwards, to the edge of Flanchford Road with a gap (h) at one of its changes of direction. This bank is apparently truncated by a lynchet (i) but the density of vegetation in this area makes that relationship uncertain.

Despite Scheduling this barrow is in a parlous state. Some attempts have been made to protect it using turf banks, now eroded, and tree trunks, but the permissive bridleway truncating its eastern side continues to cause damage; it is prey to rubbish deposition from the car park and, although visible as a dome-shaped mound within living memory it is now barely distinguishable. Only its topographical position, its relationship with the remainder of the linear cemetery, its recognition as a locus suitable for tree planting in the early 19th century and the knowledge that it was more visible relatively recently encourage the belief that it originated as a barrow; the justification for Scheduling (as with SM 20170) rests with the belief that evidence may survive undisturbed beneath ground level.

#### **Round barrow/s 8** (TQ 2364 5008; SM 23603; HER 16217; fig 2, no 8)

This location lies some 200m south-west of SM 20164 close to, and on the north side of Flanchford Road opposite its junction with Bonny's Road. Topographically it lies on the lower slope of the hill now bearing the windmill and golf club house, looking north-east across the bowl of the headwaters of the Wallace Brook towards the ridge of the linear cemetery. Immediately to the north-west of the mounds and c 30m distant is a damp area which, in wet weather (or when the water table was higher), may hold water. The results of an analytical survey are shown in figure 4. The mature conifers on these mounds are not numbered but their position has been indicated since they appear to be approximately the same age as those on the barrows.

Two slight mounds are visible, with diameters of about 15m and much truncated by paths. The north-eastern mound (a) has a track (b) – used by golfers (and their buggies) crossing Flanchford Road – running across it and this track cuts into the ground just east of the mound forming a scarp (c). The same track also cuts the south-western mound (d) in this case cutting a hollow on the mound itself (e). Between the two mounds is a sinuous track, heavily used by golfers, horse-riders and walkers, which has worn a hollow-way at its eastern

end (f), forms a cross with the track already mentioned at a point between the two mounds, and passes the south-western mound (d) truncating its south-eastern quadrant.

Between these two mounds and Flanchford Road are portions of two parallel cuts (g & h) that are known to run, with others, at an angle slightly more easterly than that of the present road, at least as far as the present drive to the golf club house, a distance of some 500m. These probably represent differing routes of the present road. To the west of the mounds the ground is disturbed, mainly by minor episodes of quarrying. One slight scarp (i) and a mound (j) are noted and probably result from that activity, but further small earthworks also exist in this area.

To the north-west of these mounds lies the golf course. A hollow-way (k) has had its south-eastern side enhanced and reused as the edge of the course but both sides survive at its north-eastern end where it is truncated by a further hollow-way (l) running north-west/south-east towards Flanchford Road. A slight linear hollow (m) lying between these two routes and truncated by the former, may represent a further hollow-way.

From the available above-ground evidence it is not possible to judge the likelihood of these mounds originating as prehistoric barrows. One record should be noted, although interpretation remains speculative:

It is certainly true that the hill on which the mill stands was known as Galley Hill. Mr Bushby told me that the actual site of the gallows was on the new fifth green. This view is confirmed by the fact that when the group of conifers was planted between the bus stop opposite Bonny's Road and this green, skeletons were found buried in very superficial graves (Sheldon 1982, 5)

According to one handwritten version of Ridgway's *History of Reigate* (dated 1811, but with later additions (photocopy held by Holmesdale Museum)) 'the spurs of the gallows was dug up about the year 1817 as they were going to plant trees on the place'.

The 'new fifth green' is immediately south-west of the survey area and the clump of conifers mentioned is almost certainly those on these two mounds. It is highly unlikely, given the acidic nature of the soil, that these skeletons were prehistoric burials or even late Saxon execution victims, but reuse of burial mounds as later gallows sites happened elsewhere, for example at Gally Hill, Banstead (Barfoot & Price Williams 1976).

(It should be noted that since this survey took place Reigate Heath Golf Club has undertaken groundworks to direct users of the golf course and horse riders away from these mounds).

#### **Mound 9** (TQ 2384 5000; HER 15439; fig 2, no 9)

The survey of this feature is shown as figure 5. A slight mound (a), surmounted by mature conifers, lies in thick vegetation near the eastern limits of the present common. The mound, sub-circular, some 15m in diameter and no more than 0.2m high, is truncated on its southern and south-eastern sides by a lynchet (b). Outside that lynchet lies another (c) which, with an external ditch (d) surrounds the mound leaving it standing on an ovoid 'platform' (e) A slight cut (f) has been made into the southern corner of this platform. This complex is bounded to the south by two slight, parallel lynchets (g) that may represent two sides of a track. Beyond these are the drive running between the common land and a pair of semi-detached cottages, Oaklea. To the north-east another lynchet (h) may represent the side of an earlier route to these cottages. On the western side a bank (i) appears to slightly truncate the ditch (d) and a further bank (j) abuts it at right angles. These latter features were not traced for their full length.

It is not possible to determine the origins of this mound although the presence of mature conifers and its apparent enhancement by provision of a surrounding ditch indicates its use or reuse as part of the decorative planting scheme seen over much of the heath. The cottages were at some stages provided with a gas supply and work in progress in replacing the iron gas main enables its route north of the mound to be identified (k).

A mound, thought to have been constructed for tree planting and located to the north of the A25 (TQ 236 507; fig 2, no 10) and two points depicted on the 1872 OS 25-inch map as conifer clumps, the marking generally given to known barrows, (TQ 234 499 (fig 2, no 11) and TQ 239 504 (fig 2, no 12)) have been examined. Neither of the latter two points involve mounds and no survey was undertaken; however, in view of the destruction of earthworks thought to be prehistoric in origin (notably barrows SM 20170; HER 16216 (997F) and SM 20165; HER 16215 (997G)) the possibility of an early date should not be entirely dismissed.

#### Discussion

The distribution of prehistoric barrows in the South East has been assessed (Field 1998); while a large number lie along the linear chalk escarpment and the spurs of the South Downs a number of cemeteries of bowl barrows are found on the Folkestone Beds particularly in West Sussex. At the western end of the Weald, where the chalk downs are narrow, many cemeteries occur on the wider expanses of the greensand but in both Surrey and Sussex, as the greensand band narrows there is an increasing emphasis on the chalk. The small cemetery on Reigate Heath is the only one recognised on the greensand east of Dorking although a probable example with three mounds exists to the south on Weald Clay on Earlswood Common. The earthworks on greensand on Redhill Common are thought likely to be tree-clump rings (Grinsell 1987).

For many years the most recognised topographical position for prehistoric barrows was on high ground, often false-scarped, so that they overlooked the activity areas of the living a phenomenon first noted by William Stukeley: 'I observe the barrows on Hakpen Hill and others are set with great art not upon the very highest part of the hills but on so much of the declivity or edge that they make appearance as above to those in the valley' (Bodleian MS Eng. Misc b.65). However, this view owes as much to the vagaries of preservation as to any original preference and a tendency for them to cluster around spring points, meres and marshes has been known for some time (for example Meyrick 1964). On chalk on the Isle of Wight (Tomalin 1996, 15–19) and on Salisbury Plain (McOmish et al 2002) the setting of barrows around the heads of valleys overlooking spring sites has been noted. Use of LiDAR has increased the number of possible barrows in an area around the valley of the Western Rother (West Sussex) by some 75% when compared with the HER (Needham & Anelay 2017). Many of these sites, which include the discovery of new cemetery groups, are on the greensand and clearly related to the upper waters of the rivers Rother and Meon; these small cemeteries often occupy a low spur of land between two tributaries. Plotting the known barrows around the upper waters of the river Wey in south-west Surrey reveals a very similar picture (David Graham and Audrey Graham, pers comm).

On Reigate Heath modern drainage and ground-water abstraction means that the present environment is very different from that in the past. The barrows on the ridge probably overlooked marshland on either side with many small watercourses feeding into the Wallace Brook and Shagbrook. Several ponds on Reigate Heath survived into the early 20th century and barrow SM 23603 would have directly overlooked one in the southern angle between Flanchford Road and Bonney's Road, which was drained during golf course development.

Depending on the local vegetation the linear cemetery would probably have been visible from the opposing high ground of Galley Hill. It is also possible that sand barrows, kept clear of vegetation, would have been visible from the North Downs set against the

darker, low-lying, marshy ground. Understanding the surrounding vegetal environment over the period in which the barrows were constructed is crucial in such considerations.

The distance between the barrows of the linear cemetery increases as the line descends the ridge (SM 20162-20163=69m, 20163-20170=75m, 20170-20164=82m, 20164-20165=102m), perhaps emphasising a sense of perspective when viewed from Galley Hill. While the linearity is here, as often, a reflection of the local topography, an association between linearity and lineage, the possibility that the morphology of the cemetery reflects a 'specific, historical representation of the past, ancestry, individual power and social order (and their future projection)' has also been considered (Garwood 2007, 43). In general, however, linear cemeteries are seen as late in the series with most dated to the period c 1850-1500 BC (Garwood 1999).

Despite the relative lack of major monuments and prehistoric settlement on the North Downs, the junction of the chalk with the greensand, and the Weald Clay to the south forms an ecotonal zone providing a range of resources from the different geologies (Wooldridge & Linton 1933). Exploitation of this zone may never have reached the critical mass necessary for the construction of major early monuments, but the relationship between clustered cemeteries and territoriality, suggested for the wider expanses of greensand farther west (Field 1998) may have operated here albeit, at a low level, and be reflected in the cemeteries on Reigate Heath and Earlswood Common.

#### **ACKNOWLEDGEMENTS**

This fieldwork took place in accordance with a Research Design submitted to, and approved by, Ann Clark (then of English Heritage) and was facilitated by Ian Wright (then Countryside Manager for Reigate and Banstead District Council). The surveys were undertaken by Nigel Bateman, Jan Blatchford, Michael Edwards, Rose Hooker, the late Pauline Hulse, John Jennings, Mike Rubra and Geoff Stonehouse; the authors are most grateful for their time and skills. Access to papers in the Holmesdale Natural History Club Museum, Reigate was arranged by Roger Ellaby and all these are thanked for their help.

#### **BIBLIOGRAPHY**

- Bannister, N R, 1997 Reigate Heath: a historic landscape survey, private report to Reigate and Banstead Borough Council and Reigate and Banstead Archaeological Coordination Committee (copy available in the Holmesdale Natural History Club library; Surrey History Centre (942.2REI), and Surrey HER (Source 3647)
- Barfoot, J F, & Price Williams, D, 1976 The Saxon barrow at Gally Hills, Banstead Down, *SyAS Res Vol*, **3**, 60–76
- Bowden, M (ed), 1999 *Unravelling the landscape: an inquisitive approach to archaeology*, Stroud: Tempus
- Bradley, R, & Keith-Lucas, M, 1975 Excavation and pollen analysis on a bell barrow at Ascot, Berkshire, *J Archaeol Sci*, **2**, 95–108
- Dimbleby, G W, 1962 The development of British heathlands and their soils, Oxford Forestry Memoir, **23**, Oxford: Clarendon Press
- Dimbleby, G W, & Bradley, R J, 1975 Evidence of pedogenesis from a Neolithic site at Rackham, Sussex, *J Archaeol Sci*, **2**, 179–96
- Drewett, P, 1976 The excavation of four round barrows of the second millennium BC at West Heath, Harting, 1973–75, *Sussex Archaeol Coll*, **114**, 126–50
- 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
- English, J, 2011 Excavation of two Bronze Age barrows on Whitmoor Common, Worplesdon by General A H Lane Fox (Pitt Rivers), *SyAC*, **96**, 262–6

- —, 2016 A probable prehistoric field system on Whitmoor Common, Worplesdon, *SyAC*, **99**, 200–6
- Field, D, 1998 Round barrows and the harmonious landscape: placing Early Bronze Age burial monuments in south-east England, *Oxford J Archaeol*, **17**, 309–26
- Gardner, E, 1924 Bronze Age urns of Surrey, SyAC, 35, 1–29
- Garwood, P, 1999 Radiocarbon dating and the chronology of the monuments complex, in A Barclay & C Halpin (eds), *Excavations at Barrow Hills, Radley, Oxfordshire, volume 1: the Neolithic and Bronze Age monuments complex*, Oxford Archaeological Unit, Thames Valley Landscapes, **11,** 293–309
- —, 2007 Before the hills in order stood: chronology, time and history in the interpretation of Early Bronze Age round barrows, in J Last (ed), *Beyond the grave: new perspectives on barrows*, Oxford: Oxbow Books, 30–52
- Glover, A, 1814 An account of the opening of some barrows on Reigate Heath, *Archaeologia*, **17**, 325–6
- Graham, D, Graham, A, & Wiltshire, P, 2004 Investigation of a Bronze Age mound on Thursley Common, *SyAC*, **91**, 151–66
- Grinsell, L V, 1934 An analysis and list of Surrey barrows SyAC, 42, 27–60
- —, 1987 Surrey barrows 1934–1986: a reappraisal, SyAC, **78**, 1–42
- Hooper, W, 1945 Reigate: its story through the ages, Guildford: SyAS
- Longworth, I H, 1984 Collared urns of the Bronze Age in Great Britain and Ireland, Cambridge: University Press
- McKinley, J I, 1997 Bronze Age 'barrows' and funerary rites and rituals of cremation, *Proc Prehist Soc*, **63**, 129–45
- —, 2000 Human bone and funerary deposits, in K E Walker & D E Farrell (eds), *Twyford Down, Hampshire: archaeological investigations on the M3 motorway from Bar End to Compton 1990–93*, Hampshire Fld Club Archaeol Soc Monogr, **9**, 85–119
- McOmish, D, Field, D, & Brown, G, 2002 The field archaeology of the Salisbury Plain Training Area, Swindon: English Heritage
- Meyrick, O, 1964 Siting of barrows round springs, Wiltshire Archaeol Mag, 59, 182
- Needham, S, & Anelay, G, 2016 People of the Heath understanding and conserving Petersfield's prehistoric barrows, Bulletin no 9 (http://www.peopleoftheheath.com/wp-content/uploads/2016/07/PotH-Bulletin-9.pdf; accessed 21 June 2018)
- —, 2017 People of the Heath understanding and conserving Petersfield's prehistoric barrows, Bulletin no 11 (http://www.peopleoftheheath.com/wp-content/uploads/2017/06/PotH-Bulletin-11.pdf; accessed 21 June 2018)
- Phillips, W E, 1967 Bronze Age metal objects in Surrey, SyAC, 64, 1–34
- Sheldon, C, 1982 Reigate Heath and its golf club, London: S Straker & Sons
- Tomalin, D, 1996 Towards a new strategy for curating the Bronze Age landscape of the Hampshire and Solent region, in D A Hinton & M Hughes (eds), *Archaeology in Hampshire: a framework for the future*, Winchester: Hampshire County Council, 13–25
- VCH 1911: The Victoria history of the county of Surrey, 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
- Winser, K, Waters, K, English, J, & Field, D, 2018 Landscape investigation on the Surrey greensand: fieldwork at Abinger and Holmbury, 1985–9, *SyAC*, **101**, 173–93
- 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

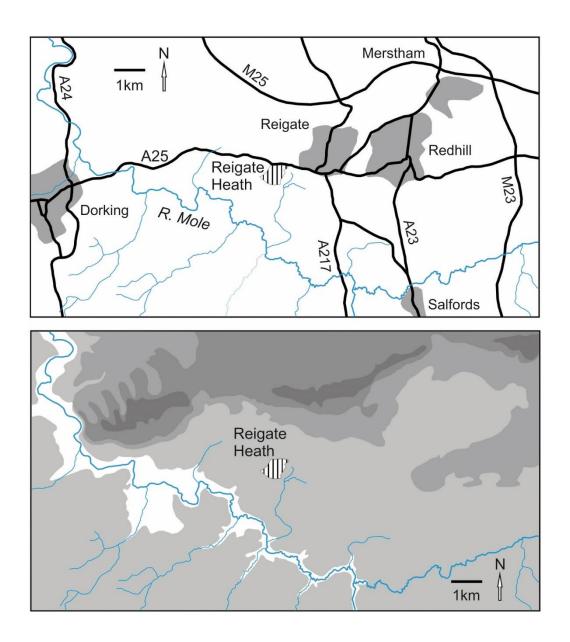


Fig 1 Reigate Heath. Location (top) and topographical surroundings (bottom). Contour lines are shown at 50m intervals with land below 50m OD remaining white.

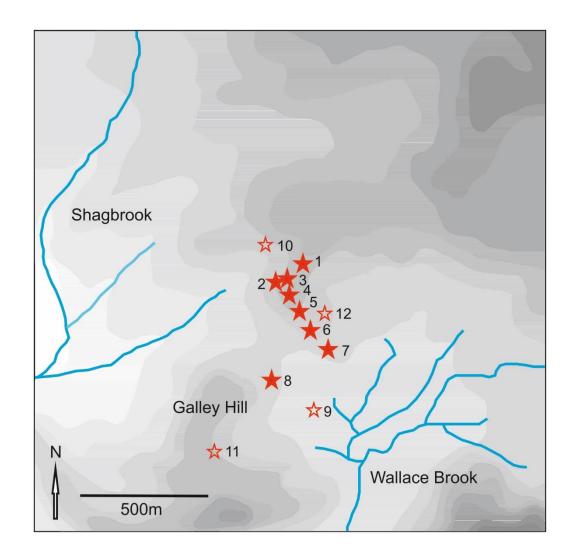


Fig 2 Reigate Heath. Local topography and identification of the barrows. Contour lines are shown at 5m intervals with land below 50m OD remaining white. The scheduled barrows (solid red stars) are:  $1-SM\ 20161; 2$  and  $3-SM\ 20162; 4-SM\ 20163; 5-SM\ 20170; 6-20164; 7-SM\ 20165$  and  $8-SM\ 23603$ . The unscheduled mounds (hollow red stars) are  $9-TQ\ 238\ 500; 10-TQ\ 236\ 507; 11-TQ\ 234\ 499$  and  $12-TQ\ 239\ 504$ .

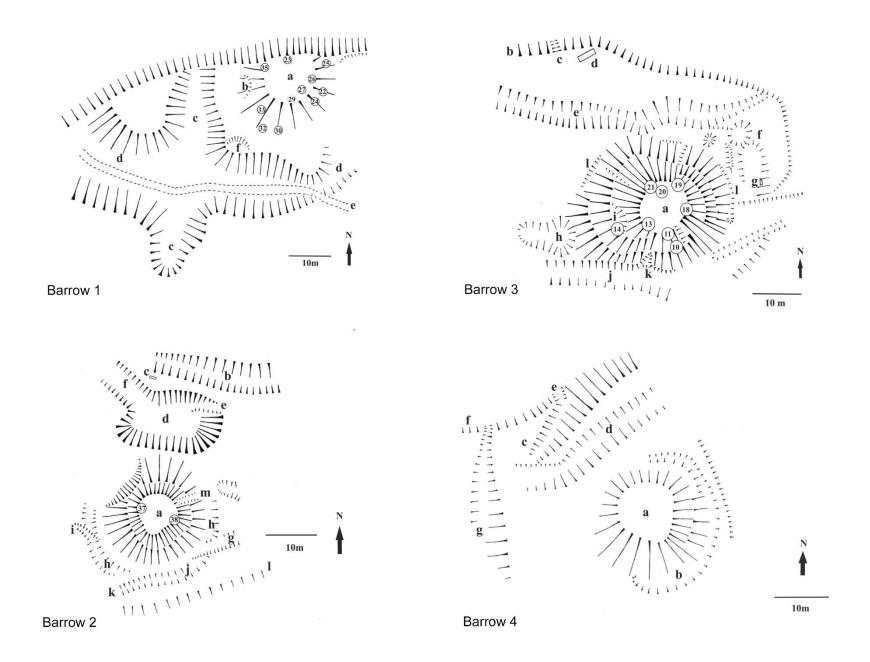


Fig 3 Reigate Heath. Analytical survey of Scheduled barrows. Barrow 1 (SM 20161); Barrow 2 (SM 20162; Barrow 3 (SM 20162); Barrow 4 (SM 20163).

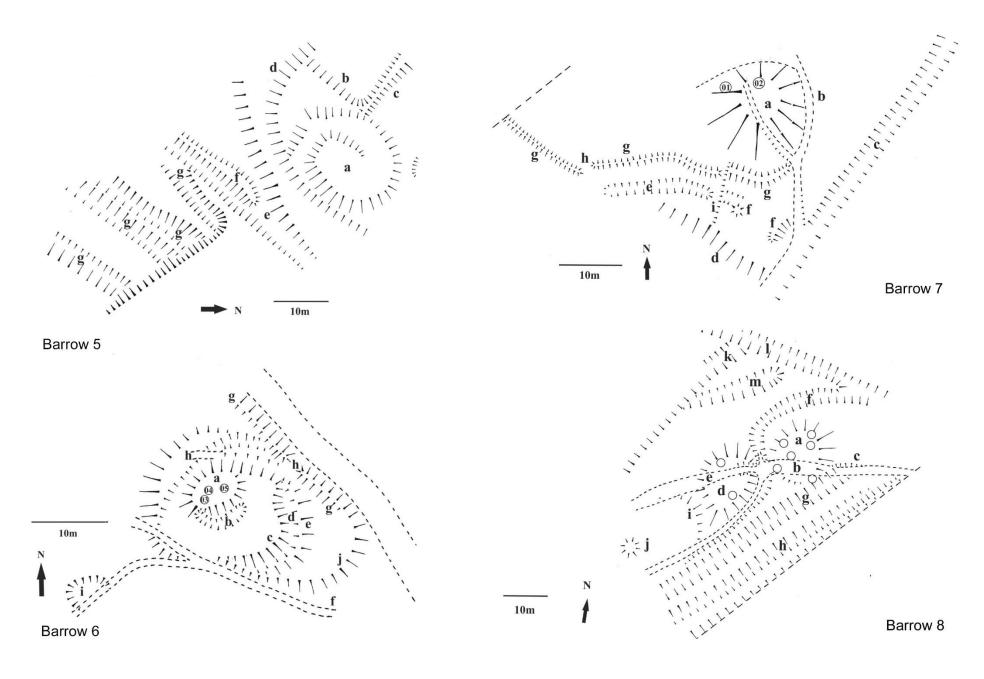


Fig 4 Reigate Heath. Analytical survey of Scheduled barrows. Barrow 5 (SM 20170); Barrow 6 (SM 20164); Barrow 7 (SM 20165) and Barrow 8 (SM 23603).

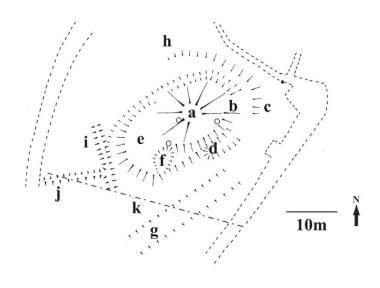


Fig 5 Reigate Heath. Analytical survey of mound 9 at TQ 238 500.