

Analytical survey of Gravelly Hill, Caterham and Bletchingley

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A sketch survey of earthworks on Gravelly Hill, Caterham, and Bletchingley, undertaken by Gwyneth Fookes and the late Peter Gray, showed evidence of multi-period activity; when Caterham School purchased the area they requested a full survey to assist in their land management. These surveys have indicated the presence of at least two phases of field systems, one of which pre-dates emparkment; the generally well-preserved pale of part of the medieval North Park; two lines of military defence works; and both large- and small-scale gravel extraction.

Introduction

In 2014 land on Gravelly Hill was purchased by Caterham School, who expressed an interest in knowing its archaeological and historical background. Gwyneth Fookes and the late Peter Gray had already noted the presence of earthworks interpreted as a park pale, an undated field system and military trench systems relating to the First World War within the area, but access had been limited. As a result of the change of ownership, members of Surrey Archaeological Society undertook a Level 3 measured survey (Bowden 1999, 62–4) of the land within the medieval North Park, Bletchingley and a small area to its immediate north.

Topography, geology and present land use

Gravelly Hill is a high point on the scarp edge of the North Downs and reaches 235m OD. The area surveyed comprises a north-facing spur known as Old Park Wood, part of a parallel spur to the east known as Upwood or Tupwood and the steep-sided valley between them that runs northwards towards Caterham (fig 1; centred at TQ 337 536).

The North Downs at this point comprise strata of Holywell Nodular and New Pit Chalk overlying West Melbury Marl and Zig Zag Chalk Formations. A horseshoe-shaped superficial deposit of Blackheath Beds lies on the crest of the Downs towards the southern edge of the survey area.

The area is covered by a mixture of older woodland to the west, Old Park Wood, and more recent woodland to the east, with the bottom of the steep-sided valley in the centre having been cleared of vegetation and left more or less untouched during a recent period of private ownership. The woodland is now used partly for educational purposes by Caterham School and partly as an open leisure area by mainly local people.

Historical and archaeological background

Although no prehistoric or Romano-British finds have been made on Gravelly Hill itself, evidence from all periods has been found on the lighter soils of the greensand to the south (Coombe *et al* 2018, 223–9; Jones 2013; Marples & Poulton 2019) attesting an enduring, if possibly intermittent, presence. On the scarp edge of the Downs, some 500m west of Gravelly Hill, is War Coppice hillfort (Cardinal's Cap), which is poorly dated (Hart 1933; Hope-Taylor 1950).

An area southwards from the scarp of the North Downs appears to have comprised two large Late Saxon 'multiple estates': one encompassing what were to become Ham, Harrowsley, Burstow, Nutfield and Bletchingley; the other Chivington, Horne, Tandridge

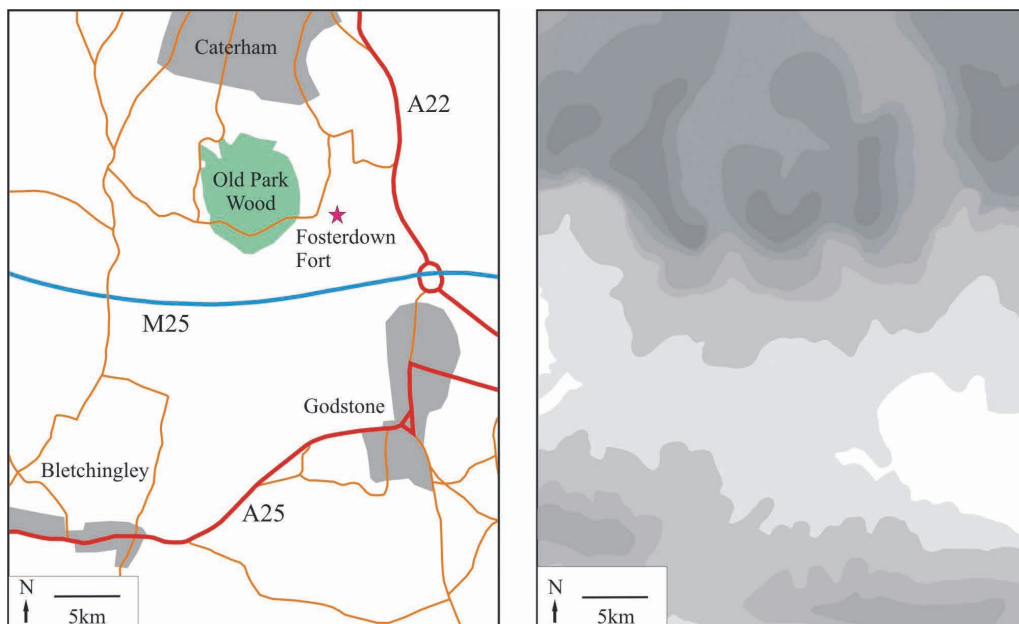


Fig 1 Location and topographical surroundings of Gravelly Hill, Bletchingley and Caterham. Contours are shown at 20m intervals with land below 100m OD remaining white.

and Godstone parishes (Blair 1980, fn 48); the area of Gravelly Hill, now in Caterham, was in Chivington (*ibid*, fig 7).

By 1086, three estates in Bletchingley had been amalgamated into a single manor and placed in the hands of Richard of Tonbridge. Excavations at North Park Quarry located trackways and a ditched field system associated with pottery dating to *c* 1050–*c* 1200 suggesting ‘rapid, well-organised and complex economic development’ (Marples & Poulton 2019, 186), but this productive landscape of scattered farms was brought to a sudden and total end by deliberate levelling, probably during the creation of North Park.

Richard of Tonbridge was an ancestor of the de Clare family, who became earls of Hereford and Gloucester, and held Bletchingley by knight’s service and a rent of 5s (25p) called Park-Silver until the male line failed in 1314 (*VCH 4*, 253–65). By 1253 a park had been enclosed since in that year Henry III gave Roger de Clare hinds and stags to stock his park (*CalCR*: March 1233, 204) and in 1262 an *inquisition post mortem* included the pasture within the two parks valued at 40s (£2) per annum; the pannage 50s (£2.50) and underwood and deadwood were also valued (*VCH 4*, 253–65). By 1296 the value of the pannage had increased to 60s (£3) and by 1403 the two parks were known as North Park and South Park.

Both parks were maintained throughout the remainder of the 15th century and in 1523, £4 11s (£4.55) was rendered by Ambrose Skelton and John Scott, keepers of the North and South Parks. In 1540 Sir Thomas Cawarden became keeper of the parks and master of the hunt of deer (*ibid*).

The North or Little Park (Surrey Historic Environment Record (SHER) 1227) occupied the northern portion of Bletchingley Manor, primarily in Bletchingley parish but including a small part of Caterham parish (Lambert 1921). Old Park Wood was once known as Abbots Wood, while Ten Acre Shaw was Cassocks Wood, probably because the church in Caterham was given to the monastery of Waltham Holy Cross in the early 13th century and later the Abbot of Waltham became Lord of the manors of Caterham and Tupwood (*VCH 4*, 265–70).

North Park, under the name Hextall, is shown on maps by John Norden (published 1594), John Speed (1610) and Johan Blaeu (1648) but not on that of John Senex (1729) – this last omission may be explained by the North Park area showing evidence of obliteration, suggesting uncertainty or intended revision by that date (Ray Howgo, pers comm).

In 1680 Clayton, by then the sole owner, had ordered that the bounds of the manor be recorded and these had been reported at a manorial court. Unfortunately, the original document has disappeared, but a transcription was made in 1800 (SHC: K61/7/1–2) so the boundary can still be traced. The homagers to the same Court presented that ‘the demesne did heretofore consist of two parks, Little and Great, now called the North and South Park, but are and have been for many years disparted and laid into several farms’. The North Park contained 1135 acres 22 perches (549ha) and the South Park 1681 acres 28 perches (680ha) (*VCH 4*, 253–65).

In 1761 an estate map (SHC: K61/3/2) (fig 2), drawn up for the Clayton family, shows Abbots Wood (Old Park Wood) and Tupwood Shaw with the remaining area laid out in fields. The map published by John Rocque in 1768 indicates arable use in the area of these fields. On the title maps and awards for Caterham (SHC: 863/1/19) dated 1838/40 and Bletchingley (SHC: 863/1/7) dated 1843, land use of the open areas was still primarily arable. Although a chalk pit is shown there is no evidence of exploitation of gravel resources at this time. The OS 25-inch map surveyed in 1868/9 shows that at that date no major gravel quarries had been dug but by 1895 the exploitation had started. The same quarry is depicted on the map surveyed in 1910 but by 1935 the area being quarried had expanded considerably, presumably to supply developments around Caterham and the outer London suburbs.

These woods were owned by the Clayton family from 1922 to 2013 and they adopted a low-key management policy after the Second World War. The previously open central valley became scrub woodland while Old Park Wood and Tupwood Shaw, the latter largely coppice wood, remained unmanaged.

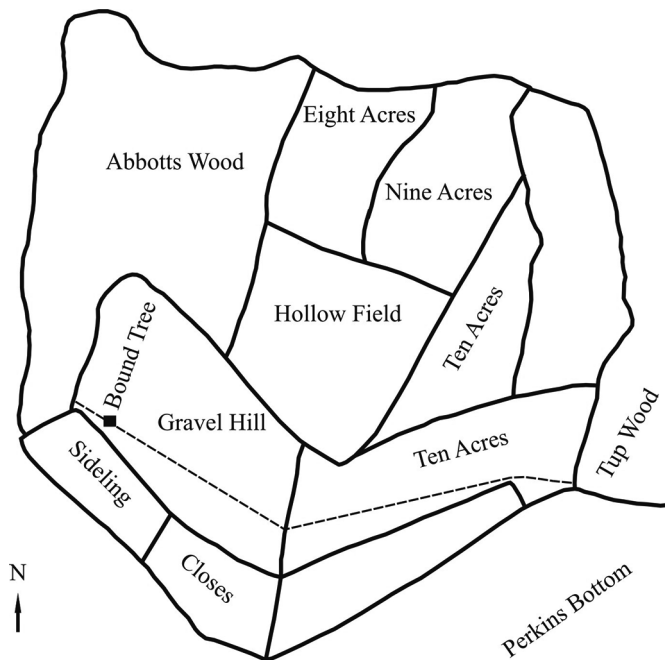


Fig 2 Part of an estate map of 1761 showing Gravelly Hill with field and parish boundaries (redrawn from SHC: 61/3/2 by kind permission of Surrey History Centre).

The survey

METHODOLOGY

The Level 3 analytical survey was undertaken using an amended version of the tape and offset methodology (Bowden 1999, 62–3). Points on the boundary fence were used as ‘fixed points’ and baselines created between these points; offset tapes were then set by compass perpendicular to these baselines. In addition to earthworks the positions of some numbered, mature beech trees were recorded together with any other apparently deliberately planted vegetation.

RESULTS AND INTERPRETATION

The earthworks in Gravelly Wood can be divided into four types: field systems; park pale; quarries; and military trench systems and slit trenches; they will be described in that order. The letters refer to figure 3.

Field systems

At least two phases of field systems can be seen within the survey area, one of which appears to pre-date the park pale. This earlier system comprises a series of contour lynchets (a) visible within Old Park Wood, on the slopes to its east and on the eastern side of the central valley. At one point (b) one of these field boundaries can be seen to be cut by the complex of earthworks marking the park boundary. The regularity of these earthworks as they follow the contours could indicate that they originate from changes in the local geology, but such close natural terracing has not been observed elsewhere on the North (or indeed the South) Downs and this explanation seems unlikely. The survival is too poor to fully describe the morphology and from the available evidence it is not possible to do more than suggest a possible date. It may represent a medieval system pre-dating emparkment or be a relic from an earlier period; in either case it has been protected from destruction by ploughing during the 13th–early 14th century arable maximum by its inclusion within the park. There does appear to have been some farming within the park since John le Venour, who died in 1323, had held a house with 92 acres (37ha) of arable land. However, the Venour family are thought to have held Little Pickle, on the greensand south of Gravelly Hill, where excavation has uncovered a series of houses dating from the 13th to the 16th centuries (Poulton 1998). John le Venour’s arable land is more likely to have been in the vicinity of the house rather than high on the scarp edge of the Downs. The earliest form of the name Venour is Venator, probably indicating the profession of its owner as master of the hunt of one, or more likely, both parks (Saaler 1998).

The presence of late prehistoric and Romano-British activity on the greensand to the south-west of Gravelly Hill (Coombe *et al* 2018, 223–9), the probable prehistoric field system on White Down, Chaldon, some 1.5km west of Gravelly Hill (SHER 1237; English, in prep), and the better-known system on Farthing Downs 5km to the north-west (Hope-Taylor 1949) might suggest the possibility of an earlier date for the system noted here.

Other, often major, lynchets mark the boundaries of fields that are shown on the estate map of 1761 and the tithe maps for Caterham and Bletchingley parishes. Particularly pronounced are the western boundary of Ten Acres (north) (c), the southern (d), eastern (e) and western (f) boundaries of Hollow Field, the western boundary of Eight Acres (g) and the northern boundary of Gravel Hill (h). Of these, two (f) and (g) also form the eastern boundary of Old Park Wood (or Abbotts Wood) and bound the western side of a terraced ride (i). It is clear that this wood boundary is cut by the northern limit of Gravel Hill (h) and that the northern portion of this field is an encroachment into Old Park Wood. These large lynchets are on steep slopes and result from arable use of the sides of the central valley, probably during the post-medieval period, and the comment in the survey of 1680 (1800 transcript SHC:

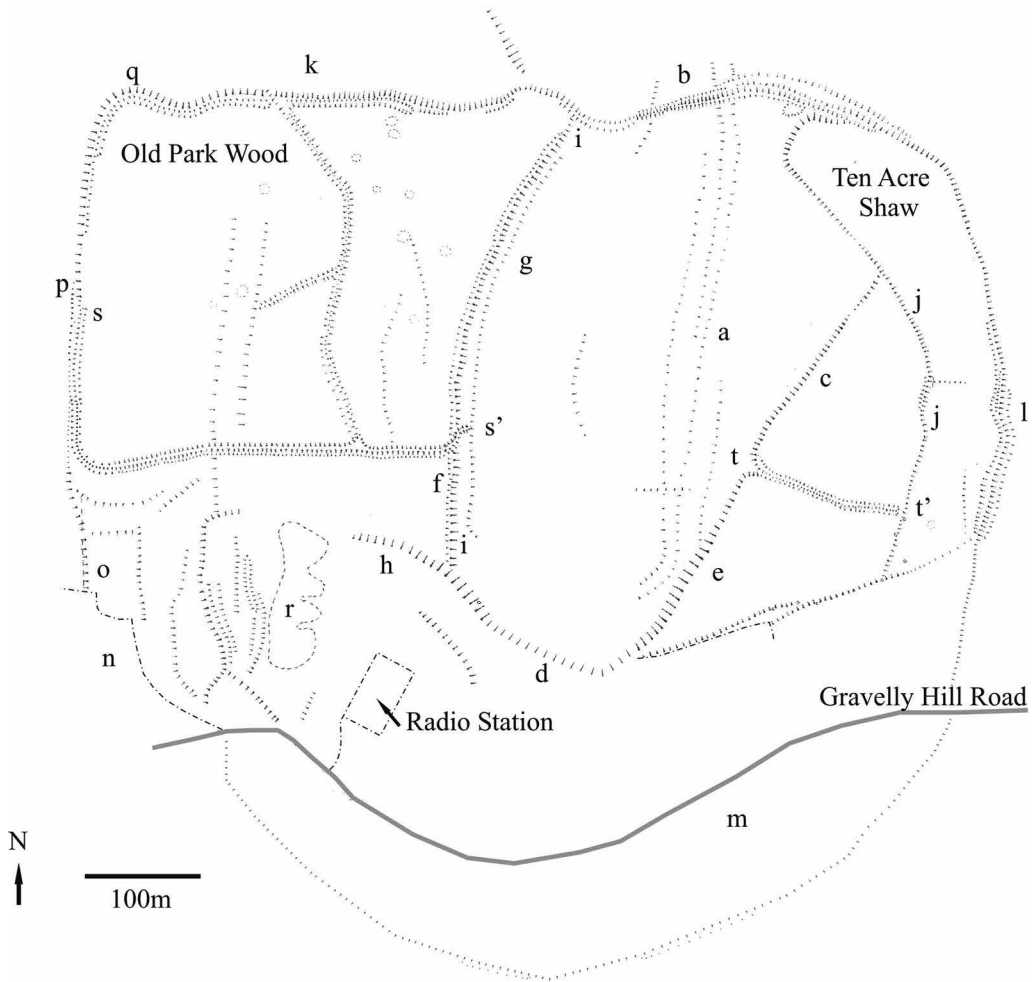


Fig 3 Analytical survey of earthworks on Gravelly Hill. The simplified depiction of the military trench systems is only intended to show their location – details are given in figures 4a and 4b.

K61/7/1–2) that Bletchingley North and South Parks ‘have been for many years disparted and laid into several farms’ would support that suggestion. The western boundary of Ten Acre Shaw (also known as Cassocks Wood) (j) is less pronounced, although still considerable. Shown as woodland in 1761 and the 1840s (Caterham tithe map/award) this woodland may date back to the medieval deer park.

The fields were under arable use at the time of the tithe assessments and some of the boundaries can be seen on aerial photographs taken in 1945 but by then they had lapsed into pasture. The arable decline after about the mid-19th century, when cheaper shipping and rail costs allowed imports of grain from America and Russia to undercut the home produced crop, saw Britain’s reliance on imported wheat rise from 2% in the 1830s to 65% in 1886 (Ensor 1936, 116), and resulted in much marginal land returning to pasture.

Park pale

It is likely that the park pale was constructed as a bank, which would originally have borne a palisade and an internal ditch to discourage the deer from escaping. The northern section of

the enclosure earthworks (k) is largely of this form as is part of the eastern side, but much of the latter has been reduced to a single, albeit substantial, lynchet.

In places the ditch of the eastern boundary (l) is so large that it has probably been recut, possibly on several occasions. The line of the bank has been emphasised by planting beech trees, probably in the 19th century, almost certainly because of its continuing relevance as a property boundary.

The boundary has been partially destroyed immediately north of, and crossing, Gravelly Hill Road (m) but the line of the pale would presumably have turned east to follow the line of the Caterham/Bletchingley parish boundary before turning south along the Bletchingley/Godstone boundary.

The pale is again lost as it re-crosses Gravelly Hill Road on the western boundary of the park, and the line is unclear where it traverses a partially enclosed and heavily vegetated area to the immediate north (n). When Weald Way was developed between 1895 and 1910 the route was placed to the west of Old Park Wood such that the great majority of the holdings were set out with their eastern limit at the boundary of North Park. The line of the pale emerges first as a lynchet (o) and then as a large ditch (p) marking the boundary, and occasionally enclosed within the property gardens. A large hole seen close to (o) is a Second World War bomb crater (Ray Howgego, pers comm). Further north the line is joined by that of the main military earthwork (see below) and the park ditch may have been reused as part of the trench system. At the north-west corner of the park it resumes the morphology of a bank with an internal ditch (q).

It is remarkable that the pale of the northern portion of the medieval North Park is traceable for the great majority of its circuit around Gravelly Hill and in most places survives as an appreciable earthwork. There would have been entrances, hatches – possibly with lodges – around the entire circuit but the locations of these structures do not appear to have survived, even as place-names. However, a perambulation of Bletchingley parish undertaken in 1680, of which a later copy survives (SHC: K61/7/1), describes a gate leading into Perkins Bottom near Tupwood Heath, and a second gate close to the south-west corner of Old Park Wood. The same document describes the portion of the pale bounding Old Park Wood as ‘an ancient dyke and bank of earth and hedge’.

Decorative planting and post-park recreational use

The date at which North Park was disparked is uncertain but it had clearly happened before 1680 (SHC: K61/7/1–2); by that time much of the central valley on Gravelly Hill appears to have been farmland and it was still largely clear of vegetation in 1945. However, there is no evidence that either Ten Acre Shaw or Old Park Wood were clear felled during the centuries after disparkment, and the present general lack of mature trees, apart from the very large boundary beeches, appears to result from an auction of standing timber in both areas in 1950 (Ray Howgego, pers comm).

Notwithstanding John Evelyn’s view of the late 17th century owner, Sir Richard Clayton, as a man of some sophistication and despite his humble beginnings, there is little evidence that he or his successors followed the prevailing fashion for major landscape works. The evidence from Old Park Wood is certainly not of major expenditure, but the broad track running down its eastern side would have provided a vista down and across the valley from a shaded walk or drive. The western edge of this track has been planted with beech trees and many more occur on boundaries of the fields shown on the 1761 map. These trees are now reaching the end of their lives and many have fallen in recent years; given that their lifespan is in the order of 150–200 years this would suggest a planting in the early to mid-19th century.

Quarries

There is extensive evidence of quarrying throughout the study area, but most of the quarries are small and probably result from localised digging for flint or gravel. In the southern portion of Gravelly Hill, however, much larger quarries (r) indicate gravel extraction on a considerable scale. The path leading from Gravelly Hill Road to these quarries was the track bed of a railway in the 1920s and 1930s and the corrugated iron and rubble seen east of the track and close to the road marks the site of a workmen's hut (Ray Howgego, pers comm).

Military earthworks

The military earthworks surveyed comprise two lengths of trench system and a number of slit trenches. One trench system starts at the top of the western side of the central valley and travels west-south-west for some 250m until close to the western boundary of Old Park Wood, from where it turns north for a further 150m (s-s') thus following the southern and western edges of the high ground of Gravelly Hill. The second trench system runs from the top of the eastern side of the Harris valley eastwards to end close to the boundary of Ten Acre Shaw (t-t').

Both trenches were surveyed at an original scale of 1:200 to provide greater detail and are shown in figure 4. They are of similar type and also resemble those found on Reigate Hill (Newell, in prep), comprising a bank with a ditch on one side and traverses protruding from the other.

The longer system in Old Park Wood has a complex of earthworks at its eastern end that appear to be a type of redoubt (u) and about half-way along its east/west leg a ditch with a bank to its east runs northwards between this military earthwork and the park pale (v). None of the available maps indicate that this feature might be a field boundary and it was presumably intended to provide a safe approach to the defensive earthwork. The trench system to the west of Ten Acre Shaw appears to be unfinished since the eastern end lacks traverses but it is otherwise very similar and probably of the same date.

Fosterdown Fort to the south-west of Gravelly Hill was one of fifteen mobilisation centres, part of a plan drawn up in 1888 to form a ring of London Defence Positions. Rapid innovations in warship construction by France and Russia in the early 1880s had left the British Navy at a perceived disadvantage, and in addition there were some doubts about German intentions. The 116km (72 mile) entrenched stop line supported by artillery batteries and redoubts was constructed to mitigate the invasion risk. Forts such as Fosterdown and Reigate Hill went out of use in 1906 when it was felt that the supremacy of the Navy had been restored (Historic England 2000).

The morphology of trench systems responded to changes in offensive weaponry and the development of explosive shells in use in Germany by 1902 and America by 1906 (Brown 1998, 151–63) encouraging the construction of deep but narrow trenches to reduce the target area and damage by shrapnel. The same style of defence was used from the late 19th century until after the First World War, but although several peri-London defensive rings involved trench systems, the form of the trenches in Old Park Wood and Ten Acre Shaw is more likely to date to the First World War. Early First World War trenches were simple; they lacked traverses, and according to the prevailing pre-war doctrine, were to be packed with men fighting shoulder to shoulder – men open to injury from shrapnel, from shell explosions in or close to the trenches, or to enfilade, bullets fired along the trench if a portion was overcome. This doctrine led to heavy casualties from artillery fire (Griffin 2004, 10–11). Later in the war this design evolved to have the combat trenches broken into distinct fire bays connected by traverses, and additional protection was afforded by the addition of banks at the front (the parapet) and the rear (the parados).

The trenches reported here have traverses about every 10m and a parapet though not a parados. The ditch in front of the parapet may simply be the quarry from which soil was

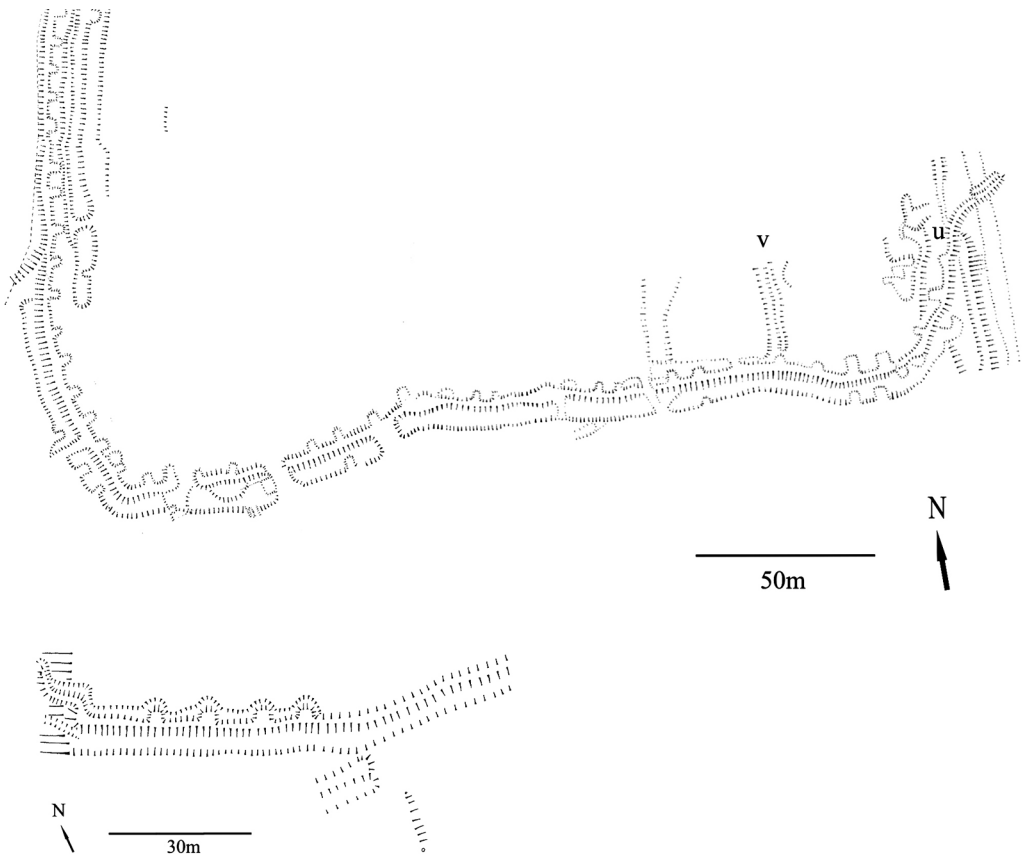


Fig 4 Analytical survey of trench systems on Gravelly Hill. Figure 4a (top) is of the earthwork marked as s-s' on figure 3 and 4b (bottom) of that marked t-t'.

extracted for the banks or it might have been intended to slow any assault on the trench system.

Research by Gwyneth Fookes has produced strong evidence as to who built the trench systems surveyed, and when in the following quotation (Moore & Sayers 2009):

On 20th September 1915 The Volunteers 1st V B The Queen's (Royal West Surrey Regt) was allotted by the London District Command to construct a portion of the Outer London Defences at Willey Farm, Caterham and Aldercombe. This was completed on 16th December 1917 and had taken a total of 90,000 hours.

In August and September 1916, a standing camp was built at Aldercombe with 'tents, blankets, tables, forms and cooking utensils provided free of cost from Government stores and provision of food and water from the battalion. Work was carried out on the defences during the day for a period of 10 to 12 hours' (Fookes 2005). Aldercombe Farm lay close to Weald Way and the western end of the trench in Old Park Wood, and it seems likely that this passage refers to the construction of the trench system surveyed. It is not certain whether the trenches were dug to the required depth, though it seems most likely that they were but have since been infilled, possibly for safety reasons. The location of the system in Old Park Wood would have enabled concentrated fire on men who were tired and perhaps not in formation when they breasted the scarp of the North Downs, but any tactical intention of the trenches in Ten Acre Shaw seems more of a puzzle.

The Outer London Defences in part resurrected the London Defence Positions scheme of the late 19th century. North of the river Thames the line was continued to the river Lea at Broxbourne and to the south it linked with the Chatham defences and continued westwards just beyond Reigate Fort (Hamilton Baillie 2003).

In addition to the trench systems surveyed a number of slit trenches were located, particularly in the flat area above the main gravel quarries in the south-western part of Old Park Wood. There is nothing diagnostic about their form and they could date to either of the World Wars or even have originated in cadet force activities more recently.

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