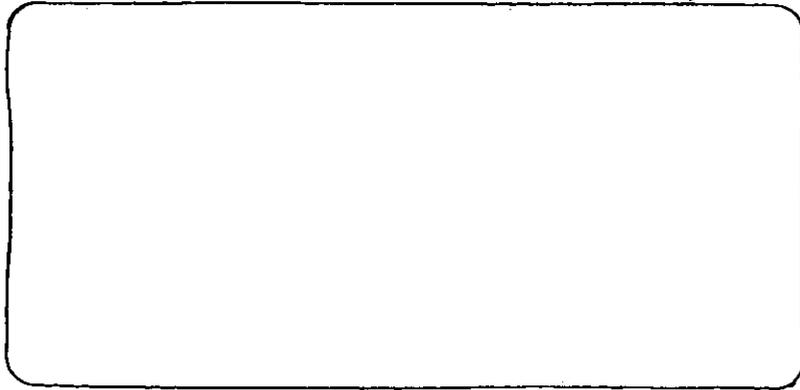
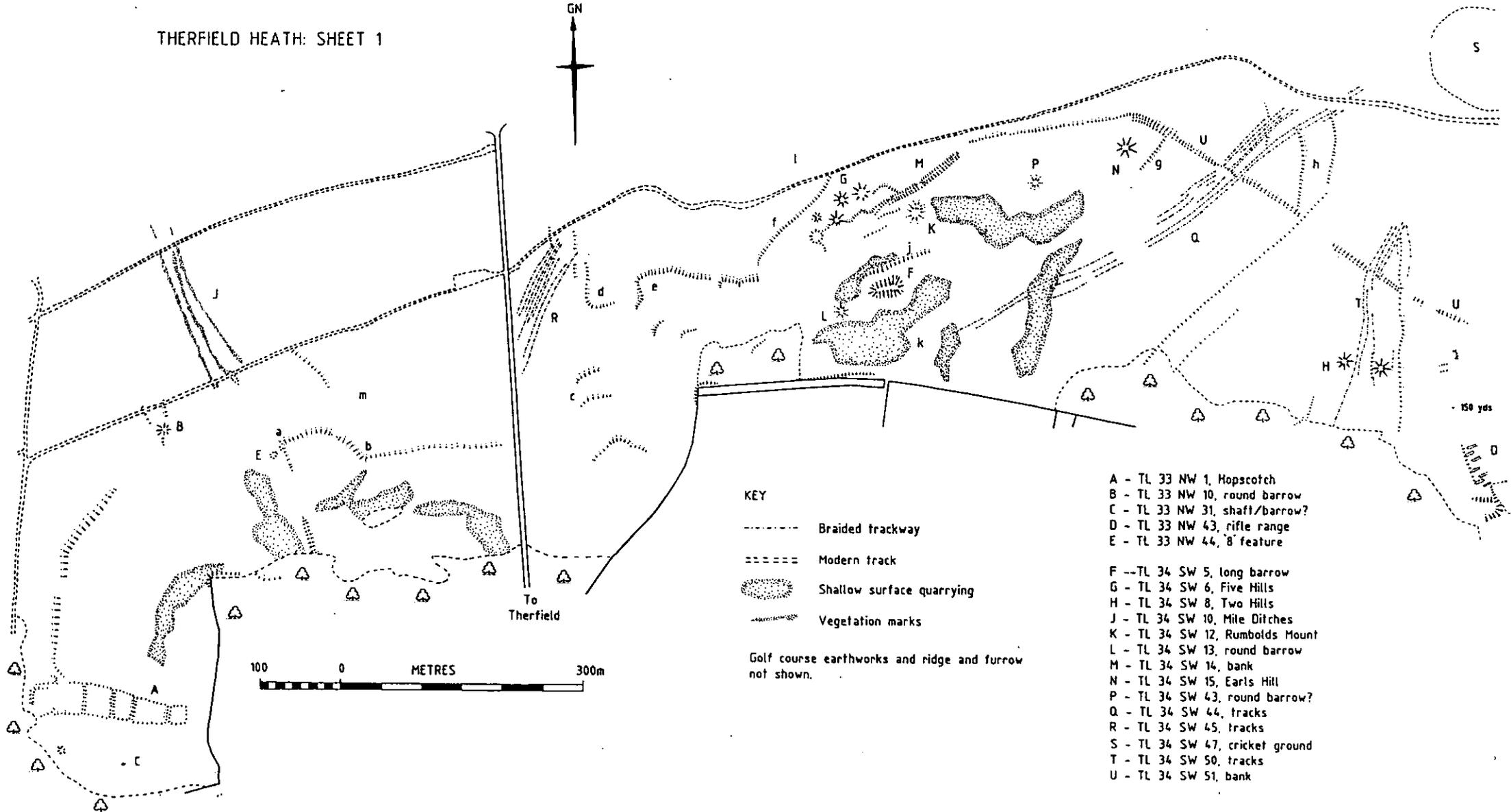


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**A SURVEY BY RCHME OF THERFIELD HEATH,
ROYSTON, HERTFORDSHIRE
NOVEMBER 1992**

THERFIELD HEATH: SHEET 1



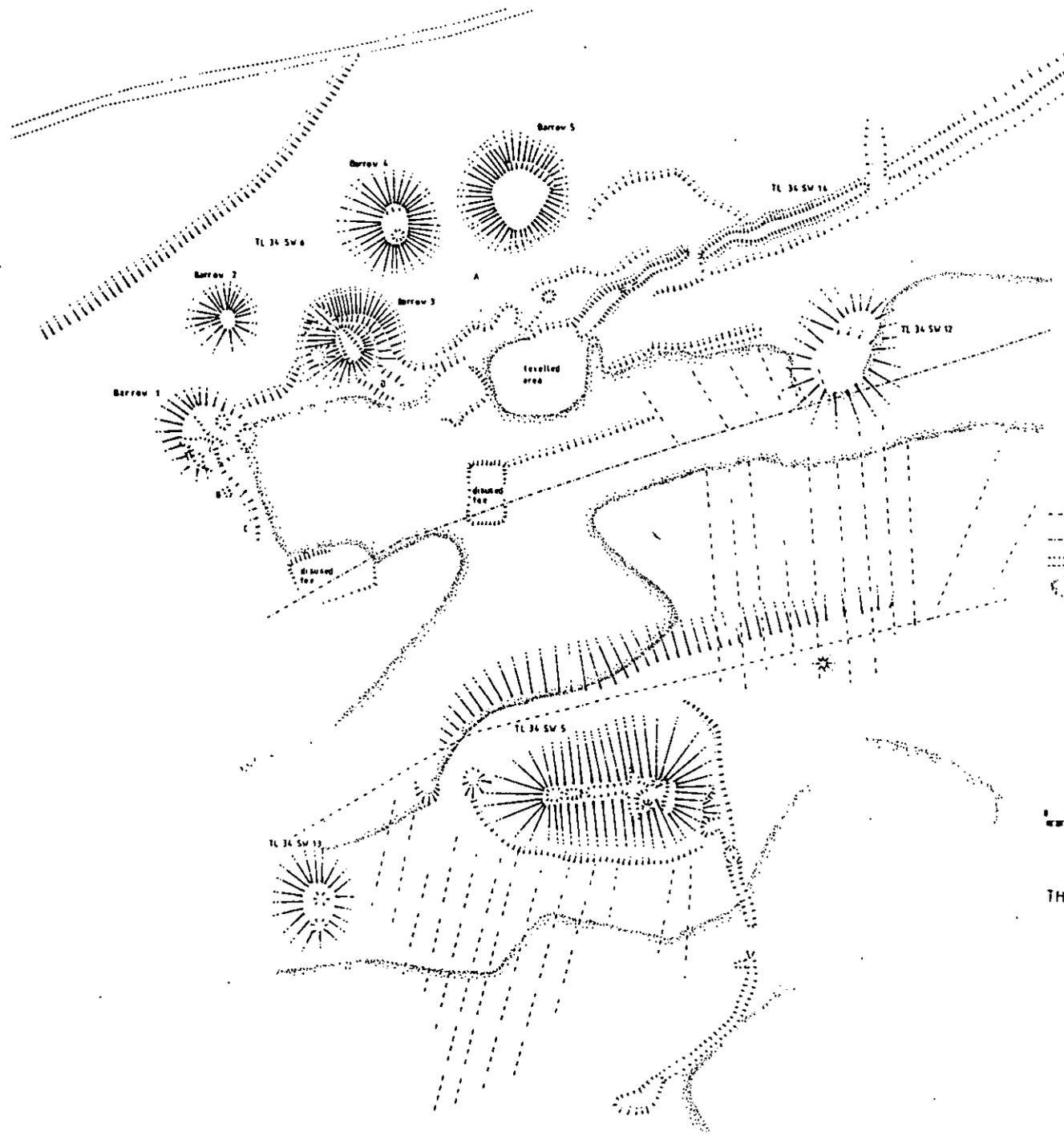
KEY

- Braided trackway
- ===== Modern track
- Shaded area Shallow surface quarrying
- Vegetation marks

Golf course earthworks and ridge and furrow not shown.

- A - TL 33 NW 1, Hopscotch
- B - TL 33 NW 10, round barrow
- C - TL 33 NW 31, shaft/barrow?
- D - TL 33 NW 43, rifle range
- E - TL 33 NW 44, 'b' feature

- F --TL 34 SW 5, long barrow
- G - TL 34 SW 6, Five Hills
- H - TL 34 SW 8, Two Hills
- J - TL 34 SW 10, Mile Ditches
- K - TL 34 SW 12, Rumbolds Mount
- L - TL 34 SW 13, round barrow
- M - TL 34 SW 14, bank
- N - TL 34 SW 15, Earls Hill
- P - TL 34 SW 43, round barrow?
- Q - TL 34 SW 44, tracks
- R - TL 34 SW 45, tracks
- S - TL 34 SW 47, cricket ground
- T - TL 34 SW 50, tracks
- U - TL 34 SW 51, bank



- Ridge and furrow
- Edge of furrows
- Track
- Areas disturbed by shallow surface quarrying

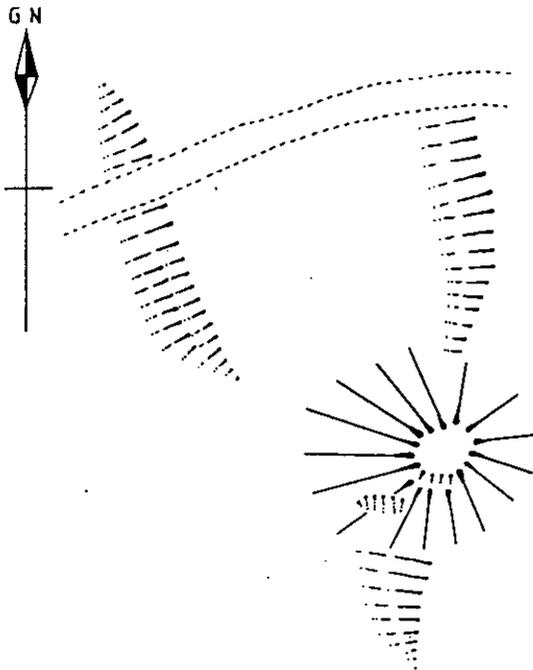


THERFIELD HEATH: SHEET 2

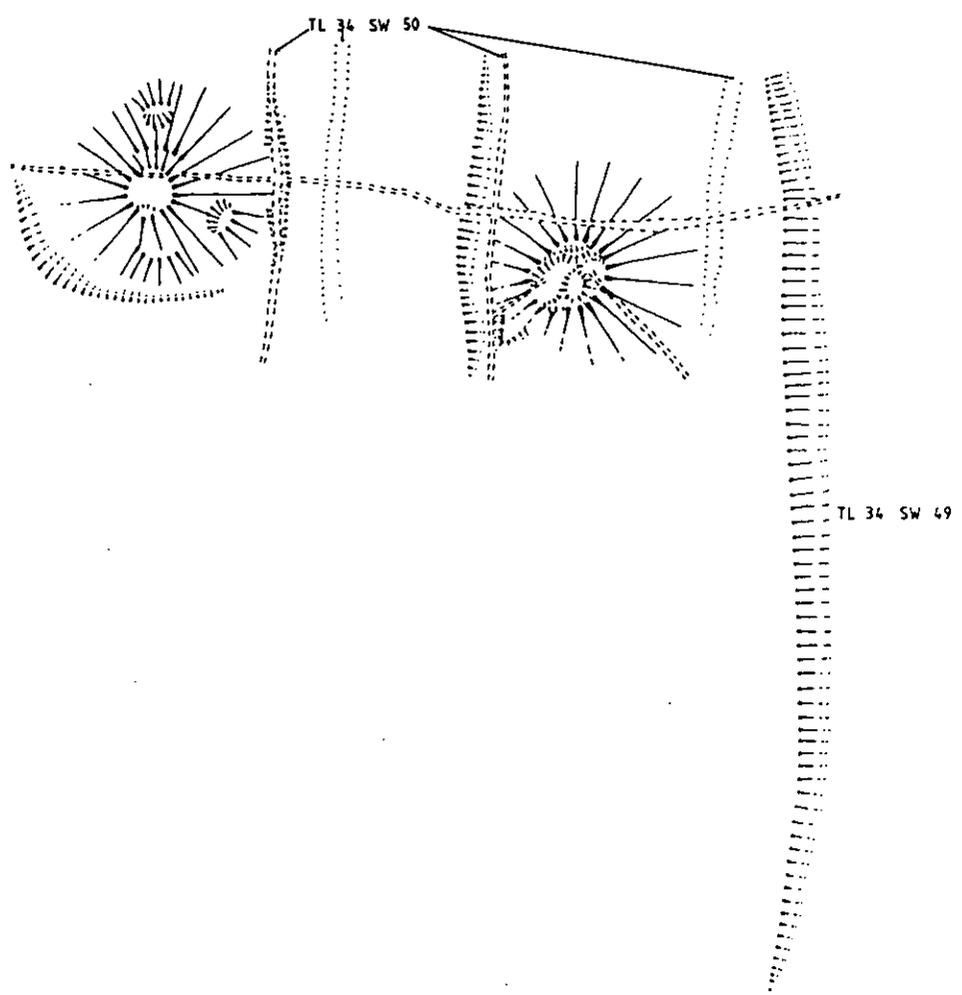


ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

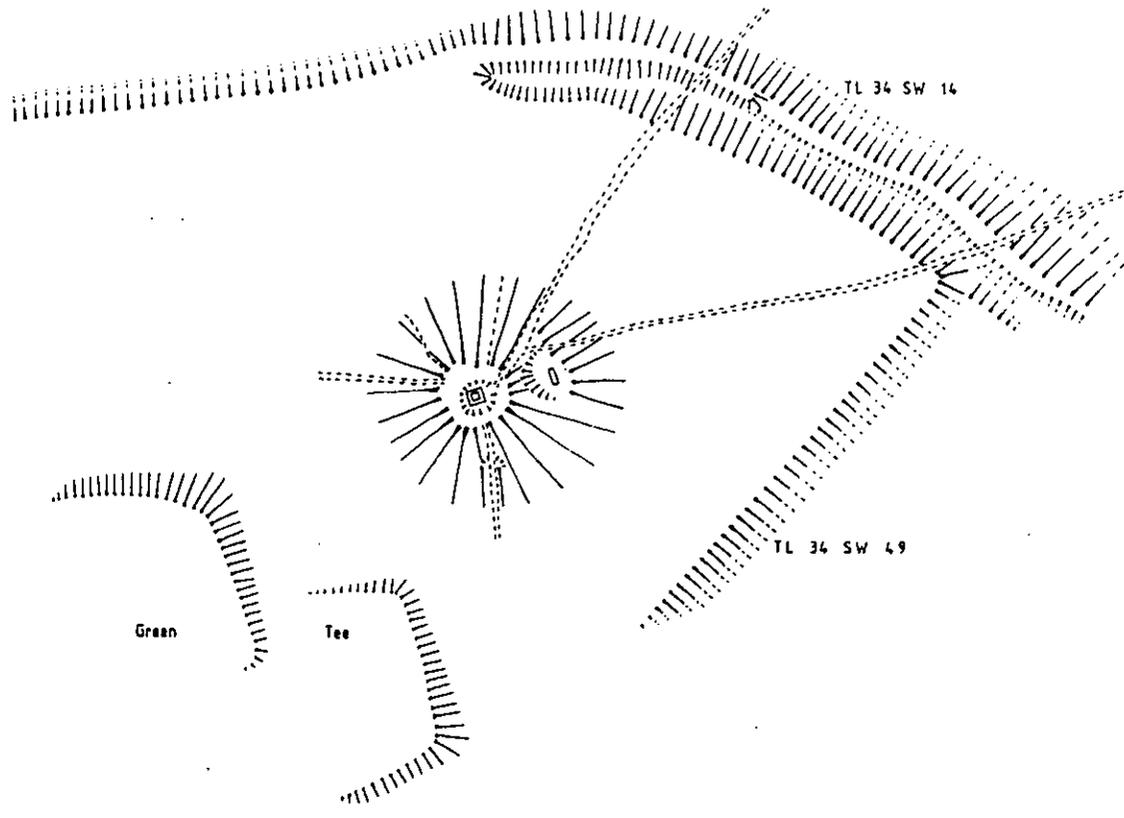
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SITE NAME	PARISH THERFIELD	SURVEYOR(S) PS JK		SAM No. 97a
DOCUMENT STATUS ARCHIVE	NGR TL 3326 3999	© Crown Copyright	SHEET 3	CATALOGUE No.



RCHM ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND					
OFFICE OF ORIGIN CAMBRIDGE	COUNTY HERTS	SCALE OF SURVEY 1:500	METHOD GRAPHIC	OS MAP NO TL 3640 3540	
PROJECT NAME THERFIELD MEATH	DISTRICT ROYSTON	DATE OF SURVEY NOV 1992	ASSOCIATED PLANS TL 36 SW 49 1:2500		NAR NO TL 36 SW 8
SITE NAME THE TWO HILLS	PARISH THERFIELD	SURVEYORS AO			SAM NO HERTS 17 JAK
DOCUMENT STATUS ARCHIVE	NGR TL 367 400	© Crown Copyright	SHEET 4	CATALOGUE NO	



ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND				
CAMBRIDGE THERFIELD HEATH EARL'S HILL ARCHIVE	HERTS ROYSTON THERFIELD TL 3444 6032	1:500 NOV 1992 A0 PP © Crown Copyright	GRAPHIC TL 34 SW 49 1:2500 5	TL 3460 3560 TL 34 SW 15 HERTS 17G



OFFICE OF ORIGIN CAMBRIDGE	COUNTY HERTS	SCALE OF SURVEY 1:2500	METHOD OS 25" BOUNDARIES GRAPHIC	OS MAP No. TL 34 SE
PROJECT NAME THERFIELD HEATH	DISTRICT ROYSTON.	DATE OF SURVEY 11 FEB 93	ASSOCIATED PLANS	NAR No. TL 34 SE 52
SITE NAME LANKESTER HILL	PARISH THERFIELD	SURVEYOR(S) A0	I	SAM No.
DOCUMENT STATUS ARCHIVE	NGR TL 350 240	© Crown Copyright	SHEET 6	CATALOGUE No.

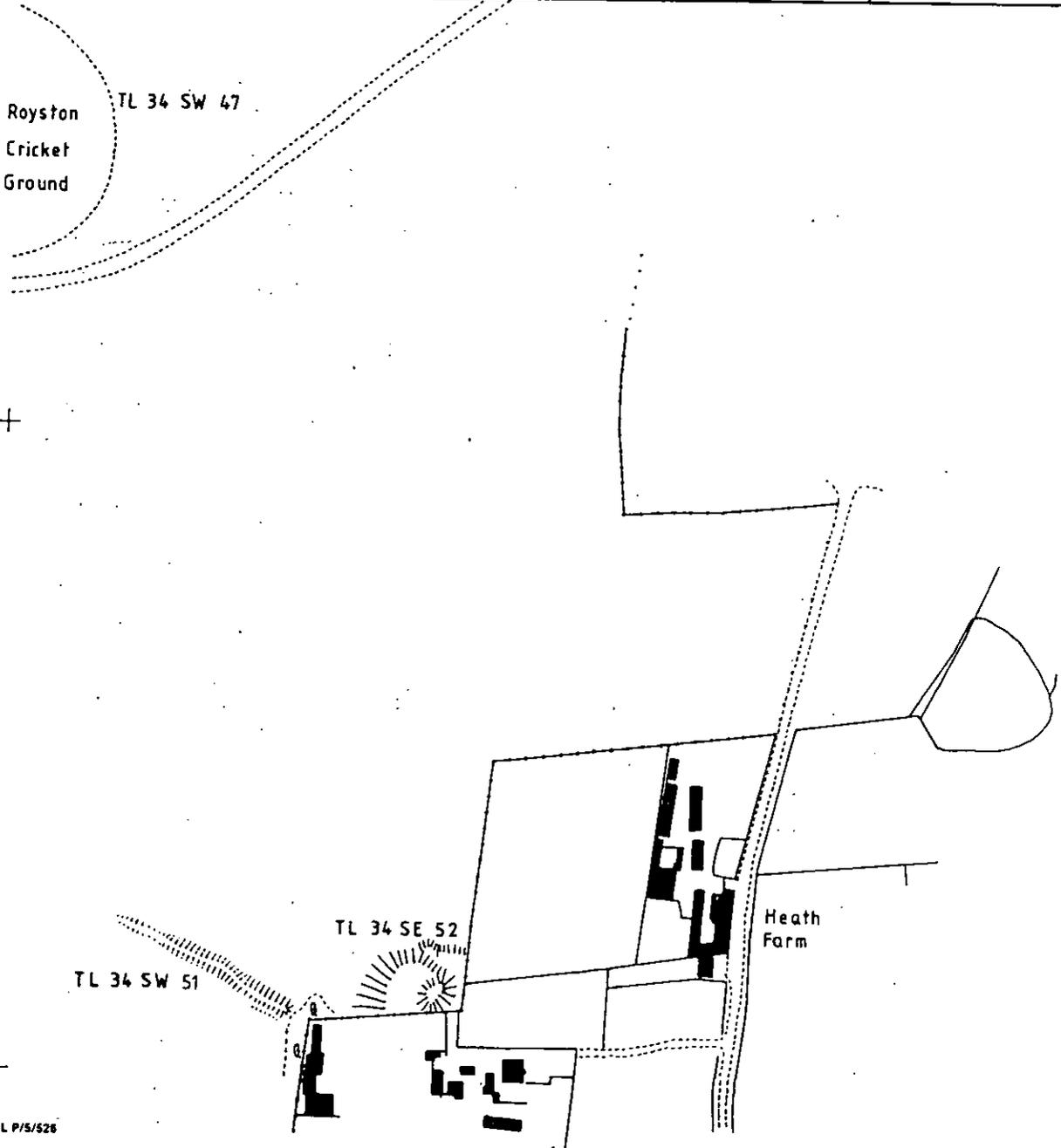
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 Cricket
 Ground

TL 34 SW 47

TL 34 SW 51

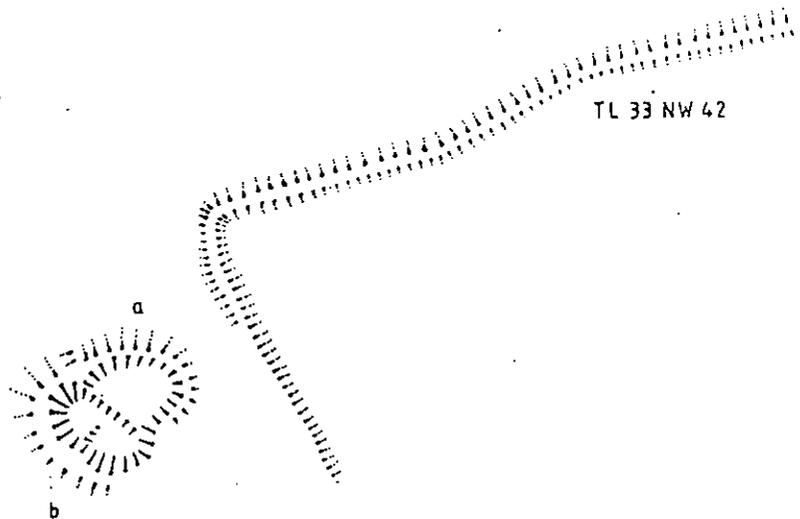
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Heath
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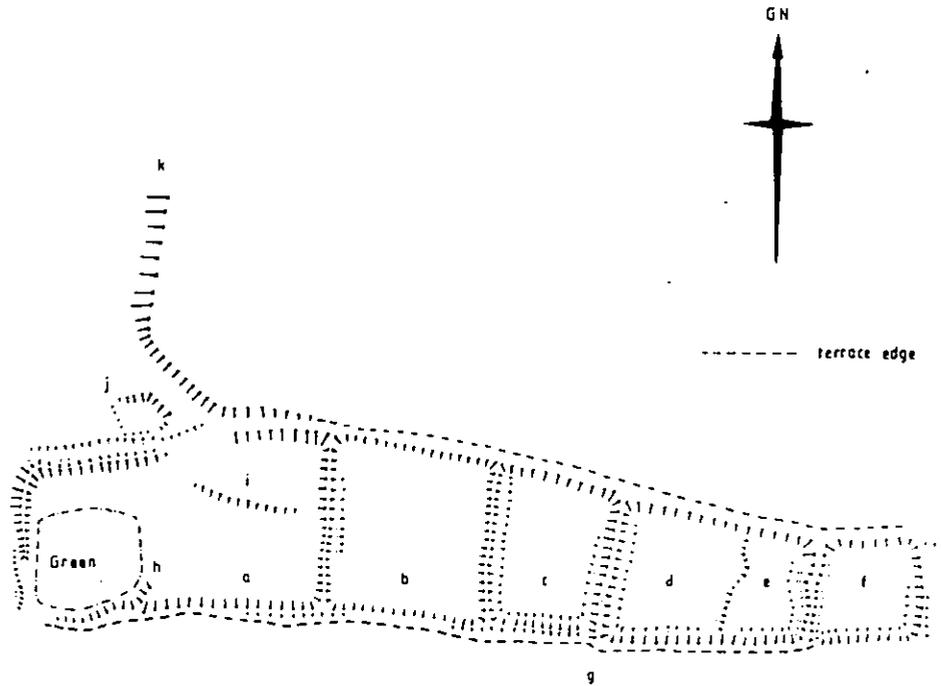


OFFICE OF ORIGIN CAMBRIDGE	COUNTY HERTS	SCALE OF SURVEY 1: 500	METHOD GRAPHICS	OS MAP No. TL 33 NW
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SITE NAME	PARISH THERFIELD	SURVEYOR(S) P.S. JK		SAM No. 97b
DOCUMENT STATUS ARCHIVE	NGR TL 334 399	© Crown Copyright	SHEET 7	CATALOGUE No.

GN



ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND					
OFFICE OF ORIGIN CAMBRIDGE	COUNTY HERTS	SCALE OF SURVEY 1:1000	METHOD GRAPHICS	OS MAP NO TL 33 NW	
PROJECT NAME THERFIELD	DISTRICT NORTH HERTS	DATE OF SURVEY NOV 92	ASSOCIATED PLANS 1 & 1 (overlay)	MAP NO 1	
SIT NAME HOPSCOTCH	PARISH THERFIELD	SURVEYORS PS JK		SAS NO	
DOCUMENT STATUS ARCHIVE	NGR TL 332 397	© Crown Copyright	SHEET 8	CATALOGUE NO	




Old Chalk Pit


TL 33 NW 31



INTRODUCTION

Therfield Heath, near Royston, Hertfordshire, forms the north-eastern end of the Chiltern escarpment. At this point the escarpment reaches a height of 120m OD, though the land continues to rise more gently to the south, reaching a high point of 168m OD in Therfield village. The escarpment is composed of Middle Chalk, which is described as 'white chalk without flints' (BGS (a)), although small flint pebbles were evident in eroded areas of the Heath. The scarp slope faces north-west, overlooking a flat plain of Lower Chalk and boulder clay.

The height and exposed nature of the Heath has saved it from destructive modern ploughing, and has preserved a considerable area of ancient landscape. Individual sites, especially the long barrow and the Five Hills round barrows, are well known in the literature, but their landscape context, and other less obvious traces of land-use, are less well recorded. In order to consider the Heath as a complete landscape, including sites of all periods, RCHME carried out a survey of the Heath at a scale of 1:2500, as well as detailed surveys at 1:1000 and 1:500 of specific sites. The area surveyed essentially corresponds to the area covered by the Royston Golf Club course, except for the western extension of the golf course, towards Kings Ride, which was excluded.

The monuments on Therfield Heath range in date from a Neolithic long barrow to the earthworks of the golf course. The major monument types can be summarised as funerary monuments, agricultural activity, trackways and earthworks from later land-use. The funerary monuments are mainly Bronze Age, but with Neolithic and Roman barrows, and secondary Saxon burials in many round barrows. The agricultural activity ranges from prehistoric, possibly as early as the Bronze Age, to the nineteenth century, and includes what is probably an elaborate sheepfold as well as field systems. The preservation of all these various activities of different periods allows changing land-use and the reuse of earlier monuments to be studied.

Plan sheet 1 shows Therfield Heath and its archaeology at a scale of 1:2500. All aerial photographs referred to are held by the NMR, National Monument Record Centre, Kemble Drive, Swindon.

FUNERARY MONUMENTS

The Long Barrow (TL 34 SW 5)

See plan sheet 2.

The Therfield long barrow (TL 3415 4017) remains the only known example of the type in Hertfordshire, although six other examples are known on the Chiltern escarpment, collectively termed the Chiltern group by Kinnes (1992, 14). Of these barrows only the Therfield Heath one has been excavated (Kinnes 1992, 170). It is situated at 116m OD, almost on the highest point of the chalk escarpment, making the barrow's profile visible on the horizon from the north. However, in contrast with the round barrows, sited so as to be conspicuous from the Icknield Way at the foot of the escarpment (Dyer 1959, 1), the long barrow is largely invisible from much of this route.

The long barrow is well preserved, undisturbed by scrub or footpaths. It is oriented east to west, and measures 38.0m by 26.0m at its broader eastern end, diminishing to 15.5m in width at the western end. The summit attains a maximum height of 2.2m at the broader eastern end, and maintains a constant 4 degree slope to a height of 1.7m at the western end. This accentuates the natural slope rather than 'levelling the horizon' as Stevenson (1989) suggests. A wide berm of between 1.0m and 3.5m revealed by excavation (Phillips 1935, 103) is no longer visible on the surface. Similarly, the continuous oval ditch revealed by Phillips does not survive on the northern side of the monument. This ditch is clearest on the southern side, where it reaches a maximum depth of 0.25m and maintains an average width of 3.0m, occasionally reaching 4.0m where it is cut by the furrows of later ridge and furrow cultivation (TL 34 SW 48). At the north-eastern corner of the barrow, the ditch simply fades out. At the north-western corner it has been destroyed by nineteenth century flint extraction hollows (TL 34 SW 49), recorded inaccurately by Phillips (1935) as a bulge in the barrow ditch.

The long barrow has been excavated twice, by EB Nunn and CW Phillips; the results of both investigations are published in Phillips' 1935 paper (Phillips 1935). Nunn excavated a longitudinal trench in April 1855 (Nunn MSS, 13), which is still prominent on the summit of the barrow as a regular depression with a maximum width of 2.25m and a depth of 0.25m. The trench clearly did not penetrate the tail of the barrow, and may have been interrupted by two balks towards the western end. Disturbance at the broad eastern end is could be spoil from the main trench, though part of the disturbance may result from the removal of the triangulation point shown on the 1903 County Series map (OS (a)).

Nunn's excavations revealed an undated cremation with corroded iron artefacts, some 0.3m below the surface, and flint nodules interpreted by Dyer (1959, 7) as a possible collapsed chamber. At a level 0.9m below this was an inhumation, re-excavated by Phillips in 1935, and probably dated to the earlier sixth century AD by an iron spearhead (Phillips 1935, 10, Stevenson 1979). The primary deposits of the long barrow comprised two cists cut into the natural chalk and a further disarticulated single individual located unusually close to the western end.

In 1935, Phillips excavated a series of transverse trenches on the southern side of the barrow (Phillips 1935), two of which are still visible. These excavations revealed that the barrow was constructed with a turf core, and no traces of timberwork were found. Phillips also recorded the course of a second ditch to the south-east of the barrow, which excavation proved to cut the barrow ditch (1935, Figure 3). Although the primary fill of the later ditch was sterile, the cut was tentatively dated to the Early Iron Age by its relation to the barrow ditch, and the presence of a small number of residual Iron Age pot sherds and flint flakes in the upper fill (Davis 1982, 144). This secondary ditch is disturbed by ploughing and flint extraction, but is visible as a shallow gully, up to 0.3m deep, varying between 1.0m and 3.2m wide. It runs south across the fairway for some 20m to a gate or causeway 4.8m wide. The southern terminal is indistinct, but appears to have been divided or re-cut. From this point the course of the ditch curves towards the south-west, re-enters the rough grass, and is eventually destroyed by the flint digging (TL 34 SW 49). It is not clear whether a soilmark in the field to the south, visible on one of Major Allen's photographs (Crawford 1936, plate XXX), represents the continuation of this ditch. If so, Phillips' suggestion that this feature was a minor stockaded enclosure (Phillips 1935, 105), may have to be revised.

The Round Barrows

(I) The Five Hills (TL 34 SW 6)

See plan sheet 2, the letters in brackets refer to this sheet.

The most well known of the round barrows on Therfield Heath are the group of five barrows, known as the Five Hills or Five Barrows. These are located at 110m OD, on a relatively flat plateau on the edge of the escarpment to the north of the long barrow (TL 34 SW 5). The ground rises gently to the south of the barrows, and drops away steeply to the north and west, giving good views to the east, north and west, but blocking the view south.

The Five Hills are largely covered by coarse grass, with occasional hawthorn bushes. There is evidence that the golf course formerly extended among the barrows; a photograph of 1894 (Allsopp *et al* 1992) shows the sixteenth green was apparently

located just south of barrow 4, where a particularly flat, green area (A) still remains. All the barrows were excavated by EB Nunn; in the NAR record and the present survey the barrows are numbered from west to east, and the numbers used by Nunn are given where available.

Barrow 1 (Nunn 6, TL 34065 40230) has a maximum diameter of 20.0m and maximum height of 2.3m. It is badly damaged by trenches from Nunn's excavations of 1854, during which a large cremation urn and bronze pin were found (Nunn MSS, 27, Stevenson 1989). One trench (B) extends 5.0m beyond the perimeter of the barrow to the south-east. A slight scarp (C), less than 0.3m high, and probably a lynchet, also runs south-east from the barrow for 16.0m.

Barrow 2 (TL 34065 40250) has a maximum diameter of 15.0m and maximum height of 2.15m. Unlike barrow 1, it appears to be largely undisturbed, but was excavated by Nunn in 1856, and produced an urn (Stevenson 1989).

Barrow 3 (TL 34090 40250) has a maximum diameter of 22.0m and maximum height of 3.0m. This barrow has been extensively excavated, with trenches in the western side, along the top, and probably in the eastern side. The shoulder running round the northern and eastern sides of the barrow may be accounted for by spoil or slumping related to the excavations. Nunn's excavation in 1856 discovered an urn, and revealed the existence of a ditch around the barrow (Stevenson 1989); more verdant grass is now the only surface evidence of the ditch around the base of this barrow. Nunn also excavated either barrow 2 or 3 in May 1858, and considering the number of trenches on barrow 3, this may be the more likely site. This excavation produced a secondary burial on the southern side of the barrow, comprising a female skeleton with a small bronze *fibula* and a bronze buckle of Saxon type (Nunn MSS, 32, Herts. SMR no. 1630, Stevenson 1989). It is unclear whether the short mound (D), up to 0.4m high, projecting 7.5m south-east from this barrow, is a spoil heap from excavations or a surviving fragment of the bank (TL 34 SW 14), which runs to the east of the barrow group.

Barrow 4 (Nunn 4, TL 34095 40270) has a maximum diameter of 22.0m and maximum height of 2.85m. A small excavation trench can be seen on the somewhat uneven top, and there is a slight shelf on the northern side, possibly made to hold a seat. The sides of the barrow are steep and even. Nunn's excavation of 21st July 1856 recovered 9 disarticulated skeletons in a space roughly 0.5 by 3.5m, and also a bone pin (Nunn MSS, 23, Herts. SMR no. 0041, 4283, 4284, 4285, 4286, Stevenson 1989).

Barrow 5 (Nunn 5, TL 34120 40280) has a maximum diameter of 23.0m and maximum height of 2.65m. The sides of this barrow are also steep and even, but it has clearly been truncated, leaving a very flat, wide platform. The platform may have supported an eye-catcher for Wimpole Hall; the 1:50,000 scale OS map (OS (b)) shows the main vista of the hall aligned towards this barrow. The slight shoulder on the north-eastern side of the barrow and the slumped material at its base to the south may have resulted from Nunn's excavation on 14th July 1856, when he discovered a flint-lined grave, roughly 1.0m by 0.5m, containing a cinerary urn and human bones (Stevenson 1989).

Some confusion has arisen over some of the artefacts from the Five Hills. The NAR reference TL 34 SW 11 and the county SMR (Herts SMR 1739) mention a Saxon fibula and buckle, and a Bronze Age awl found on Therfield Heath. The buckle is said to have come from the 'Five Hills long barrow', but the NAR reports that there is no record of a buckle being found in either the long barrow or the round barrows. However, as mentioned above, Nunn excavated the burial of a young woman, probably in barrow 3. Nunn describes the artefacts he recovered as 'a small fibula and an ornamented buckle with the leather still attached. Supposed to be Saxon' (Nunn MSS, 32). The NAR reference to a bronze awl may be the 'small bronze or copper pin' (Nunn MSS, 27) found by Nunn in 1854 in his barrow 6 (TL 34 SW 6 barrow 1).

Though the National Excavation Index (PRN 14315, 14316, 14317) lists the excavations of RC Neville in 1847 as being on the Therfield Heath Five Hills, he actually excavated a barrow group to the east of Royston (Neville 1847).

(II) Other Bronze Age barrows

There are two outliers to the Five Hills group, TL 34 SW 12 and TL 34 SW 13 (see plan sheet 2). Rumbold's Mount (TL 34 SW 12) is a large, low barrow which lies at 112m OD, roughly 50m east-south-east of barrow 5 in the Five Hills barrow group (TL 34185 40255). It has been much reduced by ploughing, and the perimeter is disturbed by shallow surface quarrying. The barrow is oval in plan, measures 30.0m by 20.0m, and survives to a maximum of 1.1m high. A shoulder on the northern side may be related to Nunn's excavation on 10th March 1856 (Nunn's barrow 13), which revealed a central pit about 0.45m deep and 0.23m wide, containing cremated human bone (Nunn MSS, 15, Stevenson 1989). Two short lengths of ridge and furrow run over the barrow, the remainder of the adjacent ridges are cut by shallow surface quarrying before reaching the barrow.

The second barrow, TL 34 SW 13, lies at 115m OD, about 30m west of the long barrow and 75m south of the Five Hills (TL 34090 40135). It is a low round barrow 20.0m in

diameter and 0.75m high, which is surrounded by shallow surface quarrying, although this has not disturbed the mound. Two shallow scoops in the summit of the barrow probably represent antiquarian excavations. Nunn excavated here in 1855, revealing a ditch surrounding the barrow, but no finds are recorded (Herts. SMR no. 1730, Stevenson 1989).

Other barrows are scattered across the Heath. Where excavated, many of these have produced evidence of Bronze Age use, but later reuse seems to have been common. TL 33 NW 10 (HERTS 97 a, see plan sheet 3) is an isolated round barrow, the westernmost outlier of the surviving Therfield Heath group (TL 3326 3999). It consists of a substantial mound measuring approximately 16m by 19m, and has no trace of a surrounding ditch. The barrow is situated on the moderate western slope of Pen Hill, with the result that it appears much more prominent from the west, where the top is approximately 1.75m above ground level. A small hollow on the western side may indicate a former excavation. Two scarps, each about 5m wide, run north to south in the vicinity of the barrow. These are possibly lynchets, but are now heavily abraded and their relationship to the barrow is uncertain.

The Two Hills (TL 34 SW 8, see plan sheet 4) are a pair of barrows, roughly 18m apart, situated at 89m OD, on a moderate slope, approximately halfway down a north-west facing chalk spur (TL 3472 3476). Both are under rough pasture, crossed and slightly eroded by a footpath, and both support a number of young hawthorn trees.

The western barrow is better preserved, though concrete bench footings and associated erosion have damaged the summit. Two shallow depressions with adjacent mounds of spoil in the northern and south-eastern quadrants probably represent Nunn's 1855 excavations (his number 11). A trench 3.6m deep was dug at the centre of the barrow, but nothing was found (Nunn MSS, 14). The barrow has maximum dimensions of 25.5m by 28.0m, and is 2.8m high with a level top. No berm is visible, but up-hill a shallow ditch, 0.25m deep, skirts the south-eastern and southern side of the barrow. This broadens into a shallow depression, possibly a quarry, along the south-east to north-western sector. An ancient trackway, leading north to south, passes within 2.0m of the eastern side of the barrow.

The eastern barrow has been severely disfigured. Its western edge is cut by a trackway and a modern footpath, a second footpath running south-east from the top of the barrow has done little damage, but a third, running east to west, has created an irregular terrace between 0.5m and 1.5m wide. Antiquarian excavations have also drastically modified the form of the barrow, so that its present maximum dimensions of 23.0m by 22.0m are

unlikely to reflect accurately the original size. The summit is irregular, and the barrow stands up to 2.1m above the surrounding ground surface. The barrow scarp from the north-west to the east is stronger and broader, giving it a pronounced 'slump' down the natural slope. Traces of a trench cutting into the south-western side of the barrow, a spread of material directly below this and disturbance on the summit, presumably represent excavations carried out by E.B. Nunn in 1855 (Nunn barrow no. 12), during which a box of calcined human bones was found within a cist measuring 1.0m by 0.6m (Nunn MSS, 14).

Spoil from rabbit burrows in the sides of the barrow suggests that its upper matrix is comprised of a chalky loam with frequent chalk lumps. Little evidence survives of a ditch or any surface quarrying around the barrow. There is, however, a slight widening and deepening of the western scarp of the trackway which runs north to south along the western side of the barrow. At its widest, this scarp measures 2.4m wide and 0.3m deep, and it may be either the remains of a ditch, or a lynchet similar to the one running parallel, 9.0m east of the barrow.

The Earl's Hill barrow (TL 34 SW 15, see plan sheet 5) occupies a conspicuous location on a prominent north-east facing spur of the chalk escarpment at 105m OD (TL 3444 4032). The barrow measures 27.0m by 25.5m, with a maximum height of 2.6m. The sides are generally well preserved, but a sub-circular terrace has been created for an iron bench on the eastern side, and a number of footpaths, which meet on the summit, have resulted in slight erosion. On the summit, a square iron bench is located in an eroded hollow; a photograph of 1897 (Ketteringham 1992) shows a sapling in the middle of this bench. It is possible that the hollow also results partly from antiquarian activity, which the barrow's size and prominence must surely have attracted; Nunn, however, does not seem to have investigated this barrow (Nunn MSS).

Though isolated, the Earl's Hill barrow is visible both from The Five Hills to the west and The Two Hills to the east. A long bank and ditch (TL 34 SW 51), which passes to the north and east of the barrow appears to acknowledge its position. A possible ploughed-out barrow centred at TL 3433 4029 would have further reduced its apparent isolation. This irregular, sub-circular mound (TL 34 SW 43) measures 18.0m by 16.5m, and has a maximum height of 0.4m. Plough furrows cut across the mound from south-west to north-east. Its dimensions and position on the crest of the chalk escarpment suggest that it may be a heavily degraded Bronze Age barrow.

(III) Destroyed and misidentified barrows

Other barrows on the Heath have been destroyed, leaving no visible remains. A bell-shaped tumulus (TL 34 SW 17), some 4.5m high and 30.0m in diameter, called Fylers Hill or Money Hill previously existed on Therfield Heath, and was excavated by Joseph Beldam in 1855 (Beldam 1861, 306). The most likely location of this barrow is the summit of a prominent hill centred at TL 338 400 (Stevenson 1989). Beldam's excavation discovered a decapitated inhumation, possibly a secondary Saxon burial, at a depth of 0.9m. He also found an incense cup and an urn containing a cremation, thought by Beldam to be a child's bones, in a cist cut into the natural chalk. The barrow was levelled in 1861, during which workmen discovered 14 small copper bars interpreted as currency bars, a copper tool, two pottery sherds and various animal bones (Beldam 1861, 307-8). The objects are now held in the Cambridge Museum of Archaeology and Anthropology.

In 1868, Beldam stated that a flint arrowhead, together with 'other contemporaneous vestiges' had been discovered 'in a grave on the hill above' the Hopscotch (Beldam 1868, 38). A later account describes the excavation of a shaft, 2.0m by 1.5m and 2.5m deep, in the fill of which was a pottery urn and an inhumation. The flint arrowhead was found at the bottom of the shaft, together with large numbers of deer antler (Kingston 1906, 194). Dyer lists this feature as a destroyed round barrow (Dyer 1959, 21, no. 31). The RCHME survey located only two features in this area; a surface quarry, identified as an 'Old Chalk Pit' in 1903 (OS (a)), and a shallow hollow approximately 3.0m in diameter. The latter may indicate the location of the shaft (TL 3326 3999). The site is recorded in the NAR as TL 33 NW 31.

One of the destroyed barrows (TL 34 SW 18) excavated during the improvements to Royston Cricket Ground (TL 34 SW 47) in 1855, and described as 'a small flattened tumulus' (Beldam 1856, 8), was clearly Roman in date. From it were recovered a globular urn and a ring-necked flagon, both of late first century date, and a number of coarse ware sherds were found in a central cist (Stevenson 1978). These artefacts are now exhibited in Royston Museum. Animal bones including two badger skulls suggested that the mound had been disturbed. It is probable that semi-circular niches in the sides of the ditch and 'numerous passages' surrounding the barrow (Beldam 1856, 8) were dug by badgers and misidentified solution gulleys. The precise location of the burial mound is not known, but it may have stood towards the southern or western edges of the present ground (TL 3488 4044, 70m OD).

On Lankester Hill (see plan sheet 6), at the eastern end of the Heath, is an irregular sub-circular mound centred at TL 3510 4004, which slightly resembles a round barrow,

comparable to those located in similar positions on hills to the west (TL 34 SW 6; TL 34 SW 8; TL 34 SW 15). It measures some 17m by 19.0m and has a maximum height of 1.6m. However, the matrix of the mound is loose chalk shatter, and vegetation cover is incomplete. The mound itself sits on a larger terrace of material some 30m north to south by 50m transversely, which respects modern field boundaries to the east and south, and destroys a footpath shown on the OS 1:2500 map of 1971 (OS (c)). These relationships suggest that the mound is of recent origin. Tree replanting in the area is probably contemporary.

Some 25m to the east of the long barrow lies a prominent circular mound 4.6m in diameter and 0.6m high, which resembles a miniature round barrow. However, this overlies one of the nineteenth century furrows. Though visible on Major Allen's photograph of 1936 (Crawford 1936, plate XXX), its regularity suggests that it is likely to represent golf-course works rather than a spoil heap from Nunn's excavation or nineteenth century flint digging.

One enigmatic feature (TL 33 NW 44, see plan sheet 7) on Pen Hill (TL 334 399), previously recorded as TL 34 SW 19, and sometimes referred to as a pond barrow, is a genuine monument, but its actual nature and date are unclear. This rather curious monument consists of an oval depression, measuring 10.5m by 9.0m, and up to 1.0m deep, formed by the partial intercutting of two separate features; the overall result resembles a figure of eight, oriented north-east to south-west. The hollows are cut into a very low mound, roughly 15m in diameter.

Hollow **a** is roughly circular, 6.0m by 7.0m, with a flat bottom and traces of a bank on the northern side, and may be a disused bunker of Royston golf course. The NAR reference, TL 34 SW 19, suggests that the site was occupied by fourteenth tee of the golf course, but this presumably refers to the disused tee immediately to the west.

Hollow **b** abuts the south-west side of **a**, is deeper and more oval in plan, 9.0m by 4.5m, and is surrounded by a very low bank. The floor of the hollow is irregular, the south-eastern half being somewhat deeper than the rest. Both the dimensions and the orientation of **b** suggest that this was the feature excavated by Joseph Beldam in 1856 (Beldam 1856, 5-7). The feature was described by Beldam as a hollow oval surrounded by a very low bank, and flanked on the north-east by a truncated mound. Within the bank were two circular depressions which met to almost form a figure of eight. He described the southern depression as 'pelta-shaped', presumably meaning 'delta-shaped', roughly 7 ft (2.1 m) deep. A blade from a heavy cutting instrument was the only find from here. The northern depression was circular in shape, and about 5 ft (1.5 m) deep,

containing a bench on the western and eastern sides. Finds from this part of the site consisted of animal bones, iron and stone objects (including a lava quern fragment), a bone knife handle, a bronze ornament, fragments of carved chalk, oyster shells, and sherds of Roman, Saxon and post-Medieval (Elizabethan) pottery. Both depressions were found to 'descend by concentric and contracting rings to the walls which form the sides of the chambers', and a wall, higher in the southern chamber, with an opening about 3 ft (0.9 m) wide between the shoulders, divided the two.

The finds from Beldam's excavation cover a broad spectrum from possible Romano-British pottery to clay pipes, and do little to suggest a possible function for the hollow. Beldam's own conclusion that this was a pit dwelling of the 'ancient Britons' is clearly erroneous; however, it is significant that 'nothing was discovered in this spot of a sepulchral character' (Beldam 1856, 5-9). Interpretation as a barrow, therefore, seems unlikely. A more plausible explanation might be a surface quarry for flint or chalk, an activity attested elsewhere on the Heath. Alternatively, the mound may have been a beacon site; seventeenth century county maps show a beacon on Therfield Heath (Hodson 1985), the area near the Hopscotch (at TL 332 397) subsequently becoming known as Beacon Hill (Beldam 1868, 38). The exact date of the feature is open to question, but the clay pipes and sixteenth century pottery recovered by Beldam probably provide a *terminus ante quem*, earlier artefacts being residual deposits.

There appears to be some confusion between the 'figure of eight' feature (TL 33 NW 44/TL 34 SW 19) and a second monument recorded under TL 33 NW 10. The latter has been identified with Dyer's pond or disc barrow (Dyer 1959, 21, no. 26). Seeing that both monuments have been placed in the same general area, their correct identification is of some importance, especially as the area is scheduled under its guise as a pond barrow (Herts.97b). However, Dyer (1959, 21) states that the disc barrow on Pen Hill (TL 333 400), described as measuring 14 paces in diameter and 4 ft (1.2 m) high, was destroyed. Beldam's description of the hollow as being 'flanked on the north-east by a truncated mound' (Beldam 1856, 5) favours the assumption that the disc barrow was a second monument, which no longer exists. However, all that can be said with certainty is that neither the field observations nor the excavation record (Beldam 1856) support the identification of the 'figure of eight' as a barrow.

FIELD SYSTEMS, DITCHES AND TRACKWAYS

Field Systems

(I) Banks and lynchets

See plan sheet 1, bracketed letters refer to this plan.

Remains of field systems of various periods are scattered over the Heath. The earliest of these are represented by fragmentary, denuded banks (TL 33 NW 42), averaging 2.0m wide and 0.3m high, and overlain by ridge and furrow cultivation (TL 34 SW 48). Only a few such banks remain and the fragmentary nature of these makes it difficult to define field systems as a whole. Some banks form right-angled junctions, perhaps suggesting rectangular fields, for example at TL 3340 3997 (a) and TL 3350 3995 (b).

Fragmentary lynchets (TL 34 SW 49) are scattered across the north escarpment of Therfield Heath. Both ridge and furrow (TL 34 SW 48) and landscaping operations for Royston Golf Course have severely affected these remains so that no overall pattern of fields can be detected. The principal features are as follows:

(c) TL 3376 4003 and TL 3376 4006: two short parallel sections of lynchets, set 20.0m apart, and now spread up to 6.0m in length and 0.6m in height. These cut east to west across a narrow spur between two coombs and fade on the coomb sides.

(d) TL 3378 4014: a right-angled scarp cut into the base of the same spur, on the same alignment as c above.

(e) TL 3387 4017: a lynchets running east from a coomb bottom diagonally up slope towards the Five Hills barrow group. It is 8.0m long and 1.2m high, and is breached to allow passage of a now disused track.

(f) TL 3400 4021 to TL 3408 4030: a 140m long section of bank, averaging 3.5m wide and 0.6m high, reduced to a predominantly north facing scarp, ascends the hill, running east-north-east to a point just north-west of the Five Barrows (TL 34 SW 6). Truncated by a modern track, it is not visible in improved land to the north. This feature does not seem to be a continuation of the linear bank and ditch TL 34 SW 14, but may once have joined e above.

(g) TL 3447 4031: a degraded lynchets west of Earls Hill, which joins a linear bank and ditch (TL 34 SW 14) at a right angle; now spread up to 3.9m and 0.3m high.

(h) TL 3466 4030: three degraded lynchets running north to south near the foot of the eastern slope of Earls Hill. These slight features average 2.7m wide and 0.2m high and are cut by both braided tracks (TL 34 SW 50) and ridge and furrow cultivation (TL 34 SW 48).

(j) Immediately north of the long barrow (TL 34 SW 5) is a broad east-north-east to west-south-west running scarp, 1.0m high, cut by ridge and furrow (TL 34 SW 48). It is possibly an earlier lynchet.

The context for these cultivation remains is unknown. However, they all lie to the north of the Therfield medieval open fields, which are visible as soil marks on aerial photographs (5414, MAL/59052, frames 068-9, 04-JUN-69; 5510, MAL/69032, frames 140-42 06-APR-69). Although there is no direct relationship between the open fields and the banks and lynchets, the latter do not appear to form part of the medieval system, and are, therefore, probably earlier, perhaps of prehistoric and Roman-British origin. A short section of scarp, presumably a lynchet, lies under the bank TL 34 SW 14 (see plan sheet 2). If the bank is Iron Age in date (see below) then this implies earlier cultivation, possibly dating back to the Bronze Age.

(II) Ridge and furrow cultivation

There are extensive traces of ridge and furrow cultivation (TL 34 SW 48) over most of Therfield Heath. Most of this is very slight and has been smoothed by landscaping associated with Royston Golf Course. The best preserved systems are centred at TL 341 401 (k), TL 340 403 (l) and TL 335 400 (m).

The remains are most clearly revealed on aerial photographs (TL 3440/2; TL 3340/2, 01-JAN-36; TL 3340/8), which show numerous areas of ridge and furrow, mostly narrow, with both straight and more sinuous forms. The field pattern is typified by furlongs on the long escarpment slopes, containing ridges mostly aligned broadly north to south across the contours, but with some aligned roughly east to west, which meet on the crests in awkward junctions. In total the evidence points to several different ploughing episodes. Stratigraphically the ridge and furrow appears to overlie the boundaries of earlier field systems (TL 33 NW 42 and TL 34 SW 49).

Only a small area of ridge and furrow was recorded in detail during the survey of the long barrow (TL 34 SW 5) and the Five Hills barrow group (TL 34 SW 6). On the fairway between these monuments (see plan sheet 2), and also south of the long barrow, there are three blocks of cultivation ridges, each on a different alignment. The furrows are on average 5.0m apart, and the ridges are almost entirely flattened.

The long barrow appears to have acted as a field boundary for the later ridge and furrow cultivation, which adopts a different alignment to the north and south of the barrow. At two points furrows cut the barrow ditch, but elsewhere the ploughing respects the barrow very closely. To the south, the ridge and furrow has been largely destroyed by small-scale quarrying (TL 34 SW 46). To the north the furrows cut into a broad scarp, which may have been entirely natural or the remains of an earlier field boundary, though this area is also disturbed by quarrying. Immediately west of round barrow TL 34 SW 12 lies a short section of wider ridge and furrow (TL 3416 4024), varying in width from 10.0m to 7.0m, bordered on the north by a low bank up to 0.3m high, which is probably a headland. Although disturbed by surface quarrying, this group of ridges may be earlier than the narrower type. Extending west from the above block to a disused tee, is another linear scarp 0.4m high. Although it also could be a headland, its alignment with the fairway suggests it may be a fragment of a scarp which formerly defined the edge of the fairway.

There is no reason to disagree with Crawford's (1936, 105) interpretation of the narrow, straight ridge and furrow as broadly Napoleonic in date. Typologically ridges of a sinuous character may be of an earlier date, but no documentary evidence is readily available to provide firm dating evidence for the furlongs on Therfield Heath.

Long banks and ditches

(I) The Mile Ditches

See plan sheet 1.

The Mile Ditches (TL 34 SW 10) are three roughly parallel ditches which run from Therfield Heath to the Bassingbourn spring-head (TL 328 430), about three miles to the north. The ditches originally had associated banks, as seen on Major Allen's aerial photographs (Crawford 1934, plate XIII), but the last remains of these were levelled into the ditches during the Second World War (Burleigh 1980, 26). Very short stretches of the western and central ditches, which survived the war-time activity are visible as earthworks at their extreme southern end (TL 3333 4005), though they were partially obliterated during landscaping for the golf course in about 1980 (Stevenson pers. comm.). The western ditch now has an overall width of 5.7m and a depth of 0.2m. It is visible for some 6m before being buried by the golf-course earthworks. The central ditch has an maximum width of 7.0m and a depth of 0.2m immediately south of the track, but narrows to a possible terminal after a distance of some 12m.

North of the track all three ditches are visible as grassmarks where they cross the Heath. At this point they do not run parallel, but meander down the slope. Where they can be

seen in the ploughsoil north of the A505 they follow a much straighter and parallel course. On the Heath the ditches are cut by numerous braided trackways, which are particularly prominent at this point and best seen on aerial photographs (TL3339/2; TL3340/1,3,5,7; TL3340/9, 30-JUL-84; TL3341/1).

An excavation of a section of the ditches north of the A505 was carried out in 1978 (Burleigh 1980). This recovered no firmly datable artefacts, but the ditches had certainly silted up by the Roman period, and a radiocarbon date of about 130 BC was obtained on an animal bone from the bottom of the western ditch (Stevenson 1989). The excavation revealed no traces of palisades between the ditches, as were found at the similar site of Dray's Ditches, Bedfordshire. The relationship between the ditches and the Icknield Way remains unclear, though Beldam states that the ditches terminated each side of the road, demonstrating that the road was the earlier feature (Burleigh 1980, 25).

A number of other parallel multiple ditch complexes are found in North Hertfordshire, and Dyer (1961) suggested these represented Iron Age territorial boundaries in the eastern Chilterns. However, more work needs to be done on these features before their function and date can be more fully determined (Burleigh 1980, 28-29).

(II) Other banks and ditches

Other surviving banks may indicate larger land divisions rather than small arable fields. A linear bank and ditch (TL 34 SW 51, see plan sheet 1) traverses the eastern part of Therfield Heath. The feature can be traced with certainty from TL 3425 4033, east-north-east of the Five Barrows (TL 34 SW 6) and runs due east, along the northern scarp edge of the Heath. This stretch comprises a low bank up to 4.5m wide and 0.6m high, its northern scarp is prominent, but its southern one is now very slight. After 200m, at TL 3445 4036, the bank becomes more pronounced, and is up to 6.5m wide and 0.8m high, with a ditch 4.5m wide and 0.6m deep on the up-slope side as it turns south-east in a smooth curve around the prominent round barrow on Earls Hill (TL 34 SW 15). The sharpness of this section suggests a phase of recutting.

From here the feature runs south-east, descending the slope diagonally across the contours, fading rapidly to a north-east facing scarp, 0.3m high. It is cut by braided trackways (TL 34 SW 44) and disturbed by ridge and furrow (TL 34 SW 48). In the coomb bottom the feature is broken at TL 3465 4024, but resumes at TL 3469 4071, traversing the nose of a low spur north of the Two Barrows (TL 34 SW 8) as an intermittent bank averaging 3.0m in width and 0.4m in height with traces of a ditch on the up-slope side. Along this stretch it is cut by several braided trackways (TL 34 SW

50). Descending to another coomb, and broken at TL 3479 4015, a short stretch resumes on the steep slope between TL 3482 4014 and TL 3484 4013. Beyond this point land improvement has reduced and spread the bank to maximum dimensions of 4.5m in width and 0.2m in height. The ditch survives as a shallow linear depression supporting more verdant grass, and the whole ascends the hill in a south-easterly direction. Aerial photographs indicate a former continuation to at least TL 3519 3396, south of Wicker Hall (TL 3439/1). The whole course of the feature is visible on air photographs (423, 106G/UK/1635, frames 1424-7, 09-JUL-46; 1505, 58/1337, frames 427-9, 11-JAN-54).

Close to the western end of TL 34 SW 51 is another linear bank and ditch (TL 34 SW 14, see plan sheet 2) which runs for a distance of 160m to the Five Hills barrow group (TL 34 SW 6). The bank stands up to 0.6m high, the ditch on its south-eastern side no more than 0.2m deep. The bank is cut in several places by former tracks and ditches, notably at TL 3415 4026 where a sunken linear feature, up to 0.4m deep, runs north for 10.0m before it is lost. The western end of the bank and ditch are disturbed by shallow surface quarrying (TL 34 SW 46) and golf course features. A second scarp continues the original line of the feature, despite being confused and broken in places by quarrying and a disused tee, before continuing to merge with barrow 3 of the Five Hills Group at TL 3410 4024. A short mound, up to 0.4m high, projecting 7.5m south-east from this barrow may be a spoil heap from antiquarian excavations or further remains of the bank. At TL 3407 4023, a gradual scarp of 0.5m high lying between barrows 1 and 3 is, also on the line of this linear feature, and may represent its continuation. This evidence suggests that the barrows were incorporated into a boundary with the bank and ditch; it is highly unlikely the bank was earlier than, and cut by, the barrows.

The date and purpose of these linear features is unknown. The course of TL 34 SW 51 in relation to the landscape suggests land division on a fairly large scale, which in turn presents two possible general contexts. Firstly, it could be a medieval park pale although, it crosses several deep topographic features which pales would usually follow. Taken as a whole it is more likely to be a linear boundary of prehistoric date. The similarity in form of this feature and TL 34 SW 14 suggests they are of a similar date and possibly part of the same boundary system. Crawford (1934, 218) suggested that TL 34 SW 14 may have been a continuation of the easternmost of the three Mile Ditches (TL 34 SW 10), however there is little evidence to suggest that these two features were ever linked. The layout of the Mile Ditches combined with topographical considerations render this theory unlikely.

The Hopscotch

See plan sheet 8, letters in brackets refer to this plan.

The monument known locally as The (Devil's) Hopscotch (TL 33 NW 1) comprises a series of contiguous rectangular enclosures, arranged east to west in linear fashion for 200m. The enclosures are situated within, and designed to make maximum use of, the shelter afforded by a downland coomb at 100m OD (TL 332 397).

To the north and south the Hopscotch is bordered by a terrace, 2-3m wide, cut into the valley sides. The internal divisions consist of low earthen banks, 3.0 to 4.0m wide and up to 0.4m high, sometimes flanked by shallow ditches. The latter are also found on the southern side of enclosures (c) to (f) and are 1 to 2m wide. Individually, the enclosures range in size from 20m by 20m to 60m by 35m, between 0.04 and 0.21 hectares, with a tendency for a reduction in area towards the upper, eastern end of the coomb. Shallow undulations within enclosure (b) may represent evidence of surface quarrying for chalk or flint.

Although each enclosure is connected to its neighbour, the dividing banks display no obvious means of entrance from one enclosure to the next. This may suggest that these banks were not intended as barriers in their own right, serving instead as the setting for fences, through which gates would have given access. The shallow ditches, also unbroken, could have been bridged easily and may represent no more than quarries for bank material.

The morphology of the Hopscotch contains several separate elements, perhaps indicating phases of development. At (g) the line of the bank dividing the western and eastern parts of the complex is offset by up to 2.5m, a strong indication for a later enlargement of an original system. Some support for this idea is provided by the enclosures themselves, those to the west being larger and better preserved than those constructed on the steeply rising ground to the east. There may also be further subdivisions, indicated by subtle changes of alignment between enclosures (a)/(b) and between enclosures (e)/(f).

The coomb now contains a single 'hole' of Royston Golf Course, which has involved some landscaping of the Hopscotch, principally the creation of a raised green and bunkers within the enclosures. The green has confused the outlines of enclosure (a) which may originally have consisted of two smaller ones; a possible division at (h) is now masked by the approach to the green. It seems unlikely that any additional enclosures existed further to the west of the green, since the ground drops away steeply beyond this point. Lastly, aerial photographs taken in 1969 (5441, MAL/69052 frames 068-9, 04-

JUN-69) clearly show the prominent east to west bank (i) situated within enclosure (a) to have been constructed as a golf bunker.

Two features were noted immediately northwest of the Hopscotch. The first of these, a sub-rectangular platform (j) cut into the hillside aligned north-west to south-east, and measuring 8m by 7m, seems likely to represent the site of a small building or hut, perhaps contemporary with the use of the Hopscotch. The second, a small terrace overlooking this platform on the north-east, is defined by a steep scarp standing up to 1.5m high. This terrace runs into the more gradual slope of a plough headland (k) to the north, the latter defining the eastern extent of a field with traces of ridge and furrow, and may be a continuation of the terraced path along the northern side of The Hopscotch.

The dominant factor of the Hopscotch is its sheltered location, occupying the whole of the valley floor, a situation ideal for the retention of livestock, particularly sheep. This, therefore, seems the most likely explanation, however speculative, for the enclosures. The coomb may have provided a less exposed environment during the lambing season and/or been connected with unknown agricultural activities, such as shearing, where large numbers of animals could be herded between the various enclosures in controlled movements.

The age of the enclosures is uncertain. In July 1856, Nunn excavated a north to south section across the Hopscotch, but the only find was 'a small ring made of chalk', probably a spindle whorl (Nunn MSS, 25). Contemporary opinion believed the enclosures to be Iron Age in origin (Beldam 1868, 38), but there is nothing to contradict a medieval or later date.

TRACKWAYS

See plan sheet 1.

Various trackways cross the Heath, most taking the form of a series of parallel, linear gulleys with blunted V- or U-shaped profiles. These braided trackways represent repeated shifting of the route over Therfield Heath, presumably as one became rutted and impassable another developed. Although undated they are probably of medieval and post-medieval origin. Towards the eastern terminals of the group TL 34 SW 44 some tracks pre-date, while others cut across, ridge and furrow cultivation. All the tracks are later than the presumably prehistoric field system remnants, but clearly pre-

date a Second World War prisoner of war camp (aerial photographs TL 3540/1-2, 1505, 58/1337, frames 477-8, 11-JAN-54).

A series of braided trackways (TL 34 SW 44) is visible at TL 3422 4011 and descending the moderate slope to TL 3473 4040, is broken only by a green of Royston Golf Course at TL 3444 4021. There are between three and seven sunken tracks at any one point, which are 1.0m to 3.5m wide and between 0.1m and 0.8m deep. They follow a direct, but gently sinuous course. These trackways probably led from Royston across the eastern side of Therfield Heath in the direction of Therfield, and represent repeated shifting of the route. The position of the trackways is indicated on a map of 1724 (HRO (a)).

Another series (TL 34 SW 45) is located on the moderate northern slope of Therfield Heath. The trackways diverge from the present Therfield-Royston road at TL 3369 4006 and descend the hillside in a slight eastward curve to TL 3375 4022, where the few that have survived smoothing on a fairway of Royston Golf Course are lost in re-seeded grassland. Aerial photographs indicate a junction with the Baldock-Royston road (the line of the Icknield Way) at roughly TL 3400 4052 (2941, 58/45 frame 5015, 19-MAY-48; 447, 106G/UK1712 frames 3062-3, 3094-6, 30-AUG-46).

There are at least eight separate sunken tracks, running almost parallel, ranging from 1.0m to 3.0m across and 0.1m to 0.6m deep. Their east-facing scarps are the most prominent, reflecting the direction of slope. They are clearly predecessors of the modern road, but otherwise undated. The trackways are visible on aerial photographs (423, 106G/UK1635 frames 1425-8, 09-JUL-46; 5414, MAL/69052 frames 068-9, 04-JUN-69).

A series of at least nine braided trackways (TL 34 SW 50) lie towards the eastern side of Therfield Heath. They are visible intermittently from the foot of a chalk spur at TL 3480 4023, leading south up the spur for 250m, cutting through a linear bank and ditch (TL 34 SW 51) and running between and to the east of the Two Hills (TL 34 SW 8), clipping their margins. Three can be seen entering thick woodland at TL 3465 4000, TL 3469 4000 and TL 3477 4000. At the northern end of the spur, a series of three on the eastern side are cut by another series of five, indicating a significant change of route from along the eastern flank of the spur to the western flank.

The trackways survive as slight linear gulleys up to 1.0m to 2.5m across and 0.1m to 0.5m deep, although in several places long downland grass masks their course. A

substantial lynchet, up to 4.5m long and 0.7m high, passing to the east of the Two Hills, may also be the result of traffic erosion along the spur side.

LATER LAND-USE

See plan sheet 1.

The use of the Heath for burial, agriculture and routeways has a very long history, but in recent centuries new activities were introduced to the Heath. These included a rifle range, the cricket ground, small scale quarrying and, most recently, the creation of the golf course. The latter was established in 1892 (Allsopp *et al* 1992) and its tees and greens, described as 'absurd little earthworks' by Crawford (1936, 105), have altered the character of the Heath to some extent. The survival of slight banks and lynchets from pre-historic field systems demonstrate that this new type of land-use has allowed considerable preservation of the past landscape.

The cricket pitch (TL 34 SW 47) was created in 1790, making it only three years younger than Lord's Cricket Ground (Royston Cricket Club 1990). It is located at the eastern end of the Heath (TL 3488 4044) at the base of the escarpment at a height of 77m OD. The pitch was most recently levelled in 1928 and continues in use to the present day. The original clubhouse was built in 1895, but has since been extensively rebuilt. A nearby burial mound (TL 34 SW 18) was levelled in the course of improvements to the pitch (Beldam 1856, 8, Stevenson 1978). A postcard of 1904 (Smith 1983, 56) is the oldest surviving photographic record of a match on the ground, although team photographs exist from the 1880s (Royston Cricket Club 1990).

The butts of the Royston Rifle Range (TL 33 NW 43) were built in 1855, when the Hertfordshire Militia began to use Therfield Heath for their summer training camps (Peters 1970), and went out of use in 1982 for safety reasons. The range is partly contained within a dry valley (TL 3489 3991, 80m OD), whose sides were cut back for some of its length to create straight edges to the range. At the head of the valley, a scarp between 6.0m and 9.0m wide and 1.9m high at its maximum represents the remains of the original crescent shaped butts shown on the County Series map of 1903 (OS (a)) and the 1:2500 map of 1975 (OS (d)). A second scarp some 7.0m wide and 1.1m high and which runs at an angle across the valley, was not an original part of the butts design and probably buries debris from the demolished butts building shown on the same maps. This structure did not change its basic form at all during its use.

Well defined banks, 0.3m high and 1.9m wide on average, project across the valley floor from alternate sides at irregular intervals up to 90m (100 yds) from the butts. These were presumably target positions for the modern rifle range. Firing positions were located at 200, 300 and 400 yards with small structures at the latter two points (OS (c)). Incomplete vegetation regrowth indicates that two of the other features, probably observation points, are modern: a scoop in the eastern side of the valley measuring some 6.0m north-south by 4.0m transversely, with spoil dumped immediately to the north to form a protective mound 1.4m high; and a platform created by cutting deeply into the eastern side of the valley. It measures 10.5m north-south by 4.8m and has a maximum depth of 1.7m; the spoil has been pushed down the valley side to the south of the terrace to form a mound 1.7m high.

Earlier firing positions at 100, 150, 200, 250, 300, 400, 500, 600, and 700 yards were marked by iron plates set into the ground (OS (a)), of which only the 150 yard marker now survives. A low bank 0.2m high and 7.8m wide which crosses the valley 200 yards from the butts and may also have been an original firing position. A low mound projecting from the eastern side of the valley measures 3.8m east to west and 0.3m high; its date and function are unknown. The Royston Crow for June 1864 reports the results of a shooting competition at ranges of 200, 500 and 600 yards.

There are extensive traces of surface quarrying (TL 34 SW 46) on Therfield Heath, in the form of linear bands of numerous irregular small hollows and low upcast mounds. These quarries, between 50m and 200m long and up to 50m wide, occur mainly on the higher parts of the Heath (centred TL 3420 4015, TL 3325 3975 and TL 3355 3992). Individual hollows are commonly only about 2.0m across and 0.4m deep, but larger examples occur up to 5.0m across and 0.8m deep. The quarries are clearly visible on oblique air photographs taken by Major Allen around 1936 (TL 3340/2, 01-JAN-36; TL 3340/8), which show the quarries cutting through many earlier features including ridge and furrow cultivation.

Although undated, flint extraction is likely to have occurred from the medieval period until the present century for road and track mending. The quarries disturb ridge and furrow cultivation in several locations, notably around the area of the long barrow (TL 34 SW 5) and the Five Barrows (TL 34 SW 6). The ridge and furrow cultivation was assumed by Crawford to be of Napoleonic date (Crawford 1936, 105), thus suggesting that the quarries were more recent; Crawford refers to them as 'early nineteenth century flint diggings' (Crawford 1936, 104) and Nunn refers to stone digging in the mid nineteenth century round Rumbold's Mount (TL 34 SW 12), where considerable quarrying is visible (Nunn MSS, 15).

DISCUSSION

The topography of the Heath seems to have been important in defining both its use and the survival of archaeological remains. The prominent location on the crest of the escarpment may explain the use of Therfield Heath as a location for burial monuments in several periods. It seems likely that the position of the Five Hills was influenced by the presence of the long barrow. The reuse of both long and round barrows for Saxon burial shows a renewed importance for the site. It is possible that the prominent location of the barrow cemetery was exploited more recently; the flat top of Five Hills barrow 5 may have held an eye-catcher for Wimpole Hall.

Agricultural activity took place on the Heath, but only sporadically because of its height and exposure. This has enabled remains of various periods of cultivation to survive, as well as ensuring that other monuments have been preserved. The relationship of the lynchets to the barrows is not clear enough to be sure that Bronze Age agriculture took place on the Heath, but it is a possibility. Many of the smaller field remains are probably Iron Age, and they have been obliterated where the medieval open fields can be seen on the western part of the Heath. The longer banks and ditches, possibly including the Mile Ditches may indicate a different form of land-use; in the Yorkshire Wolds and the Midlands multiple parallel ditches appear to have divided the landscape into enclosed ranches or parishes (Burleigh 1980, 25). However, the contemporaneity of the banks and ditches on Therfield Heath cannot yet be demonstrated from surface evidence alone. The presence of the Hopscotch may indicate that medieval use of the Heath was predominantly for grazing livestock. After centuries of abandonment the Napoleonic war seems to have encouraged the renewed cultivation of the Heath.

Like the other activities on the Heath the golf course has added its own earthworks to the landscape, but it has largely ensured the preservation of earlier monuments. The height and steep slopes of the Heath made it an attractive location for a golf course, but much less attractive for modern agriculture. This has enabled not only the prominent barrows to survive, but also the formerly unrecognised, slight traces of Iron Age fields.

SURVEY METHOD

The survey was carried out by Jane Kenney, Al Oswald, Paul Pattison, Paul Struth and Peter Topping of RCHME, partially as a training project. A Wild TC1610 Electronic Theodolite with integral EDM was used to capture the data electronically on a Wild GRM 10 Rec Module. This data was subsequently transferred to a PC, and plots at the

relevant scale were obtained on a Calcomp 3024 plotter. Large scale details of the earthworks were supplied with Fibron tapes using normal graphical methods, and using an RK1 self-reducing alidade. Individual site reports were researched and written by the surveyors, amalgamated into the final report by Jane Kenney and edited by Peter Topping. The site archives have been deposited in the National Monuments Record in Swindon.

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