

A PREHISTORIC ENCLOSURE
ON BOROUGH HILL,
SAWSTON,
CAMBRIDGESHIRE

Peter Topping and Alastair Oswald

**A PREHISTORIC ENCLOSURE
ON BOROUGH HILL
SAWSTON, CAMBRIDGESHIRE**

**An Earthwork Survey
by
The Royal Commission on the
Historical Monuments of England**

REQUEST SURVEY

March 1993





unmt 2/8/10

A Prehistoric Enclosure at Sawston, Cambridgeshire. A Survey by
the Royal Commission on the Historical Monuments of England
by A Oswald, C C Taylor and P Topping

The enclosure, almost certainly of late prehistoric date, is situated on the E edge of the River Cam in the parish of Sawston (TL 47184949; Fig. 1). It is badly plough-damaged and was first recognized on air photographs by one of the authors in 1980. Subsequently RCHME were asked by the County Archaeologist to make a detailed analytical survey of the site for management assessment purposes.

The enclosure lies in the extreme W of the parish on the S edge of a low promontory of Lower Chalk at 20 m above OD. The promontory projects W into the flood plain of the River Cam and is thus surrounded by gravel and alluvium on all sides but the E. It stands some 2 m to 3 m above the river and the enclosure is thus in a locally commanding position and dominates the surrounding countryside. Part of the perimeter of the enclosure is now built over by an industrial complex which originated in the early 18th century when an ancient water-mill, also situated on the S side of the promontory, was extended and converted into a paper-mill. The complex has continued to expand ever since (VCH 1978, 256).

The mill has for long been known as the Borough Mill and it was recognition of the significance of this name that led to the discovery of the enclosure. The earliest reference to the Borough Mill is in 1270 (Teversham 1942, 30, 47) though it is likely that one or both of the two mills listed in Domesday Book as part of the holding of Roger Picot (Rumble 1981, 25.3) stood on the site (Teversham 1942, 30). More important is that as early as 1270 the name Borough was applied not just to the mill but to the whole area of the promontory within the bend of the river (Teversham 1942, 476). Indeed it has been suggested that there was a hamlet known as The Borough or Bury, situated

in the area by at least the 13th century, though certainly by 1580 only the mill was there (Teversham 1942, 78-9; 1947, 55, 58-9). The fact that the existing woodland on the N side of the promontory and some 450 m from the mill is still called Borough Grove certainly supports the idea that the name was not related just to the mill itself. There is the possibility of an even earlier reference to the area, as opposed to the mill, in 1236 when one William de Burgo held a tenement in Sawston. The editors of *The Place-Names of Cambridgeshire* (Reaney 1943, 97) suggested that this William may have originated from Peterborough, whence he took his name, and in turn gave it to the area under discussion here.

A more likely reason why this remote corner of Sawston parish should have acquired the name Borough is that there may once have been in the area some actual or presumed fortified site of early medieval or earlier date. It was this possibility that led one of the writers (CCT) to examine available air photographs of the area. Nothing is visible on those taken by the RAF in 1947, nor on those produced for OS map revision purposes in 1974. However, on photographs taken by the Cambridge University Committee for Aerial Photography in 1977 (RC8-CK127) parts of a large double-ditched and embanked enclosure can be seen encompassing the site of the original Borough Mill. Ground inspection confirmed the existence of the enclosure and indicated not only that it was defensive in character but that it might well be a late prehistoric fort. In early 1993 staff of RCHME carried out a detailed survey of the site (Fig. 2) which has revealed its form and its significance.

The enclosure is ovoid in shape, its long axis roughly aligned ENE-WSW, and covers some 8 ha overall. Though heavily damaged by modern and presumably ancient agriculture, roughly three-quarters of the perimeter still survive as a slight earthwork. Only on its S side where several buildings and former buildings (OS 1885) have largely obliterated some 200 m of its boundary is it no longer visible.

On the NW a wide low bank still survives although the rest of the N perimeter is now reduced to a single outward-facing scarp up to 0.9 m high. On the NE the earthwork boundary cuts through a coppice and here the scarp of the rampart is best preserved, surviving to a height of 1.1 m and up to 6.4 m wide. A slight parallel counterscarp 5.9 m away and only 0.1 m high may be the remains of the outer ditch.

On the E the defences of the enclosure are spread to form a broad single bank 52 m across and up to 1.4 m high. No ditch is visible though the CUCAP air photographs suggest that the defences here were at least bivallate if not multivallate in form and included two ditches and two ramparts. The photograph also records what may be a third, inner ditch, which, if not defensive, may have formed a quarry for rampart material. Both the field evidence and the air photographs suggest that there may have been an entrance in the centre of the E side. The air photographs show a clear break in the defences at this point, but the surviving earthworks have been so distorted by ploughing that they are now slightly askew to those to the N, giving the impression of a staggered entrance. Whatever its original form, if an entrance did once exist here, it faced the easiest line of approach on to the chalk promontory from the E.

In the SE the line of the defence is crossed by an access road to the industrial complex. To the S of the road, however, the rampart still just survives, 11.1 m wide and up to 1.1 m high on its outer face, preserved by a line of trees. These defences are poorly preserved due to a variety of later activities, many of which have left surviving features. These include an elongated depression behind the line of the rampart scarp apparently mapped on the OS 1st edn 25-in map (1885) and perhaps a former water tank, some slight linear banks which were perhaps part of a former field system, two raised rectangular platforms which were possibly the sites of buildings, a series of quarry scoops and a hollow-way. The last, as well as some of the

quarries, are overlain by the remains of a railway siding leading to the site of the earlier mill.

The rest of the S perimeter of the enclosure is now lost beneath a warehouse, an electricity transformer station, a reservoir and its adjacent buildings. It is also clear that alterations to the course of the river and to the mill race of the former paper-mill have obliterated part of the enclosure boundary. On the W only two scarps, the outer one 7.3 m wide and 0.5 m high, the inner 8.4 m across and 0.4 m high, mark the perimeter. The interior of the enclosure contains no features that can be interpreted as original.

Four other pieces of archaeological evidence have been recorded from the site. A curious reference to the discovery of 'a number of gold coins and a diamond' made in 1785 when a garden was being laid out at the Mill House has limited relevance (Teversham 1947, 145). More significant, an unlocated geological test pit dug into the rampart of the enclosure in 1990 revealed that it consisted of a 0.8 m layer of chalk capped by 0.3 m of clay. The existence of a chalk core is confirmed both by the evidence of the air photographs and by ground observation, especially on the N and E sides (Cambs SMR no. 9742).

In 1992, at the request of the County Council, a geophysical survey of the site was carried out by Countryside Planning and Management (Royston Clark, pers comm). Two transects were laid across the NE and NW sides of the enclosure. That on E recorded various features enclosed by two prominent ditch-like anomalies 5 m or more wide and 30 m apart with another 3 m wide anomaly between and parallel to them. These anomalies, which followed the line of the surface scarp, may represent the truncated remains of a double or triple-ditched defensive system. If the evidence relates to a bivallate ditch system the existence of the central feature might point to the possibility of a construction trench for a timber box-rampart. Alternatively if the

anomalies are those of a multivallate system, then they would perhaps indicate a spacing of around 10 m between each ditch, providing ample space for intermediate ramparts. The NW transect also revealed a linear anomaly perhaps 5 m wide which could be a truncated base of an enclosing ditch. Beyond this lay another linear anomaly, 3 m across which might be the equivalent of the central anomaly on the NE side. If this is so then the geophysical evidence would suggest that an outer ditch, if such once existed here, no longer survives. An unusual linear anomaly was also recorded lying at right angles to the main line of the enclosure and aligned NW-SE. This might be interpreted as part of an entrance on the W leading down on to the flood plain. If this interpretation is correct then the feature would have some similarities to the elaborate E entrance recently excavated at Arbury Camp, N of Cambridge, where a platform-carrying tower has been suggested (Evans 1992, 19). However, here at Sawston the evidence is far from clear and the recorded features may equally be the remains of later disturbance. Both geophysical plots showed an extensive distribution of minor anomalies within the enclosure, comprising a series of linear features, a possible ring ditch and a series of pits. Some of these may be contemporary with the occupation of the enclosure. A field-walking programme over the N part of the site in December 1992 produced only a single sherd of medieval pottery and some post-medieval debris (Bray and Leith 1993).

On the evidence of its form and ground plan the enclosure at the Borough, Sawston, would appear to be a fort of broadly later prehistoric date. As such it is one of only seven forts known in the county at present (Malim 1992, 20, table 1). Its riverine location has strong similarities to other East Anglian forts. In Norfolk five of the six known sites are located close to rivers (Davies et al 1991, 69-71), and a similar pattern can be seen in Essex where the forts are situated along the line of the Lea/Stort/Cam rivers (Morris and Buckley 1978, 27).

The fort at the Borough covers an area of some 8 ha overall making it the second largest in Cambridgeshire, larger than all but one fort in Norfolk and with only three of the fifteen sites recorded in Essex being as large or larger (Malim 1992, 20-21, table 1). In an East Anglian context it is also unusual in having more than one defensive perimeter, the regional norm being the univallate type.

The question of the depth of the defences of the Borough is of particular interest. The CUCAP air photographs suggest that the defences in the N and E were at least bivallate if not larger in form. The photographs and the topography would suggest that the defences may have been more substantial in this arc than in the S and W, where the natural slopes of the chalk promontory would have enhanced the artificial perimeter. However, there may also have been a less obvious motive behind the increased scale in the N and E perimeter, which faces not only the easiest line of approach but also the fort at Wandlebury, no more than 4.25 km to the NE, and with which it is intervisible. It is possible that this aspect of the defences were increased in scale as a symbolic display of wealth and status (cf Bowden and McOmish 1987 and 1989) outwardly visible in a direction from which there was a degree of competition, Wandlebury fort.

Only excavation can now reveal further information about the precise structural details and chronology of the fort at the Borough, Sawston.

Survey method

Pete / PT to add

Acknowledgements

This paper is published by courtesy of the Commissioners. Thanks are due to Spicers Limited, Sawston, for permission to investigate the site. The text was typed by M A Hegerty and edited by S E Taylor and the illustrations were

Tapping.
prepared by P-N-Hammond.

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Cambs SMR. Cambridgeshire Sites and Monuments Record

CUCAP. Cambridge University Committee for Aerial Photography

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This paper is published with financial assistance from the Royal Commission on the Historical Monuments of England

Captions

Figure 1 Late prehistoric enclosure, Sawston. Location (c RCHME Crown Copyright)

Figure 2 Late prehistoric enclosure, Sawston. Plan (c RCHME Crown Copyright)

AN EARTHWORK ENCLOSURE ON BOROUGH HILL, SAWSTON, CAMBRIDGESHIRE.

Introduction

The enclosure on Borough Hill, lying on the W edge of Sawston Parish in S Cambridgeshire, was first recognised by C Taylor on aerial photographs taken by Cambridge University Committee for Aerial Photography. Subsequently the RCHME were requested to make a detailed analytical survey of the severely plough-damaged enclosure for a management assessment by the Cambridgeshire County Archaeologist.

Site location

The plough damaged enclosure on Borough Hill (TL4718 4949 FCE) overlooks the alluvial flood plain of the River Cam. The site is situated upon a promontory-like deposit of Lower Chalk which projects into the flood plain, surrounding the enclosure with alluvium on all but the E side. Borough Hill lies at 20m above OD, with the Cam flowing close to its southern edge before it meanders away to the W and then N. The chalk promontory, although standing no more than 2m to 3m above the surrounding flood plain, is in a locally commanding position and dominates the surrounding countryside, particularly the course of the river.

Description

of The Borough Hill enclosure is sub-oval in shape, its long axis roughly aligned ENE to WSW; the enclosure measures some 399m overall (along this axis by) 300m transversely. The site is now partly located in arable farmland, and part of the interior is overlain by a small copse and several buildings associated with the adjacent paperworks; a reservoir and electricity sub-station, and earlier an old paper mill (see OS 1st Edition 25-inch map surveyed in 1885) have largely obliterated some 200m of the southern perimeter.

Although heavily plough-damaged, roughly three quarters of the perimeter of the enclosure still survives as a slight earthwork. It is only incomplete on the southern side where the previously mentioned buildings have removed any evidence of earthworks.

Northern perimeter

The northern perimeter of the site is heavily eroded and much disturbed by the plough. A wide, low bank still survives in the NW although the remainder of the northern perimeter is now reduced to a single outward-facing scarp lying at an angle of 20 degrees. The northern defences are now reduced to a maximum width of 43.2m, and survive to a height of 0.9m. In the NE, the perimeter of the enclosure cuts through a copse and here the rampart scarp is best preserved surviving in the woodland to a height of 1.1m and up to 6.4m wide. A slight parallel scarp lying 5.9m from the base of the rampart, and no more than 0.1m high, may be the remains of a ditch counter scarp.

Eastern perimeter

To the S of this linear copse, the defences enter a large arable field. In this field the defences are now spread to form a broad single bank with a maximum width of 52.2m, and an inner and outer facing scarp still surviving to a height of up to 1.4m. No ditch was recorded, although an aerial photograph (CUCAP RC8-CK127) suggests that the defences in this area, and also in the NE arc, were at least bivallate if not multivallate in form and included two ditches and two ramparts. The aerial photograph also records what may be a third innermost ditch, which if not defensive may have formed a quarry for rampart material.

From the evidence of the CUCAP aerial photograph (RC8-CK127), this area may have been the location of an entrance to the enclosure, roughly located in the centre of the field. The aerial photograph appears to show a clear break in the defences before they reach a fence line, now removed, which subdivided the larger field. However, the surviving earthworks have been so severely distorted by the plough that they are now slightly askew to those in the northern arc. This superficially gives an impression of a staggered entrance, although the evidence from the aerial photograph would tend to suggest that the multiple defences ran through the line of the copse in a parallel manner, ending abruptly in the centre of the modern field, thus creating a gap which may be a putative entrance. If this were the site of an entrance, it would be aligned upon the easiest line of approach onto the chalk promontory from the E.

Southern perimeter

From the eastern field the line of the defences are overlain by an access road to the paperworks. However, once S of the road the line of the rampart still survives, although heavily disturbed, in the western part of this southern field. The rampart here is preserved by a tree line and has a width of 11.1m and a 5 degree outward-facing scarp up to 1.1m high.

In general this section of the defences are poorly preserved, and the inner face of the rampart seems to have been utilised by the earlier mill at the site. Here, behind the line of the rampart scarp lies an elongated depression, open to the SW, some 40m long and up to 12m wide with a depth of 0.5m. The 1st Edition OS 25-inch map surveyed in 1885 shows a cigar-shaped feature lying on the same alignment and in the same position as the aforementioned depression. It is unclear what this depression was originally, it does not appear to have any direct links with the old paper mill. However, one clue may be in its depiction, which is not unlike water tanks shown associated with a leather factory on the same map. However, this part of the site does lie well above the present course of the river, thus if it were a water tank then some mechanism may have been required to raise water to fill it.

The eastern part of the southern field preserves fragments of an earlier field system which are characterised by a series of linear banks; two raised rectangular platforms, possibly for buildings; a hollow way and a series of quarry scoops. The banks are up to 3.2m wide and 0.3m high, and the platforms stand to a height of 0.4m high. The surface quarries have a depth of 0.4m; some are overlain by the linear field banks, and some by the remains of a siding which lead to the old paper mill, thus they are early in the landscape sequence.

The hollow way, which is roughly aligned NW to SE, is up to 7.0m wide with a depth of 0.4m; it is also overlain by the same railway siding leading to the site of the former mill.

In the SW of the field, on the summit of the siding, lie the remains of the old track bed with the rails surviving for a length of 21.7m on a raised cinder track bed.

The final feature in the palimpsest is a modern raised trackway which leads across the field from the modern gate in the NW to the southern perimeter, and overlies the old railway siding.

The area enclosed by this southern field is depicted on the 1st Edition OS 25-inch map of 1885 as containing scattered tree cover, which may explain the survival of the earthworks.

A substantial proportion of the southern perimeter, some 200m in length, is now lost beneath a warehouse, an electricity sub-station, and a reservoir and its attendant buildings. Previously this was the site of the original eighteenth century paper mill which had developed from an earlier water mill (VCH 1978, 255-256). An area of scrub woodland lying to the W of the modern reservoir contains overgrown scarps no more than 1.5m in height which may be evidence of the mill race of the former paper mill depicted on the OS 1st Edition 25-inch map of 1885. Several concrete foundations also survive in this area which would seem to have been the footings of buildings associated with the early mill. In addition the canalization of the River Cam to the S and W of the reservoir has left residual scarps relating to the former course of the river.

Western perimeter

The paddock to the N of the reservoir and E of Mill Farm still contains a bifurcating scarp which is very abraded and now lies in improved pasture. The outermost scarp is spread to a width of 7.3m and may be partly overlain by the modern tarmacked road in the S. This scarp stands no more than 0.5m high. The inner scarp is spread up to 8.4m wide and 0.4m high. The remainder of this paddock is featureless.

Interior of the enclosure

The interior of the Sawston enclosure has suffered disturbance from several later landscape developments as listed above, consequently no internal earthworks survive.

Archaeological investigation

Previous archaeological work at the Sawston enclosure has been limited. In 1990 a geological test pit was excavated which revealed that the bank of the enclosure had a basal deposit of chalk 0.8m thick capped with a layer of clay 0.3m thick (information Cambs SMR, No 9742). The chalk matrix of the bank is currently visible in the plough soil on the N and E perimeters. The precise location of this test pit is unknown.

Following this a geophysical survey was carried out by the Countryside Planning and Management consultancy during 1992 (Royston Clark pers comm). This survey laid out two long c20m wide transects aligned along the N side of the linear copse and across both the NE and NW perimeters of the site. The eastern transect (B) appears to record a series of internal features ranging from small pit-like anomalies, several irregular linears, and what could be a ring ditch. These features are enclosed by two prominent ditch-like anomalies, perhaps 5m or more wide and some 30m apart. Between these, in a central position and laid out parallel with these putative ditches, lies a further linear anomaly no more than 3m wide. Taken together these anomalies may represent the truncated remains of what may be double or triple ditched defences. If the evidence relates to a bivallate ditch system, the existence of the central linear between the two prominent ditches may point to the existence of a construction trench for a timber-built box rampart. Alternatively, if the geophysical survey records a multivallate system, then this would suggest that there could have been a spacing of roughly 10m between each ditch, providing ample space for a series of ramparts. All three of these linear anomalies follow the alignment of the enclosure scarp.

Transect A overlay the NW perimeter of the site. This sample area discovered what appears to be several internal features, again irregular linears and pit-like features, similarly enclosed by a linear anomaly perhaps 5m wide which could be the truncated base of a perimeter ditch. Outwith this feature lies a linear anomaly roughly 3m wide, which may be the equivalent of the smaller central linear anomaly on the NE perimeter. If this is so then the geophysical survey would suggest that an outer ditch, if such existed on this part of the perimeter, no longer survives in the NW. An unusual palisade like anomaly lies at right angles to the main line of the enclosure, aligned NW-SE, which could conceivably be part of an entranceway on the W side opening out into the lower-lying alluvial flood plain. Were this interpretation correct, then this feature may have similarities to the elaborate E entrance recently excavated at Arbury Camp in Cambridgeshire where a platform-carrying tower has been suggested (Evans 1992, 19). However, at Borough Hill the question is far from clear, and the geophysical anomaly may equally represent a later landscape feature related to more recent land use.

A fieldwalking programme carried out over the N part of the site in December 1992 produced no prehistoric artefacts, only a single sherd of Medieval pottery, and other post-medieval debris (Bray and Leith 1993).

Discussion

The enclosure on Borough Hill, Sawston, would appear to be a fort of broadly later prehistoric date on the evidence of its form and ground plan; it is one of only seven known forts in the county at present (Malim 1992, 20, Table 1). The riverine location of Borough Hill has strong similarities to other E Anglian forts. In Norfolk five of the six known sites are located close to rivers (Davies et al 1991, 69-71), and a similar pattern can be seen in Essex where the forts are situated along the line of the Lea/Stort/Cam river catchment (Morris and Buckley 1978, 27).

The fort on Borough Hill covers an area of some 8ha overall, making it the second largest fort in Cambridgeshire, larger than all but one fort in Norfolk, and with only three of the fifteen sites recorded in Essex as large or larger (Malim 1992, 20-21, Table 1). In an E Anglian context the site is also unusual in having more than one defensive perimeter, the regional norm being the univallate type.

The question of the depth of the defences at Borough Hill is of interest. The evidence of the CUCAP aerial photograph records that the defences in the N and E were at least bivallate if not larger in form. The photograph and the topography would suggest that the defences may have been more substantial in this arc than in the S and W, where the natural slopes of the chalk promontory would have enhanced the artificial perimeter. However, there may also have been a less obvious motive behind the increased scale of the N and E perimeter, which not only faces the easiest line of approach, but also the fort at Wandlebury no more than 4.25km to the NE and with which it is intervisible. It is possible that this aspect of the defences were increased in scale as a symbolic display of wealth and status (cf Bowden and McOmish 1987 and 1989) outwardly visible in a direction towards which there was a degree of competition, viz Wandlebury fort.

Whatever the precise structural details and chronology of the fort on Borough Hill, Sawston, it is clear that only excavation can now reveal further information.

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