# HILL HOUSE MOATS 

## OLD WARDEN

 BEDFORDSHIRE
## EARTHWORKS SURVEY

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## Preface

Every effort has been made in the preparation and submission of this document and all statements are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

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## Non-technical Summary

The scheduled moats east of Hill Hall, Old Warden, have been the subject of a programme of research funded by the Aggregates Levy Sustainability Fund and Tarmac Ltd.

As part of that work the earthworks within the area of the scheduled monument were surveyed in January 2008. The results of the survey, considered in the light of previous documentary analysis, enable the formulation of a possible sequence of development of the moated complex, and highlight the probable medieval origin of the silted fishponds in the wooded compartment.

## 1. INTRODUCTION

The scheduled moats east of Hill Hall, Old Warden, have been the subject of a programme of research funded by the Aggregates Levy Sustainability Fund and Tarmac Ltd, and managed by Andrew Josephs, Environmental Consultant. The aim is to secure the long-term management of the monument, following completion of extensive gravel quarrying in the surrounding landscape.

Baseline studies have included a detailed assessment of historical sources by Anthony M Breen, an aerial photographic assessment by Rog Palmer, topographical survey of the surrounding area by the Cambridge Archaeological Unit, and hydrological and hydrogeological investigations by BCL Consultant Hydrogeologists Ltd. These informed the preparation of a Management Plan in January 2007.

This report arises from a further phase of Aggregates Levy-funded work, comprising a measured survey of the earthworks of the scheduled monument, designed to further the project objectives by:

- accurately recording the current form of the monument
- assisting in the design and implementation of the management strategy
- providing a base line for all future work

It discusses the potential significance of the Hill area in the development of the wider historic landscape; it presents the results of an analytical survey of the earthworks; and draws on the previous detailed historical work by Anthony Breen to suggest a possible chronological sequence for the development of the site.

## 2. HISTORIC LANDSCAPE CONTEXT

### 2.1 Early Medieval

The scheduled moated site near Hill House, Old Warden, lies within the historic hamlet of Hill, forming the eastern part of Old Warden parish. It is centred on TL 17154445 . It is on the western side of the valley of the River Ivel, which in this area is a broad, relatively flat landscape between the river and the slopes of the Greensand ridge to the west (Figure 1). The valleys soils have been exploited since Neolithic times, with settlement expanding on to the higher clays of the Greensand ridge by the later Iron Age and Roman periods. A regularly spaced series of late Iron Age/Romano-British farmsteads has been identified alongside the river, with associated trackways running eastwest at right angles to it.

It is likely that in the early post-Roman period, activity initially again became confined within the river valley, with woodland regenerating on the clays of the Greensand ridge. The regular framework of the previous layout of settlements, fields and roads may well have still been visible within the landscape, although there is no indication of direct continuity of settlement location. A dispersed early medieval settlement pattern is suggested by comparison with field survey results elsewhere in the region, and by the slight evidence of $7^{\text {th }}$-century activity to the west of Hill House, recorded in advance of recent quarrying.

The area of land defined by the Rivers Ivel and Flit and the Greensand ridge may equate with the territory of the Gifle (as listed in the Tribal Hidage), which amounted to 300 households. The continuity of the name can be seen in an early spelling of Southill - 'Suthgivele' - recorded in a c1190 charter in the Cartulary for Warden Abbey, and presumably also in the origin of 'Northill'. This raises the possibility, not confirmed on etymological grounds, that the name of the hamlet of Hill has the same derivation, possibly even marking the general location of the territory's heartland. Mawer and Stenton (The PlaceNames of Bedfordshire and Huntingdonshire, 1926) describe the etymology of the name as 'self-explanatory'; however, there is nothing that would warrant the description in the topographical character of the Hill area.

The subdivision of larger territories into ecclesiastical parishes in about the $8^{\text {th }}$ century ultimately gave rise to the pattern shown in Figure 1. Within the larger region defined by the Rivers Great Ouse, Ivel and Flit, the parish boundaries display a consistent character, being drawn fairly straight and perpendicular to the river courses. This division of land gave each parish equal access to a range of resources, from riverside meadow, through prime arable soils, up on to the wooded clay lands of the Greensand ridge. There is however a noticeable difference in landscape and settlement character between the parishes north-west of the ridge and those of the suggested Gifle territory (Northill, Old Warden, Southill). The former are of roughly comparable size, and mostly with a single nucleated settlement. (The main exception to this is

Eastcotts, which was a township in the western part of Cardington parish). By contrast, Northill and Southill are significantly larger parishes, and the Ivel valley as a whole has a much more dispersed settlement pattern.

When the parish boundaries were laid out, the clays of the Greensand ridge were probably still continuously wooded, and boundaries were only firmed up in the area at a later date when rights over woodland resources needed to be clearly demarcated. This has given rise to the noticeable irregularity of the boundaries between Cardington and Cople to the north-west, and Old Warden to the south-east.

There is no evidence as to whether the dispersed settlement pattern between the Greensand ridge and the Ivel is directly descended from the early medieval distribution, or whether there has been a process of settlement relocation as part of landscape reorganisation and the establishment of nucleated settlements around greens. The scarcity of early medieval remains within the Broom quarry area does raise the possibility that evidence of this period may lie in the unquarried section around the Hill House moats.

### 2.2 The Medieval Landscape

The lack of detailed early maps limits the certainty with which the medieval landscape of the Hill area can be reconstructed. The Enclosure Award Map of $c 1799$ (Figure 2) shows field boundaries (unfortunately with no fields names), which enables some speculation about the earlier landscape history. Documentary evidence (particularly an Inquisition of 1615, transcribed in BLARS: CRT 100/5) establishes that the hamlet of Hill retained common arable fields, divided between North Field and South Field, until the early years of Elizabeth I's reign. The possible extent of these (from field shapes suggestive of former open field furlongs) is shown on Figure 3. More irregular closes are likely to indicate more anciently enclosed land, particularly a compact block around the Hill House moats which has the appearance of a typical block of manorial demesne land. The antiquity of the closes between Lower Hill Farm and the Aston Brook (which formed the boundary between Warden and the Hamlet of Hill) are less clear. Froghall, in the east of the hamlet, is mentioned in the Warden Cartulary in c1199, but there is nothing on the $c 1799$ map to indicate associated closes.

The area between the River Ivel and the tributary valley east of Hill House has some points of interest. It may have been a separate common field (rather than subdivided between the documented North Field and South Field), enclosed earlier than the rest of the hamlet. Mawer and Stenton record the Brookland placename in 1422, although the layout of the farm shown in c1799 strongly suggests a farmstead planted on former arable, rather than a more ancient settlement location. The north-south road running through this area (referred to as 'Hill Lane' in the Enclosure Award) clearly cuts across the pattern of field boundaries, and is thus of later date.

One of the items dealt with in the 1615 Inquisition was the enclosure of Hill Green by George Mordaunt, the owner of Hill, about 30 years earlier. Hill

Green may be the triangular block of meadow immediately north-east of the manorial demesne, named 'Home Green' in $18^{\text {th }}$ century documents. It would certainly be logical to begin the enclosure of common land with areas immediately adjacent to the demesne.

The scheduled moat complex sits fairly centrally within the manorial demesne block, towards its northern edge. Hill Farm (now Hill House) is in the northwest corner of the demesne, with every appearance of having been a secondary establishment. This sequence will be discussed in more detail below.

The 'Site of castle' on Figure 3 indicates the location of the scheduled 'Ringwork and bailey east of Brookland Farm'. An early date for the ringwork is indicated by the Domesday entry for land of Ralph de l'Isle: 'In Wardone Ralf de Insula holds of the king $1 / 1 / 2$ virgates. This land belongs to (iacet in) Bicheleswade...' Ralph held Biggleswade, and appears to have appropriated adjacent land in Warden parish for strategic reasons.

## 3. EARTHWORKS SURVEY

### 3.1 Methodology

The measured earthworks survey was undertaken in January 2008, using a combination of plane table and alidade, and offsets by optical square from a series of baselines. In a few areas where vegetation conditions prevented measurement by tape, points were fixed by EDM survey. Part of the moat which forms the south side of compartment (d) (see Figure 5) was inaccessible due to dense brambles; the line of the moat has been estimated on the drawing.

Areas (a), (b), (c) and the northern part of (d) are within the landscaped grounds of Moat Cottage. The remainder of (d), and the rest of the monument to the west, is under woodland, derelict and impenetrable in places with much undergrowth. The field to the south (f) is pasture.

### 3.2 Description

The moated complex is bounded on its north side by the line of a natural watercourse, extensively widened to form moat ditches. Before recent quarrying operations, the watercourse appears to have been spring-fed, arising at the junction of the gravel deposits to the south and the Oxford Clay which outcrops in the valley. The Ordnance Survey 25 inch: 1 mile map of 1884 (Figure 4) shows a source approximately 500 m west of the monument, defining the boundaries of what was described as a Rick Yard in a Sale Catalogue of 1872. A pond in the field south of the monument provides a second source of water. The ditch north of this pond is shown on Figure 9 of the Management Plan (January 2007) as flowing from north to south. This is probably due to recent backfilling of the north end of the ditch to provide a field track, giving a higher elevation on the ground surface; however, it is more likely that the groundwater within the fill of the ditch is flowing north into the moat.

In the woodland area at the west end of the scheduled monument, the natural watercourse appears to have been diverted to flow round the group of fishponds (e); there is no sign of its original course. At the time of the survey, there was only a small amount of water in the stream. North-east of the moats, this watercourse joins another stream running from south to north to join the River Ivel north of Biggleswade (see Figure 2).

Within the grounds of Moat Cottage, the moats were de-silted in the 1980s, and various building and landscaping works carried out before the monument was scheduled. The earthworks within the woodland have not been actively managed.

## Enclosure (a)

The moat around Moat Cottage is continuous along its west, south and east arms, bridged near the south-east corner on the former line of a public bridleway. The form of the moat is very similar to that shown on the

Ordnance Survey map of 1884 (Figure 4), with two minor exceptions: the north end of the west arm has been widened out into a more bulbous shape, with an ornamental island; a boat slipway has been cut into the north side of the south arm.

The northern edge of the enclosure is partly defined by the south moat arm of enclosure (c). This probably originally continued to the east and turned south to complete the north-east corner of the square; if so, it has long been filled in, and no traces are visible on the ground.

The interior of the platform measures approximately 70 m square. Moat Cottage sits on a plateau, level with the enclosures to the north, but south of the cottage the ground surface slopes down until east of the slipway it is almost as low as the water in the moat. Mostly this is a gradual slope, though there is a rather more defined scarp south-west of the cottage. There are no traces of building platforms, and it is possible that the remains of the quadrangular arrangement of buildings shown on the Enclosure Map (Figure 2) have been graded off.

The large curved mound in the south-east corner is a modern feature, created with spoil from the clearance of the moats. A small irregular mounded feature just north-west of the slipway may also be modern in origin.

Moat Cottage is $17^{\text {th }}$ century in origin, but has been largely rebuilt. The other buildings to its north-east are of late $20^{\text {th }}$ century date.

## Enclosure (b)

To the north-east of enclosure (a), a roughly square parcel is defined on its west and north sides by moats. To the south and east, traces of a former hedge line (shown as a dashed line on Figure 5) can be seen within the modern fence line. The area measures approximately 80 m square, and the clearest internal feature is an east-west, north-facing scarp. This is on the same alignment as a large east-west building shown on the Enclosure Map, which is thought to be a later medieval mansion (see discussion below). A few slight scarps/hollows run towards the moat to the north. In the south-western part of the enclosure is an area of irregular hollows; these are probably of recent origin associated with the construction of the buildings to the south, though a rather more regular scarp to the north may represent a building platform.

In the south-east corner, an irregular linear mound sits in an area which provisional resistivity survey results obtained by Northamptonshire Archaeology suggest is a parterre.

The moat north of this enclosure is substantially broader than those to which it is linked, and may have been created or enlarged as part of garden landscaping associated with the large building.

## Enclosure (c)

This is an irregularly-shaped moated island. The east, south and west sides are on roughly the same alignment as the main island (a) to the south; the north side is at an oblique angle, due to the line of the original watercourse.

The west arm of the moat is not shown on the Enclosure Map, but it almost certainly existed then. The site went into decline in the $19^{\text {th }}$ century, and it is unlikely that any new substantial works were undertaken after 1800.

The interior of this island shows surface irregularities but no definable features. These may indicate remains of the small buildings shown on the Enclosure Map in this area.

## Enclosure (d)

This irregular island is bounded on the south, east and part of the north by desilted moats. The rest of the north side (west of the access drive) was shown as open water in 1884 (Figure 5) but is now silted. The flow of the natural watercourse presumably filters through the silted moat fill below the drive.

The west side of the enclosure is formed by a silted moat, which is separated from the south arm by a causeway.

In the north-west of the island is a fishpond of typical medieval character, now measuring 27 m by 8 m and containing water.

This enclosure was known as 'Spinney Meadow' in 1766 (BLARS: AD 2974, Sale Particulars), and was said to contain a stable for two horses. The area is too overgrown to permit identification of slight building footings.

The present access drive (on the line of an access shown on the Enclosure Map) cuts off an awkward triangular plot at the north end of this enclosure. The drive is almost certainly a secondary feature, perhaps created to provide a separate access to the large house in enclosure (b).

## Fishponds (e)

In the angle defined by the natural watercourse and the west side of enclosure (d) is a group of four fishponds arranged in two pairs end-to-end. A channel links the eastern pair to the silted north-south moat, and there are traces of an inlet from the watercourse to the north-western pond. No channels were detected between the ponds, though dense vegetation made surveying in this area somewhat challenging.

These ponds are of typical medieval character; a similar, though much more extensive, arrangement can be seen in the scheduled fishpond complex 3.3 km to the north-west in Home Wood, Northill.

This area was recorded as The Spinney by 1685 (BLARS: W2363, Marriage settlement), so the fishponds are likely to have gone out of use before that date.

## South field (f)

South of the main moated complex, a small pasture field has been created by the erection of a fence along its south edge prior to quarrying operations. This includes an arm of the scheduled area which takes in a large irregular pond, linked to the moat by a silted ditch.

The pond does not appear on maps until the Ordnance Survey map of 1884, though this does not preclude its existence before that date. It was of irregular shape in 1884, and appears to have been subject to progressive alteration through cattle poaching. Indeed, a new scarp along the south fence has appeared since the fence was erected in the 1990s.

There are no signs of this feature having formerly been a fishpond; it is perhaps more likely that it owes its origin to the tapping of a spring to supply the moats. It could have been enlarged at any time since to serve as a field pond. A spoil heap along its west side indicates purposeful clearance.

East of the pond, a silted ditch approximately 6 m wide runs north-south. Any relationship with the moat at the north end has been obscured by the track which runs along the north side of the field. The ditch has intermittent clearance banks along its west side.

A short hollow in the north-west of the field may be the remains of a further water inlet channel.

## ?Quarry (g)

South-west of the fishponds in the wooded area, a large circular depression approximately 23 m in diameter has been cut into the slope which rises up to the south at this point; the scarp into the uphill slope is about 2 m high. A broad shallow hollow runs away to the west, fading out as it meets the watercourse.

This feature appears to be a quarry, though the well-rounded character of its slopes suggests it is of some antiquity. The naming of an enclosure south of Hill Farm (no 181 on Figure 4) as 'Brick Yard' in a Sale Catalogue of 1872 (BLARS: X65/61) would provide a convenient explanation. However the text description in the Catalogue refers to 'a productive Orchard near the Rick Yard', which is much more likely.

On the other hand, the construction of Hill Farm would require a ready access to clay for brick production and daub. The Oxford Clay which outcrops here would be eminently suitable.

## 4. DISCUSSION

In attempting to understand the development of the Hill moats, there is limited help available from historic map evidence. The best version of the Enclosure Map, c1799 (BLARS: W2/26) shows some reasonably clear detail, but other map sources are only schematic at best until the earliest large-scale Ordnance Survey plans. However, comparison of the evidence on the ground, the Enclosure Map depiction, and the series of documents analysed by Anthony Breen permit at least an attempt at defining a chronological sequence, which could be tested by further investigation.

The early history of the site may be hinted at in documents in the Warden Abbey Cartulary (discussed in more detail by Anthony Breen). In a charter of c1175 Richard Le Moine noted that 'his wife Alice has granted half a hide in Wardon which was of her dower' to the abbey. In a later document of $c 1190$ (referring to 'Wardon Hulle') 'Hugonis de la Mote Wardon ... renounces his claim to half a hide formerly belonging to Richard Le Moine'. This may be the land-holding which later became known as Hill Manor, in which case the name 'La Mote' could be significant.

Whether or not the moats at Hill have a $12^{\text {th }}$ century origin (which would be quite possible), the earliest feature on the site is likely to have been a square moat surrounding a manor house on the island now occupied by Moat Cottage (enclosure (a)). This would be continuous on all four sides (including the north-east corner which is now level), and would be fed by one or more inlet channels from the south. An outlet channel to the natural watercourse to the north may have followed the line of what is now the west arm of enclosure (c). Access to the moat was perhaps from the south: Jefferys' Map of Bedfordshire (1765) shows an approach track from the south, off what was known as 'Little Green Lane'; and this land was known as Bridge Close in the $18^{\text {th }}$ century, perhaps referring to an original access bridge.

The fishponds (e) which now lie in the woodland, and the pond in the northwest corner of enclosure (d) may well have been constructed early in the life of the site. It is conceivable that they were put in after acquisition of the property by Warden Abbey, in view of the expertise of the Cistercians in water management (amply demonstrated by the surviving earthworks within the Abbey precinct).

The date of origin of the ancillary moats, enclosures (c) and (d), is less certain. The west arm of (d) sits uncomfortably across the fishponds, and might have given rise to contamination by run-off from the main moat if the fishponds were still functioning. On balance, it was probably a later feature.

The arrangement of the site on the Enclosure Map suggests that the main dwelling within the original square moat was replaced by another outside it to the north-east. This is not an uncommon occurrence in the region, where the confines of a moat became too cramped (and possibly too insalubrious) for the
aspirations of a later medieval manorial lord. Filling in the north-east corner of the original moat would create a sizeable rectangular plot of land to provide gardens around the new house. The ancillary moats, particularly enclosure (c) and the large pond north of enclosure (b), may have been created as part of the associated landscaping works. If the original medieval fishponds had gone out of use, then the extended and enlarged moats near the new mansion would serve instead.

The present embanked drive may owe its origin to the relocation of the Manor House, providing a separate access from that (from the south) which served the functional buildings which remained within the moat. If so, this would push the formation of enclosure (d) into an earlier phase, as the access drive almost certainly post-dates (d).

It is tempting to suggest that the foundation of Hill Farm (the present Hill Hall) may date from around the same time, as part of a process of separation of the functional life of the manor from its main residence.

A possible terminus ante quem for the relocation of the manor house is provided by a rental of Richard Sheldon, owner of 'Hylle', dated 1479/80 (British Library Add Roll no 35015): ‘... John Wyman for his house outside the moat (pro mansione sua extra motam) with pasture and a close of arable land, leased by indenture 73s 4d'. Anthony Breen has identified a reference in the Warden manor court rolls for 1541-6 (National Archives SC 2/153/38) to 'Richardi Sheldon apud mansione sua in Hylle'..

The Inquisition of 1615 contains some further relevant details. William Plomer (then the owner) gave evidence that 'Henry Lord Mordaunt surrendered to him all his copyhold in Warden which contains two homestalls and 46 acres of arable ... That he purchased the Manor of Hill of Henry Lord Mordaunt'. Does the reference to 'two homestalls' refer to dwellings inside and outside the moat, or perhaps to the moats and Hill Farm?

In response to questioning as to whether there had been a chapel at Hill (which would have had a bearing on whether the inhabitants of Warden and Hill shared common rights), Thomas Cadwell gave evidence of 'a peece of building in Hill adioyning to the cheife howse ther which was reported to have binne a chappell'. If the 'house outside the moat' mentioned in 1479/80 is located in enclosure (b), then the chapel will be in this location as well.

A lease of 1616 (BLARS: W2361) refers to 'the mansion and chief house called Hill House or Hill Hall house', giving further indication of its status.

It is not clear whether the $? 15^{\text {th }}$ century mansion was the same building shown on the Enclosure Map. However, sale particulars of 1766 (BLARS: AD 2974) give some useful detail. The site was 'well watered moated almost round ... well stockt with fish'. The house was by this time divided between two occupants. The owner Thomas Halpenny occupied the lesser portion, consisting:
... on the ground floor of a very pretty parlour, a hall, kitchen, ale and small beer cellars, two wine cellars, pantry, a back kitchen, brewhouse and washhouse, and oven therein, a pump of good spring water in both kitchens, a good dining room and 3 good bedchambers on the first floor, with good garrets over them for servants. A very large, fore court before the house, all walled in and a handsome garden thereon adjoining both for pleasure and use of the kitchen, all walled in and both planted with the best fruit trees both wall and standard trees, now in perfection, a thatch'd house in the middle of the garden, being a very pretty octagon, summer house, a coal house, and tool house at the end of the garden, a good four stall stable and coach house.

The secluded character implied by this description would seem to suggest that Thomas Halpenny's part of the building was the east end, and perhaps the garden can be equated with the features detected by resistivity survey.

The remainder of the property was rented out to William Smith 'together with the Dovehouse, Barns, stables, granaries \& all other convenient outhouses \& gardens \& orchards and divers pieces \& parcels of arable Meadow sward \& pasture lands'. This would have included the quadrangle of buildings on the main moat island (a), and other structures on (c).

The quality of the landscaping is hinted at by one of the riders in the Sale Particulars: 'Mr Halfpenny reserves to himself all the timber trees \& the lops, tops of several pollard trees that are growing on both sides the Walk \& leading down to the House, Also the lopps \& tops of all other pollards \& that are a shelter or ornament to the Mansion House which the tenant has nothing to do with'

When Samuel Whitbread acquired the property in 1799, it was described (BLARS: W2412) as 'sometime divided into two dwellings; one of which with the garden and forecourt, is walled in and therewith enjoyed was formerly occupied by Thomas Halpenny...' As an amendment to the Enclosure Award, it was then passed by exchange to Lord Ongley. It appears that the site was surplus to requirements and allowed to decay. By the time of Bryant's County Map of 1826 (admittedly of small scale) there seems to have remained only the one building (now Moat Cottage) within the main moat. All others had certainly gone by 1872 .


Shaded areas $=$ higher ground
CAPITALS = nucleated settlement with same name as parish Lower case $=$ other historic settlements

HILL HOUSE MOATS, Old Warden,

## Bedfordshire

Fig. 1
PARISHES AND SETTLEMENT


Hill House Moats, Old Warden, Bedfordshire
Earthworks Survey


Hill House Moats, Old Warden, Bedfordshire
Earthworks Survey


Hill House Moats, Old Warden, Bedfordshire
Earthworks Survey


