

A survey of earthworks at Hammer Meadow, Abinger Hammer

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Earthworks to the south of the forge at Abinger Hammer in the Tillingbourne valley superficially resemble those of a deserted medieval village with apparent hollow ways, mounds and scoops some of which can be mistaken for building platforms (fig 1). The name of the field, Hammer Meadow (fig 2), in which they are enclosed however offers a clue to their real nature and when plotted the confused remains resolve into a series of remnants of water-based industry from an era when the Tillingbourne and its tributaries were more heavily utilized than they are at the present day.

The earthworks covering an area of 400 × 200m are centred at NGR TQ 0975 4720 within a field named Hammer Meadow¹ immediately to the south of the former pond bay across the Tillingbourne. The site was surveyed in 1989 and was at once seen to be water-related, the major feature being a former canalised water course (fig 1a) in places stone lined. It runs out of the stream bed of a Tillingbourne tributary in the south, for over 200m in a northerly direction towards the Tillingbourne before turning north-west towards the pond bay. Remnants of a second leet (fig 1b), forked at its southern end, remain at the south of the site although the remainder of its length is obscured by hillwash from the adjacent field. A third leet (c) runs northwards between the two for some 75m then turns sharply north-west and cuts obliquely across the site towards the pond bay. Unfortunately in the nature of water-worn channels the relationship between them is obscured, but (c) is blocked at (d) suggesting that the central channel (a) was later. A large oak sitting on the bank adjacent to the central leet is unlikely to be less than 250 years old. A number of transverse channels exist running off or joining one or other of the main leets. In at least one case (e) where such a channel dog-legs into a pond, the intention appears to have been to store water. A number of mounds and hollows remain scattered over the site but concentrate in the north-west corner of the meadow (f) close to the site of the former mill. Some of these mounds contain cinders and are likely to be dumps from the forge, while others may be the remains of industrial outbuildings.

Although water-related, the earthworks cannot with certainty be tied in with any specific function but a number of possibilities present themselves. In all probability several episodes of activity are represented. Some of the channels bear a striking resemblance to those of floated water meadows. Certainly this practice was taking place at nearby Crossways Farm at an early date, for in a sale of land in 1622 Richard Evelyn promised William Leigh that he may 'make a trough or dyke . . . to carry half the stream . . . over the months of April and May on Sunday nights and Holy Day nights'² and it had become well established in the south of England by the end of the 17th century. It may be that the leets are remnants of early carriageways and taildrains; some of the transverse elements too could have been early carriers or drains.

The Tillingbourne valley was heavily industrialised from the 16th to 19th centuries³ with corn, paper, wire, iron, brass, textile, saw and gunpowder mills all totally reliant on water for their motive power. The first industry mentioned at Abinger Hammer is the forge sold to Thomas Elrington by Owen Bray in 1557⁴ which utilized the huge pond bay constructed across the Tillingbourne at this point. Some of the initial leets may have been due to him and it seems possible that he may have channelled the stream to ensure that it issued into the pond rather than downstream of it and as noted above some of the mounds and hollows in the north-west of the site may also be a result of this activity. The forge seems to have

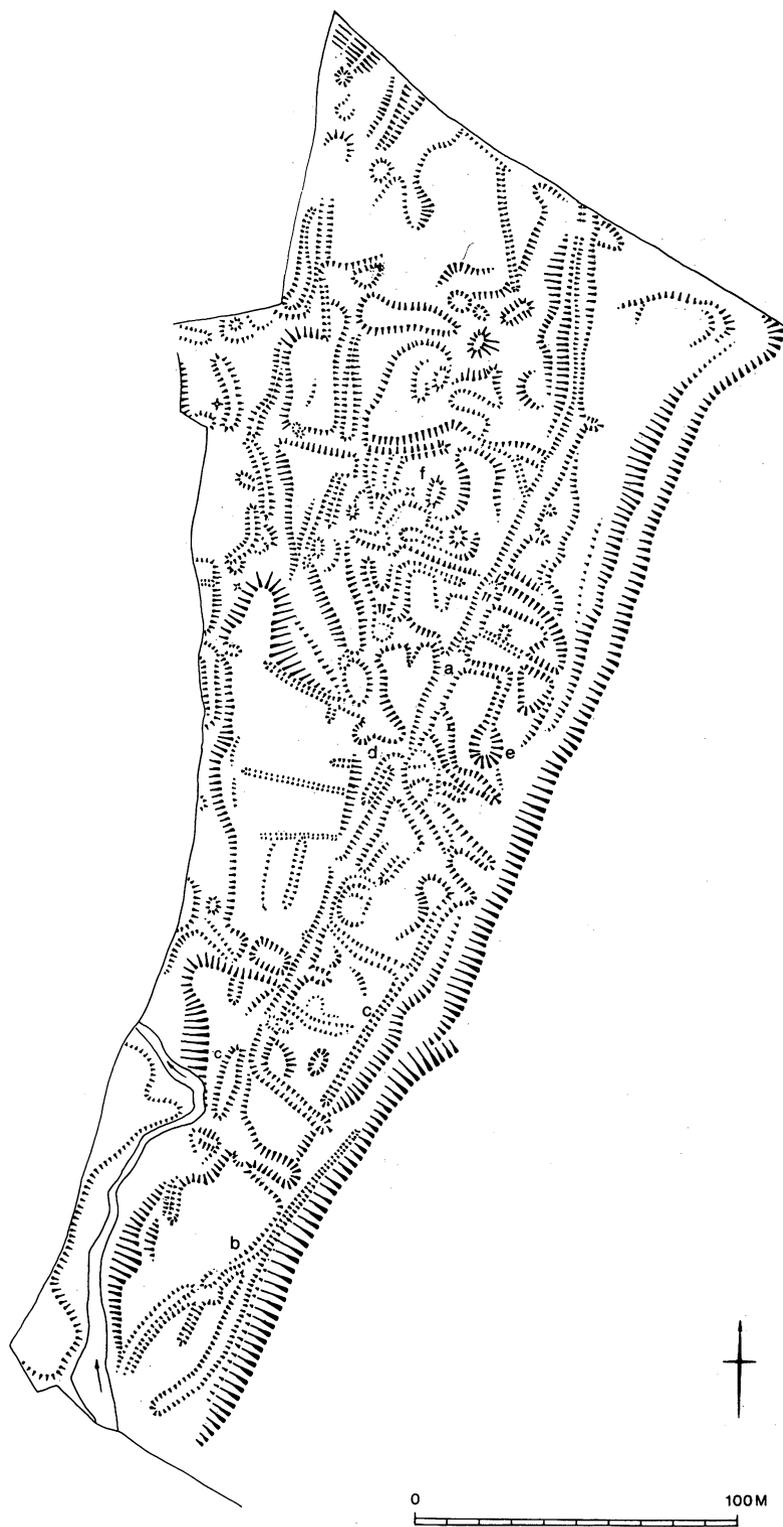


Fig 1. Earthworks in Hammer Meadow, Abinger Hammer as surveyed April 1989.

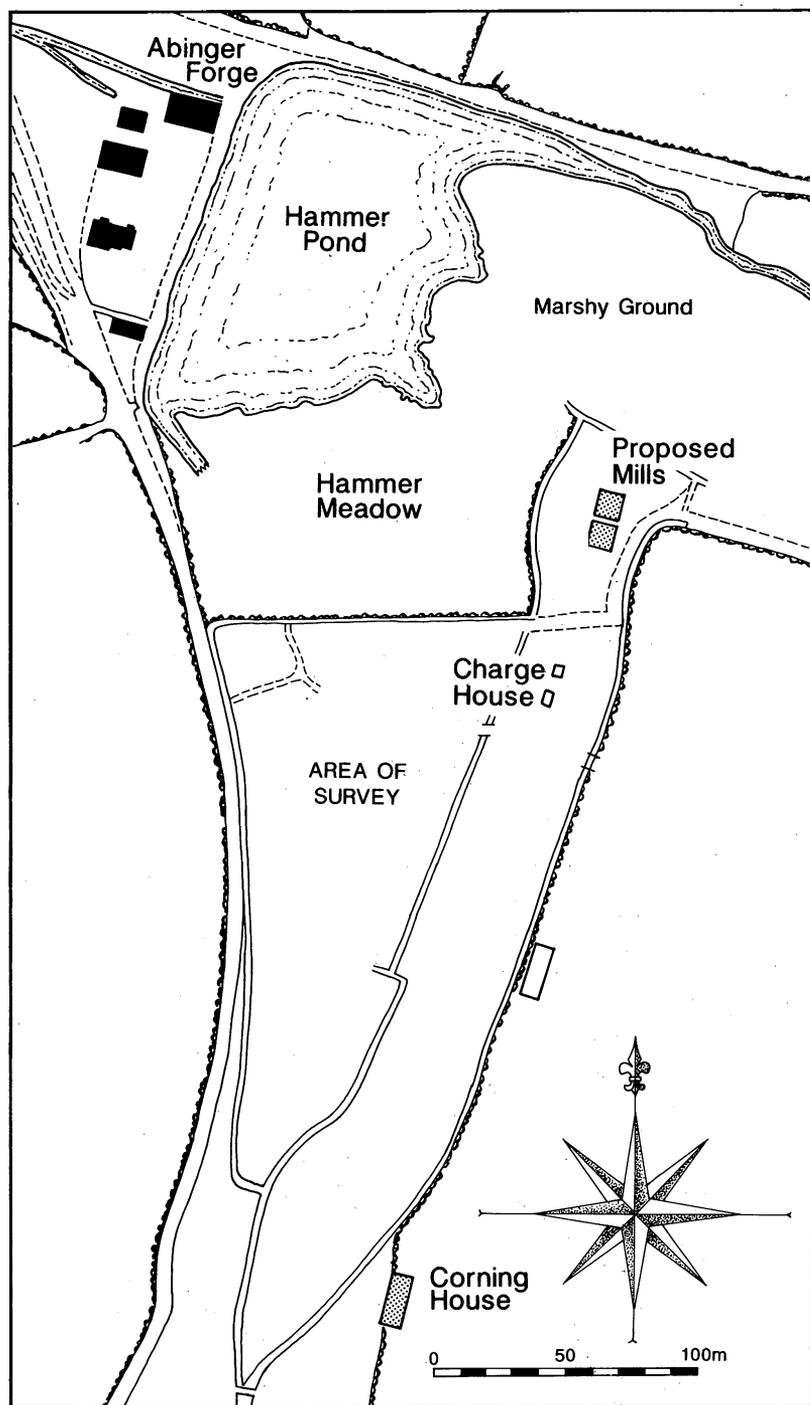


Fig 2. Hammer Meadow, Abinger Hammer in ≈ 1789 - from part of a plan (GMR 53/107) presumed to relate to the application for permission to build gunpowder mills. The original shows distances to Abinger village, the roads and isolated houses and the height of any high ground between them and potential sources of danger.

Original scale: 6 chains = 1 inch. Colour of buildings on original is rendered as follows:- pink = black; yellow = stippled; uncoloured = white.

ceased work by 1787, and by 1789 the site was being considered as a location for use in the manufacture of gunpowder. It is possible that some of the main elements of the surviving earthworks are attributable to this activity.

Gunpowder mills operated for brief periods in the late 16th–early 17th centuries at Elwix Mill, Abinger and further upstream at a site near Wotton House, while the major works at Chilworth which closed in 1920 were not too far distant. The Evelyn family, owners of Hammer Meadow, were making gunpowder at Tolworth by 1561 and were subsequently involved in mills at Wotton and Godstone, but no evidence has yet been found of their direct involvement with the Hammer Meadow site.⁵ Rather it was two others, William Hitchener of Thames Ditton and John Wheatley, gunpowdermaker of Epsom, together with a millwright, John Hunter from Kingston, who in 1790, complying with an Act of Parliament of 1772 notified parish officers of their plans to erect three pairs of gunpowder mills at Abinger.⁶ In 1790 their application for a licence was considered by the midsummer Quarter Sessions at Guildford. The application gives details of the proposed position of mills, a charge house, a corning house, a dusting house, a stove and a magazine,⁷ while a map dated 1789 and presumably related to the application (GMR 53/107, cf fig 2), shows the exact position of each. Distances to various houses and to the Dorking-Shere road are given and while the magazine was to be built in a pre-existing chalk quarry some 1.5km to the north, spot heights on raised ground emphasised local natural protection in case an explosion occurred. The application states that the sites for the buildings had already been ‘staked out’. On the map they are coloured yellow while standing buildings are coloured pink. Whether construction of buildings commenced is uncertain, but if so no trace now remains. The leets shown on the map do however correspond with the main channels identified during the 1989 survey. Whether they already existed, or were constructed specifically for the gunpowder mill is not clear.

There was evidently considerable local opposition. Those with long memories doubtless told of the explosions at Chilworth in 1755, 1763 and 1778. Papers referring to the case suggest the intention of calling expert witnesses: ‘. . . Daniel Grose Esq, Captain of Artillery, an old and experienced officer. He will speak of great danger at the distance of 100 yards, of his own windows being broken at Richmond Hill by the explosion of the gunpowder mill on Hounslow Heath’. Doubt is also cast on the level of expertise of the applicants: ‘. . . It should be remarked that the persons who apply for this licence are neither of them in the business, but common mechanics of little consequence - the more likely to be dangerous for want of skill and avidity.’⁸ After several postponements the application was considered at the Christmas Session held at Southwark on January 11th 1791, and permission refused. A note in the Surrey Order Book 1790–1793 states that as allowed under the 1772 Act, the applicants intended to appeal to the King’s Bench, but no further record of this has been found, and it is presumed that their interest in the site lapsed, for they are next heard of establishing a gunpowder mill at Gorebridge, Midlothian in 1794.⁹

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