THE EXCAVATION OF A MOTTE AT ABINGER IN SURREY

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One of the few certain facts concerning mottes is that we know very little about them—a remarkable and hardly a creditable state of affairs in a major department of British archaeology.

The motte at Abinger has not been so grudging with its answers as those few others of its family previously interrogated by excavation. But our knowledge is still sadly inadequate; in fact, for every question answered two more have been posed. Sufficient data are not yet available for a survey of mottes in general, and the present paper is primarily a factual report on a particular motte, with the addition of a few limited conclusions. The writer is at present preparing distribution-maps of mottes-and-baileys in the British Isles and on the European mainland, and is collecting other material to be published in a general survey of these earthworks.

I. MOTTES—PRELIMINARY NOTES

(a) General

However insufficient our knowledge of mottes, it is accepted that this type of fortified mound was introduced into Britain by the Normans. A few mottes-and-baileys were made here shortly before the Conquest, but two main phases of building are normally supposed: one in the Conquest and immediately post-Conquest period when the Normans needed such works to gain and maintain control over the Saxon population, and another during the anarchic times of Stephen, when a host of unlicensed castles arose, symbols of petty tyranny. It is at present impossible to assess the spread of the motte-and-bailey between these two phases. Our present inability to distinguish between licensed and adulterine castles is a grave handicap.

To-day, those mottes-and-baileys which do not carry later fortifications of stone are merely earthen shapes giving little indication of the timber works they once bore. That the bailey bank would have been palisaded is obvious, but we have as yet no authentic plan of the early timber buildings inside a British castle enclosure.

The form of the structures erected on the tops of mottes has been hitherto one of the chief matters for conjecture, but, if the Abinger motte is typical, it seems that the early references to mottes as 'towers' and 'wooden towers' have been too lightly disregarded. The obvious, literal interpretation of the name has not been universally favoured, although the existence of palisades on motte-tops has been generally accepted.

The smaller examples, in particular, were suited to use only as watch-towers, vantage-points and places of refuge in extreme emergency. The tiny areas of their tops would, however, have been a serious limitation had they been used in the last capacity in the face of anything more serious and prolonged than a sortie. That the small mottes were not intended to be residences is clear enough: distinction
must be made between mottes and castle-mounds, and it is to be hoped that future excavations will make it more easy to decide where to draw the line between them.

(b) The Bayeux Tapestry

This, the one contemporary source of pictorial reference material, should in theory show us what a Conquest-period motte was like in its heyday; but in practice it is useful only as a guide to the interpretation of external evidence, and is not sufficiently reliable for use as a main source, owing to the extreme conventionalism of all the buildings it depicts. We are shown the castle at Dinan, for instance; a ditch-encircled mound crowned with timber structures (pl. I). A stout palisade is clearly represented, but the tower-like erection within cannot be taken at its face value without external confirmatory evidence. So little regard is shown for relative scale that it is not clear whether a large building or a comparatively small watch-tower is intended. Comparison with the obviously large and elaborate buildings depicted in other sections, suggests that small towers are represented in the Dinan and Dol illustrations (pls. I and IIA); but mere limitation of space, or the necessity of squeezing in figures, might account for the difference in treatment. Medieval art, like that of the Orient, is never loth to depart from the optical truth in order to tell its story within the bounds dictated by the space to be filled, to cut its coat to suit the cloth.

The present paper contains a few tentative correlations of the data produced by the Abinger excavations with the more or less contemporary evidence (see below, page 32).

(c) Excavation of mottes

The gaps in the evidential edifice had often enough been filled with bricks of speculation, made without the straw of reliable confirmatory data. But castles in the air had to be forsaken and the enquiry brought down to earth. Full understanding of the nature of mottes could not be achieved until the application of modern excavation technique had revealed the precise form of their timber superstructures. Indication of purpose could be looked for there, to be linked with the dating material reasonably to be expected from the excavation of the surrounding moats.

The first motte excavations did not produce considerable structural rewards. But Professor V. G. Childe's investigation of a motte at Doonmore, near Fair Head, County Antrim, revealed a series of post-sockets round the motte-top, and various internal works. Professor Childe's conclusions were as follows:

1 As a device of military architecture the establishment of an artificially elevated platform as the basis of a stronghold seems to be entirely foreign to Celtic builders; the idea is distinctively Norman, and finds its classical expression in the motte and castle-mound. These were, of course, normally composed of earth, but when a natural eminence or even a barrow was available the Norman did not scorn to use it as the skeleton for his mound. The Norman's mound was encircled by a wicker breastwork. The relatively small and wide-spaced posts, the sockets for which we found, would do well to support such a fence; they do not in the least resemble the stout palisades or timber revetments that defend Celtic forts. Perhaps, too, the square building 'C', with its solid foundations should

1 Ulster Journal of Archaeology, 3rd ser., I, pt. 2 (1938), 122 et seq.

2 But see below, p. 32. Local variations in timber supplies may be found to account for differences in the fabric of these enclosing works—and indeed of the structures within them (B.H.-T.).
be interpreted as a tower commanding a gate, and compared to the brettache. Apart from these explicitly or possibly Norman features, many structural details might be survivals from Celtic usage—the masonry of the irregular quarried blocks revetting the mound on the west, the square slab-framed hearth, the paving at "A" and the masonry of the inner gate with its bar-hole. The relics produced the same mixed impression.

A cooking-pot from this site was dated to the period 1150-1250. Thirteenth and fourteenth-century sherds were also found.

II. THE ABINGER MOTTE: THE BACKGROUND TO THE EXCAVATIONS

In 1949 the Surrey Archaeological Society was invited by Major E. Beddington Behrens, M.C., to investigate a mound in the grounds of Abinger Manor, his country house. Inspection revealed that the earthwork was a motte and the importance of the opportunity was realized. The writer directed excavations starting in June, 1949, at the request of the Society and Major Beddington Behrens. The latter was particularly anxious that the excavations should be as thorough as possible and that whatever was revealed of archaeological value should be preserved as nearly as possible in its original form.

(a) Acknowledgements

Major and Mrs. Beddington Behrens helped in the digging and the writer would like to express his gratitude for their hospitality and their enthusiasm for the project which they made possible.

To the Archaeology Branch of the Ordnance Survey must go grateful acknowledgements of its great assistance in preparing a preliminary survey, and to members of its staff, notably Mr. J. Fox, for some hard work as volunteer diggers. The sanction of the Ministry of Works was given to the work, the mound being a scheduled ancient monument. Mr. G. C. Dunning, F.S.A., knowing the writer to be hard pressed for time, most kindly offered to relieve him of the burden of drawing the pottery, and when doing so added a most valuable commentary upon it (Appendix B, P. 33).

(b) The Mottes of Surrey

The distribution-map of mottes in Surrey (fig. 1) shows the location of three which remain as pure earthwork. The first is the subject of this paper. In situation it has much in common with the second, the fine specimen at Walton-on-the-Hill. Both lie at the very walls of a manor house, and in each case the parish church lies about 200 yards to the east. The Walton mound is the larger in diameter, but is not more than 10 ft. high. Its moat is clearly defined.

The third spot on the distribution-map marks the extraordinary mound at Barrow Green, Oxted. This is certainly atypical, and its identification as a motte is tentative. As the name of the site suggests, it has been regarded as a barrow for many years (since the seventeenth century at least). The mound is about 30 ft. high. It is a natural knoll, artificially heightened. Its flat top is only 15 ft. in diameter. If it was a motte a palisade probably ran round the lower part, where there are slight signs that a small berm may once have existed.

The fourth site, The Tolt, Hambledon, near Godalming, marked by an open circle,
may possibly have been a motte. Pottery covering a great part of the medieval period was found on and near a small sandy hill resembling a much-mutilated motte by Mr. Eric Parker. The pottery was found in disturbed ground four feet deep at the base of the conical hill, the position suggesting the possibility of a ditch or moat. The name ‘Tolt’, akin to the well-known ‘Toot’ names, is suggestive. Mr. Parker also records a local belief that a church was once built on the Tolt.

(c) Topography and history of the Abinger motte’s environs

The village of Abinger lies some eight miles east of Guildford and nearly two miles south of the escarpment of the North Downs. It is situated on the large mass of sandy Wealden hills which lies between the Guildford and Dorking gaps, where the Downs are breached by the Wey and the Mole respectively. It should not be confused with the village of Abinger Hammer, which lies a short distance away.

The motte thus lies at the north-west corner of the block of high land of which Leith Hill is the dominating element. To the west, running from the North Downs to the neighbourhood of Ewhurst, is a north-south gap in the ridge of Wealden hills of which this Leith Hill block is the easternmost unit. The motte commands a good view on three sides: to the north and north-west, of the escarpment of the North

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1 Eric Parker, *The County Books* (Robert Hale, Ltd.): Surrey.
Downs as it runs west to Guildford and especially of the entrance to a north-south valley running between East Horsley and Hackhurst Downs; to the west and south, of the Weald, the view south being limited by Coneyhurst Hill, Holmbury Hill and Leith Hill.

It is clear that if the motte existed as an observation-post, the ground to be watched was that to the north-west, in the general direction of Guildford.

The mound has hitherto been marked as a tumulus on the Ordnance Survey maps. It lies between the Manor House and the parish church (fig. 2). If doubts concerning its nature were felt from time to time, Camden, at least, was in no uncertainty, for in the 1695 edition of his Britannia we find the following reference:

'Abinger: near the church yard whereof is a heap or mount cast up, which some imagine to have been a small fortress rais'd by the Danes or Saxons. But to cure that mistake, 'tis plain enough 'twas done by neither; but by neighbouring people, whom the high grounds on which they live put under a necessity of contriving a pond to water their cattel; and this rubbish was thrown out of that place.'

But here Camden nodded, for even in his day the pond at the foot of the motte was not big enough to account for a third part of the 'heap or mount'. Until early
in this century it extended almost to the walls of the Manor House, but was then partially infilled in the making of a kitchen garden. This same pond introduces us to one of the most important features of the site, for it is fed by a natural spring which rises from the foot of the motte. There can be little doubt that the spring was the factor which determined the precise situation of the earthwork; that, in fact, a wet moat was deliberately made. The writer’s discovery of mesolithic flints within a radius of a few hundred yards from the motte were an indication that the spring had been there in antiquity: it is a matter of satisfaction incidentally that the focus of mesolithic activity, located during the period of the motte excavation, yielded living-pits to the able excavations of Dr. L. S. B. Leakey.¹

The presence of the spring at this elevated point (about 550 feet O.D.) may have brought Abinger village into being. It is interesting to note that a spring rises in a similar position inside the ramparts of Holmbury Hill Iron Age camp, two miles S.S.W. of Abinger, and may have influenced the siting of the hill-fort.

The present Abinger Manor House does not show any ancient features, a seventeenth-century brick porch being the oldest element of the structure. But as will be seen later, it seems that the present building occupies much the same position as its predecessors. At the time of Domesday, the Manor was held by William Fitz Ansculf, who also held the honour of Dudley. In the time of King Edward a huscarle had held it of the king. From Fitz Ansculf the ownership evidently passed with honour of Dudley through the Pagenels to the Somery family, who held it at least as late as the thirteenth century. The Lord of Abinger owed suit to their court at Bradfield. Early in the thirteenth century Gilbert de Abingworth (i.e. Abinger) held one Knight’s fee in Surrey; his name is also found in a list of jurors concerning land at Titings. Possibly he was connected with the family of Jarpenvill who appear about this time in the history of Abinger. Geoffrey de Jarpenvill shortly afterwards held a knight’s fee in Abinger; and in 1273 David de Jarpenvill was holding Abinger Manor.²

It remains to consider the probable association of the motte with a bailey, and then this sketch of the background to the excavations will be complete. It must be said at the outset that no certain traces of a bailey are visible to-day.³ Successive reconstructions of the Manor House and the levelling of the surrounding land for lawns, were sufficient to have caused the obliteration of this feature. Assuming that it originally existed, it is easy enough to draw in its northern limits, embracing the sides of the moat; but its dimensions cannot be assessed, unless by reference to the boundaries of the Manor grounds. In this connexion it is worthy of note that on the north-west corner and the west and south-west sides they are marked by an outward facing slope; that is to say, the grounds of the Manor House are raised above the surrounding area on three sides. This was at first thought to be significant, but a cutting made into the outer slope on the west side showed that the raised internal area was largely composed of unmoved natural subsoil. Its relative elevation must, therefore, be due to the downhill movement of the soil consequent upon

¹ Research Paper No. 3 of the Surrey Archaeological Society: Preliminary Excavations of a Mesolithic Site at Abinger Common, Surrey.
² Y.C.H., Surrey, iii, 131.
³ There are several instances in the British Isles of mottes apparently without an associated bailey. In some cases cultivation of the areas surrounding mottes would account for the disappearance of baileys, but it seems not unlikely that some baileys were enclosed by hedge-works alone, of which no superficial indications could be expected to remain.
Main trenches are indicated by dot-and-dash lines. The section of the mowt between Cuttings B and D was completely excavated and preserved as nearly as possible in its original form. The path running directly to the top of the motte from the Manor has since been removed.
ploughing up to the boundaries on these sides, which are those from which the ground falls away most steeply. In other words, negative lynches bounded the Manor grounds on three sides, a fact which may or may not be significant. On the fourth side, the east, the boundary is a low bank, carrying at least one tree over one hundred years old. A rectangular bailey seems rather improbable, however. Even if its former existence were proved the task of tracing it by excavation would be a difficult one, for gardening, building-reconstruction and drainage, ancient and modern, have disturbed the site over a large area. Aerial-photography is unlikely to help, as the considerable depth of disturbed material would make the site, grass being here the only medium for revelation by differential growth, a shadow-pattern cannot be expected, as so much levelling has been carried out in recent times. Most probably a bailey would have been carreline and of small circumference.

Such then were the visible features of the site and the knowledge of it at the time when the excavations were begun, in June, 1949.

III. EXCAVATION OF THE MOAT (CUTTINGS A TO D)

The first part of the monument to be investigated was the moat. The stratification of its filling was, for the most part, apparent only after most careful examination of the sections and it was impossible to record it photographically owing to the almost complete absence of tonal variation. The layers were distinguished only by textural differences and the presence in some of minute charcoal flecks. The interpretations made were decisively confirmed by the distribution of the pottery.

Cutting A was driven radially across the northern arc (pl. III). This, the section presumed to be outside the bailey, was less heavily silted up than the internal portions. This was probably due to its use as a cart-track in recent times, producing a loose surface easily washed downhill. No particular care had been taken in early times to keep it free from silt, for the amount of silt there in the lower levels was roughly equal in all areas, to judge by the positions of the thirteenth-century layers. The almost complete absence of pottery from Cutting A was an early confirmation of the supposition that the motte-top would not prove to have been occupied in the real sense of the word; for had it been, rubbish would have been found more equally distributed round the circuit of the moat. The other moat-cuttings revealed a marked concentration of ancient rubbish in the area adjacent to the Manor House. The mound was an obstacle which gave to the north side of the moat virtual immunity from tipping of rubbish. A featureless thirteenth or fourteenth-century sherd was the only find from Cutting A.

But if this cutting was not distinguished by an abundance of pottery, it did reveal one or two structural features (fig. 3). Slight evidences of a counterscarp-bank thinly capped with sticky clay were found, with some indication of a post-hole; but erosion caused by weather and traffic made positive diagnosis impossible—the sand quickly assumes a homogenous appearance after disturbance. It was noted that the highest natural contours, lying on this, the north side of the site, had been used to give a greater relative depth to the external section of the moat. Here it had been cut through several natural sandstone strata, and its profile was irregular in consequence.

It was found that the floor of the moat was not of uniform depth, as might have
A. GENERAL VIEW OF THE ABINGER MOTTE FROM THE SOUTH

B. THE NORTHERN ARC OF THE MOAT BEFORE EXCAVATION
A. PALISADE POST-HOLES SHOWING GAP INDICATING GATEWAY (PHASE II)

MOTTED-TOP (LOOKING EAST) AFTER EXCAVATION OF PHASE II GROUND-PLAN
been expected. Between the western and eastern faces of the trench and nearly parallel with them there intervened a 'step' or change of level of about 18 in., which is shown (fig. 3) projected on to the section and in plan. The bottom of the moat was covered with a thick deposit of blue, sandy clay, which indicated beyond all doubt that the moat had been filled with water from the first, although it had not been artificially puddled (the native greensand puddles itself, as was observed when the ponds at Frensham, in West Surrey, were refilled after being drained during the war). The top of the step was also covered by this deposit, proof that it was well beneath the water-surface. This change of level has yet to be explained. More work would have been carried out on this part of the moat had not its silted bed been a right of way, used daily for cattle driving, which unavoidably restricted the scope of operations.

Cutting B was another section of the moat, this time on a S.W. radius, across the portion presumably contained by the bailey. When digging began it was found that several feet of Victorian or Edwardian rubble overlay the more ancient deposits, obliterating the slight hollow which had been the last indication of the moat's presence. This levelling was probably carried out when the pond was altered early in the present century. Beneath this modern levelling-material was a thick layer of silted sand, which was sterile except for a Tudor skillet-handle, which seems to have been the last rubbish thrown into the moat until modern times. When Cutting B was first completed it presented several puzzling features, the foremost being the shallowness of the moat at that point—it appeared that it held only a few inches of water—and what appeared at first to be an outer, secondary ditch, the real nature of which was not realized for some time (see notes on Cutting C). A pair of upright waterlogged timbers on the floor marked the sides of a modern cess-pit which had been cut through the sterile sand layer and down into the heavy blue-green clay which was the bottom level as in Cutting A. An early
nineteenth-century pit, which could be traced to the top of the upper sterile layer, contained a few sherds of pottery, a bone ring and a fine clay-pipe bowl, with a fox-and-grapes design in relief, datable c. 1830.

Cuttings C and D were further radial trenches across the moat, dug to the east of Cutting B to obtain the maximum control over the complete excavation of this section of the moat, which was to be preserved in its original form.

Cutting C (pl. VI) was the most informative of all these trenches, showing just such a section as might have been expected, deep and fairly regular, and by so doing made it evident that Cutting B must have encountered a causeway across the moat, an unexpected feature of some interest. This section was the richest in pottery. Scratched-ware (a name seeming to the writer neater and more in line with archaeological precedent than 'scratch-marked pottery', the term previously used) was found in the lower levels, and embedded in the sides of the moat and mound, clearly indicating that the motte was in existence within a few decades of the Conquest. It seems certain that these fragments were coeval with the earliest phase of the site, considering that they were stratified immediately above the sterile silting in the bottom of the moat and that no earlier pottery was found on the site. At the most only a very short interval is likely to have occurred between the making of the moat and the throwing of rubbish into it (the sterile silt referred to would form quickly on this sandy site). There was no sign that the moat had been cleared or deepened subsequent to its making.

Mid-twelfth-century pottery formed a quantitatively and stratigraphically superior group, lying in levels which contained much charcoal. The position of the thirteenth-century relics in relation to the water-stained levels (ranging from the blue-green clayey deposit in which the scratched-ware was found, to dirty sand with ferruginous mottling immediately below the sterile layer of clean sand) indicated that the moat had silted up sufficiently between the thirteenth and fourteenth centuries to become superficially dry. Although there is a hiatus in the pottery series, from the mid-twelfth to the late thirteenth-century, there was no corresponding major layer of sterile silt intervening between the relic levels in question: as there was not the slightest evidence for any clearing or recutting of the moat at any period, the absence of this feature is inexplicable. Probably thirteenth-century activity broke up a (then uppermost) soggy, sterile layer, resulting in the insertion into it of the pottery of that date; such an intrusion might well be concealed, for, as previously remarked, the sand quickly resumes a homogenous appearance after disturbance.

Cutting D merely confirmed the evidence of the previous trench.

A test hole dug near the Manor House, produced many fragments of scratched-ware, confirming the previous supposition that this was the original area of occupation.

The pottery from these control sections is discussed by Mr. Dunning in Appendix B (p. 33).

The cuttings finished and their evidence considered, the intervening areas of infilling were removed layer by layer to clear the moat completely between Cuts B and D. It was found to have a uniform, flat bottom, about 8 ft. wide, canted slightly outwards. The slope of the mound was continued with little change by the inner side of the moat. The outer side of the moat was steeper, with a well-defined lip.
ABINGER MOTTE  section AB across top  Note: surface lowered in modern levelling

ABINGER MOTTE  Cutting C (Moat)

Scale of Feet

ABINGER MOTTE  section AB across top

Note: surface lowered in modern levelling

ABINGER MOTTE  Cutting C (Moat)

Scale of Feet
from which the ground sloped gradually upward towards the Manor House. This section of the moat was turfed after being emptied of filling: it was found necessary to raise the level of its bed slightly to assist drainage. Large drainage sumps were made, and an overflow laid to the pond.

The Causeway (fig. 5) which was found by Cutting B proved to be an untouched mass of the original rock-sand and sandstone, its sides shelving to the moat bottom on east and west. Its top may perhaps be likened to an executioner's block, with two roughly level surfaces separated by one a little lower. It was evident that these heights had been calculated with reference to the water-level in the moat, the higher portions apparently having been just below the surface. Running outside this causeway was the ditch-like excavation first noted in Cutting B: it served to connect the south-east and south-west sections of the moat and to isolate the causeway from the side of the moat. The effect, in short, would have been that two rectangular platforms of the original sandstone would have lain a little below the surface of the water when the moat was full. There can be no doubt that this was the foundation on which were placed the lower structures of a light bridge of some sort. It may have been built on a rectangular timber sleeper-frame, in which were stepped timber uprights, as at West Derby Castle near Liverpool,1 and at Leckhampton Moat, Bristol2 (although these are recorded as being much later sites, and the wooden structures found lay directly on the moat beds). Fragments of oak were found in the mid-twelfth-century layers in the Abinger moat, on the east side of the causeway, and a few in the layers containing the scratched-ware. None of these fragments was sufficiently well-preserved to retain indications of its function. Two from the mid-twelfth-century levels were pieces of split logs, the original diameters of which would have been approximately 7 and 9 in. respectively. Another was a fragment of a plank which appeared to show adze marks, about 3 in. wide. These relics may indicate partial decay or reconstruction of the works of the motte, or perhaps of the Manor House, in the mid-twelfth century; or could it be that the bridge was deliberately destroyed during Henry II's campaign of slighting adulterine castles, after his accession in 1154? Whatever the explanation, there were more numerous wood-fragments in the mid-twelfth-century layer, than in the scratched-ware level which must be presumed to date c. 1100. None of the fragments was suitable for dendrochronological study and no check of the pottery-dating could be made by this means. Oak leaves in the blue clay on the moat bottom suggested that the source of the timber may not have been far away.

There were no signs of post-holes on the bridge-foundation, where, had they ever existed, they would easily have been detected; nor, despite careful search for them, were any discovered on the side of the motte above it. In this latter situation the preservation of post-holes was not unlikely. Had they existed there, at least the lowest should have been protected by the skirt of material eroded from the upper part of the motte-side. The outer edge of the moat near the bridge-foundation was not available for excavation, being overlaid by the Manor drive.

Although special search was made for signs of palisading at the bottom of the mound and on the sides of the moat, none was found.

ABINGER MOTTE

PLAN & ELEVATION OF CAUSEWAY ACROSS MOAT

FIG. 5.
IV. Excavation of the Motte-Top

(a) Method

The excavation of the mound’s flat top was reserved until all the available data had been obtained from the moat. The mound’s top was divided into quadrants, with intervening balks. One quadrant was selected for prior, separate treatment, in order that the technique adopted could be tested before the greater part of the area was touched.

Before excavation the surface was level and grass-grown. It was examined from the vantage of one of the trees growing on the mound’s edge, in the hope that differential growth of the grass would show some significant pattern, but the only feature revealed proved to be an area of modern disturbance.

After removal of the turf, the surface was trowelled down inch by inch. The first
2 or 3 in. contained small modern objects and coal-ash, beneath which the sand remained clean and relatively free from disturbance. The clear division between these levels, coupled with the flatness of the surface, suggested that early in the present century the top of the mound had been shaved down to some extent, perhaps to level it, and covered with a thin layer of soil and ash. The modern layer having been removed, post-holes in the underlying sand were apparent almost immediately, distinguished by the relative looseness and darkness of their infilling. After a few minutes' exposure to the fierce summer sun, however, the difference of colour disappeared, and as the whole surface tended to loosen as it dried, the textural difference between the fillings of the post-holes and the surrounding sand became less and less. Only by constant spraying could the site be kept in a fit condition for excavation. For this purpose water was first used, but paraffin was substituted later. Although this device was successful in maintaining the visibility of the post-holes for varying periods, it was soon evident that some other means of marking them on the ground was necessary, it being considered inadvisable to remove the infillings at that stage. A satisfactory method of marking was finally found. White cotton string was used to outline each post-hole in plan as soon as it had been revealed by trowelling. Experiment showed that ordinary pins of medium length would hold the string in position quite securely, even in sand. This method was extremely effective, if laborious, and the plan of the site was made continuously visible by its use.

The three remaining quadrants were cleared and planned in such an order that the spoil could be wheelbarrowed down the spiral path immediately it was removed from the surface. When the whole complex of post-holes had been planned the work of removing the infillings was begun. It proved that some seeming post-holes, which had been puzzling and confusing features on the plan, were in fact shallow areas of discoloration due to root action, and bore no resemblance to post-holes when they were sectioned and cleared. The infilling of some of the genuine post-holes had been invaded by roots, but in nearly every case the side-walls remained intact and sharply defined. Packing-stones were found at the bottoms of all the post-holes. Plate VA shows the motte-top immediately after the completion of this stage of the excavations, after the balks had been removed. The datum pegs are at 6 ft. intervals (see also plan, fig. 6 and pi. III).

(b) The Palisade

A palisade encircled the top of the mound, strengthened on the inside by a series of bracing-posts which probably served also as the foundation for an internal platform from which the site could be defended when necessary. While the palisade holes had an average depth of over 2 ft. 6 in., measured from the modern surface, these secondary holes were rarely over 2 ft. deep. It should be remembered that natural erosion and the modern levelling have probably removed over a foot of soil from the top of the mound.

(c) The Tower

Inside the palisade was a structure about 12 ft. square, marked by very large, deep post-holes, those at the corners and one in the middle being over 4 ft. deep.
A. POST-HOLE AT N.W. CORNER OF PHASE II TOWER, SHOWING THE USE OF MORTICES

B. POST-HOLES AT W. SIDE OF PHASE I TOWER

C. SLOTTED TIMBER FOUND IN DITCH OF A MOTTE AT KÆRSGARD, E. JUTLAND (see Appendix C)
TENTATIVE RECONSTRUCTION OF THE STRUCTURES ON THE ABINGER MOTTE, BASED AS DIRECTLY AS POSSIBLE ON THE POST-HOLES FOUND BY EXCAVATION. THE BAYEUX ILLUSTRATIONS OF THE DINAN AND DOL TOWERS (PLATES I AND II A) SUGGEST THAT THE UPPER STOREYS MAY NOT HAVE BEEN STRUCTURALLY UNIFIED WITH THE LOWER, BUT BUILT SEPARATELY UPON THEM. THE SMALL AREA OF THE ABINGER TOWER SUGGESTS A SIMPLER CONSTRUCTION
This comparatively great depth argues that this structure must have been fairly tall, and its small area in plan shows that its vertical extent was of more importance than its capacity.

It will be noticed that this structure lies slightly off the centre of the motte top, thereby showing its separate identity: there is no possibility that the whole complex of holes represents a single large structure with an overall roof. There can be no doubt, therefore, that this small inner structure was a tower.

The holes in the centre of the tower seem to indicate an internal ladder or stairway. This is what one would expect to find, as an external ladder would place the climber in a vulnerable position during hostilities.

A gap in the palisade marks the position of the gateway, placed opposite the centre of the south-west side of the tower. The gate must have been a single structure, as there was no sign of a central stop or of any other secondary post.

The post-holes on the north and north-west corners of the tower still retained indications of mortices (pl. VIIA) into which horizontal timbers had been fitted, probably part of a framework, at or slightly below ground level, designed to give greater rigidity to the structure.

(d) Earlier structures (phase I)

The post-holes of the palisade and tower were filled with concrete before the next stage of the excavations was carried out. When the concrete was fully hardened, the surface of the mound was again shaved down, for when the post-holes of the palisade were emptied of their infillings it was observed that one had been cut into the side of another post-hole cut from a lower level, and that elsewhere there were indications of an earlier level. As the work proceeded it became obvious that the ground-plan already secured was not that of the original construction on the mound; that there were indeed two phases. Hopes of recovering the complete ground-plan of phase 1 were not realized. The phase 1 level was found to be wrecked, and only in one or two places had the original surface survived. The plan (fig. 7) shows the post-holes which were all that remained of the structures of this period. They suggest that a tower similar to that of phase 2 had stood there, but that its orientation was slightly different. It should be noted here that this agrees far better with the position of the bridge-foundation than does the placing of the phase 2 tower. No signs of an earlier palisade were found, with the exception of the one post-hole already mentioned, but it is extremely unlikely that such signs would have survived the later mutilation of the site. It seems a reasonable assumption that a palisade existed in the earlier period.

One important difference between the two sets of post-holes was that whereas those of phase 2 contained infillings darker than the surrounding soil, those of phase 1 were filled with sand lighter and more granular than that in which they were cut (pl. VIIIB). So we can assume that the phase 1 posts were pulled out when the site was remodelled and that at the same time the mound was heightened and levelled. Most of the phase 2 posts were left to rot, evidently, and the fact that many of them were leaning well out of the vertical shows that the wooden structures remained as ruins and were not methodically disposed of. The leaning timbers might be evidence that the motte was slighted, but there is no evidence of extensive damage to the
later structure, although the presence of the wood fragments in the mid-twelfth-century layers adjacent to the causeway does suggest that the bridge which gave access to the motte may have been destroyed at this time.

Only a few crumbs of pottery were found on the motte top, and an insignificant quantity of charcoal. Two minute sherds of scratched ware were found in a phase 1 post-hole, while none of this period was found in the phase 2 level. Four scraps of pottery, of ware comparable to that of the later twelfth-century vessels from the moat were found in the material with which the mound had been heightened in phase 2, one between two of the packing-stones of a post.

V. SUMMARY AND CONCLUSIONS

The motte was erected c. 1100, according to the evidence of the scratched-ware. There was then a structure on its flat top, probably a tower, and it can be assumed...
that a palisade encircled the outer edge of the top. A bridge-foundation in the moat was an original feature, and the moat was cut in such a manner that a spring filled it with water. The bottom of the moat was not artificially puddled.

The original structures on the motte top were dismantled, perhaps because of a partial collapse owing to incompetent building on the then not fully consolidated mound (the Period 1 post-holes may have been insufficiently packed—when excavated they contained very few stones), or perhaps because the need for them diminished and the timber was found useful for some reconstruction of the Manor House. This stood near the site of the present house, probably enclosed by a bailey of which we can find no trace. Whatever the reason, the early posts were pulled out of the ground, and the top of the mound was remodelled, apparently before the

middle of the twelfth century. It was heightened with especially coarse sand which resembles that found on the north side of the site, outside the bailey, where the moat edge seems to carry a counterscarp bank. It may be that this bank was made at the same time as the motte top was altered.

A strong, if somewhat rough, palisade of split timbers was then erected round the edge of the motte top, enclosing a small square tower. The palisade probably carried an internal platform: certainly it was braced by inner, secondary posts which could also have helped to carry such a platform (fig. 8). The external platform shown in the Bayeux tapestry representation of the Dinan castle may have been a feature of some motte palisades, or it may be merely a pictorial device to enable the defenders to be more clearly shown.

The wood remains near the bridge-foundation seem to show that the bridge collapsed or was destroyed about the middle of the twelfth century, perhaps after 1154.

There is then a break in the pottery series until the late thirteenth century. The timber structures themselves lingered on as leaning ruins until they rotted.
NOTES ON THE RECONSTRUCTION OF THE ABINGER STRUCTURES IN THE LIGHT OF CONTEMPORARY LITERARY REFERENCES AND THE BAYEUX TAPESTRY

The rather crude reconstruction-drawing (pi. VIII) is put forward merely as an interim essay and its manifest inadequacies are freely confessed.

Any assertion concerning the exact form of the tower would be rash and premature. The deep post-holes at its corners show that height was the primary consideration in its construction. It seems possible that the lower or lowest storey was unenclosed, as a solid structure in the middle of the small area of the motte-top would unduly have hampered movement. The Bayeux tapestry, in the illustrations of the castles of Dinan (pl. I) and Dol (pl. IIA), appears to show structures of the type suggested, with something of the character of a pile-dwelling. This would have given the maximum freedom of movement on the motte-top, combined with easy shelter beneath the floor of the upper storey. The writer formerly supposed the roof to have been fairly acutely pitched (as in the Bayeux illustration of Rennes, pl. IIB), on the assumption that a flat roof would have rendered the structure unnecessarily vulnerable to fire-arrows but now believes that a flat roof is on the whole more probable. Bounded by a crenellated parapet of proper height, it would give greater freedom to defending archers than would be afforded by a totally enclosed compartment with arrowslits (and perhaps, after all, fire-arrows landing on the roof could be thrown back!).

No doubt the tower was intended to be an observation post, a sniping point, and also a last place of refuge should the bailey be threatened or overrun.

Probably the relative heights of the palisade and the tower could be assessed by reference to limitations of archery at its contemporary stage of evolution, and this line of enquiry is being followed. The whole must have been planned to give the maximum defensive cover with as much advantage for offence as possible. The palisade may have been filled in with planking or clay and brushwood, for greater protection, but, of course, no signs of this were observable in the ground. That the secondary posts of the palisade probably carried an internal platform, and at the same time served to brace the main structure, has already been noted. Many motte-tops still show embanked rims, e.g. those at Walton-on-the-Hill, Surrey, and Burton-in-Lonsdale, Yorkshire: in stone-bearing districts it is to be expected that this feature will prove to be a more or less regularly built wall as at the latter site. Many other mottes have a dishing of their tops which suggests the collapse and partial redistribution of the material of a peripheral bank or wall. The modern levelling of the top of the Abinger motte has removed all evidence of a rimbank if one ever existed. The secondary posts could have been internal features of such an embankment, or they could have taken its place, owing to the instability of the sandy sub-soil.

On the form of bridge used on such sites, the Bayeux tapestry and sparse literary references agree, but oddly enough the Abinger excavations do not confirm their evidence. All the Bayeux illustrations show a flying bridge, from moat lip to motte-top. The following well-known description, from the Vita Johannis, episcopi Tervanensis of Walter Archdeacon of Terouanne (early twelfth century) refers to a castle of Merckeghem (France, Dept. Nord), not at Merkun, Belgium, according to Dr. L. F. Ganshof:

'The entrance to this fortress is only by a bridge, which rises from the counterscarp of the ditch, supported on double or even triple columns, till it reaches the upper edge of the motte (agger).'

It is recorded that when the unfortunate bishop crossed the flying bridge it collapsed beneath the weight of the crowd gathered upon it, and people and timber fell together into the moat.

1 Since writing the above the writer has found fragments of clay daub (one with twig-impressions) immediately below the tops of two eroded mottes in Scotland.

2 Often this feature may be the remains of a "shell-keep". This explanation does not seem capable of universal application however.
One consideration has caused the writer to postulate a different form of bridge in the case of Abinger. The side of the Abinger motte showed no signs of upright timbers, such as those described in the above quotation (and such piers must necessarily have been substantial), and its top had no remains suggesting the terminal posts of a bridge.

One would suppose the flying bridge to have been a grave liability when the defenders required to seal off the motte from the bailey (and it was precisely to that end that the moat was made to encircle the mound completely). There would be no room on the motte top to house such a structure, even were it designed for withdrawal in sections, and if left in the bailey it would be a gift to the besieger. To destroy it entirely would take time and would ultimately render the defenders at a disadvantage. The supporting piers, which must have been solidly embedded in the motte side, would have assisted the enemy to scale the mound. But it is easy to be wise after the event, and whatever the apparent disadvantages of the flying bridge, to suggest otherwise than that it was generally used would be to fly in the face of the available evidence. At Abinger, however, one factor may have operated to make an exceptional structure necessary: that is the material of the mound, which is sand. Doubts might well be entertained concerning its capacity to take the strain of such a work. In this particular instance it is suggested that the means of access to the motte may have been a portable construction, like a ship's gangway based on the causeway across the moat, and giving on to a ladder placed against the side of the motte. Both could be easily withdrawn when necessary and would place no strain on the mound or moat-bank. Their use would be entirely consistent with the total absence of post-holes from the bridge-foundation, the side of the motte and the motte-top outside the palisade.

It should be noted here that the bridge (or ladder) would have reached the motte-top a few degrees south-east of the gateway, and this was probably a late device to make forced entry more difficult, for the original tower seems to have been orientated in agreement with the position of the bridge-foundation in the moat.

It might be argued that the bridge-foundation was used in Period I only, and that when the mound was more fully consolidated the normal flying bridge was constructed in a position suitable to the (presumably new) siting of the palisade-gate of Period II. This hypothesis is not tenable, since if it were correct the bridge foundation would surely not have been allowed to remain, although such a change could be held to account for the wood-fragments in the Period II layers beside the foundation. Further this idea brings with it no post-holes to give positive evidence of the use of a flying bridge in this wholly hypothetical later position or in any other, and moreover robs the re-orientation of the tower and gateway of the tactical significance noticed in the previous paragraph and leaves it meaningless—the whole adjustment would make a difference of but a few yards at the bailey end and there could be no need for so trifling a movement. It is unfortunate that the Manor drive has sealed down the bailey end of the crossing-point, and has undoubtedly destroyed any evidence that may have existed there. The question must remain open, but it is felt to be very unlikely that a flying bridge was used at Abinger. The absence of a flying bridge may prove to be characteristic of those mottes which did not have a strongly-defended bailey.

The probability that an auxiliary palisade would have been erected around the inner edge of the moat was borne in mind, and the appropriate areas carefully searched for post-holes; but none was found.

APPENDIX B

POTTERY FROM THE ABINGER MOTTE

By G. C. DUNNING

The pottery is divided into three groups which were distinct and in stratigraphical order in the filling of the moat round the Motte in Cutting C. Moreover, sherds of the first two groups were found in the post-holes on the summit of the Motte; small sherds of Group I were in postholes of Period I, and sherds of the finer quality ware of Group II were in a post-hole of Period II and also in the heightened level of this period. The two phases
of wooden structures on the Motte may thus be dated closely from the greater amount of pottery found in the moat. Period I is therefore dated c. A.D. 1100, and Period II to the mid-twelfth century. The effective life of the Motte with these structures on it was thus about fifty years or a little longer. The pottery of Group III is derived entirely from the upper filling of the moat, and it post-dates the structural periods of the Motte. It belongs to the late thirteenth century, and thus there is a break of about 150 years in the archaeological record, from about 1150 to 1300.

GROUP I. SCRATCH-MARKED POTTERY OF C. A.D. 1100
(Fig. 9 and pl. IX, A)

This pottery consists wholly of fragments of cooking-pots. Two vessels are complete enough to give restorations of the type (nos. 1 and 2), which is globular or bag-shaped. The base is rounded and is really a primitive form of the sagging base, but the profile passes in a continuous curve from the side to the base, without the sharp basal-angle characteristic of the usual medieval cooking-pot. The pots are wide-mouthed and the rim diameter is only slightly less than the width across the bulge. The rims are strongly everted, and may be divided into three distinct rim-sections. No. 1 has a narrow collar below the rim, which slopes outwards on top. No. 2 is rounded and bent downwards, and nos. 4 and 5 are variants of this section with a more definite flattening of the upper slope of the rim. No. 3 is a well-defined thin rim, rounded outside and with a hollow bevel on the inner side.

The most distinctive feature, which is shared by all the pots of this group, is the surface treatment of the outside. The entire surface, except for the hollow of the neck, is covered by fine scratch-markings. The general direction of the scratches is horizontal, with loops or return strokes at various levels. The markings appear to have been caused by particles of grit on the potter's fingers in smoothing the surface of the rough pots. The scratch-marks are also sometimes found on the inside below the neck (nos. 3 and 4), as though to thin down and smooth over the join between the body and the neck.

The technique of the pots is very primitive. They are hand-made and the sides are about 1/4 in. thick. The ware is coarse and freely mixed with coarse sand, which gives the surface a harsh feel. The core is usually grey, and the surface shows a range of low colour tones, from grey to light brown and red, indicating firing at a comparatively low temperature.

Scratch-marked pottery has been dated by coin evidence at two sites. At Old Sarum it was found in pits in association with a coin of William I of type 6, dated not earlier than about 1080-2. At Southampton, recent excavations on the site of 135 High Street revealed a pit containing two scratch-marked cooking pots and a coin of Duke Stephen I of Brittany, minted at Guingamp, dated 1093-1136. Taken at its face value, this coin evidence indicates a maximum range of fifty years, from 1080 to 1130, for scratch-marked pottery, but it may be doubted if it lasted so long into the twelfth century. Until more dating evidence is forthcoming, scratch-marked pottery may be regarded as persisting over the first fifty years of the Norman period and the average date of c. 1100 is at present the best central date for it.

The distribution of scratch-marked pottery is shown on the map, fig. 10. It is concentrated in Wiltshire, Dorset and Hampshire, and occurs sporadically as far west as Bristol and northwards to the Thames Valley, with an outlier at Leicester. It will be seen that Abinger is at present the most easterly site for scratch-marked pottery, which has not yet been identified in London. This fact may be significant in estimating the social and political setting of Abinger Motte. The distribution of the pottery which they used suggests that the builders of the Motte had contacts with the west but not to the east; the point is, however, of little value until more excavation has been carried out at early Norman Castles in the region.

1 *Antiq. Journ.,* xv (1935), 174. 2 I am indebted to Mr. D. M. Waterman for this information.
A. ABINGER: SCRATCH-MARKED POTTERY
FIG. 9. ABINGER. SCRATCH-MARKED POTTERY OF c. A.D. 1100 (1).
1. Scratch-marked cooking-pot of grey ware with much coarse sand, light-red-brown surface. Globular shape with bulge low down, and rounded base. Strongly everted rim with narrow collar below. The scratches cover the entire surface, with several loops. The drawing is based on two fragments of the same pot found on the lower slope of the Motte on the original surface of the mound. The rim sherd (pl. IX, A, 1) was embedded in early silt from the top of the mound on the south-west side, and the body sherd (pl. IX, A, 2) was in Cutting C.

2. Scratch-marked cooking-pot of grey ware with coarse sand, light red surface. Everted rim, rounded and bent downwards. Scratch-marked on body in crossing directions, with a loop. Separate rim and body sherds of the same pot (pl. IX, A, 3-4). Cutting C, lying on floor of eastern extremity of the ditch running outside the causeway.

3. Rim of scratch-marked cooking-pot of grey ware with coarse sand, light brown surface. Thin rim, rounded outside and with hollow bevel on inside, set on straight neck. Fine horizontal scratch-marks on body, and also inside below the neck. Cutting C, in thicker layer of charcoal in moat.


5. Rim of large cooking-pot of grey gritty ware, red-toned buff surface. Section similar to no. 4. Scratch-marked on body. Cutting D, filling immediately above primary silting in ditch.

GROUP II. MID-TWELFTH-CENTURY POTTERY

(Fig. 11 and pl. IX, B)

The pottery of the second group also consists of cooking-pots, together with one large bowl. The group shows a very marked development both in regard to potting and changes in shape, when compared with the Group I pottery. These differences are observed to be normal and widespread in making comparisons between groups of pottery of the beginning and middle of the twelfth century. The main improvements in technique are shown by the more carefully levigated clays and the use of the potter's wheel, which resulted in thinner walls of the pots, better suited to withstand the effects of heat; the sides of Group II pots are only about half the thickness of those in Group I. The pots also show an increase in size; in Group I the rim diameters vary from 9 in. to 13 in. and in Group II from 12 in. to 14 in.—an average increase of 2 in.

One cooking-pot (no. 1) has a complete section from rim to base. The shape is almost square, wide-mouthed, with high-rounded shoulder, and the sagging base meets the side at a sharp basal angle.

The rims show two well-marked varieties. Nos. 1 and 3 are thickened rims, either flat on top or slightly bevelled inside. Nos. 2, 4 and 5 slope downwards on top, and the outer margin is flanged, most pronounced on no. 2. The inner edge is thin and projects up to form the highest part of the rim.

The pots are wheel-turned with great regularity, so that the rim-sections and the thickness of the sides vary but little. Two qualities of fabric may be distinguished. The coarser ware is laminated and tends to flake in fracture, and it is corky or vesicular and light in weight due to the grit weathering out. The finer ware is thinner than the other and closer textured, but also corky and pitted. The sherds are usually grey in fracture, and the surface is smooth with a range of low tone values, light red grading into brown and grey.

Pottery with these characteristics of shape, rim-section and ware is widespread over Southern England, and at several sites it is dated to the middle part of the twelfth century. One of the longest series is still that found by General Pitt-Rivers at Castle Hill, near Folkestone, and dated by association with a coin of Stephen. Another relevant vessel is a cooking pot from The Caburn, near Lewes, which is contemporary with the Norman

1 Archaeologia, xlvii (1885), 429 ff. 2 Sussex Arch. Coll., lxxx (1939), 209.
defences of the hill-fort as an adulterine castle in the reign of Stephen. These parallels suffice to fix the date of Group II pottery at Abinger to the middle of the twelfth century, and since it appears to cover only a short period of time, the inference is drawn that the structure of Period II on the Motte is an adulterine castle of the reign of Stephen.

1. Large fragment of wide-mouthed cooking-pot. Coarse laminated grey ware, pitted surface, grey with reddish tones and sooty (pl. IX, B, r). Rim expanded, squared outside and small beading internally. Profile bulging, with the shoulder high up and rounded. Wide sagging base with sharp basal angle. Cutting C, Motte side of moat, top of upper charcoal layer.
2. **Upper part of large cooking-pot.** Fine quality grey ware, thin-walled, pitted light red surface with grey tones (pl. IX, B, 2). Rim sloping downwards outside, with well-marked rounded flange. Inner edge of rim thin and projecting upwards. Cutting C, top of lower charcoal layer in ditch.

3. **Large cooking-pot of laminated grey ware, pitted light red surface with some flint grits remaining.** Rim-section as no. 1, with bevel inside. Cutting D, base of upper charcoal layer.

4. **Large cooking-pot of finer ware, light red core and surface with sparse grit.** Rim-section as no. 2, with deeper flange. Cutting C, outer side of ditch, in layer of blue-grey sand contemporary with upper charcoal layer.

5. **Large cooking-pot of coarse laminated grey ware with flint grits, pitted grey surface with light red tones.** Rim-section as no. 2, flange small and inner edge of rim thin and pulled upwards. Cutting C, base of blue-green sand.

6. **Large straight-sided bowl, 17\(\frac{1}{4}\) in. diameter.** Coarse laminated grey ware with stone grits, pitted light red surface. Broad rim, flat on top, flanged outside and small beading inside. The sagging base is usual on large bowls from other twelfth-century sites. Cutting C, upper charcoal layer.

**GROUP III. LATE THIRTEENTH-CENTURY POTTERY**

(Fig. 12)

The last group comprises three different types—cooking pots, a large flanged bowl, a complete jug and fragments of other jugs.

The cooking-pots have developed rims, either thickened and almost square in section (no. 1) or expanded on both sides and angular (no. 2). Another rim (no. 3) is heavily flanged.

The bowl (no. 4) has a broad flanged rim decorated on top with an incised wavy groove. The side is vertical finger-printed strips.

The small jug (no. 5) is ovoid in shape, with large thumb marks round the edge of the sagging base. The upper part of the body is decorated with vertical bands of combed lines. Two sherds of another jug (no. 6) have panels of tool-marks bordered by applied strips; this style of decoration has many variants and is common in London. Finally there are two jug bases; no. 7 is typologically a stage later than no. 5, as the jug now stands on the frilled edge, and no. 8 is the small plain base of a slender jug. It is quite usual, however, to find several stages of development of the thumbed base together in the late thirteenth century, and reference is made to a group of jugs from a pit at the King’s Head Yard site, Southwark, for a discussion of this point.

Pottery with the characteristics of Group III at Abinger is typical of the late thirteenth century, c. 1300, and parallels may be quoted from several sites in West Surrey. The cooking-pot rims and the flanged bowl are generally comparable with those from the kiln-site at Ashtead. There are differences in detail, however, and the buff ware of the Abinger pots is different from the coarser pink grey ware at Ashtead, so that they were made elsewhere. The small jug (no. 5), may be compared with a tall ovoid jug, also decorated with vertical combed lines, found in association with polychrome ware at Guildford. In fabric, glaze and minor details, the two jugs agree well enough for both to be products of the same kiln.

Finally, it is instructive to compare the Abinger pottery of Groups II and III with the series from the excavations at Pachesham Manor, near Leatherhead, which Mr. A. W. G. Lowther, F.S.A., has kindly allowed me to examine. The occupation at Pachesham began about A.D. 1200 and covers the whole of the thirteenth century, ending early in the fourteenth century.

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2 *Surrey Arch. Coll.,* xlvii (1941), 58.
3 *Surrey Arch. Coll.,* xlv (1937), 144, fig. 2, 3.
The earliest pottery at Pachesham includes many cooking-pots, some of large size. In ware these show little improvement on that of Group II at Abinger, and the rims have the same general sections as fig. 11, 1 and 4. This close similarity expresses the slow evolution of kitchen pottery from the mid-twelfth to the early thirteenth century, which has been noted in other parts of the country. There is, however, one feature distinguishing the earliest cooking-pots at Pachesham, namely faint horizontal striations on the outside of the neck below the rim. These are absent from Group II at Abinger, but occur on one pot of Group III (fig. 12, 2) and may, therefore, be regarded as a minor trait of some of the cooking-pots in Surrey during the thirteenth century.

The pottery belonging to the close of the occupation at Pachesham has the same range of forms as in Group III at Abinger, and there is close similarity between the hard sandy buff or yellow wares at the two sites and in the group at Guildford already mentioned. By the late thirteenth century the pottery industry in Surrey was organized on a commercial basis, and producing on a scale large enough to satisfy not only the needs of the local towns and manors but also to send supplies to London. Group III at Abinger is representative of this rise of the Surrey pottery industry in its initial stage.

1. Upper part of large cooking-pot. Close textured grey ware, sandy with sparse flint grits, light brown surface grey-toned on bulge. Rim thickened, rounded outside, slight bevel inside with sharp edge. The upper part of the neck is finely grooved or striated. Bulging rounded shoulder. Cutting D, junction of upper charcoal layer and orange-grey sand.

2. Cooking-pot of fine sandy buff ware. Rim everted, expanded on both sides and sharply moulded, with deep internal bevel and beading. From drain trench recently cut into moat bed.


4. Bowl with curved side of fine sandy buff ware. Flanged rim, flat on top and decorated with incised wavy groove. On the side are applied finger-printed strips. Pale green glaze is splashed on the lower part of the inside surface, and no doubt covered the base. Cutting C, high up on Motte side of filling.

5. Small jug of fine sandy whitish-buff ware. Speckled green glaze on neck and body to the bulge, and in a few patches on underside of base. The rim is bifid, and the neck is corrugated producing the effect of a series of cordons. The handle is oval in section and has a line of stab-marks down the middle. The upper part of the body is decorated with vertical bands of combed lines. The base is sagging and the edge is marked by continuous thumb marks; these reach only slightly below the basal angle, so that the pot stands on its rounded base. Cutting C, filling above causeway.

6. Two sherds from upper part of body of jug. Fine sandy yellow ware, lustrous streaky green glaze of good quality, tinged red by iron-staining later. Decorated with diverging applied strips probably forming a chevron pattern. In the upper spaces are rows of oblong incised marks made by a blunt tool. Cutting C, top of iron-stained sand.

7. Base of large jug of grey ware, light red surface. Green glaze is splashed on the side and underneath the base. A girth-groove encircles the side. The base is sagging and the edge is pressed down in long ledges, marked above by finger-fluting, which reach the lowest level and support the vessel. Cutting C, filling above causeway.

8. Base of jug of grey ware with light red surface. Lustrous green glaze covers most of the underside of the base and is in patches up the outside. The glaze is marked by little dimples where bubbles have burst in the course of firing. The base is hollow and stands on its thin rounded edge. Probably the jug was of slender baluster shape. Cutting C, base of iron-stained sand.

1 London Museum Medieval Catalogue (1940) 211; Trans. English Ceramic Circle ii (1945), 236.
FIG. 12. ABINGER. LATE THIRTEENTH-CENTURY POTTERY (4).
THE EXCAVATION OF A MOTTE AT KAERSGÅRD, EAST JUTLAND

Soon after the excavation of the Abinger motte, a motte at Kaersgard, East Jutland, was excavated by Mr. Hans Stiesdal of the Danish National Museum, Copenhagen. Since this report was written Mr. Stiesdal and the writer have discussed both excavations and compared the results. Mr. Stiesdal has most kindly allowed me to include here a summary of the Kaersgard excavations.

The motte and its ditch are of irregular shape in plan but tend to be rectangular. The bailey has been under cultivation for some years: fragments of pottery and brick are to be found on its surface.

A deep trench, cut through the mound disclosed a rectangular mass of stone rubble lying on the natural surface under the centre of the mound. Since our discussion Mr. Stiesdal has kindly given his revised interpretation of the site. Originally he considered that a primary tower had been erected upon the motte-top in the manner of the Abinger towers; but on further examination of the sections and photographs he detected two large post-holes based on the stone 'foundation', running vertically through the mound to the surface (about four metres). The excavations having previously been concluded, he was unable to trace further post-holes, but it would seem that we have here evidence of a timber tower actually incorporated in the earthen mound while the latter was being erected. Such a device would indicate that the tower was required to be relatively lofty. Mr. Stiesdal accepts the possibility of the lowest storey of the Kaersgard tower having been unenclosed.

Although the Abinger motte was not sectioned from top to bottom it is certain that the towers of phases I and II were not of this construction. The bottoms of the post-holes of both were definite. Unless there was a still earlier tower, which is extremely unlikely, it can be stated that this method of construction was not used there, although it would have been most suitable.

One interesting feature of the Kaersgard excavations was the discovery of a slotted timber lying in the ditch (pl. VII), which immediately calls to mind the mortised corner-post of Abinger, phase II.

A palisade was found on the inner side of the ditch.

The timber structures of the Kaersgard motte were apparently destroyed by fire c. 1340, but the date of its original construction has not been determined.

APPENDIX D

FUTURE RESEARCH

Reference has been made to the compilation, by the writer, of distribution maps of mottes-and-baileys in the British Isles and on the European mainland. It will be realized that this is an extremely difficult undertaking for which existing published sources are inadequate. The assistance of the appropriate archaeological societies will be sought as each area is dealt with. But the distribution of such societies is uneven, and their activities of varying degrees. Thus the help of individuals with particular local or regional knowledge will be essential.

A large card-index of mottes-and-baileys is being prepared in conjunction with the maps. The writer will be most grateful for details of sites not covered by standard publications such as the Inventories of the Royal Commissions on Ancient and Historical Monuments and the Victoria County Histories (although information amplifying the data in these

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1 One is irresistibly reminded of the stone tower at Ascot Doilly, Oxfordshire, excavated by Mr. E. M. Jope. It was found that the tower was built directly on the natural surface, the clay mound being heaped up round the structure (Oxoniensia, xi-xii, 1946-7, 165-171).
works will of course be welcomed). It will be appreciated if the data can be given in the following form:

1. Name of site, including any additional name locally associated with it.

2. Location, in words and by map-reference.

3. Plan. The scale 1 in. = 100 ft. is being used throughout, to enable direct comparisons to be made. Where a measured plan is not available, a sketch-plan or diagram should be substituted. The diameter of the motte-top, the height of the mound from the moat-lip or from the general level of the surrounding area, and the greatest dimensions of the bailey, are the most desirable measurements.

4. Short general description of earthworks. Apparently original entrances, signs of foundations, the presence or absence of a moat or ditch surrounding the motte, and the present condition and use of the site should be mentioned. Where no plan or diagram is given (it is hoped that these cases will be few) a fuller description of the works should be given, including mention of the relations of the motte to the enceinte.

Notes on literary or documentary references to sites would be invaluable, and mention of pottery or other remains found would be useful.

The desirability of the early completion of this work needs no emphasis. The sources of data included will be recorded. The co-operation of all field-workers and historians is invited.