

## **Harding's Feld, Chalgrove**

### **Location of the site**

Hardings Field lies back from the main High Street in the village of Chalgrove, 250 m to the north-west of St Mary's Church and adjacent to Frogmore Lane. It is situated in the floodplain of the natural stream which flows through the village. The moated site (SU 6350 9682) was discovered in July 1976 by R A Chambers (OAU) during aerial reconnaissance when earthworks were visible in the pasture. The field was then owned by Oxfordshire County Council Education Department, who had acquired it from Magdalen College in 1971 with the options of either building additional school premises or using the area for playing fields.

### **Summary of survey and archaeological work**

In October 1976 an earthworks survey of the field was carried out by C J Bond (Oxfordshire Department of Museums Services) and R A Chambers. The rich grass and flora, together with the good preservation of the earthworks, suggested that the area had not been ploughed since the demolition of the buildings, the position of which was marked by the disturbed state of the ground and the presence of nettles.

The survey showed that there were two moated islands (Fig. ?). The smaller one, to the west, was rectangular, some 30 m by 45 m, with an area of 0.15 hectares (0.37 acres). There was a slight internal bank round all four sides but no obvious internal features. At its south-eastern corner was the stub of a possible bridge abutment. The larger island, to the east, was triangular in shape, 125 m by 75 m by 95 m, with an area of 0.56 hectares (1.38 acres). This island contained a number of interior earthworks, including a platform in the north-eastern corner about 25 m by 30 m.

In November 1976 the County Education Department decided on the playing field option, to be achieved by levelling the site with dumped topsoil, a process which would have effectively sealed the earthworks. As a response to this, three mechanical trenches were excavated by R A Chambers, with the help of Mr Adrian Nixey, a local farmer, to test the nature of the site. Trial trenches IA and II confirmed the presence of building remains in the larger island but trench III did not locate any archaeological features in the interior of the smaller island.

In the Spring of 1977 the Education Department was forced to change its plan. Because of the lack of availability of topsoil it was decided that the height of the earthworks would be reduced in order to level and drain the site, with the consequent effect of destroying much of the archaeological evidence. Both the OAU and the Oxfordshire Department of Museum Services felt that further excavation was desirable but the Department of the Environment was only able to provide a token grant of £200. With such limited resources, it was only possible to carry out small-scale work in 1977. Trench IA was expanded into a small area excavation (Trench 1) and a further six trenches (IV to IX) were excavated mechanically. Trench 1 revealed the remains of a substantial building, with rubble walls of mortared, coursed limestone about 1 m thick, footed on clay-bonded foundations about 1 m thick, footed on clay-bonded foundations 1 m deep and more in places. There was evidence for

internal rearrangements and external additions to the building. Only earth floors were uncovered but medieval floor tile was found in surface rubble to the north of the trench, suggesting that some of the floors had been tiled. Lime-washed wall plaster, some still in situ, and fragments of painted window glass were also found. This building was dated to the first half of the 14th century and beneath it lay clay floors of an earlier building.

During the summer the County Council recut the line of the northern moat with a narrow ditch and in September the entire field was stripped of its topsoil mechanically. This was done in extremely wet conditions but Chambers, carrying out a watching brief, was able to make a partial plan of the outbuildings revealed in the southern half of the island. He identified an aisled barn, built on sill walls, the cobble floor of which had been laid directly onto clean, apparently undisturbed subsoil, suggesting that it may have been one of the first structures on the site. The sill wall of another long, narrow outbuilding also survived with some pitched limestone paving on the north side. The site then became waterlogged and so further levelling was postponed until the following spring and the field was left open.

Early in 1978 the OAU was able to persuade the County Council to defer its levelling programme to allow a rescue excavation to take place. Labour was provided by a Manpower Services Job Creation Scheme, with supervision paid for from the Unit's own funds. Excavations started in May, under the direction of Philip Page, and continued until December when the Manpower Serviced Scheme came to an end. The objectives were to obtain a full plan for the buildings of the latest and most complete phase of occupation, together with dating evidence for this phase; to excavate the associated farm buildings located by Chambers; to determine whether the smaller rectangular enclosure contained any evidence of occupation or structures; to try to elucidate the various alterations to the main building and its relationship to the moats; and to obtain dating evidence for the earliest use of the site and the excavation of the moats. Again, most of the trenching was mechanical, including three trenches (XXI to XXIII) across the moats. These provided complete sections of the moat profiles, but no finds other than molluscs. Hand-dug trenches (XOX, XXIV) across the moat where it formed the field boundary were useful in providing partial sections and some material evidence; a difficulty was that the moat was being used as a drainage ditch and was full of water, making mechanical trenching impossible. Other trenches (XX, XXVI and XXVIII) were also dug by hand down to the natural, as part of the attempt to find evidence for the early phase of the occupation of the site. These trenches were particularly helpful in defining the edges of the moat upcast, which, in plan, could not easily be distinguished from the natural alluvium.

During the season the Department of the Environment inspected the site but was unable to provide any funding for total excavation. Once again the field was left exposed over the winter, but in the spring of 1979 the Department of the Environment recommended the scheduling and preservation of the site. Negotiations began with the County Council for the burial of the site, with the Department meeting a proportion of the costs and funding further limited excavation. This was carried out between July and October using another Manpower Services Commission labour force, again under the direction of Philip Page, specifically to complete the excavation of the farm buildings and also to prepare the site for burial. At the Department's request the stone

walls of the main building, which in places were extant up to 0.5 m, were levelled to the top of the surrounding stratigraphy.

A resistivity survey was carried out in the area of the field to the south of the moated islands. No features had been revealed here during Chambers' watching brief and none were shown up by the survey. Similarly the field to the north of the site, which was built on during 1976, did not produce any archaeological evidence during the watching brief.

Although the site was prone to flooding, and excavation was halted by this on a number of occasions, there was no evidence for the survival of waterlogged material except in the bottom of the moats. A possible explanation for this might be that the rise in the water level was a relatively recent phenomenon resulting from the construction 400 m downstream of an overshot watermill in the 18th century.

In March 1981 the larger of the two islands was covered with a layer of gravel. In the following August the gravel was covered with a layer of topsoil and grass-seeded with the intention of planting two football pitches onto the field.

## **ARCHAEOLOGICAL EVIDENCE**

### **Phase 1: The earliest occupation**

The earliest recognisable occupation of the site predates the construction of the moat. Several structural features (S, P and R), all of which were constructed directly on top of the natural alluvium, were identified as belonging to this phase. Most of the pottery from this phase consisted of coarse flinty wares of the late 12th-early 13th century. An early example of a Brill fabric, known to be in production by 1254, suggests the middle years of the 13th century. Judging by the nature of the structures and the pottery evidence this initial phase does not appear to have been very long lived.

Building P (F967, 1127, 1128) was a cobwalled structure, minimum external measurements 10.5 m by 7.5 m, with its larger axes oriented north-west by south-east. The floor deposits (F1106) were identified as 'head', a solifluction deposit derived, in this case, from the chalk of the Chilterns and consisting of pieces of chalk and sub-angular flints in a matrix of finely divided chalk and silt, well-trampled and – in places – overlain by occupation debris (F1137). There was no evidence for internal partitioning of this building and no roof tile debris, but a series of large, unmade hearths (F372) lay slightly off-centre within it. The cob walls had no foundation trenches nor did they rest on dwarf stone walls and, but for the fact that the building was preserved by moat upcast, it would probably have left little trace. No evidence remained to indicate where an entrance into building P might have been.

This cob building was abutted on at least three sides by fragmentary flint surfaces (F180, 966, 1140), one of which (F966) extended up to what was thought to be the western wall (F1112) of another structure, building R.

Building R was only observed in Trench XIV and a section of Trench I. What may have been its eastern wall (F794) had been partially cut away by the later moat

(F279), while neither the northern or southern walls were located. Like building P, building R had had a floor (F847) of material which was probably derived from chalk head. An iron hinge pivot was found on the floor.

Adjacent to, and the north of, structure R the remains of a hearth or oven (Section 73, Fig. 12 F778, 857) were sectioned by Trench XIV. This feature was apparently edged with stone and constructed on the natural alluvium. There was considerable evidence of burning. Two concentrations of charcoal (Section 73, figs. 12 and 6, F778/2, 849/1) both overlay the remnants of what might have been a floor of redeposited chalk head mixed with clay (Section 73, Figs 12 and 6, F778/3, 849/2). Although no evidence was found of any structure related to the hearth, when it was destroyed in the next phase an approximately rectangular spread of ash (Section 73, Figs 12 and 7, F534) c 7.0 m by 3.5 m and up to 0.16 m thick sealed the remains and may have indicated the extent of a building. Within that demolition debris were fragments of tile and mortar, and a clay floor tile was recovered from the ash spread. Also found in the ash layer were some ironworking slags, possibly indicating the use to which the hearth had been put, and a considerable amount of pottery, including two cooking pots.

Structure S – Just to the north of building P were the enigmatic remains of another structure. These were only observed in the south side of a later robber trench (F559) and consisted of a low rubble limestone wall (F1215) set directly on the contemporary surface, with no construction trench. This wall had been abutted by a series of alternating redeposited chalk head floors and occupation debris (F1216). The full extent of this structure is unknown although there was evidence of a slight earthwork, which may have been part of it, to the north of the later hall building.

On the northern edge of the site a length of substantial rubble limestone (F736) was partially exposed. This was cut by the northern moat arm and it was not possible to be certain whether or not it formed part of a building. It was obviously intended to support a stone wall and was the only such substantial piece of masonry found in this phase.

Possibly belonging to this phase was what appeared to be the remains of an isolated oven or kiln (F692). It consisted of an approximately oval spread of burning with a circular concentration of daub, together with a quantity of pottery and bone not apparently contained within any structure. This part of the site had been disturbed by topsoil stripping and as a result there was only slight evidence that this feature had been cut into the underlying alluvium. Although the associated pottery was similar to that from the other structures in this phase only nine sherds were found so dating to the mid 13th century has to be tentative.

## **Phase 2**

This phase saw the levelling of the Phase 1 structures, the cutting of the moats and the subsequent burying of any remains of Phase 1 buildings with the upcast, and the construction of a stone-walled building on the larger island. There was some topographic evidence to suggest that an existing stream, which today forms the western and south-western boundary of Hardings Field, was deepened and straightened to form part of the moat arms. The original course of the stream may have been that suggested in Fig. ?, flowing between the two islands. At the point

where the smaller rectangular moat was taken off from the stream there is a perceptible constriction in its width. A trench was excavated at this point (Trench VIII) but it was not clear whether this narrowing was the result of post-demolition infill or whether the moat had not been fully dug at this point. The latter is more likely since infilling elsewhere had not obscured the line of the moats. If sluice gates had existed to control the flow of water around both islands no trace of them survived. The site lies on relatively level ground and, since the moats appear to straddle the line of the original watercourse, it might have been possible before the construction of the mill to utilise the natural stream flow to fill the moats, allowing the water to find its own level in the excavated ditches without further artificial controls. The present watercourse to the west of the earthworks does have the appearance of an overflow diverting surplus water but if this operated from a sluice gate, the position of the gate probably lay well outside the excavated area (C J Bond, pers. comm.).

The width of the moat was generally between 9 and 10 m, after topsoil stripping, although in some places they were up to 13 m wide. The profile was a rather shallow U-shape, with a flat bottom and a depth of 1-1.5 m below the contemporary ground surface.

The spoil excavated from the moats had been deposited in the north-east corner of the larger island, creating a mound of alluvium, 50 – 60 m by 30 m and sealing buildings P and R from Phase 1. There was also a slight trace of an internal bank on the smaller island and traces of dumping on the inner edge of the moat (F275).

#### *Building A (hall)*

A stone-walled, aisled building was built on top of this platform. It measured 19.9 m by 10.12 m externally and its long axis ran parallel to the northern edge of the moat. Its foundations of clay-bonded limestone rubble were wide (1.2 m) and relatively shallow (0.50 m) and supported walls which narrowed to 0.80 – 0.85 m. Only very slight remains of these walls survived. The ‘facing’ stones did not appear to have been dressed, although the stones seemed to have been selected for their straight edges, and the core was filled with rubble. As far as could be determined they were randomly coursed and of Portland limestone, the nearest sources of which would have been the quarries at Great Haseley, 4.8 km (3 miles) to the north of Chalgrove. The stones were not bonded with a hard lime mortar but seem to have been simply bedded in a dark yellow sandy loam.

Debris (F144, 243) associated with later structural changes to this building contained clay roof tile, suggesting that this is how it was roofed. Some fragments of stone slate were also recovered but not in sufficient quantity for this to have been the roofing material at any stage. Window glass fragments in the same debris indicate that some windows were glazed.

Inside the building the surface had been levelled up with a layer of dump (F942), almost indistinguishable from the underlying platform except that sandwiched between them were fragments of construction debris (Section 76, Fig. 14, F891, 892). Most of the pottery associated with the building came from the dump layer and may therefore have contained much that was residual. However, a striking feature was the decline in the percentage of Fabric 30 (late 12th-early 13th century) compared with

Phase 1 and an increase in the quantity of Fabric 46, which had come into production by 1254. No remains of a contemporary floor surface survived and it is possible that the top of the levelling represented the floor.

Evidence for aisles was slight, but one reasonably convincing aisle postpad (F1045) was located 2.0 m out from the side wall and 6.2 m from the west end of the building. The length of the west bay, at 6.2 m, seems to have been almost standard for this type of building.

The presence of a sequence of hearths in the west end bay from this phase onwards suggests that this was the 'high' end of the building although there was no evidence of a dais in Phase 2. The demolition debris (F1075, 1076) from the first hearth (F1077) suggests that it was of tile-on-edge construction, possibly with a limestone kerb, though it had been almost completely destroyed. Two stone features (F62, 558) were set opposite each other against the walls at this end of the building, probably as benches. Incorporated in the construction of one of them (F558) was a coin of Alexander III of Scotland, which was almost certainly deposited before c 1280.

The eastern end of the building appears to have been constructed as a piece with the western section as they both shared a common northern foundation (F824). The length of this bay (A/2) can only be inferred from the position of the later eastern gable wall (F12) which must have totally destroyed the original Phase 2 wall. There was no evidence that the later wall was in a different position from its predecessor and so it can be assumed that it was on the same line giving the bay an internal measurement of 5.3 m.

The insertion of a later wall (F819) meant that the length of the middle bay could not be measured. If it was the same length as the west end bay, the aisle posts and accompanying wall would have run just beneath the later wall or slightly to its east, and would have been destroyed during the later phase building construction.

From the north-east corner of Building A a length of a wall foundation (F1135) projected to the south-east. It was of the same width and depth of foundation as the walls of the main building but there was no evidence of any other walls and it had the appearance of an uncompleted project.

#### *Building D (Kitchen?)*

This building was uncovered but not fully excavated. It lay 5 m to the north of building A, converging slightly with it, and was probably stone-walled. Only the foundations survived and these were of rubble limestone, 0.60 – 0.70 m wide in a trench 0.30 m deep, cut directly into the moat upcast. A small concentration of limestone slate was found at the east end of the building in its demolition debris (F1177) and associated with its construction. Although the amount of material excavated was small, it could be that the roof of this building was slated. If so, then stratigraphically building D is later than Phase 2.

Within building D there was evidence for two or possibly three ovens or hearths (F742, 772, 773) located at the west end of the building, and some patches of burning at the east. These, together with two fragments of stone mortars, one found in the

building and the other in its demolition, suggest that it may have been used as a detached kitchen and bakehouse. Its western end had been badly mauled by topsoil stripping and this may have contributed to the rather oddly shaped plan. Such evidence as was available did indicate that the building really did narrow down as shown and that the small western bay was an integral part of the larger structure, since there was no sign of a west end wall to the main bay. What was left of the supposed hearth setting showed no signs of burning but it was badly damaged. Immediately to its east were the remains of a possible oven (F772). There were the remains of what might have been a chimney base located against the north-east wall of the building but, as no hearth appeared to be associated with it, it could equally well have been the base of a small buttress. There was, in fact, another buttress in the extreme north-east corner and they may well have been necessary along this wall since the building was close to the edge of the moat.

The oven (F692) mentioned in Phase 1 may be associated with this building as it lay only 10 m to its west.

#### *Building E (Dovecot?)*

To the east of building D was a circular building (3.1 m internal diameter). The width (?? M) of its foundation (F699) implies that it was stone-walled and, though there was no archaeological evidence for a potence, the revolving ladder used for the collection of the eggs, it is possible that it may have been a dovecot.

Like building D, building E was cut directly into the upcast and so they have both been assigned to Phase 2 though there was no stratigraphic or material dating evidence to tie them in.

#### *Buildings N, O, Q and U (Farm buildings?)*

To the south-west of the domestic buildings were the fragmentary remains of four structures which, it is thought, were contemporary. They all had narrow rubble limestone footings with little or no foundation trench, indicating that these were dwarf stone walls for timber superstructures. Because they were of inferior construction to the domestic buildings A, D and E and were located on that part of the moated island which was later the farmyard, they have been interpreted as farm buildings.

Structure U may have been the forerunner of the probable stable block (K) in Phase 3/1. It lay on the same alignment, was of the same width, and was cut by the later stables. There was evidence in the demolition debris (F441, 447) that structure Q may have been roofed with clay peg tiles. It had a floor surface of medium-sized and large flint cobbles, although one edge of this was irregular, the north-east edge abutted a robber trench which probably represented the northern wall of building Q. Structure O had the remains of a pitched stone hard-standing (F301) set against its south-west corner, which could have been a water butt or trough.

#### *Bridge (Subsequent page missing)*

The remains of only one small bridge (F730) were located and there was no indication of where the main entrance of where the main entrance of the island had been. The

small bridge lay just to the east of the dovecot and consisted of an abutment of rubble limestone which was 2.3 m by 1.8 m and situated on the edge of the moat. Unfortunately, it was not possible to establish if the opposing abutment survived as it would have been situated under a considerable make-up of earth in a modern garden. As the stratigraphy associated with the abutment had been removed by topsoil stripping, it was not possible to determine if it was associated with this phase, although it was in use in Phase 4/2 (see below) when it served [as?] a postern in a walled garden.

The narrowness of the abutment implies that this was only a footbridge, while the lack of any evidence to the contrary suggests that its superstructure was of timber, rather than stone. It would have spanned a channel which was c 10 m wide (see earthwork Survey Fig ?). This would probably just qualify it as a 'short bridge', by the definition used in Rigold's type III. This would have sat transversely in the middle of the moat and supported the walkway, and was 'by far the commonest and more persistent type of support in English moat bridges'.<sup>232</sup> No surviving timbers were located, but owing to the presence of a modern wet ditch in the top of the moat, and the modern building on its north side, it was not possible to cut a complete section through the moat by the bridge (see Trench XIX, Figs? and ?).

### **Phase 3/1**

#### *Cross-wing and chamber*

Major alterations were made to the manor house which still contained the restrictive aisle posts in the hall. It would seem that rather than extend the existing service and solar bay by the addition of a cross-wing abutted perpendicularly to the north side of the east end bay, it was instead totally demolished and a completely new cross-wing added at the lower end of the hall (Fig. 9).

The ground floor of the cross-wing comprised two large chambers and one small one. The first of these occupied the area of the old service bay of the Phase 2 building and [Text returns!] was of a similar internal length but was extended in width by just under 3.0 m (A/9 and A/10). To its north the second chamber (A/4), although of the same build, narrowed down to the east while sharing a common south-east wall (F12). In the re-entrant angle between the hall and the projecting cross-wing was a small room (A/8).

The walls of the cross-wing had survived in places up to 0.40 m above their foundations and were of the same construction as those of Phase 2. The cross-wing was divided from the rest of Building A by a substantial interior stone wall (F819) founded on pitched stone footings and set in a construction trench. The building of this wall had removed any evidence of the earlier wall and aisle posts and its position meant that the main part of building A was now divided into three bays of equal length, the western and middle bay forming the hall and the eastern bay the service end.

#### *The service area (A/9 and A/10)*



This was divided unequally into two rooms (A/9 and A/10) by a corridor running across the bay and central to the hall area. This provided the common medieval layout of butteries, or buttery and pantry, divided by a corridor and leading to a kitchen. A threshold through the internal wall (F819) indicated the position of the doorway into the larger of the two service rooms (A/9). At the opposite end of the corridor a doorway led to the kitchen (W). The stone rebate for this door had survived *in situ* suggesting a door 1.1 m wide. In the demolition debris of this building several other pieces of worked stone were found in the larger room, at least two of which appeared to have been parts of door jambs, possibly from the service doors. One piece of door jamb was found associated with the partition wall but not apparently *in situ*. There was evidence of a threshold giving access from the larger of the two service rooms (A/9) into the chamber beyond (A/4).

The slightly different stratigraphy of the larger room (A/9), resulting from the need to bury and level up the suppressed wall (F824), meant that the amount of pottery recovered from this room was substantially greater than that from the other service room (A/10). As well as pots of a variety of forms, including a kitchen ware vessel and three bowls, there were also examples of those vessels which might well have been associated with a buttery such as jugs and a bottle. One of the jugs was a polychrome wine jug of the type produced in Saintonge, south-west France, and represents one of few such finds in Oxfordshire. **Is this still the case?** There were also a large number of small bones which included the remains of fish, birds and smaller mammals.

Within the service area there was evidence of construction debris (Section 76, Fig. 14 F982), which overlay the wider top of the foundations and abutted the interior face of the walls. In the larger room (A/9) the suppressed wall (F824) was slightly proud of the ground surface and this, together with the robber trench (F877), had been buried with a mixed layer of dump (F745, 962, 970, 971., 977), the majority of which was probably gained from the excavation of the construction trenches, although it also included debris from construction. Within the dump three pieces of worked stone were found, all of which seem to have been pillar facings though it is unlikely that they were used as such in this room. The layer of dumping was confined to room A/9. The first layer, which seems to have been common throughout the service area, was one of flint cobbles in a yellow-brown gravelly sand (F56, 734, 930) which had been laid down before the insertion of the corridor. Overlying this floor and located under the middle of the southern corridor wall was a small area of burning (F358), which had a thin layer of ash or occupation debris associated with it which was spread throughout the area. This burning was presumably associated with the construction of the building and there was some evidence that an attempt had been made to cover this layer (F793, 763, 927) in that patches of loam survived mixed in with the charcoal layer.

Evidence for the burning occurred during the construction of the building came from the fact that it was cut by one of the five post settings (F357) for the posts which supported the first floor over this end bay. This post setting was packed with two pieces of worked stone. The settings ran down the middle of the north-east/south-west axis of the bay and appear to have been simply postpads which kept the ends of the timber posts off the ground. The position of the south-west support (F958) is dubious.

There was evidence that both A/9 and A/10 had been plastered internally, but no plaster survived on the internal walls of the corridor.

At least one piece of worked stone in the demolition debris associated with this service bay appears to have been an architectural fragment associated with a window. There was also evidence of lead comes.

There was no evidence of external doorways into either A/9 or A/10 and there seems no reason to think that access was other than by way of the doorways which led off the cross-passage.

#### *Chamber 4*

To the north-east and adjoining the northern service room (A/9) was a large chamber, access to which was through A/9 as shown by the threshold in the common wall (F536). There was no evidence for an external door and it seems unlikely that any was provided. In the middle of the room was a single chamfered stone block (F779). This was too small to have acted as a pillar base for a quadripartite vault and it seems likely that the first floor was supported on a central wooden [stanchion] post. As with the rooms already discussed there was evidence of construction debris abutting the walls and in this case covering the floor in places (F1058, 1070). This material had been cut by one or two small postholes (F1056, 1057) which, although they may have been associated with the construction of the cross-wing, do not appear to have been structural to this room. The construction of this room could be linked with Phase 3/1 but it was not possible to tie in the very fragmentary succeeding layers with this phase or any other.

Although there was no evidence of a hearth in this room at some stage a garderobe (A/5) was in use to the north, possibly with a doorway between the two rooms.

Two staircases were located in the cross-passage, on the outer sides of the doorways leading into A/9 and A/10. Despite having been robbed down to their foundations it was possible to tell that, in the case of the northern example, it had spiralled clockwise upwards in the conventional manner. The room above seems to have had a fireplace set against its major external wall, the evidence for which was the chimney base (F620) projecting from the eastern wall (Fig. ?). A number of fragments of moulded brick were found in the demolition debris adjacent to this room, which could have been used as part of a decorative moulding round a hearth or fireplace.

#### *A5 (Latrine)*

The rather thin stratigraphy associated with this chamber meant that there was not sufficient dating material to indicate when it was built. Conceivably it was part of the original build and its foundations were laid a little later than those of the main building. Alternatively, it may have replaced, at a later date, a structure belonging to this phase. Such a process of renewal and improvement of chambers in the same position was noted in other buildings (see below).

The slight remains of a narrow (less than 0.30 m) dwarf stone wall survived within this chamber, dividing its ground plan into two unequal parts. The ground in the

northern section was cess-stained in a slight pit (F935), so this wall could be interpreted as the base for a timber privy seat. Alternatively, it could mark an internal division of the stone chamber, possibly at a much later date.

#### *A8 (Porch)*

Located in the re-entrant angle between hall and solar was a small chamber with external dimensions of 3.2 m by 2.75 m. This was at the opposite end of the screens passage to the door with the main porch (A/6) (see below). It had become common in the 14th century to have a second porch in this position. A/8[?] could have been such a porch but if so it would have been a small one. The position of its north-western wall (F544) precludes there having been two directly opposed doors at either end of the screens passage, unless the southern door was offset within its porch which seems unlikely. It was unfortunate that none of the walls of A/8 survived but only the foundations so that the position of any doorways must be conjectural. The fact that it was enclosed surely means that it was for access to the cross passage and not into A/9. An alternative suggestion is that A/8 might have been a small oriel chamber.

Whether it was a porch or an oriel it would probably have been carried up to the first floor, to judge from the size of its foundations (F544, 832, 872). There were no small finds associated with this chamber and only a very small amount of pottery. It contained quite a thick layer of very clean material (F1170), which levelled up the interior surface and was most likely obtained from the excavation of the construction trenches.

A layer of debris seems to have been concentrated around the southern corner of the house. It was noticeable that no demolition debris remained within the confines of the demolished Phase 2 service bay and very little to its north. There were two spreads of limestone rubble (F984, 1058) which may represent building debris on the north side, confined within room A/9. The impression gained, therefore, was that most of the debris was cleared from the area which would be inside the new cross-wing and piled against the southern corner of the house. An attempt was then made to bury the rubble with a layer of loam (Fig. 9, F170, 228) which also levelled up the corner and produced a building platform.

#### *A/7*

This building had been constructed on top of the demolition debris from the Phase 2 service wing and lay to the south-east of the crossing. The slight wall footings which survived could only have been from dwarf stone walls indicating that this must have been a timber-framed building.

There was no evidence indicating the function of this building. One interpretation is that it was a chapel. This is based partly on its position, which was used by a later chamber (A/11) also believed to be a chapel. Another suggestion is that it was a wood shed for the kitchen.

#### *A/6 (Porch)*

The large porch on the southern side of the house almost certainly represented the main entrance. Once again there was virtually no material dating evidence for the porch's construction, although stratigraphically it belonged to this phase. It was open-fronted, the foundations of the side walls alone having survived, slightly shallower (c 0.50 m) than the foundations of the main building. Where the walls inturred at the front of the porch only the slightest trace of a trench was found, the thickness of the side walls presumably serving as flanking walls to the entrance. There were the remains of a flagstone floor (F211) in the southern corner. The depth of the foundations may suggest that the porch was two-storied, possibly with a vaulted ceiling supporting a first-floor room with a pitched roof. Associated with the porch was a small quantity of stone slate, and it may have been roofed with that material to provide a contrast with the roof of the main building.

Within the main building (A/1) the construction of the dividing wall between it and the cross-wing would have meant that the bays were now of uneven length. It seems likely that the opportunity was taken during the building alterations to improve the structure of the hall roof and to remove the restrictive aisle posts, a common practice from the late 13th century onwards. The aisle posts were replaced by a base cruck construction to support the roof. The thrust of the roof, previously taken on the floor, was thereby transferred to the walls: this was probably why the two small buttresses (F460, 895) were added on either side of the hall. The result was that the hall was divided into two equal bays, each of which was the same length as the service bay.

Little of the stratigraphy associated with the use of this building in this phase had survived but it was clear that the one surviving aisle post (F1045) had gone out of use and was infilled with flints. It is possible that these flints (F846) were all that remained of a floor in the hall. Another small area of flints (F1069) lay to the north-west of the aisle post and a flint cobblw surface seems to have been the initial floor in the surface area (see above). There may also have been a levelling layer (Section 76, Fig. 14, F866), similar to that laid in the service wing (F745), within the hall, which ran over the thresholds between the rooms. This layer (F866) was, however, extremely difficult to identify in the hall as it was of the same composition as the Phase 2 levelling material.

#### *W (Kitchen)*

To the east of the hall building a new detached kitchen was constructed. This was presumed to be contemporary with the cross-wing, since the whole point of having the service area divided by a corridor was to give access to such a kitchen. The building appears to have been a timber-framed structure set on dwarf stone walls with a clay tile roof. Only the north-eastern and part of the north-western wall footings had survived. The interpretation of its size was based on that of the kitchen which succeeded it and which was built, in places, directly on top of the earlier wall footings, and also on the fact that to the north-east it was restricted by the moat and to the south-east by building B. There was evidence of a hearth (F1000) within the building and given the dimensions of the later kitchen, it would have been centrally placed. There was no evidence that this kitchen was divided as was the later one. The only other internal feature which appeared to be associated with it was a solitary posthole (F770) located 1.0 m in from the north-east gable wall in line with the possible ridge of the roof: this may have been associated with the roof structure.

Material from the demolition of this building indicates that it was tiled with clay peg tiles. There would presumably have been an entrance to this building opposite the door into the corridor of building A.

A courtyard of flint and gravel was laid between the hall and the kitchen, following what seems to have been a common medieval practice. Possibly associated with this was a tile-lined drain (F636) which ran alongside the north-east gable wall of the kitchen and emptied into the moat. It may have served as an eaves drip for the kitchen, if the roof of that building had been hipped. The courtyard also abutted a drain of stone slates (F225) set against the north-east wall of Building A/7, and to the north-east it abutted the wall (F656) of another building (F).

#### *F (Bakery/Brewhouse)*

The structure of this building proved to be somewhat elusive. It consisted of two wall footings (F656, 617) which had been largely robbed out and which were set at right angles to each other so that they walled off the majority of the area enclosed by the cross-wing, kitchen and moat. This structure was unusual in that it was askew to the other buildings. There was no surviving evidence of either the north-east or south-east walls although the position of the north-east wall could be determined by the end of the cobbles and the beginning of a floor surface (F581). There was also one short length of wall (F614) which was perpendicular to the north-west wall. This short wall stopped at the edge of the floor mentioned above. Were it not for the presence of the floor contained by the south-west wall, this area could have been interpreted as an enclosure rather than as a building. There was a break in the south-west wall which was either a doorway or a gateway. This floor could only be traced with any real confidence in the area to the north-east of the south-west wall.

Beneath the floor layer was a thin layer of roof tile fragments (F776) which may have been debris from the construction of the roof. Since there appears to have been only one substantial wall (F656) the implication is that this was a lean-to structure c 8.0 m square with a flat roof sloping to the north-east and an adjoining walled area.

Within the structure there were three ovens. Two of these (F508, 509) were placed perpendicular to each other and set in the southern corner of the building. They were both covered by a layer of wood ash. One of them (F509) had a well-preserved floor and a rake-back of heavily burnt tiles-on-edge, set into the contemporary floor surface. Although it had been largely robbed out the second oven (F508) had traces of a stone floor and was sunk into the ground by about 0.25 m. The third oven (F503) does not seem to have been such a substantial feature. It survived only as an approximately oval pit, 0.30 m deep with steep sides. There was evidence that these sides had been lined with wattle-and-daub, pieces of daub being found within the demolition debris of the oven. Although there was nowhere near as much wood ash associated with this feature, like the other two kilns/ovens it did contain charcoal fragments and there was a spread of burning (F580) adjacent to its north-east side. The proximity of this feature to a possible malting kiln, together with its size and shape, suggests that it may have been a steeping kiln.

#### *Farm buildings*

To the south of the domestic buildings the irregular scatter of farm buildings of Phase 2 appeared to have been cleared away and a new farmyard established. This seems to have consisted of a number of buildings more or less enclosing the remaining three sides of the quadrangle left open by the domestic block. The courtyard was far from being a regular shape owing to the shape of the moat.

### *Buildings J and I*

Although this area was believed to be a farmyard, based partly on the interpretation of some of the buildings and partly on its position, one at least of the buildings seems to have been domestic in origin. This building, on the north-west side of the courtyard, was only partially excavated and its walls had been heavily robbed. However, one length of reasonably substantial wall footing (F365) had survived, wide enough to suggest that this might have been a stone-walled building. There also appears to have been a buttress set against the south-east wall (F217). There was much limestone rubble associated with the building's demolition and a layer of red clay peg tiles on the north-west side of the building indicated how it had been roofed. Contained within it was a floor of pale brown clay silt, which may simply have been a levelling medium within this building since the floor showed considerable subsidence in the southern corner.

This building also contained a hearth set against an external wall. There was no evidence of a chimney base against the wall, although at this point the wall was robbed out. The hearth itself was of the ubiquitous tile-on-edge construction and had been badly robbed.

Attached to the south-west side of building J, and apparently sharing its back wall, was a small building (I). The slight remains of unfounded dwarf stone walls (F283, 341, 389) show this building to have been timber-framed, but once again from the demolition debris (F481) it would appear to have been roofed with clay tiles. In the south-west corner was a neatly constructed stone-lined pit c 0.40 m deep (F346). Its two internal sides were lined with slabs of limestone, while on the north-west side the inside facing of the wall of the building (341) was carried down to form that side of the pit. Interestingly, the south-west side was not lined and the south-west wall (F283) stopped just proud of the edge of the pit at this point which was bridged by the wall. There was, however, no evidence of a corresponding ditch or gully into which it could have emptied. The building may also have contained a small, central tile-on-edge hearth (F352) at this stage.

The function of either building J or this small building I is difficult to determine. The demolition debris of J included four sherds of Tudor fine tableware and two decorated sherds, together with a bronze buckle. No pottery or small finds were recovered from I. It is possible that J was used as accommodation and the stone-lined pit in I suggests that it might have been used as a larder, that is a place where meat was pickled in salt or potted and preserved with lard.

### *Building K*

Running parallel to the edge of the moat and enclosing the south-west side of the courtyard was building K which was believed to be the stable block or possibly a shed

for oxen. The building's walls had been heavily robbed, but in places stretches of relatively wide (0.65 m), limestone rubble foundations (F309, 311, 1183), set in shallow trenches, had survived, indicating that it might have been made of stone. There was very little debris associated with the demolition of this building, which may have been the result of the topsoil stripping, for at its southern end the robber trenches had all but disappeared. An absence of clay roof tile in the demolition debris may indicate that the building was thatched or even roofed with wooden shingles. There was one entrance off-centre on the north-east wall and two rooms of c 4.0 m in length at either end. These two rooms were, to judge by the robber trenches, divided off from the main bay by walls as substantial as those of the main structure.

This building was almost completely devoid of finds except for an iron staple and a piece of lead from its demolition. The only clue to its function was the plan of the building itself. Its great length, 41.7 m, and width of 7.5 m, were comparable with measurements of other buildings interpreted as stables or cowsheds.

### *Building B*

This building was on the eastern side of the courtyard, just to the south of building W and on the edge of the moat. Where the wall foundations survived they were relatively substantial, up to 0.60 m wide and made of rubble limestone in a construction trench c 0.20 m deep (F153, 959). In this case the building may have been timber-framed or a low stone structure. There were concentrations of clay roof tile in the demolition debris suggesting that once again it had been tiled (F146).

It became apparent during the excavation of this building that its full south-western extent had been lost, probably during machining, and despite intensive cleaning no evidence of the walls could be found. However, a low level kite photograph showed that the courtyard respected a line where the north-west wall would have been. The building had been divided internally into bays c 4.0 m long. Two of the internal dwarf stone dividing walls survived (F150, 152) indicating that there were at least three bays to this building, which would have made it at least c 13 m long assuming that the missing bay conformed to the size of the others.

In its northern bay, and apparently set against the middle of the internal partition wall, was a small tile-on-edge oven (F151) whose surface was heavily burnt. This had apparently been stoked from the bay to the south, since there was a spread of burning (F403) which ran back from the middle of the partition wall to the south, and there was no evidence of burning in the northern bay.

There were very few finds from either the occupation or the demolition of this building, making its function obscure. In the later Phase 4/2 part of a copper alloy vessel was found which might have had an association with dairying.

### *Courtyard*

There was no evidence that the courtyard was divided in any way during this phase. It provided a stratigraphic link between buildings B, I, J, K and the porch A/6, all of which it abutted. It also appeared to stop along a line between the eastern corner of building J and the western corner of the porch, and along another line between the

western corner of the porch and building B. In a later phase these lines were marked by walls which probably contained gardens to the north-east, and it is quite likely that this was the case in this phase also. The courtyard did not appear to run right up to the edge of the eastern moat, possibly indicating the presence of a boundary wall there. In the southern corner of the island it simply became lost. The short length of wall (F282) which abutted the south-west side of building I, and which ran for just over 4 m, may have represented part of a boundary wall of the court, closing off the area between buildings I and K. This wall ended in a slight inturn which might indicate the position of a gate.

The remaining area of the island to the north-west of the buildings appears to have been devoid of structures and could easily have been put down to pasture to provide some grazing. At an unknown date a pond (F320) was dug to the west of building I.

### *Building C (Barn)*

One other building appears to have been part of the farmyard complex at this time. This was a large barn with a porch on its western side, which lay to the south of building B and was built on top of the courtyard. No finds were recovered from this barn and so it was not possible to date its construction except stratigraphically. Its position as one of the buildings which enclosed the courtyard suggests that it was built not long after the other structures and its construction may even have been immediately contiguous with them. It would appear from the narrow rubble stone foundations (F334, 392, 1212) which were laid directly on top of the courtyard that these were only dwarf stone walls and that the building was timber-framed. Since no evidence for gable end walls was found the length of this building has to be conjectural. However, the spread of peg clay roof tile (F393) from its demolition, which abutted the western side, was also traced to the north where it respected the line of what was presumably the northern gable wall. If the porch was located in the centre of the building this would suggest that the original length of the barn was c 33 m, of which there was evidence for 30 .5 m. There was evidence of a threshold of pitched stone between the porch and the barn and a slightly less convincing threshold into the porch. Internally one substantial postpad (F394) was found suggesting that it was an aisled or quasi-aisled structure.

### **Phase 3/2**

This sub-phase involved the addition of a short bay (A/3) at the high end of the hall. This bay had an external length of 4.8 m and was added to the north-west end of the hall. The walls (F64, 640, 861) were of the same construction and dimensions as the Phase 2 hall building, being set on rubble stone foundations: they were not pitched, as those of the cross-wing extension had been. The walls were bonded into those of the main building and presumably were carried to the same height. The roofline of this extension would probably have been a continuation of the main roof, covered in the same material.

The internal surface was brought up to the level of the hall by a layer of dump (Section 76, Fig. 14, F850, 851, 881, 883, 1031) which was probably the material excavated from the construction trenches for the walls. The process of levelling up seems to have taken place during the construction of the bay, for sandwiched between



the layers of dump was a layer of construction debris (Section 76, Fig 14, F882). The bay does not seem to have been a separate room in this phase. A 4.0 m gap was knocked through the wall (F625) dividing it from the hall, thereby making it an extension of the hall space. This knocking through would seem to have been concurrent with the construction of the bay, for debris from the demolition of the wall was mixed in with the dump used to level up. A small central hearth (F796) was found in A/3, possibly belonging to a later phase but indicating that the room was open to the roof.

Although most of the larger pieces of demolition debris would have been removed, and this may have made up the layer of limestone fragments and mortar (F1206) to the north-west of the house, the smaller fragments were left and formed a layer (Section 76, Fig. 14, F646) which thinned out from the high end of the hall. This debris contained a jetton of 1310-30.

Subsequent to the structural alterations a new hearth (Section 76, Fig. 14, F943) seems to have been constructed in the hall and the old one (Fig. 9 F1077) was robbed out. Some of the debris from its destruction was buried in the resulting hole (F1075, 1076). The new hearth was cut just to the south of the old one. Owing to the disturbance of the later features, and also to the presence of the initial machine trench IA, there remains some confusion as to whether the new hearth represented the first phase of two hearths or whether it was all part of one larger hearth. If there were two separate hearths then the material used to backfill them was remarkably similar. There was some evidence in the section (Section 76, Fig. 14) of a cut, indicating that if there were two features then the eastern hearth was the earlier. Alternatively it is also worth suggesting that as the hall had been enlarged a larger hearth (c 2.5 m square) may now have been necessary to heat it. Whether or not one or two hearths were represented here, stratigraphically they belong to this phase. What form the hearth or hearths took has to be conjectural owing to the later robbing of the feature. However, since the two later surviving hearths in the hall were of tile-on-edge construction set in a shallow pit, flush with the floor, this would seem to have been the preferred method. The presence of burnt limestone in the edge of the hearth pit suggests that it may have been edged with that material. In the bottom of the hearth's construction pit, on its eastern side, a coin of Edward I was recovered. This coin was rather worn and was probably deposited c 1320-30, that is in the same date range as the jetton mentioned above, which suggests that it was lost when the hearth was constructed and not when it went out of use.

Unfortunately no floor layer survived which was common to both the extension and the hall. There were the remains of a very patchy occupation layer (F1070) against the north-west wall of the hall and this was overlain by an equally patchy layer of pinkish mortar (F1068), possibly the slight remains of a floor layer. Contained within this was an iron trefoil finial, possibly from a piece of furniture. There was no evidence of a contemporary floor surface in the extension.

To the north of the hall a substantial gravel and flint courtyard (F1086/1) was laid which linked the hall to the Phase 2 kitchen building (D). There were the slight remains of a wall (F1102) which contained the courtyard, between the north-west corner of the hall extension (A/3) and the kitchen, and another wall (F1086/2) on the north-east edge of the courtyard between the cross-wing and the kitchen. Just to the

north of the hall building three small, evenly spaced postholes (F1097-99) had been cut through the courtyard. They were located 1.30 m out from the wall of the hall and may have been part of a scaffold used to repair or effect some alteration to that stretch of wall. Beneath this courtyard a layer of fragments of stone slate (F1148) was observed. Building D may have been roofed with these slates. Both the layer of stone slate fragments and the courtyard were stratigraphically part of this phase and there was no stratigraphic reason why building D should have been constructed at an earlier date. However, as outlined above, its function suggests that it belonged to Phase 2. Its use may have changed with the construction of a new kitchen (W) in Phase 3/1.

### **Phase 3/3**

As with 3/2, this sub-phase was mainly concerned with alterations within the hall (A/1) and its extension (A/3): unlike Phase 3/2 no precise date can be given. Since the major alterations seem to have consisted of effectively blocking off the hall from the extension (Fig. 9), it can perhaps be assumed that this did not occur too soon after the demolition, in the previous phase, of the wall dividing the two chambers.

The blocking was effected by the insertion of a stone bench (F626) of the same construction as the other two in the hall. That this was a bench and not a blocking wall was evident from the fact that its face was 'proud' of the wall by some 0.40 m.

The Phase 3/2 hearth went out of use and was backfilled with a white silty clay (Section 76, Fig. 14, F643). It was replaced by another hearth just to its north, of tile-on-edge construction, with a kerb of roof tiles (F1005). The floor area of the high end of the hall, particularly around the hearth, had shown signs of wear immediately prior to this phase and, apparently to level up the surface, a layer of grey clay loam (Section 76, Fig. 14, F816) was deposited, which abutted the comparatively unworn surface at the south-east end (Section 76, Fig. 14, F866). After this a floor of hard lime mortar was laid (F1017). This had only survived in a fragmentary way and although it could not be traced beyond the south-east end of the benches lining the side walls, it presumably ran up to the screens. There was no evidence that this floor had ever been tiled, and the wear around the hearth in Phase 4/2 (see below) would seem to have confirmed this.

Immediately in front of the new bench there was evidence of what appears to have been a dais 1.0 m wide. Its sides were delimited by limestone blocks (F1046) while the front edge was marked by a line of roof tiles laid flat and end to end (F985). The dais appears to have been as wide as the bench was long. There was probably some sort of timber screen fixed behind the bench to complete the division of the two rooms. There was no sign of a partition at ground level: the only surviving fragments of floor layers (F1033, 1066) in A/3 abutted the back of the bench, suggesting that any partition was attached to the stub walls on either side of the bench. All the benches were quite badly robbed so it was not possible to tell whether they had been finished with timber seats.

Virtually no finds were associated with this phase. All the pottery sherds but one were found in the hall and the assemblage was dominated by jug fragments.

## Use and occupation between Phase 3 and Phase 4

Following the structural changes of Phase 3 there was very little evidence for the use of A/3 prior to its demolition, since only very thin, fragmentary layers survived and these contained little dating material, of apparently mixed date range. This was probably the result of constant cleaning out of this room. Within A/3 this period was represented by layers of occupation and burning (F596, 808) associated with the hearth. Although very few sherds were recovered, they did include a high proportion of Tudor type tablewares, as might be expected from a lord's dining room. The same can be said of the pottery from the demolition layers associated with this room. The demolition debris also produced evidence of glazed windows and plaster in this room.

Rooms A/4 and A/5 also contained only thin and fragmentary layers, but their date range was, if anything, wider than that for A/3, running from Phase 3/1 to Phase 5. It appeared that at least some of the layers within these last two chambers belonged to the early part of Phase 5 (see below), when there was evidence for metalworking.

Evidence for the cleaning-out of floors was much pronounced within room A/4, where it resulted in a definite depression in the middle of the room. This effectively meant that the very thin stratigraphy could not be traced across this room but was separated into islands against the walls.

Fragmentary patches of mortar (F600/10, 1071, 1022/6) may have been part of a mortar floor associated with a layer of occupation debris (F600/11, 600/9, 1022/5). However, all of the subsequent layers which overlay the mortar and occupation were much more reminiscent of construction debris (F507, 599, 600/2, 600/4, 1021, 1023). This would suggest either that the floor layers had been totally lost or that that the construction debris was simply trodden into the underlying surface and used as a floor. Intermixed with that debris was a layer of charcoal fragments (F1015). A similar layer of charcoal fragments (F875) was also traced over the threshold into room A/9 in the service area where it survived as a narrow band of material against the north-east wall (F875). Where the charcoal fragments occurred in room A/9 they appeared to belong to Phase 5 and the abandonment and demolition of the hall (see below). Although A/4 may have been used to store charcoal, it seems likely that this charcoal was associated with post-domestic occupancy of the site, as seems to have been the case with the layer of charcoal in room A/9. If this was so, then the charcoal may have been associated with a small hearth (F717) in room A/5 (see Phase 5 below).

The thin layers within A/5 were even less informative and layers 633/1 to 633/6, with the occupation of 633/4, were probably associated with the later use of this room in Phase 5 (see below). The pottery from this phase of A/5 included material which may have been contemporary with that of Phase 2. Two cooking pots, a shallow dish and a face mask typical of types found in London, but very abraded, were also found. The cooking pots, given the suggestion that A/5 was a latrine, could well have had a secondary use as chamber pots.

Included within these unphased groups of stratigraphy was an individual feature (F319). This consisted of a scatter of material well away from the main concentration of buildings. It was located c 20 m to the north-west of building J and was quite close

to the edge of the moat in an area devoid of other archaeological features. It may be that this was the remains of a midden, although only 42 sherds of pottery were recovered, among which were a cooking pot, two kitchen ware vessels and a bottle. A circular iron buckle was also found.

## **Phase 4/1**

### *Building 11 (Chapel?)*

The timber-framed building (A/7) of Phase 3/1 was demolished and was replaced by a stone-walled building of similar internal dimensions (A/11). The foundations of the walls (F122) were of large rubble limestone, 0.85 m wide, set in shallow foundation trenches 0.15 – 0.20 m deep, bonded in the same way as the other walls. However, although the walls were extant in places for up to three courses they did not step in on the foundations, but were of the same width. There was insufficient wall surviving to indicate where any thresholds may have been.

The debris (F145) from the destruction of the earlier building (A/7) was contained within the new building and appears to have been used to cover up and level over the dwarf stone walls of that earlier structure.

Building 11 appears to have had a floor of decorated clay tiles, which were laid square against the internal walls of the building. A total of 131 stratified whole and fragmentary floor tiles were found, mainly in the demolition layers of the hall. There were two main concentrations of these tiles, one of which was in the area of A/11 and the other was in the area of a prentice (A/13; see below). The designs found on the tiles in the two areas appear to have been mutually exclusive. There were at least three different designs used in the floor of A/11, none of which have been described before (see Fig. ??). One of the designs even appears to feature a monk's head (Fig. ??).

The mortar bedding for the tiles did not survive in A/11. There was, however, a floor of pale brown sandy loam which contained a high proportion of white clay and mortar fragments (F169), which might have been the bedding for a layer of mortar in which the tiles were set. Alternatively, they may have been used in a first floor room. It was not possible to tell from the surviving evidence whether or not A/11 was built as ground floor or two storey room. Although no window glass was associated with this building one lead came was found in the demolition debris. There was also evidence that the walls had been plastered.

## **Phase 4/2**

### *Hall*

Within the hall (A/1) the central hearth was once again removed. Its construction trench cut through the old hearth slightly to its south-west, such that some of the tiles-on-edge of the previous hearth had survived. The new hearth (F563) was of the same construction as the old one, that is of roof tiles-on-edge c 1.35 m by 1.25 m, set at right angles to the tiles of the earlier hearth and edged with a limestone kerb. Against the south-east side of the hearth was a base of limestone flags some 0.50 m wide (F885). This was perhaps used to stand vessels on, to keep food warm, or to stack

wood ready for the fire. One of the stones which formed this plinth had a conical hole worked through it. This hole, together with the burning on the underside of the stone, suggests that it may originally have been a tuyere block from a smelting hearth, and may possibly have come from the demolition of the old bakehouse/kitchen building D (see below). It was suggested that that building may have been given over to industrial use in an earlier phase (see above). The stone had split *in situ*, but fitting loosely within the hole was a plug of iron oxides combined with quartz grains. This plug could have been produced if the hearth with which the tuyere block had been associated had been stopped up after its final use, and if the building in which it was housed was in a sufficiently derelict state to allow water to enter the hearth. The iron oxides associated with the hearth would then have been washed down into the hole in the stone where they were combined with the quartz grains and silts to produce the plug.

Adjacent to the north-west side of the hearth and still *in situ* were the remains of an iron upright c 6 mm square in section and sunk a minimum of c 0.09 m into the ground. Although there was no direct evidence of an upright on the other side of the hearth it is interesting to note that the worked hole through the stone mentioned above would have corresponded well. It seems likely that the iron upright was part of the andirons (Firedogs) used to support the logs on the hearth.

At the lower end and in the middle of the hall, some 4.3 m from the dividing wall between the service rooms and the hall, was a substantial limestone-packed posthole (F618). Its packing included a piece of millstone grit limestone. The post setting was further strengthened by a packing of broken roof tiles pitched in towards the stones. The post which was set in this feature almost certainly carried a crossbeam, which would have supported a floor jettied out over almost the whole of the lower end bay of the hall. The evidence from the hall floor layers (F1017) suggested that there was no wall dividing off this area at ground floor level, though the upper floor may have been boxed in.

It was at first thought that the three postholes (F862, 867, 868) on the north-east side of the hall represented the foundations of a gallery to give access to a first floor room in A/3, but their spacing was incompatible with that idea. Nor does there seem to have been any evidence that a first floor was inserted within A/3, since the central hearth did not appear to go out of use until the general demise of the house and there seems to have been no attempt to replace it with a wall fireplace. Thus the three postholes do not appear to have been part of a gallery. They were each cut through the mortar floor within the hall and were stone packed. They would have taken c 0.14 m squared posts. There was no sign of corresponding posts on the opposite side of the hall. Medieval furniture was commonly built into a room, rather than being free-standing so the three posts may have represented some sort of elaborate canopy over the bench.

One other feature within the hall requires comment. This consisted of a line of roof tiles laid flat on the floor (F865) and running from the central post in an arc to the north-east wall of the hall. Although badly disturbed, they were probably originally set into the mortar floor. In places this feature had a depth of 0.07 m with a slight V-shaped profile. Once again no evidence of a corresponding feature was recorded on the opposite side of the hall. The most likely interpretation is that it was a drain,

though it is difficult to suggest a function for it in the hall. It is possible that the south-eastern extent of this feature also marked the positions of the screens between the hall and the cross-passage.

It is not clear whether the earlier mortar floor (F1017) was replaced at this date with an earth floor, or whether the layer sealing it (Fig. 10, !002) was simply the result of accumulated occupation debris. The latter is perhaps more likely considering the number of small finds and the amount of debris recovered from within that rather mixed layer. Merging with this layer was a 'horseshoe' of fine black wood-ash (F548) which curved around three sides of the central hearth, significantly not including the dais side, and was presumably the result of excessive wear as people crowded around the fire.

It is possible that the dais was renewed at this time, as a slightly raised (c 0.07 – 0.10 m) area (F622) with some evidence of a tile-on-edge revetment (F799) was found to the north-west of the hearth. Its front edge was marked by what appeared to be an incredibly thin robber trench (F863), possibly the result of the later robbing out of the tiles-on-edge.

Although a comparatively large number of small finds were associated with this phase in the hall, only 23 sherds of pottery were recovered, none of which was diagnostic. The same was true of the demolition debris associated with the hall.

Within the service area (A/9, A/10) there was a sequence of floor layers and occupation debris which provided sufficient dating material to link them to this phase. No floor layers were recorded which had replaced those of the construction phase or pre-dated those of this phase. However, as noted elsewhere, there was evidence of cleaning out of rooms which, together with the fragmentary nature of the floor layers, may well have resulted in the latest pottery sherds contaminating earlier levels. Overlying fragmentary patches of floor make-up (F737, 765, 764, 790, 926) was a floor of redeposited chalk head (F733, 923, 56, 44, 41) which could be traced throughout both rooms and the corridor of the service bay. In the larger of the two service rooms (A/9) there was evidence that this floor had been repaired (F739, 746) and it was overlain by a patchy layer of occupation debris (F639). This floor was then apparently replaced by another of olive brown silt loam, which was only recorded as a separate floor in this room.

### *Building 12*

The detached kitchen (W) was demolished and replaced by a rectangular building (A/12). This, although of similar dimensions (6.0 m by 9.0 m), was attached to the hall by a corridor or prentice (F18, 114) and gave access to the corridor between A/9 and A/10. It was constructed on dwarf limestone walls (F3, 538), which were slightly narrower than those of the previous kitchen, and also appears to have been a timber-framed structure. An internal wall (F13) divided the building width-ways into two unequal bays. The cooking all appears to have been done in the larger bay since there was no evidence of either hearths or ovens in the smaller northern one.

The larger southern bay was dominated by a tile-on-edge hearth (F7) measuring 2.0m by 2.3 m. Unlike all the other hearths this one had been divided diagonally into

quadrants, the opposing quadrants having tiles laid at right angles to the adjoining quadrants. On the north-west side of this hearth was a heavily burnt limestone base (F30), similar to that associated with the central hearth in the hall. Set into the southern and eastern corners of this bay were two ovens (F4, 177). The southern one had been badly disturbed but seems to have had a diameter of c 0.80 m with a floor of tiles laid flat: the ground associated with it was burnt orange and red. The eastern oven was quite well-preserved and had an internal diameter of 1.1 m. Its floor was of limestone slabs with rubble limestone walls.

One other feature may have been associated with this phase of use of the kitchen. This was an open rectangular base of worked stone (F27), measuring 1.0 m by 1.5 m, which had been located between the two ovens and against the back wall of the kitchen. It had been revealed in an extension to the original machine trench (1A) and unfortunately it was destroyed by vandals before it could be properly recorded. There must be some doubt therefore as to whether it belonged to this phase of the kitchen's use or to the post-demolition occupation of the site, though its relationship with the kitchen does suggest that its position was not simply coincidental.

The five voussoirs which appeared to have formed part of this feature were subsequently recovered from the moat! They were all from the same arch, of late 12th-century date, and may originally have been built into the parish church, which was altered in the 14th century. Several showed signs of wear, as if they had been used as doorsteps.

The floor of the main bay (F23) was of loam stained black by charcoal with patches of sand and much domestic debris within it. This layer varied from 0.10 m in the middle of the room, where presumably it had been used to bury the hearth of the earlier kitchen, so providing a bedding for the new hearth, to less than 5 mm around the edge of the kitchen. At its thickest point three small areas of successive flint cobbles could be distinguished. Where the floor ran into the corridor it changed to a sandy grey loam (F33) and this difference was sufficiently abrupt to suggest that there was a doorway from the kitchen into the corridor. The floor layer (F535) within the northern bay was a sandy loam with small fragments of limestone embedded in it, reminiscent of demolition debris perhaps from the earlier kitchen. Since there was no evidence of cooking having taken place in this room it may well have been used for storage, possibly for the large quantities of wood which would have been consumed by the hearth and ovens. The presence of a socketed iron axe head adds some weight to this suggestion.

Because the remains of the walls were so fragmentary it was not possible positively to determine the position of any doorway other than that into the corridor. However, on the south-west side of the kitchen there was a spread of occupation material (F155) which appeared to have been swept out from an entrance on that side of the building.

During the use of this building the original central hearth was replaced by another, cut directly into the old one. This new hearth (F6) was 2.4 m long: its width was indeterminate owing to later disturbance, but it was a minimum of 1.5 m. It was constructed of tiles-on-edge, all running north-east to south-west, but with a kerb of limestone blocks. Abutting its north-east side was a plinth of tiles-on-edge (F31).

One copper alloy cauldron foot, one other possible vessel foot and a cauldron handle were found. Although it is quite likely that a cauldron was in use in the kitchen, there was evidence that these pieces had been partially melted down and so they may have been associated with the later metalworking on the site (see Phase 5).

A substantial quantity of pottery was recovered from the kitchen, much of which was used in the preparation of food. Six cooking pots, six kitchenware vessels, a bowl, four jugs, two bottles and a cup were found. Fragments of Tudor-type tablewares, although present, did not dominate the assemblage.

With the construction of the corridor linking the kitchen and the hall, there was now only a narrow gap (F15, width 0.70 m) between its southern wall and building 11. The limestone slates (F225), which formed a drain down one side, were thought to have belonged to the earlier phase of the chapel whose walls they abutted, but they may have been put in at this stage to carry away the run off from both corridor and chapel roofs.

### *K (Courtyard)*

A new kitchen courtyard (F519) was laid, enclosed by the cross-wing, kitchen and bakehouse. The northern wall of the new kitchen had been constructed over the drain associated with the earlier detached kitchen. This drain was apparently replaced by a shallow sump (F504) and gully (F518) to the north of the kitchen, which passed in front of the bakehouse before joining with another drainage gully which ran down the length of the cross-wing (presumably its eavesdrip) and emptying into the moat. The gully appeared to obstruct the entrance to the bakehouse.

At the same time the dovecot (E) and the old kitchen/bakehouse (D) of Phase 2 were demolished and what may have been a walled garden was created to the north of the hall. The ground to the north had sloped gently towards the moat, presumably because of the platform on which the hall building was constructed. The area within the angle of the hall and cross-wing was levelled up by the dumping of a layer of loam (F573) which abutted the walls of the hall and also sealed the remains of the earlier buildings. Unfortunately the full extent of this layer to the north-west was lost as a result of topsoil stripping. This layer of dump contained a large amount of pottery.

Running out approximately parallel to the hall from the northern corner of the cross-wing was a stone wall (F751) whose slight foundations were cut into the dump. After about 8.0 m it turned through a right angle to the north-east and at this point, once again owing to topsoil stripping, it was totally lost. However, at the very least it would almost certainly have run up to the edge of the moat. It is suggested that it may have joined up with a length of wall (F679) of the same width of foundation which ran out from the western corner of A/3. This wall turned after 12 m through a right angle (F697) in the direction of the northern arm of the moat before also becoming totally lost. The lack of any evidence of a return for this wall in the direction of the hall suggested that it might have carried on up to the moat, where a 23 m length of wall, running along the edge of the moat, would have linked the two stretches of wall, making an enclosed garden. This may have been a small arbour.



However there seems to have been an extensive area of gravel and flint courtyard (F732) which survived running around the edge of the hall. Against the north-east wall of the house was a small rectangular enclosure (F572) which was rather crudely constructed of a single width of limestone rubble. This was interpreted as a flowerbed.

### A 13

The south-east side of the garden was bounded not by the cross-wing but by the construction of a timber-framed corridor or prentice (A/13). This structure rested on a pair of thin dwarf stone walls (F591), of width 0.20 m to 0.30 m, which projected at right angles to the hall. The northern of the two walls abutted the wall of the hall: however, its twin, which had been totally robbed out, could not be traced closer to the wall than 2.9 m. Since there could have been no direct access from the hall to the prentice if this wall had also run up to the hall wall it seems most likely that it turned through a right angle to join up with the corner of the small chamber (A/8) in the re-entrant angle between hall and service wing. The prentice was just over 9.0 m in length with a width of 2.7 m. At its north-east end it terminated 0.18 m before the enclosing garden wall, straddling the corner of the wall where it turned to the north-east. This seems a rather curious arrangement and one wonders why it was not moved c 1.4 m to the north-west so that it had clear access into the garden. Also running between the end of the prentice and the garden wall was what appears to have been a drain (F998) of upturned ridge tiles. This suggests both that the roof may have been hipped at this end and that the prentice did not abut the garden wall.

Contained within the prentice was a 'floor' of hard lime mortar (F589), itself bedded on a layer of sand (F980). At the north-east end of the prentice this 'floor' had a clean edge to it indicating that this was indeed the end of the structure. The south-west extent of the mortar was lost beyond the south-west end of the south-east wall of the prentice. This mortar 'floor' was in fact the bedding layer for a floor of decorated tiles (see above) and although only two tiles survived *in situ* the impressions which the others left in the mortar showed that they had been laid diagonally. Four different designs of tile were associated with this building, the majority of which were found in the demolition debris in the immediate vicinity. These were all of known types, of the same manufacture and date as those from building 11.

It is difficult to determine from the available evidence whether the prentice with its associated courtyards was a later addition to the garden or an original planned element. Quite what the function of this corridor was is a little uncertain, but it seems to have been a quite splendid walkway giving access to the garden. It was probably roofed with clay tiles. Its construction enclosed a small cloister-like courtyard of gravel and flint (F561). This was clearly deliberate and it may have been an attempt on a small scale to emulate the monastic cloister. This courtyard was probably entered from a doorway in the north-east facing wall of the prentice, which may help to explain the lack of evidence for a wall at that point. A postern in the boundary wall of the courtyard would have given onto the footbridge (F730) over the moat and it is possible that the bridge was not constructed until this date.

On the north-west of A/3, and abutting it, another small room (A/14) was added which made use of the garden wall (F679) to form one side of the building. It is interesting to note that where the garden wall corresponded to the wall of this room its

foundations were dug approximately 0.30 m deeper. The other walls of this room survived only as poorly defined robber trenches, particularly on the north-west side, probably owing to later disturbance. However, contained within this room was a floor (F673) of brown silt loam, heavily mottled with white clay, and this confirmed the internal width of the room as 3.5 m, with a length of 6.5 m.

Both the width of the room and the fact that it utilised the garden wall suggest that it was a single storey addition. The depth and width of the wall foundation, and again the use of the garden wall, indicate that it was of stone construction. Although two stone slates were found in the demolition of this building the ubiquitous roof tile debris suggests that it was clay tiled. Three lead comes were recovered from this structure although no window glass was found. Although it may have had leaded windows it is equally likely that the comes may have come from the demolition of A/3.

There was probably a doorway from A/3 giving access to this room, which appears to have been part of the domestic range, and it may also have led into the garden. In the western corner of the garden, between the garden wall and A/14, was another slight wall foundation, c 0.40 m wide, running from north-west to south-east, which enclosed an area 2.10 m by 4.50 m. This might have been another raised flowerbed, although it would have been remarkable shady. Alternatively it might have been a lean-to garden shed or perhaps a wood store.

On the south-west side of the house, on either side of the porch (A/6), there appear to have been enclosed gardens. It was suggested that these may have originally been laid out in Phase 3/1, as there was a gap between the edge of the flint courtyard and the house, which had evidence of a loam infill. There was also some evidence to suggest a contemporary wall dividing the courtyard from this supposed garden. In Phase 4/2 the evidence for the garden walls was much more substantial. A slight stub of a wall (F187) abutted the south-east side of the porch. This wall foundation had a maximum width of 0.30 m and was constructed on the north-east edge of the courtyard. It appeared to contain a layer of loam (F140) between it, the house and building A/11, and to judge from the extent of this layer, the garden wall would probably have run up to the side of building B.

On the other side of the porch the garden wall foundation (F127) was much better preserved. It too was constructed overlying the edge of the courtyard and abutted the eastern corner of building J, running out to abut the front of the porch. The last 2.25 m of wall footing had been lost and a posthole (F1054) c 0.75 m from the porch wall may well indicate the position of a gate into the garden. The garden and porch walls also contained a layer of loam (F120).

To the north-west the garden was limited by a small structure (T) which abutted both Building J and the wall of the larger garden to the north-east. Its walls (F271, 1047, 1048) were founded on thin rubble foundations 0.30 m wide. On its south-east side adjacent to the wall of building J two postholes (F264, 408) which were probably for gate posts for an entrance c 1.0 m wide. The fact that these were slightly proud of the line of the wall suggests that this structure was an enclosure, rather than a roofed building, associated with the garden. Just over the north-west wall of this enclosure was a dense concentration of oyster and cockle shells (F1049/2).

### *Farm buildings*

Two agricultural buildings (H and G) were constructed, apparently as a pair, which effectively divided the farmyard into an inner and outer courtyard. Building H abutted the south-west of building I while building G abutted the north-west side of the large barn (C) thus virtually enclosing the inner courtyard. Although no gatehouse was found to give access to the moated site the gap between these two structures, which had a well-metalled surface (F401) edged on one side with a limestone kerb (F496), almost certainly housed an inner door. There was no evidence that any of the other buildings surrounding the courtyard, with the exception of building I, were altered in any way during this phase.

Somewhat surprisingly the method of construction of these two buildings appears to have been different. Building G seems to have been of timber-framed construction, resting on narrow rubble dwarf stone walls (F292, 293, 295) which were laid directly on top of the courtyard, as was the case with the barn (C). Building H, however, had quite substantial wall foundations (F273, 280, 291, 340), with a width of 0.70 m and set in shallow foundation trenches, on top of which the stone wall stepped in to a width of 0.50 m. Although it is conceivable that this latter building replaced an earlier timber-framed structure, there was no evidence to this effect. From the amount of clay roof tile in the demolition debris (F284) both H and G would appear to have had clay tiled roofs.

Building G contained no floor or occupation levels, the cobbles of the underlying courtyard acting as the internal surface: neither was there any indication of internal partitions. The presence of a pitched stone hard standing (F294) on the north-east side of the building could indicate that it housed animals. It has also been suggested that the hard standing could have been the base for an external stair giving access to a loft, again implying the presence of animals.

Building H had internal partitions. The length of wall (F282) which had been constructed in Phase 3/1, and which abutted building I, was retained and this divided off a bay the same length as the width of I at the north-west end of this barn. There was also a stone-edged, stone-lined drain (F343) running the width of the bay which emptied out to the north-west. The presence of this drain indicates that this part, at least, of this building was used to house animals. Two other slight partitions divided the rest of the building into three unequal bays, of lengths 10.8 m, 4.1 m and 4.8 m. The largest of these may have been subdivided by a timber partition into bays of 4.3 m and 6.5 m, for two tile-packed postholes (F429, 442) were set against the opposite walls of the building. However, the badly disturbed remains of a third posthole (F332) lay 5.5 m to the south-east of the other two and this would tend to belie the idea that they were part of partitions.

The north-east wall (F280) of this building had been totally lost in front of the two south-east bays and it is possible that it was open-fronted at this point. However, part of the side wall was also missing and it may simply have been robbed out. Within this building there was very little evidence of the courtyard which it overlay, unlike in the interior of building G. Only where the north-east wall was missing, and along the inside edge of the south-east wall, did the courtyard encroach. Either the flints were

deliberately taken up when this building was constructed or, if it was a byre, the mucking out of animals over a period of time resulted in the removal of most of them. Contained within building H was a layer which varied from a light yellowish brown silt loam (F375) at the northern end to an orange sandy loam, with natural iron staining (F417), throughout the rest of the building. The structure could have been a byre although if it was really open-fronted it may have doubled as a carhouse.

With the construction of building H the stone-lined pit in building I probably went out of use as its opening was now blocked. A floor of grey loam (F350, 380) was laid within I which appears to have sealed the backfill of the pit. The small, central tile-on-edge hearth (F352) was possibly constructed at the same time and this, together with the abandonment of the pit, could mean that this building was no longer used as a harbour.

## **Phase 5**

Within the house there were a few layers which were sandwiched between the limestone rubble of the demolition and the final floor layers and which therefore relate to this phase. In the hall itself these consisted of a layer of sandy silt loam (F590) with plenty of small mortar, tile and plaster fragments within it and, at the lower end of the hall, a layer of redeposited chalk head (F549). This latter layer was of interest because it appeared to have been deposited after the removal of the screen, since it was found in both the cross passage and the hall and sealed the drain in the hall. This layer was very similar in composition to a layer (F511, 512) in the adjacent pantry (A/9). However the material in the pantry was piled against the edges of the room rather than laid as a floor layer. It was as if the existing floor layer had been scraped up and redeposited, or the material intended for a floor layer was dumped and never used. Considering the number of finds that this layer contained the former is perhaps more likely.

This layer of chalk head against the north-east wall of the pantry by a narrow band of carbonised material (F875) which could be traced over the threshold into A/4. This was the only piece of evidence which suggested that the layer of charcoal fragments which covered the floor area of A/4 belonged to the post-residual use of the site.

The majority of the charcoal came from trees aged 12 and 14 years and appears to have been mainly trimmings from felled standards, too crooked and thin for structural use, in a wood dominated by beech. The lack of ash associated with the charcoal suggests that the material was brought into the room as charcoal and not as firewood. It may have been used in some small-scale metalworking on the site after it went out of use as a residence. Fragments of furnace lining material and ironworking slag were found in the immediate vicinity. The hearth or furnace to which they related appears to have been constructed within A/5 utilising the partially demolished walls of that structure. Two pieces of worked stone found close by had evidence of burning on them and may have been reused in the construction of a small furnace. The dense concentration of wood ash (F633/6) defined a rectangular area 2.6 m by 2.0 m and sealed the robber trench (F641) of the north-east half of A/5. There was evidence of what might have been a rake back (F717) which appeared to correspond to the position of a possible outflow from A/5.

### *Building M*

One structure may have been added during this phase. This was a small rectangular building (M) which measured 4.6 m by 6.4 m and of which only the narrow rubble limestone footings (F285, 286, 288, 289) had survived. It was a timber-framed building constructed within the north-west end of building H on the demolition debris from that structure and sited in such a way as to suggest that it was built directly after the demolition had occurred.

Other than building M there was only one other occurrence of what may have been building work after the demolition of the main structures. This was a short length of narrow (c 0.30 m) wall foundation (F668) which was constructed on demolition debris within room A/14 and which ran parallel to the garden wall. No other walls or features were associated with this, except for a linear spread of rubble (F592) which ran intermittently northwards and perpendicular to the south-east end of the wall for c 7.0 m.

The pottery from the demolition included a Tudor-type mug or jug (P100/0/1), a cooking pot of a style not found before the 15th century in Oxford (P186/1/3), a very narrow-necked jug (P518/1/1) and a small bulbous jug (P584/1/1) which may parallel the belly of a 15th-century jug from the Hamel in Oxford.

### **Phase 6**

This phase is said to be based mainly upon documentary evidence and therefore does not belong here. This is what it originally said:

#### Phase 6 Post-1485 (Fig. 11)

This phase represents the final activity on the site, and is based largely on the documentary evidence. In 1520 John Quartermain owed 10s rent for a former demesne close 'where the manor stood' and a further 10s for a 'barn and a culver house'. Neither of these two buildings was mentioned in the list of rents of 1485-6, or in 1500 when John Quartermain the elder was paying 10s 'pro claus "voc" Court Close'.<sup>403</sup> However, there was no archaeological evidence for the construction of a building as big as a barn after the demolition of the main manorial complex; and while it is possible that such a building could have been lost in the initial machining, equally one of the barns of the curia may have been retained. Of all the structures, the large aisled barn (C) is perhaps the most likely candidate. Its demolition certainly postdated that of the adjacent barn (G). A terrier of c. 1600 includes 'the syte of the manour of Magdalen College in the tenure of Elisabeth Quartermayn, wherapon is a barne, a pigion house and an orcharde, called Court Hayse'.

When in 1675 Ralph Quartermain surrendered Court Hayes, a customary close of pasture, to the use of Thomas King no mention was made of the two buildings, and they may have been demolished by this date.<sup>404</sup> While the moats around the edge of the field may have been kept partially clear to act as field drains, those dividing the field were allowed to silt up. Indeed they may have begun to silt up after the house was abandoned for domestic use, as the upper fill of the moats, adjacent to the house, contained much demolition debris among which was a 16th-century skillet.

Presumably, fairly soon after the moats silted up, the causeway (F322) was laid across the backfilled moat, near its southern tip, and the stream diverted. By 1822, a map and terrier (Fig. 1) showed no sign of any buildings on Court Hayes, nor of the moats.

### **Suggested dating for the phases**

Phase 1: late 12 – early 13th century

Phase 2: mid 13th century to c 1300

Phase 3/1: c 1300

Phase 3/2: c 1310-30

Phase 3/3: c 1330-1400

Phase 4/1: c 1370

Phase 4/2: c 1400

Phase 5: c 1458-1485

Phase 6: post-1485

**NB Several of these suggested dates seem to be derived from documentary evidence and it may be that the final version is less precise (JS)**