

VI Aydon Castle Kitchen and its Roof

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THE kitchen range of Aydon Castle occupies the west side of the inner courtyard (figs 1, 2, 3 and 8). It is a two-storey building, the kitchen itself being on the first floor with store rooms beneath. It dates from 1305 when the original kitchen at the west end of the adjacent hall went out of use. The roof dates from the mid sixteenth century, a rare survival of a late medieval timber frame still resting on the walls of a fourteenth-century kitchen.

In 1992 the stone roof tiles needed repair so the range was scaffolded and stripped of its tiles, allowing repairs to the wall-tops and timber frame to be carried out before re-tiling. The scaffolding enabled archaeological investigation and recording to be carried out by the author and Caroline Richardson aided by drawings made previously by Colin Bamber. This report contains a description of the kitchen and an account of the information obtained as a result of the conservation work.

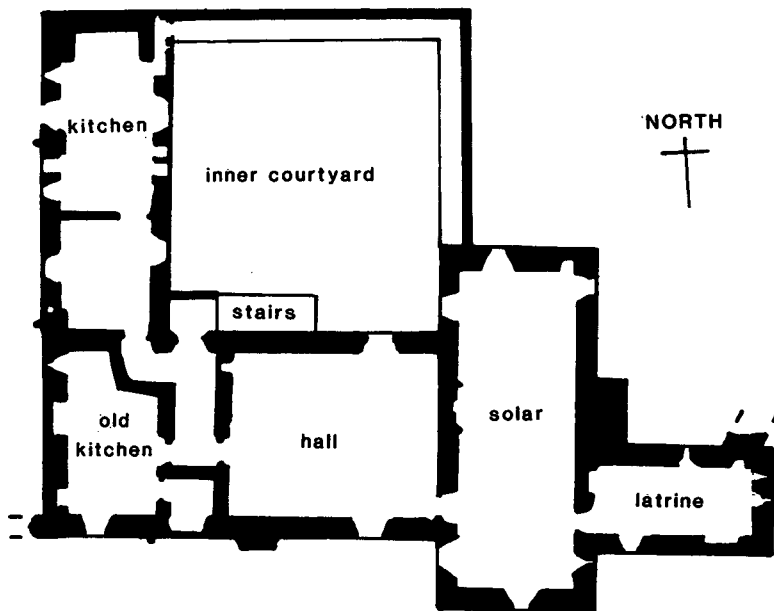


Fig. 1 Aydon Castle first-floor rooms.



Fig. 2 View of the kitchen range from the north-west in about 1915. © Henry Oliver.

DESCRIPTION

The following architectural description is based on Philip Dixon's guide which is the principal reference work on Aydon Castle, supplemented by extra information too detailed for inclusion in a guidebook (Dixon 1988). The original kitchen lay at the west end of the hall range over a stone-vaulted store-room, occupying about a third of the range and presumably separated from the hall itself by a screen or screens passage. The first floor screens are much later but the ground-floor wall under the western screen could have supported a stone screen above (see the reconstruction picture in Dixon 1988, 27). The original kitchen had a stone flagged floor, a large wall cupboard and a stone sink (illustrated by Craster 1914, 353) with a spout set in

the south wall. The original fireplace in the west wall was presumably taken down when the later kitchen wing was added and may indeed be the fireplace remains of which survive in the later kitchen (see below). It was replaced by a smaller one (illustrated in Craster 1914, 364) when this end of the hall range was converted into a chamber. A second chamber or gallery was inserted with a fireplace above the smaller one below, with a doorway giving access to the small second-floor chamber at the south end of the new kitchen wing.

This kitchen range was added onto the service end of the hall range very soon after 1305. The chamfered plinth of the hall and the corbelled base of the hall parapet can be seen in the south internal elevation of the kitchen range (fig. 4). The new kitchen range was built

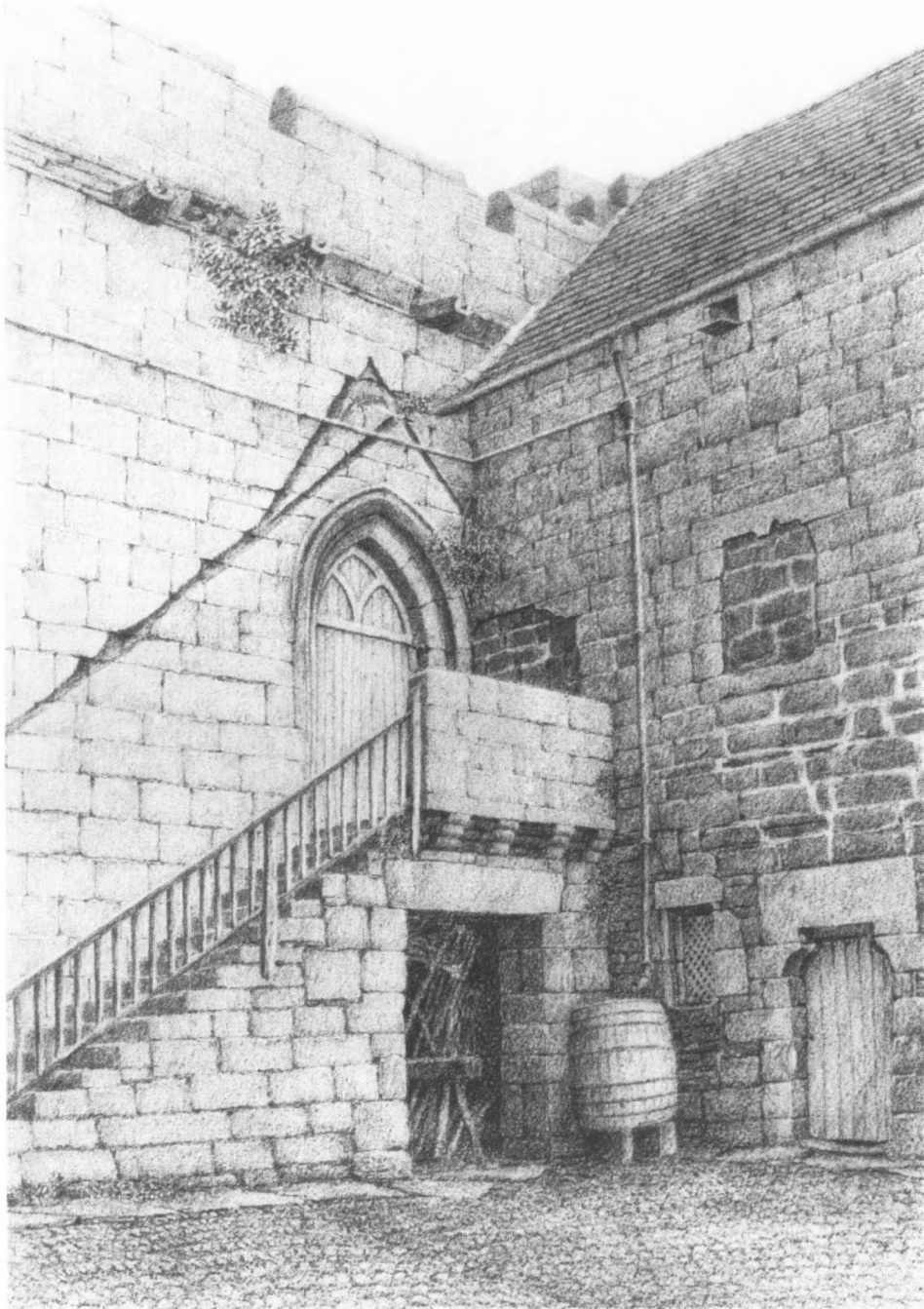


Fig. 3 South-west corner of inner courtyard at junction of kitchen and hall ranges, showing blocked first-floor door and window with pigeon landing stage above. About 1915. © Henry Oliver.

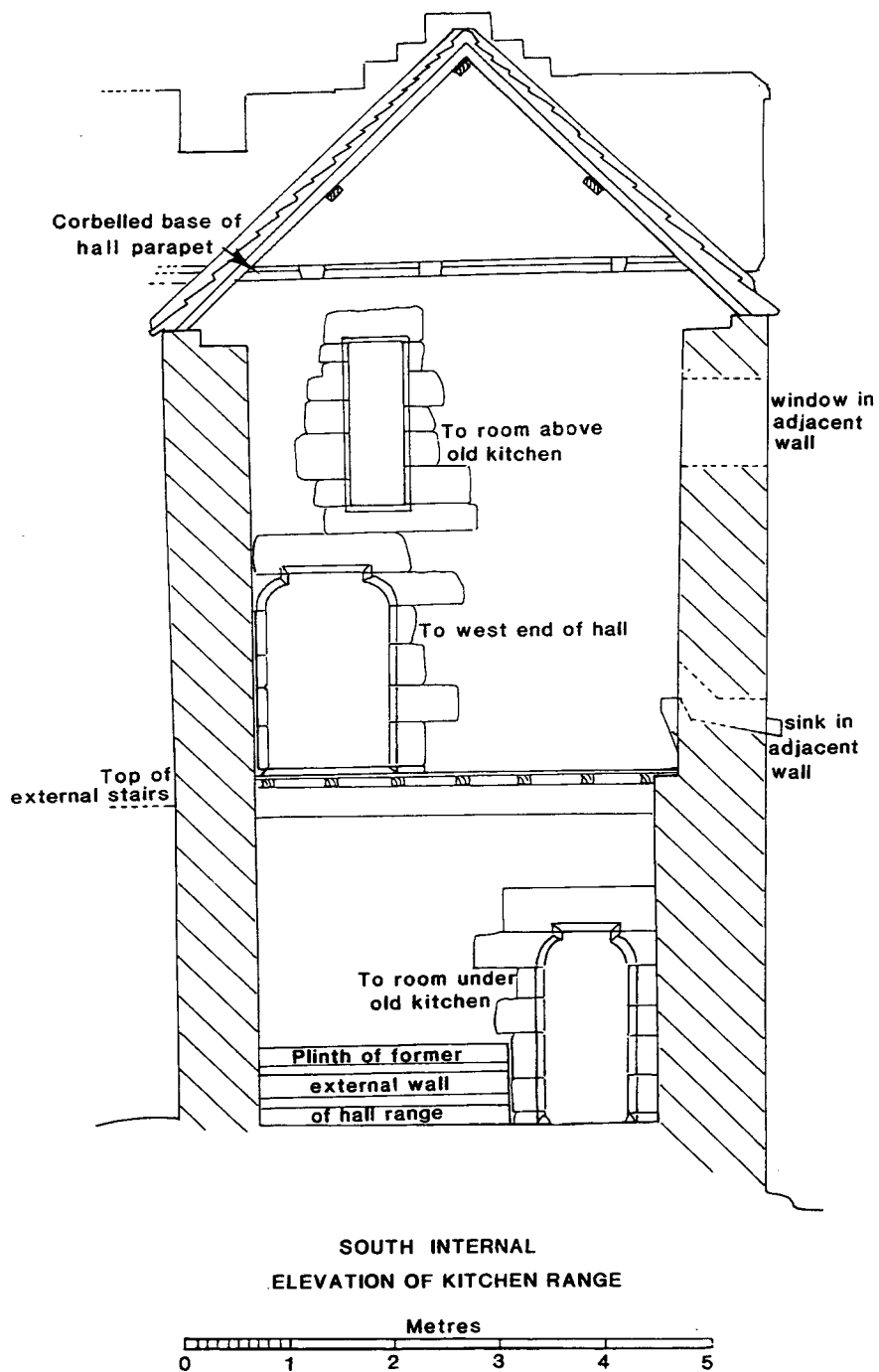


Fig. 4 Internal elevation of south end of kitchen range.

in two stages: both were walled in rubble but the rubble in the upper storey is larger and more regularly coursed than the walling below. The wing was perhaps intended at first to be a single-storey store room. However, in its present form the ground floor consists of two chambers, one of which is vaulted. The northern one, with a north door and labelled "stores or byre" on Dixon's plan (p. 16) has a post-medieval cattle feeding-trough along its east side but may indeed have always been intended for this purpose (fig. 7). Its west doorway is a later insertion. The other room is more domestic with a doorway, window and cupboard on the courtyard side, and a garderobe (later converted into a fireplace) on the west side. Its south wall with chamfered plinth was formerly the outside wall of the hall range.

On the first floor the new kitchen occupied the same area as the stone vaulted stores or byre below with its massive fireplace and stone hood possibly removed from the original kitchen at the north end (figs 5, 6 and 7). The hearth is 3.5 m wide and projects 1.5 m into the room. The stones at the back of the hearth are still blackened from fire. Its sides supported an arched head with roll moulding over it, and a hood sloping back to the gable in six courses, and had stone ledges or seats 24 cm wide either side. In the long walls of the kitchen there are a sink at floor level with an external chute for washing out, and three wall cupboards each with a slot for a wooden shelf and surrounding rebate but only the west wall cupboard had a door. The northern window on the western side was partly blocked to allow a shoulder-headed doorway to be inserted, giving access to an external gallery and wooden stairs resting on beams set in sockets in the wall. On the other side of the fireplace there was a small passage in the thickness of the wall to a door leading onto the inner courtyard wall walk. The passage has two arrow slits. A drop in the floor level now marks the line of the dividing wall between the kitchen and the adjoining first and second-floor chambers which had timber floors. A jamb survives in the east wall for the doorway in this cross wall. Its width can be gauged from the length of the

recess into which the door would have opened against the east wall. It was the same width as the door into the hall block, about 1.15 m. The height of the doorway was just over 2 m and the dividing wall continued up as can be seen from the toothing and scars in the east and west walls although the later nesting boxes have destroyed the evidence for its top. In the south-west corner of the southern room is another sink between knee and waist height, so possibly this room was also used for food preparation. (There is a similar sink in the first floor latrine block). The chamber above it which connects with the second-floor chamber above the original kitchen, had a garderobe with a chute down the thickness of the wall discharging behind the chute of the ground-floor garderobe. Its only access seems to have been via the doorway into the chamber above the west end of the hall range, unless there were also wooden stairs or a ladder up from the first floor.

The new kitchen wing does not seem to have served its original purpose much after the Reymes family left and handed Aydon on to the Carnabys in 1541. In spite of a major reroofing (see below) they preferred to adapt the chamber block at the east end of the hall for domestic use making a kitchen on the ground floor while this west range gradually went out of use. A doorway which had been forced through the east wall from the landing of the external stairs was blocked, as was the adjacent window after its mullion had been removed. Today the most obvious alterations to the former kitchen and adjacent room are the insertion of pigeon nest boxes above window level in the east and west walls. An early twentieth-century engraving (fig. 3) shows a landing stage for the birds near the corner of the courtyard. By the 1920s the kitchen range had been abandoned for habitation and given over to farmyard use (Oliver 1996).

DESCRIPTION OF ROOF

The drawings in Figs 6 and 7, which show the east and west elevations of the walls as they

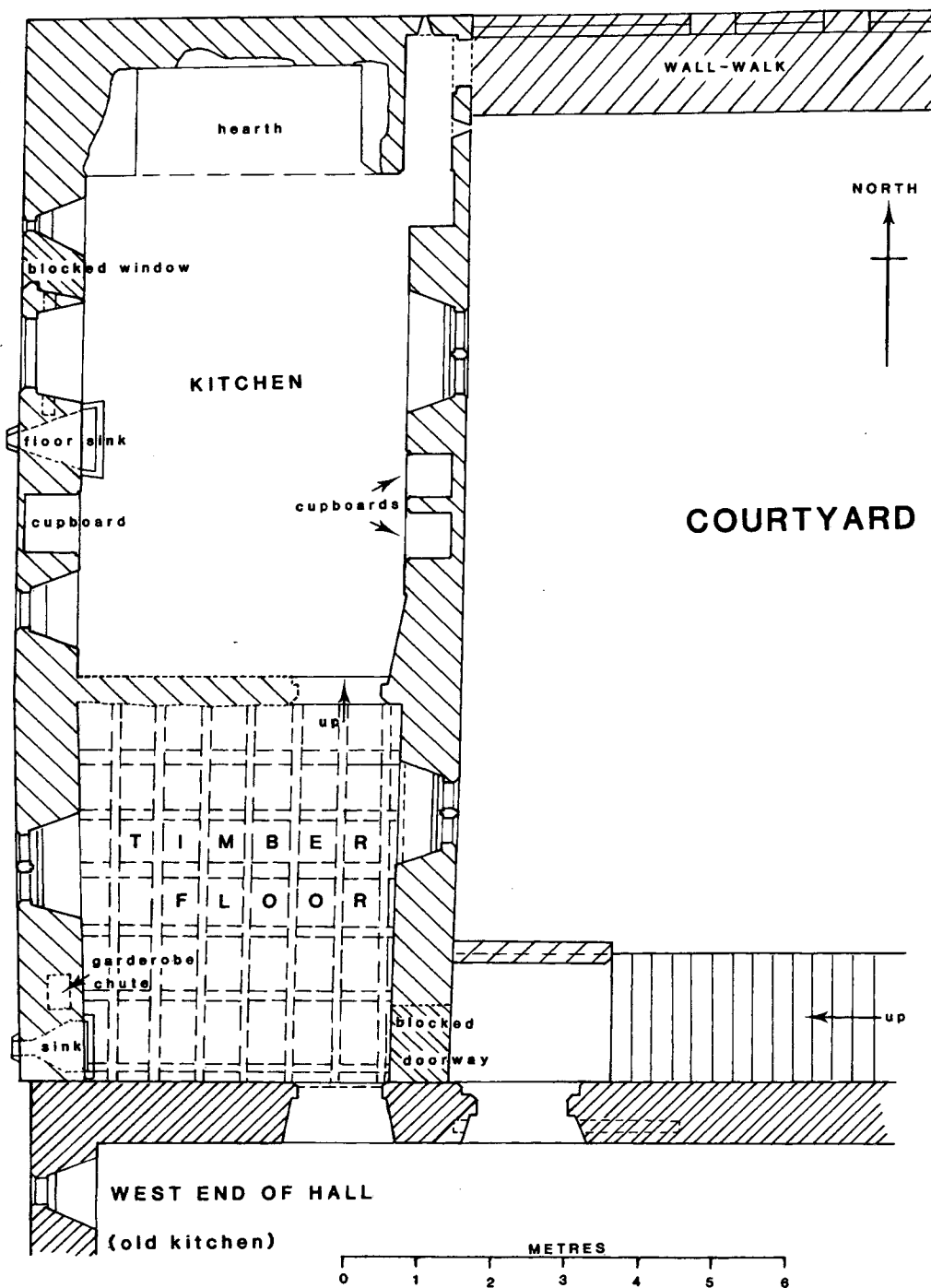


Fig. 5 Plan of first-floor of kitchen range.

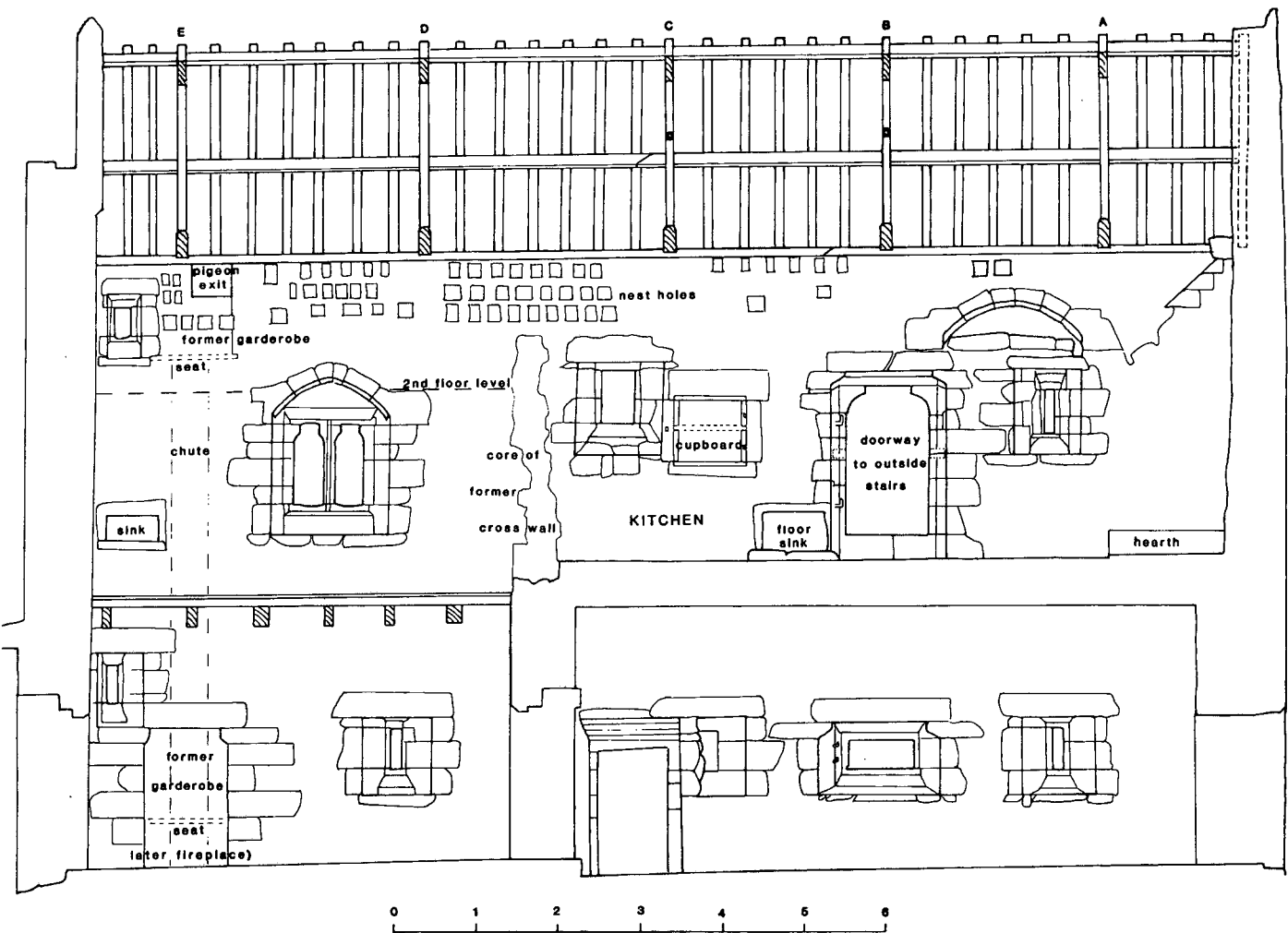


Fig. 6 Existing internal elevation of west wall of kitchen range and roof frame as originally built.

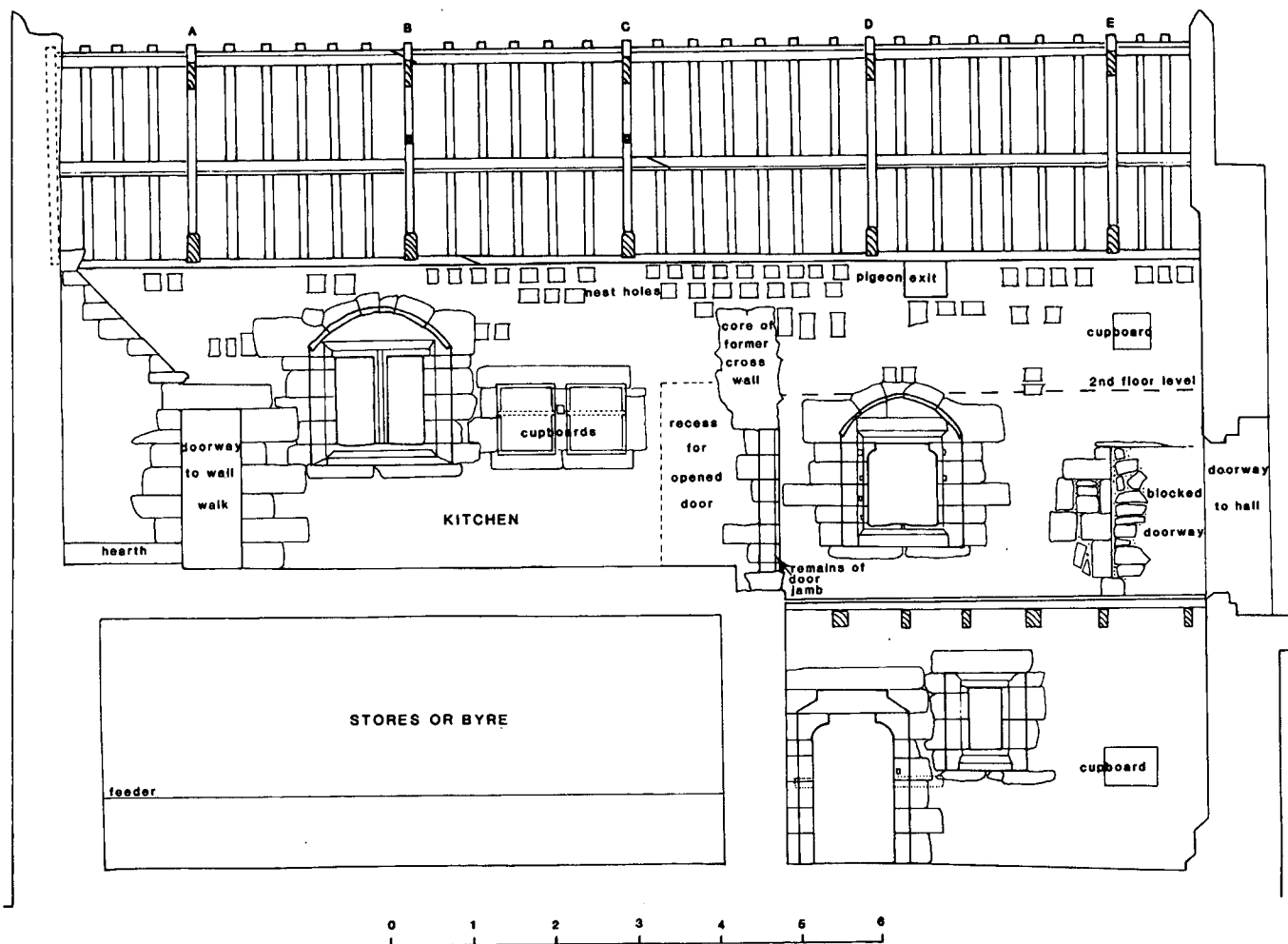


Fig. 7 Existing internal elevation of east wall of kitchen range and roof frame as originally built.

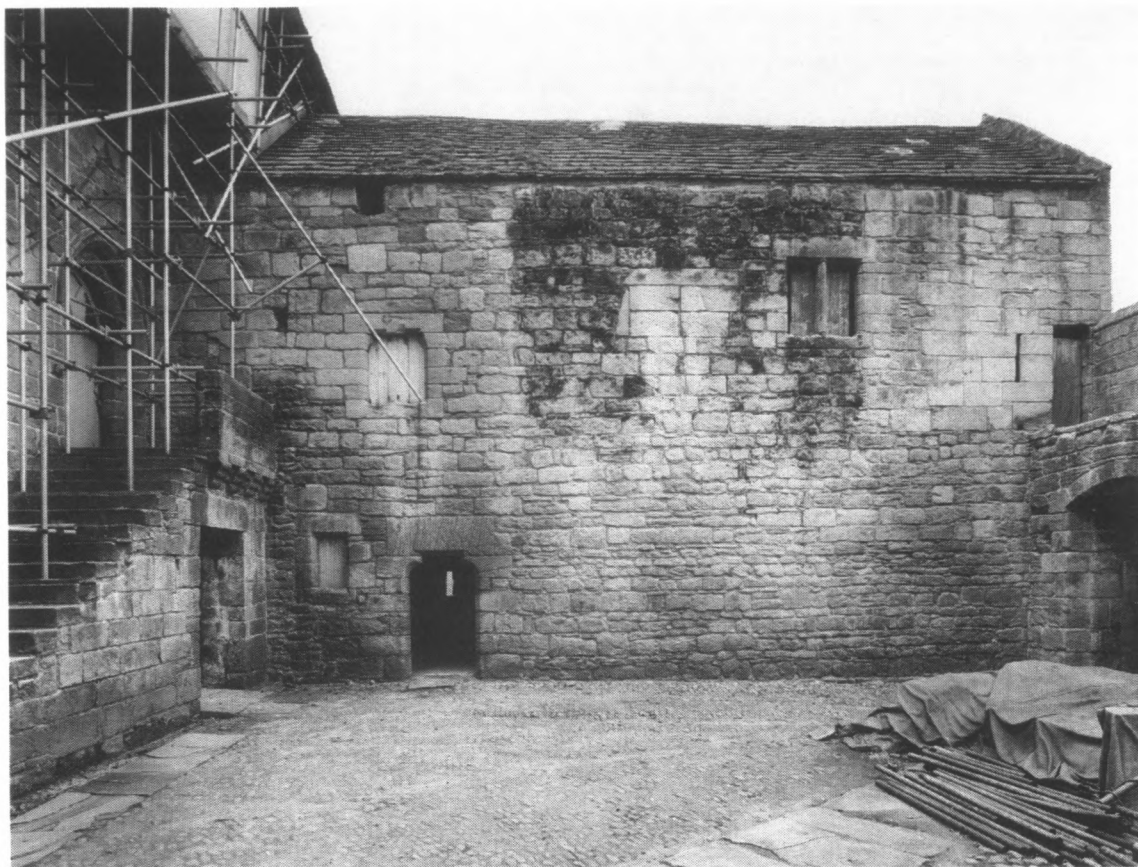


Fig. 8 East elevation of kitchen range during conservation work in 1967.

now are, attempt also to show the original arrangement of the roof structure. There were five main timber trusses here labelled A–E from north to south, each consisting of a tie beam and two principal rafters which supported purlins and a ridge piece (fig. 9). In trusses B and C the rafters were braced with a collar as shown in Fig. 11. The five tie beams rested on a single wall plate. The secondary rafters which carried the stone roof tiles were supported by the ridge piece and by the purlins trenched into the principals. Except where they were morticed into the tie beams (as shown in fig. 11) the secondaries were lodged in slots in the wall plate cut on a slope to prevent them from slipping outwards (fig. 10).

The discovery of these slots in 1994 enabled the number of original pairs of rafters between the main trusses to be calculated, although it should be recorded that the north ends of the wall plates had rotted away, so the estimation here is based on the width between the rafter pairs elsewhere. There were five pairs between trusses A–B and B–C, and six between C–D and D–E, allowing three pairs at the same widths between A and the gable above the hearth with an extra pair laid on the thickness of the gable. The last pair of rafters and possibly the ridge piece may have been interrupted at this end to allow for the chimney above the hearth. At the other end of the roof, between E and the hall parapet, there were two pairs as



Fig. 9 West end of south face of truss D. Note curved end of principal, bark on the tie beam and thinner later purlin. Note also top row of nest holes in wall.

the slots in the plate show. The plate and purlin ends stopped just short of the parapet wall but the ridge piece was supported in a hole made in this wall. The reason for the two collars is unknown. A louvre structure in the roof at this point would seem unnecessary as there was no central hearth.

CONSTRUCTIONAL DETAILS

The roof framing is made of oak. Some of the surfaces of the principal truss timbers still have bark. Some pairs of principal rafters are

slightly curved and have been made by sawing or splitting large timbers longitudinally, while the end grains of the beams show that some timbers were of sufficient girth to make more than one. Tie beams A and B certainly came from one trunk. The angle of the apex of the trusses is approximately 85–90 degrees. There are pairs of carpenter's marks in the form of roughly incised crosses near the joints in the trusses, with the exception of the north face of the western truss where two pairs of inch-long I's have been chiselled. Between the tie beams and the wall plate a dovetail joint (figs 13 and 14) prevented the former from sliding out-



Fig. 10 Example of slots in wall plate for ends of original rafters near south end of west side. The ends were raised when deal boards were laid on the wall tops.

wards. Two wooden pegs held each mortice and tenon joint in the trusses except for the collars and the secondary rafters where these were tenoned with only one peg.

The plates along each wall were in two sections with scarfs as indicated on the drawings (figs 6 and 7). The detail of the scarfs could not be examined because the wall plates are bedded in masonry flush with the top of the plates and they were not lifted; but they were held with two pegs and are assumed to have been similar to the design of the scarf in the purlins as shown in Fig. 12. The ridge piece has one scarf but as this timber is of deal not oak it is

presumably not original. The slots in the wall plate are each approximately 130 mm or 5 inches wide which indicates the width of the actual rafters. The slots are roughly square and slope to a depth of 35 mm or 1½ inches. In the centre of each is a rust stain indicating that the rafters were held with a nail. The slots were made by drilling two wide holes in the two deepest corners and then chiselling the wood out. In most instances circles made by these drills remain visible at the bottom of the slots.

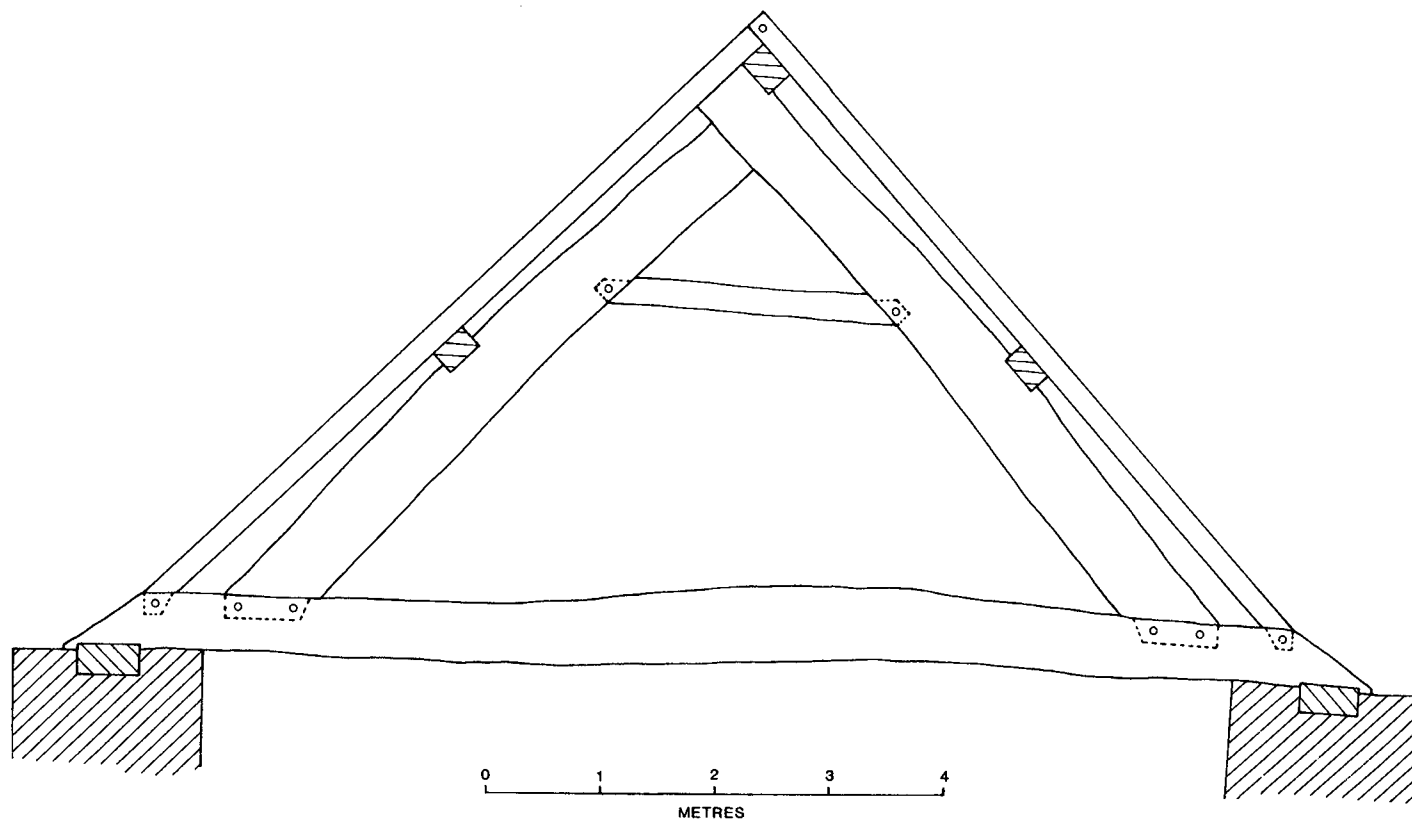


Fig. 11 Roof truss C as originally built. Truss B is similar, but trusses A, D and E have no collar.

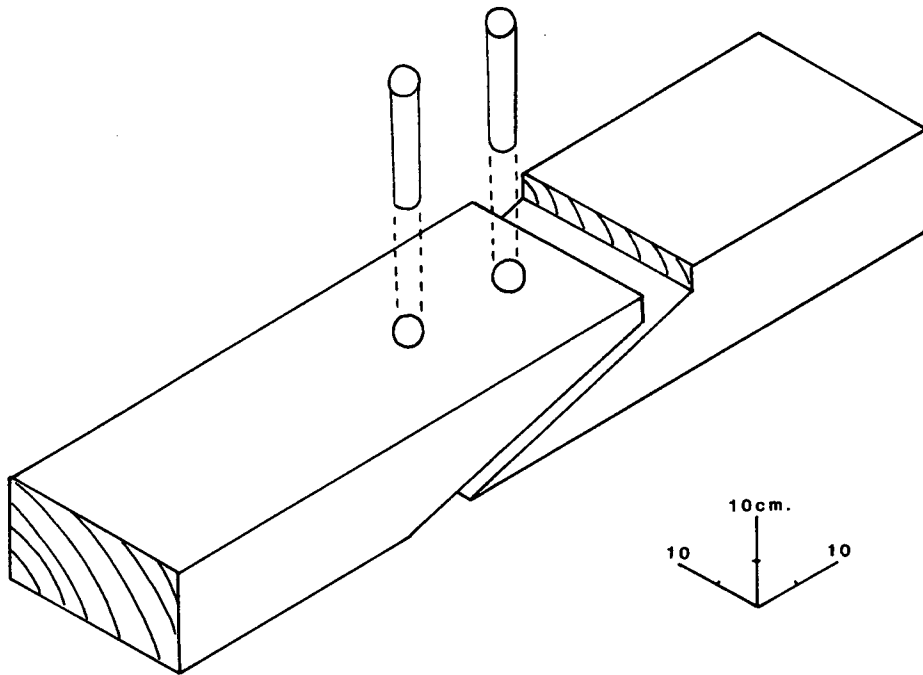


Fig. 12 Scarf joint in roof purlin.

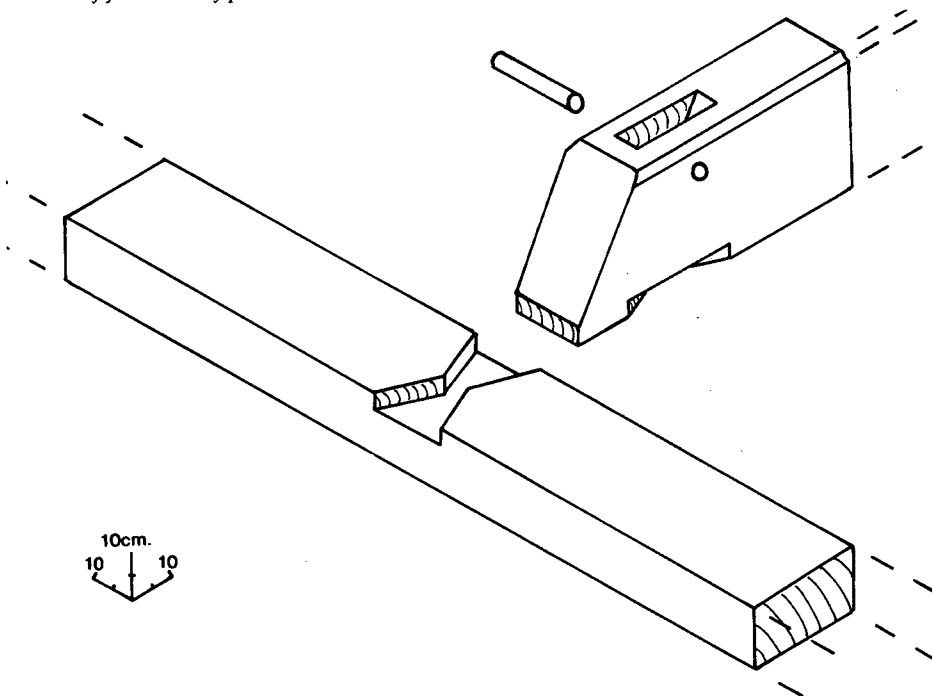


Fig. 13 Dovetail joint between roof tie beam and wall plate.



Fig. 14 Truss B, east end of tie beam cut off when boards were laid to raise ends of rafters, now showing remains of dovetail joint onto wall plate.

LATER ALTERATIONS TO ROOF

There is ample evidence to show that the roof has undergone many alterations and re-tilings during its lifetime. The reason for these were not any particular adaptation but the normal result of old age and a lack of proper maintenance. The trusses show signs of beetle infestation, notably death-watch beetle (possibly its most northerly occurrence in Britain). Tie beam ends have rotted thereby lowering the ties and causing the rafters to bow inwards and necessitating extra packing under the roof tiles. In 1982 new timbers were scarfed onto

the east end of truss A and the west end of B. The east end of C was renewed in 1994. The wall plates, presumably always to some extent embedded in masonry either side to prevent them moving outwards, absorbed moisture in places and rotted. The masonry was further built up when the nest holes and pigeon exits were constructed. On the east side the wall plates were planed down (almost obliterating the rafter slots) by as much as 50 mm (two inches), as can be seen where their original thickness still supports the tie beams. The plates were eventually covered over completely with deal-boards extending from the

outer face to the middle of the wall tops. The secondary rafters were refixed so that they rested on top of these boards. A secondary and larger purlin of softwood was added beneath the primary one, supported with blocks nailed to the main trusses. The secondary rafters have been largely renewed in softwood in smaller dimensions, their spacing reduced to accommodate thirty-five pairs, two more than there were originally. Any original oak rafters have been sawn approximately halfway up to cross over the slightly hipped pitch produced by the later purlin, and turned 90 degrees. Nail holes for successive roofing laths are therefore to be found on at least two sides of these rafters.

DISCUSSION

The new kitchen of Aydon Castle was "larger and more conveniently distant from the hall" than the earlier one (Dixon 1988, 23). Though obviously not on as grand a scale as the double kitchens of Warkworth keep (a century later) it was considerably better planned than the cramped ground floor kitchen at the end of the late fourteenth-century hall of Prudhoe Castle. The upper chamber in the southern half of the kitchen range is likely to have had a window looking down on the kitchen itself, where the steward of the household could supervise. From this room he could also pass through the former external wall into the chamber which had been created above the old kitchen and so keep an eye on the feasting in the hall. Warkworth also had a steward's gallery overlooking one of its kitchens but it did not connect with the hall. Closer to Aydon in date and form is the kitchen in the south-east corner of Brougham Castle courtyard, built by Robert Clifford 1290–1314. This is on the first floor over a barrel-vaulted basement and has a large fireplace, a sink and a drain. On its west side there is a small courtyard with a well from which water must have been bucketed up for use in the kitchen via a small doorway. Such an arrangement may also have once existed at Aydon. Although no well is known to have

existed anywhere in the castle, perhaps there was once one in the middle courtyard beneath, near the doorway which was later inserted in the west wall of the kitchen, the purpose of which was presumably to allow provisions and water to be brought up to the kitchen, thus avoiding the use of the main stairs and doorway in the inner courtyard. One important element now missing from Aydon kitchen is a bread oven, which one would expect to find beside the hearth. It is likely to have been on the left (west) side of the hearth where there is just a suggestion of stonework reddened by heat. The wall on the other side was somewhat thinner because of the passage to the wall-walk.

The roof of Aydon Castle kitchen has received little study hitherto, presumably because of its difficult access, although repairs to it have already been carried out since Aydon came into state guardianship. It is in fact a late medieval roof and as such is a rare survival, particularly on guardianship monuments which have tended to come into state care because they are roofless and incapable of conversation to alternative uses. During the recent works it has been possible to learn with reasonable certainty how the roof originally worked and a number of its constructional details. It is not of course the roof which went with the original building of the kitchen in c. 1305, but it has, or had until its relatively modern alterations, a uniform and impressive design dating from the time when the Carnabys took over ownership of Aydon from the Reymes family, in 1541. The dendrochronological dates which were obtained in 1991 fit perfectly with this event, as the summary of the Ancient Monuments Laboratory Report 42/91 shows: "Tree-ring analysis of ten timbers from the roof of the kitchen range at Aydon Castle produced a chronology spanning the period A.D. 1424–1543. The timbers were felled in the winter/early spring of 1543/1544 during major alterations to the castle" (Hillam and Groves 1991, 1). The character of the timber framing is essentially medieval, with collars, no king-posts, and such details as the scarf joints and wooden pegs for nails. The presence of a ridge-piece makes the style of the roof late-

medieval, but the use of curved timbers for the main trusses also show that the carpenters were working in a medieval tradition. The Carnabys who re-roofed the kitchen probably also re-roofed the rest of the castle. The hall and solar still retain a few roof-timbers which look to be possibly of this date, but their constructions are now much altered with later struts and bracing. For future research the roof of the latrine block looks more promising, having curved principals, collars and trencled purlins. But these roof frames can only be seen from floor levels, so their proper examination and analysis must await future programmes of conservation.

ACKNOWLEDGEMENTS

The English Heritage Architect in charge of the re-roofing was Richard Foster, assisted by Raymond Stockdale and Joyce Christie. Original drawings were made by Colin Bamber, with details added by Caroline Richardson

when the building was scaffolded and stripped. The contractors who repaired the timbers and re-tiled the roof were Messrs. Charltons. The wall-tops were re-consolidated by Historic Properties Restoration. Annotated drawings, photographs and other documentation for the work have been deposited in English Heritage's archive room at Belsay Hall. I am grateful to Peter Ryder for help with writing this account which has been published with the aid of a grant from English Heritage.

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