

BERRY POMEROY GATEHOUSE ROOF 1998

ARCHAEOLOGICAL RECORDING



by
Stewart Brown Associates
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BERRY POMEROY GATEHOUSE ROOF;
BERRY POMEROY CASTLE
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SUMMARY

Archaeological recording was undertaken on behalf of English Heritage from February to May 1998 regarding the standing structure of the late 15th-century gatehouse, at the same time that trench excavations were opened across the line of the medieval defensive ditch to the west. The work was conducted prior to a conservation programme comprising repairs to the gatehouse roof and the laying of associated rainwater drains.

INTRODUCTION

The gatehouse

The gatehouse was built in the late 15th century as part of the earliest Pomeroy castle. It contains: a gate passage flanked by two canted towers, each with a ground floor basement; a ground floor strong room; a first floor chamber or hall with chapel; and two second floor guardrooms, one in each of the tower turrets (for a full description see Brown 1996, 21-9).

The Project

In 1998 English Heritage undertook a repair programme affecting the roof and rooftop drainage of the gatehouse. The roof is a modern reconstruction erected in 1982 by the Directorate of Ancient Monuments and Historic Buildings of the Department of the Environment (architect Harry Gordon Slade). In 1981, the gatehouse was an ivy-clad, roofless ruin. Clearance of the ivy revealed a well-preserved wall painting of considerable artistic merit and historical importance (see Brown 1996 Appendix 13). It was therefore decided that the building should be roofed in order to protect and preserve the painting. The first-floor of the gatehouse now houses a display covering the castle's history and archaeology.

The design of the roof erected in 1982 is based on evidence which was then visible at the level of the wall tops. A survey of the ruin was made by DoE (measured and drawn by Chris Gray) before building and conservation work was begun. The survey elevations show that most of the sockets for timber members of the medieval roof still survived in 1981. A few rafter sockets were missing at the west end of the north wall, but there were sockets visible in the wall opposite, so their corresponding positions could be estimated fairly accurately. The timbers of the new roof were located as closely as possible within the sockets left by the original ones, and the surrounding wall tops raised with new masonry to a sufficiently high level to complete serviceable parapets and roof gutters. The 1981 survey lacks some detail and was never fully completed, nor drawn up as a finished inked version. Neither was it amended to take account of the new timberwork and associated masonry erected in 1982. By 1998, the roof had deteriorated in places, and the existing rooftop drainage required re-directing away from the gatehouse front. It was proposed to open a new gutter outlet on its west side.

Stewart Brown Associates were commissioned by English Heritage (Project Officer - Ian Ashby) to make an archaeological record of the parts of the gatehouse that were to be affected by the proposed repairs, and to undertake archaeological excavation of trenches for a new gully and soakaway drains to the west of the gatehouse. An initial survey was conducted to indicate which parts of the relevant wall tops were of medieval date and which parts were modern. A series of elevation drawings was prepared and passed to English Heritage in order to assist with the planning of the new work. A watching brief was undertaken throughout the conservation works, and archaeological observations and records made. Newly observed features and details were added to the 1981 elevations, together with some corrections. Fig. 10 shows an elevation of the east side of the gatehouse which was not covered in the survey of 1982 (some putlog holes on the south and north sides of this elevation were not surveyed in 1998 since at that time there was only limited access from the scaffolding).

Archaeological observations and recording

1/ Modern wall capping (Figs. 1-4)

The gatehouse wall tops were all raised in height in 1982. The junction between original medieval masonry and modern additions was discernable in most places, although occasionally obscured by extensive modern pointing (Figs. 1-4). As found throughout the gatehouse masonry, medieval fabric is characterized by the use of white lime mortar bonding with gravel aggregate, whilst modern replacements and repairs were made using grey cement mortar.

2/ The new gutter outlet on the west side of the gatehouse

This outlet was opened through part of the medieval fabric. The masonry was built of local slate stone bonded with white lime mortar with gravel aggregate.

3/ The first-floor chamber/chapel roof (Figs. 5-7)

The present roof and restoration of 1982-3

The present roof was erected in 1983 and comprises six simple A-frame trusses with cranked collars, all of oak. The modern trusses and common rafters were set within the casts left behind in the late 15th-century masonry by the original medieval timbers. Once in place, the new timbers were bedded in with packing material, and the facework of the surrounding walls made good to meet the underside of the roof. This means that the evidence for the original roof is now largely obscured behind modern masonry infilling. The original features were however surveyed in 1981 and still survive virtually intact behind the modern work. To judge by two small areas of recent investigation (masonry removed by Carrek Construction, Conservation Building Contractors), the depth of modern infilling surrounding the present trusses and rafters is quite shallow (on average 150mm), beyond which medieval masonry still survives, showing that the wall face originally did extend upward continuously to meet the roof without being interrupted by an inner wall plate.

The six red sandstone corbels projecting from the north wall appear to be in their original settings. No corresponding corbels presently exist in the wall opposite, although the 1981 survey shows some deeper recesses or sockets in the medieval masonry at positions where these would be expected, ie there may originally have been corbels on both sides of the room.

Harry Gordon Slade's reconstruction includes, in place of corbels, a timber wall plate extending the entire length of the south side of the room, set at the same level as the corbels opposite. On this he placed the new truss feet. The survey indeed shows a horizontal chase in the wall at this height (Fig. 5, e - shows the profile of the cast which is c. 0.2m square), but whether this chase originally held a continuous wall plate is debatable. It is certainly possible that the trusses once sat on stone corbels on this side as well, and that short horizontal timbers set into the wall spanned the bays between them.

Between the corbels in the north wall there is a band or zone of extensive modern repointing, but no equivalent chase to that surveyed on the south (sufficient medieval masonry facing is visible amongst the modern repointing to show that no hollow chase ever existed here). Within this zone, there is no medieval plaster, although areas of well-preserved plaster survive both immediately below and above. There seems to have been some kind of horizontal linear feature on the surface of the wall, extending between the corbels at the same level as the chase opposite, but not recessed into the wall.

The original roof

The form of the original roof trusses is unknown. The only surviving evidence comprises scars in the original plasterwork at each end which appear to represent the positions of arch braces for the former principals (Fig. 5, a, b; Plate 1 shows the best preserved example at the east end of the chamber), the braces rising from stone corbels (eg Fig. 5, c). The scars are shown as straight lines in the 1981 survey, but appear slightly curved according to measurements taken in 1998. The evidence is insufficient to be certain about the detailed appearance of the truss form, but indicates an arch-braced type. The corbels are of red sandstone from the Torbay area.

It is clear from the casts of the medieval timberwork that the roof members were already set in place when the medieval masonry was raised around them. Other timbers were also encased in the same manner. On the south side of the roof, the wall above the aisle arcade rises much higher than the roof over the first-floor chamber, forming the north walls of the two towers of the gatehouse. This wall is thicker in its higher part than its lower. It was built partly overlapping the roof of the first-floor chamber, its north side resting on the feet of the original rafters, which thus became encased in masonry during construction. The rafter feet have left their permanent casts or impressions in the medieval stonework. Other casts of former timbers survive to each side of the rafter sockets showing that wooden boards were laid horizontally across the backs of the rafters, spanning the space between them, in order to provide shuttering for the construction of masonry above. It is clear from the stepped shape at the rear of the casts (Fig. 5, d) that the lower boards were overlapped by the ones higher up the rafter.

Secondary sockets

A row of five secondary sockets survives in the north wall of the first-floor chamber, set on average 0.9m below the level of the stone corbels. Immediately above the level of the sockets, there is a distinct line on the wall above which less red paint survives than below. The sockets may have been associated with an inserted ceiling of 16th- or 17th-century date, but the presence of only one corresponding socket in the south wall, at its west end, is puzzling, suggesting that either such sockets have been carefully infilled so that they are no longer detectable, or that the later ceiling was supported in some other manner (or possibly did not extend across the full width of the room).

4/ The turret roofs (Fig. 8)

The 1981 survey includes elevations of the wall tops showing timber sockets and chases relating to the original roof construction. There is also a plan of the western turret roof area. Evidence surviving at the top of the eastern turret was surveyed and planned in 1998.

The turret roofs appear to have been built up in the following manner. First a series of closely-set square timber joists were laid E-W. These were decked over with boards (the board ends have left wide narrow sockets immediately above the larger square ones). Large slate slabs on average 0.1m thick were then laid on the decking. More masonry was then built up on the slate slabs, incorporating large reinforcing timbers laid N-S, with a second layer of slate slabs 0.1m thick above this. These latter large timbers, which left sockets in the masonry of the south wall, may not have extended the full width of the turret to the north wall, since the overall depth of roof capping was considerably thinner on this side (0.25m compared to 0.6m on the south side), probably too thin to have accommodated them. The uppermost slate slabs are set at a shallow angle sloping down toward the north (8cms drop in a metre). Above roof level, remnants of the original parapet walls survive, showing that these were 0.4m-0.48m thick, the same as the ones built in 1982.

Secondary ceilings

Secondary ceilings were inserted just below the original ones in both turrets. In the east turret three square timbers approximately 0.12m square were inserted from north to south. In the west turret a large ceiling beam was inserted from north to south at a slight angle across the room. The beam was supported by projecting stone corbels, one at either end, both of which were clearly inserted at a later date since they show evidence of packing around them. A small square timber similar to those in the east turret was inserted on the east side of the room, and another may possibly have existed on the west, although no evidence for such a timber now survives.

The new ceiling timbers were probably needed to strengthen failing timbers of the original ceiling, since the weight of the slate and masonry capping above must have been considerable. Whether the new ceilings were makeshift in appearance, or made to resemble ceilings elsewhere in the 16th- and 17th-century house, perhaps by plastering them over, it is now impossible to know.

5/ The roof between the turrets (Fig. 4)

Between the two turrets there is a monopitch roof sloping southwards toward a low parapet wall at the front of the gatehouse. The parapet wall is corbelled out from the front wall in order to accommodate a machicolation, through which water from the roof drains away. This arrangement appears to have been little different when the gatehouse was first built. It is clear that the monopitch roof has always sloped at the present angle, since there are original chases in the flanking walls for lead flashing. The parapet wall was 0.28m higher than at present, as indicated by scars in the flanking walls. Another original feature observed in 1998 is the projecting slate weathering course over the rectangular openings leading out from the adjacent turret rooms. The course can be traced from the opening to the north wall of the turret (at least on the western turret), although here the slates do not now project from the face of the wall. This may possibly indicate that part of the area was originally sheltered from the worst of the

weather by a low roof (it is thought that a winding drum to raise the portcullis was originally set between the two rectangular openings; Brown 1996, 29).

A secondary socket survives in the western flanking wall, evidently cut into the masonry in order to seat a horizontal timber. The function of the inserted timber is unknown, although it would not be surprising if it was somehow related to the operation of the portcullis winding drum.

6/ Excavation of trenches for a new gully and soakaway drains to the west of the gatehouse (Fig. 9)

The trench excavations comprised: a 0.3m deep soakaway trench descending the slope of the rampart to the west of the gatehouse, with a series of catchwater spur trenches of the same depth leading north-west from it; and a 1m deep drainage trench crossing the line of the former castle ditch, which was to carry the water away (Fig. 9 shows the trench locations).

A section drawing was made of the 1m deep trench stratigraphy (Fig. 9, section a); the other shallower trenches revealed only topsoil on average 0.2m deep and the uppermost levels of rampart construction material, comprising clay and limestone rubble (n.i.).

Section a

Nowhere did the trench excavation uncover natural geological deposits, so the observed stratigraphy relates only to the uppermost levels of some of the archaeological features and layers in this area. Contexts 1, 2, and 6 all produced modern finds including plastic and asbestos, and can be disregarded. The remaining deposits appear to be associated with two features: a 4.5m wide earth bank (contexts 5, 7-9); and an infilled ditch, a little over 2m wide (fill - context 4). The ditch fill produced 6 fragments of late medieval/early post-medieval ridge tile and two pottery finds: a sherd from a late medieval/ early 16th-century striped jug; and a fragment of local green-glazed ware with white fabric dating from the 17th century, ie dating for the group is 17th century.

Interpretation/discussion

The bank was raised on the lip of a natural slope leading westwards below the castle. It may possibly have formed part of the castle defences on this side. The ditch was infilled mostly with demolition debris, including fragments of roofing tile. The ditch appears to have been cut into the back of the bank and may therefore be later in date rather than contemporary. The ditch is likely to have drained water into the nearby defensive ditch protecting the front of the castle, but whether such a narrow feature was ever intended to form and integral part of the defences is questionable. A more full interpretation of the stratigraphy existing in this part of the site may be possible in the future if excavation reveals its complete depth to bedrock.

Drainage trench context list (section a)

- 1 Dark organic loam topsoil
- 2 Mid brown clay with limestone fragments.
- 3 Light orange brown gritty clay with stone fragments and limestone lumps.
- 4 Orange brown clay with many mortar flecks and lumps, slate flecks, charcoal flecks, slate fragments and large limestone lumps.

- 5 Red brown clay with large limestone fragments, occasional slate flecks and fragments, occasional mortar flecks, one oyster shell and occasional slate with mortar adhering.
- 6 Mid-dark brown loam with mortar flecks, slate and limestone lumps (all the finds were modern in date, including bottle glass, plastic and asbestos sheeting - discarded).
- 7 Brown clay with many mortar lumps and slate fragments.
- 8 As 5 above.
- 9 Compacted layer of large and small slate fragments.

Acknowledgements

Paul Stevenson of Carrek Construction provided welcome assistance with lighting, and other aspects of the site work. Members of E.H. staff assisted with the management of the project. Melanie Corbett, E.H. custodian, kindly provided access to the site.

Reference

Brown, S.W. 1996 'Berry Pomeroy Castle', *Proceedings of the Devon Archaeological Society* No.54.



Fig 1 South wall top, external.



Fig 2 Western tower, west wall top, external.

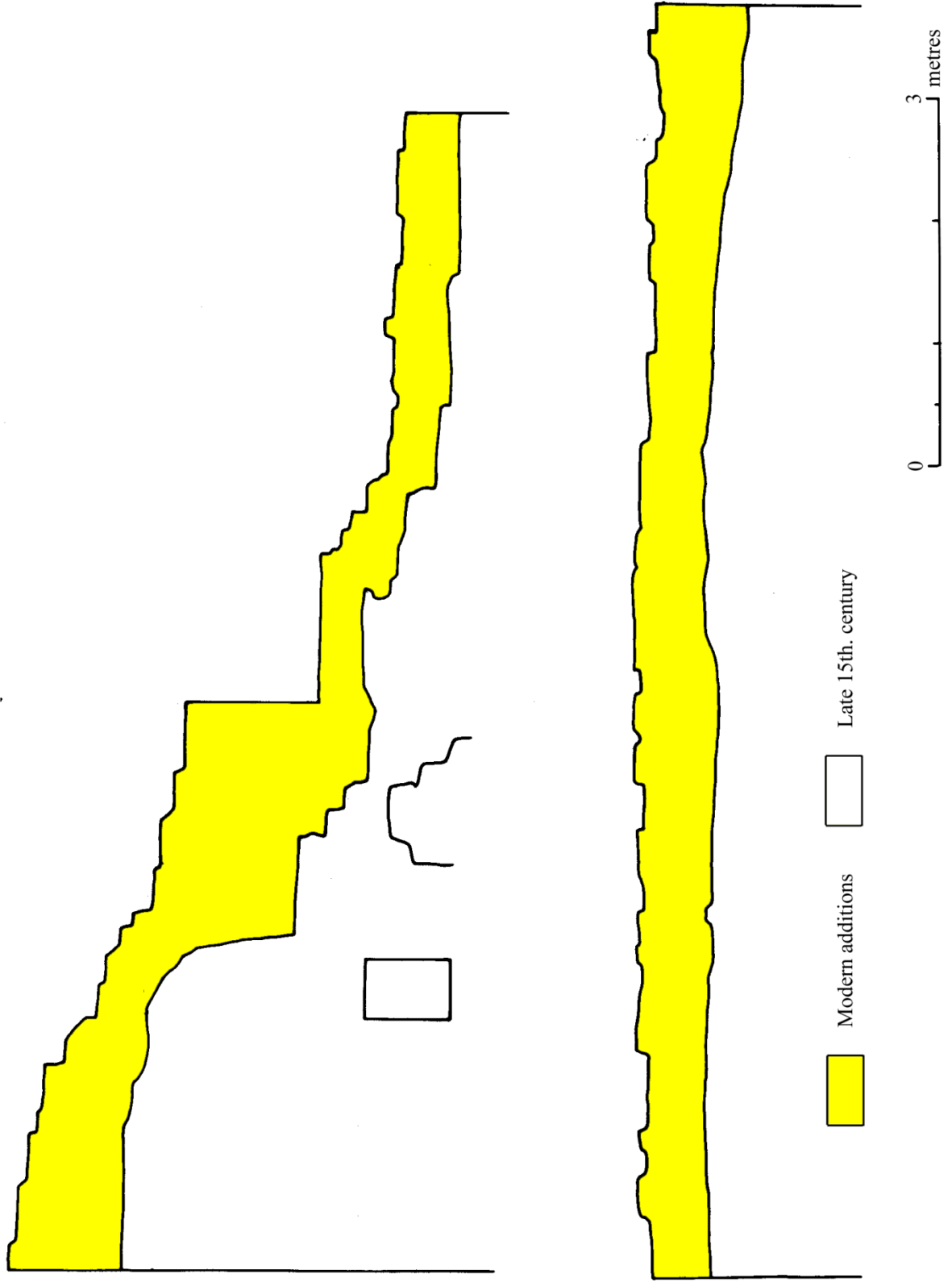


Fig 3 Eastern tower, east wall top, external (above) and north wall, external (below).

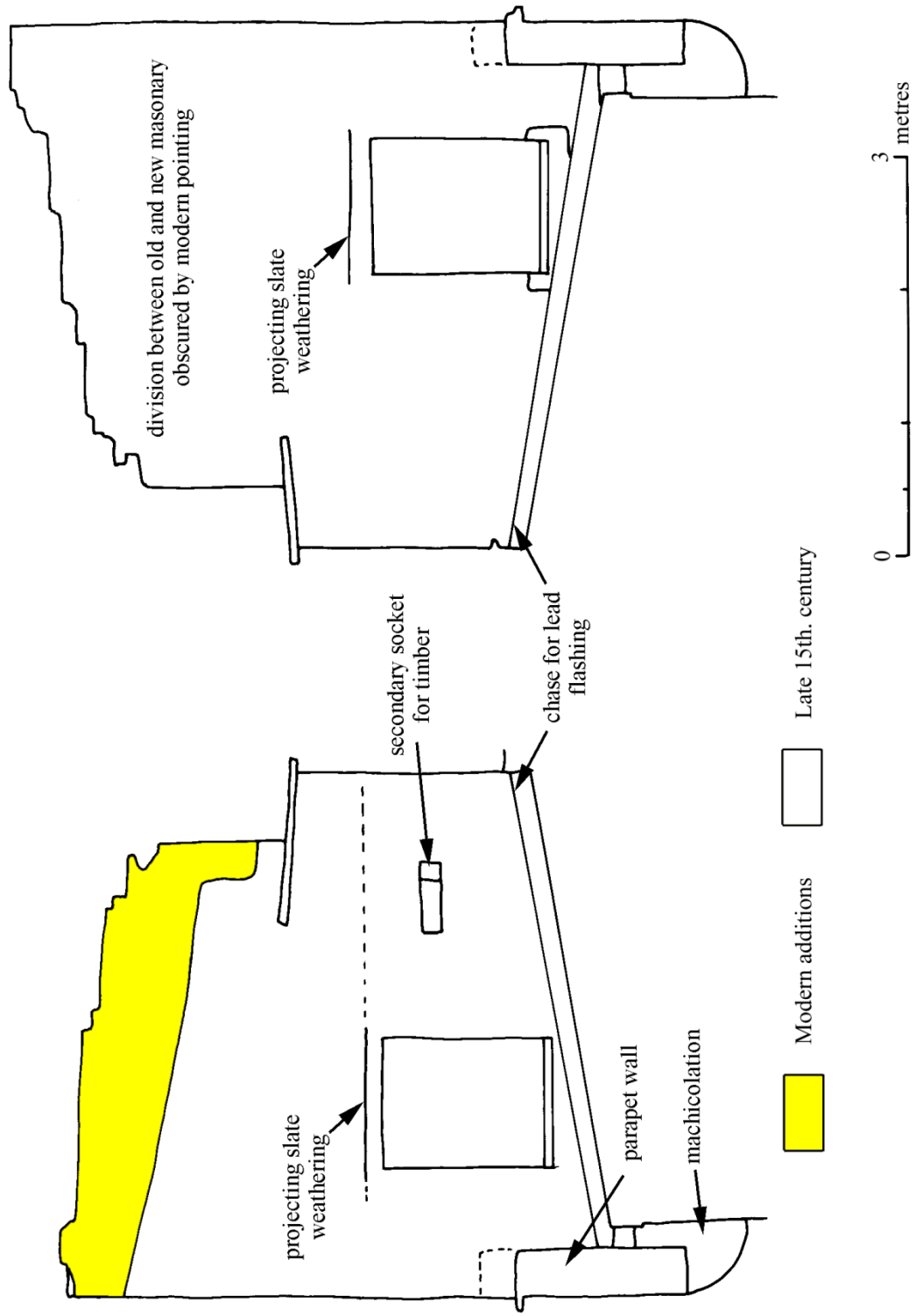
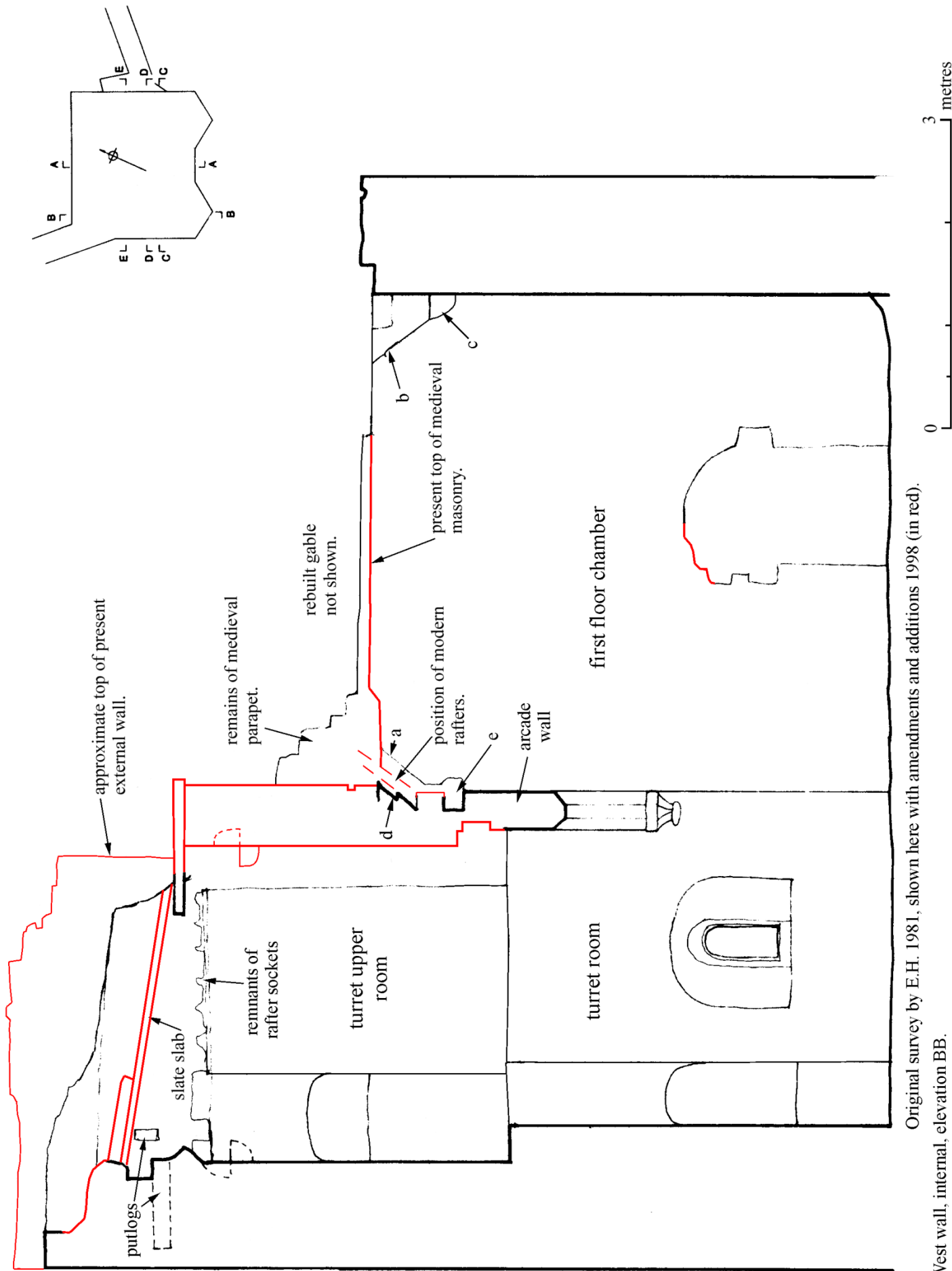
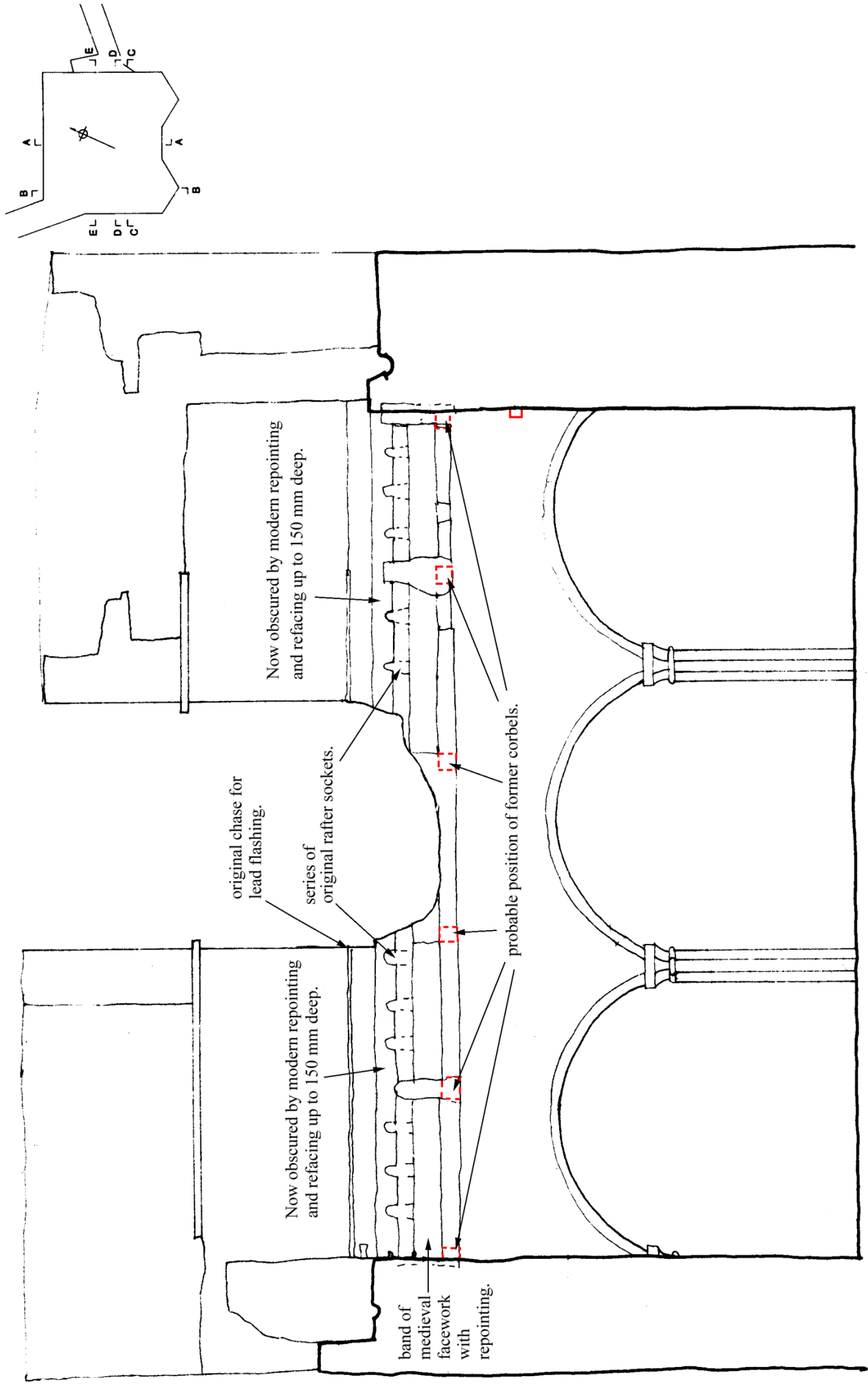


Fig 4 Western tower, east wall top, external (left) and eastern tower, west wall top, external (right).



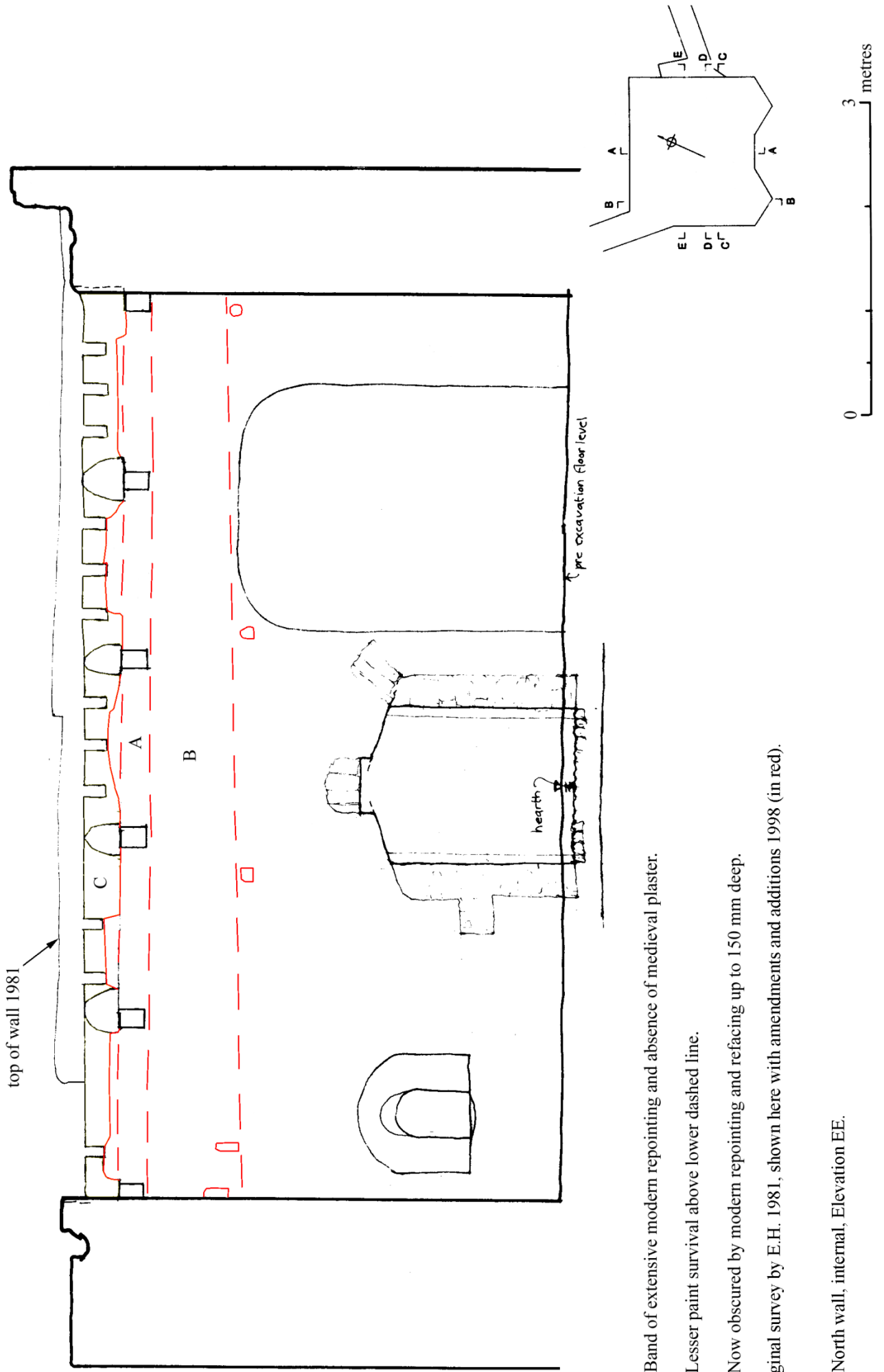
Original survey by E.H. 1981, shown here with amendments and additions 1998 (in red).

Fig 5 West wall, internal, elevation BB.



Original survey by E.H. 1981, shown here with amendments and additions 1998 (in red).

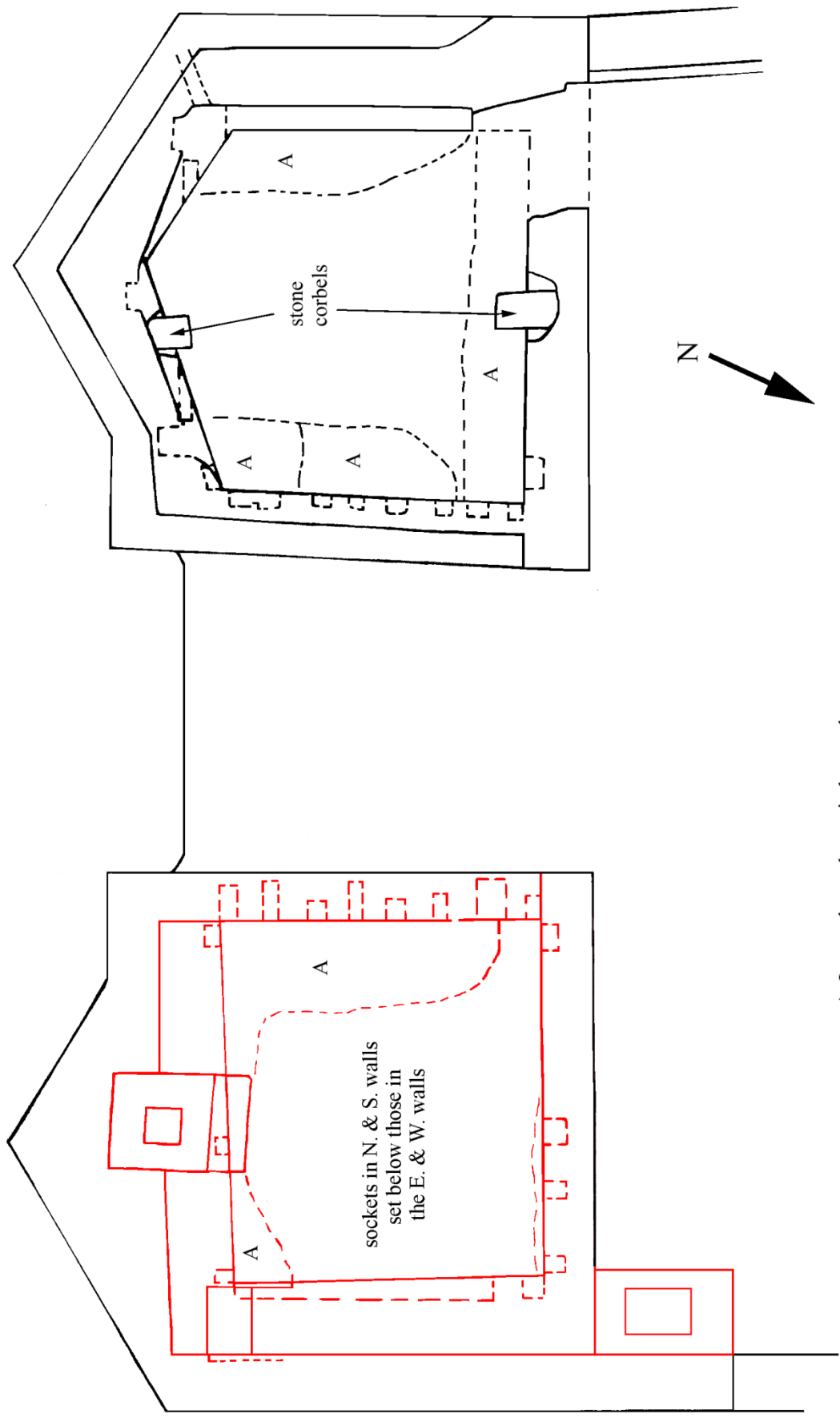
Fig 6 Arcade wall, north face, elevation DD.



- A. Band of extensive modern repointing and absence of medieval plaster.
- B. Lesser paint survival above lower dashed line.
- C. Now obscured by modern repointing and refacing up to 150 mm deep.

Original survey by E.H. 1981, shown here with amendments and additions 1998 (in red).

Fig 7 North wall, internal, Elevation EE.

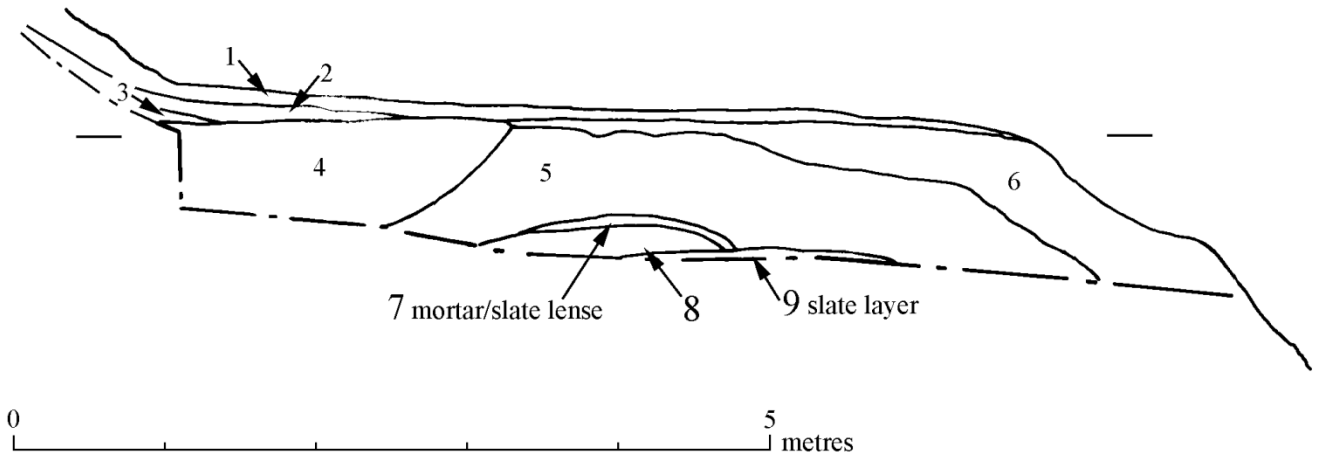


A. Large slates above timber sockets.

Original survey by E.H. 1981, shown here with amendments and additions 1998 (in red).

Fig. 8 Roof plan of gatehouse towers.

Section a



Trench Location

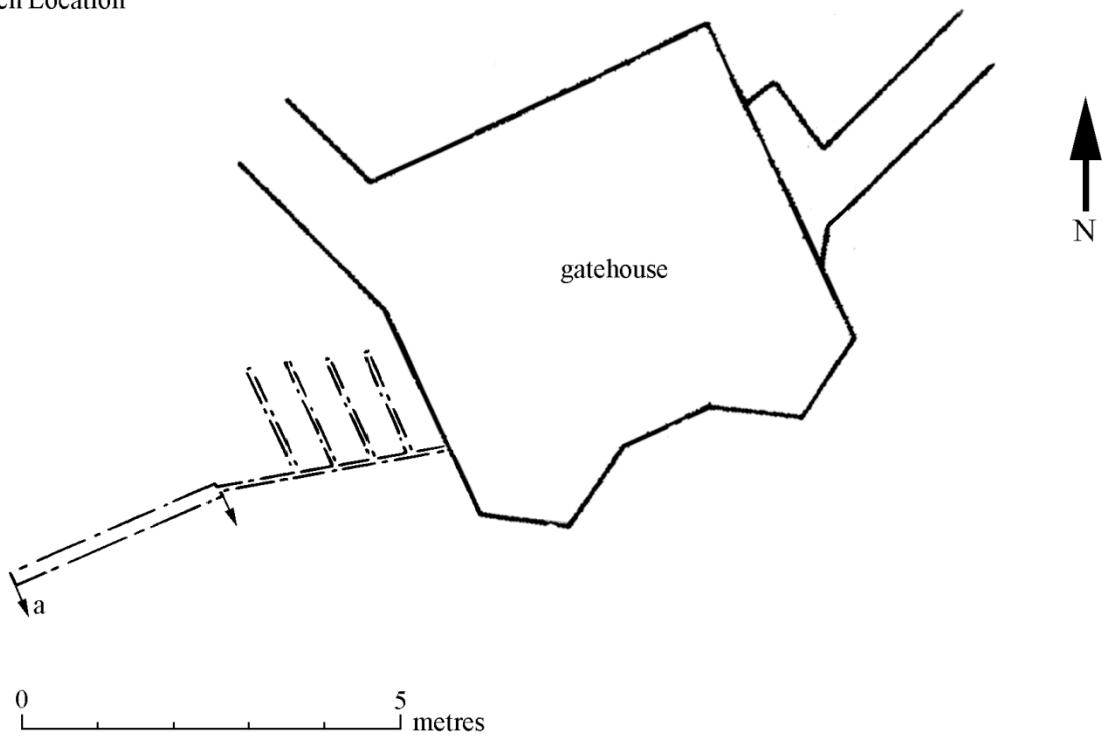


Fig 9 Section a looking south and its location.

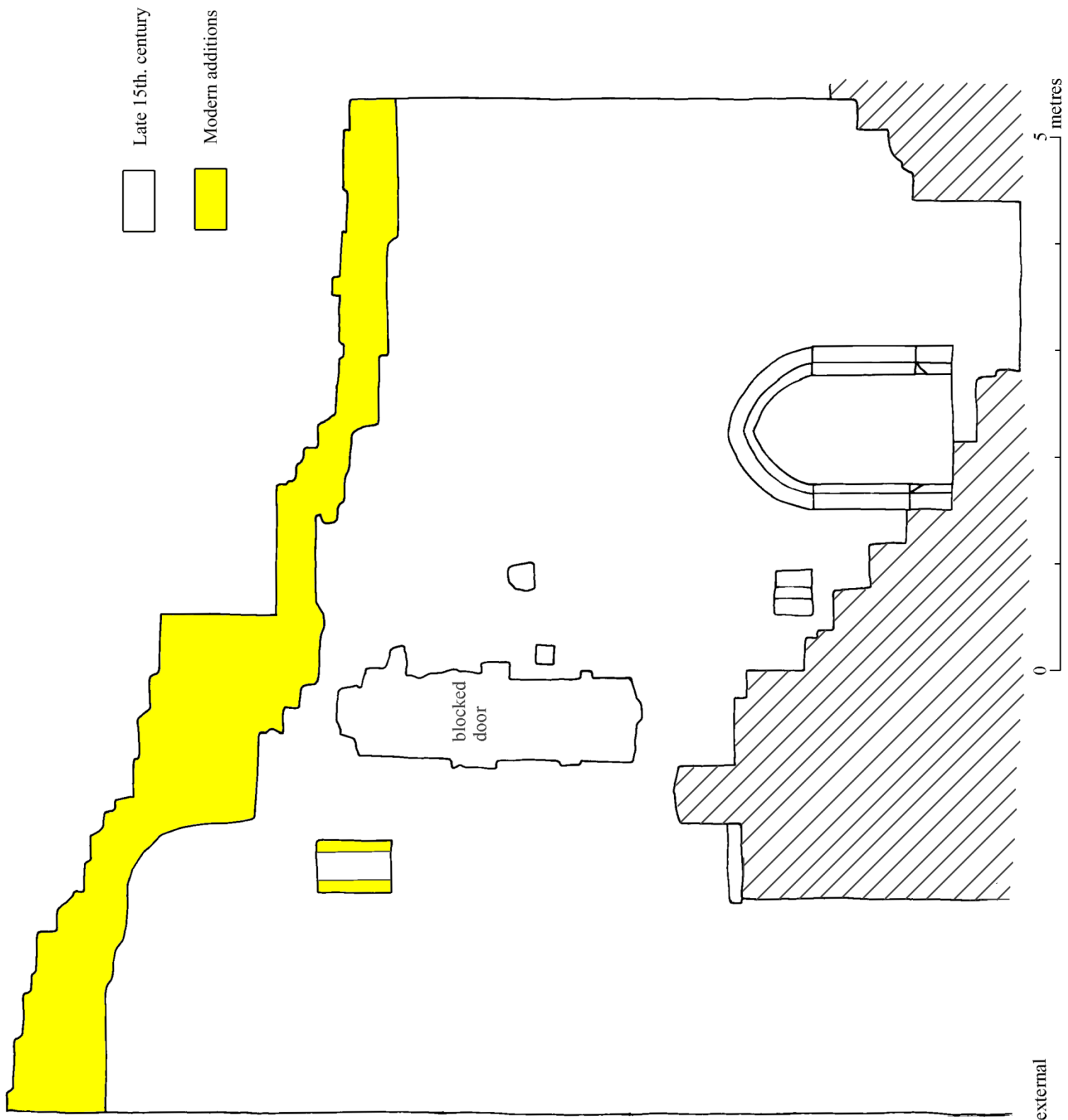


Fig 10 East wall external



Plate 1 The roof joists of the western tower showing rot.



Plate 2 The west wall of the chapel showing a scar above the corbel for an arched brace.