BEW CASTLE
Cumbria

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SUMMARY

Mr and Mrs Noble have received English Heritage grant funding to undertake a programme of consolidation works to Bew Castle, in northern Cumbria (NY 5656 7468). The castle is a Scheduled Monument (SM 12974) and a Grade 1 Listed Building, and has been in a ruinous state for many years.

Between 2003 and 2004, Oxford Archaeology North (OA North) undertook two seasons of recording and excavation at the castle. The work comprised a pre-consolidation record of the fabric, an analysis of the development of the castle, and the excavation of a cross-shaped evaluation trench, in the centre of the castle, to investigate the nature of the sub-surface remains. A record of the consolidation works was maintained throughout their duration.

The history of Bew Castle is extremely complex. Its position on the border with Scotland meant that it was particularly vulnerable to attack and was regularly involved in conflict, either caught up in the wars between the two nations or a specific target in feuds between border families, sometimes both. The present castle is a relatively late construction, of quadrangular form, without a keep. There is no evidence to suggest that it has origins earlier than the fourteenth century, although it does occupy a position used since the Roman period, and reuses masonry from earlier structures. Its use throughout the fifteenth and sixteenth centuries most probably resulted in a number of phases of repair, if not major rebuilding.

The evaluation has revealed that well-preserved remains lie *in situ* within the castle. Substantial walls in the eastern and northern parts of the evaluation trench appear to represent the courtyard walls of ranges of buildings along the internal faces of the castle walls. Large areas of courtyard cobbling survive intact. The evaluation also revealed evidence for several phases of activity, with repairs to cobbling, and remodelling of the internal buildings.

The fabric survey has significantly enhanced earlier descriptive work. Improved interpretation of the site has resulted from the discovery of several previously unknown features exposed as a result of the consolidation work. The most significant outcome was at the top of the barbican, where removal of the vegetation revealed a parapet wall-walk. This has allowed an estimate of the original height of the barbican, at probably *c* 1.5m above the height of the surviving south-east corner.

ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank English Heritage and Mr and Mrs GC Noble for commissioning and supporting the work. Further thanks are owed to David Sherlock, then English Heritage Inspector, for his help and numerous references, and to Tim Padley at Tullie House Museum and Art Gallery, Carlisle, for additional information.

Chris Wild and Andrew Bates, assisted by Martin Sowerby and Nicola Gaskell, carried out the evaluation work in 2003. Kathryn Blythe, assisted by Martin Sowerby and Dave McNicol, undertook the evaluation work in 2004. Chris Wild and Daniel Elsworth carried out the examination of the building fabric and, along with Dave McNicol, undertook the recording during consolidation works. Chris Wild, Daniel Elsworth and Kathryn Blythe wrote the report. Daniel Elsworth compiled the historical background, with reference to the research notes of Rachel Newman. The finds were examined by Sean McPhillips and the animal bone assessed by Andrew Bates. Mark Tidmarsh produced the illustrations. Alison Plummer managed the project and edited the report with Rachel Newman and Nick Johnson.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 In 2002, Mr and Mrs Noble received English Heritage grant funding to undertake a programme of consolidation works to Bew Castle, Cumbria (NY 5656 7468; Fig 1). The castle is a Scheduled Monument (SM 12974) and a Grade 1 Listed Building. Its location is closely related to Bewcastle Roman Fort (Fig 1), which itself forms an outlying part of the Frontiers of the Roman Empire: Hadrian's Wall World Heritage Site. The scheme for the consolidation works included a programme of building recording and investigation, a watching brief, and archaeological evaluation trenches within the curtain wall. A brief was supplied for the work by English Heritage (*Appendix 1)*; a Project Design was developed by Oxford Archaeology North to meet the requirements of the brief (*Appendix 2)*.

1.1.2 The castle appears to have undergone little or negligible repair or conservation for well over two centuries and is now a ruin. The purpose of the current grant-aid was to consolidate the remains. It was intended that the remains of the north and west walls and the gatehouse/barbican should undergo consolidation works in the first of two seasons of work, followed by the south and east walls in the second. The archaeological programme was also split over the two seasons, in 2003 to 2004.

1.1.3 Understanding the monument was seen as an essential step in the consolidation and repair work, and compiling a record of the consolidation works was an important final stage in the repair programme. The aim of the building investigation was to understand better the origin, character, form, and historical development of the castle.

1.1.4 The form of the name, 'Bew Castle', used by English Heritage, has been respected throughout the following text. A discussion of the place-name appears in *Section 3.2.5*.

2. METHODOLOGY

2.1 FAMILIARISATION

2.1.1 The programme of familiarisation, carried out prior to the fieldwork, allowed an outline development and phasing of the castle to be compiled, and provided a context for the phases of construction and repair observed during the consolidation works. The familiarisation was undertaken utilising secondary documentary sources: these are listed in the bibliography (*Section 7*).

2.2 DISMANTLING OF FIELD BOUNDARY WALLS

2.2.1 Three late field boundary walls added to the remains of the castle (Plate 1; *Section 4.6.3*) were manually dismantled by the contractor for the consolidation works under archaeological supervision. Worked stone of architectural or archaeological significance was recovered for identification and analysis, the results of which are presented in *Appendix 3*.

2.3 ENHANCEMENT OF PHOTOGRAMMETRY

2.3.1 The photogrammetric archive prints produced in the Mason Land Survey of 2002, and supplied by English Heritage (in accordance with the brief, *Appendix 1*), were scanned into a CAD environment (AutoCAD release 14). The images were then plotted and overlain with draughtsman's film for manual correction and enhancement in the field.

2.3.2 Following the completion of the manual enhancement, the field drawings were digitised for production of the final drawings. The existing photogrammetry was used as a backdrop. The drawing enhancement was confined to the addition of new information and did not include digitisation of the existing photogrammetry.

2.4 BARBICAN SURVEY

2.4.1 The survey of the barbican was undertaken as a variation to the project design (*Appendix 2*), by agreement with English Heritage. It comprised an instrument survey utilising a REDM (Reflectorless Electronic Distance Measurer) for the production of outline elevation drawings. These were then enhanced by manual survey.

2.5 EVALUATION

2.5.1 Two intersecting trenches, measuring 2 x 14.5m and 2 x 17.5m, aligned north/south and east/west, were manually excavated within the area of the curtain walls, down to the extant medieval deposits. Small extensions to these were excavated in the second season (*Section 4.7*). All spoil was checked for finds.

2.5.2 The recording methods employed by OA North accord with those recommended by English Heritage's former Centre for Archaeology. Recording was primarily in the form of *pro forma* Context Sheets based on those designed by the Museum of London Archaeological Services (MoLAS) and English Heritage's former Centre

for Archaeology. A full textual, drawn, and photographic record in monochrome and colour formats was compiled for all deposits and features.

2.5.3 The position of the trenches was recorded using a Zeiss total station. The locational information was incorporated with digital map data to create the plan (Fig 2).

2.6 RECORDING DURING CONSOLIDATION WORKS

2.6.1 The purpose of the recording during consolidation works was to capture details of architectural and archaeological interest, in particular those revealed by the stripping of vegetation. Features exposed were either added to the photogrammetric plots or recorded by manual survey.

2.7 WATCHING BRIEF

2.7.1 Eleven 1m square test pits were excavated in and around the castle to allow the placement of lightning conductors to serve the scaffolding surrounding the curtain wall (Fig 2). With the exception of Test Pit 8, all the pits were located outside the curtain wall. Test Pits 1, 2, 3 and 9 were external to the south curtain wall; Test Pit 4 was positioned external to the west wall of the barbican. Test Pits 5, 6 and 7 were positioned external to the north curtain wall, and Test Pits 10 and 11 external to the east wall.

2.7.2 Recording was in the form of *pro forma* Trench Record Sheets. A full textual, drawn, and photographic record in monochrome and colour formats was compiled for all deposits and features.

2.8 ARCHIVE

2.8.1 A full archive of the project has been produced to a professional standard in accordance with the current Institute of Field Archaeologists (2001) and English Heritage guidelines (English Heritage 1991). The archive will be deposited with the Cumbria Record Office in Carlisle, and the finds with Tullie House Museum and Art Gallery, and a copy of the report will be sent to the SMR in Kendal.

3. BACKGROUND

3.1 GEOLOGY AND TOPOGRAPHY

3.1.1 Carboniferous rock dominates the solid geology of the area, with some sandstone to the west and the remainder limestone (Countryside Commission 1998, 15). There are further layers of shale and coal interspersed with the limestone (*ibid*). This is overlain by glacial diamict in most places, which tends to hide the underlying rock (*ibid*), and these glacial deposits are in turn typically covered by cambic stagnohumic gley soils of the Wilcocks 3 association (Ordnance Survey 1983).

3.1.2 The castle is situated at NY 5656 7468, in the north-east corner of a Roman fort, with Demesne Farm only a few yards to the west and the Church of St Cuthbert, its rectory and graveyard, to the south (Plates 2 and 3; Fig 1). The small hamlet of Shopford is to the south of the church, on the edge of the Kirk Beck (Plate 2). The castle is situated on a slight spur above Kirk Beck at approximately 130-40m OD.

3.2 HISTORICAL BACKGROUND

3.2.1 ***Early History:*** the site and environs of Bew Castle have a long history. Flint artefacts discovered to the north indicate activity in the area from as early as the Late Mesolithic period (Richardson 1998, 11–13), although no evidence for settlement has been recovered. There is evidence for Bronze Age activity in the locality, consisting of burial mounds and hut circles; to the north at Shiel Knowe, a mound containing three food vessels with Yorkshire affinities was excavated in the late 1930s (Hodgson 1940; Fell 1967). A roundhouse excavated near Woodhead, in the Bewcastle district, was also found to be of Bronze Age date (Hodgson 1940).

3.2.2 Roman use of the site is well-attested. Some form of earlier enclosure has been postulated, perhaps serving a religious function, which may explain the unusual setting and shape of the Roman earthworks and the later religious connections (McCarthy 2002, 118). The hexagonal fort was probably founded as early as the beginning of the second century AD (Austen 1991, 43). The initial turf and timber ramparts were probably augmented by stone gate houses, before the entire rampart was rebuilt in stone in the later second century AD (*op cit*, 44). Originally, the buildings within the fort were constructed of timber but these were replaced in stone as the ramparts were rebuilt (*op cit*). Subsequently, probably in the later second and third centuries AD, the interior was reorganised and sections of the fort were levelled to house new barracks and other buildings (*op cit*, 45). It is possible that a new, larger garrison was housed in the fort at this time, as is believed to have occurred at a number of other forts (*op cit*, 47). During the early third century AD, the outer rampart appears to have been repositioned and areas of the fort abandoned and rearranged (*op cit*, 48). It would seem that the fort was reduced in scale, perhaps to serve a different type of function, before falling into disuse (*op cit*, 49).

3.2.3 Austen's excavation of the site does not elucidate what happened following the Roman abandonment *c* AD 312; indeed, it is not clear whether later remains were examined at all. The high status of the site in the early medieval period is revealed by the Bewcastle Cross, a nationally important piece of Anglian stone sculpture still

surviving in the churchyard within the fort. It is thought to date to the eighth century (Bailey and Cramp 1988, 61–72) and, although inscribed on three sides, the runes are sufficiently worn as to be indecipherable. Blair (2005, 229) argues that there is a convincing case that the burial places of high-status laity were marked by such stone sculpture from the eighth century onwards, and notes the widespread practice in the former northern provinces of the Empire for kings to grant deserted Roman forts to monastic founders (*op cit*, 188), a process which Hawkes (2003, 352) describes as the appropriation and redefinition of 'the old *imperium*' in the establishment of the Church. Certainly, the Anglian sphere of influence extended into and beyond the area during the seventh and eight centuries (Crowe 2003).

3.2.4 Apart from the insight provided by the cross itself, activities at the site during the period following the Roman occupation and before the building of the castle are invisible. The evidence for land organisation and stone sculpture in the wider region, however, suggests that there was not 'total abandonment and dislocation' of Anglian religious institutions during the Viking Age (Blair 2005, 310–11). Previous excavations discovered quantities of medieval pottery dating to the period between the early thirteenth and mid-fifteenth centuries (Richmond *et al* 1938). On some parts of the site this was associated with the robbing of stone from the Roman remains, with fourteenth-century pottery particularly evident (Gillam 1949; 1954). The nearby church was built around 1200, although the location of any associated settlement is not clear (Salter 1998a, 22).

3.2.5 ***History of Bew Castle:*** the name 'Bew Castle' has been understood as a derivation from 'Beuth's Castle' (Curwen 1922, 186), Beuth being a pre-Norman lord, and father of Gille, the lord of Gilsland in the early twelfth century. This etymology is dismissed by the standard work on the place-names of Cumberland (Armstrong *et al* 1950; 1952), which notes that 'derivation from the personal name *Buet*, which has sometimes been suggested, is made impossible by the early forms' (Armstrong *et al* 1950, 61). Instead, the original form of the name was *Buth*, from the Old Norse word which is also the source for 'booth', and perhaps, therefore, refers to dwellings within the perimeter of the Roman fort. Curwen notes that the valley is known as Bewcastle Dale, not Bewdale, and suggests that this implies an earlier, pre-Norman fortification, apart from the Roman fort (Curwen 1922, 186). Exactly what form any such earlier castle took, assuming it existed, is not known, but Nicolson and Burn's assertion that the earlier Roman defences were reworked is plausible (Nicolson and Burn 1777, **2**, 476). On the other hand, Whitley Castle (NY 6950 4870), with its similar name formation, is, nevertheless, a Roman site without apparent medieval structures. At Bewcastle, the very existence of twelfth- and thirteenth-century forms in *-castre* (Armstrong *et al* 1950, 60) suggests a direct reference to the Roman fortification. Initial ideas and assumptions about the age of Bew Castle placed it soon after the Norman Conquest, built either by William Rufus in the eleventh century (Ferguson 1890, 140; repeated by Salter 1998b, 19), or Edward I in the thirteenth (Curwen 1922, 187–8). Both commentators took the view that its role was to provide a defence against raiding Scots, although Curwen admitted the absence of architectural features of the appropriate date (1922, 188).

3.2.6 While there exist medieval records which mention Bewcastle, there is no guarantee, unless the record itself is specific, that these refer to the castle itself, rather than the settlement or manor. The manor appears to have been annexed by Ranulph le

Meschin (1074–1129), with the honour of Appleby and Carlisle, when he created the borough of Burgh-by-Sands, because the successors in title to Bewcastle held it 'not immediately of the king *in capite*, but mediately as of the barony of Burgh-by-Sands' (Graham 1929, 57). By the mid-fifteenth century, however, the manor had 'lapsed into the hand of the king, as lord paramount' (*op cit*, 67). 'Buthecastre' was sold by the daughters of Juliana de Carrig, herself the sister of Richard de Levington, to Sir John de Swynburne, *c* 1278 (Curwen 1922, 193; Armstrong *et al* 1952, 60). He was granted the right to hold a weekly market in 1279, together with a fair twice-yearly (Graham 1929, 60). Bewcastle's position on the border with Scotland was obviously perilous, and the area was repeatedly attacked in the thirteenth and fourteenth centuries. The church, for instance, is described as 'totally destroyed' in a papal document of 1291 (*op cit*, 61). In 1296 the manor was seized by Edward I on the grounds that Sir Adam de Swynburne, who held it, was too intimate with the Scots, including Robert the Bruce (*op cit*, 64). Sir John de Strivelyn held the manor from 1327, when he married Barnaba de Swynburne. The first direct reference to the castle itself is in 1378, when it is mentioned in the *post mortem* inquisition of Sir John de Strivelyn (*op cit*, 65). It is noteworthy that the escutcheon now built into the wall of a barn on the adjoining farm, and thought to have originated from the barbican (Ryder 2002, 4), bears the arms of de Strivelyn (*Section 4.4.2*).

3.2.7 Jacoba de Emeldon, wife of John de Strivelyn, was granted the castle and manor, and died in 1391 (Graham 1929, 66); the castle then passed to John de Middleton and his wife Christiana (Curwen 1922, 188; Graham 1929, 66). In 1401, however, five years after John's death, the Scots took Christiana and her son John captive, a consequence of the 'default of watch and good governance' (Graham 1929, 67). They appear to have been ransomed, and were pardoned by Henry IV, the castle and manor being returned to Christiana (Curwen 1922, 188), who died *c* 1421. Edward IV appointed his brother, Richard, Duke of Gloucester, Warden of the West March, in 1470. The castle was garrisoned *c* 1474 (Summerson 1996, 98), and in 1482 Edward confirmed the castle, manor and lordship to Richard and his heirs (Graham 1929, 67). As king, in 1483, Richard let the lands at Bewcastle to Cuthbert and John Routledge, Robert Elwald and Gerard Nyxon (*ibid*; Jones 1969, 139). These men paid no rent but were to uphold the 'king's wars' against the Scots.

3.2.8 With the accession of Henry VII in 1485, an infamous Border family, the Musgraves, gained control of Bew Castle. In about 1492 the King granted the office of constable of the castle to Sir John Musgrave and his son Thomas, together with the lands in Bewcastle dale formerly held by John de Middleton (Graham 1929, 68; Summerson 1996, 105). The castle appears to have suffered some damage during the Anglo-Scottish War of 1496–7, since expenditure on it features in Lord Dacre's accounts around this time (Summerson 1996, 112). The position of the Musgraves was reaffirmed and clarified in 1515 by Henry VIII, when Thomas Musgrave succeeded his father and was granted the offices of constable of Bewcastle and chief forester of Nicholforest, as well as all of the lands and parks formerly held by the Middletons (Curwen 1922, 193; Graham 1929, 68). Successive generations of Musgraves held onto Bew Castle until the early seventeenth century and, although technically in the pay of the Crown, were renowned for violence, criminality, feuding and rough justice: in the Borders, at the time, this was the way of life. In 1517, correspondence between Lord Dacre and Wolsey indicates that there were

plans to remove Bew Castle altogether, as part of a larger strategy to improve security in the Borders (Curwen 1922, 193). However, not only did the castle remain, but Musgrave also managed to survive in his post for another ten years, and was eventually replaced by William, Lord Dacre, Warden of the West March, but not before he had stripped the castle of anything of value, including the lead from the windows, and left it uninhabitable (Brewer 1875, 1672, 1827).

3.2.9 By 1531, Thomas Musgrave was dead and the post of constable was granted by Henry VIII to Sir William Musgrave (Curwen 1922, 194). Two years later there was a general review of ordnance, mainly in relation to Carlisle, but including Bewcastle (Gairdner 1882). At Lord Dacre's trial for treason in 1536, Musgrave testified that Dacre had intended to betray the king and Bew Castle: in this it is more than likely that he served his own interest as much as that of justice (Gairdner 1883). Sir William was married to a wealthy woman of property and increasingly preferred to spend his time in London rather than at Bew Castle, as did his deputy John Musgrave, and complaints were made in 1537 about the impossibility of controlling such a wild area from this distance (Curwen 1922, 194). Ironically however, in 1540, William wrote to the king's agent begging for pity after he had been left in debt by the actions of his former wife (Gairdner and Brodie 1896).

3.2.10 The 1540s were a period during which England and Scotland were on a war footing, and although, with one exception, no specific documentation has been traced, it is likely that Bew Castle played a part, especially as the circumstances afforded additional opportunities to pursue long-term feuds. In 1541 the Armstrongs, one of a number of notorious Border families, attacked Bewcastle, and burned John Musgrave's house (Fraser 1995, 245). John Musgrave was made constable at Bew Castle following the death of William, late in 1544 (Curwen 1922, 194). The ongoing war with Scotland appears to have prompted Henry VIII to review the ordnance in the Marches, including at Bew Castle, where two guns are recorded, both unserviceable (Gairdner and Brodie 1905). The condition of the castle declined during the period following the death of the king, while Scotland and England individually wrestled with reformation and counter-reformation. A detailed survey of 1565, following the accession of Elizabeth, recommended repairs (Green 1870; Tough 1928). After 1569, a note in the state papers describes the castle as 'sore spoiled… and worse governed' (Tough 1928, 14). Another survey, in 1580, resulted in £200 being made available for repairs (Curwen 1922). Tensions and cross-border violence had not abated: in 1582 Thomas Musgrave, deputy-captain of Bew Castle, brought an action against Walter Scott, laird of Buccleugh, for losses of cows and sheep (Graham 1911a, 65); while in 1583, Musgrave was forced to abandon his post as deputy-captain of Bewcastle following an escalation in his feud with the Graham family of Eskdale (*op cit*, 86).

3.2.11 Conflict and brutality were integral to local culture: in 1599, for example, several people were killed following an attempted kidnapping after a football match between the locals and visiting Armstrongs from across the border (Fraser 1995, 76). Repairs to the castle were suggested in 1583 but the tenants were considered too poor to be expected to pay for them (Bain 1894, 100). Bewcastle features in the histories of a number of famous border reivers during the sixteenth century, either as friends or foes, including Hobbie Noble, Jock O' the Side and several members of the notorious Graham family (Armstrong *et al* 1952, xxxvii; Fraser 1995, 79n).

3.2.12 Francis Stewart, the Earl of Bothwell, a noted enemy of the Scottish court, was entertained at Bew Castle on at least one occasion, in 1592 (Curwen 1922, 195). In 1602, another Thomas Musgrave, then deputy to his father, Simon, fell out with his neighbour, Lancelot Carleton, and was accused by him of treason and neglect of duty (Curwen 1922, 196). The charge was to be settled by single combat but was probably cancelled by the death of the Queen (*ibid*). A survey of 1604 described the castle as almost uninhabitable (Sanderson 1891; Curwen 1922, 196), but Thomas managed both to obtain re-appointment by James I (Curwen 1922, 196), and to maintain royal approval right up to his death around 1608 (Sanderson 1891, 29).

3.2.13 The castle was leased to the Earl of Cumberland in 1614, for £20 *per annum*, before being purchased by Sir Richard Graham in 1629 (Green 1858; Curwen 1922, 196). It was garrisoned again in 1639, during the Civil War, by 100 men, and afterwards was dismantled, although there is a local tradition that it was reduced by cannons in 1641 (Curwen 1922, 189). The state papers, the source of most information about Bew Castle, are silent from the early seventeenth century onwards.

3.2.14 In keeping with the picturesque movement of the time, Hutchinson (1794) described it as a romantic ruin. It remained in this condition throughout the eighteenth and nineteenth centuries, unused except by wandering cattle (Anon 1802). The area continued wild and lawless during the nineteenth century: the people of Bewcastle were renowned for being 'rough and dangerous' (Collingwood 1949, 134), and were known to be engaged in the illegal production of liquor (Evans 1993, 78).

3.2.15 A description of the castle in 1892 suggests that it was then in slightly better condition than today (Taylor 1892). Around 1820, the 'Bewcastle Demesne' limeworks were built approximately 1km to the west (Mawson 1980, 147), as part of general land improvements carried out by the Graham family. Although there are no direct references to it, it is conceivable that the castle provided a convenient source of readily reusable stone. In 1829, the demesne belonged to Sir JRG Graham (Parson and White 1829, 409), who encouraged significant agricultural improvements in the area (McCarthy 2002, 26). Demesne Farm was probably built in the early eighteenth century, with a barn dated 1823 to the west (Ryder 2002, 6–7). Further barns were added during the later twentieth century (Austen 1991).

3.2.16 ***Development of the castle:*** there are few documentary sources that make specific reference to the fabric or structure of the castle itself until the sixteenth century. The form of the earliest castle on the site is not known, although it has been postulated that something along the lines of a motte and bailey may have originally been constructed (Jackson 1997, 12). Jackson suggests up to three different castles may have existed on the site prior to the present version, not including the Roman fort, although there is no evidence to support any of these. The history of the area is one of constant warring between shifting factions, and it is likely that from the earliest times, as in the later and better documented period, the site was pivotal to the fortunes of its inhabitants.

3.2.17 The first direct reference to the castle, on the death of John de Strivelyn in 1378, does not mention its form or structure (Graham 1929, 65). The absence of any reference in the state papers to a castle at this site during the Scottish Wars of

Independence of the thirteenth and fourteenth centuries is, as Curwen points out (1922, 188), 'a very curious fact' and possibly implies that the original structure may have been founded no earlier than the mid-fourteenth century. The form taken by the place-names tends to support this (Armstrong *et al* 1952). A source in 1538 describes the castle as 'waste' for the preceding 60 years, though in the guardianship of Richard, Duke of Gloucester, Warden of the West March, at the beginning of that period (Graham 1929, 67–8). When, in 1528, the Musgraves were ordered to leave, they left the castle uninhabitable (Curwen 1922, 194). Hence, the '60 years of waste' may be an exaggeration of poor maintenance and a reference to this parting gesture, if not also a device by the Dacres to secure additional funding, following their takeover by King's Patent (*Section 3.2.8*).

3.2.18 All of the early detailed descriptions of the remains of the castle (Nanson 1878; Taylor 1892; Graham 1911b; Curwen 1922) conclude that it is likely to be relatively late in date, perhaps as late as the sixteenth century, and no earlier than the beginning of the fifteenth. This was based on the late style of the windows and the chimneys built into the walls, which were not common even in the fifteenth century (Curwen 1922, 192). Taylor's description (1892) demonstrates that considerably more was standing at that time than today, including large parts of the north and east walls, with windows and fireplaces visible in the west wall. Interestingly, he mentions brick in the make-up of the rubble wall fill, which, if correct, might suggest reuse of material from a very late structure. The reuse of Roman masonry is also noted, which is perhaps unsurprising given its location.

3.2.19 It is certain that there was a drawbridge across the moat during the sixteenth century, as it enabled a Musgrave to escape the pursuing Armstrongs in 1531 (Curwen 1922, 191–2). £100 was paid by William, Lord Dacre, to William Musgrave for repairs to the castle in 1532, although it is not clear how or if this was spent (Curwen 1922, 194). Further repairs were ordered in 1565 during the rivalry between Elizabeth and Mary, Queen of Scots (Green 1870; Tough 1928).

3.2.20 The total costs for the work were reckoned at around £320 (Green 1870). Some indication of the scale of the work necessary to bring Bew Castle up to an acceptable standard may be gained by comparing this sum with others allocated, for instance, Carlisle Castle £454, and the city walls of Carlisle, £287, both very much more considerable edifices. In 1569, £200 was provided to carry out repairs (Green 1871), although the relationship between this sum and the 1565 survey is not known. Another survey, in 1580, by Christopher Dacre, suggested that £200 would be necessary for repair of the castle, and that this did not include 'ye moote and an old decayed wall within and about the same', since such additional expenditure could be saved until the times were more needful (Curwen 1922, 195). In 1604, it is again described as ruinous, to the extent that 'there is not anye roome thereof wherein a man maye sytt drye', although it continued to be used as a prison, and a survey estimated that £300 was required for repairs (Curwen 1922, 189).

3.2.21 During the eighteenth and nineteenth centuries it was recorded only as a ruin. The south side was described as almost entirely intact and 14 yards high in the late eighteenth century (Hutchinson 1794). The fact, though, that a cow was allowed to wander into the castle demonstrates the extent of its neglect (Anon 1802). The cow is described as climbing a staircase and becoming stuck and, although it is not specified which staircase, there is no evidence that more than one survived at this

time. An engraving by Thomas Pennant from 1801 shows the north wall to be considerably more intact than today (reproduced in Jackson 1997, 25). Openings in the wall shown on the engraving were considered by Taylor (1892) to mark the position of the principal windows.

3.2.22 ***Arrangement of the castle:*** attempts to outline the internal form of the castle have been made by a number of people (*eg* Curwen 1913; Ryder 2002). It has always been assumed that internal buildings were arranged along the walls, although no remains survived to show where (Ryder 2002, 1). Perriam and Robinson (1998, 47) suggested, based on earlier descriptions of the remains, that the now ruinous north wall may have housed the great hall, while the kitchen and bakehouse were positioned along the west wall, and the parlour or parlours may have been along the south wall (Plate 4).

3.2.23 The survey of the border strongholds, reported by Christopher Dacre to the Queen's Secretary, Walsingham, in September 1580 (Green 1872), includes the first detailed inventory of the components of the castle, and its general condition, and suggests ways in which it may be improved. In his unpublished report, Jackson (1997) enumerates the details of the survey. On the north side there was not only a 50ft (15.25m) breach of the wall but several other additional smaller breaches. The whole castle was to be repointed, and one wall is described as having a chimney. The castle is described as possessing a great hall, kitchen/bakehouse, pantry and parlour, as well as wooden gates and a drawbridge, all of which were considered to require alteration, repair or rebuilding. Further recommendations included the construction of a small house for the captain, and a prison, with the provision of barns and stables. The total costs for the work were reckoned at around £320 (*ibid*).

4. RESULTS

4.1 THE CASTLE

4.1.1 The standing remains of Bew Castle comprise remnants of the curtain wall and the barbican. The castle is roughly square in plan, with the barbican attached towards the southern end of the west curtain wall (Fig 2). Preservation of the monument is extremely variable, with the better preserved elements along the southern and western sides. The barbican is the most complete survival, standing to an approximate height of 12.5m, projecting slightly higher than the southern and western sections of the curtain wall (Plate 5). These are both moderately well preserved, although many facing stones have been robbed from below plinth level on the external faces (Plate 6; Figs 3 and 4). Only two pinnacles of the northern elevation survive (Plate 7; Figs 5 and 6), while the east curtain wall exists as little more than an earthwork, with the exception of its junction with the southern part of the curtain wall (Fig 7).

4.1.2 The *enceinte* comprises rough pasture, grazed until recently by cattle and sheep. Buried structural remains and wall tumble may account for its unevenness underfoot. It is 1.5m higher at the eastern edge than in the centre, rising between 0.5m and 1.0m to the north, south and west walls of the site. The enclosed area of the barbican has been more severely trampled and eroded, and is now bare earth above a significant deposit of wall tumble. The moat, partly on the line of the outer ditch of the Roman fort, is well-preserved, although cattle are eroding its base and steeper inner face. The base is, however, heavily silted, reducing the impact of this erosion.

4.2 RECORDING DURING CONSOLIDATION WORKS

4.2.1 The building investigation was undertaken during both phases of the consolidation works, after the evaluation trenching. Consolidation work was undertaken on the entirety of the extant curtain wall and the barbican. Although the investigation was carried out over two seasons, with additional information gathered during the watching brief, the results are presented as a single descriptive narrative. The castle appears to have two main phases of development (Phases 1 and 2), with later smaller-scale interventions (Phase 3) recognised through stratigraphic relationships and architectural style.

4.3 PHASE 1

4.3.1 ***South Curtain Wall:*** the curtain wall, most probably constructed in the mid-fourteenth century, represents the earliest phase observed. Over 50% of the original fabric is now lost, and a considerable proportion of the original *in situ* fabric comprises corework, especially within the internal elevations. The south elevation of the curtain wall, however, is almost intact, and the better preserved external elevation provides detail, probably indicative of the remainder of the curtain wall (Plate 5). It is almost exclusively constructed from local limestone, although several granite fragments were observed within the external elevation. Construction

comprises a rubble core of angular stone, bonded in a thick, pale grey, lime mortar with grit inclusions (Plate 8), with a facing of roughly dressed sub-rectangular blocks, typically measuring from 0.10 x 0.15m to 0.25 x 0.45m in size (Fig 3). Although stones of random sizes were utilised in the construction, some sorting appears to have occurred, with those of similar sizes grouped together in an attempt to maintain approximately level construction lifts (Fig 3). Many courses contain shallow fillets, again used to level the wall during construction. Several of the much larger stones appear reused, perhaps originating from the Roman fort.

4.3.2 The most striking feature of the curtain wall is a chamfered plinth, typically 2.1m above present ground level, 0.23m high, and generally seen within the external elevations (Plate 5; Fig 3). It is largely continuous around the southern and western elevations, suggesting that it was once a feature of the entire circuit of the curtain wall. A small section survives within the later barbican. The south wall narrows by 0.15m above the plinth, and below it many of the facing stones have been robbed. Approximately 5.5m above the plinth, in both the south and west curtain walls, a second narrowing of the wall (0.05m) was observed (Figs 3, 4 and 7). This upper change of plane was not, however, associated with a plinth. It has been suggested that this represents an hiatus during the initial construction of the curtain wall (Ryder 2002), but no supporting evidence was apparent within either the exposed core or face work on the internal elevation. Another theory is that its position immediately below the Phase 3 windows (*Section 4.5.3*) suggests refacing work following their insertion: against this, however, the narrowing continues around the west wall (Figs 3 and 4). It is more likely, therefore, that it had a structural function, and may have served to reduce the load imposed by the upper part of the curtain wall, a not uncommon feature, similar to that at Carlisle Castle, where the twelfth-century keep has two chamfered offsets (McCarthy *et al* 1990).

4.3.3 Within the south curtain wall, several elements observed at the top of the wall suggest that the extant remains represent a wall-walk rather than the wall top, the original summit probably being *c* 1.2m higher than the remains. Several facing stones of an internal parapet wall were observed towards the western end of the elevation at the point where it survives to its greatest height (Fig 8). The facing stones comprise up to three courses, to a maximum height of 0.40m, and were seen to survive for a length of 3.85m. At the eastern end of the parapet, flush with the wall-walk level, a grooved through-stone served as a drain. A similar grooved drain was observed towards the other end of the south curtain wall, where one course of the external face work of the parapet wall has survived (Fig 3).

4.3.4 Several other features that appear to date from the original construction of the present castle were observed within the inner face of the south curtain wall. The most striking of these are the two bottle-shaped flues serving the first-floor fireplaces (Fig 8). Although neither has survived intact, with none of the facing stones remaining *in situ*, a large proportion of the side walls and both back walls are extant (Plate 8). These are faced with roughly-dressed limestone blocks, similar to those used elsewhere in the curtain wall. The side walls survive to an average depth of 0.2m. The upper extent of each flue is angled back and recessed into the wall thickness, indicating that the flues vented within the parapet wall. The top of a similarly sized aperture, backfilled with loose rubble, was observed midway between the extant flues. Only the upper 1m of the feature survived, making any

interpretation conjectural, but it is thought more likely that it represents a vertical chute, perhaps for a garderobe, rather than another flue.

4.3.5 Below the chute, at first-floor level, a drain was noted, being one of two within this elevation. Although the face work was missing in this part of the wall (Fig 8), the drain would appear to have been open to the face. It falls through the wall at an angle of 45˚, in the vertical plane, to drain from the external face (Fig 3). The second drain is offset slightly to the east, and again located at first-floor level (Fig 8). It is in a better state of preservation, retaining its entire face, which comprises a flat, single-piece lintel and a large stone sill. The sill is flush with the face of the wall and shaped at the centre to form a curved base to the opening. An aperture *c* 1m to the east within the external face of the wall (Fig 3) would appear to be the outlet of the drain, suggesting that it runs at an angle. It is noteworthy that the angle of the drain places it in the lee of the prevailing westerly wind.

4.3.6 ***West Curtain Wall:*** this survives to a much lesser extent than the south curtain wall. Externally, it is partially obscured by the later addition of the barbican (Fig 4), which caused some remodelling. However, despite these changes, the west curtain wall retains many original features, the most obvious of which are the remains of the gateway. The partially blocked opening is located towards the southern end of the wall, and externally is enclosed by the barbican (Fig 9). Although the dressings of the gateway and arch have been removed, it still proved possible to determine that the outer face of the arch was recessed within a square-topped rebate (Fig 9). Located immediately above what would have been the gateway, and in a central location, a quoin-dressed aperture was observed. This is possibly a quenching hole, or *meurtrière* (Ryder 2002, 3). It would appear originally to have had splayed reveals, with the southern reveal surviving to a width of 0.45m. The northern reveal was at some time blocked to form a deeper splay, surviving for a length of 0.9m, but it is likely to have originally spanned the entire 1.21m thickness of the wall.

4.3.7 To the south of the barbican, the curtain survives to approximately the same height as the south curtain wall, and the external elevation retains most of its face work above plinth level. The plinth and all the lower face work have been robbed (Fig 4). Large quoins survive at the upper level of the south end of the wall. The only feature observed within this section of the curtain wall was the slightly ephemeral continuation of the upper narrowing of the wall, within the external face, and approximately 7.5m above present ground level.

4.3.8 To the north of the barbican, the wall is less well-preserved, and comprises mainly core, especially internally, with the central section of wall missing completely above 3m from the present ground level (Fig 4; Plate 6). Externally, and to the immediate north of the barbican, face work survives both above and below the plinth, the area below being limited to a 2m length. Only four stones survive to represent the plinth itself. Within the upper face work, the narrowing of the wall is more pronounced than elsewhere, being stepped back up to 0.11m. Approximately 5m above ground level, two voids (Plates 9 and 10) were observed within the external face work, positioned 0.8m apart. The southern is blocked, and indistinguishable within the badly eroded core on the internal face, while the other has a clear passage through the thickness of the wall and is slightly angled (Fig 10). It is possible that the larger void to the south represents the true size of that to the north. Given that they pierce the curtain wall at approximately 90°, and are situated

close to the main gateway, it is possible that they represent the remains of gunloops which, given the narrow diameter and declination of the extant example, were perhaps more for show than utility (Johnson 2002, 85).

4.3.9 Internally, little survives of the face work of the west wall. Occasional facing stones project from the core along the length of the elevation, with the most complete survival located towards the southern end of the wall (Fig 10). A row of three joist sockets were observed at first-floor level in an area of approximately 8m² of surviving wall face (Fig 10). Although less well-preserved, these are similar in size and position to those in the southern elevation (Fig 8), suggesting that the first-floor level continued around the western side of the castle. The south wall joists continue into the angle between the two walls and were either supported by a wall to the north or, less optimally, by the nearest joist of the west wall's first floor. Removal of vegetation above the joist holes in the west wall revealed that for a length of 3.4m, the face is set back 0.3m from the line of the internal face. Two rectangular stones project from this recessed face to form steps up the wall (Plate 11). Three well-defined step sockets were observed with risers of approximately 180mm, and there was sufficient evidence to posit a total of 12 steps. This flight of steps, which had later been demolished and blocked with rubble (*Section 4.5.2*), probably provided access to a parapet walkway.

4.3.10 Although not keyed into the south wall at second-floor level, the extant face work at the south end of the internal elevation of the west wall would appear to be original, the west end of the south elevation having evidently undergone a rebuild above the upper joist sockets. The original face work is located at second floor level, to the south of a feature of unclear function, similar in appearance to a door embrasure or possibly a loophole. To the north, it is butted by Phase 3 core material bonded with an orange lime mortar (*Section 4.5.1*). A further small area of face work was observed to the north of this. This is recessed from the face of the wall and could represent the original re-entrant into the gateway.

4.3.11 At the northern end of the internal elevation, the curtain wall returns to the east to become the north curtain wall. Although in strict terms the features described below are within the internal elevation of the north wall, they are presented here because of their direct relationship with the west wall. At first-floor level, four quoin stones, positioned at the junction with the north curtain wall, represent the remains of a door jamb (Figs 4 and 5; Plate 12). Although positioned flush with the inner face of the west curtain wall, the quoins face south. Two smaller quoins are positioned immediately to the west, alongside the lower two quoins of the jamb, thus forming a rebate. No evidence for a threshold was observed within the surviving fabric, although the position of a large beam slot, 0.30 x 0.32m, almost immediately below and to the east of the jamb, would suggest that the surviving length of door jamb was the lower section. Too little of the fabric of the wall survives to suggest the presence of an intramural passage but the possibility should not be ruled out. Any relationship with the staircase to the south was unclear.

4.3.12 ***North Curtain Wall:*** only two small sections of the northern element of the curtain wall survive, comprising *c* 2.5m of the return of the west wall, and an isolated 'pinnacle' of fabric measuring 4.5m in height and up to 2.5m in width (Figs 5 and 6). The isolated section solely comprises exposed corework, while the western section retains significant areas of face work above the plinth, and internally, a

small but significant area at its junction with the west elevation. The upper level features (door jamb and joist socket) are described in *Section 4.3.11*. Externally, the plinth survives and is at the same level as on the west wall. Only three facing stones survive below, the remainder having been robbed. Above the plinth the face is intact. A small void positioned 1.0m above the plinth, near the eastern edge of the surviving face, is continuous through the wall and visible in the core of the internal face. It most probably represents a putlog hole.

4.3.13 ***East Curtain Wall:*** very little survives of the eastern part of the curtain wall, the majority of which was overbuilt with a field boundary following abandonment (Fig 7). The wall is best preserved at its southern end, with a length of 4.2m surviving up to 5.4m high. Internally, the extant fabric consists almost entirely of core, with the exception of several face stones keyed into the southern section of the curtain wall (Fig 11). A larger quantity of face work survives high at the southern end of the external face (Fig 7), measuring approximately 1.5 x 4.8m. A single feature was observed within the core and comprises a sub-rectangular void, which penetrates the full thickness of the extant fabric. This void has been interpreted as the remains of a ground-floor drain, and is similar to features observed at first-floor level in the south wall (*Section 4.3.5*).

4.4 PHASE 2

4.4.1 ***The Barbican:*** the second phase of fabric observed within the extant remains probably dates from the mid-sixteenth century (*Sections 3.2.10* and *3.2.18–19*), and comprises a major episode of expansion to the castle, with the addition of a barbican (Fig 2). This was constructed up against the existing gateway, 3.6m north from the southern end of the west curtain wall. It is rectangular in plan, projects 5.7m from the curtain wall, and survives to a height of 11.6m. Following the removal of vegetation from the upper levels of the west wall and barbican, a straight joint between the two structures was clearly visible (Plate 13). The barbican is entered from the north, the gateway being recessed between the west wall of the barbican and the west curtain wall (Figs 12 and 13; Plate 7). Although in a ruinous condition, the archway would appear to have had a segmental head. An oversailing course to the west of the gateway acts as rudimentary machicolation.

4.4.2 As in the Phase 1 gateway, the arch of the barbican entrance is recessed within a square-headed rebate. Several of the chamfered quoins forming the jambs of the gateway survive *in situ*. A dressed voussoir on the western side of the gateway indicates the springing point of the arch, 1.65m above the internal ground level. On the internal side of the eastern jamb are two drawbar slots (Fig 14), which extend through to the exposed core of the west face of the barbican (Fig 15). Positioned centrally above the entrance to the barbican, an irregular void (Fig 13), in the face work of the wall was interpreted by Ryder (2002, 4) as the setting for a stone slab bearing the arms of Strivelyn, now built into a barn nearby (*ibid*). The association of the de Strivelyns with the castle ceased in 1391, however, with the death of Jacoba (*Sections 3.2.6–7* and *6.3.2*).

4.4.3 Externally, the barbican appears of similar construction to the Phase 1 structure. Similarly-sized, squared, local stone was used, bonded in a lime, grit and sand

mortar. The plinth was replicated, and elements of it survive on the south and north walls, while that on the inner, eastern face of the gateway cheek is positioned 0.4m lower. The plinth almost certainly continued around the west wall, which is very poorly preserved, with facework only surviving at the upper levels (Fig 15). The south external face of the barbican is far better preserved (Fig 16). Three large quoins survive at its corner with the west wall, as does most of the plinth.

4.4.4 The most significant features of the barbican are the two garderobes and their associated passageways. The more intact of these is positioned at first-floor level within the west and south walls. Entry is through a square-headed doorway (Fig 17) in the west wall, which provides access to an intramural passage. A flight of nine stone steps (Fig 17) leads up to the garderobe chamber. Light is provided by two apertures within the north wall of the passage, which narrow to the size of arrow-loops (Fig 18). Regular alcoves within the south wall (Fig 19) and chamber (Fig 17) presumably housed candles. The chamber itself is visible in an area of wall collapse on the outer face of the south wall, together with two chute outlets (Fig 16).

4.4.5 Evidence for a second garderobe was observed at wall-top height, following the removal of vegetation. The chute was positioned vertically above the lower chamber and was associated with an edge-set flagstone reminiscent of a 'seat' (Plate 14). Access was *via* an intramural passage, whose low standing remains were observed. The passage is located at the end of a parapet walkway, and a sandstone jamb (Plate 15) is evidence for a doorway between the two. The wall-walk ran the entire remaining length of the south wall (Plate 16) and includes a through-stone drain with a U-shaped central channel (Plate 17). A short section of wall-walk also survived at the northern end of the west elevation (Plate 18).

4.5 PHASE 3

4.5.1 ***West Curtain Wall***: there is physical evidence to suggest that the west curtain wall underwent a phase of remodelling following the construction of the barbican. No documentary evidence is available to date the remodelling, and the stratigraphic relationships between the barbican, curtain wall and several areas of alteration within the west wall are tenuous. The remodelling has been attributed to Phase 3 based on architectural style and type of fabric. The remodelling of the west curtain wall was apparent internally, at its junction with the barbican. It is worthy of note that the mortar utilised in the remodelling works is more orange in colour than that used in the barbican (*Section 4.3.10*).

4.5.2 The most significant remodelling observed within the west curtain wall was the blocking of the Phase 1 stairs leading to the parapet walkway (Fig 10). It appears that, rather than simply blocking the entrance to the stairway, the entire stairwell was infilled, thus re-incorporating the intramural passage into the curtain wall. A further area of rubble infilling was observed to the south of the stairway and probably represents the blocking of the original re-entrant in the west wall.

4.5.3 ***Windows:*** a striking alteration to the curtain walls during the Phase 3 remodelling was the insertion of large windows, a development which would have improved the comfort and style of the previously dark, utilitarian structure (Plates 5 and 8). The positioning of similar windows in the west and north walls is implied by the

patterns of collapse of the extant fabric. The two south wall windows survive at second-floor level, the western example being blocked (Fig 8). Both measure 1.8m in height and 0.86m in width, with limestone lintels and sills flush with the external elevation. The transom and mullion remain *in situ* in the western window (Fig 20; Plate 19). Only a fragment of the transom survives in the east window (Fig 21). Both elements are moulded with simple chamfers. The jambs for both comprise seven rough-finished quoins.

4.5.4 A pair of sub-circular sockets (0.06m²) was observed in each sill, spaced 0.14m from the window jambs. Slightly squarer sockets (0.07m²) were also observed in the first, second, fifth and sixth courses of the jamb (Plate 20). These represent the position of the glazing bars, demonstrating that each quarter of the window housed six lights. Internally, the facework of both windows is lost (Fig 8), but elements of the splayed embrasures survive, in particular the segmental stone arches above the window aperture (Fig 8; Plate 21). The open embrasure of the eastern window survives relatively intact (Plate 22).

4.6 PHASE 4

4.6.1 This phase represents the final occupation of the castle, and its subsequent abandonment and decay. Limited evidence survives for alterations to the fabric. The west window in the south wall appears to have been blocked. It is probable that the other window was also blocked, the blocking subsequently collapsing. The majority of activity in this phase appears to have consisted of the robbing of stone, most especially below the level of the plinth.

4.6.2 The collapse of the structure seems to have been gradual and continuous. Each subsequent historical depiction or description demonstrates the loss of additional elements (*Section 3.2.18*). Generally, windows would appear to have been the focal point of collapse, with the exception of the south wall, although even there a large crack is visible from the base of the wall to the window sill of the blocked west window (Plates 5 and 8).

4.6.3 ***Field Walls:*** three late field walls, presumably of late-nineteenth- or early-twentieth-century origin, were added to the structure, two butting the external east and west elevations and another across the Phase 1 entrance, allowing the enclosure of livestock either within the barbican or *enceinte*.

4.7 EVALUATION TRENCHING

4.7.1 The archaeological evaluation comprised the excavation of a cruciform-shaped trench, in the centre of the castle (Fig 2; Plate 23). The trenches measured 2 x 14.5m and 2 x 17.5m. In view of the constraints of access and Health and Safety issues, the trench was partially excavated in 2003 and then extended in the 2004 season. This followed discussions with the English Heritage Inspector and the consolidation of the west and north sections of the curtain wall. The following results incorporate both seasons of work. The paucity of the artefactual assemblage (*Section 5*) does not allow accurate dating of the various phases of activity, but the stratigraphy (*Appendix 3*) does allow the results to be presented in chronological order.

4.8 PHASE 1

4.8.1 Several apparently original structural features were observed below rubble layers throughout the trench, suggesting the potential for good survival of fabric across the entire interior of the castle (Fig 22). The most substantial features observed comprised sections of the north and east curtain walls (***25*** and ***32*** respectively) and walls associated with the north and east ranges (***12*** and ***06*** respectively).

4.8.2 The north curtain wall (***25***) was exposed for a length of 1m along its inner, south face (Fig 22). The core-filled wall was constructed of randomly laid, dressed limestone blocks, measuring typically 0.20 x 0.15m. The extant remains comprised four courses to a height of 1.10m (Fig 23). The internal, west face of the east curtain wall (***32***) was only exposed in plan, but sufficiently to establish its position and relationship with a later Phase 2 partition (*Section 4.9.2*). Both elements of the curtain wall appear similar in construction and fabric to the upstanding sections. The north range wall (***12***) was situated 6.1m to the south of wall ***25***, on a similar alignment (Fig 22). Both faces of the wall were exposed and comprised a level course of dressed limestone blocks with a rubble core. The blocks typically measured 0.3 x 0.3m. The wall was relatively wide (1.3m): two particularly large blocks in the south face may simply reflect its external aspect.

4.8.3 The east range wall (***06***) was 5.2m west of wall ***32*** on a parallel alignment. It measured 1.1m in width and survived to a height of 1.2m, comprising up to nine courses on its east face. It was of double-skinned construction with a rubble core. Evidence for a foundation plinth projecting 0.06m was observed on the east side of the wall (Fig 24). The structural remains of a doorway and window were apparent within the fabric of the wall. The majority of the fabric of the doorway, including its south jamb, lay beyond the limit of excavation (Fig 22); however, the dressed stone blocks of the north jamb and part of the threshold survived *in situ*, suggesting a similar state of preservation for the remainder of the doorway. The jamb comprised three dressed sandstone quoins, measuring between 0.3m and 0.4m in height, with an 80mm deep chamfer on the external (west) face (Plate 24). A shallower (40mm) chamfer on the internal face adjoined a 60mm deep rebate for the door (Figs 22 and 24; Plate 25). The heavily-worn, two-stone threshold stepped down 35mm into what would have been the interior. Towards the northern end of the stone on the internal side of the threshold was a 'U'-shaped socket (50 x 40mm). This was too far from the door jamb to represent the housing for a harr-hung door and its purpose remains unclear. In the upper course of the north end of wall ***06***, a window reveal was observed (Plate 26; Fig 22), which a later modification had blocked with rubble (*Section 4.9.2*).

4.8.4 A cobbled surface (***13***, Plate 27), representing the remains of a courtyard, was observed throughout the evaluation trench, outside the north and east ranges (walls ***06*** and ***12***). It was also observed in Test Pit 8 (*Section 4.12.9*) and the *enceinte* (Fig 2). It comprised almost exclusively limestone pebbles, for the most part sub-rectangular, with a few more angular examples. It was neatly laid, fairly level (rising west to east) and heavily worn. There was no evidence for a bonding material. Several patches of repair were observed (*Section 4.9.6*), but the majority of the surface appeared to date from the earliest phase. The removal of an area of rough repair (***21***) revealed a make-up layer, ***28***, which is probably representative of

the make-up for the entire courtyard. It comprised a compacted layer of small stones, typically measuring 50 x 30mm (Plate 28).

4.8.5 A layer of dark brown/black compacted clay (***05***), observed in the northern part of the trench, to the north of wall ***12,*** appeared to represent a make-up layer below original flooring in the north range; the floor was probably removed around the time of the abandonment of the castle (Phase 4). The layer was left *in situ*, and is therefore of unknown thickness. A discrete area of thin mortar (***23***), *c* 0.6m in diameter, overlay this (Fig 22), and possibly represents the bedding for a flagstone or tile floor.

4.8.6 Wall ***08***, *c* 0.9m to the west of, and parallel with, wall ***06*** (Fig 22), may be contemporary with it. Only partial excavation was possible, but it appeared to consist of a double-skin limestone construction, similar to the walls described above, but with a greatly reduced core, totalling only *c* 0.5m in width. The east face survived to a height of 0.7m and comprised four courses of roughly dressed limestone blocks, typically measuring 0.25 x 0.15m. The northern end of the wall had a ragged terminus, suggesting it may have been robbed. It may have originally returned east, beyond the edge of the trench, but there was insufficient evidence to prove this. A sub-rectangular pit (***17***), measuring *c* 0.5 x 0.5m, was observed to the north of wall ***08***, within cobble surface ***13***. The pit was filled with a dark brown clay-silt (***18***) that contained medieval and residual Roman pottery (*Section 5*). The arrangement of the cobbles surrounding the pit suggests they may have been relaid, implying that the original cut was larger, measuring *c* 1.45m in length from the northern end of wall ***08***, in which case it could represent a foundation or a robber trench relating to the wall. The wall itself quite possibly represents the south end of a stone stairway serving the first floor of the east range. Given the adjacent position of the window observed in wall ***06***, the stair would presumably have been open to allow light into the window.

4.8.7 During the latter stages of the consolidation works, ground-level reduction along the inner face of the west curtain wall revealed a 1.6m length of what appeared to be the west end of wall ***12*** (Fig 22). It was of similar construction, 1.2m in width, but unlike the fabric observed within the evaluation trench, it survived above first-course level, to a maximum height of 0.5m.

4.9 PHASE 2

4.9.1 This phase represents remodelling of the east range and repairs to the courtyard. No datable material was recovered from the evaluation trench, so it is unclear whether these modifications relate chronologically to the Phase 2 alterations to the standing structure.

4.9.2 An internal partition wall, ***11***, seen within the east range (Fig 22), most probably belongs to this phase. Its construction necessitated the blocking of the Phase 1 window within wall ***06*** (Plate 26; *Section 4.8.3*), which would have been almost entirely obscured by the new wall. The style of construction of wall ***11*** was similar to the external walls of both ranges (***06*** and ***12***): faced and roughly squared limestone blocks about a rubble core, and typically measuring 0.3 x 0.2m. It survived up to ten courses in height (1.4m) and butted curtain wall ***32*** at its eastern

end (Fig 22). The wall was also of comparable thickness (0.9m) to those of Phase 1. A 70mm wide plinth on the south face appeared too high for a foundation plinth and is of unclear function. A small test slot was excavated in a corner between walls ***11*** and ***06***. This exposed a compacted layer of clay and lime mortar (***22***) at the base of the walls, providing a foundation for both.

4.9.3 A further east/west aligned wall, ***07***, butting the west side of the east range (wall ***06***) is possibly associated with the insertion of the partition wall (***11***) within the east range. It was of double-skin construction, but without a core, and was constructed of roughly faced limestone blocks (Figs 22 and 24). It measured 0.5m in width and 3.4m in length and survived to a height of two courses (0.3m). At its eastern end it butted the door jamb exposed in wall ***06*** (*Section 4.8.3*), suggesting that the doorway remained in use, while at its west end it was slightly ragged, and appeared to have been truncated level with the outer face of a later north/south-aligned wall (***10***) (*Section 4.10.3*). Wall ***07*** truncated and remodelled the south end of wall ***08***, and butted the west face of wall ***06***. Positioned parallel to wall ***07*** (and possibly contemporary with it) and butting against the west face of wall ***08***, was a further short section of wall, ***09***. Facework was absent from the south side and the facing blocks on the north side were large, typically measuring 0.35 x 0.25m. It survived to two courses. Remnants of lime mortar bonding adhered in patches to the upper surface. These two walls (***07*** and ***09***) formed a structure *c* 1.2m wide, and quite possibly represent an alteration of the putative Phase 1 staircase (*Section 4.8.4*), from a straight stair to a quarter-turn stair, more visible and impressive when approached from the courtyard.

4.9.4 South of wall ***07***, and most probably underlying it, was a small irregular surface of cobbles (***14***), measuring *c* 1.5 x 0.5m. It continued under the south and east sections of the trench, and appears to have been a repair of surface ***13***. Such a repair may have been associated with the construction of wall ***07***.

4.9.5 To the immediate south of wall ***12***, in the northern part of the trench, a further cobbled surface, ***16***, was revealed, which overlay cobbled surface ***13***. The cobbles extended 1.5m from the south face of the wall, and on beyond the east and west limits of the excavation. The paving comprised smaller cobbles than surface ***13***, typically 0.15 x 0.07m, laid in a more irregular pattern, and stepped 0.08m higher than surface ***13***.

4.9.6 In the southern part of the trench, the courtyard surface was much looser, and less well-made, with a more random choice of materials (Fig 22). The surface (***21***) in this area was assumed to be a later repair and extended to the south, east and west of the trench. In the south-eastern corner, the surface was overlain by a compacted mortar layer (***27***), 0.6 x 0.5m, extending beyond the limit of excavation. This possibly represents the bonding of a floor associated with the south range, or alternatively an area of compacted demolition debris.

4.10 PHASE 3

4.10.1 The next phase of activity observed within the evaluation trench comprised further remodelling to the base of the putative stair on the west side of the east range, and further repairs to the cobbled courtyard (***13***). At its north-western corner, the Phase

2 cobbled surface, ***16***, was overlain by a large eroded grey limestone flag, ***15***, which butted the face of wall ***12*** and measured 0.75 x 0.50m. The function of this stone is unclear: it may be part of a floor, or a step, or even building debris, possibly originating as a roofing flag.

4.10.2 Further modification to the walls abutting the east range was also undertaken during this phase, with the addition of a wall, ***10***, parallel to wall ***08*** and butting walls ***09*** and ***07***, thus creating an enclosed space (***31***; Plate 31). The single-skin wall comprised a single course of three roughly dressed limestone blocks. It is possible that it represents the truncated/narrowed northern return of wall ***07***, but it is most probably a Phase 3 remodelling of the earlier wall, to form a temporary structure of unknown function (***31***). The area within structure ***31*** was lined with a deposit of coal (***20***), with occasional fragments of charcoal, which sealed the cobbled surface (***13***). The deposit was not excavated: the larger cobbles below projected through it, suggesting that it was only a few millimetres thick. It seems likely that the structure functioned latterly as a coal house, immediately prior to the Phase 4 abandonment.

4.11 PHASE 4

4.11.1 The final phase of activity observed within the evaluation trench comprises the abandonment and subsequent demolition and collapse of both the internal structures and the curtain walls. In the northern part of the trench, the structural remains were overlain by a yellowish brown silty-sand (***04***). The sand contained many large masonry fragments, several dressed fragments, and significant quantities of pale lime mortar. Several large voids were observed between the masonry fragments, suggesting that it may have accumulated rapidly. A similar, but less well defined deposit, ***03***, was observed in the eastern part of the trench, comprising yellowish-brown silty-clay, which contained *c* 50% rubble core fragments, with occasional dressed stones (including one large dressed quoin), and a moulded sill/lintel with a splay moulding and central glazing-bar socket. Towards the lower exposed level of the deposit, the clay became darker and more organic, with occasional flecks of charcoal.

4.11.2 These two deposits were themselves overlain by a demolition deposit that almost entirely consisted of masonry fragments, within a mid-brown silt-sand matrix (***02/26***). This rubble layer sealed all physical wall remains across the site and was in turn sealed by a layer of soft dark brown clay-silt topsoil (***01***), 0.35m thick, containing fragments of masonry rubble which filled the entire trench.

4.12 WATCHING BRIEF

4.12.1 The watching brief comprised 11 1m square test pits mostly excavated in order to install lightning conductors for the scaffolding of the curtain walls during consolidation. With the exceptions of Test Pit 8, all of the pits were positioned outside the curtain wall (Fig 2), with Test Pits 1–8 being excavated in the 2003 season, and Test Pits 9–11 in 2004.

4.12.2 ***Test Pit 1:*** this was 3.4m south of the west corner of the south wall (Fig 2) and was excavated to a depth of 0.35m through topsoil. A large proportion of sub-angular rubble was observed, and several sherds of residual medieval and post-medieval

pottery, glass and metal were recovered (*Section 5*). This deposit most probably represents a build-up of material around fallen rubble from the south curtain wall.

4.12.3 ***Test Pit 2:*** this was positioned 5m to the west of Test Pit 1, 6.8m south of the south wall of the barbican (Fig 2). It was excavated to a depth of 0.38m and comprised topsoil, containing a large quantity of stone rubble. Several post-medieval artefacts, including pottery, slag and mortar, were recovered (*Section 5*).

4.12.4 ***Test Pit 3:*** this was 3m from the south-west corner of the barbican, on the inner edge of the moat (Fig 2). It was excavated to a depth of 0.4m, with topsoil observed to a maximum depth of 0.3m. This comprised a dark brown silty-clay, with a large quantity of angular rubble, from which pottery of medieval and post-medieval date was recovered, accompanied by animal bone and metal (*Section 5*). Towards the base of the trench, the topsoil formed a diffuse boundary with a greyish-brown silty-clay, which probably represents an upcast deposit from the moat.

4.12.5 ***Test Pit 4:*** this was 2.6m from the west wall of the barbican (Fig 2) and was excavated to a maximum depth of 0.45m. The topsoil was 0.15m deep, beneath which lay a mixed dark brown silty-clay subsoil containing a large proportion of rubble. This subsoil overlay an east/west alignment of stones, possibly a wall (Plate 30), of which the top 0.35m was exposed, with 0.22m of the north face (Fig 25). Given the restricted size of the test pit, it was impossible to ascertain whether this represented a single-skin wall, with rubble butting its southern side, or whether it was double-skinned, with only the north face and part of the rubble core exposed. Finds of Roman Samian ware, medieval and post-medieval pottery, and animal bone were recovered from the test pit.

4.12.6 ***Test Pit 5:*** this was 1.8m north-west of the extant remains of the west curtain wall (Fig 2). It was excavated to a maximum depth of 0.4m through a loose clay-silt topsoil containing rubble. No finds were recovered.

4.12.7 ***Test Pit 6***: this was placed 8m to the east of Test Pit 5, approximately 1.6m to the north of the alignment of the north curtain wall (Fig 2). It was excavated to a depth of 0.48m through a mortar-rich topsoil (0.18m deep) and a mid/dark brown deposit of rubble. Finds of post-medieval brick, animal bone and fuel ash were recovered. The presence of fuel ash suggests that the area was probably used for the burning and disposal of rubbish. There is insufficient evidence to determine whether this activity was contemporary with the occupation of the castle, or use of the site following its abandonment.

4.12.8 ***Test Pit 7***: this was 5.6m to the east of Test Pit 6, approximately 1.2m to the north of the alignment of the north curtain wall (Fig 2). The trench was excavated to a maximum depth of 0.4m and comprised 0.15m of topsoil, overlying rubble debris with significant quantities of mortar. A single fragment of green slate recovered from the rubble layer demonstrates a local Cumbrian source for at least some of the roofing material.

4.12.9 ***Test Pit 8***: this was placed within the castle *enceinte*, 4.3m to the east of the west wall (Fig 2). The test pit was excavated to a depth of 0.6m, and consisted of 0.15m of topsoil overlying a mid-brown silt-clay subsoil, with a large proportion of mortar and rubble (this is the same material as layer ***02*** recorded in the evaluation trench;

Section 4.11.2). The north side of the trench came down on to a cobbled surface (Fig 25), which was probably a continuation of surface ***13*** observed in the evaluation trench (*Section 4.8.2*), 3.8m to the north-east (Plate 31). In the southern part of the test pit, the face of a possible wall was exposed, consisting of mortared blocks. This may have been part of the wall of the west range, aligned with the north side of the gatehouse entrance, although the pit was too small to be able to confirm this.

4.12.10***Test Pit 9*:** this was 4.5m to the south of the south wall (Fig 2), and was excavated through topsoil (***29***) to a depth of 0.45m. A large proportion of rubble was encountered within the topsoil, consisting of rough rubble core fragments, dressed blocks and slabs presumably from the outer face of the south curtain wall. No finds were recovered.

4.12.11***Test Pit 10:*** this was 5.3m to the south-east of the south-east corner of the curtain wall (Fig 2). It was excavated to a maximum depth of 0.55m and consisted of 0.45m of topsoil ***29***, which overlay a mottled reddish-brown/grey clay layer (***30***) containing demolition rubble. Roman Samian ware pottery, an iron fragment and pieces of animal bone were recovered from the topsoil (*Section 5*).

4.12.12***Test Pit 11:*** this was 4.8m to the east of the east curtain wall (Fig 2), and was excavated to a maximum depth of 0.62m. The ground slopes sharply downwards away from the curtain wall, and topsoil (***29***), averaging 0.57m in depth, appeared to have accumulated around a tumble of sub-rounded rubble, perhaps by solifluction. Towards the base of the pit, a diffuse boundary, containing a greater proportion of mortar, was observed, possibly representing initial collapse. One sherd of post-medieval pottery was recovered from the topsoil.

5. FINDS

5.1 INTRODUCTION

5.1.1 In total, 719 artefacts and ecofacts were recovered from the site, the majority being animal bone. Other material comprised copper alloy and iron, ceramic building material, glass, lead, pottery, shell, and stone (Table 1). Topsoil and unstratified deposits yielded many finds (see *Appendix 4* for a summary of the material and its dating). The artefacts appeared to fall largely into a date range of medieval to twentieth century, although a small assemblage dated to the Roman period.

Material	***Totals***
Roman/Romano-British pottery	*29*
Medieval pottery	*8*
Post-medieval pottery	*41*
Copper alloy	*2*
Iron	*22*
Lead	*3*
Industrial debris	*5*
Glass	*21*
Fired clay/ceramic building material	*9*
Mortar	*3*
Stone	*12*
Animal bone	*563*
Shell	*1*
Total	***719***

Table 1: Types of finds

5.2 POTTERY

5.2.1 In total, 78 pottery fragments were collected from topsoil, pit fills and unstratified deposits across the site during the 2003 and 2004 excavations. The assemblage was dominated by post-medieval ceramics, which accounted for 41 sherds, with smaller numbers of medieval (eight) and Roman (29) ceramics. Assessment of the pottery was based solely on visual inspection of individual sherds and has been described using the terminology developed by Orton *et al* (1993). In general terms, the material was in poor condition, with many sherds badly abraded, although some of

the Roman sherds displayed fresh breaks, indicating recent disturbance. The quantities of fragments of different fabric types are summarised in Table 2.

Pottery type	Date range	Quantity
Samian	Second century	11
Amphora	First–third centuries	12
Coarsewares	Second/third centuries	6
Coarse sandy fabric	Late twelfth–thirteenth centuries	2
Green-glazed partially reduced fabric	Mid-thirteenth-fourteenth centuries	1
Fully reduced hard sandy fabric	Thirteenth-fourteenth centuries	1
Oxidised coarse gritty fabric	Twelfth-thirteenth centuries	2
Fully reduced gritty ware	Twelfth-fourteenth centuries	2
Blackwares	Seventeenth/eighteenth centuries	8
Manganese/mottled ware	Late seventeenth/eighteenth century	1
Brown-glazed red earthenware	Late seventeenth/early twentieth century	5
Brown-glazed laminated earthenware	Late seventeenth/early twentieth century	1
Salt-glazed stoneware	Eighteenth/nineteenth centuries	1
Refined stoneware	Nineteenth century	1
White earthenware	Nineteenth century	2
White-slipped black-glazed redware	Nineteenth century	1
White-glazed white earthenware	Late eighteenth–twentieth century	20
Miscellaneous chip	Not datable	1

Table 2: Types of pottery with approximate date ranges and quantities of fragments

5.2.2 ***Roman Ceramics:*** the bulk of the material appeared to date to the second century, with a smaller component possibly dating to the third century. Among the assemblage were: undecorated Samian ware (11); amphora (12); two sherds of Black Burnished Wares Fabric 1 (BB1); and imported and locally produced coarsewares.

5.2.3 The Samian included seven largely unabraded and recently broken sherds, probably deriving from a single bowl (Form 18/31, of early to mid-second-century date, Webster 1996), recovered from the topsoil (***29***) in Test Pit 10. The bowl is of a type commonly exported from the Lezoux region of Central Gaul from AD 120 and typically imported to Britain around the second half of the second century. Three slightly abraded and undiagnostic fragments of identical fabric were recovered from unstratified deposits in Test Pit 4 and in the evaluation trench. A similar, residual, worn body sherd of probable East Gaulish manufacture was recovered from the fill (***18***) of a medieval pit (***17***).

5.2.4 Seven amphora sherds, possibly all derived from a single vessel, perhaps for olive oil, were recovered from Test Pit 4. The sherds included part of a rim and a large handle. The fabric of the vessel is buff pink in appearance, with well-sorted

granular inclusions and traces of mica. The form of the handle would suggest the amphora probably originated from Spain, with a date range of the first to third centuries. A further five sherds of similar fabric were recovered from Test Pit 3: these have a similar origin and date.

5.2.5 The coarsewares were recovered from Test Pit 4. The absence of rims amongst the BB1 sherds precludes an accurate dating, although the presence of a single sherd of Severn Valley ware and locally produced oxidised and reduced grey wares, suggests a possible date range of the second and third centuries.

5.2.6 ***Medieval Ceramics***: five out of the eight sherds collected were small undiagnostic body fragments, recovered from Test Pit 4 and the fill (***18***) of pit ***17***. Little can be said about the fragments except that the sherds range in date between the twelfth and fifteenth centuries (McCarthy and Brookes 1988). Two sherds from Test Pit 4 have a coarse-grit, sandy-red, oxidised temper, with traces of a dark red-brown slip. Both sherds probably date to the thirteenth/fourteenth centuries. The remaining material included two sherds of a coarse sandy fabric, with a partially reduced buff core, and a pitted red slip. One of the sherds had traces of sooting along its surface, suggesting its use as a cooking pot. Both sherds belong to the thirteenth/fourteenth century. A sherd with a hard sandy fabric, a fully reduced core and oxidised exterior, and traces of olive-green glaze, may derive from a thin-walled vessel of slender form, and again probably originated in the thirteenth or fourteenth century. A similarly fired sherd, deriving from fill ***18***, represented a green-glazed, partially reduced strap handle, with a high-fired gritted sandy fabric that can be dated to the mid-thirteenth to fourteenth centuries. Fill ***18*** also yielded a sherd of cream-coloured, highly fired fine-ware, which possibly derived from a small jar. The origin of the vessel remains unclear, although it is possibly associated with the Northern British whiteware tradition, which elsewhere occurs in twelfth-century deposits (Vince 2003); however, the Bew Castle sherd is more likely to have a thirteenth- or fourteenth-century date. All the forms are generally utilitarian and, except for the whiteware, were quite possibly produced locally.

5.2.7 ***Post-medieval Ceramics:*** the post-medieval wares were recovered from unstratified and topsoil deposits across the site and included a selection of coarsewares, such as thin-bodied blackwares, manganese mottled ware, brown-glazed red earthenware, stonewares, and tablewares, such as white-glazed white earthenware. The coarseware vessels are essentially kitchen wares and, although none of the fragments were diagnostic, they will have derived from items such as bread crocks, jars, jugs, and bowls.

5.2.8 As tableware was more finely potted and decorative than the contemporary coarsewares, it was more subject to changing fashions and thus is of particular use in dating. Almost all the tableware recovered was white-glazed white earthenware, which was widespread by 1760 (Barker 1999, 226) and continued into the twentieth century. All the white-glazed white earthenware was from two vessels, a relief-moulded ewer or pitcher, and a vessel of unknown purpose with multi-coloured enamel transfers. Both vessels can be dated to the late nineteenth and twentieth centuries because of the style of their decoration, and were recovered from unstratified deposits.

5.3 METALWORK

5.3.1 In total, 27 objects of copper-alloy, iron, and lead were recovered from topsoil and demolition layers across the site. Many of the iron objects were heavily corroded and as such unidentifiable. It was, however, possible to identify structural items such as nails, cast pipes or guttering, and a square fixing plate perforated with three attachment holes. Other household items included a complete key, and miscellaneous small iron fragments, such as binding strips, a horseshoe and a rod. Part of a nineteenth- or twentieth-century miner's carbide gas lamp was found by workmen dismantling one of the field walls.

5.3.2 Two pieces of cast lead window came were recovered from fill ***18*** of pit ***17***. The objects were H-shaped in section with just one join present. The angles at the join formed a T-shape, suggesting an arrangement to fit three panes of glass. These artefacts were found with a small group of mid-thirteenth- and fourteenth-century pottery and could derive from the same period.

5.4 INDUSTRIAL RESIDUES

5.4.1 Five lumps of smithing slag were collected from unstratified deposits within Test Pits 1, 2, 3 and 4. The slag indicates the likelihood of small-scale iron-working from a workshop in close proximity to the castle. Other residues included three large lumps of fuel ash waste and six small fragments of coal, which probably represent waste from domestic fireplaces.

5.5 GLASS BOTTLES

5.5.1 In total, 21 fragments of vessel glass were recovered from unstratified deposits across the site. The small assemblage consisted entirely of bottles, including green wine bottle fragments, dating from the eighteenth and nineteenth centuries, and twentieth-century clear glass milk bottles. Many of the nineteenth- and twentieth-century bottles were produced in multi-part moulds, some with embossed lettering (such as 'W Armstrong, Brampton'). No window glass was recovered.

5.6 BUILDING MATERIALS AND STONE

5.6.1 The ceramic building material assemblage comprised a possible drain pipe, and fragments of brick, from a variety of contexts including topsoil, demolition debris, and wall ***12***. Many of the brick fragments were covered in mortar and were reused after they had been broken. All the ceramic material appeared to be post-medieval. A single fragment of roofing slate was recovered from Test Pit 7.

5.6.2 A selection of architectural stone was recorded from unstratified deposits (*Appendix 5)*. Other objects include a roughly rounded sandstone slab, which would have been used as a lid for a cooking pot, probably from the Roman period, recovered from demolition debris in Test Pit 3. The object had mortar adhering to its surface, suggesting its reuse as building material. A similar sandstone pot lid was recovered from excavations at Blackfriars Street, Carlisle (McCarthy 1990, 159–61). Further examples of the reuse of earlier materials included part of a Roman rotary millstone and a shaped piece of stone recovered from the western

field wall. The millstone had tooled surfaces, and was made from Niedermendig lava.

5.7 ANIMAL BONE

5.7.1 A very small assemblage of animal bones, weighing 1415g, was recovered. All of the assessed material was collected by hand. No sieving programme was employed on the site with the specific purpose of retrieving animal bone.

5.7.2 ***Methodology:*** for the purpose of the assessment, the animal bone was grouped into two broad stratigraphic phases (Table 3). No unstratified or topsoil finds were included. The number of fragments per species and within each preservation category was recorded, together with the number of bones displaying tooth wear, fusion and metrical traits.

Preservation Category	Medieval	Post-medieval
Very Poor	-	2.44%
Poor	20%	9.76%
Moderate	40%	39.02%
Good	26.66%	41.46%
Very Good	13.33%	7.32%

Table 3: Preservation by phase

5.7.3 The identification of species was completed using the reference collection held by OA North and with reference to Cohen and Serjeantson (1996), Halstead and Collins (1995) and Schmid (1972). The preservation categories provide a useful indicator of the general condition of the assemblage. The categories used are as follows:

> ***very poor***: very fragmented bone with a highly eroded surface;
>
> ***poor***: bone with an eroded surface and with less than half the anatomical part present;
>
> ***moderate***: bone with approximately half the anatomical part present and with some erosion to the surface;
>
> ***good***: bone with an uneroded surface and with half or more than half of the anatomical part present;
>
> ***very good***: a complete, or near complete, bone with little or no erosion.

5.7.4 ***Preservation and conservation:*** the majority of the assemblage may be described as in a moderate or good state of preservation, often with little erosion of the bone surface but with some fragments including less than half of the original anatomical part. The material is in a stable condition and requires no specialist conservation measures.

5.7.5 ***Quantifications:*** in total, 116 bone fragments and eight fragments of a single oyster shell were assessed. The majority of the material originated from layers of post-medieval tumble (Table 4).

Species	Medieval surface	Medieval walls	Medieval total	Post-medieval layer	Post-medieval tumble	Post-medieval total
Horse		1	**1**		9	**9**
Cow	4	2	**6**	2	5	**7**
Sheep/goat	1		**1**	2	5	**7**
Pig					1	**1**
Dog		1	**1**	1	4	**5**
Cow/red deer	1	3	**4**	1	3	**4**
Sheep / goat / roe deer				1		**1**
Large mammal	4		**4**	2	15	**17**
Medium mammal		6	**6**	9	18	**27**
Small mammal	4		**4**	2	15	**17**
Heron					1	**1**
Unidentified bird					14	**14**
Oyster shell					8	**8**
TOTAL	**14**	**13**	**27**	**20**	**98**	**118**

Table 4: Number of individual specimens by feature type and phase

5.7.6 The number of individual specimens (NISP) for each phase was far too few to reflect the relative importance of each species as a food resource. There is also the likelihood that residual material from earlier phases, including the Roman period, had been incorporated within later deposits. In addition, there is the possibility that many of the animal remains included within the post-medieval layers of tumble originated from the nearby farm.

5.8 DISCUSSION

5.8.1 The earliest finds of interest recovered at Bew Castle are the presumably residual Roman materials. Samian and Romano-British coarsewares were found in the topsoil, unstratified deposits, and residually in the only medieval feature conclusively identified and excavated (fill ***18*** of pit ***17***). A cooking pot lid and a fragment of a lava millstone had been incorporated in the construction of later walls.

5.8.2 The medieval finds from pit ***17***, window came and two fragments of pottery, provide a glimpse into life at Bew Castle. The presence of earlier medieval fabrics, such as the unstratified twelfth-fourteenth-century coarsewares from the test pits, possibly represents debris from one of the earlier phases of use of the site. The

absence of later medieval pottery amongst the assemblage, such as Late Medieval Fully Reduced Wares, might suggest that pit ***17*** was not in use after the fourteenth/ fifteenth century.

5.8.3 The majority of the other finds are relatively modern in date, and contribute little to the understanding of the site, particularly as the assemblage is very small, and many of the finds were recovered from topsoil and unstratified deposits. Despite this, the assemblage illustrates continued use of the site until the nineteenth and twentieth centuries, although only as a receptor of waste material.

5.8.4 The animal remains attest to the presence of each species within the various phases of the development of the castle. Of particular interest is the heron *ulna*, which had butchery marks, indicating dismemberment. It is unclear whether this represents post-medieval wild fowling, or is residual medieval material. Although the species would have been considered game on wild fowling expeditions, its infrequent occurrence in archaeozoological assemblages suggests it was rarely sought (Maltby 1979, 73).

6. DISCUSSION

6.1 INTRODUCTION

6.1.1 The recording work undertaken during consolidation of the upstanding remains of the castle has significantly added to the understanding of the monument. Access was afforded to parts of the structure unseen since its abandonment, enabling the recording of features not visible from ground level. The investigation has revealed four broad phases of activity. Although it has been impossible to give these phases definite chronological dates, they can be broadly dated using a combination of the documentary evidence and stylistic features.

6.1.2 The general difficulty with historical records, including their reliability and intent, is multiplied in this case because of the local context. To a greater or lesser extent the area was in a state of anarchy from at least the eleventh century until the beginning of the seventeenth. Ironically, this has resulted in a striking number of references to the area, if not to the castle itself, in the royal papers, but the imperatives of the individuals involved have almost certainly politicised the records, and exaggerated problems and motives.

6.2 PHASE 1: THE FOURTEENTH-CENTURY CASTLE

6.2.1 The present castle occupies a position used since the Roman period, and reuses masonry from earlier structures. The documentary record (Graham 1929, 65) alludes, in 1378, to an extant castle (*Section 3.2.6*), and the pottery evidence from the evaluation also suggests activity at the site at this time, or possibly within an associated smaller settlement.

6.2.2 Bew Castle, as seen today, is a relatively late construction, with no evidence to suggest an origin earlier than the fourteenth century. It reflects both the period, and the region at that time. The construction of heavily fortified castles had peaked almost a century earlier, with many being remodelled into manorial dwellings, for example, John O'Gaunt's construction of the Great Hall of Kenilworth Castle, Warwickshire, between 1389 and 1394 (Thompson 1977). However, conflict in the border region between England and Scotland was a long-standing problem and, although military strategy had altered, castles continued to play a variety of roles (Liddiard 2005, 82–4). Bew Castle is of quadrangular design, without a keep, a form which became popular at the start of the fourteenth century, and its size falls between that of the major earlier castles (such as the local examples of Carlisle and Brougham), and the smaller defended houses, bastles and pele towers, or towerhouses, common throughout the region (examples in the immediate locality include Braes, *c* 2km to the north-east; Crew, 3km to the north; and the original construction of Askerton, *c* 5km to the south-west) (respectively, Scheduled Monuments SM12889, SM12928 and SM12604) (Perriam and Robinson 1998, 49, 50 and 130).

6.2.3 The excavation has revealed that well-preserved remains lie *in situ* within the castle. The thick walls in the eastern and northern parts of the trench appear to represent the courtyard walls of previously undocumented ranges of buildings

along the eastern and northern walls of the castle, while the fabric analysis has demonstrated the presence of structures on the internal sides of the upstanding southern and western elements of the curtain wall. The south range of courtyard buildings would appear to have incorporated the 'Great Hall' at first-floor level, as was typical, demonstrated by the two large flues within the wall thickness, while the presence of a large moulded drain opening suggests the western flue was quite probably within a large ante-chamber. The lack of features within the wall face at lower level, and of a northern wall of the range within the evaluation trench, suggests that the ground floor may have been vaulted and used for storage. The western range also had an upper storey, demonstrated by joist sockets within the inner face of the curtain wall. The loss of the eastern and northern parts of the curtain wall means nothing can be inferred there, but the presence of a chamfered door jamb in the excavated remains of the east range, and a possible staircase to the immediate west, also implies more than one storey, but also that the ground-floor use of the range was of reasonably high status. The central courtyard within the castle has been shown to be cobbled, with extensive areas of apparently original material surviving.

6.2.4 The internal arrangement of the castle, incorporating a range of buildings around a courtyard, protected by a substantial curtain wall, is a smaller and simpler version of the plan of Naworth, which is of late-thirteenth-century date (English Heritage SM12649; Perriam and Robinson 1998, 166–7). The curtain wall was originally purely defensive, the only openings being the gate in the south-west corner, and several drains and loopholes. The curtain wall appears to have had a parapet walkway, with access identified at both ends of the west curtain wall. It is likely that access was also available in other parts of the castle, most probably at the north-eastern and south-eastern corners.

6.3 PHASE 2: SIXTEENTH-CENTURY EXPANSION

6.3.1 Despite the availability of documentary records covering the fifteenth and sixteenth centuries, the history of Bew Castle remains extremely complex. Its position on the border with Scotland made it a focus for attack, and the castle was regularly involved in conflict, either caught up in the wars between the two nations or a specific target in feuds between border families, sometimes both.

6.3.2 The addition of a projecting gatehouse, or barbican, in the mid-sixteenth century, is the first datable improvement of the structure, and is very late, in terms of castle development at this time (Friar 2003; Liddiard 2005). Such features were introduced as simple projecting towers, as at Bew Castle, during the late-twelfth century, and had become highly developed by the fourteenth century (Friar 2003). However, the continuing conflict between England and Scotland in the Borders meant that the facilities and preparedness of Bew Castle were scrutinised by both Henry VIII and Elizabeth I (*Sections 3.2.10* and *3.2.18–19*). Even though strategically archaic, the barbican may have been regarded as a useful addition, in a region where most fighting involved light horsemen and foot soldiers. It may also have served the social status of the Musgraves, with its conscious, medieval, architectural referencing (*cf* Johnson 2002, 88–9), an interpretation which the positioning of the arms of de Strivelyn over the entrance (*Sections 3.2.6* and *4.4.2*)

reinforces. The barbican notably includes the only extant evidence for garderobes within the castle.

6.4 PHASE 3: REPAIR AND REMODELLING

6.4.1 Although there are documentary references to repairs at Bew Castle (*Sections 3.2.10–11;* and *3.2.18–19*), these solely record intent: the practical consequences for the castle's fabric are less certain. A chronological sequence of repairs and alterations to the castle cannot be derived from the documentary sources. The structure appears to have been dilapidated (*Sections 3.2.10* and *3.2.19*), even prior to the addition of the barbican, although it was by no means exceptional in this (Liddiard 2005, 82). The extant evidence of the stonework, however, makes it clear that several of the major repairs to the western section of the curtain wall post-date the construction of the barbican (*Section 4.5.1*). Further works were closely contemporary, including the disuse of the parapet walkway, combined with strengthening work to the wall thickness, probably for structural rather than defensive reasons. Other notable repair works include the remodelling of the courtyard elevation of the east range, and patches of repair to the cobbling within the courtyard (*Sections 4.9* and *4.10*).

6.4.2 Two elements of significant remodelling were observed within the castle. The most striking was the insertion of large windows at first-floor level, apparently within all faces of the curtain wall, but surviving only in the southern section. No reference to their addition was identified in the documentary search, although sums of money for repair were allocated at regular intervals, notably the £200 in 1569 (*Section 3.2.19*). The surviving windows appear to be of Tudor style, commensurate with this date, but their placement in one of the main external walls is more in keeping with social than defensive values. The second element was observed within the excavation trench, and comprises the insertion of a dividing wall within the eastern range, which required the blocking of the window observed within the courtyard elevation.

6.5 PHASE 4: ABANDONMENT AND DECAY

6.5.1 The decay of the castle following its abandonment is clearly evident within the extant fabric. Although the prevailing direction for storms is from the west and north-west, the critical factor in the collapse of the walls appears likely to have been freeze-thaw action on the mortar joints, to which the eastern and northern walls will have been more vulnerable. The large cracks in both faces of the extant southern wall, focused on the western window, suggest that the insertion of comparable windows elsewhere will have created similar weak points leading to accelerated decay. The later robbing of building material, which is commonly associated with abandoned historic structures, is starkly demonstrated at Bew Castle, with vast quantities of facing stones removed below plinth level.

6.5.2 This tallies well with the buried deposits revealed both outside and within the castle. These contain considerable amounts of rubble fallen from the curtain walls and associated structures. The deposits form large mounds, not only at the earliest levels following abandonment or demolition of the structure, but also within the

topsoil and above present ground level, showing that the collapse has been continuous and persistent.

6.6 RECOMMENDATIONS

6.6.1 While the fabric investigation and evaluation trenching has greatly increased the body of knowledge about the castle, it has also generated further questions regarding its initial layout and subsequent development. In particular, the quality of the survival of the below-ground remains of the *enceinte* strongly suggests that further archaeological deposits survive *in situ* elsewhere. While the evaluation trenching identified elements of both the north and east ranges, the latter previously unrecognised (*eg* Perriam and Robinson 1998, 47; Plate 4), the relationship between the two was not established. Evidence at the western end of the north range suggests that it may have pre-dated the western range (*Section 4.8.5*), and it is possible that the same relationship exists with that to the east. No below-ground evidence for either the southern or western ranges was revealed by the evaluation, but their presence is evident within the extant upstanding fabric. Furthermore, the height of the below-ground survival of the east range revealed significant architectural detailing, with similar features almost certainly surviving elsewhere within the courtyard.

6.6.2 However, there is minimal threat to the buried archaeological remains, and the consolidation works undertaken have secured the upstanding fabric for the foreseeable future. Excavation of the remainder of the interior of the castle, including the barbican, is recommended purely on the basis of the research potential of the monument, and to enhance it as a heritage facility.

6.6.3 It is similarly recommended that a programme of targeted evaluation trenching might be undertaken immediately outside the castle, in order to investigate both the surrounding ground and the moat, which is likely to contain a significant artefactual assemblage and, potentially, details of the construction of any earlier castle, and the relationship with the Roman fort.

6.6.4 Further work might include non-intrusive surveys. Although the large quantities of collapsed masonry within the sub-surface deposits do not create ideal conditions for geophysical or ground-penetrating radar survey techniques, the more significant features observed within the evaluation trench were substantial enough to suggest that they may be distinguishable from the debris.

6.6.5 The results of the present work should be offered for publication in the *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*.

7. BIBLIOGRAPHY

PRIMARY AND CARTOGRAPHIC SOURCES

Ordnance Survey, 1864 1st edition, 25ins: 1 mile, Cumberland Sheet 8.2

Ordnance Survey, 1983 *Soils of Northern England*, 1: 250,000

SECONDARY SOURCES

Anon, 1802 *The Carlisle Journal*, 26th June

Armstrong, AM, Mawer, A, Stenton, FM, and Dickins, B, 1950 *The Place-Names of Cumberland, Part I: Eskdale, Cumberland and Leath Wards,* English Place-Name Soc, **20**, Cambridge

Armstrong, AM, Mawer, A, Stenton, FM, and Dickins, B, 1952 *The Place-Names of Cumberland, Part III: Introduction,* English Place-Name Soc, 22, Cambridge

Austen, P, 1991 *Bewcastle and Old Penrith: A Roman Outpost Fort and Frontier Vicus: Excavations 1977–78*, Cumberland Westmorland Antiq Archaeol Soc, Res Ser, **6**, Kendal

Bailey, RN, and Cramp, R, 1988 *The Corpus of Anglo-Saxon Stone Sculpture: Cumberland, Westmorland and Lancashire North-of-the-sands*, Oxford

Bain, J (ed), 1894 *Calendar of Letters and Papers Relating to the Affairs of the Borders of England and Scotland, **1**, 1560–1594*, Edinburgh

Barker, D, 1999 The Ceramic Revolution 1650–1850, in G Egan and RL Michael (eds), *Old and New Worlds*, Oxford, 226–34

Blair, J, 2005 *The Church in Anglo-Saxon Society*, Oxford

Brewer, JS, 1875 *Letters and Papers, Foreign and Domestic, Henry VIII, **4**, 1524–1530*, London

Cohen, A, and Serjeantson, D, 1996 *A manual for the identification of bird bones from archaeological sites*, London

Collingwood, WG, 1949 *The Lake Counties*, 5th edn, London

Countryside Commission, 1998 *Countryside Character Volume 2: North West*, Cheltenham

Crowe, C, 2003 Early Medieval Parish Formation in Dumfries and Galloway, in M Carver (ed), *The Cross Goes North*, York, 195–206

Curwen, JF, 1913 *Castles and Towers of Cumberland, Westmorland and Lancashire North of the Sands*, Cumberland Westmorland Antiq Archaeol Soc, extra ser, **8**, Kendal

Curwen, JF, 1922 Bewcastle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **22**, 186–97

English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London

Evans, A, 1993 *Lake County Villains*, Ulverston

Fell, CI, 1967 Two Enlarged Food-Vessels from How Hill, Thursby, and Notes on the Distribution of Food Vessels in Cumberland, Westmorland and Lancashire North of the Sands, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **67**, 17–25

Ferguson, RS, 1890 *A History of Cumberland*, London

Fraser, GMcD, 1995 *The Steel Bonnets*, 4th edn, Trowbridge

Friar, S, 2003 *The Sutton Companion to Castles*, Stroud

Gairdner, J (ed), 1882 *Letters and Papers, Foreign and Domestic, of the Reign of Henry VIII, **6**, 1533*, London

Gairdner, J (ed), 1883 *Letters and Papers, Foreign and Domestic, of the Reign of Henry VIII, **7**, 1534*, London

Gairdner, J, and Brodie, RH (eds), 1896 *Letters and Papers, Foreign and Domestic, of the Reign of Henry VIII, **15**, January–August 1540*, London

Gairdner, J, and Brodie, RH (eds), 1905 *Letters and Papers, Foreign and Domestic, of the Reign of Henry VIII, **20 Pt 1**, January–July 1545*, London

Gillam, JP, 1949 Trial Trenching at Bewcastle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **49**, 216–18

Gillam, JP, 1954 The Roman Bath-House at Bewcastle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **54**, 265–67

Graham, THB, 1911a The Barony of Liddel and its Occupants, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **11**, 55–83

Graham, THB, 1911b Extinct Cumberland Castles, Part III, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **11**, 233–58

Graham, THB, 1929 The Lords of Bewcastle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **29**, 57–68

Green, MAE, 1858 *Calendar of State Papers, Domestic, **9**: James I: 1611–18*, London

Green, MAE, 1870 *Calendar of State Papers, Domestic, **6**: Elizabeth, 1601–03: with Addenda, 1547–65*, London

Green, MAE, 1871 *Calendar of State Papers, Domestic, **13**: Elizabeth: Addenda, 1566–79*, London

Green, MAE, 1872 *Calendar of State Papers, Domestic, **27:** Elizabeth: Addenda, 1580–1625*, London

Halstead, P, and Collins, P, 1995 *Sheffield animal bone tutorial: Taxonomic identification of the principal limb bones of common European farmyard animals and deer: a multimedia tutorial*, Archaeology Consortium, TL TP, Univ Glasgow

Hawkes, J, 2003 Sacraments in Stone: The Mysteries of Christ in Anglo-Saxon Sculpture, in M Carver (ed), *The Cross Goes North*, York, 351–70

Hodgson, KS, 1940 Some Excavations in the Bewcastle District, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **40**, 154–65

Hutchinson, W, 1794 *The History and Antiquities of Cumberland*, Carlisle

IFA, 2001 *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*, Reading

Jackson, M, 1997 *A Chronological History of the Manor and Castle of Bewcastle*, unpubl doc

Johnson, M, 2002 *Behind the Castle Gate*, London

Jones, GP, 1969 King James I and the Western Border, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **69**, 129–51

Liddiard, R, 2005 *Castles in Context*, Macclesfield

Maltby, M, 1979 *The animal bones from Exeter*, Sheffield

Mawson, DJW, 1980 Agricultural lime burning – the Netherby example, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **80**, 137–51

McCarthy, MR, 1990 *A Roman, Anglian and Medieval Site at Blackfriars Street, Carlisle: Excavations 1977–9*, Cumberland Westmorland Antiq Archaeol Soc, Res Ser **4**, Kendal

McCarthy, MR, 2002 *Roman Carlisle and the Lands of the Solway*, Stroud

McCarthy, MR, and Brookes, CM, 1988 *Medieval Pottery in Britain, AD900–1600*, Leicester

McCarthy, MR, Summerson, HRT, and Annis, RG, 1990 *Carlisle Castle: A Survey and Documentary History*, London

Nanson, W, 1878 Bewcastle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, 1 ser, **3**, 215–31

Nicolson, J, and Burn, R, 1777 *The History and Antiquities of the Counties of Westmorland and Cumberland*, 2 vols, London

Orton, C, Tyers, P, and Vince, A, 1993 *Pottery in Archaeology*, London

Parson, W, and White, W, 1829 *History, Directory and Gazetteer of the Counties of Cumberland and Westmorland*, Beckermet (1976 facsimile)

Perriam, DR, and Robinson, J, 1998 *The Medieval Fortified Buildings of Cumbria*, Cumberland Westmorland Antiq Archaeol Soc, Extra Ser, **29**, Kendal

Richardson, C, 1998 A Catalogue of Recent Acquisitions to the Tullie House Museum and Reported Finds from the Cumbrian area 1990–1996. Part I: Tullie House Accessions, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **98**, 1–60

Richmond, IA, Hodgson, KS, and St Joseph, K, 1938 The Roman Fort at Bewcastle, *Trans Cumberland Westmorland Antiq Archaeol Soc*, n ser, **38**, 195–237

Ryder, PF, 2002 *Bewcastle Castle, A Provisional Description and Assessment*, unpubl rep

Salter, M, 1998a *The Old Parish Churches of Cumbria*, Malvern

Salter, M, 1998b *The Castles and Tower Houses of Cumbria*, Malvern

Sanderson, RP (ed), 1891 *Survey of the Debateable and Border Lands Adjoining the Realm of Scotland and Belonging to the Crown of England, Taken AD 1604*, Alnwick

Schmid, E, 1972 *Atlas of animal bones for prehistorians, archaeologists and Quaternary geologists*, London

Summerson, H, 1996 Carlisle and the English West March in the later middle ages, in AJ Pollard (ed), *The North of England in the Age of Richard III*, Stroud, 89–113

Taylor, MW, 1892 *The Old Manorial Halls of Westmorland and Cumberland*, Cumberland Westmorland Antiq Archaeol Soc, Extra Ser, **8**, Kendal

Thompson, MW, 1977 Three Stages in the Construction of the Hall at Kenilworth Castle, in MR Apted, R Gilyard-Beer, and AD Sanders (eds), *Ancient Monuments and Their Interpretation: Essays Presented to AJ Taylor*, London, 211–18

Tough, DLW, 1928 *The Last Years of a Frontier: A History of the Borders during the reign of Elizabeth I*, Oxford

Vince, A, 2003 *Characterisation Studies of Some Medieval Coarseware from northeast England* http://www.avac.uklinux.net/potcat/pdfs/avac2003035.pdf

Webster, P, 1996 *Roman Samian Pottery In Britain,* Practical Handbook in Archaeology **13**, CBA, York

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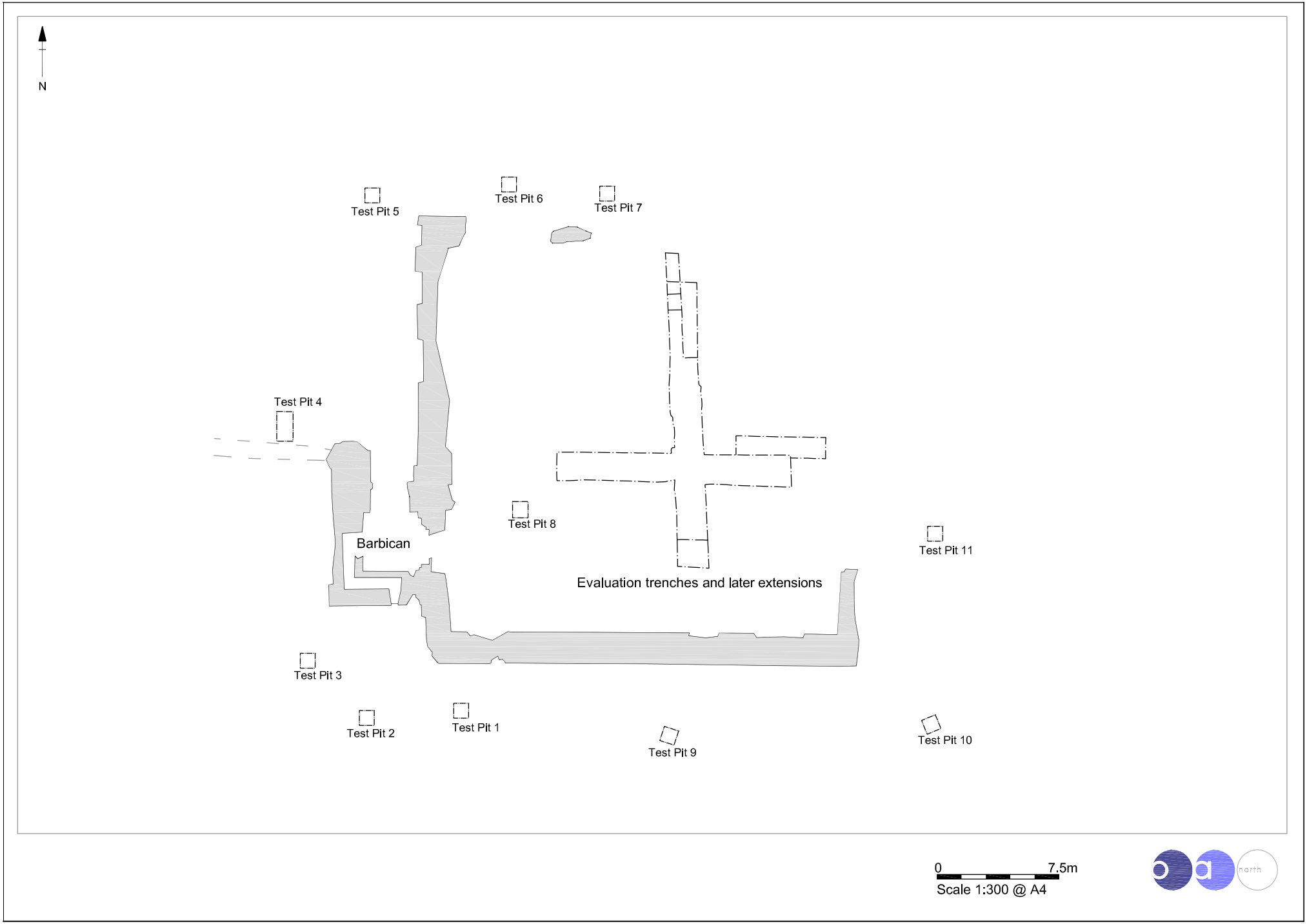


Figure 2 : Plan showing the location of Evaluation trenches and Test Pits

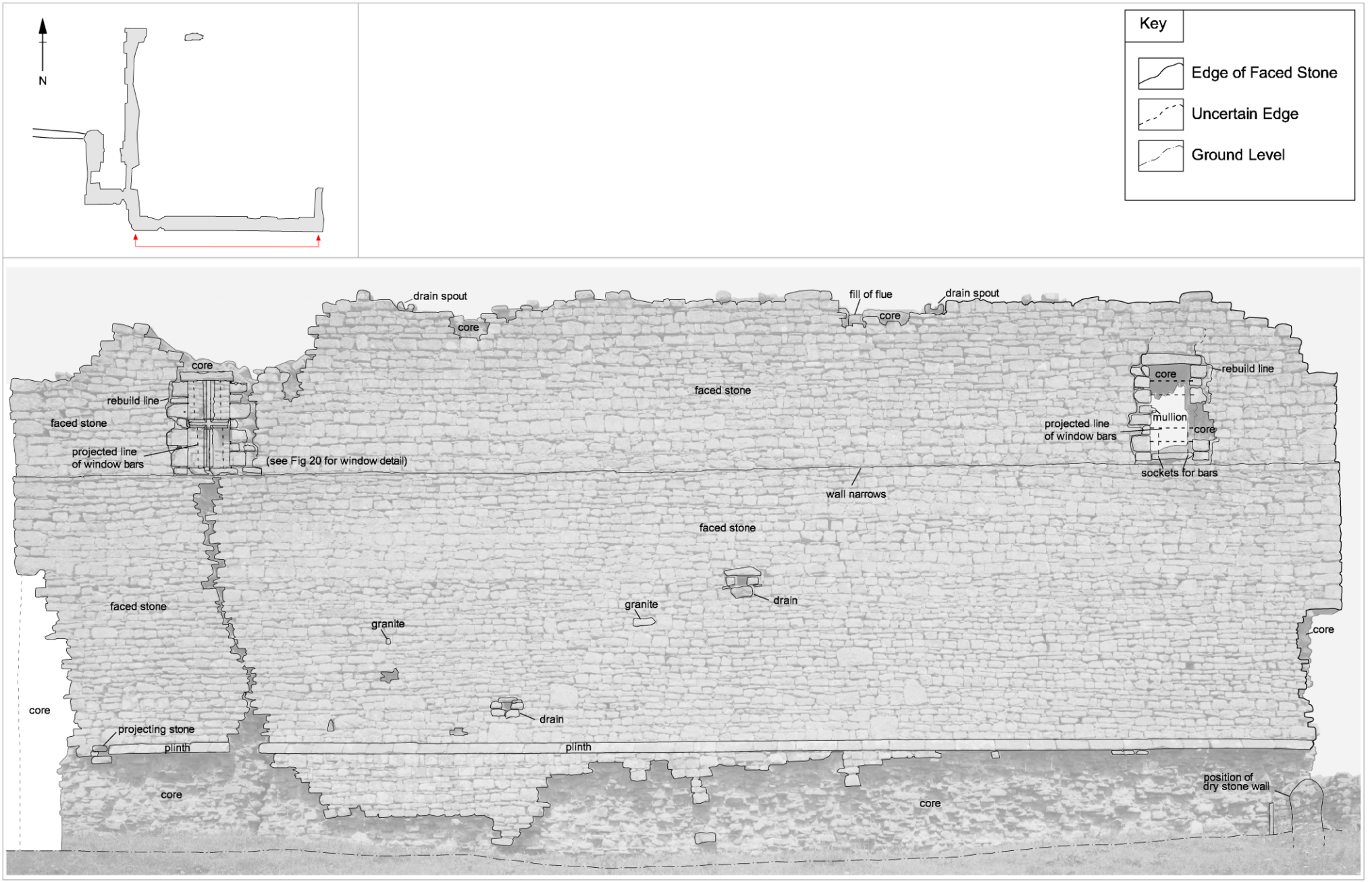
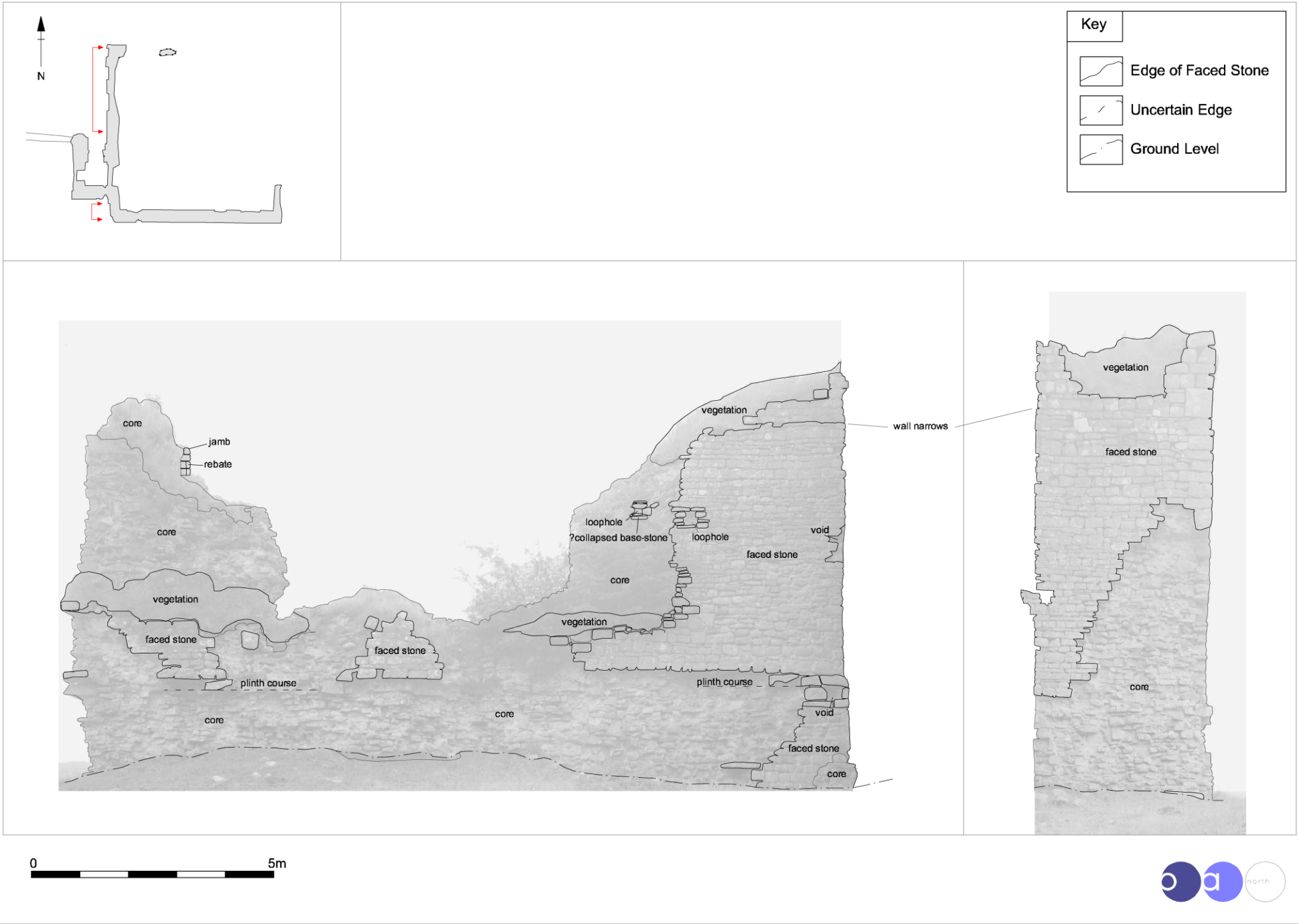


Figure 3: South external elevation of the castle



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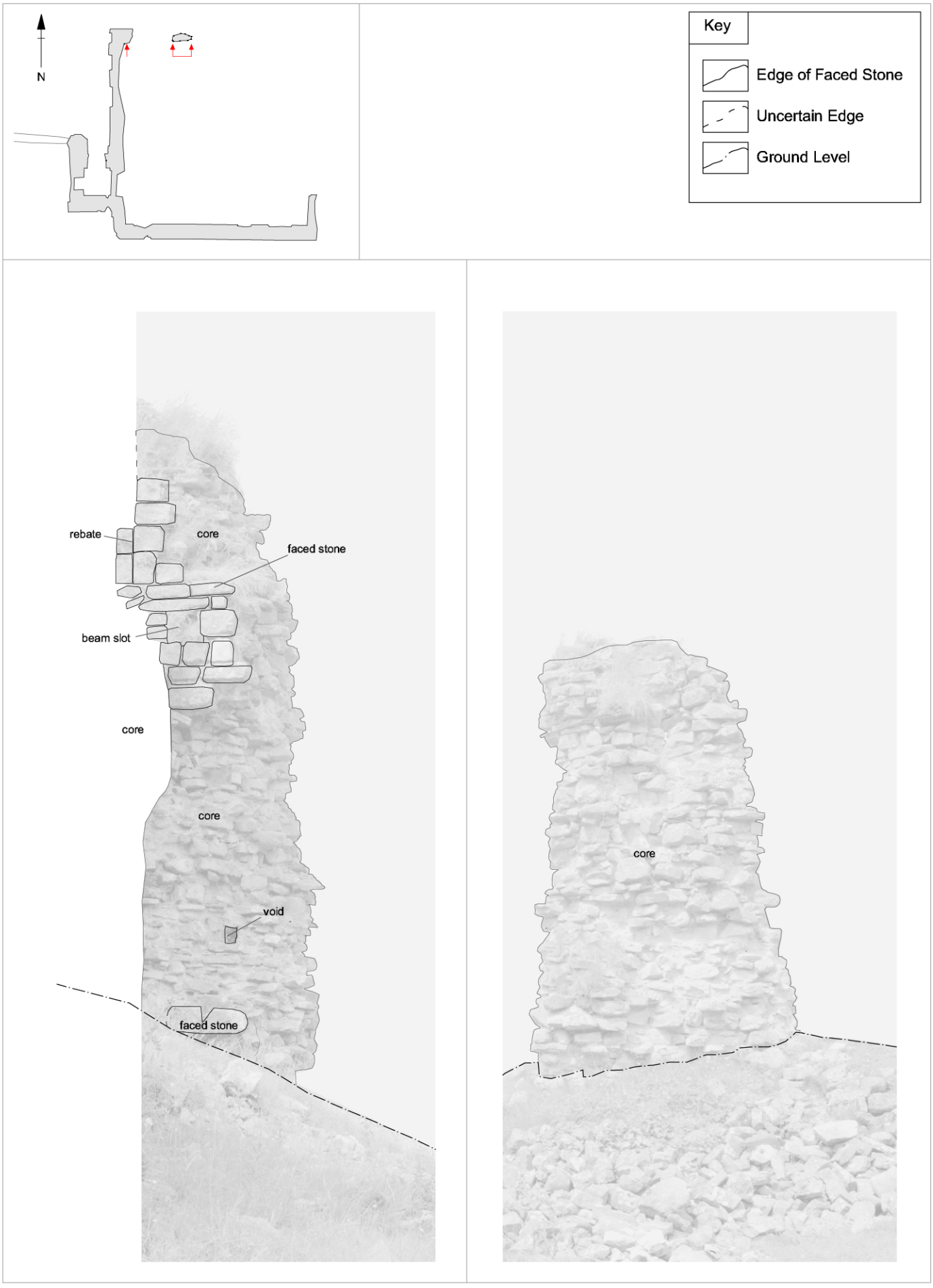
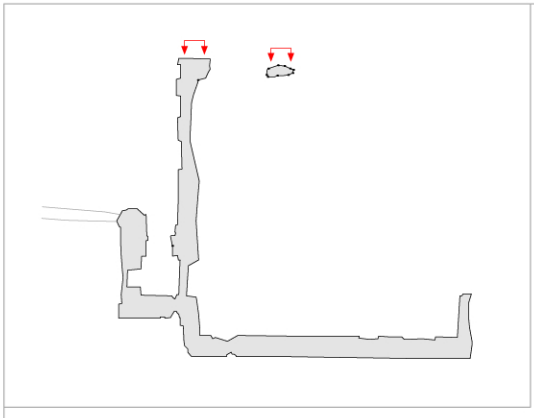
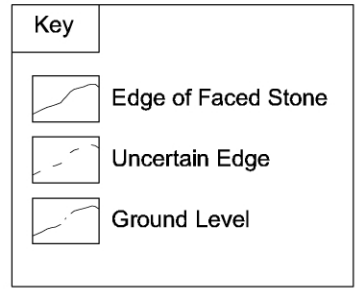
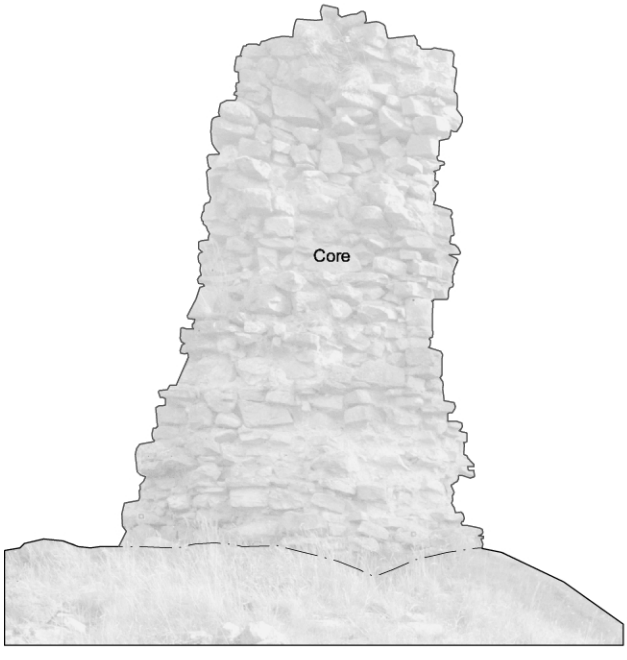
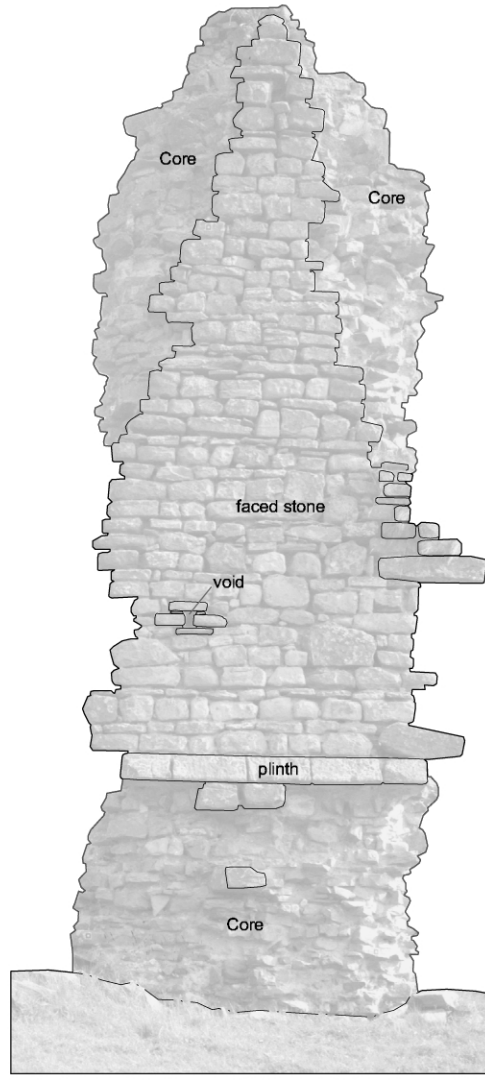


Figure 5 : North internal elevations of the castle









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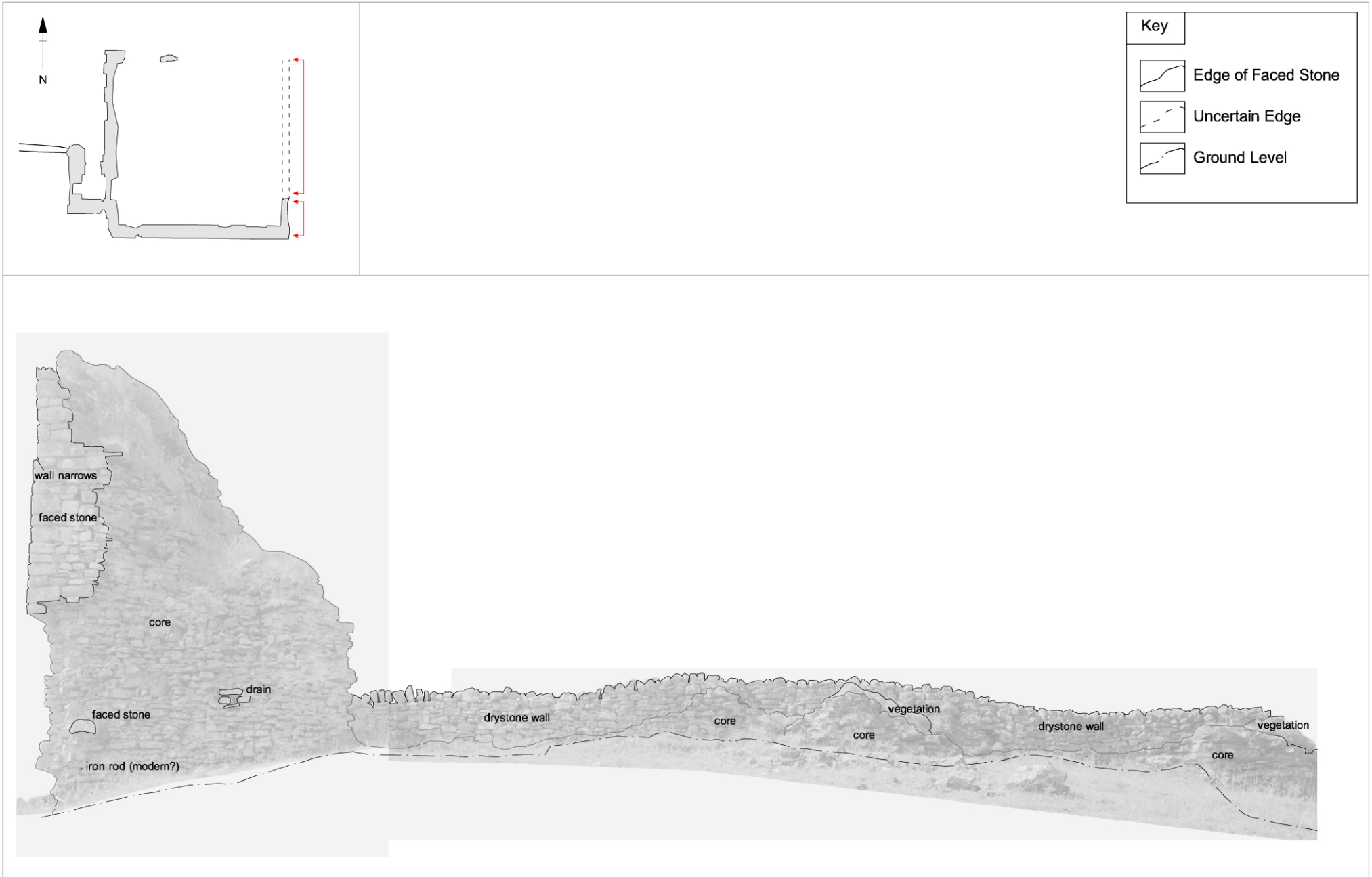

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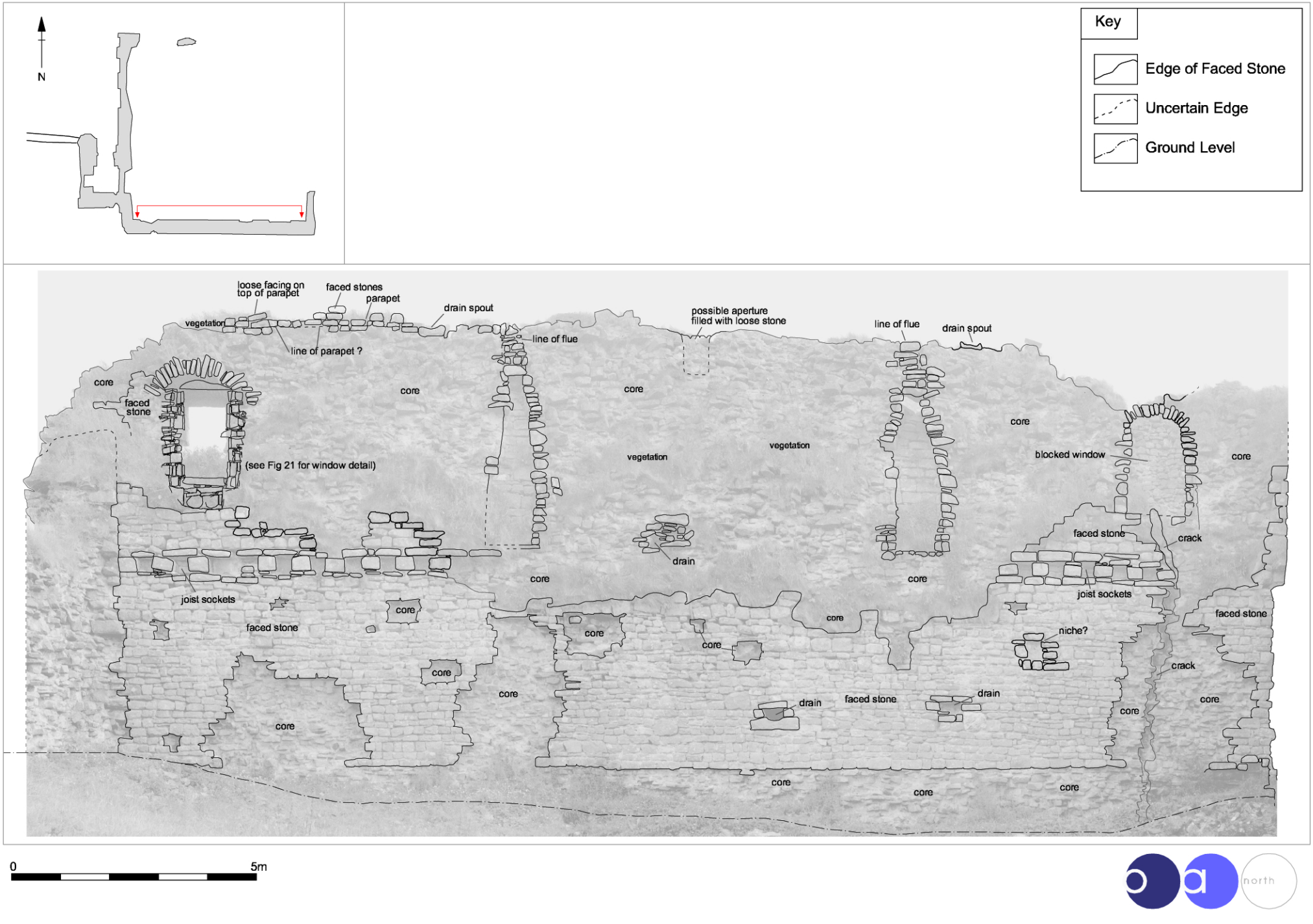
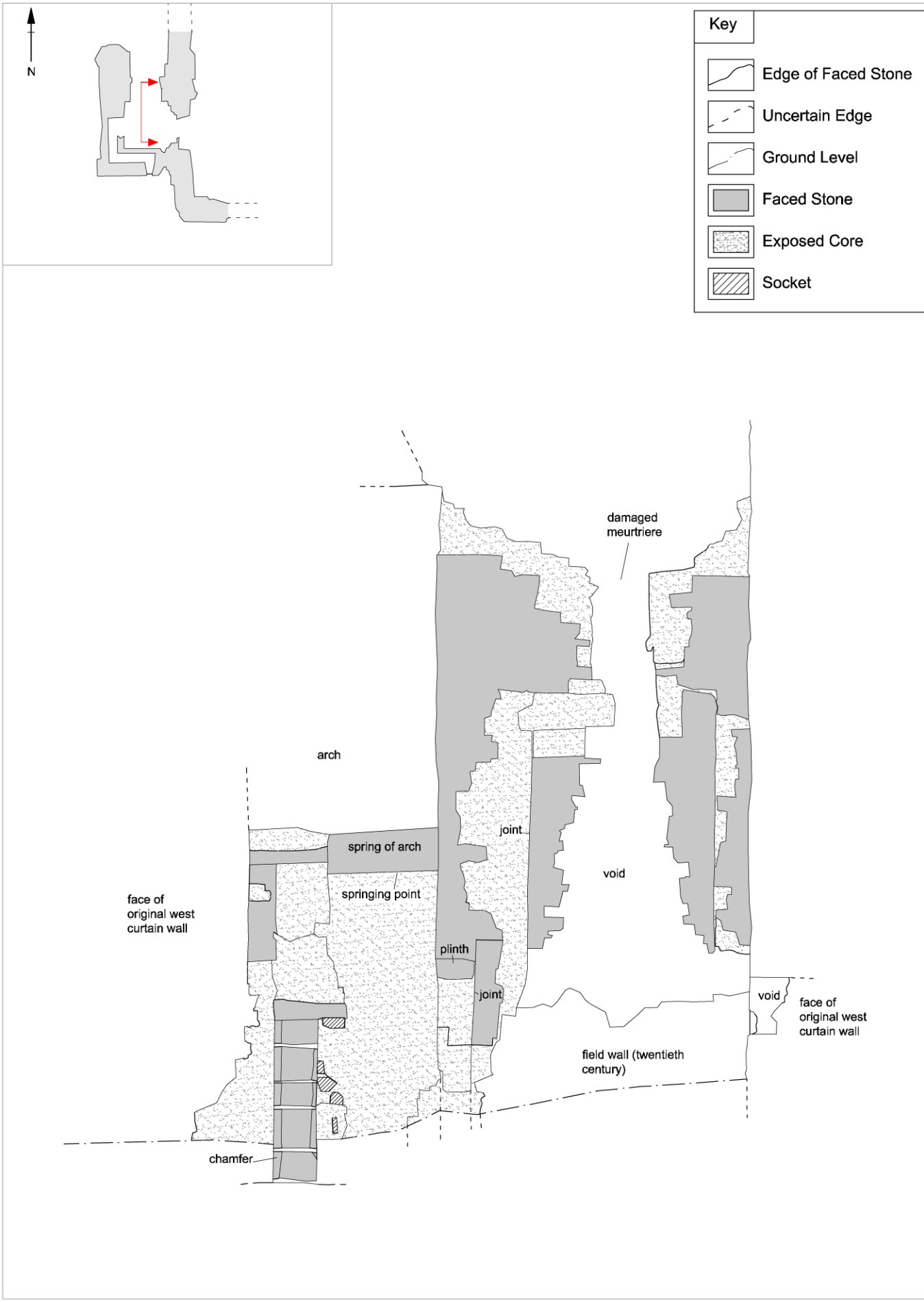


Figure 8: South internal elevation of the castle



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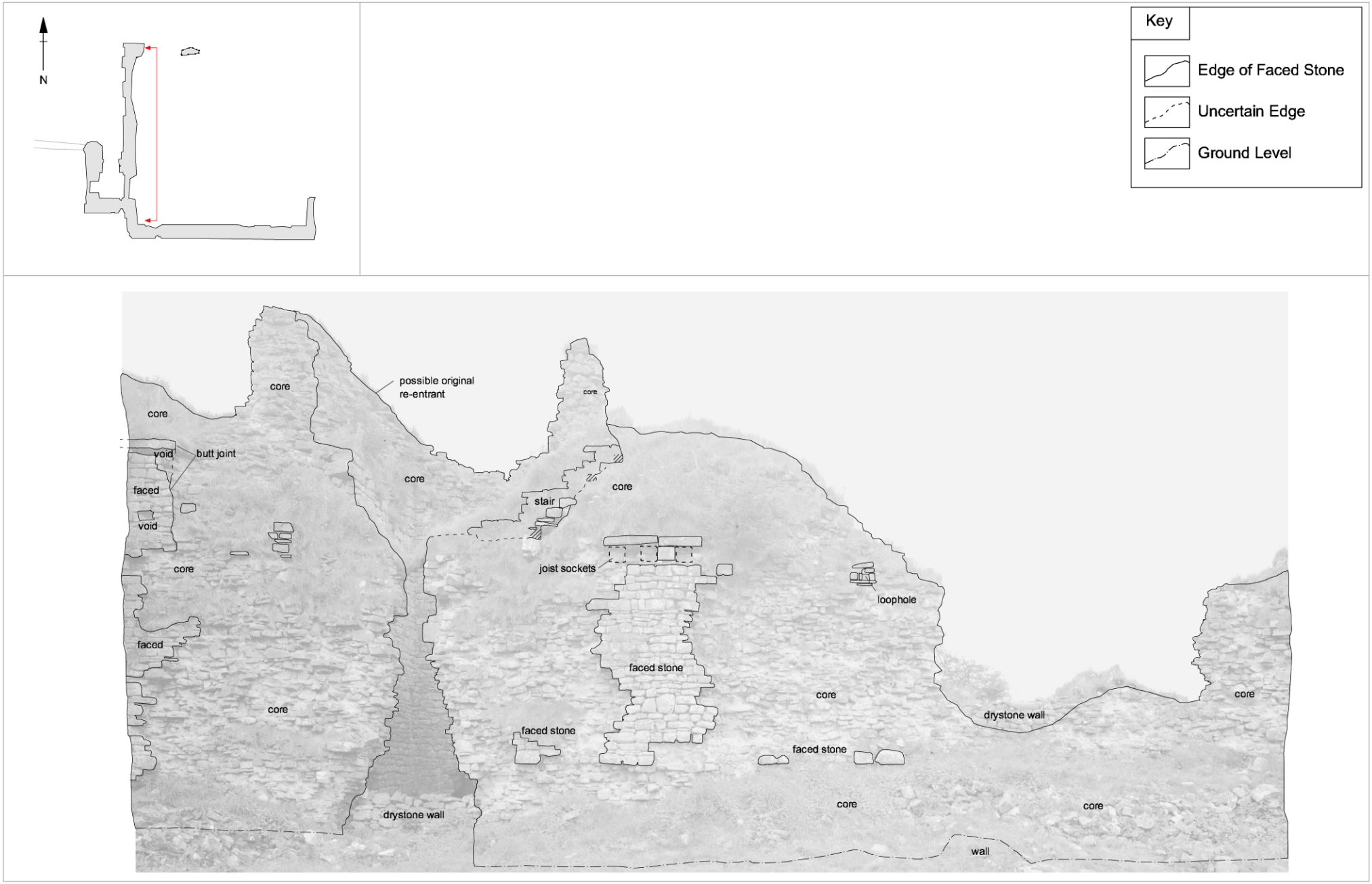
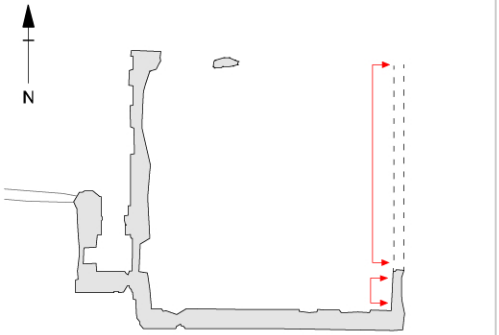


Figure 10: West internal elevation of the castle



Key

Edge of Faced Stone

Uncertain Edge

Ground Level

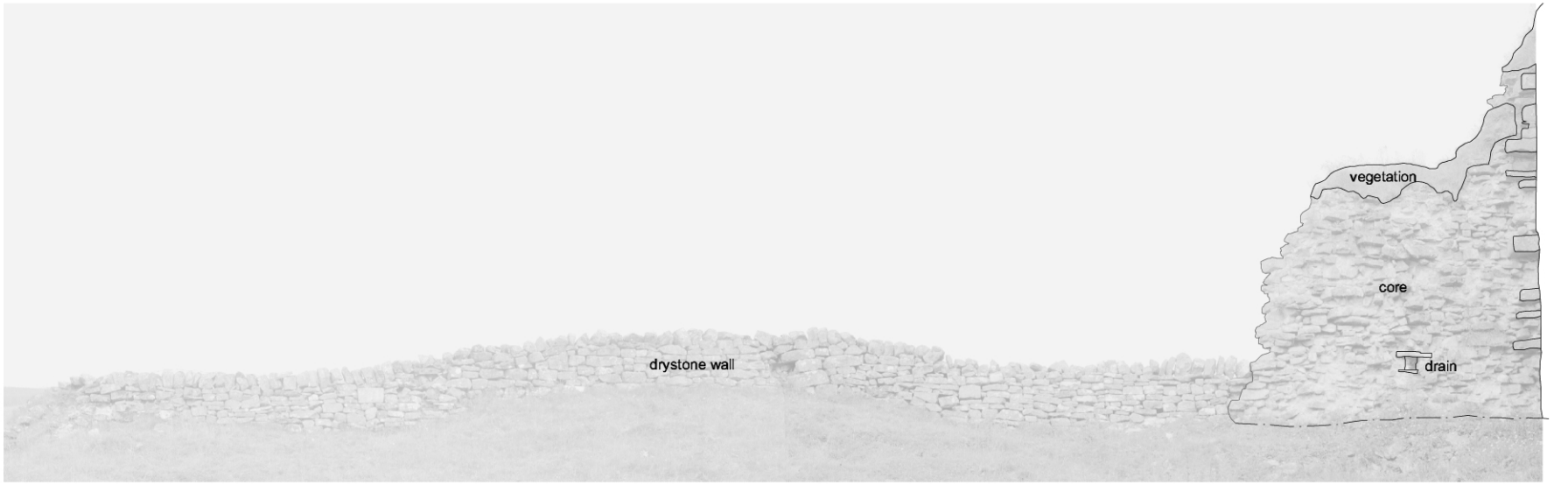


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Figure 11 : East internal elevation of the castle

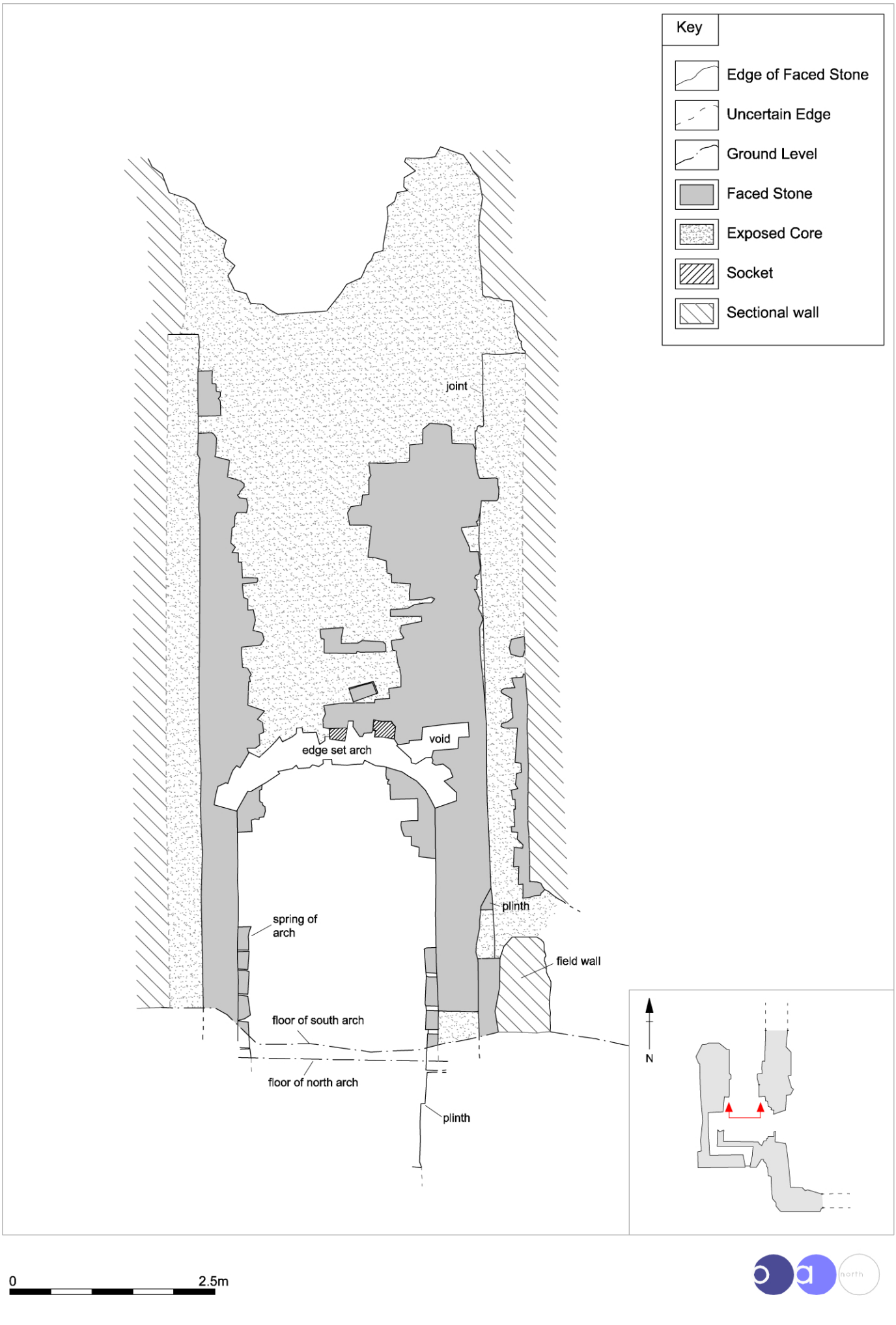


Figure 12: North internal elevation of the barbican

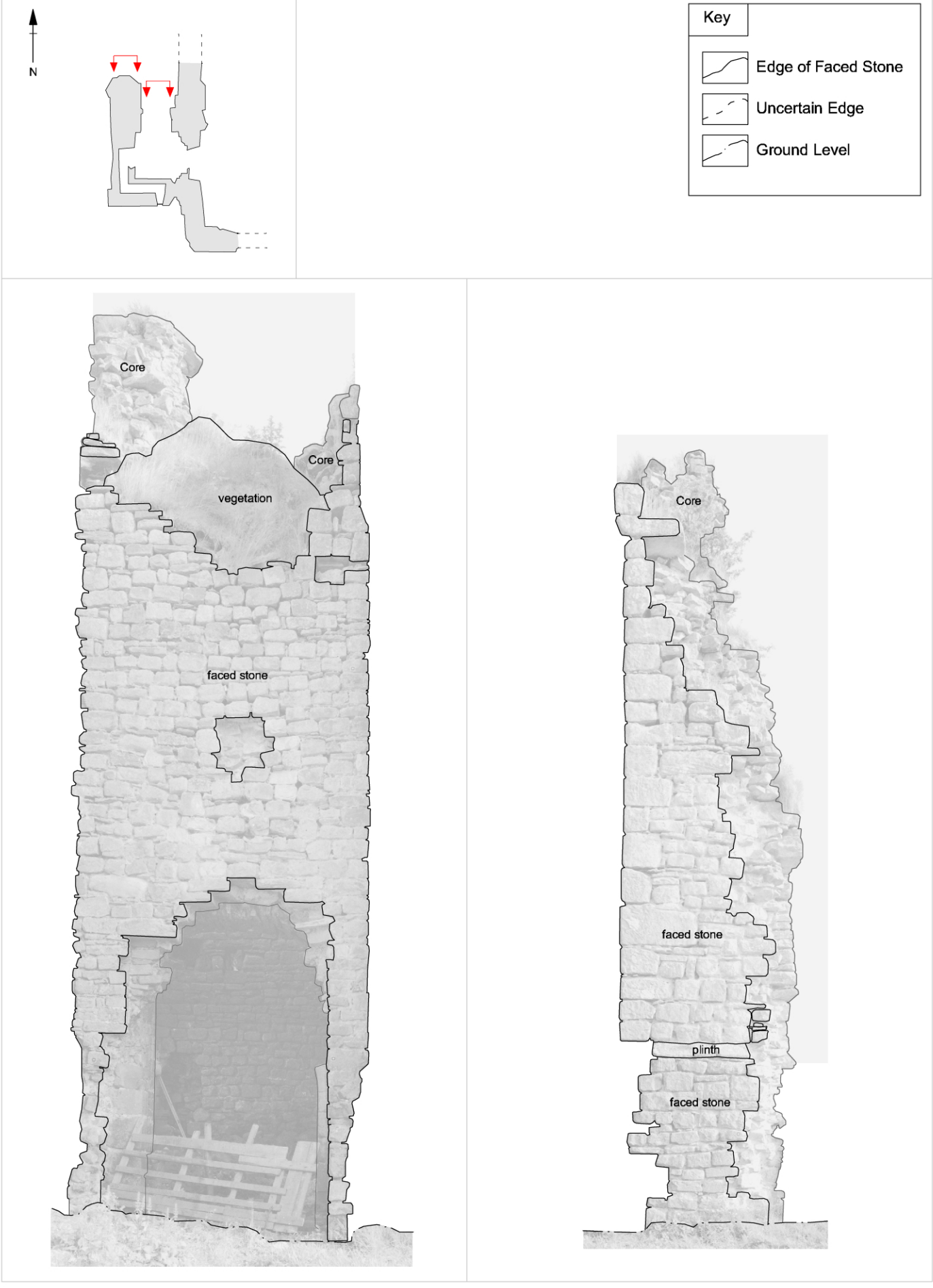


Figure 13: North external elevation of the barbican

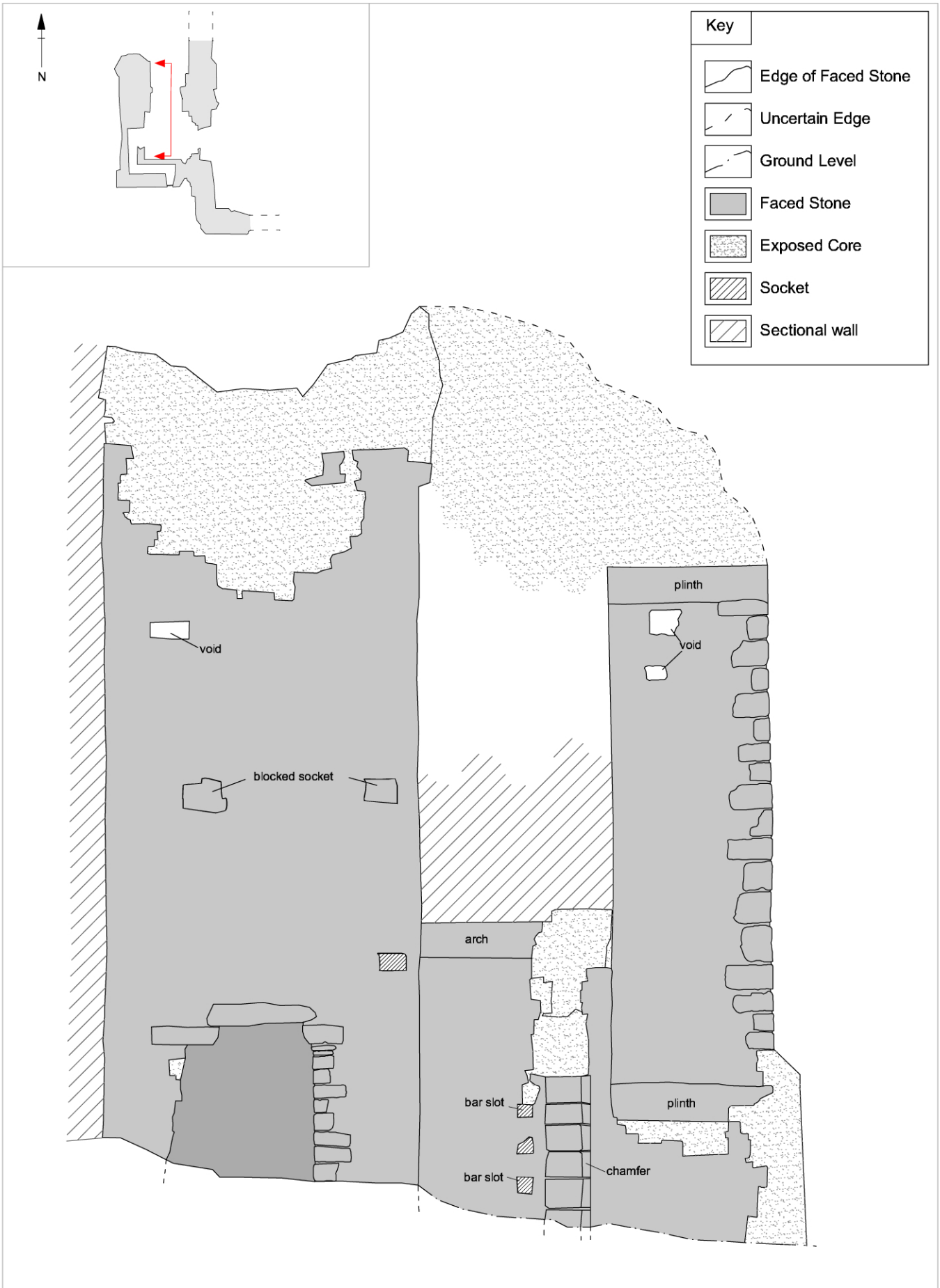


Figure 14: West internal elevation of the barbican

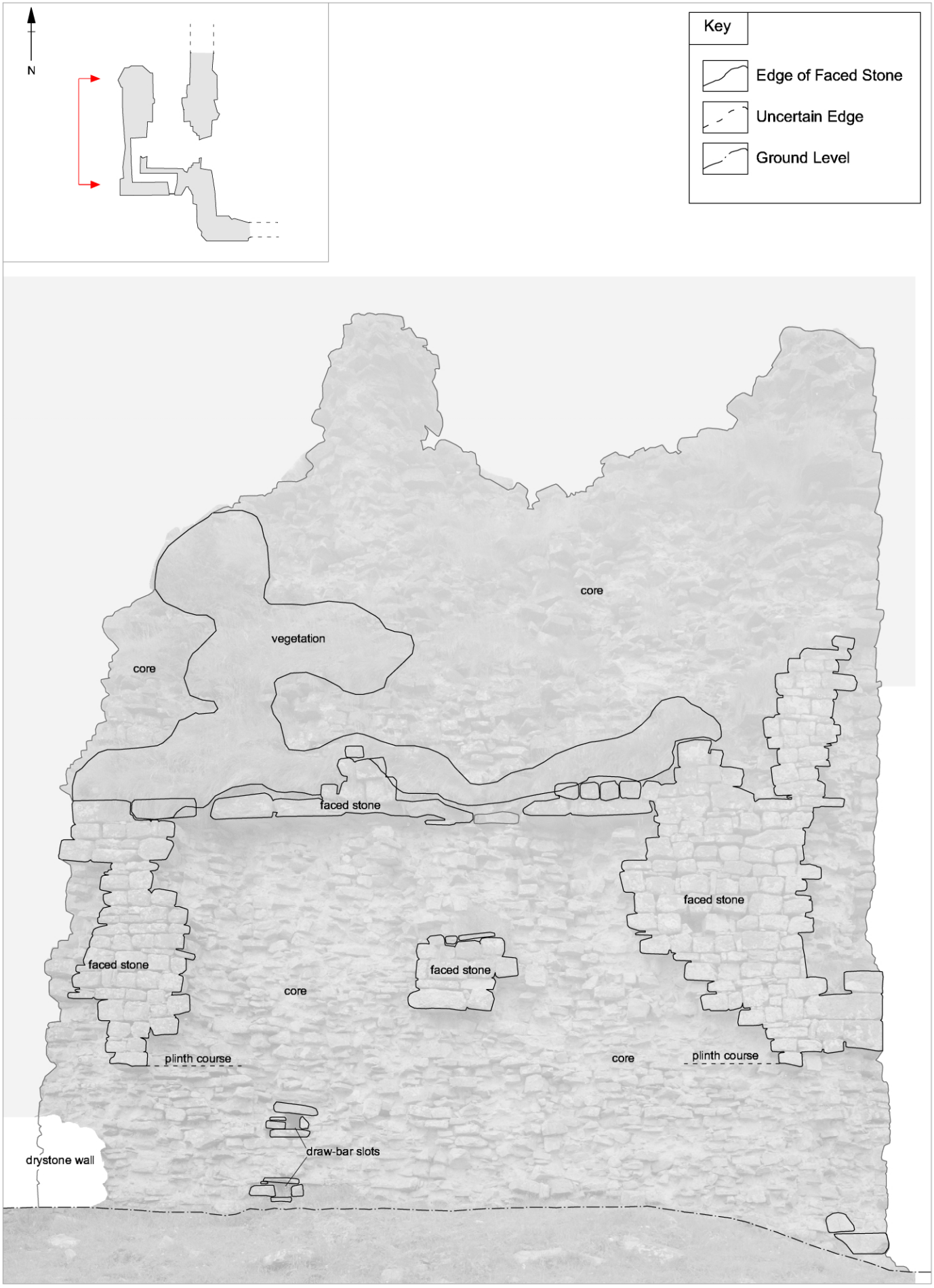


Figure 15: West external elevation of the barbican

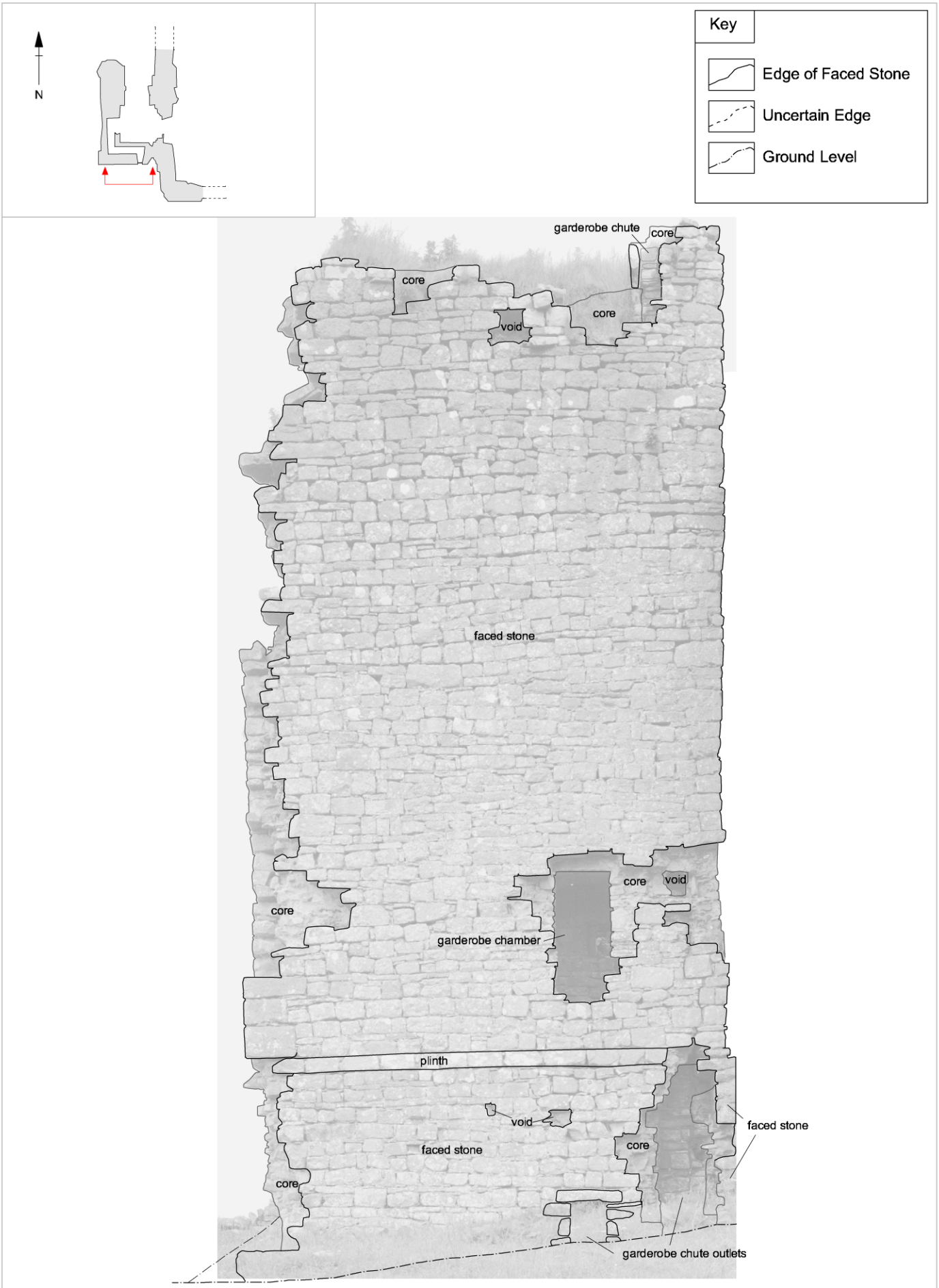


Figure 16 : South external elevation of the barbican

Figure 17: West-facing internal elevations of the barbican garderobe

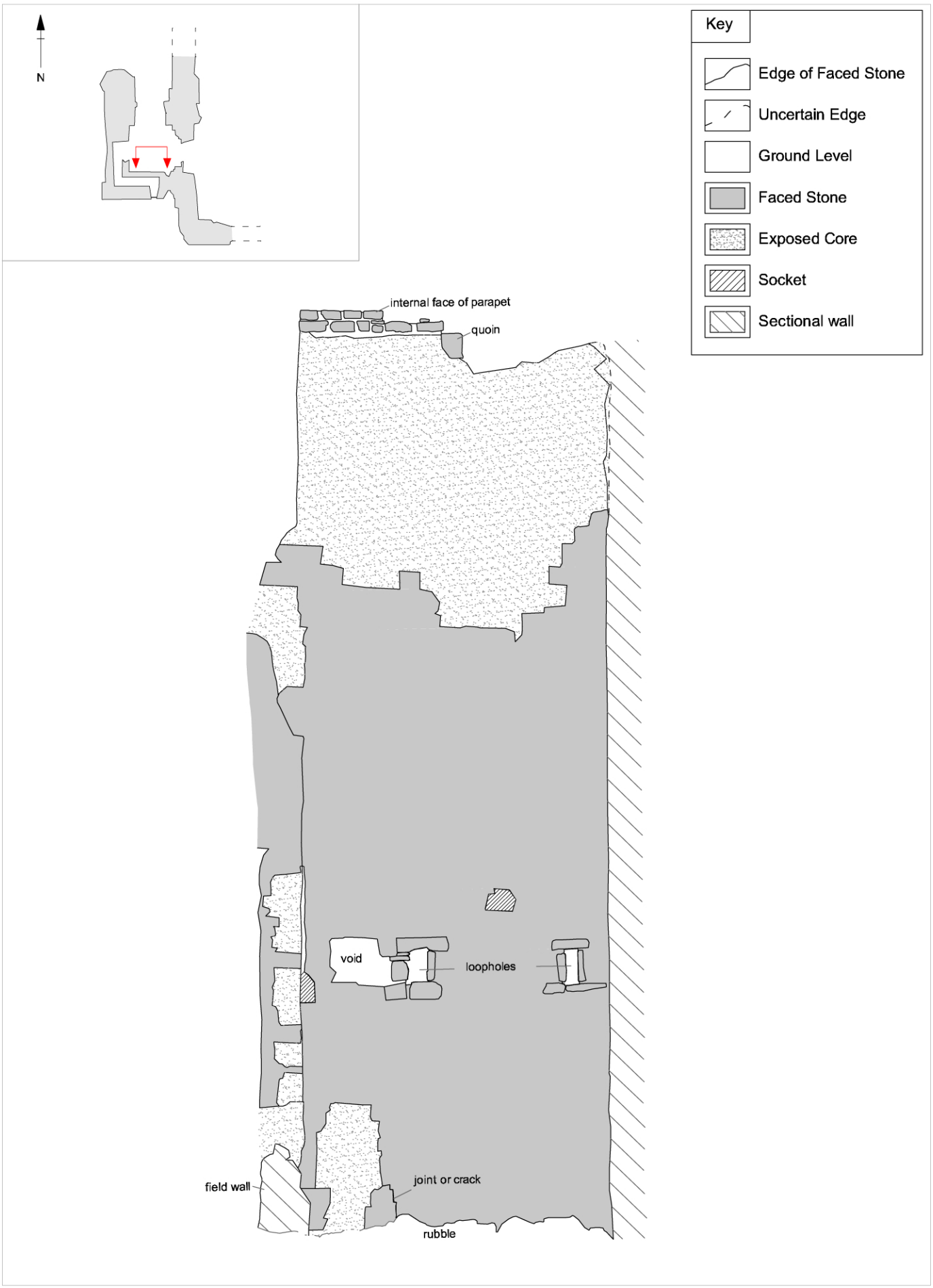
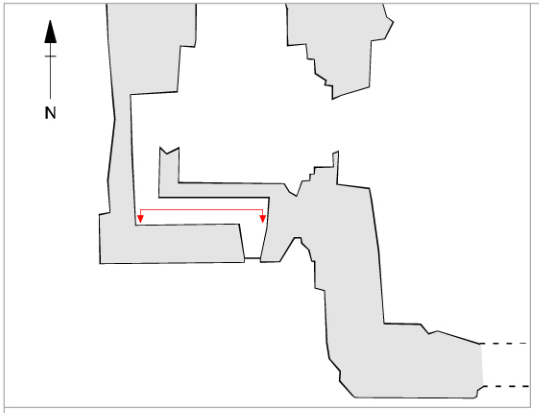
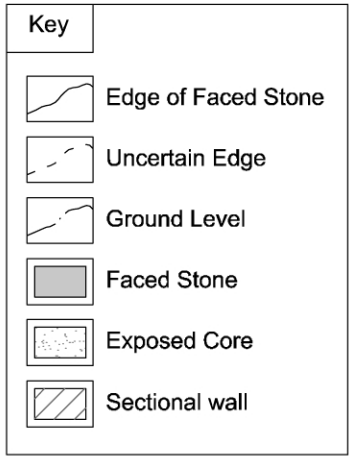


Figure 18: South internal elevation of the barbican





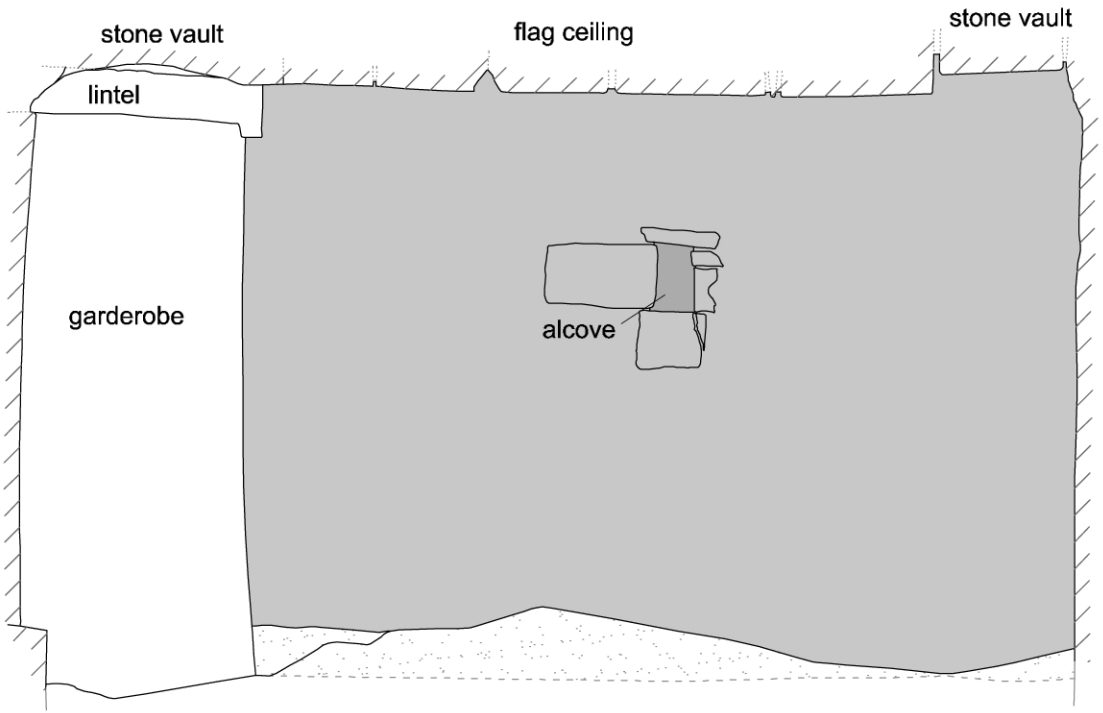
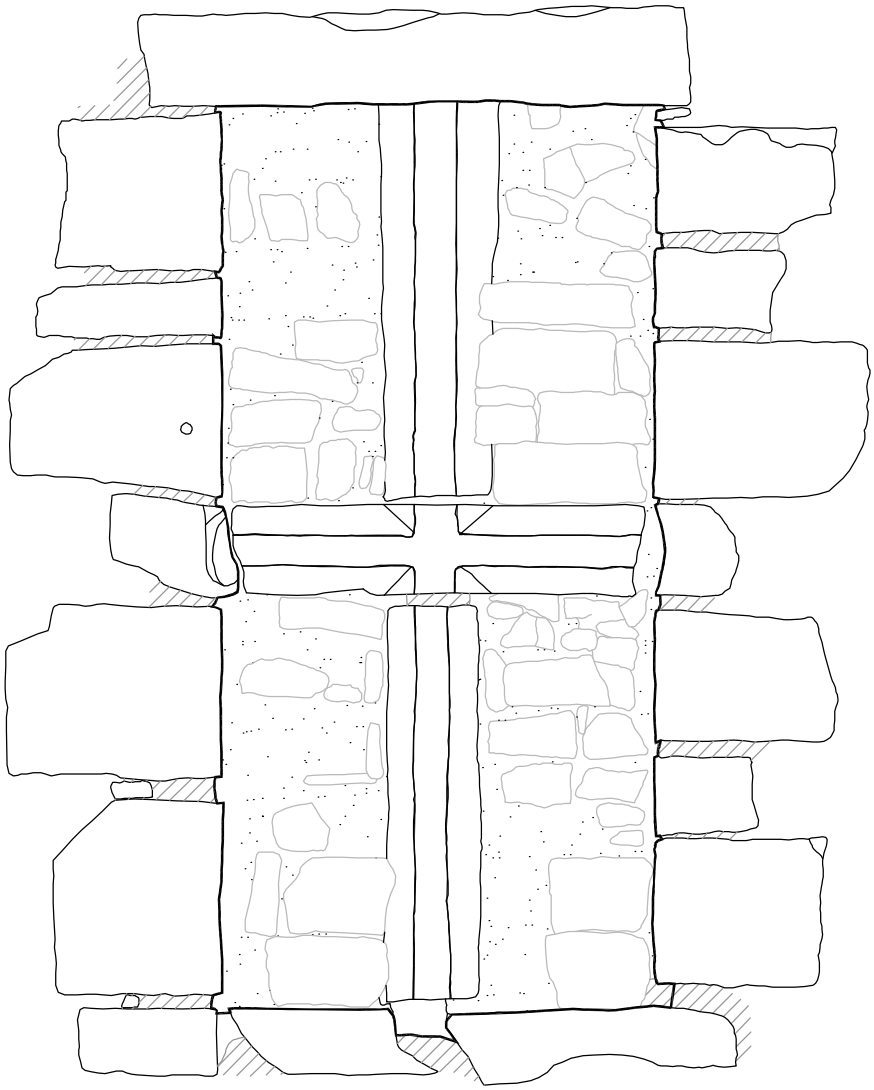


Figure 19: North-facing internal elevation of the barbican garderobe



consolidation

mortar

0 0.5m

north

Figure 20: South external elevation, upper west window of the castle

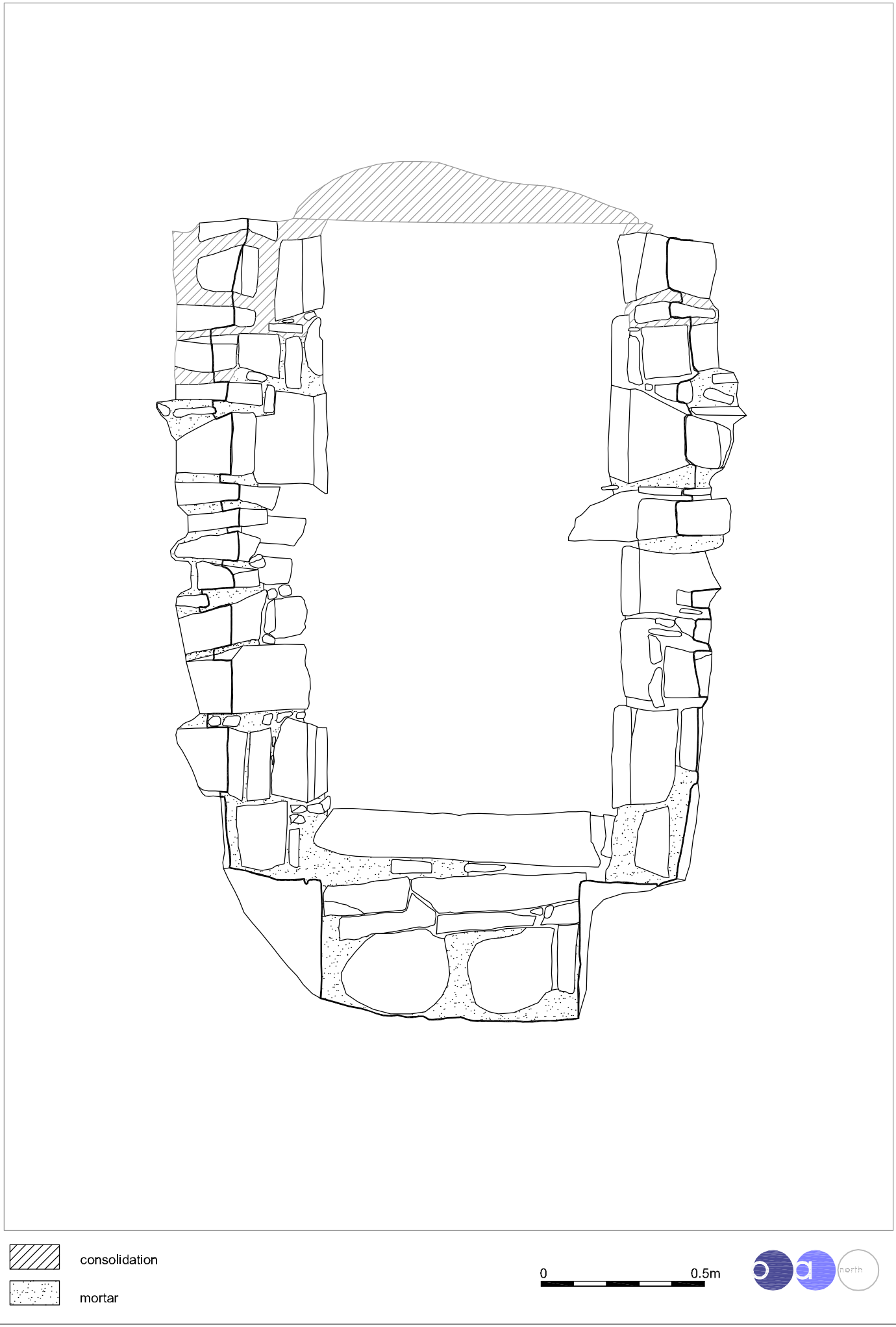


Figure 21: South internal elevation, upper east window of the castle

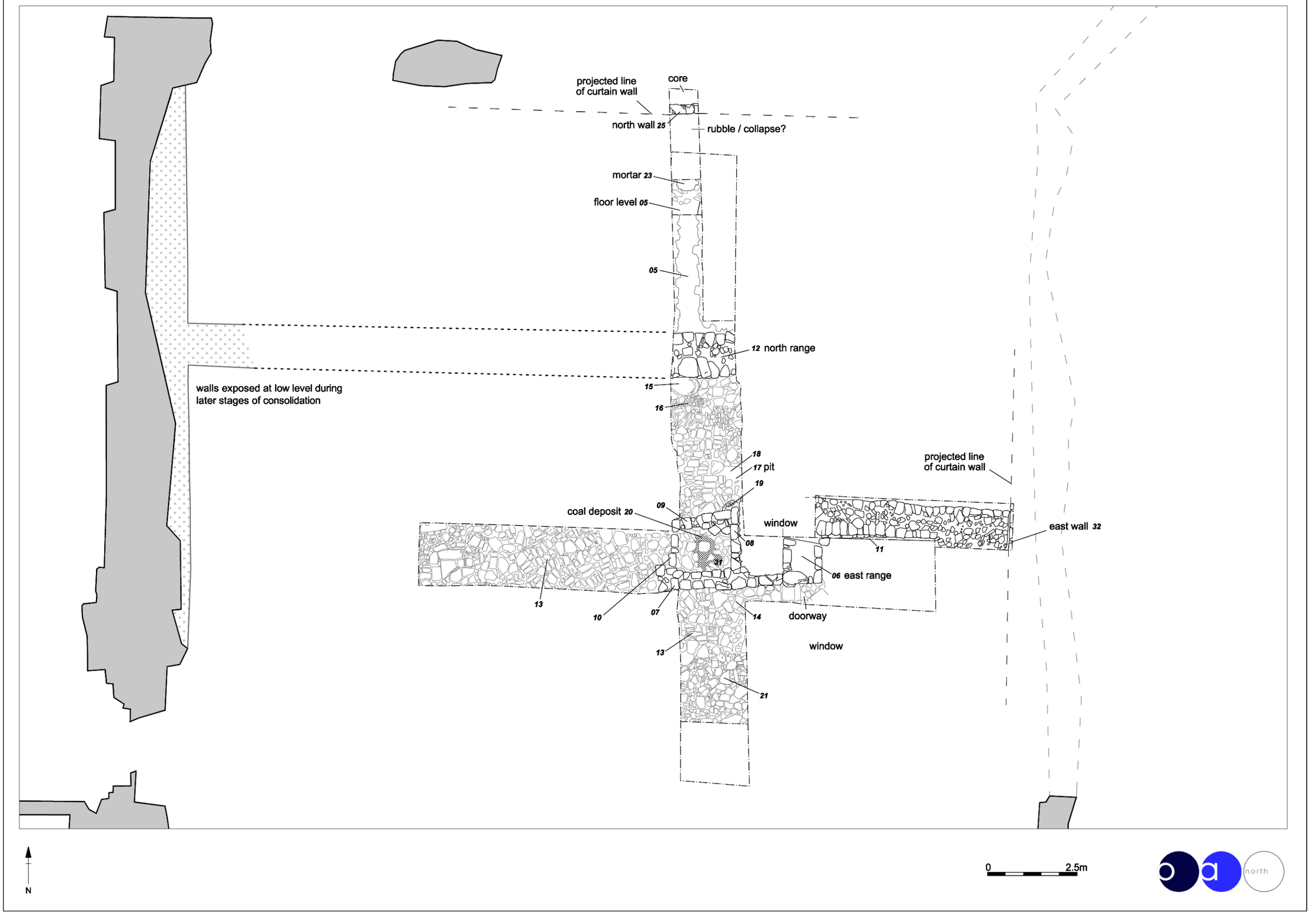
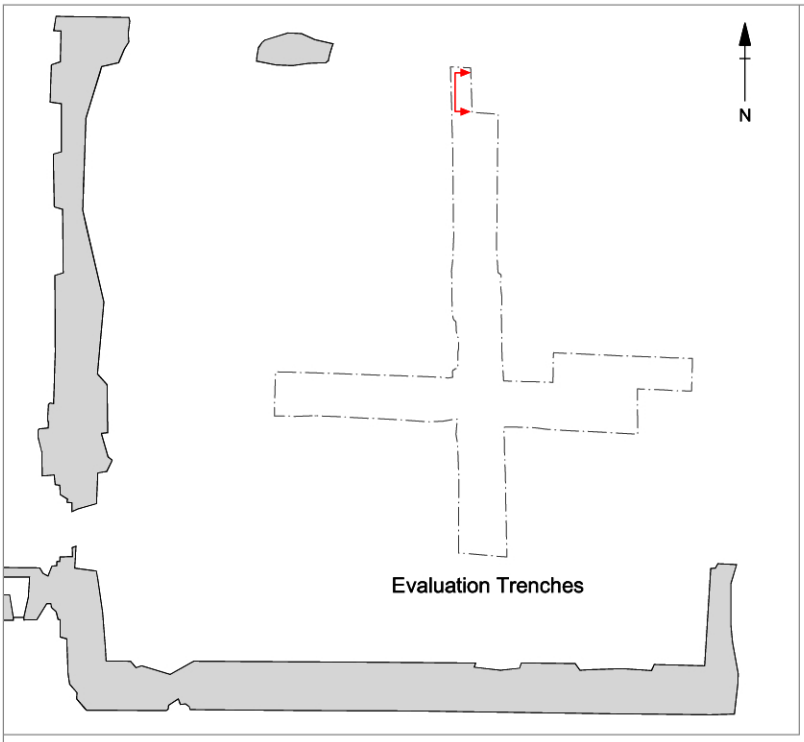
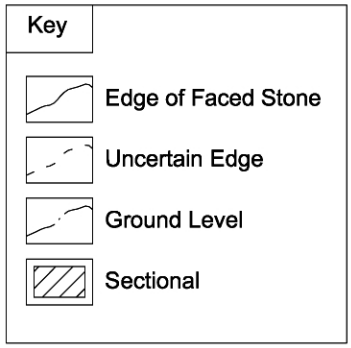


Figure 22 : Plan showing detail of evaluation trenches





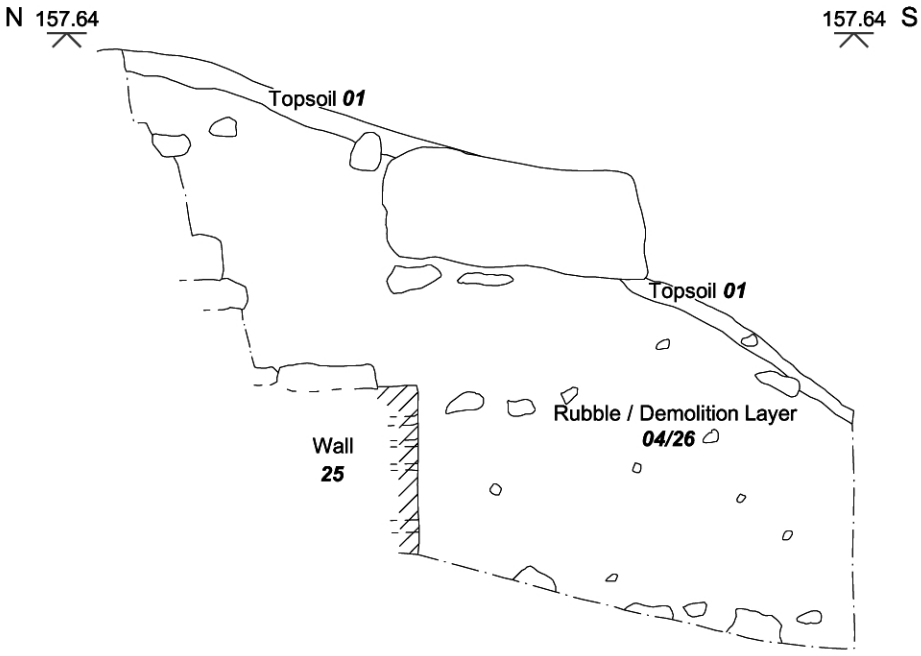


Figure 23: West-facing section of Extension to the north/south evaluation trench

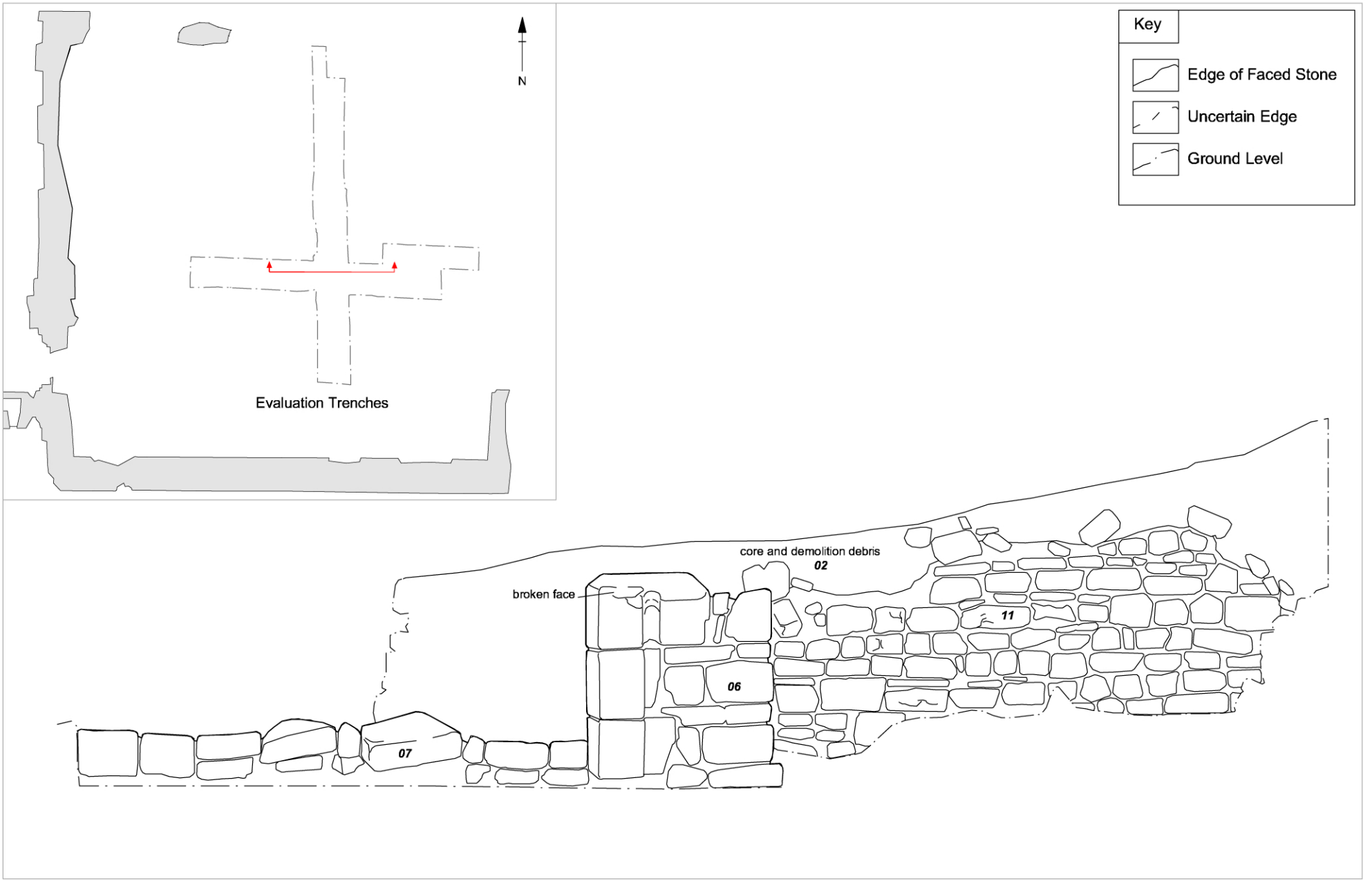
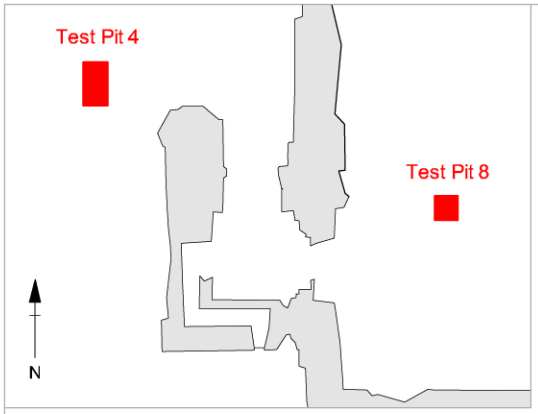
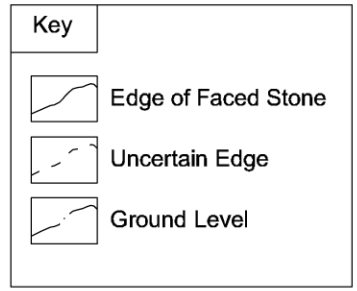
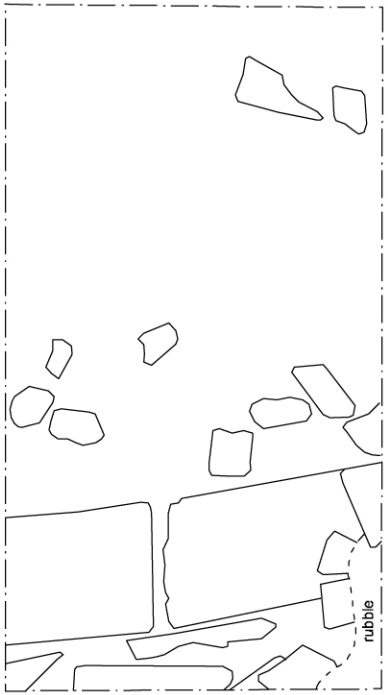


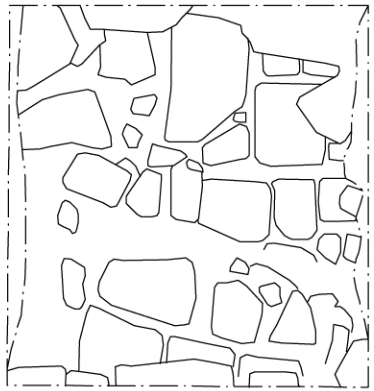
Figure 24: South-facing section through doorway in wall ***06***







Test Pit 4



Test Pit 8

Figure 25: Plans of Test Pits 4 and 8

Plate 1: The castle and environs from the air (from Austen 1991, 4)

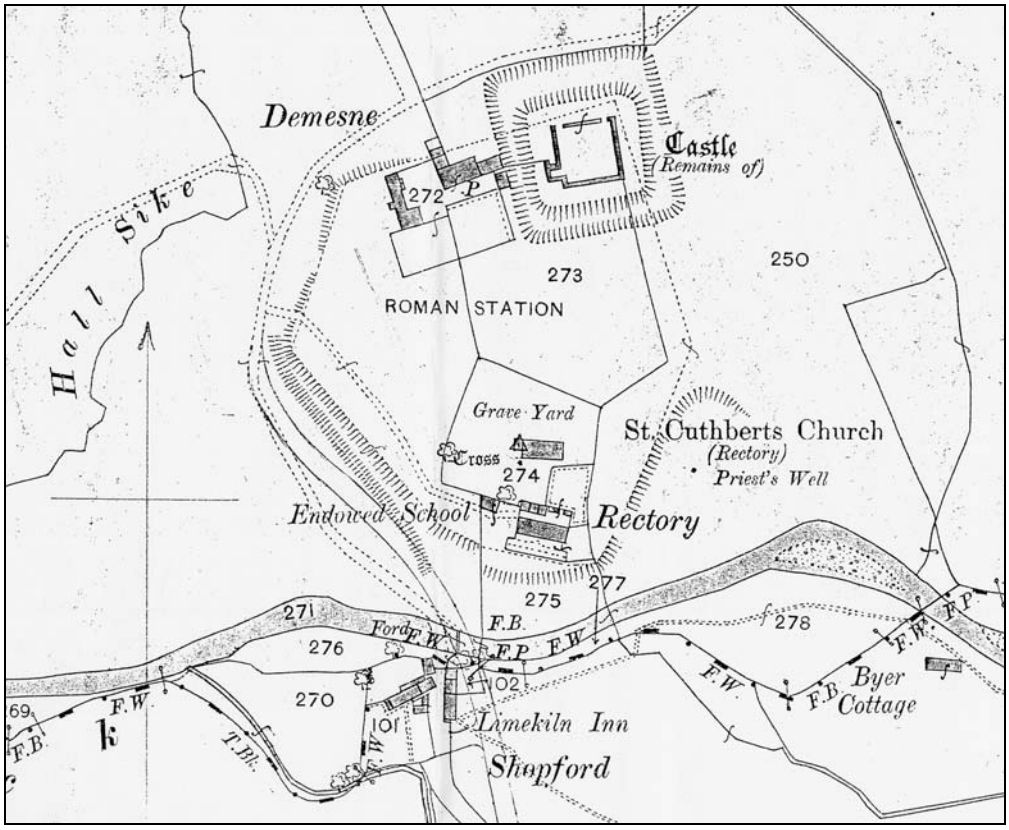


Plate 2: The castle and environs as shown on the First edition Ordnance Survey (1864)

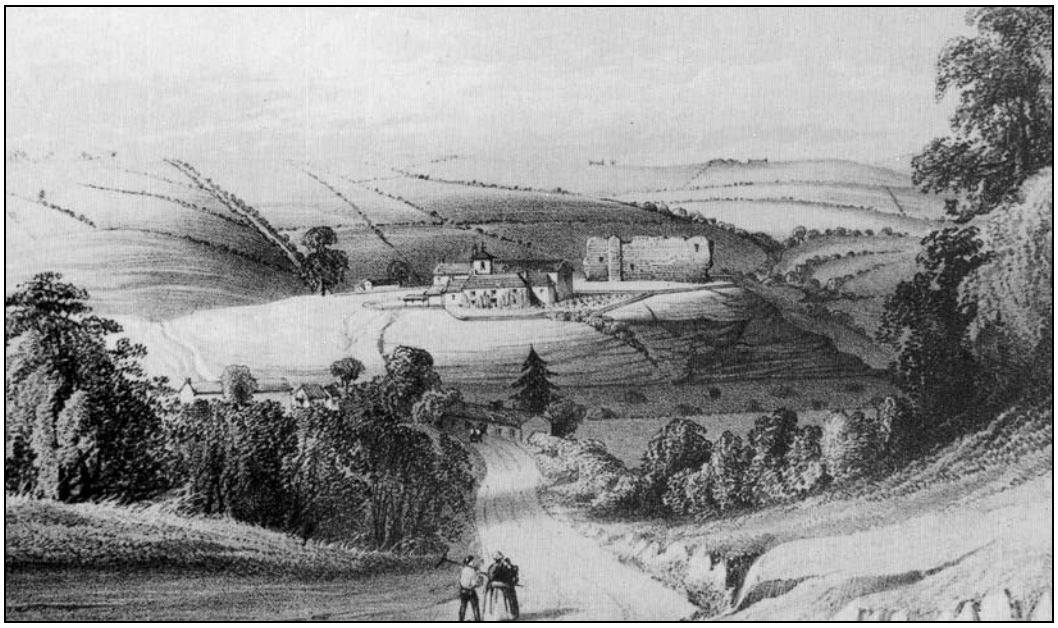


Plate 3: A view of the church and castle *c*1860 (from Austen 1991)

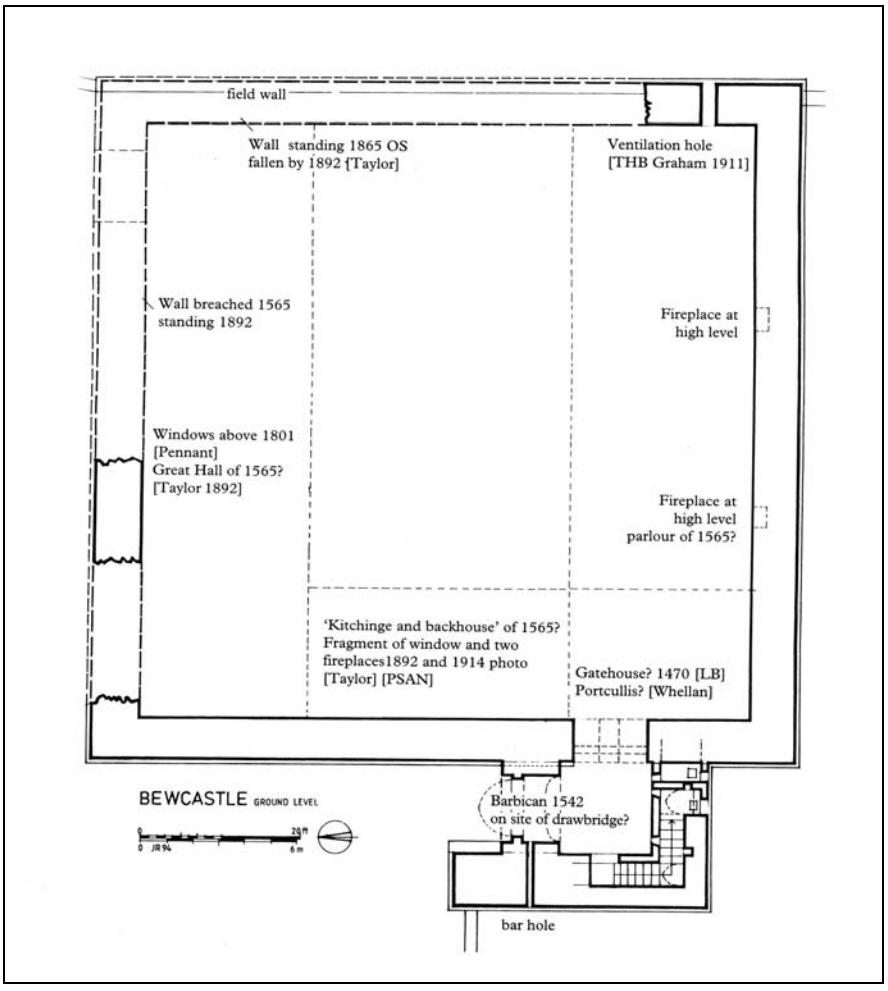


Plate 4: Proposed phasing and arrangement of the castle (from Perriam and Robinson 1998, 47)

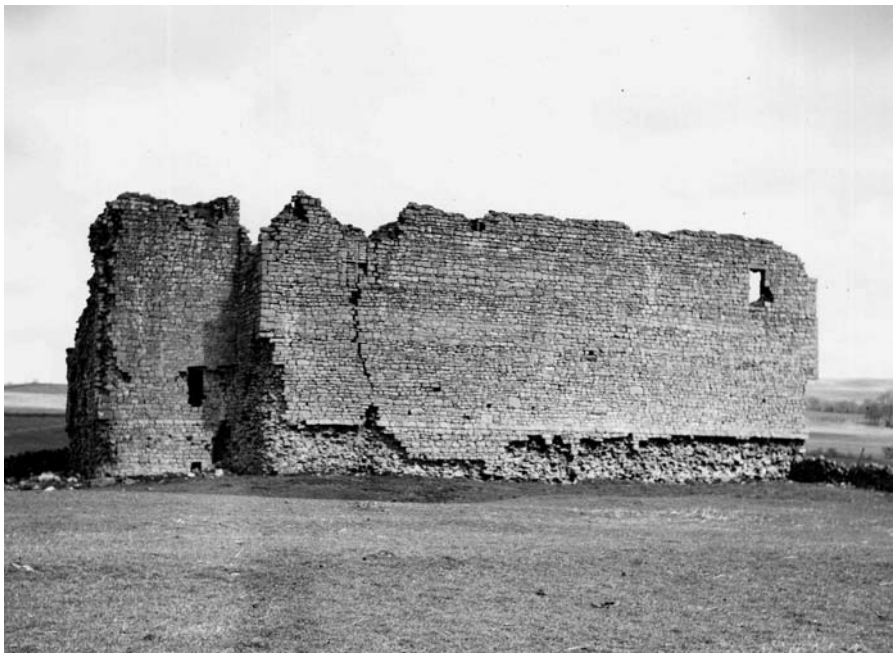


Plate 5: South curtain wall, external view

Plate 6: West curtain wall, external view, immediately north of the Phase 2 barbican

Plate 7: Castle from the north-west, showing the recessed entrance in the barbican

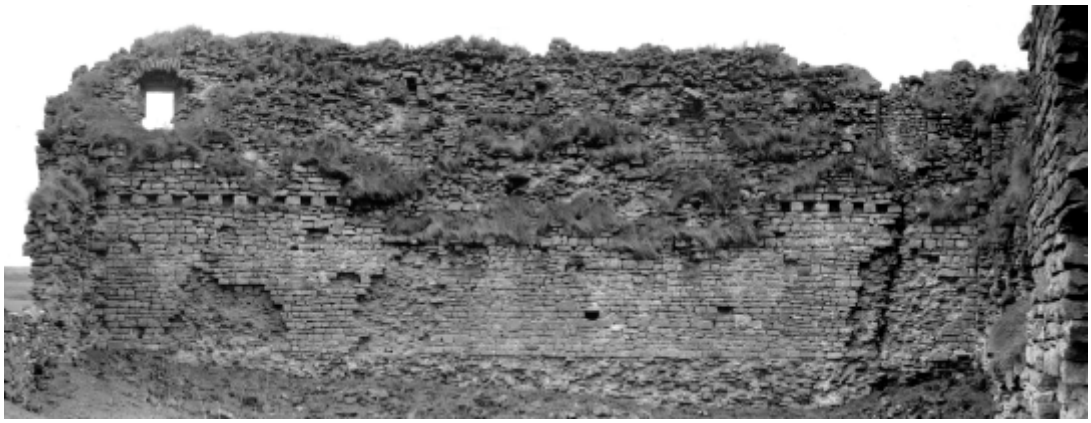


Plate 8: South curtain wall, internal view, showing flues

Plate 9: Probable loophole, west curtain wall, external face

Plate 10: Probable loophole, west curtain wall, internal face

Plate 11: Remains of stair, west curtain wall, internal face

Plate 12: *In situ* door jamb, west curtain wall

Plate 13: Straight joint between Phase 2 barbican and curtain wall

Plate 14: Garderobe revealed at parapet level, south elevation of the barbican

Plate 15: Sandstone jamb and passage to the parapet-level garderobe, south elevation of the barbican

Plate 16: Parapet walkway, south elevation of the barbican

Plate 17: Floor-level drainage channel, south elevation of the barbican

Plate 18: Parapet walkway, west elevation of the barbican

Plate 19: Phase 3 inserted window, west end of south curtain wall, external face

Plate 20: Jamb of eastern Phase 3 window, showing sockets for glazing bars

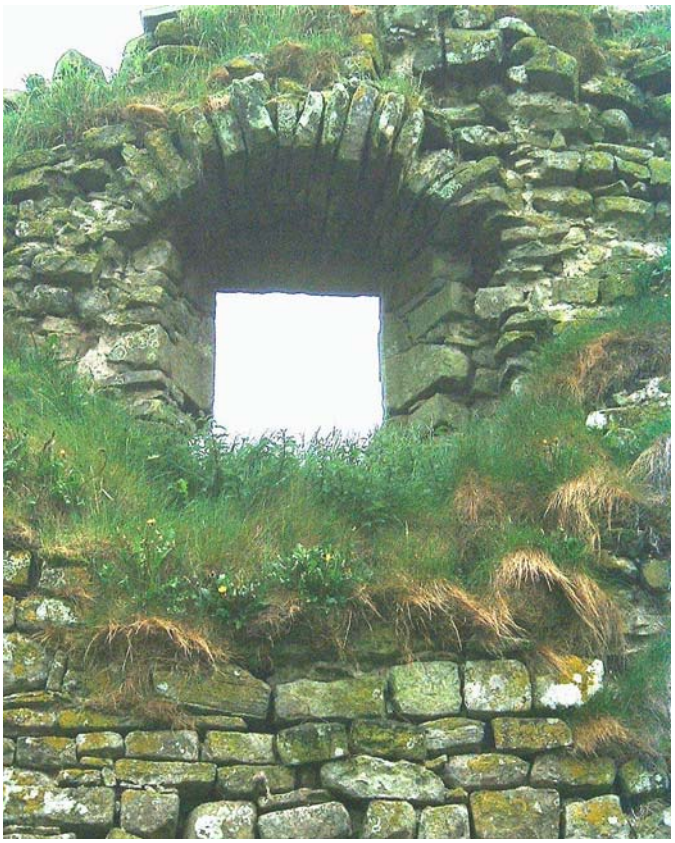


Plate 21: Segmental arch of eastern Phase 3 window

Plate 22: Open embrasure of eastern Phase 3 window

Plate 23: View of 2003 evaluation from the south-west

Plate 24: Chamfered jamb of doorway, wall ***06***

Plate 25: Rebated internal side of doorway, wall ***06***

Plate 26: Blocked window embrasure, wall ***06***

Plate 27: Cobbled surface ***13***

Plate 28: Make-up layer ***28***

Plate 29: Phase 3 structure ***31***

Plate 30: Possible wall within Test Pit 4

Plate 31: Test Pit 8 (foreground), showing cobbled surface

APPENDIX 1: PROJECT BRIEF

T1817

ENGLISH HERITAGE

NORTH EAST REGION

Miss R Newman
Oxford Archaeology North
Storey Institute
Meeting House Lane
Lancaster LA1 1TH

Our ref: DS/PMH

Date: 13th November 2002

Dear Rachel,

BEWCASTLE CASTLE

I am writing to you on behalf of the owners of Bew Castle, Mr and Mrs G C Noble of Demesne Farm, Bewcastle, Cumbria CA6 6PX (tel: 016977 48627), to invite you to tender for archaeological work at the Castle as detailed below. You should obtain their permission before you visit.

I enclose a copy of Peter Ryder's document, *Bewcastle Castle A provisional description and assessment* (September 2002) and reduced copies of Mason Land Survey Ltd's photogrammetry and plan produced earlier this year. (You will of course be provided with full-size and/or disk versions of these if you undertake the work.) I also enclose an extract from the Royal Commission's field survey of Bewcastle which was published in the Cumberland & Westmorland *Transactions*, vol. XC (1990). I draw your attention to this article because it deals with the Roman fort which underlies the castle. Peter Ryder summarises the little that is known about the history and archaeology of the castle itself.

Bew Castle is a scheduled ancient monument with additional importance because it lies within a world heritage monument, Bewcastle Roman fort being an outlying part of the Hadrianic frontier zone. Although the proposed works are unlikely to disturb Roman stratigraphy this possibility must be born in mind and the highest standards of archaeological work are expected. The castle is evidently faced with a very high proportion of re-used Roman masonry and some of this may be diagnostic. The possibility of post-Roman/pre-medieval occupation should also be considered because of the presence nearby of the Anglo-Saxon cross which is considered to be of European importance. The castle appears to have undergone no or negligible repair or conservation for well over two centuries and is now a ruin. Because of its importance the owners are in receipt of an offer of 100% grant-aid for the cost of its conservation. They have now appointed a project manager to draw up a contract to conserve the remains, to appoint a principal contractor and to supervise on site when work starts which, it is anticipated, will be in late April or early May 2003. Because of the (usually) limited season of fair weather for working at Bewcastle, the contract is likely to extend over two seasons. The duration will become clearer during the first season. Your tender should therefore include provision for continuing visits to record works in 2004 as well as any further post-recording work and writing up. It is intended to consolidate the remains of the north and west walls and the gatehouse/barbican in the first season, followed by the south and east walls.

BESSIE SURTEES HOUSE, 41-44 SANDHILL, NEWCASTLE UPON TYNE, NE1 3JF
Telephone: 0191 269 1200 Facsimile: 0191 261 1130

You will be able to have the use of part of a barn in the adjacent farmyard as a site hut, subject to negotiation with the owner. A new vehicular access and gate from the public road will be created at the north-west corner of the site, for the use of the contractors and yourself. The castle will be given temporary fencing around the inner edge of the moat for the duration of the contractors.

Understanding a monument is an essential step in conservation and repair works, and making an appropriate record of the work carried out is an important final stage in a repair programme. The aim is to examine Bew Castle in order to understand better the character, dating, form, architecture and archaeological development of the structure that makes up the monument. The result of this recording will provide information for the conservation and repair of the monument in advance of and during the progress of works.

You are invited to provide a costed project design in line with *The Management of Archaeological Projects* (English Heritage MAP2, 1991). Work will be carried out in accordance with standard guidelines such as the IFA Standard and Guidance for the Architectural Investigation and Recording of Standing Buildings and Structures, RCHME Recording Historic Buildings and CBA Recording Worked Stone. You should arrange your own insurance.

The objectives of the research, analysis and archaeological investigation will be as follows:

- To provide a rapid site assessment, which involves a brief overview of the construction, use and development of the structure and identifies areas of special significance and sensitivity to feed into the preparation of a programme of conservation and repair;

- To provide accurate measured photographic and drawn record of the monument in a form that is suitable for use by all professionals involved in the project and as a record for the future;

- To provide analytical drawings and a written report on the structures sufficient to illustrate and explain architectural and archaeological details and any changes and developments through time with regard to the construction techniques, materials, surface treatments, function and use of the structure. This should also include any significant fabric that is revealed during works and any features likely to be lost as a result of an otherwise beneficial programme of conservation and repair;

- To provide archaeological information to guide the nature and extent of a programme of conservation and repair, and to inform decisions made during an agreed programme of conservation and repair. This may include recording prior to careful dismantling by others and monitoring rebuilding to ensure reinstatement is accurate; providing a record of the conservation and repair works undertaken by others; updating the existing survey of the building with additional information gained from the scaffolding provided by others;

- To sample, record and analyse any building materials and/or deposits that may provide significant additional information that will inform our understanding of the monument (e.g.: mortar analysis, dendrochronology, etc.);

You must ensure that plant and machinery is operated in the scheduled area with due care and with the prior agreement of the contractor and project manager. You will have access to the contractor's working scaffold but must liase with him at all times to ensure that no conflict arises between scaffold users and that safe working practices are observed.

All measurements will be expressed in metres. Plans will be produced at an appropriate scale using reliable and repeatable control measurements based on the overall metric plan supplied to you. Sections and elevations will be produced at an appropriate scale and located using the photogrammetric elevations supplied to you.

All photographic recording of features will be taken in both 35mm colour slide and black and white print. All drawings to be provided as ink on film or where facilities are available as digital drawings in a .dwg or .dxf format.

Diagnostic architectural fragments should be treated as small finds and recorded individually with reference to the appropriate repository's standards and guidelines. The find location should be recorded three dimensionally.

The site archive will be prepared to the standards specified in MAP2, Appendix 3. Archive preparation and deposition should be undertaken with reference to the appropriate repository guidelines and standards, and where necessary the Museums and Galleries Commission (MGC), United Kingdom Institute for Conservation (UKIC) standards and guidelines. You should liaise with the curator of Tullie House Museum and the landowner regarding the final deposition of finds at Tullie House.

You will provide for a written, illustrated report within two months (or shorter period by mutual agreement) on completion of the fieldwork. A copy of the report should be sent to the owners and to me as the English Heritage regional inspector of ancient monuments and to the County Sites and Monuments Record. The National Monuments Record (Swindon) should be asked if they wish to receive copies of the archive and report. The report should contain as a minimum:

- Non-technical summary
- Introductory statement
- Brief site description
- Aims, objectives and methodology
- Summary of the results
- Conclusion
- Index and location of archives
- References and bibliography
- Copy of project design

The timetable for the preparation of any further analysis, reporting and dissemination, including a brief interim report in the Cumberland & Westmorland *Transactions* will form part of a separate contract to be discussed and agreed with English Heritage and the owners.

3

The project will be monitored by the English Heritage inspector of ancient monuments who will be given at least two weeks notice (or shorter period by mutual agreement) in writing of the commencement and timetable of the work. You will ensure that arrangements are made for monitoring visits by the inspector. As a minimum these visits should be at the beginning of the contract, at least one monthly progress meeting during the fieldwork, and at least one post-fieldwork meeting to discuss the report and archives.

You are asked to tender particularly for the following works. As soon as you are appointed and weather permitting you should familiarise yourself with the site and earlier researches, old illustrations etc. You should check the 2002 photogrammetry with earlier photographs by York University Photogrammetric Unit (1987) and in the NMR (1944 and 1958) and draw on the new elevations any stones which have fallen between 1947 and 2002 (copies of the photographs will be loaned to you). You should add onto the 2002 elevations any masonry not captured by photogrammetry because it was obscured by vegetation etc, except of course what you cannot gain access to until the scaffolding is up.

You should liaise with English Heritage's regional advisor in archaeological science, Jaqui Huntley of Durham University, regarding any finds which might be made during the contract and which might require conservation and any desirable environmental sampling during excavations etc.

Before the main contract (ideally as soon as possible, weather permitting) you are required to take down the three short lengths of field wall between the castle and the new temporary fence and stack them nearby as directed, setting aside and recording any stones of archaeological or architectural significance. Similarly, you should remove the field wall from on top of the east wall of the castle, leaving two courses of field wall stones to protect the medieval beneath until conservation can start. During the contract, with the assistance of the contractor's labour and once other areas are safe, you are to remove the later stones lying about the surface of the site both inside the castle and within the newly fenced area, again noting any stones of significance and stacking to one side as directed.

Once parts of the castle walls have been made safe you are required to excavate two two-metre wide trenches transecting the interior of the castle from north to south and from east to west down to the top of intact archaeological levels beneath the collapsed rubble as agreed on site with me, to assess the depth of rubble, to help elucidate the ground plan of the castle and to ascertain whether there were in fact four ranges of internal buildings. These trenches will also enable you to see to what extent further unstratified fallen stones can be removed from the castle interior both to enhance the general appearance of the site for visitors and to render the interior less treacherous to walk on. You may also be required to lower the present ground level within the gatehouse/barbican to the level of the interior and carry out other excavation elsewhere on site, for which you should have a day rate available so that a rapid estimate of additional costs can be obtained.

While the consolidation is in progress you will be required, in liaison with the site foreman, to record any further architectural details which may be apparent once the walls are scaffolded, when re-consolidation is in progress and once high-level vegetation is removed.

You will be required to attend a pre-start meeting and regular site meetings of the project team, when you will present a brief interim report on your work. You will report to me immediately the discovery of any finds of importance made during either your work or the reconsolidation.

While the site is under the control of the contractor you will observe his rules regarding safety, access etc. so as not to impede his work, but if something of archaeological interest is found during his work you have the authority to stop it for a reasonable period while you record.

You should provide and display an A4-size information board for the benefit of the passing public summarising the site works, both archaeological and consolidation, and up-date it from time to time. It is not envisaged that the public will be admitted to the site during the contract and you should not communicate your findings to the press or public without prior authority from English Heritage, apart from the site notice board.

You must be able to demonstrate that all your staff, including any sub-contractors, are suitably qualified and experienced, and understand the work required of them.

If you are interested in tendering for the above work you should submit a costed project design in line with MAP2 to me no later than 25th November 2002. A separate document accompanies this letter and contains the Conditions of Contract for the Provision of Archaeological Services (English Heritage 1998).

In your price for the work could you please quote separately for (a) familiarisation, enhancement of drawings and taking down of field walls, (b) work on site during the main contract, (c) a day rate for any additional tasks requested, (d) post-site contract writing up.

Please reply by 6 December

Yours sincerely,

David Sherlock

David Sherlock
inspector of ancient monuments

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APPENDIX 2: PROJECT DESIGN

1 INTRODUCTION

1.1 Mr and Mrs Noble (hereafter the client) have received English Heritage grant-funding to undertake a programme of consolidation works to Bewcastle, Cumbria (NY 566 747). The project will include the standing remains of the castle, rather than the earthworks relating to the Roman fort. The castle is a Grade 1 Listed Building.

1.2 Following receipt of a written brief from English Heritage, this project design has been compiled for the production of a pre-consolidation record of the fabric, and analysis of the development of the castle.

1.3 The castle is situated in the north-east corner of Bewcastle Roman fort. Its surrounding ditch incorporates the north and east ramparts of the Roman fort. The castle sits on a platform within the ditch; it is a shell-keep in form, being square in plan, with projecting barbican to the east. It is for the most part constructed from Roman stone. There are no standing remains of any internal structures. The lower levels of the external wall faces, in particular, have been robbed of stone, as have the upper levels of the internal faces. There is some vegetation growth present on the walls. Three drystone wall field boundaries project out from the walls, down the slope of the platform edge and through the ditch itself. The site is currently used for grazing.

1.4 Bewcastle formed the first line of defence on the lawless western border between Copeland and Scotland. Given its strategic position, it features at intervals in the Crown records, and, during the sixteenth and into the seventeenth centuries, it was frequently at the centre of mounting or repelling border raiding.

1.5 The first reference to a castle at Bewcastle is in 1378, although it is likely that an early medieval castle utilised the site of the Roman fort. It was recorded as being ruinous in 1391, and possibly stood derelict until the late fifteenth century, at which time it was garrisoned following the prompting of Henry VIII. A survey of 1565 suggests the castle was in poor condition. By 1604 it was in a ruinous state, although utilised as a prison, by 1614 it was abandoned.

1.6 Oxford Archaeology North (OA North) has considerable experience of recording and analysis of historic buildings of all periods, having undertaken a great number of small and large scale projects throughout Northern England during the past 20 years. Evaluations, assessments, watching briefs and surveys have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables. OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency.

1.7 Oxford Archaeology North has considerable knowledge of the archaeology of Carlisle District, having undertaken numerous evaluations and excavations in the area. The organisation also acts as consultants to the Countryside Agency in the development of the Hadrian's Wall Path National Trail. In addition, its Director, Rachel Newman, undertook research towards a PhD in the Gilsland area, Bewcastle

being one of the parishes singled out for particular study. Relevant similar projects undertaken by OA North include Bolton Castle and Hellifield Peel in North Yorkshire, Pendragon and Egremont Castles in Cumbria, Wigmore Castle in Herefordshire, on behalf of English Heritage, and an entire historic township in Argyll on behalf of Historic Scotland.

1.8 OA North is an Institute of Field Archaeologists **(IFA) registered organisation, registration number 17,** and all its members of staff operate subject to the IFA Code of Conduct.

2 AIMS AND OBJECTIVES

2.1 The following programme has been designed to allow an examination of the castle in order to understand better the character, dating, form, architecture and archaeological development of the structure. The specific aims are:

(i) To undertake a rapid site assessment to provide a brief overview of the construction, use and development of the structure. This will include the identification of areas of particular significance, which will inform the consolidation programme;

(ii) To provide a measured photographic and drawn record of the castle;

(iii) To provide analytical drawings and a written report to illustrate and interpret the architectural and archaeological detail, and to identify changes in construction techniques, materials, and the function and use of the structure;

(iv) To sample, record and analyse building material and/or deposits that may add to the understanding of the monument.

2.1.2 The required stages to achieve these ends are as follows:

(i) ***Building Assessment:*** familiarisation of the monument, enhancement of the photogrammetric survey, and dismantling of the field boundary walls;

(ii) ***Trial Trenches:*** the excavation of two trial trenches within the castle;

(iii) ***Works During Consolidation:*** recording features of architectural and archaeological significance during consolidation works, and completion of the enhancement at high level. The sampling of environmental deposits, mortar, architectural fragments as necessary. A drawn record of the consolidation works carried out will be compiled;

(iv) ***Report and Archive****:* the preparation of a report***, which*** will discuss the form, function and development of the monument. A site archive will be produced to English Heritage guidelines (MAP 2) and in accordance with the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990).

3 METHODS STATEMENT

3.1 The following work programme is submitted in line with the stages and objectives of the archaeological work summarised above.

3.1 BUILDING ASSESSMENT

3.2.1 ***Familiarisation***: prior to fieldwork taking place a period of site familiarisation will be undertaken. This will allow an outline development and phasing of the castle to be compiled prior to the fabric survey. Whilst it is not part of the present project to undertake a comprehensive documentary and historical search, a context for the phases of construction and repair recognised during the fabric survey is necessary. Many of the sources have already been consulted, in the course of Rachel Newman's research, and thus this process will be rapid. Of particular use are the *Inquisitiones Post Mortem*, which record the land holdings of families such as the Middletons and de Strivelyns at death, and also other government records, particularly of the fifteenth and sixteenth centuries, such as the *Calendar of Patent Rolls* and *The Letters and Papers Foreign and Domestic*, in addition to such seminal articles as THB Graham's *The Lords of Bewcastle*, published in the 1929 *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society*.

3.2.2 Prior to any fieldwork being undertaken, an information board outlining the programme of consolidation and archaeological recording, will be displayed for the purposes of informing the general public. The text will be agreed with English Heritage.

3.2.3 ***Dismantling of field boundary walls***: the three field boundary walls radiating out from the castle will be taken down by a small team of archaeologists. Two courses of stone will be left in-situ along the eastern length of the castle wall to protect the medieval remains. The stones will be manually transported to the approximate location of the temporary fencing, where they will be stacked. Any stones of archaeological or architectural significant will be retrieved and treated as small finds. No further recording of the boundary wall stones is required.

3.2.4 ***Enhancement of photogrammetry***: the photogrammetric survey will be plotted at an appropriate scale (1:20, 1:50). The plotted drawings will be overlain with draughtmans' film for correction in the field. The manual correction will take place both prior to the consolidation works, and during the works, following the erection of the scaffold. The drawings will include the following detail:

(i) The addition of stone-by-stone detail to both the external and internal faces of the castle walls, which was previously obscured by vegetation, will be undertaken:

(ii) The extent of exposed core (not stone-by-stone);

(iii) Construction detail such as building lifts, and changes in fabric;

(iv) Architectural detail, for instance mouldings and stringcourses;

(v) Archaeological information including phasing;

3.2.5 Following the completion of the manual correction the photogrammetry will be digitally enhanced in a CAD environment (Autocad release 14) for the production of final drawings. The final drawings will be output in .dwg format, using the existing photogrammetry as a backdrop. The drawing enhancement will be confined to the addition of new information, rather than the digitising of the existing photogrammetry.

3.2.6 At this stage photographs held by the York University Photogrammetric Unit (1987) and in the NMR (1944 and 1958) will be examined to determine the extent of in-situ masonry from 1947 to the present. The extent of any such masonry will be added to the elevation drawings. The accuracy of the drawings will depend upon the quality of the photographs, which are to be supplied by English Heritage.

3.3 EVALUATION

3.3.1 ***Trial trenches:*** following the removal of collapsed debris, two 2m wide by approximately 25m long intersecting trenches will be manually excavated. These will be aligned north/south and east/west. The trenches will be cleaned down to first intact archaeological levels beneath the collapsed rubble, in agreement with English Heritage.

3.3.2 The excavation of the trenches will not proceed deeper than the intact archaeology, and there is no requirement for individual features to be sampled excavated. Following the cleaning of the archaeology, a detailed plan will be compiled. The equivalent of two 25m long sections will also be drawn. Although no detailed investigation of the archaeology is required, the exposed archaeology will be recorded.

3.3.3 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections and both black and white and colour photographs) to identify and illustrate individual features. Primary records will be available for inspection at all times.

3.3.4 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large-scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). The trench plans will be tied in to the overall site plan. All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.

3.3.5 The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner and an appropriate recipient museum prior to the work taking place.

3.3.6 Where environmental deposits are encountered, an appropriate sampling strategy will be agreed with Jacqui Huntley of English Heritage.

3.3.7 ***Health and Safety***: OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing

Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.

3.3.8 Any necessity to clear and lower the ground level in the barbican will be subject to a separate costing.

3.4 RECORDING DURING CONSOLIDATION WORKS

3.4.1 It is anticipated that features of architectural or archaeological significance will be exposed during the consolidation works. It is likely that these will be encountered during the stripping of vegetation from the walls, and once the walls are scaffolded, affording access to the higher levels of the walls. The recording of fallen masonry prior to its removal at this stage, is also anticipated.

3.4.2 During this stage of the project the remainder of the photogrammetry will be corrected as necessary, and any additional detail added to the overlays. The photogrammetry will subsequently be digitally enhanced (*see section* 3.2.3).

3.4.3 For the areas where photogrammetric plots are not available, additional information will be manually recorded for inclusion in the digital record, for instance, within the guarderobe chamber.

3.4.4 Following completion of the consolidation works, the elevation drawings will be annotated to illustrate the extent of the works.

3.5 SAMPLING AND ARCHITECTURAL FRAGMENTS

3.5.1 The recording, sampling and analysis of any building materials and/or deposits that may provide significant additional information to the understanding of the castle, will be undertaken in consultation with Jacqui Huntley of English Heritage and with the agreement of English Heritage as a variation to this project design.

3.5.2 Although subject to a variation to this project design, it is proposed that both palaeoenvironmental samples and architectural fragments will be assessed in-house (*see section* 5).

3.6 REPORT AND ARCHIVE PRODUCTION

3.6.1 ***Report and Drawings:*** the report and drawings will be produced within eight weeks of completion of the fieldwork and provided in digital format either on floppy disk or CD ROM.

3.6.2 The report will contain a description of the form, function and development of the castle, and will include the results of both the building investigation and the trial trenches. It will be suitably annotated with copies of the photogrammetric drawings, and include copies of the photographic archive. In addition to a non-technical summary and introductory statement, the report will contain the following:

(i) Brief site description;

(ii) An overview of the construction, use and development of the castle;

(iii) Digitally scanned copies of the photographic archive;

(iv) Suitably annotated analytical drawings;

(v) Conclusion and discussion, which will serve to inform the programme of consolidation and repair.

3.6.3 Copies of the report will be issued to the owners of the monument, and the English Heritage inspector of ancient monuments. Additional copies will be provided to the County Sites and Monument Record, and a synthesis to the NMR. Publication in a suitable journal such as the Cumberland and Westmorland *Transactions* will be subject to a separate contract.

3.6.4 ***Archive:*** the results of Stage 3.2 to 3.5 will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects, 2nd edition, 1991*) and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* (UKIC 1990). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. The deposition of a properly ordered and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the IFA in that organisation's code of conduct.

3.6.5 This archive can be provided in the English Heritage Centre for Archaeology format, both as a printed document and on computer disks as ASCii files (as appropriate). The paper archive will be deposited with the Cumbria Record Office within six months of the completion of the fieldwork. synthesis of the archive will also be available for deposition in the National Monuments Record.

3.6.6 ***Confidentiality:*** the final report and drawings are designed as a document for the specific use of the client, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

4 WORK TIMETABLE

4.1 The various stages of the project outlined above will fall into four distinct phases, which would follow on consecutively, where appropriate. The phases of work would comprise:

4.1.1 ***Building Assessment:*** it is anticipated that it will take approximately two weeks to undertake the site familiarisation, three days to dismantle the boundary walls, and one week to enhance the photogrammetry prior to the erection of the scaffold.

4.1.2 ***Evaluation:*** this is likely to take in the region of seven days to complete.

4.1.3 ***Recording During Consolidation:*** ten days have been allocated for completion of the enhancement of the photogrammetric survey drawings, and to record any features of architectural/archaeological significance that are exposed during the consolidation works.

4.1.4 ***Report and Archive:*** a two week period will be required following the completion of the fieldwork for the production of a suitably illustrated report. The site archive will be produced following the completion of all the fieldwork and will be deposited within six months.

5 OUTLINE RESOURCES

5.1 The project will be managed by **Alison Plummer BSc** (OA North Senior Project Manager) to whom all correspondence should be addressed. Alison manages the majority of OA North building projects, and was employed by English Heritage at Windsor Castle as a senior supervisor for the duration of the fabric survey.

5.2 The building assessment will be undertaken by **Chris Wild BSc** (OA North Project Officer). Chris is very experienced in the surveying and analysis of historic buildings of all periods. Chris will be assisted in the field by a small team of OA North archaeologists. The CAD work will be undertaken by **Emma Carter BA**. Emma is the OA North CAD supervisor and undertook the digitising of both Auchindrain Township and Hellifield Peel.

5.3 **Elizabeth Huckerby MSc** (OA North Project Officer) will undertake the environmental sampling and analysis (subject to a variation). Elizabeth has over 30 years experience as a specialist in Quaternary palaeoecology and since 1990 has worked as a palaeoecologist for OA North on its North West Wetlands Survey project. She has worked with both pollen and plant macrofossils and has co-authored, or contributed to, the North West Wetlands Survey volumes for North Lancashire, Cheshire, Greater Manchester, Shropshire and Staffordshire.

5.4 **Julian Munby** (OA senior project manager) is a specialist in architectural history and will assess any architectural fragments that are retrieved (subject to a variation).

6 MONITORING

6.1 Monitoring of the project will be undertaken by a representative of English Heritage.

APPENDIX 3: CONTEXT INDEX

Context	Description
01	Topsoil
02	Upper mid-brown demolition layer
03	Lower yellowish clay demolition layer
04	Mortar demolition layer
05	Dark brown/black compacted clay layer
06	North/south-aligned wall
07	East/west-aligned wall butting south end of wall ***06***
08	North/south-aligned wall, west of wall ***06***
09	East/west-aligned wall north of wall ***07***
10	North/south-aligned wall butting walls ***07*** and ***09***
11	East/west-aligned wall butting east side of wall ***06***
12	East/west-aligned wall
13	Cobbled surface
14	Cobbled surface south of wall ***07***
15	Flagstone overlying surface ***13***
16	Cobbled surface overlying ***13***, south of flagstone ***15***
17	Cut of pit within surface ***16***
18	Fill of pit ***17***
19	Mortar patch within surface ***16***
20	Coal deposit over surface ***13***
21	Possible cobbled surface, south of surface ***13***
22	Clay layer at base of walls ***11*** and ***06***
23	Mortar layer above layer ***05*** in north extent of trench

Context	Description
24	Rubble core on west side of wall ***06***
25	North curtain wall
26	Demolition layer over wall ***25*** (same as ***04***)
27	Mortar layer partially overlying surface ***21***
28	Metalled surface beneath surfaces ***21*** and ***14***
29	Topsoil in test pits
30	Subsoil in Test Pit 10
31	Structure formed by walls ***07–10***
32	East curtain wall

APPENDIX 4: FINDS SUMMARY

Context	Quantity	Material	Description	Date Range
1	76	Bone	Animal bone	Undated
1	2	Ceramic building material	Brick	Post-medieval
1	1	Glass	Body fragment, pale blue. Machine-made bottle.	Late nineteenth–twentieth century
1	2	Iron	Nail shaft, unidentifiable fragment	Not closely dated
1	1	Pottery	Blackware	Seventeenth century
1	1	Pottery	Brown-glazed brown and cream laminated earthenware (coarseware)	Late seventeenth–early twentieth century
2	27	Bone	Animal bone	Undated
2	1	Pottery	Brown-glazed red earthenware (fineware)	Late seventeenth–early twentieth century
3	10	Bone	Animal bone	Undated
3	2	Ceramic building material	Bricks	Post-medieval
3	3	Iron	Plate, with holes for attachment, and nails	Not closely dated
3	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth–early twentieth century
3	1	Pottery	Brown-glazed red earthenware (fineware)	Late seventeenth–early twentieth century
3	1	Shell	Oyster	Undated
4	14	Bone	Animal bone	Undated
4	1	Pottery	White-glazed white earthenware plate rim	Late eighteenth–twentieth century
6	4	Bone	Animal bone	Undated
12	8	Bone	Animal bone	Undated
12	1	Ceramic building material	Brick	Post-medieval
12	1	Iron	Nail?	Not closely dated
18	1	Bone	Animal bone	Undated
18	2	Lead	Window came	Medieval–post-medieval?
18	1	Pottery	Samian	Second century
18	1	Pottery	Green-glazed partially reduced strap handle	Mid-thirteenth–fourteenth century
18	1	Pottery	Northern Gritty Ware	Twelfth–thirteenth century
18	1	Pottery	Refined stoneware	Nineteenth century
26	3	Bone	Animal bone	Undated
26	1	Glass	Colourless machine-made bottle	Twentieth century
28	12	Bone	Animal bone	Undated
28	1	Iron	Unidentified object	Not closely dated
29	3	Bone	Animal bone	Undated

Context	Quantity	Material	Description	Date Range
29	2	Iron	Rectangular-sectioned rod	Not closely dated
29	1	Pottery	Light brown-glazed buff fabric	Late eighteenth–twentieth century
29	7	Pottery	Samian	Second century
TP 1: demolition debris near door jamb	2	Bone	Animal bone	Undated
TP 1: U/S	269	Bone	Animal bone	Undated
TP 1: U/S	30	Bone	Animal bone	Undated
TP 1: demolition debris near door jamb	2	Ceramic building material	Brick fragments	Post-medieval
TP 1: U/S	1	Copper alloy	Buttons	Post-medieval
TP 1: U/S	2	Glass	Body and base fragments dark olive green wine bottle	Late eighteenth century?
TP 1: U/S	1	Industrial debris		Not closely dated
TP 1: demolition debris near door jamb	3	Iron	Key, nail, horseshoe	Post-medieval
TP 1: U/S	2	Iron	Object	Not closely dated
TP 1: U/S	1	Iron	Nail	Not closely dated
TP 1: U/S	1	Lead	Window came	Not closely dated
TP 1: U/S	3	Mortar		-
TP 1: U/S	1	Pottery	Greyware	Romano-British
TP 1: U/S	1	Pottery	Stoneware?	Nineteenth–twentieth century
TP 1: U/S	1	Stone	Roofing slate	Not closely dated
TP 2: U/S	2	Industrial debris		Not closely dated
TP 2: U/S	1	Iron	Object	Not closely dated
TP 2: U/S	1	Pottery	White earthenware	Post-medieval
TP 2: U/S	1	Stone	Chalk	-
TP 3: U/S	1	Bone	Animal bone	Undated
TP 3: U/S	4	Bone	Animal bone	Undated
TP 3: U/S	10	Bone	Animal bone	Undated
TP 3: U/S	1	Industrial debris		Not closely dated
TP 3: U/S	1	Iron		Not closely dated
TP 3: U/S	1	Iron		Not closely dated
TP 3: U/S	1	Pottery	Amphora	First–third century
TP 3: U/S	4	Pottery	Amphora	First–third century
TP 3: U/S	4	Pottery	Black-glazed redware	Nineteenth century?
TP 3: U/S	1	Pottery	White-slipped black-glazed redware	Nineteenth century
TP 3: demolition debris	1	Stone	Roughly circular piece of sandstone slab	Roman
TP 4: U/S	3	Bone	Animal bone	Undated
TP 4: U/S	1	Bone	Animal bone	Undated
TP 4: U/S	1	Glass	Body fragment, pale bluish machine-made bottle	Late nineteenth–early twentieth century
TP 4: U/S	1	Pottery	Samian	Roman
TP 4: U/S	2	Pottery	Coarse sandy oxidised ware	Twelfth/thirteenth century
TP 4: U/S	1	Pottery	Amphora	First–third century
TP 4: U/S	1	Pottery	Severn Valley Ware	Third century
TP 4: U/S	2	Pottery	Local oxidised wares	Second century

Context	Quantity	Material	Description	Date Range
TP 4: U/S	2	Pottery	Black-burnished ware 1	Second century
TP 4: U/S	2	Pottery	Fully reduced gritty ware	Twelfth–fourteenth century
TP 4: U/S	2	Pottery	Small fragments, one sandy reduced fabric with white surfaces	Medieval?
TP 4: U/S	2	Pottery	Amphora?	Roman
TP 4: U/S	2	Pottery	Black-glazed redwares	Post-medieval
TP 4: U/S	1	Pottery	Chip	Not closely dated
TP 4: U/S	1	Pottery	Black-glazed redware	Nineteenth century?
TP 4: U/S	1	Pottery	White earthenware	Nineteenth century?
TP 4: U/S	4	Pottery	Amphora, neck and handle	First–third century
TP 5: U/S	30	Bone	Animal bone	Undated
TP 5: U/S	4	Stone	Coal	Undated
TP 6: U/S	2	Bone	Animal bone	Undated
TP 6: U/S	1	Ceramic building material	Undiagnostic scrap	Undated
TP 6: U/S	2	Stone	Coal	Undated
TP 8: U/S	8	Bone	Animal bone	Undated
TP 8: U/S	1	Industrial debris		Not closely dated
TP 9: U/S	1	Bone	Animal bone	Undated
Barbican: layer beneath stairs above floor	2	Iron	Cast iron guttering or pipe	Post-medieval
Barbican: U/S, mostly from behind drystone wall across east gate	18	Pottery	White-glazed white earthenware	Late nineteenth–twentieth century
Barbican: U/S, mostly from behind drystone wall across east gate	1	Pottery	Brown-glazed red earthenware (coarseware)	Late nineteenth–twentieth century
Barbican: U/S, mostly from behind drystone wall across east gate	14	Glass	Machine-made bottles in dark green, pale blue, and colourless glass	Nineteenth–early twentieth century
Barbican: U/S, mostly from behind drystone wall across east gate	1	Iron	Thin pipe	Nineteenth–twentieth century?
Brownish layer inside structure ***31***	1	Iron	Thin strip	Not closely dated
Brownish layer inside structure ***31***	30	Bone	Animal bone	Undated
Eastern field wall	1	Stone	Somewhat vesicular stone, resembling lava, but no indication that this is an artefact	Not closely dated
Found by workmen dismantling drystone wall	1	Brass and iron	Gas or other lamp	Nineteenth–twentieth century
Subsoil: mixed clay and topsoil	2	Glass	Green and colourless machine-made bottles	Nineteenth–twentieth century
Subsoil: mixed clay and topsoil	1	Pottery	Brown-glazed red earthenware (coarseware)	Late seventeenth–early twentieth century
Subsoil: mixed clay and topsoil	1	Pottery	White-glazed white earthenware plate with blue shell-edge	Late eighteenth–twentieth century

Context	Quantity	Material	Description	Date Range
Subsoil: mixed clay and topsoil	1	Ceramic building material	Drain pipe?	Post-medieval
U/S	1	Pottery	Samian (Central Gaul)	Second century
U/S	1	Pottery	Samian (?East Gaul)	Second century
U/S	12	Bone	Animal bone	Undated
U/S	2	Bone	Animal bone	Undated
Western field wall	2	Stone	One fragment of relatively thick lava quern, one fragment vesicular stone (probably not lava)	Late first–third century

Key: TP: Test Pit; U/S: unstratified

APPENDIX 5: ARCHITECTURAL STONE SUMMARY

Material	Colour	Bonding material	Description	Date
Sandstone	Pale yellow	Lime mortar	Roughly dressed block with single flat surface, but no obvious tooling. Broken in several places	Unknown
Sandstone	Orange-brown	Lime mortar	Broken base of mullion or transom with very fine tooling. Splayed chamfered edges, with narrow groove for glazing. Base is finely dressed to form a flat surface	Late medieval
Sandstone	Mid-yellow	-	Roughly dressed block with single dressed chamfered edge. Presumably part of plinth	Medieval
Sandstone	Orange-brown	Lime mortar	Broken part of mullion or transom with very fine tooling. Splayed chamfered edges and remains of narrow groove for glazing. Broken at both ends	Late medieval
Sandstone	Pale white-yellow	Lime mortar	Finely dressed fragment of sculpture depicting folded fabric, perhaps a gown or robes. The rear surface is roughly dressed, perhaps suggesting it formed part of a flat-backed sculpture, frieze or tombstone	Roman
Sandstone	Mid-yellow	-	Broken part of a mullion. Finely tooled with splayed edges and a slight step for the glazing	Late medieval–post-medieval
Sandstone	Reddish-orange	Lime mortar	Section of moulded plinth or sill? Pecked tooling forms a rounded edge, which continues into a cavetto moulding	Roman?
Sandstone	Mid-yellow	Lime mortar	Finely dressed fragment of a sculpture depicting folded fabric, perhaps a gown or robes. The rear side is dressed to form a flat surface, perhaps suggesting it formed part of a flat-backed sculpture, frieze or tombstone	Roman
Oolitic limestone	Off-white	-	Roughly dressed rectangular block	Unknown
Sandstone	Reddish-orange	-	Broken end of a small column. Pecked tooling on base to form a flat surface, and combed tooling on	Roman?

			remaining sections of outer surface. Sheared at an angle, leaving a semi-circular fragment	
Oolitic limestone	Off-white	-	Rough block, not evidently dressed	Unknown
Sandstone	Dark-yellow	-	Dressed block with scored dressing on lower side and pecked on upper surface, forming a rectangular block with a dressed chamfered edge and flat front face. Probably part of a quoined door jamb, although could be part of plinth or quoin	Medieval–late medieval
Sandstone	Mid-yellow	Iron	Large block, dressed on upper side with stepped edge. Finely dressed chamfered edge and flat face, rest roughly finished to form block. Gouged V-shaped groove for iron or lead clamp on one side. Probably part of quoined door jamb	Medieval–late medieval
Sandstone	Dark-yellow	-	Roughly dressed block, with pecked end forming a rounded corner. Presumably part of quoin or ashlar corner	Roman–medieval
Sandstone	Dark-yellow	Lime mortar	Roughly dressed block, with one pecked surface and another more finely finished, with a dressed chamfered edge and flat face. Probably a quoin or part of a plinth	Medieval
Sandstone	Dark yellowish-orange	Lime mortar	Large part of a finely dressed sill. Splayed chamfers and square faces, with splayed remains of pads for base of chamfered jambs at either end. Square hole in centre for iron bar and scored groove for glazing. The underside is roughly finished	Late-medieval
Sandstone	Dark orange-red	-	Large block with a finely dressed face, forming part of a chamfered surface over a flat edge with a slight step below. Scored into the chamfered edge are two deep grooves: possible ‘arrow sharpening’ slots?	Medieval
Sandstone	Mid-yellow	-	Long slab of roughly dressed stone with a rectangular slot at one end for a metal clamp	Roman?

