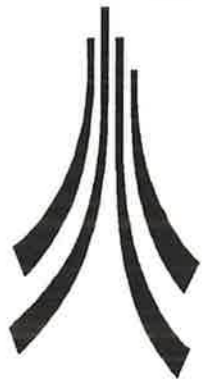


LANCASTER
UNIVERSITY
ARCHAEOLOGICAL
UNIT



October 1995

KENDAL CASTLE
CUMBRIA

FABRIC HISTORY DOCUMENTARY SURVEY

Commissioned by:

South Lakeland District Council

Kendal Castle,
Cumbria

Fabric History Documentary Survey

L7607

Checked by Project Manager.	
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The work was carried out under the Project Management of Jamie Quartermaine and the Line Management of Jason Wood (Assistant Director, LUAU).

EXECUTIVE SUMMARY

In conjunction with an archaeological recording of Kendal Castle, a documentary survey has been undertaken to elucidate the fabric history of the buildings. In particular, the project team was interested in two questions; to determine the original form of the castle and to differentiate surviving medieval fabric from restorations of the nineteenth and twentieth centuries.

The earliest depiction of the castle is a sketch plan made in the late seventeenth century by the Reverend Thomas Machel. This depicted a sub-circular curtain wall containing a series of bastions and towers and an impressive suite of ceremonial and residential buildings flanking the northern gatehouse. The basic accuracy of this plan was confirmed by the excavations of JE Spence in 1951 and of Barbara Harbottle between 1967 and 1971. Both of these excavations have been published in interim form: this present stage of the project involved the location of material from the original archive and an assesment of its potential for providing new information on the development of the site. The archaeological recording carried out by LUAU also identified traces of a feature within the castle *enceinte*, sometimes known as the chapel block: this building appears on the Machel plan but is not depicted in any sources after the mid-eighteenth century.

The combined archaeological, documentary, pictorial and cartographic sources suggest that Kendal Castle was founded in the first half of the thirteenth century, initially with timber and earthwork fortifications but replaced in stone within a very short time. The fortunes of the castle appear to have declined dramatically from the second quarter of the sixteenth century; this may be due in part to the increasingly close connections of the owners, the Parr family with Court circles, and later in the century, to the disgrace of the scion of the family, who supported the abortive claims of Lady Jane Grey to the throne. By 1572, the castle is known to have been in a ruinous condition: most of the roofs were removed and the site was never again inhabited. The pace of decay may be traced by examination of maps, engravings and prints of the castle from the next three centuries.

Repairs to the fabric are known to have been undertaken under private initiative in 1813, in 1897 and by other bodies in the twentieth century. No records relating to repairs could be located, though some idea of their extent could be gained from photographs and other depictions. A combination of this information with the results of the archaeological recording suggested to the project team that substantial parts of the present fabric, though probably a fair reflection of the medieval construction, date to the restorations of the nineteenth century. In particular, the exterior face of the curtain wall can be seen to deviate in places from its lowest courses which are arguably the sole survivors of the original facing.

1. INTRODUCTION

The report contains a survey of documentary sources relating to the archaeological and architectural history of Kendal Castle, carried out in conjunction with an archaeological recording of the castle and its environs. This survey is also intended to present the historical context in which the fabric history should be understood. The desk-top study has included the collation of the main data sources from past research work and archaeological investigations, including records dealing with past repairs. Particular attention has been directed to the records of past archaeological interventions, including the excavations carried out by Barbara Harbottle in the late 1960s and early 1970s. Additional research has been required to identify the records of consolidation works.

Although the focus of this documentary research was the identification of the extent and date of significant developments in the castle's constructional history, these events must inevitably have been linked to developments in the tenorial history of the site. An outline of the history of Kendal Castle is therefore presented here as a framework within which the evolution of the fabric can be shown to have occurred.

2. METHODOLOGY AND SOURCES CONSULTED

The research for this report has duplicated previous work as little as possible. An invaluable starting point was the discussion of the castle as an archaeological resource by Tom Clare in South Lakeland District Council's *Kendal Castle Management Plan* (SLDC 1993, 4-6): this presents a summary of evidence for some of the more contentious research questions posed by the castle, notably its origins and form. Barbara Harbottle's interim reports in *Quarto* were consulted; she herself was contacted in Newcastle to ascertain what further information is contained in the site archive. The County Record Office was consulted and provided several historic maps and site plans; the excavation site plan from the Spence excavation of the 1950s was found here. The Cumbria County Sites and Monuments Record and the South Lakeland District Council files proved to be of interest for the background to the site, but little information of direct relevance to this survey was found.

Records relating to the consolidation programmes were sought from English Heritage (in London and Carlisle), the South Lakeland District Council and from the National Buildings Record. The last-mentioned provided a record of the survey notes from the County Inventory of Westmoreland, compiled in the 1930s: this contained references to old and newer fabric. A certain amount of information on fabric interventions could also be gained from newspaper cuttings, historic photographs and antiquarian depictions of the castle kept in Kendal Public Library. However, no actual records of works could be found; present information suggests that if such records ever existed, they have been destroyed.

3. HISTORICAL OUTLINE

The foundation of the castle is presently believed to have taken place in the first half of the thirteenth century, replacing the other candidate for the first castle in the town, Castle Howe (SD 522925). The presence of two castles in a small area has naturally caused confusion as to which site is indicated in particular documentary references.

Two models have recently been proposed to describe the movement of the site of the castle (SLDC 1993, 5). Castle Howe may have related topographically to *Kirkland*, a pre-Norman settlement which pre-dated the laying out of the market town of *Kirkbie-Kendal* in the twelfth century. It is suggested that the relocation of the castle to a new site may have taken place (possibly in the early thirteenth century) in response to the expansion of the new town; since the new site was located immediately across the river from the parish church, the common juxtaposition of sites of religious and secular authority would have been maintained. Alternatively, the move may have taken place at a later date (in the 1240s) and may be related to a known event, the restoration of an (unnamed) castle in Kendal to William de Lancaster, after a period of forfeiture to the Crown.

Kendal Castle, situated on the summit of a glacial drumlin known as Castle Hill takes the form of a ringwork bank and ditch with a slightly later stone curtain wall and fortifications. It has been noted that a date in the thirteenth century is remarkably late for a fortification of this type (SLDC 1993, 6; Thompson 1991, 51). In addition, there are earthwork features immediately to the north of the castle outside the ditch, which have been interpreted as an outer bailey. However, it should be noted that no documentary references to an outer bailey exist prior to the nineteenth century, nor does it appear in any depictions of the site.

Since the nineteenth century, it has been commonly stated that the foundation of the castle on its present site took place in the late twelfth or early thirteenth century under the auspices of Gilbert FitzReinfred. The first documentary reference to this castle occurs in the year 1216 in the *Rotuli de Oblatis*. Gilbert was imprisoned after rebelling against King John and surrendered a castle at 'Kirkby' as part of his ransom: as stated above, this could relate to either the present castle or Castle Howe. In 1241, King Henry III restored a castle to William de Lancaster, son of Gilbert; he died childless and his estate was divided into two parts. The castle and manor of Kendal became the principal residence of Peter de Brus, William's brother-in-law. On the death of his son, also named Peter, in 1279, the castle passed to his sister Margaret and thence to her husband, Robert de Ross (or Roos); the castle was to remain in the possession of the Roos family for a century. In 1383, Elizabeth de Roos married Sir William del Parr against her father's will, according to Leland (Toulmin-Smith 1964, 223), and the Parr family inherited the castle. One of Sir William's descendants was Katherine Parr, the final wife of King Henry VIII and the most notable individual known to have been associated with the castle. However, the claim that she was born there is apparently false. Queen Katherine's brother was created Marquis of Northampton in 1547, but was attainted six years later for supporting the cause of Lady Jane

Grey. A survey made in 1572 for the dowager Marchioness of Northampton indicates that by this date, the castle was in a ruinous condition and probably uninhabitable (Nicholson 1861, 95).

The estate was exchanged for other lands with the Crown under Elizabeth I; the park was divided into several parts and granted to other individuals. The site was sold repeatedly during the seventeenth and eighteenth centuries and there is no record of any attempt to remedy the deteriorating condition of the castle. In 1813, it is recorded that works were undertaken to strengthen the foundations and repair the walls, though this is only described in the most general terms: nevertheless in 1824, a detached section of the curtain wall measuring 12.5 x 22.5 yards was blown down by the wind and fell into the moat (Nicholson 1861, 97). In 1888, Ferguson wrote that a large sum had recently been spent on the ruins by Lord Bective MP, but no definite indication of the nature and extent of these works is given (Ferguson 1888, 181; Ferguson 1894, 185).

In 1897, the site was sold by Lady Henry Bentick, granddaughter of Lord Bective to the Corporation of Kendal and was opened to the public to celebrate the Diamond Jubilee of Queen Victoria.

4. WRITTEN AND PICTORIAL DESCRIPTIONS

The earliest known description of the castle is in Leland's Itinerary of a date around the year 1538, in which he mentions 'a park belonging to young Mr. Parr... and there is a place as it were a castle' (Toulmin Smith 1964, 46). There is no suggestion that the castle was in a state of disrepair and the fact that this section of the itinerary includes an interview with Parr may suggest that this meeting took place in the castle. Moreover, the use of the word 'place', sometimes used synonymously with 'palace', in the fifteenth and sixteenth centuries (James 1990, 145, 158), may even be taken to suggest that its appearance at this date suggested a domestic rather than a military character.

As stated above, documentary evidence indicates that the years between 1553 and 1572 saw a marked deterioration in the condition of the fabric. Prior to the first date, the confiscation of the castle from the Marquis of Northampton, it is assumed that the castle was inhabited and in use by the Parr family, but by the latter, it appears to have been in an advanced state of decay. The 1572 survey carried out for the dowager Marchioness of Northampton is particularly valuable for its description of some of the internal layout of the castle, with the hall, service rooms, great and lesser chambers and rooms of ease in the vicinity of the gatehouse; this information was to be of great assistance in interpreting the archaeological discoveries of the twentieth century. However, according to the survey, with the exception of the hall, no building was left inside the curtain wall. The buildings of the hall complex are described as in a very poor condition:

"being all in decay, both in glass and slates and in all other reparations needful.... There is a dovecote on the south side thereof in good repair"
(quoted in Curwen 1913, 145)

The fact that such an unimportant structure as the dovecote was deemed worthy of special mention may suggest that the remainder of the castle buildings were in an advanced state of disrepair. This begs the question of how the castle could have deteriorated so rapidly. Nicholson interprets this as the result of military action during the struggle for the Crown in 1553, when the Marquis of Northampton was active in support of Lady Jane Grey (Nicholson 1861, 95).

Curwen mentions that in 1575 the slates were taken off most of the roofs for reasons of safety. However, an inventory taken around this time indicates that slate roofs survived on some buildings of the castle. In April 1578, a letter to Lord Burghley, Lord High Treasurer (from Edward Bradyll, Her Majesty's Receiver) suggested that the site would soon be so decrepit as to be unsaleable: among the items giving most cause for concern were the slate and timber of the roofs and the lead guttering and ironwork in windows and doors, both of which had been widely stolen (Curwen 1913, 145-147). Bradyll was able in the following year to sell timber, slate, stone, glass, iron and lead to Robert Bindlose and James Cottam (transcribed as SLDC 1995, T3). In 1586, Camden recorded that the castle 'runneth to decay through age and neglect' (a translation of 1690, quoted in SLDC 1995, D4).

From this time, there is little information regarding the condition of the castle's fabric for two centuries. The map of Kendal published by John Speed (**Fig. 1**) around the year 1610 is schematic and appears to be inaccurate in points of detail, though it may contain some information of value. Eight towers or bastions are depicted in the curtain wall, whereas only six are currently known from the standing fabric and from excavation. Moreover, the situation of the castle on its drumlin is indicated, but there is no sign of the moat. However, the structures shown within the *enceinte* may be supported by archaeological evidence. That to the left may be an attempt to indicate the position of the hall whereas the building standing in the centre of the enclosure appears to be connected by walls at both ends to the curtain wall. This appears to have been a chapel block (SLDC 1993, 5) and though other historic plans show it to be completely free-standing, walls excavated in 1971 may suggest that the building was connected to others by a corridor. It is also notable that the castle, as drawn by Speed, appears to be wrongly oriented by 90°. No structures or field boundaries in the park are shown by Speed, though he depicts ploughing in the area to the north of the castle.

There exists a drawing of the castle from around 1690 by Thomas Machel (the original of which is kept in the Carlisle Record Office in the volume Machel MSS 2) and is basically a sketch ground plan with some annotated dimensions (**Fig. 2**). In the cases of several buildings, an indication of the appearance of the superstructure is shown. As with Speed, the curtain wall is depicted as intact around the perimeter and the indication of stairs on the bottom left corner may suggest that in this area at least, the ramparts survived *in situ* or that the walls survived to rampart height. Machel's depiction of the hall block (with southern porch) and adjoining north-east tower, the south tower block (with two chambers) and the round tower are generally in accordance with the evidence of standing and excavated fabric, albeit out of scale. He also shows a north-west range to the west of the gatehouse, mirroring the hall block: this has not been confirmed by excavation but is suggested by a surviving stub of wall to the east of the circular tower. More problematic is his depiction of the gatehouse with flanking drum towers: as shall be seen, this was not supported by the archaeological investigations of the twentieth century. Machel also clearly shows the bastion on the western side of the *enceinte* as rectilinear, whereas the present structure is round. One other building is shown within the enclosure: as mentioned above, this is the 'chapel block', which Machel's and subsequent depictions of the castle show as free-standing. This may be an inaccurate rendering or may genuinely reflect what was visible above ground at the end of the seventeenth century.

Another drawing from the Machel MSS 2 (**Fig. 3**) is reproduced in several modern sources, (including Spence 1951, Fig. 8). This drawing is taken from the north and instead of a plan, shows the buildings of the castle as upstanding and intact. Particularly prominent are the gatehouse with drum towers and associated ranges, the south tower, shown as a three-storey block with a subsidiary turret on its eastern side and a freestanding chapel inside the castle. The idea that the south tower may originally have been more imposing than at present appears to be largely a product of this drawing; it is shown as far less impressive on the other Machel sketch (**Fig. 2**). Examination of the original manuscript reveals an

annotation in a hand which appears to be that of Machel himself; it reads "This is too big a tower". The curtain wall is drawn as relatively low but with battlements still *in situ*. The hall itself is shown in the copy reproduced as **Fig. 3** as a sophisticated architectural composition apparently aisled and clerestoreyed with crenellations only on the eaves facing into the courtyard. This is completely at variance with the evidence of the standing structure and it is felt that any wide inference from this version of Machel's drawing would be ill-advised.

The Buck brothers published an engraving of the "East View of Kendal Castle" in March 1739 (**Fig. 4**): the view in fact appears to be from the North. The principal structures are clearly recognisable, including the hall with two round-headed windows and fragments of a third, the north-east tower with at least four and possibly five offsets. This appears to be in a good state of repair, although the topmost storey is shown as ruined and covered with vegetation. The round tower seems particularly well-preserved, with battlements, a turret on the southern side and a north-facing large two-light window (which may possibly be an oriel). The section of the curtain wall running eastwards from this tower is upstanding to a considerable height, although it contains three large holes at ground level. In the far distance, the south tower is visible and this too appears to be substantially intact to the level of the battlements. However, there are also signs of falling masonry, notably in the foreground (in the vicinity of the gatehouse), where a very large section of the curtain wall is leaning outwards at an angle of forty-five degrees. Another section of the north curtain appears to have already fallen down the slope. The bank on which the castle stands is relatively accurately portrayed, but there appears to have been only a rudimentary attempt to show the deep moat which surrounds it. With this exception, and allowing for artistic licence, there is no reason to doubt the testimony of the engraving which shows that in the mid-eighteenth century, the castle, though ruined, retained substantial upstanding fabric in many of its principal structures.

The Buck engraving formed the basis of several later depictions of the castle, including the engravings of Metcalf, 'Ralph B' and Lowry (**Fig. 5**), all undated. None of these adds any information to the Buck interpretation.

A plan of the castle in a map by Todd in 1787 (**Fig. 6**) presents all structures as solid shaded entities, as if they were buildings still in use. This convention is unhelpful in interpreting which structures are depicted, particularly in the hall/north-east tower complex, which is shown as a complicated undifferentiated mass. The southward projection on the south-western corner of the hall does not appear on previous plans of the castle and is not easily identified with any excavated structure. The 'chapel block' is shown as connected at its eastern end to the curtain wall. The only break in the wall is shown in the area of the gatehouse, but there is no indication of any towers, bridge abutments or other structures in this area. However, other features are portrayed reasonably accurately, such as the western bastion, which is basically as at present. This plan of the castle (and the shading convention) are followed exactly by Wood in a map of 1833 (SLDC 1995, M4). Todd also provides a depiction of the castle from the south-west (**Fig. 7**). The masonry of the wall is shown as ashlar rather than coursed rubble, but with this exception, the drawing appears to be credible in its essentials. The castle is

shown on its bank, with the round tower, western bastion and the south tower in the foreground: in the background are the north and east wall of the hall block, together with the north-east tower. No trees are shown in the area of the castle.

In the *Gentleman's Magazine* of December 1800, there is an engraving by J. Hopper of the castle from the North (**Fig. 8**). This shows the hall with tall upstanding masonry, probably covered with ivy; the north-east tower is depicted with four storeys and with the top storey very badly decayed. The round tower is shown without battlements or a turret and with a very large crack in the masonry on the north side. The earthen bank on which the castle stands is shown and there is an attempt to show fragments of isolated masonry leaning drastically. The northern curtain appears to be in a very poor condition. However, there is no attempt at perspective and the engraving is stylised in the extreme: for example, the masonry as depicted has the appearance of dressed ashlar.

In 1832, an engraving by Thomas Allom entitled 'Kendal from the Castle' was published (**Fig. 10**). This view is taken from the site of the Great Hall looking westwards with the arches of the hall cellars in the foreground and the round tower on the far side of the *enceinte*. The curtain wall appears to have largely disappeared and both the hall and the west tower are shown in a very dilapidated condition. The interior of the castle is shown as overgrown and uneven, with cattle grazing.

This presents something of a contrast to an aquatint by T. Fielding in 1822 (**Fig. 9**), in which the grass is short, the ground relatively level and the masonry in good condition and free of vegetation. It is not possible to state with certainty which part of the castle is depicted. However, the closest visual similarities are with the southern portion of the site and the picture raises the intriguing possibility that substantial parts of the south tower were upstanding in the nineteenth century.

Allom's picture has more in common with an undated engraving produced by William Banks and Son of Edinburgh (**Fig. 11**). In this, the interior of the castle is shown cluttered with fallen masonry. The hall block stands considerably taller than the north-east tower: the west tower has no turret and is shown as attached to two sections of the curtain wall at its full height. This engraving appears to be based on observations of the 1830s or shortly before; it has little of the romanticised artistic quality of Allom's engraving. It seems likely that this is the most accurate representation of the condition of the castle in the first half of the nineteenth century and would suggest that the improvements which were apparently made to the castle in 1813 had little effect on the visual appearance of the site with the exception of the planting of trees on the west side of the ditch (Nicholson 1861, 97). The representations of the castle on maps of the nineteenth century again suggest that there has been little substantial change from the 1830s to the present (John Wood 1833, Henry Hoggarth 1853, Ordnance Survey 1858-9, Ordnance Survey 1930).

In the nineteenth century, other, more fanciful reconstructions of the castle were produced, in which the desire to romanticise the castle negates any value for

architectural study. Two extreme examples are given in SLDC 1995 as V7 and V8.

During the course of the nineteenth century, photographs of the castle begin to appear; however, none of those identified in the Kendal Public Library bears a date. One of these (041134) shows the hall block and north-east tower. However, this has been considerably tidied-up since the 1830s: the grass is short and most of the outlying masonry has been cleared up.

5. PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS

In 1951, a party of pupils from Heversham Grammar School undertook a limited excavation in the area of the castle gatehouse: they were supervised by JE Spence, who published a brief account of their findings (Spence 1951). An article by the excavator in the *Westmorland Gazette* for December 3rd 1955 adds little to this account, except that loose architectural fragments interpreted as window tracery were recovered from the vicinity of the great hall (Spence 1955). The excavation uncovered cobbled rooms flanking the carriageway of the gatehouse, but the stone walls had been badly robbed and the plans of the rooms were incomplete. The only records of this excavation which have been located were found in Cumbria Record Office: they consist of two site plans at a scale of eight feet to one inch. Walls are shown in outline and there is an attempt at differentiating 'modern' material from 'ancient'. However, several of the excavator's conjectural reconstructions have been shown to be false by subsequent investigation and in the light of comments that 'as few walls as possible were overlooked or damaged' (South Lakeland District Council 1993, 5), it would be unwise to make wide inference from the plan.

A more extensive campaign of excavations was undertaken between 1968 and 1971, under the direction of Barbara Harbottle (Cherry 1972, 183). These excavations were occasioned by consolidation works jointly funded by the Department of the Environment, Kendal Town Council and Westmorland County Council in response to a fear that the upstanding masonry of the castle was in danger of imminent collapse (*Lakeland Evening Post* 1969). No formal excavation report has ever been published and the site archive remains in the keeping of the excavator in Newcastle. However, three interim reports were published in *Quarto*, the quarterly journal of the Abbott Hall Art Gallery (Harbottle 1968, 1969, 1970 *passim*). These accounts are very brief and are accompanied by very sparing drawings: these include a complete site plan of the castle showing below-ground structures, sections through the north curtain bank and ditch at a point immediately to the west of the western gatehouse tower. The south-western corner of the hall (excavated in the 1950s, re-pointed and re-buried) was again uncovered and an additional area on the south side of the hall was exposed: this is shown in plan and in section. A plan of the site showing the complete extent of the Harbottle excavations is given as **Fig. 12**.

Some of the archive material from the Harbottle excavations was inspected by LUAU in August 1995 in Newcastle. The original site drawings could not be located at that time. The archive consists of site notebooks containing textual descriptions of trenches and contexts (but no sketches), black and white photographs (with negatives) of all seasons of the excavation (but unlabelled), publication drawings, early drafts of the interim reports and correspondence. On the basis of a rapid inspection of this material, the archive appears to contain little information of relevance to the development of the site which has not already been disseminated in interim form. The excavator reports that most of the finds from Kendal Castle are in museum storage in Newcastle: thirteen finds, all architectural fragments, apparently undocumented, are in the keeping of Kendal Museum. She

is of the opinion that should any further work on the site be possible, attention should be directed towards the ceramics and food bone assemblages (*Harbottle pers comm*).

The implications of these excavations for an understanding of the fabric history of the castle have been summarised in the *Kendal Castle Management Plan* (SLDC 1993). Trench 4, running across the northern rampart and into the ditch, provided the information that the curtain wall was set in a trench cut into an earlier bank: this bank produced pottery suggesting that it was raised in the thirteenth century. Several fragments of a stone of identical type to pieces in the curtain wall were discovered in the lower levels of the moat. The complete stratigraphy of the moat suggested that it was filled fairly rapidly through silting and dumping of rubbish: the presence of the stones at the bottom therefore indicated that the stone phase of the castle followed closely from the earth (and timber) phase. The fact that the castle took the form of a ringwork, yet originated at such a late period is a remarkably anachronistic feature.

Excavation in the area of the hall indicated that this part of the complex underwent a series of alterations in the fourteenth and fifteenth centuries. This was not evident in other parts of the site and suggests that activity and architectural emphasis became increasingly concentrated in the area of the hall and gatehouse as time progressed. Though the complete layout of the complex is not well-understood, the location of the principal accommodation in a 'gatehouse range' (rather than in a keep) would be very fashionable in a fortified residence of the later medieval period and may go some way to explain the curious choice of words adopted by Leland in the sixteenth century. Archaeological evidence suggests that the buildings of this area began to deteriorate drastically in the first half of the sixteenth century, the period in which the Parr family began to transfer their base from Kendal to the south of England. The structures discovered also lent credence to the notion that the 'chapel block' was not free-standing but was connected to the hall and possibly to other structures by a pentice.

No evidence has presently come to light of any archaeological investigations outside the ditch of the castle, with the exception of an attempt in 1992 to locate a tarn on the western side of the castle (Letter in South Lakeland District Council Files). The tarn was not found, but the evidence of pollen cores indicated that peat deposits survived to a depth of four metres on the eastern side of the castle in the vicinity of the drumlin.

6. RECORDS OF CONSOLIDATION WORKS

No records proceeding directly from consolidation works at Kendal Castle have been identified in the keeping of English Heritage, either in London or in the regional office in Carlisle. The South Lakeland District Council file on Kendal Castle contains little information regarding works of this kind. There is a reference to a Scheduled Monument Consent application from March 1989. The works involved minimal alterations to the fabric of the castle and were mostly concerned with the erection of a fence across the gateway. However, the floors of the western round tower and the hall cellars were resurfaced to prevent flooding. Certain works were also undertaken in the perimeter ditch: a causeway on the south-western side was removed and two areas in which the bank had been eroded were re-turfed. The Cumbria Sites and Monuments Record was also consulted: the files contained background information regarding the administration of the castle, but no material relating to actual fabric interventions.

The National Monuments Record (NMR) in Swindon contains no records of archaeological works nor any drawings relating to repairs. However, the NMR has provided a copy of the notes compiled during the survey by fieldworkers for the Royal Commission on the Historical Monuments of England (RCHME 1936b) in the compilation of the county inventory for Westmorland (RCHME 1936a). In the written observations are identifications of 'modern' and 'original' fabric. No indication of the date of respective parts is given. In general, the fieldworkers observed that the modern wall follows the line of the outer face of the original fabric and is considerably thinner: the medieval wall was approximately six and a quarter feet thick. (Examination of the monument by LUAU in 1995 suggested that, on the contrary, there were considerable areas of the curtain wall in which the course of the external face diverged from that of its medieval predecessor). There had been some 'slight repair' to the western round tower. Only a small portion of the south tower, some seventeen feet high, remained at its north-west angle, together with the base of the west wall externally and a small portion on the south wall containing a window opening: the remainder of the tower had been rebuilt, although containing re-set sandstone blocks. Of the hall block, certain areas are identified as rebuilt, including much of the upstanding east wall, although it is assumed that the openings preserve the locations of openings in the original fabric. The north-eastern tower contains elements of rebuilding, but is assumed to be largely original. Only in the summary paragraph at the end of the description is it mentioned that there are different 'modern' periods of rebuilding.

It is known that repairs were carried out to the ruins in the last decades of the nineteenth century. These last works appear to have been particularly extensive on the curtain wall and consisted of patching up the outer face of the wall using stones from the inner face; the erection of the thin wall on top of the medieval curtain took place at this time (Ferguson 1888, 180). A photograph of the castle likely to date to the very late nineteenth or early twentieth century (SLDC 1995 V11) indicates that parts of the hall block had been freshly repaired. It is likely that these works were also carried out in the same campaign as the repairs to the curtain wall (see p.19 below).

References to the proposed conservation works of the late 1960s and early 1970s may be found in issues of local newspapers (*Lakeland Evening Post*: July 15th 1969; August 10th 1971; March 8th 1973; June 10th 1976). These specify amounts of money and its sources, but do not mention which parts of the site were to be consolidated. The reason for the conservation programme (and accompanying excavations) is given as a need to tidy the site up for visitors and to save the walls from collapsing. The last-mentioned article states that the second phase of consolidation was aborted owing to 'economic stringency'. A photograph (Kendal Library 004356; SLDC 1995 V12) dated 1971 shows restoration work in progress: the external faces of the east and south walls of the hall block are shown scaffolded and it is clear that these areas at least were the subject of consolidation.

7. CHRONOLOGICAL SUMMARY OF THE FABRIC HISTORY

- 1215-1241 Castle established on this site, originally as earthen/timber fortification, but shortly afterwards rebuilt in stone.
- 1538 Leland describes 'a place as it were a castle'.
- 1572 Survey carried out for Marchioness of Northampton indicates that the castle is a ruin.
- 1575 Slates taken off the roofs for reasons of safety.
- 1578 Inventory mentions that some slate roofs are still intact
- c1588 Site described as almost unsaleable: slate and timbers of roofs are in poor condition and metalwork has been stolen.
- c1610 Speed illustrates the castle in his map of Kendal.
- 1690 Machel's plan of the castle gives some idea of the appearance of the superstructure; it is assumed that much of this was based on fabric still standing.
- 1739 The Buck brothers publish an engraving of the ruins of Kendal Castle. This is copied by other artists.
- 1813 Trees are planted on the west side of the ditch. Works are undertaken to strengthen the foundations and repair the walls. The capping of the curtain with dry-stone masonry is assumed to date to this period.
- 1824 A section of the curtain wall falls into the moat.
- 1880s? The upstanding masonry is repaired under the auspices of Lord Bective, MP. No details of this repair programme are known.
- 1897 The site is sold to the Kendal Corporation and formally opened to the public to celebrate the Diamond Jubilee of Queen Victoria.

There is no documentary, pictorial or cartographic evidence for twentieth century consolidation works prior to 1969.

8. RESULTS OF THE ARCHAEOLOGICAL RECORDING

The buildings and earthworks of the castle and its environs were recorded in plan by LUAU in June and July 1995. The work was undertaken in conjunction with a photogrammetric elevation survey by Atkins AMC Ltd, completed in the field by LUAU staff in September and October 1995. The combined survey has provided dimensionally accurate record drawings of the castle and its immediate surroundings, and has permitted the identification of features important to the form and development of the site.

The standing fabric of the castle was examined and the position of masonry breaks noted. In general, it was concluded that very little of the visible fabric of the curtain walls dates to the medieval period, although there is a strong likelihood that much of the present material may be reused. The most compelling evidence for post-medieval rebuilding was provided by an examination of the lowest levels of the wall. In several areas, the direction of the lowest two or three courses and the size of the stones could be seen to be different to that of the walling above. The different alignment of this wall suggests that it is not the stepped-out plinth of the present curtain, but relates to an earlier phase. It is notable that large blocks of pink stone, (described by Harbottle and by the RCHME as sandstone, but evidently a type of conglomerate), which appear to be diagnostic of the earliest stone buildings of the castle and which were recovered during excavations in the moat, appear in very small areas of the curtain. These include parts of wall in the vicinity of the southern tower, though the RCHME survey of the 1930s takes the contrary position that they are reset (RCHME 1936b). Other areas in which masonry breaks suggest that the medieval wall facing may have survived are on the north side (to the west of the gatehouse) and in the vicinity of the north-western drum tower. With these exceptions, the fabric consists of large undifferentiated areas of small stones. The simplest interpretation is that the external facings of the wall received a drastic overhaul in the nineteenth century, which obscured almost all of the medieval fabric.

Little of the internal facing of the wall survives uncovered. However, there are areas in which the core work can be seen. There is no reason to suspect that this material is not of medieval date.

The presence of a feature within the curtain wall was suggested by the differentiated colouring of an area of grass (**Fig. 13**). It should be noted that this anomaly was only observed in particular lighting conditions (in the early morning during fine, dry weather) and to some extent, reflects the subjective judgment of the field team. However, it defines an area of ground in approximately the location of the 'chapel block' indicated by Machel and Todd (**Figs. 2, 3, 6 and 7**) in the seventeenth and eighteenth centuries. Its position and approximate extent were noted.

The fieldwork survey resulted in the accurate plotting of the form of the ditch and associated earthwork features, including the rectilinear 'bailey' to the north of the castle gatehouse. The earthworks only define two sides of the feature and do not

castle gatehouse. The earthworks only define two sides of the feature and do not appear to the east and north. This encompasses such a small area that it seems unlikely that it was used as a bailey. To the north of this were located an area of ridge-and-furrow cultivation. It may be of note that the map of John Speed dating to the seventeenth century, depicts ploughing immediately to the north of the castle. The apparent area of ridge-and-furrow to the east of the drumlin was caused by a modern grass-cutter.

The archaeological recording carried out by LUAU has aimed to identify the fabric dating to different phases of the castle's history. The interpretation of the castle's chronology has been considerably assisted by historic photographs of the ruins, particularly showing the hall block and the northern part of the castle. Of special note are two photographs, both undated, reproduced as SLDC 1995 V10 and V11. By the appearance of the clothing of the individuals in the foreground of V11, this photograph should date to the early years of the present century. In this photograph, some of the more obvious repairs to the castle fabric, distinguished by the use of rectilinear, neatly-cut stones with deep joints, can be seen as already in place. However, in the background of V10, an area presently containing stonework of this nature is shown as a large gap in the wall: the masonry was clearly repaired between the two photographs. LUAU have therefore interpreted this as evidence supporting the assignment of this distinctive type of stonework to the repairs of the late nineteenth century. From this, it would also appear that the ruins had assumed their present form in most respects by the beginning of this century and that the known repairs of the late 1960s and early 1970s were merely cosmetic, consisting of repointing and the consolidation of isolated areas of loose masonry, but little else.

9. CONCLUSION

This survey has presented a brief account of documentary information regarding the development of the castle. The archaeological evidence suggests that the origins of a castle on this site occurred no earlier than the late twelfth or early thirteenth century, in which case, the ringwork type of fortification is something of an anachronism (and an unusually large example). The first castle was constructed of timber, but may have been followed soon after by a stone structure. The form of this stone castle at its greatest extent may be largely reconstructed from archaeological evidence and from a plan of the site dating to the seventeenth century: most of the principal accommodation appears to have been located at the northern end of the site in the same suite as the gatehouse. A sketch by Thomas Machel has spawned a mythology that the southern tower was built on an impressive scale and functioned as a *donjon* or principal tower: however, another sketch by the same authority gives no indication that this was so.

In the late medieval period, the castle was in the ownership of the Parr family. During the sixteenth century, their attention was increasingly concentrated in the Court and in their other principal residence in Northamptonshire. The castle appears to have declined sharply in the mid-sixteenth century and by the 1570s, was in a ruinous condition. Pictorial and cartographic sources give some indication of the further deterioration of the fabric over the course of the next two and a half centuries. There is documentary evidence for repairs to the castle in 1813 and again later in the century. In the twentieth century, archaeological excavations were carried out in 1951 and in the 1960s and 1970s: some examination of the upstanding fabric was also undertaken by RCHME in the 1930s. In the late 1960s and 1970s, some consolidation works were carried out at the castle, including in the area of the hall block. However, no records of this work have been identified.

The archaeological recording carried out by LUAU in 1995 suggests strongly that the restorations of the nineteenth century were particularly drastic and that much of the visible fabric dates to this period. In particular, large areas of the curtain wall bear nineteenth-century facing. The hall block and north-east tower may retain a greater proportion of upstanding medieval fabric, though the present window openings appear to be more modern in date. However, pictorial, cartographic, documentary and archaeological evidence all indicate that the present form of the castle corresponds closely to the complex as it existed at the end of the medieval period.

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10.3 Photographs Consulted

Photograph of hall block, undated (probably early twentieth century), Kendal Public Library.

Photograph of hall block under restoration, 1971, Kendal Public Library.

LIST OF ILLUSTRATIONS

- Fig. 1 Detail of Kendal Castle from map by John Speed *c*1610.
- Fig. 2 Detail of plan of Kendal Castle by Thomas Machel *c*1690.
- Fig. 3 Sketch of Kendal Castle by Thomas Machel *c*1690.
- Fig. 4 Kendal Castle by the Buck brothers, 1739.
- Fig. 5 Engraving of Kendal Castle by Lowry, following Buck, undated.
- Fig. 6 Plan of Kendal Castle by Todd, 1787.
- Fig. 7 Drawing of Kendal Castle by Todd, 1787.
- Fig. 8 Engraving of Kendal Castle from the North by J. Hopper, 1800.
- Fig. 9 Aquatint of Kendal Castle by T. Fielding, 1822.
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- Fig. 12 Plan of Kendal Castle showing the extent of excavations carried out between 1967 and 1971 by Barbara Harbottle.
- Fig. 13 Hachure survey of Kendal Castle and surrounding earthworks carried out in 1995 by LUAU.

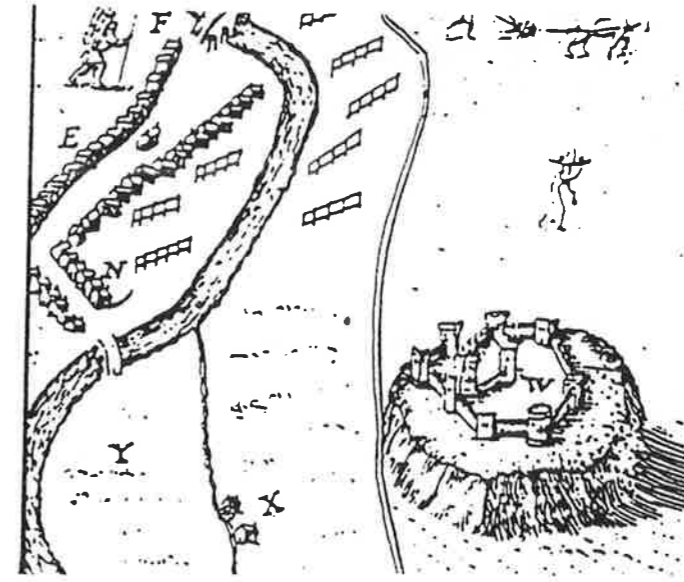


Fig. 1 Detail of Kendal Castle from map by John Speed *c*1610.

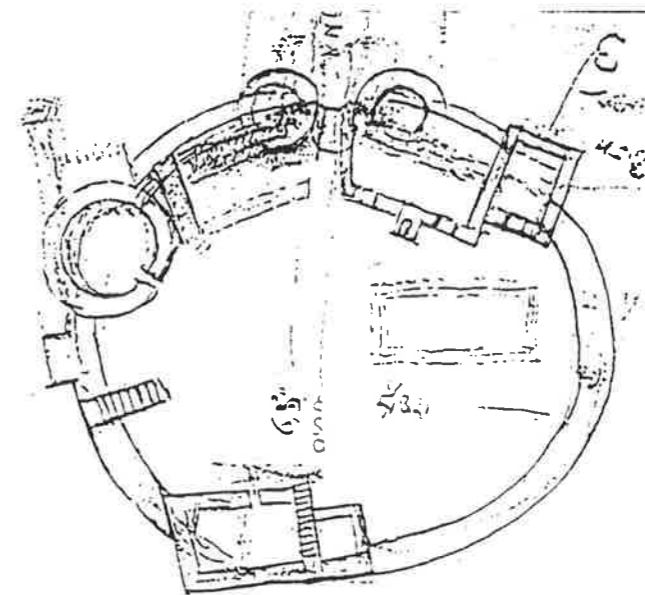


Fig. 2 Detail of plan of Kendal Castle by Thomas Machel *c*1690.

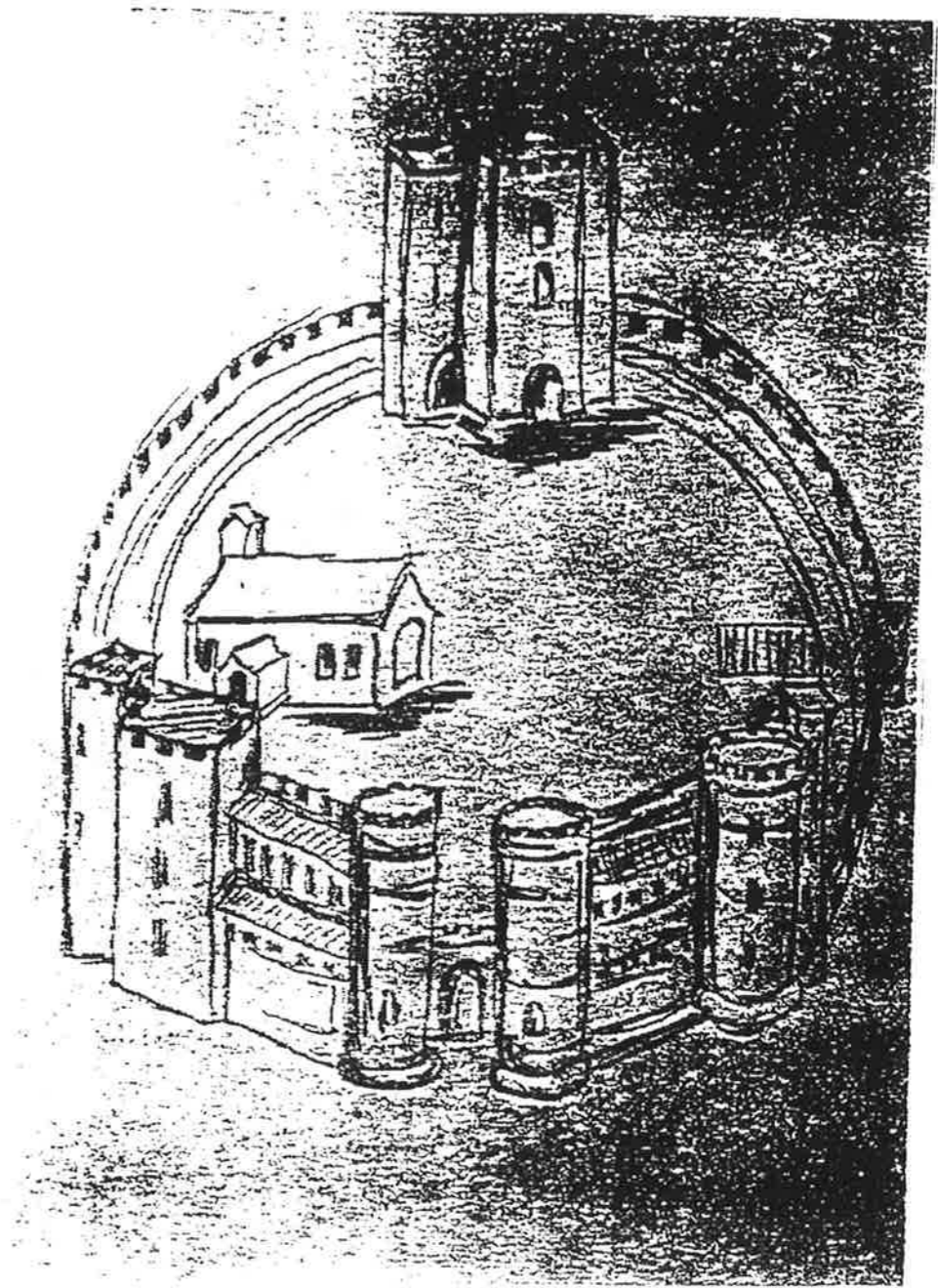


Fig. 3 Sketch of Kendal Castle by Thomas Machel 1890.

THE EAST VIEW OF KENDAL-CASTLE, IN THE COUNTY OF WESTMORLAND.



AT what Time or by Whom this Castle was built we can not find in History, but it may be presumed that it was the Mansion of the ancient Barons of Kendal, the first of which was Geo. Talbot of whose Possession it sheweth by consent of Henry II. called himself William of Lancaster.

Fig. 4 Kendal Castle by the Buck brothers, 1739.

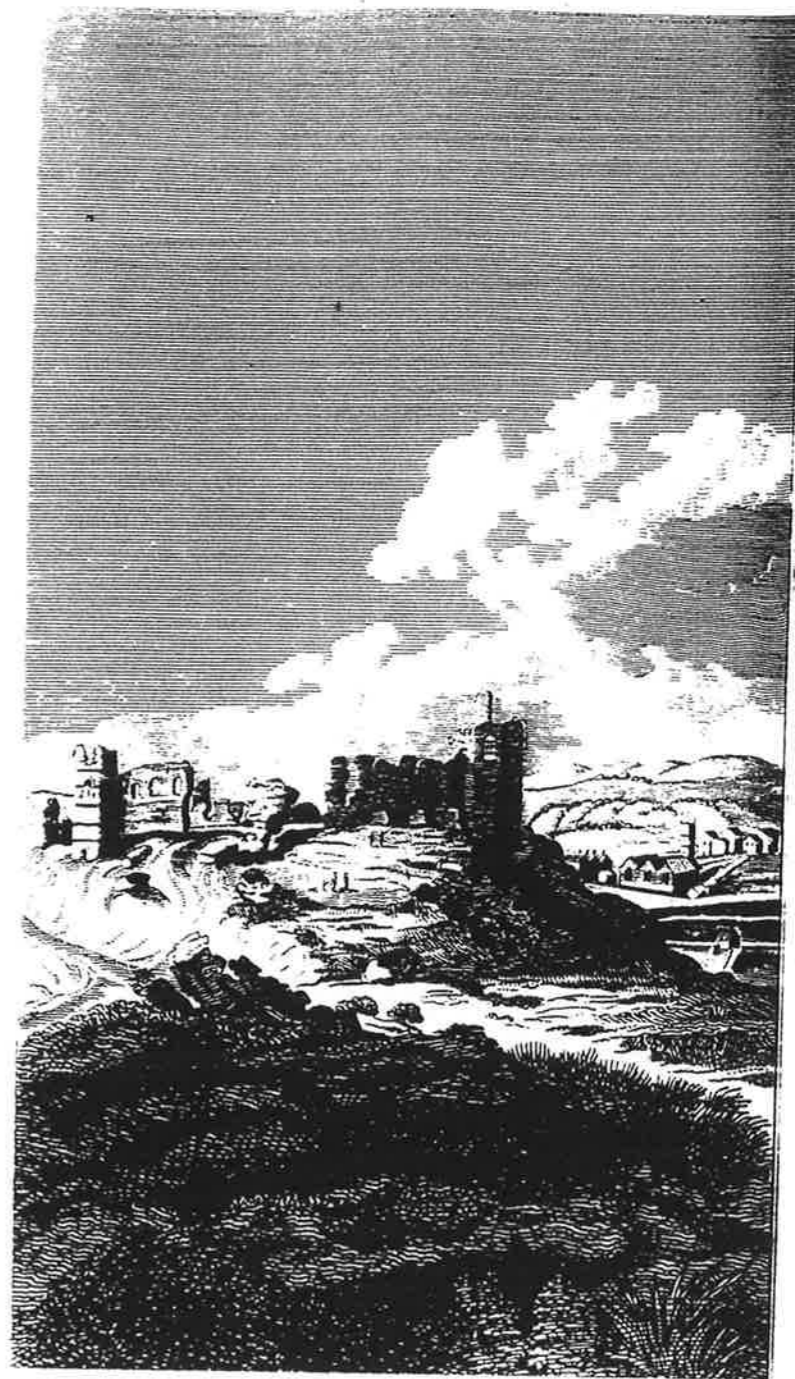


Fig. 5 Engraving of Kendal Castle by Lowry, following Buck, undated.

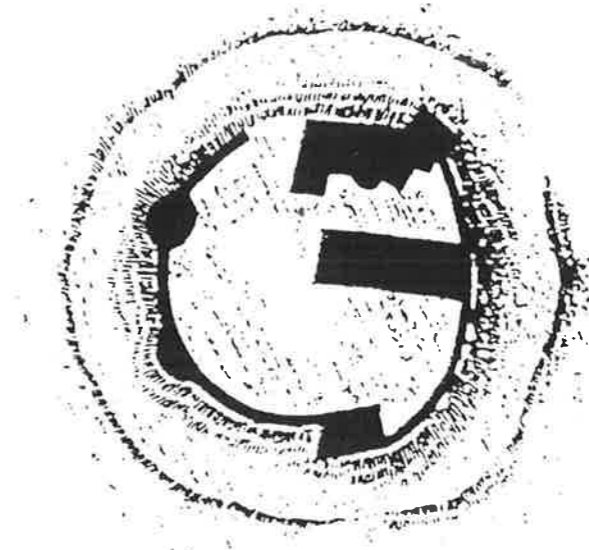


Fig. 6 Plan of Kendal Castle by Todd. 1787.

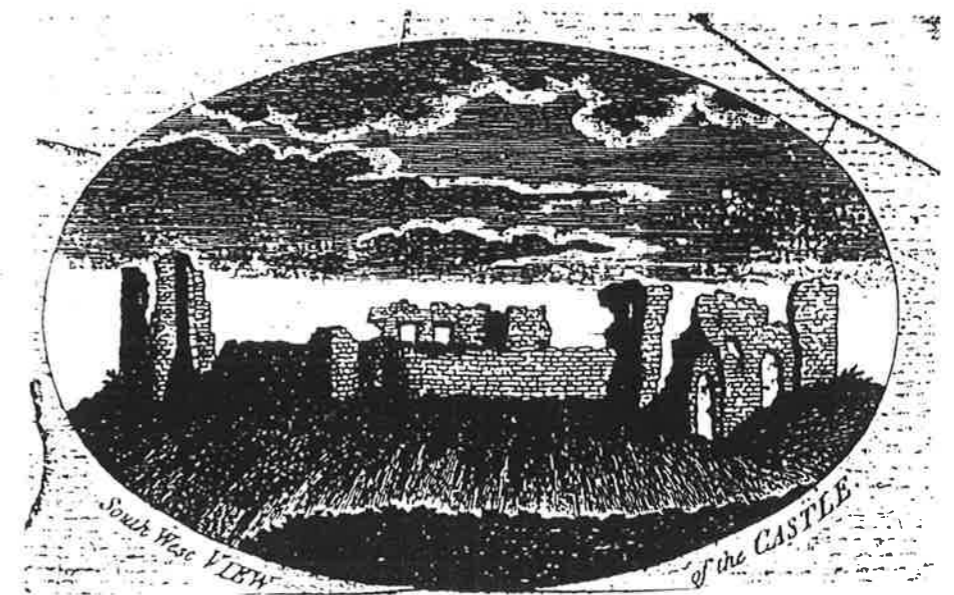


Fig. 7 Drawing of Kendal Castle by Todd, 1787.

KENDAL CASTLE. *Genl. Mag. Dec. 1800. Pl. 112.*

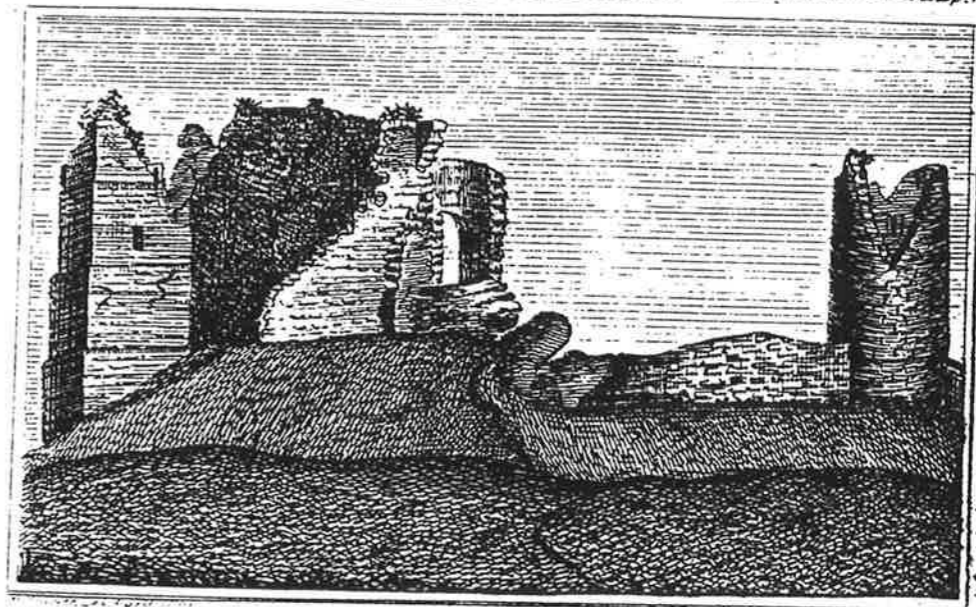


Fig. 8 Engraving of Kendal Castle from the North by J. Hopper, 1800.

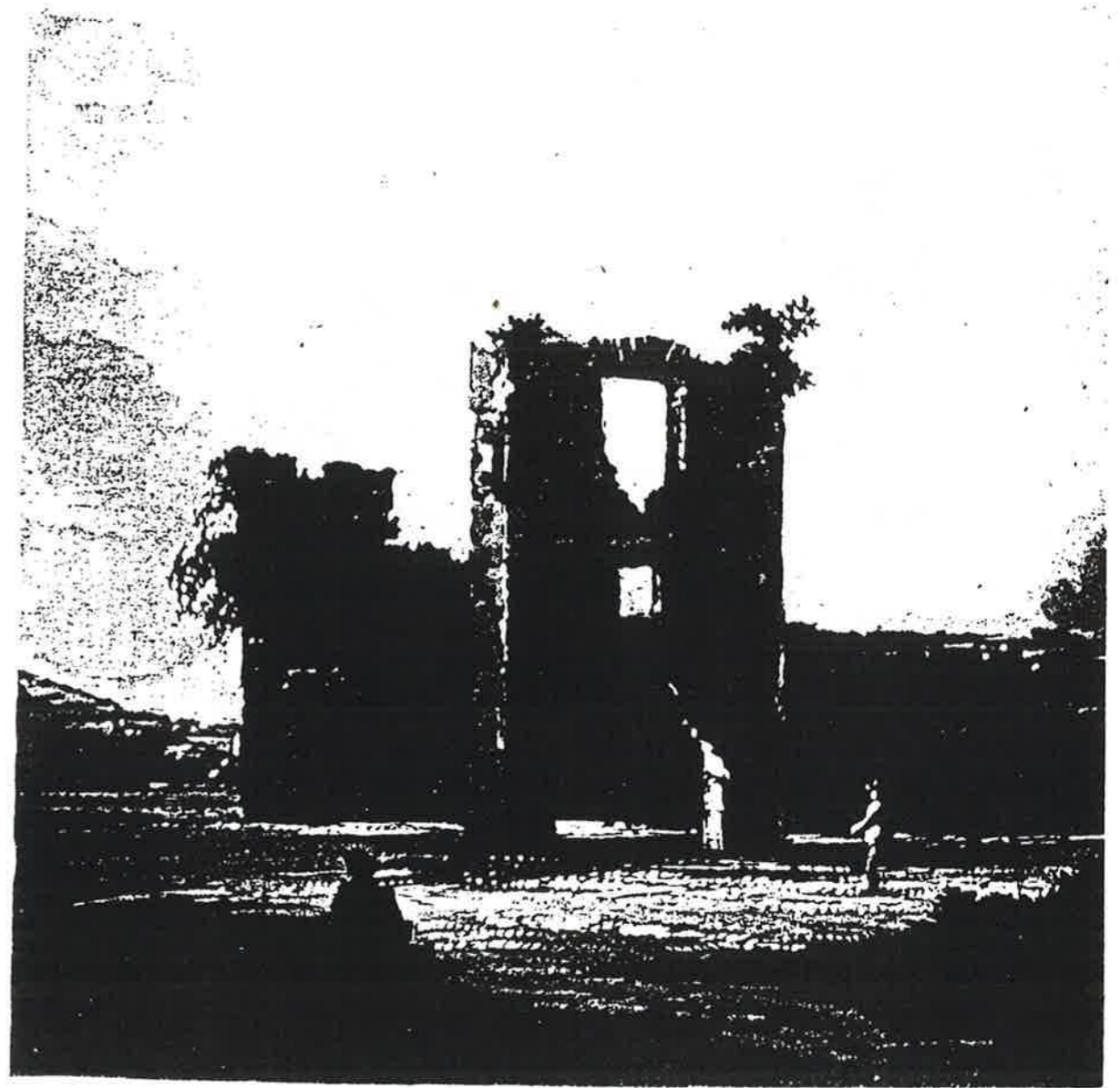


Fig. 9 Aquatint of Kendal Castle by T. Fielding, 1822.

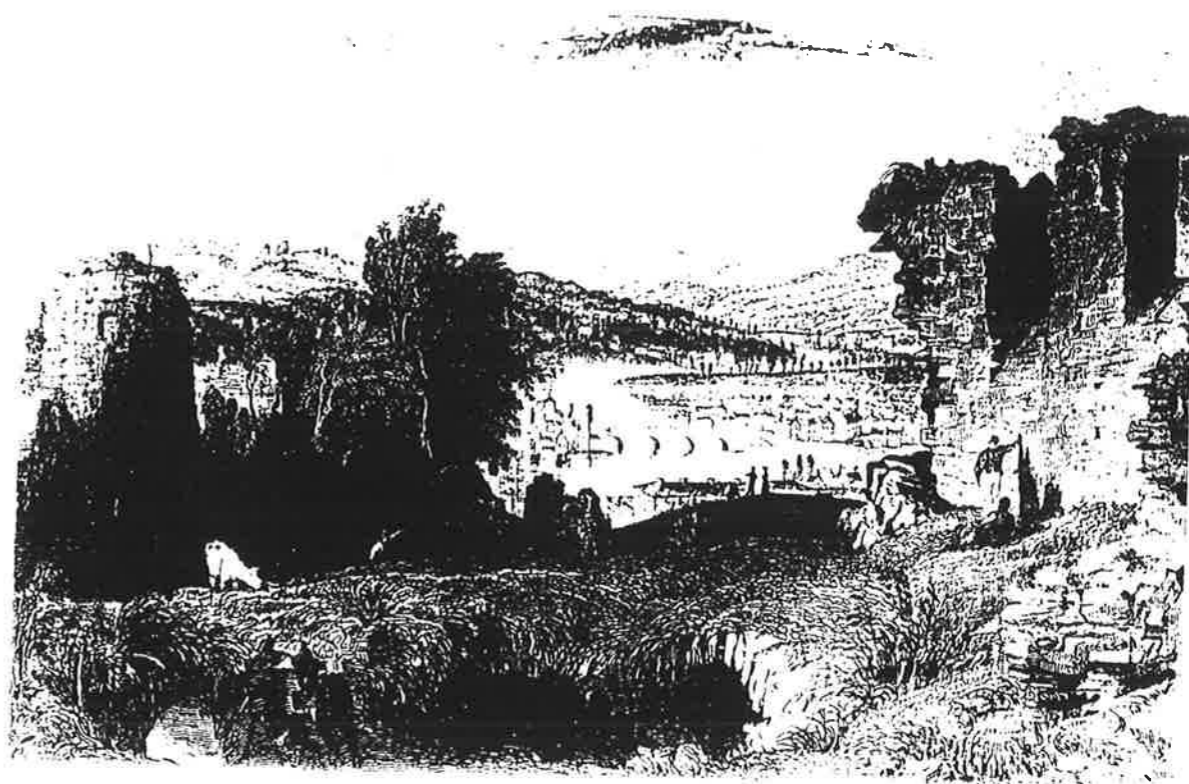


Fig. 10 Engraving of Kendal from the Castle by Thomas Allom. 1832.

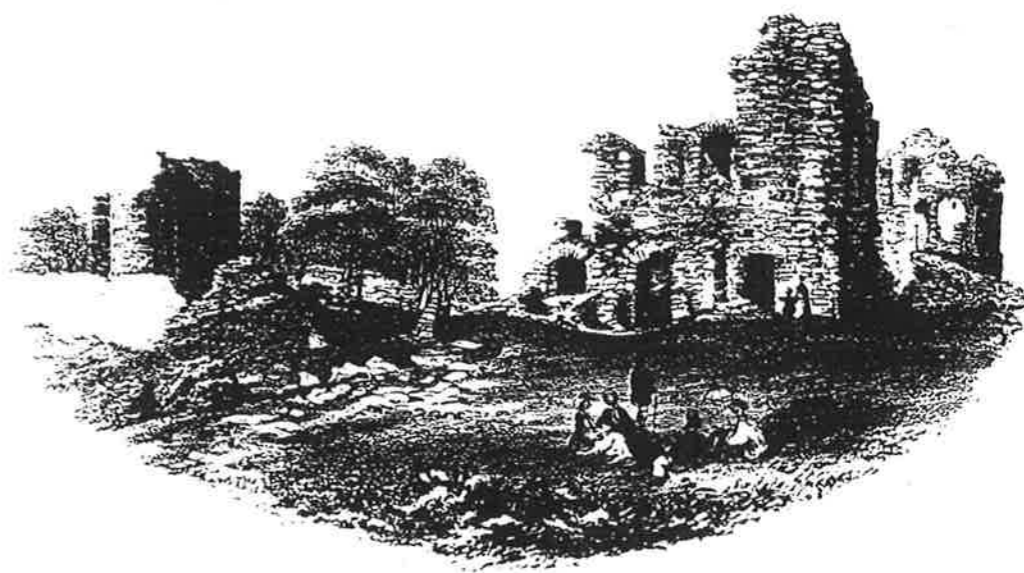


Fig. 11 Engraving of Kendal Castle from the South West by William Banks and Co.

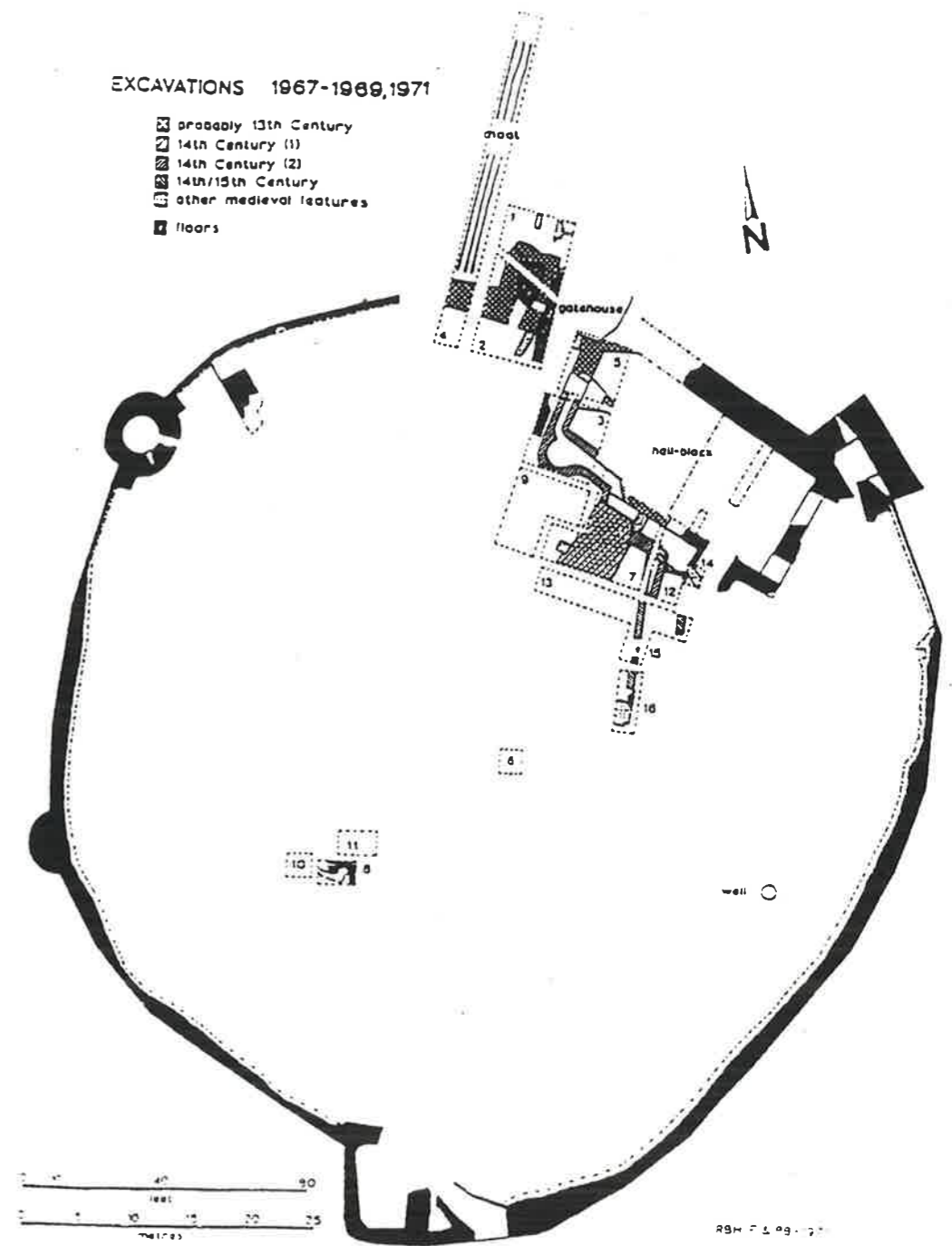
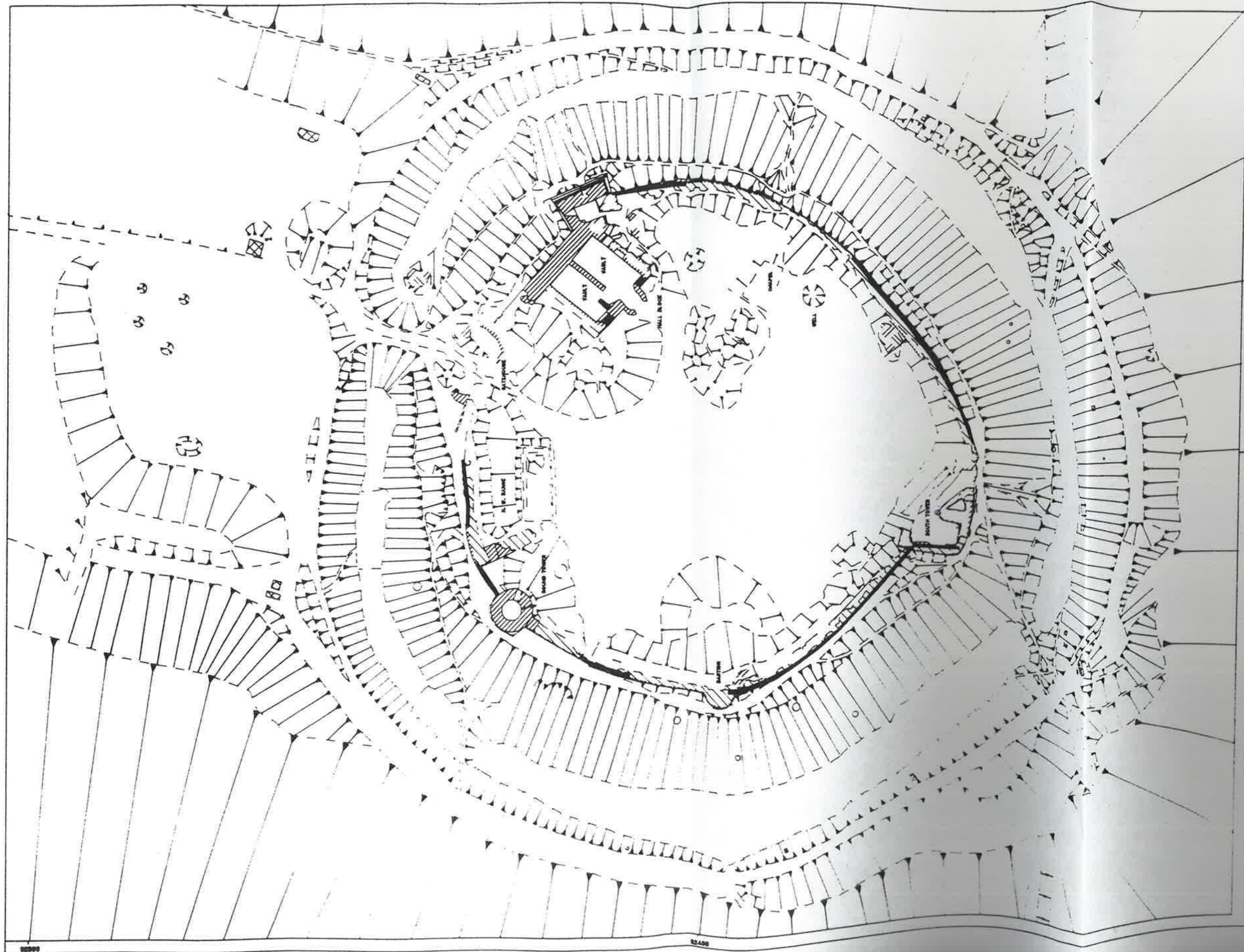


Fig. 12 Plan of Kendal Castle showing the extent of excavations carried out between 1967 and 1971 by Barbara Harbottle.



Kendal Castle Cumbria	PLAN NAME Hachure Survey	Compiled by South Lakeland District Council	Scale 1:275 @ A1	DRAWN BY MK IS	SHEET NO. 2
			50m		
			LANCASTER UNIVERSITY ARCHAEOLOGICAL UNIT		

Fig. 13 Hachure survey of Kendal Castle and surrounding earthworks carried out in 1995 by LUAU.

APPENDIX 1

Project Design

KENDAL CASTLE
CUMBRIA

Structural and Documentary Survey,
Archaeological Recording,
Fabric Consolidation,
and Landscaping Works

Proposals

The following project design is offered in response to the invitation by Mr M Daniells (County Archaeologist of Cumbria County Council) to produce a scheme for structural and documentary survey, archaeological recording, fabric consolidation, and landscaping works at Kendal Castle, Cumbria, based on South Lakeland District Council's agreed Management Plan.

PROPOSALS

Detailed survey and recording of the medieval and later upstanding masonry and earthworks of Kendal Castle is required prior to fabric consolidation works and the implementation of landscape management proposals.

The undertaking of a structural and documentary survey, and the production of an accurate drawn record of the castle and its setting, is an essential prerequisite to the proposed fabric and ground intervention works as outlined in the site's Management Plan (South Lakeland District Council, October 1993). As well as providing the basis for detailed works specifications and other contract documentation pertaining to the fabric consolidation and landscaping works, the structural and documentary survey and record drawings will also inform the archaeological analysis of the castle, and thus enhance any future interpretation scheme.

Lancaster University Archaeological Unit (LUAU) has considerable experience of archaeological survey of sites and monuments of all periods, having undertaken a great number of small and large projects during the past 15 years. LUAU has particular experience in the survey, recording, analysis, and interpretation of historic earthworks and upstanding fabric, and in the management of other professional groups involved in consolidation works (architects, engineers, and building contractors). Projects have been undertaken to fulfil the different requirements of various clients and planning authorities, and to very rigorous timetables. LUAU has the professional expertise and resources to undertake and manage the project detailed below to a high level of quality and efficiency.

The following programme has been designed to provide the appropriate level for structural and documentary survey, archaeological recording, fabric consolidation, and landscaping works for the relevant parts of the castle, in full accordance with SLDC's Management Plan (items A1, A2, A3, A4, and B2), and on site discussions held with the County Archaeologist of Cumbria County Council. The required stages to achieve these agreed objectives are as follows:

1. **Project preparation**

To organise the appropriate data to undertake the proposed works, and to establish the necessary timetables and contractual arrangements

2. **Structural and documentary survey**

To assess the condition of upstanding masonry and prioritise survey works to the hall block, north-west tower, and curtain wall; to collate the main data sources from past research work and archaeological investigations, including records dealing with previous repairs

3. **Archaeological recording**

To execute topographic plan survey, rectified and stereo photography (with instrument-based control), photogrammetric recording, and hand-measured field verification, as necessary; format, edit, and manipulate data for use in an industry standard CAD system; produce drawn and photographic records

- 4. **Fabric consolidation**
To identify areas for consolidation and prioritise works to the hall block, north-west tower, and curtain wall; create as-built records

- 5. **Landscaping works**
To control erosion on steep slopes and paths, and produce a management strategy for trees and shrubs

- 6. **Project management and monitoring**
To fulfil the role of Managing Agent for duration of project, with responsibility for prioritising, timetabling, implementation, and monitoring of work on behalf of SLDC

- 7. **Archive**
To prepare and submit archive.

WORK PROGRAMME

In line with the objectives and stages of work stated above, the following work programme is submitted.

1. Project preparation

LUAU will establish a project timetable and arrange meetings with relevant parties, including English Heritage, once the contents of this project design have been approved. Every effort will be made to ensure that the necessary archaeological considerations are fully integrated into the appropriate specifications and schedules of works.

The office-based organisation of the project will include provision for certain direct services and the management of a sub-contract for photogrammetric survey and recording; supervision of the landscaping works contract; and supervision of the tendering arrangements for the fabric consolidation.

2. Structural and documentary survey

Structural survey

It should be noted that parts of the structure are currently covered by vegetation or otherwise inaccessible. Such areas have not been inspected and therefore it is not possible at this stage to report that any such part of the castle is free from defect. Selected parts of the following areas are identified as requiring structural survey, and are classed in order of priority A or B.

Priority A survey

Hall block: It is proposed that detailed survey work is undertaken to inspect the condition of the walltop and north face ledges, and in particular water penetration of the core which is evident at the head of the southern opening in the east wall.

North-west tower: Survey is required immediately to investigate the cracking and potential further movement. Time should be allowed for monitoring and preparation of remedial proposals.

Priority B survey

Hall block: Of concern are the vaulted cellar areas, below where little or no work appears to have been undertaken. This area is covered with grass and soil and water filtering into the stone and the joints results in calcification on the underside of the vaulting. The structure is thoroughly saturated but in particular water penetration was noted at the springing point from the east wall in the vicinity of the fireplace.

It is recognised that remedial work in removing calcification would be costly and may cause greater damage to the historic fabric. Therefore any work in this respect must demand more detailed survey and consideration.

Documentary survey

Every effort will be made to consult and assimilate existing documentary information without duplication of previous research effort. The main data sources will include the archaeological investigations of Barbara Harbottle. In particular,

additional research is required to gather information pertaining to past consolidation works.

3. Archaeological recording

Survey will be undertaken of the whole castle and its environs as the basis for detailed and accurate recording of the areas selected for works.

Data capture for topographic plan survey will be undertaken by LUAU. Data capture for the wall elevations (survey control, rectified and stereo photography), together with photogrammetric recording, will be sub-contracted to WS Atkins Automated Mapping and Cartography Ltd (AMC).

Field verification, additional hand-measured survey, editing and manipulation of CAD digital data to produce all drawn records (both plan and elevation), and photography, shall be undertaken by LUAU.

Survey

It is proposed to conduct survey control by means of a total station facility, linked to a portable data logger with full micro-computer data transfer capability. In conjunction with the computer software used by both LUAU and AMC, the use of total station instrumentation allows very rapid and accurate survey to be carried out.

The aim of the survey is to provide accurate, three-dimensional co-ordinates, with respect to the OS National Grid and altitude datum. It is proposed that survey control be established by closed traverse to an accuracy of $\pm 0.05\text{m}$ in plan and 0.02m in height. A series of road nails shall be positioned in surfaces and the tops of consolidated walls as permanent markers.

All of the major upstanding ruins will be photographed stereoscopically using a Zeiss UMK metric camera. Photography shall be in black-and-white and taken at a distance of no greater than ten metres from each wall face. The use of a small 'cherry-picker' hydraulic platform may be required for some of the rectified photography. A minimum of three targeted points per stereoscopic model/rectified photograph shall be surveyed by trigonometric intersection.

The capture of as much data as possible at the instrument survey and rectified and stereo photography stages, will facilitate the manipulation of the data set for subsequent photogrammetric recording and analytical purposes. Both LUAU and AMC possess the facility to generate the resulting drawings in CAD format, which offers the flexibility to enhance, manipulate, and model the graphical data.

Recording

Drawn records: An intensive and comprehensive drawn record of the relevant plans and elevations of the castle will be undertaken. Topographic plans will be produced with both contours and hachures, while elevation drawings shall delineate all architectural and stone detail in compliance with English Heritage's standard photogrammetric specification.

Although the capture of all survey data and rectified and stereo photography will be performed during the fieldwork programme, it is recommended at this stage that photogrammetric recording only be carried out for those areas of the castle selected for consolidation works (see below). Should subsequent phases of works be

occasioned to additional areas, further photogrammetric recording will be required. This work will be possible without the need for extra fieldwork, but will require separate discussion and funding.

The drawn records for the castle shall include:

- i) a general topographic plan of the site, locating the upstanding masonry and earthwork features of the castle, together with all landscape details including the paths, trees, fences *etc* (commensurate with 1:200 scale but incorporating a reduction of item ii (below) and presented as a 1:200 plot)
- ii) a detailed topographic plan of the upstanding masonry, locating the hall block, gatehouse, towers, and curtain wall (commensurate with 1:100 scale and presented as a 1:100 plot)
- iii) external and internal elevations (as required) of the hall block, north-west tower, and curtain wall (commensurate with 1:20 scale but presented as a 1:50 plot)
- iv) analytical plans and elevation drawings depicting the boundaries between identifiable building periods, phases of construction, and repair, including the positions of any reused material (commensurate with 1:20 scale but presented as 1:50 colour-coded plots).

All drawings will be produced on dimensionally stable drafting film on standard 'A' size sheets and in metric format. Each sheet will be fully titled. Line thicknesses will be chosen to allow for ease of duplication and/or reduction. Particular attention will be paid to achieving drawings of the highest quality and accuracy.

As well as hard copy drawings, the graphical data will also be supplied in digital form, formatted and layered for use in an industry standard CAD system.

Photographic records: Photographic recording of the castle shall include:

- i) general external and internal coverage
- ii) close-up views of architectural details (structural, decorative, and ornamental).

4. Fabric consolidation

All pre-contract work in connection with the fabric consolidation specification and tender analysis, and the supervision of the contract works themselves, will be undertaken in accordance with English Heritage guidelines and the RIBA Architect's Appointment Booklet (8th amendment). This work will be sub-contracted to Mr K Humphreys RIBA of Carr Humphreys Architecture (CHA).

Contract works

Preliminary details of the scope of the contract works are provided on the annotated photographs in Appendix 1. Selected parts of the following areas are identified as requiring consolidation works, and are classed in order of priority A or B.

Hall block: This is the main standing structure forming the north-east curtain wall of the castle. Examination of this structure shows that consolidation and structural repair has been undertaken relatively recently. It is therefore not possible to assess the condition of the core or the quality/depth of the repointing work but from

inspection of the facework it appears that the condition is good although the pointing is excessively hard and in places overpointed. A substantial area of rebuilding around openings on the south-east face has been undertaken.

North-west tower: A large part of this standing structure survives but it is in poor condition having suffered abuse from visitors and weather erosion.

Curtain wall: Externally a large part of the curtain survives forming a retaining wall to the higher ground level of the bailey. The wall is breached in a number of places having suffered from tree falls, weather erosion, and visitor abuse.

Priority A works

Hall block: Priority A works to the hall block include:

- i) treatment of water penetration of the core, which is evident at the head of the southern opening in the east wall
- ii) consolidation of arched openings to the south-west wall, particularly the opening immediately under the high stone structure
- iii) rebedding of stones on ledge of the buttress wall immediately to the south
- iv) replacement of corroding lintels in the guard chamber
- v) the vaulted cellar area, which is suffering from vandalism and abuse. It is recommended that the authorities responsible for the safety of the public give urgent consideration to the possible dangers of this area and take all necessary safety precautions as seen fit to protect the visiting public, backing this up with a programme to regularly monitor this area and authorise protection measures/emergency consolidation works at any time.

North-west tower: Priority A works to the north-west tower include:

- i) general consolidation, replacement of grille.

Curtain wall: Priority A works to the curtain wall include:

- i) east curtain internally - selective consolidation to low level areas
- ii) south curtain (short length immediately west of south keep) - extensive consolidation required.

NB: removal of the later 19c infill walling and capping is not considered to be necessary or appropriate.

- iii) west curtain - repointing around bastion, removal of ivy, rebuilding of core to wall section south of north-west tower and rebuild breach in wall south of tower.

Priority B works

Hall block: It is recognised that further remedial work is required. However, in view of the substantial consolidation work already carried out in this area, and the need for budgetary prudence, it is proposed that the following work should be given Priority B status for action if funds are available. Priority B works to the hall block include:

- i) repointing (approximately 10-15m) of external east wall of the guardroom
- ii) removal of failing concrete cappings and consolidation in the angle between the main hall and adjacent guard chamber.

Curtain wall interior: Priority B works to the curtain wall interior include:

- i) east curtain - repair of smaller pockets in the 19c infill wall
- ii) east curtain - removal from the dry moat of a pile of historic stones and provision of suitable storage
- iii) north curtain/gatehouse - small amount of slipped masonry and consolidation
- iv) postern gate - remedial work required to vertical joint and walltop. A small area of wallbase (1-2m) to be rebuilt.

Curtain wall exterior: Priority B works to the curtain wall exterior include:

- i) areas of wallbase which have become exposed and require remedial work.

Essential works not included as A/B priority

It is considered that the cost of the following extensive works would demand a disproportionate percentage of any allocated budget, and therefore should be excluded from categorisation as Priority A or B in order to allow a greater spread of other work to be undertaken throughout the castle. These works are, however, considered necessary and should be carried out during an early phase of the project if finances allow.

West curtain wall: This wall displays deeply eroded joints. Initial estimates of 70-80% repointing are required to this wall and the possibility of core grouting cannot be excluded.

East curtain wall: This wall is in better condition with an estimated 20-30% repointing required.

Hall block vaulted cellars: It is proposed that consolidation of the cellars should be considered within the context of the future presentation and interpretation proposals for the castle.

As-built records

The recording of all intervention works 'as-built' is seen as an important and integral part of the consolidation process. Both drawn and photographic records should be maintained throughout the contract.

As well as the monitoring of intervention works to minimise potential damage to the historic fabric, CHA shall also be responsible for updating the works record in the field. Production of the permanent drawn record, in both hard copy and digital form (as described above), shall rest with LUAC.

5. Landscaping works

Erosion control

Moat banking: Severe land slips and terracing occurs on the steep banks all round the castle. Specialist survey will be required to advise on the stability of the terraces.

Hollows caused by fallen trees should be made good to prevent accelerated erosion.

Footpaths: Severely eroded tracks should be made good. A narrow rough footpath runs at high level around the castle immediately outside the curtain wall. For safety and interpretative reasons this route should not be encouraged. A formal footpath already exists at a lower level for appreciation of the monument. Further consideration of footpath requirements should be addressed in the context of future interpretation proposals for the castle and preferred visitor movements.

Metal stubs protrude from the ground at intervals along the length of the main low level path and for the safety of visitors these should be removed.

Removal of redundant posts and brackets is recommended from the north curtain interior/gatehouse area.

Vegetation management

Trees: Mature trees, which in recent high winds have proved to be unstable, require specialist survey at an early stage to allow for incorporation of recommendations within the main consolidation works programme.

Some lopping of trees and self-seeded samplings adjacent to the castle walls will be necessary to allow the rectified and stereo photography survey to be carried out. This work should be performed under instruction from AMC.

The fallen trees should be removed from site.

Minor shrubs and vegetation: Minor shrubs, vegetation, and root systems should be removed from the north-west tower, curtain wall exterior, and east curtain interior (to approximately 60% of exposed historic wall).

Ivy: To be carefully removed as soon as possible and the roots cut and poisoned but not removed. A record of the location of this ivy and the work done should be made and retained for reference.

6. Project management and monitoring

Any proposed changes to this project design will be agreed with SLDC and the County Archaeologist of Cumbria County Council. A preliminary meeting with all parties should be arranged at the outset of the project. Weekly meetings to review the progress of the works will be chaired and minuted by LUAC acting as the SLDC's Managing Agent. These meetings will be attended by representatives of LUAC, CHA, the appointed building contractor, SLDC, and periodically by relevant sub-contractors and the County Archaeologist of Cumbria County Council. At least one meeting prior to the submission of the archive will also be required.

7. Archive

The results of Stages 1-6 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). 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 quantified, ordered, and indexed project archive in an appropriate repository is considered an essential and integral element of all archaeological projects by the Institute of Field Archaeologists in that organisation's *Code of Conduct*. The expense of preparing such an archive is part of LUAU's costs, but only represents a very small proportion of the total.

Confidentiality

The archive is designed for the specific use of SLDC, for the particular purpose as defined in this project design, 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 or for any other explicit purpose can be fulfilled, but will require separate discussion and funding.

WORK SEQUENCE

It is envisaged that the various stages of the project outlined above will break down into the following proposed sequence of tasks, which would follow on consecutively, or run concurrently, where appropriate.

The tasks would comprise:

- i) approval of this project design
- ii) client to confirm appointments, advise on budget parameters, and authorise second stage - preparation of detailed proposals
- iii) client to authorise implementation of specialist structural, erosion, and documentary surveys at an early stage in order that results may be analysed and recommendations prepared in advance for incorporation into the main scheme proposals
- iv) archaeological survey and recording of the relevant parts of the fabric will be required immediately to provide base information for production of detailed scheme drawings and specifications
- v) preparation of consolidation works - detailed proposals and specifications will be based upon the archaeological record drawings. Development of a programme for works orders based upon a Quantity Surveyor's budget estimates for each works order
- vi) client and English Heritage consultations and authorisation to proceed to tender; application for scheduled monument consent for consolidation works
- vii) tender and tender analysis. The labour intensive and imprecise nature of this type of work rules out the practicality of fixed price lump sum tenders. It is proposed that tenders are sought from three or four contractors, depending upon SLDC standing orders, for a Measured Term Contract (MTC) with a schedule of rates based upon the drawings and specification prepared by the consultant team
- viii) client and English Heritage authorisation to proceed
- ix) contract consolidation works - contract siteworks would be instructed on a weekly basis by preprogrammed works orders under MTC. Costs are confirmed and updated weekly by measurement of the completed orders. By this method costs are continuously identified and works adjusted to the budget as the works programme proceeds. However the extent of the work that can be carried out within the allocated budget is not identified until the late stages of the works contract and can result in less work being completed than anticipated.

For this reason the client appointment of a Quantity Surveyor, experienced in works to ancient monuments, is recommended to provide the CHA with cost estimates of the various proposed works orders in the early design stages. This allows an overall precontract assessment of the works that can be carried out within the allocated budget and controlled adjustments to be made to the scope of the works prior to tender.

OUTLINE RESOURCES AND COSTS

The following resource base and outline costings will be necessary to achieve the proposals detailed above.

1. Resources

Staffing (LUAU)

LUAU Managing Agent: Work to include contract management and administration, timetabling, monitoring of all stages of work, chairing and minuting of meetings.

The role Managing Agent for the project will be performed by Jason Wood BA MIFA. Mr Wood is currently an Assistant Director of LUAU with special responsibility for the management of historic fabric survey projects and associated work. Organisation and negotiation, the drafting and presentation of project designs and tender documents, work strategies and timetables, the calculation of financial estimates, and the securing of income and budgetary control, are all aspects of this responsibility.

Mr Wood is an experienced practitioner in the fields of buildings archaeology and architectural history, having managed, directed, and published projects in Britain, France and Jordan. He also possesses an operational knowledge of building legislation, architects' and engineers' specification documentation, and contractors' repair and conservation techniques.

LUAU Field Officers: Work to include project management, generation of topographic survey data, archive collation and deposition.

The project manager with survey responsibility will be Jamie Quartermaine BA Dip (Land Survey) MIFA. The archive officer for the project will be Helen Quartermaine BA AIFA.

LUAU Project Assistants: Work to include field verification of survey data, hand-measured survey, CAD editing and layering, drawn, photographic, and as-built records, supervision of landscaping works, fabric analysis, archive collation.

The roles of Project Assistants will be performed by Peter Redmayne BA AIFA (fieldwork and archive), Sonia Ely BA (CAD operator).

Staffing (sub-contractors)

AMC: Work to include survey control, rectified and stereo photography, and photogrammetric recording, creation of CAD data.

AMC is one of the leading survey companies in the field of architectural photogrammetry and digital cartography. AMC's General Manager, Michael McKay ARICS, has been involved in a large number and variety of survey projects in Britain, Europe, and North America, relating principally to the recording of historic buildings and ancient monuments. AMC has successfully worked in collaboration with LUAU on a number of building recording projects and landscape evaluations throughout the North of England.

CHA: Work to include drafting of fabric consolidation specification, supervision of works, updating of works record, attendance at all meetings.

The role of the project architect will be performed by Kenneth Humphreys BA BArch RIBA. Mr Humphreys, a former partner of Gill Dockray and Partners, now runs his own architectural practice based in Milnthorpe. During the course of his career, Mr Humphreys has devised repair and conservation specifications and supervised contract works on historic properties in the North of England, including several English Heritage monuments.

2. Outline costs

It is impossible at this stage to give precise fixed prices for the various tasks as the costs will vary according to the amount and type of work undertaken. However, we must advise that the budget estimates given in the Management Plan, Appendix 1 (items A1 and A2) will fall far short of what will be required to undertake the works proposed above.

In view of the cost of labour intensive consolidation works to ancient monuments and the unknown element of what will be found upon dismantling, it is proposed that the works described as Priority B should be regarded as contingency work for inclusion only in the contract programme in part or whole should cost and time allow. However, should Priority A and B works be undertaken simultaneously, then some savings on the costs itemised below can be made.

It is anticipated that certain of the landscaping works would be contracted internally within SLDC.

Estimates

The following estimates assume a 4-5 month siteworks programme for Priority A works; a 3-4 month programme for Priority B works, and a 3-4 month programme for Essential works not included as A/B. The costs of structural survey and archaeological recording will have to be met before those of the Priority A fabric consolidation. The costs of documentary survey, landscape works, and archive could be spread over 2-3 years.

<i>Structural survey</i>	
Priority A	c£1,000.00
Priority B	c £300.00
<i>Documentary survey</i>	
	c£2,500.00
<i>Archaeological recording</i>	
Survey (LUAU)	c£3,000.00
Survey (AMC)	c£2,000.00
Recording (LUAU)	c£4,000.00
Recording (AMC)	£12-15,000.00
<i>Fabric consolidation</i>	
Priority A (CHA)	c£5,000.00
Priority A (Building contractor)	£30-40,000.00
Priority B (CHA)	c£3,500.00
Priority B (Building contractor)	£15-20,000.00
Essential works (CHA)	c£3,500.00
Essential works (Building contractor)	c£20,000.00
As-built recording	£2-3,000.00

<i>Landscape works</i>	
Erosion control	c£1,500.00
Vegetation management	c£1,000.00
<i>Project management</i>	
Priority A	c£3,000.00
Priority B	c£2,500.00
Essential works	c£2,500.00
<i>Archive</i>	c750.00

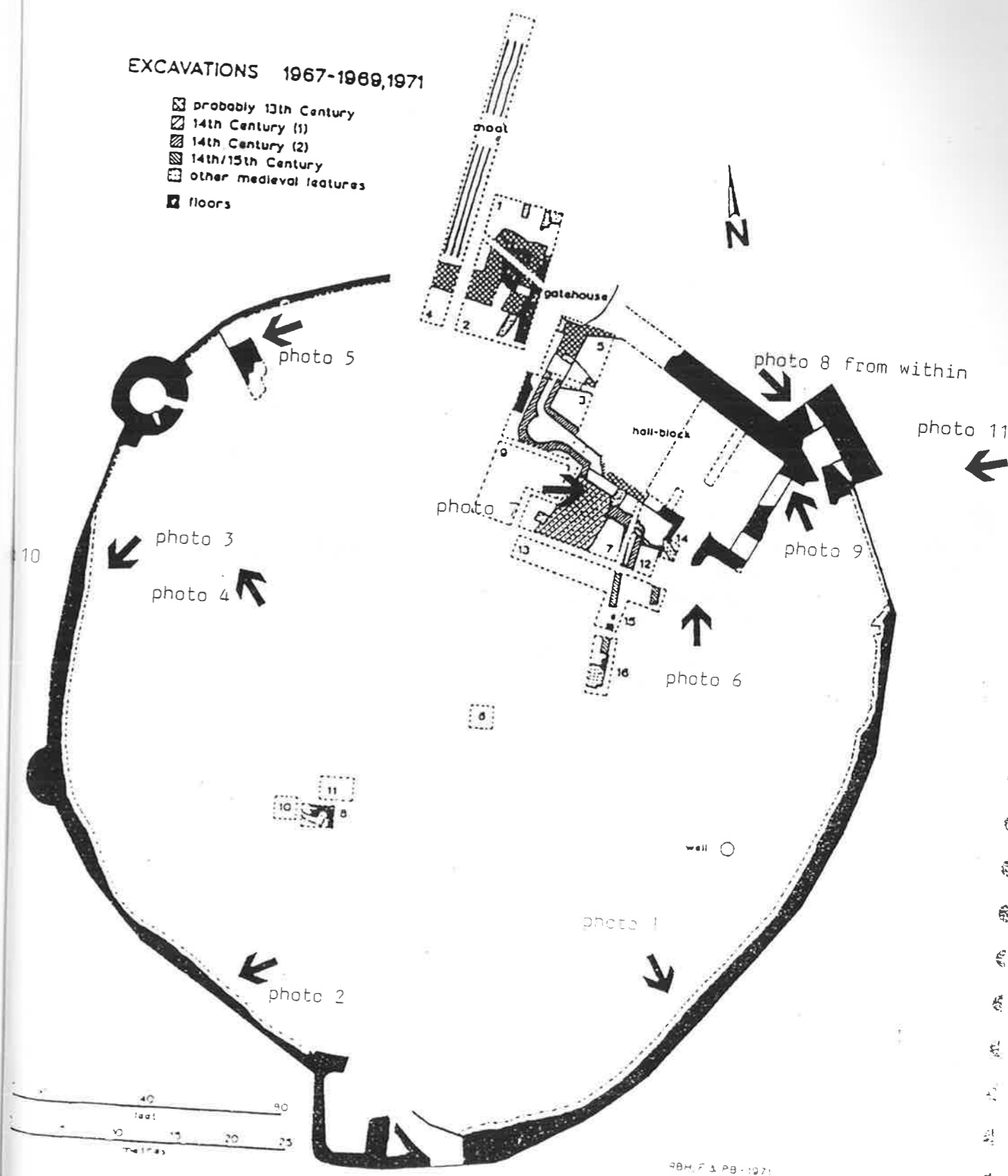
The project will be under the direct line management of **Jason Wood BA MIFA** (LUAU Assistant Director) to whom all correspondence should be addressed.

APPENDIX 1

Consolidation works: annotated photographs

The work of
Barbara Harbottle

Fig 3: Plan of the area
excavated by Harbottle



Extracted from South Lakeland District Council Management Plan
Kendal Castle October 1993 for use as key to
topographic appendix 1 - Lancaster University Archaeological
project design. Carr Humphreys Architecture 2004.

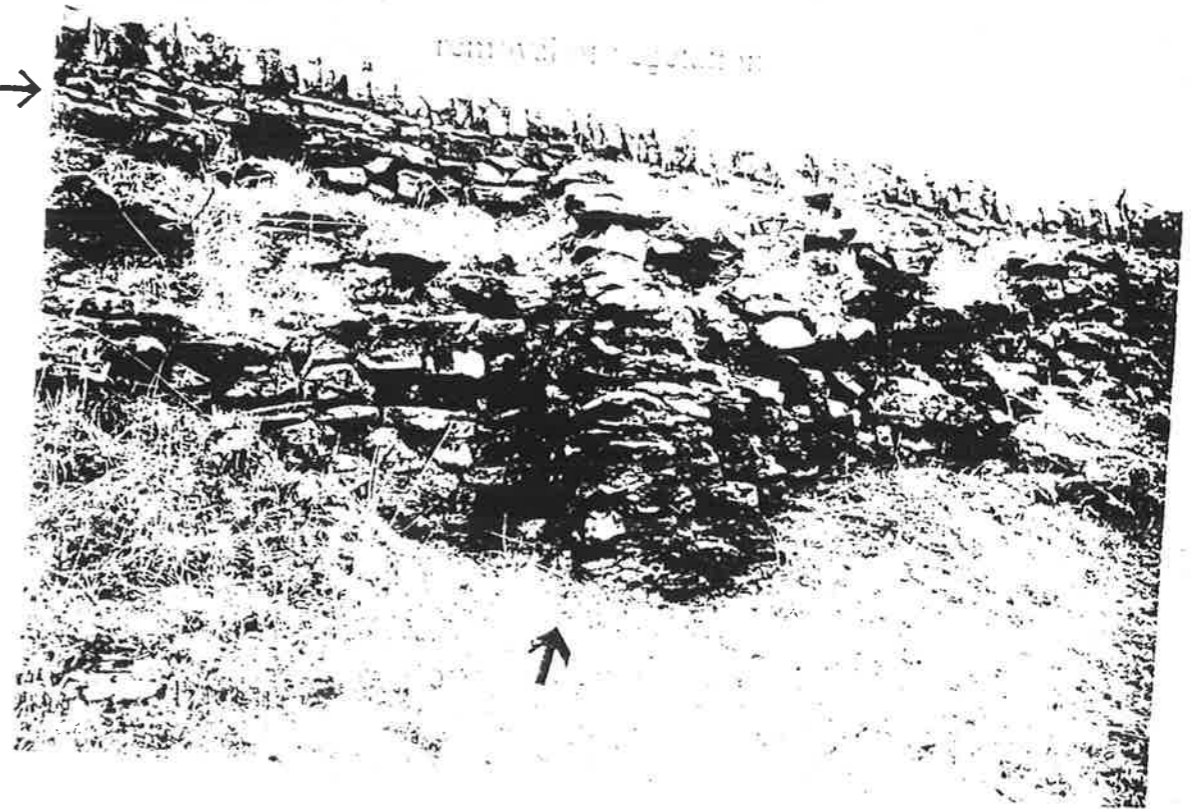


Appendix 1

Consolidation works - amount of the budget

East Curtain Wall

repair of
19c infill →



1



West Curtain Wall adjacent Postern

repair of
19c infill wall →

consolidation
of stonework →



2

removal of
vegetation

West Curtain Wall



rebuilding
sections of wall

3



4



rebuild wall

North West Tower

5

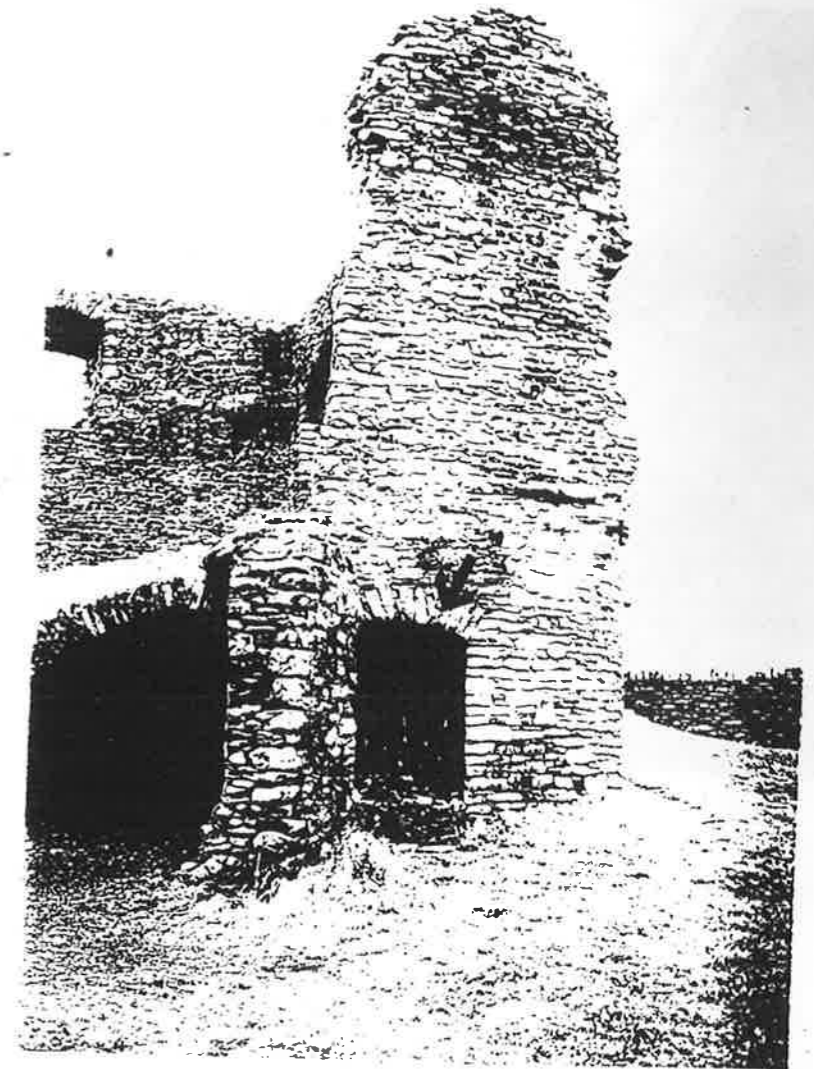




Hall Block

consolidation of openings

6

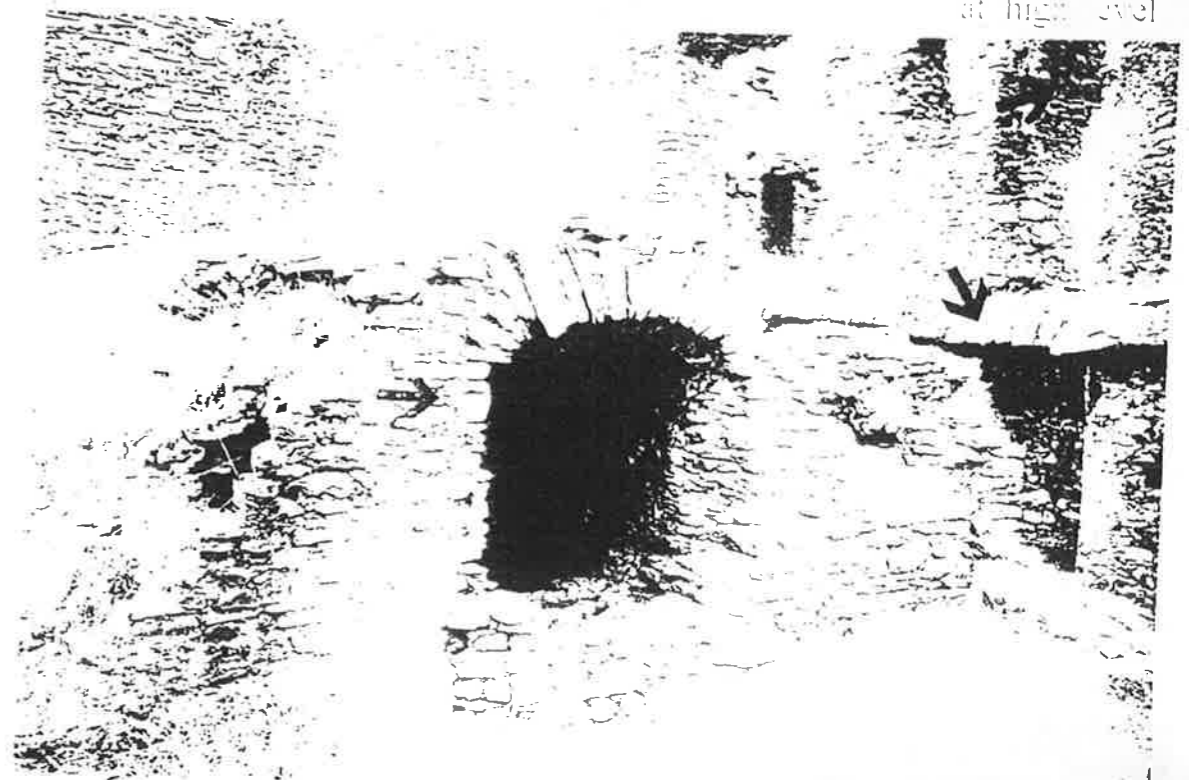


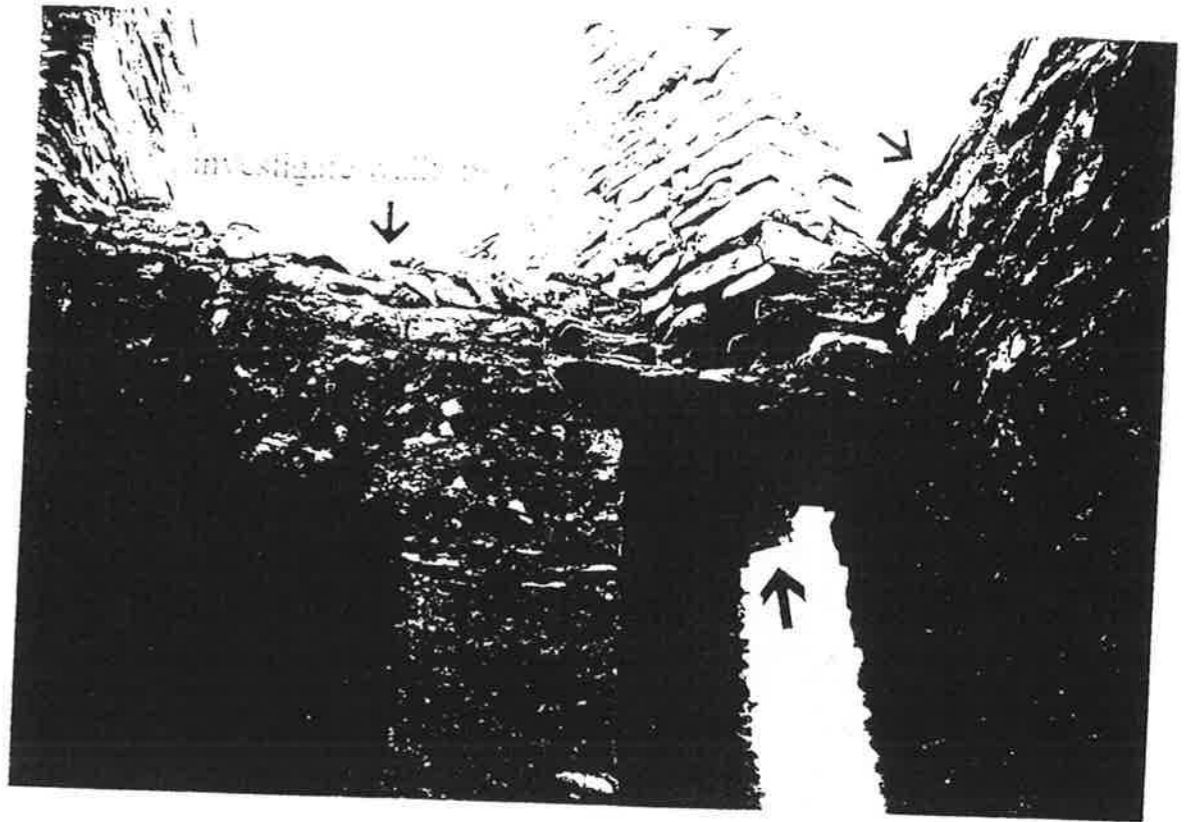
Cellar area to Hall Block

investigate water ingress
at high level

consolidation of
openings

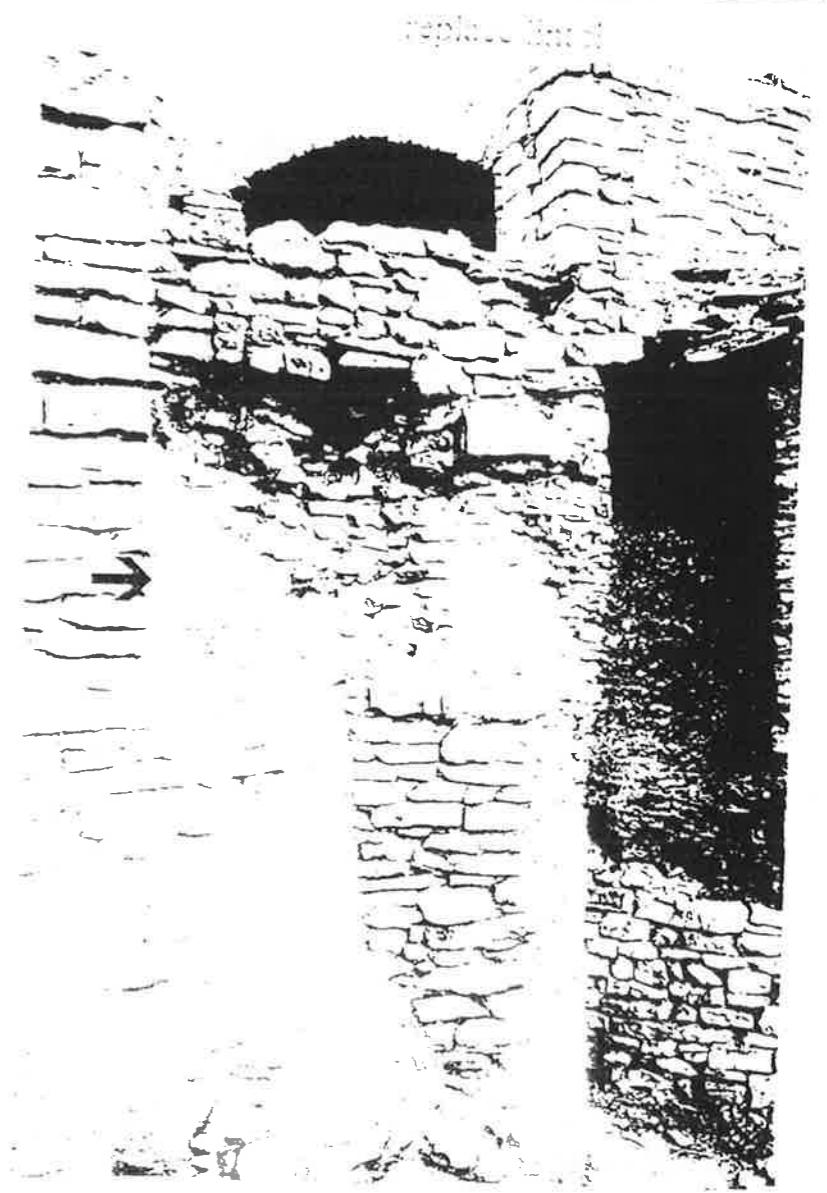
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8

Guard Room
Internally



Part of the
capping and
concentration of area

9

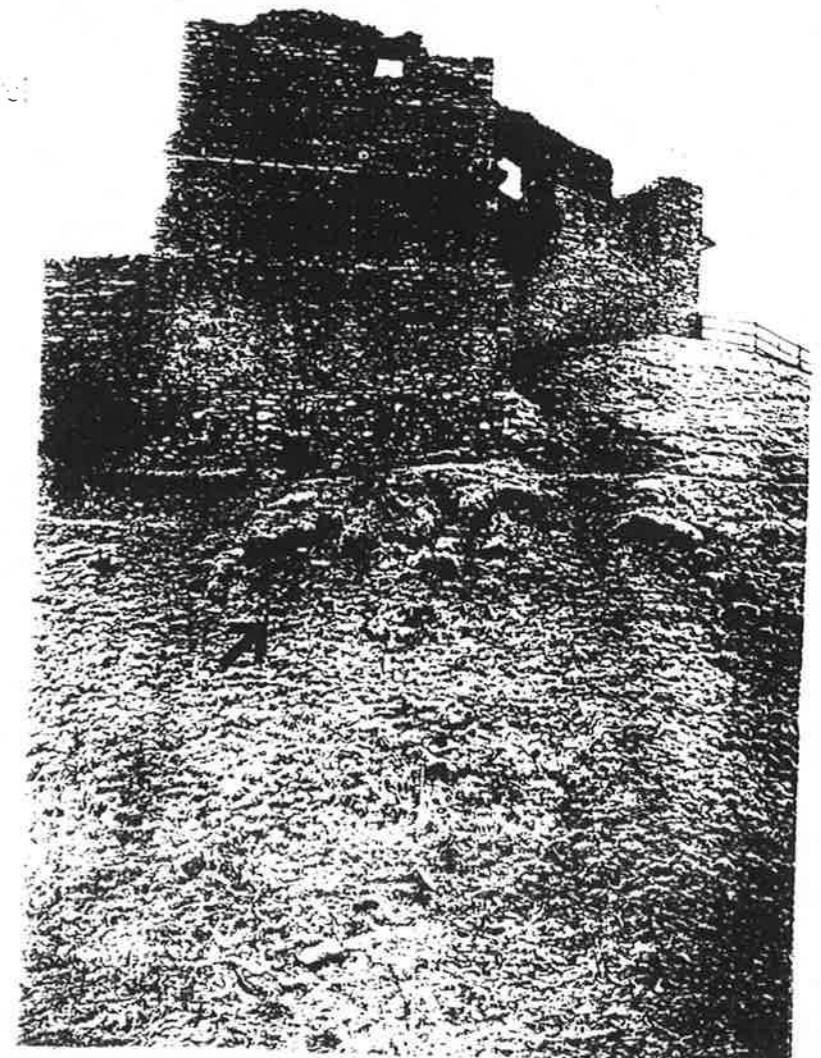


10

Erosion

reconstruction of hollows

Guard Room external wall
repointing 10 - 15 m at high level



reinforcement at areas of
instability and severe erosion

11

