LOWTHER CASTLE, CUMBRIA



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SUMMARY

Following consultation with Sheppard Robson Architects and Lowther Estates, the Lake District National Park Authority was asked to produce a brief (*Appendix 1*) for archaeological evaluation at Lowther Castle, in order to inform planning and listed building consent applications due to be submitted to the Lake District National Park Authority. In response to the brief, OA North produced a Project Design (*Appendix 2*), in accordance with which all work was carried out. The site of the proposed development lies at NGR NY 5220 2383 (Fig 1), within the bounds of the ruined castle at Lowther. The castle is located to the south of Penrith, and lies between the villages of Great Strickland to the east and Askham to the west.

The programme of archaeological evaluation allowed for the excavation of nine trenches (Fig 2). Five of the trenches (A, B, C, H and I) were positioned to the south of the extant castle or Lowther III (Smirke's Castle), within an area of disused chicken sheds, whilst the remaining four (D to G) were within the footprint of Lowther III (Fig 3). Trenches A, B, C, H and I were positioned to examine the presence or absence of archaeological remains that might be related to the preceding structures to Lowther III (Lowther I and II). Trenches D-G were positioned to examine the survival of both Lowther III remains and any earlier buildings relating to Lowther II.

An interim report (OA North 2007a) reported the results of the first seven trenches, whilst this report is an updated version, including the results from two additional trenches (H and I), excavated in July 2007. OA North have also recently undertaken survey work and cartographic analysis (OA North 2007b) resulting in the detailed phasing of the park gardens.

Eight of the nine trenches revealed below ground archaeological features, only Trench I was devoid of any archaeological features. Trenches A, B, C and H, south of the present castle, in each case, revealed remains of structures and deposits possibly relating to Lowther I and or II. Trenches A and C both contained walls, which, in the case of Trench A, were associated with twelfth to thirteenth century pottery and, therefore, might relate to Lowther I. The walls within Trench C were almost certainly those from Lowther II. The remains of a possible wall foundation were revealed in Trench H, in broadly the position of the eastern wing of Lowther II, as extrapolated from Richardson's survey of 1754. A deposit containing mortar and a channel cut into the bedrock were the only features within Trench B, suggesting that any features relating to the castles that may have once existed, had been truncated by later activity. Trenches D to G revealed a variety of features, which, for the most part, related to Lowther III.

The evaluation trenches have demonstrated that preservation is generally good across the site, with the exception of Trenches B and I. It is obvious from the results of the evaluation that any development within the investigated parts of the site that entails disturbance of below ground deposits, has the potential to have an impact on preserved archaeological remains. However, as the specifics of the design are currently quite fluid, it is not at this time possible to state categorically the impact of any development upon the archaeological resource.

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The evaluation was undertaken by Jeremy Bradley and Paul Clark aided by Rebekah Pressler, Tom Mace, Catherine Levy and Steve Clarke. The report was written by Jeremy Bradley and Paul Clark, and Anne Stewardson produced the illustrations. The finds report was written by Rebekah Pressler and the animal bone was by Andrew Bates. The project was managed by Fraser Brown, who, with Jamie Quartermaine and Alan Lupton, edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 Following consultation with Sheppard Robson Architects and Lowther Estates, the Lake District National Park Authority was asked to produce a brief (*Appendix 1*) for archaeological evaluation at Lowther Castle, in order to inform planning and listed building consent applications due to be submitted to the Lake District National Park Authority. In response to the brief, OA North produced a Project Design (*Appendix 2*), in accordance with which all work was carried out. Four trenches were placed within the confines of the castle itself, with five others placed to the south within an area of disused chicken sheds. An interim report (OA North 2007a) reported the results of the first seven trenches, whilst this report is an updated version, including the results from two additional trenches, excavated in July 2007.
- 1.1.2 Historical studies (Landscape Agency 2002) had indicated that there was the potential for earlier phases of house / castle, but little was known as to their extent or state of preservation. The architect had therefore been advised that an archaeological field evaluation needed to be carried out before any decision on the design of the development could be taken, in order to identify options for minimising or avoiding damage to potentially important archaeological deposits/structures. In addition, the archaeological evidence will be used to inform the design of the proposed new structures. This recommendation is in line with government advice as set out in the DoE Planning Policy Guidance on Archaeology and Planning (PPG 16) and Policy NE 17 of the Lake District National Park Local Plan. Smirke's Castle is a Grade II* listed building, and it is within a registered park and garden (Grade II); there is, therefore, a need to incorporate the advice of English Heritage in the design of any build on the site or vicinity.

1.2 SITE LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.2.1 The site of the proposed development lies (NGR NY 5220 2383; Fig 1) within the site of the ruined castle at Lowther. The castle is located to the south of Penrith, and lies between the villages of Great Strickland to the east and Askham to the west. The study area lies in an area characterised by the Countryside Agency (Countryside Commission 1998) as the Orton Fells (Fig 2), which form a distinctive block of limestone uplands, between 180m and 300m AOD, located to the south-east of Penrith and to the north-west of Kirkby Stephen. In contrast to the Cumbria High Fells to the west, the Eden Valley to the east and the Howgill Fells to the south, the area consists of a core of upland limestone farmland. There are also areas of open moorland and commons, at elevations up to some 400m AOD (Countryside Commission 1998, 58).
- 1.2.2 The solid geology of the study area is complex, with numerous overlying sedimentary rock formations in the region; the principle geology is Dinantian sedimentary of the Carboniferous period, but there are also sequential deposits of Orton Group limestones (British Geological Survey 1982). The drift geology is largely a product of glacial activity, comprising mostly till (boulder clay) that was deposited in the post-glacial period, with occasional glacial erratics of pink Shap

granite (Countryside Commission 1998, 58). The thin overlying soils are predominately calcareous in origin and were largely formed from the erosion of the limestone plateau. Where the drift deposits have been eroded, wide areas of limestone are exposed as pavements and crags.

1.3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

1.3.1 *Timeline of Principal Events:* a comprehensive historical study of Lowther Castle and gardens has previously been undertaken by The Landscape Agency (2002) and it is not considered necessary to repeat this valuable work or to reprint it. However, the principal historic events are pertinent to the present archaeological study of the remains of Lowther Castle I-III, and therefore a timeline of the key events for the development of the castle gardens is reproduced below. The information for this is derived from The Landscape Agency report (2002) and further information can be obtained from this source; other sources used are referred to in the table. OA North have also recently undertaken survey work and cartographic analysis (OA North 2007b) resulting in the detailed phasing of the park gardens.

Date	Event	Comment	
1174	Reference to <i>castellum de lauudre</i>	The earliest medieval fortified structure at Lowther was Castlesteads, which survives as a substantial earthwork to the north - west of Smirke's Castle. It was probably a timber ringwork (LUAU 1997 24)	
1337	Hugh Lowther was granted permission to enclose 200 acres of land for a park	No precise date is available for the construction of the first house at Lowther but its characteristic North Country plan of a narrow central range flanked by a pair of square towers (cf Levens, Sizergh, Hutton-in-the-Forest, Blencow) is indicative of a later medieval date (Landscape Agency 2002)	
1570s	The remodelling and extension of Lowther I	Improvement of the buildings dating from the later Middle Ages	
1628-30	Central range rebuilt	Work carried out by John Lowther senior. The centerpiece was a decorative gable with a 1630 date, and a crowning cupola.	
1637	The estate was inherited by Sir John Lowther, first Baronet	The first Baronet began a building programme adding stables, offices and an inner and outer courtyard to the north of the house	
1640-42	House extended	The 1st Baronet recorded that in 1640, he erected the 'Gatehouse and Clostered Walke' and the stables. In 1642 'I butified	

Date	Event	Comment
		the Hall Porch with Pilasters and other cutt work' by the 'expert and skillfull' mason 'one Alexander Pogmire.' (Landscape Agency 2002)
1655	New east wing constructed.	In 1655 the first baronet noted: 'This yeare I contracted with Alexand Pogmire for the new buildinge the Gallery and roomes under and above it on the east side of the court.' Faced in ashlar stone, it stood on the site of the old stable. It was completed the following year. This new east wing contained a chapel and gallery at first floor level and matched the 1640 Cloistered walk 'to form a symmetrical pair of flankers to the main house.' (Landscape Agency 2002)
1675	Sir John Lowther 2nd Baronet, 1st Viscount inherits the estate.	In the period to 1700, the re-building of the house and an extensive and elaborate alteration and expansion of the gardens was recorded.
1677-1693	Lowther II was constructed.	
1678-83	Stables, square around courts with statues constructed, as well as kitchen on west side of forecourt.	The layout was on a French model with inner and outer courts on different levels.
1683	A survey and plan showing Lowther II was produced.	The completed layout of the outer court is shown.
1692-3	The first Viscounts new main block was constructed.	The old house was demolished in 1692, with the exception of Pogmire's wings. A new 13-bay 'palace-like' fabric of red sandstone was erected by the mason Edward Addison. The new facade was based on designs by Robert Hooke and William Talman, but was modified by Sir Samuel Moreland and Viscount Lonsdale himself.
1693-4	The interior of the house was fitted up.	the rooms were lined with oak, cedar and walnut, and were painted and gilded wainscot. A luxurious interior was also painted by Antonio Verrio (as at Windsor and Hampton Court)

Date	Event	Comment	
1707	An engraving was made by Kip and Knyff of the gardens of Lowther Castle.	This shows in exacting detail, albeit in oblique perspective, the house and garden only a few years before the fire which burnt down Lowther II.	
1718	Fire of Lowther II.	Lowther II was gutted by fire	
Post 1718- 1800	Office wing used as a temporary house.		
1751	Sir James Lowther, 1st Earl of Lonsdale, inherits the estate.	The title of Earl of Lonsdale expired after James Lowther's death as there was no legitimate heir.	
1754	Francis Richardson was commissioned to produce survey and proposals for the redevelopment of the gardens.	Richardson's plan shows the remains of the house and the planting scheme to its immediate south.	
1802	Sir William Lonsdale inherits the estate; he becomes the first Earl of Lonsdale (2nd creation) in 1807.	This was the second creation of the title and William becomes the first Earl again.	
1803-1805	George Dance designs the new Lowther, and the scheme was passed onto Robert Smirke to execute.	The original design was by George Dance, the younger, for a large castellated principle block with a central tower and flanking lower turrets. Dance passed on the scheme to Robert Smirke, who adopted in principle Dance's idea, but moved the house forward on to the site of the outer forecourt and incorporated the kitchen and stable range of Lowther II	
1806-1814	Lowther III was constructed.		
1806	Work on new castle commences.	The site was levelled, foundations laid and stables were constructed on the site of old ones at east end of the house. A ceremonial foundation stone was laid on 31st December.	
1807	John Webb draws up a plan for Lowther gardens.	The plan proposed maintaining the structure of the formal garden but creating shrubberies on the south lawn and a kitchen garden.	

Date	Event	Comment	
1807-1809	West wing erected.	The west part of the house, including Lord Lonsdale's own rooms and dinning room, were constructed. The family rooms were habitable by 1809.	
1810-1811	Work on main block commences.	The main block contains the entrance hall, the main staircase and saloon. The site of the old house was levelled. There was a terraced forecourt and outworks on the north front underway.	
1812-1814	Work continues.	Foundations for the porte cochére (coach door) were underway, and windows were installed in the south front, interior fitting of the main rooms	
1830's	Work to the gardens was carried out under John Webb and William Gilpin.	The views to the north and south were opened up by the removal of trees and hedges, the removal of a kiln from the south lawn and the planting of flowerbeds in this area along with the creation of Jack Croft's Pond. An avenue of beech trees running east/west across the end of the gardens was also planted.	
1844-1882	Improvements were made to the Castle and gardens.	A new entrance drive to the north-west and Emperor's Drive to the south were created during this period.	
1882	Hugh Lowther, 'The Yellow Earl' inherits the estate.		
1895	Kaiser's visit in 1895.	In preparation for the Kaiser's visit, the stables were remodelled to provide accommodation for 50 horses. The central coach house was rebuilt with a gable containing a clock and the Lowther arms were impaled with those of Gordon.	
1926	Electricity installed.		
1936	Castle was closed.	The gardens remained open until 1939.	
1939-1945	Castle and grounds were requisitioned during WWII.	The park was used for night-time tank training. Concrete slabs to the rear of the castle are thought to date from this period.	
1946-47	The castle was closed and the		

Date	Event	Comment
	contents were auctioned.	
1956	House sold for demolition.	The interior was dismantled and the shell retained as a landmark within the park.

2. METHODOLOGY

2.1 **PROJECT DESIGN**

2.1.1 Following consultation with Sheppard Robson Architects and the Lowther Estate, the Lake District National Park Authority was asked to produce a brief (*Appendix 1*) for an archaeological evaluation at Lowther Castle, in order to inform planning and listed building consent applications due to be submitted to the Lake District National Park Authority. In response to the brief, OA North produced a Project Design (*Appendix 2*), in accordance with which all work was carried out.

2.2 EVALUATION TRENCHING

- 2.2.1 The programme of archaeological evaluation allowed for the excavation of nine trenches (Fig 2). Five of the trenches (A, B, C, H and I) were positioned to the south of the extant castle or Lowther III (Smirke's Castle), whilst the remaining four (D to G) were within the footprint of Lowther III (Fig 3). The trenches were mechanically stripped down to the first significant archaeological deposit or feature, using a JCB fitted with a toothless ditching bucket. Concrete was removed with the aid of a pecker from Trenches B, C, H and I. The work was supervised by a suitably experienced archaeologist, and the spoil from the excavation was stored adjacent to the trench. Subsequently, the features were hand cleaned and recorded.
- 2.2.2 All information identified in the course of the site works was recorded stratigraphically, using a system adapted from that used by the 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. All contexts were recorded using *pro-forma* sheets, which comprise a written detailed description and interpretation of each structure and deposit encountered, and details incorporated into a Harris matrix. Similar object record and photographic record *pro-formas* were used. All written recording of survey data, contexts, photographs, artefacts and ecofacts were cross-referenced from *pro-forma* record sheets using sequential numbering.
- 2.2.3 A full and detailed photographic record of individual contexts was maintained and similarly general views, from standard view points, of the overall site at all stages of the evaluation were generated. Photography was undertaken using 35mm cameras on archivable black and white print film as well transparency. All frames included a visible, graduated metric scale. Extensive use of digital photography, using an eight megapixel camera, was also undertaken throughout the course of the fieldwork for interpretative and presentation purposes.

2.3 ARTEFACTS

2.3.1 Finds recovery were carried out in accordance with best practice (following current Institute of Field Archaeologists guidelines), and subject to expert advice in order to minimise deterioration. All artefacts recovered from the evaluation trenches were retained.

- **Pottery:** the pottery has contributed to the dating of stratified deposits on the site, but the restricted size of the group made it unsuitable for detailed analysis.
- *Stone:* a single fragment of stone that was probably fire affected was recovered, and has the potential to provide some insight into events at Lowther castle when combined with the dates from similar contexts.
- *Glass:* the glass material has been quantified and recorded as part of the project and has contributed to the dating of stratified deposits on the site, but is not particularly suitable for detailed analysis.
- *Animal Bone*: the material has been quantified and recorded as part of the project, but has little potential for further analysis.
- **Decorative Plaster**: the material has been quantified and recorded as part of the evaluation. If the opportunity arises as part of further excavations then this would warrant more detailed analysis.

2.4 ARCHIVE

- 2.4.1 The results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (*The 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.
- 2.4.2 The archive for the archaeological work undertaken at the site will be deposited with the nearest museum which meets Museums' and Galleries' Commission criteria for the long term storage of archaeological material (MGC 1992). 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 archive will be deposited with the nominated museum within six months of the completion of the fieldwork. Except for items subject to the Treasure Act, all artefacts found during the course of the project will be donated to the receiving museum.
- 2.4.3 A synthesis (in the form of the index to the archive and a copy of the publication report) will be deposited with the Lake District National Park Historic Environment Record. A copy of the index to the archive will also be available for deposition in the National Archaeological Record in Swindon.

3. EVALUATION

3.1 INTRODUCTION

- 3.1.1 In total, nine trenches were examined (Fig 2). Five of the trenches (A, B, C, H and I) were positioned to the south of the extant castle or Lowther III, whilst the remaining four (D to G) were within the boundary of Lowther III (Fig 3). A full list of the excavated contexts is given in *Appendix 3*.
- 3.1.2 Trenches A, B, C, H and I were positioned to examine the presence or absence of archaeological remains that might be related to the preceding structures to Lowther III (Lowther I and II). Trenches D-G were positioned to examine the survival of both Lowther III remains and any earlier buildings relating to Lowther II.

3.2 **RESULTS**

- 3.2.1 **Trench** *A*: Trench A (Figs 2-4; Plate 1) was situated on an area of rough ground to the west of a chicken shed. It was aligned north-east/south-west and measured 12m by 2m and was excavated to a maximum depth of 0.6m (216.21m OD). The present ground level (hereafter PGL) lay at a height of between 216.94m OD in the south-west and 216.49m OD in the north-east. Archaeological deposits in parts of the trench lay on or close to the current ground surface, which was covered by a thin matt of vegetation (less than 50mm in places), and continued down to 216.21m OD. The natural bedrock was also encountered on the surface (216.46m OD) and sloped down to the south-west.
- 3.2.2 Archaeological remains were found immediately below a thin layer of vegetation and a layer of hardcore (100) that increased in thickness to the west. These comprised an east/west aligned stone wall (106), which was 1m wide and over 6m long (Plate 1). The wall had utilised the underlying bedrock as a foundation, and is thought to be a part of Lowther I on stylistic grounds. The west end of the wall appeared to have been truncated by later activity, and was also the case for a deposit (113) located at the at the west end of the trench. This deposit produced two adjoining sherds of buff gritty ware, which, by comparison to similar pottery found in Penrith, would date from the twelfth to fourteenth centuries (Newman *et al* 2000 121-22, 123-24), and is a date that would correlate with the construction of Lowther I in the thirteenth century.
- 3.2.3 Deposits (101-103), to the south and north of the wall, were likely to be generic levelling layers. Deposit (103) produced probable eighteenth century glass, which presumably relates to levelling activity associated with the demolition of Lowther II. Later nineteenth or early twentieth century activity was seen in the form of an approximately north/south orientated iron pipe (112), that was located at the southern end of the trench.
- 3.2.4 **Trench B**: Trench B (Figs 2, 3 and 5; Plate 2) was located to the south of the chicken sheds on a roughly north/south alignment. The trench measured 7.1m long by 2.5m wide and was excavated to a maximum depth of 0.59m below the PGL, which was at 216.25m OD. The first significant archaeological deposit lay at a depth of 0.47m below PGL (21.78m OD), and the natural bedrock was found at the same level.

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- 3.2.5 Directly below the concrete road (201) and hardcore (208) surface was the bedrock over which was a thin layer of patchy silty clay containing mortar (202), indicating that structural remains had been removed from this area. Cutting into the bedrock (204) was a north-east/south-west aligned narrow gully (207; Plate 2). Bone from the fill (206) would indicate that this was not a natural feature.
- 3.2.6 **Trench C:** Trench C (Figs 2, 3 and 6; Plate 3) was located between the chicken sheds in a location thought to be occupied by the main stairs into the front entrance of Lowther II. The trench was east/west aligned and measured 15m long by 2m wide and was excavated to a maximum depth of 1.09 m (215.5m OD) below the PGL. The PGL lay between 216.43m OD at the west end of the trench and 216.62m OD to the east. The first significant archaeological deposit was at a depth of 216.21m OD. The uppermost level of the natural bedrock lay at 216.18m OD.
- 3.2.7 Archaeological remains were situated directly below the concrete road surface (301) and a thin layer of subsoil (302). The remains of a substantial east/west aligned stone wall were observed (302; Plate 3). The wall extended from the western end of the trench for some 9m and was over 1m wide. The west end of the wall had been truncated in the past; however, mortar and rubble deposits (305) suggested that it had once extended further. Excavation at the east end of the trench indicated that the wall generally survived to one or two courses and had been placed directly on the limestone bedrock. A gryke within the bedrock may have been utilised as a posthole (311), possibly as a support for scaffolding used during the construction.
- 3.2.8 Toward the centre of the trench a north/south aligned wall (307) was seen to adjoin the main east/west aligned wall on its southern side, probably indicating that the southern side was within the interior of the building. A further wall (310) was located at the western end of the trench, and was aligned east/west and was set against the southern side of wall 306. The position of the trench would suggest that the remains belonged to Lowther II, and is supported by the limited assemblage of post-medieval finds (Section 4).
- 3.2.9 **Trench D**: Trench D (Figs 2, 3 and 7; Plate 4)was located within the kitchen court area on the west side of the extant Lowther III (Smirke's) castle. The trench was north/south aligned, measured 15m long by 2m wide and was excavated down to a depth of 1.64m below PGL (211.22m OD). The PGL lay between at 213.03m OD at the south end of the trench and 212.52m OD to the north. The first significant archaeological deposit lay at a depth of 212.07m OD.
- 3.2.10 The earliest feature was a north/south aligned pitched stone wall found at the north end of the trench (511); lying next to the wall were two similarly aligned cast iron pipes (509, 510). These features had subsequently been sealed below a layer of concrete (506) onto which a wooden block floor surface (503) had been laid (Plate 4). This surface butted another earlier, north/south aligned, stone wall (507). These features had then been sealed below c1m of demolition rubble (502) and a silty clay topsoil/levelling layer (501).
- 3.2.11 *Trench E:* Trench E (Figs 2, 3 and 8; Plate 5)was located within the kitchen court area on the west side of the extant Lowther III (Smirke's) castle. It was aligned north/south, and was 10m by 4m in extent. It was excavated down to a depth of 2.5m (approximately 212.16m OD) below PGL, which was between 214.76m OD at the north end of the trench and 214.66m OD to the south; the land fell away to

the west. The first significant archaeological deposit lay at 1.06m below PGL (approximately 213.63m OD), and because of the depth and instability of the trench all recording was conducted at ground level.

- 3.2.12 Revealed in this trench were the remains of a large barrel vault (403), the top of which had been destroyed and the interior backfilled (402). Enough of it remained to indicate the construction technique and that later brick and stone shelves (404) had been constructed along the sides of the vault (Plate 5); an intact passageway was seen on the west side of the vault. The vault probably related to the Lowther III (Smirke's) castle.
- 3.2.13 Trench F: Trench F (Figs 2, 3 and 9; Plate 6) was situated to the west of the central tower in the Lowther III (Smirke's) Castle. The trench was east/west aligned, measured 9.6m long by 2.5m wide and was excavated down to a depth of 0.81m (215.07m OD) below the present ground level, which was 215.82m OD. The first significant archaeological deposit was 0.2m below PGL (215.71m OD). The features within the trench included a north/south aligned wall (606) and an east/west wall (605) butting it to the west. West of the north/south aligned wall (606) was the roof of a backfilled vault (609, 610; Plate 6), which was confirmed by a void in the side of a north/south aligned service trench (603) that had cut through the vault ceiling. Due to the presence of cellars within the trench the natural geology was not located.
- 3.2.14 **Trench G:** Trench G (Figs 2, 3 and 10; Plate 7)was situated to the east of the central tower in Lowther III (Smirke's) Castle. The trench was aligned north/south, measured 4.6m long by 3.6m wide and was excavated down to a depth of 1.6m (214.33m OD) below the present ground level, which was between 216m OD and 215.93m OD. The first significant archaeological deposit lay 0.16m below PGL (215.84m OD).
- 3.2.15 A narrow below ground chamber was located in the south half of the trench formed by two east/west aligned walls (707, 711). The base of the chamber was excavated down to a depth of 1.6m below PGL. This area was filled with a lower deposit consisting of mortar and plaster (703), which contained fragments of gold painted moulded plaster. The northernmost wall was supported on the south side by three north/south aligned buttresses (708-10; Plate 7). These buttresses were probably positioned to support an archway, the remains of which could be seen on a stub wall projecting from the east wall of the tower. Partially seated upon the wall and the buttresses was the remains of a brick floor (706), which would have occupied the floor space below the arch. North of the wall the floor was composed of stone covered by mortar (705, 707). The below-ground chamber had been backfilled with a demolition layer of rubble (702), a thin band of which sealed the remainder of the trench. Due to the presence of a cellar within the trench natural geology was not located.
- 3.2.16 *Trench H:* Trench H (Figs 2, 3 and 11; Plate 8) was located to the north of the northernmost chicken shed, and was intended to identify remains of the eastern wing of Lowther II. The trench was excavated through concrete and it was aligned broadly east/west, measured 19.7m by 2m in plan and was excavated to a maximum depth of 0.63m below PGL, which was at a height of between 216.13m OD, at the western end of the trench, and 216.31m OD, at the eastern. The first significant archaeological deposit was encountered at a height of 215.74m OD and the natural geology was encountered at a height of 215.77m OD.

the east of the possible wall.

- 3.2.17 The concrete layer (800) sealed a levelling deposit (801), which directly overlay the natural clay geology (802). A possible wall foundation (804; Plate 8), orientated north/south, was located towards the middle of the trench. The wall had cut through the eastern side of a shallow sub-circular pit, which contained clay and mortar fragments (803). A somewhat questionable area of cobbling (805) was located to
- 3.2.18 *Trench I* (Figs 2 and 3; Plate 9): Trench I was located to the west of the northernmost chicken shed, and was intended to target the western wing of Lowther II. The trench was aligned broadly east/west, measured 14.7m by 2m in plan, and was excavated to a maximum depth of 0.85m below PGL, which was at a height of between 215.59m OD, at the western end of the trench, and 215.76m OD, at the eastern. The uppermost level of the natural bedrock lay at 216.18m OD.
- 3.2.19 The trench was excavated through concrete (900) at its eastern end and topsoil (704) at its western end. The concrete overlay two levelling deposits (701, 702), which sealed the bedrock (703; Plate 9). The topsoil (704) overlay a naturally-derived layer of bedrock fragments in a matrix of clay (705), which directly overlay the bedrock. No archaeological features were observed within this trench and thus no detailed plan or section is included within this report.

4. FINDS

4.1 INTRODUCTION

4.1.1 *Quantification*: some 242 artefacts, in total, were recovered during the evaluation of Lowther castle (*Appendix 4*), comprising 21 sherds of pottery, 178 fragments of glass, a vitrified stone, 14 pieces of animal bone and an oyster shell, 12 fragments of decorative plaster and 15 fragments of ceramic tile.

4.2 POTTERY

- 4.2.1 *Quantification:* a total of 21 sherds of pottery were recovered from the evaluation trenches (A, B and I).
- 4.2.2 *Evaluation:* the pottery assemblage extends across a date range from the twelfth to nineteenth centuries. The post-medieval group dates largely from the seventeenth to the nineteenth centuries, with a few fragments of brown glazed stoneware that date more closely from the end of the seventeenth century to the end of the eighteenth century. There are a few very small fragments of hard paste porcelain (possibly Chinese) but these are difficult to date accurately.
- 4.2.3 Two small partially reduced gritty fragments (cf Newman *et al* 2000 121-22, 123-24), which were found in sand/mortar deposit *113* (Trench A), date from the twelfth to the fourteenth centuries, the construction episode of Lowther I. A green glazed fragment, with a brown inner slip from a levelling deposit of rubble, *103*, was probably residual and could potentially date from the fifteenth century, but is more likely to be of sixteenth or even eighteenth century date.

4.3 GLASS

4.3.1 *Evaluation:* the fragments of glass comprises mainly window glass (142), the rest being bottle glass (34), a piece of a melted unidentified glass object and a fragment from a possible vessel. The majority of the fragments of window glass were recovered from rubble layer *103* within trench A, and seem to be of seventeenth to eighteenth century date. The bottle glass recovered from the trenches is similarly of seventeenth to eighteenth century date.

4.4 Stone

4.4.1 *Evaluation:* a single stone fragment was recovered from 202, a deposit of clay flecked with mortar, in Trench B. It had either vitrified in extreme heat or was covered with vitreous material. The stone was not worked and not, therefore, dateable.

4.5 ANIMAL BONE

4.5.1 *Evaluation:* some 14 fragments of bone were recovered from six stratified deposits in trenches A, B and H. These were mainly layers of silt or rubble, but included the fill (*206*) of ditch *207* in Trench B and a cobbled surface (*805*) in Trench H. The

material was of domestic animals, and seems, from associated finds, to date to the post-medieval period. An oyster shell was also retrieved from deposit *902* in Trench I.

4.6 **DECORATIVE PLASTER**

4.6.1 *Evaluation:* twelve fragments of decorative plaster were recovered from a demolition deposit **703**, Trench G. They are decorated with gold leaf detail. They were retrieved from the nineteenth century deposits within the area of the castle, and are most likely to belong to Lowther III.

4.7 CERAMIC TILE

4.7.1 *Evaluation:* some 15 fragments of ceramic tile were recovered from three stratified deposits (*103*, *202* and *206*) in trenches A and B. Most of the material was not readily dateable, although three diagnostic fragments seemed to be of eighteenth or nineteenth century date.

5. DISCUSSION

5.1 EVALUATION TRENCHES

- 5.1.1 Eight of the nine trenches revealed below ground archaeological features. Trenches A, B, C and H were positioned south of the present castle and were targeted on areas thought to contain the remains of Lowther I and/or II and, in each case, revealed remains of structures and deposits. Trenches A and C both contained walls, which, in the case of Trench A, were associated with twelfth to thirteenth century pottery and, therefore, might relate to Lowther I. The walls within Trench C were almost certainly those from Lowther II. The remains of a possible wall foundation were revealed in Trench H, in broadly the position of the eastern wing of Lowther II, as extrapolated from Richardson's survey of 1754. A deposit containing mortar and a channel cut into the bedrock were the only features within Trench B, suggesting that any features relating to the castles that may have once existed, had been truncated by later activity. No archaeological features were revealed in Trench I and it is possible that the levelling carried out for the present concrete surface truncated any early remains.
- 5.1.2 Lowther I (Fig 12): the presence of a wall (106) footing partly utilising the bedrock as a foundation and the presence of pottery dating to the twelfth to thirteenth century would suggest medieval activity, although caution should be employed when suggesting that the wall related to the earliest or medieval phase of activity. It is known from various sources (CROD/Lons/L3/1/2, quoted in Landscape Agency 2002 12) that the eastern tower was of medieval origin, while the western tower was probably built sometime in the sixteenth century (Perriam and Robinson 1998, 290) and thus post-dates Lowther I. However, it is by no means certain that the wall found within Trench A, roughly in the position of the western tower, related to Lowther I, although its orientation was clearly at odds with the alignment of Lowther II, as shown on Richardson's 1754 survey (Fig 3).
- 5.1.3 A clue to the origin of this wall, which may indeed date back to the medieval period, can be found in the document: 'the First Baronet's Memorable Observations and Remembrances' (CROD/Lons/L3/1/2, quoted in Landscape Agency 2002, 12). Here, the First Baronet, notes that the central range between the two towers was 'annciently manie sevearal low owlde roomes, viz a Halle, a greate Chamber, and several other rooms'. Although these rooms were said to be between the two towers, while Trench A was likely to have been positioned directly below the west tower, it is not inconceivable that this earlier suite of rooms extended further to the west.
- 5.1.4 *Lowther II (Fig 2):* Trenches B, C, H and I targeted areas that were thought to contain the remains of Lowther II. Trenches B and I had clearly been subject to levelling, associated either with the concrete slabs around the chicken sheds or an earlier episode recorded in the land agent's letters to Lord Lonsdale, which noted that the area of the south front had been levelled during the construction of Lowther III (Landscape Agency 2002, 15).
- 5.1.5 In Trenches C and H, however, the remains of Lowther II were undoubtedly identified. In the case of Trench C, this revealed a substantial stone wall (*306*), aligned east / west, that would appear to correlate with the north front of Lowther II

(Fig 3). This trench demonstrates that despite disturbance from recent chicken shed construction, parts of Lowther II exist intact less than 0.25m below the present ground surface. It should also be noted that the central range of Lowther II was placed directly over the final phase of Lowther I, as shown in Perriam and Robinson (1998, 291). If this plan can be relied upon, then the wall foundation could also potentially relate to the Lowther I castle.

- 5.1.6 Trench H revealed a possible north/south wall foundation (803). When the position plan was overlaid onto Richardson's 1754 (D/Lons of Trench Η L5/3/2/Low27/1754), this wall would appear to be a good candidate not only for the west wall of the side wings of Lowther II, but could potentially also correlate with the semi-circular stair turret, projecting from the west front of the east wing (Richardson 1754 D/Lons L5/3/2/Low27/1754; Kip and Knyff 1708). That the remains of this wall were limited to the foundation, was probably the result of early nineteenth century levelling for the formal garden (Section 5.1.4; Fig 3).
- 5.1.7 Lowther III: Trenches D to G revealed a variety of features, which, for the most part, related to Lowther III. Trench D revealed a heavy duty wooden block floor (503), which was once part of the goods delivery area for the kitchens. Below and to the east of this feature were earlier walls (507 and 511), albeit also part of Lowther III. Revealed within Trench E was a north/south aligned barrel-vaulted structure (403), the top of which had been destroyed to allow it to be backfilled when the interior of the castle was demolished; an intact side chamber could been seen to the west. However, as the trench was sited over the western flanking building of Lowther II (Fig 3), it was not clear whether the vault related to the Lowther III castle or Lowther II. Trenches F and G both revealed intact cellar structures to the east and west of the central Lowther III tower respectively.

6. IMPACT

6.1 IMPACT

- 6.1.1 It is obvious from the results of the evaluation trenches that any development within the evaluated parts of the site, that entails disturbance of below ground deposits, has the potential to have an impact on preserved archaeological remains. The evaluation trenches have demonstrated that preservation is generally good across the site, with the exception of Trenches B and I. The five evaluation trenches (A-C, H and I) which targeted areas thought to contain the remains of either Lowther I and/or Lowther II have demonstrated that walls belonging to Lowther I and/or II were preserved close to the surface (Trench C) or, in the case of Trench A, on the surface below a thin mat of vegetation. Trenches E-G demonstrated the presence of vaults or subterranean chambers within the interior of Lowther III, of which that found in Trench E may potentially relate to Lowther II.
- 6.1.2 As the specifics of the design are currently quite fluid, it is not at this time possible to state categorically the impact of any development upon the archaeological resource. However, it is possible to define the location and depths of significant archaeological deposits, which can inform the design of the proposed new build and landscaping across the area. To this end any remains relating to Lowther I-III are defined as significant.
- 6.1.3 **Trench** A (Figs 2, 3 and 4; Plate 1): this trench was excavated to a maximum depth of 0.62m, but the stratigraphy was observed to continue to greater depths. The deposits and their archaeological significance are summarised in Table 1, which gives the depth below the Present Ground Level (PGL; between 216.94m OD at the south-western end of the trench and 216.49m OD at the north-eastern end). Over most of the trench, the impact of any development would be considerable, given the shallow nature of the remains.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.10	Full extent	Thin mat of vegetation	No
0.10-0.33	Full exten	Modern levelling deposits	No
0.35-60	South-wes	Post-medieval deposits	Yes
0-0.62	Full exten	?Medieval structural remains and deposits	Yes

6.1.4 **Trench B** (Figs 2, 3and 5; Plates 2): this trench was excavated to a maximum depth of 0.59m below PGL, contacting bedrock at 0.47m below PGL. The deposits and their archaeological significance are summarised in Table 2, which gives the depth below PGL at 216.25m OD. The trench targeted the southern wall of Lowther II, and although there was evidence of building/demolition activity, subsequent truncation had removed any structural features. Any development on the site of the trench would not directly affect extant remains, but, given the proximity to the

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.27	Full extent	Modern deposits of concrete and hardcore	No
0.27-0.47	Full extent	Post-medieval deposits containing mortar	Yes
0-0.59	South-wes	Rock cut feature	Yes

remains found in Trench C, any below ground works to the north of the trench would have the potential to impact preserved archaeological remains.

6.1.5 **Trench C** (Figs 2, 3 and 6; Plate 3): this trench was excavated to a maximum depth of 1.09m below PGL, with bedrock being encountered 0.25m below PGL. The deposits and their archaeological significance are summarised in Table 3, which gives the depth below PGL (between 216.43m OD at the western end 216.62m OD at the eastern end). The trench was targeted on the north wall of Lowther II, and the foundation of a substantial east/west aligned wall within 0.16m of the PGL, probably corresponds to the north wall of the central range of Lowther II (Richardson 1754 D/Lons L5/3/2/Low27/1754). Any development within this area of the site that involves the disturbance of below ground deposits has the potential to have an impact on the preserved archaeological remains.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.40	Full extent	Concrete	No
0-0.18	Full extent	Post-medieval subsoil deposit	No
0.16-0.86	East and centre	Post-medieval structural remains and deposits	yes

Table 3: Archaeological significance within Trench C

6.1.6 **Trench D** (Figs 2, 3 and 7; Plate 4): this trench was excavated to a maximum depth of 1.64m below PGL. The deposits and their archaeological significance are summarised in Table 4, which gives the depth below PGL (between 214.76m OD at the northern end 213.03m OD at the southern end). All the deposits and features within this trench were likely to belong to Lowther III. The wooden block flooring overlying the wall at the southern end of the trench illustrates that some remodelling took place within this area of the castle. Although this flooring was likely to date from the late nineteenth century/early twentieth, it does reflect a potentially significant later adaptive phase of the castle and would be impacted by any intrusive development.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.3	Full exten	Topsoil	No
0.3-0.9	Full exten	Demolition rubble	No

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0.9-1.15	Full exten	Wooden block floor and concrete foundation deposit	yes
0-1.1	South	Wall	yes
1.13-1.35	North	Wall and levelling deposits	yes

6.1.7 *Trench E:* (Figs 2, 3 and 8; Plate 5): this trench was excavated to a maximum depth of 2.5m below PGL. The deposits and their archaeological significance are summarised in Table 5, which gives the depth below PGL (between 214.76m OD at the northern end 214.39m OD at the southern end). The vault found with Trench E, was partially intact; although the central portion of the roof had been demolished to allow it to be backfilled; side chambers off to the west were still largely intact. The dating of this vault remains vague as the trench was placed within the vicinity of part of Lowther II and could, therefore, date to the eighteenth century. Any development within this area would impact upon this structure.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.3	Full extent	Topsoil	No
0.3-0.75	Full exten	Demolition rubble	No
0.75-2.5	Full exten	Back filled vault	yes

Table 5: Archaeological significance within Trench E

6.1.8 **Trench F:** (Figs 2, 3 and 9; Plate 6): this trench was excavated to a maximum depth of 2.5m below PGL. The deposits and their archaeological significance are summarised in Table 6, which gives the depth below PGL (between 215.81m OD at the west end 216.30m OD at the east end). The trench was located to the west of the central tower and demonstrated that there were intact walls and a backfilled vault within this part of the castle. Any development within this area would impact upon these structures.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.15	Full extent	Topsoil	No
0.15-0.75	Full extent	Demolition rubble	No
0.2-0.7	Centre and east	Lowther III walls	yes
0.6+	Centre and west	Back filled vault	yes

Table 6: Archaeological significance within Trench F

6.1.9 *Trench G:* (Figs 2, 3 and 10; Plate 7): this trench was excavated to a maximum depth of 1.6m below PGL. The deposits and their archaeological significance are summarised in Table 7, which gives the depth below PGL (between 215.96m OD at

the west end 216m OD at the east end). The trench was placed to the east of the central tower and demonstrated that there were intact walls, floors and a backfilled below floor recess within this part of the castle. Any development within this area would impact upon these structures.

Depth below PGL (m)	0		Archaeologically Significant
0-0.25	Full extent	Topsoil	No
0.25-1.6	Full extent	Demolition rubble	No
0.35-1.6	Centre north south	Stone and brick floor, walls and below floor recess	yes

Table 7: Archaeological significance within Trench G

6.1.10 **Trench H:** (Figs 2, 3 and 11; Plate 8): this trench was excavated to a maximum depth of 0.63m below PGL. The deposits and their archaeological significance are summarised in Table 8, which gives the depth below PGL (between 216.13m OD, at the western end 216.31m OD at the east end). The trench was located over the eastern flanking building of Lowther II and possibly picked up a truncated foundation for the central projecting semicircular turret. Thus providing evidence that remains of Lowther II survive in the area to the north of the chicken sheds, in an area that was levelled and landscaped in the mid eighteenth century. Any development within this area would impact upon this structure.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.25	Full extent	Concrete	No
0.20-0.25	Full exten	Levelling deposit	No
0.35-0.63	Centre	Wall foundation	yes

Table 8: Archaeological significance within Trench H

6.1.11 *Trench I:* (Figs 2, 3 Plate 9): this trench was excavated to a maximum depth of 0.85m below PGL. The deposits and their archaeological significance are summarised in Table 9, which gives the depth below PGL (between 215.59m OD OD, at the western end 215.76m OD at the east end). The trench was located over the position of the western flanking building of Lowther II and did not contain any significant archaeological deposits; therefore any future development in this area will not impact on any extant remains in this immediate locale.

Depth below PGL (m)	Coverage	Character	Archaeologically Significant
0-0.3	Centre and east	Concrete	No
0.30-0.85	Centre and east	Levelling deposits	No
0-0.85	Centre and west	Topsoil and subsoil	No
0.35-0.63	Full extent	bedrock	No

Table : Archaeological significance within Trench I

7.1 **PRIMARY SOURCES**

British Geological Survey 1982 1:50,000 Solid Geological Map

D/Lons L5/3/2/Low27/1754: Francis Richardson's 'General Plan of the Park and Garden'

Knyff and Kip, *c*1700 view of Lowther Hall and park, *Lowther in the county of Westmorland*, *[Pl] XL111*(Kendal Library Ref 036833)

7.2 SECONDARY SOURCES

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Landscape Agency, 2002 The castle and gardens of Lowther, Cumbria: Conservation Plan, unpubl rep

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Newman, RM, Hair, NJ, Howard Davis, CLE, Brooks, C and White, AL, 2000 Excavations at Penrith Market, 1990, *Cumberland Westmorland Antiq Archaeol Soc*, n ser, **100**, 105-30

OA North 2007a Lowther Castle Evaluation: Interim Report, unpubl rep

OA North, 2007b Lowther Castle Gardens: Archaeological Survey Report, unpubl rep

Perriam, DR and Robinson, J, 1998 The Medieval Fortified Buildings of Cumbria, Kendal

United Kingdom Institute for Conservation (UKIC), 1990 Guidelines for the preparation of archives for long-term storage, London

Context No	Trench	Description
100	А	Turf/hardcore
101	А	Eighteenth century rubble levelling
102	А	Eighteenth century rubble levelling
103	А	Eighteenth century rubble levelling
104	А	Eighteenth century rubble levelling
105	А	Group No for contexts 101-104
106	А	Structure number for wall
107	А	Natural bedrock
108	А	Brownish orange gravelly sand
109	А	Dark orange-brown clay sand
110	А	Fill of natural gully
111	А	Orange yellow gravelly sand deposit
112	А	Modern pipe/pipe cut
113	А	Yellowish grey mortary sand deposit
114	А	Layer of rubbley subsoil around context 108
200	В	Unstratified
201	В	Concrete surface
202	В	Clay mottled with mortar
203	В	Concrete
204	В	Bedrock
205	В	Concrete/pipe in north end of trench
206	В	Fill of [207]
207	В	Rock cut linear
208	В	Hardcore/rubble layer below concrete
300	С	Unstratified
301	С	Concrete

APPENDIX 3: CONTEXT CATALOGUE

302	С	Subsoil
303	С	Brownish-red silty clay and rubble
304	С	Brownish-red silty clay and rubble
305	С	Mortar rich layer
306	С	East-west aligned wall
307	С	North-south wall butting 306
308	С	Rubble mortar layer
309	С	Bedrock
310	С	Possible wall remains
311	С	Fissure deposit
400	Е	Unstratified
401	Е	Topsoil
402	Е	Rubble
403	Е	Vault (barrel vault)
404	Е	Stone and brick shelving
500	D	Unstratified
501	D	Topsoil
502	D	Stone rubble
503	D	Wood block floor
504	D	Stone slab
505	D	Square/rectangular slab with iron fixing
506	D	Concrete base for 503
507	D	Stone wall
508	D	Stone gravelly layer out Fe pipe trench 509
509	D	Fe pipe
510	D	Fe pipe
511	D	Wall foundation/rubble
512	D	Mortar layer
600	F	Unstratified

601	F	Topsoil
602	F	Rubble layer
603	F	Service trench containing Fe pipe
606	F	Twin Fe pipe
607	F	Wall east-west aligned
608	F	Crushed stone surface
609	F	Vault roof (east)
610	F	Vault roof (west)
700	G	Unstratified
701	G	Topsoil
702	G	Rubble
703	G	Mortar/plaster demolition deposit
704	G	Red clay silt/stone rubble deposit
705	G	Mortar/stone surface
706	G	Brick floor
707	G	East-west aligned stone wall
708	G	Buttress
709	G	Buttress
710	G	Buttress
711	G	East-west aligned stone wall
800	Н	Concrete surface
801	Н	Sandy base for concrete surface
802	Н	Natural
803	Н	Deposit - possible rubble remains of wall 804
804	Н	Wall foundation
805	Н	Cobble surface
806	Н	Cut of wall foundation
900	Ι	Concrete
901	Ι	Crushed brick

902	Ι	Light brown clay with limestone fragments	
903	Ι	Undulating limestone pavement (bedrock)	
904	Ι	Topsoil	
905	Ι	Brown sandy clay	

Trench	Context	OR num	Material	Category	No frags	Description	Date
А	103	1000	Ceramic	Vessel	3	Blackware (buff/gritty fabric)	Seventeenth to nineteenth century
А	103	1000	Ceramic	Vessel	2	Blackware of Jackfield type (red fabric/fine glaze)	Eighteenth to nineteenth century
А	103	1000	Ceramic	Vessel	3	Brown glazed stoneware (English)	Late seventeenth to eighteenth century
А	103	1000	Ceramic	Vessel	1	Creamware	Eighteenth to nineteenth century
А	103	1000	Ceramic	Vessel	3	Tin glazed earthenware	Eighteenth century
А	103	1000	Ceramic	Vessel	2	Hard paste porcelain (Chinese/Chinese copy)	Seventeenth to eighteenth century
А	103	1000	Ceramic	Vessel	1	Fully reduced fabric with green outer glaze/brown inner slip	Fifteenth to sixteenth century
А	103	1001	Ceramic	Building Materials	12	Fragments	Post-medieval
А	103	1002	Bone	Animal	1	Sheep/goat tibia	Post-medieval
А	103	1002	Bone	Animal	1	Sheep/goat radius	Post-medieval
А	103	1003	Glass	Window	141	Glass fragments	Seventeenth to eighteenth century
А	103	1004	Glass	?	1	Unidentifiable glass object fragment	Eighteenth century
А	103	1004	Glass	Vessel	5	Bottle fragments	Seventeenth to eighteenth century
А	103	1004	Glass	Vessel	1	Possible cup?	Seventeenth to eighteenth century
А	103	1005	Glass	Vessel	13	Large bottle shards (hand made)	Seventeenth to eighteenth century
В	206	1006	Glass	Vessel	1	Large bottle shard (hand made)	Seventeenth to eighteenth century
А	114	1007	Glass	Window	1	Glass fragments	Eighteenth to nineteenth century

APPENDIX 4: FINDS CATALOGUE

А	114	1008	Ceramic	Vessel	1	Blackware (buff/pink fabric)	Eighteenth to nineteenth
							century
А	114	1009	Bone	Animal	2	Large mammal pelvis	Post-medieval
В	202	1010	Bone	Animal	1	Sheep/goat maxillary molar	Post-medieval
В	202	1011	Glass	Vessel	3	Bottle glass	Seventeenth to eighteenth century
В	202	1012	Stone		1	Stone subjected to industrial activity which gives it a glazed appearance	Post-medieval
В	202	1013	Ceramic	Building Materials	1	Tile	Probably eighteenth to nineteenth century
В	206	1014	Bone	Animal	1	Sheep/Goat radius	Post-medieval
В	206	1014	Bone	Animal	1	Sheep/Goat scapula	Post-medieval
В	206	1014	Bone	Animal	1	Cow radius	Post-medieval
В	206	1015	Ceramic	Building Materials	2	Tile	Probably eighteenth to nineteenth century
В	206	1016	Glass	Vessel	3	Bottle glass	Seventeenth to eighteenth century
С	302	1017	Glass	Vessel	7	Bottle glass	Eighteenth century
A	113	1018	Ceramic	Vessel	2	Partially reduced gritty fabric similar to that found in Penrith	Twelfth to fourteenth century
А	113	1019	Bone	Animal	1	Large mammal rib (filleted)	Post-medieval
G	703	1020	Plaster	Decorative	12	Decorative ceiling plaster painted with gold leaf	Nineteenth century
Н	805	1021	Bone	Animal	2	Large mammal rib	Post-medieval
Н	805	1021	Bone	Animal	1	Sheep/goat scapula	Post-medieval
Н	805	1021	Bone	Animal	1	Unidentified medium mammal	Post-medieval
Н	805	1021	Bone	Animal	1	Cow/red deer femur	Post-medieval
I	902	1022	Glass	Vessel	2	Bottle glass	Seventeenth to eighteenth century
I	902	1023	Shell	Oyster	1	Ostrea edulis	Post-medieval
Ι	902	1024	Ceramic	Vessel	2	Brown glazed red earthenware	Eighteenth to nineteenth century

Ι	902	1024	Ceramic	Vessel	1	Blackware	Eighteenth nineteenth century	to
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Figure 1: Site location





Figure 3: Trench locations shown over Richardson's survey of 1754



Figure 4: Trench A - plan

X:\Fraser*L9866 Lowther evaluation*AMS*07.08.06













Figure 7: Trench D, plan



Limit of excavation Archaeological feature

1 m 1:50 @ A4

 $\Box \Box$ Uncertain edge Stone Brick

0

X:\Fraser*L9866 Lowther evaluation*AMS*09.08.06



Figure 8: Trench E, plan and section

Figure 9: Trench F - plan





Figure 10: Trench G, plan and section

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Figure 12: Plan showing suggested position of Lowther I & II, Lowther I in bold (after OS Talman etc, Perriam and Robinson 1998)

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Plate 1: Trench A, showing east/west aligned wall



Plate 2: Trench B, the rock cut gully can be seen extending from the middle of the far section down to the left



Plate 3: Trench C, viewed from the east.



Plate 4: Trench D, showing wood block floor and north/south aligned wall on right side of trench.



Plate 5: Trench E, viewed toward the east. The remains of the vault can be seen with the shelving immediately below.



Plate 6: Trench F, viewed toward the west. The vault ceiling can be seen in the rear two thirds of the trench.



Plate 7: Trench G, viewed toward the north-west showing the buttressed wall and brick surface.



Plate 8: South-facing view of possible wall foundation in Trench H, represented by the concentration of stones.



Plate 9: West-facing view of bedrock in Trench I.



Plate 10: Detail of copper plate engraving of Lowther Castle, by Johannes Kip after Leonard Knyff, published in *Britannica*, 1707.