



# Lowther Castle Chicken Sheds, Cumbria

## Archaeological Watching Brief



**Oxford Archaeology North**

November 2008

### **Lowther Estates**

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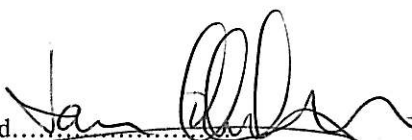
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## SUMMARY

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OA North was commissioned by the Lowther Estates to undertake an archaeological watching brief during a programme of demolition of a series of chicken sheds which overlay the remains of relict castles at Lowther Castle (centred on NGR NY 5220 2383). The survival of these remains had previously been determined by a programme of archaeological evaluation which had identified structures believed to be parts of a medieval castle (Lowther 1) and also a seventeenth century castle (Lowther 2).

The watching brief took place during August and September 2008, which identified and recorded structural remains of the former castles. The watching brief has ensured that the demolition works were carried out without damaging or destroying any underlying archaeological features or deposits, and it has established the southern limit of archaeological potential in the area. The demolition of the chicken sheds in the vicinity of the Lowther Castle has had no negative impact on the archaeological resource but the identified remains are located close to or at the present ground surface and, as such, the area remains sensitive to any further ground works.

## ACKNOWLEDGEMENTS

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Oxford Archaeology North (OA North) would like to thank Tim Evans for commissioning the work on behalf of Sheppard Robson Architects and David Taylor of Lowther Estates for assisting during the project. OA North would also like to thank Eleanor Kingston, Lake District National Park Assistant Archaeologist, who monitored the project.

The watching brief was undertaken by Caroline Bulcock. The report was written by Caroline Bulcock and the drawings were produced by Anne Stewardson. The project was managed by Jamie Quartermaine, who also edited the report.

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## 1. INTRODUCTION

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### 1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 The Lowther Estates were seeking to demolish a number of defunct chicken sheds that stand within the grounds of Lowther Castle (centred on NGR NY 5220,2383), near Penrith, Cumbria (Figs 1 and 2). The chicken sheds are on top of the documented Lowther I and II castles which date from the Medieval period to the seventeenth century (Fig 3). An earlier evaluation was undertaken between the chicken sheds (OA North 2007a) and confirmed that there were extant foundations of the earlier castles, in some instances very close to the surface. It was recognised, therefore, that archaeological remains potentially survived immediately below the concrete floors of the chicken sheds and the concrete access roads between the sheds. Guidance was sought from the Archaeologist for the Lake District National Park Authority as to the most appropriate manner to carry out the demolition without endangering any potential archaeological remains. It was advised that an archaeological watching brief should be carried out during the removal of the floors, which would include the monitoring of impact levels, ongoing advice on the most appropriate removal methodology, and the recording of any archaeological remains revealed below the floors.
- 1.1.2 Lowther Estates asked Oxford Archaeology North (OA North) to propose a methodology and project design (*Appendix 1*) for the removal of the concrete floors of the sheds that minimised the disturbance of any surviving archaeological remains and enabled them to be recorded appropriately. The intention was that if the ground beneath the concrete was subject to only minimal disturbance then no archaeological remains would be exposed, let alone need to be recorded. In the event this approach was largely successful, but in a limited number of localities the remains were so close to the surface that they were inevitably exposed and were recorded. To this end the present report sets out the results of the archaeological watching brief undertaken during the demolition works, which were carried out during August and September 2008.

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## 2. METHODOLOGY

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### 2.1 PROJECT DESIGN

- 2.1.1 Following advice from the Archaeologist for the Lake District National Park Authority a project design for an archaeological watching brief was submitted (*Appendix 1*) and subsequently approved by her. The project design outlined an appropriate method for the removal of the concrete surfaces by mechanical excavator but allowed for the continual monitoring of circumstances on site to influence the methodology employed. In either case the priority was to minimise the detrimental impact on any underlying archaeological features or deposits and avoid the unnecessary delaying of works.
- 2.1.2 The project design and all relevant health and safety regulations were adhered to in full and the work carried out was consistent with the standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

### 2.2 MONITORED CONCRETE REMOVAL

- 2.2.1 The project design required that the removal of the concrete on site be carried out systematically, efficiently and with minimal damage to the underlying ground and any potential archaeological structures, features and/or deposits underneath. Importantly, if at all possible the slabs of concrete was to be lifted out intact so as to minimise any underlying disturbance to the archaeological deposits. The southern part of the chicken shed area (Chicken Sheds 5-8) had, during their construction, been substantially terraced into the slope and it was recognised that there would not be any survival of archaeological remains in this area. Consequently, there was no need to maintain a watching brief during the concrete removal in this area. At the northern end of the area (Chicken Sheds 1 and 2) there was survival of archaeological remains below ground as evidenced by the evaluation, and the cut off between those areas that required monitoring and those that did not was determined in the field in the light of the clearance works.
- 2.2.2 Work began at the northern end of site, closest to the existing remains of Smirke's Castle, where previous intrusive archaeological works and documentary evidence suggested archaeological remains were most likely (Fig 2). Some areas of concrete were much thicker than anticipated and required fragmenting with a mechanical breaker before these could be lifted and removed; others could be lifted easily using a mechanical toothed bucket. Under both circumstances, the plant was continuously monitored and supervised to ensure there was no unnecessary impact on the underlying deposits. Work generally progressed north to south removing first the chicken shed bases and later the access roads between them, with the lifted concrete immediately being loaded onto dumper trucks and taken off site.
- 2.2.3 As each section of concrete was lifted and removed it was possible to examine the exposed underlying material to assess whether or not significant archaeological deposits features or artefacts had been revealed. All progress and findings were recorded on OA North's *pro-forma* sheets, using a system adapted from that used by the Centre for Archaeology Service of English Heritage. Monochrome, colour slide and digital photographic records were maintained.

2.2.4 The removal of concrete under constant archaeological supervision continued in this way until natural soils were observed beneath the concrete across site and the potential for archaeologically significant features was considered negligible.

### **2.3 ARCHIVE**

2.3.1 A full professional archive has been compiled in accordance with the project design (*Appendix 1*) and conforming to current IFA and English Heritage guidelines (English Heritage 1991). The paper and digital archive will be deposited with the County Record Office on completion of the project.



### 3. BACKGROUND

#### 3.1 TOPOGRAPHY AND GEOLOGY

- 3.1.1 The site of the proposed development (NGR NY 5220 2383; Fig 1) lies within the site of the ruined castle at Lowther, which 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, 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 (*op cit*, 58).
- 3.1.2 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.

#### 3.2 HISTORY AND ARCHAEOLOGY

- 3.2.1 The ruined castle at Lowther is a listed building, grade II\* and lies in a registered park and garden (Grade II). A comprehensive historical study of Lowther Castle and gardens has previously been undertaken by The Landscape Agency (2002). OA North have also recently undertaken survey work and cartographic analysis (OA North 2007b) resulting in the detailed phasing of the park gardens.
- 3.2.2 ***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 that have affected the development of the Lowther castles (Lowther I-III) are pertinent to the present archaeological study, and, therefore, a timeline of the key events for the development of the castle gardens is reproduced below.

Date	Event	Comment
1174	Reference to 'castellum de lauudre'	The earliest medieval fortified structure at Lowther was Castlesteads, which survives as a substantial earthwork to the north-west of Smirke's Castle (Lowther III). 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 documented North Country plan of a narrow central range flanked by a pair of square towers (cf Levens,

Date	Event	Comment
		Sizergh, Hutton-in-the-Forest, Blencow) is indicative of a later medieval date (Landscape Agency 2002)
1570s	<b>The remodelling and extension of Lowther I</b>	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.
1640-42	House extended	Sir John Lowther, the 1st Baronet, recorded that in 1640, he erected the 'Gatehouse and Cloistered Walke' and the stables. In 1642 'I butified 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 1st 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	<b>Lowther II was constructed.</b>	
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 the proposed 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)
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	Destruction by fire of Lowther II.	Lowther II was gutted by fire.
1754	Francis Richardson was commissioned to produce a 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.

Date	Event	Comment
1803-1805	George Dance designs the new Lowther III building, and the scheme was passed onto Robert Smirke to execute.	The original design was by George Dance the younger for a large castellated principal 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 of Lowther II and incorporated the kitchen and stable range of the former building.
1806-1814	<b>Lowther III was constructed.</b>	
1806	Work on new castle commences.	The site was levelled, foundations laid and stables were constructed on the site of old ones at the east end of the house. A ceremonial foundation stone was laid on 31st December.
1807-1809	West wing erected.	The west part of the house, including Lord Lonsdale's own rooms and dining room, were constructed. The family rooms were habitable by 1809.
1810-1814	Work on main block commences and is completed in 1814	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.
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.
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.
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 contents were auctioned.	
1956	House sold for demolition.	The interior was dismantled and the shell retained as a landmark within the park.

3.2.3 **Previous Investigations:** an archaeological evaluation undertaken in the immediate vicinity of the northernmost chicken sheds revealed structural remains surviving immediately below the topsoil, which probably related to the first (late medieval) or second (seventeenth century) phases of Lowther Castle (OA North 2007a; Fig 2). Trenches A, B, C, H and I 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. Trench A contained walls which were associated with twelfth to thirteenth century pottery and, therefore, might relate to Lowther I. The wall within Trench C was almost certainly from Lowther II; it was aligned east / west, and would appear to correlate with the north front of Lowther II (Fig ). This trench demonstrated 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.

- 3.2.4 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 (Fig 3). 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 concrete surface in the vicinity of this trench had truncated any early remains. The full results of these investigations and a summary of the key events of the development of the Lowther Estates is reproduced in the evaluation report (OA North 2007a).

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## 4. WATCHING BRIEF RESULTS

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### 4.1 INTRODUCTION

4.1.1 All concrete breaking and removal, and any other associated ground disturbances, were monitored as part of the watching brief as far south as, and including, chicken shed 4 (Fig 2). At this point undisturbed natural soils were observed almost directly beneath the concrete across the entire site and the potential for further archaeologically-significant features or deposits south of here was therefore considered negligible. A verbal communication with the Archaeologist for the Lake District National Park Authority confirmed the archaeological watching brief should be terminated at this point. The results are presented by area as illustrated in Figure 2, although this is not necessarily the order in which the concrete was removed.

### 4.2 RESULTS

- 4.2.1 **Chicken shed 1:** the concrete base of the most northerly chicken shed comprised two separate layers totalling 0.3m in thickness and their removal required first fragmenting with a mechanical breaker and then excavation with a toothed machine bucket. The observed underlying material was largely composed of mixed building rubble including fragmented bricks, stone, ceramic pipe and dark clay soils. At the western end of chicken shed 1, the concrete was seen to have been laid directly onto the outcropping limestone bedrock (Plate 1), a circumstance similar to that seen in Trench I of the evaluation (OA North 2007a; Plate 9). No archaeological deposits, features, structures or artefacts were observed.
- 4.2.2 **Chicken shed 2:** the base of chicken shed 2 also comprised two separate layers of concrete totalling 0.3m in thickness and their removal was again facilitated by a mechanical breaker. The removal of the fragmented concrete revealed similar rubble deposits to those underneath chicken shed 1 at the far eastern end of the area, with cleaner natural clays at the western end. In the centre of the area of chicken shed 2, extending for approximately 20m east to west and beyond its limits north and south, was a concentration of fragmented red sandstone (Plate 2). This stone spread comprised sub-angular and angular pieces with faces measuring up to 0.45m long, some of which appeared to have been dressed. Although concentrated in one area none of this stone was *in situ* and it would appear to be demolition debris, although it was not evident which building had been demolished to produce it. No further archaeological deposits, features, structures or artefacts were observed in this area.
- 4.2.3 **Chicken shed 3:** the concrete foundation of chicken shed 3 was considerably less substantial than that of chicken sheds 1 and 2 and was in a single layer approximately 0.1m thick. This made its removal faster and it was lifted in large pieces affording a clear view of the underlying deposits. These were observed to be similar to those seen underneath chicken shed 1 and the western end of chicken shed 2, but with a higher proportion of natural clay mixed in with the brick, concrete and stone fragments. No archaeological deposits, features, structures or artefacts were observed.

- 4.2.4 **Chicken shed 4:** the most southerly chicken shed included in the archaeological watching brief was seen to have been constructed on a thin concrete base similar to that of chicken shed 3. As the concrete was lifted what appeared to be entirely natural and undisturbed soils were revealed. This pinkish-brown clay extended continuously underneath the entire concrete base and no archaeological deposits, features, structures or artefacts were observed.
- 4.2.5 **Cabin Area:** the concrete area to the east of chicken sheds 1 and 2 was broken up with a mechanical breaker and was removed in the same way as for chicken sheds 1 and 2. Along the western side of this area a rubble material, mixed with clay, was observed beneath the concrete. On the eastern side, where the natural slope of the ground was cut into to make the level concrete area, only natural clay was observed and there were no indications that this had ever been disturbed since the laying of the concrete. No archaeological deposits, features, structures or artefacts were observed.
- 4.2.6 **Concrete roads:** in addition to the chicken shed bases a number of concrete road surfaces that connected and ran between the sheds were removed. These were left intact until last in order that they could be used by the dumper trucks, thereby protecting the underlying ground from potential damage by these vehicles. Most of the roads were constructed of concrete 0.2-0.3m thick and required breaking up before removal. In the far north-western corner natural limestone bedrock consistent with that seen beneath chicken shed 1 was revealed directly below the concrete. In all other areas a mixture of rubble, as previously described, and natural clay was observed.
- 4.2.7 Underneath the concrete road, between chicken sheds 1 and 2, a stone wall was revealed which was close to Trench C (Fig 4), from the earlier evaluation (OA North 2007a), which revealed structural elements. The implication is that the wall found during the watching brief is a part of the same structure identified by Trench C. Approximately 5m east of this, but on a slightly different alignment, several more large masonry blocks were also observed that appeared to be at least partially intact (Plates 3 and 4). Further investigation by hand established that they were the *in situ* remains of part of a substantial stone structure that was approximately square in plan with sides measuring *c* 5m in length and solid walls at least 1.1m thick.
- 4.2.8 The structure was comprised of a paler sandstone than that seen in the rubble spread beneath chicken shed 2, immediately to the south, and was observed to have at least two courses of masonry intact. As much of the feature as possible was cleared of rubble by hand but it was considered likely that more of the structure remained buried intact. A full photographic record was produced of the structural remains (Plates 3 and 4) and the outline of the walls were surveyed (Fig 3).

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## 5. DISCUSSION AND IMPACT

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### 5.1 DISCUSSION

- 5.1.1 The majority of the deposits that were revealed beneath the concrete areas that were monitored as part of the watching brief appear to have been derived from levelled demolition rubble. It is highly likely that this levelling event was contemporary with the laying of the concrete surfaces in the early twentieth century, although there is also the possibility that some of the material derived from earlier demolition episodes. This interpretation is consistent with the mix of material within the rubble, which included machine-produced red brick and ceramic pipe, as well as fragments of hand-dressed stone. The well-defined spread of red sandstone fragments beneath chicken shed 2 indicates the remains of a now demolished structure that once stood in the immediate vicinity, although no trace of this could be seen *in situ* at the level observed.
- 5.1.2 The remains partially revealed *in situ* beneath the concrete between chicken sheds 1 and 2 (Fig 4) appear to have been part of a substantial structure with walls of considerable thickness that could date from the earliest phase of Lowther I. The walls were traced by manual excavation into the area of the footprint of chicken shed 1, and were found to continue. The fact that the archaeology was initially only exposed between the sheds would appear to reflect that there was a greater level of build up for the foundations of the sheds than between the sheds. There is thus a probability that there will be further archaeological remains protected by overburden within the foot print of the sheds that are yet to be exposed, the tracing of the extant wall remains into the area of the chicken shed 1 would appear to confirm this.
- 5.1.3 The monitoring of the concrete removal in the grounds immediately south of Lowther Castle has confirmed the likely extent of the area of archaeological potential, as the concrete under chicken sheds 4, 5 and 6 was set directly onto truncated natural clays. This has ensured that no significant deposits, features or structures were unnecessarily damaged or destroyed within that area. In addition, previously unseen *in situ* structural remains, which may represent the only identified parts of the earliest known building in this part of the estate, were located, and there is an implication that further remains survive beneath the footprints of chicken sheds 1 and 2.

### 5.2 IMPACT

- 5.2.1 The demolition of the chicken sheds in the vicinity of the Lowther Castle has had no negative impact on the archaeological resource but the identified remains are located close to, or at the present ground surface, and, as such, the underlying archaeological remains will be sensitive to any further ground works.

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## 6. BIBLIOGRAPHY

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### 6.1 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, c1700 view of Lowther Hall and park, *Lowther in the county of Westmorland*, [Pl] XL111(Kendal Library Ref 036833)

### 6.2 SECONDARY SOURCES

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## APPENDIX 1: PROJECT DESIGN

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**Oxford  
Archaeology  
North**

**February 2008**

### **LOWTHER CASTLE (CHICKEN SHEDS), LOWTHER CUMBRIA**

#### ARCHAEOLOGICAL WATCHING BRIEF

Proposals

*The following project design is for an archaeological watching brief during the proposed removal of chicken sheds at Lowther Castle, under guidance from the Archaeologist for the Lake District National Park Authority.*

## **1. BACKGROUND**

### **1.1 CIRCUMSTANCES OF PROJECT**

- 1.1.1 The Lowther Estates is seeking to demolish a number of defunct chicken sheds that stand within the grounds of Lowther Castle. Demolition works are not subject to any planning constraint, but guidance has been sought from the Archaeologist for the Lake District National Park Authority as to the most appropriate manner to do this without endangering any archaeological remains. Lowther Estates have asked Oxford Archaeology North (OA North) to propose a methodology for the removal of the concrete floors of the sheds that will minimise the disturbance of any surviving archaeological remains and will enable them to be recorded. The methodology is presented within this document.
- 1.1.2 There is good reason to believe that archaeological remains may exist on the site but little is known as to their extent and state of preservation. An archaeological trench evaluation undertaken in the immediate vicinity of the northernmost chicken sheds (OA North 2007), revealed structural remains surviving immediately below the topsoil, which probably related to the first (late medieval) or second (seventeenth century) phases of Lowther Castle. It is therefore possible that archaeology exists immediately below the concrete floors of the chicken sheds. As such, it seems advisable that an archaeological watching brief should be carried out during the removal of the floors. The archaeologist will monitor impact levels, advise on the most appropriate removal methodology and record any archaeology revealed below the floors. The recorded archaeological evidence would be available to inform any future decisions regarding land-use.
- 1.1.3 The site is centre around national grid reference NY 5220 2383. The underlying geology is limestone and argillaceous rocks.

### **1.2 ARCHAEOLOGICAL BACKGROUND**

- 1.2.1 The site of the proposed development lies within the site of the ruined castle at Lowther. The castle is a listed building, grade II\* and lies in a registered park and garden (Grade II).
- 1.2.2 There are a number of other sites or finds in the immediate area which were identified during the survey of Lowther Park in 1997 (see references below). Further details of these sites can be obtained from the Lake District National Park Authority, Murley Moss, Oxenholme Road, Kendal, LA9 7RL. Tel. 01539 792712/Fax. 01539 740822/Email Eleanor.Kingston@lake-district.gov.uk

### **1.3 OXFORD ARCHAEOLOGY NORTH (OA NORTH)**

- 1.3.1 OA North has considerable experience of the watching brief, evaluation and excavation of sites of all periods, having undertaken a great number of small and large scale projects throughout Northern England, including Cumbria, during the past 20 years. OA North has recently undertaken archaeological work in the grounds of the castle for the Lowther Estates, including archaeological survey and evaluation. OA North is an Institute of Field Archaeologists (IFA) registered organisation, number 17, and all its members of staff operate subject to the IFA Code of Conduct. A rigorous approach is taken towards health and safety and our staff are CSCS accredited. OA North are insured for third party liability and carry Public, Employers and Professional indemnity.

## **2. AIMS AND OBJECTIVES**

### **2.1 PROJECT AIMS**

- 2.1.1 The proposed demolition works have the potential of damaging or destroying any archaeological remains which may be present below the floors of the chicken sheds. It is therefore recommended that an archaeological watching brief should take place to advise on the most appropriate methodology for the removal of the floors, to avoid damage to any surviving archaeology or landscape features and to record any archaeological features that are revealed. The watching brief should aim to record the presence/absence, character, extent, state of preservation, date, condition and significance of any archaeological deposits below the floors.

## 2.2 REPORT AND ARCHIVE PRODUCTION

2.2.1 The watching brief will result in a report produced to the standards set out in the English Heritage guideline document *Management of Archaeological Projects* (2nd edition, 1991b) (hereafter MAP 2) including:

- a concise non-technical summary of the results;
- a description of the methodology employed;
- a location plan at an appropriate scale;
- a summary of the historical and archaeological background;
- plan(s) and section(s) at an appropriate scale showing location and position of any features located;
- section drawings will include heights OD;
- excavation plan(s) will include OD spot heights for all principal strata and features;
- a list of and date for any significant finds recovered;
- photographs where appropriate;
- a description of archaeological features and deposits identified;
- an interpretation of the results and of their potential archaeological significance;
- a full bibliography of sources consulted and a list of any further sources identified but not consulted;
- an index to the project archive;
- a copy of the project design and an indication of any variations.

2.2.2 The objective account of the archaeological evidence recovered will be clearly distinguished from the interpretation of those features. The methodology used will be critically reviewed.

2.2.3 Three paper and a digital copy of the report will be deposited with the National Park Authority, on the understanding that it will be made available as a public document after an appropriate period (not exceeding 6 months from the completion of fieldwork). Copies will be forwarded to the National Monuments Record.

2.2.4 In line with Lake District Historic Environment Record's (LDHER) policy with regard to the Online Access to Index of Archaeological Investigations (OASIS) project, OA North will complete the online OASIS form at <http://ads.ahds.ac.uk/project/oasis/>. and will contact the LDHER prior to completing the form. It is understood that once a report has become a public document by submission to or incorporation into the HER, the LDHER may place the information on a web-site. Permission in writing agreeing to this procedure will be granted as part of the process of submitting the report to the archaeological officer at the LDHER.

2.2.5 The project archive will be prepared in accordance with the recommendations of the *Management of Archaeological Projects 2<sup>nd</sup> Ed.* (1991) and will be deposited in an appropriate local institution, in a format to be agreed with that institution. The National Park Authority will be notified of the arrangements made. Any finds of archaeological interest will be appropriately conserved and deposited in an appropriate institution: any finds which cannot be so deposited should be fully analysed and published.

2.2.6 In addition to the above, interim reports will be produced for the client on request.

## 3. METHOD STATEMENT

### 3.1 FIELDWORK

- 3.1.1 All aspects of the watching brief will be conducted in accordance with the Institute of Field Archaeologist's *Code of Conduct* and the IFA's *Standard and Guidance for Archaeological Field Evaluations*.
- 3.1.2 Land-use at the time the fieldwork is carried out will influence the methods used. The techniques chosen will be selected to cause the minimum amount of destruction and will comply with all relevant health and safety regulations.
- 3.1.3 A separate desk based assessment is not required. However, the information that has been collated in the past by OA North will be used within this study, to place this evaluation in its context and will be included in their report. All of those working on site will be made aware of the significance and history of the site.
- 3.1.4 Due to the robust construction of the concrete floors, it will be necessary to employ a mechanical excavator to remove them. This machine will need to be sufficiently powerful to break-up and lift the concrete, it is expected that a 21 tonne tracked 360° excavator would be adequate.
- 3.1.5 It is imagined that the floors could be most appropriately removed systematically in sections, employing the following procedure. Works should commence at the northernmost part of the site, prioritising the removal of the floors of the sheds where, on the basis of previous works, it is considered most likely that archaeology will be encountered. This will afford more time to deal with any archaeology encountered, without unnecessarily delaying works.
- 3.1.6 In the first instance, any remaining shed superstructure should be removed from the floors and hauled by designated haul routes to a pre-defined storage area (this might be on the footprint of one of the southernmost sheds). Dumper trucks might be required for this.
- 3.1.7 A mechanical breaker attachment will be used to cut through the concrete in lines, so that it can be uplifted in sections by an excavator fitted with a toothed bucket. Machining will start at one end of the floors and progress in a logical manner to the other. As works are ongoing, an archaeologist will closely monitor the excavator to ensure that it is not unnecessarily impacting into the deposits below the floors and to ensure that archaeological structures are not uprooted. The surfaces below the removed floors should be left sufficiently clean to allow archaeological recording. If the concrete has been laid directly on top of older wall foundations or floors, it may in practice be difficult to avoid damaging them. However, every effort will be taken to employ a viable means of breaking the concrete whilst avoiding damaging the archaeology and, in extremis, works will be halted whilst further advice is sought from the Archaeologist for the Lake District National Park Authority.
- 3.1.8 As the concrete is lifted it could be loaded onto dumper trucks and hauled along the designated haul route to be dumped in a pre-defined storage area. Any such storage area should avoid any landscape features within the castle ground or exposed archaeological surfaces. Initially, one of the southern sheds could be used as a temporary store for material removed from the northerly sheds, until this is transported from the site.
- 3.1.9 Once the floors have been lifted, it is not proposed to undertake any archaeological excavation at present. Work will be restricted to the collection of finds, the limited cleaning of exposed structures or archaeological features to enable them to be recorded, the production of a plan of any archaeological structures and features, and the recording of any exposed sections or elevations. This will aim to provide a record that could be used to inform any decisions concerning the future use of the site.
- 3.1.10 Human remains will be left *in situ*, covered and protected when discovered. No further investigation should normally be permitted beyond that necessary to establish the date and character of the burial, and the National Park Archaeologist and the local Coroner must be informed immediately. If removal is essential, it can only take place under appropriate Department for Constitutional Affairs and environmental health regulations.
- 3.1.11 All information identified in the course of the site works will be recorded stratigraphically, using a system, adapted from that used by the Centre for Archaeology Service of English Heritage. Results of all field investigations will be recorded on OA North's *pro forma* context sheets. All features and deposits will be planned at an appropriate scale. Black and white, colour and digital photographs will record the works and illustrate individual features. The elevation of the underlying natural deposits

will be recorded as will the elevation of any archaeological horizons. Primary records will be available for inspection at all times.

- 3.1.12 An assessment of the artefact content of the topsoil will be required. Artefacts will be collected from below the floors, the surface being visually scanned for artefacts. If changes in the nature of the overburden are noted, the artefacts will be separated by deposit during collection.
- 3.1.13 Finds recovery and sampling programmes will be in accordance with current best practice (following IFA and other specialist guidelines). All artefacts and ecofacts will be treated in accordance with OA North standard practice, which is cognisant of IFA and UKIC Guidelines. In general this will mean that (where appropriate or safe to do so) finds are washed, dried, marked, bagged and packed in stable conditions; no attempt at conservation will be made unless special circumstances require prompt action. In such a case guidance and/or expertise will be sought from a suitably qualified conservator. OA North will assess the finds for conservation after fieldwork has been completed, but the cost of conservation must be born by the client (*Section 7*).
- 3.1.14 Any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996/7. As no excavation will take place it is not envisaged that any palaeoenvironmental sampling or analysis will be required.
- 3.1.15 Once the floors have been removed and any archaeology recorded, a degree of reinstatement may be required to protect any remains. OA North could monitor such works, but would not undertake them, a specialist contractor should be employed instead. If no archaeological features or structures are revealed below the floors because they were never present, were completely truncated when the sheds were constructed or because they are sealed by deposits of overburden, then there would be no archaeological requirement for reinstatement. If, however, features or deposits are exposed, then they should be covered with permeable geotextile and a layer of protective material placed over them; this could, for example, be sand or gravel, topsoil or turves. The National Park Archaeologist should be consulted if this is required.

## **3.2 HEALTH AND SAFETY**

- 3.2.1 OA North recognises its responsibilities with regard to health and safety, and will establish safe working practices in accordance with current legislation. OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1991). Our site staff are CSCS accredited and senior staff are qualified First Aiders. All staff are issued with Personal Protective Equipment and each team with a telephone and a first aid kit. OA North will liaise with all parties to ensure all site specific health and safety regulations are met. A risk assessment will be completed in advance of any on-site works, which will be made available with our method statement.
- 3.2.2 Site access will be well regulated and notification of hazards such as services and contaminated ground will be obtained.

## **4. RESOURCES AND PROGRAMMING**

### **4.1 STAFF AND TIMETABLE PROPOSALS**

- 4.1.1 The overall management of the project will be undertaken by **Fraser Brown** (OA North Senior Project Manager). The demolition works will be monitored by an experienced archaeologist. If large quantities of archaeological features or structures are encountered, it may be necessary to increase the number of archaeologists on site to ensure the timely progression of works.
- 4.1.2 It is extremely difficult to provide an accurate estimate of the duration of works, this would largely depend upon the speed of the demolition and removal of the floors; it is not anticipated that archaeological recording work would lag more than a few days behind this. Given the number and size of the chicken sheds, demolition will likely take a number of weeks. The assessment of any finds would be undertaken following the completion of fieldwork. The project archive will be compiled and a MAP 2-style evaluation report will be produced following the completion of the fieldwork and the assessment of the finds.
- 4.1.3 Assessment of any finds from the excavation will be undertaken by **Chris Howard-Davis** or an appropriate specialist.

- 4.1.4 If finds or deposits are encountered that require specialist input, OA North will use in-house specialists out of preference, but external specialists may also be commissioned, should no in house expertise be available.
- 4.1.5 Normally OA North staff work a 37.5 hours week, between 8.00 am and 5.00 pm, Monday to Friday, though adjustments to hours may be made to maximise daylight working time in winter and to meet travel requirements. It is not normal practice for OA North staff to be asked to work weekends or bank holidays, but OA North would be happy to work extended hours following agreement of overtime rates (a contract variation).

## **5. PROJECT MONITORING**

### **5.1 PROCEDURE**

- 5.1 The National Park Archaeologist may wish to monitor the removal of the chicken sheds. A minimum of one week's notice of the commencement of fieldwork will be given by the archaeological contractor to the Lake District National Park Authority so that arrangements for monitoring can be made.
- 5.2 Site inspections will be arranged so that the general site stratigraphy can be assessed as appropriate. OA North will ensure that any significant results are brought to the attention of the client and the National Park Archaeologist as soon as is practicable.
- 5.1.3 The involvement of the Lake District National Park Authority will be acknowledged in any report or publication generated by this project.

## ILLUSTRATIONS

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Figure 1: Site location

Figure 2: General site plan showing location of earlier evaluation trenches

Figure 3: Excerpt of Richardson's map, 1754, with the archaeological remains and trenches superimposed

Figure 4: Detail of archaeology found during watching brief

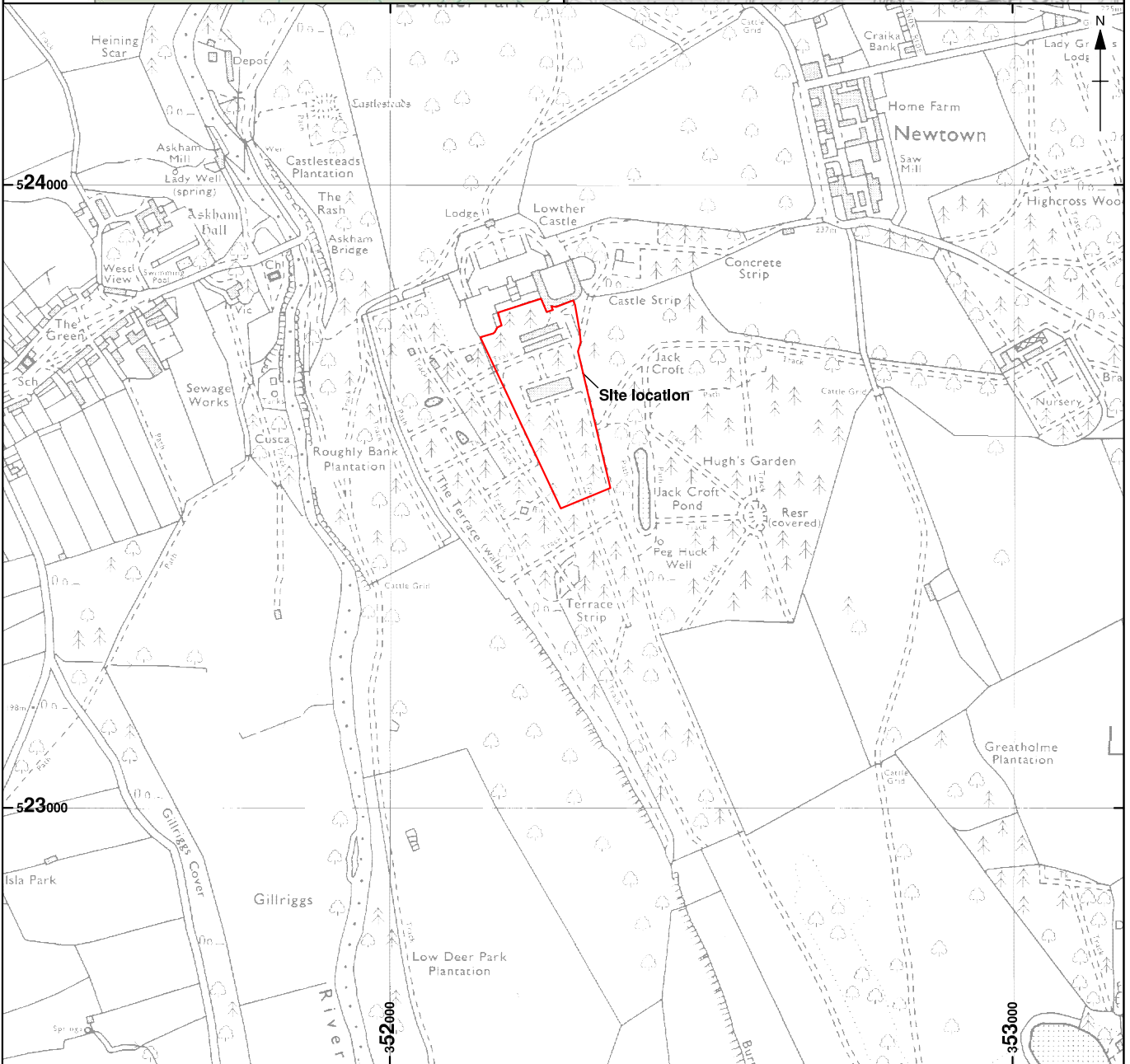
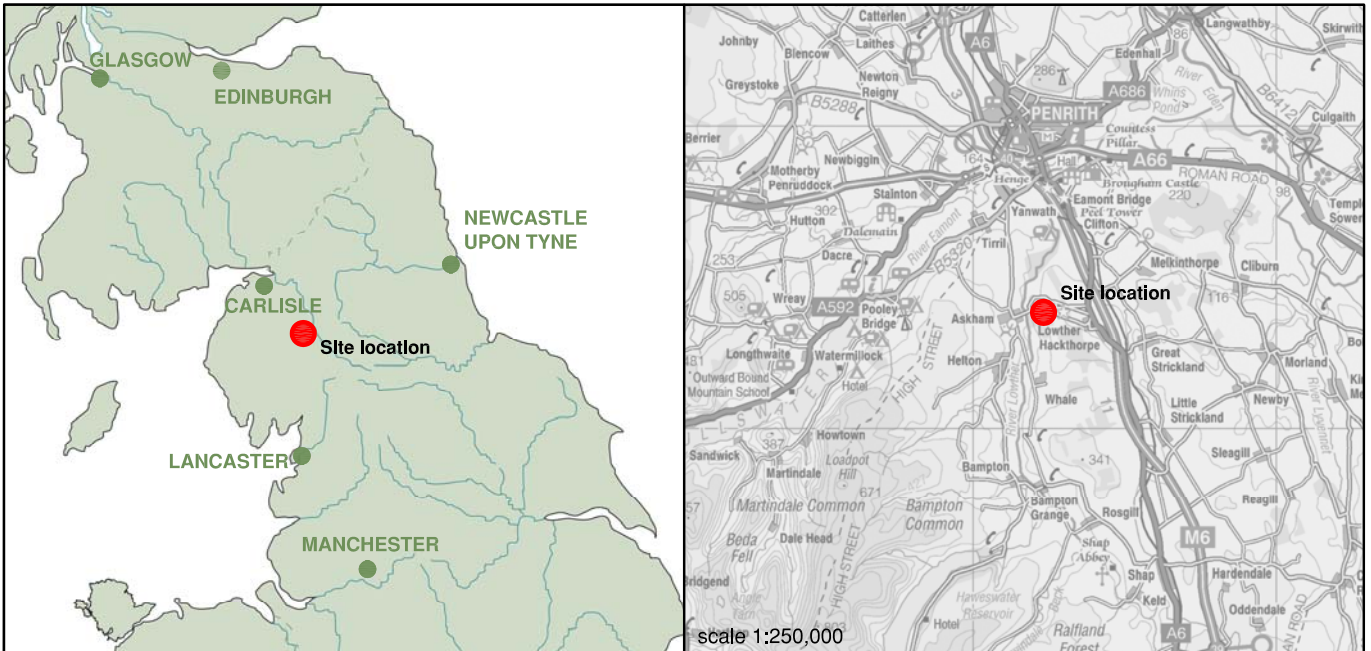
### **LIST OF PLATES**

Plate 1: Natural limestone bedrock outcropping in north-western corner of site

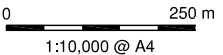
Plate 2: Spread of fragmented red stone beneath chicken shed 2

Plate 3: Structural remains concrete between chicken sheds 1 and 2 (east-facing)

Plate 4: Structural remains between chicken sheds 1 and 2 (south-west-facing)



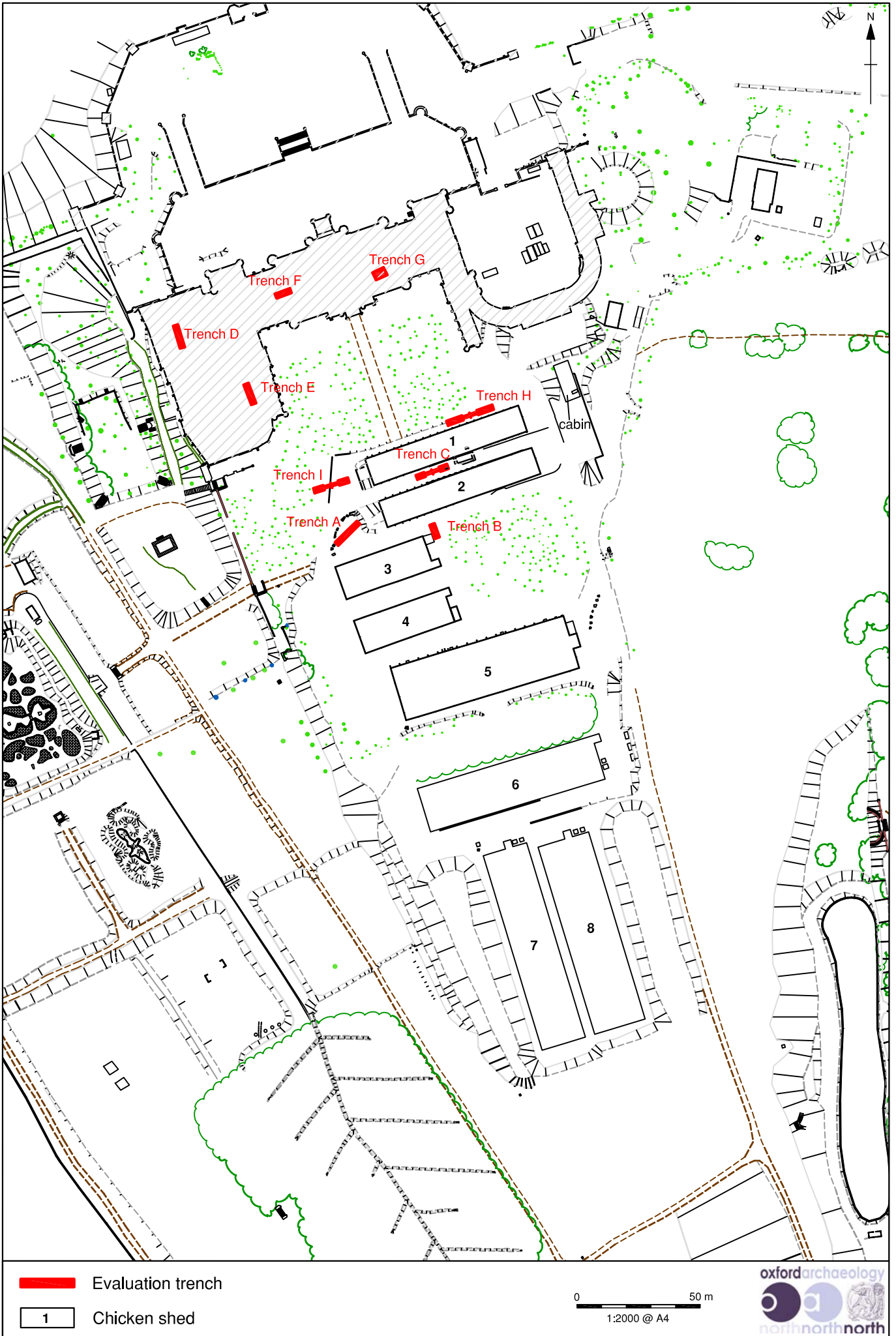
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Figure 1: Site location





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Figure 2: General site plan showing location of earlier evaluation trenches



Figure 3: Excerpt of Richardson's map, 1754, with the archaeological remains superimposed

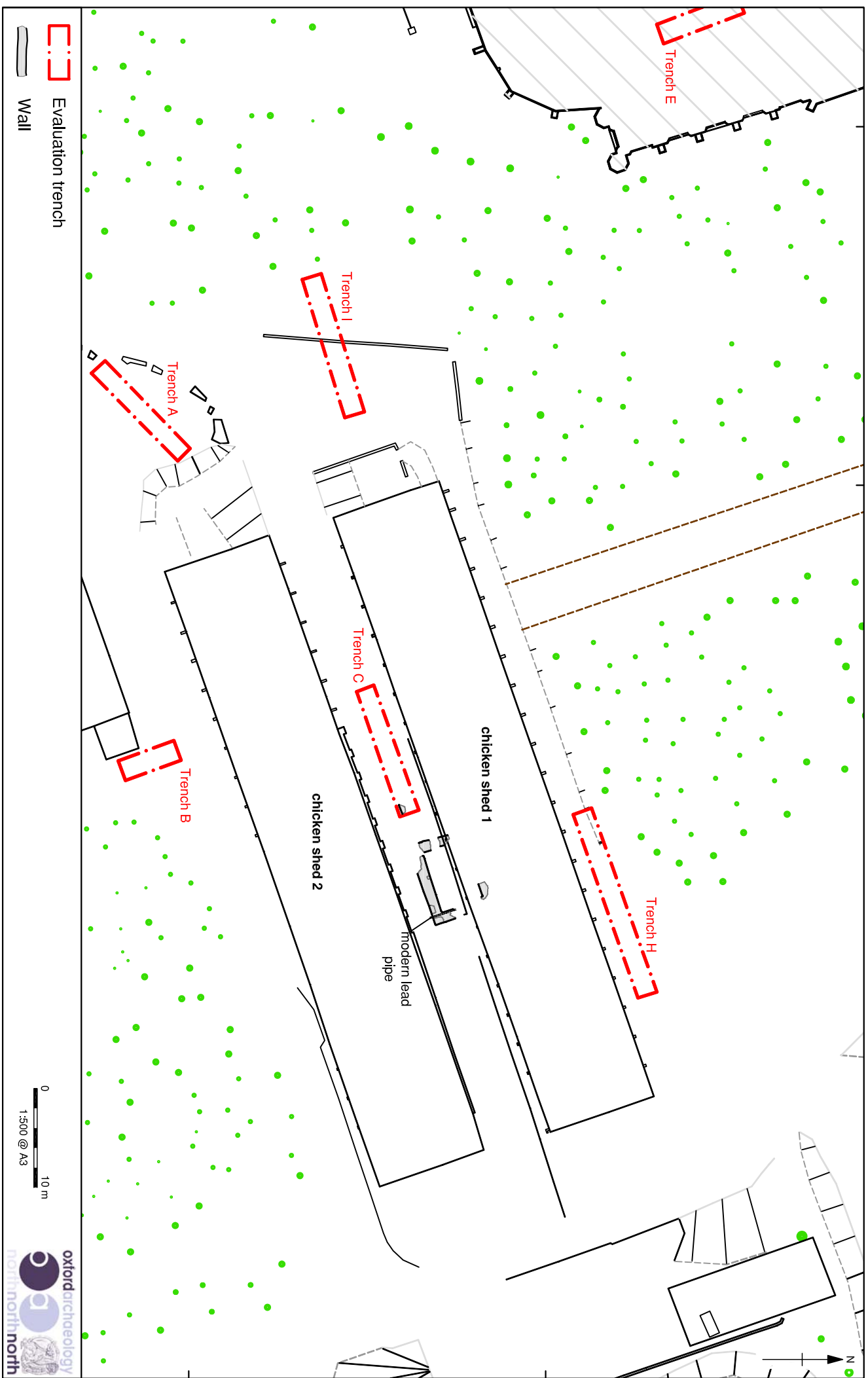


Figure 4: Detail of archaeology found during Watching brief



Plate 1: Natural limestone bedrock outcropping in north-western corner of site



Plate 2: Spread of fragmented red stone beneath chicken shed 2



Plate 3: Structural remains between chicken sheds 1 and 2 (east-facing)



Plate 4: Structural remains between chicken sheds 1 and 2 (south-west-facing)