NAA

ARCHAEOLOGICAL EXCAVATION AND LANDSCAPE SURVEY REPORT

Northern Archaeological Associates Ltd

Marwood House
Harmire Enterprise Park
Barnard Castle
Co. Durham
DL12 8BN

t: 01833 690800

f: 01833 690801

e: mt@naaheritage.com

w: www.naaheritage.com

LAND AT STONECROSS MANSION, DALTONGATE, ULVERSTON, CUMBRIA

prepared for

Persimmon Homes

Project No.: 1156

Text: Henry Atherden

Illustrations: Cath Chisman

NAA 18/26
March 2018

Northern
Archaeological
Associates

NAA
01833 690800
info@naaheritage.com
www.naaheritage.com
Marwood House
Harmire Enterprise Park
Barnard Castle
Co. Durham
DL12 8BN

QUALITY ASSURANCE		
Project Number	1156	
Report Number	18-26	
Manager	Matthew Town	
Draft	Henry Atherden	
Graphics	Cath Chisman	
Edit	Frederick Foulds	
Authorised	Frederick Foulds	
Issue 1		14/03/2018

Author Henry Atherden, BA, MA
Illustrations Cath Chisman, BA

Client Persimmon Homes Ltd.
Location Stonecross Mansion, Daltongate, Ulverston, Cumbria
District South Lakeland
Grid Ref SD 2818 7826
Dates of Fieldwork 20 October 2016 – 21 November 2016

LAND AT STONECROSS MANSION, DALTONGATE, ULVERSTON, CUMBRIA
ARCHAEOLOGICAL EXCAVATION AND LANDSCAPE SURVEY REPORT

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF PLATES

LAND AT STONECROSS MANSION, DALTONGATE, ULVERSTON, CUMBRIA
ARCHAEOLOGICAL EXCAVATION AND LANDSCAPE SURVEY REPORT

Summary

This report presents the results of an archaeological excavation and landscape survey carried out at Stonecross Mansion, Ulverston, Cumbria (NRG SD 2818 7826). The work comprised the excavation of three evaluation trenches followed by open-area excavation of the remains of a linen weaving factory, as well as a landscape survey of grounds surrounding Stonecross Mansion. The work was undertaken between October and November 2016 by Northern Archaeological Associates Ltd (NAA) on behalf of Persimmon Homes Ltd.

The site was located approximately 600m west of the centre of Ulverston. It was bounded to the south-east by Daltongate, to the north by gardens, on the north-west side by housing at Stonecross Gardens and to the west by an unnamed drive leading to the mansion and stables. An in-situ standing stone of unknown origin was identified on a small hill overlooking Daltongate from the north during the walkover survey for the desk-based assessment (NAA 2013). This was removed under archaeological supervision and the surrounding area investigated. Post-medieval pottery and glass were retrieved from heavily disturbed material in the vicinity. The landscape survey identified few additional features within the grounds of the mansion, suggesting that the grounds had not been heavily landscaped or designed.

Further east, but also adjacent to Daltongate, sub-surface remains of a structure thought to relate to a purpose built 19th-century linen weaving factory were identified. These comprised wall foundations, floor surfaces, surviving masonry and structural evidence thought to relate to loom beds constructed on three terraces set into a hillslope. The results of the excavation suggest that linen weaving activity at the site had been short lived with evidence of the building being repurposed, before being demolished as part of landscaping of the area prior to the construction of Stonecross Mansion in the late 19th century.

1.0 INTRODUCTION

1.1 This report presents the results of archaeological excavation carried out on land at Stonecross Mansion, Daltongate, Ulverston, Cumbria, centred at NGR SD 2818 7826 (Fig. 1). The excavation was conducted on behalf of Persimmon Homes Ltd to mitigate the impact of construction works upon in-situ archaeological remains within a residential development.

1.2 A programme of archaeological evaluation, by means of trial-trenching and landscape survey, was agreed in accordance with the Written Scheme of Investigation (WSI) prepared by Northern Archaeological Associates Ltd (NAA) and submitted to Cumbria County Council Historic Environment Service (CCCHES) (NAA 2016). The landscape survey was carried out on the 8th of September 2016. The trial-trenching was carried out by NAA between the 16th and 19th of October 2016. Trench locations varied from those proposed in the WSI (NAA 2016) to avoid the boundary of a tree protection area. Three trenches, measuring 20m by 2m, 14m by 2m, and 6m by 2m, were positioned over the location of a weaving factory identified on the First Edition Ordinance Survey map of 1849 (NAA 2013). A fourth trench, measuring 5m by 4m, was also positioned to investigate an in-situ standing stone, which had been previously identified during a site walkover survey conducted as part of the preceding desk-based assessment (DBA) (NAA 2013).

1.3 The trial-trenching identified significant archaeological remains, including in-situ masonry and floor surfaces. In consultation with Jeremy Parsons of CCCHES and Persimmon Homes Ltd, it was agreed that a more extensive programme was required to mitigate the impact of construction works on the identified archaeological remains. The agreed programme consisted of an extension to the trench surrounding the standing stone of a further 5m by 5m and open-area excavation of the in-situ remains presumed to be component parts of the weaving factory.

1.4 At the request of the Persimmon Homes Ltd, excavation was carried out immediately following the initial evaluation. The work was undertaken by NAA between 20th October to 21st November 2016. The excavation was conducted in accordance with the relevant standards and guidance published by English Heritage (2008), Historic England (2015) and the Chartered Institute for Archaeologists (2014a; 2014b).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

Location

2.1 The site lies within the grounds of a former mansion, known as Stonecross Mansion, and is situated approximately 600m west of the centre of Ulverston. The development area in which the site was situated covers some 7.55ha. It is bounded to the south-east by Daltongate, to the north by gardens to the south of Stockbridge Lane, to the north-west side by housing at Stonecross Gardens and to the west by an unnamed drive leading to the mansion and stables.

Geology and soils

2.2 The solid geology of the site comprised interbedded sandstone and (subequal/subordinate) argillaceous rocks of the Yewbank Formation. The bedrock is overlain by Devensian till comprised of sand and gravel (BGS 2017).

2.3 The soils covering the site are part of the 0541j Denbigh 1 association, consisting of brown stony well-drained soils of moderate depth over Palaeozoic sedimentary rocks (Jarvis *et al.* 1984, 153).

Topography and land-use

2.4 The development area, in which the site lies, is approximately 56m above Ordnance Datum (AOD) at the northern end of the development boundary, which falls to 46m AOD to the east and south. It is fringed with modern housing to the north and south-east, while the land immediately to the west comprises open pasture fields. The boundaries of these fields are defined by well-established, mature trees and overgrown hedges.

3.0 SUMMARY ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 There had been no previous archaeological interventions at the site of the proposed development. The DBA produced in advance of the excavation assessed a study area covering a 500m radius around the development area (NAA 2013), which identified a number of designated and undesignated heritage assets. These are summarised below.

Prehistoric

3.2 Limited evidence of Palaeolithic and Mesolithic activity has been discovered within the area; this is mainly restricted to coastal exploitation of the Furness peninsular, as indicated by casual flint finds.

3.3 Evidence of Neolithic activity is largely restricted to isolated findspots of stone axes. Similarly, Bronze Age activity is defined by isolated findspots of axe hammers and a single looped and socketed spearhead. No associated settlement for either period is currently known. However, there are significant ceremonial monuments nearby, including the long barrow at Skelmore Heads and a stone circle at Birkrigg, and a Middle Bronze Age cinerary urn containing a cremation was also discovered near Ulverston.

3.4 No Iron Age sites have been identified near the site and there are few securely dated finds or sites within Ulverston itself. There are two nearby enclosures at Hoad and Skelmore Heads, both of which are of probable Late Bronze Age to Iron Age date.

Roman period

3.5 There is little evidence of settlement in the area during the Roman period, which is limited to findspots of Roman pottery and two Roman coins. Though recent work on reappraising Roman activity within the area suggests that a road may have passed close to or through Ulverston, and that this may have had an associated settlement (Elsworth 2007), there is no evidence to suggest that the area was ever permanently garrisoned by the Romans.

Medieval

3.6 Evidence for early medieval activity is extremely limited and is restricted to what can be traced through local place names. Ulverston, Dalton, Aldingham and Bardsea are of Anglian derivation whilst nearby Biggar, Hawcoat and Scales are of Viking origin (Armstrong *et al*. 1950).

3.7 The Domesday Book provides the first written reference to the medieval Ulverston. It is recorded as being held by Roger de Poitou until 1102, when he was stripped of his lands and banished from the kingdom.

3.8 From the start of the early 12th century, land in and around Ulverston was bestowed to various religious houses, most prominently Furness Abbey. This continued until the end of the century when, in 1195, Furness Abbey granted the land and inhabitants to Gilbert Fitz-Reinhard and Helwise (daughter of the second Roger of Lancaster), reserving a rent of 10s yearly. In 1196, Gilbert enfranchised the inhabitants, raising them to Burghers and granting a borough charter. The majority of medieval Ulverston was laid out in burgage and tenement plots in this period. Ulverston was granted a

Market Charter in 1280 by Edward I. The market was situated at the southern end of King Street, marked by a market cross. An additional wayside cross is recorded at Stone Cross on Daltongate (*'Dalton gatta'*—street—suggesting an early road) on the First Edition Ordnance Survey (OS) map of 1849. A standing stone identified in the site walkover survey conducted as part of the DBA may be the remains of this medieval cross; however, Ordnance Survey inspectors in 1958 record this as being a cattle rubbing post.

3.9 Despite the Market Charter granted to Ulverston, nearby Dalton, which was under the patronage of Furness Abbey, remained the most prominent market centre in the area for the period.

Post-medieval and modern

3.10 Upon the dissolution of Furness Abbey in 1537, Ulverston was surrendered to Henry VIII and superseded Dalton as the dominant market centre in the area. In 1595, the town is recorded as having three mills, and by 1601 the population was recorded at only 514.

3.11 Ulverston's prosperity increased throughout the post-medieval period, due to the growth of the iron smelting industry from the early 17th century and the nearby port providing key transport links. Numerous foundries were established in the area by the 18th century, including 'Hodge Puddle', which lay on Stockbridge lane, immediately to the north of the development area. Other industries present in Ulverston during the 18th century included tanning, rope making and corn milling, alongside bone and paper mills.

3.12 The construction of the Ulverston canal in 1796 further expanded the trading capacity of the town, with imported cotton brought in to supply the town's new textile mills. In the mid-19th century, rail connections to Barrow and the wider rail network initially boosted the town's prosperity. Ultimately, however, Barrow superseded Ulverston's importance as a trading centre, having both better rail connections and a deeper more protected harbour.

3.13 Historic mapping indicates the presence of a long, rectangular building, labelled as '*weaving factory (linen)'* on the First Edition OS map, together with a courtyard and smaller building to the south-west, and a row of houses labelled '*Stone Cross*', all of which stood within the development area. By the time of the Second Edition OS map

was published in 1890, these buildings had been cleared and were replaced by Stonecross Mansion and its surrounding grounds, which were constructed in 1874 by Myles Kennedy. It was deemed likely that below ground evidence of these structures may exist within the proposed development area.

4.0 AIMS AND OBJECTIVES

Trial-trenching

4.1 The main aim of the archaeological trial-trenching was to assess the potential for the presence of sub-surface archaeological remains relating to the weaving factory, dwellings and standing stone, as identified by the DBA (NAA 2013). Where remains were present, the trial-trenching aimed to confirm their location, extent, nature, date, and importance in order that an informed assessment of the impact of the development upon these remains could be undertaken and a suitable mitigation strategy agreed.

4.2 The objectives of the archaeological trial trenching, as outlined in the WSI, were:

- to establish the presence, nature, extent, preservation, and significance of any archaeological remains within the vicinity of the trenches;
- to provide a detailed record of any archaeological remains;
- to recover and assess any associated structural, artefactual, and environmental evidence;
- to determine areas within the footprint of the proposed development scheme that require archaeological mitigation in the form of preservation in situ, open area investigation in advance of construction, or monitoring of soil stripping during construction works;
- to evaluate the potential for further unrecorded significant archaeological remains to be present within the site; and
- to prepare an illustrated report on the results of the trial-trenching to be deposited with the Historic Environment Record (HER) held by Cumbria County Council Historic Environment Service (CCCHES) and the National Monuments Record (NMR).

4.3 Upon completion of the trial-trenching, the requirement for further mitigation was agreed through consultation between Persimmon Homes Ltd and CCCHES.

Landscape survey

4.4 The main aim of the landscape survey as outlined in the WSI was to determine the nature of the designed landscape around the mansion. A secondary aim was to search the area for other archaeological remains.

4.5 The objectives of the landscape survey were:

- to inspect the grounds for archaeological remains relating to the designed landscape;
- to search the grounds for any other archaeological features;
- to record all archaeological features;
- to create a written and photographic record of all features identified;
- to assess the potential for the presence of previously unrecorded below ground remains within the area; and
- to prepare an illustrated report on the results.

4.6 Upon completion of the landscape survey, the requirement for further mitigation was to be agreed through consultation between Persimmon Homes Ltd and CCCHES.

Open-area excavation

4.7 Following completion of the archaeological evaluation, it was agreed in consultation with Persimmon Homes Ltd and CCCHES that further archaeological mitigation was required. This took the form of an extension to the trench surrounding the standing stone and open-area excavation focusing on structural remains associated with a probable weaving factory identified during the evaluation.

4.8 The main aim of the excavation was to determine the extent, nature, and function of the in situ structural features identified and to record the location and character of these remains.

4.9 The objectives of the open area excavation were:

- to establish the presence, nature, extent, preservation, and significance of any archaeological remains within the vicinity of the stripped area;

- to provide a detailed record of all archaeological remains in advance of their loss through development;

- to recover and assess any associated structural, artefactual, and environmental evidence in order to facilitate understanding of the layout, date, function, phasing, development and economic basis of the site as a whole; and

- to prepare an illustrated report on the results of the open-are excavation to be deposited with the Historic Environment Record (HER) held by Cumbria County Council Historic Environment Service (CCCHES) and the National Monuments Record (NMR).

5.0 METHODOLOGY

Trial-trenching

Trench location

5.1 Three trenches were excavated on the land surrounding Stonecross Mansion (Fig. 2). In accordance with the WSI (NAA 2016), the trenches were located to sample areas of expected or known archaeological remains identified by the DBA (NAA 2013).

5.2 It was necessary to make minor alterations to the location of all three trenches in order to respect tree protection areas and properly target the identified areas of interest. The trenches were located using a Topcon GRS1 GPS and the information was transferred to AutoCAD software for incorporation within this report (Fig. 3). All levels were tied into Ordinance Datum.

5.3 The planned trenches were to measure 20m by 2m, 20m by 2m and 5m by 4m; however, it became apparent during excavation that splitting one of these planned trenches into two sections would more effectively establish the nature of archaeological remains that were discovered. The final trenches measured 20m by 2m, 14m by 2m and 5m by 4m. Following consultation with Jeremy Parsons of CCCHES on the 19th of October 2016, the last of these trenches was expanded by a further 5m by 5m.

Machine excavation

5.4 The removal of overburden (vegetation, topsoil, subsoil, and rubble) was undertaken using a mechanical excavator fitted with a toothless bucket, under supervision of an archaeologist at all times. Mechanical excavation continued down to the natural subsoils or archaeological horizons, whichever was encountered first. Where structures, features, significant finds or soil deposits of archaeological interest were exposed, mechanical excavation was halted, and all further archaeological work was undertaken by hand.

5.5 As part of the archaeological mitigation strategy agreed with CCCHES and Persimmon Homes Ltd, the standing stone located at NRG SD 28178 78157 was removed intact and retained to be reset in its original position as part of the development. The removal of this large stone was done under archaeological supervision using a machine operated sling, and the stone itself transferred to the care of the primary contractors for replacement at a later date.

Hand excavation

5.6 Where structures, features, significant finds or soil deposits of archaeological interest were exposed, these were cleaned, assessed, excavated by hand, and recorded as appropriate. Hand-excavation of archaeological deposits was undertaken in order to characterise the surviving archaeology and ensure recovery of artefactual evidence. In particular, hand excavation focused on revealing a representative sample of the in-situ masonry and floor surfaces where encountered.

5.7 Written descriptions of all archaeological features and deposits were recorded on pro forma sheets using the NAA context recording system.

5.8 Drawings of archaeological features were produced at a scale of 1:10 for sections and elevations and 1:20 for plans. Information was transferred to AutoCAD software and reproduced for incorporation within this report. All levels were tied in to Ordnance Datum.

5.9 A photographic record of the site was taken, comprising colour digital images and 35mm monochrome prints.

5.10 Archaeological artefacts were collected as bulk finds. No artefacts of special significance that required three-dimensional recording were encountered. Finds were

appropriately recorded, processed and submitted for post-excavation assessment. All recovered finds were appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies were in accordance with published guidelines (English Heritage 1995; Watkinson and Neal 2001).

5.11 Following assessment of archaeological deposits identified on site, it was decided that no palaeoenvironmental samples would be taken, as the environmental potential of the deposits was deemed to be unsuitable for further study.

5.12 All archaeological works were undertaken in accordance with relevant standards, guidance and best practice published by English Heritage (2008), Historic England (2015) and the Chartered Institute for Archaeologists (2014a; 2014b).

Landscape survey

5.13 During the previous walkover survey (NAA 2013) the thick vegetation had hampered a clear view of much of the grounds surrounding the mansion, so the landscape survey was required to augment the information obtained during the previous stage of works. A systematic examination of the landscape around the mansion was carried out by two archaeological surveyors. All identified landscape features were identified and recorded by means of GPS survey and digital photographic record.

Open-area excavation

5.14 Following the results of the trial-trenching, it was agreed that the probable remains of the weaving factory should be fully exposed and further investigative excavation undertaken. All excavation by hand or machine was carried out in accordance with the previously stated methodology used for trial-trenching, which is described above and is not be repeated here.

6.0 LANDSCAPE SURVEY RESULTS

6.1 The landscape survey was carried out in optimal conditions on the 8th of September 2016, by two archaeological surveyors. At the time of the survey, the vegetation around the mansion had been cleared, allowing unencumbered views of the gardens.

6.2 Few additional garden features were identified. On the north-east side of the mansion, most of the garden features identified on the early mapping had been removed to allow for the installation of a large concrete swimming pool, which was heavily overgrown and partially buried by decayed vegetation. To the south-east of the

mansion, a large car-park occupied the area shown to be terraced gardens on the early mapping, and no additional features were seen. The standing stone, previously identified by NAA (2013), was visible cleared of vegetation and was investigated further during the excavations (see below).

6.3 The results of the survey appeared to confirm the assertion in the desk-based assessment that the grounds of the mansion were kept deliberately 'wild' and designed landscape features were minimal. Most designed features, such as footpaths or terraces, lay close to the house, but these had been truncated by a later car-park and swimming pool, and did not survive.

7.0 EXCAVATION RESULTS

7.1 Due to the evaluation and open-area excavation being carried out concurrently the results have been combined and are described together below.

Excavation

7.2 The results of the excavation are described in two sections. The first (Area 1) describes those remains associated with the weaving sheds adjacent to Daltongate, while the second (Area 2) describes the area surrounding the upstanding stone overlooking Daltongate.

Area 1: weaving factory

7.3 Evaluation trenches 1 and 2 were located to target the possible remains of weaving sheds adjacent to Daltongate (Fig. 2). Significant sub-surface structural remains, including in-situ masonry and floor surfaces, were identified within both trenches with varying degrees of preservation. In areas where levels of preservation were good, the remains of internal features were also identified (Plate 1).

Plate 1: overview of walls and floor surfaces exposed in Trench 1

7.4 An area of approximately 460m^2 was stripped by machine, removing overburden and demolition debris. This exposed the remains of a building constructed on terraces cut into the natural hill-slope to the north-west of Daltongate.

7.5 The surviving footprint of the building was rectangular in plan, occupying an area of approximately 190m^2, extending roughly 30m from north-west to the south-east (Fig. 5). Further remains were identified that extended beyond the south-eastern limit of the excavation, towards Daltongate. Three level platforms were identified, which were terraced into the hillside on which the building had been constructed. The uppermost terrace was observed at an approximate elevation of 45.6m above ordinance datum (AOD), below which a middle terrace was identified at an elevation of 44.1m AOD. Finally, foundations, incorporating a cellar floor, were identified at an approximate level of 41.6m AOD.

7.6 Outside the footprint of the structural features, the remains of 'yard areas', comprising external surfaces and walls, were identified. These were concentrated along on the south-western limits of the buildings. These 'yard areas' varied in character but were identified in all three terraces.

7.7 Each terrace is discussed separately below, followed by a description of the external features comprising the 'yard areas', the descriptions should be read in conjunction with Figures 4 and 5 which show the limits of recorded archaeological contexts overlain on a scaled photomontage.

Lower terrace

7.8 The remains of a single structure, roughly square in plan, were excavated on the lower terrace, alongside a variety of external features. This structure appeared to have been part of the weaving factory, displaying evidence of features that were considered to be associated with the presence of looms, and was subjected to a degree of remodelling during its use.

7.9 The structure was built over the natural geology (**1002**), which consisted of till deposits formed of yellowish-brown sand and gravel, which were encountered at a 42.41m AOD, approximately 0.4 m below the level of the topsoil.

7.10 Three buried soil horizons were identified above the natural, all of which were truncated during the soil stripping. Buried soil **1015** comprised dark greyish-brown loam with frequent gravel inclusions and was identified at a maximum thickness of 0.2m. This deposit was heavily truncated and was sealed by demolition debris (**1004**). Buried soil **1016** comprised mid greyish-brown loam with frequent gravel inclusions and survived to a depth of 0.5m at the base of the slope, where it was truncated by a construction cut for a boundary wall (**1017**). Buried soil **1053** comprised dark greyish-brown loam with frequent gravel inclusions; this deposit was observed at a maximum thickness of 0.32m.

7.11 The outline of the structure was identified via construction cut **1023**, which cut buried soil **1053**. The construction cut formed the outline of a square in plan, extending for approximately 9m on the north-western and south-eastern sides, and approximately 10m on the north-eastern and south-western sides. To the east, it extended beyond the limits the trench. This cut was never more than 1.1m wide and was observed at a maximum depth of 1.35m.

7.12 Construction cut **1023** was filled by wall **1060**, which appeared to form the structure's outer wall. Approximately 12.5m survived in total, with c. 10m running on a south-west to northeast alignment and c. 2.5m on a north-west to south east alignment, forming a corner and the northern limit of the structure. The wall was constructed of

roughly squared limestone surrounding a loose core of smaller fragments of limestone rubble (Plate 2). The dimensions of the stone varied greatly, with the observed maximum being approximately 0.7m by 0.3m by 0.2m.

Plate 2: oblique view of construction cut 1023 containing wall 1060

7.13 The courses were bonded with lime mortar and the internal face was plastered. It was observed to survive in situ to a maximum height of 1.35m from the base of the construction cut (41.14m AOD). The wall was approximately 0.9 m wide at its base narrowing to 0.6 m at its highest surviving course. There was limited evidence of internal structural features incorporated into it; these comprised a small sub-rectangular socket (Plate 3) and a fireplace with a partial chimney.

Plate 3: detail of socket built into wall 1060

7.14 The fireplace and chimney were incorporated into the centre of the north-western wall of the structure (Plate 4). The internal surfaces of the fireplace and chimney were faced with rough plaster and showed evidence of heavy sooting. It had been blocked at a later stage by wall **1068**, which represented deliberate infilling of the aperture. This infilling was part of a later phase of construction that remodelled the interior layout of the structure (group **1075**).

7.15 A heavily truncated wall (**1080**), surviving for approximately 2.5m on a north-west to south-east alignment, also filled construction cut **1023** and abutted wall **1060** at the western corner of the structure (Plate 5). It was comprised of roughly squared limestone that was heavily mortared around a loose core. A window bay survived demolition at approximately 0.3m above floor level, as did a possible entrance way. Walls **1060** and **1080** together form group **1104**.

Plate 4: overview of blocked fireplace and chimney built into wall 1060

7.16 Inside the structure, a floor surface (**1013**) was observed to overlay the plaster applied to wall group **1104**. This surface was observed over the entire internal space of the structure, except for the central north-west to south-east aligned transect occupied by construction cut **1049**. It comprised compacted reddish-brown clay with a maximum observed thickness of 0.07m.

Plate 5: overview of wall 1080 abutting wall 1060

7.17 Occupation deposit **1062** was observed overlying floor surface **1013** where the latter was exposed. This deposit comprised compacted laminations of dark grey silty-clay with frequent carbon inclusions and organic content. In areas where this deposit was not present, it was possible to identify the what appeared to be the footprint of beams or supports for machines that would have sat directly over floor surface **1013** and would have been in situ during the deposition of deposit **1062**.

7.18 Eight sub-rectangular pits of unclear purpose cut occupational layer **1062** and were separated into two groups (**1044** and **1048**). They were situated in a parallel orientation along the south-western and north-eastern walls. The pits may have served as beds for weaving machinery or facilitated their movement; however, their function was obscured by the destruction caused by a removal event, which appears to have expanded the pits.

7.19 Pit group **1044** consisted of four pits (**1036**, **1038**, **1040** and **1042**), which were no greater than 1.8m by 0.6m by 0.35m in size. The pits were aligned south-east to north-west along the remains of wall **1060**. All four pits were backfilled with rubble that had been compacted to restore the ground to the approximate level of floor surface **1013**. These deposits were then sealed by demolition layer **1014**.

7.20 Pit group **1048** consisted of a further four pits (**1025**, **1030**, **1032** and **1034**), which were no greater than 2m by 0.8m by 0.35m in size. These were aligned south-east to north-west along the remains of wall **1080** (Plate 6). Again, these pits had been backfilled with rubble.

7.21 A group of stakeholes (**1105**) flanked pit group **1048** and cut floor surface **1013**. These appeared to be related to beams or runners, the positions of which were indicated by the absence of occupation deposit **1062**. In addition, a group of post-holes (**1106**) cut the floor surface (**1013**) and were associated with pit group **1048**. These may have been associated with possible loom structures and may represent more than one phase of activity, as several small variations in size and alignment were identified. A second group of post-holes (**1108**) was also observed flanking pit group **1044** and may have served a similar purpose.

Plate 7: overview of internal cut features on south-west side of the building and occupational deposit 1062

7.22 The internal area of the structure was bisected by construction cut **1049**, which extended for approximately 9m on a north-west to south-east alignment. It was approximately 1m wide, with a maximum observed depth of 0.25m (Plate 7). The layout of the structure suggests this may not have contained a continuous wall line; the cut extends right up to the fireplace incorporated into wall **1060**. Surviving masonry (**1029**) fills part of the cut and, although heavily truncated, there was evidence that it may have been part of a later phase of remodelling of the internal space of the structure. This is due primarily to the fact that the width of the wall does not match the width of the construction cut unlike those in group **1104**.

Plate 7: construction cut 1049 containing wall 1029

7.23 Wall **1029** was comprised of roughly squared limestone and slate wall faces, which retained a loose core of limestone and slate rubble. Approximately 2m survived, running on a north-west to south-east alignment. It had a maximum height of 0.6m and a maximum width at the base of 0.55m.

7.24 Further evidence of remodelling was supplied by features comprising group **1075**, which included walls **1047** and **1063**, and in-situ masonry **1081**. These are discussed below. This group also included wall **1068**, which represents the deliberate infilling of the fireplace in wall **1060**, discussed above.

7.25 Internal wall **1047**, which was observed overlying the backfill (**1028**) of pit **1025** (Plate 8). This wall comprised courses of roughly squared limestone bonded with lime mortar. Truncated remains of the upper courses suggest that brick was also used in its construction and was appended to the lower limestone courses on a bed of slate. A single shaped piece of red sandstone also formed part of this wall, overlying the embrasure within wall **1080**. Wall **1047** ran approximately 3.5m south-west to north-east and was approximately 0.3m wide, survived to a height of 0.65m. It was observed abutting south-east to north-west aligned internal wall **1029**.

Plate 8: internal wall 1047 overlying rubble backfill 1028

7.26 The embrasure in wall **1080** was blocked up by truncated remains of masonry (Plate 10). This masonry (**1081**) consisted of roughly hewn limestone bonded with lime mortar and measured approximately 0.4m by 0.2m by 0.35m.

7.27 The truncated remains of a wall (**1063**) were also observed overlying the fill (**1031**) of pit **1030** (Plate 10). This wall was almost entirely demolished, with only a single course of masonry remaining in situ. The wall comprised roughly squared limestone bonded with lime mortar. It was aligned south-west to north-east and ran parallel to wall **1047**. The observed dimensions of the remains were approximately 0.8m by 0.3m, surviving to a height of 0.25m above floor surface **1013**.

Plate 9: detail of masonry 1081 blocking embrasure within wall 1080

Plate 10: Internal wall divisions, with wall 1063 in immediate foreground

7.28 Abutting wall **1063** was a localised deposit (**1020**) that consisted of reddish brown sandy-silt with frequent carbon inclusions and evidence of iron staining. This deposit was roughly circular in plan, with an approximate diameter of 0.35m, and was observed at a maximum thickness of 0.11m. Fragments of haematite kidney ore with polished or cut edges were recovered from this deposit, which was sealed by demolition layer **1014**.

7.29 Several features were also noted that appeared to be external to the structure. Along its south-eastern limit, were the remains of three unexcavated walls, which extended beyond the limit of the excavation (Plate 11). These were observed to run parallel to each other on a north-west to south-east alignment that was perpendicular to construction cut **1023** and abutted this feature. Wall **1107** was thought to be a continuation of wall **1060**. Approximately 3.5m to the south-west, wall **1096** was in line with construction cut **1049** and may represent a continuation of that wall line beyond construction cut **1023**. A further 1.5m to the south-west, wall **1094** abutted construction cut **1023** and appears to have been an external wall.

7.30 Further features on the lower terrace comprised a metalled surface (**1095**), foundations (**1097**), drain (**1089**) and associated drainage channel (**1088**); these will be discussed alongside other external features, below.

Plate 11: Remains of unexcavated walls 1094 and 1096

Middle terrace

7.31 The middle terrace extended approximately 8m north-west from wall **1060**. It was partially cut into and partially built up from the natural hill slope (Fig. 3).

7.32 A group of features (**1061**), comprising dry-stone footings and related construction cuts, formed the foundations for a raised section on the middle terrace, possibly forming the outline of a structure. Footings (**1058**) and (**1059**) ran parallel to one another on a north-west to south-east alignment within construction cuts (**1101**) and (**1102**) respectively. These construction cuts were not excavated but were observed to be stepped into the natural slope of hillside.

7.33 Both footings comprised roughly hewn limestone and slate in an unbonded dry construction with three-quarter or through stones forming rough coursing. The remains of footing **1058** extended for approximately 6m, were 0.8m wide, and were a maximum of 0.6m in height (Plate 12). Footing **1059** was not fully exposed (Plate 13). However, the visible remains extended for approximately 5m, were 0.8m wide and, where investigated, stood to a maximum height of 1.1m. Both footings abutted wall **1060**, with footing **1058** meeting at the norther corner, while footing **1059** met at the western corner.

Plate 12: dry-stone footing 1058 abutting the corner of wall 1060

Plate 13: dry-stone footing 1059 abutting wall 1060

7.34 A footing or column base (**1057**) was situated in the approximate centre of the middle terrace, equidistant between footings **1058** and **1059**. This was rectangular in plan, consisting of limestone and slate in a dry unbonded construction, and was approximately 1.3m south-west to northeast by 1m south-east to north-west (Plate 14). This feature was not fully exposed, although there was evidence that **1057** filled a construction cut (**1103**) that cut buried soil **1053**.

Plate 14: dry-stone footing or column base 1057, overlain by made ground

7.35 A construction cut (**1019**) was also observed to cut buried soil **1053**, which formed the back edge of the middle terrace. The cut extended approximately 6.4m south-east to north-west and 9.5m south-west to northeast and was observed to a maximum depth of 1.1m. The north-western edge of the cut was vertical in profile, suggesting that it might once have been partially filled by an external wall, although no in-situ masonry survived (Plate 15).

Plate 15: vertical edge of construction cut 1019

7.36 Footings **1058** and **1059**, in combination with wall **1060**, retain made ground comprising redeposited natural and rubble layers forming group (**1084**). These deposits had been heavily truncated from above, presumably during 19th-century landscaping following the demolition of the building. A machine trench was dug through these deposits to the natural geology, which revealed a partial stratigraphic sequence (Plate 16).

Plate 16: section across the middle terrace

7.37 Deposit **1052** was an unstructured layer of limestone and slate rubble in a matrix of dark grey sandy silt with frequent lime mortar inclusions. It had a maximum thickness of 0.44m and overlaid wall **1060** in section. This deposit extended approximately 7.8m on a south-east to north-west alignment and was truncated by the demolition and landscaping event that restored the natural slope of the hill in this area.

7.38 Overlying **1052** was deposit **1051**, a layer of made ground that consisted of mid-greyish-brown, slightly sandy clayey silt with frequent gravel inclusions. This deposit extended for approximately 1.6m on a south-west and north-east alignment and was observed at a maximum thickness of 0.17m.

7.39 Deposit **1050** overlaid **1051** and comprised a deliberate deposit of made ground, which consisted of mid-yellowish-brown, clayey sand and gravel. This represented probable redeposited disturbed natural. The deposit extended approximately 5.5m south-west to north-east and was observed to a maximum thickness of 0.33m. This deposit was sealed by demolition layer **1022**.

7.40 The limits of **1050**, **1051** and **1052** to the south-west and north-east were unknown, but it is likely that they extended over the entirety of the enclosed area between footings **1058** and **1059**.

7.41 Also included in group **1084** was deposit **1054**, which consisted of unstructured cobbles in a matrix of sandy silt with frequent lime mortar inclusions and overlaid construction cut **1019** (Plate 17). Due to heavy truncation, this deposit was physically separated from the other layers of made ground within the group. However, it clearly formed part of the levelling event across the enclosed area within the middle terrace. The deposit was not fully exposed but was observed to a maximum thickness of 0.15m in section. No other limits were determined.

Plate 17: an unstructured deposit of cobbles (1054)

7.42 Sealing **1054** was layer **1055**, which comprised mid-grey, sandy clay with frequent gravel inclusions. This deposit formed a relatively level bedding deposit for potential floor surfaces (Plate 18). It extended to the vertical cut of **1019** to the northwest and was heavily truncated across its south-eastern extent, measuring approximately 2.5m from north-west to south-east. The north-east to south-west extent of the deposit was unclear, and it appeared to extend beyond the enclosed area and extend under an external cobbled surface (**1064**) and across the top of made ground (**1092**) to the west of the structure. Where excavated, layer **1055** was observed to a maximum thickness of 0.03m; as a result, it may simply represent an interface between the made ground or natural geology below it and the various floor surfaces above.

Plate 18: an overview of layer 1055

7.43 A heavily truncated internal floor surface (**1056**) overlay layer **1055** (Plate 19). This consisted of five slate files separated into two groups. All the tiles were roughly 0.2m

wide, with the largest being 0.5m in length. Their maximum observed thickness was 0.03m. This floor was also sealed by demolition deposit **1022**.

Plate 19: truncated floor surface 1056

Upper terrace

7.44 The remains on the upper terrace were built up from construction cut **1074**; a sub-rectangular box cut into the slope of the hill that created a level platform approximately 2.5 m south-east to north-west by 10 m south-west to north-east (Plate 20).

Plate 20: upper terrace

7.45 A layer of compacted sandy clay with frequent gravel inclusions (**1070**) overlay construction cut **1074**. This may have served as a floor surface or as an interface

between the natural geology and a floor surface that is no longer present. The layer was heavily disturbed by later activity and had been truncated along the entirety of its south-eastern limit. Its approximate dimensions were 4.5 m by 2 m by 0.08 m.

7.46 The remains of a wall (**1069**) were built up against the north-western limit of compacted surface **1070** (Plate 21). This wall comprised roughly squared limestone blocks bonded with lime mortar. The wall extended approximately 4m south-west to north-east, with a maximum width of 0.3 m, and survived to a maximum height of 0.35 m. The south-eastern face was finished with painted lime plaster, which was light reddish brown in colour (Plate 21).

Plate 21: truncated wall 1069 with painted plaster applied to internal face.

External yard areas

7.47 External 'yard' areas were identified running adjacent to the south-west edge of the buildings on all excavated levels. These remains comprised metalled surfaces, external walls and a common drainage system extending the length of the building.

7.48 On the lower terrace, the yard area appeared to be enclosed.). Wall **1067** (Plate 22) provided a north-western limit to the yard on the lower terrace and comprised a loose construction of natural boulders and cobbles, with some roughly squared limestone, that was bonded with lime mortar. It was heavily truncated and built up from made ground (**1065**), describing an arc travelling south-west to north-east. The wall line was observed to a maximum high of 0.35m and was not continuous. It also included an outlet that fed a drainage channel (**1066**) from further uphill.

Plate 22: external yard area on lower terrace from above, with wall 1067 to the left

7.49 Wall **1067** was observed to abut wall footing **1093** that, together with wall footing **1083**, flanked the possible entrance in wall **1080**. Both footings were constructed of roughly squared limestone bonded with lime mortar and measured approximately 1m by 0.2m in plan. They abutted walls **1060** and **1080** respectively and appeared to have been bonded to the exterior surfaces of these walls.

7.50 The surface of the yard on the lower terrace was approximately equivalent to the level of floor surface **1013** (41.52m AOD). It comprised two areas with evidence for metalled surfaces (**1095** and **1024**), as well as other deposits, including made ground.

7.51 Metalled surface **1095** was identified abutting wall **1094** where it met construction cut **1023**. This surface comprised natural cobbles of irregular size and shape set in a matrix of compacted sandy clay. It was rectangular in plan, with a rough kerb or border on its south-western and south-eastern limits. The surface was approximately 1m north-west to south-east by 1.2m north-east to south-west.

7.52 The partially enclosed area between the building remains and boundary wall **1067** was covered by metalled surface **1024** (Plate 23). This truncated surface comprised a single layer of natural cobbles between 0.08m and 0.2m in diameter, which extended for approximately 8m north-east to south-west and 2.5m north-west to south-east at its widest. It was observed to abut drainage channel **1066**, boundary wall **1067**, wall **1080** and footings **1083** and **1093**.

Plate 23: metalled surface (1024) abutting incorporated drainage channel (1066)

7.53 A mottled whitish grey deposit (**1085**), primarily composed of crushed building material, was also identified in section abutting the south-west face of wall **1080**. It was observed at a maximum of 0.75m south-west to north-east and was approximately 0.35m deep. The full north-west to south-east extent of this deposit was not observed.

7.54 Sealing **1085** was a layer of made ground (**1065**). This comprised greenish grey, slightly clayey sandy gravel and was identified in section but not fully excavated. It was observed to a maximum thickness of 0.55 m and extended over an undefined area to the south-west of the building remains.

7.55 On the middle terrace, the yard area was defined by wall **1067** to the south-east and external boundary walls **1078** and **1091** to the north-west. Wall **1078** comprised natural cobbles and some slate in a rough dry construction. It was aligned north-east to south-west and incorporated a gap for a drain to pass through. The size of the stone used in the construction varied greatly, with the largest being 0.75m in its maximum dimension. The wall was never more than 0.25m deep and was heavily truncated.

7.56 The remains of a rectangular, open-ended 'box' (**1079**) were bonded with lime mortar to the south-eastern face of boundary wall **1078** (Plate 24). This feature appeared to have been constructed of roughly squared and split slate, with two sections remaining in situ. Its dimensions were approximately 0.75m by 0.3m in plan, and it was observed to be roughly 0.2m deep where the remains survived best. The purpose of this feature is unclear, but it may have comprised or contained some form of trough.

Plate 24: overview of wall (1078), slate 'box' (1079) and cobbled surface (1064)

7.57 Wall **1091** comprised a small, truncated section of dry-stone wall, which consisted of natural cobbles set against a vertical cut running along the north-western limit of the middle terrace. The remains extended for approximately 1.4m on a north-east to south-west alignment. This wall appeared to extend beyond the western limit of the excavation and most likely represented a continuation of wall **1078**, which stood roughly 3m to the north-east.

Plate 25: wall (1082) running parallel with footing (1059)

7.58 Within the yard area on the middle terrace, wall **1082** abutted the north-western faces of boundary wall **1067** and wall footing **1093** (Plate 25). It was only partially uncovered at its south-eastern limit and was observed running roughly parallel with footing **1059**. It comprised natural boulders and cobbles bonded with lime mortar; additional mortar or degraded plaster was observed appended to the south-west face of the wall.

7.59 This wall was sealed by made ground **1092**, which formed terracing to the west of wall footing **1059**. This deposit was identified in section at a maximum thickness of 0.9m and comprised redeposited light brownish grey, fairly compact, silty sandy gravel. The full extent of this deposit was not identified, as it was not excavated and only partially visible in plan. Layer **1055**, the floor surface from within the structure on the middle terrace, was observed partially overlapping made ground **1092** at its apparent north-western limit.

Plate 26: cobbled surface (1064)

7.60 Above layer **1055**, an external surface (**1064**) was observed to abut boundary wall **1078**. This comprised rounded natural cobbles of approximately 0.15m diameter that were pressed into compacted clay-sand (**1055**). This metalled surface was rectangular in plan with a south-east to north-west aligned kerb of larger cobbles (Plate 26). It measured approximately 1m by 2.5m, was no more than 0.1m thick, and was truncated along its south-east extent. The surface was sealed by demolition material (**1022**).

Plate 27: overview of external surface on upper terrace

7.61 On the upper terrace (Plate 27), a yard area was defined north-west of the building remains by dry-stone wall **1072**, which comprised natural cobbles and was on a rough south-west to north-east alignment that extended beyond the north-western limits of the excavation. Less than 1m survived, with a maximum height of 0.45m and a depth of 0.25m. It was sealed by demolition debris (**1046**).

7.62 A further small and heavily truncated area of metalling (**1073**) was bordered by wall **1072**. This comprise natural cobbles of various sizes arranged into a single layer that covered an area of approximately 1.5m by 2m, which also extended beyond the limits of the excavation.

7.63 The yard areas across all three terraces appeared to be connected by a drainage system. On the upper terrace, this comprised a drain inlet (**1071**) constructed of brick and slate, which funnelled into salt glazed collar pipe drains (Plate 28). A second drain inlet (**1087**) was identified on the middle terrace, consisting of a box drain, approximately 0.4m wide, which was constructed of brick and slate and also fed into salt glazed collar pipe drains (Plate 29). A partially exposed drain, comprising sections of similar salt glazed collar pipe drain, ran downhill from drain inlet **1087**. This drain was approximately 0.35m in length, with an internal diameter of c.0.08m. This drainage system made up drainage group **1090** and was overlaid by made ground **1092** on the middle terrace.

Plate 28: drain inlet (1071)

Plate 29: overview of drain inlet (1087)

7.64 On the lower terrace, drainage group **1090** was thought to be continued by the remains of a central drainage channel (**1066**) that ran north-west to south-east through the yard, which was fed from the outlet in wall **1067** (Plate 23). The remains of the channel were heavily truncated by a robber cut (**1099**), which had removed the majority of its previous extent. Where it was still evident, the remains consisted of two rectangular concrete blocks, which had a continuous V-shaped groove running down the centre of them. These blocks appear to have been set into made ground **1065** and were supported or levelled out on an ad hoc basis with pieces of slate.

7.65 A probable foundation (**1097**) was identified to the south-east of drainage channel **1066**, which comprised natural cobbles and roughly squared limestone bonded with lime mortar (Plate 30). This masonry was observed to be sub-rectangular in plan, measuring approximately 1.2m by 0.9m. The remains of a heavily truncated drain were incorporated into the masonry at its south-western limit. These were also thought to be part of drainage group **1090**.

7.66 A box drain (**1089**) constructed of slate and brick was also recorded on the lower terrace, which extended beyond the south-eastern limit of the excavation, heading towards Daltongate (Plate 30). The construction of the drain was notable in comparison to the tapered salt glazed pipes encountered elsewhere. Feeding this drain was drainage channel **1088**, comprising twelve bricks arranged in six pairs that described a shallow arc, and the salt glazed drain pipe incorporated into masonry (**1097**), which presumably connected to drainage group **1090** on the higher terraces.

Plate 30: metalled surface 1095, foundation 1097, drain 1089 and drainage channel 1088

7.67 A further external area was identified on the north-eastern side of the building remains, which sat apart from those on the south-western side. This comprised dry-stone wall **1005**, which was observed to abut wall footing **1058** and described an arc over 6 metres from the south-west to the north that followed the natural slope of the hill (Plate 31). It extended beyond the limits of the excavation and survived to a maximum height of 0.6m.

Plate 31: dry-stone wall (1005)

7.68 The wall was constructed with two outer faces that retained a core of rubble and was sat in a cut (**1017**) that truncated the natural slope of the hill. The south-eastern face of the wall was primarily constructed of roughly squared limestone interspersed with infrequent sub-rounded natural cobbles and slate. There was some evidence of lime mortar bonded to the outer face of the wall. The limestone varied greatly in size from approximately 0.15m to 0.7m in maximum dimension. The north-western face of the wall was primarily comprised of natural cobbles between 0.2m and 0.35m in diameter interspersed with occasional squared limestone blocks. The core comprised small cobbles, slate and limestone rubble of no more than 0.15 m in diameter.

7.69 A deposit of collapsed stone (**1012**) was observed to abut the north-western face of dry-stone wall **1005**. This deposit comprised unstructured sub-rectangular and sub-rounded natural cobbles of no more than 0.25m in diameter, which were wedged between the slope of the hill and the wall. This deposit was observed to a maximum depth of 0.45m and extended beyond the north-eastern limits of the excavation. This deposit was sealed by demolition material (**1004**).

Area 2: standing stone

7.70 Trench 3 was located to investigate a standing stone identified on the top of a small hill overlooking Daltongate (Plate 32).

Plate 32: standing stone, as identified in during the landscape survey

7.71 After the removal of the standing stone under archaeological supervision an area approximately 5m by 4m was stripped. Upon consultation with CCCHES and Persimmon Homes Ltd, the stripped area was expanded by a further 5m by 5m, covering the peak of the hill.

7.72 The natural geology (**1002**), comprising yellowish-brown sand and gravel tills, was observed at an average depth of 0.4m below the level of the current topsoil. The stripped area had until recently been heavily wooded and disturbance to the geology caused by tree roots was easily observable.

Plate 33: truncated stone-hole (3001)

7.73 A stone-hole (**3001**), approximately 1.1m in diameter and 0.83m deep, cut the natural geology (Plate 33). The stone-hole contained a single block of quarried limestone (**3000**) approximately 2.5m in length, 0.3m deep, and 0.5m wide at its base, tapering to 0.3m wide at the top (Plate 34). All faces were covered with rough tooling marks. The stone was secured in an upright position by a structured deposit of packing stones (**3002**), made up of natural cobbles and limestone between 0.1m and 0.3m in diameter. The packing stones were sealed by a deposit (**3003**) equal to the topsoil (**3004**), consisting of dark brownish-grey sandy silt with frequent gravel inclusions.

Fragments of pottery and glass were recovered from this context; however, they were considered to be intrusive due to the levels of bioturbation.

Plate 34: standing stone (3000) after removal

7.74 All contexts were heavily disturbed by rooting, and topsoil **3004** covered the natural geology across the excavated area. This varied in thickness between approximately 0.2m at the crest of the hill to 0.4m on the slope.

8.0 THE FINDS

Pottery (Charlotte Britton)

8.1 A total of 674 sherds of pottery, weighing over 15kg, were recovered during the excavations at Stonecross Mansion. The majority of these sherds (n=396) were recovered from within demolition layers **1003**, **1004**, **1014**, **1021**, **1022** and **1046**.

8.2 The pottery assemblage dated to the late 18th to 19th centuries and was classified as domestic ware. All of the pottery was British in origin and was most likely locally produced. Tablewares were heavily represented and the forms present were highly characteristic of the period.

8.3 A fragment of a 'Keiller & Son's' Dundee marmalade jar recovered from **1011** also helped date the assemblage to the mid-19th century. These jars were fairly commonplace during this period. In addition, a Stoneware jar base that read 'Ulverston' was recovered from demolition deposit **1014**, which would have been made locally and contained locally made product. These give a small glimpse into the types of goods used on the site.

8.4 Finally, a transferware mug, recovered from **1003** and painted with the name '*Eliza*', suggests the presence of children on the site. Such personalised mugs were often given to children as presents and incentives in the 19th century. They often had a relief of an animal at the bottom; this particular example has putty concreted inside, which may have been used to take an impression of such a relief.

Small finds (Dr Elizabeth Foulds)

8.5 Iron and clay pipe fragments, the latter of which date at the earliest to the mid-19th century, made up the majority of the small finds. The assemblage included a frying pan and utensils, a possible gear or fly wheel, and a fragment of an iron bristle textile brush.

8.6 Two glass bottles read '…OWTHER STREET'; 'WHITEHAVEN', which suggests they may have been made locally. A second bottle appeared to have contained a medicinal tonic for coughs and colds.

8.7 The remainder of the assemblage contained: clay marbles (further evidence for children); fragments of decorated window glass; a conical lead weight; a copper alloy token; and several buttons, one of which was marked with 'TURNER DICKINSON' 'ENEILUS ULTRA' and had a circumferential key pattern.

8.8 Where diagnostic, all of the small finds suggested a post-medieval date.

Ceramic building materials (Chrystal Antink)

8.9 Nine fragments of ceramic building material (CBM) and nineteen fragments of painted plaster were recovered for analysis. Of the CBM, four fragments were undiagnostic, with the remainder containing a fragment of post-medieval brick and two fragments of modern glazed tile.

8.10 The plaster fragments were mostly composed of rough, gritty material with a thin skim of fine lime plaster and had been painted orange to red on their faces.

8.11 All of the identifiable material was post-medieval in date.

Animal bone (Dr Elizabeth Wright)

8.12 The animal bone assemblage comprised 26 identifiable specimens (NISP; see Bertini Vacca 2012), consisting of sheep/goat, cattle, pig, equid, deer and galliforms (most likely chicken). One 2nd phalanx from an equid was very small, possibly indicating some kind of pony, although a specific breed could not be determined.

8.13 Most of the specimens had been modified, either through butchery or working. These included an antler knife handle and a long bone shaft filled with lead, probably used as some form of weight. Many of the bones had been smoothed, probably by machine, perhaps indicating the use of a mechanical sander/abrasive millstone.

8.14 The fact that the majority of specimens were domestic may indicate food waste; however, the high degree of bone working suggests that at least some of the assemblage was sourced specifically for this purpose. Equids, including ponies, may have been used as working animals on the site.

9.0 DISCUSSION

9.1 The landscape survey confirmed the assertion in the desk-based assessment (NAA 2013, 22) that the gardens contained little in terms of landscape features, and most had been picked up during the walkover survey. The clearance of vegetation from the north and east sides of the gardens allowed these areas to be assessed in greater depth, and few additional features were identified, with some degree of truncation evident from the 20th century use of the area.

9.2 The trial-trenching achieved the principle objectives for the evaluation phase of the archaeological works. Trenches 1 and 2 were targeted to establish the presence of the remains of a weaving factory outlined on the First Edition Ordinance Survey maps. The remains identified in these trenches broadly comprised in-situ walls and floor surfaces sealed by demolition rubble and topsoil.

9.3 Trench 3 was located to investigate features associated with an in-situ standing stone. The stone itself was removed by a mechanical excavator under archaeological supervision and was retained by Persimmon Homes Ltd to be incorporated into construction at a later date. A stone-hole directly associated with the stone was recorded, but no other archaeological remains were identified.

9.4 After assessment of the results of the trial-trenching, it was agreed through consultation between Persimmon Homes Ltd and CCCHES that the impact of construction on the archaeological remains identified required further mitigation. It was decided this should consist of open-area excavation of all structural remains that could be identified within Area 1 and expansion of Trench 3 in Area 2.

9.5 An area of approximately 320 square metres was stripped to identify the extent of the structural remains in Area 1. This revealed the remains of a building that had been cut into the natural hillside. The structural remains were rectangular in plan and aligned roughly north-west to south-east, roughly perpendicular to the line of Daltongate. The remains extended over three terraces cut into the hillside to the north-west and built up on the south-eastern slope. To the south-west of the building, evidence of external boundary walls and yard surfaces were identified on all three terraces.

9.6 The location and orientation of the uncovered structural remains were roughly consistent with the building depicted on the First Edition Ordinance Survey maps for the area (Fig. 2). The north-western, north-eastern and south-western extents of the largest building depicted were located in the stripped area. In-situ masonry was identified extending beyond the limit of the excavation to the south-east, suggesting that the building had existed directly adjacent to Daltongate; this is supported by evidence from historic mapping.

9.7 The First Edition Ordinance Survey map labels the building as '*Weaving Factory (Linen)*'. A more detailed outline of the property at Stonecross is available from an indenture dated 1835 between John Fell, Henry Dickenson and John Thornthwaite, which describes:

'Premises at Stone Cross consisting of the large weaving shope and four warehouses over the same also the small weaving shope and ware room over'.

9.8 There is a strong correlation between this description and the remains identified during the excavation. The remains appear to represent that of a purpose built multi-storey building constructed into the hillside, with evidence of possible weaving activity limited to the lower floor. The floor to floor height between partial floor surfaces recorded on the middle terrace and the cellar floor on the lower terrace was approximately 2.5m, suggesting adequate headroom for a workspace. The damp

conditions of a cellar are well suited to the activities of spinning and weaving linen, the fibres of which require moisture while being worked.

9.9 Where preservation levels were sufficient, evidence of a ground level window on the south-west facing wall was observed. This evidence, coupled with window lead and fragments of window glass recovered from demolition deposits sealing this area, suggests a deliberate effort had been made to incorporate natural light into the design of the cellar. Light would have been a key requirement for weavers and making best use of the available natural light would keep running costs down. This again suggests that this space had been built for the purpose of weaving.

9.10 The internal dimensions of the cellar were approximately 8m by 9m, though the floor space would have been reduced by a substantial internal dividing wall, which given the width of the foundations may have been load bearing. Two rows of sub-rectangular pits were identified, each consisting of four beds, which were directly adjacent to the exterior walls, allowing for a narrow corridor of approximately a metre between the dividing wall and the machines on either side.

9.11 There were variations in the structural remains surrounding the rows of robbed-out machine beds. Whilst both rows were flanked by fairly evenly spaced post-holes, those on the western side were sub-rectangular in plan and were surrounded by smaller stake-holes. There was also evidence of beams in contact with the clay floor on the western side. The presence of these beams was indicated by the absence of a dark occupational deposit, which had accumulated over much of the rest of the surrounding area, leaving two narrow strips parallel with the wall and evenly spaced with the clay floor still visible.

9.12 There was limited evidence of upper storeys in the building remains, due to heavy truncation by landscaping. The truncated remains of an interior floor surface on the middle terrace, coupled with the integration of structural wall remains on the middle and lower terraces suggest that the floor level identified on the middle terrace was projected out above the cellar on the lower levels. It is feasible that an upper storey or storeys existed and functioned as warehousing above the weaving shop in the cellar below, as was described in the indenture mentioned above. There was little material evidence of weaving in the finds assemblage; a fragment of an iron textile brush was retrieved that may have been associated with linen working. Additionally, there was a suggestion of the presence of pack animals from a fragment of animal bone thought to

come from a pony. All other information relating to the function of the building is inferred from the similarities identified between the remains and the description of premises in the indenture above.

9.13 The building uncovered appears to have been purpose built, no evidence of earlier construction was identified and mentioned above finds recovered from the excavations were all post-medieval and fit the suggested 19th century date of construction. It is possible that the remains identified were appended to an early building beyond the limit of excavation closer to Daltongate itself; '*Dalton gatta*' is mentioned in a Market Charter granted to Ulverston in 1280 by Edward I and appears to be a route of some importance in the medieval period.

9.14 Early maps, including the First Edition Ordinance Survey map, indicate the presence of other roadside buildings adjacent to Daltongate just to the south-west of the remains of the weaving shed, which may have been occupied during the construction and use of the shed. These buildings, described as Stone Cross Cottages, may predate the construction of the weaving sheds, but in any case appear to have been demolished during the extensive landscaping connected with the construction of Stonecross Mansion.

9.15 The main building of Stonecross Mansion was established by 1874 and construction was finally completed in 1880. Therefore, it seems probable that all of the buildings previously adjacent to Daltongate had been demolished by this time. Between the date of the indenture mentioned above and completion of construction of Stonecross Mansion, the building identified seems unlikely to have existed for longer than 45 years.

9.16 As previously mentioned there was evidence that the building had undergone alterations prior to its demolition and that the cellar area on the lower terrace in particular had been reworked. The possible machine beds identified in the cellar had been disturbed, alongside evidence of the removal of beams or runners secured to the floor. Additionally, there was evidence that the fireplace and window had been blocked up, all of which suggests that the function of the cellar had been altered. It is possible that if weaving was taking place in this workspace then these alterations mark an end to that activity, though no clear date can be given to this change in activity.

9.17 As has been pointed out above, the finds assemblage retrieved from the site is overwhelmingly domestic in nature. The presence of children was indicated by a transferware mug and marbles. It is possible that after weaving activities ceased the building reverted to a domestic function. Another possibility is that the warehouses continued to function, but the production of cloth ceased. The previously mentioned indenture made reference to bleaching fields and a mangle at Roshead, which are marked on the First Edition Ordinance Survey map just over 1km away from the site in what is now Rosside. It is possible that this aspect of the business continued and that even after weaving had ceased on site, warehouses closer to town were still required.

9.18 Taking evidence from mapping and the description of premises at Stonecross from the indenture, it seems reasonable to suggest the build remains uncovered during excavation do represent the weaving factory described. Furthermore, the building appears to have been purpose built and there was no evidence of activity on site prior to construction. Alterations to the use of the building prior to demolition were identified during excavation; however, it was not possible to do more than speculate as to their function beyond the removal of probable weaving equipment. It is possible that earlier buildings existed adjacent to Daltongate both to the immediate south-east of site and further to the south west where the presence of Stone Cross Cottages is indicated on the First Edition Ordinance Survey map. In both cases possible remains are currently outside the area of possible disturbance within a Tree Protection Area.

10.0 ARCHIVE DEPOSITION

10.1 The full archive from the archaeological investigations, including paperwork, drawings, photographs, digital data and the finds assemblage, is held internally by NAA.

REFERENCES

Armstrong, A. M., Mawer, A., Stenton, F. M. and Dickens, B. (1950) *The Placenames of Cumberland*. The English Placename Society 20-22. Cambridge: Cambridge University Press.

Bertini Vacca, B (2012) The hunting of large mammals in the Upper Palaeolithic of southern Italy: A diachronic case study from Grotta del Romito. *Quaternary International* **252**, 155–164.

British Geological Survey *Geology of Britain Viewer*. [Online] Available at: http://mapapps.bgs.ac.uk/geologyofbritain/home.html) (accessed on 2018)

Chartered Institute for Archaeologists (CIfA) (2014a) *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Reading: Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists (CIfA) (2014b) *Standard and guidance for an archaeological field evaluation*. Reading: Chartered Institute for Archaeologists.

Elsworth, D. W. (2007) The 'Streetgate' at Conishead, the 'Castellum' at Dalton, and Roman Furness. *Transactions of the Cumberland and Westmorland Antiquarian and Archaeological Society* (3rd Series) **7**, 31–48.

English Heritage (1995) *A Strategy for the Care and Investigation of Finds*. Swindon: English Heritage.

English Heritage (2008) *MoRPHE Project Planning Note 3 Archaeological Excavations*. Swindon: English Heritage.

Historic England (2015) *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' guide*. Swindon: Historic England.

Jarvis, R. A., Bendelow, V. C., Bradley, R. I., Carroll, D. M., Furness, R. R., Kilgour, I. N. L. and King, S. J. (1984) *Soils and their uses in Northern England*. Soil Survey of England and Wales Bulletin 10. Harpenden: Rothamsted Experimental Station.

Northern Archaeological Associates (NAA) (2013) *Stonecross Mansion, Ulverston, Cumbria: Desk-Based Assessment*. Unpublished Northern Archaeological Associates Report **13/89**.

Northern Archaeological Associates (NAA) (2016) *Land at Stonecross Mansion Written Scheme of Investigation.* Unpublished Northern Archaeological Associates Report **16/69**.

Watkinson, D. and Neal, V. (2001) *First Aid for Finds*. Hertford: Rescue/UKICAS

Primary Sources

Conveyance – Fell, Dickenson, Thornthwaite, 1835 (CRO(B) BDFELL/4/2/3)

Maps/Plans

Yates Plan of 1786

John Wood's Plan of Ulverston 1832

1st Edition OS surveyed 1846-7

Tithe Plan of a Portion of the Township of Osmotherley – John Robinson 1849 (CRO(B) 30/18/236)

2nd Edition OS surveyed 1890

3rd Edition OS surveyed 1911

APPENDIX A

CONTEXT AND FINDS CATALOGUE

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1000		-	Topsoil			Pottery x 2, CBM x 1, Glass x 2, Fe obj. x 1	1	2, 6	
1001		-	VOID				-		subsoil not identified over archaeological deposits
1002		-	Natural	below 1015, 1016, 1053; cut by 1049, 1074, 1086, 1071, 1007			1	2, 3, 6	
1003		1	Demolition layer	above 1004		Pottery x 174, Animal bone x 8, Clay pipe x 34, Window lead x 3, CBM x 1, Glass x 25, Fe obj. x 9, RF 01 Ceramic mug x 1	1		
1004		1	Demolition layer	above 1014, 1021, 1022, 1046		Pottery x 5, Animal bone x 1, Clay pipe x 3, Glass x 1, Fe obj. x 4	1		
1005		1	Group number for dry stone wall	above 1058; below 1018, 1012			1	2	
1006		-	Fill of 1007	above 1007; below 1000		Pottery x 3, Clay pipe x 1, CBM x 1, Glass x 1	1	1	
1007		-	Cut of post-hole	cutting 1002; below 1000			1	1	
1008	1005	1	N/NW face of dry stone wall	below 1018, 1012			1		
1009	1005	1	Core of dry stone wall			Pottery x 13, Animal bone x 1, Clay pipe x 4, Glass x 1, Fe obj. x 2	1	2	
1010	1005	1	S/SE face of boundary wall				1		

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1011		1	Deposit abutting 1060	above 1060; below 1000		Pottery x 88, Animal bone x 1, Antler x 1, Clay pipe x 1, Ag alloy obj. x 1, Glass x 17, Fe obj. x 17, Plaster x 2	1		
1012		1	Collapsed stones abutting 1008	above 1008; below 1004			1		
1013		1	Clay floor surface	above 1060, 1080; below 1025,1030, 1032, 1034, 1036, 1038, 1040, 1042,		Fe obj. x 1	1	3	
1014		1	Demolition layer	above 1033, 1035, 1037, 1039, 1041, 1043, 1047, 1063, 1068, 1081, 1088, 1095; below 1004		Pottery x 124, Animal bone x 5, Clay pipe x 56, Ceramic obj. x 1, Cu alloy obj. x 6, Window lead x 7, Industrial waste x 2, Glass x 15, Fe obj. x 94, Plaster x 1	1	4	
1015		-	Buried soil	above 1002; below 1004			1		
1016		-	Buried soil north of 1005	above 1002; cut by 1017			1	2	
1017	1005	1	Construction cut; dry stone wall	above 1058; below 1008, 1009, 1010; cutting 1016			1	2	
1018	1005	1	Deposit abutting 1008	above 1008, 1009, 1010; below 1004		Pottery x 47, Animal bone x 1, Clay pipe x 15, CBM x 1, Glass x 4, Fe obj. x 4	1	2	
1019		2	Construction cut; NW limit of middle terrace	cutting 1002; below 1055			1	3	
1020		1	Occupational deposit	above 1063; below 1014		Pottery x 20, Animal bone x 1, Clay pipe x 1, Cu alloy obj. x 2, Shell obj. x 1, Glass x 7, Fe obj. x 28, Worked ironstone x 10	1		

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1021		1	Demolition layer	above 1024, 1083; below 1004		Pottery x 30, Animal bone x 2, Clay pipe x 4, Cu alloy obj. x 2, Worked bone x 2, Glass x 16, Fe obj. x 16, Fe / ivory obj. x 1, Metal alloy obj. x 1	1		Above yard surface
1022		2	Demolition layer	above 1050, 1056, 1064, 1079, 1091; below 1004		Pottery x 47, Animal bone x 1, Clay pipe x 7, Ceramic obj. x 1, Glass x 2, Fe obj. x 7	1	3	above middle terrace
1023		1	Construction cut lower terrace	above 1053; below 1060, 1080			1	3	
1024		1	Cobbled surface	above 1067; below 1021			1		SW side of lower terrace
1025	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1026			1	5	
1026	1048	1	Primary fill of 1025	above 1025; below 1027		Pottery x 3, Clay pipe x 3	1	5	
1027	1048	1	Secondary fill of 1025	above 1026; below 1028		Fe obj. x 30	1	5	
1028	1048	1	Tertiary fill of 1025	above 1027; below 1047		Pottery x 2, Fe obj. x 24	1	5	
1029		1	In-situ masonry; NW-SE internal division	above 1049; below 1047			1	4	may be heavily truncated original masonry or later masonry, unclear
1030	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1031			1		
1031	1048	1	Fill of 1030	above 1030; below 1063		Pottery x 12, Animal bone x 1, Clay pipe x 49, Pb obj. x 1, Cu alloy obj. x 4, Glass x 1, Fe obj. x 138, Metal alloy obj. x 1	1		
1032	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1033			1		

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1033	1048	1	Fill of 1032	above 1032; below 1014		Pottery x 6, Animal bone x 1, Clay pipe x 29, Worked bone / plastic x 1, Glass x 3, Fe obj. x 136	1		
1034	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1035			1		
1035	1048	1	Fill of 1034	above 1034; below 1014		Pottery x 26, Animal bone x 1, Clay pipe x 40, Window lead x 1, Pb obj. x 1, Glass x 4, Fe obj. x 52	1		
1036	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1037			1		
1037	1048	1	Fill of 1036	above 1036; below 1014		Pottery x 21, Animal bone x 1, Clay pipe x 17, Fe obj. x 2	1		
1038	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1039			1		
1039	1048	1	Fill of 1038	above 1038; below 1014		Fe obj. x 6	1		
1040	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1041			1		
1041	1048	1	Fill of 1040	above 1040; below 1014		Pottery x 14, Animal bone x 1, Clay pipe x 40, Window lead x 1, Cu alloy obj. x 1, Glass x 1, Fe obj. x 9	1		
1042	1048	1	Cut of sub-rectangular pit	cutting 1013; below 1043			1		
1043	1048	1	Fill of 1042	above 1042; below 1014		Animal bone x 2, Clay pipe x 20, Glass x 1	1		
1044	1048	1	Group number for NE row of sub-rectangular pits				1		
1045	1048	1	Unexcavated mixed deposit	above1037, 1039, 1041, 1043; below 1014		Pottery x 8, Clay pipe x 9, Fe obj. x 6	1		Partially removed finds recovered

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1046		3	Demolition layer	above 1069, 1071, 1072, 1073; below 1004		Pottery x 15, Animal bone x 1, Clay pipe x 15, Worked bone / ivory x 1, Quartz x 1, Glass x 20, Fe obj. x 8, Fe / wood obj. x 1	1		Upper terrace
1047	1075	1	In-situ masonry; NE-SW internal division	above 1028, 1062; below 1014			1	5	Forms corridor along 1060
1048		1	Group number for SW row of sub-rectangular pits		1025, 1030, 1032, 1034, 1036, 1038, 1040, 1042		1		all features associated with possible weaving machines, hand looms etc..
1049		1	Construction cut containing wall 1029				1	4	
1050	1084	2	Made ground; redeposited natural	above 1051, below 1022			1	3	
1051	1084	2	Made ground; sandy silts	above 1052, below 1050			1	3	
1052	1084	2	Made ground; unstructured stone	above 1057, 1058, 1059; below 1051			1	3	probably equal to 1054
1053		2	Buried soil	above 1002; cut by 1023			1	3	
1054	1084	2	Made ground; cobbles	above 1053; below 1055			1	3	probably equal to 1052
1055	1084	2	Made ground; compacted clay sand	above 1019, 1054, 1092; below 1056, 1078, 1091			1	3	
1056		2	Floor surface; flagged	above 1055; below 1022			1	3	heavily truncated
1057	1061	2	In-situ masonry; dry construction	above 1103; below 1052			1		
1058	1061	2	In-situ masonry; dry construction	above 1101; below 1052			1		aligned NW - SE along NE side of middle terrace

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1059	1061	2	In-situ masonry; dry construction	above 1102; below 1052			1		aligned NW - SE along SW side of middle terrace
1060	1104	1	In-situ masonry; exterior wall	above 1023; below 1011, 1013, 1068, 1101, 1102			1	3	on NW and SE side of lower terrace
1061		2	Group number for masonry forming middle terrace		1057, 1058, 1059, 1101, 1102, 1103		1		
1062		1	Occupation layer; laminated	above 1013; below 1047, 1063			1		This layer formed whilst groups 1044 and 1048 were in use, apparently negative impressions observable in plan are actually the limits of this positive feature imposed by the previous existence of weaving machines
1063	1075	1	In-situ masonry; NE - SW aligned internal division	above 1062; below 1020			1		
1064		2	Cobbled surface	above 1078; below 1022			1		on middle terrace
1065		1	Made ground	above 1085; below 1066, 1083, 1093			1		
1066	1090	1	In-situ masonry; drain channel through yard 1024	above 1065, 1089; below 1067			1		
1067		1	In-situ masonry; SW limit of 1024	above 1066, 1093; below 1024, 1082			1		
1068	1075	1	In-situ masonry; blocking fireplace in 1060	above 1060; below 1014			1		
1069		3	In-situ masonry; SE facing wall upper terrace	above 1070, below 1046			1		
1070		3	Floor surface; compacted clay/sand upper terrace	above 1074, below 1069			1		

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1071	1090	3	In-situ brickwork; drain inlet upper terrace	above 1002; below 1046			1		
1072		3	In-situ; dry stone wall upper terrace	above 1086; below 1046			1		
1073		3	Cobbled surface; upper terrace	above 1086; below 1046			1		
1074		3	Construction cut; upper terrace	above 1002; below 1069			1		probably equal to 1086
1075		1	Group number for features reworking structure 1		1047, 1063, 1068, 1081		1		
1076		-	Not used				1		
1077		-	Not used				1		
1078		2	In-situ masonry; external wall on middle terrace	above 1055; below 1064, 1079			1		
1079		2	In-situ masonry; slate tank or box appended to 1078	above 1078; below 1022			1		
1080	1104	1	In situ masonry; SW external wall	above 1023; below 1013, 1081, 1085			1		
1081	1075	1	In-situ masonry; blocking window bay in 1080	above 1080; below 1014			1		
1082		1	In-situ masonry; wall abutting 1060	above 1067; below 1021			1		
1083		1	outer perpendicular 'buttress' wall abutting 1080	above 1065; below 1021			1		
1084		2	Group number for made ground forming the middle terrace		1050, 1051, 1052, 1054, 1055		1		
1085		1	Crushed building material abutting 1080	above 1080; below 1065			1		

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1086		3	Construction cut; upper terrace, external area	cutting 1002; below 1072, 1073			1		probably equal to 1074
1087	1090	2	In-situ brickwork; drain inlet	below 1092			1		
1088		1	In-situ brickwork; drain feeding 1089	above 1089; below 1014			1		
1089		1	In-situ brickwork; brick and slate constructed drain	above 1098; below 1088			1		
1090		-	Group number for drainage system		1066, 1071, 1087		1		
1091		2	In-situ masonry; middle terrace west of 1078	above 1055; below 1022			1		
1092		2	Made ground; SW of 1059	above 1082, 1087; below 1055			1		not excavated
1093		1	In-situ masonry; perpendicular 'buttress' abutting 1060	above 1065; below 1067			1		
1094		1	In-situ masonry; NW-SE aligned heading SE beyond L.O.E	below 1098			1		not excavated
1095		1	Cobbled surface; abutting 1094	above 1098; below 1014			1		
1096		1	In-situ masonry internal wall extending SE beyond L.O.E	above 1049; below 1014			1		
1097		1	In-situ masonry; pillar base on lower terrace	below 1098			1		not excavated
1098		1	Mixed deposit; S corner of excavated area	below 1089, 1095			1		not excavated

Context	Group number	Terrace/ area	Interpretative description	Relationships	Group components	Finds information	Trench	Section	Notes
1099		1	Robber cut into drain 1066	cutting 1024; below 1021					
1100		1	Unstructured rubble between 1094 and 1096	below 1004; above 1096					
1101	1061	2	Construction cut	below 1058; above 1060					
1102	1061	2	Construction cut	below 1059; above 1060					
1103	1061	2	Construction cut	below 1057; above 1053					
1104		1	Group number for in-situ masonry		1060, 1080				
3000			In-situ masonry; standing stone	above 3001; below 3002			3		
3001			Cut of stone-hole	above 3004; below 3000			3, 6		
3002			Packing stones; supporting 3000	above 3000; below 3003			3, 6		
3003			Fill of 3001	above 3002		Pottery x 12, CBM x 1, Glass x 3	3, 6		
3004			Topsoil	above 1002; below 3001			3		heavily rooted

APPENDIX B

POTTERY

Charlotte Britton

INTRODUCTION

A total of 674 sherds (15883g) of pottery were recovered from the 2016 excavations at Stonecross Mansion. All the pottery recovered was organised by stratified deposit (context) and quantified by count and weight (Table B1).

Table 1: Pottery sherds by count and weight

Context	Count	Weight (g)
1000	2	41
1003	175	3305
1004	5	24
1006	3	6
1009	13	68
1011	88	1430
1014	124	2675
1018	48	1256
1020	20	607
1021	30	864
1022	47	2669
1026	3	202
1028	2	78
1031	12	366
1033	6	165
1035	26	341
1037	21	1080
1041	14	291
1045	8	144
1046	15	232
3003	12	39
Total	**674**	**15883**

THE ASSEMBLAGE

The material was assessed by eye and, where possible, wares and vessel form were identified (Table B2). The assemblage dates to the post-medieval period (late 18th–19th centuries) and is classified as domestic ware. All of the pottery present was British in origin and was most likely produced within the local region. Tablewares in particular are heavily represented, and both the wares and forms are highly characteristic of the period. The wares present include Blackware; Brownware; Bone China; Mochaware; possible Pearlware; Slipware; Spongeware; Stoneware; Transferware; and Whitewares (including edged Whitewares). In addition, 4 sherds of non-glazed biscuitware were also recovered.

The forms identified were typical for this period, including flatwares, such as plates and sauces, and hollowares, including bowls, dishes, jars, and cups. In addition, a number of tea pot lids were present, as well as a ceramic bottle stopper from the fill (1033) of pit 1032. A fragment from a 'Keiller & Son's' Dundee marmalade jar was also recovered from deposit 1011. These jars were fairly commonplace during this period and help to date the assemblage to the mid-19th century.

A single Stoneware jar base was recovered from demolition layer 1014 that clearly reads 'Ulverston'. This would not only have contained a locally made product, but the jar itself was most likely made within the local area. Finally, a small transferware mug was recovered from demolition layer 1003, with floral decoration and the name 'Eliza' painted across it. Such personalised mugs were often given to children as incentives and presents in the 19th century. This particular example has putty concreted inside. Children's mugs from this period occasionally had the relief of an animal at the bottom and perhaps the putty was used to take an imprint of such a relief, although without removing the putty this is simply conjecture. Coupled with a single sherd of transferware pottery from the same context that appears to show the lyrics of a lullaby, it would seem that children are clearly represented within the assemblage.

RECOMMENDATIONS

All pottery recovered dates from the 18th–19th centuries and is in good condition; however, as it is highly characteristic of the time and place, it is recommended for discard.

Table B2: Wares present in each context

	Wares										
Context	**Blackware**	**Biscuitware**	**Brownware**	**Bone China**	**Mochaware**	**Pearlware?**	**Slipware**	**Spongeware**	**Stoneware**	**Transferware**	**Whiteware**
1000	x										
1003	x		x	x	x		x	x	x	x	x
1004				x	x						
1006							x				x
1009	x						x			x	x
1011	x		x	x	x		x	x	x	x	x
1014	x	x	x	x	x	x	x	x	x	x	x
1018	x		x				x		x	x	x
1020		x	x				x	x		x	x
1021		x	x		x		x	x	x	x	x
1022	x	x	x		x		x			x	x
1026							x				
1028							x			x	
1031	x		x							x	
1033					x		x		x		x
1035	x		x		x		x			x	x
1037	x		x	x			x		x	x	x
1041					x		x		x		x
1045	x		x							x	
1046					x		x		x	x	
3003					x		x			x	x

APPENDIX C

SMALL FINDS

Dr Elizabeth Foulds

INTRODUCTION

A total of 1,120 finds were recovered from excavations at Stonecross Mansion, Ulverston (Table C1).

THE ASSEMBLAGE

The majority of the finds consisted of iron and clay pipe fragments. There was an assemblage of cooking and eating ware from demolition layer 1014, including a frying pan and utensils. A possible gear or fly wheel was recovered from the topsoil (1000) and a fragment of iron bristle textile brush from the secondary fill (1027) of pit 1025. At least 60 pipes, based on fragments of bowls and/or spur, were present. Based on form and style, they probably date to as early as the mid-19th century (Parsons 1964).

Glass finds included two olive green bottles (from 1014 and 1021) that read: '...OWTHER STREET'; 'WHITEHAVEN'. There was also a medicine bottle that read: '...HMA & C.'; '...ENCHER'S'; '[TO]NIC. ELIXER'; '[CO]UGHS. COLDS.' Fragments of decorated window glass included some that were translucent green with embossed lattice design from demolition layer 1021. Other finds included clay marbles (1014 and 1022), a conical lead weight (1031), a copper alloy token (1014), a shell button (1020), three bone buttons (1021, 1033, 1046), and seven copper alloy buttons (1021, 1031, 1041). One of the buttons (1031) had 'TURNER DICKINSON'; 'ENEILUS ULTRA' and a circumferential key pattern.

DISCUSSION AND RECOMMENDATIONS

All the finds were indicative of post-medieval activity or were non-diagnostic. Only two finds were indicative of industrial activity at Stonecross Mansion. It is therefore recommended that the finds do not need to be archived with the paper archive.

REFERENCES

Parsons, J. E. (1964) The Archaeology of the Clay Tobacco-Pipe in North-East England. *Archaeologia Aeliana* (Fourth series) **42**, 231–54.

Table C1: Summary of material quantities by context.

	Material										
Context	**Bone**	**Ceramic**	**Clay pipe**	**Copper alloy**	**Iron**	**Glass**	**Hematite**	**Industrial Waste**	**Lead**	**Shell**	**Total Finds**
1000	-	-	-	-	1	2	-	-	-	-	**3**
1003	1	1	34	-	9	25	-	-	3	-	**73**
1004	-	-	3	-	4	-	-	-	-	-	**7**
1006	-	-	1	-	-	1	-	-	-	-	**2**
1009	-	-	4	-	2	1	-	-	-	-	**7**
1011	1	1	1	1	17	17	-	-	-	-	**38**
1013	-	-	-	-	1	-	-	-	-	-	**1**
1014	1	1	56	6	94	15	-	2	7	-	**182**
1018	-	-	15	-	4	3	-	-	-	-	**22**
1020	-	-	2	2	28	7	10	-	-	1	**50**
1021	2	-	4	3	17	16	-	-	-	-	**42**
1022	-	1	7	-	7	2	-	-	-	-	**17**
1026	-	-	3	-	-	-	-	-	-	-	**3**
1027	-	-	-	-	30	-	-	-	-	-	**30**
1028	-	-	-	-	24	-	-	-	-	-	**24**
1031	-	-	49	5	138	1	-	-	1	-	**194**
1033	1	-	29	-	136	3	-	-	-	-	**169**
1035	-	-	40	-	52	4	-	-	2	-	**98**
1037	-	-	17	-	2	-	-	-	-	-	**19**
1039	-	-	-	-	6	-	-	-	-	-	**6**
1041	-	-	40	1	9	1	-	-	1	-	**52**
1043	-	-	20	-	-	1	-	-	-	-	**21**
1045	-	-	9	-	6	-	-	-	-	-	**15**
1046	1	-	15	-	9	20	-	-	-	-	**45**
3003	-	-	-	-	-	3	-	-	-	-	**3**
Total	**7**	**4**	**349**	**18**	**596**	**122**	**10**	**2**	**14**	**1**	**1120**

APPENDIX D

CERAMIC BUILDING MATERIALS

Chrystal Antink

INTRODUCTION

A total of nine fragments of ceramic building material (CBM) and nineteen fragments of painted plaster were recovered from excavations at Stonecross Mansion, Ulverston (Table D1).

THE ASSEMBLAGE

Four CBM fragments were undiagnostic and not attributable to form or date. One fragment of handmade brick was from the post-medieval period. There were also fragments of two modern glazed tiles.

The plaster fragments were composed mostly of rougher gritty material with a thin skim of fine lime plaster, painted orange to red, on their faces.

DISCUSSION AND RECOMMENDATIONS

All the identifiable CBM was indicative of post-medieval activity and could be utilised in domestic or industrial settings. The plaster was not diagnostic of a specific period. It is therefore recommended that the finds do not need to be archived with the paper archive.

Table 1: Summary of ceramic building material quantities by context

Context	Count	Weight (g)	Object
1000	4	110	Tile
1003	2	5	Undiagnostic
1004	16	1668	Painted plaster
1006	1	3	Undiagnostic
1011	2	15	Painted plaster
1014	1	38	Painted plaster
1018	1	19	Brick
3003	1	1	Undiagnostic

APPENDIX E

ANIMAL BONE

Dr Elizabeth Wright

INTRODUCTION AND METHODOLOGY

This report presents a brief description of the animal bone recovered during archaeological excavations carried out on land at Stonecross mansion, Daltongate, Ulverston, Cumbria. The evaluation was undertaken by Northern Archaeological Associates Ltd (NAA) on behalf of Persimmon Homes Ltd between October and November 2016. The excavation was conducted to mitigate the impact of construction works upon identified in situ archaeological remains within a residential development. All of the material remains, including the animal bone assemblage, was recovered from an early 19th-century weaving shed.

The faunal material was recorded according to a selective diagnostic-zone recording protocol, following Bertini Vacca (2012). This involved the recording of a pre-defined set of skeletal parts, defined as 'countable', which were then used in the quantification of species and body parts. The Number of Identified Specimens (NISP) was obtained by tallying the number of 'countable' identified specimens for each taxon identified. The fusion of post-cranial bones for all taxa was recorded as 'fused', 'fusing' or 'unfused' (Albarella and Davis 1994). Evidence of bone modifications, including butchery, pathology, gnawing and burning, was recorded. Surface preservation was also indicated as 'excellent', 'good', 'medium', 'bad or 'awful'.

RESULTS AND RECOMMENDATIONS

The animal bone assemblage comprised of 26 specimens with countable zones (NISP; Table E1), The identified specimens comprise of sheep/goat (*Ovis aries/Capra hircus*), cattle (*Bos taurus*), pig (*Sus domesticus*), equid (*Equus sp.*), deer (*Cervus/Dama*), and galliform (probably chicken, *Gallus gallus*). One of the equid specimens was a very small 2nd phalanx, most likely from some kind of pony. This was compared with a Shetland pony held at the University of Sheffield, but it was too slender for this species. More research would be needed to identify which breed of pony this specimen belongs to.

Table E1: Numbers of Identified Specimens (NISP) for each species. '+' indicates a specimen that was present but not countable.

Taxa		NISP
Cattle	*Bos taurus*	7
Sheep/goat	*Ovis aries/capra hircus*	11
Pig	*Sus domesticus*	3
Equid		3
Red deer/Fallow Deer	*Cervus elaphus/Dama dama*	+
Galliform		2
Total		**26**

Most specimens were modified in some way, either through butchery or some kind of working. Identifiable worked specimens included a probable knife handle made from antler and a worked long bone shaft filled with lead, potentially used as some kind of weight (see Appendix C). Many of the bones had been smoothed across their surface, sometimes meaning that their

features were less prominent and the bone more 'squared' overall. This appeared to have been done with a machine rather than by hand, perhaps using some kind of mechanical sander/abrasive millstone. These remains may be waste from a specific kind of bone working, but more research would be necessary in order to investigate this further.

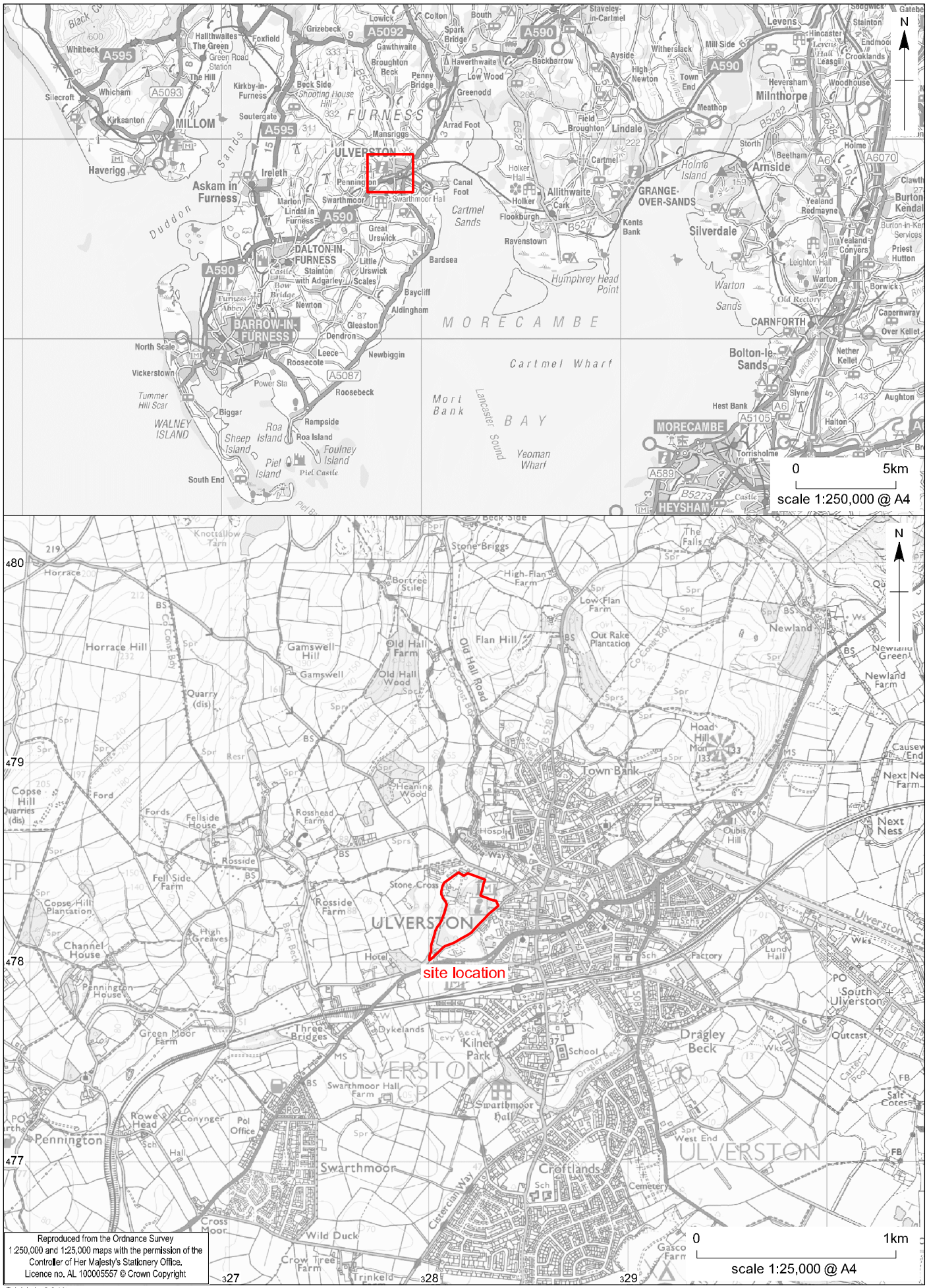
The animal bone assemblage was small but represented the main domesticates one would expect at this kind of site. Sheep/goat, cattle, pig, deer and chicken remains could have resulted from food waste, but in this case the degree of bone working may indicate that many of these bones were sourced specifically for this purpose. Equids, including ponies, may have been used as working animals.

The bone working pattern is the most interesting feature of this assemblage, and if any further work is to be undertaken it would be important to investigate if this is something related to the function of the shed for weaving, or if it is unrelated. As the assemblage is small, there is no case for further zooarchaeological study at this stage.

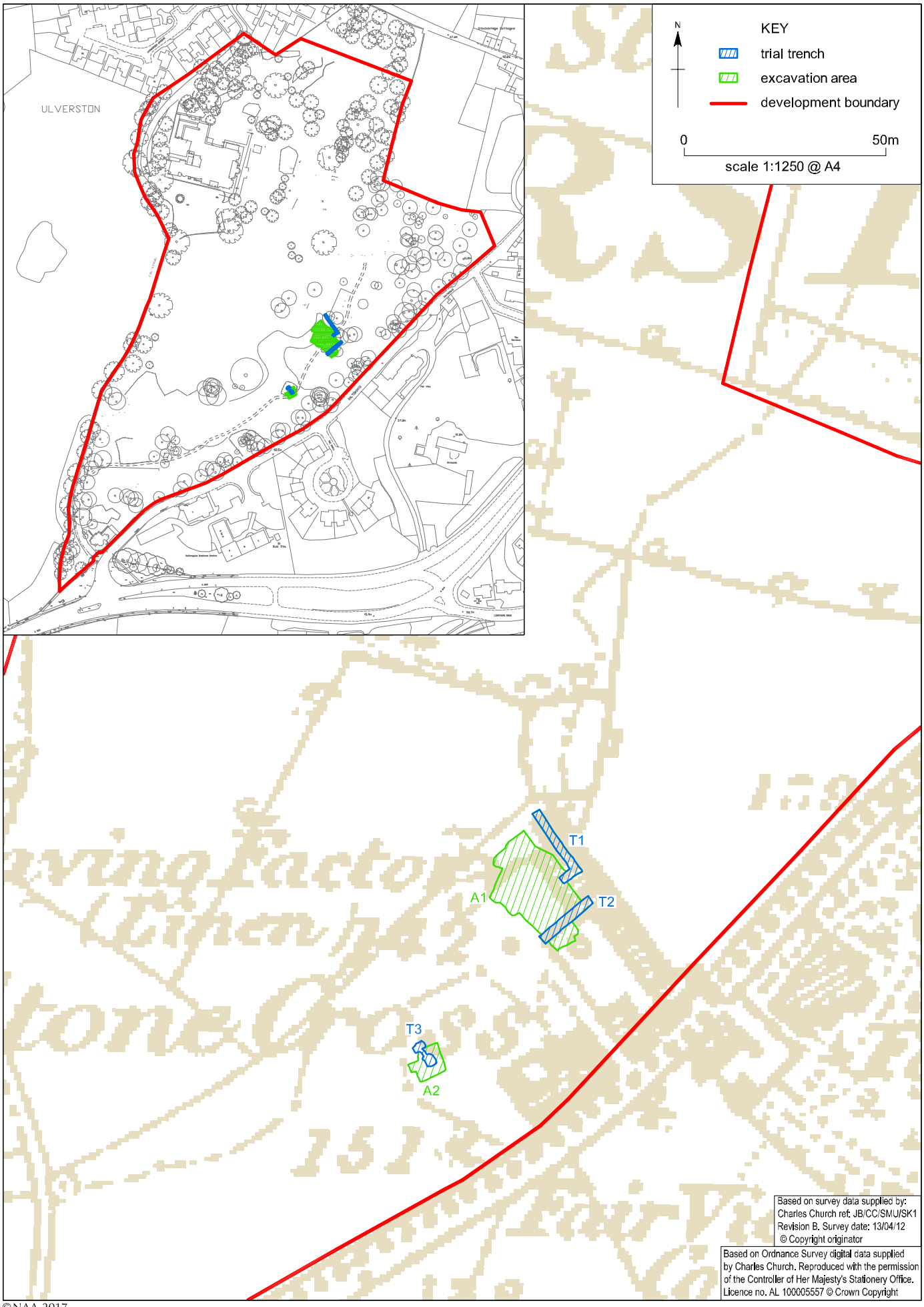
REFERENCES

Albarella, U. and Davis, S. (1994). *The Saxon and Medieval animal bones excavated 1985-1989 from West Cotton*. AML Report 17/94. London: English Heritage.

Bertini Vacca, B (2012) The hunting of large mammals in the Upper Palaeolithic of southern Italy: A diachronic case study from Grotta del Romito. *Quaternary International* **252**, 155–164.



Stonecross Mansion, Ulverston: site location *Figure 1*

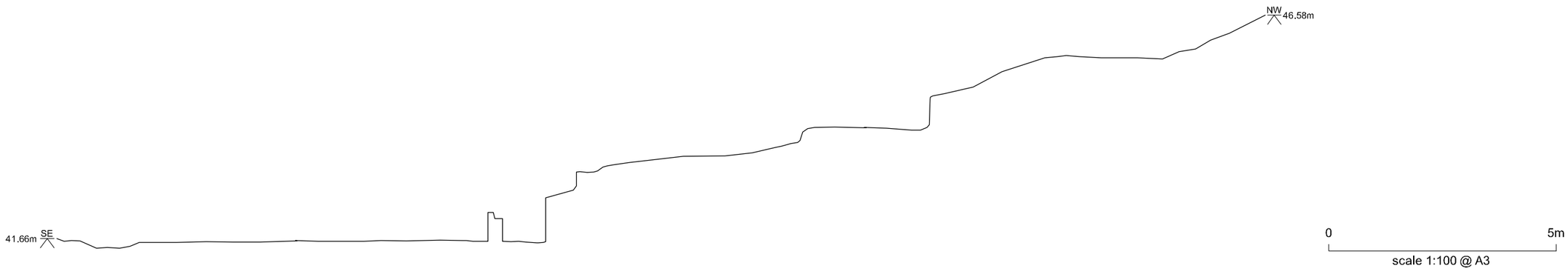


Stonecross Mansion, Ulverston: location of trial trenches and excavation areas overlain on First Edition Ordnance Survey map, 1849

Figure 2

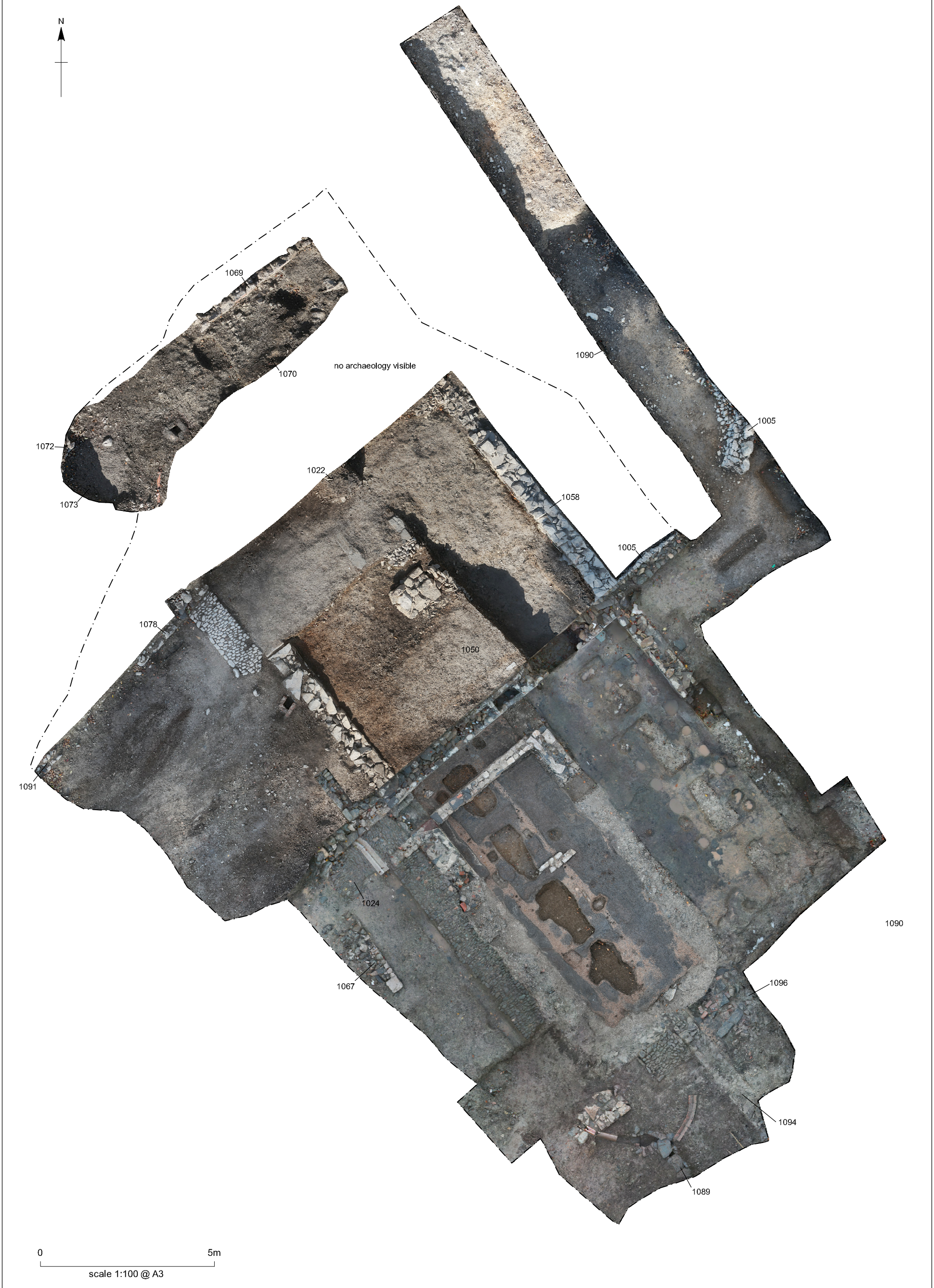
Section 1

Profile 1



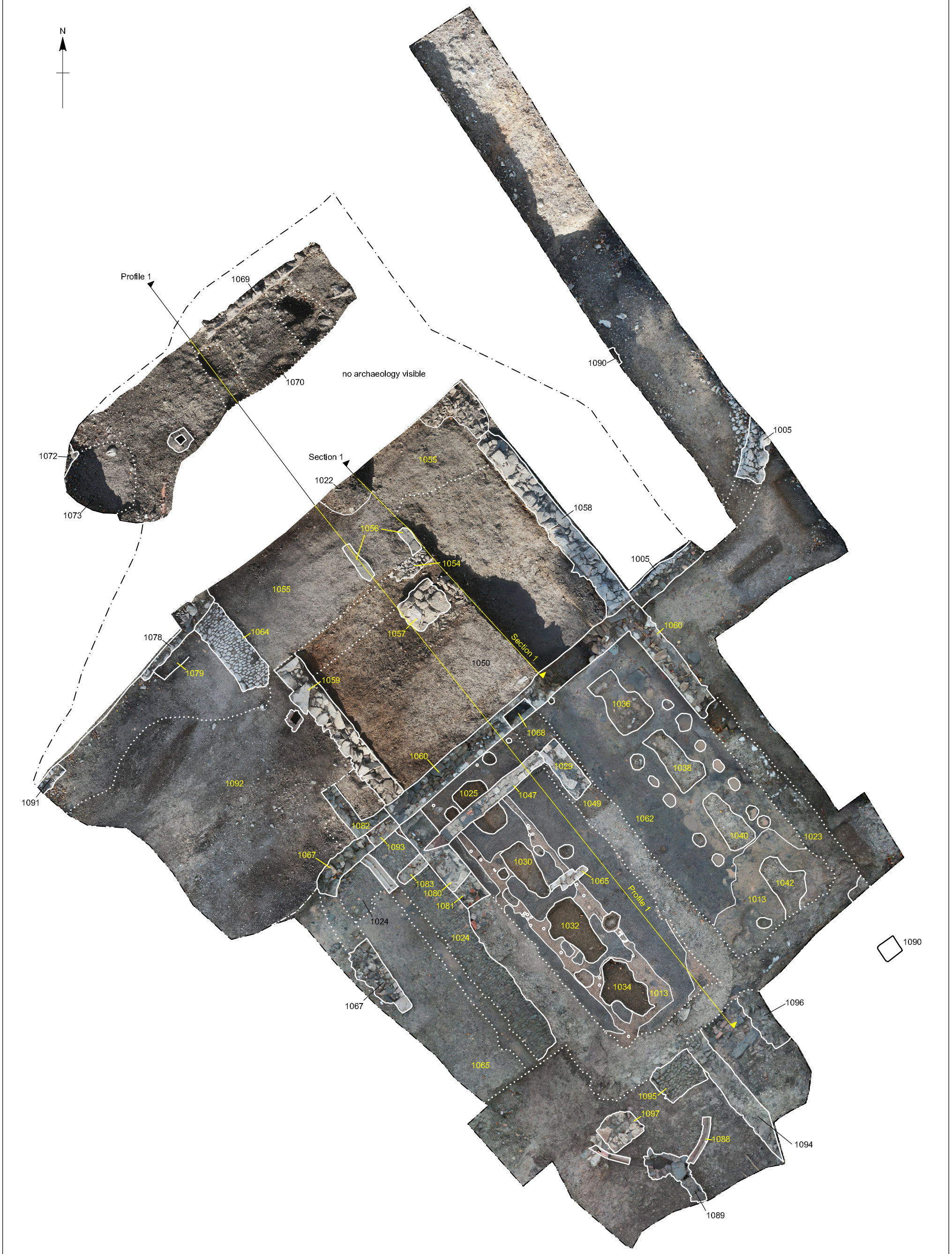
Stonecross Mansion, Ulverston: section through terrace and profile through terraces

Figure 3



Stonecross Mansion, Ulverston: photomontage of excavated area

Figure 4



Stonecross Mansion, Ulverston: recorded archaeological contexts overlain on photomontage

Figure 5