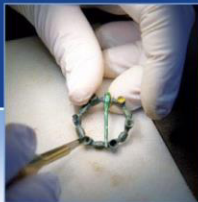


Green Mill Site, Knockroon Campus, Cumnock, East Ayrshire Archaeological Excavation Data Structure Report

AOC 23778

24th May 2018



ARCHAEOLOGY

HERITAGE

CONSERVATION

Green Mill Site, Knockroon Campus, Cumnock, East Ayrshire Archaeological Excavation Data Structure Report

On Behalf of:	East Ayrshire Council
National Grid Reference (NGR):	NS 5607 2025 (centre)
AOC Project No:	23778
Planning Application No/LBC:	17/0019/PP
Prepared by:	Jessica Lowther
Date of Fieldwork:	8-15 th May 2018
Date:	24 th May 2018

This document has been prepared in accordance with AOC standard operating procedures.

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Draft/Final Report Stage: Draft	Date: 24th May 2018

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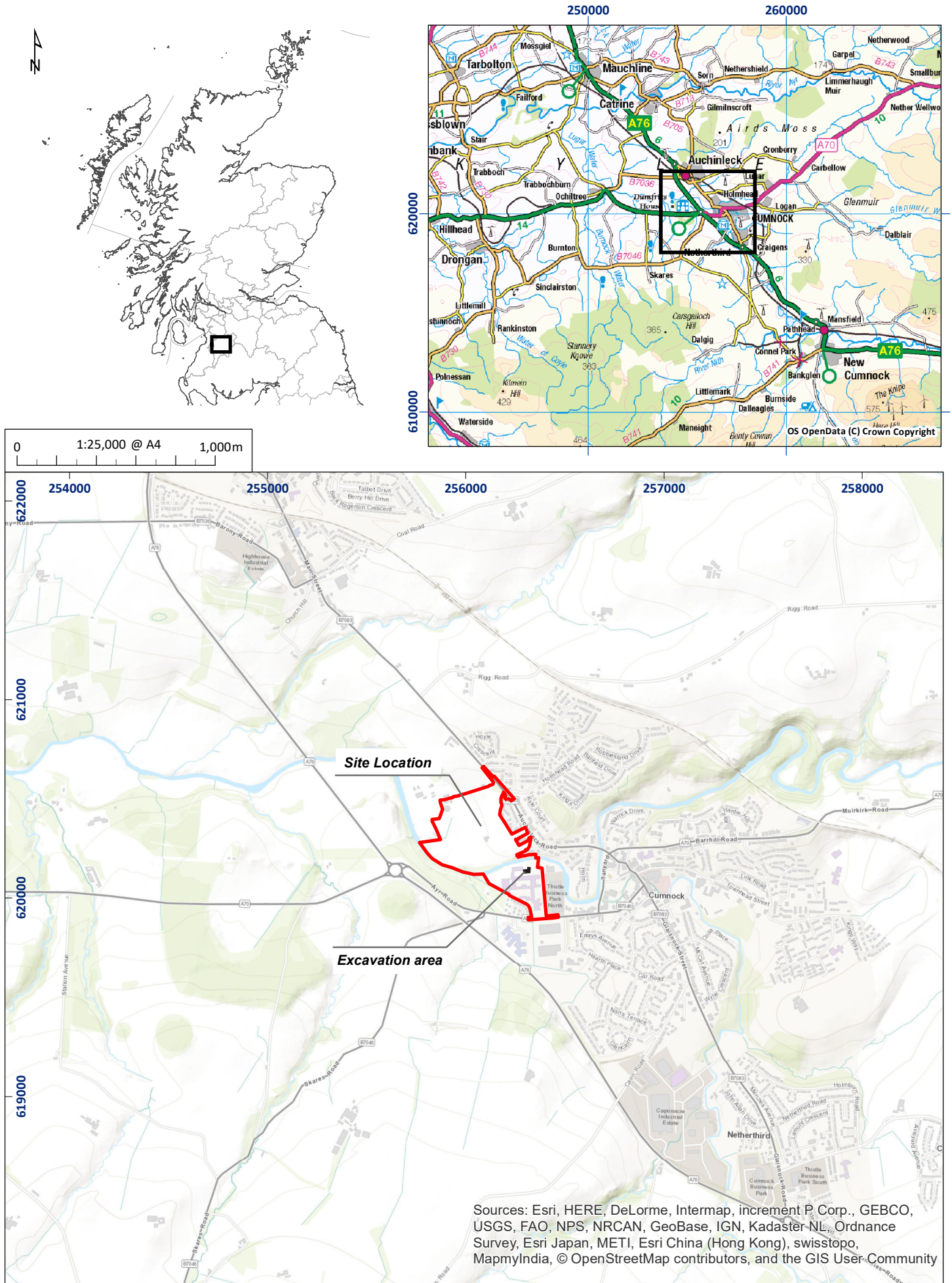


Figure 1: Site location plan

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SUMMARY

An archaeological excavation was required by East Ayrshire Council ahead of a large scale redevelopment of Cumnock Academy, Cumnock, East Ayrshire. This report details the results of the third phase of archaeological works on the site, following two earlier evaluations conducted in 2017 and 2018.

The excavation followed a programme of evaluation, completed in late 2017, in which features likely associated with “Green Mill” shown on the 1st Edition OS Map were encountered. The excavation saw an area some 30 m by 30 m opened revealing the heavily truncated remains of a mill lade running N-S across the site which was found to contain several sherds of 19th Century ceramic. No further buildings associated with the mill were uncovered as the site appears to have been heavily truncated by the school.

Given the presence and survival of the features in the North of the site where the ground level slopes down towards the river it is possible that further buried deposits or features could exist to the west of the current excavation boundary. It is possible that further works may be required in this area. This is to be ratified by the West of Scotland Archaeology Service.

1 INTRODUCTION

1.1 Development background

- 1.1.1 An archaeological evaluation was required by East Ayrshire Council ahead of a large-scale redevelopment of Cumnock Academy, Cumnock, East Ayrshire. East Ayrshire Council requested a programme of archaeological works as a planning condition (Planning Ref: 17/0019/PP). The need for, and scope of, the archaeological works was determined by the East Ayrshire Council who are advised on archaeological matters by the West of Scotland Archaeological Service (hereafter referred to as WoSAS).
- 1.1.2 The programme of archaeological works was in keeping with best practice outlined in current planning policy and guidelines: Scottish Planning Policy (2014) & PAN 2/2011 Planning and Archaeology (2011).

1.2 Site location

- 1.2.1 The proposed development area lies to the east of the A76 and north of Ayr Road, and south west of Auchinleck Road. The site is divided by the river Lugar Water which flows east to west across the site. Existing residential development lies to the east and southeast whilst grassland and woodland surround the remainder of the site.

2 HISTORIC BACKGROUND

2.1 Introduction

- 2.1.1 The HES and local HER databases do not show any sites as lying within the site boundaries. However, map regression shows that there is a mill present in mid 19th century depicted on the 1st Edition OS map (Figure 5). WoSAS notes that,

“The former Green Mill, located in the section of the development area on the southern side of the Lugar Water, appeared to be the only historic environment feature that could be identified from comparison with historic maps. This mill was represented on the 1st edition, on which it is identified as a corn mill, but it also seems to have been shown on Roy’s Military Survey of Scotland, conducted in the period between 1747 and 1755. Although it is difficult to make out the name of the mill on the Roy map, as the annotation associated with it runs across the river, it appears to occupy the same position as the mill shown on later OS maps. This is potentially interesting, as mills can be fairly stable and long-lived structures in the landscape, as their positions are normally dependent on access to a source of power, the river in this case. The position of the former mill lies within the portion of the site that is now largely occupied by the buildings of the existing school, though map regression does suggest that the majority of the mill buildings may have been located in an area that is predominantly occupied by playground and grass. It seems likely that this section may have been subject to a degree of previous landscaping and disturbance, but there may be some potential for elements of the former mill to survive below ground level.”

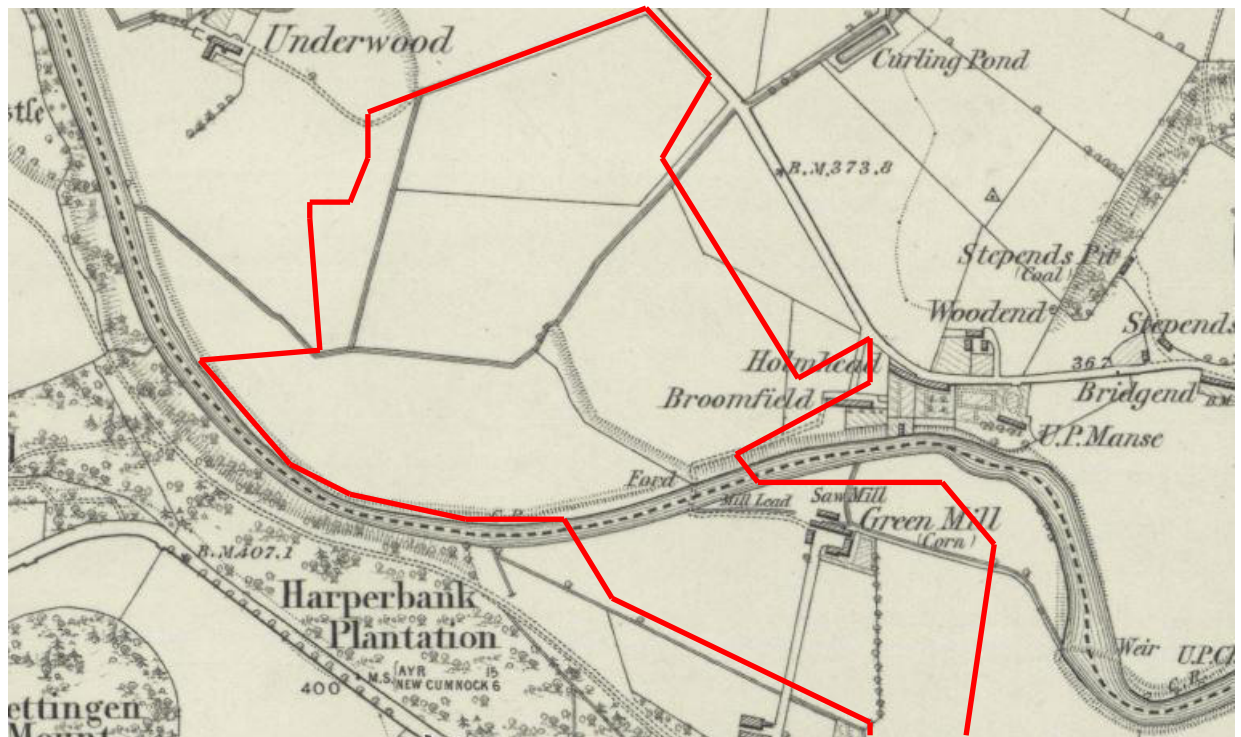


Figure 4: Extract from 1st Edition Ordnance Survey map with approximate development landtake in red

3 OBJECTIVES

3.1 The objectives of the archaeological works were:

- i) the identification, excavation, sampling and recording of all significant archaeological features associated with Green Mill within an area nominally measuring 40 m by 30 m;
- ii) the retrieval of a representative artefact assemblage;
- iii) upon conclusion of the excavation, the preparation of a post-excitation research design (*PERD*) to be agreed with WoSAS depending upon the significance and type of material recovered during the excavation (Stage 3). This work will begin with an assessment stage of the potential of the materials (soil samples & all artefact categories) recovered from the excavation. This assessment stage being used to determine the scope and appropriateness of the post-excitation analyses to be employed to address issues arising from the excavation. The *PERD* will be pertinent to the quantity, quality, character, date and condition of retrieved small finds and soil samples when considered against the series of research questions raised by the excavated features;
- iv) if required by WoSAS the post-excitation analysis of recovered material;
- v) if Required by WoSAS publication of results of the excavation bringing the findings into the public and academic domain.

4 METHODOLOGY

4.1 Archaeological Excavation

- 4.1.1 A programme of archaeological excavation was required prior to the intrusive development as outlined in the *Written Scheme of Investigation Addendum* (AOC 2018) following an evaluation in 2017 which revealed features possibly relating to the Green Mill building. Nominally a 30m x 40m area strip was suggested to ascertain the extent of the remains of the Green Mill buildings. The excavation could not take this format due to the presence of services onsite and instead formed an L shape exposing the areas most likely to contain building remains, and also covering the remains that were encountered in the evaluation phase (see Figure 2).
- 4.1.2 The excavation was conducted using a tracked excavator equipped with a toothless ditching bucket. All machine excavation was conducted in shallow units/spits through the overburden to the upper surface of the underlying drift geology or archaeological deposits. All excavation was monitored by an experienced archaeologist.



Plate 1 View of mill lade [004] as exposed viewed from SE

5 RESULTS

5.1 Introduction

- 5.1.1 The archaeological excavation was undertaken from the 8th to the 15th of May 2018.
- 5.1.2 The stratigraphy varied slightly across the site. The northeast of the site consisted of a grassy verge between the carpark and road, whilst the southwest of the site was under tarmac.
- 5.1.3 Under the tarmac in the southwest of the site was a made ground deposit ranging from 0.2m to 0.4m deep consisting of type 1 stone and shale. This made ground deposit was directly overlying

the natural gravels. The only feature encountered in this area was a ceramic drain and brick manhole (see Figure 2).



Plate 2 View of section through mill lade [004] from S

5.2 Archaeological Features

5.2.1 In the northeast of the site the stratigraphy consisted of 0.2m of grass and topsoil onto up to 1.2m of made ground deposits overlying the archaeology.



Plate 3 Post excavation view of mill lade [004] from N

- 5.2.2 A large linear feature measuring up to 5m wide was exposed in the north of this area cut into the natural gravels [004] (Plate 1). A 2m wide slot was dug in the northern end and a section is provided on Figure 4 and shown in Plate 2. The north of [004] was predominantly filled with mid to dark brown sandy clay with inclusions of coal chunks and numerous 19th century ceramics and glass. The lower fills of [004] consisted of silted and organic deposits (010), (005), (006) and (007). At the northernmost end [004] runs out of the site boundary northwards toward the Lugar Water at a depth of around 1m from top of feature and 2.2m from current ground level.
- 5.2.3 The southern end of [004] rises up to 0.3m in depth. At this end [004] is lined with several sub rounded small to large cobbles and a few sub squared sandstones, ranging from 0.10m x 0.15m x 0.10m to 0.5m x 0.3m x 0.4m (Plate 3). Two walls are also within the edges of the cut for [004]. Wall [012] was aligned NNE-SSW in cut [004] along its WNW edge and measured up to 3m long and up to 1m wide. Wall [013] consisted of eight large sub squared and sub rounded stones. Some sandstone, some natural rounded cobbles up to 0.55m x 0.4m and was aligned NNE-SSW in cut [004]. Between the walls was a deposit of large sub rounded cobbles [011] forming the base of the lade; abutting the walls at either side. This deposit was not present further down the lade base towards the Lugar water. It is likely that this deposit is only present close to the buildings and around the area where the waterwheel would have sat; although that is difficult to prove.
- 5.2.4 A section was cut through [011] to ascertain whether there were deposits below this inside [004] (see Figure 4). However, this section revealed that the stones making up [011] were in fact laid into the natural gravels. Furthermore; dating evidence in the form of several sherds of 19th century ceramics and glass were recovered from around and under the stones.
- 5.2.5 A large ceramic pipe ran the full length of [004] within the fill (008) and is shown on Figures 2 and 3.

6 DISCUSSION

- 6.1 The archaeological excavation revealed a limited series of archaeological features existing within the proposed development area. Unfortunately, none of the buildings shown on the 1st Edition OS Map have survived the building of Cumnock Academy. The area appears to have been heavily levelled prior to the school, associated carpark and road being built. It is likely that the ground naturally sloped down towards the river prior to this as in the far North of the site the natural gravels are present at a depth of 1.2m. This is likely to account for the survival of the large linear feature and also for the difference in its depth between in the north of the site, and where it presumably met the buildings in the south.
- 6.2 The large linear feature [004] excavated during this phase of works is shown on the 1st Edition OS Map (see Figure 6) and is likely the Mill Lade relating to this end of the Mill. The backfill deposit of the lade contained ceramics congruent with the 1800's. As Figure 5 shows, the feature was present in 1857; it is therefore likely that the backfilling happened in the late 19thC as by the 1895-7 OS Map the feature is no longer present. It was thought during the excavation process that this feature could be part of the early mill shown on Roy's Military Survey of Scotland; however, the dating evidence from the slot through [011] suggests that this is not the case.



Figure 6: Extract from 1st Edition Ordnance Survey map with linear feature circled in red

7 CONCLUSIONS & RECOMMENDATIONS

- 7.1 Given the presence and survival of the features in the North of the site where the ground level slopes down towards the river it is possible that further buried deposits or features could exist to the west of the current excavation boundary. It is possible that further works may be required in this area. This is to be ratified by the West of Scotland Archaeology Service.

8 REFERENCES

8.1 Bibliographic References

AOC 2018 *Knockroon Campus, Cumnock Written Scheme of Investigation Addendum*
Unpublished client report

AOC 2017a *Knockroon Campus, Cumnock Evaluation Interim Data Structure Report*
Unpublished client report

AOC 2017b *Knockroon Campus, Cumnock Evaluation Written Scheme of Investigation*
Unpublished client report

Scottish Government 2014 *Scottish Planning Policy*.

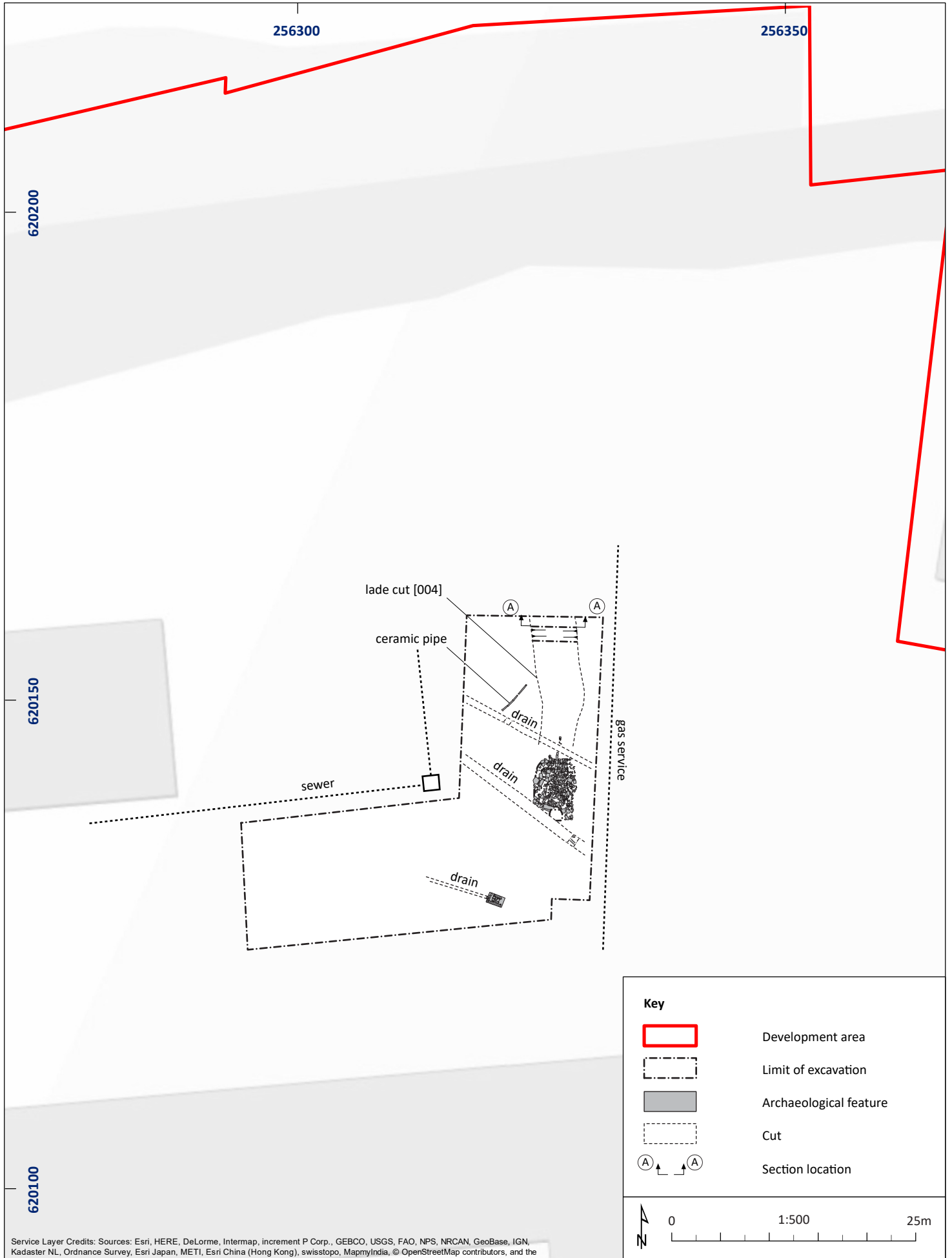
Scottish Government 2011 *PAN 2/2011 Planning and Archaeology*.

8.2 Cartographic References

1860

1st Edition OS Map

Ayrshire Sheet XXXV



Service Layer Credits: Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the

Figure 2: Site plan

01/DSR/23778/02/01

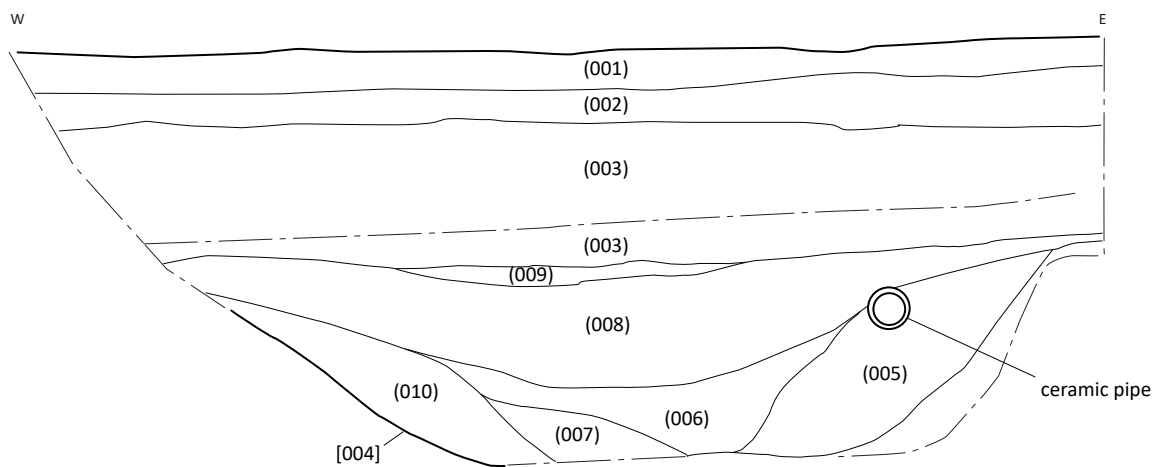


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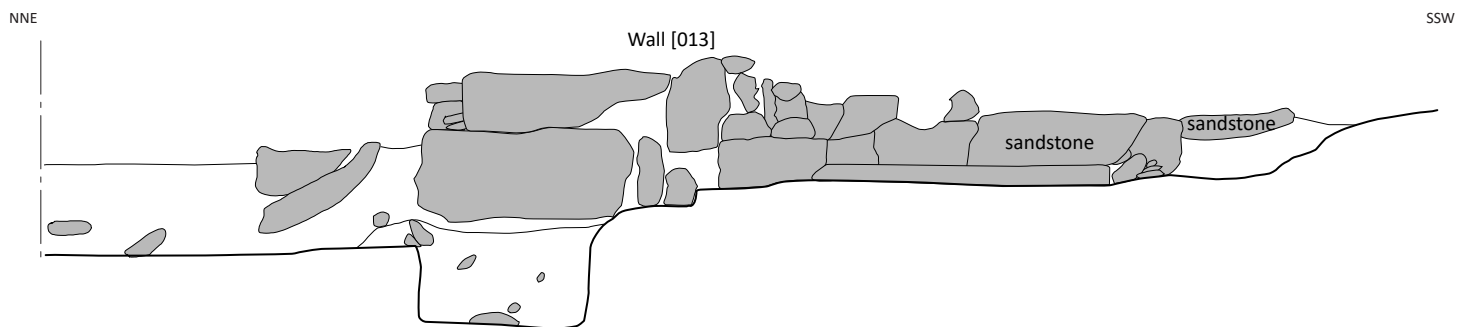
Figure 3: Post-excitation plan of lade



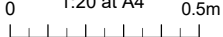
01/23778/DSR/03/01

Section AA



Section BB



Key	
	stone
 	

Licensing information necessary for mapping

Figure 4: Sections

01/23778/DSR/04/01

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Section 2: Appendices

APPENDIX 1: PHOTOGRAPHIC RECORD

Archaeological Evaluation: Digital Film

<i>No</i>	<i>Description</i>	<i>Taken From</i>
1	Start Photo	-
2-8	Pre ex site photos	Various
9-17	Site perimeter fenced	Various
18-26	End of opening grass area, tarmac removed	Various
27-30	Sterile subsoil under tarmac	Various
31-36	SSW facing section of lade [004]	SSW
37-38	Post ex slot in lade [004]	E
39-40	Post ex strip	Various
41-43	Post ex brick drain and manhole	Various
45-47	Overview of stripped area with only above drain	Various
48	Post ex slot in linear – drain	ENE
49	Overview of drain leading to lade area	SW
50-52	Overview of line of lade	N
53-54	Overview of line of lade	ESE
55	Overview of line of lade	SE
56	SE facing section of linear [015]	SE
57	SE facing section of linear [015]	SE
58-66	Lade with ceramic pipe in	Various
67	SSW facing section of fill of lade	SSW
68	Post ex mill lade	SSW
69	Post ex mill lade	SW
70	WNW Facing elevation of wall [013]	WNW
71	ESE facing elevation of wall [012]	ESE
72	Close up of shaped decorated stone in collapse material	ESE
73	Overview of above but showing wall [012]	ESE
74	WNW facing elevation of wall [013]	WNW
75	Post ex [004] mill lade	NNE
76	Post ex [004] mill lade showing collapse material to NW	NNE
77-78	Post ex [004] [013] [012] [017]	NNE
79-168	Photogrammetry photos of structure	Various
169	Post ex [004]	E
170-171	Post ex [004] from NNE showing full lade fill and orientation	NNE
172-173	Post ex [004]	NNE

APPENDIX 2: CONTEXT REGISTER

Context	Description and Interpretation
[000]	Light orange gravels with approx. 40% inclusions of sub rounded stones up to Subsoil
[001]	Light brownish grey sandy silt with occasional small stones up to 0.2m deep Topsoil
[002]	Light greyish orange clay with mixed material including ash and demolition material up to 0.3m deep Made ground
[003]	Dark greyish brown sandy clay with charcoal flecks and stones up to 0.8m deep Imported soil for levelling of site prior to school buildings
[004]	Linear in plan, oriented NNE-SSW. 20m long (exposed), up to 5m wide. Depth varies from up to 1m at NNE end to 0.25m at SSW end. Feature extends offsite toward river. Cut of mill lade
[005]	Dark brown sandy clay with charcoal flecks and occasional small stones – visible in section in slot at NNE end of lade Silted lower fill of lade [004]
[006]	Light greenish brown sandy silt – visible in section in slot at NNE end of lade Silted lower fill of lade [004]
[007]	Blue grey silty clay – visible in section in slot at NNE end of lade Organic material build up in base of lade [004]
[008]	Mid to dark brown sandy clay with inclusions of coal chunks and numerous 19 th century ceramics and glass. Inclusions closer to SSW end of feature predominantly consist of slag, coal and lesser inclusions of 19 th century ceramic and glass and slate roof tiles in lower levels overlying stones [011] Backfill of lade [004]
[009]	Bluish grey clayey sand surviving in thin patches across top of lade fill deposits Organic material/old turf
[010]	As (005) but in west of lade Silted fill of lade [004]
[011]	Several sub rounded small to large cobbles, ranging from 0.10m x 0.15m x 0.10m to 0.5m x 0.3m x 0.4m , Also including some sub angular and sub squared sandstone – roughly shaped. 1.8m x 4.8m exposed. Abutts walls [013] and [012]. Stones laid to form base of lade in cut [004]
[012]	Remains of wall – large sub squared sandstone blocks. Aligned NNE-SSW in cut [004] along its WNW edge. Abutting [011]. 3m long and up to 1m wide. Patchy survival. Remains of WNW lade wall
[013]	Eight large sub squared and sub rounded stones. Some sandstone, some natural rounded cobbles up to 0.55m x 0.4m. Aligned NNE-SSW in cut [004] abutting [011] lade base Remains of ESE lade wall
[014]	Area of possible cobbles – 2.5m x 1.8m in area immediately SE and ESE of [004] Possible cobbles – likely natural
[015]	Linear in plan, running NW – SE across site. Cuts backfill of lade and demolition material (017). 0.3m x 0.45m wide x width of site. 20 th century pottery in fill – not retained. Cut of modern drainage feature
[016]	Dark grey brown silty sand and gravels with occasional sub rounded cobbles. Fill of [015]
[017]	Large deposit of sub rounded stone, soils and roof tiles. 1.4m x 1.6m in plan. Includes find <001> decorated stone. Building collapse/demolition material
[018]	Light orange brown silty gravels with inclusions of sub rounded stones, metal fragments and 19 th century ceramics. Soil around and under [011] in lade cut [004]

APPENDIX 3: SAMPLE REGISTER

Context No	Litres Taken
[018]	8

APPENDIX 4: DRAWING REGISTER

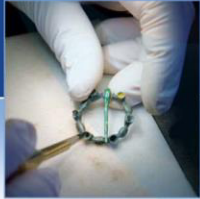
No	Description	Scale
1	SSW facing section of [004]	1:10
2	Plan south of site showing brick drain	1:20
3	Plan of southern extent of site and mill lade	1:20
4	Plan of northern extent of site and mill lade	1:20
5	Detailed plan of contexts within mill lade [004]	1:20
6	Section of [015]	1:10

APPENDIX 5: SMALL FINDS REGISTER

SF No	Context	Description
01	[017]	Decorated stone – possible curling stone
02	[008]	Brass scissor half
03	[018]	19 th century ceramics

APPENDIX 6: 'DISCOVERY AND EXCAVATION IN SCOTLAND' (DES) REPORT

LOCAL AUTHORITY:	East Ayrshire Council
PROJECT TITLE/SITE NAME:	Knockroon Campus, East Ayrshire
PROJECT CODE:	AOC 23778
PARISH:	Cumnock
NAME OF CONTRIBUTOR:	Jessica Lumb
NAME OF ORGANISATION:	AOC Archaeology Group
TYPE(S) OF PROJECT:	Archaeological Excavation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Mill
SIGNIFICANT FINDS:	Mill Lade
NGR	NT 53392 34079
START DATE	8 th May 2018
END DATE	15 th May 2018
PREVIOUS WORK	None
MAIN (NARRATIVE) DESCRIPTION:	<p><i>An archaeological excavation was required by East Ayrshire Council ahead of a large scale redevelopment of Cumnock Academy, Cumnock, East Ayrshire. This report details the results of the third phase of archaeological works on the site.</i></p> <p><i>The excavation followed a programme of evaluation in which features likely associated with "Green Mill" shown on the 1st Edition OS Map were encountered.</i></p> <p><i>During this phase the heavily truncated remains of a mill lade were encountered running N-S across the site containing several sherds of 19th Century ceramic. No further buildings associated with the mill were uncovered as the site appears to have been heavily truncated by the school.</i></p> <p><i>Given the presence and survival of the features in the North of the site where the ground level slopes down towards the river it is possible that further buried deposits or features could exist to the west of the current excavation boundary. It is possible that further works may be required in this area. This is to be ratified by the West of Scotland Archaeology Service.</i></p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	N/A
SPONSOR OR FUNDING BODY:	East Ayrshire Council
ADDRESS OF MAIN CONTRIBUTOR:	AOC Archaeology Group; Edgefield Road Industrial Estate; Loanhead, Midlothian, EH20 9SY
EMAIL ADDRESS:	admin@aocarchaeology.com
ARCHIVE LOCATION	Archive to be deposited in NMRS



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