

# **Fountain Court, Culzean, South Ayrshire: Archaeological Mitigation**

Data Structure Report



by Claire Williamson and Joss Durnan

issued 30<sup>th</sup> June 2017

on behalf of The National Trust for Scotland

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## Quality Assurance

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Signed Claire Williamson Date ....30<sup>th</sup> June 2017.....

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

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## Quality Assurance Data

Author(s)	Claire Williamson and Joss Durnan		
Date of Issue	30 <sup>th</sup> June 2017	Version	1.0
Commissioning Body	The National Trust for Scotland		
Event Name	Fountain Court, Culzean		
Event Type	Watching Brief		
Event Date(s)	April to May 2017		
Rathmell Archaeology Code	RA17033	OASIS Ref	rathmell1-281715
Location	United Kingdom : Scotland : South Ayrshire		
NGR	NS 23311 10220	Parish	Ayr
Designation(s)	Garden & Designed Landscape – GDL00124		
Canmore IDs	296750		

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## Introduction

1. This Data Structure Report has been prepared for the National Trust for Scotland in support of the insertion of a new drainage and irrigation system within the Fountain Court at Culzean Castle, South Ayrshire. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within the development area. The location of the work is in proximity to several known historical and archaeological features including:
  - ❖ Culzean Castle Estate, Culzean Castle, which is a category A Listed Building protected under the terms of Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997.
  - ❖ Culzean Coves, Caves, which is a Scheduled Monument protected under the terms of Ancient Monuments and Archaeological Areas Act 1979.
2. The Fountain Court forms part of the wider Designed Landscape surrounding Culzean Castle (Inventory Ref: GDL00124), and a number of other structures and significant archaeological sites are known to exist in proximity.
3. Rathmell Archaeology Ltd has been appointed by the National Trust for Scotland to undertake the implementation of archaeological mitigation works. All works undertaken comply with Rathmell Archaeology Ltd standard working procedures and the West of Scotland Archaeology Service standard conditions. This Data Structure Report is designed to meet the requirements of the National Trust for Scotland.

## Archaeological and Historical Background

4. From the 12<sup>th</sup> to the early 17<sup>th</sup> century, Culzean was one of a number of small castles of the Kennedy family. It occupied a strong position on top of cliffs, with a steep valley and escarpments defending the landward side (Figure 1a). A series of caves in the rock beneath contained "two dainty spring wells". The fortified caves can still be seen at NS 2327 1030, just above high water mark. In the hands of a cadet branch before it became the seat of the head of the family in the mid-18<sup>th</sup> century, it remained a comparatively modest and typical Scots tower house.
5. The old castle was remodelled by Robert Adam (Close and Riches 2012) for David, 10<sup>th</sup> Earl of Cassilis, starting in 1775. The southern front was built up, incorporating some of the masonry of the old tower in the main block; wings were added to east and west. After some years, the drum tower on the edge of the cliff was added, and the central gap filled in. Adam's work included the stable buildings, and also the mock ruined arch and causeway which now form the main approach to the castle. Figure 1b shows Culzean Castle as it appears on the 1<sup>st</sup> edition Ordnance Survey in 1859. In 1879, the castle took its final form with the addition of the west wing wrapping around the south side of Adam's brewhouse.
6. In 1945, the Kennedy family gave the castle and its grounds to the National Trust for Scotland. In doing so, they stipulated that the apartment at the top of the castle be given to General of the Army Dwight D. Eisenhower in recognition of his role as Supreme Commander of the Allied Forces in Europe during the Second World War. The General first visited Culzean Castle in 1946 and stayed there four times, including once while he was President of the United States.

### *Fountain Court*

7. The designed landscape at Culzean is discussed at length in its Inventory of Garden & Designed Landscape entry and it is not proposed to reproduce all the details here (for further details, see the accompanying entry at <http://portal.historicenvironment.scot/designation/GDL00124>). In summary, Culzean represents one of the most important Picturesque landscapes to survive in Scotland (c. 1780-1830s), its significance further enhanced by the role it plays as the landscape setting for Robert Adam's Classically-inspired Culzean Castle.

8. The initial development of the site into a landed estate occurred after its union with the barony lands of 'Culean' to the south under Thomas Kennedy in 1597. After this Thomas rebuilt the tower house and it is thought that the garden terraces to the southeast of the castle were also part of his scheme to upgrade the grounds. During the 17<sup>th</sup> to 18<sup>th</sup> centuries the new house became a more established estate centre with yards, orchards and terrace walls for fruits and flowers.
9. One of the most valuable resources for the layout of the grounds in the 18<sup>th</sup> century is the estate plan drawn up by John Foulis in 1755. While this still shows the landscape as dominated by open fields, aspects of a designed landscape are starting to emerge, one of the most prominent being the walled garden adjacent to the terraces in the area of the current Fountain Court (Figure 2a). This walled garden appears to have been mentioned at least twice prior to this plan. The first in 1733, when it was recorded that John Kennedy extended the walled garden at the foot of the Castle Terraces, and the second in 1749, when a "Garden Chamber" built in the walled garden was then repaired and enlarged (National Trust for Scotland 2013, 13). Throughout this period the garden would have served as the castle's main food production area with various fruit and vegetables grown across the terraces and within the garden itself.
10. In 1775, David Kennedy acquired the estate and set into motion largescale improvements of the house and estate throughout the end of the 18<sup>th</sup> century, hiring the renowned architect Robert Adam to oversee the work. It was during these improvements in 1782 that the walled garden was demolished and moved to its current location further to the southwest (Moss 2002, 70). In the period after this the area of the Fountain Court was purposely designed to be wild and unkempt to fit in with Adam's Picturesque scheme.
11. In the 19<sup>th</sup> century, the Fountain Court became the more structured formal garden that can be seen today where lawns were levelled and a bowling green was constructed below the terraces in 1853. The large fountain at the centre of the court was constructed in 1876 representing the last major change to its layout (Moss 2002, 197).
12. While watching briefs have been undertaken during various improvements around the estate, no archaeological investigations appear to have been previously undertaken directly within the area of the Fountain Court. The closest was the monitoring of re-surfacing works on the path of the middle terrace in 2006 where no archaeological remains were found (Alexander 2006).
13. Prior to these drainage works, a Ground Penetrating Radar (GPR) survey was undertaken across Fountain Court in 2013 with the aim of mapping pre-existing drainage features (Ovenden 2013). The survey identified a complex network of presumed drainage features aligned differentially across the site, as well as more substantial services and numerous amorphous anomalies which were thought to indicate localised variations in the subsoil due to landscaping.

## Project Works

14. The programme of works comprised the archaeological monitoring of a series of trenches for the insertion of new drainage and a new irrigation system within Fountain Court which sits to the southeast of the castle (Figure 2b). The trenches were machine excavated, with the monitoring works taking place from the 6<sup>th</sup> April to 2<sup>nd</sup> May 2017.
15. During the monitoring works the remains of a sandstone wall were uncovered, and at the instruction of the National Trust for Scotland an area was opened by machine at the southwestern end of Fountain Court to enable a larger sample of the remains to be excavated and recorded (Figure 5). The area measured 5.3m by 6.6m in size, and these works took place from the 26<sup>th</sup> April to 28<sup>th</sup> April 2017.
16. All works were conducted in accordance with the Chartered Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Environment Scotland Policy Statements.

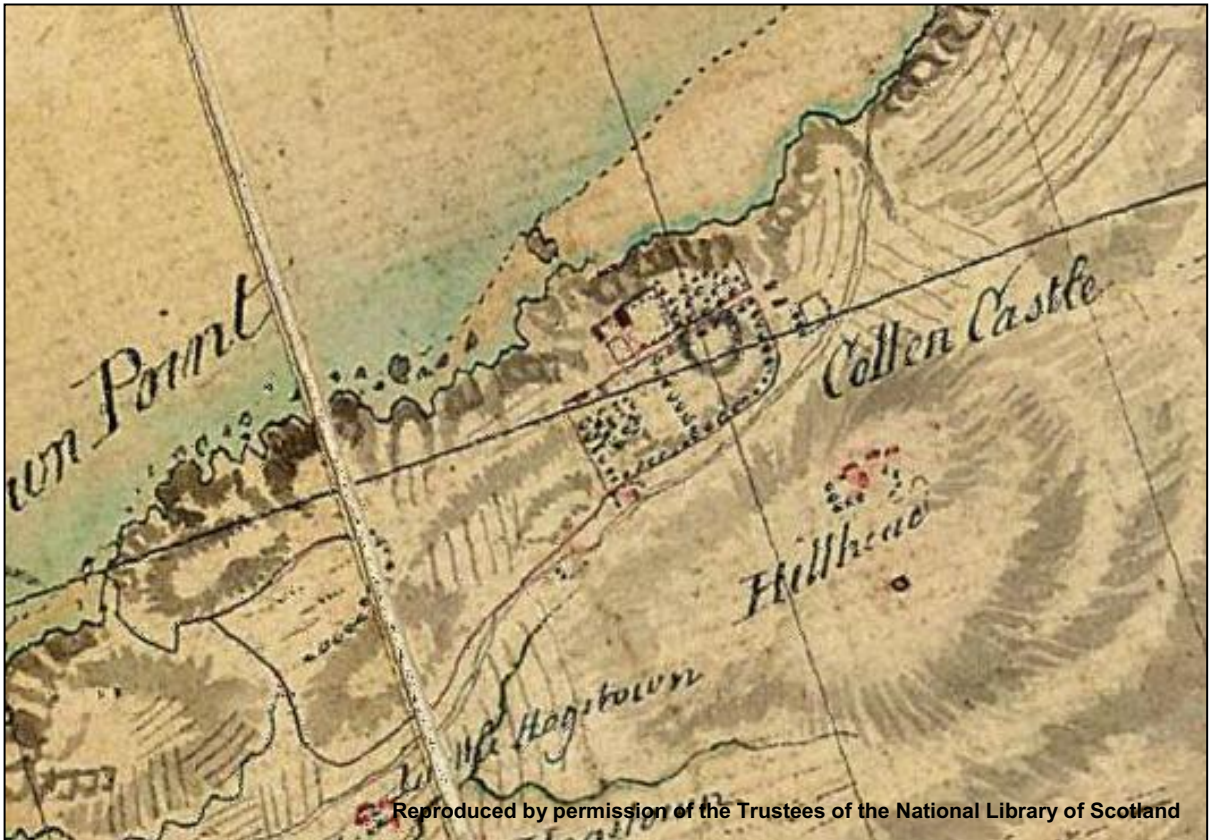


Figure 1a: Extract from Roy's Military Map of 1752-55

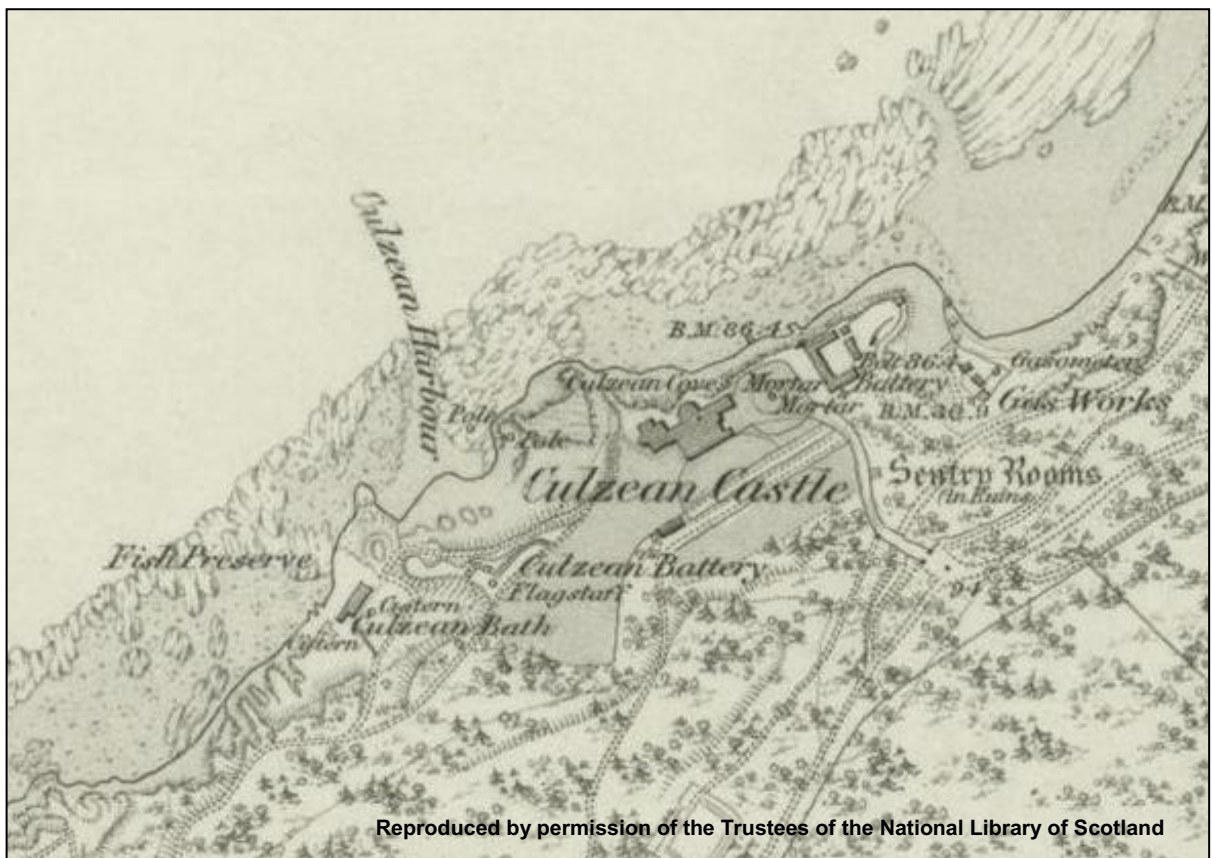


Figure 1b: Ordnance Survey 1<sup>st</sup> edition Map of 1859

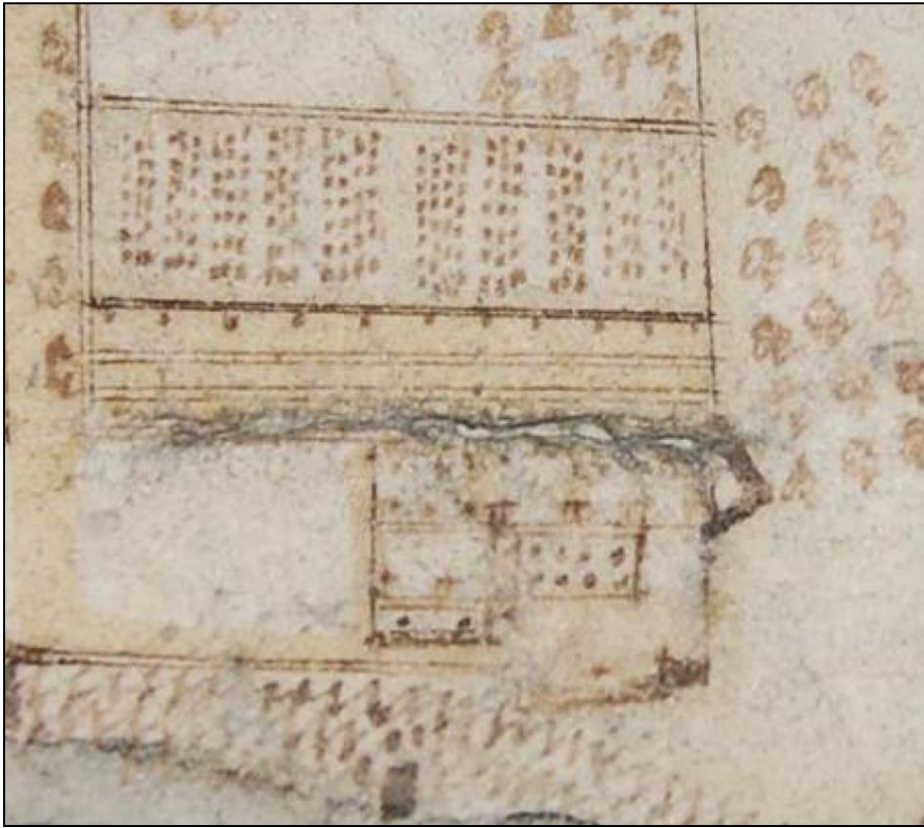


Figure 2a: Extract from John Foulis' Estate Plan 1755, supplied by National Trust for Scotland



Figure 2b: Culzean Castle

## Findings

### *Monitoring Works*

17. Fountain Court sits to the southeast of the castle in a narrow glen defined along its northwestern edge by the terraces which separate the Court from the Castle's surrounding lawns (Figure 4a). The drainage works were spread across the full area of the Fountain Court, consisting of a drainage track excavated for the 'main drain' running northeast to southwest along the southeastern edge of the area, and several 'lateral drains' running off from this to the west-northwest at regular intervals of approximately 4 to 4.5m (Figures 3 and 4a). A trench was also excavated for a 'catch water' drain which sat to the southeast of the main drain running parallel for the same distance, and continued around the southwestern end of the area. The tracks for the new irrigation system were placed on various alignments within the intervening ground between the drainage tracks.
18. The trench for the main and catch water drains measured up to 0.3m wide and 700mm deep, while the tracks for the lateral drains and irrigation system measured 0.25m wide and 500 to 700mm deep. An area measuring 23.8m (southwest to northeast) by 17.7m (northwest to southeast) was also reduced at the southwestern end of Fountain Court near to the Orangery where the ground level sat higher, to level it off prior to cutting the drainage tracks across.
19. Prior to excavation, the whole area of Fountain Court was covered by a layer of turf and topsoil (001) which consisted of a friable mid-reddish brown slightly silty sand with occasional small sub-angular, sub-rounded and rounded stone inclusions. It ranged in depth from 250 to 500mm, although in some areas measured up to 850mm deep. Occasional artefacts of mainly 19<sup>th</sup> or 20<sup>th</sup> century origin were recovered from (001), see section on *Artefacts* below for details.
20. Underlying (001) sat two different types of natural subsoil. Across the northeastern half of the area, the subsoil was predominantly (002), a firm orange yellow sand with occasional medium (0.1-0.15m) sub-angular and sub-rounded stones. Across the southwestern half this changed to (014), a very compact mid-orange sandy clay.
21. At the southwestern end of the site two drains were exposed (see Figure 5). (019) represented a stone rubble drain running northeast to southwest which measured 0.4m wide and 3.5m long, although likely continued further to the southwest beyond the excavated area. A red tile drain (020) was also present running northeast to southwest measuring 0.1m in diameter. It was exposed for a length of 1m although possibly continued further.
22. The most significant archaeological features uncovered were the remains of sandstone walls revealed at different points across the area (Figure 5): [003], [004], [005] and possibly also (021).
23. [003] was present in the southwestern half, roughly in line with the southwestern end of the terraces, running northwest to southeast (Figure 5). It was formed of roughly dressed blond sandstone blocks each measuring approximately 0.2-0.4m in size and bonded with lime mortar. The wall was exposed within one of the irrigation tracks so that only a small section was visible measuring 0.4m high, 0.6m wide and 0.25m long, although it continued beyond the track in both directions.
24. [004] was present running northeast to southwest along the southeastern edge of the area (Figure 5), exposed within the eastern ends of the lateral drains in the northeast before running into the main drain in the southwest. It was similar in nature to wall [003] with roughly dressed blond sandstone blocks bonded by lime mortar in the upper courses. It measured 0.54m wide and 0.5m high, and although it was only revealed in small sections as it appeared within the drainage tracks, it had the potential to run the full length of Fountain Court (approximately 110m).



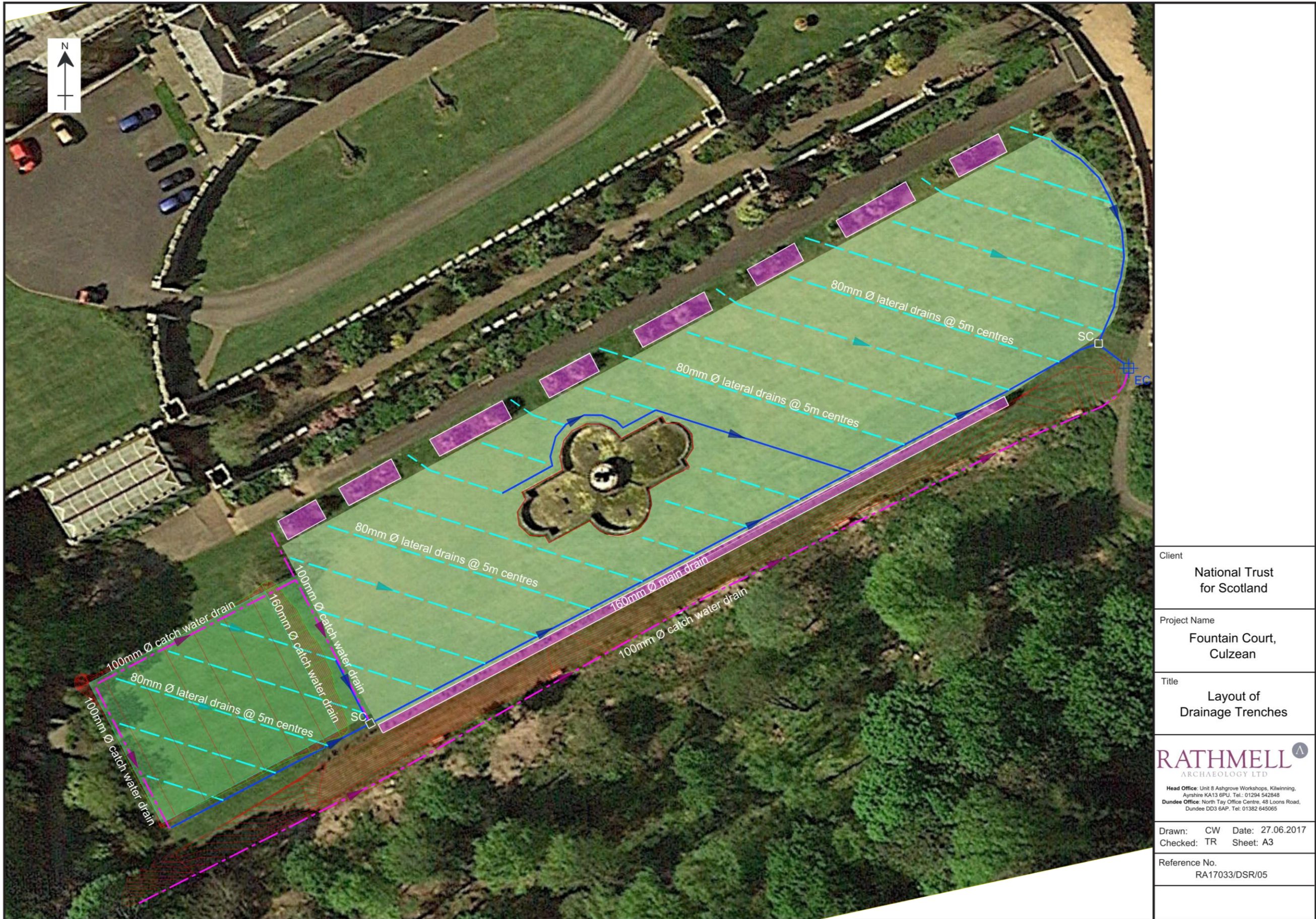


Figure 3: Layout of Drainage Trenches, supplied by National Trust for Scotland



Figure 4a: Shot of Fountain Court from the southeast showing new drainage trenches, supplied by National Trust for Scotland



Figure 4b: Wall [005] from the northeast

25. [005] represented a third section of wall which was exposed at the northeastern end of the area, near to the viaduct (Figure 5). It ran northwest to southeast, parallel to [003] which sat at the southwestern end. Again it was a lime mortared blond sandstone wall of similar character to [003] and [004] (Figure 4b). It measured 0.65m wide and 0.45m high, and was exposed to a length of 3m in this section, although continued outwith the excavated area in both directions.
26. A further deposit of stones (021) running northwest to southeast appeared within a lateral drainage track at the southwestern end near to where [003] was discovered. It consisted of sub-angular shaped unworked blond sandstones each measuring 0.45m by 0.25m by 0.12m in size. Their full extent measured 0.5-0.6m wide, at least 0.4m deep and 2.8m long as exposed, although continued outwith the track in both directions. These stones were not mortar bonded but it is possible that they could represent the lower courses of a wall similar to the others, where the basal courses do not appear to have been mortared but instead packed with the surrounding natural clay. (021) did not sit in line with [003] but instead sat further to the northeast, so it is uncertain if this might represent the wall stepping in or possibly a separate feature within the garden. Equally it is also possible, with such a small sample size to look at, that these could represent another rubble drain.
27. On discovery of these sections of wall, which suggested that there could be a continuous wall enclosing an area the size of the Fountain Court, it was decided that a small excavation area would be opened at the southwestern end to investigate them further (Figure 5).

#### *Excavation*

28. The excavation area was placed at the southwestern end of Fountain Court (Figure 5), at the southern corner where it was believed that walls [003] and [004] would meet to form a corner. The excavation area measured 5.3m (southwest to northeast) by 6.6m (northwest to southeast).
29. As with the rest of Fountain Court, prior to excavation the area was covered by (001) which measured a maximum depth of approximately 850mm in this area. The underlying natural subsoil was (014).
30. A number of archaeological features were revealed (Figures 6 and 7a). The most prominent being the 'L' shaped stretch of wall which was numbered [008] here, and sat approximately 250mm below ground level.
31. [008] ran into the trench from the northwest for a length of 4.4m, before it turned at a right angle to head to the northeast for a length of 2.6m continuing outwith the trench on this side. As seen elsewhere, the wall was formed of blond sandstone blocks each measuring  $\leq 0.49\text{m}$  by 0.64m by 0.16m in size. The wall measured 0.6m wide and a maximum height of 0.8m. The upper courses of the wall (approximately forming the top 0.4m) were lime mortar bonded, while the lower courses were packed with the natural clay (Figure 12a).
32. The internal faces of the two sections (facing northwest and northeast) had a nice finish with larger squared blocks used (Figure 8), while the external faces (facing southwest and southeast) were formed using smaller unworked sub-angular stones which were more randomly placed (Figure 9). No wall cuts were visible, with the base of the wall sitting directly on top of natural subsoil (014). The foundation course was formed of the same stones as the main fabric although was stepped slightly wider by approximately 0.05-0.1m on either side.
33. The southwestern section of the wall (running northwest to southeast) had been cut by three separate features: stone culvert [010], red tile drain [017] and red tile drain [018] (Figure 7b).

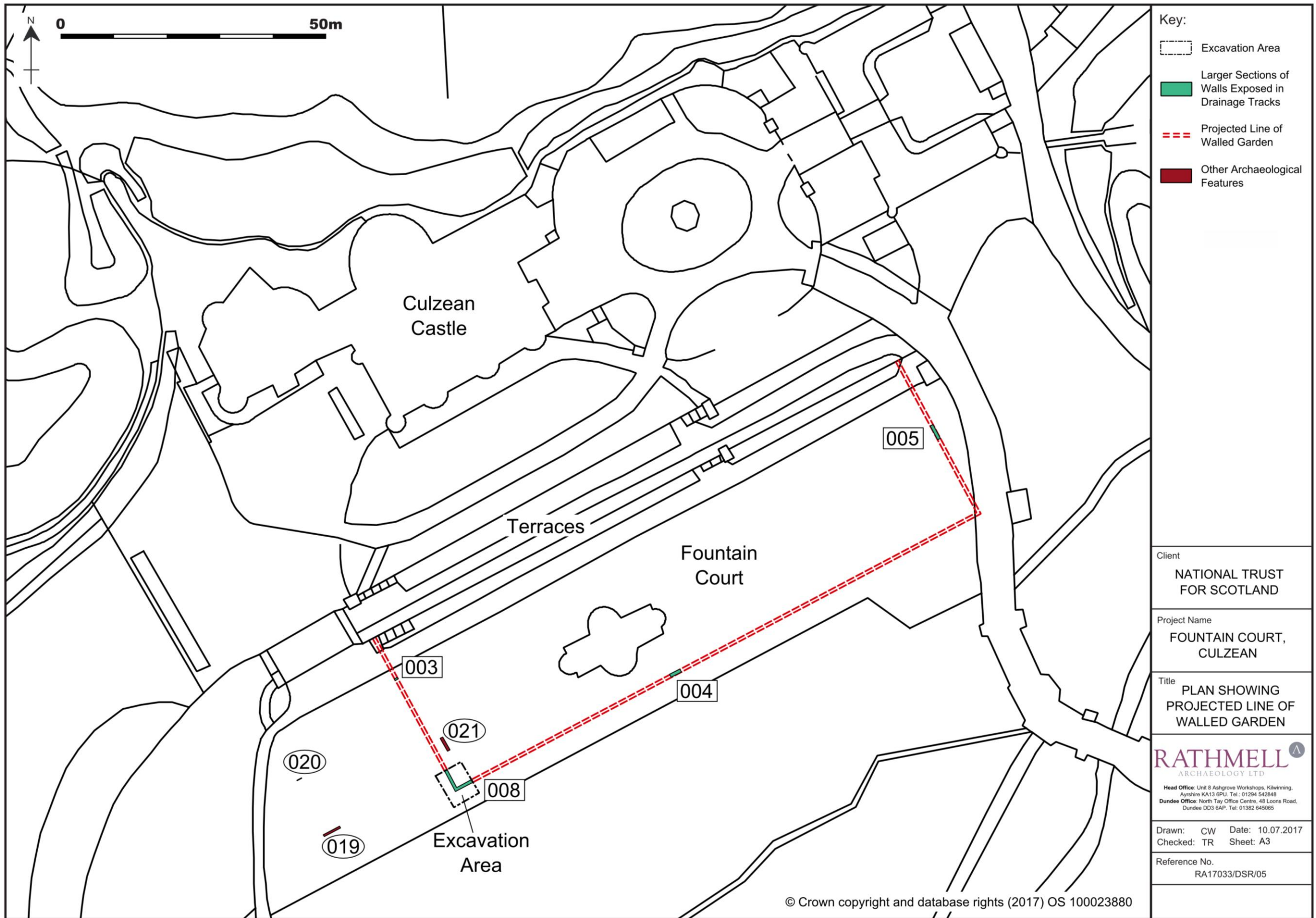
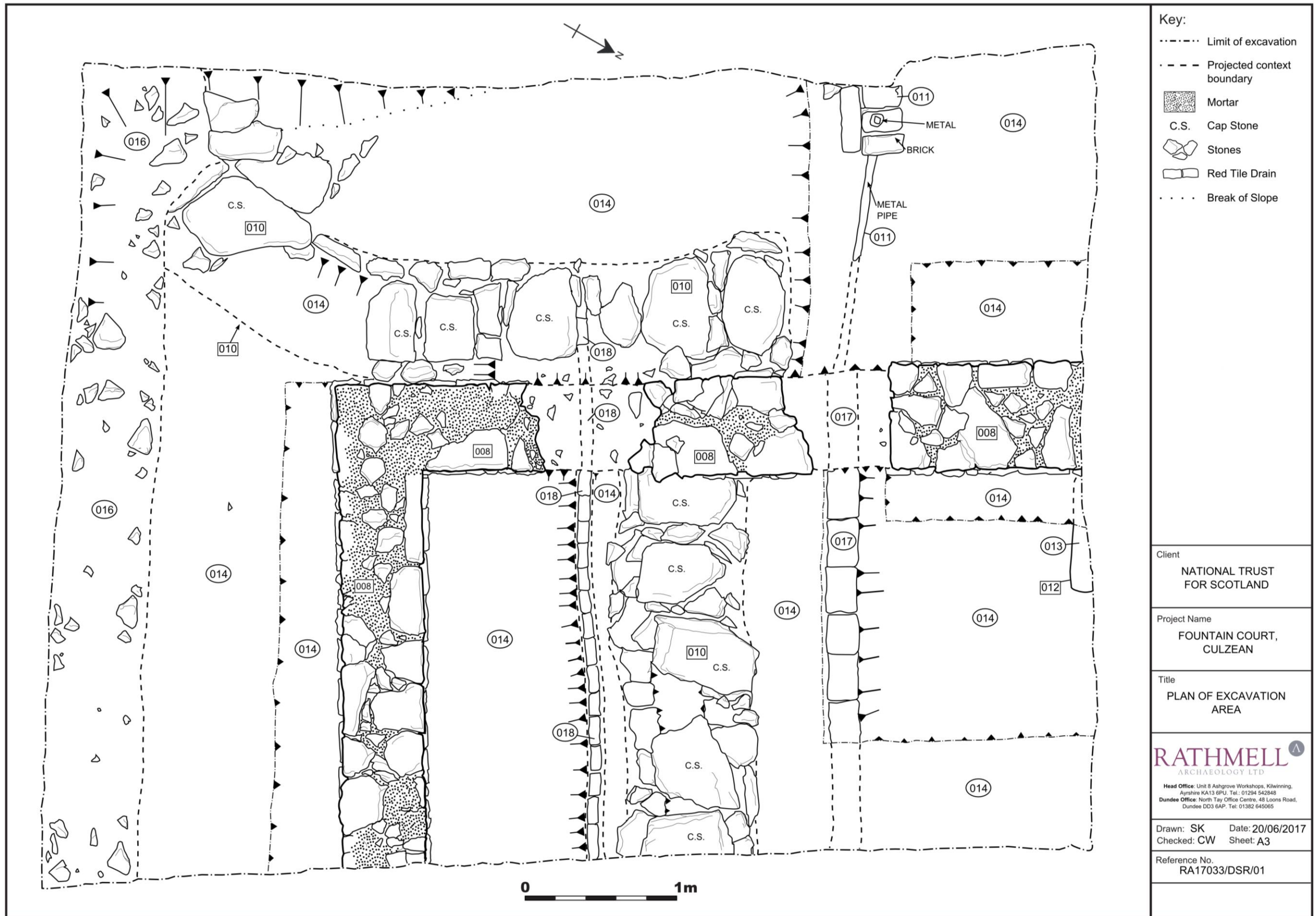


Figure 5: Plan showing location of excavation area and projected line of walled garden



Client	NATIONAL TRUST FOR SCOTLAND
Project Name	FOUNTAIN COURT, CULZEAN
Title	PLAN OF EXCAVATION AREA
 <small>Head Office: Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU. Tel: 01294 542848          Dundee Office: North Tay Office Centre, 48 Loons Road, Dundee DD3 6AP. Tel: 01382 645095</small>	
Drawn: SK	Date: 20/06/2017
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Reference No.	RA17033/DSR/01

Figure 6: Plan of excavation area

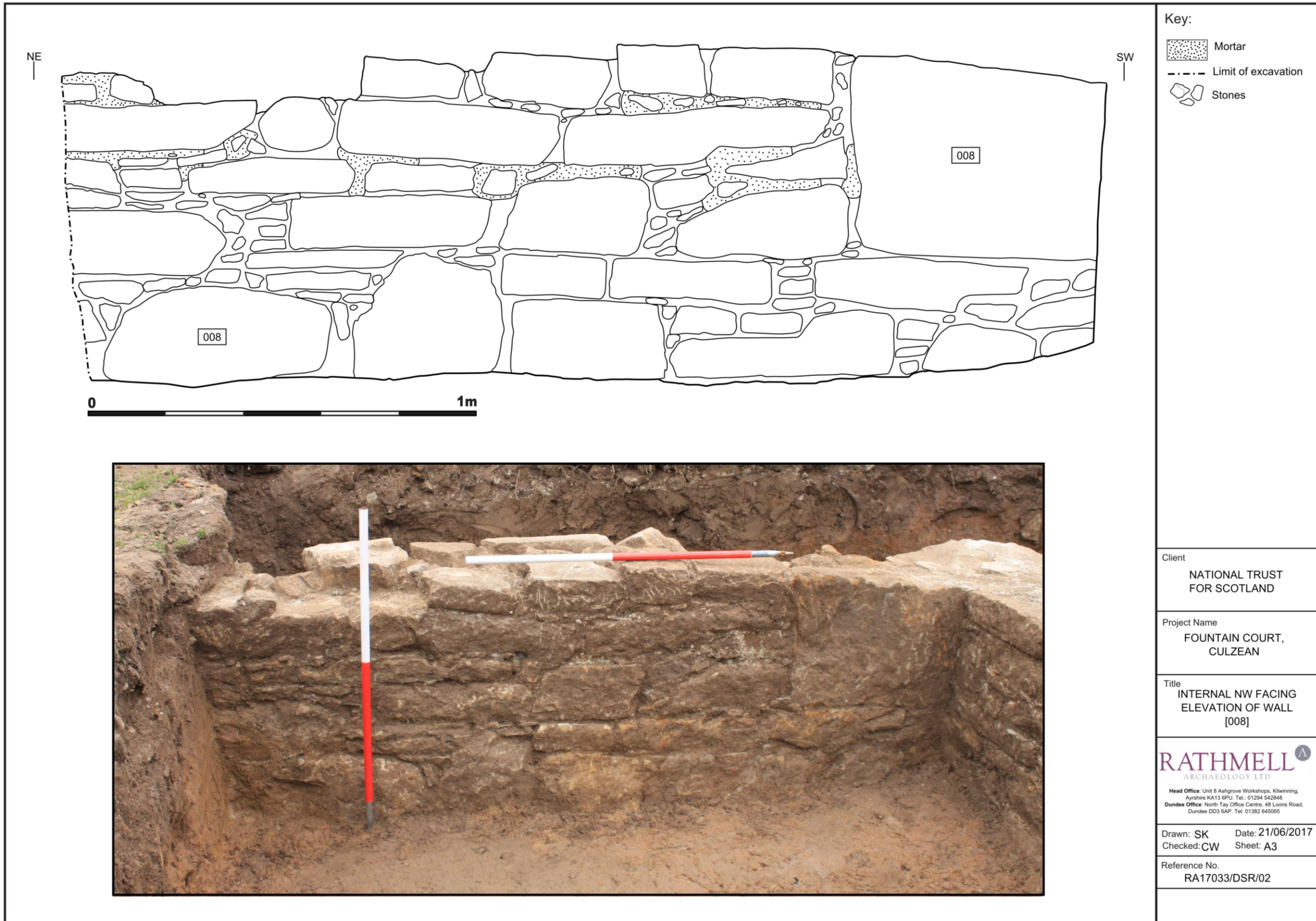


Figure 7a: Shot of excavation area from the northeast, supplied by National Trust for Scotland






Figure 7b: Excavation area from the west showing wall [008] cut by later features

34. Stone culvert [010] formed an 'L' shape within the excavation area (Figure 7b). It entered from the northeast for a length of 2.7m before running through the base of the wall [008]. On the other side, [010] immediately turned to the southeast to run adjacent to the wall's external southwest facing elevation for 1.9m, before appearing to head south to drain out of the southern corner. The culvert was formed of unworked sub-angular sandstones. The sides comprised stones measuring an average size of 0.24m by 0.2m by 0.1m sitting two courses high, while the overlying course of capping stones measured an average size of 0.5m by 0.4m by 0.15m (Figure 10a). There was no lining along the base with the sides of the culvert sitting directly on top of the natural subsoil (014). The full structure measured up to 0.85m wide and 0.37m high, with the top of the culvert sitting approximately 650 to 750mm below ground level.
35. The culvert ran through the base of the wall [008] with a gap measuring 170mm deep between the top of the culvert and the overlying section of wall (Figure 10b). This gap had been filled by deposit (015) which consisted of a very compact mid-brown silty clay with moderate small stones and occasional charcoal flecks.
36. To the northwest of [010], sat red tile drain [017] which was also aligned northeast to southwest, sitting approximately 850mm below ground level although sloping upwards to the southwest. The drain was formed of 0.3m long segments measuring 0.22m in diameter, and sat within a cut measuring 0.4m wide with vertical sides and a flat base. The cut had been filled by redeposited natural subsoil. The drain cut through wall [008] and appeared to connect to metal pipe [011] to the southwest, which may have been using [017] as a duct. [011] was a cast iron pipe measuring 0.06m in diameter continuing on the same alignment as [017]. It ran into a small brick structure at the southwestern edge of the trench which measured 0.38m square in plan and 0.3m (three courses) high, and sat only 310mm below ground level. Set into the top of this small structure was an iron stop cock/valve.
37. To the southeast of culvert [010] sat red tile drain [018], again on the same northeast to southwest alignment. This drain was formed of 0.16m long segments measuring 0.08m in diameter, sat within a cut measuring 0.5m wide with vertical sides and a flat base. The cut had been filled by redeposited natural subsoil, and cut through wall [008] to stop just to the southwest. The northeastern end of the drain itself sat approximately 950mm below ground level, while its southwestern end cut into culvert [010] as it ran to the southeast. [018] appeared to drain to the southwest, and it is very possible that its placement allowed it to drain into culvert [010].
38. Abutting the northeast face of wall [008] at the very northwestern edge of the excavation area, sat feature [012]. This feature was mainly visible in section (Figure 11) running only 0.14m into the excavation area. It is possible that this feature was linear shaped running southeast to northwest, with the southeastern end having rounded corners in plan. In section, the cut has steeply sloping sides and a fairly flat base with rounded bottom breaks of slope on either side. It measured 0.8m wide and 270mm deep, with the top of the cut sat at approximately 850mm below ground level underlying (001). The feature was filled by (013), a very compact pale/mid-grey brown silty clay with occasional small stones and charcoal flecks.
39. At the southeastern edge of the excavation, 0.75m to the southeast of wall [008] sat a linear deposit of stones (016) running southwest to northeast and continuing beyond the area in both directions. The stones consisted of loose sandstone rubble of varying sizes (average being 0.2m by 0.2m) mixed with mortar, which extended to 0.8m wide and 700mm deep (Figure 12b). The top of the deposit sat 250mm below ground level underlying (001).



Key:

-  Mortar
-  Limit of excavation
-  Stones


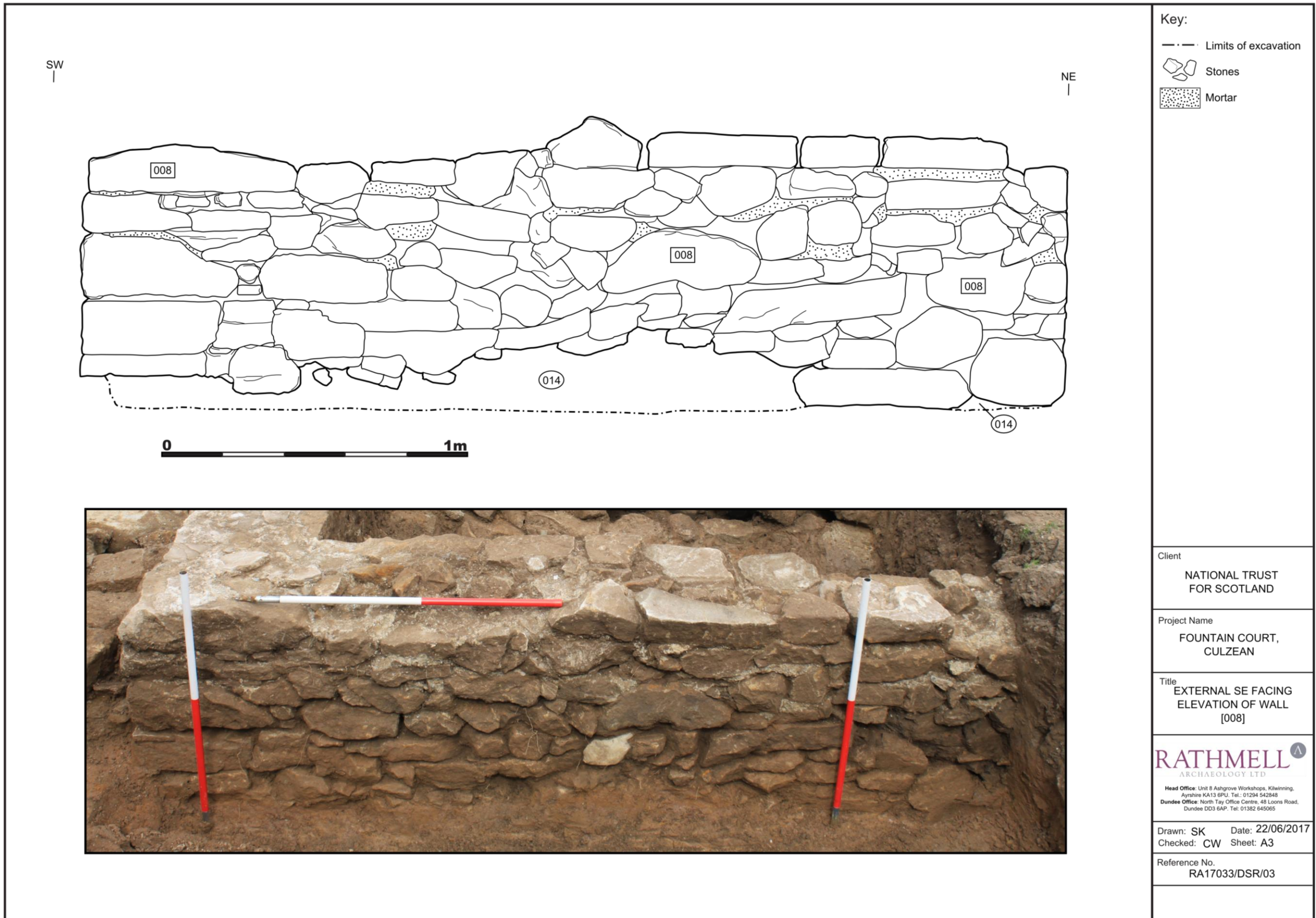


Client	NATIONAL TRUST FOR SCOTLAND
Project Name	FOUNTAIN COURT, CULZEAN
Title	INTERNAL NW FACING ELEVATION OF WALL [008]
	
<small>Head Office: Unit 6 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PJ. Tel: 01294 542948                  Dundee Office: North Tay Office Centre, 48 Loons Road, Dundee DD3 6AP. Tel: 01382 645065</small>	
Drawn: SK	Date: 21/06/2017
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Reference No.	RA17033/DSR/02

Figure 8: Internal northwest facing elevation of wall [008]





**Key:**  
 - - - Limits of excavation  
 Stones  
 Mortar

Client  
 NATIONAL TRUST  
 FOR SCOTLAND

Project Name  
 FOUNTAIN COURT,  
 CULZEAN

Title  
 EXTERNAL SE FACING  
 ELEVATION OF WALL  
 [008]

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Head Office: Unit 8 Ashgrove Workshops, Kilwinning,  
 Ayrshire KA13 6PU. Tel: 01294 542848  
 Dundee Office: North Tay Office Centre, 48 Loons Road,  
 Dundee DD3 6AP. Tel: 01382 645065

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 RA17033/DSR/03

Figure 9: External southeast facing elevation of wall [008]



Figure 10a: Northeast facing section through culvert [010] with drain [018] to the left



Figure 10b: Culvert [010] running through base of wall [008], taken from the southwest

## Artefacts

40. All of the finds were recovered from topsoil (001) during the monitoring works across Fountain Court and hence cannot be considered secure in the stratigraphic sense. Most were comparatively modern, originating in the 19<sup>th</sup> or 20<sup>th</sup> century. Some items had an association with the gardens (the flower pots and Cu Alloy fitting), one may have originated from the castle (the fragmentary glass dish/bowl), and others were structural in origin (the 'DICO' brick and the iron nail). Two glass bottles or jars may have been discarded picnic items (lost in the 19<sup>th</sup> and 20<sup>th</sup> century respectively), while the base of another coloured glass wine bottle may be earlier in date, deriving from the early 19<sup>th</sup> or even 18<sup>th</sup> century. One potentially early lithic was recovered.
41. Most finds were glass. They ranged from the broken base <07> of a glass dish or dessert bowl with a pedestal foot. There is an absence of mould marks, and the presence of striations on the base suggests it was cut glass, perhaps manufactured from leaded crystal. An association with the castle therefore seems likely. Establishing a potential date for such a find is difficult, but an origin in the 19<sup>th</sup> or early 20<sup>th</sup> century seems likely.
42. Two complete glass vessels were also recovered, along with the base of a third. One was a small clear glass bottle <01>, stamped with the legend 'Rankin & Borland, Kilmarnock.' Rankin and Borland were a manufacturing chemist and druggists well known for the manufacture of aerated water and other beverages such as ginger beer (the latter would have been distributed in ceramic stoneware jars). Founded in 1798, the firm were in operation until at least the 1880s, and this moulded glass bottle probably dates to the late 19<sup>th</sup> century. The second vessel was a small clear glass jar stamped 'Pecks' which would once have contained a meat or fish-based sandwich spread <02>. First established in England, Pecks moved production to Australia in 1938: this particular style of jar probably dates to the period 1930-60, i.e. the inter-war and post-war period. The fragmentary item <07> comprised the base of a hand-blown coloured glass wine bottle of late 18<sup>th</sup> or early 19<sup>th</sup> century date.
43. A fragment of industrial residue was also recovered <11>. This chunk of grey-green, glassy slag would have been produced as a by-product from a blast furnace. During the 19<sup>th</sup> century, 'slag glass,' as it was known, might be crushed and moulded into decorative glassware. However, this piece is unworked and its presence in the topsoil may be more likely to derive from the importation of industrial waste products as a cheap alternative to gravel for use in drainage or hardstanding. Its isolated presence is, however, more difficult to explain.
44. Four sherds of ceramic were recovered during the excavations <04>. They comprised three rim sherds and one body sherd derived from terracotta flower pots, of probable 19<sup>th</sup> century date.
45. One item of ceramic building material was also recovered, a red brick stamped 'DICO.' This was manufactured by the Dunaskin Fireclay Works near Dalmellington, in operation between the 1920s and 1978.
46. Two items of metal were recovered: a handmade iron nail <03> and a circular copper alloy fitting <06> which may have functioned as a cap or a finial, perhaps fitted to the axle of an item of garden machinery such as a hand-operated mower or roller.
47. Arguably the most interesting item was also potentially the earliest. This comprised a probable opposed platform core of prehistoric date (Thomas Rees, *pers comm.*) recovered at the northeastern end of the site near to the viaduct. The core appears to have used a flint nodule <10> which had a calcined interior: the flint component was virtually exhausted through the removal of successive flakes, leaving a portion of the calcined core behind. The piece has suffered much abrasion through circulation within the topsoil and its exterior now appears very smooth and worn.

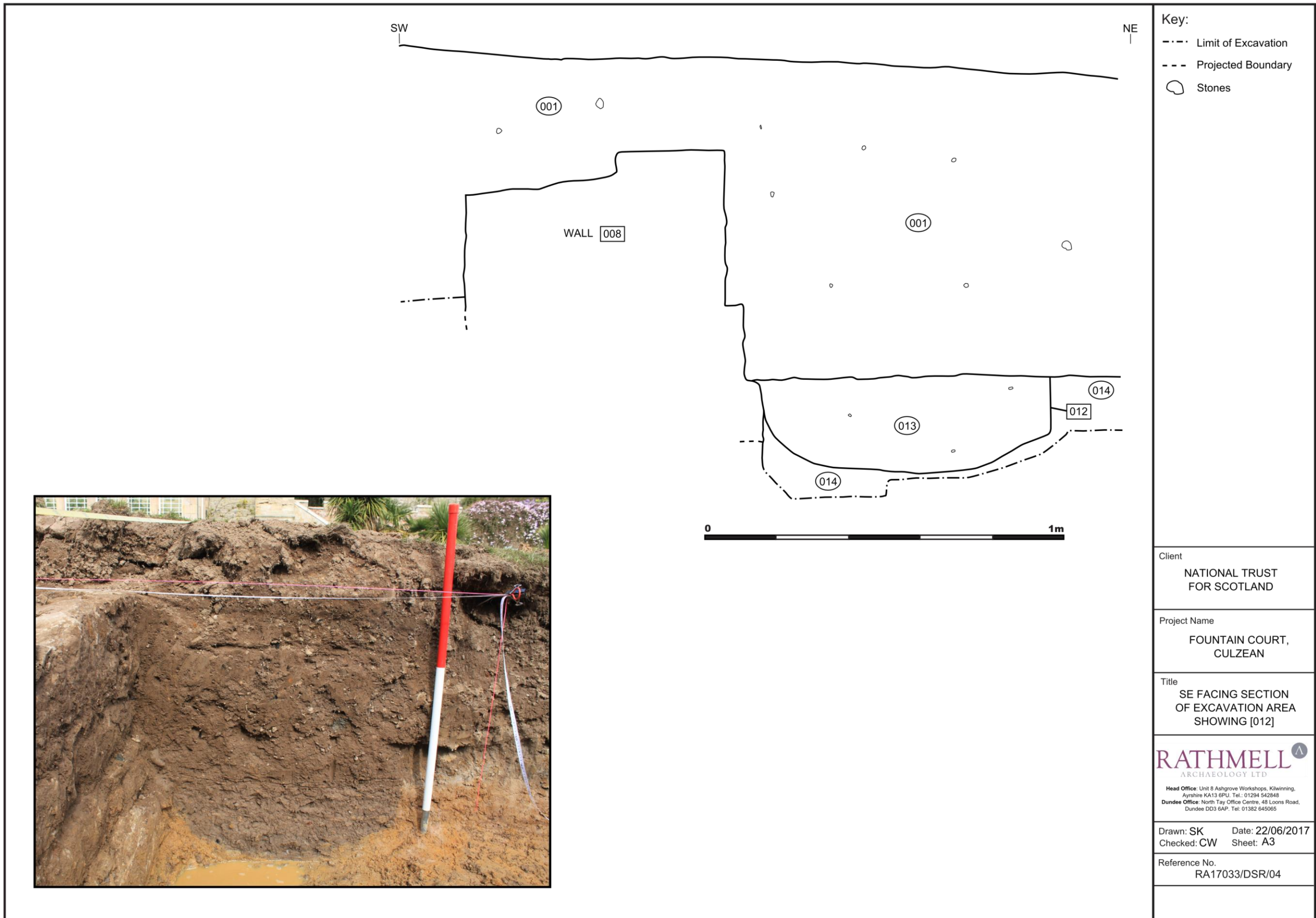


Figure 11: Southeast facing section of excavation area showing [012]



Figure 12a: Southeast facing section through wall [008]



Figure 12b: Southwest facing section of trench showing (016)

## Discussion

48. The history of Culzean has always been one of transformation. As with all large estates, there has always been a need to 'change with the times' in order to meet the needs, or even whims, of its occupants. The renewal of the drainage within Fountain Court allowed for an unusual opportunity to see underneath its lawn to look for evidence of these transformations on a small scale, which in turn can only help to add further understanding to the history of the estate as a whole.
49. The earliest, and possibly most significant, feature that the works revealed appears to have been the sandstone wall exposed at various locations across the area, numbered [003], [004] and [005]. Although seen in discrete sections, the chance to do further excavation work showed that at least walls [003] and [004] joined to form a corner in the southwest (numbered [008]). It is likely that [004] and [005] join in a similar fashion at the northeastern end to form an enclosing wall which surrounds the southwest, southeast and northeast sides of Fountain Court.
50. The results of the GPR survey carried out in 2013 (Ovenden 2013) showed trends along the southwestern and southeastern edges of the area which appear likely to represent the walls [003] and [004]. The GPR survey didn't extend into the flower bed at the northeastern end however, so it is not possible to seek any more clarification on the line of wall [005].
51. Looking at earlier mapping for the site, particularly John Foulis's estate map in 1755, it seems very likely that these walls are the remains of the walled garden shown to the southeast of the castle, with the lower terrace wall possibly forming the northwestern edge. The presence of this walled garden in the 18<sup>th</sup> century is supported by documentary evidence, and, as noted above (see *Archaeological and Historical Background*), it stayed standing until 1782.
52. The original construction date for the walled garden is uncertain, and it is possible that it could date back to the 17<sup>th</sup> century. Beyond the mainly 19<sup>th</sup> to 20<sup>th</sup> century material discovered throughout (001), the excavation works did not recover any earlier artefacts which may have helped to pinpoint a start date for the occupation of the garden. The lime mortar used to point the stonework does not help to elucidate it any further as lime mortar was a common building material used up until the beginning of the 20<sup>th</sup> century, before its use was largely superseded by Portland Cement (Snow and Torney 2014). We also know from the documentary sources that the walled garden was extended in 1733 but there was no visible differentiation between the exposed sections to allow us to identify different phases, all appearing to be very similar in their style and construction.
53. The excavation did reveal further clarification on the character of the wall however, exposing a good sample of its inner and outer faces. There is not much comment on the character of the wall within the documentary evidence, although the sandstone construction fits in well with the material used throughout the estate. If the lower terrace wall was the original northwestern wall of the garden, then the brick lining seen here is possibly a reflection of the heat retaining properties of brick compared to sandstone and the difference that would have made to the growing fruit or vegetables which would have draped the terraces.
54. The section of wall [008] showed a difference between its inner and outer faces with the inner face having a higher quality finish using squared blocks, while the outer was formed of smaller rubble. This allows us to reflect further on the purpose and use of space within the walled garden. As we already know, the garden would have been a practical source of food for the kitchen of the castle, but the obvious deliberate attention shown in the construction of its surrounding wall suggests a desire to maintain a level of pleasing aesthetic across all of the structures built within the estate. The difference between the inner and outer faces also suggests that particular importance was placed on the appearance within the interior. Not just a practical space, the walled garden was likely to have been a place of perambulation and leisure for the use of the castle's residents and their guests. That this importance was not universally applied to the outer face as well could suggest that there were no formal walkways around the exterior of the

garden (at least at the southern end), but instead that this area was left to become wild vegetation, much as it still is to this day.

55. Wall [008] also showed that lime mortar bonding was only present in the upper courses of the wall, natural clay being used to pack the lower courses. This could potentially provide insights into the ground surface level at the time of the construction of the walled garden, where perhaps the mortar was primarily used in the sections which appeared above ground. If this is the case then this would place the ground level of the time approximately 540 to 600mm below where it currently sits. This correlates with culvert [010], an underground feature, with the top of it sitting at least 650mm below the current ground level. Some of the mortar deposit dipped down below this depth though so this can only be taken as a very rough guide and not all of the mortar may represent upstanding sections. It is also possible that the ground level rose during the life of the walled garden, which may explain why the lower mortared courses were not removed upon demolition.
56. As well as recording the wall itself, the other key aim of the excavation was to see if any internal features of the garden could be identified. The only potential feature was [012] which appeared in section along the northwestern edge of the excavation area. This had the potential to be a linear feature running to the northwest parallel to the southwest section of wall [008], although as only a small section of it was revealed it's difficult to be certain. The feature abutted the internal face of wall [008] which might indicate that it was either contemporary or later to the wall as its position respected the line of it. If it did represent a linear feature, then this could potentially have been a cultivation trench for the growing of vegetables or plants within the garden. That the upper portion of the feature appears to have been removed by the presence of (001) indicates that [012] at least predates the disturbance reflected in (001) (see below).
57. From the results of the GPR survey, a possible rectilinear was identified within the southwestern half of the area (labelled number (9) in Ovenden 2013) which they attributed as potentially relating to an earlier layout of the area prior to the construction of the fountain. We know that internal structures would have been present as the documentary evidence attests to a "Garden Chamber" within the interior which was repaired and enlarged in 1749. The watching brief did not manage to clarify what these trends in the GPR survey represented however. With the exception of the wall, the only features identified across the area were drainage features. It is possible that (021) may represent the base of an internal wall, although this appears to have sat too far to the southwest to relate to the rectilinear anomaly (9). It is also possible that (021) may be the northeastern line in the group (11) indicated on the GPR survey (Ovenden 2013), although as this does not join with any other trends to form a coherent layout then it is difficult to interpret it any further, and it still has the potential to represent a rubble drain.
58. The stone culvert [010] appears to have been a later addition while the wall was still upstanding. This seems likely due to the continuation of wall material running across the section where the culvert cuts through. The likelihood that it was a later addition rather than part of the original wall construction is based on the presence of the overlying gap with clay infill; if it had been original then it is more likely that the culvert would have been pointed into the fabric of the wall without any large intervening gaps. It is possible that the pointing could have been later, but in that case it would seem likely that, if contemporary, the overlying stones of the wall would still have been laid directly on top of the culvert during construction.
59. The presence of the later addition of the culvert indicates the ongoing improvements that would have been made to the garden throughout its use, with drainage being one of the main concerns. The culvert does not appear within any of the drainage or irrigation tracks to allow us to plot its route throughout the area. With the depth of the culvert being approximately up to 750mm below the current ground level, then it is likely that this is due to the new drainage tracks not reaching deep enough to expose it. The data is also unclear on the GPR survey, as a possible drain has been identified in that area (labelled (15) in Ovenden 2013) but it is unclear if this may be referring to one of the

adjacent red tile drains which sat on the same alignment ((017) and (018)).

60. To the southeast of the wall sat stones (016). The loose nature of this deposit with voids throughout indicated that it didn't represent anything structural, while the presence of loose mortar amongst the stones could suggest that it was demolition material from the wall itself. While a lot of the stone from the original wall will likely have been reused to construct the 'new' garden to the southwest, pockets of demolition material still remaining is not to be unexpected.
61. It is possible that after the walled garden was abandoned, the whole of the area of Fountain Court was heavily disturbed by the works related to its demolition and the demolition/removal of any internal structures or vegetation. While it was part of Robert Adam's design to have the area left as wild and unkempt, the attention to detail seen in other aspects of Adam's work suggests that even this would have been to a degree an 'organised wilderness'. It is also likely that a lot of structural material would have been taken to be reused elsewhere, and some effort taken to bury or cover up what remained.
62. The majority of the artefacts recovered from (001) dated to the 19<sup>th</sup> and 20<sup>th</sup> centuries with very little in the way of earlier material to represent its use throughout the 17<sup>th</sup> or 18<sup>th</sup> centuries. This suggests that at least a portion of (001) could represent imported soil brought in to help level the area in the 19<sup>th</sup> century. Certainly the variation in topsoil depth across Fountain Court points to the undulating nature of the underlying topography, and comparing the current ground level with that suggested by the mortar in wall [008] indicates that this has risen since the walled garden.
63. Where exactly the imported material would have come from is uncertain although it is likely that it represents topsoil taken from elsewhere within the estate, possibly a location which had not seen much in the way of earlier activity (due to the lack of material evidence). The depth of the deposit, down to 850mm in areas, suggests that the landscaping works relating to this levelling process involved a fair depth of disturbance which would have removed any shallow features, such as the upper portion of [012]. Although it doesn't appear to have been substantial enough to warrant the removal of anything structural which they appear to have avoided and left *in situ*. The artefacts themselves are likely to represent the use of the area for picnics and other leisure activities, as well as the work of the gardeners, from this period on.
64. The latest features within the excavation area certainly appear to be the red tile drains [017] and [018], one of which joined with cast iron pipe [011]. These both cut through the wall without any remaining material overlying, and as such will have been inserted after the wall had been demolished. [018] also appears to have cut through culvert [010], possibly reusing this earlier feature to drain out. Their later date is further attested to by the date of red tile drains in general which did not come into circulation in Britain until the late 18<sup>th</sup>/early 19<sup>th</sup> centuries (Davis and Davis 2013, 9) after the known demolition date for the walled garden. These drains likely represent improvements to the drainage of the ground during its various transformations as a formal garden throughout the 19<sup>th</sup> and 20<sup>th</sup> centuries, with the clay subsoil at this end of the area continuing to cause drainage problems. These drains have also been visibly cut through (001) showing that these were inserted after the levelling of the area had been completed, and it is possible that the cast iron pipe and stopcock of [011] may relate to an earlier water feed for the late 19<sup>th</sup> century fountain. As these cuts are still visible through (001) today also indicates that no further largescale disturbance within (001) has occurred since.
65. Aside from the majority of the 19<sup>th</sup> to 20<sup>th</sup> century material found throughout (001), one artefact stood out as being the earliest, even earlier than the walled garden. This was a piece of flint <10> which comprised a probable opposed platform core of prehistoric date. With no further evidence other than this single piece, we cannot conclude at this time that prehistoric activity has taken place in this location. Indeed, a number of flints have been found in other parts of the nearby estate suggesting prehistoric occupation elsewhere, such as during archaeological test pitting works carried out near Home Farm during 2016 which discovered some 70 pieces of flint (McKinstry 2016). As such, it is more likely that this piece may have been residual coming in with any imported material.



## Recommendations

66. The replacement of the drainage and irrigation system within Fountain Court will have added greatly to the maintenance of the site and should hopefully negate the need for future works to be carried out on the drainage in this area for some time to come.
67. The monitoring works revealed the remains of a sandstone wall which is likely to represent the walled garden which encompassed the area of Fountain Court during the 18<sup>th</sup> century. As part of the works, an area was opened up which allowed for a larger sample of the wall to be exposed and recorded as well as the surrounding drainage features and one possible internal cut feature. It was also possible to plot the route of the wall as it crossed the new drainage and irrigation tracks in the southwest, southeast and northeast.
68. On balance, Rathmell Archaeology Ltd recommends that no further archaeological works be carried out as a direct consequence of these works. As the additional excavation work on-site allowed us to fully record a sample of the wall in both plan and section, no further works are recommended for this feature.
69. It is recommended however, that any future open area groundbreaking works within the area of Fountain Court be subject to archaeological monitoring as there is still a high potential for further features relating to the earlier use of the area to be uncovered. A possible exception to this may be shallow works which only reach 200mm in depth as these are very unlikely to disturb any features, although it may be worthwhile to have a system in place to assure artefact recovery at all depths.
70. The appropriateness and acceptability of our recommendations rest with the National Trust for Scotland.

## Conclusion

71. Archaeological monitoring works were carried out in support of the insertion of a new drainage and irrigation system within the Fountain Court at Culzean Castle, South Ayrshire. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within the development area.
72. The works uncovered the remains of a sandstone wall which surrounded the area along its southwest, southeast and northeast sides. This wall appears to represent the remains of the surrounding wall of the earlier walled garden known to stand in this area during the 18<sup>th</sup> century. The wall had been disturbed by the insertion of a stone culvert likely while it had still been upstanding, and by two later red tile drains cut through it after it had been demolished, representing improvements to the ground throughout the 18<sup>th</sup> to 20<sup>th</sup> centuries. A possible linear feature identified in section may represent an internal garden feature although it was unclear.
73. The depth of the topsoil across the whole of the area appeared to have been made up possibly by importing topsoil from elsewhere during the levelling works to turn it into a formal garden during the 19<sup>th</sup> century. This was attested to by the artefacts present throughout the topsoil which were mainly 19<sup>th</sup> to 20<sup>th</sup> century in date.

## Acknowledgements

74. The authors would like to thank Derek Alexander from the National Trust for Scotland for all of his help and guidance throughout the project. Thanks also go to Stuart Maxwell and Gareth Clingan, as well as all of the staff at the National Trust for Scotland who were supportive throughout our time on site. We are very grateful to Charlie and the team at Souters Sports Ltd who were very patient, and gave us their time and help when we needed it. For helping to carry out the excavation works we would like to thank Liam McKinstry and Chelsea Anderson, and also Sarah Krischer who typed up the appendices and created the illustrations within this report. Finally, our thanks go to Louise Turner for writing us the comment on the artefacts, and to Thomas Rees for his help and editing of the final report.

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### *Cartographic*

1752-55	Roy, W.	Military Survey of Scotland
1755	Foulis, J.	Estate Plan of Culzean
1859	Ordnance Survey	Six-inch 1 <sup>st</sup> edition, Ayrshire, Sheet XLIV

## Appendix 1: Registers

Within this appendix are all registers pertaining to works on-site during the watching brief.

### Context Register

Context No.	Area/Trench	Type	Description	Interpretation
001		Deposit	Friable mid-reddish brown slightly silty sand with occasional small sub-angular, sub-rounded and rounded stone inclusions, and occasional 19 <sup>th</sup> /20 <sup>th</sup> century white earthenware pottery fragments. Extended across full area of Fountain Court, and measured up to 500mm deep.	Topsoil/made ground which has likely been built up during landscaping of Fountain Court
002		Deposit	Firm orangish-yellow sand with occasional medium (0.1-0.15m) sub-angular and sub-rounded stones. Present within northeastern half of the area.	Natural subsoil/windblown sand
003		Structure	Remains of wall running northwest-southeast. Formed of roughly dressed blond sandstone blocks each measuring approximately 0.2-0.4m in size. Bonded by mortar. Measured 0.6m wide and 0.4m high. Exposed section measured only 0.25m long but wall continued outwith to both the northwest and southeast.	Remains of wall which likely formed southwest wall of 17 <sup>th</sup> /18 <sup>th</sup> century walled garden. Same as [004], [005] and [008].
004		Structure	Remains of wall running northeast-southwest. Formed of roughly dressed blond sandstone blocks each measuring approximately 0.2-0.4m in size. Bonded by lime mortar. Extent 0.54m wide, 0.5m high. The wall was revealed within the main drain and appeared to continue along the full length of Fountain Court. Wall was adjacent and almost parallel to main drain and is truncated by it.	Remains of wall which likely formed southeast wall of 17 <sup>th</sup> /18 <sup>th</sup> century walled garden. Same as [003], [005] and [008].
005		Structure	Remains of wall running northwest-southeast. Formed of roughly dressed blond sandstone blocks each measuring approximately 0.2-0.4m in size. Bonded by mortar. Measured 0.6m wide and 0.3m high. A stretch of wall 3m in length was uncovered but wall continued outwith to both the northwest and southeast. Wall is adjacent to the castle bridge.	Remains of wall which likely formed southwest wall of 17 <sup>th</sup> /18 <sup>th</sup> century walled garden. Same as [004] and [005] and [008].
006	-	-	VOID	-

Context No.	Area/ Trench	Type	Description	Interpretation
007	-	-	VOID	-
008		Structure	“L” shaped section of wall. Formed of blond sandstone blocks measuring 0.49m x 0.64m x 0.16m. Upper courses are mortar bonded (0.4m), lower courses packed with natural clay. Internal face comprised of larger squared blocks with a nice finish, while external face formed of smaller unworked sub-angular stones. Measures 0.6m wide, with a maximum height of 0.4m. Length of 4.1m was exposed and the wall continued outwith to the northeast and northwest.	Wall likely represents south corner of 17 <sup>th</sup> /18 <sup>th</sup> century walled garden. Same as [003], [004], and [005].
009	-	-	VOID	-
010		Structure	Linear feature of two rows of sub-angular stones two courses high. Feature runs northeast-southwest under wall [008] and then turns at right angle to southeast. Measures up to 0.85m wide and 0.37m high. Total length approximately 5m and extends outwith northeast and south. There are stones linings either side of feature and stone capping to create open inner channel. No base lining, set directly over subsoil (014). Stones are unworked sandstone. Stones forming sides average 0.24m x 0.2m x 0.1m. Capping stones average 0.5m x 0.4m x 0.15 m.	Stone culvert which cuts through base of wall [008]. Wall material still present above but with clay infill (015) over culvert. Possibly not contemporary with construction of wall but later addition while wall was standing. Probably 17 <sup>th</sup> /18 <sup>th</sup> century.
011		Structure	Small square brick structure surrounding cast iron stop cock/valve with cast iron pipe running to the northeast out the base. Structure is three course high, measuring 0.38m square in plan and 0.3m high. Pipe measured 0.06m in diameter. Bricks measure 0.25m x 0.12m x 0.09m. Feature runs into red tile drain (017).	Stop cock and cast iron pipe may relate to fountain. Late 19 <sup>th</sup> /20 <sup>th</sup> century.
012		Cut	Possible linear feature running outwith trench to the northwest, only visible for length of 0.14m within trench. Measures 0.8m wide and 270mm deep. Steeply sloping sides with rounded bottom break of slop and fairly flat base. Rounded corners in plan. Filled by (013).	Cut for possible garden slot within interior of wall [008]. Only a small amount visible within trench so uncertain of exact character.
013		Fill	Very compact pale/mid-grey brown silty clay with occasional small stones and charcoal flecks. Extent measures 0.8m	Fill of possible garden slot [012].

Context No.	Area/ Trench	Type	Description	Interpretation
			wide, 270mm deep and 0.14m deep. Feature continues to northwest.	
014		Deposit	Very compact mid-orange sandy clay. Present within the southwestern half of the area.	Natural subsoil in trench 1.
015		Fill	Very compact mid-brown silty clay with moderate small stones and occasional charcoal flecks. Extent measures 0.8m x 0.6m and 170mm deep. Infills area above culvert [010] as it passes under wall [008].	Deposit used as infill/packing above culvert [010] as it runs through wall [008].
016		Deposit	Deposit of loose stone rubble and mortar running northeast-southwest along southeast edge of trench. Measures 0.8m wide and 700mm deep. Exposed length 2.75m and extends outwith northeast and southwest. Underlies layer of turf measuring 250mm deep. Stones vary in size but average 0.2m x 0.2 m.	Deposit of sandstone mixed mortar. Is too loose to be structural. Presence of mortar suggests demolition material, possibly from wall [008].
017		Feature	Linear cut running northeast-southwest through trench 1. 0.4m wide. Segments measure 0.3m long. Contains large circular red tile drain measuring 0.22m diameter. Filled by redeposited natural subsoil. Feature has vertical sides and flat base. Cuts through wall [008] and connects with cast iron pipe [011].	Red tile drain cutting through wall [008]. 19 <sup>th</sup> /20 <sup>th</sup> century feature post-dating demolition of walled garden.
018		Feature	Linear feature running northeast-southwest through trench 1. Vertical sides and flat base, measures 0.5m wide. Contains red tile drain measuring 0.08m diameter. Each segment is 0.16m long. Feature is filled with redeposited natural. Cuts through wall [008].	Red tile drain cutting through wall [008]. 19 <sup>th</sup> /20 <sup>th</sup> century feature post-dating demolition of walled garden.
019		Feature	Linear feature running northeast-southwest. Feature has vertical sides. Measures 0.4m x 3.5m long although likely continues to southwest. Contains stone rubble fill.	Rubble drain at southwest end of fountain court.
020		Feature	Linear feature running northeast-southwest. Contains red tile drain measuring 0.1m diameter with topsoil fill. Runs for 1m but possibly continues further.	Red tile drain at southwest end of fountain court.
021		Wall	Possible deposit of blond sandstones running southeast-northwest. Blocks are sub-angular in shape and appear to	Possible wall similar in style to lower courses of [008]. While running in same

Context No.	Area/ Trench	Type	Description	Interpretation
			be mainly unworked. Stones measured approximately 0.45m x 0.25m x 0.12m. No bonding, packed with natural clay subsoil. Extent measures 0.5-0.6m wide, at least 400mm deep (with 100-200mm of turf/topsoil overlying) and 2.8m long although continued outwith the trench in both directions. Similar to lower courses of [008].	direction as [008], it sits further to the northeast on a different line. It possibly represents an internal wall or garden feature.

### *Photographic Register - Monitoring*

Image No.	Digital No.	Description	From	Date
01	8067	Area excavated prior to arrival	North	6/4/2017
02	8068	Section of bank with retaining walls removed	Northwest	6/4/2017
03	8069	Section of bank with retaining walls in situ	Northwest	6/4/2017
04	8070	Working shot of area from terrace	West	6/4/2017
05	8071	Example of dressed stone from retaining walls	Northwest	6/4/2017
06	8072	Example of dressed stone from retaining walls	Northwest	6/4/2017
07	8073	Example of dressed stone from retaining walls	Northwest	7/4/2017
08	8074	Example of dressed stone from retaining walls	Northwest	7/4/2017
09	8075	Example of dressed stone with socket from retaining walls	Northwest	7/4/2017
10	8076	General shot of bank after landscaping	North	7/4/2017
11	8077	Section of bank after landscaping	Northwest	7/4/2017
12	8078	Working shot of Souters team searching for existing main drain	Northwest	10/4/2017
13	8079	Large diameter (200 mm) ceramic drain	Northwest	10/4/2017
14	8080	General shot of test trenches for main drain	East	10/4/2017
15	8081	General shot of test trenches for main drain	Southeast	10/4/2017
16	8082	General shot of bank landscaping	Northeast	10/4/2017

Image No.	Digital No.	Description	From	Date
17	8083	General shot of disused manhole NW of fountain pumps	South	10/4/2017
18	8084	Mid-excavation shot of removal of modern midden southwest of orangery	East	12/4/2017
19	8085	Working shot of removal of modern midden southwest of orangery	South	12/4/2017
20	8086	Working shot of cuttings of main drain	East	12/4/2017
21	8087	Mid-excavation shot of main drain	Northeast	12/4/2017
22	8088	Southeast facing section of main drain	Southeast	12/4/2017
23	8089	Mid-excavation shot of irrigation track and orangery	Southeast	12/4/2017
24	8090	General shot of site	Northeast	13/4/2017
25	8091	Mid-excavation shot of irrigation track and orangery	Northeast	13/4/2017
26	8092	Wall [003] exposed in irrigation track	North	13/4/2017
27	8093	Wall [003] exposed in irrigation track	Northeast	13/4/2017
28	8094	Wall [003] exposed in irrigation track	Northeast	13/4/2017
29	8095	Plan shot of wall [003]	Northwest	13/4/2017
30	8096	Ceramic field drain running northwest-southeast	Southeast	13/4/2017
31	8097	General shot of lateral drains dug without monitoring	East	18/4/2017
32	8098	Working shot of site	East	18/4/2017
33	8099	Wall [003] running northeast-southwest in lateral drain	East	18/4/2017
34	8100	Wall [003] running northeast-southwest in lateral drain	Southwest	18/4/2017
35	8101	Wall [003] running northeast-southwest in lateral drain	Northeast	18/4/2017
36	8102	South facing section of wall [003] running northeast-southwest in lateral drain	Southwest	18/4/2017
37	8103	South facing section of wall [003] running northeast-southwest in lateral drain	Southwest	18/4/2017
38	8104	Stretch of wall [003] in southeast facing section of main drain	Southeast	19/4/2017
39	8105	Stretch of wall [003] in southeast facing section of main drain	Southeast	19/4/2017
40	8106	Stretch of wall [003] in southeast facing section of main drain	East	19/4/2017

Image No.	Digital No.	Description	From	Date
41	8107	Mid-excavation shot of irrigation track	West	19/4/2017
42	8108	Post-excavation shot of irrigation track	Northeast	19/4/2017
43	8109	Northwest face of wall [004]	West	20/4/2017
44	8110	Plan of wall [004]	North	20/4/2017
45	8111	Post-excavation general shot of wall [004]	Northeast	20/4/2017
46	8112	Southeast face of wall [004]	Southeast	20/4/2017
47	8113	Post-excavation plan of wall [004]	South	20/4/2017
48	8114	General shot of wall [004]	Northwest	20/4/2017
49	8115	Northwest face of wall [004]	West	20/4/2017
50	8116	Northwest face of wall [004]	West	20/4/2017
51	8117	Northwest face of wall [004]	West	20/04/2017
52	8118	Northwest face of wall [004]	West	20/4/2017
53	2119	Working shot showing truncation of wall [004] by main drain	North	21/4/2017
54	2120	Pre-excavation shot of wall [005]	East	21/4/2017
55	8121	Pre-excavation shot of wall [005]	Southeast	21/4/2017
56	8122	Pre-excavation shot of wall [005]	Southwest	21/4/2017
57	8123	General shot	East	21/4/2017
58	8124	General shot showing wall [005]	Northeast	21/4/2017
59	8125	General shot showing wall [005]	Southwest	21/4/2017
60	8126	Post-excavation photo showing wall [005]	Southwest	21/4/2016
61	8127	Post-excavation photo of wall [005]	Northeast	21/4/2017
62	8128	Post-excavation photo of wall [005]	Southeast	21/4/2017
63	8129	Post-excavation photo of wall [005]	Southwest	21/4/2017
64	8130	General shot of wall [005]	East	21/4/2017



Image No.	Digital No.	Description	From	Date
65	8131	General shot of wall [005]	Southeast	21/4/2017
66	8132	General shot of wall [005]	East	21/4/2017
67	8133	General shot of wall [005]	Northeast	21/4/2017
68	8134	Southwest facing section of wall [005]	Southwest	21/04/2017
69	8135	Working shot of cut of drain	Northeast	22/4/2017
70	8136	Working shot of cut of drain	East	22/4/2017
71	8137	Post-excavation shot of wall [005] exposed in middle lateral drain	Northwest	24/4/2017
72	8138	Post-excavation shot of wall [005] exposed in middle lateral drain	Southwest	24/4/2017
73	8139	Post-excavation shot of wall [005] exposed in middle lateral drain	Southeast	24/4/2017
74	8140	Plan shot of wall [005] in middle lateral drain	Southeast	24/4/2017
75	8141	Wall with possible infilled windows adjacent to orangery	South	25/4/2017
76	8142	Wall with possible infilled windows adjacent to orangery	Southeast	25/4/2017
77	8143	Wall with possible infilled windows adjacent to orangery	East	25/4/2017
78	8144	General shot of drains adjacent to viaduct	Southeast	25/4/2017
79	8145	Pre-excavation shot of excavation area	Southeast	25/4/2017
80	8146	Pre-excavation shot of excavation area	South	25/4/2017
81	8147	Locating wall for excavation area prior to trench measuring	North	25/4/2017
82	8148	Mid-excavation shot of excavation area	South	25/4/2017
83	8149	Mid-excavation shot of excavation area	South	25/4/2-17
84	8150	Probable fence post found adjacent to south corner of orangery	North	25/4/2017
85	8151	Probable fence post found adjacent to south corner of orangery	East	25/4/2017
86	8152	Probable fence post found adjacent to south corner of orangery, showing lead in socket	East	25/4/2017
87	8153	Excavation area - pre-excavation photo of wall [003]/[004]	South	25/4/2017
88	8160	Northeast end of area after deturfing	Southwest	29/4/2017

Image No.	Digital No.	Description	From	Date
89	8161	Shot of area in front of orangery	South	29/4/2017
90	8162	Shot of area in front of orangery	Southeast	29/4/2016
91	8163	Shot of area in front of orangery	Southeast	29/9/2016
92	8168	General shots	South	2/5/2017
93	8169	General shots	South	2/5/2017
94	8170	General shots	South	2/5/2017
95	8171	TBM on slabbing directly to left of brick wall	Southeast	2/5/2017
96	8172	TBM on slabbing directly to left of brick wall	Southeast	2/5/2017
97	8173	General shots	West-southwest	2/5/2017
98	8174	General shots	North-northeast	2/5/2017
99	8175	Shot of stones (021) in final lateral drain	East-southeast	2/5/2017
100	8176	Northeast facing section of stones (021) in final lateral drain	Northeast	2/5/2017
101	8177	Southwest facing section showing stones (021) in final lateral trench	Southwest	2/5/2017
102	8178	Shot across final lateral trench with ranging rod showing line of stones (021)	Southeast	2/5/2017

*Photographic Register - Excavation*

Image No.	Digital No.	Description	From	Date
01	7210	Working shot – reducing area with machine	South	26/4/2017
02	7211	Working shot – reducing area with machine	Southeast	26/4/2017
03	7212	Working shot – reducing area with machine	South	26/4/2017
04	7213	Working shot – reducing area with machine	Southwest	26/4/2017

Image No.	Digital No.	Description	From	Date
05	7214	Working shot – reducing area with machine	North	26/4/2017
06	7215	Working shot – reducing area with machine	North	26/4/2017
07	7216	General shot of Fountain Court	West-Southwest	26/4/2017
08	7217	Shot of 'Stop Cock' (011)	Northeast	26/4/2017
09	7218	Shot of 'Stop Cock' (011)	East	26/4/2017
10	7219	Shot of lower terrace wall	Southeast	26/4/2017
11	7220	Shot of lower terrace wall	Southeast	26/4/2017
12	7222	Working shot – reducing area	Northwest	26/4/2017
13	7223	Working shot – reducing area	Northwest	26/4/2017
14	7224	Working shot – cleaning area	South	26/4/2017
15	7225	Working shot – cleaning area	Southeast	26/4/2017
16	7226	Working shot – cleaning area	Northwest	26/4/2017
17	7227	Working shot – cleaning area	North	26/4/2017
18	8154	Working shot – cleaning the wall	West	26/4/2017
19	8155	Working shot – cleaning the wall	North	26/4/2017
20	8156	Working shot – cleaning the wall	North	26/4/2017
21	8157	Working shot – cleaning the wall	North	26/4/2017
22	8158	Ayrshire Post visit	-	26/4/2017
23	8159	Ayrshire Post visit	-	26/4/2017
24	7229	Post-excavation of trench	Northwest	27/4/2017
25	7230	Post-excavation of trench	Southwest	27/4/2017
26	7231	Post-excavation of trench	Southeast	27/4/2017
27	7232	Post-excavation of trench	Northeast	27/4/2017

Image No.	Digital No.	Description	From	Date
28	7233	General post-excavation shot, fountain in background	South	27/4/2017
29	7234	General post-excavation shot, castle in background	South	27/4/2017
30	7235	General post-excavation shot, orangery in background	South-southeast	27/4/2017
31	7236	General post-excavation shot, orangery in background	South-southeast	27/4/2017
32	7237	General post-excavation shot	Southeast	27/4/2017
33	7238	General post-excavation shot	Northwest	27/4/2017
34	7239	General post-excavation shot	Southwest	27/4/2017
35	7240	General post-excavation shot	Southeast	27/4/2017
36	7241	General post-excavation shot	Northeast	27/4/2017
37	7242	Culvert [010], Northwest-Southeast section	Northwest	27/4/2017
38	7243	Culvert [010], Northeast-Southwest section	Southwest	27/4/2017
39	7244	Southwest facing section of site, Northwest end	Southwest	27/4/2017
40	7245	Southwest facing section of site, Southeast end	Southwest	27/4/2017
41	7246	Inner face of wall [008], Northwest facing	Northwest	27/4/2017
42	7247	Inner Northeast facing elevation of wall [008], Southeast end	Southeast	27/4/2017
43	7248	Inner Northeast facing elevation of wall [008], Northwest end	Southeast	27/4/2017
44	7249	Oblique shot of inner Northeast facing elevation of wall [008]	North	27/4/2017
45	7250	Southeast facing section, Northeast end	Southeast	27/4/2017
46	7251	Southeast facing section, southwest end	Southeast	27/4/2017
47	7252	Oblique, SE facing section	South	27/4/2017
48	7253	Outer face of wall [008], northwest end	Southwest	27/04/2017
49	7254	Outer face of wall [008], southeast end	Southwest	27/04/2017

Image No.	Digital No.	Description	From	Date
50	7255	Outer face of wall [008], oblique	West	27/04/2017
51	7256	Outer face of wall [008], southeast facing	Southeast	27/04/2017
52	7257	Outer face of wall [008], southeast facing - oblique	South	27/04/2017
53	7258-7883	Photogrammetry Shots	-	27/04/2017
54	7884	Working shot – Plan and elevation drawings	Southwest	27/04/2017
55	7885	Working shot – Plan and elevation drawings	South	27/04/2017
56	7886	Working shot – Plan and elevation drawings	South	27/04/2017
57	7888	Working shot – Plan and elevation drawings	South	27/04/2017
58	7889	Working shot – Plan and elevation drawings	Southwest	27/04/2017
59	7890	Working shot – Plan and elevation drawings	South	27/04/2017
60	7891	Working shot – Plan and elevation drawings	Southwest	27/04/2017
61	7892	Working shot – Plan and elevation drawings	West	27/04/2017
62	7893	Working shot – video	-	27/04/2017
63	7894	Feature [012]	Southeast	28/04/2017
64	7895	Feature [012]	Southeast	28/04/2017
65	7896	Southeast facing section of trench showing [012]	Southeast	28/04/2017
66	7897	Southwest facing section showing [016]	Southwest	28/04/2017
67	7898	Southwest facing section showing [016]	Southwest	28/04/2017
68	7899	Southwest facing section showing [016]	Southwest	28/04/2017
69	7900	Northeast facing section through culvert [010]	Northeast	28/04/2017
70	7901	Northeast facing section through culvert [010]	North	28/04/2017
71	7902	Northeast facing section through culvert [010]	Northeast	28/04/2017
72	7904	Southeast facing section through wall [008]	East	28/04/2017
73	7906	Southeast facing section through wall [008]	South	28/04/2017

Image No.	Digital No.	Description	From	Date
74	7907	Southeast facing section through wall [008]	Southeast	28/04/2017
75	7908	Southeast facing section through wall [008]	Southeast	28/04/2017

*Drawing Register*

Drawing No.	Sheet No.	Area/Trench	Drawing Type	Scale	Description	Drawer	Date
1	1		Plan	1:20	Plan of trench	LMcK	27/4/2017
2	2		Elevation	1:10	External southeast facing elevation of wall [008]	CA	27/4/2017
3	3		Elevation	1:10	External southwest facing elevation of wall [008]	CW	28/4/2017
4	3		Section	1:10	Southeast facing section of trench showing wall [008] and cut [012]	CW	28/4/2017
5	3		Section	1:10	Northeast facing section of culvert [010]	CW	28/4/2017
6	4		Elevation	1:10	Internal northwest facing elevation of wall [008]	LMcK/CW	28/4/2017
7	4		Section	1:10	Southeast facing section of wall [008]	CW	28/4/2017

*Finds Register*

Find No.	Area/ Trench	Context	Material Type	Description	Excavator	Date
1		001	Glass	Glass bottle with label "Rankin and Borland Kilmarnock".	JAD	6/4/2017
2		001	Glass	Glass jar with label "Peck's"- sandwich spread from 1940s/50s.	JAD	7/4/2017
3		001	Metal	Badly corroded iron nail/bolt.	JAD	7/4/2017
4		001	Ceramic	Three sherds of possible wheel-thrown pottery fragments. 2 rim sherds and 1 body sherd.	JAD	10/4/2017
5		001	CBM	Red brick stamped "DICO"	JAD	10/4/2017
6		001	Metal	Circular brass cap 50 mm in diameter	JAD	13/4/2017
7		001	Glass	Base of green hand-blown glass bottle possible for champagne.	JAD	13/4/2017
8		001	Glass	Clear glass stem	JAD	17/4/2017
9	-	-	-	VOID	-	-
10		001	Stone	Possible lithic core	JAD	22/4/2017
11		001	Stone	Industrial waste	JAD	22/4/2017

*Samples Register*

Sample No.	Area / Trench	Context	Sample Type	Description / Quantity	Excavator	Date
1		008	Bulk x 1 bag	Sample of mortar from Northwest-Southeast running section	CW	29/4/2017
2		008	Bulk x 1 bag	Mortar from NE-SW running section	CW	29/4/2017
3		013	Bulk x 1 bag	Sample of the fill from feature [012]	DA	1/5/2017

## Appendix 2: Discovery &amp; Excavation in Scotland

<b>LOCAL AUTHORITY:</b>	South Ayrshire
<b>PROJECT TITLE/SITE NAME:</b>	Fountain Court, Culzean
<b>PROJECT CODE:</b>	RA17033
<b>PARISH:</b>	Kirkoswald
<b>NAME OF CONTRIBUTOR:</b>	Claire Williamson & Joss Durnan
<b>NAME OF ORGANISATION:</b>	Rathmell Archaeology Limited
<b>TYPE(S) OF PROJECT:</b>	Watching Brief
<b>NMRS NO(S):</b>	NS21SW 35 (Canmore ID: 296750)
<b>SITE/MONUMENT TYPE(S):</b>	Garden (Period Unassigned)
<b>SIGNIFICANT FINDS:</b>	None
<b>NGR (2 letters, 8 or 10 figures)</b>	NS 23311 10220
<b>START DATE (this season)</b>	6 <sup>th</sup> April 2017
<b>END DATE (this season)</b>	2 <sup>nd</sup> May 2017
<b>PREVIOUS WORK (incl. DES ref.)</b>	None
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (may include information from other fields)	<p>Archaeological monitoring works were carried out in support of the insertion of a new drainage and irrigation system within the Fountain Court at Culzean Castle, South Ayrshire. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within the development area.</p> <p>The works uncovered the remains of a sandstone wall which surrounded the area along its southwest, southeast and northeast sides. This wall appears to represent the remains of the surrounding wall of the earlier walled garden known to stand in this area during the 18<sup>th</sup> century. The wall had been disturbed by the insertion of a stone culvert likely while it had still been upstanding, and by two later red tile drains cut through it after it had been demolished, representing improvements to the ground throughout the 18<sup>th</sup> to 20<sup>th</sup> centuries. A possible linear feature identified in section may represent an internal garden feature although it was unclear.</p> <p>The depth of the topsoil across the whole of the area appeared to have been made up possibly by importing topsoil from elsewhere during the levelling works to turn it into a formal garden during the 19<sup>th</sup> century. This was attested to by the artefacts present throughout the topsoil which were mainly 19<sup>th</sup> to 20<sup>th</sup> century in date.</p>
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	None
<b>SPONSOR OR FUNDING</b>	National Trust for Scotland



<b>BODY:</b>	
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
<b>E MAIL ADDRESS:</b>	contact@rathmell-arch.co.uk
<b>ARCHIVE LOCATION</b> (intended/deposited)	Report to West of Scotland Archaeology Service and archive to the National Record of the Historic Environment

## Contact Details

75. Rathmell Archaeology can be contacted at our Registered Office or through the web:

Rathmell Archaeology Ltd  
Unit 8 Ashgrove Workshops  
Kilwinning  
Ayrshire  
KA13 6PU

[www.rathmell-arch.co.uk](http://www.rathmell-arch.co.uk)

t.: 01294 542848

f.: 01294 542849

e.: [contact@rathmell-arch.co.uk](mailto:contact@rathmell-arch.co.uk)

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