

Discovery and Excavation in Scotland

Updated on 15/06/2007

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PARISH:	Hamilton
NAME OF CONTRIBUTOR:	Gordon Ewart, David Murray
NAME OF ORGANISATION:	Kirkdale Archaeology
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MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>A series of three separate programmes of excavation and standing building recording were completed on two areas of the castle. The first area concentrated on walls defining the S side of the probable courtyard within the Inner Ward. Evidence was found of the modification of primary build (early 16th-century) with the addition of later masonry thought at present to relate to the later 16thC reinforcement of the site under the 2nd Earl of Arran. Evidence was also found of the 18th and 19th-century stabilisation and landscaping programme when the castle was absorbed within the park around Hamilton Palace.</p> <p>The other focus for excavation was the tower located at the NW corner of the Outer Ward. The need to stabilise the vaulted undercroft of this structure brought to light further evidence of the conversion and subdivision of the early 16th-century structure during the later 16th century. This took the form of the addition of a new cross wall at first floor level and the possible creation of a new access passage along the S side of the tower also at first floor level. This exercise may also be associated with the blocking of two apertures looking E and S respectively. The tower appears to have been destroyed by fire on the evidence of extensive burning and scorching of walls at first floor level, an event dating to the late medieval period on the evidence of pottery.</p>
PROPOSED FUTURE WORK:	

Discovery and Excavation in Scotland

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CAPTION(S) FOR ILLUSTRS:	
SPONSOR OR FUNDING BODY:	Historic Scotland
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Historic Scotland
Properties in Care
Minor Archaeological Works
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Cadzow Castle

PIC No. 90342
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Archaeological excavation
and recording
October - November 2006

16 February 2007
Kirkdale Archaeology

<u>Site</u>	Cadzow Castle
<u>N.G.R</u>	NS 734 537
<u>Project Description</u>	Archaeological excavation and recording
<u>Project Code</u>	HSCO-90342-2006-02

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SUMMARY Minor excavations were carried out in the Inner and Middle Wards of Cadzow Castle in advance of works to consolidate areas of masonry. This involved the removal of overburden, generally c 1.0 m deep, to reveal structural remains, which were subsequently recorded in detail using drawings and photographs. The work allowed interpretation of the building sequence and function of structures particularly in areas believed to have been modified during the remodelling or 'romanticisation' of the monument carried out in the 18th century.

1.0 INTRODUCTION

Under the terms of its call-off contract with Historic Scotland, Kirkdale Archaeology were asked to undertake minor excavation and recording in three areas within the Middle and Inner Wards of Cadzow Castle in advance of repair and conservation work. This conservation work was deemed necessary in these areas due to the deterioration of masonry and possible collapse.

The archaeological work comprised the excavation of the overburden at three locations within the castle and to investigate and record deposits and structures that were uncovered. The three areas were:

- **Area 1** c 2.5 m by 7.5 m of 1.0 m deep overburden sealing the standing part of the vault over the basement of the NW tower in the Middle Ward. The excavated area (Trench 1) measured 6.0 m N-S x 3.0 E-W and removed between 1.00 m and 1.50 m of overburden.
- **Area 2** Originally intended to be a trench (c 4.0 m by 7.5 m) to partially excavate the basement area immediately below the Area 1 vault. This area was to be cleared for the construction of new masonry footings and only shallow excavation was required. In practice, it was not possible to excavate in this area due to the presence of scaffolding.
- **Area 3** A trench (c 2.5 m by 7.5 m) to remove the c 1.0 m deep overburden sealing a standing wall at the NW corner of the Inner Ward tower. The initial trench (**Trench 2**) measured up to 10.0 m E-W and 2.7 m N-S and the depth of the overburden varied from 0.2 m in the S of the trench up to a maximum of 1.7 m directly over the wall but in the majority of the trench it was around 0.4

m deep. The initial trench cleared the E-W wall at the N edge of the excavation but revealed further structural remains to the W and S, so the trench was extended W c 3.0 m and the top of the area W of the N end of the passage was also excavated.

It should be noted that the Phases referred to in this report do not correspond to Phases as described in previous excavation reports and must be considered in isolation from previous work until such a time

The work was undertaken between 18 October and 3 November 2006.

2.0 DESCRIPTION

2.1 Trench 1

2.1.1 Trench 1 - Overview

Trench 1 mostly comprised the excavation and recording of the top of the vault, but where relevant, features surrounding the vault were also recorded. A sequence of four main phases was identified:

- **Phase 1** The standing structures around the trench, principally the N and W walls.
- **Phase 2** The construction of the vault.
- **Phase 3** Destruction of the NW tower.
- **Phase 4** Disuse and deterioration of the tower.

2.1.2 Trench 1 - Phase 1 features

Against the W wall, slightly to the N of centre was an almost square (550 mm N-S and 50 mm wide) aperture, **120**, set into the top of vaulting **119**. The edges of **120** were formed by four rectangular sandstone blocks, **121**, each of which measured c 600 mm long, 200 mm wide and 400 mm deep. Only the N and S blocks were dressed, but all four had a groove cut into the top edge of the interior. The W and N stones were built into the W wall **101**, and so, probably, was the S stone, but crack **129** had obscured its relationship with the wall.

The W wall, **101**, was constructed with roughly coursed, rectangular, yellow sandstone blocks. The stones were mainly undressed, the exceptions being at the

reveals of the window aperture (**104** and **105**) and a few blocks at the N end. There was some discolouration to the wall where **113** and **114** lay against it - the sandstone blocks are now red.

The N wall, **106**, was formed with roughly coursed, rectangular, yellow sandstone blocks. Many of the blocks in **106** were dressed. The section of **106** E of the vault, and wall **126**, arches inward at the top and the area to the W continues straight up.

At the W end of the N wall **108** was a large, smoothed, sandstone block built into **106** below window **109**. **107**, the aperture in the N wall above **108**, measured 400 mm E-W and 400 mm high.

109 was an aperture within **106**, 900 mm in height and at least 700 mm E-W, with the W side missing as the NW corner of the castle has collapsed.

Chute **112** was built into the N wall immediately E of the E end of **119**, the vault arch. The visible part of the chute measured 400 mm E-W, 300 mm deep and 1.20 m N-S before running into the N wall and the base sloped slightly from W-E as it descended. The internal E wall, **126**, and the E end of arch, **119**, end at this point and do not disturb this chute.

Little could be seen of the S wall, **138**, as it has largely collapsed to the E of vault **119** and the remnants of it in that area are now buried. Beneath the vault the wall face has mainly crumbled away exposing the core which was similar to that seen in the bottom part of the N wall **106**. It was hard to tell if this wall was keyed into the W wall **101**, most of the stones appeared to lay against **101** but a couple looked as if they may continue behind that wall although this relationship was largely hidden by mortar.

2.1.3 *Trench 1 - Phase 2 features*

119 was the structure of the vaulted arch, formed with yellow sandstone blocks (500 mm E-W by 200 mm wide and 400 mm thick on average) set on edge. The vault measures 4.60 m N-S, 2.60 m E-W and is up to 500 mm thick. At the N end the wall was constructed against wall **106** and to the W it was built against **101** - now detached from that feature leaving a major crack (**122**). The vault had a neat E edge against chute **112**.

Around the S side of **121** there were small chunks of sandstone, **130**, packing between the stone frame and vaulting **119**. **130** filled a gap of up to 100 mm.

136 was mid brown, sandy mortar with some stone grits bonding the stones of **119**.

Seen below **118** in the N of the trench, **134** was moderately compact, brown/grey, sandy silt with a few small (50 mm diameter on average) stones.

Under **134** and filling the N and S sides of the arch, **135** was a surface of flat sandstone slabs varying in size from 200 mm by 100 mm to 800 mm by 600 mm. The bonding at **135** was pale brown/yellow mortar.

To the S of the excavated area **137** was a deposit of compact and sticky brown/grey clay with some large stones. This was not excavated.

There was pale yellow plaster, **110**, surviving on the E wall (**126**), the join between that wall and the N one (**106**) and extending round from **106** onto **125**. **110** measured up to 100 mm thick and survived in patches, the largest measured 1.10 m in length and 700 mm high.

Toward the S end of the W wall **102** was a window aperture measuring 1.50 m in height and 600 mm wide at this (E) face narrowing to 120 mm at the external one.

At the base of **102**, **103** was a trapezoidal area of small, roughly coursed, rectangular pieces of sandstone. The bonding at **103** was mid brown, sandy mortar with some stone grits.

103 was within the bottom of **133**, a roughly oval hole in **101** at least 1.80 m in height (the top was obscured by later features that were not recorded as part of this work) and up to 1.60 m N-S.

The sides of **102** were filled with **104** and **105**, the N and S reveals respectively. **104** and **105** comprised a vertical line of at least four ashlar blocks, although at least two looked to have been removed from the top of each side.

In the SE corner of the trench **111** was an area of walling (measuring 1.00 m N-S, 700 mm wide and 600 mm in height) comprising large blocks of sandstone with rubble infill.

In the SE corner of the trench **125** was an area of walling (measuring 1.00 m E-W, 600

to 800 mm wide and 600 mm in height) comprising large blocks of sandstone and rubble.

The bonding in **111** and **125, 127**, was very hard but crumbly, pale yellow mortar with inclusions of stone grits and charcoal flecks.

In the NE corner of the trench **126** was walling constructed with coursed, rectangular, yellow sandstone blocks. **126** was built against the N wall (**106**) and on top of the vault arch (**119**) c 1.00 m E-W by 900 mm N-S. The S face of **126** was dressed down all of the central blocks but most of the dressed blocks are missing at the E and W corners. The lower part of the N face was covered with plaster **110**.

2.1.4 Trench 1 - Phase 3 features

Below **113, 114** was a mixed deposit of loose and crumbly mortar and rubble with some red/brown silt with charcoal patches throughout. **114** was comprised of 60%-70% angular pieces of sandstone measuring 300 mm by 200 mm on average. Within **114, 115** was an area of charcoal measuring 500 mm by 40 mm.

Below **114** (and over the vault **116**) **117, 118** and **128** were all areas of charcoal. At the S end of the trench **116** had irregular edges and measured 1.20 m E-W, 1.00 m wide and between 10 mm and 50 mm in thickness. **117** to the S of central was an oval area measuring 400 mm N-S, 300 mm wide and between 10 mm and 50 mm thick. **128**, to the NW of **117**, is a roughly circular area measuring 400 mm in diameter and 20 mm thick. **118** at the N end of the trench was the most extensive of the charcoal spreads measuring 1.80 m N-S, 1.20 m in width and between 100 mm and 150 mm thick.

122 was a crack along the W edge of **119**, measuring 2.40 m N-S and up to 200 mm wide. **123** was a crack running N-S through the N stone of **121** and **129** was a crack at the W end of the S stone of the same feature. There were further cracks in the top of the vault; **131** extends E from the S end of **122** and measured 1.60 m in length and varied between 20 mm and 100 mm wide; **132** ran E-W across the N part of the vault and measured 1.30 m in length and 20 mm-60 mm in width.

2.1.5 Trench 1 - Phase 4 features

Vegetation, tree stumps and roots were removed before excavation of the deposits

began. The topsoil, **113**, was a heavily rooted mix of dark brown, clay loam and sandstone rubble. **113** measured up to 700 mm in thickness and although the rubble only comprised about 10% of the deposit there were some large blocks, up to 750 mm by 400 mm and 400 mm thick. The central part of **113** was dominated by a large (1.2m high and 750 mm N-S) tree stump, **124**.

2.2 Trench 2

2.2.1 Trench 2 - Overview

The extended Trench 2 measured up to 12.0 m E-W and 2.5m N-S in the main part of the trench and 5.0 m N-S at the W end. The stairway immediately W of the trench was also recorded.

2.2.2 Trench 2 - Phase 1 features

To the W of the excavated area **212** was a stairway formed with six (**244-249**) rectangular grey sandstone blocks. The steps (as seen) measured 820 mm N-S and 320 mm in width. The bottom step, **244**, was formed with a single slab and measured 200 mm in height at the sides and 140 mm in the worn area. Step **245** was also a single slab measuring 200 mm in height at the sides and 140 mm in the worn area. The next step up, **246**, was formed with fairly large stones at either side with what appeared to be two smaller ones in the middle (although this may be one or two stones that have cracked) and it measured 200 mm in height at the sides and 120 mm in the worn area. **247** was a single stone cracked toward the W end and measured 230 mm in height at the sides and 170 mm in the worn area. **248** was formed with a single slab and measures 190 mm in height at the sides and 120 mm in the worn area. **249**, the top step, was formed with a single slab and measured 160 mm in height at the sides and 120 mm in the worn area. The top of **249** seemed to continue 180 mm W, beyond the current stairway.

Found to the E side of the stairway **212**, **233** was an area of walling formed mostly with two large sandstone blocks; the larger measuring 500 mm N-S, 300 mm wide and 250 mm thick. The W face of **233** was straight and fairly neat, it often showed tool marks. There was no pointing visible and it was noted that there was no sign of any door structure in **233**.

E of **233**, **230** was a line of red sandstone blocks. **230** was barely glimpsed in the current work and further investigation would have been impossible without major excavation.

207 was seen in two areas in the NW and W parts of the trench and was a mix of stones and hard, yellow brown, sandy mortar with 70% sub-rectangular sandstone blocks measuring 350 mm by 200 mm on average.

Between the areas of **207**, **216** was a mix of stones and very hard, grey/green, gritty mortar, c 70% sub-rectangular sandstone blocks measuring 350 mm by 200 mm on average.

In the NW part of the excavated area **213** is a heavily rooted deposit of very sticky yellow/brown clay. **213** was not excavated.

Seen in a small area E of stairway **212** and N of **228**, **234** is a mixed deposit of red and yellow sandstone blocks and red/brown clay.

Seen centrally E-W and extending NNE from (the Phase 4 feature) **217**, **221** was the E face of a structure formed with red and yellow sandstone blocks pointed with fairly loose, yellow to light brown, sandy mortar with frequent (2 mm diameter) stone grits. The N end of the wall appeared to curve slightly to the E but only the top of this feature was seen.

2.2.3 *Trench 2 - Phase 2 features*

At the E end of the trench **205** was an area of red and yellow (mainly the former) sandstone slabs measuring 200 mm E-W and 40 mm thick on average but up to 500 mm by 60 mm. The stones were pointed with hard, yellow brown, sandy mortar and it was noted that there was no soil within this feature, just a solid block of mortared slabs. The W end of **205** was higher than the E and there is a consistent slope - the structure measured 1.80 m E-W and 1.70 m high as seen but **203** (Phase 4) is against it at the bottom of the excavation, the E edge slopes W as it continues down but is straight. The W edge was also quite straight and the N one is fairly ragged but very solid.

Over the top of the E side of **205** there was a solid lump, **238**, formed with five rectangular yellow sandstone blocks that were bonded with yellow/brown gritty

mortar. **238** measured up to 700 mm E-W and 600 mm in height and tipped at the same angle as **205**.

Immediately below **238**, **239** is a void measuring 250 mm E-W and 300 mm high.

Roughly 900 mm W of **205**, **206** is an area of upstanding masonry formed with red and yellow sandstone blocks that are pointed with hard yellow/light brown mortar. Both the E and W edges of **206** are ragged very ragged and the N and S ones are not much neater, there is no sign of any facing stones. **206** measures up to 2.40 m E-W, 1.00 m N-S and 1.20 m high as seen but the bottom of the feature is hidden. The individual sandstone blocks measure 200 mm by 100 mm and 80 mm thick on average.

Part of the N wall was formed with **215**, rectangular red and yellow sandstone blocks pointed with hard yellow brown sandy mortar. The stone blocks measured 450 mm by 300 mm and 250 mm thick on average. It was hard to separate this structure from **204** - most of the stones thought to part of this feature were toward the bottom of the W side of the structure and the main difference between the two features was the pointing.

2.2.4 Trench 2 - Phase 2a features

At the southernmost point of the structure that was uncovered between **223** and **227**, **225** was an area of rectangular sandstone blocks pointed with orange/brown sandy mortar. **224**, the Phase 4 stones lay over **225**.

2.2.5 Trench 2 - Phase 3 features

Near to the NW corner of the original trench area **208** is a lump formed with rectangular sandstone blocks that are bonded with yellow brown sandy mortar with some stone grits. The blocks at the N edge have been cut square at the N face and are notably large, up to 450 mm by 300 mm and 250 mm thick, compared by those in the W part of the feature which measure 120 mm by 60 mm and 40 mm on average.

Located fairly centrally in the trench, directly under **201**, **202**, was a fairly even mix of stones and fairly loose light brown silty sand and mortar that was heavily rooted throughout. The stones varied from 60 mm by 40 mm and 40 mm to 500 mm by 400 mm and 200 mm in size.

E of the N-S aligned wall **221** (Phase 1), **220** was an area of sub-angular sandstone chunks and yellow/light brown mortar. **220** was c 75% stones measuring 200 mm by 100 mm and 60 mm on average and the mortar was in patches. **220** was against both **206** and **221**.

To the E of **220** there was an area of sandstone blocks with a fairly neat W edge, **219**. **219** included both red and yellow sandstone blocks, measuring 250 mm by 200 mm and 100 mm on average, pointed with hard yellow light brown sandy mortar that contained frequent, 3mm diameter, stone grits. Neither **219** nor **220** were excavated.

To the W of **206**, **222** is an area of mortar bonded sandstone blocks. **222** comprised four courses of yellow sandstone blocks, measuring 400 mm by 200 mm and 120 mm thick on average, with mid brown gritty mortar bonding.

In the SE part of the trench **209** is an area of red and yellow sandstone blocks and loose mid-dark grey silt, 70% stones measuring 120 mm by 80 mm on average. The N edge of the feature is formed with a curve of sandstone blocks.

E of **209**, **210** is an area of large sandstone blocks and loose grey/brown silt. The majority of this feature was three large blocks the largest of which, measuring 720 mm by 420 mm, is an architectural fragment. There was still some hard mid brown gritty mortar bonding the large blocks.

Roughly central on **213** in the W of the trench, **214** is a group of four, neatly cut, sandstone blocks. The W pair of the blocks are sitting flat the others are pitched at an angle, down to the S.

2.2.6 *Trench 2 - Phase 4 features*

The N limit of the trench was at **204**, an E-W aligned wall face formed mainly with rectangular red sandstone blocks (there were some yellow sandstone blocks visible, mainly toward the bottom of the E end) measuring 500 mm E-W, 300 mm wide and 200 mm thick. On the top of **204** there are traces of hard, almost concreted, green mortar with many small stone inclusions. The line of the wall is very ragged and although at the top there are trees disturbing it, the base is not much straighter.

S of the E part of **204**, **203** was an area of roughly rectangular stones measuring 120 mm by 80 mm and 60 mm on average. There were many roots between the, loosely

packed, stones.

Extending N from the E end of **204**, **211** is a N-S aligned wall. The W face of **211** was formed with rectangular red and yellow sandstone blocks and it looked like rubble infill behind (E of) this although little was seen. **211** appeared to be built against the bottom part of the N wall **204/215**.

At the top of the S end of the central area the wall-head is formed with **217**, sandstone blocks (mostly yellow) measuring 400 mm by 300 mm and 180 mm thick on average. Between the stones of **217** there was topsoil, **201**.

At the E end of **217**, **218** is an area of rectangular sandstone blocks measuring 400 mm by 300 mm and 200 mm thick on average. **218** is over the **phase 3** features **219** and **220**.

Extending S from the W end of **217** and then turning SW, **223** is a wall formed with mainly red but also some yellow rectangular sandstone blocks that measure 400 mm by 200 mm and 150 mm thick on average. The top three courses are against the walling under **217**, the next three look to be tied into that walling and the bottom half of the wall is built against (and masks) the dressed blocks forming the W side of the doorway into the room below. The bottom part of **223** is bonded with hard light brown gritty mortar while there is no mortar seen between the upper stones.

W of **223** and extending E to the N of **217** as far E as **221**, **224** is a mix of red and yellow sandstone blocks with hard green/grey mortar pointing that has stone grits and flecks of charcoal throughout.

At the S end of the W side of the spur that **223** was at the W edge of, **227** is the West face of a wall formed with rectangular sandstone blocks measuring an average of 500 mm long and 200 mm in thickness. The pointing in **227** is green/grey mortar that has inclusions of stone grits and flecks of charcoal.

At the S end of **227** there is a vertical line of seven yellow sandstone blocks, **236**, measuring a total of 1.65m in height. The blocks within **236** measures 280 mm high, 230 mm N-S, and alternate between 430 mm and 570 mm E-W. On the N face of the blocks there is a jamb cut 250 mm E of the W face, that steps out (South) 60 mm. The top stone is different in that there is no jamb and there are numerous tool marks on

the S side. There is a (60 mm high, 30 mm wide and 30 mm deep) hole cut 30 mm W of the jamb.

227 and **236** are not jointed, there is a gap varying from 20 mm to 120 mm between them, except at the top where **227** is over **236**.

At the N end of **227** and extending NW from it, **228** is a wall face constructed with rectangular sandstone blocks that measure 400 mm in length and 150 mm thick on average. The pointing at **228** is hard green/grey gritty mortar. **228** was tied into **227**, **229** was built over **228** and against **227**.

229 against the N edge of **227** is a short N-S stretch of walling formed with rectangular sandstone blocks, the largest of which has a cut in its outer (W) face. The pointing in **229** is hard green/grey gritty mortar that continues below the wall and behind **228**.

At the base of the W side of the stairway **231** comprises two stacked yellow sandstone blocks both measuring 400 mm E-W and 320 mm N-S, the upper stone is 280 mm high and the lower one 330 mm. The SE corner of both stones is cut out; the E 80 mm and S 100 mm have been removed to make a chamfer.

At the junction of the S face of the blocks at **231** there is a hole, **240**, infilled with rubble. **240** measures 350 mm in height, 240 mm E-W and c 160 mm deep. **241** is a similar, smaller, hole at the base of the lower stone, it measures 160 mm E-W and 140 mm high as seen but may continue below the exposed level.

There are two small holes cut into the S end of the E face of the lower block. The upper of these holes, **242**, measured 30 mm high, 25mm N-S and 30 mm deep. Lower down **243** measured 35mm in height, 25mm wide and 40 mm deep.

The walling at the W side of the stairway, **232**, is formed with red and yellow sandstone blocks that are built over the upper faces of the steps at **212**. The stones are typically rectangular and measure 250 mm N-S and 100 mm thick on average, the wall rises c 400 mm above each step. **232** has a fairly straight E face, there was no pointing seen.

Immediately W of **231** (Phase 4), **235** is an E-W aligned wall formed with red and yellow sandstone blocks. The pointing in **235** is very hard light grey mortar. There

was a gap of between 30 mm and 80 mm between **235** and **231**. At the top of **235** there were sandstone copes, **237**. The blocks at **237** measured 400 mm E-W by 200 mm and 150 mm thick, they were pointed with very hard, light grey mortar.

2.2.7 *Trench 2 - Phase 5 features*

The topsoil, **201**, was loose mid-dark brown silty loam with some angular stones. There were six tree stumps and numerous roots of various sizes within **201**, causing massive disturbance to this deposit. The stones measured up to 250 mm by 150 mm and 100 mm and occasionally there were traces of mortar on them. **250** was a line of trees within lot of ivy in the top of **201**. The vegetation was particularly heavy close to the N end of **201**.

In the SW part of the cleared area **226** is a tree hole that was excavated to a depth of 600 mm but the bottom of it was not seen. **226** had disturbed the W side of **224**, **225** and in particular **227** where roots had penetrated though from the W face to the E.

3.0 INTERPRETATION AND OBSERVATIONS

3.1 Trench 1

3.1.1 *Trench 1 - Phase 1*

Aperture **120** is certainly a chute but whether it is a garderobe chute or simply a goods access to the vault below is not certain - it could even be the former converted to the latter. The stones forming the edge of aperture **121** all have a groove cut into the top edge of the interior, perhaps suggesting there was a cover fitted. The structure of **121** is built into the W wall, **101**, showing that the chute was part of the main construction. The fact that N and S blocks are dressed and others are not may be indicative of the feature being altered - perhaps the E side has been moved further E in a later usage. It seems most likely a garderobe chute in Phase 1 converted to an access hatch in Phase 2.

Window **103** is also thought to have originated in this phase although the reduced version now seen is a Phase 2 feature.

The vault was built against **101** but whether as part of the same or a later building phase is not certain. The fact that the vaulting is not tied into, and has fallen away

from, **101**, leads to the suspicion that **101** was *in situ* as part of an earlier structure and the vault represents a reuse of the internal space. The step E in the E face of **101** must have been for structural reasons - perhaps to support the original floor.

The N wall, **106**, is keyed into the W (**101**) wall, suggesting that they were constructed simultaneously. The section of this wall E of the remains of the vault and wall **126** arches inward at the top, indicating the presence of an arched roof over that area. The area to the E, above vaulting **119**, continues straight up suggesting that the arch did not continue W into this area.

The NW corner of the structure has been destroyed or has collapsed and the top of window aperture **109** is missing. Below **109**, **108** is the base of a garderobe chute, for which **107** is the aperture through the N wall. The window and the chute appear to be part of the original construction.

Chute **112** is built into the N wall and looks to be part of the original construction. The internal E wall, **126**, and the E end of arch **119** look to respect this feature suggesting that it was in use with that structure. Perhaps chute **112** is part of the original construction in this area but has been re-used when arch **119** was constructed.

The S wall, **138**, was probably constructed at the same time as the W wall and therefore the N wall, but the relationship was not clear - it could also be that the S wall of the Phase 1 structure was further S and **138** is a Phase 2 construction.

3.1.2 *Trench 1 - Phase 2*

138 may have continued E beyond the vault - the wall itself was not seen but there is a lump continuing the line of it extending roughly 6.0 m in that direction. There is an area to the S of **138** and N of the S wall in this area; this may have been a corridor. The continuation of the South wall as well as any corridor there may be to the South is more likely to be part of this period of work than **phase 1**.

The vault, **119**, is constructed against the N (**106**) and W (**101**) walls of the tower. Crack **122** is caused by it falling away from **101**; deposits **113** and **114** (**phases 4 and 3** respectively) have probably contributed to or even caused this. The E edge of the N end of the vaulting is dressed against chute **112** and either the arch ended at this

point or the chute was within a larger vault, the E continuation of which has collapsed. It was not possible to do detailed building recording during this work but there were a couple of points that may be relevant to the E extent of the vault noted:

- The next three windows E on the N wall were at a level corresponding to it, the fourth is higher. This would suggest the vault extending roughly 6.00 m further E.
- Along this section of the N wall the facing is missing from the level of the top of the vault down, perhaps suggesting something has fallen away.

136 is the original pointing of **119**.

130 is thought to be packing around chute **120** to tie vaulting **119** to it.

134 looked to be trample, perhaps deposited close to the abandonment of this structure. There was a late 16th-century coin recovered from this deposit.

The filling of the sloping N and S parts of the arch with slabs **135** has created a fairly level surface. It was not thought that the stones at **135** were laid flat enough, or were consistent enough in size, to be the floor of a room. Perhaps these slabs created a roughly level surface above the curved sides of the arch with floorboards laid above.

137, S of the excavated area, contains some collapsed stone but it is not clear whether the deposit is imported material or subsoil, although the former is most likely. The stones seen are probably tumble that has sunk into the upper part of this unexcavated deposit.

Plaster **110** was seen over walls **126**, **106** and **125**, showing these structures to be in use at the same time.

133 is an oval hole in **101** that takes the structure for widow **102**. The window would have been 1.50 m high and 600 mm wide narrowing to 120 mm at the external face, as it appears now.

The N and S reveals of **102**, **104** and **105**, comprise a vertical line of at least four dressed blocks - the structure may have continued further up.

At the base of **102**, **103** blocks the bottom of the aperture and the mortar bonding for

these stones is similar to that seen in **119**, the arch.

Window **102** is thought to be an insertion or to have been altered. It may be that **133** is a cut into the fabric of the wall with **104** and **105** then put in to form the window. **103** has been described as a sill but looks like rough blocking - unlike the dressed stones at **104** and **105**. This may have originally been a fairly large window that was reduced to a firing slot with the insertion of **103** and perhaps also moving **104** and **105** inward to narrow the aperture.

It was thought that walls **111** and **125** might be remnants of the same structure - the pointing looked to be the same on both. Perhaps there was a wall extending N-S across the top of the E end of the vault but equally each element could be separate - perhaps with another feature linking them.

Wall stub **126** was constructed after the N wall (**106**) and the vault arch (**119**), and before **125**. **127** is the mortar bonding seen at **111** and **F125**, it is probably an original feature.

3.1.3 *Trench 1 - Phase 3*

114 looked to be demolition debris, perhaps from deliberate destruction in this area of the castle.

It may be that **115** is a patch of re-deposited charcoal within **114** but it could equally have been wood burnt *in situ*.

116, **117**, **118** and **128** were all areas of burning that looked to be *in situ* rather than re-deposited over the vault. This is probably evidence of destruction. There is a possibility that these deposits could be the remains of a wooden floor.

Cracks **122**, **131** and **132** show major structural damage to the vault - they appear to show the vault coming away from the W wall, with the bottom of the slopes to the N and S breaking away from the flat portion close to the walls. This damage may have been caused during the deliberate destruction of this part of the castle.

123 and **129** are cracks in **121** showing it to be breaking away from the W wall.

3.1.4 *Trench 1 - Phase 4*

113 is a mix of woodland detritus, topsoil and collapse and it may have built up over

quite a long period. Tree **124** looked to have been well established, also suggesting that the topsoil over the vault had been in situ for some time.

3.2 Trench 2

3.2.1 Trench 2 - Phase 1

207 and **216** were thought to be wall core, and may have been a part of the original structure over the vault. It is also possible that these features are associated with **215**, the Phase 2 N wall. **216** looks to have been re-pointed in Phase 4 (**223** and **227-229**).

To the E of the stairway (**212**) **230** is a line of red sandstone blocks. Only a small area of **230** was seen but this may be part of the original construction, it might show the W edge of the vault roof. **234** may also be part of the top of the vault below. In the NW of the trench **213** is imported and looks to be a sealing layer, perhaps waterproofing the vault.

The stairway to the West of the main excavated area, **212**, used the same steps (**244-249**) that are still seen but in this usage the stairs would have been 1.00 m wide. The Phase 4 W wall has narrowed that side of the stairway by 180 mm. The wall at the E side, **233**, is probably part of this phase of construction and there was not any door structure within it. The wear is on the W side of the steps as they are now seen, suggesting that it occurred during this phase, on the wider stairway, where it would be fairly central. The large amount of wear suggests either a long period of usage or that this was a main route, or perhaps both.

221 is the E face of a wall running N from the S edge of the area, either the W wall of a feature, the E wall of the vault below, or both. It is notable that the N end of the wall curves and this can be seen in the wall below. It looks like this is the edge of an architectural feature, perhaps a stairway. Whatever this feature is, it is an edge to structure and therefore a division in the layout of the buildings. It is suggested that this is a stair up between the vault and the W end of the N range. The base of this feature is now hidden behind the structure of the Phase 4 revetting.

3.2.2 Trench 2 - Phase 2

208 and **222** are discussed here although they are described as Phase 3 features. This

is because although their collapse was part of that phase, their construction is thought to be part of Phase 2.

The remnants of what is thought to be an original structure (**215**) indicate a N wall with the N face in roughly the position it is seen now, at **204/215**. The N face has largely fallen away, and has later been rebuilt with **204**, and there is no trace of the S face. The main difference between **215** and **204** was the material used as pointing.

205, In the SE corner of the trench, is a large chunk of wall core. The E and W edges are fairly straight and neat and thought to be roughly intact; at the N side the face is ragged but the structure remains solid. It looks like this wall has fallen to the E, into a void, and the facing stones have come off but the wall core has remained intact. At the E end it looks like this was roughly the end of a particular structural element, perhaps this is a section of wall to the E of an aperture that it has collapsed into. The E end is the more convincing as a real edge it is possible that the W end of **205** has fallen away from **206**.

At the top of the E side of **205**, **238** looks like a remnant of the top of an arch that **205** has fallen into and **239** is the W side of the aperture of that arch.

The main upstanding area of the original N wall, **206**, indicates that this structure was at least 1.50 m thick. Both the N and S faces are missing and the E and W edges are ragged. It looks like **206** is a section of the core standing roughly in situ, **205** has fallen off the E end and **222** may have slipped from the W side. The walling 800 mm to the E of **206**, **205**, looks to have broken off that feature and fallen into an aperture, perhaps a window.

222 is the furthest W of the collapse that is thought to be associated with **206** and it is at the NE corner of **221**, perhaps indicating the W end of a structure. It looks like **215** continued W beyond **221** and **222** showing there was structure in this area but this may have been a curtain wall rather than a building.

At the NW corner of the structural remains **208** is probably a slipped section of the N wall, and possibly of the NW corner of the structure.

3.2.3 *Trench 2 - Phase 2a*

225 is thought to be core of the original wall at the S spur, the only obvious reason

for this structure is to create a doorway that links a passage to the E with stairway **212** to the NW. This suggests that the passageway to the East was in use at this time.

3.2.4 *Trench 2 - Phase 3*

208 and **222** are discussed in 3.2.2 above.

202, roughly in the middle of the main area, is thought to be collapse of wall **206** and possibly also remains of **207**.

Under **202** (Phase 4), **220** is deliberate in-filling of the area of the proposed Phase 2 stairway at **221**.

In the SE of the trench **209** has a curved edge and although it is possible that this may be the remains of a flimsy feature, perhaps the stones being laid around the site of a fire, it was thought to be tumbled collapse. Immediately E of **209**, **210** is an area of collapse that is still partly bonded.

219, E of **220** and W of **210**, was a large chunk of bonded masonry, most likely collapse but possibly in situ structure. It does not look like **210** or **219** has fallen far, perhaps they are chunks of the N range's W wall but **219** is equally likely to be the E side of the proposed stairway at **221**.

At the NW corner of the structural remains **214** is tumbled wall facing, perhaps the collapse of the corner at the S return at the W end of **215**.

3.2.5 *Trench 2 - Phase 4*

204 is an uneven wall face, thought to be the re-facing of the partially collapsed (Phase 1) structure, and **203** is infill behind (S of) it. Part of the reason that the wall face was uneven was the disturbance caused by the trees in **250** above it, but the general impression is that it was not constructed with a great deal of care. It was noted that **203** was also infilled against the remnants of the Phase 2 wall **205**. It seems likely that **204** is a 'tidying' of the area, basically a revetment, after the N face of **205** has collapsed with **203** being used as infill between the two structures.

211 is the W face of a N-S aligned wall running N from the E end of **204**. Although the face of **211** is formed with cut sandstone blocks there was rubble infill to the E. It was thought that **211** was built against the bottom of **204** but it may be that was a

remnant of earlier walling, on balance it was thought **204** and **211** were contemporary.

At the S end of the main area the coping stones **217** have been placed over the Phase 1 wall, **221**, and appear to have been constructed with the revetting to the E of the corridor. **217** is thought to be part of that phase of the tidying and 'romanticisation' of the monument. **223** and **227** continue the same construction as **217** around the E side and the S end of the W side of the S spur.

224 is probably a mix of re-pointing and construction as part of **217** and **223**, tying the wall heads into the upstanding remnants.

236 is the structure of the N side of a doorway at the S end of **227**. Either **236** is part of early structure or it has been very carefully recycled. The upper stone has been hacked at and moved, possibly when **227** was constructed. The jamb shows a door opening to the W. The hole cut just to the W of the door jamb looks like a bolt hole.

There seems little reason for a door here in this phase as it is only leading to the stairway to the NW. Perhaps in whatever phase it was used the drawbridge to the W was still in use and it restricted access between that and the corridor to the E. **227** is not jointed to the structure to the N, **236**. **236** is now falling away from **227**. It is surprising that **227** and **236** are not jointed, even if **227** is a later structure it would surely be built against **236**. The most obvious explanation seems that it is later and was built against it but is now slumping and falling away from it, and if this is what is happening then the structure in this area is very unstable.

228 and **229** are also parts of the same construction phase, tidying the area to the SE of the stairs. **227** and **228** formed the dressed edge of the structure to the E of the stairway and **229** ties this into the remains to the N, there may also have been (now collapsed) structure running W from **228** to the **phase1** walling **233**.

224 and **227-229** were all pointed with similar material.

At the W side of the bottom of the stairway **231** looks to be the W side of a doorway with the door opening to the S but there was no sign of structure for it to the E. Another possibility is that the door opened to the E and this is the N side of it. It does seem that this structure was not original to the stairs as, along with **232**, it

blocks off the W side of them.

The infilled holes in the S face of **231**, **240** and **241**, seemed to have no purpose in the current layout and may have been from the previous usage of these stones (perhaps beam slots).

The small holes cut into the E face of **231**, **242** and **243** looked like bolt holes, again probably from the earlier usage.

232, at the West side of the stairway, has been constructed as the new W wall and narrows the stairway by 180 mm.

Continuing W from **231** although not jointed to it, **235** is an E-W aligned wall. **237** is the sandstone copes, over **235**. The pointing in **235** and **237** looks like cement and is probably recent.

The coping stones **237** have been pointed fairly recently and wall **235** is either also recent or was re-pointed when the stones of **237** were placed over it. Although **235** and **237** could be part of the redesigning of the stairs they look to have been probably been repaired in the last 20 years.

Phase 4 may in fact be made up of two separate phases. Perhaps the first involved re-pointing and stabilising the ruins and may have included most of the recorded structure within the trench and the later involved the 'romanticisation' and major landscaping of the monument with the revetting of the E side of the N-S passage just S of the area excavated and the narrowing of the stairway to the W, **212**.

3.2.6 *Trench 2 - Phase 5*

The topsoil, **201**, has probably built up gradually but it has and is constantly being disturbed. There looked to be demolition or collapsed building material within it.

Along the N edge of **201** there were at least five tree stumps and a considerable amount of fairly thick ivy, **250**.

226, In the SW part of the cleared area is a tree hole containing heavy roots that are still damaging **224**, **225** and particularly the upper part of **227**.

4.0 DISCUSSION

4.1 Phase 1

The drawbridge linking the two parts of the castle would have been to the W of the N end of stairway **212**.

It is suggested for discussion (without any real evidence) that there was a tower in the NW corner of this side of the castle. **212** would be an entrance into the S side of the tower, at first floor level, and there would be another entrance at this level directly from the drawbridge. Perhaps the S spur, **224** and **225**, was not constructed at this time and the structure ran E from **212** to the line of structure seen under **217** finally turning N at **221**. Alternatively the E limit of the tower was at the edge of **207** just to the E of the stairway and the tower measured only *c* 3.80 m E-W.

The structure of parts of two doorways are seen at **231** and **236** but these are thought to be of later reconstruction, however the material used would probably belong originally in this phase although exactly where is not known. The likelihood is that there was a doorway at the base of the stairway.

The ground floor level in this area is a vault accessed by a door in the N wall of the passage. Assuming the vault was within the proposed tower this means that the tower must continue E to **221**.

Within this area the top of the "well" (not recorded during this work) was seen and as this feature goes into the NW corner of the vault below perhaps it would be more likely to be a pit prison within the tower or an access point for materials, it would not seem likely to function as a well.

The E edge of the passageway is created by the Phase 4 revetting and the W side by the 'S spur' so it is possible that there was not a passage here in this period - the access to both the vault and the E range being the circuitous one from the drawbridge and via stairway **212**.

233 forms the W side of the stairway and it looks to be the original construction for it. There is no sign of any door structure in **233** but it may have been disturbed in the Phase 2 narrowing of the stairway.

4.2

Phase 2

The W end of the N range would have been to the E of the stairway at **221** and both, the range and the stairway, could be later than the tower.

All that is seen of this “range” is the N wall and even this is largely collapsed. The main upstanding chunk, **206**, suggests a wall that measured at least 1.50 m in thickness. At the E end of the trench **205** has fallen from **206** into an arched aperture, possibly a window, suggesting that there is a room below the area to the S of the E end of the trench.

At the W end of **206**, **222** is five courses of collapsed walling. It may be coincidence but **222** is at the NE corner of **221** and notably less wide than **206**. Perhaps **206** is the W limit of the N range and although the N wall continues W it is only a curtain in that area. **222** could then be the, slightly displaced, N wall of the stairway and S face of the curtain.

The steps at **212** may have been to get round to **221** after crossing the drawbridge, but that seems a very circuitous route (down the steps then go S, E and N and then climb up) and it is also possible that these features are different phases of construction. A stairway at **221** would clearly be to give access to what is now the top of the mound suggesting there was structure in this area, presumably including the N range.

It may be that the passageway to the S of the excavated area was formed at this time, it would need to be c 2.50 m E of where it is now seen if it was to work easily with a stairway at **221**.

The stairway, **212**, up to a levelled, grassed area (possibly a viewing platform created as part of the 18th-century ‘romanticisation’ of the castle ruin) has been narrowed in this phase. The steps, **244-249**, in the current layout measure 820 mm N-S but look to extend W 180 mm beyond **232**. There is considerable wear on the steps and this is W of central in the latest layout and looks to be from the Phase 1 usage.

231 is either masonry reused in this phase or the other side of the doorway has been taken away as part of it. It is not part of the original structure as it is constructed over the W side of the bottom step.

Infilled holes **240** and **241** in the S face and **242** and **243** in the E face of **231** are thought to show features from the earlier usage of the stones.

The walling along the W side of the stairway, **232**, blocks off the W 180 mm of the steps. This wall is the main element of the redesigning, narrowing, of the stairs.

4.3 Phase 3

This phase is the destruction of the castle.

202, is demolition material from **206** and it overlies **220**, the in-filling of the Phase 2 stairway E of **221**.

209 is included in this phase as it is demolition material, some of the stones may have been moved slightly to form the edges of an outdoor fire and this is likely to have been in Phase 4 or Phase 5.

210 and **219** are areas of collapsed masonry that are still bonded so probably have not moved far - they may be chunks of the N ranges W wall and the E side of the stairway seen at **221**.

214 is tumbled wall facing - perhaps the collapse of the SW corner of the Phase 2 structure.

4.4 Phase 4

204 and **211** form the S and E edges of an area of fairly flat grass that the top of the well is toward the NW corner of. The main W and N walls form the other boundaries to the grassed area. It looks like this construction is tidying up the collapsing structure and forming a flat area with a good view to the bridge across the river to the NE. The thought occurs that creating a viewing platform overlooking the gorge may have been part of the plan during this work.

202 is collapse of wall **206** and possibly also **207**, it overlay **207** and **220** and was therefore quite late in the sequence. Perhaps **202** collapsed during the disturbance caused during the construction of **204**.

The substantial revetting at the E side of the corridor, which is situated below and to the S of the main area and to the E of the S spur, was constructed at this time. The pyramid-like structure supports and dresses collapsed rubble that presumably fell

from a structure to the E of what is now the E wall of the corridor. The fact the material fell in this area suggests that it was open before the collapse but another possibility is that this part of the castle was blown up and the explosion caused the top of the structure to fall into the rooms below. Probably critical to understanding the construction of the 'pyramid' is the vault in the base of it (not recorded as part of this work). If this vaulted room is part of the original construction then what has happened is that the top of the wall has fallen E into the building. As there seems no good reason to create this room during the pyramid/revetment construction this is the most likely scenario. It should also be noted that this room is unlikely to have survived the explosion which is believed to have demolished the Inner ward. It may be that the doorway has been widened westwards - moving the passage in that direction.

With this interpretation the line of structure **221** is roughly 1.00 m E of the W edge of the pyramid/revetment and although the Phase 1 interpretation of the edge of a stairway may be wrong there does appear to be an edge of some structure here and the wall under the pyramid/revetment would block this off. Perhaps this is the E edge of an earlier tower and when the N and E ranges were constructed to the E the area between them was infilled with **220**.

4.5 Phase 5

Topsoil, **201**, is a gradual build up of material greatly disturbed by heavy vegetation including **250** and **226**.

5.0 SUMMARY

The Phase 1 features comprise the structure in the W of the trench and the original use of stairway **212**. This phase certainly includes the creation of the W vault. It is speculated that in this phase there may have been a tower at the NW corner of the structure, E of the central ditch.

The entries to the tower would have been from the drawbridge immediately to the W of it and stairway **212** to the S. The W side of the tower was constructed on bedrock while the vault that still survives is under the E side. The S wall of the tower continued E to wall **221**.

In Phase 2 a range of buildings are constructed to the E of the S end of the tower, which may or may not be out of use. The Inner Ward is probably created in this phase.

There was probably extensive construction on the top of the mound but the only structure that would have been seen in this excavation would be the W end of the N range and, perhaps, the W wall of the W range. If there was a passageway in either Phase 1 or Phase 2 then it would need to be to the E of where it is now seen.

There is no stratigraphical evidence that shows Phase 1 to pre-date Phase 2 and it may well be that the structures assigned these phases are contemporary.

Phase 3 is the demolition of this part of the castle. It includes tumbled stones, **202** and **209**, and what looks to be material that has not travelled far like **214**, **210** and **219**.

220 is different in that it looks like deliberate in-filling of the Phase 2 stairway E of **221**.

Phase 4 sees major dressing of the slighted castle. **204** and **211** form the S and E edges and the curtains at the E edge of the central ditch and the N end of the castle form the other edges of what is probably a viewing platform. A broadly pyramid-shaped structure is created, with a large area of revetting supporting the remains of the W end of the inner ward and the corridor to the W of this is moved to its current position. Stairway **212** is narrowed and the structure from the edges of doorways is moved to the edges of the dressed structure simply as decoration.

There are almost certainly two phases included in Phase 3 but these could not be convincingly disentangled in this work. It may be that the remains were first stabilised and then later dressed to form an 'attractive' ruin.

Phase 5 is the growth of vegetation and the gradual build up of topsoil.

6.0 SUGGESTED FURTHER WORKS

There is a considerable amount of potential building recording that could be done beyond the urgent recording work that was necessary before the current consolidation works. Any further excavation would be best undertaken from the

edges of the upstanding structure, towards the interior of the castle - this has been found to make locating structural remains far easier.

Further investigation of the particular features encountered (some only partially revealed) in this work would be of great help to the understanding of the castle's construction.

In Trench 1 this will be possible when the scaffolding is removed and further excavation is undertaken but recording of more of the standing structure than this would necessitate could be valuable. Excavation of the deposits to the S and SW of the standing vault may also help the understanding of the development of this part of the castle.

Also, there should be more recording undertaken of the upstanding structure around Trench 1. Specifically, examination and recording of the N wall of the corridor including the edges of **221** and the revetted wall would help clarify the sequence seen in Trench 1. The elevation of the structure immediately E of the S end of stairway **212** should be drawn primarily because it is unstable and this was not possible during these latest works.

If any excavation was undertaken it would be useful to excavate **220** and see more of **221** and **220** to the W and N of this infill. Continuing the excavation E and SE should reveal more of the Phase 2 structure.

No	Description
101	Structure of the West wall.
102	Window aperture in F101.
103	Blocking at the base of F102.
104	North reveal of F102.
105	South reveal of F102.
106	North wall.
107	Aperture in F108.
108	Large smoothed sandstone block built into the North elevation.
109	Window aperture in the West corner of the North wall.
110	Area of plaster facing surviving on F126.
111	South stub of an internal East wall.
112	Toilet chute built into the North wall.
113	Mix of dark brown topsoil and rubble collapse.
114	Mix of mortar and rubble under F113.
115	Charcoal deposit within F114.
116	Charcoal spread over Western part of vaulting F119.
117	Small area of charcoal to the East of central over F119.
118	Large area of charcoal in the Northern part of the trench.
119	Structure of vaulted arch.
120	Aperture down into the vault, through the roof.
121	Stone surround of F120.
122	Large crack along the back of vaulting F119.
123	Crack in the North stone of the surround of F120.
124	Tree growing in F113 and F114.
125	North stub of an internal East wall.
126	Part of an internal East wall.
127	Yellow mortar seen in F111 and F125.
128	Small area of charcoal to the North of central over F119.
129	Crack in the South stone of the surround of F120.
130	Chunks of sandstone between F120, F121 and F119.
131	Southern crack running E-W in the top of the vault.
132	Northern crack running E-W in the top of the vault.
133	Roughly oval cut through F101.
134	Deposit of brown/grey sandy silt, under F118.
135	Roughly level slab surface seen at the North and South ends of the area above the vault.
136	Mid brown sandy mortar with some grits, bonds F119 and F135.
137	Compact brown/grey clay to the South of F138.
138	South wall under the South side of the vault arch.
139	Band of charcoal seen to the SE of the excavated area.
201	Turf, topsoil and tree roots.
202	Mix of stones, light brown silty sand and mortar.
203	Rectangular stones, infill.
204	E-W aligned wall forming the Northern limit of the trench.
205	Remains of E-W walling South of F204.
206	Upstanding masonry, possible wall face.
207	Upstanding masonry, possible wall core.
208	Western continuation of wall F215.

No	Description
209	Sub rectangular stones forming a rough curve, tumble.
210	Large stone blocks and grey/brown silt, collapse.
211	Wall extending North from the East end of F204.
212	Stairway formed with grey sandstone blocks. There are six steps.
213	Deposit of sticky yellow/brown clay.
214	Tumbled dressed sandstone blocks.
215	Structure forming the original North wall.
216	Upstanding masonry, possible wall core, with very hard mortar pointing.
217	Sandstone walling at the East end of the Southern limit of the trench.
218	Rectangular sandstone blocks in the South part of the trench.
219	Structural element within F220, probably collapse.
220	Rubble and mortar infill East of F222.
221	North face of a wall, can be seen continuing in the stonework below the South edge of the excavated area.
222	Bonded sandstone blocks, collapse from F206.
223	Wall running South from the East end of F217.
224	Red and yellow sandstone blocks, structure.
225	Rectangular sandstone blocks, wall core.
226	Tree hole.
227	Wall formed with yellow sandstone blocks, South of F228.
228	Wall face SE of the stairway.
229	Wall continuing a short way North from F227.
230	Apparent edge of sandstone blocks, continuing NW from F228.
231	Sandstone blocks forming the structure at the base of the West side of the stairway.
232	Walling forming the West side of the current stair.
233	Sandstone blocks at the East side of the stairs.
234	Yellow and red sandstone blocks immediately NE of F230.
235	Wall continuing West from F231.
236	Sandstone blocks forming the structure at the base of the East side of the stairway.
237	Sandstone coping stones on F235.
238	Sandstone blocks, still jointed at the East end of the area.
239	Aperture below F237.
240	Cut in the West side of the stones at F231.
241	Upper part of a hole seen at the base of F231.
242	Upper of two holes cut in the East face of F231.
243	Lower of two holes cut in the East face of F231.
244	Bottom step of stairway F212.
245	Second step of stairway F212.
246	Third step of stairway F212.
247	Fourth step of stairway F212.
248	Fifth step of stairway F212.
249	Top step of stairway F212.

A2.0

APPENDIX 2: LIST OF DRAWINGS

No	Type	Description	Scale
1	Elev	E facing elevation of Trench 1	1:20
2	Elev	N elevation pre excavation	1:20
3	Plan	Plan of features after removal of 201 , 202-212 .	1:20
4	Plan	Plan of Trench 1 showing 116-118 and 128 .	1:20
5	Plan	Trench 1 post excavation plan.	1:20
6	Plan	Trench 2 post excavation including stairs to the W.	1:20
7	Elev	N facing elevation of Trench 1	1:10
8	Elev	Trench 1- E continuation of drawing 7.	1:10
9	Elev	Trench 2 - E end of N facing elevation	1:20
10	Elev	Trench 2 - N facing elevation, post excavation.	1:20

A3.0

APPENDIX 3: LIST OF PHOTOGRAPHS

HSCO-90342-2006-02-CD1

#	Trench	Description	From	Date
1	--	General view to bridge.	SW	23/10/06
2	2	West end of wall F204 .	N	23/10/06
3	2	Wall F204 , West of centre.	N	23/10/06
4	2	Wall F204 , East of centre.	N	23/10/06
5	2	East end of wall F204 .	N	23/10/06
6	2	Line of wall F204 .	W	23/10/06
7	2	Line of wall F204 .	W	23/10/06
8	2	Slipping part of wall F204 .	N	23/10/06
9	2	Slipping part of wall F204 .	N	23/10/06
10	2	Slipping part of wall F204 .	E	23/10/06
11	2	General view to bridge.	SW	23/10/06
12	2	Tumble F209 and F210 .	E	23/10/06
13	2	Tumble F209 and F210 .	E	23/10/06
14	2	Wall F206 and tumble F202 .	E	23/10/06
15	2	Wall F206 and tumble F202 .	E	23/10/06
16	2	Walls F204 and F206 .	W	23/10/06
17	2	Stone step below F204 .	N	23/10/06
18	2	Stone step below F204 .	N	23/10/06
19	2	West end of wall F204 and tumble F202 .	N	23/10/06
20	2	Central part of F204 .	N	23/10/06
21	2	East end of F204 after further clearance.	NW	23/10/06
22	2	Structure above the stone step.	N	23/10/06
23	2	Section of topsoil.	N	23/10/06
24	2	Wall F205 .	NW	23/10/06
25	2	Junction of walls F204 and F211 .	NW	23/10/06
26	2	East end of walls F204 and F205 .	E	23/10/06
27	2	Walls F204 and F205 .	E	23/10/06
28	2	F204 and F222 .	N	23/10/06
29	2	F204 and F207 .	N	23/10/06

#	Trench	Description	From	Date
30	2	F204, F206 and F207.	W	24/10/06
31	2	Wall F206.	SE	24/10/06
32	2	Wall F206.	NE	24/10/06
33	1	West part of South section.	N	24/10/06
34	1	East part of South section.	N	24/10/06
35	1	Wall footings and tumble.	NE	24/10/06
36	1	Wall footings and tumble.	E	24/10/06
37	1	Vault and South section.	NE	24/10/06
38	2	General view of trench 2.	W	24/10/06
39	2	General view of trench 2.	W	24/10/06
40	2	Wall F205 and F238.	N	24/10/06
41	2	Wall F205.	NW	24/10/06
42	2	Small architectural fragment against F205.	N	24/10/06
43	2	Wall F205 and void F239.	NW	24/10/06
44	2	West end of wall F205.	N	24/10/06
45	1	South side of the trench, topsoil removed.	N	24/10/06
46	1	South side and central part of the trench, topsoil removed.	SW	24/10/06
47	1	South side and central part of the trench, topsoil removed.	S	24/10/06
48	1	Aperture F102 , blocking F103 and reveals F104 and F105 in cut F133.	E	24/10/06
49	2	General view of trench.	NW	27/10/06
50	2	Walls F204, F215 and F221 and stones F207.	N	27/10/06
51	2	Shoring put up to support the wall face.	N	27/10/06
52	2	East end of F204 with F205 above.	N	27/10/06
53	2	East end of F204 with F205 above.	N	27/10/06
54	2	Junction of F204/F215 with F211.	NW	27/10/06
55	2	Wall F205.	N	27/10/06
56	2	Wall F205 and F204.	E	27/10/06
57	2	Wall F205 and F204.	E	27/10/06
58	2	Wall F204 post excavation.	NE	27/10/06
59	2	Small find 3 in situ.	NE	27/10/06
60	2	Detail of the N face of F204/F215.	N	27/10/06
61	2	North edge of F204.	S	27/10/06
62	2	NW corner of the area, F208.	N	27/10/06
63	2	Wall F206 and F222.	W	27/10/06
64	2	Detail of F220 and F221.	S	27/10/06
65	2	Detail of F220 and F221.	S	27/10/06
66	2	Detail of F220.	S	27/10/06
67	2	Detail of F220.	S	27/10/06
68	2	F210, F219 and F220 in the SE corner.	SE	27/10/06
69	2	South face of F206.	S	27/10/06
70	2	Rubble infill F203.	W	27/10/06
71	1	Top of vault arch F119 and aperture F120.	Above	27/10/06
72	1	South side of trench with charcoal patch F116.	Above	27/10/06
73	1	Aperture F120.	Above	27/10/06
74	1	Crack F122.	N	27/10/06
75	1	Wall stub F111.	W	27/10/06
76	1	North side of trench with charcoal patch F116.	S	31/10/06

#	Trench	Description	From	Date
77	1	Northern spread of charcoal, F118 .	Above	31/10/06
78	1	Northern spread of charcoal, F118 .	Above	31/10/06
79	1	Northern spread of charcoal, F118 and aperture F107 .	S	31/10/06
80	1	Slabs, F121 , around chute.	Above	31/10/06
81	1	Slabs, F121 , around chute.	E	31/10/06
82	1	Cracks F122 and F129 .	N	31/10/06
83	1	Crack F123 .	Above	31/10/06
84	1	Crack F123 .	E	31/10/06
85	1	Aperture F120 .	E	31/10/06
86	1	Charcoal spread F118 .	Above	31/10/06
87	1	Plaster F110 .	W	31/10/06
88	1	Whole trench.	N	31/10/06
89	1	Chute slab F108 .	W	31/10/06
90	1	Plaster F110 .	SW	31/10/06
91	1	Aperture F102 with cut F103 , blocking F103-F105 and crack F122 .	E	31/10/06
92	1	South section.	N	31/10/06
93	1	Arch F119 .	E	31/10/06
94	1	Area North of arch F119 , walls F125 and F126 .	E	31/10/06
95	1	South part of trench, crack F131 and slabs F135 .	N	01/11/06
96	1	Close up of F131 .	N	01/11/06
97	1	Top of F119 in central part of vault.	E	01/11/06
98	1	North part of trench, crack F131 and slabs F135 .	S	01/11/06
99	1	Close up of F135 .	S	01/11/06
100	1	Plaster F110 after F118 has been removed.	W	01/11/06
101	1	Internal wall F111/F125 .	N	01/11/06
102	2	Stairway F212 .	S	02/11/06
103	2	Detail of F231 at the base of the stairway.	E	02/11/06
104	2	Joint between walls F227 and F228 .	SW	02/11/06
105	2	Wall core F216 and rubble F224 .	SW	02/11/06
106	2	Wall core F216 and rubble F224 .	W	02/11/06
107	2	Shot of junction of walls F227 and F229 and hole F226 .	NW	02/11/06
108	2	Detail of wall F230 .	S	02/11/06
109	2	Detail of wall F230 .	S	02/11/06
110	2	Masonry in the SW corner; F223-F227 .	NE	02/11/06
111	2	Wall face F219 .	S	02/11/06
11	2	Wall face F219 .	SW	02/11/06

#	Trench	Description	From	Date
2				
11 3	2	Wall F228 and the mortar bonding.	SW	02/11/06
11 4	1	Small find 1.	----	03/11/06
11 5	1	Small find 1.	----	03/11/06
11 6	1	Small find 2.	----	03/11/06
11 7	1	Small find 2.	----	03/11/06
11 8	1	Small finds 1 and 2.	----	03/11/06
11 9	1	Small finds 1 and 2.	----	03/11/06
12 0	1	Small find 3.	----	03/11/06
12 1	1	Small find 4 in situ.	NW	03/11/06
12 2	1	Small find 4 in situ.		03/11/06
12 3	1	Arch F119 where it joins North wall F106 at chute F112 .	E	03/11/06
12 4	1	Arch F119 where it joins North wall F106 at chute F112 .	SE	03/11/06
12 5	1	Face of South wall F138 where it joins West wall F101 .	E	03/11/06
12 6	1	Face of South wall F138 where it joins West wall F101 .	E	03/11/06
12 7	1	Core of South wall F138 , also shows wall stub F111 .	Above	03/11/06
12 8	1	Deposits F113 and F114 against the West wall.	E	03/11/06
12 9	1	Record shot of the un-excavated area to the SW, Wall F138 burning F139 and clay F137 .	N	03/11/06

Site	Cadzow Castle
HS PIC Index no	90342
Kirkdale Project no	HSCO-90342-2006-02

Files submitted on CD:

PDF (Report & illus)	HSCO-90342-2006-02-Report and Illus.pdf
Report in MS Word	HSCO-90342-2006-02-Report.doc
TIFFs	HSCO-90342-2006-02-Report Figs 1-9.tif(s)
Photo scans	HSCO-90342-2006-02-CD1 1-129. jpg(s)

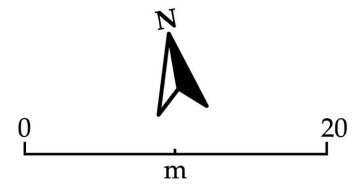
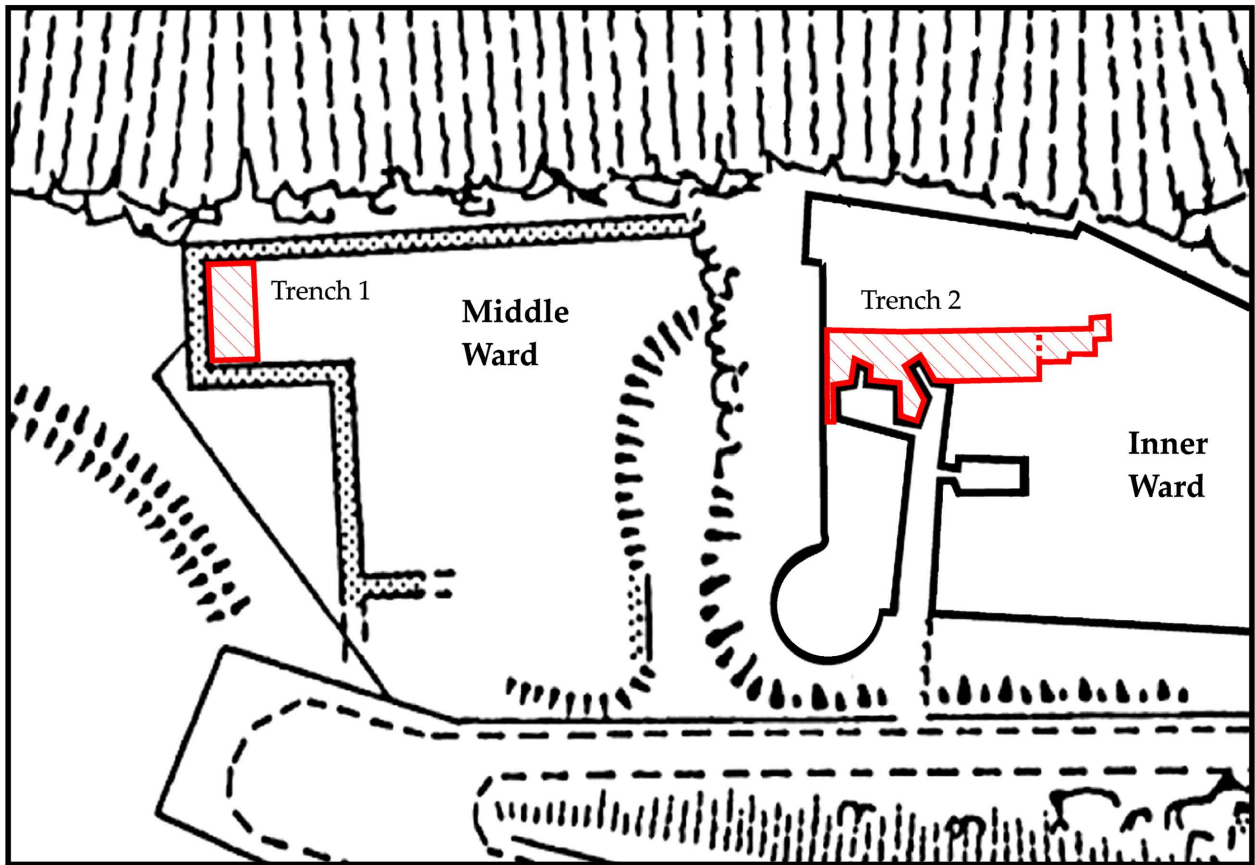


Fig. 1 : Plan showing location of Trenches 1& 2

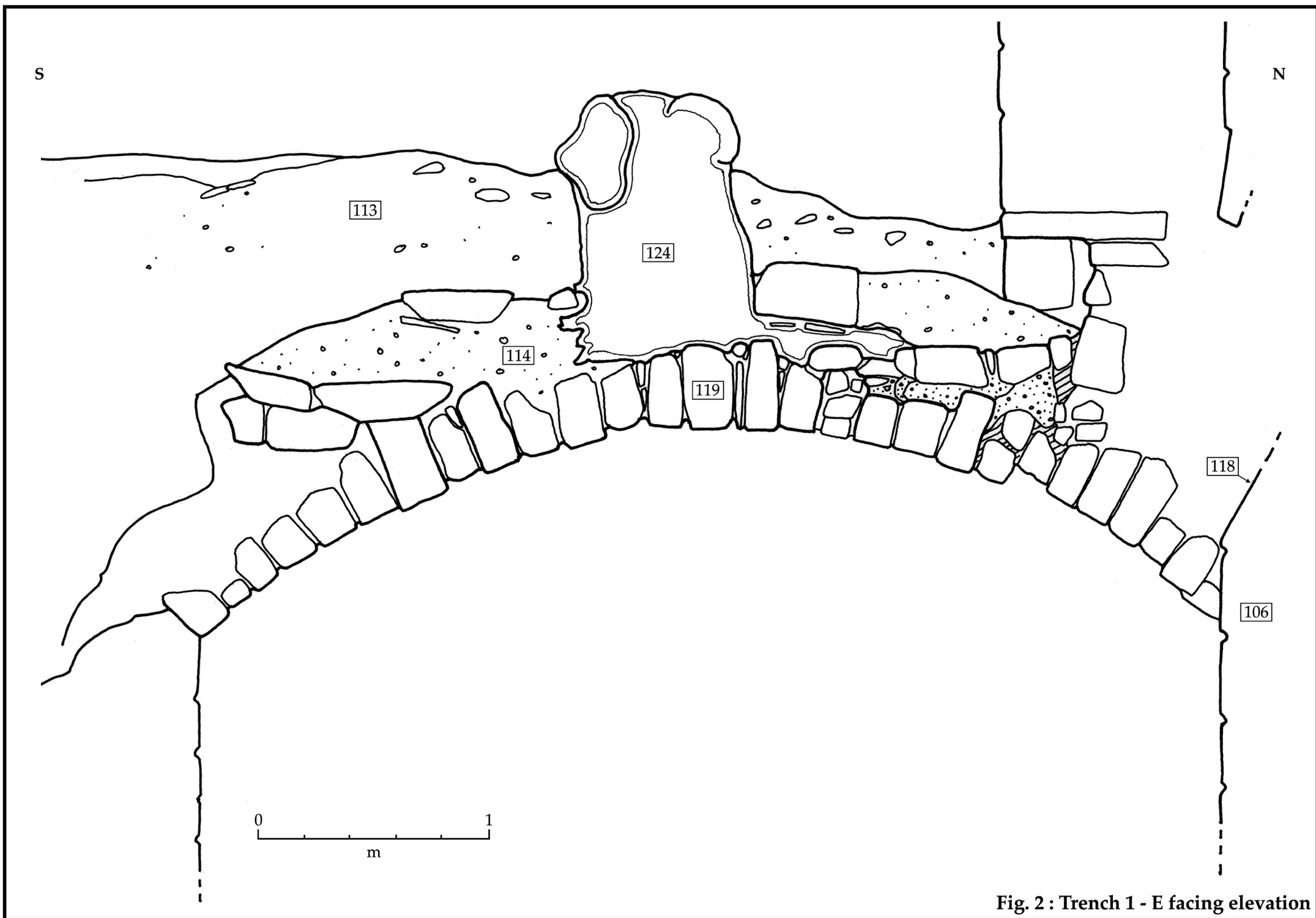


Fig. 2 : Trench 1 - E facing elevation

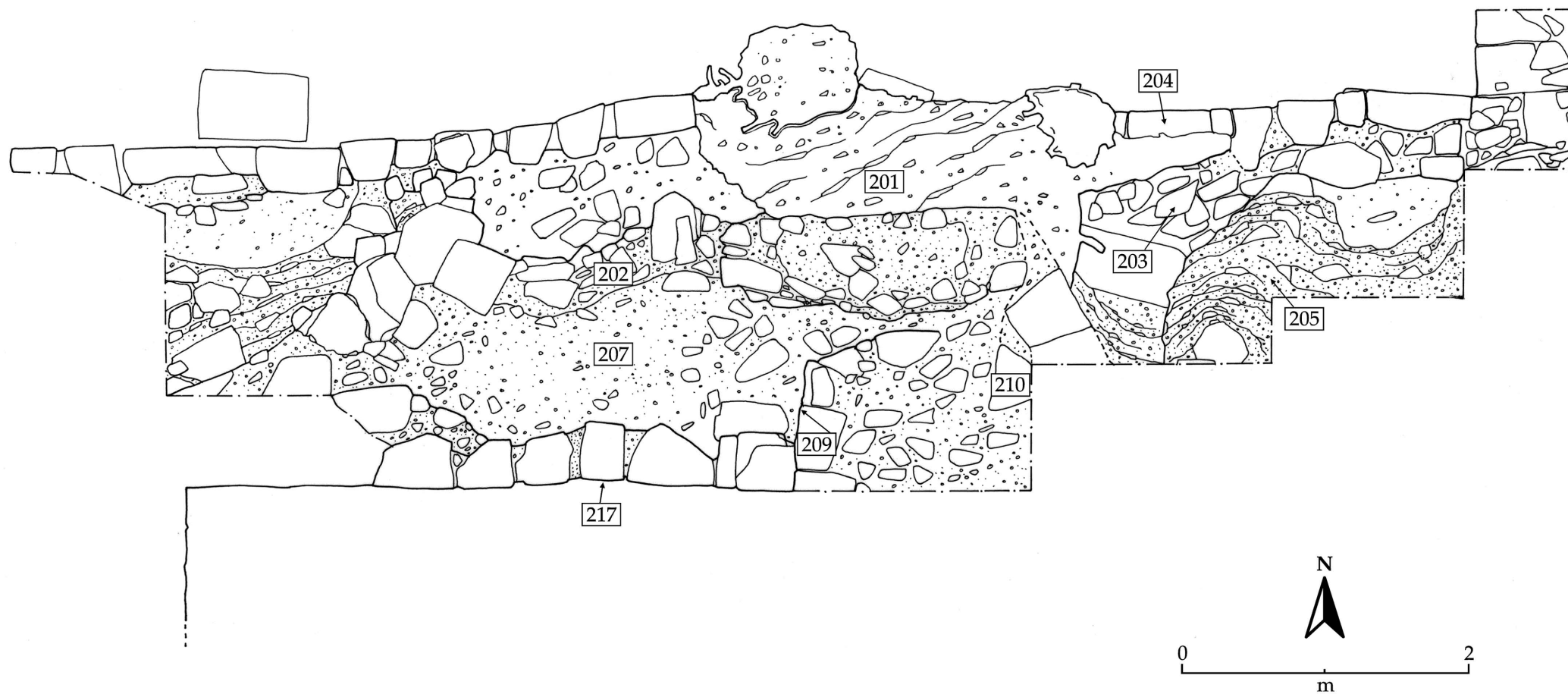


Fig. 3 : Trench 2 - Plan of features after removal of 201& 202-212 inc.

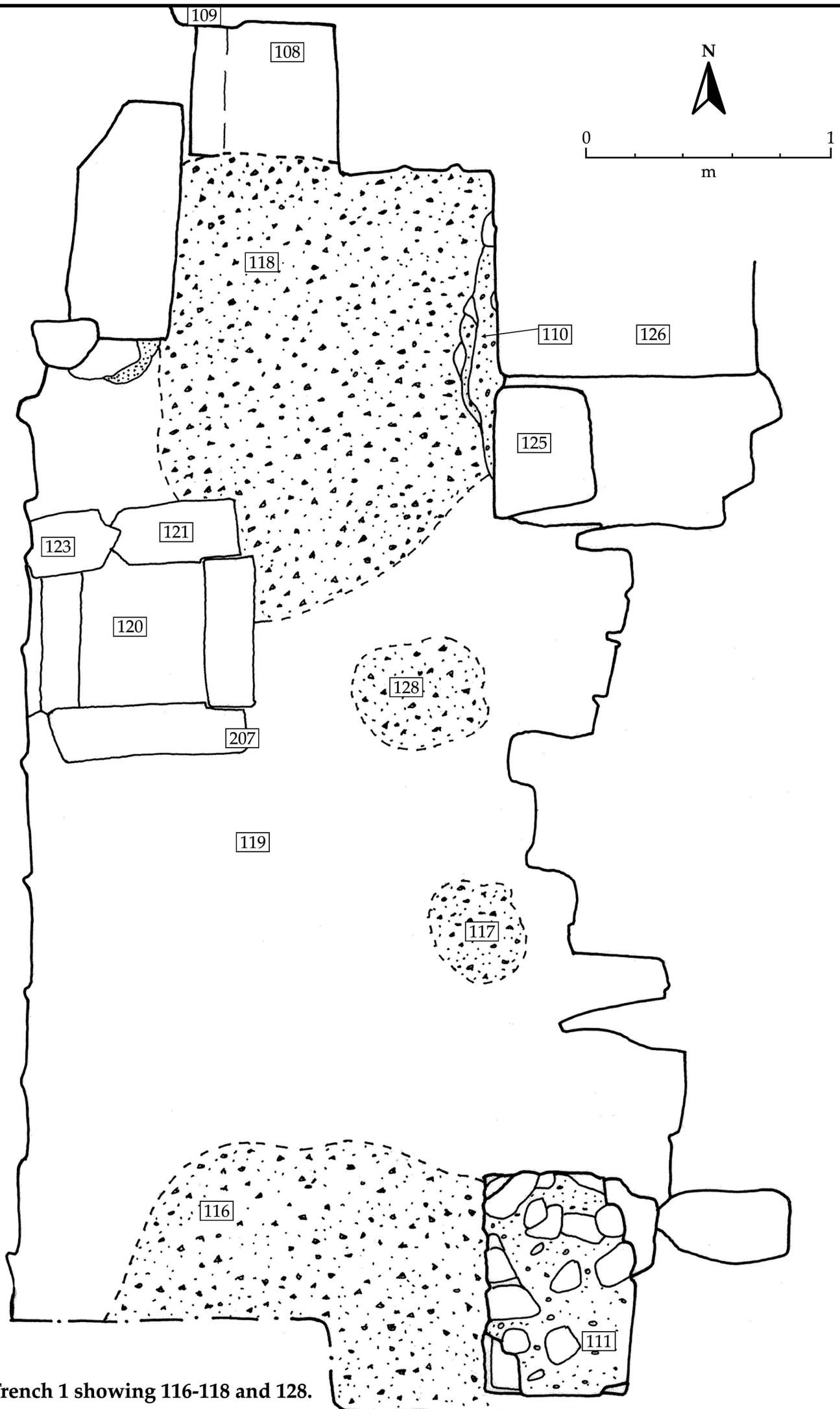


Fig. 4 : Trench 1 showing 116-118 and 128.

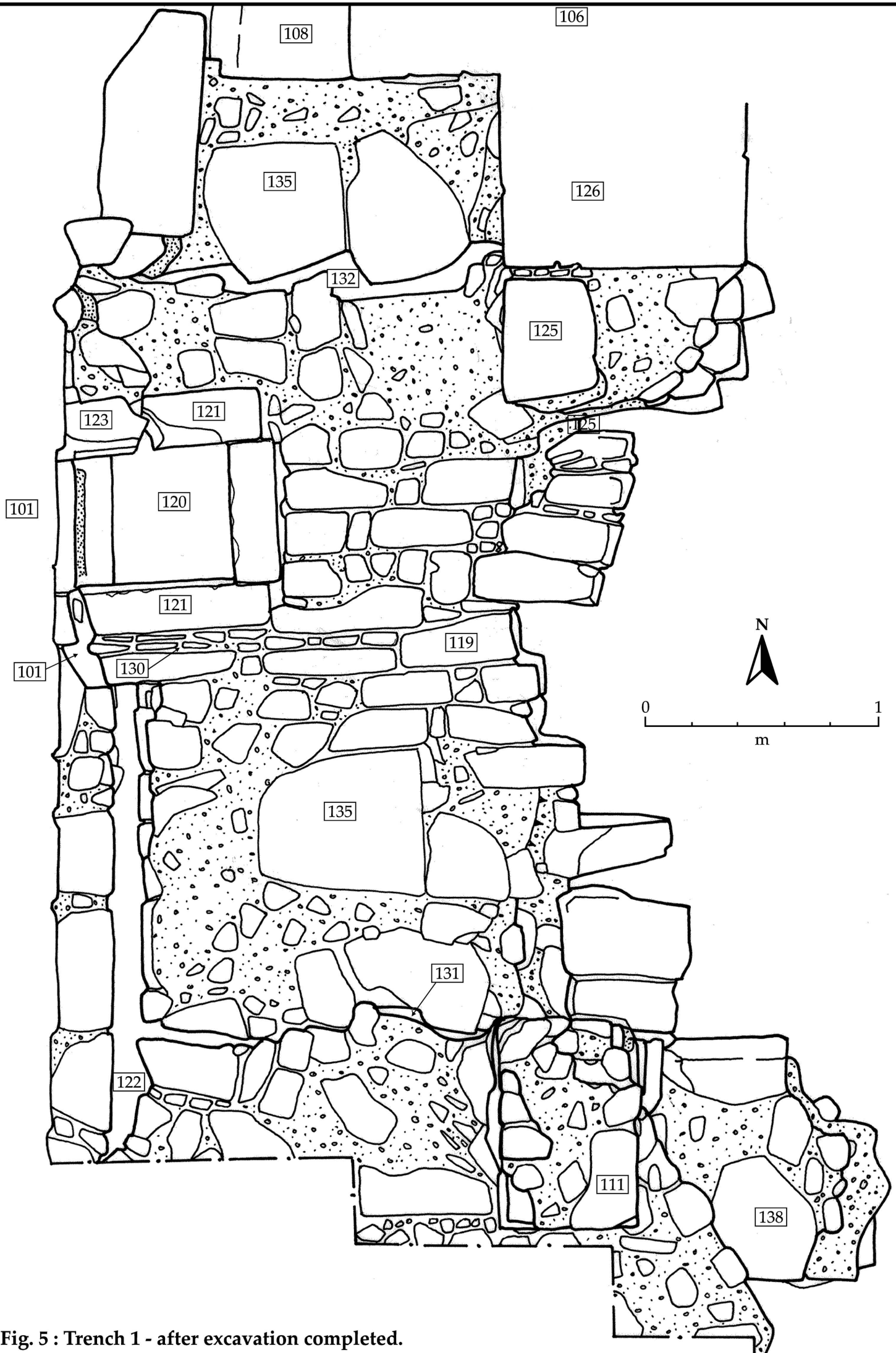


Fig. 5 : Trench 1 - after excavation completed.

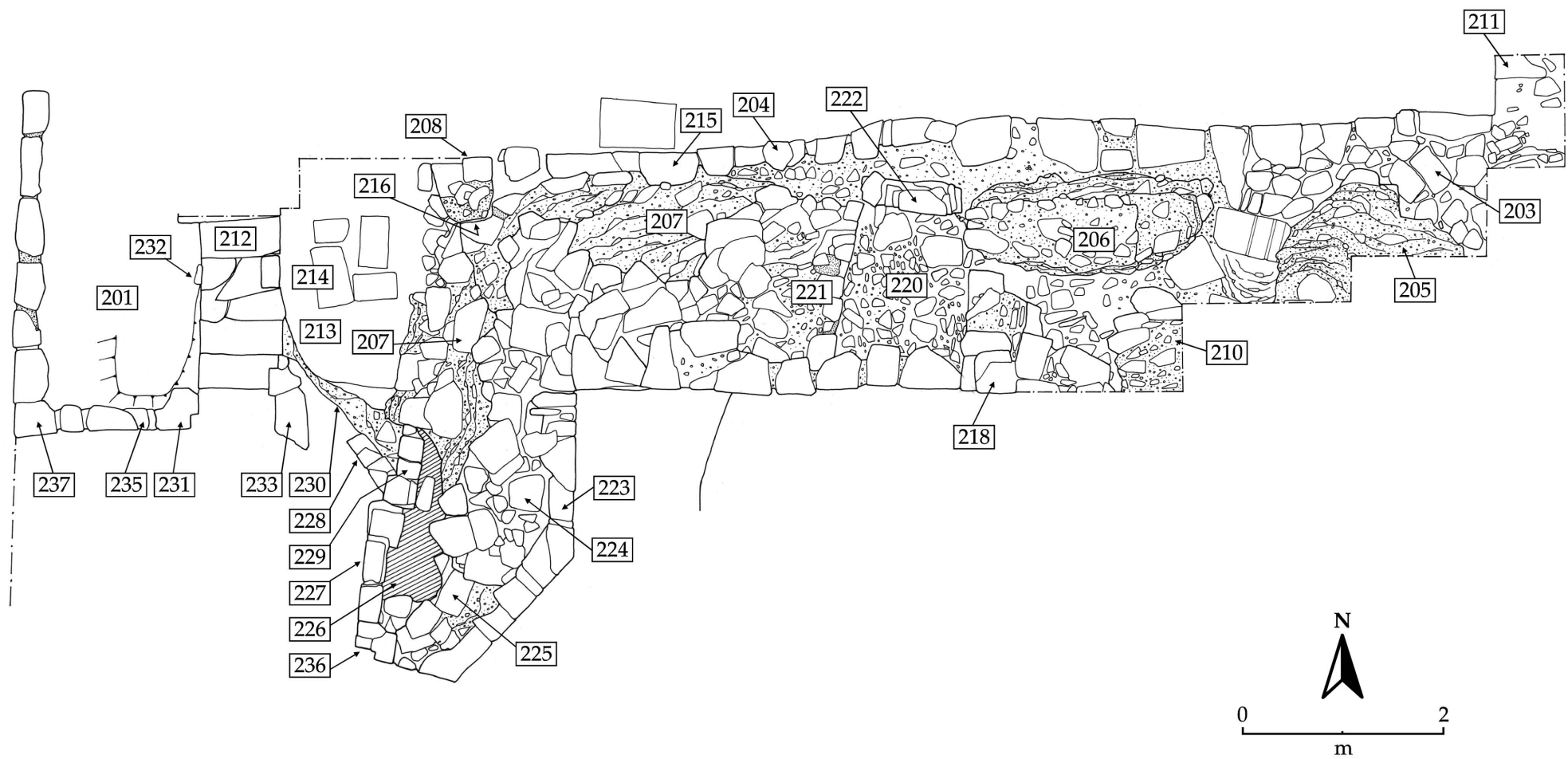


Fig. 6 : Trench 2 - after excavation completed.

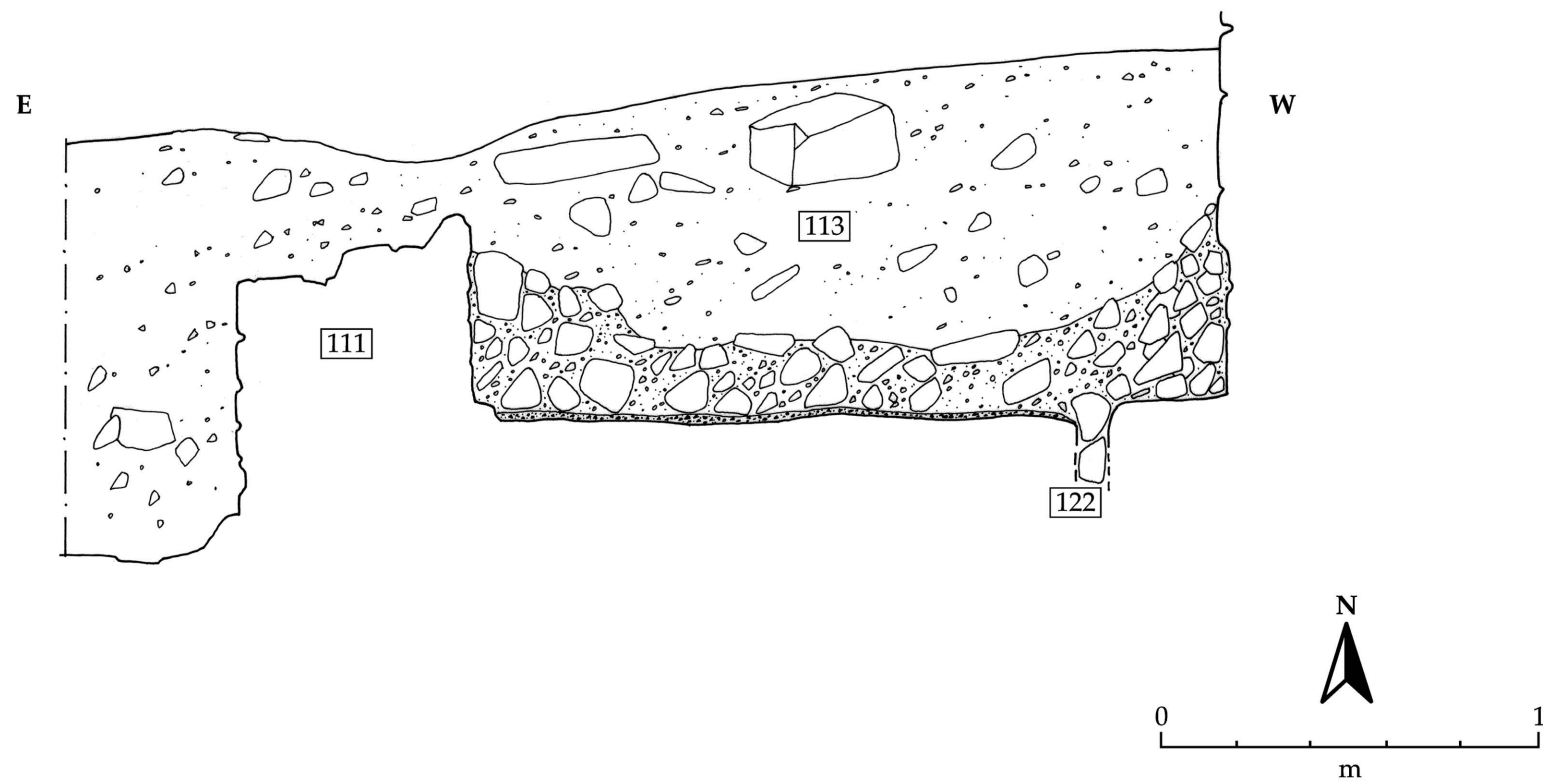
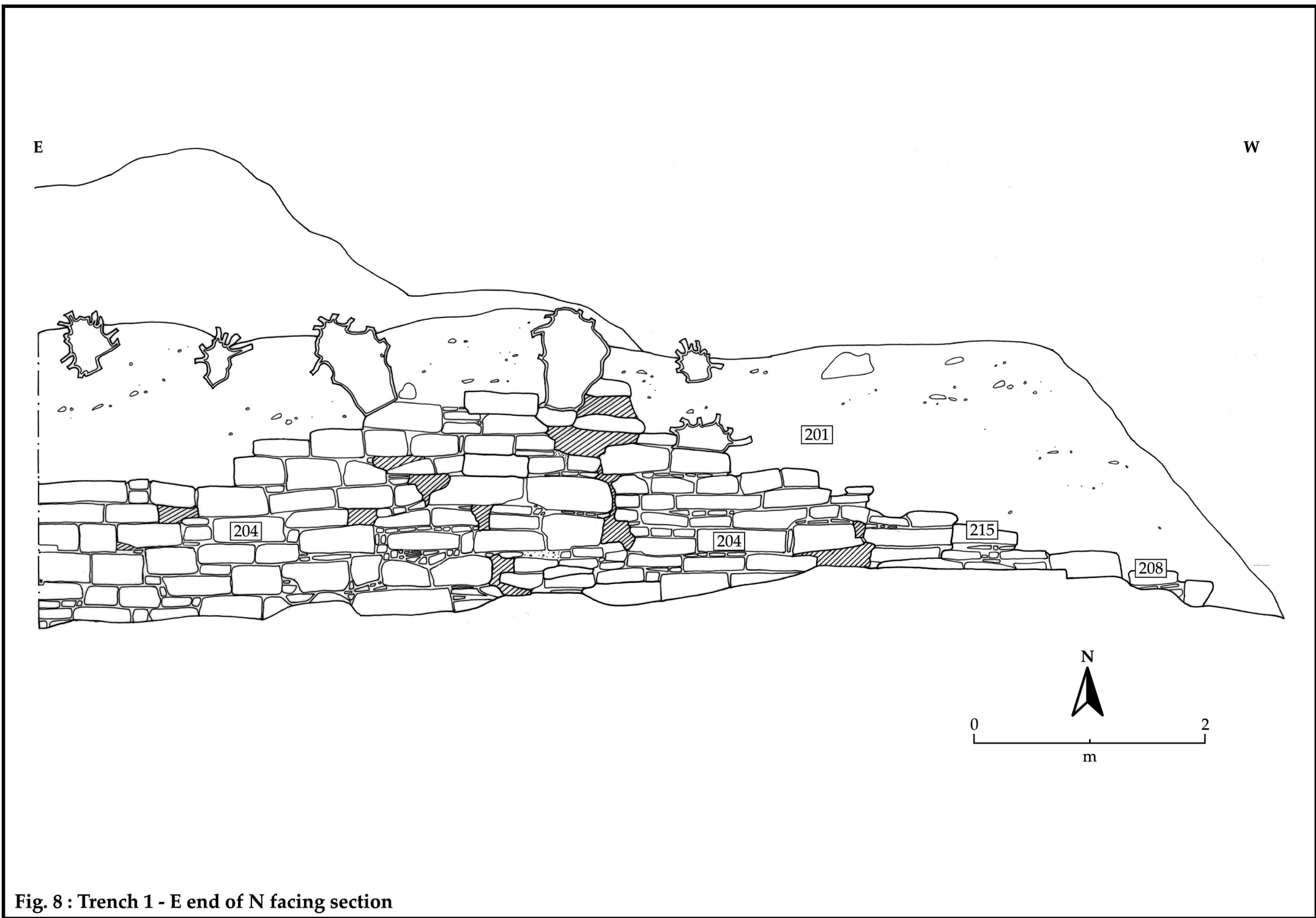


Fig. 7 : Trench 1 - N facing section



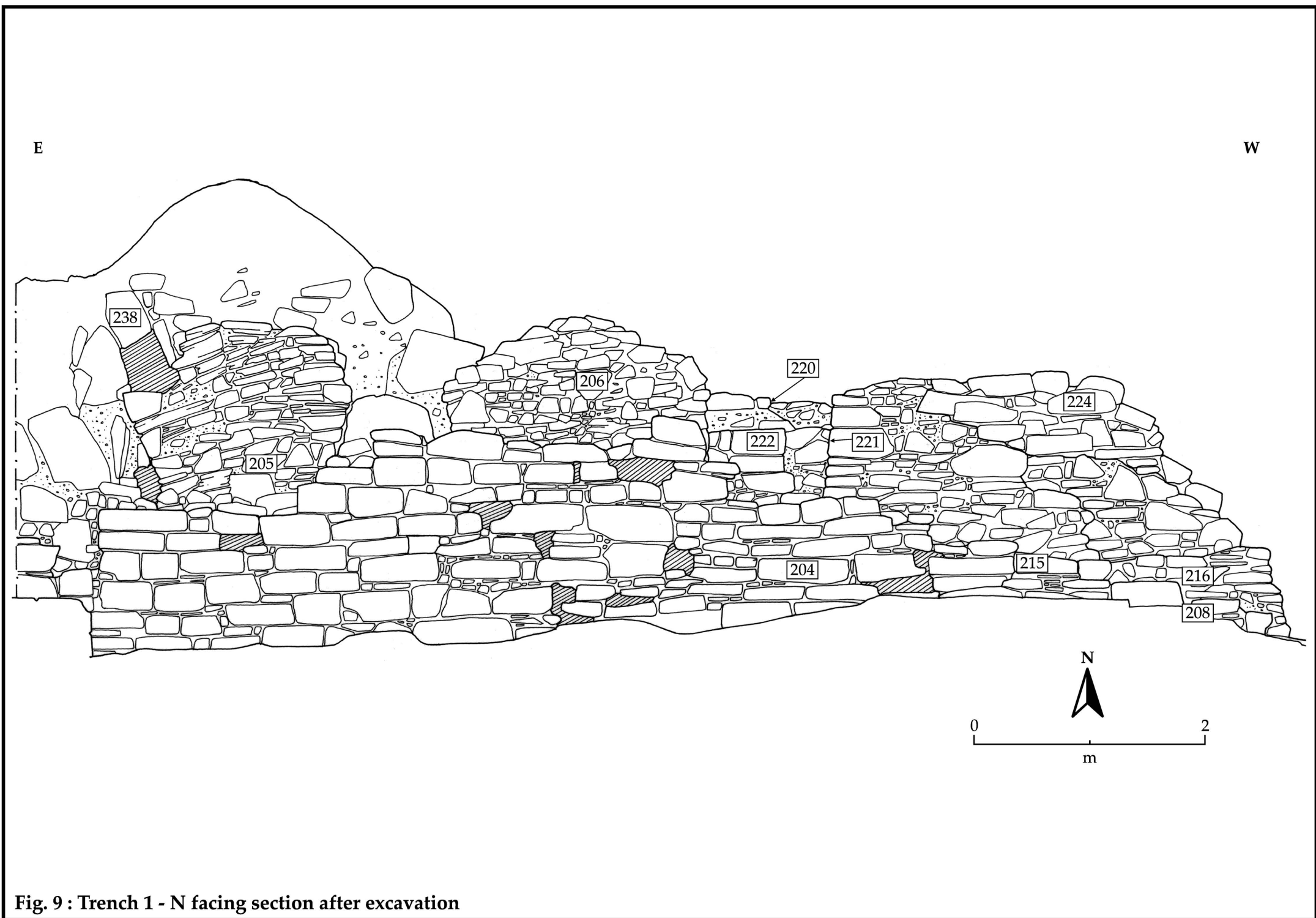
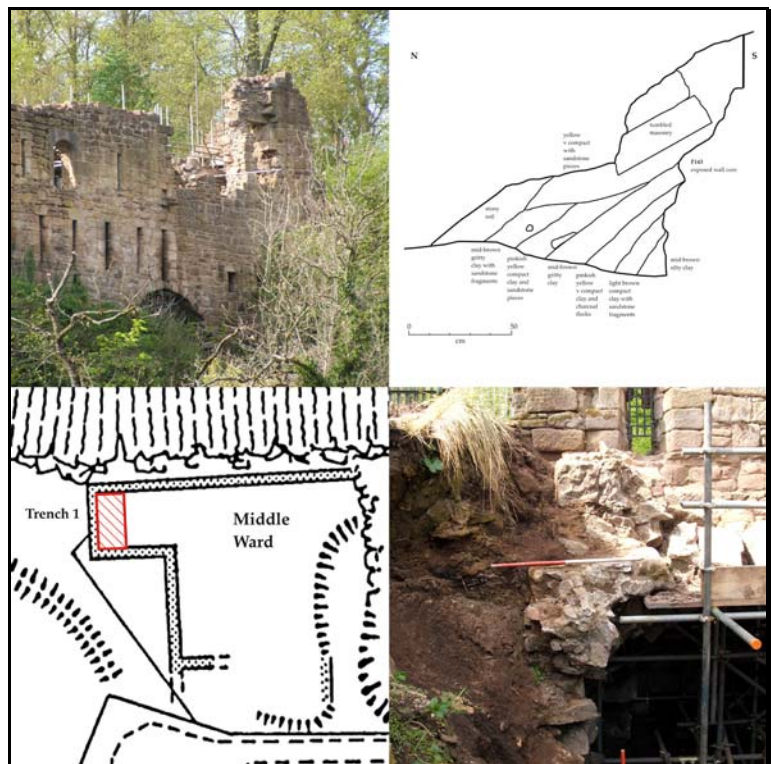


Fig. 9 : Trench 1 - N facing section after excavation

Historic Scotland
Properties in Care
Minor Archaeological Works 2007

Cadzow Castle: Archaeological excavation, April 2007

HS PIC Index number: 90342
Project code: HSCO-90342-2007-01



22 October 2007
Kirkdale Archaeology

<u>Site</u>	Cadzow Castle
<u>N.G.R</u>	NS 734 537
<u>Project Description</u>	Archaeological excavation
<u>Project code</u>	HSCO-90342-2007-01

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SUMMARY: April 2007 – Further excavation and recording was undertaken in the NW corner of the Middle Ward of Cadzow Castle. This continued work started in the same area in 2006, and provided further information regarding the range of buildings along the cliff edge.

1.0 INTRODUCTION

Under the terms of its PIC call-off contract with Historic Scotland, Kirkdale Archaeology was asked to undertake a small archaeological excavation in the Middle Ward of Cadzow Castle. This site is a ruinous and not thoroughly examined part of the monument along the W side of the steep river gorge, divided by a rock cut ditch from the Inner Ward. This phase of work was undertaken at the W end of the range of buildings running parallel to the cliff edge. An earlier phase of excavation by Kirkdale Archaeology (HSCO-90342-2006-02) had already taken place within this area, and the current project was intended to carry on this recording and interpretation.

The structure in question is some 30 m long, with only the N and W walls relatively intact, partial survival of the S wall (at its W end), and no surviving E end. Where it survives to be measured, the range is c 13 m wide. A vault running across this structure at the W end is in a precarious state, and is much underpinned by scaffolding. This runs from the W wall to the E for a maximum of 2.4 m, although with a ragged end indicating that it once continued beyond this. The building displays complex evidence for its construction and probable alteration, and it is notable that slots indicating a wooden floor survive to the E of this vault, suggesting either that the vault was inserted, or that it never ran the full length of the range. The window apertures in the N wall at its W end are considerably lower than those further to the E, adding to the impression that the W end differed from the rest of the range.

The previous work undertaken by Kirkdale had involved the removal of a considerable thickness of overburden from the top of this vault, and the recording of the stonework revealed. While the N side of the vault springs from the N wall of the range, the S side is carried on an internal wall N of the S wall of the range.

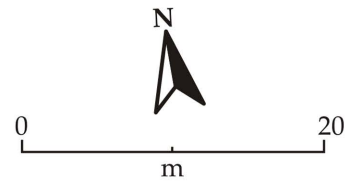
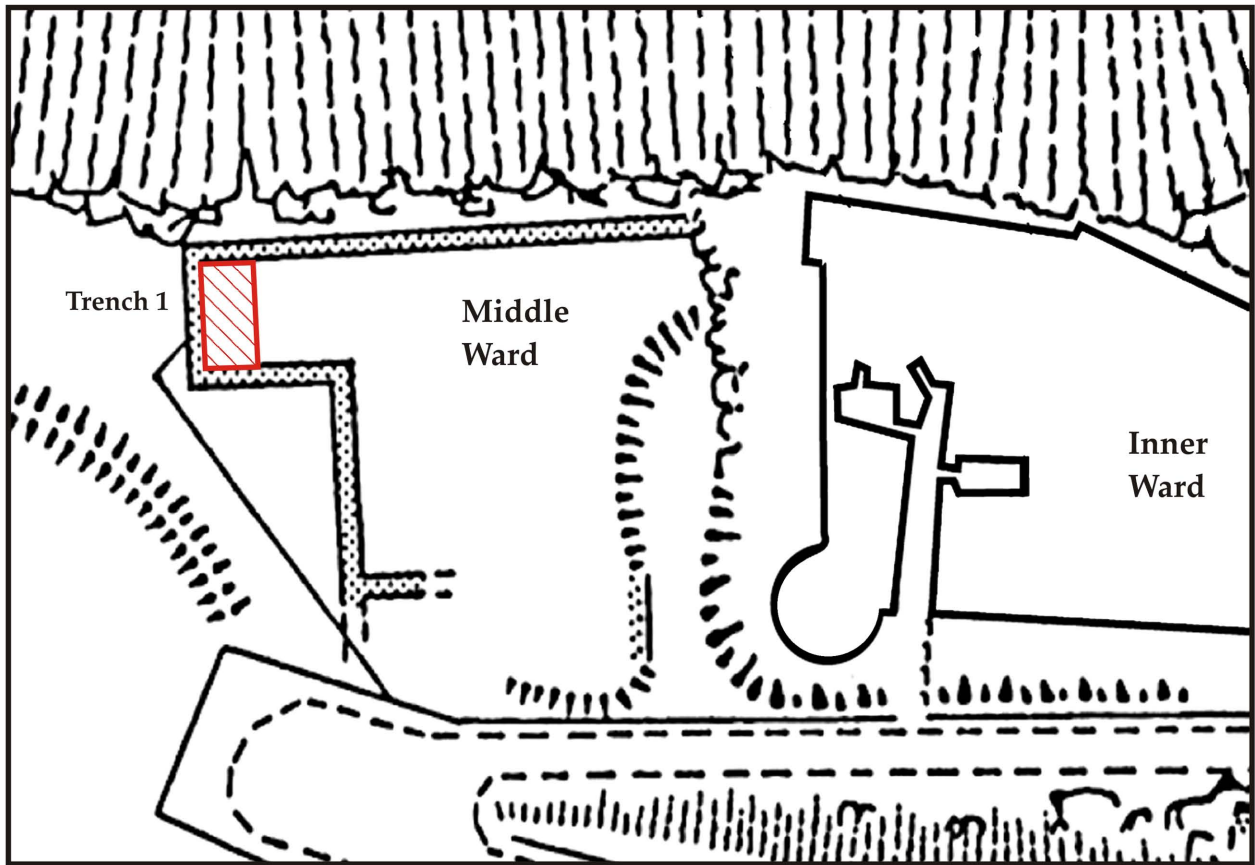


Fig. 1 : Plan showing location of Trench 1

Excavation had stopped at the line of this wall, leaving a block of the overlying deposits untouched against the S wall.

This latest episode of work was almost all along the S side of this vaulted area. The N side of the unexcavated deposits had a vertical section over the freshly exposed surfaces, and this was cut back at an angle to reduce the risk of collapse. Immediately to the E of and below the vault, a small area was opened up to determine if the internal wall forming the S side of the vault continued further E into the range. Finally, the previously excavated area was given an overall cleaning. Context numbering from the initial work was used, with new numbers added to this as necessary.

The work was carried out 26-27 April 2007.

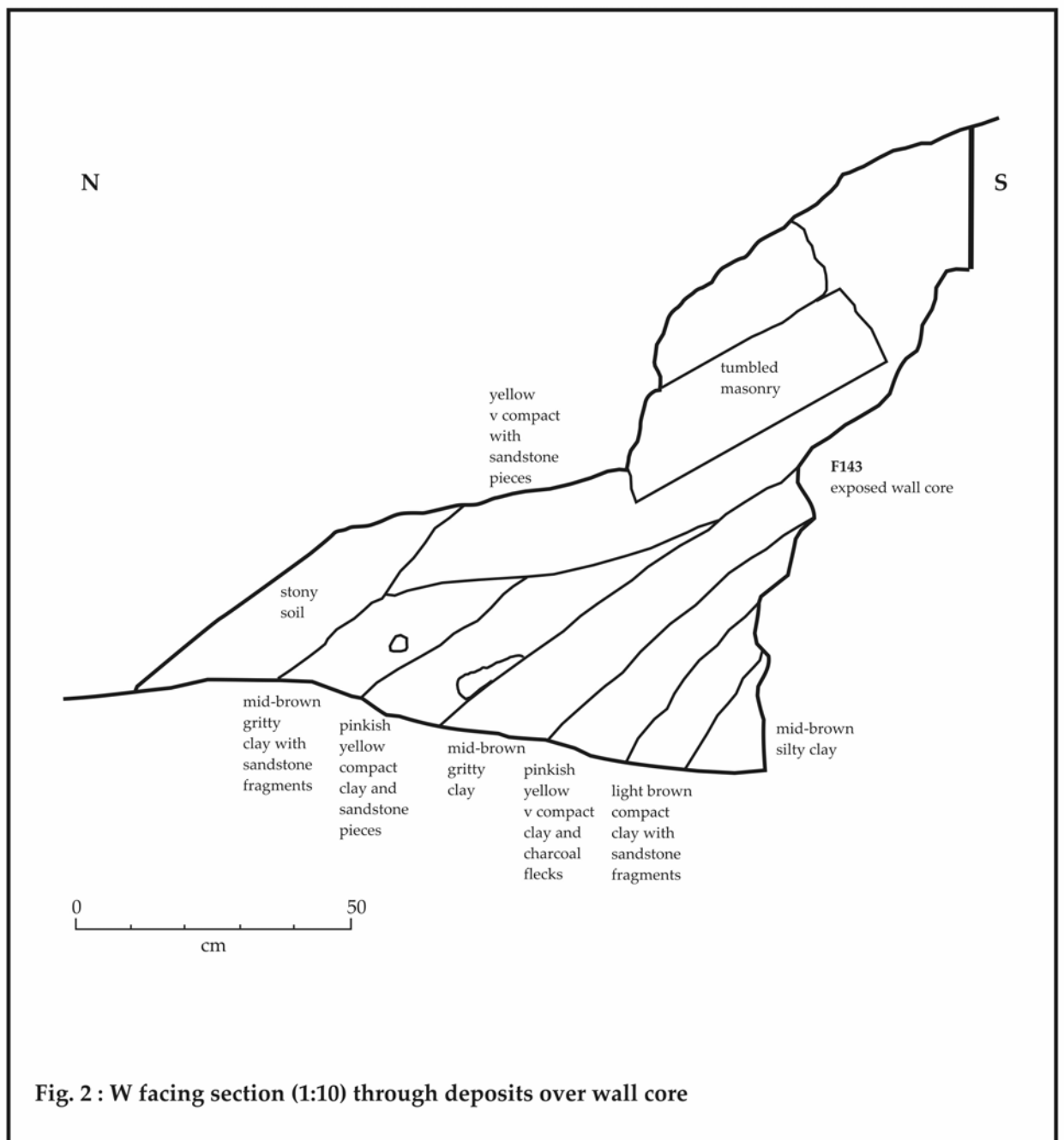
2.0 EXCAVATION ACCOUNT

The cutting back of the section forming the S side of the original excavation produced no further information about the thick deposit of dark brown clayey loam and sandstone rubble, **F113**. The underlying layer of rubble, mortar and silt, **F114**, was only partially excavated, but enough was revealed to show that sandstone surface **F135** over the vault seemed to have a formal S limit. This edge had been partly exposed during the initial phase by a single rectangular stone just to the N of wall **F111**, but could now be traced from here to the W wall of the range. To the S of this edge rubble **F114** dropped down to fill the void beyond **F135**. **F111** itself is a short stub of walling noted previously, 1 m N-S, 700 mm high by 600 mm high. It can now clearly be seen that the S end of **F111** is a well built face that always finished here, some 50 mm S of the newly revealed end of **F135**. Further evidence for fire reddening was noted on both the W face of **F111** and the E face of **F101**, the W wall of the range.

To the W of **F111** the first stage of work had recorded **F138**, the top of the internal wall from which the S side of the vault springs. The removal of overburden here indicated that this was just less than 1.0 m wide, and although only a small area survived it was so flat that it indicated that this might be a deliberate feature. If this

was intended to be a floor level then it is some 300 mm lower than that suggested by **F135** on the other side of **F111**. The unexcavated deposits at the W end of the range end on a line level with the E edge of the vault, beyond which they have presumably collapsed. The E face of this was rapidly cleaned and recorded photographically to reveal the sequence to the S of **F138**. Below **F113** and **F114** was a thin (60 mm) layer of charcoal rich sandy silt **F140**, seeming to run horizontally S, at a level just below the upper surface of **F138**. This sealed **F141**, a loose reddish brown sandy silt, thickening to the S, where it reached a maximum of 150 mm thick. Below this, **F142** was a substantial deposit of mottled yellow and red clay, not bottomed but at least 300 mm thick.

The final area of excavation at the E end of wall **F138** rapidly revealed the top of a ruinous wall following its line. Excavation to its N removed deeper deposits, and exposed what appears to be an exposed wall core, presumably with its facing stones robbed out, standing at least 950 mm high. This was numbered **F143**, and can be seen to run back under the vault with its facing stones only surviving at its extreme W end. To the N of this a complicated sequence of at least seven different deposits sloped down steeply over the wall, some of these incorporated substantial blocks of sandstone.



3.0

CONCLUSION

The likelihood that the narrow gap along the S side of this area, formed between **F138** and the S wall of the range, served a different function from the rest of this area has been increased. The discovery of a formal S limit to surface **F135** overlying the vault indicates a different, presumably lower floor level beyond this. Walling **F111** extends only 50 mm beyond this line, indicating that it too was restricted to the N of this edge.

The possibility of a lower floor level to the E of wall **F111** is suggested by the flat, even top of wall **F138**, although this survives in such a limited area that this is less certain. The deposits cleaned up to the S of **F138** seem to respect this lower level, with the horizontal thin band of charcoal rich soil **F140** in particular being of interest. The substantial mottled clay deposit (at least 300 mm thick) seems to indicate some kind of deliberate infill of the space running along the S side of at least this end of the range. This seems unlikely to have been carried out post-occupation on this ruinous site, so may indicate an attempt to strengthen the defences along the accessible W side of this range.

The limited excavation along the line of **F138** indicated that this wall does survive beyond the area of the surviving vault, albeit in a reduced state. Considerable effort seems to have been undertaken to remove the finely dressed facing stones from along the length of this wall. Although a 16th-century coin was found in the topsoil overlying this wall, in the ruinous state that the castle is in this could have easily slipped down there later from surrounding higher deposits. Perhaps the most likely date for such a concerted campaign of stone robbing is during the extensive late 18th-century reworking of the site.

The potential exists for well-preserved stonework, and possibly archaeological deposits, to survive in this narrow strip along the S side of the W end of this range. The narrowness of this space suggests a corridor, but this might well include access to the upper levels in the form of stairs.

A1.0 APPENDIX 1: LIST OF CONTEXTS

#	Description
140	Charcoal rich lens to S of F138
141	Sandy silt below F140
142	Mottled clay below F141

A2.0 APPENDIX 2: LIST OF DRAWINGS

#	Description	Scale
001	Location plan	1:500
002	W facing section of deposits through wall core F143	1:10

A3.0 APPENDIX 3: LIST OF PHOTOGRAPHS**HSCO-90342-2007-01-CD1**

#	Description	From	Date
6286-7	General shot of castle	NE	26/4/ 07
6289	Detail of E end of N wall of range	NE	26/4/ 07
6290	Detail of W end of n wall of range	NE	26/4/ 07
6291	General shot of W side of W wall of range	SW	26/4/ 07
6292	General shot of blocked aperture in W wall	SW	26/4/ 07
6293	Detail of top of blocked aperture	SW	26/4/ 07
6294	Detail of base of blocked aperture	SW	26/4/ 07
6295-6	General shot of top of vault after excavation	NE	27/4/ 07
6297	Detail of S end of top of vault	N	27/4/ 07
6298	Detail of crack between W wall and vault	E	27/4/ 07
6299	Detail of crack between W wall and vault	N	27/4/ 07
6300	Wall F111 , W face	W	27/4/ 07
6301	S end of vault and F111	S	27/4/ 07
6302	Section against wall F143	W	27/4/ 07
6303	Wall F143	N	27/4/ 07
6304	Wall F143	N	27/4/ 07
6305	General shot of section to S of F138	E	27/4/ 07
6306-7	Detail of upper part of section to S of F138	E	27/4/ 07
6308	Detail of F140 , F141 and F142	E	27/4/ 07
6309-10	General shot of section to S of F138	NE	27/4/ 07
6311	General shot of section to S of F138	E	27/4/ 07
6312	General shot of range	W	27/4/ 07

#	Description	From	Date
6313	SW corner of range	W	27/4/ 07
6314	S end of F111 and F138	S	27/4/ 07
6315	S end of F111 and F138	N	27/4/ 07
6316	General shot of range	SE	27/4/ 07
6317	General shot of W face of W wall of range	SW	27/4/ 07
6318	Detail of blocked aperture in W wall of W range	SW	27/4/ 07

A4.0 APPENDIX 4: ARCHIVAL REFERENCES

Site	Cadzow Castle
HS PIC Index no	90342
Kirkdale Project no	HSCO-90342-2007-01
Date of site work	26-27 April 2007

Files submitted on CD:

Report in MS Word	HSCO-90342-2007-01-Report.doc
TIFFs	HSCO-90342-2007-01-Report Fig 1.tif
PDF	HSCO-90342-2007-01-Report.pdf
Photo scans	HSCO-90342-2007-01-CD1- .jpg(s)

Historic Scotland
Properties in Care
Minor Archaeological Works
2007

Cadzow Castle

PIC No. 90342
Project No. HSCO-90342-2007-02

Archaeological Excavation
September-October 2007



Kirkdale Archaeology
17 December 2007

<u>Site</u>	Cadzow Castle
<u>N.G.R</u>	NS734537
<u>Project No.</u>	HSCO-90342-2007-02
<u>Project Description</u>	Archaeological Excavation

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1 Introduction

The excavations carried out between the 25th of September and the 11th of October 2007 were in three areas. The largest (Trench 3) was located immediately to the S of the surviving vaulting that is within the NW tower and Trenches 4 and 5 were below the vault locating the inner (N) face of the S wall. The feature numbers used continued the sequence from the two periods of excavation of the top of the vault in 2006.

2 Trench 3

2.1 Description

Trench 3 continued S from the S limit of the 2006 excavation and measured 5.80m E-W and 3.30m N-S.

The late infill over the trench comprised deposits **F113** and **F114**, described in the 1996 Trench 1 report. The majority of the infill here was **F113** which measured 1.00m in depth. Within **F113** there were two areas of rectangular sandstone blocks bonded with light brown gritty mortar, **F158** and **F159**, in the W and E part of the trench respectively. The larger of these features, **F158**, measured up 1.70m E-W, 700mm wide and up to 400mm thick and the individual blocks were typically 600mm E-W, 150mm wide and 350mm thick. To the N of **F158**, within **F113**, **F157** comprised two square sandstone slabs (350mm square and 70mm thick) that had tool marks on the upper faces. Outside (S of) the S wall and under **F114**, **F171** was a deposit of mid brown silty clay with many coal and some charcoal and mortar flecks. **F171** included roughly 10% sub angular and rounded stones and was heavily rooted, it was usually 200mm-300mm thick but at the E end of the trench this increased to 450mm. **F171** sealed **F175**, a deposit of compact mid-brown silty clay that was rich in mortar and coal flecks. **F175** measured up to 250mm in depth.

Deposit **F160** was against wall, **F111**, and was sealed by **F114**. **F160** comprised fairly compact mid brown silty sand with occasional coal, charcoal and mortar flecks. Under **F160** toward the S of the trench, in a roughly circular area (measuring up to 1.60m E-W, 1.40m N-S and a maximum of 50mm thick), **F164** was a deposit of crushed coal flecks with 20% mid grey silt spread throughout. Sealed by **F164**, **F140** was a deposit

of fine grey gritty silt (80%) and coal fragments. **F140** was observed in most of the trench, although it was very thin in the W part and up to 150mm thick to the E. **F140** also extended to the footings of the walls at the N and S ends of the trench. **F140** sealed **F165**, a spread of clean sand with 10% small rounded stones spread throughout. **F165** was up to 100mm thick but more commonly 50mm, it was an area measuring 1.70m N-S and 2.10m E-W as it petered out before the E edge of the trench.

The central part of the W wall (**F101**) along with the window aperture (**F102**), window reveals (**F104**) and (**F105**), the hole at the base of the window and the material blocking it, (**F133**) and (**F103**) respectively, were all recorded during the 2006 excavation. During the current work the cut at the base of the window was re-numbered **F147**. At the top of **F102**, there was a single yellow sandstone block, **F144**, set horizontally on its edge. **F144** measured 750mm N-S, 400mm thick and extended 130mm into the wall face, there were three further stones continuing this feature W through the wall. Around half way up the S reveal (**F105**) there were two small holes **F145** and **F146**. The S of these holes, **F145**, was 100mm S of the aperture and measured 29mm square and 15mm in depth, **F146** was located 225mm further S and measures 25mm square and 15mm deep. At the N end of **F101**, **F148** was a 90mm deep vertical cut that measured 580mm in height and 160mm N-S. Above **F108**, **F149** was a small (25mm square and 40mm deep) hole in the face of **F101**.

F168 was an "L" shaped area of blocking that was built against the W side of **F167** and dog-legged to the E forming the rebuilt S margin of **F166**. The internal, W, elevation was almost totally obscured by plaster **F170** but externally there are up to three courses of stonework, including dressed and broken sandstone blocks and rubble infill. The sandstone seen was often tool marked. The internal S elevation survived as a single block of dressed sandstone under a course of rubble. The S part of **F168**

was built over wall **F178**. The E limit of the dog-leg had been truncated by cut **F191** for the insertion of the W side of an aperture. The pointing was soft, fine, yellow lime mortar that was crumbling. Projecting out (E) from **F101**, **F169** was a line of masonry with a well defined S limit. **F169** extended 250mm E from **F101** and to a height of up to 450mm, the pointing was hard gritty lime mortar with fine angular stone inclusions. On the internal faces of walls (**F101**), **F167**, **F168** and **F169**, there were traces of a course lime plaster, **F170**. **F170** was light brown and had abundant stone grit inclusions, it measured up to 35mm in thickness. The outer face had been smoothed and there was not a finishing layer of fine plaster. On the internal (N) face of **F179** there was an area of fine pale yellow plaster with frequent stone grits, **F195**. **F195** was an area measuring 360mm high and 300mm E-W. Plaster similar to **F195**, **F196**, was on the inner faces of walls **F183** and **F190**.

F196 was only partly exposed as it continued down behind rubble **F181**. Roughly central on the S wall **F182** was a single rectangular block of fine grained yellow sandstone laid N-S. The S end of the stone projected 100mm S of the line of the face, at 45 degrees, to form a chamfer. The N, S and either end of the W face were in good condition while the E face and middle of the W one were broken. The stone rebated 50mm into the W face 200mm N of the S face and there were faint traces of a vertical groove visible between the chamfer and the rebate. **F183** was an area of infill just W of central in the S part of the S wall, it comprised two substantial yellow sandstone slabs laid one over the other and aligned N-S. Both stones measured up to 550mm N-S and 350mm wide, the upper stone was 170mm thick and the bottom one 250mm. The S face of these stones projected 80mm S of the wall line and had a 45 degree chamfer at the SE corner. There was a rebate in the E face that stepped in 50mm 220mm N of the S face. A 5mm deep groove, 5mm deep mostly filled with mortar, ran vertically down the E face 7mm to the S of the rebate.

The S and E faces were neatly cut and there were traces of plaster, **F196**, on the E, the NW edge was roughly cut. There were four smaller sandstone fragments filling the gap between the W edge of the stones and cut **F403**.

Cut **F403** is through masonry **F168** immediately to the NW of **F183** and it measured 550mm N-S, 470mm E-W and 400mm in depth. To the N of **F183**, **F190** was a single sandstone block measuring, 420mm N-S, 300mm wide and 300mm thick, and only the N and E faces were observed. The NE corner of **F190** was broken off and there was heavy tooling on the E face. This feature continued the line of **F183** at the E edge. The rectangular cut through **F178**, **F191**, was 20mm-30mm outside the W and S sides of **F190**. The fill of **F190**, **F191**, was dark grey silty clay. **F180** was infill, comprising small-medium sandstone chunks and loose pale yellow mortar, to the E of **F182** and between **F192** and **F194**. To the W of **F182** and between **F184** and **F199**, infill **F181** comprised a mix of small-medium sandstone rubble and crumbly pale yellow mortar with some sand mixed throughout.

Just to the E of **F182** in the S face of the S wall, **F192** comprised two yellow sandstone blocks laid on edge and filling cut **F193**. The E stone measured 850mm E-W, 180mm in width and was 280mm thick and the smaller stone to the W was 340mm E-W, 170mm Wide and 310mm thick. The S faces of the stones were very straight and neat and there was heavy, crude, tooling on both stones. At the top of this feature there was fine pale yellow friable mortar. Against the N side dark grey silty clay and small sandstone fragments infilled between the stones and the edge of **F193**. **F193** was a rectangular cut through **F180**, it measured 1.20m E-W and 600mm wide, and was filled with **F192**. **F192/F193** were not excavated.

To the N of **F180** and W of **F179**, **F194** was a short E-W stretch of masonry continuing the N face of the S wall from **F179**. It measured 750mm E-W, 330mm wide and was 280mm high, constructed with three medium sized sandstone blocks with smaller pinnings at the E end and on top. There was a lot of pale yellow mortar present within this feature. In the N face of the S wall **F184** comprised two sandstone blocks laid E-W. The blocks measured 900mm E-W in total, 350mm wide and 300mm high and there was rough tooling on their outer faces. In the S face **F199** comprised two sandstone blocks laid along the wall, the blocks had heavy tool marks on the outer face and there were traces of mortar on the face of the larger stone. Under **F165** was **F141**, a mix of red brown sandy silt (60%), small-medium rounded stones (30%) and red clay patches, with coal and charcoal flecks throughout the deposit.

Throughout the trench and sealed by **F141**, **F142** was a compact and sticky mix of yellow/brown, red/brown and green clay that was excavated to a depth of 400mm but not bottomed. S of the S wall, under deposit **F175**, **F172** comprises three rectangular sandstone slabs running E-W against the S face of the S wall. The E block measures 250mm E-W and 300mm N-S, the other two 500mm E-W and 300mm N-S. The blocks are neatly cut and have tool marks on the visible (upper) face and fine pale yellow mortar pointing between the blocks. The feature measures 1.44m E-W and 350mm in width and the stones slope steeply to the E and gently to the S. Sealed by **F172**, **F176** is a mix of 70% pale yellow mortar and 30% loose light brown sand with small-medium angular sandstone rubble throughout.

At the top of (**F101**) in the upstanding W wall of the NW tower there was a horizontal line of stones, **F150**, represented by a single block to the S of **F102** and five stones to the N of that firing slot. The blocks were yellow sandstone and had vertical E faces at their base. Above the vertical base

the stones ran back into the wall face at an angle of 45 degrees. Although the blocks were weatherworn there were still tool marks visible. **F151** was a single yellow sandstone block directly over **F150** at the S end of the surviving W wall. The E face of **F151** projected E 90mm from the wall face. N-S along the wall, immediately above **F150**, **F152** was a horizontal line of walling where the facing stones are missing. **F152** was a ragged irregular hole measuring 4.40m in length, up to 850mm but more typically 400mm high and 600mm deep.

Above lintel **F144** and continuing S to the end of the wall there was a horizontal line of slabs, **F153**. The slabs were on average 100mm thick and projected out (E) 250mm from the wall face. **F154** was the uppermost section of the W wall, it sat directly above **F153** and **F156**, and was formed mainly with roughly coursed, large, yellow sandstone blocks although smaller pinnars were also used. Directly above window **F102** the stones were reddened. The outer face of the structure was level and even but the N 600mm angled slightly to the W of the main wall line. Many of the stones had broad, crude, tool markings. Above **F152** and below **F153** and **F154**, **F156** was an area of uncoursed small-medium sandstone blocks pointed with pale yellow mortar that had many stone inclusions. At the bottom of the S end of **F154**, **F161** was a single sandstone block recessed 440mm into the wall face. Slabs **F153** formed the base of the aperture.

The N margin of **F161** was formed by **F162** a single sandstone slab measuring 730mm by 230mm and 330mm high. **F162** continued the face of **F154** S and at the S end it turned to the W and was splayed slightly SW-NE. At the W end three small pinnars took this to **F163**. **F163** was a single slab laid on its side and running N-S at the W end of **F162**. **F163** measured 250mm in height, 190mm wide and at least 550mm long, there were tool marks on its E face. The base of the W wall was formed with,

F155, large sandstone blocks with some small pinnars between them. There were some tool marks visible on the larger stones. **F155** projected in (E) 250mm from the face of **F101**.

At the base of the S end of the W wall, **F167**, was formed with large rectangular yellow sandstone blocks. There were at least four courses at **F167** and the upper of these had a 45 degree chamfer cut in the upper SW corner. At the SW side all three stones were rounded. The top of the W edge of the margin had a square rebated groove measuring 540mm N-S and 100mm deep, the groove was 70mm wide at the top and narrowed to 50mm below the upper 20mm. The bottom stone was not dressed. **F167** formed the N side of **166**, an aperture at the S end of (**F101**) the W wall. **F166** measured 1.20m N-S, 40mm E-W and at least 1.10m in height. The height was taken from the S edge of **F167** and the aperture may have continued above the surviving masonry.

F179 was an upstanding block of masonry formed with coursed medium and large rectangular sandstone blocks. There were vertical faces at the E and W ends that did not continue down into the structure (**F178** and **F185**) below. The core was uncoursed small-medium sandstone blocks with a lot of hard pale yellow mortar. **F179** measured 1.55m E-W, 950mm wide and 950mm high. Under both **F179** and **F190** in the N face and running the full length of the S wall, **F185** was a single course of rectangular sandstone blocks measuring 480mm by 380mm thick on average. The blocks were quite tightly jointed but there was some pale yellow sandy mortar visible. This wall was on a slightly different alignment to the structure above, this wall projected 90mm N of the upper structure at the W end and is 30mm to the S of it to the E. At the junction of **F179** and **F185** was a roughly oval hole, **F188**, cut into both features. **F188** measured 130mm E-W, 120mm in height and was 50mm deep.

In the sondage in the W part of the trench directly under **F185**, **F186** was E-W aligned masonry formed with fairly small (80mm by 50mm on average) sandstone chunks bonded with pale yellow sandy mortar. The face of **F186** projected out (N) up to 170mm from the face of **F185**. At the E end of the S wall **F189** was an aperture, N-S across the S wall, that was formed between the E side of **F179** and W side of **F198**. **F189** measured 1.05m wide and 2.35m in height but the lintel was missing and the vertical E margin measures 1.90m in height. **F198** was the upstanding wall to the E of the S end of the trench, it was formed with large sandstone blocks with crude tool-markings. **F198** stood six courses, 1.9m, above **F185**. On the exterior (S side) of the W limit of the S wall there was a single sandstone block, **F404**, measuring 950mm E-W, 520mm wide and 350mm high. The S face of **F404** was smooth and neatly dressed while the W end and upper surface was cruder and had broad tool-marks visible. The upper face was flat for 20mm before dropping 50mm on the N edge, forming a crudely finished gully. **F404** was a similar stone to those seen in **F178** but it sat directly over that feature and **F405**. **F405** comprised two large sandstone blocks (the larger measuring 700mm E-W, 310mm wide and 280mm thick) with heavy tooling on the visible faces. The W stone continued 400mm W of the limit of **F404** above.

In the E facing elevation continuing the line of the W wall S, **F174** was a structure made up of rectangular, reddened sandstone blocks measuring 300mm in height and between 110mm and 200mm wide. The blocks formed a fairly irregular line that sloped slightly down to both sides from the centre. To the N of **F174**, **F173** comprised three sandstone blocks placed on edge. The sandstone blocks were reddened and measured 300mm in height and between 130mm and 180mm in width. The stones were tilted slightly, rising to the S. The E limit of **F173** and **F174** was roughly on line with the footings of the W wall and **F174** continued

under blocking **F168**. Immediately W of **F174**, **F401** is the upper face of sandstone blocks that were heavily pointed with light-mid brown sandy mortar that obscured the edges. At the N end of **F401** there was a sandstone block, **F402**, under and extending E of **F167**. Below **F186** in the N face of the S wall **F187** was a single block of split/roughly dressed sandstone measuring 500mm in length and 200mm high. The block was placed so that the top edge was 180mm N of the face of **F185**. There was possibly another similar block to the E but this was only partly observed at the E end of the deeper sondage. Under **F405** and only observed in the N elevation of the S wall, **F406** comprised split, small-medium, sandstone chunks that were crudely dressed and not coursed. At the N end the stones appeared to be set on edge. Under the upstanding part of the N wall (**F138**) and at the limit of excavation, **F197** comprised stones that appeared to have faces sloping inward (N) as they continued down. Below **F176** in the area to the S of the S wall, deposit **F177** was loose mid grey sandy silt with many coal and charcoal flecks. **F177** was not excavated.

The bottom part of the S face of the S wall has been constructed with ashlar blocks **F178**. The blocks were neatly coursed and rectangular, measuring 300mm in height and the length varied but was a maximum of 750mm E-W. There were four courses of the wall face exposed but the bottom was not seen, similarly a length of 4.60m was observed but the wall continued E of the excavated area.

2.2 Discussion

2.1 Phase 1

The ashlar blocks, **F178**, seen at the bottom of the S face of the S wall were well coursed and of exceptionally high quality. The standard of the stone used in this structure is not typical of what is seen elsewhere in the castle, where the stones are rougher and often show tool markings. This wall is thought to be part of a structure that is earlier than anything else seen in this area, and perhaps the whole castle. The bottom of this structure was not seen in the excavation. This wall was clearly meant to be seen, it is not foundations, and when it was in use the ground level must have been at least 800mm lower than it is currently. The wall face **F178** is the earliest feature in this area and the bottom of it was not seen. Further investigation of this structure should be a priority in any further excavations.

2.2 Phase 2

F174, in the SW corner of the area, comprised sandstone blocks placed on edge and dropping slightly as they continue S. Although it was also noted that this may be vault blocks reused as foundations there is no real evidence for this and this was more likely the remains of a vault more or less in situ, the stones have dropped between 50mm and 100mm from **F173**. Although there were a couple of missing stones the outer (E) edge of **F174** is generally fairly straight. Immediately N of **F174**, there are three sandstone blocks, **F173**, that are thought to be in situ vaulting. It was also noted that some of the blocks at **F73** and **F174** were reddened, perhaps indicating fire damage. It may be that the vault was burnt and demolished in **Phase 5**. The E limit of **F173** and **F174** is roughly on line with the W wall and it seems unlikely that this structure extended E of this, giving a vault running N-S and measuring 2.00m by roughly 1.50m

E-W. This is unlikely to be a room and is perhaps a vaulted entrance allowing access to the level now filled with, **Phase 4**, clay.

The sandstone blocks immediately W of **F174**, **F401**, are probably the upper faces of the same sandstone blocks. **F401** forms a fairly flat surface. The main difference between **F173/F174** and **F401** is that there is mortar pointing on the upper surface, perhaps this was put on to help form a level surface over the vault. The stone block at the N end of **F401**, **F402**, is probably part of the same structure as that feature. The fact that **F402** is under the W wall, **F167**, suggests that wall was built or has been altered after the construction of the vault. It is notable that **F173/F174** is under the N 1.05m of the upstanding W wall. Only a single block of **F187** was seen in the N face of the S wall, although the edge of another may be just showing at the E edge of the sondage, the fact that it slopes inward (S) toward the bottom leads to the suggestion that it may be a springer for vaulting.

Under **F405 (Phase 3)** and only seen in the N elevation of the S wall, **F406** comprised small-medium, uncoursed sandstone chunks. At the N end the stones were set on edge and it was speculated that they may relate to the construction of a vault but too little of this feature was seen to make a confident interpretation.

Under the N wall of the corridor, **F138**, at the limit of excavation, stones **F197** sloped inward (N) as they continued down. There was little of this feature seen but it is suggested that it is part of a vault construction. Although it is difficult to be sure, it may be that there were traces of vaulting continuing E under both the N and S walls. This would be remnants of a N-S vault on the same line as **F173/F174** suggesting that feature did extend further E than its surviving edge. **F197** and **F406** could be the fragments of the side walls continuing E. Under **F176** to the S of

the S wall, deposit **F177** was possibly midden but was not excavated. This deposit is difficult to phase, all that is certain is that it post dates the **Phase 1** structure.

F173/F174 is possibly the E limit of a N-S vault and is under part of the upstanding W wall. It is likely there was a mortared stone surface on top of the vault stones. There is evidence of burning on some of the stones, this may have happened during demolition in this area.

At the W end of the N face of the S wall and S face of the corridors N wall there were traces of what may have been vaulting. There are two major points of confusion in this phase. The edge at **F173/F174** forms an E limit to that feature but further E there are traces of more vaulting and although this is thought to be a corridor alongside the NW tower at least some of that structure appears to be constructed over this. Perhaps **F173/F174** is an entrance into a corridor that only fragments of are seen. The NW tower has been constructed, or substantially altered, after the vault is built. It may be that after the vault is out of use the NW tower was altered to fit in with the **Phase 3** construction in this area, but equally possible is that the vaulting is associated with the **Phase 1** construction and is demolished and or built over in **Phase 3**. Deposit **F177** pre-dates the **Phase 1** structure and appears to be midden, as it remains unexcavated this is all that is known and it is placed tentatively in this phase.

2.3 **Phase 3**

At the top of **F101**, **F150**, is a horizontal course of chamfered stones that is designed to be the base for a vault. At the S end of the wall there is a single block, **F151**, that is the last remnant of the vaulting. It was noted that these stones show the distinctive tooling typical of features in this phase. Immediately above **F150**, **F152** is a slightly irregular hole where

the facing stones are missing. **F152** is a specific line of robbing or collapse and the former is favoured, the robbing of the vaulting that is now only seen at **151**.

Above lintel **F144 (Phase 4)** and **F151, F153** is a horizontal line of thin slabs that may be a remnant of the slabbed upper floor. **F154** would be the W wall within this room. In the area above window **F102** it was noted that the stones of **F154** are reddened, this may be further evidence of demolition damage but could also indicate that the firing slot is converted from a fireplace or flue. Many of the stones within **F154** have the broad, crude, tool markings. Above the vault remnants **F151/F152** below floor **F153**, and against wall **F154, F156** is rubble infill forming a flat surface between the vault and the floor slabs.

It seems likely that **F161**, at the of the S end of **F154**, is the bottom of the S end of a window, the neat edges certainly indicate that there was an aperture in this position. Slabs **F153** forms the base of the aperture so a doorway is another possibility, although there would have had to have been steps up to it or the external ground level would have needed to be higher than it is at present, there is no evidence for the former and the latter seems extremely unlikely. Sandstone slab **F162** forms the N margin of **F161** and **F163**, a single slab laid on its side, is the sill. There are tool marks visible on most of this masonry.

F167, at the base of the S end of the W wall, is structure formed with large rectangular yellow sandstone blocks the upper three of which are dressed. There is a rebated channel in the upper block that may be evidence of a bar-hole. The chamfer on the top of the S edge of the E side could be a springer for a vault but, perhaps more likely, it is just the style of dressing. The face that the bottom course at **F167** does not have a formal E edge may indicate that the stones above are a thickening of the

W wall of the tower. **F167** forms the N side of **F166**, an aperture at the S end of the W wall. The original usage of **F166** is uncertain but as the aperture measured 1.20m N-S and at least 1.10m in height with the base at ground level, perhaps a doorway is most likely.

The base of the W wall, **F155**, showed some tool marks on the larger stones. **F155** projected inward (E) 250mm from the face of **F101**. It seems more likely that the step is the building style, perhaps to help hold the vault in place, rather than an indication that the top part was added at a later date.

At the W limit of the S wall, within the S face, sandstone block **F404** was possibly a reused stone from **F178**. A channel has been cut into the upper face. It was thought most likely that in its latest usage **F404** was part of **F168**. The gully has no function in its current position but is associated with heavy tool markings, perhaps this stone has been used more than three times, originally as part of **F178**, within a gully and finally in its current position.

F179 is the upper part of the S wall at the E end of the trench, its E and W limits are the edges of apertures. **F189** is to the E of this and to the W **F192** and **F194** may have disturbed the original feature. The vertical faces at the E and W ends do not continue down into the structure below. The plaster, **F195**, seen on the internal (N) face of this structure may not be original. Seen only in the N face of the S wall, under both **F179** and **F190**, **F185** is a course of rectangular sandstone blocks. This structure is associated with the original aperture between **F179** and **F180**. It was noted that **F185** is on a slightly different alignment to the structure above. There is heavy tooling on the faces of the stones. The **Phase 4** structure above this may have changed the wall alignment slightly. At the junction

of **F179** and **F185, F188**, is a deliberate cut into the wall face. Without further evidence it is difficult suggest a reason for it.

Under **F185, F186** is a 100mm thick band of fairly small sandstone chunks bonded with the same mortar as is seen at that feature. It was noted that face of **F186** projects out from **F185**. It may be that **F186** is levelling, over the **Phase 2** vaulting **F187**, immediately prior to the construction of **F185** or that it is remains of a surface over the vault. The fairly random nature of the stones suggests that levelling is more likely, although only a small area was seen. The upstanding wall, **F198**, to the E of the S end of the trench uses tool mark blocks and is similar in construction to **F179**. Between **F198** and **F179** and bottoming onto **F185**, there is an aperture, **F189**, that measures 1.10m in width and at least 1.90m high. This seems likely to have been a doorway. The two large sandstone blocks at the W end of the S wall, **F405**, show heavy tooling, although they are a continuation of the upper course of the **Phase 1** feature **F178**. The suggestion is that either **F178** ended just E of this block or was demolished W of that point and this addition extended the structure W during this phase.

Within the W wall **F150, F151** and **F152** are thought to be remnants of a vault above the one that the top of was excavated in 1996. **F153** is remnants of the floor above vault **F150-F152** and **F154** its W wall. This would be an E-W aligned vault the base of which was roughly 1.60m above the current one at the W wall. The stones of **F154** are burnt and this may indicate that there was once a fireplace or flue in this area but could equally be evidence of slighting. There was possibly a window, represented by **F161-F163**, at the S end of the W wall within the upper vault. Also at the S end of the vault in the W wall remains, above the **Phase 2** vault, **F167**, forms the N side of aperture (**F166**) likely to be a doorway. The S wall in this phase is formed with (from E-W) **F189, F179**,

F180 and **F185** with apertures between **F189** & **F179** and **F179** & **F190**. **F183**, **F404** and **F405** are also put in at this time. Between **F198** and **F179**, **F189** is thought to be a doorway providing access to the corridor from the S. There appears to have been an aperture measuring 2.10m between **F179** and **F183/F190** in this phase this would seem to be a very wide entrance, perhaps providing access for carts or heavy equipment. In the SE corner of the structure **F404** and **F405** may have been a reused **Phase 1** structure put in to extend the wall W.

2.4 **Phase 4**

F147 is the blocking of the base of a window, it was thought during the 1996 work that there was other alterations to this aperture at the same time. It appears that a window was converted into the present firing slot. The large yellow sandstone block, **F144**, set horizontally on its edge at the top of the aperture is the lintel of the firing slot and is probably part of the conversion. **F145** and **F146** may be dook holes within the S reveal (**F105**) of the firing slot. At the N end of the W wall **F148** is a vertical cut that that possibly held a fixing. Among the possibilities are that It could be associated with the chamber in the NW corner of the room or the hatch below and just to the S of it. Within the top part of **F148**, **F149** is a dook hole. **F168** is the blocking at the W end of aperture **F166**, it has converted an open aperture into a recess in the SW corner of the room. Plaster **F170** has been applied to the inner (E) face of this structure. **F168** has been truncated by cut **F191** for the insertion of an aperture at its E end. The sandstone blocks within the blocking are often tool marked, perhaps suggesting it is reusing a demolished structure. Projecting out (E) 250mm from the W wall, **F169** is a line of masonry that appears to be associated with the vault to the N. Perhaps this is a similar structure to the 1996 feature **F111**.

Plaster similar to **F195**, **F196**, was seen on the inner faces of walls **F183** and **F190**. **F196** was only partly exposed as it continued down behind rubble **F181**. Located centrally on the S wall there is an aperture formed with **F182** and **F183**, to the E and W respectively. The single block at **F182** appeared to be damaged, the E face and middle of the W side are broken, perhaps suggesting the block is reused here. There is a scrap of plaster on the W face. In the SE corner there is a chamfer cut with a rebate just N of it. Between the chamfer and the rebate there are traces of a fine vertical line, perhaps a glazing slot indicating that this was part of a window. **F183** is formed with two substantial yellow sandstone slabs laid one over the other. There is a chamfer at the SE corner with a rebate to the N of it. A 5mm deep groove cut vertically down the E face is thought to be a glazing slot. Plaster, **F196**, is seen on the E face of **F183**. The cut for the insertion of **F183**, **F403** is through masonry **F168**. Sandstone block **F190** continues the line of **F183** in the N part of the wall **F190** has heavy tooling on the E face and there is plaster seen on the E face. The cut for **F190**, **F191**, is through **F168**. **F180** and **F181** are infill rubble deposits patching this area after the insertion of the narrower aperture formed with **F182** and **F183**. Immediately E of **F182** at the S face of the wall the sandstone slabs, **F192** appear to be a repair to the wall face. There is a cut, **F193**, into **F180** to allow **F182** to be placed. At the N face of the S wall, constructed against **F179** walling **F194** is thought to have also been constructed as part of the repairs immediately post **F182/F183**. To the W **F184** may be another part of the same construction.

Compact clay **F142** was throughout the trench and although it was excavated to a depth of 400mm it was not bottomed. This is the deliberate infilling of this area and involved importing a massive amount of material. **F141** is a mixed deposit that was trampled onto the surface of **F142**. S of the S wall there are three rectangular sandstone slabs, **F172** running E-W against the wall face and sloping steeply to the E and

gently to the S. This feature was located immediately outside of the aperture formed by **F182/F183**. It seems likely that **F172** is related to the aperture, the first thought is a step but the slope of the stones is probably not due to collapse. Another possibility is a drain but neither end of the feature appears to be disturbed and it does not run anywhere. Below **F172**, **F176** is possibly demolition or construction debris used as infill, as it is predominantly mortar with fairly small stones the latter is favoured.

It is thought that an earlier feature in the upstanding W wall is converted to a firing slot in this phase. The doorway, **F166**, is blocked (with **F168**) in this phase leaving no access from the W. Plaster **F170** has been applied to **F168** and **Phase 3** wall faces indicated large scale alterations. The sandstone blocks used as blocking have the same tool markings as the **Phase 3** structure perhaps indicating there was also demolition at this time. The large aperture in the S wall is narrowed from the E side by the insertion of **F182** and now measures only 800mm in width. It is thought this may be a window. **F180** and **F181** are infill deposits and part of the work for the creation of this window. E of **F182** at the S face of the wall sandstone slabs, **F192** and **F194** show further repair to this area during the alterations. Clay **F142** is a deliberate infilling of the corridor vault during this phase, it even appears to have been infilled under **F173/F174** at the W end of the trench. This is a large scale undertaking and it formed a very compact level surface. Among the reasons for doing this could be forming a platform for artillery or securing the collapsing remains and build over them. S of structure sandstone slabs **F172** are difficult to interpret, but they seem to be related to the narrower aperture created with **F182**. **F169** is thought to be associated with a partition along the S side of the vault to the N.

2.5 Phase 5

Deposit **F160** was under rubble it may have been the final occupation deposit. Under **160** in the S part of the trench, coal deposit **F164** seems likely to have been deposited during the use of this part of the castle. Similarly **F140**, under **F160**, was waste and was probably generated locally. **F140** sealed the footings of the N and S walls. Below **F140**, **F165** was a spread of clean sand measuring up to 100mm thick. **F165** was probably deliberate infill, perhaps the bottoming for a robbed out floor.

There was a lot of coal and charcoal in the deposits of this phase, which seems to be the final usage of the structure in this area. Deposits **F140**, **F160** and **F164** produced 159 sherds of green glaze pottery, the majority from **F140**. The sherds have only been washed at the date but when they are studied in detail it seems unlikely that they will rule out a date toward the end of the 16th century.

2.6 Phase 6

This phase is the build up of material over the disused vault. Deposit **F114** is constantly being added to, **F113** is around 1.00m depth of collapse and demolition material. **F158** and **F159** are sections of vaulting that appears to have collapsed in sections, there suggest that there was a N-S vault over this area. It is possible that slabs **F157** are a collapsed piece of the floor from over the vaulting. Outside the S wall and under **F114**, **F171** is a deliberate make-up, it post-dates the blocking **F168** of the later aperture in the S wall. Under **F171**, **F175**, is a clay deposit with many coal and mortar and flecks that has built up against the slab feature **F172**. **F175** may be raising the ground level at the time of the construction of **F172**. This phase is the continuing disuse and gradual decay and collapse of the structure.

3 Trench 4

3.1 Description

Trench 4 was located in the SW corner of the area below the vault excavated in 1996, it measured 650mm square and up to 600mm in depth.

The upper deposit, **414**, was loose mid brown silty topsoil that measured up 300mm in depth. **414** sealed **415**, a deposit of light brown sandy silt. At the base of the trench there was a sandstone slab sloping down to the E.

3.2 Discussion

The material removed from this trench was modern. A more complete discussion and description will follow after further investigation of this area in the near future.

4 Trench 5

4.1 Description

Trench 5 was under the E edge of the NW tower vault, against the S wall, it measured roughly 1.10m square. The purpose of this trench was to find the N face of the S wall of the tower and this was achieved.

The upper 200mm was loose mid brown silty topsoil, **407**. Below **407** there was a, 100mm thick, deposit of compact light brown clay, **408**. **408** sealed **409**, a 80mm thick deposit of light brown silt. In the S section of trench 5 deposits **417-420** were seen, these were deposits of compact clay (**417** and **419**) and light brown sandy silt (**418** and **420**).

4.2 Discussion

Deposits **407-409** all include recently disturbed material. **417-420** all show material washed down from the bank over a longer period.

A1. Appendix 1: Context List

Context	Trench	Description	Date
140	3	Charcoal rich silt deposit seen in most of the trench.	03/10/07
141	3	Deposit of red brown sandy silt under 140.	04/10/07
142	3	Very compact and sticky mix of different coloured clays, main infill in the "corridor".	27/09/07
143	3	Mottled clay below 141.	27/09/07
144	3	Lintel at aperture 102.	27/09/07
145	3	Dook hole to the S of 102.	27/09/07
146	3	Dook hole to the S of 102.	27/09/07
147	3	Cut filled with 103.	27/09/07
148	3	Vertical cut in the masonry at the N end of 101.	27/09/07
149	3	Dook hole at the top of 148.	27/09/07
150	3	Course of chamfered stones at the top of 101.	02/10/07
151	3	Vault springing from 150.	02/10/07
152	3	Robbed out/collapsed area of 151.	02/10/07
153	3	Flat slabs at the top of 152.	02/10/07
154	3	Walling above 153.	02/10/07
155	3	Walling below and projecting E from 101.	02/10/07
156	3	Projecting rubble between 151 and 153.	02/10/07
157	3	Roughly rectangular slabs within 113.	02/10/07
158	3	Area of collapsed vaulting in W part of trench 3.	02/10/07
159	3	Area of collapsed vaulting in E part of trench 3.	02/10/07
160	3	Mid brown clayey silt overlying N part of 140.	02/10/07
161	3	Window aperture at the S end of wall 154.	02/10/07
162	3	N margin of 161.	02/10/07
163	3	Sill to 161.	02/10/07
164	3	Coal deposit over 140.	02/10/07
165	3	Clean sand below 140.	03/10/07
166	3	Aperture at the S end of wall 101.	10/10/07
167	3	N margin of 166.	10/10/07
168	3	Blocking at the W end of 168.	10/10/07

Context	Trench	Description	Date
169	3	Wall running E from the back of the S end of 101.	10/10/07
170	3	Plaster over the S face of 168 and the E face of 101.	10/10/07
171	3	Brown silty clay below 114, S of the S wall.	10/10/07
172	3	Slabs below 171.	10/10/07
173	3	Intact area of arch springing S from 138.	10/10/07
174	3	Collapsed arch to the S of 173.	10/10/07
175	3	Brown silty clay and mortar against the E face of 172.	10/10/07
176	3	Rubble and mortar below 175.	10/10/07
177	3	Coal rich grey silt below 176.	10/10/07
178	3	Lowest, ashlar, masonry on the S face of the S wall.	10/10/07
179	3	Upstanding masonry at the SE end of the trench.	10/10/07
180	3	Blocking/core E of the aperture in the upper face of the S wall.	10/10/07
181	3	Blocking/core W of the aperture in the upper face of the S wall.	10/10/07
182	3	Structure at the E edge of the aperture in S wall.	10/10/07
183	3	Structure at the W edge of the aperture in S wall.	10/10/07
184	3	Blocks in the blocked aperture in the N face of the S wall.	10/10/07
185	3	Tooled stones in the N face of the S wall.	10/10/07
186	3	Smaller stones under 185.	10/10/07
187	3	Large block, possible vault remains, under 186.	11/10/07
188	3	Hole cut in the face of 185 under 179.	11/10/07
189	3	Aperture at the E end of the S wall.	11/10/07
190	3	Walling forming the continuation of the E face of 183.	11/10/07
191	3	Cut through 168 for the insertion of 190.	11/10/07
192	3	Stones forming the S face of the S wall to the E of 182.	11/10/07
193	3	Cut for the insertion of 192.	11/10/07
194	3	Stub of wall running W from 179.	11/10/07
195	3	Plaster over the N face of 179.	11/10/07
196	3	Plaster over the faces of 183 and 190.	11/10/07
197	3	N wall of corridor vault.	11/10/07
198	3	Upstanding section of the S wall to the E of the trench.	11/10/07

Context	Trench	Description	Date
199	3	Blocks at the S face of the S wall in the area of the blocked aperture.	11/10/07
401	3	Structure to the W of 174.	11/10/07
402	3	N end of 401, block running under the S end of the W wall.	11/10/07
403	3	Cut through 168 for chamfered margin 183.	11/10/07
404	3	Arch fragment reused in the SW part of the castle structure.	11/10/07
405	3	Two heavily dressed stones in SW tower continuing the line of 178.	11/10/07
406	3	Rubble core to the N of 405.	11/10/07
407	5	Loose topsoil.	11/10/07
408	5	Compact clay infill under 407.	11/10/07
409	5	Light brown sandy silt under 408.	11/10/07
410	4	Large hole in the bottom part of the W wall.	11/10/07
411	4	Oval hole in the W wall, possibly for a fitting.	11/10/07
412	4	Oval hole in the W wall, possibly for a fitting, under 411.	11/10/07
413	4	Step out (E) at the bottom of the W wall.	11/10/07
414	4	Recent infill.	11/10/07
415	4	Light brown sandy silt under 414.	11/10/07
416	4	Sandstone slabs at the base of the trench.	11/10/07
417	5	Compact clay infill under 407. 417-420 were only seen in the E side of the trench.	11/10/07
418	5	Light brown sandy silt under 417.	11/10/07
419	5	Compact clay infill under 418.	11/10/07
420	5	Light brown sandy silt under 419.	11/10/07

A2. Appendix 2: Drawing List

No	Scale	Trench	Description	Date
11	1:20	3	Elevation, E face of the W wall. (101-105), 143-156, 161-163 and 161-170.	26/09/07
12	1:20	3	Plan of collapsed vaulting. 113 and 157-159.	27/09/07
14	1:20	3	Plan of trench, 140 and 164.	02/10/07
15	1:20	3	Plan of trench, walls and clay infill. 111, 114, 142, 167, 168, 173, 174, 178, 179, 182, 183, 190, 194 and 199.	04/10/07
16	1:20	3	Sondages cut into 142 and features in the S part of the trench. 111, 114, 142, 167, 168, 172-179, 182, 183, 190, 194 and 199.	
17	1:20	1, 3 + 5.	Section across E edge of vault and area to the E. (111-114, 119, 124 and 138), 140-143, 160 and 407-409.	
18	1:20	3	South face of E-W wall at S end of trench. 178, 179, 182, 183, 189, 199 and 403-405.	10/10/07
19	1:20	3	North face of E-W wall at S end of trench. 114, 168, 179, 185-187, 189, 190, 194, 195 and 406.	11/10/07

A3. Appendix 3: Photograph List

No	Trench	Date	From	Description
1	3	25/09/07	W	Start of excavation, removing 113 and 114.
2	3	25/09/07	NE	Start of excavation, removing 113 and 114.
3	3	25/09/07	NE	Start of excavation, removing 113 and 114.
4	3	28/09/07	W	Blocking 168.
5	3	28/09/07	W	Blocking 168.
6	3	28/09/07	W	Blocking 168.
7	3	28/09/07	S	114 at the E end of the trench.
8	3	28/09/07	NE	Collapsed vaulting 158.
9	3	28/09/07	E	Collapsed vaulting 158.
10	3	28/09/07	E	Collapsed vaulting 158 and 159.
11	3	28/09/07	E	Collapsed vaulting 158 and 159 with 114 to the N.
12	3	28/09/07	E	Collapsed vaulting 158 and 159 with 114 to the N.
13	3	28/09/07	S	Blocking 168.
14	3	28/09/07	S	Collapsed vaulting 158.
15	3	01/10/07	E	Section through 114 at the E end of the area.
16	3	01/10/07	E	Section through 114 at the E end of the area.
17	3	01/10/07	NE	Plaster on the E end of the W wall at the junction with the N wall of the corridor.
18	3	01/10/07	E	Detail of the plaster on the E end of the W wall at the junction with the N wall of the corridor.
19	3	01/10/07	E	Detail of the plaster on the E end of the W wall at the junction with the N wall of the corridor.
20	3	01/10/07	E	Detail of the plaster on the E end of the W wall at the junction with the N wall of the corridor.
21	3	01/10/07	E	Detail of the plaster on the E end of the W wall at the junction with the N wall of the corridor.
22	3	03/10/07	W	Phase 5 deposits, coal and charcoal.
23	3	03/10/07	W	Phase 5 deposits, coal and charcoal.
24	3	03/10/07	N	Phase 5 deposits, coal and charcoal, with clay infill.
25	3	03/10/07	N	Phase 5 deposits, coal and charcoal, with clay infill.

No	Trench	Date	From	Description
26	3	03/10/07	W	Detail of coal deposit.
27	3	04/10/07	S	Blocking 180/181 in the S wall, with structure 182 and 183.
28	3	04/10/07	S	Blocking 180/181 in the S wall, with structure 182 and 183.
29	3	04/10/07		Ruined.
30	3	04/10/07	W	Deposit 141.
31	3	04/10/07	E	Deposit 141 and general view of the trench.
32	3	04/10/07	E	Deposit 141 and general view of the trench.
33	3	04/10/07	E	Deposit 141, detail.
34	3	04/10/07	E	Deposit 141, detail.
35	3	04/10/07	N	Clay 142 against wall 179/185.
36	3	04/10/07	N	Clay 142 against wall 185.
37	5	04/10/07	E	Trench 5, outer face of wall.
38	5	04/10/07	SE	Detail of the outer wall face.
39	4+5	04/10/07	E	Location of trenches.
40	4+5	04/10/07	E	Location of trenches.
41	4+5	04/10/07	E	Location of trenches.
42	3	05/10/07	NE	Dave digging sondage.
43	3	05/10/07	N	Aperture at the E end of the S wall and clay 142 in the SE corner of the trench.
44	3	05/10/07	N	Aperture at the E end of the S wall and clay 142 in the SE corner of the trench.
45	3	05/10/07	W	Clay 142 in the SE corner of the trench.
46	3	05/10/07	E	Detail of vault stones, 173 and 174.
47	3	05/10/07	E	Detail of vault stones, 173 and 174.
48	3	05/10/07	E	Detail of stones 183 with slabs 172 below.
49	3	05/10/07	E	Trench location at clay 142, also shows vault 173/174.
50	3	05/10/07	E	Trench location at clay 142, also shows vault 173/174.
51	3	05/10/07	E	Trench location at clay 142, also shows vault 173/174.
52	3	05/10/07	N	Trench at 142.
53	3	05/10/07	SW	Blocking 168.

No	Trench	Date	From	Description
54	3	05/10/07	S	N wall of corridor.
55	3	05/10/07	SW	Trench S of the building, slabs 172.
56	3	05/10/07	S	Entrance at 178/182.
57	3	05/10/07	S	Entrance at 178/182.
58	3	05/10/07	SE	Blocking 168.
59	3	05/10/07	SW	Section cut into clay 142.
60	3	05/10/07	SE	Ashlar blocks 178 and E end of 172.
61	3	05/10/07	SE	Ashlar blocks 178 and E end of 172
62	3	05/10/07	E	E end of 172 mortared against 178.
63	3	05/10/07	E	E end of 172 mortared against 178.
64	3	05/10/07	S	Blocked entrance at 182/183 with 172 below.
65	3	06/10/07	S	Blocked entrance at 182/183 with 172 below.
66	3	06/10/07	SW	Ashlar wall 178.
67	3	06/10/07	SW	Trench S of the building.
68	3	06/10/07	W	Trench S of the building, E section.
69	3	06/10/07	SW	Trench S of the building E section and wall 178.
70	3	06/10/07	S	Blocks 404 and 405 at the W end of the S wall.
71	3	06/10/07	S	Blocked entrance at 182/183 with 172 below.
72	3	06/10/07	S	Detail of 183.
73	3	06/10/07	S	Detail of 199.
74	3	06/10/07	S	Detail of 182.
75	3	06/10/07	S	Detail of 178 and 192.
76	3	06/10/07	S	Detail of 178 and 179, E end of the trench.
77	3	06/10/07	E	Ashlar 178 and slabs 172.
78	3	06/10/07	S	Masons mark on 192.
79	5	06/10/07	E	Trench 4 post excavation.
80	5	06/10/07	E	Holes 411 and 412 in 401.
81	5	06/10/07	E	Holes 411 and 412 in 401.
82	4	06/10/07	NE	Wall core at the S edge of the trench.
83	4	06/10/07	N	N face of the wall in trench 4.
84	4	08/10/07	N	Wall core at the S edge of the trench.
85	4	08/10/07	N	Clay in the slope above the trench.

No	Trench	Date	From	Description
86	3	08/10/07	E	Paul and Dave digging.
87	3	08/10/07	E	Dave, Paul and Tom recording.
88	3	08/10/07	E	Dave, Paul and Tom recording.
89	3	08/10/07	E	Dave, Paul and Tom recording.
90	3	08/10/07	N	Clay 142 and E aperture in the S wall.
91	3	08/10/07	N	Clay 142 and central part of the trench.
92	3	08/10/07	N	184-187 at the S edge of the sondage.
93	3	08/10/07	E	174/401 with blocking 168 behind.
94	3	08/10/07	E	174/401 with blocking 168 behind.
95	3	08/10/07	E	174/401 with blocking 168 behind.
96	3	08/10/07	S	402 and N edge of aperture over vault 174.
97	3	08/10/07	S	Cut stone in the W face of the W wall.
98	3	10/10/07	W	Plaster 170.
99	3	10/10/07	S	S wall at 182/183.
100	3	10/10/07	S	S wall and blocking 192.
101	3	10/10/07	S	S wall and blocking 194 and 199.
102	3	10/10/07	E	Plaster on 183 and 190.
103	3	10/10/07	E	Detail of plaster on 183 and 190.
104	3	10/10/07	E	Detail of plaster on 183 and 190.
105	3	10/10/07	W	Plaster on 182.
106	3	10/10/07	W	W face of wall 179.
107	3	10/10/07	W	Exterior of the S wall, blocking 168.
108	3	10/10/07	S	Trench to the W of the W wall.
109	3	10/10/07	W	N edge of 168.
110	3	10/10/07	W	S edge of 168.
111	3	10/10/07	W	W edge of 178.
112	3	10/10/07	W	W edge of 178

A4. Appendix 4: Finds List

Box No.	Bag No.	Site code	Date	Material(s)	Quantity	Contexts	DCSN
1220	1220-001	CDZ 2007	Oct-07	Green glaze pottery	2	164	2711
1220	1220-002	CDZ 2007	Oct-07	Green glaze pottery	27	160	2713
1220	1220-003	CDZ 2007	Oct-07	Green glaze pot group	24	140	2715
1220	1220-004	CDZ 2007	Oct-07	Green glaze pottery	106	140	2716
1220	1220-005	CDZ 2007	Oct-07	Roof slate	1	160	2719
1220	1220-006	CDZ 2007	Oct-07	Roof slates	3	140	2720
1220	1220-007	CDZ 2007	Oct-07	Sea coal/ coal or similar material	1	160	2721
1220	1220-008	CDZ 2007	Oct-07	Animal bone	26	140	2722
1220	1220-009	CDZ 2007	Oct-07	Animal bone	10	160	2723
1220	1220-010	CDZ 2007	Oct-07	Fe key	1	160	2724
1220	1220-011	CDZ 2007	Oct-07	Fe key and nails	6	140	2725
1220	1220-012	CDZ 2007	Oct-07	Cu alloy pin	1	140	2727/2 728

A5. Appendix 5: Illustrations

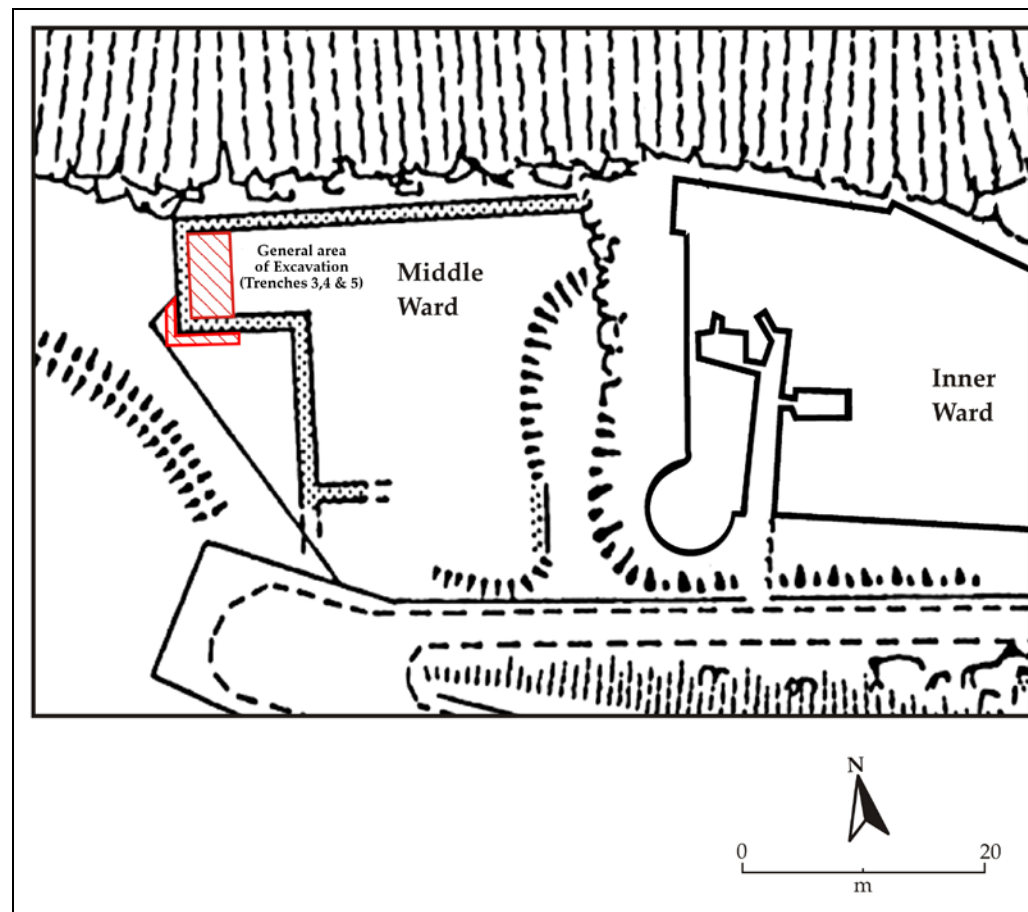


Figure 1 - Location of excavations

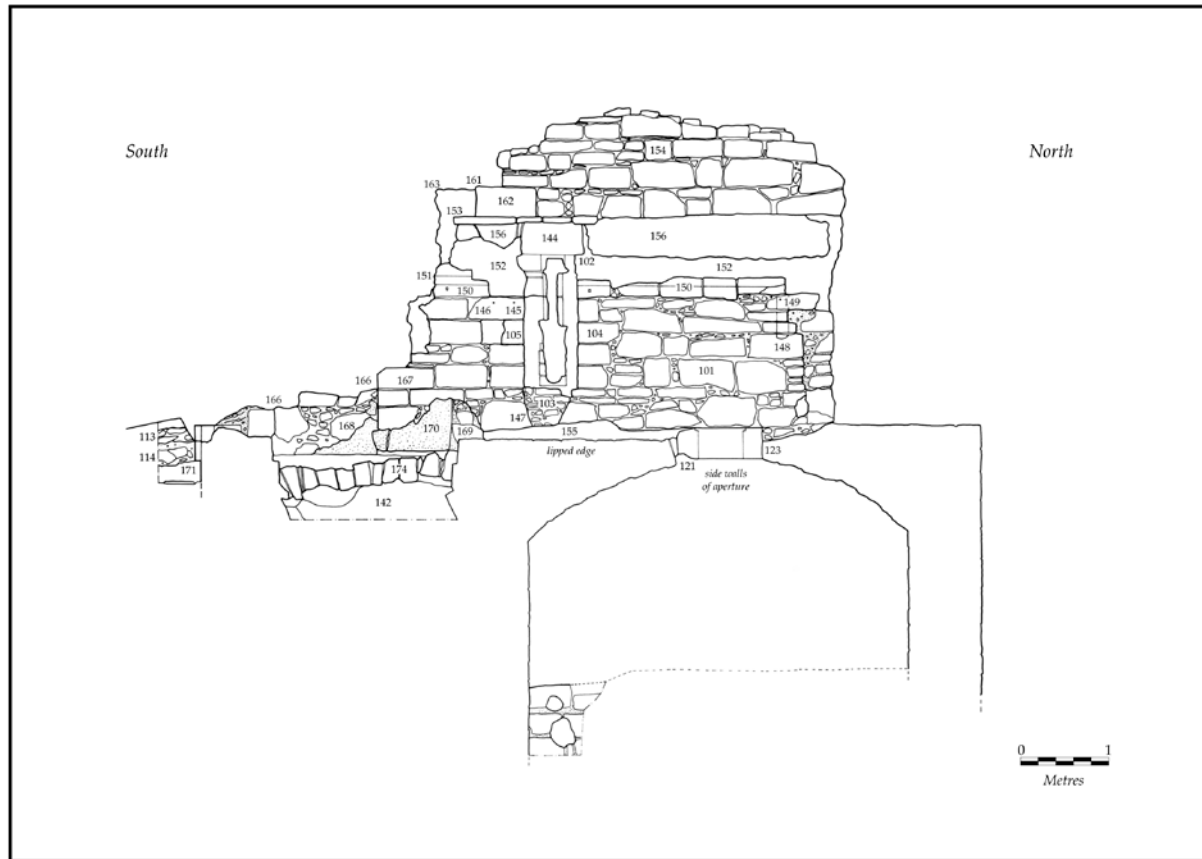


Figure 2 - Drawing 11

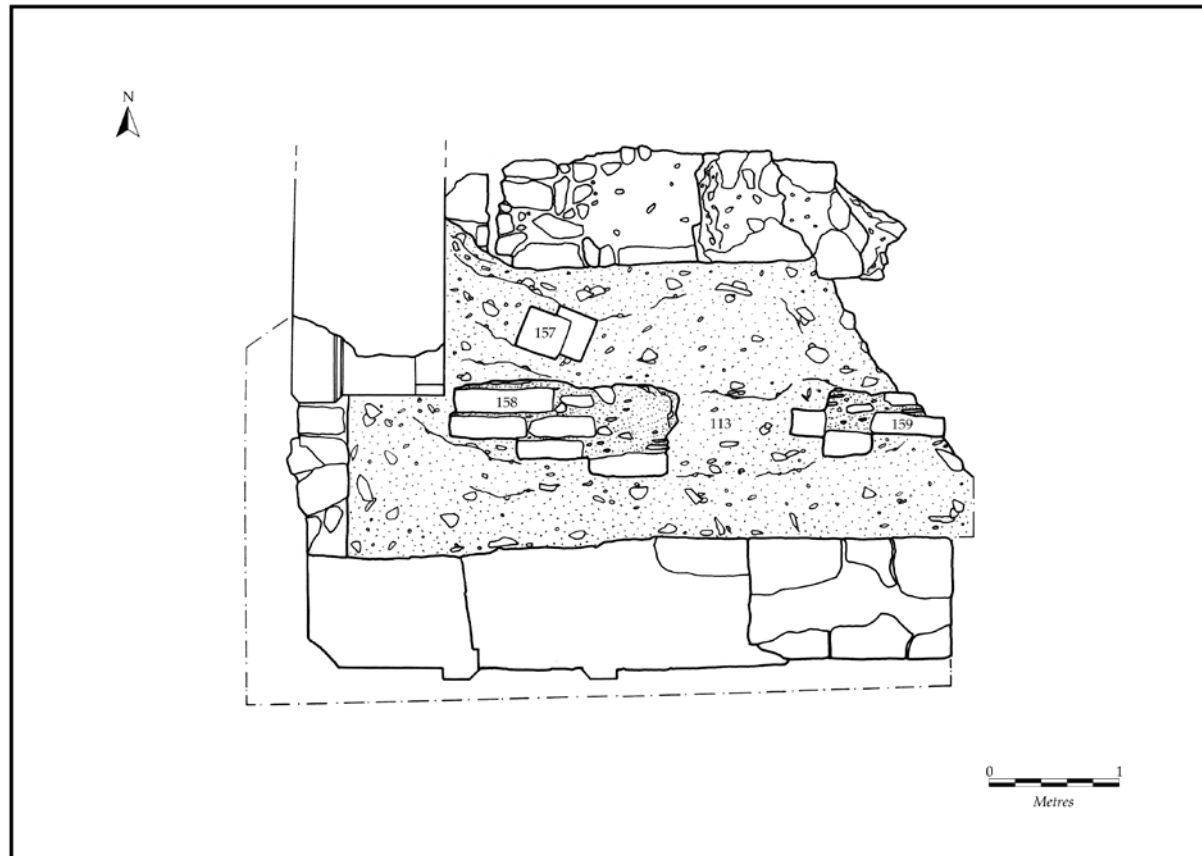


Figure 3 - Drawing 12

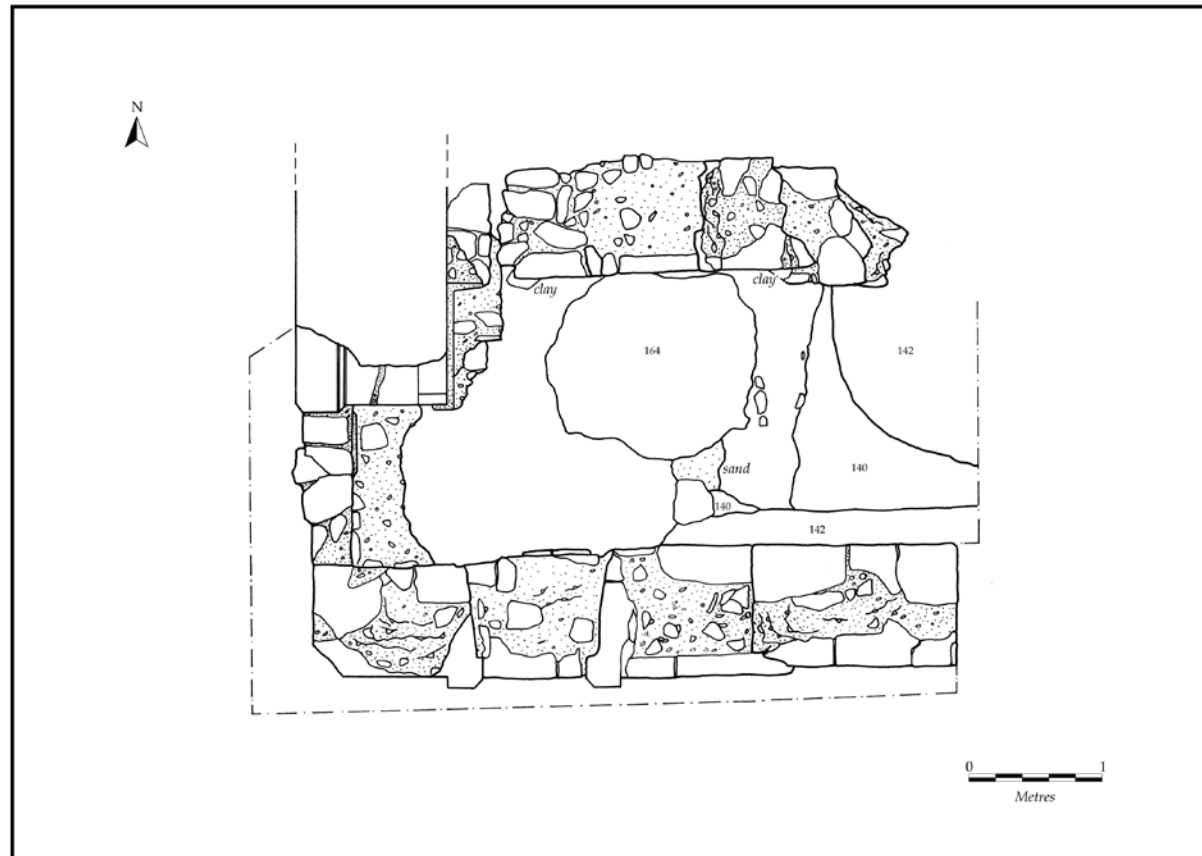


Figure 4 - Drawing 14

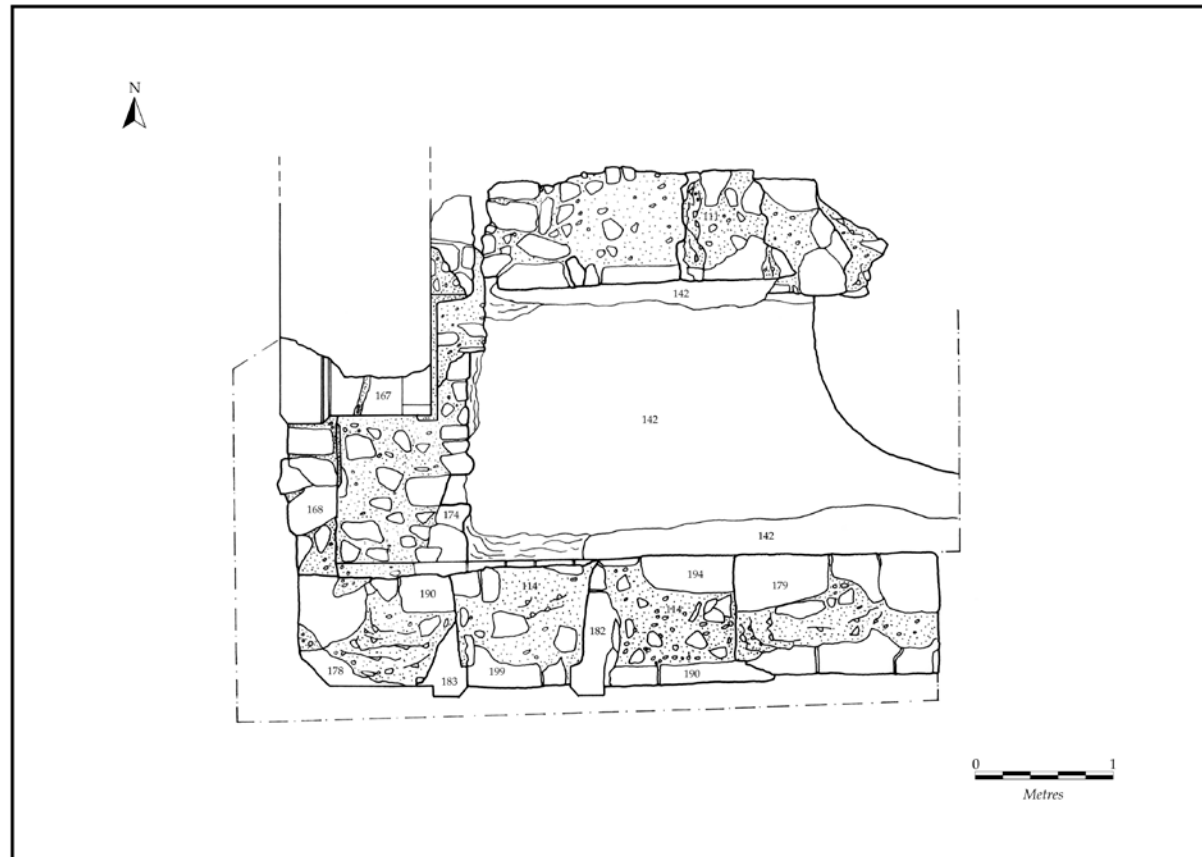


Figure 5 – Drawing 15

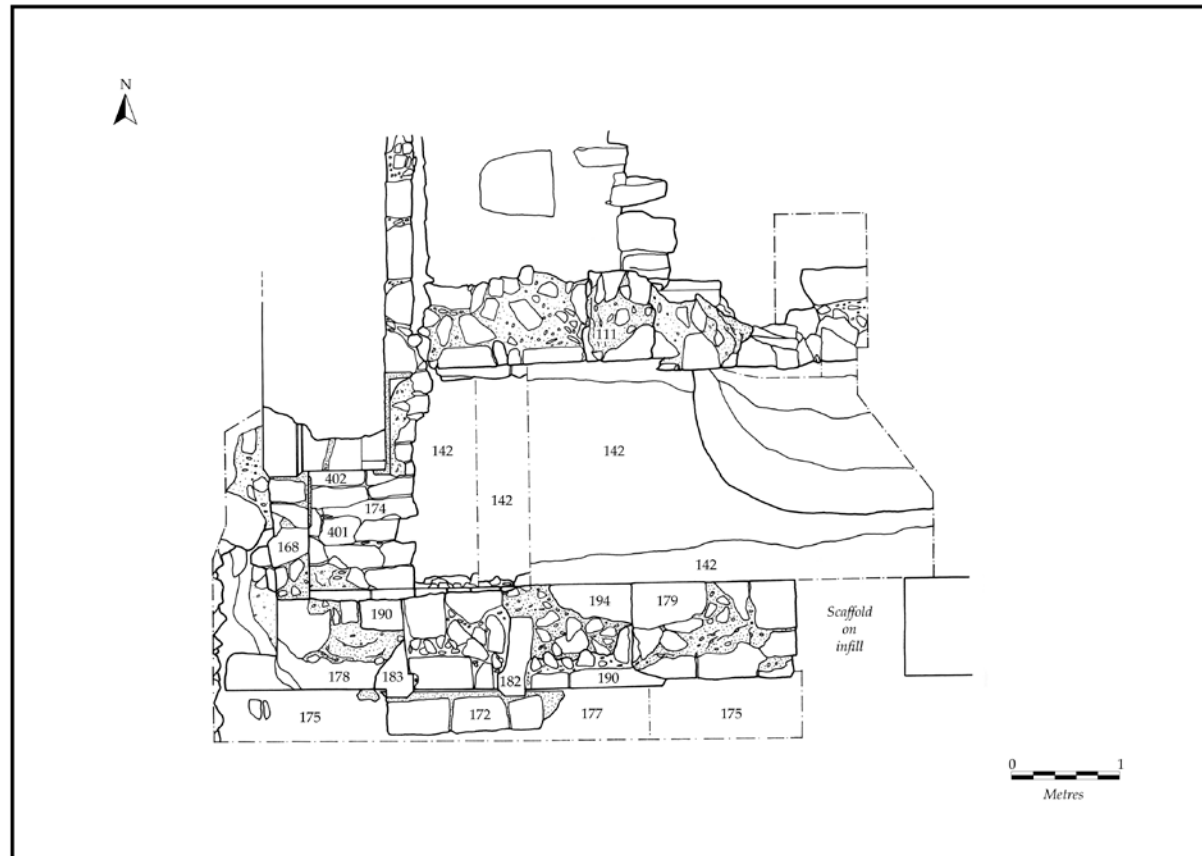


Figure 6 – Drawing 16

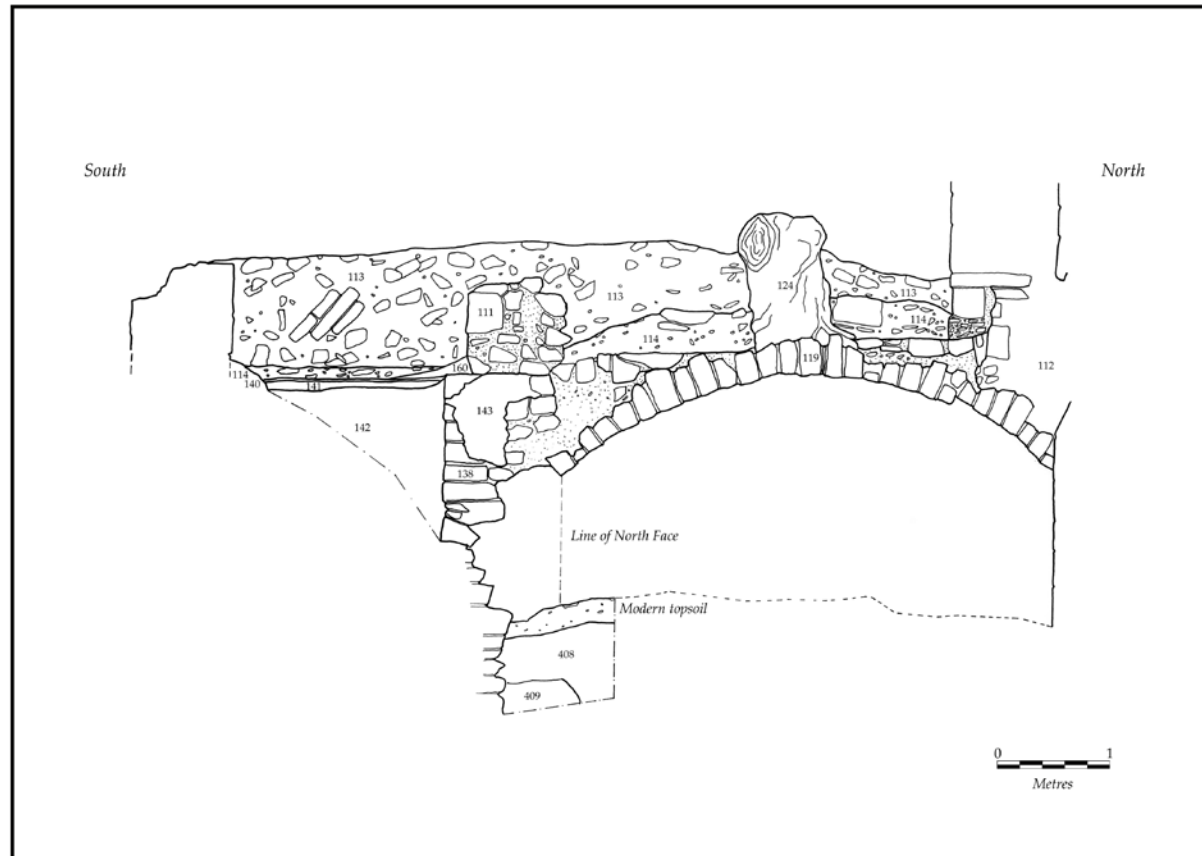


Figure 7 - Drawing 17

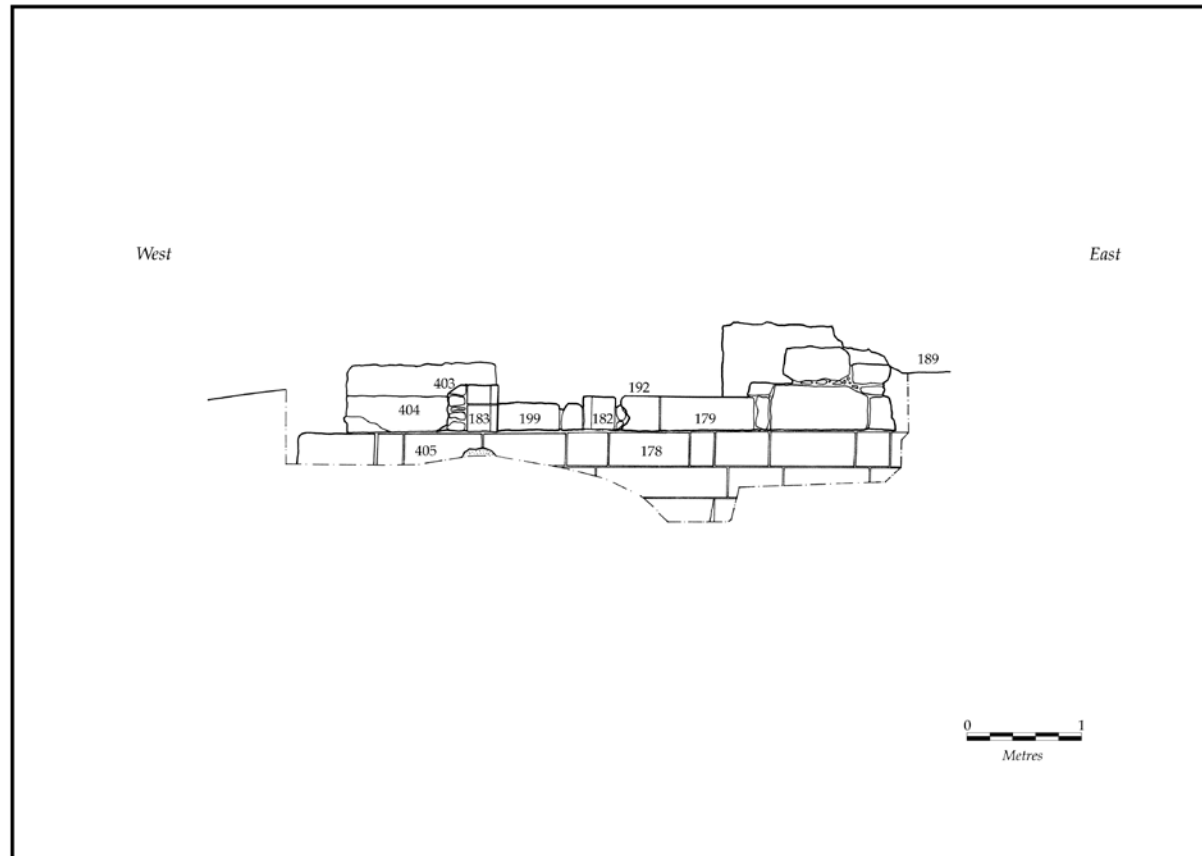


Figure 8 - Drawing 18

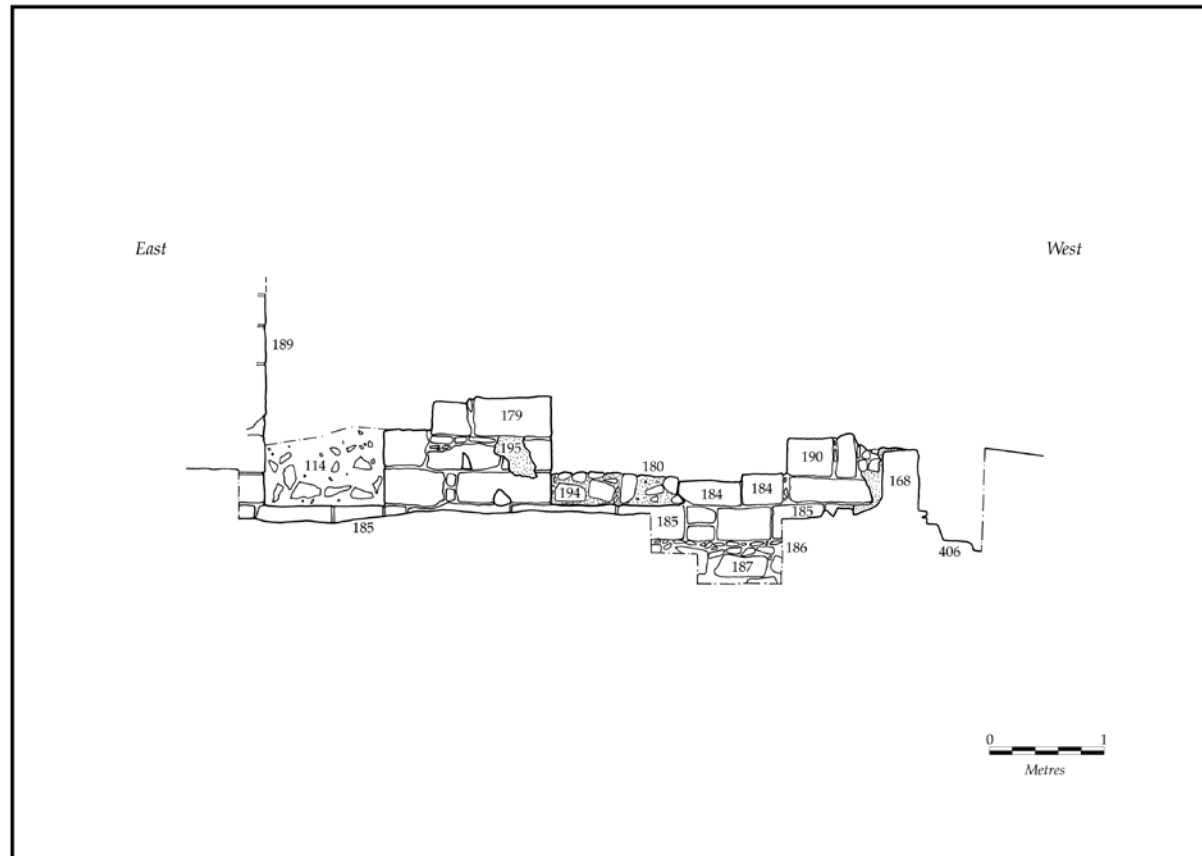


Figure 9 - Drawing 19