Excavations at Iona Abbey 2017
Data Structure Report

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Abstract

A series of targeted excavations took place at three sites around Iona Abbey in May 2017. At Site A, a 1956 trench of Charles Thomas cut across the monastic enclosure banks and ditch was re-excavated to elucidate their disputed chronology. The sections were recorded and sampled for radiocarbon dating, pollen and soil micro-morphology. The ditch, previously only partially excavated, revealed waterlogged organic-rich deposits at its base and evidence of two possible periods of infill. The inner bank showed layers of peaty turf in the construction, either a deliberate construction method, or perhaps indicating different periods of construction. The outer bank was of different simpler and slighter construction, bounded by a stone kerb. Good dating material and a pollen sequence was recovered. At Site B, immediately south of the Benedictine abbey church, re-excavation of another of Thomas' trenches revealed the character of a massive drystone wall and its relationship to the surrounding deposits. The wall appeared to be a revetment for a possible clay-bonded building with a curved end-wall which dated to the pre-Benedictine phase of the site, possibly an apsed church. At Site C initial attempts to locate and repair a broken field drain were abandoned due to flooding, but indications of occupation in the post-medieval period were recovered, along with possible prehistoric ard-marks, in an area with no previous archaeological investigations.

1 Introduction

1.1 Project Background

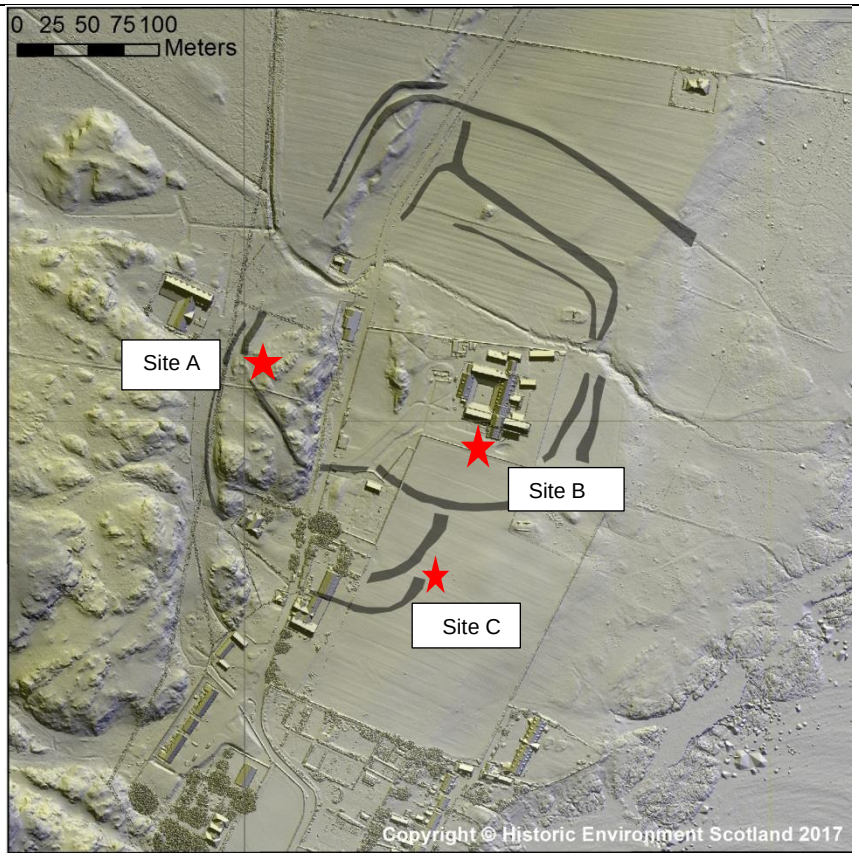
Following on from a Historic Environment Scotland sponsored project to bring Charles Thomas' 1956-63 excavations at Iona Abbey to publication (Campbell & Maldonado 2016; forthcoming), a programme of archaeological work was proposed involving targeted excavation at three locations around the Abbey. The only parts of Thomas' excavations previously published relate to the iron age fort of Dun Bhuirg (Ritchie & Lane 1980) and the structures on Tòrr an Aba (Fowler & Fowler 1988). The main focus of these excavations was to answer specific questions raised by Thomas' excavation, mainly through scientific analysis and dating of exposed sections in Thomas' old trenches. The project fitted into the national research framework priorities (ScARF 2012), as well as those of a new research framework for Argyll which was in preparation at the time (Campbell & Batey 2017), and ongoing work in preparing an Iona Research Strategy initiated by the Glasgow Iona Research group in the University of Glasgow in 2016. Thomas' excavations are important both for the interpretation of this iconic site which is of international importance, but also because of their influence on Thomas' thinking, expressed in a series of ground-breaking works on early medieval monasticism (Thomas 1971a; 1971b, 1981). The Scheduled Monument Consent (SMC) granted by HES allowed re-excavation of Thomas' trenches at Sites A and B, but at Site B restricted the additional areas that could be investigated (see illus 18), and stipulated that excavation should cease at the level of the walltop to avoid disturbing any early medieval deposits.

1.2 Site Location and Description

Iona Abbey is situated on the east coast of the Isle of Iona, a small island lying off the west coast of Mull, in the Inner Hebrides (illus 1). The site is very well documented with a full account of the monuments, historical background and location published as a separate volume of the Inventory of the monuments of Argyll (RCAHMS 1982). As far as the present project is concerned Sites A and B lie within the Property in Care (PIC) boundary, while Site C is within the larger Scheduled Ancient Monument area in a field owned by the National Trust for Scotland (illus 2). All the sites lie within a Conservation Area.

Geologically, the Abbey lies at the junction of three very distinct geological formations. To the west, Site A lies on the craggy outcrops of Lewisian (Scourian) gneiss which make up most of the island. Sites B and C lie on the raised beaches of Late Devensian age. A major fault runs north-south through the Abbey complex, with metamorphosed flagstones of Torridonian/Moinian age to the east, beneath the raised beach deposits. These rocks outcrop along the shoreline below the Abbey and provided building material. There are traces of quarrying where these flagstones have been levered out of the outcrops. The Ross of Mull granite, a much later Caledonian period intrusion, forms the opposite shore on Mull, but numerous large glacially transported boulders of this distinctive red granite litter the shore and raised beach on Iona, and were also used as building material and formed the bases of several of the High Crosses such as St Martin's.

Illus 1: Location of the site on Iona



Illus 2: Location of excavation sites in relation to Iona Abbey and monastic enclosures. Lidar © HES

1.3 Archaeological and Historical Background

The historical and archaeological background of Iona Abbey has been extensively discussed, and it is not necessary or indeed possible to review this material here. Excellent accounts are to found in the Inventory for Iona (RCAHMS 1982) and a popular summary by Ritchie (1997). More detailed recent discussion of the archaeology can be found in papers by Aidan MacDonald (1997, 2001) Jerry O'Sullivan (1994a, 1994b, 1999) and Finbar McCormick (1992, 1993, 1997), with wider discussion by Tomas Ó Carragáin (2010). As far as the present report is concerned, the key points are that an early medieval monastery was founded around AD 563 by the Irish monk Columba (Gaelic *Colum Cille*) and by the seventh century was the centre of a monastic network stretching across Scotland, Ireland and northern England. Iona became one of the leading intellectual and artistic centres in northern Europe by the eighth century, with the production of illustrated manuscripts such as the *Cathach* of Columba and the *Book of Kells*, the development of the ringed High Cross of characteristically Celtic type, and the production of a range of theological and other literary outputs. The *Life of Columba* by Adomnán the ninth abbot of Iona (Sharpe 1995), written at the end of the seventh century, gives a great deal of incidental detail of life in the early monastery. Norse raids are documented from the late eighth century, but the monastery survived and became a centre of Culdee monks until the late 12th century, though almost no records survive of this period. The site was then replaced by an independent Benedictine community in 1203, when the present layout of Romanesque monastic buildings was commenced. The Abbey was extensively redesigned and enlarged in the 15th century and survived until the Reformation when it fell into ruin. The cathedral church was renovated by the Duke of Argyll around 1900, and from the late 1930s the other monastic ranges were rebuilt by the Iona Community, an ecumenical movement concerned with social justice, which occupies the buildings at the present day. The buildings are owned by the Iona Cathedral Trust, but were placed in State care in 2000 and are a Property in Care managed by Historic Environment Scotland. The surrounding land is mainly owned by the National Trust for Scotland.

2 Methodology

2.1 Personnel:

The project director was Dr Ewan Campbell (Archaeology, University of Glasgow); site director was Cathy MacIver (AOC); and geophysics was undertaken by Dr Adrián Maldonado (Archaeology, University of Glasgow). A small but very experienced team included Derek Alexander (Head of Archaeological Services, National Trust for Scotland); Peter Yeoman (Yeoman Heritage); Richard Strachan (HES); Jamie Barnes, Aurime Bockute and Heather Christie (all University of Glasgow post-graduate students); and Joss Durnan (Rathmell Archaeology Ltd).

2.2 Excavation

The excavation took place from 13th May to 3rd June 2017. The weather was generally good, and came at the end of an exceptionally dry period for the island. All excavation was undertaken by hand due to the sensitive nature of the site. Spoil was stored in one tonne builders' bags to keep the site

tidy and prevent damage to the lawns. All contexts were recorded in plan and section as appropriate by measured drawing, by digital photography and by written description on pro forma sheets. The trench location and the locations of all artefacts was recorded in three dimensions using total station and dGPS. Trenches were tied into the OS grid and OS datum with the dGPS and using the HES survey pegs. Detailed, individual plans of all trenches were drawn, at significant stages of excavation, at a scale of 1:20. All sections were drawn in detail at a scale of 1:10. All drawings were annotated with site feature numbers, site code, scale, date and name(s) of staff. Colour digital photographs were taken of all stages of work, recording the general location of works, plus detailed coverage during and on completion of the excavation. All photographs had a suitable scale visible. All photographs were listed in a full photo register (describing content, orientation and date). Description of all excavated material is expressed in terms of archaeological features, each of which is assigned a unique three-digit number. The numbering also references the site code and any individual trench number. Each discrete feature is described on a site pro forma, which covers stratigraphic relationships, finds, physical description, location, drawing references and interpretation. All artefacts were retrieved as special finds and recorded spatially in three dimensions. They were treated in full accordance of standard guidelines for conservation in the field. These records are presented in the appendices to this report. Subsidiary geophysical survey work took place in the north-western parts of the monastic enclosure and at Cladh an Dìsirt to the north, and are reported on separately (Maldonado 2017).

2.3 Sampling

Bulk soil samples (small 5 litres; medium 10 litres; large 20 litres) were taken from well-sealed deposits and potentially-informative deposits to recover dating evidence as well as palaeobotanical remains. Several of the samples in Trenches 1 and 2 were from previously excavated sections rather than excavated deposits and were therefore spot samples (1 litre). Soil samples and monolith columns were taken using Kubiena tins for micromorphological analysis. The pollen cores were taken by Dr Tim Mighall of University of Aberdeen, the soil samples by Dr Sarah Elliott also of the University of Aberdeen.

The bulk of the soil samples were wet sieved and the results are presented in App 6. The retrieved artefactual material has been incorporated in the site finds. Sub-samples and residues have been retained. The waterlogged samples from the base of the ditch will be floated by Dr Susan Ramsay to extract the macro-plant material and any other material such as insect remains or artefacts.

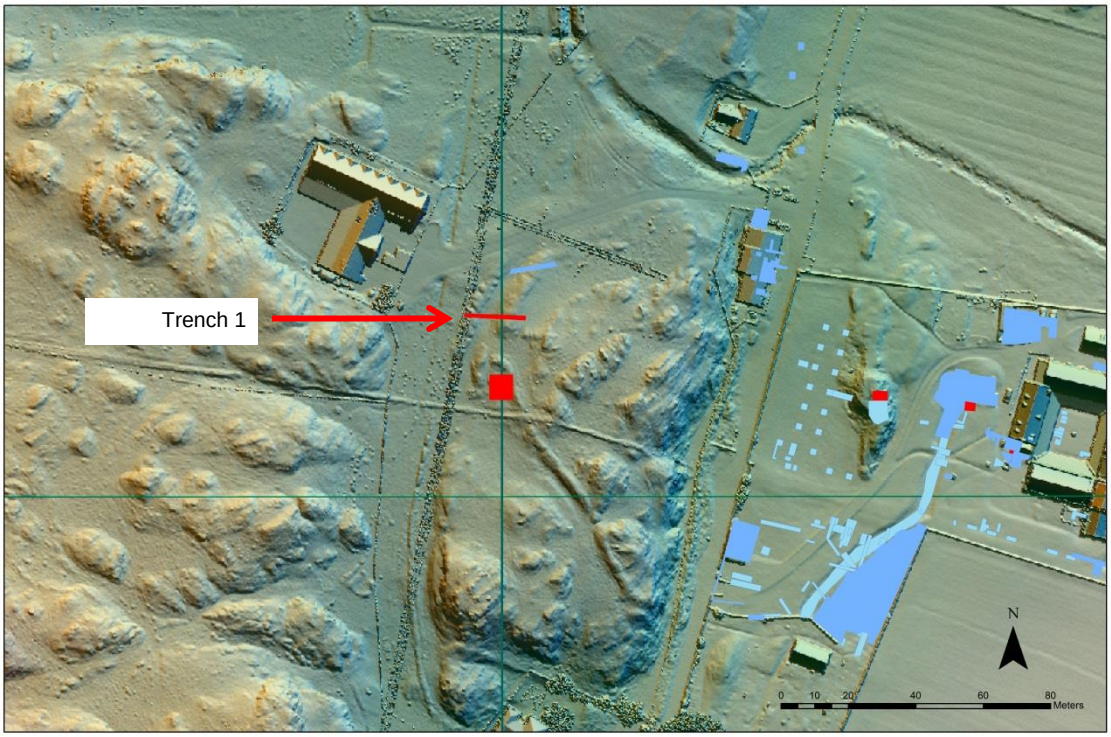
2.4 Objectives

The principle objectives of the archaeological excavation were:

- To locate and re-excavate two of Charles Thomas's cuttings
- To record the character, extent, condition, quality, date and significance of the archaeological remains within Charles Thomas's cuttings
- To sample deposits for post-excavation work, including environmental analysis and dating
- To investigate the nature of the drystone walling seen in Thomas' Cutting 11d

3 Excavation Results

3.1 Site A (Site code HY17A)



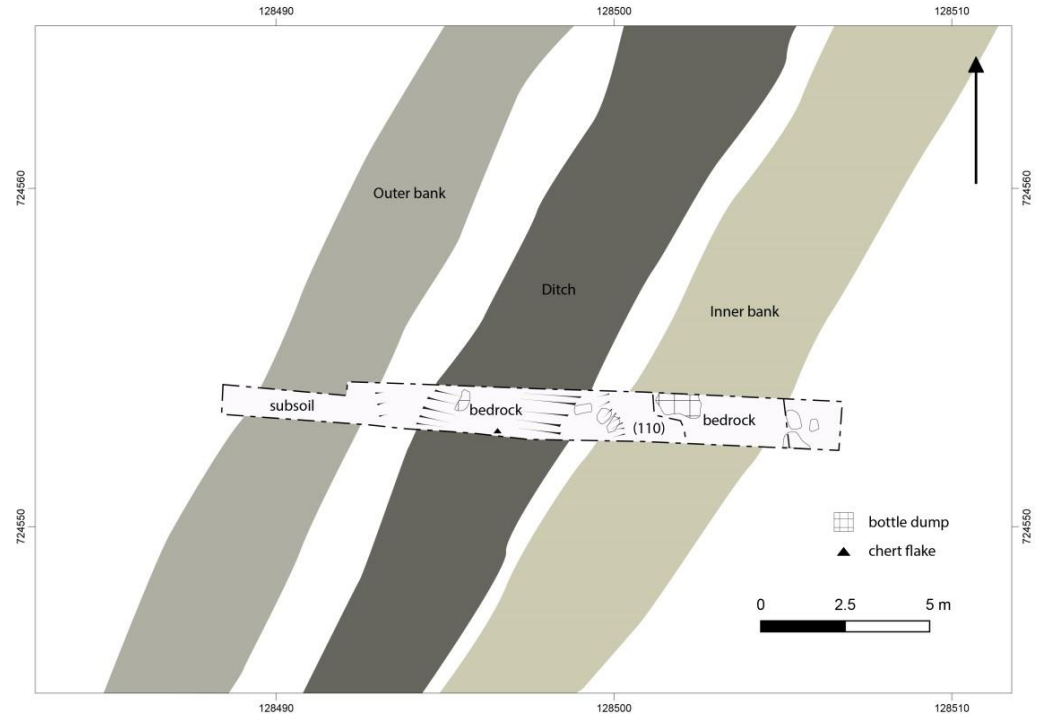
Illus 3: Location of Trench 1 (Thomas' 1956 trenches in red, other trenches in blue). Lidar data © HES

Site A was located on the western edge of the monastic enclosure, amongst the rocky knolls of Cnoc nan Càrnan, at a height of 30-32m OD (illus 3). Trench 1 (centred at NM 28497 24553) was 18m long by 1.4m wide and 1.5m deep (max) and was targeted to re-excavate Cutting 6 from the campaign of excavation run by Charles Thomas in the 1956 season. The Cutting was originally placed to investigate the monastic enclosure boundary on the western edge of the site. In this area a large enclosure bank with exterior ditch is easily identifiable on the ground (Illus 4-6). To the south of the cutting was a noticeable break of c. 5m wide – hypothesised to be a possible entranceway through the bank – and a change in direction of the bank where it curves to the southeast. Lying to the west of the large bank and ditch is a smaller bank, possibly a later addition to the boundary here, or even a more modern field boundary. The bank and ditch together make an impressive earthwork, and excavation showed that the original difference in elevation from the base of the ditch to the top of the inner bank was at least 4.0m. The chronology of these features is uncertain, as a relatively broad and unsecure date from later excavations on the site of a service trench 10m to the north of Trench 1 dated the buried soil at the base of the inner bank to the middle Iron Age (McCormick 1993, 80). As there may

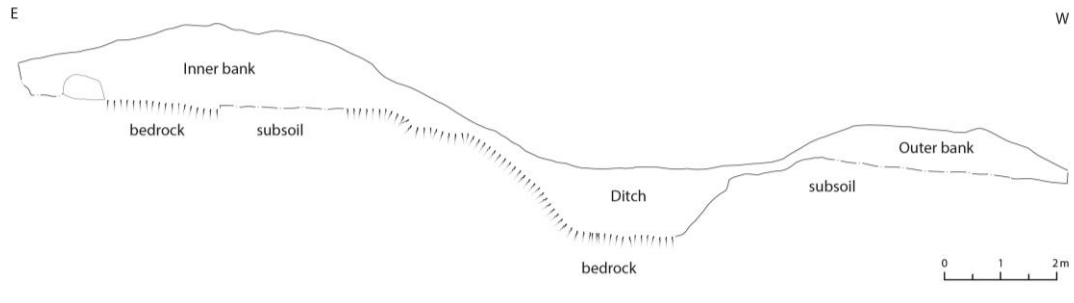
have been a break between the formation of the soil and the construction of the bank it was important that the features were re-examined, and re-dated using modern techniques and analysis. As part of this investigation, two pollen cores were obtained from waterlogged areas immediately south of the ditch section, on either side of the field wall which runs east-west across the boggy area: Core 1 at NGR NM 28487 24528 and Core 2 at NGR NM 28483 24522. It had been hoped to take a core from the ditch beside the excavated trench in order to compare the findings with those from the excavation, but the sediments here were too hard to core by hand. This was part of a scoping exercise to assess the usefulness of coring in providing a chronological framework for complex patterns of ditches such as those found at Iona.

Illus 4: Pre-excavation view of the banks and ditch, looking south, Thomas's trench visible as slight hollow in bank. The core samples came from around the area of the electricity pylon on the right.

The original trench was located approximately in the Iona GIS using notes from Thomas' archive. Once on site it was clear where the trench was located due to slumping and breaks of slope that could be observed on the ground, particularly through the inner and outer banks which had noticeable hollows marking where the cutting had run. A 0.8m slot trench was de-turfed by hand and topsoil (100) removed over the cutting edges across both inner and outer bank to clarify the exact edge and orientation of the cutting and avoid any overcutting during the 2017 season. The trench was then deturfed and rapidly emptied by hand, chasing the edges, until all backfill (101) was removed and the original cutting was re-established.



Illus 5: Plan of Trench 1 in relation to banks and ditch



Illus 6: Profile of the banks and ditch

As topsoil was removed from the outer bank a coin (SF 103) identified as a 1964 Irish shilling with bull and harp still legible on either side was discovered. The date of this coin and its location at the surface of the topsoil implies a casual loss from someone wandering over the site years after the excavation. As backfill (101) was removed several finds were made. Several sherds of modern pot (SF 100) were identified, a redeposited chert flake (SF 101), a fragment of burnt flint (SF 104) and a leather shoe heel (SF 105), presumably belonging to one of the excavators. At the base of the cutting in the area of

the inner bank a large deposit of glass beer, tonic and spirit bottles was found (illus 7). Later a smaller deposit of glass bottles was also found towards the base of the cutting in the ditch, helping to clarify beyond doubt the depth of excavation that occurred here in 1956.

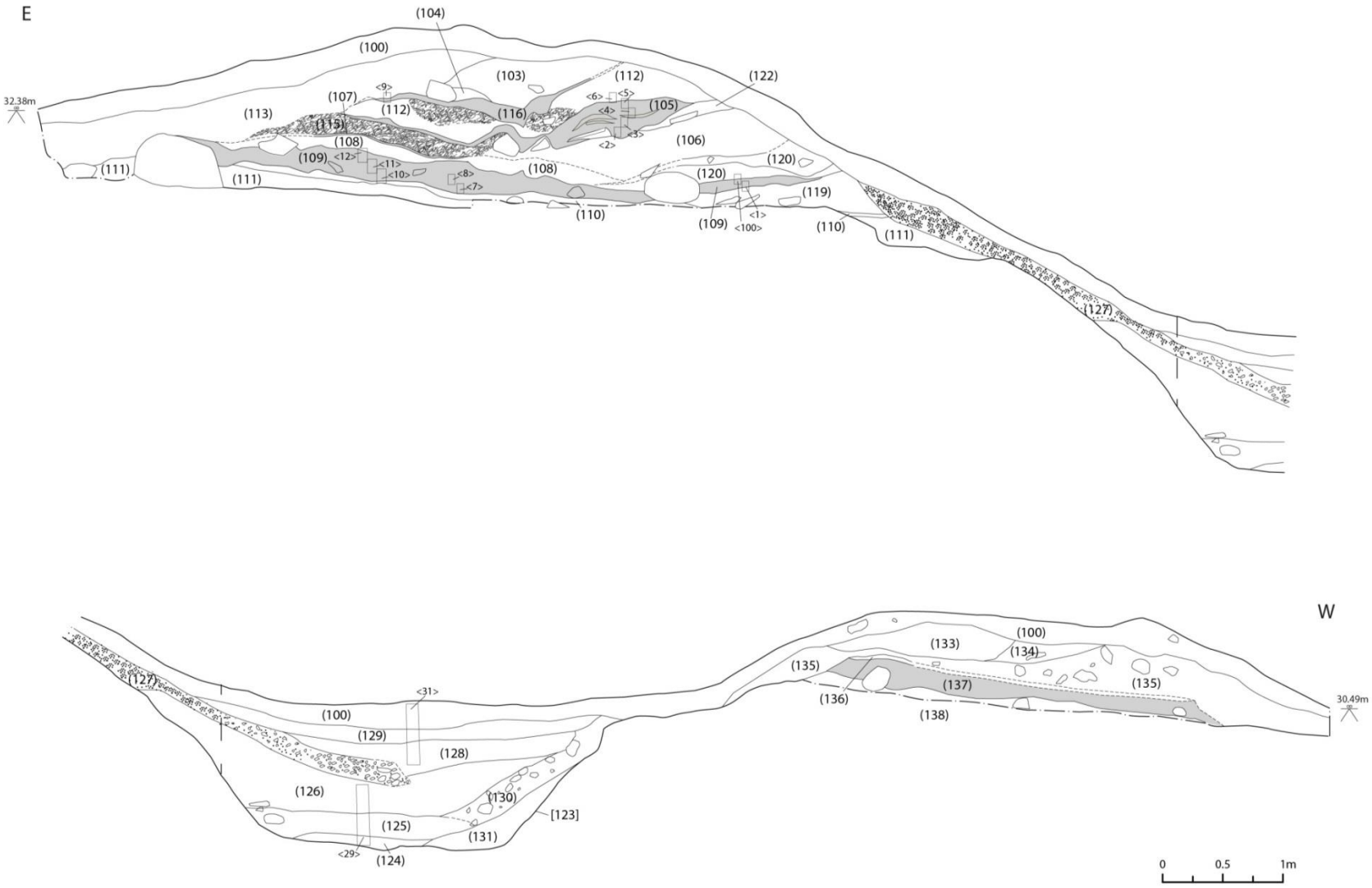
Illus 7: The main dump of bottles at the edge of the inner bank in the backfill

Illus 8 Bottles from the dump, including Red Hackle deluxe whisky bottle

The bottles consisted of more than 40 individual vessels, although many of these were broken. The assemblage included: more than 25 brown beer bottles, manufacturer unknown but quite distinctive grey caps with an orange rubber seal; 2 green J.R. Tennents bottles; 2 green GY (Gordon Younger) Alloa, beer bottles; 1 Gonzalez (sherry?) bottle with cork; 1 green Gordons gin bottle; 5-6 Roses tonic bottles (identifiable from the cap which is silver/white and dimpled fragments of glass with the tag line "Makes Thirst Worth While"); 1 clear Red Hackle whisky bottle. From the shape of this bottle and the visible label it was identified as, a now rare De Luxe blended Scotch Whisky aged in sherry wood and bottled by Hepburn and Ross Ltd of Glasgow in the 1950s/60s (illus 8). A small sample of the best examples was retained for the archive and photographs were taken of the rest. At the time of excavation Iona was a 'dry' island, and alcohol was frowned upon by George McLeod, so these bottles had to be disposed of surreptitiously (Peter Fowler pers comm).

During the process of emptying out the backfill it became clear that the original cutting had got close to but not fully bottomed the ditch, with one basal layer remaining waterlogged and unexcavated at c. 1m below the turf. This was deeper than the recorded section drawing indicated and it was surmised that the section had been drawn only as far as it was visible after the ditch had been seriously flooded in the wet 1956 season. The excavators had clearly managed to excavate further before the ditch had flooded, making drawing the deeper areas of the section impossible. The cutting also narrowed to 0.5m wide through the outer bank, which was a less substantial feature than the inner bank. The other observation made was the team had carefully cleaned the S-facing section (the one that was drawn in 1956) as several hollows were noted where larger stones had subsequently fallen out. In contrast the N-facing section had not been straightened or well cleaned and several large stones in the section had been left with large soil pedestals or baulks beneath to support them. In most places in the inner bank the 1950's team had excavated through the base of the bank, through an old ground surface, to reach bedrock or in places a compact and sterile natural subsoil.

The trench edges were carefully cleaned to remove any remaining backfill and recorded through measured drawing, photography, photogrammetric and experimental infra-red photography. Detailed written descriptions of each layer were compiled and stratigraphy and sequences worked out in advance of sampling. In the section through the outer bank the trench was widened to 0.8m to allow excavation and for better photographs to be taken. After recording the area through the inner bank several of the small baulks towards the base of the N-facing section that Charles Thomas had in left to support large stones in the section were removed and cleaned up to carefully establish exactly how the layers of the inner bank constructed related to each other across the cutting.



Illus 9: North-facing section of Trench 1

Illus 10: South-facing section of Trench 1

Illus 11: S-facing section of the inner bank, looking east, showing bedrock boulders

Illus 12: S-facing section of the inner bank on the inner face, looking west

Inner bank

The inner bank was found to be around 6.0m wide and 1.2m high, though the inner edge was not easily defined (illus 9-12). The inner bank sections were examined to interpret the stratigraphy.

Bedrock was encountered in many places at the base of the section through the inner bank. Overlying this was a mid brown sterile subsoil of glacial deposits (111) and then a thin lens of white grey sandy clay (110). Above this was a dark black peat-rich layer (109/119) which consisted of peat-rich materials with thin lenses of sand in places. It is likely these layers represent an original podzol soil profile with (109/119) as the humic layer and (110) as the gleyed horizon, but it is perhaps possible that (109/119) represent layers of turfs laid down at the base of the wall. The preservation of this layer was much clearer under the body of the inner bank material as the deposition of material directly on top of the turf had preserved the peat component differently from areas where it was open to disturbance and natural processes of erosion and bioturbation. However, the horizontal variation in the layer calls into question the interpretation of the iron age date obtained from the same layer in the 199x trench to the north (McCormick 1993, 80). A series of layers above this (120), (121) represent initial layers of deposition on top of the peat-rich material. A horizontal band of material (108) is present above (109) which 'levels' the bank and widens the base of the feature. Overlying this is a thin lens of dark black brown (107) which is also peat-rich. This could represent either a layer of turf laid down to consolidate the loose bank material or perhaps a pause in construction where turf and grass has developed over the bank (illus 13). A thick layer of loose stony material (106), similar to the natural, was identified at the western edge of the inner bank, near the cut of the ditch. This material seems likely to have been upcast from some of the ditch digging due to its location and form. A series of smaller dumps of material were deposited after this to broaden and heighten the bank (117), (122) and (132). A very stony deposit of material on the east edge of the bank (115) was quite distinct from the rest of the material used in constructing the bank and could have been quarried from elsewhere or brought in to provide some larger inclusions. Subsequent to this was another peat-rich turf consolidation layer or pause in construction (105). A substantial dump of very stony material (112) was deposited on top of this turf layer and another lens of dark black peaty material (116) could represent another turf layer or pause in construction. Above this layers of material slant gradually down the inner eastern face of the bank (104), (103) and (113). These layers, which underlie the topsoil (100), likely represented slumping of bank material over time due to erosion. A similar sequence of layers is seen in the north-facing section though the detailed morphology of the layers differs.

Illus 13: Detail of the peat rich lenses indicating laid turf layers or pauses in construction

Illus 14: sample of waterlogged organic material from (124) in the base of the ditch

Ditch

The ditch runs along the outer edge of the inner bank and runs parallel with it in the region of Site A which implies the two features are associated in date. The ditch was a 4m wide bowl-shaped cut [123] with an irregular flat base (illus 15). It had a steeper vertical edge cut through layers (111) and (110) to bedrock on the east. The west edge was also steep but cut into glacial till deposits rather than bedrock. The ditch was filled initially with a small slump of material (131) on the west edge, presumably erosion from the loose edge as the ditch was being cut. The main basal fill of the ditch was a reddish-brown peat-rich layer with organic material preserved in a waterlogged state (124). Within this layer were twigs, branches and remains of other organics, possibly straw (illus 14). This short-lived material lying directly above the bedrock should provide a key to dating a time soon after the cut of the ditch. Whether this material was deliberately deposited is unclear and may be resolved by analysis of the macroplant remains. Above this layer the ditch had been excavated by Charles Thomas' team and the layers were observed and sampled from the sections. Overlying (124) was a reddish brown silty clay (125) with fragments of burnt bone which lay across the base of the ditch. Material slumping in from the west (130) and material from the east (126) were noticeably firmer and had specks of rusty red iron panning in them. Above this organic rich sequence of deposits a layer of well graded stony material had eroded in from the eastern edge (127), demonstrating material from the inner bank was eroding into the ditch, perhaps once the boundary was no longer being actively maintained. This stage may represent a break in deposition or a renewal of the inner bank, and will be investigated by analysis of the large monolith samples taken from the section. Above this stony layer were a couple of layers of fine grained organic-rich material (128) and (129), evidence of silting up of the ditch.

Illus 15: S-facing section of ditch showing stony layer (127) and bedrock on east side

Outer bank

The outer bank was a smaller feature than the inner bank and set back from the western edge of the ditch with a flat terrace or berm of about 2m between them (illus 16). The outer bank was about 2.0m wide and 0.6m high. It therefore seems likely that the outer bank was constructed at some point after the ditch and inner bank system and was deliberately positioned to respect but not overlap the edge of the ditch. The construction of the outer bank was also simpler than the inner bank. A layer of dark mottled sandy silt (138) was visible below the inner bank where it had been overcut by Thomas' Cutting 6, which overlay a sterile yellow glacial deposit. Above this was a thick peat-rich dark layer (137) overlain by a thin lens of grey sand (136) similar to (110), under a thin lens of dark black turf material (139). These layers could represent the old ground surface or a turf layer laid down at the base of the bank. These layers were clearly bounded by rough kerb stones (143) on the S-facing section – implying this is the core of the bank and the material to east and west (140) represent slumped material. Above (139) was a layer of small angular stony material (135), redeposited natural forming the core of the bank. This was under upper layers of bank material (134) and (133) which were directly under the topsoil (100).

Illus 16: S-facing section of outer bank showing stone kerb (143) and dark buried soil (137)

Sampling

Sampling was carried out after the sections had been recorded and consisted of a series of Kubiena and small monolith tins taken from areas of the inner bank (N-facing section), large monolith tins from

the ditch sections (N-facing section), a small monolith tin taken from the ditch (S-facing section) and a Kubiena taken from the outer bank (S-facing section). Spot samples were also taken to complement these. These were targeted to answer specific questions raised by the re-interpretation of the inner bank and ditch formation and the relationship (if any) with the outer bank. More specifically:

- Sample <101> (Kubiena) was taken to investigate whether (109) is a truncated OGS.
- Sample <102> to <106> (Kubienas) were taken to investigate the nature of the turf layers in the bank and clarify if they were redeposited or natural turf growth, indicating a pause in construction.
- Sample <130> (small monolith) were taken to investigate the nature of the organic deposit at the base of the ditch, and clarify if it was it a dump or a natural build-up of organic material.
- Sample <129> and <131> (large monoliths) were taken to investigate the nature of the build-up of deposits in the ditch, provide dates for the sequence of events and investigate a possible break in deposition between layers (126) and (128).
- Samples <135> to <138> consisted of environmental cores taken from peat rich layers near Site 1 to better understand the pollen evidence for the area and clarify the environmental conditions and allow better sequences of dating.
- Samples <121> and <123> to <128> were taken as bulk or partially block lifted samples of the basal layer (124) of the ditch which was undisturbed by Charles Thomas's team and contained waterlogged organic remains including grasses, straw and twigs. The analysis of this and potential dating of this short lived material could give some insight into the activities and environment and also a date for shortly after the ditch was cut.
- Samples <122>, <132> and <133> were taken of the layer (125) above (124) in the ditch as it contained burnt bone and this could also assist with dating the sequence of deposition within this feature.
- Sample <134> (Kubiena) was taken to investigate the nature of the old ground surface at the base of the outer bank and also potentially provide comparison with the inner bank and ditch which are thought to be earlier features.

Illus 17: General view of Trench 1 after excavation, looking west

Discussion

Site A consisted of a single trench (Trench 1), re-excavating Cutting 6 from the 1957 season. This trench investigated the monastic vallum ditch and inner bank as well as an outer bank that was of slightly different character. From detailed analysis and recording of the sections of this re-excavated trench it is possible to clarify the nature and composition of the earthworks. The inner bank has clearly been constructed by initially throwing up material from the digging of the ditch and then adding additional deposits of other material, presumably sourced from quarrying elsewhere in the vicinity. What is not clear is whether the bank was built directly onto the old ground surface or a truncated layer of turf. It is also unclear whether the later multiple peat lenses within the bank represent more turf being laid down to consolidate the looser stony layers as part of the ongoing construction of the bank, or actually represent a pause in construction where turf had time to form. The soil samples aim to answer these questions by examining micro-stratigraphy and pollen.

Over time the inner bank has eroded with some material slumping to the west into the ditch after it had partially silted up. It seems likely that the ditch and inner bank were constructed at broadly similar times, with material from digging the ditch being used in the construction of the inner bank and later bank material slumping into the ditch. The ditch was c. 4.0m wide here, narrower than that seen in Barber's section (Barber 1981, 292), and was much shallower, presumably due to the bedrock encountered. The steep cut of the ditch in this location has resulted in there being little stratigraphic connection between the bank and ditch sections. However, there does appear to be a break in silting up of the ditch where stony material from the bank has eroded in. The organic-rich layer, left undisturbed by Thomas' excavation at the base of the ditch, could help with clarifying the earlier phases of the sequence and shed light on the original nature and chronology of this boundary and the activities or environment nearby. Does the organic material represent dumped animal bedding and straw or vegetation cuttings? Was it deliberately deposited to soak up water logging or does it represent natural infilling or vegetation growth?

The outer bank was demonstrated to be of different, simpler construction than the inner bank. It was set back from the ditch by several metres, built directly onto the ground surface and material had slumped to the west of the feature (the outside of the monastic enclosure), broadening the profile. There were no visible slumping layers from the east edge of the bank into the ditch, perhaps implying that the ditch had already partially silted up when this bank was constructed. The kerb stones bounding the core of the outer bank imply a different method of construction from the inner bank, making it originally a 'neater' linear feature rather than the more broadly spread feature it has become due to erosion. That information combined with the fact it is set back from the ditch in a boggy area could imply it is in fact a later field boundary, placed to delineate an area and keep animals out of a very waterlogged region over the hollow of the ditch. The outer bank follows the line of the inner bank and ditch in this location but deviates on the south side of a modern field boundary and continues directly to the south rather than curving round to the south-east and up and over the high outcrops like the inner bank. Sampling of the turfy material from the outer bank will provide the opportunity to spot sample and date this feature in comparison with the ditch and inner bank.

3.2 Site B (site code HY17B)

The excavations in this area, lying within the PIC boundary and 14 metres south of the Benedictine Abbey church, were concentrated on re-excavating Thomas's 1957 Cutting 11d (NGR NM 28662 24484). This trench had exposed a drystone wall of enigmatic nature (Campbell & Maldonado 2016, 51-2, figs 40-1). In order to understand the function of this wall, SMC was sought and obtained to re-excavate Thomas's trench (Trench2a) as well as opening areas extending on either side of the wall (Trenches 2b, d) and across its thickness (Trench 2d) in order to establish its line and nature (illus 18). Consent precluded excavation of interior deposits, or deposits below the surviving wallhead. Each of the trenches was excavated separately – they will be described individually then a synthesis presented. Prior to excavation a GPR survey was undertaken to try to establish the line of the wall, but the results were inconclusive (Ovenden 2016). Previous resistivity and gradiometry surveys had also failed to reveal any coherent pattern, though with hindsight the resistivity results show a similar arc-like feature (GSB 1995, fig 11).

Illus 18: Site B trenches 2a-d and Charles Thomas' trenches (grey)

Trench 2a

Initial location of Thomas's Cutting 11d was aided by the plans established from Thomas's archive, and by a line of stones at ground level left by the excavators to indicate the underlying line of the wall.

These stones had become grassed over in recent years, but on deturfing were revealed to be a line of mortared stones. Similar reconstructions in 1957 took place on Tòrr an Aba (Fowler & Fowler 1988, 196) and in Thomas's Trench 12 in the south-east angle of the cloisters. Once modern topsoil (200) was removed in a slit trench across this modern wall, Thomas's backfill was apparent, enabling the trench to be excavated. The trench [251] turned out to be within a metre of the predicted position, confirming the accuracy of the present authors' reconstructed plan of Thomas's trenches (which differs significantly from the only previously published plan (O' Sullivan 1999, fig 7). It measured 3.0 x 1.2m (originally 10' x 4') and was 1.7m deep. One of Thomas's section nails was still in section (SF 250, illus 19) – a re-used tent peg - and a 1937 penny was found at the base of the backfill (SF 203) (illus 20). A coin was also found in the backfill of Thomas's 1956 Cutting 2 when it was re-excavated by Redknap (1977, 237). Deposition of coins before backfilling is a long-standing tradition amongst archaeologists.

Illus 19: Mementos of 1957 dig: SF250 tent peg used as section nail

Illus 20: SF 203 1957 backfill closing deposit

Removal of the backfill (202) by shovel was straightforward. Few artefacts were found: apart from a handful of modern pottery sherds derived from the topsoil, there were two sherds of medieval pottery and a few iron nails. Thomas recorded only slag, stone and bone from this trench. The backfill produced a large quantity of iron slag which was clearly derived from context 208, as this was the only context cut through by Thomas' trench which contained slag, so provides a sample of a well-stratified medieval iron-working deposit. The finds records show that Thomas did not retain any slag from this trench, so it would have been all backfilled. However, as the slag layer (208) does not appear to be *in situ* metalworking debris, there already has been a degree of sorting of the material so it can only give a qualitative picture of the iron-working processes being carried out. The other important find was a large part of a human femur (SF 212) which was almost certainly from the burial cut through by Thomas and illustrated on his plan (Campbell & Maldonado, fig 41) and surviving running into the east section (SF 253). Although technically unstratified this bone will give a date for the burial, and can be compared to another fragment obtained from cleaning the south section (SF 243). Thomas's trench

had overcut into the natural soil and subsoil in places – they were confused by iron-panning here as elsewhere on the site (see illus 22). It was also apparent that the original excavators had removed part of the drystone wall (203) before they realised it was a structure. It could be seen in section that one or two courses of the wall had been dug through. However these two courses had then been replaced in a fair approximation of the build of the original wall (illus 21). On top of this, a much more crudely built single skin of walling (201) about four courses high (0.35m), mortared only at the surface, had been constructed in 1957 to carry the line of the wall up to ground level. The wall measured 2.1m x 0.4m. These upper four courses of walling were removed with HES permission, as it had no structural stability, and would have prevented any further excavation of the 1.5m deep trench below it because of safety factors.

Illus 21 Wall (203) with reconstructed upper mortared part (201) still in situ

After removal of backfill (202), the sections were cleaned, photographed and drawn before Kubiena tin samples were taken by the soil micro-morphologist (Dr Sarah Elliott). The sections exposed revealed a very well-stratified sequence of deposits which butted against the battered face of the wall and clearly post-dated its construction (illus 22). The part adjacent to the eastern end of the wall had been affected by water running down the front face of the wall, leading to some diffusion of the soil layer distinctions. This explains the ‘disturbed’ label on the original section drawing which had raised the possibility that this was a construction trench, but with care it was possible to trace these layers across this area, showing that there was no possibility that the wall post-dated these contexts. At the western end of the trench, the wall met the trench corner, making it difficult to clean and draw, and impossible to photograph, but the relationships were much clearer. The section of deposits revealed in the north, east and south faces of [251] showed that the context varied over quite short distances, with lenses of sand, gravel and soil. However, an overall division into a broad series of deposits (207-211) was fairly consistent through all the sections, with other intermittent layers (216, 217, 242) in places. Multi-

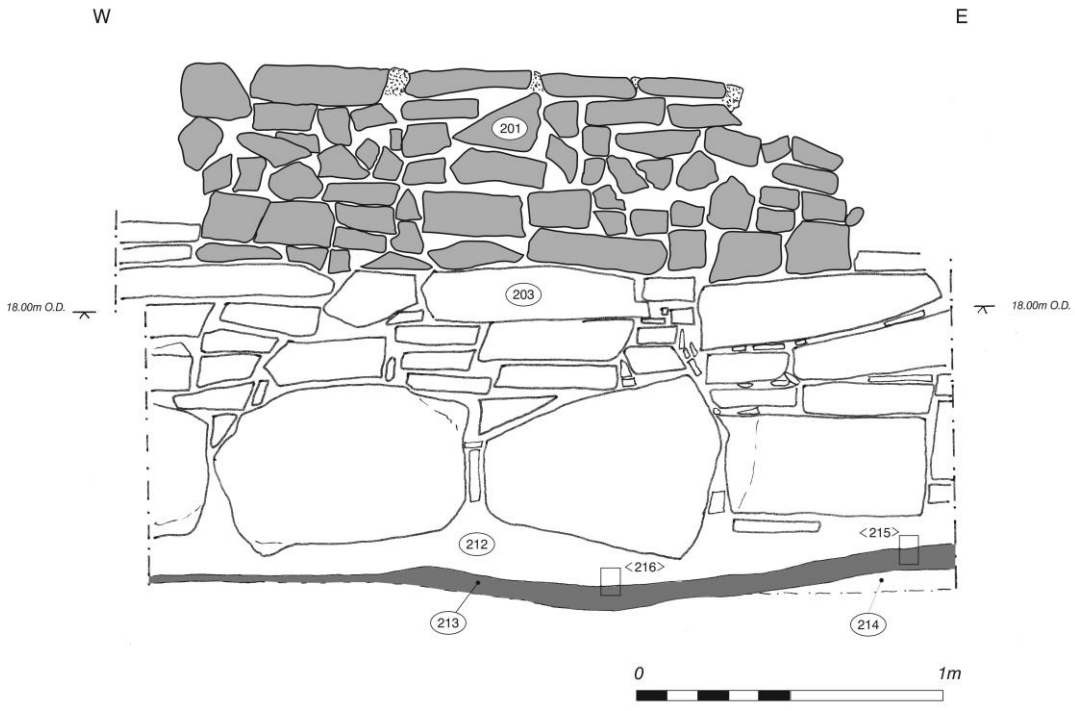
spectral imaging of the deposits revealed structure within the deposits that was not visible initially (illus 23).

Illus 22: Stratification butting wall (203), looking east

Illus 23: Multi-spectral image of the same section showing enhanced resolution of layers

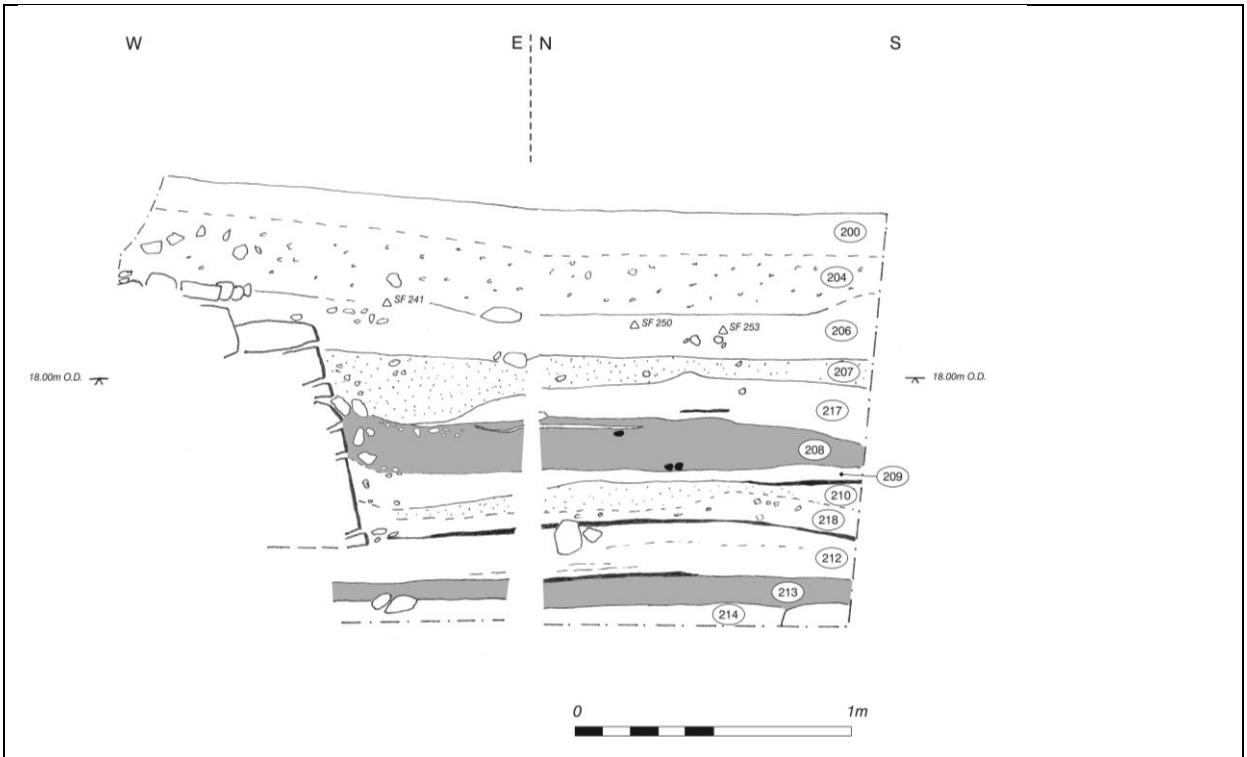
The wall face of (203) as exposed here was a substantial structure. The lower course consisted of a line of massive blocks up to 0.7 x 0.6m in size. Above this, slabs were laid roughly horizontally, though not coursed, with small pinning stones (galleting) (illus 24, 25). Most of the material consisted of local schistose flags quarried from the shore exposures to the east of the Abbey, but there were a couple of Ross of Mull granite slabs about 0.9m above the base. As already mentioned, the two courses above this had been rebuilt by the excavators. The wall was carefully battered, and the amount of batter increased from 0.05m to 0.15m to the east, where the line started to curve. Although the stones had not been faced, natural flat planes in the rocks had been carefully selected to give a smooth outer surface to the wall. Considerable skill in drystone building construction was evident.

Illus 24: Wall (203) fully exposed with (201) removed



Illus 25: Elevation of revetment wall 203 with modern addition 201

Underlying the wall (203) was an old soil horizon (213), a brown sticky layer up to 0.1m thick, lying on the post-glacial sands of the raised beach (214). This contained occasional decayed granite boulders and lenses of sand. On its surface was an intermittent darker layer (233, 242) which may be a decayed turf. The wall itself had been built on a layer of coarse yellow sand (212) up to 0.3m thick, which had been used as a levelling layer. This layer underlay and surrounded the lower parts of the basal course of stones. The upper surface of this layer appeared to be fairly flat, in contrast to the succeeding deposits which all thinned away from the wall, but there was no sign of occupation deposits on this surface, suggesting there was not a long interval between the construction of the wall and the deposition of the succeeding deposits. These deposits, in total about 0.6m thick, gave the impression of being dumped deposits, rather than gradual accumulations of soil, though the soil micro-morphology should establish whether this is the case and dating should tell us if they accumulated over a long period of time (illus 26). The bulk of the layers are clean sands and gravel of yellow to orange colour, and clearly derived from the natural sands of the raised beach deposits, though some were dirtier (217, 241). Within this sequence was thick black layer (208) up to 0.2m thick, full of charcoal and large pieces of ferrous metalworking debris including hearth bottoms, furnace lining, tap slag and other material. This layer was thickest abutting the wall, and thinned southwards to nothing about 1m from the wall face, suggesting it had been dumped over or outside the wall. It did not appear to be an *in situ* metalworking area. Another black layer (211) in the east part of the trench, was much thinner (0.02m) and greasier, and there were lenses of charcoal rich material within 217 and over 208 in the west. The uppermost of these layers (207) was a dirty yellow sand up to 0.3m thick against the wall, thinning away from it.



Illus 26: Section drawing of north-east and east face of Thomas' trench

This whole sequence of deposits was sealed by 206, a mixed brown soil with stones, mortar and slate fragments up to 0.2m thick. This layer overlay the top courses of the wall, showing that it post-dated the demolition of the wall, and that the exterior ground surface was at this height (c 18.20m OD) at that time. At the western end of the trench this context was labelled (229) and had more rubble within it, including large blocks which appeared to be pushed-over wall facing stones, suggesting a period of deliberate destruction. The presence of mortar and slates suggest a medieval date, and a rim of green-glazed redware of later medieval date (SF241) was found on its upper surface within the section. Within this layer were the burials cut through in the earlier excavations (SF 243, SF 253). The relationship of these burials to (206) was unclear; they were either contemporary or cut through it. If they were contemporary, they must have been interred very close to the surface. This seems unlikely, suggesting that there has been some erosion of the overlying deposits in the late or post-medieval periods. A stone slab under the vertebrae exposed in the section may be the base of this grave. There appear to be two different intersecting burials here, both aligned east-west with heads to east, and also aligned with wall (203). This alignment, which differs from the alignment of the 13th-century Abbey church, suggests that they were interred while the building of which 203 is part was still standing. The westernmost burial (243) appears to have been of a younger individual. The skull of this burial was cut through by Thomas, but vertebrae were seen in the section (SF243). The other burial was a more robust adult, with leg bones protruding from the east section (SF253) – SF 212 almost certainly derived from this burial, which may have cut by the other burial as there are no sign of feet on Thomas's plan of the burials.

Above this level was a thick sequence of dark brown soil containing mortar lumps and shell fragments (206-204) up to 0.3m thick. In places it was possible to distinguish a lower layer 206 with mortar lumps, and an upper layer 205 with shell fragments. To the west, the lower part of this deposit had a thick lens of mortar-rich material (239) mixed with sandier parts, up to 0.25m thick. Unlike other mortar-rich deposits this appeared to not be *in situ* mortar-mixing deposit, but a levelling dump filling a hollow in 206.

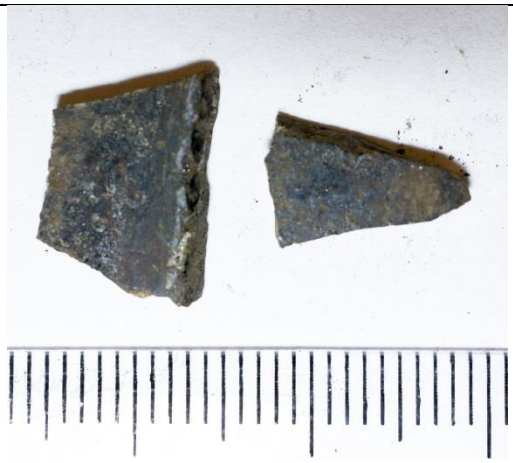
Trench2b

This trench, measuring 4m x 2m, was situated to the west of Trench 2a, and designed to establish the line of the wall. After removal of topsoil (200), a similar sequence of dark brown soils to those in Trench 2a was found, but they were cut by a large pit [219] in the south part of the trench (illus 27). This pit was full of voided rubble (215) up to 0.6m thick. In section, the southern part of this deposit showed a gravel layer (220) which represents the surface of the roadway built in the 1930s to service the workers huts which lay in a range to the east of the Abbey (illus 30). This road and the rubble pit are visible on the GPR (Ovenden 2016, figs 4-12). The pit was about 3m in length on its north side, and probably square. It seems to have been used to dump leftover stone from the rebuilding of the Abbey church around 1900. A piece of medieval architectural stonework (SF 238) of Carsaig sandstone, a mini pillar or pilaster, was recovered from the fill (illus 28). A small fragment of medieval stained glass (SF 237) came from the base of the pit (illus 29) – it was difficult to tell if this was from trample dating to the time of digging of the pit, or from the underlying deposit. The voided nature of the

fill, and the narrow strip exposed especially to the west, made it difficult to excavate without collapsing the section.

Illus 27: Modern stone pit (219) with overlying gravel road (220), looking south.

Illus 28: Pilaster SF 238

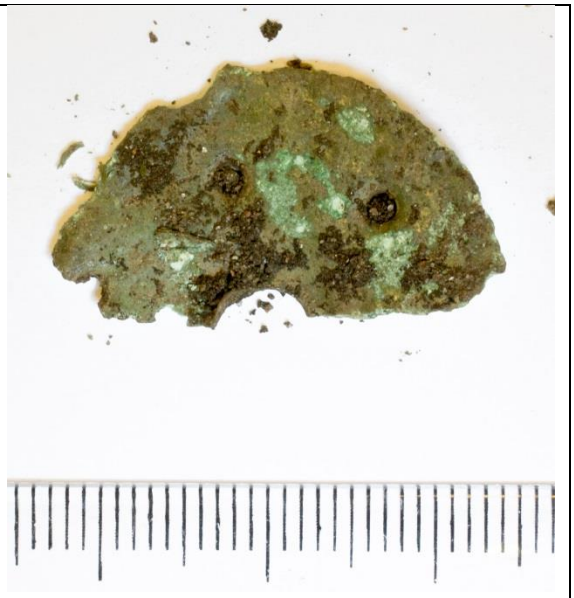


Illus 29: Medieval window glass SF 237

Illus 30: 1957 photo showing roadway (on extreme right) and huts for the Iona Community workers, and Cutting 11d being backfilled, with stones of rebuilt wall (201) just visible.

The total thickness of these brown soil deposits cut by the pit [219] was c. 0.5m, becoming thicker to the west. They were thus thicker than the equivalent layers seen in Trench 2a. Below an upper mixed layer with mortar flecks and shell (206), there was a thick lens of cream-coloured mortar (223) up to 0.25m thick in the west end of the trench. This appeared to be solid mortar rather than a dump with lumps of mortar like context (239), and may have been a mortar-mixing area. Below this layer and (206) was more dark brown soil (226, 227) up to 0.3m thick. This soil produced a number of medieval artefacts: a glazed bodysherd of Scottish White Gritty Ware (SF 244); a bodysherd of local handmade pottery (SF 245); a copper alloy square plate (SF 221) and a partial circular copper alloy plate (SF 225)(illus 31-2).

Illus 31: Copper alloy fitting SF 221



Illus 32: Copper alloy circular fitting SF 225

The western half of these deposits was not fully excavated as the pit had destroyed the facing of the wall here. In the eastern part of the trench a sequence of deposits was found below (226/7). An irregular setting of stones (228) appeared to form a small patch of paving. To its south three upright stones (229) looked like packing, though no posthole could be seen. Spread between these stones was a black layer (231) 0.1m thick which contained charcoal and slag. This may have been a ferrous metalworking area, though no burning could be seen. The black layer rested in places on a thin layer rich in yellow mortar lumps and flakes of slate (232) which filled the gaps between the stones of the wall core (230). It also extended westwards where it was cut by the pit [219]. Underneath it to the west there was a layer of brown soil with orange lumps of burnt ?soil (248) which lay over the wall core.

Removal of these deposits revealed the core and facing of the wall. The core (230) was of the same character as seen in Trench 2d, a voided random dump of local angular schist flagstones with a few granite pieces. The inside (north) edge could not be defined closely due to the presence of rubble here on the inside, but the wall appeared to be about 0.85m wide. Although some facing stones were seen on the south side, at least some of these appeared to have been pushed outwards, and other facing stones were seen at an angle to the south of the wall face (illus 33) suggesting deliberate demolition or levelling by pushing the stones into the lower-lying area outside the wall. The facing could be followed for c 1.6m before it became impossible to dig as it dropped in elevation, due to the unstable rubble fill of pit [219].

Illus 33: Outer face of wall (230) to right, with displaced facing stones in trench 2b to the left, looking north. Note also the possible butt join between the two sections of walling.

The area at the junction of Trench 2a and 2b was also difficult to excavate due to the SMC restriction and the confined area. However, there appeared to be a change in character of the walling just at this juncture of the trenches, and there were traces of a possible butt join between the section of walling in 2a and that in 2b. There was a long vertical stone at this junction whose position was different from all the other dumped material in the wall core (suggesting deliberate placement), and two large blocks lay in a line across the wall width. Only clearance of the tumbled material to the south of the wall, in order to see the outer face of the wall could resolve this issue. It seemed clear that the wall had been robbed to below interior ground level in this part of the site.

Trench 2d

This 1.5 x 2.0m trench was opened towards the interior of the structure in order to find the width of the wall and its character, and was therefore set at perpendicular to the line of the wall exposed in Trench 2a. After removal of topsoil, a similar series of deposits to those in Trench 2b was encountered, consisting of dark brown soil with spreads of mortar, shell and small stones, though the deposits were thinner here, totalling only 0.3m in thickness. In the north-western part of the trench, under the general layer of mixed dark brown soil (204) there were two lenses of material. The uppermost was a layer of soft grey mortar (225) up to 0.2m thick which filled a hollow. Underneath this was a dump consisting entirely of marine shells (224), presumably intended for mortar production. Neither layer extended into Trench 2b, though traces of mortar could be seen in the equivalent deposits there. Underneath these layers was a distinctive brown soil full large lumps of burnt orange soil but no charcoal (221), very

similar in character to (248) seen in Trench 2b. This material covered the northern half of the trench but stopped about 1.4m from the exterior face of the wall (203) so could not be seen to extend into Trench 2b within the confines of the excavated area. This material has been burnt, though not in situ, and the lack of charcoal is puzzling – a possible interpretation is discussed below. Beneath (221) was a cleaner mid-brown soil up to 0.3m thick (222) which extended over the whole trench and over the wall core (230). In one place there was a small thin spread of loose gravel between the wall core and (222). A single disarticulated and incomplete adult human femur (SF 219) was found in this deposit (illus 34). There was no sign of a grave-cut or any other parts of the skeleton, though there was a single vertical stone slab to the west on the same orientation which could be interpreted as part of a cist, or more likely, infill of a cut feature which disturbed the burial (visible in illus 35).

Illus 34: Disarticulated femur SF 219 under burnt layer (221) , looking south

It is possible that this bone was the last remnant of a disturbed burial, given its east-west orientation and its placement in relation to the putative building, though the orientation may be fortuitous. Whatever the case, dating should provide an indication of when burials were occurring in this part of the monastery. Although (222) appeared to cover the demolished wall core, it is possible that at least the lower part could represent deposits associated with occupation or use of the building, especially if (221) is to be regarded as a destruction layer, so this deposit was not further excavated due to SMC conditions.

Removal of these layers revealed the core of the wall (230) behind the facing stones, which consisted of a voided dump of angular slabs of local schist flags with blocks up to 0.4 x0.3 m in size. The wall was 0.8-0.9m wide here, and had no inner facing, so was a revetment. Along the inner (northern) edge

of the core was a line of rounded beach cobbles (238). This was initially interpreted as packing along an assumed construction trench for the wall [247], but it could equally or more likely be an internal deposit of the building, under (222). The character of the wall core here was identical to that seen in Trench 2b. If there was a butt join between the two sections (as was hinted at by the possible facing stones at the junction of the two trenches), they were built in the same fashion, using the same source materials. Whatever the case, there was a difference in ground level between the external and internal surfaces of around 1.0m when the wall was built. This explains why this part of the structure was constructed as a revetment rather than a free-standing wall.

Trench 2c

The final trench to be opened lay to the east and measured 4 x 2 m. Initially a narrow baulk was left between 2d and 2c, this was removed after drawing the western side of the section. After removal of topsoil, the surface was cleaned (234) at which point large stones started to appear, unexpectedly as this was unlike the situation in the other trenches. A mixed layer of building debris in brown soil (235) lay over and around these stones – removal started to reveal the wall and showed that it curved in a semi-circle here from east-west to north-south (illus 35). The top stones of the wall were at a higher level here (18.47m OD) compared to trench 2d and 2b and had not been robbed to the same extent. In fact the upper surface of the wall gradually fell in height to the west to 17.95m OD where it was cut by pit [219]. The wall (246) had a slightly different character here, with a built inner face and it narrowed to 0.7-0.8m wide. The core was also better constructed, rather than being a random dump of stones. The impression was that this was the bottom course of a wall, built on the underlying revetment. To the east, a spread of large tumbled blocks (245) similar in character to the wall facing stones, some angling down to the east, were encased in a purplish clay (244). This could be interpreted as the pushed over remnants of a clay-bonded wall, presumably reflecting the nature of the superstructure of the building, though it could also be a separate wall or other unrelated deposit. These contexts could not be further excavated. Removal of the baulk with Trench 2d produced some quantity of animal bone including partially articulated cow vertebrae <251> lying on the surface of (221). This was selected for radiocarbon dating. The burnt layer (221) extended into Trench 2c for a short distance, but did not reach the inner wall face.

Illus 35: Curving wall (246) and tumbled stones (245) set in clay (244) in trench 2c, looking north. Note also upright stone in Trench 2d in alignment with axis of building.

Synthesis and phasing

Although there are some difficulties in linking deposits between some of the trenches, and between the interior and exterior deposits, the overall sequence is clear, and can be divided into a number of discrete phases (Table 1, illus 36-7).

Phase	Description	Key contexts
Phase 3	Modern (20th cent) activities	219, 220, 251, 201
Phase 2	Medieval abbey building debris	204-6, 223-5, 239
Phase 1c	Demolition of structure	221, 229, 245, 244
Phase 1b	Occupation of structure	207-211, ?222
Phase 1a	Construction of wall (203)	212, 203, 230, 246
Phase 0	Old ground surface	213, 242, 211

Table 1 Phasing of deposits

Phase 0 is the pre-existing soil on the site. It is interesting that there was little sign of occupation deposits at this level in any of the exposed sections in Trench 2a, suggesting the structure was built on a previously unused area within the monastic enclosure. According to the geophysical survey of the

field to the south, the bank associated with the main ditch exposed by Barber in 1979 lies about 30m to the south (OCGU 2012). There were no artefacts recovered though samples were taken for dating.

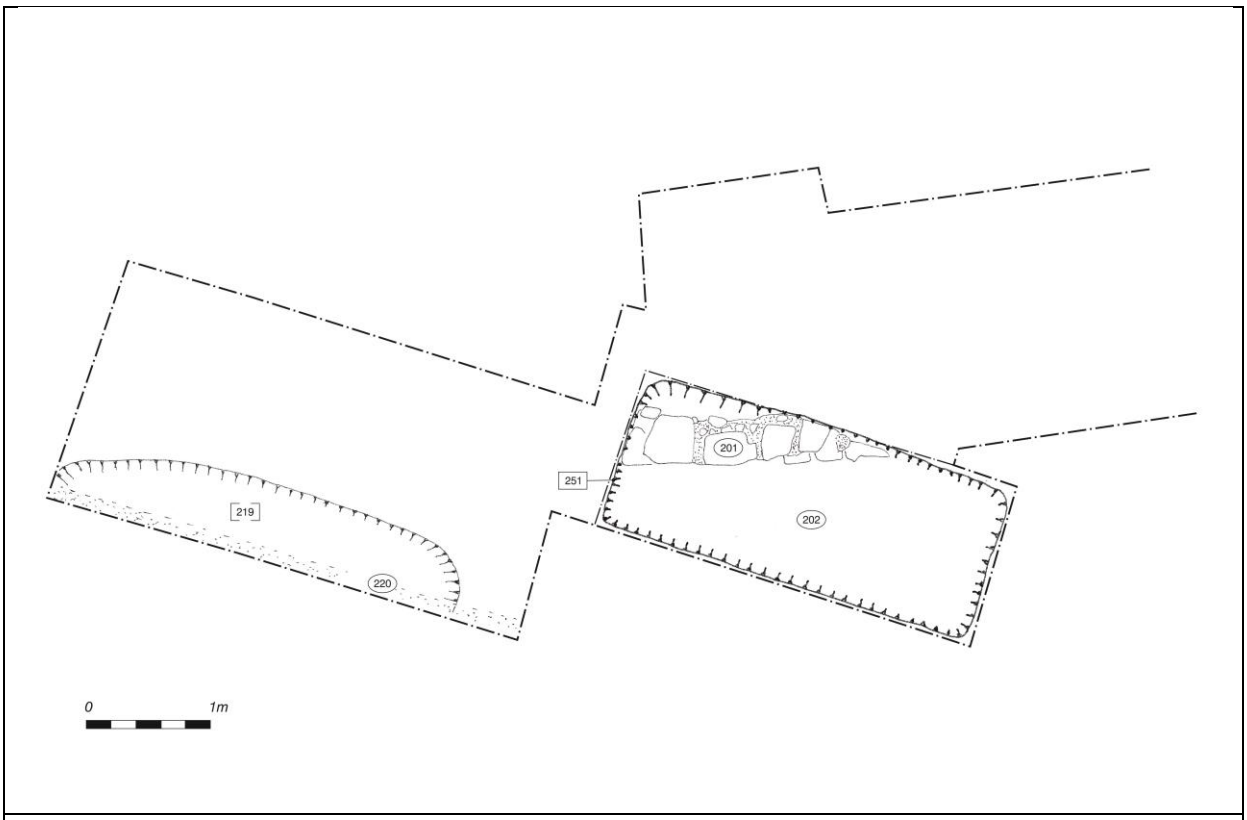
Phase 1a, the construction phase of the structure. This consists of the sand levelling layer (212), the revetment wall (203), its core (230), and the curved wall base (246). A flint core and iron nails from the core could have fallen in through the extensive voids and are not diagnostic.

Phase 1b, the occupation of the structure, is represented by the 0.7-0.8m thick build-up of deposits between contexts 211 and 207, on the exterior of the building. It is however possible that some of these layers were levelling deposits associated with the demolition of the building and levelling of the site. If the slag-rich layer 208 is contemporary with the slaggy layer 231 in Trench 2b, then it would date to after the demolition of the wall, but radiocarbon dating should establish whether this is the case.

Phase 1c, the demolition of the structure, is evidenced by the pushed over blocks on the exterior (229, 245/6) (illus 37). It seems from the difference in level of the top of the existing wall stones that robbing of the western end of the structure also took place - this could have taken place at a later time after the demolition of the upper courses or at the same time.

Phase 2, relating to medieval building activities, relates to the layers of dark soil with spreads of mortar and shell (204-6) which overlie the demolished and robbed wall. Some of these spreads seem to be working deposits such mortar-mixing areas (eg 223), others levelling deposits (eg 239) and some are temporary working areas of paving (228). At present there would seem to be no way of tying these deposits to any particular phase or phases of the construction of the medieval abbey buildings, though on balance, given the pottery within these layers, they may date to the major reconstruction of the whole south side of the abbey church in the 15th century (RCAHMS 1982, 52). These activities could have taken place some time after the disuse or demolition of the building.

Phase 3, the modern deposits, relate to the reconstruction of the abbey starting from around 1900 (illus 36). They include the massive stone pit [219] and the roadway constructed for the Iona Community workers in the late 1930s (220). Finally there was Thomas's trench [251] and the reconstruction of the wall (201).



Illus 36: Site B, Phase 3 (modern) plan, showing stone pit [219], road (220), Thomas' trench [251] and modern wall (201).

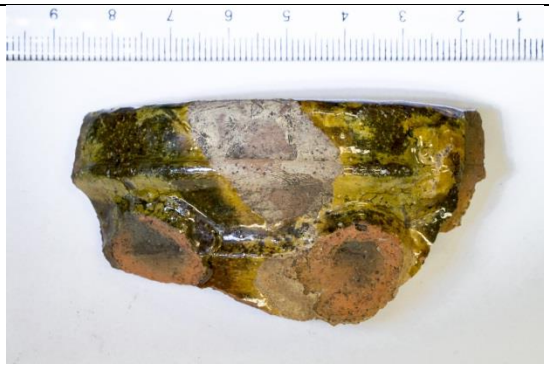
Illus 37: Site B, Phase 1 plan. Rebuilt part of wall (203) stippled, with burnt layer (221) and disarticulated femur SF219.

Finds

The few finds (Table 2) tell us little about the dating of the phases or the economy of the monastery. The medieval pottery found in Phase 2 deposits is of similar types found elsewhere on the site, mainly 13th- to 16th-century (illus 38), with no later material until late 19th-century china appears in Phase 3. The predominance of medieval jugs noted in other parts of Thomas's excavations (Hall et al 2016) is repeated here. The lack of ceramic cooking pots presumably means metal vessels were used, or local handmade wares, though there does not appear to be enough of that material for such a large establishment. The relatively small amounts of animal bone suggest Site 2 was not a midden area, and the quantities preclude quantitative analysis. Small amounts of fish bone were present. The stained glass fragment and the stone newel post are residual, derived from clearance of the decayed medieval abbey. These finds do no more than confirm that wall 203 was out of use by the 13th century, when the construction of the Benedictine Abbey commenced. There was no diagnostic material from Phase 1, though these deposits were not excavated due to SMC constraints.

Phase	Description	Artefacts	Ecofacts
Phase 3	Modern (20th cent) activities	Modern pottery, stained glass, architectural fragment, coin	111g animal bone
Phase 2	Medieval abbey building debris	6 sherds wheelthrown glazed pot; 4 sherds handmade pottery, iron nails & tool	2.24kg animal bone; 86g marine shell; charcoal, 111g human bone*
Phase 1c	Demolition of structure	none	353g animal bone
Phase 1b	Occupation of structure	11 kg iron slag	444g animal bone, 305g human bone*
Phase 1a	Construction of wall (203/246)	Flint chunk, 2 nails	none
Phase 0	Old ground surface	none	none

*Table 2 Summary of artefacts and ecofacts by Phase. *human bone not certainly from this phase*



Illus 38: Rim of medieval redware jug SF 241, Phase 2

Discussion

The main aim of the Trench 2 excavations was to discover the nature and extent of the wall found in Thomas's Cutting 11d. The present excavations have achieved this in part, but significant questions remain. The recovery of material suitable for dating from beneath the wall, in layers abutting it, and in context after its demolition should resolve the chronology, but the function of the wall is open to interpretation. The discovery of the semi-circular curved wall (246) was completely unexpected. The initial interpretation is that this is an eastern apse of hitherto unknown an early east-west oriented chapel, though it is possible that it part of a building with rounded corners. It does seem more than likely it is a building, rather than merely an enclosing revetment wall. There is no doubt that the part exposed in Thomas's trench functioned as a revetment – the difference in ground level between interior and exterior of 1.0m and the lack of an inner face confirms this. Presumably this revetting was intended to provide a level base for the building in an area of sloping ground. Such revetting with battered walls is seen on a number of Irish monastic sites. If (244/5) does represent a collapsed clay-bonded wall, this would re-enforce the interpretation as a building. Both St Columba's shrine chapel and the early phase of St Ronan's chapel were clay bonded, as were many Irish early stone chapels. If it is an apse, the width of the chapel would be between 4-6m, which falls within the range of early chapels in Scotland (Waters 2013, table 2.1). The alignment of the building is at an angle to that of the Benedictine church, being aligned at 260 degrees, almost East-West, while the later church is at 285 degrees. This alignment is close to that of St Mary's chapel, St Michael's chapel and the Infirmary building, presumably reflecting an earlier orientation of buildings on the site which was fossilised in these later buildings. If these later buildings do reflect a pre-Benedictine layout, the implication is that there was a complex of stone-built chapels and other buildings associated with the Culdee phase of the monastery, something otherwise unsuspected. It is interesting that the stone-filled 'ditch' encountered by Thomas in Cutting 11a and 11f also runs in this alignment – it is possible that this feature is actually a robbed out wall (Campbell & Maldonado 2016, fig 34).

If the building is an apse, then parallels can be seen in Scottish early Romanesque chapels of late 11th and 12th centuries such as the royal chapel under Dunfermline Abbey, Coldingham (Fawcett 2011, 8-9, 49), or at Birsay (eg Hunter 1986, ill 7), as well as in Scandinavia, which have small eastern apses 5-7m in width. If we are looking for a historical context for the construction of such a chapel, there is documentary evidence that Queen Margaret restored and renewed the buildings (RCAHMS 1984, 48). However, there are some difficulties in seeing this structure as an apsed chapel. In most buildings with apses, the apse is narrower than the chancel, leaving an offset at the junction – this does not appear to be the case here, though the restricted nature of the trench makes it difficult to be sure, and there are examples with little offset. It is possible that an apse was added to an earlier rectangular chapel, as though the builds are very similar there are hints of a butt join between the curved part and the rectilinear (illus 33).

It is unfortunate that the northern boundary of Trench 2d fell where it does, as another metre or so in width would have resolved whether 246 was continuing in a semi-circle, or straightening, or taking some other course. There are tantalising references in Thomas's excavation diary of a wall 'curving to the west' in his Cutting 14, about 10m north of our Trench2c but no plans or photos survive. There are also vague accounts of 'buildings with rounded corners' seen during Chalmers' restoration of the Abbey church in 1897 (Anon 1914), and what appears to part of another section of curved wall appears on the RCAHMS plan about the same distance to the north-west. It may be that there is a complex of buildings of this period in this part of the monastery, but only further excavation will resolve this problem.

Another issue raised is the nature of the thick sequence of deposits on the exterior of the wall. There do not appear to be any soil deposits which indicate a gradual build-up of deposits, or a stable turf-line. Most of these give the appearance of being dumps, perhaps for levelling, but it is not clear if they date to the period of use of the building, or after it was disused. The evidence of the sections shows that at the time of deposition of contexts 206 and 229, which post-date the demolition of the wall, there was little difference in ground level between the interior and exterior. The deposits also all thin away from the wall, suggesting dumping from the interior, which is surprising if the building was still standing at the time.

A further unresolved issue is the nature of the layer with burnt clay/soil lumps (221). One explanation for this might be that it represents a destruction layer for the building, with the burnt material derived from the clay bonding of the walls. The lack of charcoal is puzzling however. In trenches 2c/d the layer appears to be confined within the building, but if context (248) in Trench 2b is the same layer, this overlies the demolished wall, perhaps indicating that the burnt material was spread out as a levelling layer post-demolition.

3.3 Site C (Site code HY17C)

Unlike the other two sites, Site C was excavated in response to a drainage problem which was causing damage to the deposits in the field to the south of the Abbey (NGR NM 28656 24393). This was an area which as far as we know has never had any archaeological excavation, though there are records of 'buckles, brooches, and large pins' turning up during ploughing in these fields (Keddie 1850, 101). Local information suggests that there have been long-standing drainage problems in this part of the field, with several attempts to solve the problem. Puddling by cattle and geese has created an expanding boggy area, and it was considered that any underlying archaeological deposits would be under threat. Finding and fixing any broken drain to mitigate the damage was the rationale for excavating here. A secondary objective was to investigate the nature of the rectilinear enclosure see on the resistivity survey of the field (Illus 40; OCGU 2012), and to assess whether there were any undisturbed archaeological deposits in this field.

The field occupies sloping ground running from the grounds of the St Columba Hotel and the Reilig Odhráin down to the rough ground on the lower raised beach. A terrace part way down the field corresponds to the scarp between the lower and upper raised beach deposits. The field itself appears in roughly the same shape in the 1769 Argyll Estate plan, where it is labelled 'No. 11/12' and shown as arable with rig and furrow, though at this time the eastern boundary seems to have been the scarp slope, with 'Common' to the east (illus 39). The field continued to be used for arable at least until the 1950s as shown by photographs. A 'street' is marked on the 1769 plan as running through the field and passing the west end of St Mary's chapel to reach the south-east corner of the Abbey precinct. This is the line of the post-medieval 'Street of the Dead'. Recent drainage works resulted in a section across this line at the southern edge of the field which showed that this road was not paved liked the street in the Abbey precinct, but a rather insubstantial roughly cobbled gravel surface (Will 2014, fig 6, 11-14).

Illus 39: 1769 estate plan with 'Street of the Dead'. Site C is near the junction of the Common with Fields 11 and 12

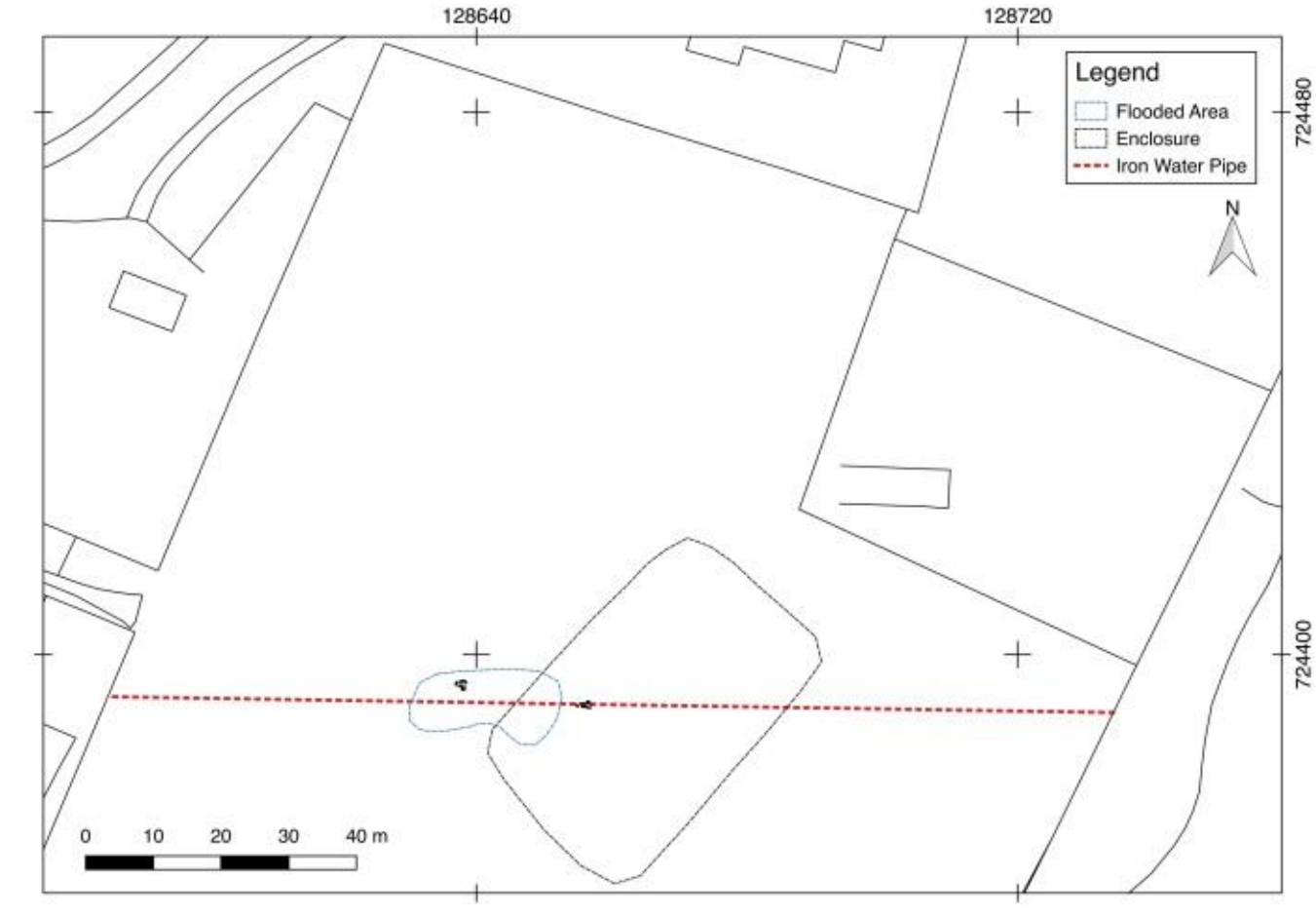
Trenches 3a and 3b

Illus 40: Resistivity survey of Tindal's field showing linear feature running towards disused pump (OCGU 2012, fig 2)

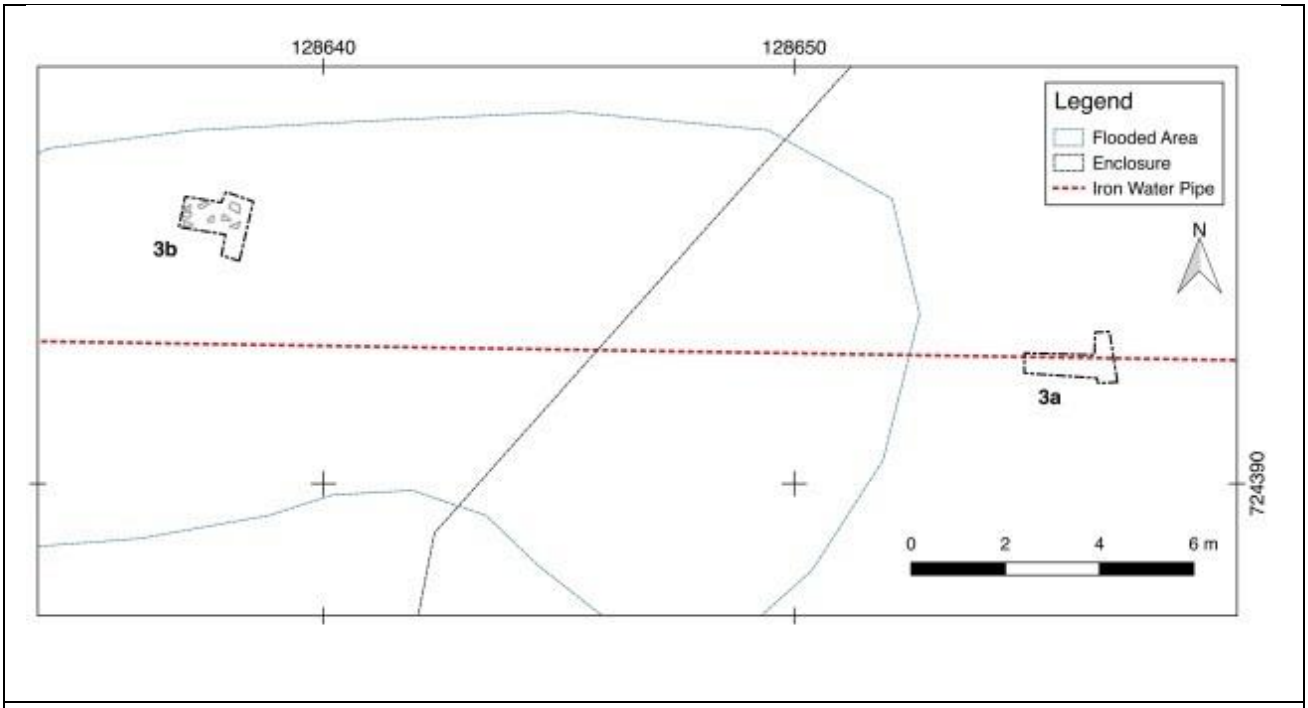
The resistivity survey of the field undertaken by Sue Ovenden in 2012 showed a linear feature running through the boggy area and across the sub-rectangular ditched feature measuring 43m x 32m (illus 40), and it was thought this might be the drain which had broken. Trench 3a (centred on NM 28656 24393) was opened to assess the character of this feature in an area where the geophysical signature was clearest (illus 41, 42). It was situated as close to the rectilinear enclosure as possible, given the saturated nature of the ground, in the hope that it would be possible to excavate the ditch. A slot trench revealed a construction trench, which turned out to be for an iron two-inch water pipe running towards the Columba Hotel. Local information said this was the original water supply, when the water was pumped up to the hotel from a pump on the foreshore (the remains are on the OS map). The construction trench was taken down to natural at a depth of 0.55m (15.31m OD). A sequence of archaeological deposits was preserved. On the natural sand ground surface was a series of plough marks [308] filled with and overlain by dark brown soil (307/309) indicating early cultivation, a feature rarely found in western Scotland (illus 43). These scars are sealed by post-medieval or earlier deposits (as shown by the pottery discussed below), and therefore date to a period of hand cultivation using the *cas-chrom* (foot-plough) or ard. The characteristic criss-cross pattern of prehistoric ard marks is not seen here, though only a very small area survives in the trench. These scars could therefore date to the earlier medieval or prehistoric periods. Above this was a distinctive burnt layer with lumps of

orange burnt soil (303) 0.05m thick. A sample from this layer produced a quantity of ferrous metalworking slag, suggesting that this was the source of the burnt soil. Above this was a mixed layer of brown soil and some burnt material (304) 0.10m thick, which produced artefacts including burnt bone, fire-cracked stones,

handmade pottery (SF 316, 318) and flint flakes (SF 317). Similar material came from the construction trench of the pipe (302), clearly disturbed from this context. The pottery had little in the way of distinctive features, but one sherd (SF 316) was an upright rim with a construction which resembled some of the post-medieval craggan wares found recently in a site about 130m to the south (Will 2012, 11). Other bodysherds were grass-marked (SF 307) (illus 44) or grass-tempered (SF 305). In some parts of the Hebrides (and in northern Ireland) grass-marking is characteristic of Norse-period ceramics (Lane 1990; Campbell 2002) raising at least the possibility of occupation of that period. The nature of the burnt layer remains unclear however. Water seepage prevented any excavation further west where the ditch of the square enclosure was believed to run.

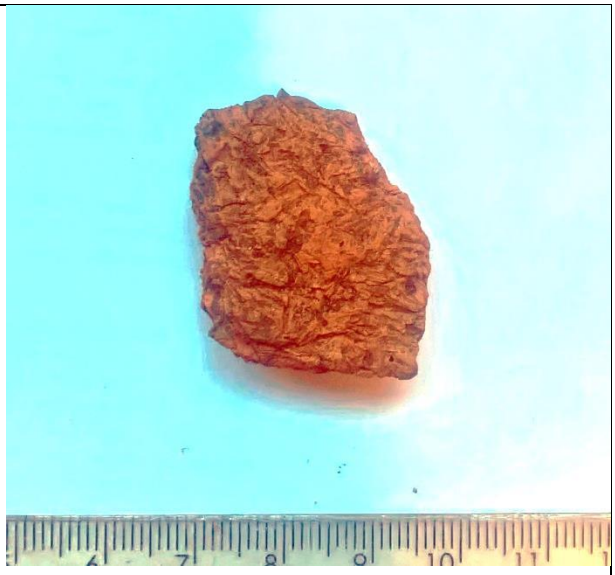


Illus 41: Location of water pipe, excavation trenches 3a and 3b, flooded area, and rectilinear enclosure



Illus 42: Detail of trenches 3a and 3b

Illus 43: Trench 3a fully excavated showing pipe trench with plough marks in subsoil, looking east



Illus 44: SF305 grass-marked sherd

A slot trench (3b) some 20m to the west, (centred on NM 28638 24395) was also inserted to try to establish the line of the broken drain. There was no good geophysical result in this area, due to the waterlogging, making it difficult to identify the line of any drain here. This trench filled with water and sludge almost immediately, but revealed an old rubble drain and the end of a modern plastic waste pipe running east-west (illus 45). Later investigation revealed that the plastic pipe may have been a runoff pipe from Dunsmearach house (Derek Alexander pers comm). This extra runoff must have contributed to the drainage problems here. It was rapidly apparent that archaeological excavation could not take place here or further east due to the waterlogging and slurried nature of the soil – attempts to pump the trench were unsuccessful. Excavation was therefore abandoned at this point.

Illus 45: Trench 3b showing waterlogging, looking west

Discussion

Antiquarian sources record a well in this general area known as *Tobar Odhráin* (St Oran's well) (Reeves 1874, cxlii), which was used as the water supply for the Free Church Manse (now the southern part of the St Columba Hotel) (Mairi MacArthur pers comm). This well and its name were out of use by the time of the 1881 OS 1st edition map. Reeves also records that the lost St Brandon's cross stood near the well (ibid). This natural spring may have been the original source of the surface water flowing here. There are series of wells and seepages along the scarp below the upper raised beach where the iron-panned surface prevents water seeping through the natural beach sands and gravels. Proper drainage work with machine excavation (overseen by archaeologists) would be required to sort the drainage problem here.

One unexpected result of the investigations was that stratified deposits were present within the area of the rectilinear enclosure despite the previous use of the field for arable. This enclosure surrounds a slight mound in the field. The presence of post-medieval pottery might suggest the enclosure is of that

date, though there is the possibility of an earlier date, given the flints, fire-cracked pebbles and possible Norse-period pottery. This also suggests that there may be surviving stratified deposits in positive contexts elsewhere in the field. The evidence for cultivation sealed beneath these deposits may relate to the earlier medieval period, or may give a rare glimpse of prehistoric agriculture on the island.

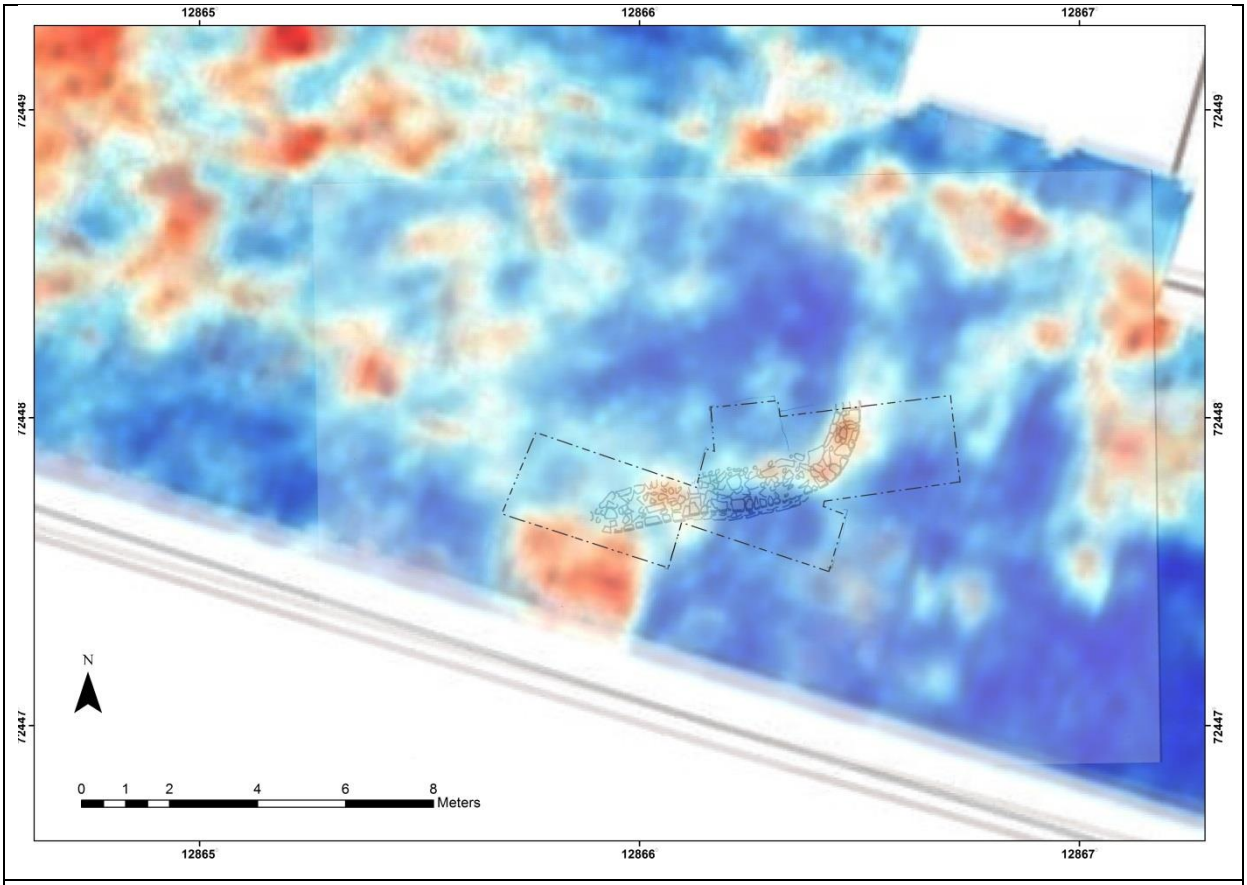
4 Conclusions

Each of the three areas excavated were very different both in terms of their archaeology and in the results obtained. Overall the results show the benefits of returning to older excavations, as important new insights were gained without significant attrition of the archaeological resource. The present excavations will result in a detailed understanding of the chronology of the monastic enclosures, and the nature of the drystone building phase which was previously unknown at the site. All of the objectives of the fieldwork were achieved within the constraints of the SMC.

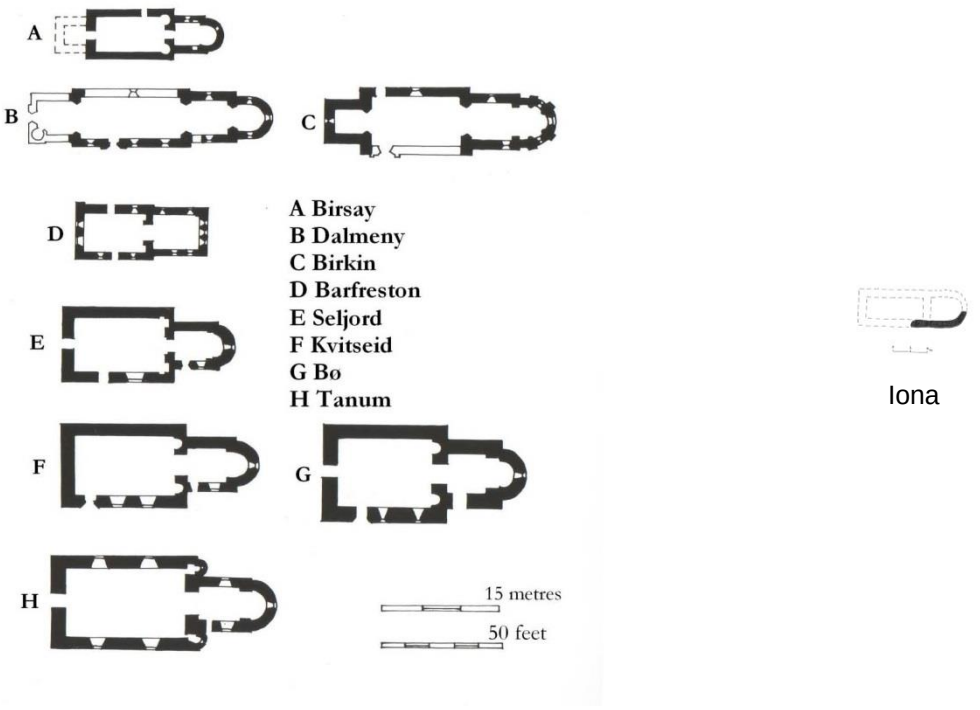
Excavation at Site A re-examining the results of Charles Thomas's work was a rewarding and valuable exercise. The archaeology here, consisting of earthwork banks and a rock-cut ditch, was more akin to that of prehistoric hillforts. The composition and construction phases of the inner bank were recorded in more detail and with more in-depth analysis of the exact nature of the layering, providing a good picture of the method of construction. If the use of turf layering in the construction is confirmed by soil micromorphology, this will be an important result, as very few monastic enclosure banks remain upstanding for comparison. The conditions were drier than in 1957 so the ditch was able to be fully excavated. In addition to clarifying the nature of the feature this should provide a good sequence of dating, particularly from the waterlogged organics at the base of the ditch. The nature of the outer bank was clarified and it contrasted with the inner bank, suggesting different construction methods and probably a different date. Modern recording and sampling methodologies will provide a much more detailed analysis of the features and hopefully elucidate the chronology, construction and evolution of these features over time, clarifying if there have been multiple phases of construction and whether these phases have an earlier prehistoric origin. This data will allow more secure interpretations to be made about their nature and relationship with the monastic settlement in the area. Stray finds in the backfill and the dump of bottles found at the base of Cutting 6 provided an interesting insight into the excavation team working there in the 1950s.

At Site B the nature of the drystone walling was not fully established due to the limits on the area excavated, and further archaeological removal of the later medieval building debris would be necessary to confirm whether this was part of an apsed building, presumably an early church. Although the preceding GPR survey failed to reveal any coherent plan of structures, when the plan of the excavation is superimposed on the data some elements of the walling appear to be represented (illus 46). The stone-filled pit [219] shows up well as a rectangular feature, especially at depth slice 0.6-0.8m, but wall (203) is intermittently represented. Nevertheless, a semi-circular arc appears to continue the line of the walling, making a structure about 6m in internal width with an east-west orientation, and less clearly about 14m long. The plan of the building fits that of other Romanesque apsed churches in Scotland and Scandinavia (illus 47), and would be the first such church found in western Scotland. Whatever the nature of the building, it reveals a type and period of activity previously unknown at the site, and raises questions about other stone building foundations encountered by Thomas and Chalmers elsewhere around the medieval abbey church. One issue that

the SMC conditions raised was how to determine which deposits could be excavated, as the wall appeared to have been robbed, resulting in a disassociation of the internal occupation deposits from the building superstructure. So initially contexts 221 and 222 were excavated in Trench 2d as they were at a higher level that the remaining wallstones, but excavation was halted as it was unclear if these contexts were contemporary with or even pre-dated the stone structure. There will also be issues about whether and how to display these stone features to the public. The build-up of banded deposits seen in the baulks of Thomas's trench appear to be in the character of levelling deposits, but again micromorphological studies should clarify this. This should give some insight into this type of deposit, which seems to be widespread around the early medieval core of the site, as seen in many of Reece's trenches for example.



Illus 46: GPR results at 0.5-0.9m combined depth slices (Ovenden 2016, figs10-14) with excavation results superimposed. Rectangular stone pit [219] shows clearly but wall (203) is intermittent. Note possible arc continuing line of (203)



Illus 47: Comparative plans of early apsed churches (© Richard Fawcett), with possible plan of Iona Site B church (right) at same scale

At Site C the archaeology was more akin to rescue interventions, as it was designed to alleviate a drainage problem. The restriction to small keyhole trenches limited the information that could be recovered, and the flooding prevented further excavation. Nevertheless, occupation in this area of the monastic enclosure was confirmed, dating to the post-medieval period and possibly earlier. The remnants of prehistoric cultivation add to growing evidence of prehistoric occupation of the island. The survival of stratified deposits in this previously cultivated field is an important finding with implications for management of the area.

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Appendix 1: List of Contexts

Site A

Feature	Area	Description	Interpretation	Relationship to other contexts
100	A	Loose fine greyish brown sandy silt with minimal stone inclusions and clear boundaries. Extends across site. One 1964 shilling coin over outer bank.	Topsoil	Over all other layers
101	A	Loose mixed deposit with mottling changing colours. Inhomogeneous backfill. Some larger stones c 0.2m by 0.1m to 0.3m by 0.2m max. Several sherds of modern pot, chert flake, shoe heel and several deposits of bottles at base. Present across the whole of the cutting except the base 0.3m of the ditch [123].	Backfill of Cutting 6	Fill of 102, under 100.
102	A	A sub-rectangular cut of trench "Cutting 6", excavated and recorded in July 1956. Vertical sided on the N-edge, they did not straighten the S-edge. Aligned E-W. Thomas's cutting tapers to 0.5m to the west where it goes through the outer bank. 18m by 1.4m by 1.5m deep across rest of trench through ditch and inner bank.	Cutting 6 from 1956 excavations	Filled by 101. Cuts into archaeological layers down to subsoil/bedrock.
103	A - Inner bank	Loose orange brown clayey silt with frequent small shattered angular stone and clear boundaries. Located in the upper E edge of the inner bank. 1.5m by 0.15m thick across trench.	Layer of redeposited natural deposited on inner edge of inner bank.	Under 100, over 104.
104	A - Inner bank	Firm grey brown silt (fine and dry) with infrequent small rounded stones. Clear boundaries and homogenous. 2m by 0.3-0.4m thick across trench.	Layer of material deposited on inner face of inner bank, turves?	Under 103, over 116.
105	A - Inner bank	A firm dark black brown sandy silt with infrequent small stone inclusions. Clear boundaries and homogenous. 2m by 0.1m thick across trench.	Thin lens of material representing a turf layer laid down to consolidate the loose deposits beneath or indicating a pause in bank construction?	Under 112, over 115.
106	A - Inner bank	Loose yellow brown sandy silt with very frequent shattered angular stone inclusions. Clear boundaries and quite homogenous. 2.4m by 0.6m thick across trench.	Substantial layer of upcast from the ditch forming the core of the initial bank material.	Over 108 119. Under 122, 115, 105.
107	A - Inner bank	A firm dark black brown clayey peat rich layer with minimal stone inclusions and clear boundaries. 1.9m by 0.06m thick across trench.	A thin lens representing a peat rich turf deposit or perhaps a pause in construction of the inner bank?	Under 115, 106 and over 109, 108.

Feature	Area	Description	Interpretation	Relationship to other contexts
108	A - Inner bank	Mid orange brown silt with frequent small angular stones and relatively clear boundaries. Harder to identify these boundaries in the N-facing section. Stonier to the east, c. 0.08m by 0.02m. Layer is 2.8m by 0.2m thick across trench.	Relatively horizontal deposit towards the base of the inner bank which thins out to the east. Part of the deposition onto initial bank material to broaden the bank?	Under 107, 106, over 109, 121, 120, 119.
109	A - Inner bank	Plastic dark black brown peat rich layer with no stone inclusions. Relatively clear boundaries but less distinct at the E and W ends - perhaps due to core of bank preserving turf better in centre of deposit. After sampling a thin grey lens was identified in one area - indicating that the layer 109 likely represents multiple turf layers deposited at the base of the bank. 4.7m by 0.15m thick across trench.	A basal layer along the bottom of the inner bank, likely representing multiple layers of turves deposited to form the initial inner bank over the OGS.	Under 108, 117, 113 and over 110, 119.
110	A - Inner bank	Thin friable layer of light white grey clayey sand with no inclusions and clear boundaries, particularly on the S-facing section. It continues under the inner bank and once extended to the west and east. It has been cut to the west but the ditch cut [123]. 4m by 0.07m thick across trench. Charles Thomas cut through this in a large sondage across the base of the inner bank.	OGS gleyed horizon , mainly visible under the inner bank.	Under 109, over 111, cut by 123 to the west.
111	A - Inner bank	Compact mid reddish brown sterile subsoil with frequent small stones. A thin layer of this exists above the bedrock. Charles Thomas cut through this in a large sondage across the base of the inner bank.	Natural glacial subsoil under the OGS and over the bedrock.	Under 110, over bedrock/boulder clay.
112	A - Inner bank	A loose yellow brown clayey sand with very frequent shattered angular stones. Clear boundaries 2m by 0.2m thick across trench.	Redeposited natural material forming part of the inner bank on the E edge.	Under 116, over 105.
113	A - Inner bank	Friable mid yellow brown silt with frequent small stone inclusions and diffuse boundaries. Relatively inhomogeneous. 2.5m by 0.45m thick across trench.	Material from inner bank that has eroded and spread down the east side.	Over 103, 104, 116, 115, 117, 109. Under 100.
114	A - Inner bank	VOID		
115	A - Inner bank	Loose mid orange brown with very frequent shattered angular stone. Clear boundaries and homogenous. 1.7m by 0.25m thick across trench.	Redeposited natural material forming part of the inner bank on the E edge.	Under 105, 116, 104, over 107, 117, 106.
116	A - Inner bank	Friable dark black brown silty peat rich layer with some small stones. Clear boundaries which get less distinct to the E end. 1.5m by 0.1m thick across trench.	A thin lens representing a peat rich turf deposit or perhaps a pause in construction of the inner bank?	Under 104, over 112, 115.

Feature	Area	Description	Interpretation	Relationship to other contexts
117	A - Inner bank	Firm mid orange brown sandy silt with frequent small stone inclusions and clear boundaries. 1.10m by 0.25m thick across trench.	Deposit of material on the E edge of inner bank.	Under 113, 115, over 107, 109.
118	A - Inner bank	VOID		
119	A - Inner bank	Plastic mottled peaty layer with lots of lenses of grey sand or silty material. Located to the W edge of the inner bank at a similar horizon to (109), perhaps where (109) is more disturbed. 1.1m by 0.3m thick across trench.	Disturbed peat rich layer at the W edge of inner bank, where layer has started to erode/been mixed up.	Over 110, 111 under 120, 109.
120	A - Inner bank	Loose red brown stony layer with very diffuse and unclear boundaries on the N section, inhomogeneous. 0.7m by 0.15m thick across trench.	Thin layer near the base of the inner bank.	Under 121, over 120.
121	A - Inner bank	Loose mottled grey silt with very diffuse and unclear boundaries in the S-facing section. Boundaries are clearer in the N-facing section. Inhomogeneous. 0.6m by 0.1m thick across trench.	Thin layer near the base of the inner bank.	Over 120, under 106.
122	A - Inner bank	A mid brown grey silty stony thin lens in inner bank. Several larger angular stones within it c. 0.1m by 0.12m max. 0.6m by 0.1m thick across trench.	Material in inner bank.	Under 132, over 106.
123	A - Ditch	Bowl shaped cut of flat based ditch located to exterior of the inner bank. It is curving in plan. Steep sided with an irregular, roughly flat base. The W edge is cut through natural orange boulder clay with grey lenses or strata visible. The E edge and base are onto bedrock. 4m wide, 1.25m deep.	Cut of vallum ditch on exterior of inner bank.	Filled by 124, 125, 126, 127, 128, 129, 130, 131. Under 100 topsoil. Cuts natural subsoil through to bedrock.
124	A - Ditch	Plastic reddish brown peaty layer at very base of ditch with very infrequent small stones and clear boundaries. Organic rich material preserved as it was waterlogged. Recognisable twigs, small branch and some compacted areas that looked like leaves/skin of grasses/straw. 0.9m by 0.10m thick across trench.	Basal fill of ditch - likely to have formed soon after ditch was cut. Dating of the organic short lived material found at the base could give a date soon after cutting took place.	Fill of 123. Over bedrock, under 125.
125	A - Ditch	Plastic reddish brown clay with flecks of burnt bone throughout, some small angular stones c. 0.05m by 0.05m. Clear boundary at base, diffuse at the top. Homogenous - indicates silting? 2m by 0.2m across trench.	Silting at base of trench after erosion and original fill.	Fill of 123. Under 126, 130, over 124, 131.
126	A - Ditch	Firm orange brown sandy silt with frequent small stones and some rusty red patches of iron pan. Layer looks like it has spread into trench from inner bank erosion to the E.	Erosion from the inner bank.	Fill of 123. Under 127, over 125.

Feature	Area	Description	Interpretation	Relationship to other contexts
		Clear boundaries at the top, more diffuse at the W edge where (130) is similar.		
127	A - Ditch	Loose grey brown clay rich layer with frequent angular stones c. 0.06m by 0.05m at largest to pea sized gravel 0.01m by 0.01m or less. Larger stones concentrated at W end of layer at centre of ditch and smaller gravel visible only as a thin lens over bedrock under topsoil along steep E edge of ditch. The steep slope has caused this erosion layer to become roughly sorted. 1.8m by 0.2m at W end to 0.1m at E end thick, across trench.	Erosion of inner bank into ditch on E edge.	Fill of 123. Under 128, over 130, 126.
128	A - Ditch	Firm, thin rusty red brown clayey silt layer with rare rounded stones c. 2-3 in section c. 0.15m by 0.1m. Also some smaller stones visible throughout. 2.6m by 0.2m thick across trench.	Fill across most of the ditch - result of silting up?	Fill of 123. Under 129, over 127, 130.
129	A - Ditch	A mid compaction grey brown clayey silt with frequent small stone c. 0.01m by 0.02m with fairly diffuse boundaries indicating silting material over time. 3.1m by 0.17m thick across trench.	Silted up fill of ditch.	Fill of 123. Over 128, 130, under 100.
130	A - Ditch	Loose, light orange brown sandy silt with grey tipping lines on the W edge of the ditch, similar to (126) but deposited on W edge of ditch, slightly underlying (126) in middle of ditch. Diffuse edge to E. 1.4m by 0.45m thick across trench.	Erosion into ditch, mainly from W edge.	Fill of 123. Over 131, 125, 126, under 127, 128, 129.
131	A - Ditch	Friable soft yellow brown (with grey mottling) clayey sand. Very infrequent stone with clear boundaries with ditch fills overlying it. Diffuse edge in places with underlying natural. Sterile. 0.15m redeposit thick on W edge of ditch.	A spill of redeposited natural on the W edge of ditch. Likely result of immediate erosion as ditch cut created, diffuse edges due to material being very similar to the natural it overlies.	Fill of 123. Under 125, 124, 130. Over natural.
132	A - Inner bank	A loose yellow brown sandy silt with frequent shattered angular stones. Layer of redeposited natural in inner bank. Very similar to (106) but separated by (122).	Layer of redeposited natural in inner bank.	Under 105, over 122.
133	A - Outer bank	Loose light greyish brown slightly silty sand with frequent small sub-angular and sub-rounded stones. Diffuse edges, homogenous. 1.3m by 0.1m across trench.	Upper deposit forming outer bank.	Under 100, over 134.
134	A - Outer bank	Friable light brownish grey silty sand with frequent small 10mm sub angular stones. Indistinct boundaries, homogenous. Some root action and burrowing. 0.6m by 0.2m	Upper material in outer bank.	Under 133, 100 and over 135.

Feature	Area	Description	Interpretation	Relationship to other contexts
		thick, does not extend into S-facing section.		
135	A - Outer bank	Firm mid reddish orange sandy silt with frequent small-medium sub angular stones. Distinct boundaries, poorly sorted. 2.0m by 0.3m thick across trench.	Redeposited natural laid down as bank material bounded by possible kerb stones to E and W.	Over 139, 136 and under 133, 134.
136	A - Outer bank	Friable mid blue-ish grey silty sand with infrequent small sub angular stones and diffuse edges. 3.2m by 0.05m thick across trench.	OGS, pre-bank?	Under 139, 135 and over 137.
137	A - Outer bank	Friable dark black grey silty sand with infrequent small sub angular stones. Clear boundaries in the S-facing section but diffuse boundaries in N-facing section - perhaps as a result of bioturbation. 2.1m by 0.3m thick across trench.	Possible pre-bank topsoil or initial layer of turves deposited to form a solid base for the bank.	Over 138, natural, under 136.
138	A - Outer bank	Friable mid reddish brown mottled slightly sandy silt with occasional small sub angular stones and diffuse boundaries. Occasional bioturbation from burrows. 1.4m by 0.1m thick across trench.	Natural subsoil under outer bank.	Under 137, over undisturbed natural.
139	A - Outer bank	Friable mid black brown sandy silt with distinct edges in S-facing section and not very visible in N-facing section. 1.8m by 0.05m thick across trench.	Possible decomposed vegetation layer on OGS. Preserved better in some places as bank material deposited on top.	Over 136, under 135.
140	A - Outer bank	Friable dark greyish brown slightly sandy silt with some small-medium sub angular stone inclusions. Indistinct boundaries, poorly sorted some root action. 1.5m by 0.25m thick across trench.	Slumped material from outer bank eroding and spreading to the W.	Under topsoil (100) and over natural.
141	Core 1	Russian auger core 25m south of Trench 1	Peaty soil	OS grid ref NM 28487 24528
142	Core 2	Russian auger core 31m south of Trench 1	Good peat sequence	OS grid ref NM 28483 24522
143	A - Outer bank	Two sub angular stones set upright on the western edge of the outer bank which held back the main bank material.	Rough kerb on the edge of the outer bank preventing material slumping and spreading.	Abuts 136, 137 and 139.

Site B

Context	Area	Description	Interpretation	Relationship to other Contexts	Phase
200	2	turf and rooted brown loam	modern soil build-up	over 201 , 204 etc	3

Context	Area	Description	Interpretation	Relationship to other Contexts	Phase
201	2	Single skin of stone walling drystone with upper course mortared. Max height 1.1m. Width, 0.4m	Thomas overexcavated the upper courses of 203, then reinstated them for 1-2 courses. Later it was built up to surface with another four courses	over 203	3
202	2	Mixed backfill, fairly loose grey-brown with much mortar, stones up to 0.4m. Fills CT cutting 11d to depth of 1.7m	1957 backfill	over 251	3
203	2	Drystone revetment wall, roughly coursed large blocks of undressed flagstone with small pinning stones. Composed of local Torridonian flags and a few rounded granite slabs. Lowest course megalithic stones up to 0.7 x0.55m . Western half straight, running E-W, turns northwards at eastern end. Slightly battered especially at east end with batter of 0.15m . Max surviving height 1.0m , width c1.0m.	Revetment wall for overlying structure	under 201, 246	1a
204	2	dark brown sandy loam	soil buildup	under 200	2
205	2	Shell rich layer full of cockles and whelks. Up to 0.10m thick	Dump	under 204	2
206	2	Dark grey-brown sandy soil with mortar flecks, some small stones and lumps of white mortar. Thickness up to 0.2m	Abutting curving face of wall in section at east end. Mortar lumps may relate to a construction phase of Benedictine monastery. So could relate to the demolition phase of the wall	under 205, 204	2
207	2	Thick orange sandy layer with little loam. Only seen in sections of Thomas's trench. Up to 0.27m thick	A levelling layer, laid against the standing wall 203	under 206	1b
208	2	Thick greasy black layer with charcoal and many large pieces of iron slag, with at least one band of sand at base. Slopes up to wallface, up to 0.22m thick. In south face of Thomas's trench it thins and has lenses of dirty sand and small stones interleaved. Only seen in sections of Thomas's trench	Dumped material, possibly for levelling	under 207, contains 240, 241	1b
209	2	mid-brown loamy sand thickening at wall face, up to 0.2m thick. Only seen in sections of Thomas's trench	another levelling layer?	under 208	1b

Context	Area	Description	Interpretation	Relationship to other Contexts	Phase
210	2	Dirty sandy soil orangey in lenses, thick at west end, thin at east. Up to 0.25m at west. Only seen in sections of Thomas's trench	Another dumped layer? Or soil buildup outside of the wall.	under 209	1b
211	2	Thin black greasy charcoal rich layer, up to 0.03m thick. Level with base of wall 203, but butts against it. Only in east part of trench. Only seen in sections of Thomas's trench	Occupation layer.	under 210	1b
212	2	dark brown layer below 211, sandy. Only seen in sections of Thomas's trench. Up to 0.23m thick. The sand runs under and in amongst the lowest stones of wall 203.	A thick levelling layer for the construction of wall 203	under 211	1a
213	2	Mid to dark -brown sticky peaty soil, up to 0.10m thick. Varies in character with lenses of sandy material in places.	Buried soil of old land surface, immediately sealing and interpenetrated with natural iron pan.	under 212	0
214	2	red-brown to orange sands and gravel, cemented in layers with iron panning. Unexcavated, but cut through in places by Thomas's trench.	natural sands of the raised beach		0
215	2B	Voided rubble. Large and very varied boulders and broken rocks, up to 0.3m diam., some with mortar. Includes slate and an architectural fragment of Carsaig sandstone. Up to 0.6m thick.	Fill of rubbish pit to dispose of building rubble from 1900 restoration. sealed by 1930s road gravel	fill of 219 under 220	3
216	2	thin charcoal layer running out towards the wall separated from 208 by thin lens of orange sand. 0.01m thick	Could be the lowest part of 208	under 208	1b
217	2	light brown loamy sand, some gravel. Became differentiated from 207 on drying out. Up to 0.15m thick. Dies out westwards	levelling layer	under 207, over 208	1b
218	2	mid red-brown sandy loamy sand. Up to 0.10m thick. Dies out to south.	levelling layer	under 210 over 211	1b
219	2B	Cut of pit fill 215. Rectangular pit, steep vertical sides 0.6m deep, irregular base. In trench at W edge.	Builders pit for tidying unused rubble. Probably 1900 renovations, sealed by 1930s road gravel	cut of 215	3
220	2B	hard packed gravel, 0.05m thick, just in south edge of trench 2b	1930s road to Iona Community huts	under 200, same as 249	3
221	2D	Soft orange-brown layer with lumps of harder orange material up to 0.3m thick	burnt soil or clay lining	under 225, 224, 205	1c

Context	Area	Description	Interpretation	Relationship to other Contexts	Phase
222	2D	Soft brown loam with few inclusions. One vertical slab running E-W, also a disarticulated human femur running parallel to it.	Occupation? Or soil buildup.	under 221, 206	1b?
223	2B	cream-coloured mortar in thick lens, not lumps. Up to 0.25m thick. In the centre was an area of burnt stone cobbles surrounded by yellow sand.	mortar mixing area, possibly from Benedictine abbey work	under 205, 204	2
224	2D	very shell rich deposit in loose brown soil, up to 0.15m thick.	Working deposit of shells for mortar mix	under 225	2
225	2D	soft grey mortar-rich deposit. Lumps and spreads of mortar containing pea grit, occasional lumps of stone. Thickens to west, to 0.15m.	Looks like infilling of working debris	under 204	2
226	2B	Mid brown soft loam. Much animal bone, slag and two copper alloy artefacts. Up to	Undifferentiated build up of soil.	under 206, 223	2
227	2B	as 226	same as 226	under 223	2
228	2B	Area of large flat stones sitting on small cobbles. Forms a level surface. To the south and apparently associated with this paving are three upright stones look like packing, but no posthole seen	Possible paving during building works. Much slag and black material in this area	under 226, over 229	2
229	2B/A	rubble tumble. Mixed composition mainly small stones, rounded and angular with some larger. Extends over the top of demolished wall 203 to south.	demolition or levelling spread.	under 228, 206, over 230	2
230	2D	Voided rubble core of revetment. Large angular blocks, mainly of quarried Torridonian flags, randomly laid, up to 0.4 x 0.3m. Not well bonded into wall-face 203. No slate of mortar in fill.	Dumped rubble fill behind revetment face.	under 206, 237, 231. Same as 203	1a
231	2B	Black charcoal and slag-rich layer, up to 0.1m thick	Iron-working deposit?	under 226, 228	2
232	2B	Soft loam full of fragments of yellow mortar and small chips of slate. Up to 0.05m thick	Demolition debris?	under 231	1c?
233	2A	Black sandy loam, thin spread up to 0.03m thick, lying on Old Land surface.	Decayed turf?	Under 212	0
234	2C	topsoil cleaning after removal of turf in area 2c		under 200, over 235	3
235	2C	Soft light grey-brown loam with a mixture of mortar, shell, slate, small stones, up to 0.15m thick. Contains late medieval pottery - 2 strap handles SWGW	Levelling spreads.	under 234, over 144, 245, 246,	2

Context	Area	Description	Interpretation	Relationship to other Contexts	Phase
236	2D	Soft dark brown loam, not excavated	?occupation	under 222	1b?
237	2D	Gravel and pea gravel lying on wall core 230		under 204, over 230	1c?
238	2D	Rounded beach cobbles up to 0.10 diameter, lying against West extent of wall core 230. Not excavated.	Possible layer cut through by 247 rather than packing of revetment trench	against 230 , ?cut by 247	1a/b
239	2A	Soft white mortar seen in south baulk of 2a. In a lens about 2.0m across, up to 0.25m thick. In the middle is a layer of brown sandy loam.	Levelling using old mortar - not an in situ mortar-mixing deposit	Under 204, over 206	2
240	2A	Lens of gravel pebbles and some stone chips within 208. Seen in south baulk of 2a, up to 0.08m thick.	?levelling deposit	within 208	1b
241	2A	Soft dirty grey-brown sand within 208, only in south baulk of 2a, up to 0.15m thick.	?levelling deposit	within 208	1b
242	2A	Friable black-brown layer on top of Old Land Surface, seen in south baulk of 2a, 0.02m thick	Occupation?	under 212, over 213	0
243	2A	Burials, seen in south and east baulks of 2a. There is a thin stone slab under the southern burial which may be the base of a cist. These burials were cut through by Thomas in 1957. In the south baulk there are vertebrae and a scapula exposed (the skull was removed by Thomas's trench). A separate intersecting burial is exposed in the east baulk where two leg bones are cut through. The femur from Thomas's backfill (SF 212) almost certainly belongs to this individual.	These burials are very shallow - perhaps overburden was greater in past and has been levelled. But these could be post-medieval if they are not associated with early building.	under 205, 239, over 207	1b/2
244	2C	Hard pale purple clay set amongst large stone blocks. Unexcavated.	Clay bonding of collapsed wall?	Under 235	1c
245	2C	Area of Large stone blocks to east of wall 246. Not excavated. Stones up to 0.5 x 0.3m, Torridonian flags, some lying angled down to east. Exposed but not excavated.	Fallen or pulled over part of wall 246. Clay 244 may have been the bounding.	under 235	1c
246	2C	Curved semi-circular arc of walling on top of revetment 230. Width 0.6-0.8m . Large flat blocks of flagstone. Well laid inner and outer faces, rubble core.	Basal course of wall of building.	under 235	1a
247	2D/C	Putative cut for revetment wall 230. Follows line of inside of wall 203/230. Not excavated	Putative cut for revetment trench	filled with 230, cuts? 238	1a

Context	Area	Description	Interpretation	Relationship to other Contexts	Phase
248	2B	Soft brown loam with orange lumps	Destruction of clay wall?	Under 223	1c?
249	2B	Hard-packed gravel surface up to 0.15m thick.	1930s road	Under 200 over 215	3
250	2B	Charcoal-rich layer	Not excavated	Under 248, over 230	2?
251	2a	Cut of Thomas's Cutting 11d. 3.0 x1.3 m, 1.7m deep, vertical sides.	1957 excavation trench	filled with 202, cuts 204-214 etc	3

Site C

Feature	Area	Description	Interpretation	relationships
300	All	Topsoil, 0.25m thick		
301	3a	Steep-sided U-shaped cut containing iron 2" water pipe	Modern trench	
302	3a	Medium-brown backfill of mixed material including small stones and gravel 0.25m thick	trench fill	under 300, cuts 311
303	3a	Dark-orange burnt silty clay with charcoal flecks, 0.05m thick	occupation with industrial process	under 304, over 306
304	3a	Dark-orange-brown mixed silt , 0.1m thick	disturbance of 303	under 311, over 303
306	3a	Dark-brown silty loam, 0.1m thick	buried soil	under 303
307	3a	lower part of 306, medium-dark-brown silty loam , 0.10m thick	buried soil	under 306 over natural
308	3a	a series of about 8 parallel grooves cut in natural, each 0.05-0.1m in width, trending NW-SE	ard marks from prehistoric ploughing	under 307
309	3a	Medium-brown fill of ard marks, not excavated		fill of 308
310	3a	Natural sand		
311	3a	light orange-brown sandy loam with gravel	recent agricultural soil	under 300, over 304

Appendix 2: List of Samples

Site A

Bag sizes L= 20 litres; M = 10 litres; S = 5 litres

Sample #	Context	Area	Size bag	Reason for sampling	Applications/Comments
100	109	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Far west end, bottom
101	109, 120	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Far west end, bottom
102	108, 105	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Group through (105)
103	105	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Group through (105)
104	105	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Group through (105)
105	105	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Group through (105)
106	105, 112	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Group through (105)
107	111, 110, 109	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Lowest peat layer , centre of bank
108	109	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Lowest peat layer, centre of bank
109	104, 105	N-facing section Tr A inner bank	Kubiena tin	Micromorphology	Uppermost thin black layer
110	111, 110, 109	N-facing section Tr A inner bank	Small monolith	Small monolith (pollen sub sampling, C14 and micromorph)	Bottom peat (west), lowest peat, middle east of trench
111	109	N-facing section Tr A inner bank	Small monolith	Small monolith (pollen sub sampling, C14 and micromorph)	Middle peat, lowest peat, middle east of trench
112	109, 108	N-facing section Tr A inner bank	Small monolith	Small monolith (pollen sub sampling, C14 and micromorph)	Upper peat (east), lowest peat, middle east of trench
113	109	N-facing section Tr A inner bank	1 l	Spot sample	From layer in S100
114	105	N-facing section Tr A inner bank	1 l	Spot sample	From layer in S104
115	109	N-facing section Tr A inner bank	1 l	Spot sample	From layer in 107
116	105	N-facing section Tr A inner bank	1 l	Spot sample	from MM sample 108
117	105	N-facing section Tr A inner bank	1 l	Spot sample	MM sample 109
118	109	N-facing section Tr A inner bank	1 l	Spot sample	basal peat
119	109	N-facing section Tr A inner bank	1 l	Spot sample	mid peat

Sample #	Context	Area	Size bag	Reason for sampling	Applications/Comments
120	109	N-facing section Tr A inner bank	1 l	Spot sample	upper peat
121	124	Base of ditch	Bag 1 of 3 L	ID/date organic (straw/grass/leaves/twigs etc)	organic in base of ditch
121	124	Base of ditch	Bag 2 of 3 L	ID/date organic (straw/grass/leaves/twigs etc)	better preserved lump at base of ditch
121	124	Base of ditch	Bag 3 of 3 L	ID/date organic (straw/grass/leaves/twigs etc)	better preserved lump by south edge of section
122	125	S-facing section of ditch	1 M	burnt bone	2-3 small fragments of burnt bone in wet clay rich layer above (124)
123	124	Base of ditch	1 L	ID/date organic (straw/grass/leaves/twigs etc)	organic in base of ditch, block uplift
124	124	Base of ditch	1 M	ID/date organic (straw/grass/leaves/twigs etc)	as above, smaller but intact chunks for gentle flotation/seperation
125	124	Base of ditch	1 S	ID/date organic (straw/grass/leaves/twigs etc)	twigs, identifiable wood fragments
126	124	Base of ditch	1 S	ID/date organic (straw/grass/leaves/twigs etc)	bark fragment
127	124	Base of ditch	1 L	ID/date organic (straw/grass/leaves/twigs etc)	bulk sample
128	124	Base of ditch	1 M	ID/date organic (straw/grass/leaves/twigs etc)	block uplift
129	124, 125	N-facing section of ditch	Large monolith	Micromorphology, dating	From organic waterlogged peaty layer at base of ditch
130	124, 125	S-facing section of ditch	Small monolith	Micromorphology, dating	From organic waterlogged peaty layer at base of ditch
131	128, 129, 100	N-facing section of ditch	Large monolith	Micromorphology, dating	Upper layers of ditch - ascertain formation: silting or dumps of material?
132	125	S edge of ditch	1 L	dating?	burnt bone fragments (v. small in this layer)
133	125	N edge of ditch	1 L	dating?	burnt bone fragments (v. small in this layer)
134	136,139	S-facing section of outer bank	Kubiena tin	Micromorphology, comparison with inner bank peaty layers	Kubiena tin from peaty layer and black lens in outer bank
135	141	Depth 59-60 cm from surface (30.32-.60=29.72mOD)	Auger core	pollen and dating	

Sample #	Context	Area	Size bag	Reason for sampling	Applications/Comments
136	141	Depth 83-84 cm from surface (=29.49m OD)	Auger core	pollen and dating	
137	142	Depth 30-31 cm from surface (30.37-.30= 30.07mOD)	Auger core	pollen and dating	
138	142	Depth 72-73 cm from surface (=29.65 m OD)	Auger core	pollen and dating	

Site B

Sample #	Context	Area	Size bag	Reason for sampling	Applications/Comments
200	205	2D	Large	Shell for mortar	shell ID
201	214	2A	Kubiena	Soil micromorphology	
202	213	2A	Kubiena	Soil micromorphology	
203	212/213	2A	Kubiena	Soil micromorphology	
204	212	2A	Kubiena	Soil micromorphology	
205	211	2A	Kubiena	Soil micromorphology	
206	211	2A	Kubiena	Soil micromorphology	
207	210/209	2A	Kubiena	Soil micromorphology	
208	208/209	2A	Kubiena	Soil micromorphology	
209	208	2A	Kubiena	Soil micromorphology	
210	208/207	2A	Kubiena	Soil micromorphology	
211	207	2A	Kubiena	Soil micromorphology	
212	207/206	2A	Kubiena	Soil micromorphology	
213	206	2A	Kubiena	Soil micromorphology	
214	204/205	2A	Kubiena	Soil micromorphology	
215	213	2A	Kubiena	Soil micromorphology	
216	213	2A	Kubiena	Soil micromorphology	
217	231	2B	1 l	charcoal from slag	C14

Sample #	Context	Area	Size bag	Reason for sampling	Applications/Comments
218	232	2B	Large	slate types in context	Slate ID
219	242	2A	Medium	botanics	Plant type, C14
220	239	2A	Small	mortar type	Mortar id
221	208	2A	Medium	botanics and slag ------	slag ID and C14
222	223	2B	Large	mortar type	Mortar id
223	248	2B	Medium	burnt layer	C14, flotation
224	221	2D	Medium	burnt layer	material id?
225	232	2B	Medium	slag layer	C14, flotation
226	244	2C	Medium	clay	clay id
227	250	2B	Small	charcoal	C14, flotation
228	211	2a	mall	charcoal	C14 floation

Site C

Sample #	Context	Area	Size bag	Reason for sampling	Applications/Comments
301	303	3a	Large	Burnt layer	C14
302	306	3a	Large	Mixed layer	

APPENDIX 3: LIST OF FINDS

Site A

SF Number	Context	Area	# of pieces	Material	Type	Description
100	101	A	3	ceramic	pot	Modern pot in backfill
101	101	A	1	chert	chert flake	Rose coloured chert flake, one edge looks like it has been retouched? In backfill
102	101	A	c.30 whole vessels plus 2 full buckets of sharps	glass	bottles	Deliberate deposit of used bottles in the base of the upper banks (major concentration >35) and in the base of the ditch (4-5 vessels). A mix of primarily brown beer bottles, green Tennents lager bottes (2), green Gordon Younger of Alloa beer bottles (2), Roses tonic (lemon tonic?), Gordons gin (1), Red Hackle whisky (1), Gonzalez sherry? (1) and other unidentifiable fragments. Some intact examples have been kept for the archive and photographs taken for records.
103	100	A	1	metal	coin	1964 shilling in topsoil over outer bank (bull and harp visible)
104	101	A	1	flint	burnt flint flake	White burnt flake in backfill
105	101	A	1	leather		Shoe heel with small patches of rust from nails
106	124	A	1	chert	chert flake	Grey chert flake, possibly worked? From reddish peat layer at base of ditch

Site B

SF No.	Context	Area	Phase	amount	Material	Type	Description
200	202	2A	3	4	ceramic	pot	bulk modern pottery
201	202	2A	3	5	metal	iron	bulk nails/wire
202	202	2A	3	5kg	slag	slag	bulk slag
203	202	2A	3	1	metal	copper alloy	George V 1937 copper penny
204	206	2B	2	1	ceramic	pot	bodysherd local redware
205	206	2B	2	1	metal	iron	Coffin nail?
206	215	2B	3	1	metal	iron	iron object - chisel?
207a	222	2D	1b?	444g	bone	animal	disarticulated fragments
207b	222	2d	1b?	2	iron	nails	
208	215	2B	3	1	lithic	flint	flint chunk
209	204	2B	2	1	ceramic	pot	jug handle SWGW glazed
210	202	2A	3	1	ceramic	pot	modern porcelain
211a	205	2B	2	41g	bone	animal	disarticulated fragments
211b	205	2b	2	1	iron	tool	punch
212	202	2A	3	111g	bone	human	human femur
213	205	2B	2	1	lithic	flint	flint chunk
214	206	2B	2	2	bone	fish	fish vertebrae
215	205	2B	2	1	lithic	flint	flint , broken artefact?
216	206	2B	2	427g	bone	animal	disarticulated fragments
217	206	2B	2	712g	slag	slag	bulk slag
218	206	2B	2	1	metal	iron	iron nail
219	222	2D	1b?	305g	bone	human	Partial femur
220	227	2B	2	304g	bone	mixed	
221	227	2B	2	1	metal	copper alloy	perforated rectangular copper alloy plate
222	227	2B	2	10g	slag	slag	bulk slag
223	226	2B	2	591g	bone	mixed	bulk bone
224	226	2B	2	1	metal	iron	possible iron nail
225	226	2B	2	1	metal	copper alloy	perforated circular copper alloy plate
226	226	2B	2	954g	slag	slag	bulk slag
227	231	2B	2	5 kg	slag	slag	bulk slag
228	231	2B	2	103g	bone	animal	bulk bone
229	235	2C	2	4	ceramic	pot	a) large jug handle SWGW, b) very large jug handle SWGW, c) medieval greyware thumb decoration, d) rim, unglazed
230	235	2C	2	2	metal	iron	nails
231	221	2D	1c	353g	bone	mixed	bulk bone
232a	235	2C	2	605g	bone	mixed	bulk bone

SF No.	Context	Area	Phase	amount	Material	Type	Description
232b	235	2c	2	86g	shell		limpets and whelks
233	235	2C	2	174g	slag	slag	bulk slag
234	235	2C	2	1	ceramic	tuyère	tuyère
235	235	2C	2	3	metal	iron	iron vessel and other iron pieces
236	234	2C	3	6	ceramic	pot	5 modern pottery, 1 medieval bodysherd unglazed
237	215	2B	3	2	glass	stained	medieval stained glass
238	215	2B	3	1	stone	stone	architectural column ?newel post
239	230	2B	1a	1	metal	iron	nail?
240	215	2B	3	61g	slag	slag	bulk slag
241	205	2A	2	1	ceramic	pot	green glazed redware rim (found in section)
242	226	2B	2	1	metal	iron	iron nail
243	243	2A	1b/2	19g	bone	human	burial
244	226	2B	2	1	ceramic	pot	bodysherd green glazed SWGW
245	227	2B	2	1	ceramic	pot	unglazed medieval potsherd
246	204	2A/C	2	31g	bone	animal	bulk bone
247	230	2B	1a	1	metal	iron	iron nail
248	230	2B	1a		lithic	flint	flint core (between 230/203)
249a	235	2C	2	14g	bone	animal	bulk bone
249b	235	2C	2	1	iron		nail
250	205	2A	3	1	metal	iron	Thomas's tent peg section nail
251	204	2C/D	2	131g	bone	animal	semi-articulated, just above 221
252	202	2A	3	1	ceramic	pot	basal angle, medieval jug
253	206	2A	2	0	bone	human	in section

Site C

SF Number	Context	Area	# of pieces	Material	Type	Description
305	302	3A	1	Ceramic	Pot	handmade bodysherd ?Medieval
306	304	3A	1	Lithic	Flint	Small flake
308	302	3A	1	Ceramic	Pot	?Craggan ware - large body sherd with burnt exterior
309	302	3A	1	Ceramic	Pot	?Medieval body sherd handmade
310	302	3A	2	Slag	Slag	Two fragments
311	302	3a	6	Bone	-	Fragments of burnt bone
312	302	3a	2	Stone	Stone	Two fire-cracked fragments
313	304	3a	1	Stone	Stone	Fire-cracked fragment
314	304	3a	1	Clay	Clay	Indeterminate small lump
315	304	3a	5	Bone	-	Fragments of burnt bone
316	304	3a	2	Ceramic	Pot	Two conjoining rim sherds upright rim ?craggan
317	304	3a	4	Stone	Flint/Chert	Four small flakes
318	304	3a	1	Ceramic	Pot	handmade gritty ware, Body sherd
319	394	3a	2	Stone	Stone	Two fire-cracked surface flakes

Appendix 4: List of Photographs

Site A

No.	Area	Context	Details	From	Date	Initials
001-013	A		Pre-ex general views of Trench 1		15/05/2017	CMAC
014-017	A		General views of T1 area where core sites were		16/05/2017	EC
18	A		General views of T1 area where core sites were		16/05/2017	EC
019-025	A		Record shots of SF 102, main bottle dump in backfill	SW	17/05/2017	CMAC
026-032	A		Record shots of SF 102, main bottle dump in backfill	SW	17/05/2017	CMAC
033-034	A		Record shots of SF 102, main bottle dump in backfill	S	17/05/2017	CMAC
035-037	A		Record shots of SF 102, main bottle dump in backfill	SW	17/05/2017	CMAC
038-039	A		Finds photos - beer bottles		17/05/2017	CMAC
040-042	A		Finds photos - Tennents bottles		17/05/2017	CMAC
43	A		Tonic bottle cap e.g.		17/05/2017	CMAC
44	A		Beer bottle cap e.g.		17/05/2017	CMAC
45	A		Buckets of bottles and sharps		17/05/2017	CMAC
46	A	Inner bank	General view S-facing section of inner bank	WSW	18/05/2017	CMAC
47	A	Inner bank	General view S-facing section of inner bank	WSW	18/05/2017	CMAC
48	A	Inner bank	Inner bank post ex	W	18/05/2017	CMAC
49	A	Inner bank	N-facing section of bank	WNW	18/05/2017	CMAC
50	A	Inner	General view of S-facing section of inner bank	WSW	18/05/2017	CMAC

No.	Area	Context	Details	From	Date	Initials
		bank				
51	A	Inner bank	General view of S-facing section of inner bank	WSW	18/05/2017	CMAC
52	A	Inner bank	General view of S-facing section of inner bank	WSW	18/05/2017	CMAC
53	A	Inner bank	General view of N-facing section of inner bank	WNW	18/05/2017	CMAC
54	A	Inner bank	S-facing section of inner bank, oblique	SW	18/05/2017	CMAC
55	A	Inner bank	S-facing section of inner bank, oblique	SW	18/05/2017	CMAC
56	A	Inner bank	S-facing section of inner bank, outer slope (W)	S	18/05/2017	CMAC
57	A	Inner bank	S-facing section of inner bank, outer slope (W)	S	18/05/2017	CMAC
58	A	Inner bank	S-facing section of inner bank	SW	18/05/2017	CMAC
59	A	Inner bank	S-facing section of inner bank	SW	18/05/2017	CMAC
60	A	Inner bank	S-facing section of inner bank, outer slope	W	18/05/2017	CMAC
61	A	Inner bank	S-facing section of bank	SE	18/05/2017	CMAC
62	A	Inner bank	S-facing section of bank	SE	18/05/2017	CMAC
63	A	Inner bank	Post-ex inner bank, oblique	SE	18/05/2017	CMAC
64	A	Inner bank	S-facing section of inner bank, crest	SE	18/05/2017	CMAC
65	A	Inner bank	S-facing section of inner bank, crest	SW	18/05/2017	CMAC
66	A	Inner bank	S-facing section of inner bank, crest	S	18/05/2017	CMAC
67	A	Inner bank	S-facing section of inner bank, inner slope (E)	S	18/05/2017	CMAC
68	A	Inner bank	S-facing section of inner bank, crest	S	18/05/2017	CMAC

No.	Area	Context	Details	From	Date	Initials
69	A	Inner bank	S-facing section of inner bank, crest	S	18/05/2017	CMAC
70	A	Inner bank	S-facing section of inner bank, outer slope	S	18/05/2017	CMAC
71	A	Inner bank	S-facing section of inner bank, crest	SE	18/05/2017	CMAC
72	A	Inner bank	S-facing section of inner bank, crest	SE	18/05/2017	CMAC
73	A	Inner bank	S-facing section of inner bank, crest	SE	18/05/2017	CMAC
74	A	Inner bank	S-facing section of inner bank, oblique	SSE	18/05/2017	CMAC
75	A	Inner bank	S-facing section of inner bank, outer slope	S	18/05/2017	CMAC
76	A		Post-ex general view	E	18/05/2017	JAD
77	A		Post-ex trench base (representative from middle of trench)	S	18/05/2017	JAD
78	A	Inner bank	Bank, post - ex setting	SE	18/05/2017	JAD
79	A	Inner bank	Bank, post - ex setting	WSW	18/05/2017	JAD
80	A	Inner bank	Bank, post - ex setting	WSW	18/05/2017	JAD
81	A	Inner bank	N-facing section of inner bank, E end	N	18/05/2017	JAD
82	A	Inner bank	N-facing section of inner bank, inner slope	N	18/05/2017	JAD
83	A	Inner bank	N-facing section of inner bank, crest	N	18/05/2017	JAD
84	A	Inner bank	N-facing section of inner bank, outer slope	N	18/05/2017	JAD
85	A		Inner bank, view downslope towards ditch	ENE	18/05/2017	JAD
86	A		Inner bank, view downslope towards ditch	ENE	18/05/2017	JAD
87	A	Inner bank	N-facing section, example of Thomas excavation pedestal of soil left under stones in section	NE	18/05/2017	JAD

No.	Area	Context	Details	From	Date	Initials
88	A	Inner bank	N-facing section, example of possible turves	N	18/05/2017	JAD
89	A	Inner bank	N-facing section, example of possible turves	N	18/05/2017	JAD
90	A	Inner bank	N-facing section, example of possible turves	N	18/05/2017	JAD
91	A	Inner bank	N-facing section, example of possible turves	N	18/05/2017	JAD
92	A	Outer bank	N-facing section, example of possible turves, oblique view	NE	18/05/2017	JAD
093-094	A		Working shot of Joss drawing N-facing section inner bank	E	20/05/2017	CMAC
095-096	A	Ditch	Red Hackle whisky bottle at the base of the ditch		23/05/2017	JAD
97	A	Ditch	Mid-ex of ditch as backfill being removed	W	23/05/2017	CMAC
98	A	Ditch	Mid-ex of ditch as backfill being removed	NW	23/05/2017	CMAC
099-101	A	Ditch	Working shot of Cathy emptying ditch		23/05/2017	JAD
102	A	Ditch	Bottles from ditch SF 102		23/05/2017	JAD
103-106	A	Ditch	Organic rich layer at base of ditch	W	23/05/2017	CMAC
107	A	Ditch	Organic rich layer at base of ditch, in plan	S	23/05/2017	JAD
108-111	A	Ditch	Cathy emptying ditch - soggy!!	SE	23/05/2017	JAD
112-115	A	Inner bank	N-facing section of inner bank with kubiena lids	S	24/05/2017	JAD
116-118	A	Inner bank	S-facing section of inner bank (damper conditions)	N	24/05/2017	JAD
119	A	Outer bank	Cutting 6 (narrowing) through outer bank	W	24/05/2017	JAD
120	A	Outer bank	Cutting 6 (narrowing) through outer bank	E	24/05/2017	JAD
121-124	A	136	Mid-ex of possible turves in N-facing section, outer bank	N	24/05/2017	CMAC
125	A	Outer bank	Mid-ex of outer bank	S	25/05/2017	JAD

No.	Area	Context	Details	From	Date	Initials
126	A	Outer bank	Mid-ex of outer bank	S	25/05/2017	JAD
127	A	124	Wood/organic fragments in situ	N	25/05/2017	CMAC
128	A	124	Wood/organic fragments in situ	N	25/05/2017	CMAC
129	A	124	Wood/organic fragments cross section	S	25/05/2017	JAD
130	A	124	Wood/organic fragments in situ		25/05/2017	CMAC
131	A	124	Wood/organic fragments in situ		25/05/2017	CMAC
132	A	124	Wood/organic fragments in situ		25/05/2017	CMAC
133	A	124	Wood/organic fragments in situ		25/05/2017	CMAC
134	A	124	Wood/organic fragments cross section		25/05/2017	CMAC
135	A	124	Working shot	SE	25/05/2017	JAD
136	A	124	Working shot	SE	25/05/2017	JAD
137	A	124	Wood in situ		25/05/2017	JAD
138	A	124	Wood ex situ	SW	25/05/2017	JAD
139	A	124	Wood ex situ	SW	25/05/2017	JAD
140	A	123	S-facing section of vallum ditch	S	27/05/2017	CMAC
141	A	123	S-facing section of vallum ditch	S	27/05/2017	CMAC
142	A	123	S-facing section of vallum ditch	S	27/05/2017	CMAC
143	A	123	S-facing section of vallum ditch, detail	S	27/05/2017	CMAC
144	A	123	S-facing section of vallum ditch, oblique	SW	27/05/2017	CMAC
145	A	123	S-facing section of vallum ditch	S	27/05/2017	CMAC
146	A	123	N-facing section of vallum ditch	N	27/05/2017	CMAC
147	A	123	N-facing section of vallum ditch	N	27/05/2017	CMAC
148	A	123	N-facing section of vallum ditch	N	27/05/2017	CMAC
149	A	123	N-facing section of vallum ditch	N	27/05/2017	CMAC
150	A	123	N-facing section of vallum ditch	N	27/05/2017	CMAC
151	A	123	N-facing section of vallum ditch, oblique	NW	27/05/2017	CMAC
152	A	123	Post-ex vallum ditch base	W	27/05/2017	CMAC
153	A	123	Post-ex vallum ditch base	E	27/05/2017	CMAC

No.	Area	Context	Details	From	Date	Initials
154	A	123	S-facing section of outer bank	S	27/05/2017	JAD
155	A	123	N-facing section of outer bank	N	27/05/2017	JAD
156	A	123	N-facing section of outer bank, oblique	NW	27/05/2017	JAD
157	A	123	Post-ex general view of Trench A	W	27/05/2017	JAD
158	A	123	Post-ex, S-facing section of outer bank, oblique	SW	27/05/2017	JAD
159	A	123	Post-ex, S-facing section of outer bank, oblique	SE	27/05/2017	JAD
160	A	123	Post-ex general view of ditch and outer bank	SE	27/05/2017	JAD
161	A	106/109 /108	N-facing section with baulk removed to clean up section	N	27/05/2017	JAD
162	A	106/109 /108	Inner bank, N-facing section, baulk obscuring106/108 removed, left	N	27/05/2017	JAD
163	A	106/109 /108	Inner bank, N-facing section, baulk obscuring106/108 removed, mid	N	27/05/2017	JAD
164	A	106/109 /108	Inner bank, N-facing section, baulk obscuring106/108 removed, left	N	27/05/2017	JAD
165	A	123	N-facing section of vallum ditch (monolith samples taken)	N	27/05/2017	JAD
166-167	A	Outer bank	S-facing section of outer bank	S	30/05/2017	CMAC
168	A	Outer bank	N-facing section of outer bank, oblique	N	30/05/2017	CMAC
169	A	Outer bank	N-facing section of outer bank, oblique	NW	30/05/2017	CMAC
170	A	Outer bank	N-facing section of outer bank	NE	30/05/2017	CMAC
171	A	Outer bank	S-facing section of outer bank, oblique	SE	30/05/2017	CMAC
172	A	Outer bank	S-facing section of outer bank, oblique	SE	30/05/2017	CMAC
173-174	A	Outer bank	S-facing section of outer bank after kubiena sample	S	30/05/2017	CMAC
175-	A		Post-ex general photos with people for scale		30/05/2017	CMAC

No.	Area	Context	Details	From	Date	Initials
196						
197-199	A		After returfing record shots		31/05/2017	CMAC

Site B

No.	Area	Context	Details	From	Date	Initials
4320	2		Pre-excavation shots of Trench 2		14/05/2017	CM
4321	2		Pre-excavation shots of Trench 2		14/05/2017	CM
4322	2		Pre-excavation shots of Trench 2		14/05/2017	CM
4323	2		Pre-excavation shots of Trench 2		14/05/2017	CM
4324	2		Pre-excavation shots of Trench 2		14/05/2017	CM
4325	2		Pre-excavation shots of Trench 2 immediate context		14/05/2017	CM
4326	2		Initial wall and concrete after deturfing		16/05/2017	EC
4327	2		Initial wall and concrete after deturfing		16/05/2017	EC
4328	2		Initial wall and concrete after deturfing		16/05/2017	EC
4329	2		General shot	S	16/05/2017	EC
4330	2		General shot	W	16/05/2017	EC
4331	2		General shot	W	16/05/2017	EC
4332	2		General shot	E	16/05/2017	EC
4333	2		General shot	E	16/05/2017	EC
4334	2		General shot	SE	16/05/2017	EC
4335	2		General shot showing wall	SE	16/05/2017	EC
4336	2		Top courses of c. 1950s wall from above	SW	16/05/2017	EC
4337	2		Top courses of c. 1950s wall from	NW	16/05/2017	EC

No.	Area	Context	Details	From	Date	Initials
			above			
4338	2		Top courses of c. 1950s wall from above	NW	16/05/2017	EC
4339	2		General shot	NE	16/05/2017	EC
4340	2		General shot	E	16/05/2017	EC
4341	2		Lizard first for Iona?		16/05/2017	EC
4342	2		Lizard		16/05/2017	EC
4343	2		Wall, SSE elevation	SE	16/05/2017	EC
4344	2		North-facing section	N	16/05/2017	EC
4345	2		Thomas's TPQ coin in situ	W	16/05/2017	JAD
4346	2		Thomas's TPQ coin in situ close-up	W	16/05/2017	JAD
4347	2		South-facing section	S	16/05/2017	EC
4348	2		South-facing section	SW	16/05/2017	EC
4349	2		South-facing section	SW	16/05/2017	EC
4350	2		1950s wall courses from above	E	16/05/2017	EC
4351	2		1950s wall courses from above	E	16/05/2017	EC
4352	2		1950s wall courses from above	NW	16/05/2017	EC
4353	2		1950s wall courses from above	SE	16/05/2017	EC
4354	2		1950s wall courses from above	N	16/05/2017	EC
4355	2		1950s wall courses from above	N	16/05/2017	EC
4356	2		1950s wall courses from above	N	16/05/2017	EC
4357	2		1950s wall courses from above detail of concrete	S	16/05/2017	EC
4358	2		Wall and area to north after removal of modern reconstructed upper courses (201)	S	17/05/2017	PY
4359	2		Wall and area to north after removal of modern reconstructed upper courses (201)	S	17/05/2017	PY

No.	Area	Context	Details	From	Date	Initials
4360	2		Wall and area to north after removal of modern reconstructed upper courses (201)	S	17/05/2017	PY
4361	2		Cleaned section south facing at east end of trench B	S	17/05/2017	PY
4362	2		Cleaned section south facing at east end of trench B	S	17/05/2017	PY
4363	2		Cleaned section south facing at east end of trench B	S	17/05/2017	PY
4364	2		Group shot			EC
4365	2		Group shot			EC
4367	2		General shot			EC
4368	2B	215	pit of stones	N		EC
4369	2A		East section			EC
4370	2A		East section			EC
4371	2A		East section base detail			EC
4372	2A		East section top detail			EC
4373	2A		East section top detail			EC
4374	2A		North section with labels			EC
4375	2A		Working shot			EC
4376	2A		Working shot			EC
4377	2A		Working shot			EC
4378	2B	215	South section of pit of stones	N		EC
4379	2B	215	South section of pit of stones	N		EC
4380	2B	215	South section of pit of stones	W		EC
4381	2B	215	South section of pit of stones	E		EC
4382	2B	215	South section of pit of stones	N		EC
4383	2A		Working shot Sarah Elliot			EC
4384	2A		Working shot Sarah Elliot			EC
4385	2		Working shot			EC

No.	Area	Context	Details	From	Date	Initials
4386	2B	223	Mortar level	W		EC
4387	2B	223	Mortar level	S		EC
4388	2B	223	Mortar level	S		EC
4389	2B	223	Mortar level	N		EC
4390	2D	221	Burnt layer	W		EC
4391	2D	221	Burnt layer	N		EC
4392	2A		East section - Kubiena trays			EC
4393	2A		East section - Kubiena trays lower			EC
4394	2A		East section - Kubiena trays upper			EC
4395	2A		East section - Kubiena trays all			EC
4396	2B	229	Rubble tumble	N		EC
4397	2B	229		E		EC
4398	2B	229	showing fall into S section 2A	NE		EC
4399	2A	214	Sample 216			EC
4400	2A	214	Sample 214 Kubiena			EC
4401	2C	222	Long bone (SF 219)			EC
4402	2B	228	Paving on rubble	N		EC
4403	2B	228	Paving on rubble	E		EC
4404	2A/B	229	Tumble on wall	N		EC
4405		215	N--- part (SF 238)			EC
4406		215	N--- part (SF 238)			EC
4407	2C	230	Rubble core of revetment	S		EC
4408	2C	230	Rubble core of revetment	S		EC
4409	2C	230	Rubble core of revetment	N		EC
4410	2C	230	Rubble core of revetment	N		EC
4411	2C	230	Rubble core of revetment	W		EC
4412	2C	230	Rubble core of revetment	E		EC
4413	2B	228/9	Paving	N		EC
4414	2B	228/9	Paving	N		EC
4415	2B	228/9	Paving	S		EC

No.	Area	Context	Details	From	Date	Initials
4416	2B	228/9	Paving	N		EC
4417	2B	228/9	Paving	E		EC
4418	2C	200	After turf removal	S		EC
4419			General action shot	W		EC
4420	2C	200	After cleaning	E		EC
4421	2C	200	After cleaning	W		EC
4422	2C	221	Burnt layer	S		EC
4423	2C	221/236	Lowest excavation of area of bottom of burnt clay 221	S		PY
4424	2C	221/236	Lowest excavation of area of bottom of burnt clay 221	S		PY
4425	2C	221/236	Lowest excavation of area of bottom of burnt clay 221	S		PY
4426	2C	203/246	Apse	E		EC
4427	site		From tower	N		EC
4428	site		From tower	N		EC
4429	site		Reilig Oran/Road of the Dead	N		EC
4430			Site C from tower	N		EC
4431			Site C from tower	N		EC
4433	2B	248	Burnt soil	N		JB
4435	2B	248	Burnt soil close-up	N		JB
4436	2B		mid section	E		EC
4438	2B		mid section close up	E		EC
4439	2A/B	203	Close up of wall junction	S		EC
4440	2A/B	203	Close up of wall junction	N		EC
4441	2A/B	203	Close up of wall junction	W		EC
4442	2A/B	203	Close up of wall junction	N		EC
4443	2C/D		Post-ex	W		EC
4444	2C/D		Post-ex	W		EC
4445	2C/D		Post-ex	W		EC

No.	Area	Context	Details	From	Date	Initials
4446	2C		Wall tumble and apse	S		EC
4447	2C		Apse	E		EC
4448	2C		Apse	E		EC
4449	2C		Apse	E		EC
4450	2C		Apse and tumble 246	S		EC
4451	2C		Apse and tumble 246	S		EC
4452	2D		Section N face	S		EC
4453	2D		Section W face	E		EC
4454	2D		Section W and N face	E		EC
4455	2A	229	Tumble on wall	N		EC
4456	2C		Apse	N		EC
4457	2D	230	Wall core	W		EC
4458	site		Chapel and apse	NE		EC
4459	site		Apse	N		EC
4460	site		Context	N		EC
4461	site		Context shot Reilig Odhrain	N		EC
4462	site		Apse	N		EC
4463	site		Apse from tower	N		EC
4464	site		Apse from tower	N		EC
4465	site		Site shot from tower	N		EC
4466	site		Site shot - geotex protection	W		EC
4467	site		backfilling	E		EC
4468	site		backfilling			EC
4469	site		backfilling			EC
4470	site		backfilling			EC
4471	site		backfilling			EC
4472	site		backfilling			EC
4473	site		backfilling			EC
4474	site		backfilling			EC
4475	site		backfilling			EC

No.	Area	Context	Details	From	Date	Initials
4476	site		backfilling			EC
4477	site		backfilling			EC
4478	site		backfilling			EC
4479	site		backfilling			EC
4480	site		backfilling			EC
4481	site		backfilling			EC
4482	site		backfilling			EC
4483	site		backfilling			EC
4484	site		After re-turfing	W		EC
4485	site		After re-turfing	E		EC

Site C

Image number	Area	Context	Details	From	Date	Initials
6030 - 6037	All	-	Pre-excavation shots and immediate surroundings	-	14/05/2017	CM
6048	3a	301	Mid-ex of iron water pipe cut	S	22/05/2017	JB
6049	3a	301	Mid-ex of iron water pipe cut	S	22/05/2017	JB
6050	3a	301	Mid-ex of iron water pipe cut	W	22/05/2017	JB
6051	3a	301	Mid-ex of iron water pipe cut	E	22/05/2017	JB
6052	3a	301	Mid-ex of iron water pipe cut	E	22/05/2017	JB
6053	3a	304	Mid-ex of 304 above burnt layer 303	N	22/05/2017	JB
6056	3a	301	Depth of iron water pipe	S	22/05/2017	JB
6057	3a	301	Depth of iron water pipe	S	22/05/2017	JB
6058	3a	301	Depth of iron water pipe	E	22/05/2017	JB
6066	3b	-	Blocked rubble drain and end of plastic water pipe (flooded)	E	22/05/2017	JB
6069	3a	303	Orange burnt layer	W	22/05/2017	JB
6070	3a	303	Orange burnt layer	N	22/05/2017	JB
6071	3a	303	Orange burnt layer	W	22/05/2017	JB
6072	3a	303	Orange burnt layer	S	22/05/2017	JB
6073	3a	303	Orange burnt layer	E	22/05/2017	JB
6074	3a	-	West-facing section	W	25/05/2017	JB
6075	3a	303	Orange burnt layer	W	25/05/2017	JB
6076	3a	310	West-facing section and Natural	W	25/05/2017	JB
6077	3a	307, 310	Mid-ex of 307 showing Natural 310	W	25/05/2017	JB
6079	3a	307	?Original ground surface	W	25/05/2017	JB

6080	3a	307	?Original ground surface	N	25/05/2017	JB
6081	3a	-	Mid-ex of south-facing section	S	25/05/2017	JB
6082	3a	307	?Original ground surface	E	25/05/2017	JB
6083	3a	310, 308	Post-ex revealing ard marks in Natural	W	25/05/2017	JB
6084	3a	310, 308	Post-ex revealing ard marks in Natural	W	25/05/2017	JB
6085	3a	310, 308	Post-ex revealing ard marks in Natural	E	25/05/2017	JB
6087	3a	310, 308	Post-ex revealing ard marks in Natural	N	25/05/2017	JB
6088	3a	310, 308	Post-ex revealing ard marks in Natural	E	25/05/2017	JB

Appendix 5: List of Drawings

Site A

Drawing number	Area	Feature(s)	Details	Scale	Drawn by
101	A	Inner bank	North - facing section of inner bank part 1	01:10	JAD
102	A	Inner bank	North - facing section of inner bank part 2	01:10	JAD
103	A	Inner bank	South - facing section of inner bank part 1	01:10	CMAC
104	A	Inner bank	South - facing section of inner bank part 2	01:10	CMAC
105	A	Inner bank to ditch	South - facing section (inner bank - ditch)	01:10	CMAC
106	A	Ditch to outer bank	South - facing section (ditch - outer bank)	01:10	CMAC
107	A	Outer bank to ditch	North - facing section (outer bank - ditch)	01:10	JAD
108	A	Outer bank to ditch	North - facing section (outer bank - ditch)	01:10	JAD
109	A	Outer bank	North - facing section (outer bank)	01:10	JAD
110	A	Outer bank	South - facing section (outer bank)	01:10	CMAC
111	A	Ditch	South - facing section (ditch)	01:10	CMAC
112	A	Ditch	North - facing section (ditch)	01:10	CMAC
113	A	All	Post-ex plan of Trench A created with total station and finalised in illustrator visualising the breaks of slope, natural boulders, Thomas's sondage through to bedrock and ditch cut. Also marked are the main finds (bottles at base of cutting and also the chert flake from the base of the ditch.)		CMAC

Site B

Drawing number	Area	Feature(s)	Details	Scale	Drawn by	Date
201	2A	201	Plan of wall (201)	01:20	ENC	
202	2A	201, 203	Elevation of wall 203/201	01:10	ENC	
203	2A	200 - 214	South facing section where curving end of wall goes into Charles Thomas's section. Abuts end of drawing 202 but on different alignment	01:10	PY	
204	2B	Trench	Plan of 2B	01:20	ENC	18/05/2017
205	2D	Trench	Plan of 2D	01:20	ENC	22/05/2017
206	2		West facing section at East end of 2A CT trench	01:10	PY	24/05/2017
207	2		Overlay of drawing 206 to show location of sample tins	01:10	PY	25/05/2017
208	2C		Site plan	01:20	ENC	27/05/2017
209	2D	221/222	West facing section of area D	01:10	PY	27/05/2017
210	2A		South section of 2A	01:10	ENC	28/05/2017
211	2		Composite N-S section	01:10	ENC	28/05/2017
212	2D	203	Top of wall	01:20	ENC	24/05/2017
213	2B		Mid section of trench E face	01:10	JB	30/05/2017
214	2B	219	S section of trench	01:10	AB	30/05/2017
215	2C		N section	01:10	PY	30/05/2017
216	2D		N section	01:10	PY	30/05/2017
217	2B		N section of 2B	01:10	PY	30/05/2017
218	2B		W section of 2B	01:10	PY	30/05/2017
219	2B/A		Plan of 2B	01:20	ENC	29/05/2017
220		203/230	combined plan of wall	01:20	enc	15/06/2017
221		201 219 202	modern features phase plan	01:20	enc	16/06/2017

Site C

Drawing number	Area	Feature(s)	Details	Scale	Drawn by	Finish Date
301	3a	300, 311, 301, 302, 304, 303, 306, 307	West-facing section showing iron water pipe	01:10	JB	25-May
302	3a	300, 311, 304, 303, 306, 307	North-facing section	01:10	JB	25-May
303	3a	308, 309, 310, 304, 306	Plan showing iron water pipe and ard marks	01:20	JB	25-May

Appendix 6: results of wet seiving

Project	Sample	Contx	Area	Res. Vol. (ltr)	Res. Weight (kg)	CV (g)	Seed (g)	Nutshell (g)	Burnt bone (g)	Teeth (g)	Anim. Bone (g)	Fish bone (g)	Pottery (g)	Lithics (g)	Worked stone (g)	Quartz (g)	Glass (g)	Metal (g)	Ind. Waste (g)	Other (g)	shells
HY17a	132	125	1	0.27	0.48																
HY17a	133	125	1	<0.1	0.2	3.1			1.6											W/S	0.3
HY17b	200	205	2	5.1	4.9	3.1			17.2			12	7.2					5.3 ferrous, 2 nails		W/S	143.2
HY17b	219	242	2	<0.1	0.03	3.7													2.7 slag	W/S	
HY17b	221	208	2	0.3	0.44	36.2			<0.1										138 slag	W/S	
HY17b	225	232	2	0.4	0.47	14.3													421 slag	W/S	
HY17b	223	248	2	<0.1	0.25	2.2	<0.1	0.2	3.4											W/S	
HY17b	227	250	2	<0.01	<0.1	0.9													3.5 slag	W/S	
HY17b	228	211	2	<0.1	<0.1																
HY17c	300	305	3	1.6					.1/unburnt 2.5			0.3								W/S	54.7
HY17c	301	303	3	1.1	1.6	7.5			7					<0.1 flint debitage		3.1 worked?				W/S	
HY17c	302	306	3	1.3	2.5	12.9			4.3					1.1 flint debitage					457 slag		