

Dunyvaig and Hinterland Assessment Project

DHAP2019 – Data Structure Report

Archaeological evaluation, survey and geophysical survey at

Dunyvaig Castle and Cill Mhoire, Lagavulin, Islay



by

Darko Maričević

With contributions from Robert Fry, Derek Hall and Ingrid Mainland

March 2020



Contents

1. Introduction	3
2. Dunyvaig Castle and environs	4
2.1 Description of the site	4
2.2 Historical summary of the Dunyvaig Castle	6
3. Results of the fieldwork	7
3.1 Archaeological earthwork survey	7
3.2 Geophysical survey at Dunyvaig Castle and environs	12
Electrical resistance survey	12
Magnetic gradiometer survey	13
Discussion	15
3.3 Archaeological evaluation by trenching	16
Trench 1b	17
Trench 2	26
Trench 3	33
Trench 4	42
Trench 5	43
Trench 6	45
Reinstatement	46
Summary and discussion	47
3.4 Geophysical survey at Cill Mhoire	50
4. Archaeological Field School	52
5. Community archaeology	52
6. Post-excavation and reporting	53
7. Bibliography	54
Appendix 1 – Ground Penetrating Radar (GPR) Survey at Cill Mhoire, Lagavulin, Islay by Robert Fry	58
Appendix 2 - Pottery assessment Dunyvaig Castle, Islay (2018/19 seasons) by Derek Hall	65
Appendix 3 - An assessment of the faunal assemblages from the 2018-9 excavations at Dunyvaig Castle, Islay by Ingrid Mainland	68
Appendix 4 - Finds, samples, photos and drawing registers	72

1. Introduction

Dunyvaig and Hinterland Assessment Project 2018/19 (DHAP2018/19) was undertaken during three weeks in August 2018 and three weeks in August and September 2019. The original scope of the proposed evaluation and survey has been described in detail in the DHAP2018 Project Design (Maričević 2018) and Project Design Update for 2019 season (Maričević 2019) submitted to Historic Environment Scotland together with the Scheduled Monument Consent applications, which were granted without conditions (2018 season: case ID 300026824; 2019 season: case ID 300038059). The aims of DHAP2018/19 were to:

1. To evaluate the archaeological potential of Dunyvaig Castle and two of the key archaeological sites in its hinterland, Barr an t-Seann Duine and Cill Mhoire (Figure 1), for full investigation within the broader Dunyvaig Project.
2. To evaluate the potential of soil and sedimentary deposits within the environs and hinterland of Dunyvaig Castle for reconstructing the environmental history and landscape development during the first millennium.
3. To engage the Islay community within the project and to identify the means to maximise community engagement within the Dunyvaig Project

Site specific research aims for all three sites, their descriptions and research background can be found in the DHAP2018 and DHAP2019 Project Designs (Maričević 2018, Maričević 2019). The results of the 2018 season have been reported on in DHAP2018 Updated DSR (Maričević et al. 2019) and here we report on the results of the 2019 fieldwork season.



Figure 1 Location of Dunyvaig Castle, Barr an t-Seann Duine and Cill Mhoire sites.

2. Dunyvaig Castle and environs

2.1 Description of the site

Dunyvaig (Dun Naomhaig) Castle (NR44NW 24, NR 40593 45487) occupies the tip of the promontory on the east side of Lagavulin Bay (Figures 1 and 2). It is an iconic archaeological monument for not only Islay but also the western Atlantic seaboard, pivotal to understanding its medieval history.



Figure 2 Aerial view of Dunyvaig and the environs with highlighted castle architecture.

Landward approach to Dunyvaig castle is relatively flat from the northeast, rising to a higher shelf c.200m away from the castle, occupied today by residential houses known as The Plateau and Dun-Naomhaig cottages and their servicing road (Figures 1 and 2). This is where the RCAHMS survey recorded possible siege works or an artillery platform, equated with the reference to such platform being built during the siege of the castle in 1615 ((RCAHMS 1984:268, Gregory Smith 1895:242). RCAHMS' account of the area between the castle and the platform mentions 'the foundations of groups of small two- and three-roomed buildings of 18th-century date' (RCAHMS 1984:274). Jupp (1998) also mentions 'traces of walls of a number of humble buildings' and 'a hollow in the natural rock which served as a quern in which corn was ground with a round stone' (see also Canmore ID 38019; Lamont 1962, Morris 1969). One of the buildings in question and a rock-cut basin have been investigated by DHAP in 2018 (Trench 3, Maričević et al. 2019).

The seaward southeast facing wall of the hall building is the highest surviving part of the castle (Figure 3) located on top of a high rock stack to which the only access is across a cliff edge and the bastion situated at a lower level of the stack to the southwest of the hall. The original access to the bastion was via drawbridge. The area between the gate and the hall is now buried in large amount of rubble from the hall building above and the courtyard wall itself. The rocky shore at the southeast of the stack is only accessible at low tide.



Figure 3 South-facing façade of the hall building at Dunyvaig

From the open shell of the hall building one looks down onto the courtyards (Figure 4). The outer courtyard is enclosed by a polygonal curtain wall, represented by the grassed-over remains of the landward north-facing walls and the upstanding sea-facing elevations in the west and the east. The remains of originally arched sea gate are present in the southwest section, while a smaller arched gate leads to the inner courtyard through the south wall. The inner courtyard is triangular space filled with rubble. The landward facing walls have been severely denuded, but an intramural passage, perhaps containing a stairwell leading up to the battlements, was noted in the landward sections of the curtain wall (Millar and Kirkhope 1964, RCAHMS 1984) and confirmed by evaluation in Trench 1 (Maričević et al. 2019).

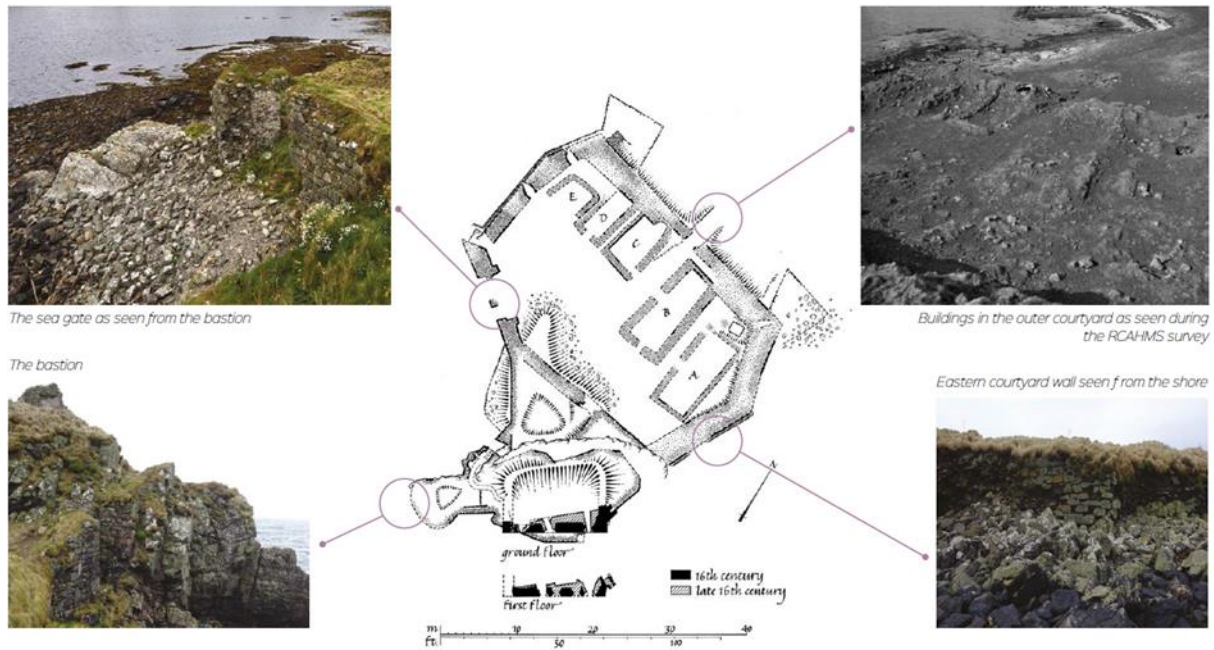


Figure 4 The RCAHMS plan of Dunyvaig Castle with the photographs of (clockwise from top left): sea gate from the bastion; buildings inside the courtyard; eastern courtyard wall from the shore; and the bastion.

The grassed-over remains of five buildings (A-E) orientated north-south occupy the courtyard interior (Figure 4). The two largest buildings A and B are on the east side of the entrance into the courtyard, measuring c.10m by 4m internally. A stone-built 'well' is situated in the northeast corner of the courtyard. Building B was evaluated in 2019 and proved to be later than the curtain wall (Maričević et al. 2019). Buildings C and D are situated to the west of the courtyard entrance, measuring c.6m in length and 3.5m and 3m in width, respectively. Building C contains a vaulted alcove built into the back wall of the structure, sometimes referred to as an oven. The Old Statistical Accounts describe the buildings as 'barracks and storehouses' with 'cellars and a baker's house' still visible (OSA 11: 289). Other accounts refer to Buildings A and B as 'dining hall and kitchen' and buildings C and D as 'sleeping quarters for the common soldiers of the garrison' (Jupp 1998). Building E was described as 'an open-ended shed' (RCAHMS 1984:271), but DHAP2018 evaluation found its opposing gable in Trench 2 (Maričević et al. 2019).

2.2 Historical summary of the Dunyvaig Castle

The RCAHMS placed the construction of the majority of the currently visible architecture of the castle to either 16th or 17th century, while little is known of its origins. We know that the castle was in existence in the second half of the 13th century, '*castrum Dounowak on the island called Ile*' having been mentioned in the 14th century chronicle by John Fordun, which was the reworking of the 13th century work entitled *Gesta Annalia I* by Richard Vairement .

Little is known of the history of the castle during the MacDonald Lordship of the Isles with its Council at Finlaggan. Clan Donald South or MacDonalds of Dunivaig and the Glynnns held the castle until 1494 when it was forfeited to the crown and granted to John Maclan of Ardnamurchan until his death in 1519, when his lands including the 'hous of Dunevig' were passed onto Sir John Campbell of Cawdor (Gregory-Smith 1895:35). In 1545 Dunyvaig becomes part of the newly formed barony of Bar granted by Queen Mary to James MacDonald, who reassumes the title 'of Dunyvaig and the Glynnns' (Caldwell 2008).

The latter part of the 16th century saw a bloody feud between the MacDonalds and the MacLeans of Duart during which Dunyvaig was besieged by Lachlan MacLean in 1586 (Account of Clan MacLean in Gregory-Smith 1895:85). The hostilities between Angus MacDonald and Lachlan MacLean, which affected not only Islay, but also involved raids in Antrim, Tiree, Mull and Kintyre, provoked the reaction from James VI and the castle was repossessed by the Crown in 1597, but not formally surrendered by Angus until 1608 under the increasing threat of another siege by the force under Lord Ochiltree sent by James, who was now James I of Great Britain and Ireland.

In 1610 Dunyvaig was granted to Bishop Knox of the Isles, who was also appointed Steward of the Isles. In 1614, the castle was surrendered to Ranald Og, an illegitimate son of Angus MacDonald. This prompted an intervention by Angus Og MacDonald, a younger son of Angus MacDonald and a brother of James MacDonald, who had been imprisoned in Edinburgh Castle after his attempt to take over the leadership of the clan from his father and the killing of Lachlan MacLean at the battle of Gruinart in 1598. Angus Og and his cousin Coll Ciotach were eventually besieged by a combined force under the command of Sir John Campbell of Cawdor, which included an Irish regiment under command of Sir Oliver Lambert.

Lambert's soldiers brought with them two cannons, which they found difficult to land in the stormy winter weather of 1614/5. It took Lambert and his men a week to unload and bring all of their provisions and cannons to their encampment. The cannon fire battered the castle walls for three days and the castle was taken. It was, however, was once again recaptured later that year, this time by Sir James MacDonald, having escaped from Edinburgh Castle. He refortified the islet on Loch Gorm and Dun Athad on the Oa. Dunyvaig itself was too ruinous to hold and James fled Islay before the advancing troops and artillery of the Earl of Argyll (Caldwell 2008).

The Islay lands passed from Sir John Campbell to his son John the Fair, who petitioned the Privy Council in 1631 to demolish Dunyvaig on grounds that it continued to serve as a rallying point and a potential asset for the rebels, the unsuccessful local rebellion having taken place in 1630. The animosity and the hostilities between the MacDonalds and the Campbells continued, including fighting on the opposing sides during Bishops' Wars in 1639 and 1640. Despite the Privy Council giving permission to demolish the castle, it remained in use. It was once more taken by Coll Ciotach and his son Alasdair McColla in 1646. This was short-lived. In 1647 Dunyvaig was besieged for the last time by the Covenanting army under General David Leslie. Leslie's forces did not include ordnance of any kind, and were resisted by Coll Ciotach and his 200 strong force for several days. Coll Ciotach was finally captured and the castle was eventually surrendered, primarily due to lack of water. After this the Campbells took closer control of the island resulting in the Dunyvaig Castle being entirely abandoned and the building of the Islay House in Bridgend in 1677.

3. Results of the fieldwork

3.1 Archaeological earthwork survey

In 2017 Islay Heritage commissioned a terrestrial laser scan survey of the upstanding architecture of the castle (Fry et al. 2018), which also captured the topography of the courtyard and the littoral exposed at low tide (Figure 4). The terrestrial laser scan survey was limited in its ability to capture topographic detail outside the castle walls, although some generic aspects of the topography were captured as a by-product of the survey. During DHAP 2018/19, a broader topographic survey of the castle environs was

carried out with the Leica GPS rover, as well as a more interpretive earthwork survey of the castle courtyard and the range of features in the environs of the castle (Figure 5).



Figure 5 Left: Orthographic view of the terrestrial 3D laser scan showing the topography of the Dunyvaig Castle and the immediate surrounding. Right: Still image of the laser scan survey of the upstanding tower of the castle.



Figure 6 Composite image showing the aerial photo merged with the results of the archaeological survey in shaded relief to emphasise the earthworks. Yellow line marks the extent of the scheduled area.

All of the identified structures were visible during the Royal Commission's survey in the 1970s when the land was under grazing (RCAHMS 1984:269A), but they were not plotted nor described and were regarded as 18th century or later in date (RCAHMS 1984:274). The 2018/19 survey depended on much grass cutting prior to which the earthworks were virtually invisible due to the lack of grazing in recent years. It is highly likely that the same treatment or LiDAR survey would uncover further earthworks,

especially in the area to the north, between Aird nan Crann and Dun Naomhaig cottages (Figures 1 and 2).

The DHAP survey focused on the structures identified in the immediate vicinity of the castle. Structure 1 was evaluated in 2018/19 seasons. Structures 2, 3 and the circular kiln in between them were first surveyed in 2019 and are situated within the scheduled area of the site (Figure 6). The 2019 survey also plotted the foundations of a possible gate tower on the western side of the main gate into the outer courtyard (Figure 7), which may have been mentioned in the description of the 1615 siege (Smith 1895: 243).

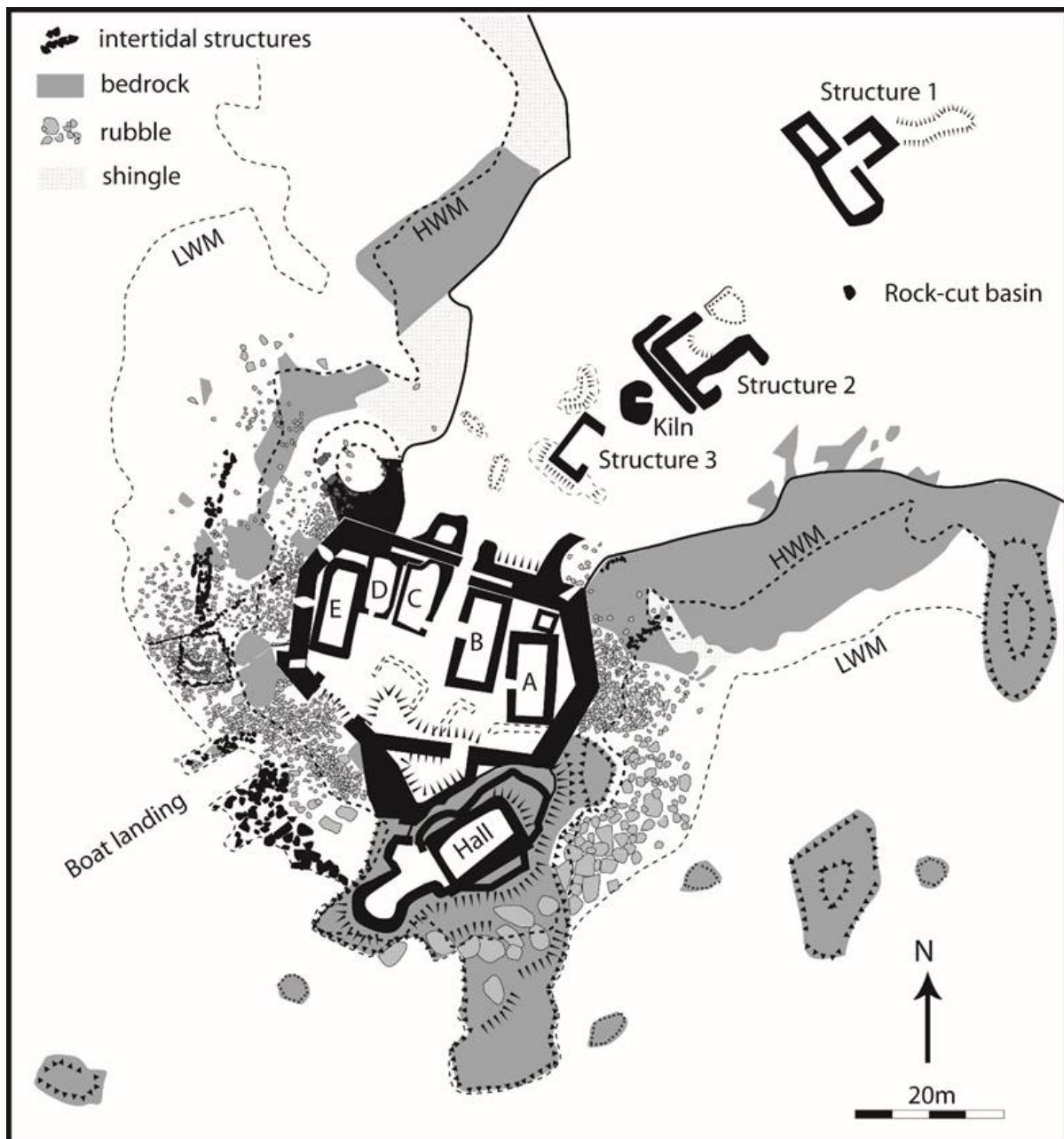


Figure 7 Overall plan of the castle with intertidal features

Inside the outer courtyard the survey has picked up traces of short stretches of walling situated in the southern part of the courtyard (Figure 9). These are ephemeral and partially obscured by the grassed-over heap of fallen masonry adjacent to the inner courtyard wall.

Another important revision of the RCAHMS' plan relates to the shape and the size of the corner towers, or at least the tower located at the northwest corner of the curtain wall. These corner structures were described by the Royal Commission as trapezoidal 'angle turrets or bastions, which were laid out but probably never completed' (RCAHMS 1984:270, Figure 4).

The 2019 survey has revised the original survey and was able to identify not only the outer face, but also the internal face of the structure. The western outer wall face of the structure stretches from the outer face of the courtyard wall in two visible courses, the lower of which is made from long straight slabs while the second course contains smaller less regular stones (Figure 8). The relationship between the courtyard wall and the bastion wall is obstructed by the fallen masonry. The internal face is curved suggesting rounded interior of c.5.5m diameter. The north part of the structure is now completely lost to the sea and the exact shape of the tower cannot be determined, but it is perhaps likely that, on the basis of the shape of the interior, it also had a rounded exterior face (Figure 7). At the northeast corner, the erosion and the multitude of collapsed rubble does not allow to extrapolate the shape of the other bastion. Only a short stretch of the western wall is now possible to trace.



Figure 8 View of the straight outer line (left) and curved inner line (right) of the western bastion wall looking north from the courtyard wall.

Remains of several lengths of walling have been surveyed in the intertidal area to the west of the castle (Figures 7 and 9). Intermittent lines of boulders join up with bedrock outcrops to form lines of stones that are roughly parallel with the curtain wall (Figure 7). The most substantial of these structures is

situated between the rock face on which southwest bastion is located and the boat landing in front of the sea gate. This has the form of roughly placed boulders most likely acting as the sea defence.

The boat landing was made by creating a channel flanked by protruding bedrock and boulder-made structure. Thinner, but better defined line of sea wall, formed by up to three adjacent lines of stones, runs parallel to the west section of the curtain wall. It is intersected by a line of smaller stones associated with a trapezoidal enclosure. Remains of a possible curved structure inside, or overlapping with the enclosure, can also be traced with the help of photogrammetry. Further structures may have existed closer to the castle courtyard, but could not be traced due to the mass of rubble from the collapsed face of the curtain wall. On the east side of the peninsula, there are fewer signs of modification to the shoreline, although two short stretches of walling have been surveyed, one on the high water mark and another that may represent part of the bastion structure (Figure 7).

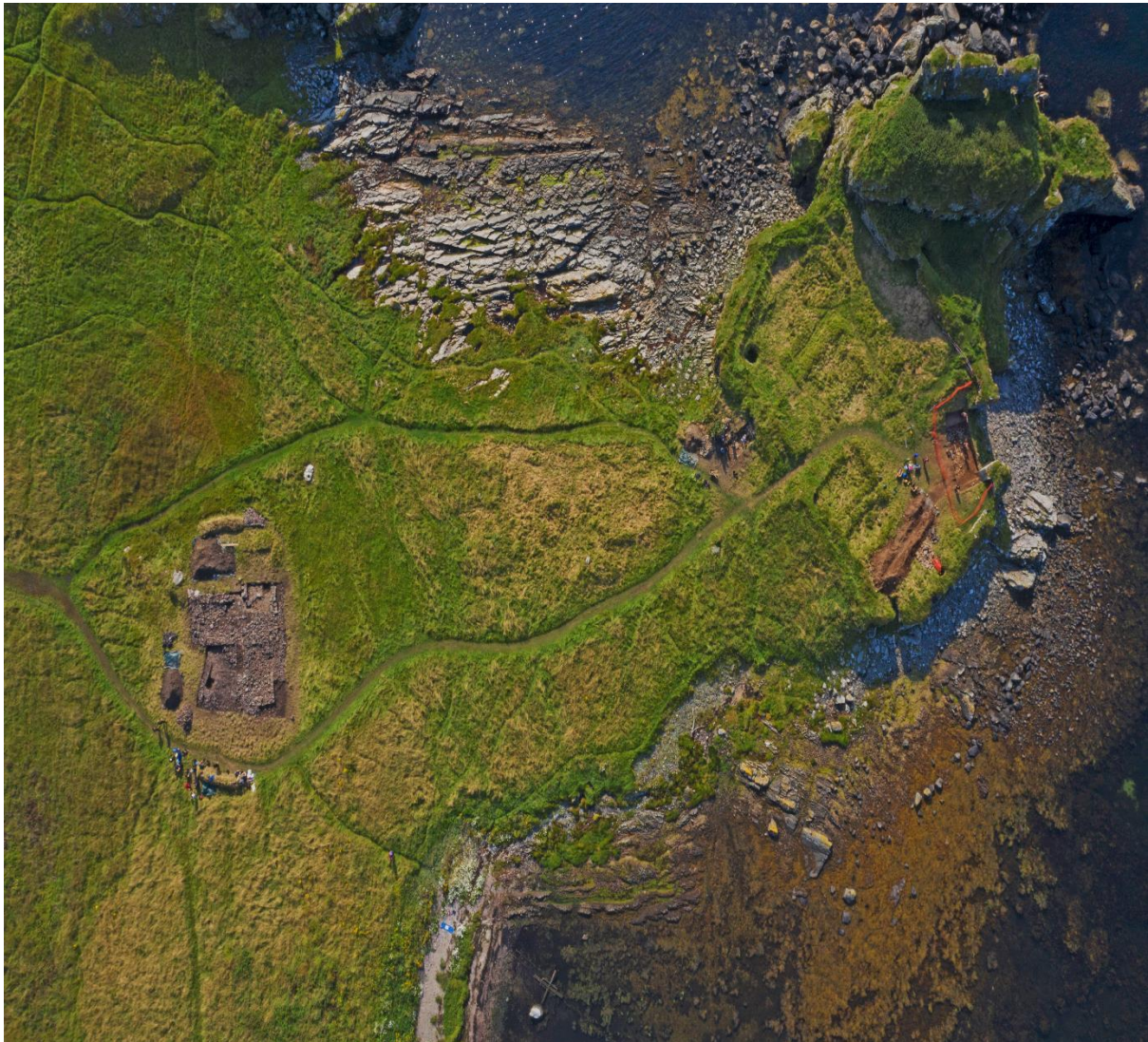


Figure 9 Aerial view of the Dunyvaig peninsula at low tide showing exposed intertidal structures including the boat landing channel on the far right and walling at bottom right. Facing southeast.

3.2 Geophysical survey at Dunyvaig Castle and environs

Electrical resistance survey

Islay Heritage undertook the initial electrical resistance survey of the castle and its immediate landward approach in August 2017, the results of which have been used to inform the excavation strategy presented in the DHAP2018 Project Design (Maričević 2018). This survey has been continued in 2018 and these results have informed the Updated Project Design for 2019 season (Maričević 2019). The full extent of the electrical resistance survey can be seen in Figure 10. The survey has been conducted using RM15 Geoscan resistance meter with twin probe configuration, 0.5m traverse spacing and 1m interval readings. In addition to the electrical resistance survey a Ground Penetrating Radar survey was conducted comprised of two lines across the alleged siegeworks (RCAHMS 1984) situated at The Plateau and further four lines across the interior of the outer courtyard of the castle.

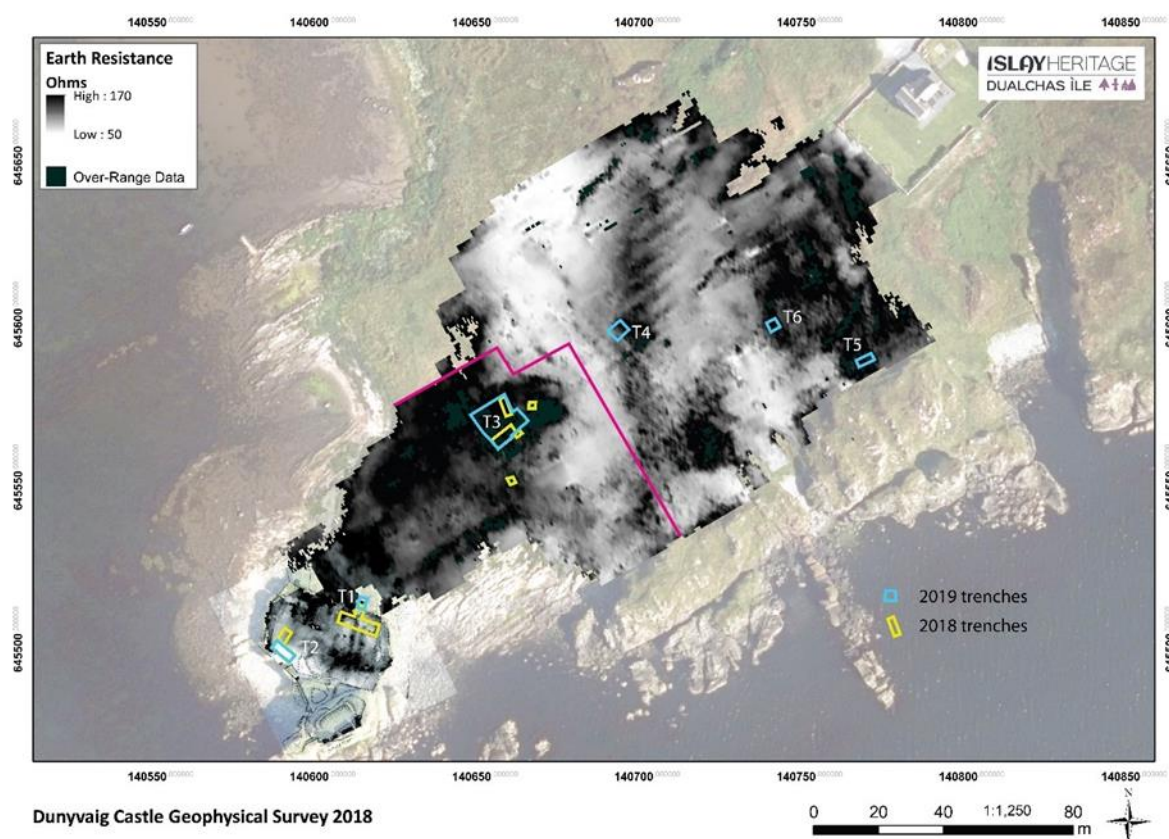


Figure 10 The extent of the electrical resistance survey showing the division between 2017 survey to the southwest and the 2018 extension to the northeast. The evaluation trenches are also shown.

One of the main aspects of the 2017/18 resistivity survey were large areas of high resistance, which could not be assigned with confidence to neither archaeology nor the geological background. The aim of Trench 3 in 2018 season and Trenches 4, 5 and 6 in 2019 was to target some of those areas of high resistance with most archaeological potential.

Probably the most striking electrical resistance anomaly was a long linear spread of high resistance on the N-S alignment across the middle of the image in Figure 10, which shows the striping characteristic of the rig and furrow agriculture. The rig and furrow anomalies can be seen running on the SW-NE alignment in the northernmost part of the geophysics plot and less obviously on the perpendicular NW-SE alignment immediately to the southwest of it in the area of generally low resistance. The fact that

the rig and furrow were making an impact on the underlying high resistance and visibly cutting into and spreading this material is indicative that the linear high resistance anomaly in question was not related to the hard geology, although it was thought that it could relate to a natural beach gravel bar (Maričević et al.2019). Alternatively the linear anomaly could have been a manmade structure, such as a road or a long line of continuous structures, such as buildings and boundary walls, predating the rig and furrow cultivation. Consequently the anomaly was targeted in 2019 by Trench 4 proving the first of these hypothesis to be true.

Other high resistance anomalies in the northeast part of the survey extent were targeted by Trenches 5 and 6 where the excavation showed that they were similarly derived from either raised beach deposits (Trench 5) or possible storm beach events (Trench 6). The area outside the castle courtyard occupied by multiple structures identified by the earthwork survey is characterised by relatively lower resistance bounded by areas of very high resistance, but the individual structures can only sporadically be matched to the anomalies in the resistance data.

Magnetic gradiometer survey

The site presented challenging conditions for magnetic survey due to shallow undulating (and sometimes magnetic) geology and vegetation cover (Figure 11). The magnetic survey has identified a range of features from a 60 million year old igneous dyke to a modern rubbish pit verified by local residents (Figure 12 and 13).The structures tend to be built of local stone and thus walls do not produce a high magnetic contrast. Nevertheless, the magnetic survey has been more successful in identifying those structures which can be seen as earthworks by distinguishing them from the surrounding geological background and in this regard it appears to be more useful than the resistivity survey, at least in those area where there are no strong igneous elements or substantial storm beach deposits in the background.



Figure 11 Bartington magnetic cart with six sensors and the hand-held dual sensor magnetic gradiometer during 2019 survey at Dunyvaig.

Thus increased magnetic activity in the area of Structures 1-3 identified by the earthwork survey supports the interpretation of a circular earthwork feature outside the castle walls as a kiln, due to the high magnetic field which is produced by burning. An area of multiple discrete magnetic anomalies may indicate possible pits to the north of Trench 3 (Figure13). Strong magnetic linear anomaly runs between the outside Structures 1-3 and the curtain wall of the outer courtyard. It overlaps with a low resistance anomaly and might represent a filled up ditch or a moat cutting across the width of the peninsula in front of the castle.

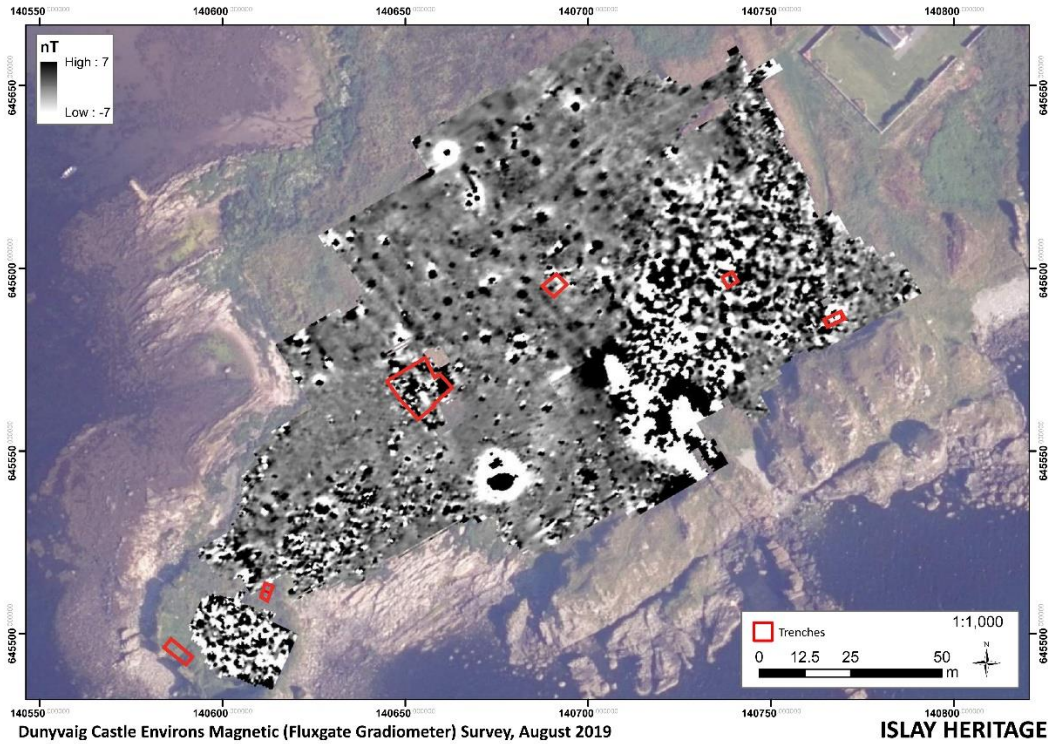


Figure 12 Magnetic gradiometer data plot with the indicated positions of the evaluation trenches.

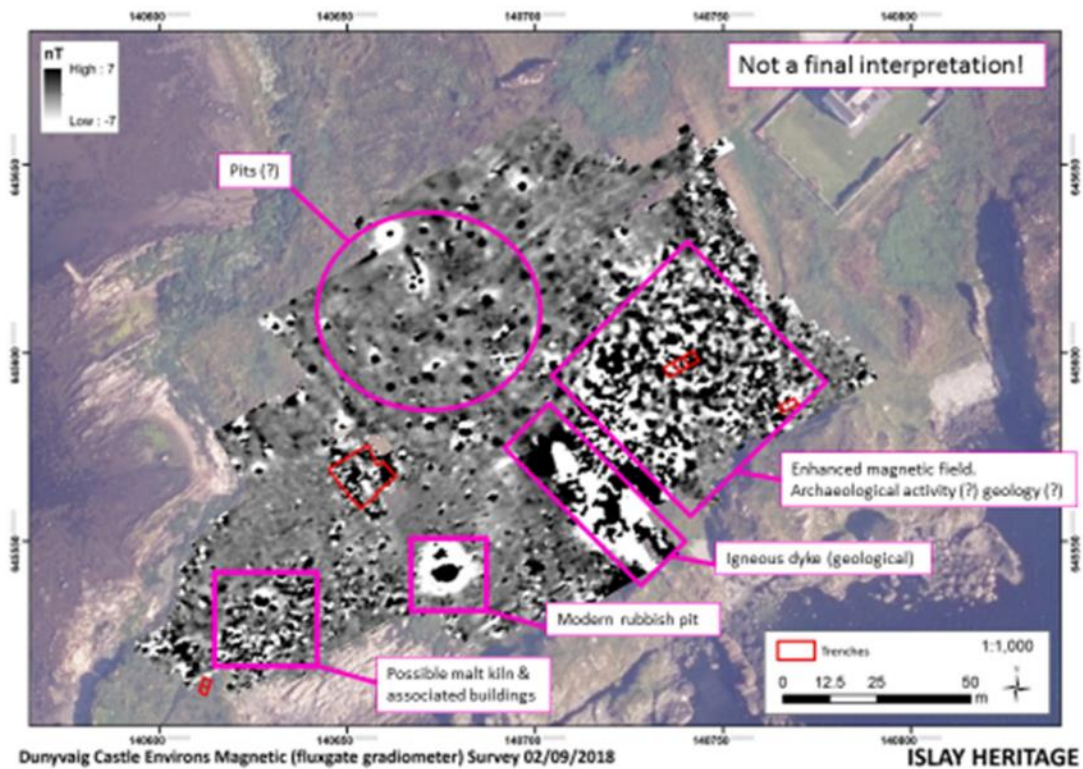


Figure 13 Magnetic gradiometer data plot with interpretation of main geophysical anomalies

An area to the east of the known igneous dyke has an enhanced magnetic field and could indicate further areas of archaeological interest. However, Trenches 5 and 6 positioned within the area suggest

that the deposits responsible for both increased electrical resistance and high magnetic signal are derived by natural formation in the form of raised and storm beach gravels and concentration of boulders (Figures 10 and 12).

Discussion

Further comparison of the two datasets is useful in the interpretation, especially when distinguishing between the anomalies caused by the geological formations and those that could be archaeological in nature. As noted before the magnetic data helps in highlighting those area of generic high resistance where the structures appear to be absent and the resistance response is probably purely due to the shallow soil cover over the bedrock. Structures 1-3 all appear in the magnetic data as a scatter of bipolar anomalies, indicating the presence of much rubble near the surface. The same response is evident in relation to the structures inside the courtyard where the resistance data is much clearer. Indeed, the magnetic response inside the courtyard is very similar to that in the northeast of the surveyed area sampled by Trenches 5 and 6 (Figure 13).

It is worth highlighting two further anomalies that feature in both sets of results. The high anomalies related to the kiln can be compared in Figure 14, as can a several metres wide linear anomaly, which is highly magnetic, but low in resistance. The anomaly is NW-SE orientated and aligned on the noust like inlet in the shoreline northwest of the anomaly marked by an arrow in both datasets. This could be a natural cleft in the geology, as the different orientations in the bedrock on either side of it could suggest. High magnetic response may relate to a corresponding igneous dyke within the cleft. Alternatively, the feature could be an artificial cut, such as a defensive ditch or a moat, which could be bisecting the peninsula at its narrowest point immediately outside the castle. One side of a possible ditch containing burnt material was identified in Trench 1b in 2019 (see below), but further investigation is needed to be able to confirm whether this is related to the geophysical anomaly and whether this is geological or artificial feature.

Finally, a thin straight magnetic anomaly can be seen on SW-NE orientation running perpendicular to the 'dich' anomaly from the direction of Trench 3. It runs parallel with the wider high resistance anomaly located on the other side of the kiln. Both are marked by shorter arrows (Figure 14).

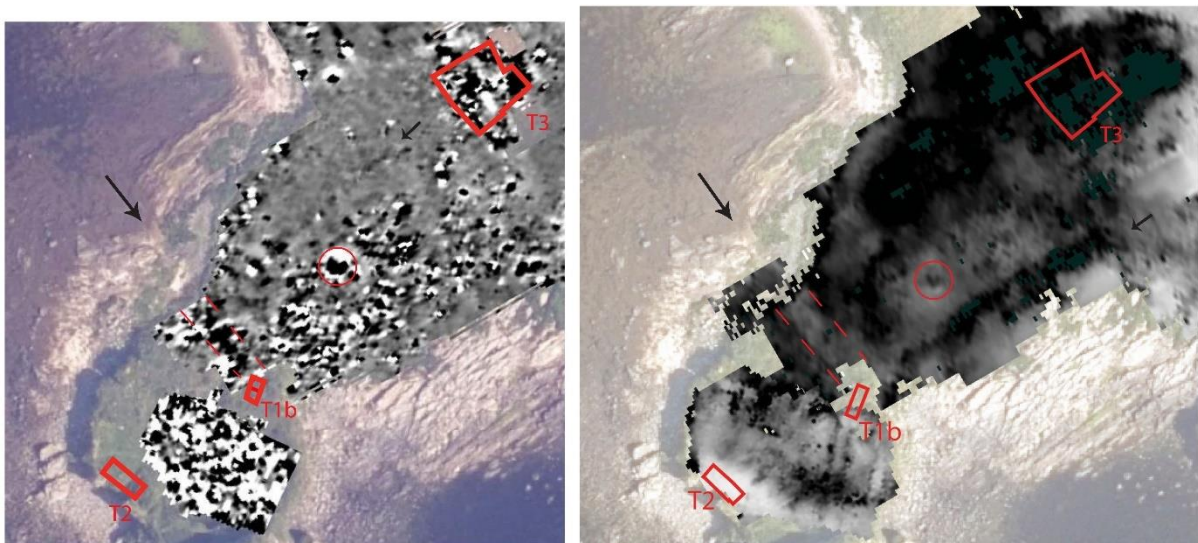


Figure 14 Comparative view of the magnetic and the resistance data in the area of the outer courtyard and the environs as far as Trench 3. Shown are the trenches, circled location of the kiln and the linear features discussed in the text.

3.3 Archaeological evaluation by trenching

The results of the first season of evaluation conducted in 2018 have been detailed in the DHAP2018 Updated Data Structure Report (Maričević et al. 2019) submitted to the Historic Environment Scotland in March 2019. The second season of the evaluation took place in August and September 2019 and the results referring to this second stage of fieldwork are detailed in this report followed by the conclusions drawn from both seasons of fieldwork. Figure 15 shows the location of the evaluation trenches from both seasons in relation to the surveyed earthworks and intertidal features. Table 1 lists the coordinates of each 2019 evaluation trench.

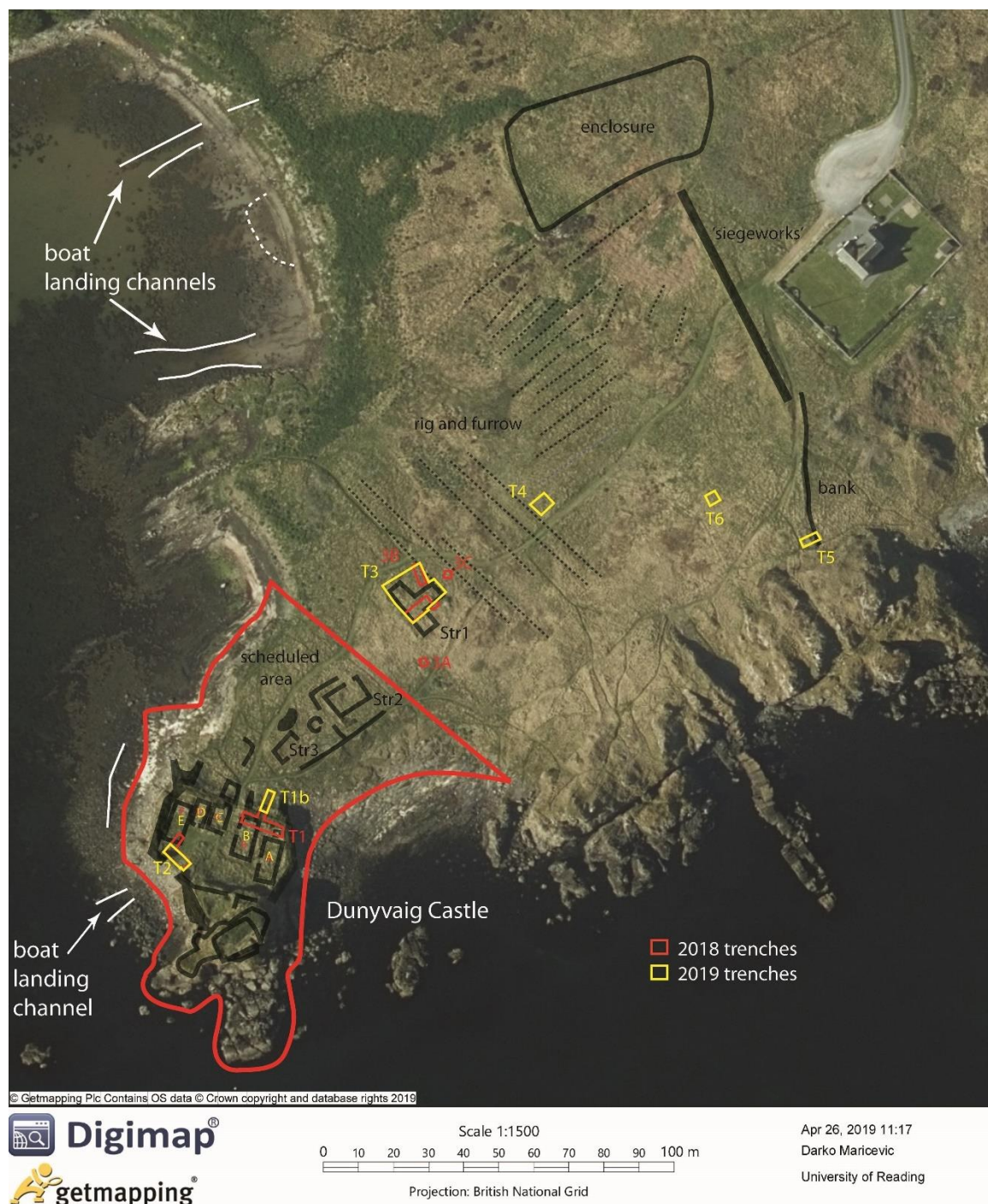


Figure 15 Location of the evaluation trenches in relation to the plan of the castle and the surveyed earthworks and intertidal features.

	East	North	Height OD
Trench 1b	140610.59	645510.19	3.99
	140611.71	645513.79	2.84
	140613.68	645513.12	2.78
	140612.34	645509.11	4.06
Trench 2	140590.09	645491.61	4.24
	140591.9	645493.61	4.55
	140586.46	645498.15	3.58
	140584.21	645496.13	3.53
Trench 3	140659.37	645571.12	3.52
	140657.9	645570.08	3.7
	140655.44	645575.57	3.12
	140645.01	645569.1	3.06
	140662.91	645567.33	4.4
Trench 4	140690.6	645591.6	5.2
	140687.98	645594.57	5.09
	140691.9	645597.98	5.25
	140694.35	645595	5.37
Trench 5	140768.91	645587.85	8.58
	140769.74	645586.12	8.48
	140765.44	645584.33	9.05
	140764.81	645586.1	8.97
Trench 6	140690.6	645591.6	5.2
	140687.98	645594.57	5.09
	140691.9	645597.98	5.25
	140694.35	645595	5.37

Table 1. DHAP2019 trench coordinates

Trench 1b

Table 2 List of contexts from Trench 1b

Context	Description
1000	Loose soft, sticky, dark brown sandy silt clay with frequent small stones and roots, between 0.03m and 0.06m in depth.
1003	Compacted friable light brownish-grey sandy clay silt with occasional medium-sized rubble stones, slate, mortar flecks and beach pebbles; heavily rooted
1004	Loose/friable mid-brown silty sand with flecks and chunks of mortar.
1008	A deposit of tightly packed mainly large stone rubble; the rubble is all shapes and sizes and lies beneath the mortar and clay slumping from the north face of the courtyard wall (1012, 1004).
1012	Friable mid-yellowish-brown silty clay with small mortar fragments (less than 10%).
1014	A fairly compact, solid layer which increases in compactness with depth, consisting of a light brown/orangey mottled sandy silt with few inclusions, apart from occasional large angular and sub-angular stones. Signs of bioturbation and rabbit burrows containing small mammal bones.
1020	Loose orange-brown sandy clay with specks of white mortar, and containing inclusions of mortar clumps, and frequent angular and sub-angular stones of all sizes.
1021	A loose, brownish yellow deposit of mortar and sandy clay with frequent small angular and sub angular stones.

1023	Outer 'skin' of the double walled northern courtyard wall. This wall measured c.1m in width (north-south) and was faced and rendered on both the north and south sides; the north side had collapsed and eroded, but the south face was intact as it had been preserved by the infilling of the c. 1m gap between the inner and outer wall 'skins' by rubble 1022 (Set 1013, Group 1004). The north face elevation of 1023 was revealed in the northern extension to Trench 1 as a badly eroded outer face, exposing the rubble core of the construction.
1024	The inner, southern 'skin' of the double walled northern courtyard wall. This wall measured c.0.6m in width and was faced and rendered on both the north and south sides; the south face of this wall has been preserved by the north gable end of Building B butting up against it, and the north face was intact as it had been buried and preserved by the infilling of the gap between the inner and outer walls with rubble 1022.
1025	Friable dark brownish-grey clay silt with frequent charcoal inclusions and small stones.
1026	Dark brownish-grey clayey silt seen only in section. Context number given for micromorphology sample
1027	The north gable end wall of Building B, abutting courtyard wall 1024. The complete length of this wall is c.5m and the width is c.0.6m. The lower courses of this wall appeared to be clay bonded, while the upper courses may have been mortared.
1028	Friable, loose dark brownish-grey sandy silty clay with moderate mortar and small sub-angular stones as inclusions.
1029	Band of loose light yellowish-grey mortar with frequent small stones and occasional charcoal flecks.
1030	Mortar band within context 1012 and consisting of loose light yellowish-brown mortar containing charcoal flecks and frequent small stones as inclusions.
1031	Mortar band within context 1012 and consisting of loose light yellowish-brown mortar containing charcoal flecks and frequent small stones as inclusions.
1032	Mortar band within context 1012 and consisting of loose light yellowish-brown mortar containing charcoal flecks and frequent small stones as inclusions.
1033	An L-shaped structure consisting of large retaining stones set onto rubble 1017, with decayed turf deposit 1010 placed within. Not excavated.
1034	A line of single capping stones set over a linear feature running north-south through the external area to the east of Building B. Its northern extent was not visible as the area was not excavated, and its southern extent ran beneath the southern trench edge. This linear feature measures c0.6m in width and was visible for a north-south length of c.1.2m. It was partially revealed beneath 'midden' 1011 (Set 1008, Group 1003) and turf revetment 1033 (Set 1015, Group 1005). Not excavated.
1035	Turf layers added to the demolished stone walls 1023 and 1024.
1036	Turf layers added to the demolished eastern stone courtyard wall.
1037	Turf layers added to the demolished eastern stone courtyard wall.
1038	A regular linear cut aligned parallel to the east wall of Building B. It had vertical sides and a flat base, with a sharp break of slope at the top of the west edge. The cut measured at least c.1m north-south and c.0.8m east-west, but its edges were difficult to see due to the damage caused by the later rubble. It was c0.2m in depth and appeared to have stone blocks in situ lining the south and south-east edges.
1039	Stone slab built wall/repair or the base footings for the turf wall. Located in the east part of the south facing Section in line with collapsed wall (1024) and overlaid by turf construction (1035). Built without mortar with predominant use of thin flat slabs.
1040	2018 season backfill
1041	Dark brown clayey silt with small mortar fragments (less than 5%), small rubble (50%). Slumping and wash from the demolished curtain wall.
1042	Equivalent of (1021) in the northern extension of the trench. Probable collapse of mortar and rubble from the core of the damaged curtain wall.
1043	Friable mid brown sandy silt with mortar fragments (less than 20%), charcoal (less than 1%), and rubble (20%). Rich in animal bone and shell, especially in the northern part of the context.
1044	Compact dark brown clayey silt, sub-angular and sub-rounded stones (50%). Clayey hard-core brought in for levelling or as a construction make-up deposit.
1046	Loose mid purple-brown sandy silt, angular and sub-angular stones (90%). Context between 0.15m and 0.20m in thickness. Sterile looking redeposited schist-like material brought in for levelling or a s construction make-up.
1047	Soft mid brown sandy silt, very small traces of mortar (less than 1%). Maximum thickness 0.35m. Fill of linear cut [1052].

1048	Loose sandy shingle and small rounded and sub-rounded stones of various colours, with bone and shells (both less than 1%). Context between 0.22m and 0.40m in thickness. Potentially a fill of cut [1053].
1049	Compact mid-brown silty clay. 0.10m to 0.15m thickness. Fill of [1053].
1050	Soft dark brown-black silt. 0.05m and 0.005m in thickness. Basal fill of [1053].
1051	Natural beach deposit
1052	Possible shallow re- cut of [1053]. Width of 1.3m, maximum depth of 0.35m.
1053	A substantial linear cut with apparent east-west orientation, cutting through possible construction make-up (1044). Only the southern side of the cut seen in Trench 1b with some indication that the side of the cut slopes of at a steeper angle beyond the LOE to the north.

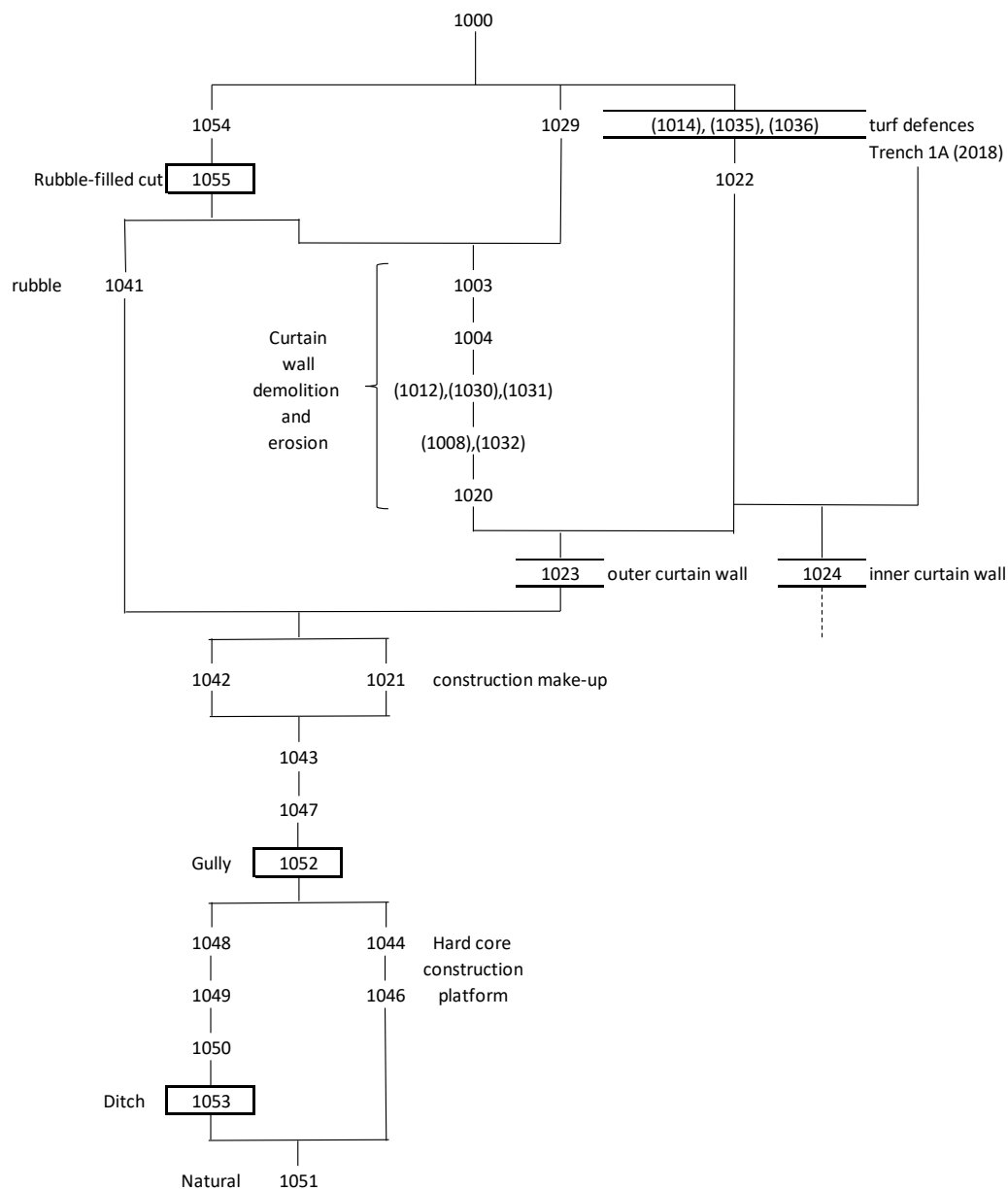


Figure 16 Stratigraphic matrix for Trench 1B

The 2019 excavation in Trench 1b is the continuation of work carried out in 2018. The original aims of the trench were to investigate the preservation and the construction of the curtain wall of the outer

courtyard of the castle and to establish stratigraphic sequence and, if possible, chronology. The list of excavated contexts with their descriptions is given in Table 2 and the stratigraphic matrix in Figure 16.

The 2018 excavation revealed badly eroded outer face of the courtyard wall and a series of alternate stone slumps and mortar erosion tip lines. Underlying the base of wall (1023) were rough stone footings, which projected forward from the face of the wall (Figure 17). At their base was a layer of compact yellowish mortar and rubble (1021), which was at the time interpreted as remains of a possible earlier structure extending underneath the footings of (1023). However, as the deposit did not have known limits within the confines of the trench it was difficult to interpret it with any confidence. In order to confirm the nature of the deposit and to gain more information about the construction of the curtain wall and possible earlier archaeology further excavation was required.



Figure 17 Left: Compacted mortar and rubble deposit (1021) as seen at the end of 2018 season;

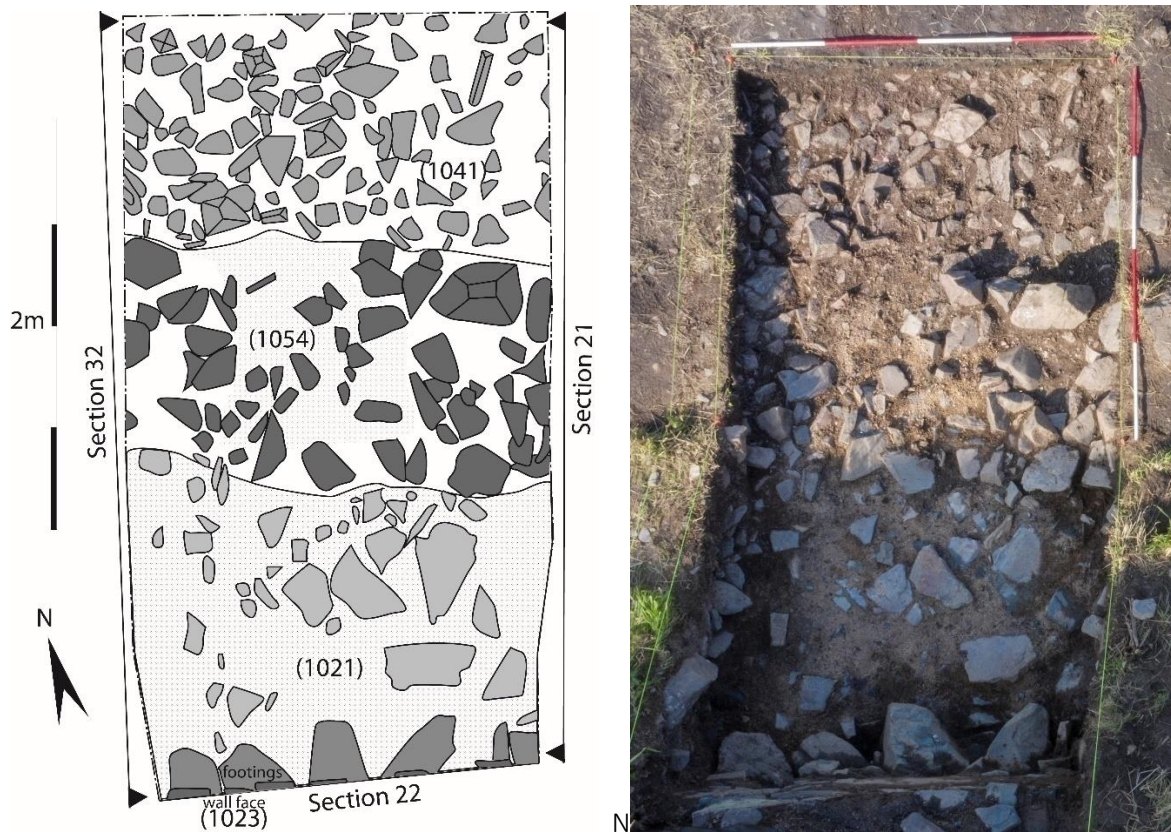


Figure 18 Left: Plan of Trench 1b showing deposits (1021), (1054), (1041); Right: Trench 1b from above showing deposits (1021), (1054) and (1041).

In 2019 Trench 1b was reopened from the outer face of the curtain wall (1023) and extended for 2m to the northeast (Figure 18). The backfill was removed down to (1021) and the extension de-turfed to reveal rubble and dark brown clay silt (1041) situated within the northernmost part of the trench. Across the central part of the trench, separating (1021) and (1041) was a band of larger stones with occasional loose yellowish mortar, which was similar to and, at first taken, to be the continuation of (1021). Further excavation showed that these larger stones (1054) were contained within an E-W cut [1055] (Figures 18 and 19).

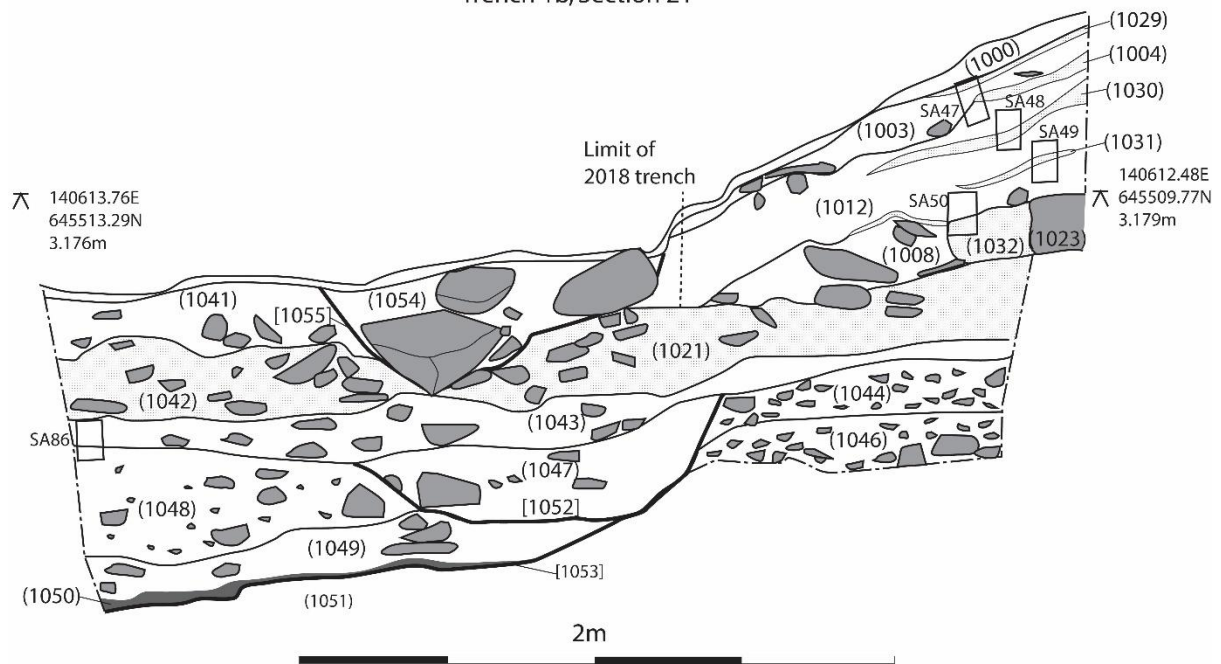
Rubble and mortar deposit (1021) was through excavation shown not to be a built structure, but a variably compacted and dense mortar and rubble spread (Figure 18). The relationship with the footings of wall (1023) is difficult to be absolutely certain about as the wall could not be removed or undermined, but the deposit appeared to run below some of the footing stones (Figure 20). If correct this would suggest that the deposit is not the collapse from the core of wall (1023), to which it is very similar, but that it predates the construction of the wall and therefore may relate to a collapse of an earlier structure or it might represent material spread down in preparation for the construction of (1023).

Deposit (1042) is very similar to (1021) and may well be the same deposit separated by the insertion of cut [1055] (Figure 19).

NNE

SSW

Trench 1b, Section 21



140610.59E
645510.19N
3.99m

Trench 1b, Section 32

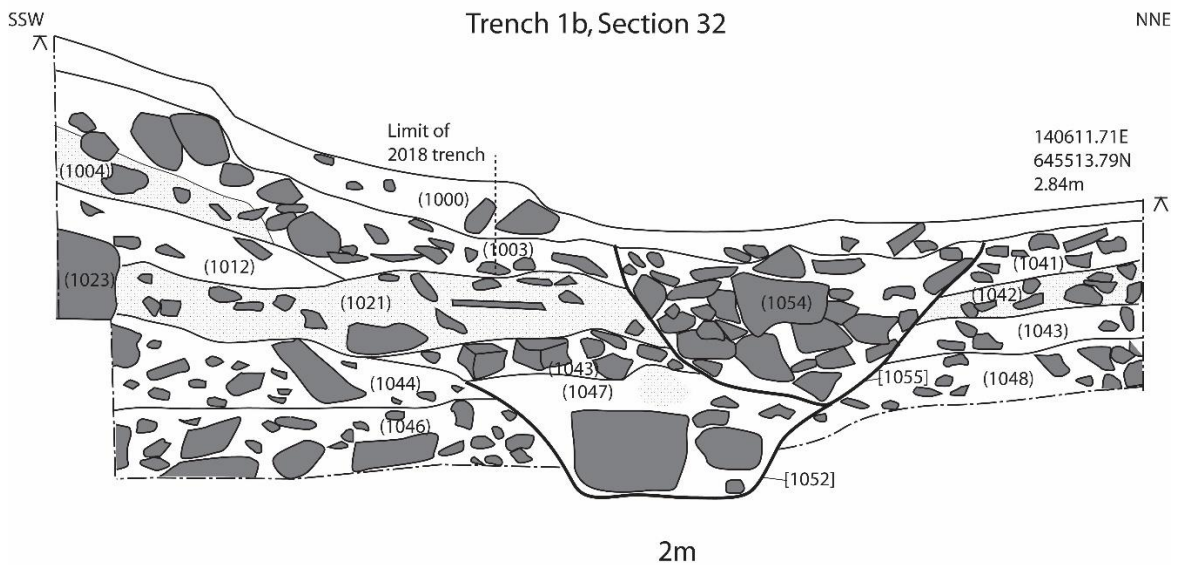


Figure 19 WNW-facing section 21 and ESE-facing section 32, showing the full excavated sequence in Trench 1b. Limit of 2018 excavation down to (1021) is marked on both sections.

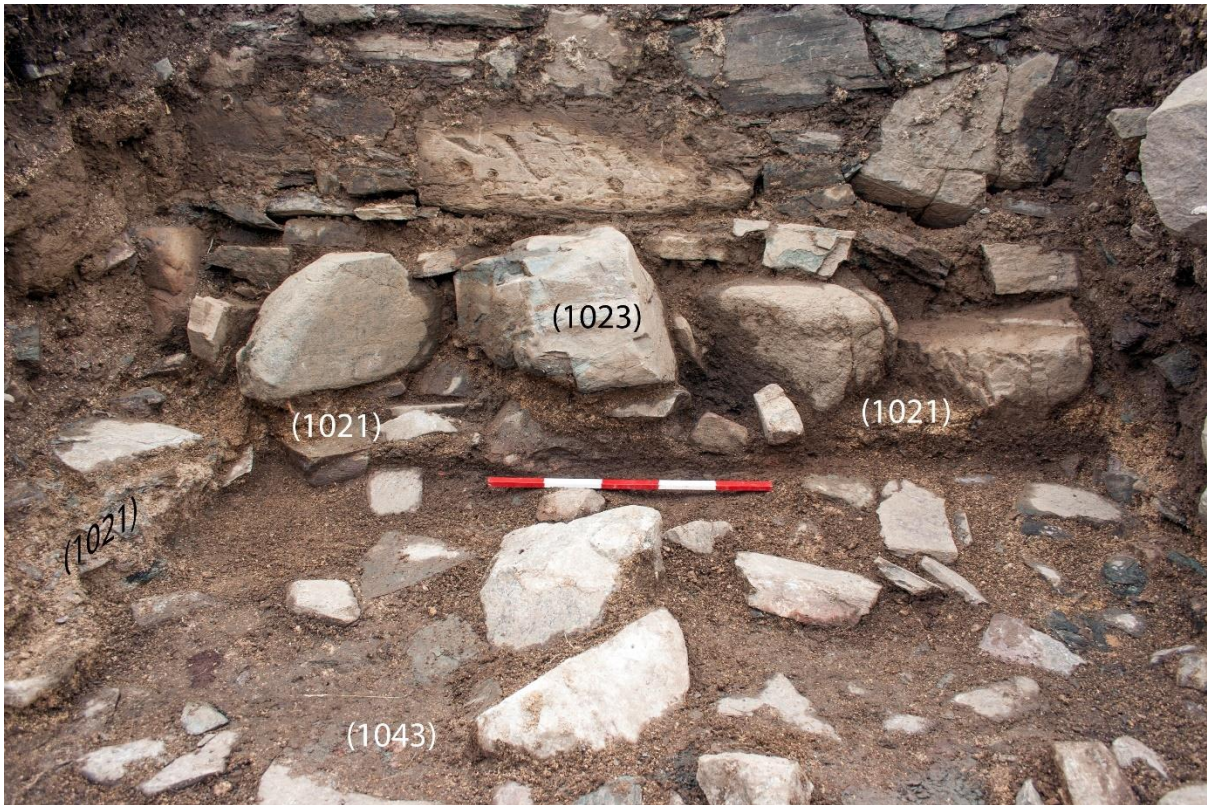


Figure 20 View of the elevation of wall (1023) showing the mortar and rubble (1021) running under the footings on the left and abutting the footings on the right.

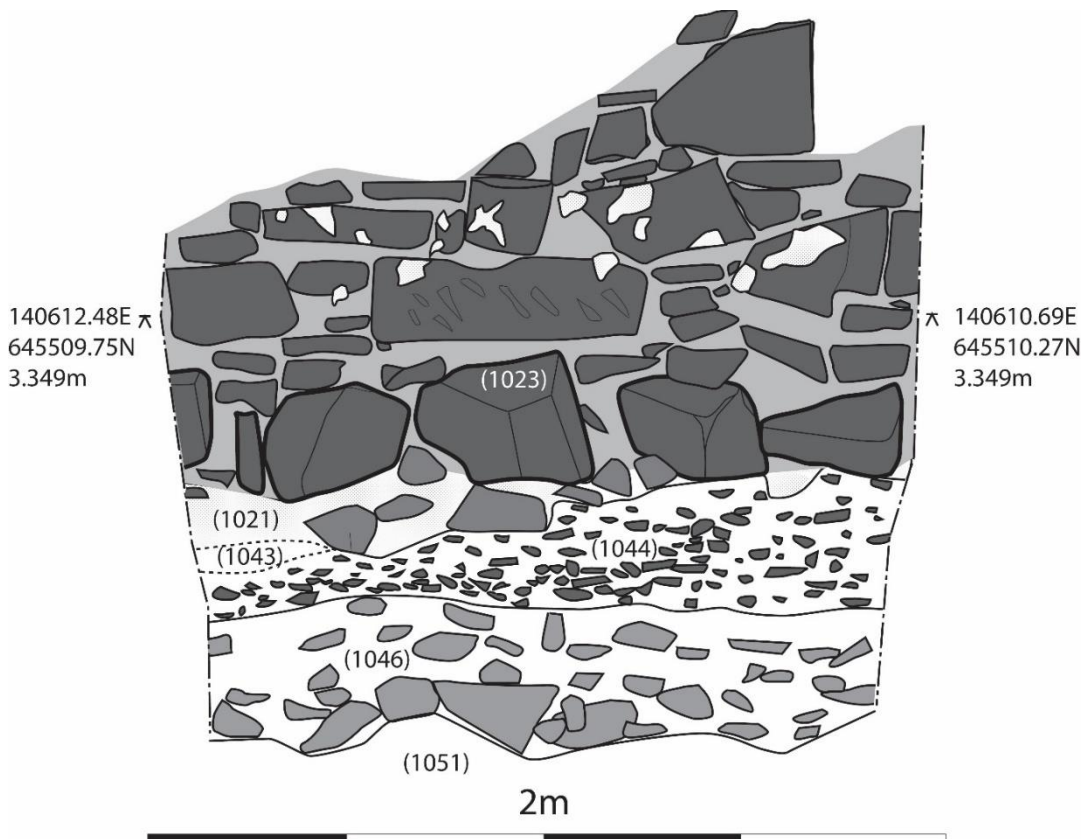


Figure 21 Section S22 showing the elevation of wall (1023) and underlying deposits.



Figure 22 Left: Plan of deposit (1043). Location of Small Finds SF133 and SF137 is shown; Right: Some of the animal bone retrieved from (1043).

Below (1021) the excavation proceeded to reveal mid brown sandy silt deposit (1043), which still contained much rubble (Figure 22), but less mortar, and a distinct concentration of animal bone in the northeast part of the trench. It is possible to see this concentration as a distinct dump of material at the same general stratigraphic level as the rest of (1043). A small worked bone point SF133 (Figure 24) was found among the rubble in the middle of the trench, as well as a possible sandstone fragment SF137.

The excavation of (1043) revealed a soft mid brown sandy silt (1047), located across the middle of the trench and filling 0.35m deep cut [1052]. This small ditch or a gully ran roughly on the same orientation as the curtain wall, at least as far as visible within the confines of the trench (Figure 23). In the south the ditch cut through compact dark stony deposit (1044) with well-sorted sub-angular and sub-rounded stones and in the north through (1048), loose sandy silt with shingle of beach stones of various colour. The orientation and size of gully [1052] was reminiscent of cut [1055] higher up in the sequence (Figure 19), but it is difficult to say whether they performed similar function and what this could have been. Cut [1055] was filled with dense rubble (1054), which could be seen as either a deliberate backfill after the feature went out of use or it could perhaps have acted as a foundation for a wall, which has since been robbed away. The fill of gully [1052] contained generally less rubble, although some substantial stones were present within it.

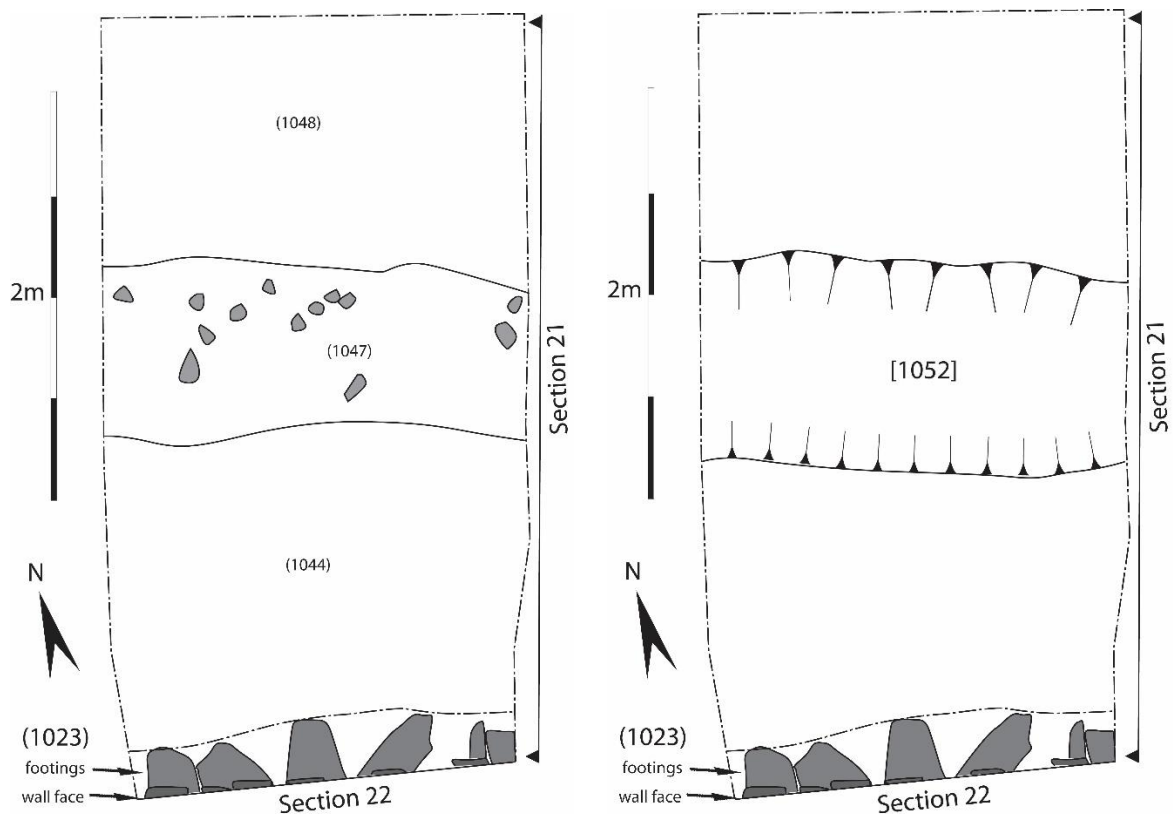


Figure 23 Pre and post-excavation plans of linear feature (1047)[1052].

This lower gully cut through the fills of yet another linear cut on the same orientation, [1053], filled with (1048), (1049) and (1050). These deposits were excavated within the sondage that was half the width of the trench. A weaving pin beater SF182, made from animal bone, was found in deposit (1048). Fill (1049) was mid brown silty clay and contained a fragment of decorated glass SF181 (Figure 24). The bottom fill (1050) was dark organic silt spread thinly across the base of the ditch. The full profile of the feature could not be determined due to the limit of the trench. At the very northerly edge there was an indication that the side may dip further (Figure 25), in which case the part of the feature visible in Trench 1b could be a step rather than the base. This can only be established by further excavation.

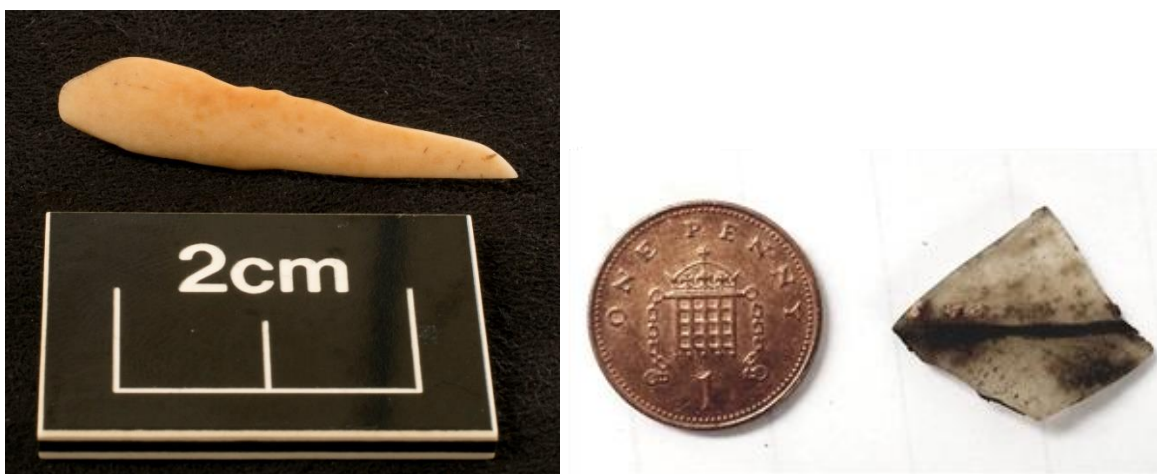


Figure 24 Bone point SF133 and glass fragment SF181



Figure 25 Trench 1b at the end of the excavation showing half-width sondage through ditch [1053]. Note a dip in the ditch at the north end of the trench under the vertical scale.

Trench 2

Trench 2 was positioned across the mouth of the sea gate. In 2018 it was an L-shaped trench projecting inwards into the courtyard of the castle (Figure 15). Excavation of a sondage, aligned with the middle

of the sea gate, revealed a structure orientated roughly perpendicular to the sea gate (Figure 26). It was not possible to establish within the limits of the sondage whether this structure was a wall of a building, foundations of a larger structure or one side of a possible slipway, as the positioning in relation to the sea gate seem to suggest (Maričević et al.2019).



Figure 26 Photogrammetry model of Trench 2 at the end of 2018 season (left) and a photo of structure (2028).

Table 3 List of contexts from Trench 2

Context	Description
2000	Loose soft dark brown sandy silt clay with frequent small stones and roots, between 0.03m and 0.06m in thickness.
2001	Soft, dark mottled orange, sandy-clay with frequent, poorly sorted fine roots and occasional disarticulated rabbit bones. 0.03 to 0.07m thick.
2002	Compact, mid brown-grey, silty clay with frequent inclusions of stone (50-65%, 0.03-0.60m in length) and mortar. 0.05m in thickness. Top fill of [2007].
2003	Friable brown-grey, clay silt with notably large sandstone inclusions (50%, 0.20-0.60m in length). Between 0.07m to 0.18m in thickness.
2004	Firm, mid grey-brown, silty clay with dark brown and orange mottling, with occasional, poorly sorted charcoal clusters (<1%, 0.06m in length).
2005	Loose, mid brown-yellow silty sand, with occasional lenses of decomposed stone (<1%). Situated in the east part of the trench. Possible deliberate backfill. Same as 2006.
2006	Soft, brown-orange silty sand with occasional, poorly sorted charcoal (<2%) and small stone fragments (<10%, 0.02-0.06m in length). Situated in the east part of the trench. Same as 2005.
2007	Cut of a gully running NE-SW across the trench towards the sea gate opening. Filled with (2002) and (2008).
2008	Soft and slightly sticky, brown-grey, silty clay with poorly sorted, fine roots (<1%) and occasional large stone fragments (<10%, 0.06-0.60m in length). Fill of [2007]. 0.18m thick.
2009	Compact grey-brown, silty clay with frequent, moderately sorted stones (<50%, 0.06-0.60m in length) and mortar inclusions (<1%, 0.03-0.06m in length).
2010	N-S orientated wall with exposed dimensions of 2.18m (L) x 1.06m (W) x 0.65 (H). Larger stones used for facing with rubble infill and no bonding material of any kind. Southern wall of structure (2012).
2011	E-W orientated wall with exposed dimensions of 1.58m (L) x 0.66 (W) x 0.44m (H). Meets (2010) to form southeast corner of structure (2012). Only inner face observed in the trench, but the construction identical to (2010).
2012	N-S orientated structure only the southeast corner of which was visible at the north end of Trench 2. Hypothetically it might represent the southern gable end of Building E, to be proved only by further excavation.
2013	Soft mid grey-brown silty clay with occasional stone inclusions (<50%, 0.06-0.50m in length).
2014	Firm, mid black silty clay with high levels of intense burning and large quantities of, moderately sorted, charcoal chunks (<50%, <0.06m). 0.30m in thickness.
2015	Mid grey, silty clay with frequent large stones (<70%, 0.06-0.30 in length) moderately sorted and similar in fabric to those from structure 2012.

2016	Redeposited turfs with a distinctive 'cellular' structure representing individual sods with striated darker lines representing compressed topsoil attached to the turfs. Notably very few inclusions, but heavy bioturbation throughout the deposits.
2017	Loose, friable, dark brown-black silty clay with frequent, poorly sorted, large charcoal chunks (<40%, 0.01-0.02m in length). 0.08m thick. Burning event within (2015) or brought in via bioturbation.
2018	Dark brown-orange sandy clay with the same striations as (2016). Notably very few inclusions. 0.13m in thickness. Represents a distinctive patch of turf within context (2016).
2019	Loose large rocks and stone rubble below turf material (2016) at the east side of the sea gate opening
2020	Mid grey, sandy clay within rubble (2019).
2021	Bright orange clay sand with frequent, moderately sorted flecks of charcoal (<50%). The context is indicative of intense burning extending along the outer, southern edge of wall (2010).
2022	Bright orange clay sand with frequent, poorly sorted flecks of charcal (<30%), simialr to (2021) but located within the confines of the structure, abutting the eastern inside of wall [2011] and the northern inside of wall [2010].
2025	Unexcavated burnt clay floor of structure (2012) showing areas of reddening due to heat and spreads of charcoal indicating burning of organic material.
2026	Hard grey-brown sandy clay with red mottling indicating burning. Situated outside, south of, wall (2010). Not excavated but sampled for micromorphology and palaeobotanical macro remains. Same as (2044).
2027	Charred area of organic material resembling matting or densely concentrated hay or roof thatch. Sampled for environmental assessment, but not fully excavated as it continues below deposits to the south of wall (2010).
2028	SW-NE orientated masonry face built of large stone blocks with return to NW in the form of 2041. Together they form a platform filled with rubble 2038 to form a platform within the eastern half of the sea gate aperture.
2029	Deposit, which in plan appeared to be forming a possible bank on top of turf platform 2016. Possible additional turf structure or alternatively a later dump.
2030	Curtain wall of the courtyard forming the western side of the sea gate.
2031	Curtain wall of the courtyard forming the eastern side of the sea gate.
2032	2018 backfill soil
2033	2018 backfill rubble
2034	NE-SW orientated drystone structure partially visible in the NE baulk. Possible drain.
2035	Grey silty clay slump in the northeast corner of the trench
2036	Intense in situ burning across the north part of the trench overlying turf structure 2016 and possible drain 2034.
2037	Distinct grey sandy turf deposit towards overlying steps 2048. Jumbled and not as coherent as turf structure 2016.
2038	Coarse rubble infill within walls 2028 and 2041 forming a platform structure 2040
2039	Mid grey brown silty clay in between coarse rubble 2038.
2040	Group number for structure consisting of walls 2028 and 2041 and core 2038, 2039. Possible dry dock platform.
2041	SE-NW return wall of 2028 forming platform structure 2040
2042	Localised burnt deposit wedged between structures 2034 and 2048, same as 2044
2043	Grey gritty clay with mortar inclusions and small stones inside the core of structure 2040
2044	Intense in situ burning event containing much charcoal, burnt organics and scorching of the underlying turf 2016. Same as 2042 and 2036. Probably same as 2026 in the northern projection of the trench excavated in 2018.
2045	Dark brown sandy silt containing concentration of burnt material. Possibly a localised dump on top of mortar-rich deposit 2043 in structure 2040
2046	Mid grey silty clay with small stone inclusions localised between the outer face of wall 2041 and northern baulk of the trench.
2047	Burnt deposit spread in the east of the trench over steps 2048. Same as 2044.
2048	Steps formed from large flat stone slabs located in the east half of the trench and leading from the courtyard to the shore through the sea gate
2049	Pale greyish green clay underlying mortar 2046 on the outside of wall 2041
2050	Localised dump of burnt material within mortar-rich deposit 2043. Similar to 2045
2051	Dark grey silty clay underlying mortar-rich deposit 2043 in the southwest corner of the trench. Sampled, but not excavated
2052	Turf structure stepped up towards the curtain wall in the SW baulk of the trench. Separated from 2016 by a major burning event (2026)=(2044). Abutting structure 2012 in the north of the trench seen in 2018, but only distinguished as a separate context in 2019.
2053	On-edge positioned stones between structure 2040 and steps 2048. Part of possible paved surface or perhaps a drain.
2054	Coarse rubble formed of large stones underlying and providing base for steps 2048. Unexcavated.

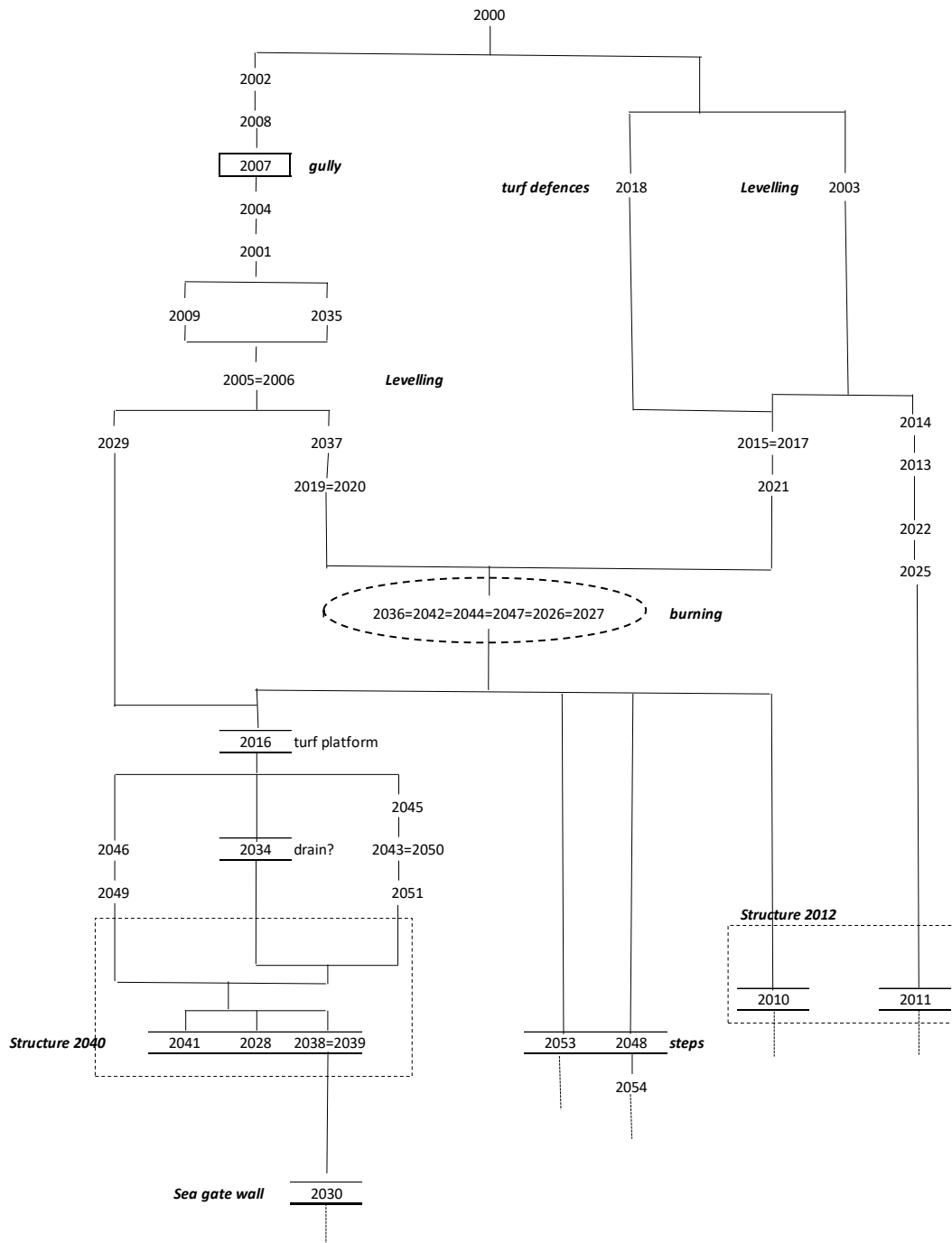


Figure 27 Stratigraphic matrix for Trench 2

Table 3 lists all contexts excavated in Trench 2 over two seasons of fieldwork and Figure 27 provides the overall stratigraphic matrix. The excavation in 2019 started with the removal of 2018 backfill (2032, 2033) from the part of the trench adjacent to the sea gate. The northerly projection containing the remains of structure (2012) was not reopened. Thus the southern part of the trench was brought to the levels reached in 2019, after which the northern step was excavated through slumps (2004) and levelling deposits (2001), (2035) and (2005)/(2006), with the 2018 records being updated accordingly. Deposit (2035), a grey silty clay, was the only one not recognised in the 2018 sondage excavation as it petered out and was limited in extent to the northeast corner. It was overlying substantial levelling deposit (2005=2006) in the northeast corner of the trench and was itself probably dumped as additional levelling material (Figure 28).

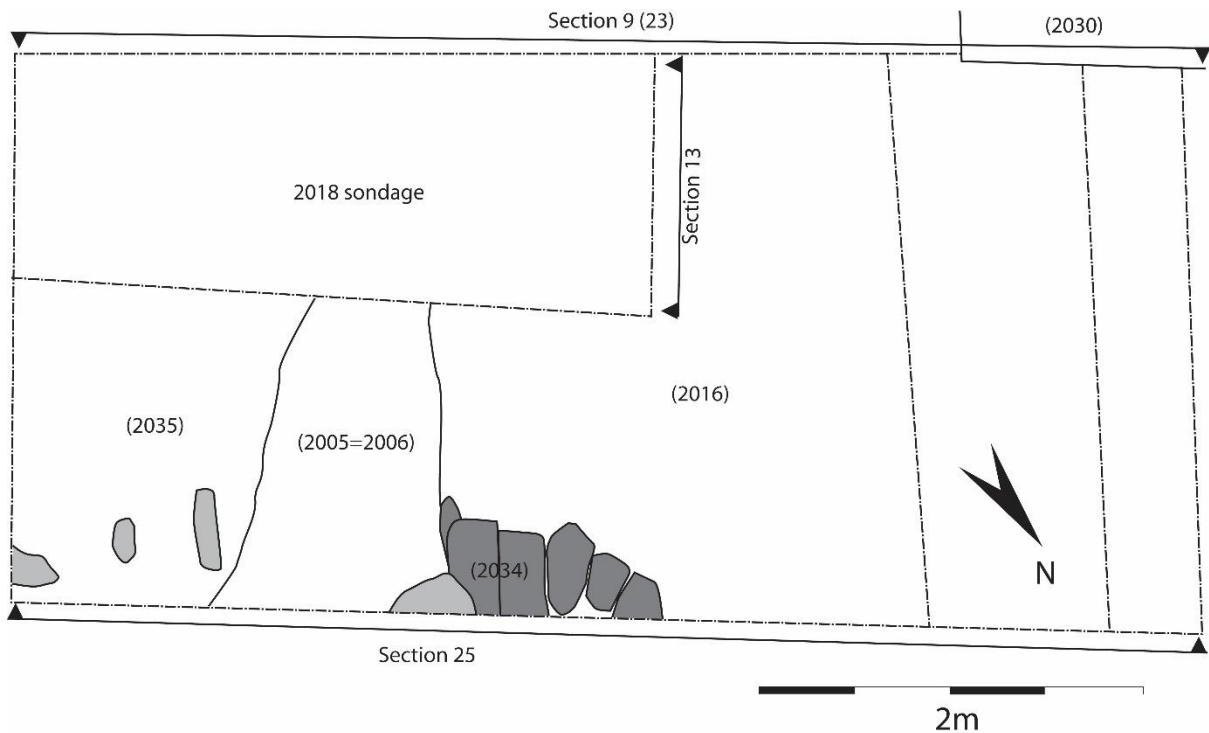


Figure 28 Multi-context plan showing the extent of turf deposit (2016) and grey silty clay (2035). Top of structure (2034) is also visible.

The excavation of orangey-brown sandy silt (2005)/(2006) across the northern half of the trench exposed the top slabs of structure (2034) and defined the easterly extent of redeposited turf (2016) (Figure 28). This turf built structure was recorded and sampled for micromorphology in sections 9 and 13 in the 2018 season when it was erroneously thought to have extended across the entire width of the sea gate and up the slope to the western curtain wall (Maričević et al. 2019). Patches of burning (2036) and (2042) were excavated around and between the stones of structure (2034). It soon became clear that these were not localised deposits, but part of a larger burnt horizon (2044), which could be traced in the baulk section 25 (Figures 29 and 33). This burning was the continuation of the burnt deposits (2026) associated with the destruction by fire of Structure (2012) (Figure 26). Burning (2026)/(2044) was overlying turf deposit (2016) and thus proving that this was a separate turf structure to upper turf (2018), which stepped up to the curtain wall in the northwest baulk of the trench. This upper turf structure was riddled with rabbit tunnels (Figure 30) and was generally less well preserved. It was overlying burning (2026)/(2044) and abutting rubble collapse (2015) of wall (2010) of structure (2012).

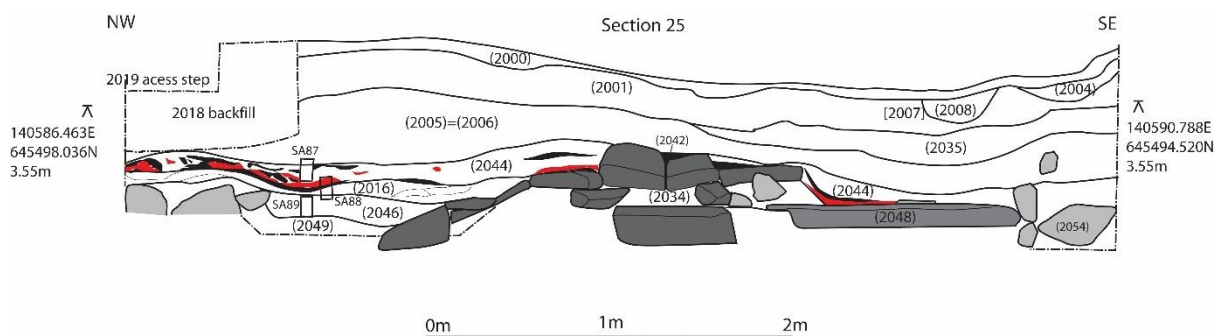


Figure 29 SW-facing section 25.

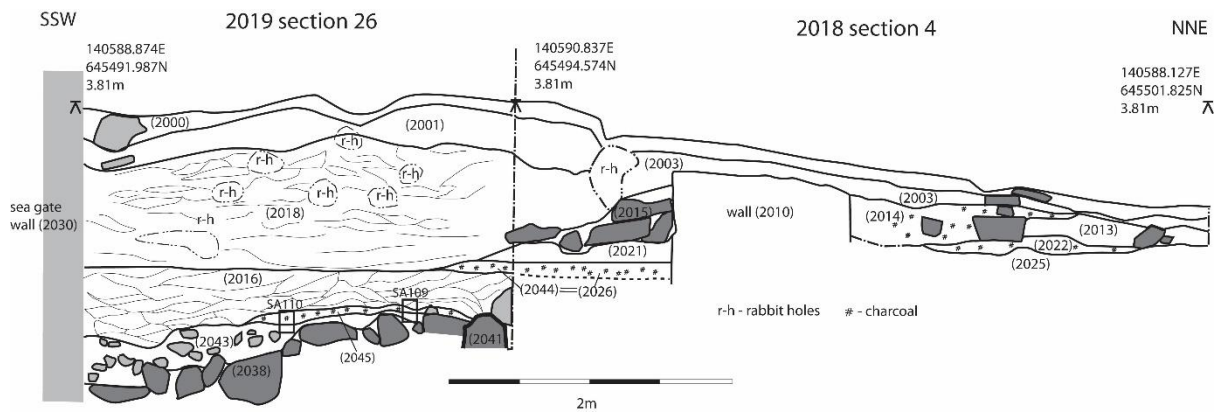


Figure 30 SE-facing section 26 (2019) and section 4 (2018) showing the location of micromorphology samples SA109 and SA110 through burnt deposit (2045) and mortar-rich (2043).

In the east half of the trench where turf (2016) stooped the space was occupied by deposit (2037), which was another deposit formed by redepositing of the turf from elsewhere. Once again, in contrast to the beautifully preserved and layered (2016), this deposit was more of a jumble than an orderly layering of turfs. In 2018 we thought that this distinction is due to preservation and disturbance by burrowing animals, but with the benefit of a larger exposure in section it was evident that (2016) stopped in line with the underlying stone-built structure (2028) (Figures 31 and 32).

In the east part of the trench deposit (2037) overlaid rubble and sandy clay (2019)/2020). Together these deposits were filling the space to the east of structures (2028) and (2016) (Figure 32). Deposit (2019)/2020) remained unexcavated in the 2018 sondage, which posed the question whether corresponding or additional structures were present in the east part of the trench. One hypothesis was that (2028) represented one side of a possible slipway, but the excavation of (2019)/2020) firstly revealed the continuation of burning (2044) below which was a set of steps (2048). The steps emerged from the northeast baulk of the trench at the depth of 0.6m (Figure 29) and led towards the shore into the southwest baulk at the depth of 1.15m. The eight and the lowest identifiable step was largely obscured by rubble (2020) remaining in the baulk section of the trench (Figure 34). The triangular space between steps (2048) and wall face (2028) was occupied by several sideways set regular stones (2053), which edged the steps and may have been the remains of a contemporary drain, paving or both. Below the steps was only partially visible rubble (2054).



Figure 31 Photogrammetric model of Section 23 showing turf structure (2016) right of the middle scale.

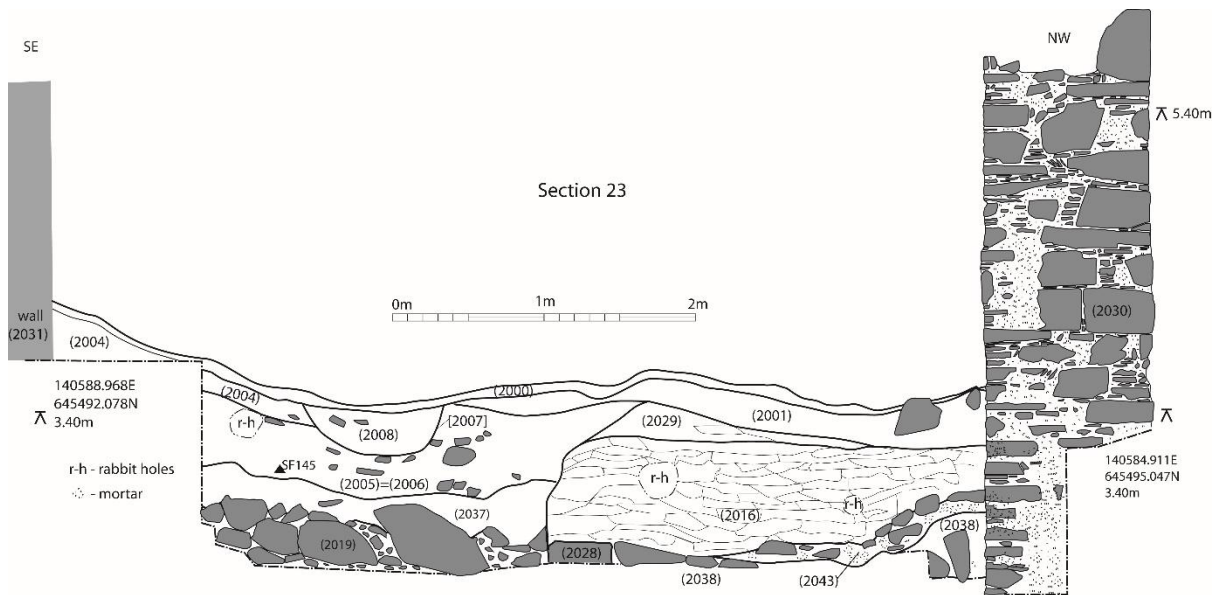


Figure 32 NE-facing Section 23, which replaces corresponding 2018 Section 9

The close spatial relationship between turf (2016) and underlying wall face (2028) was only appreciated after the excavation of (2016), which also revealed a return wall face (2041) in the north part of the trench (Figure 34). Together with infilling rubble (2038)/(2039), walls (2028) and (2041) formed a solid structure, grouped as (2040). The structure was only partially exposed and continued into the southwest and northwest baulks of the trench, i.e. towards the sea gate opening and the western curtain wall, respectively (Figure 34). Rubble (2038)/(2039) roughly filled the core of structure (2040). There was no surface present on top, which could indicate that the structure was either robbed or designed as the support for the upper turf part (2016).

Evidence against the latter hypothesis is in the fact that (2016), although petering, continued into the northwest baulk past wall face (2041) and abutted structure (2034) from the west. Evidence for disturbance and probable robbing of structure (2040) prior to the laying of (2016) could also be seen, especially nearest to the sea gate wall (2030) where a hollow in rubble (2038)/(2039) was filled with dumps of burnt material (2045) and mortar-rich deposits (2043)/(2050) and (2051), (Figure 30). Deposit (2043) contained a Cu-alloy decorated fragment of a possible brooch SF177 (Figure 33), a sherd of green glaze pottery SF179 and a possible bone beater SF180. Underlying (2016) on the outside of wall face (2041) were grey silty clay (2046) and pale gritty clay (2049).



Figure 33 Left: Micromorphology samples through burning (2026)/(2044) and underlying deposits in Section 25. Right: Possible decorated Cu alloy brooch SF177 from deposit (2043).

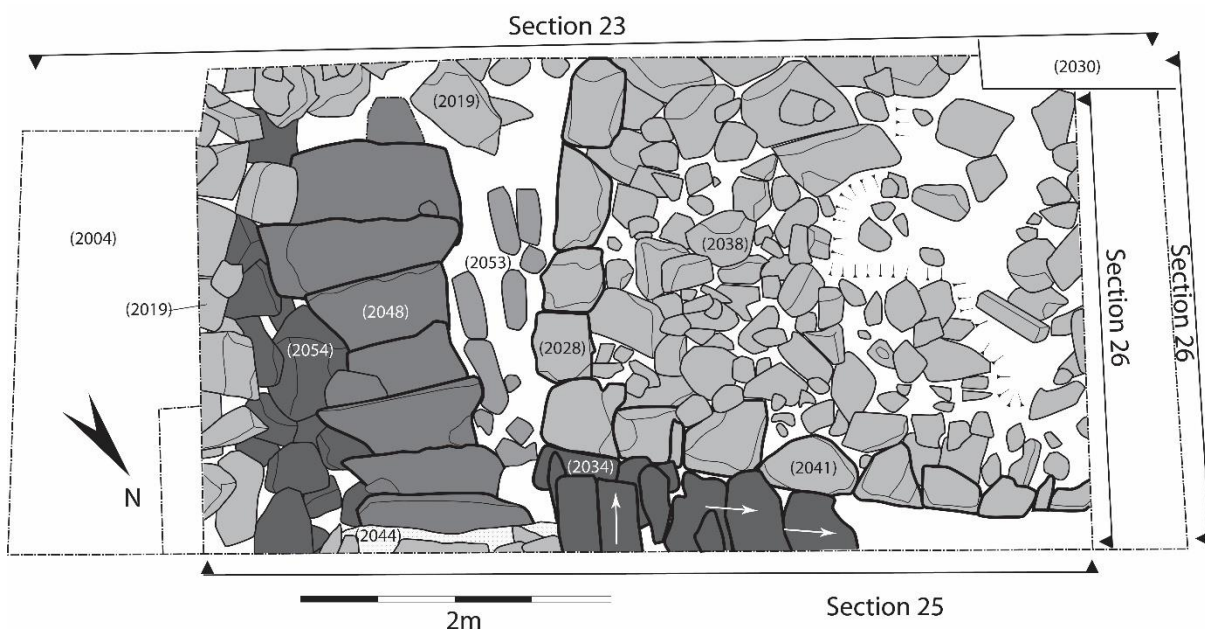


Figure 34 Photogrammetry model (top) and the plan of the structures in Trench 2 at the end of the excavation.

Trench 3

In 2018 the excavation within Trench 3 (Figure 35) revealed the remains of at least two phases of a T-shaped building named Structure 1. The deposits consisted of rubble collapse above what appeared to be the remnants of a burnt turf roof indicating that the building had been burnt down. Below this, there was a roughly cobbled gravelly floor surface with additional traces of burning. In the southwest corner of the trench there was a clay-lined oven filled with burnt material. The interior rubble and underlying occupation produced many finds, including rotary quern fragments. It was suggested that the building was probably a domestic dwelling and the artefacts indicated occupation date of no later than the 17th century (Maričević et al. 2019).

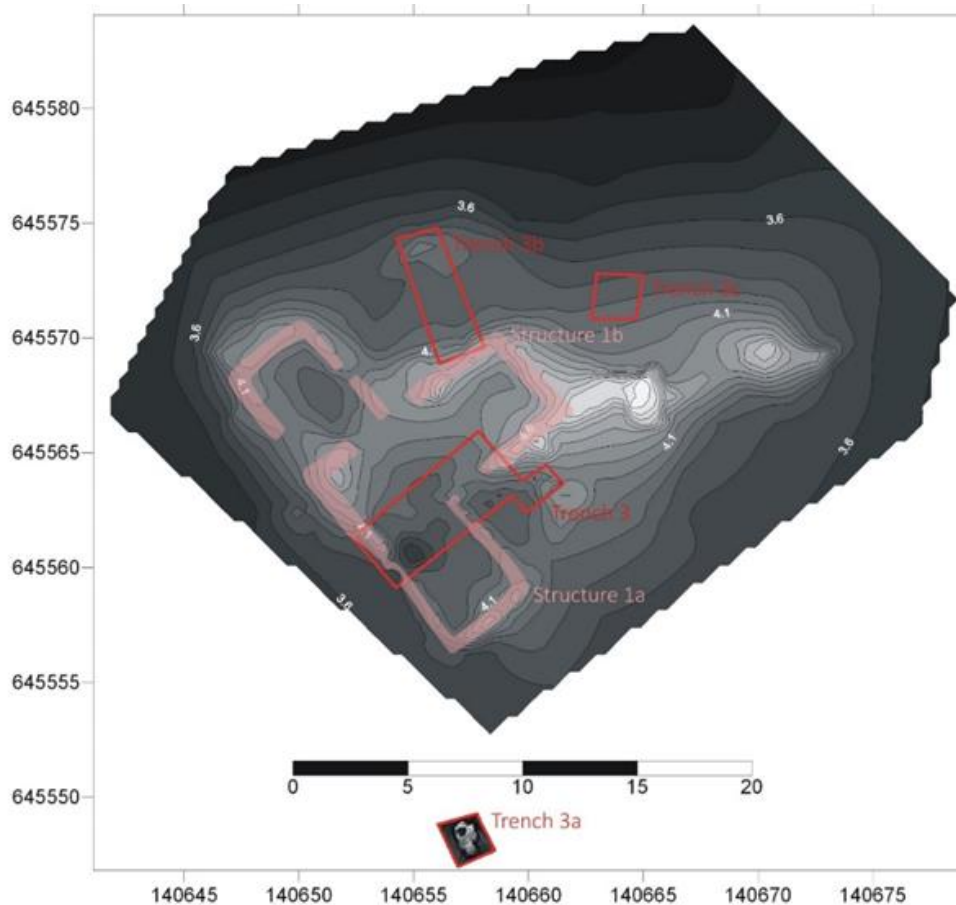


Figure 35 Location of 2018 Trenches 3, 3A, 3B and 3C in relation to the surveyed earthworks and the interpretative outline of Structures 1a and 1b as suggested in 2018.

Table 4 List of contexts from Trench 3

Context	Description
3000	Moderately compact mid to dark brown peaty loam topsoil.
3001	Moderately compact to loose dark brown peaty silt. There is occasional stone and occasional pot and iron pan spread.
3002	Compact dark grey clay silt. It includes burnt bone and charcoal. The stones are shape (A) and (S-A) with number 5-10% and size 3-6cm. Soil mixed with the collapse rubble 3003.
3003	Mixed rubble, includes mainly angular, schist block, quartzite blocks and broken cobbles (largest block 0.50m x 0.35m x 0.30m). Some blocks may be fire reddend.
3004	Compact to moderately compact. Mid to red brown. Sandy gravel, gravel rounded and angular small to medium stones used as surface in building.
3005	Loose to moderately compact. Dark grey, dark brown, black and orange/ red in colour. Mainly a sandy silt and peaty material that shows distinct signs of burning. Includes frequent charcoal in patches and occasional stone. Same as 3049.
3006	Moderately compact. Dark greenish brown silty peat. Not frequent, occasional moderately-sized stone inclusions. Soil beneath the turf in Trench 3b.
3009	Moderately compact dark greyish brown peaty silt. Some burnt bone, quartz, small to medium sized stones (4-6cm) (10-20cm) and some charcoal. Accumulation within the wall collapse.
3010	'Band' of rubble running along the end of 3B, may be remains of rough wall or revetment retain.
3011	Loose mid to light brown sandy silt and mid peaty material filling subsidence dip 3012
3012	Sub circular/ oval 'dip' in south east corner of structure 1. Measures 0.80x0.60m and is 0.13m deep. The edges are irregular, falling steeply at west and north (70 degrees) more gently at south and east (30 degrees- 50 degrees). Base relatively flat. Subsidence into underlying oven.
3014	Fairly compact. Light greyish brown. Clay silt with rubble. Possible exterior surface.
3015	Moderately compact. Very dark brown. Clay/silt/small rubble. Burnt bone, coal, small rubble, daub? Midden in sondage in Trench 3b.

3016	Fill of oven. Moderately compact. Mid to dark grey and dark red brown. Humic silt/clay (some with red discolouration). Includes occasional small to medium pebble (quartzite) occasional charcoal and burnt clay daub.
3017	Oven lining. Moderately compact. Red/pink, dark grey purple and mixed colour. Silt clay.
3021	Oven lining. Moderately compact to soft. Mixed pink/brown- dark grey and almost black (basal deposit). Silty clay. Up to 4cm thick (40mm).
3022	Moderately compact possible exterior surface. Dark greenish brown. Peaty silt (mainly rubble). 50% stone (2.10mm/5.10cm). Excavated in the sondage in Trench 3b.
3023	Moderately compact, dark greyish black peaty silt with 50% stones- angular and sub-angular. Gravel, the lowest deposit reached in the sondage in Trench 3b, originally thought to be beach gravel, but charcoal and finds recovered in environmental processing.
3024	Fill of post-hole. Moderately compact, dark grey, silty clay with charcoal, red (burnt clay) and moderate small to medium stone inclusions.
3025	Post-hole. Oval, steep-sided (70-90 degrees), flattish base with a sharp break at the base.
3027	Midden lying against external face of wall 3028. Moderately compact, dark greyish brown, peaty silt with moderate stone inclusions.
3028	Wall. Mixed geology, materials maximum size of 0.6m x 0.48m x 0.22m. Round randomly coursed, no apparent bond material and inner face facing NE. Group number 3033.
3029	Wall. Mixed geology with materials maximum size 0.55m x 0.39m x 0.52m. Randomly coursed with no apparent bond material, inner face NW facing. Group 3033.
3030	Wall. Rubble masonry, size of materials unknown, randomly coursed with no apparent bond materials. Group number 3033.
3031	Wall. Rubble masonry with mixed geology, materials with maximum size of 0.52m x 0.33m. Randomly coursed with no apparent bond material. Inner face SE facing. Group 3033.
3032	Wall. Rubble masonry with maximum size of materials; 0.46m x 0.32m x 0.2m. Randomly coursed with no apparent bond material-inner face. Group 3033.
3033	Group numbers for walls and floors of structure 1. Contains walls 3028, 3029, 3030, 3031, 3032, 3034.
3034	SW wall of structure 1- but likely originally belonged to an earlier structure, has the same type build as (3032) at N. Constructed in rubble masonry of mixed geology, largest block 0.4m x 0.3m x 0.22m. Larger stones used as facings with smaller stones used as packing between larger blocks. Group 3033.
3035	Fill of post-hole. Loose, dark grey brown, sandy silt, with moderate small to medium pebbles and occasional charcoal inclusions.
3036	Post-hole. Irregular/oval, steep-sided cut with a flattish bottom, sharp break at the top and base. Only partial S edge seen.
3037	Keyhole shaped cut for oven (3021), oriented NE/SW. Sides with flattish base and sharp break, more gradual at the base.
3038	Moderately compact. Dark brown humic peaty silt Inclusions: frequent roots, occasional rubble, stone; occasional charcoal and modern objects: plastic, bullets and ceramic discs (clays). Topsoil over Trench 3 in 2019.
3039	Rubble. Wall collapse. Extensive spread of stones in Annex, Structure 1c.
3040	Walls collapse rubble along west and south walls of Structure 1 including the annex.
3041	Midden-like dump around outer wall face of Structure 1. Moderately compact. Dark reddish brown sandy clay silt. Inclusions: stones, occasional flint, burnt bone and charcoal
3042	Midden-like dump around outer wall face of Structure 1. Mainly dark grey to mid brown sandy silt. Inclusions: charcoal, moderate stones and some rubble
3043	Wall. Eastern wall of possible earlier structure taken into 'L' shaped structure as part of Structure 1. Only seen as an earthwork in 2019. Not excavated.
3044	Southwest wall of Structure 1. Constructed mainly with large orthostatic blocks on the outside faces with smaller stone core.
3045	Northern wall of annex Structure 1c. Rubble built wall standing up to 0.34m high on exposed internal face. Up to 0.8m in width.
3046	West wall of annex Structure 1c. Stands 0.54m high in 3 rough courses on eastern outer face.
3047	Southern wall of annex Structure 1c. Stands up to 0.38m high. This wall contains a channel or flue from external to internal face, this 0.27-0.30 wide.
3048	Sub-rectangular spread of cobbling/paving in western doorway of Structure 1. Stones of mixed geology, horizontally lain.
3049	Peaty dark grey sandy silt. Mixed in with what appears to be burnt roof material. Same as 3005.
3050	Midden-like dumped material along south and east sides of annex Structure 1c. Dark grey brown sandy silt and gravel. Inclusions: occasional charcoal and burnt bone

3051	Burnt deposit. Moderately compact; mid-dark brown sandy silt with reddish inclusions and S-A stones
3052	Discrete patch of burning. Loose dark grey black silt.
3053	Probable burnt roof material in Structure 1c. Moderately compact. Brown with burnt discolorations (very dark brown and red). A mixture of clay patches with sandy silt
3054	Occupation deposit. Dark grey with patches of burning. Located in the SW corner of Structure 1.
3055	Upper extent of a series of burning episodes within annex Structure 1c. Mixed dark grey silt and extensive patches of red orange clay silt (burnt). Inclusions: moderate charcoal, occasional stones and burnt bone. Extending into the 'flue' like feature in wall 3047
3056	Basal fill of oven. Loose dark grey organic silt. Inclusions: occasional quartz, charcoal and burnt bone
3057	Oven lining. Mixture of dark brown clay with some red/orange discolouration (not fully excavated).
3058	Oven cut. Oval shaped cut measuring 1.06m x 0.90m and is up to 0.25m deep. The edges fall sharply 70-90° from top dropping to relatively flat base that slopes down from north to south.
3059	Possible stone padding for a timber beam partition. Alignment of six horizontally lain stones 1.8m long up to 0.3m wide. Aligned N-S.
3060	Dark red/pink coloured gravel partially seen in a small sondage in Structure 1c.
3061	Alignment of stones (wall). At least 5 stones orientated E-W running under walls of annex Structure 1c.

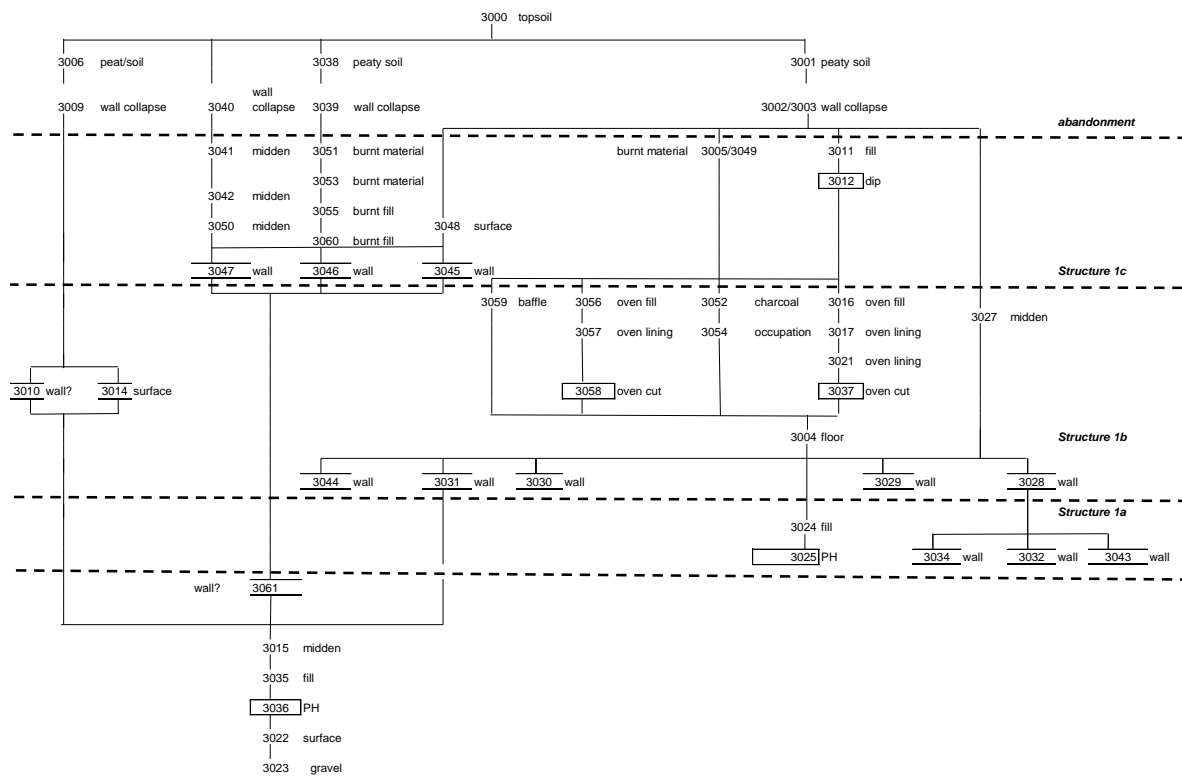


Figure 36 Stratigraphic matrix for Trench 3

In 2019 the area of excavation was expanded to incorporate the whole of the western side of the structure (Figures 37 and 38), thus encompassing DHAP2018 Trenches 3 and 3b. This approach was adopted in order to gain the relationships between the walls in plan by simple deturfing and cleaning, followed by selective evaluation of the different exterior and interior spaces. The westernmost part of the structure was identified as the latest stage of construction in the form of an annexe (Structure 1c) that created a T-shaped building from the pre-existing L-shaped building (Structure 1b), which in itself was the expansion of what was originally probably a rectangular building (Structure 1a).

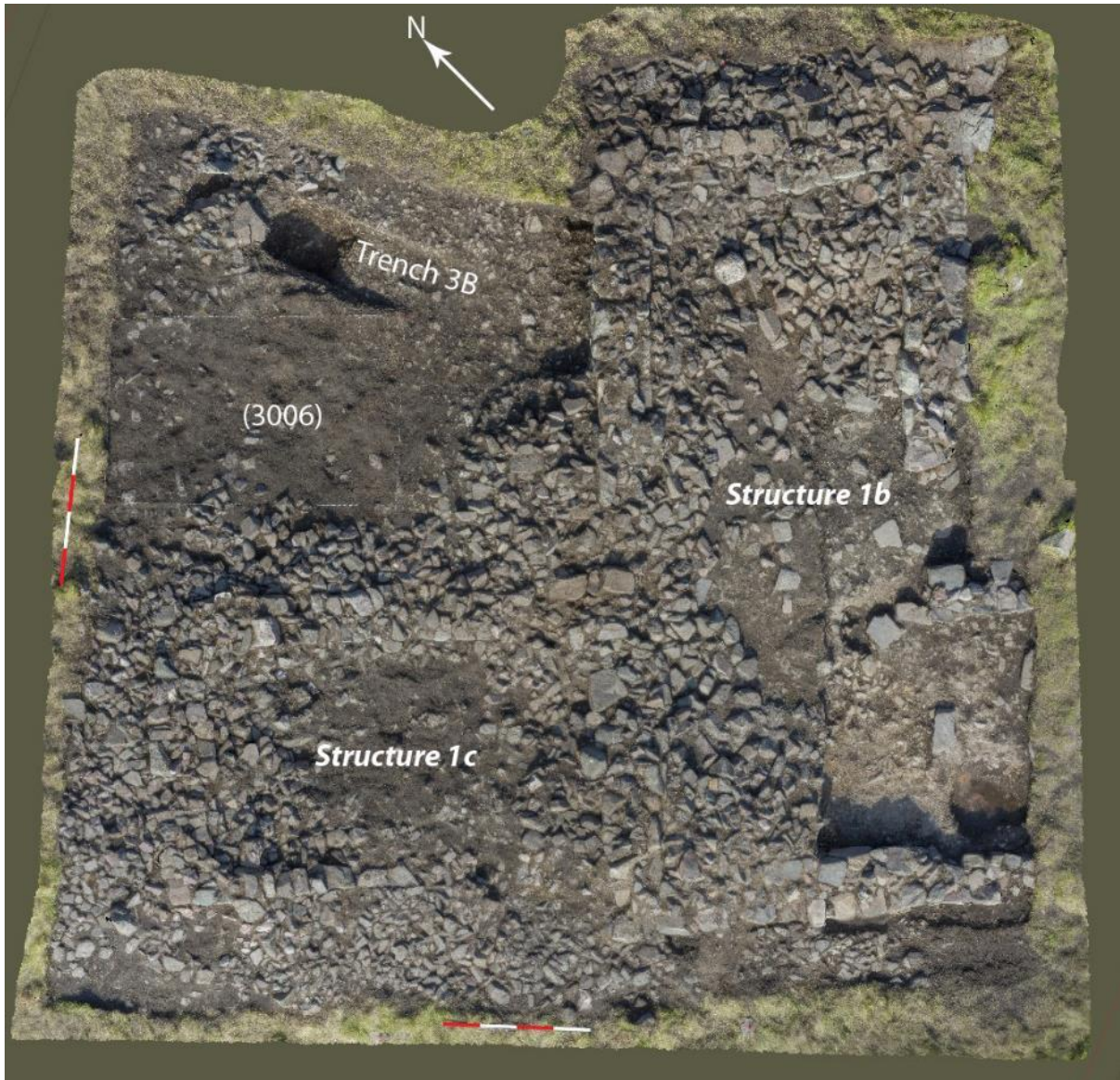


Figure 37 Overhead view of Trench 3 after deturfing, cleaning and de-backfill of the 2018 trenches.

Much like in the 2018 season, the excavation below the topsoil revealed a mass of rubble from the collapsed walls of the building, such as deposits (3002)/(3003), (3039) and (3040). Figure 38 shows the areas in which the excavation progressed with the clearing of the rubble, namely the junction of Structures 1b and 1c and the external areas around the western corner of Structure 1c. The external area, previously explored by 2018 Trench 3B, was also explored further.

Inside the structure the excavation encountered further evidence for destruction by fire in the form of burnt deposits (3005)/(3049) in Structure 1b and (3051) in Structure 1c, which are thought to be the remains of the collapsed turf roof. Inside Structure 1b these were overlying occupation deposit (3054) and a discrete patch of charcoal (3052), which were sitting above floor surface (3004). In 2018, an oven or a possible corn drier (3021)/[3037] was found set into the floor surface (3004) in the south part of Structure 1b. Very similar feature [3058], filled with dark grey organic silt (3056) and lined with clay (3057) was found c.3m to the north. This 'oven' was slightly smaller and set higher although still in the same floor surface (3004), which was uneven and slumped significantly in the south part of the structure. The 2019 excavation south of 'oven' [3058] exposed better preserved section of this floor than seen in the 2018 excavation (Figure 39).



Figure 38 Simplified plan of Structure 1

The excavation revealed a second doorway on the west side of the structure between walls (3031) of Structure 1b and (3045) of annexe 1c. This doorway was directly opposite the eastern doorway identified in 2018 (Figure 38). The western doorway was somewhat narrower and paved with cobbled surface (3048), which extended outside over partially excavated build-up of material on the side of the annexe Structure 1C (Figure 40). Between the opposing doorways, set into floor (3004), was a straight alignment of six stones, which were most likely a base for a partition or a baffle (Figure 38), which would have acted as a wind barrier when both doors were open. This may have had added significance in relation to the locations of the ‘ovens’ in different parts of the structure and the control of the draught coming into the building. The excavation inside Structure 1b did not proceed below the level of floor (3004).



Figure 39 Excavated 'oven' feature [3058] with surface (3004) and the surrounding burning. Orthostatic construction of wall (3028) can be seen in the background. View from the northeast.



Figure 40 Paved surface (3048) in the western doorway from the west and from above facing west.

Eastern half of Structure 1c was cleared of collapse rubble (3039). The underlying deposits (3051) and (3053) showed signs of burning possibly indicating that this part of the building was burnt down at the same time as Structure 1b. A lead alloy musket ball was recovered from deposit (3053)(Figure 43). However, a layer of much more intensive burning (3055) was observed lying below these upper burnt deposits and was partially excavated (Figure 41). A small sondage excavated below this horizon at the end of the season showed as much as 0.30m of burnt material filling the room and lying above a heavily fire reddened gravel floor or surface (Figure 42). This undoubtedly represented multiple episodes of burning which appear to be related with what is likely a flue or vent along the south wall of this annex

structure (Figure 41). While heavily burnt in part none of these deposits produced any firm evidence of what activity was taking place within Structure 1c, although by large they remain unexcavated.



Figure 41 Burning horizon (3055) in Structure 1c partially cleared of rubble (3039). Flue or vent in wall (3047) can be seen on the right. View southeast.



Figure 42 Sondage excavated against wall (3044) through burnt material (3060) filling Structure 1c. View northwest.

Outside the Structure 1c, L-shaped section of the trench was excavated to expose some of the external elevation of walls (3046) and (3047). The sequence below peaty soil (3001) and rubble collapse (3040), in this part of the trench, exposed a midden excavated in spits (3041), (3042) and (3050). These were dark organic deposits with charcoal, animal bone, pottery and iron slag. Most notable Small Finds from this area were two Cu-ally coins SF117 and SF118 from peaty soil (3001) and a smithy base fragment SF120 from deposit (3041). A third coin in the trench came from the burnt material (3049) inside Structure 1b (Figure 43). All three coins may be two pence pieces or turners dating to the reign of Charles I, which would indicate the date of the demise of the structures sometime in the second quarter of the 17th century.



Figure 43 Selection of Small Finds from Trench3: A – decorated pipe bowl SF114 from deposit (3006); B – Charles I coin SF254 (3049); C – musket ball SF168 (3053).



Figure 44 Left: Wall (3061) running underneath western corner of Structure 1c. View southeast. Right: Some of the pottery finds from Trench 3.

Underlying these midden deposits was a possible wall (1061), which ran from the northwest baulk underneath Structure 1c on the roughly same alignment as the walls of Structure 1 (Figures 38 and 44). In the external area to the north of Structure 1c and immediately outside the western doorway of Structure 1, soil (3006, Figure 37) was overlying surface (3014) and this was in turn overlying midden (3015). Deposits (3014) and (3015) were sampled in section for micromorphology and in plan for chemical analysis (X-ray Fluorescence, Figure 45). Midden (3015) underlies walls of Structures 1c and 1b (Figure 46) and it is unclear whether it has accumulated during the currency of Structure 1a or even earlier occupation. The finds from this deposit resembled those from later midden deposits (3041), (3042) and (3050) and included iron slag and worked flint. In 2018, a sondage in Trench 3b, reached earlier deposits (3022) and (3023), which remain the lowest part of the sequence in Trench 3. These gravelly deposits continued to produce finds and charcoal, indicating a substantial build-up of material prior to the construction of Structures 1b and 1c, at least, and perhaps the entirety of Structure 1.



Figure 45 Left: Micromorphology sampling of surface (3014) in the sondage of Trench 3b, also showing underlying gravelly deposits (3022) and (3023); Right: Xrf sampling of surface (3014) with a view towards the western doorway of Structure 1.

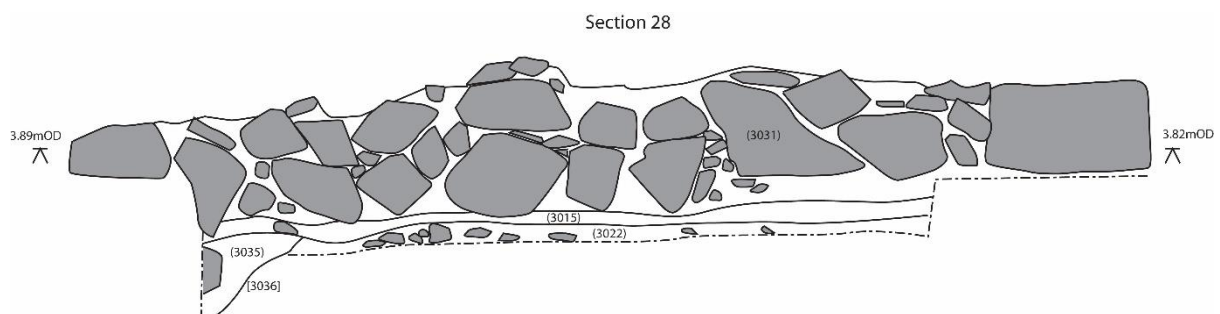


Figure 46 NW section 28 showing elevation of wall 3031 and underlying deposits.

Trench 4

Trenches 4, 5 and 6 were all positioned with the aim to test particular high resistance anomalies in the northeast part of the environs area (Figure 10). Trench 4 was a 5m by 4m trench situated equidistantly between the castle and the Plateau (Figure 15). Its aim was to evaluate a large linear high resistance anomaly running across the site on a N-S orientation. As mentioned in the discussion of the geophysical results the interpretation of that anomaly was either a structural feature such as a road or a natural gravelly spread, such as a beach deposit. Trench 4 uncovered a light orange-brown gravelly sandy silt (4001), overlain by thin stony soil (4000) and cut by furrow (4002)[4003]. Shallow furrow, running SE-

NW, confirmed that the area was cultivated as previously deduced from the topographic and the electrical resistance surveys. Underlying deposit (4001) was compact sandy gravel (4004), which was interpreted as a natural raised beach deposit.



Figure 47 Trench 4 from the northeast showing darker cultivation soil (4001) and lighter raised beach gravel (4004) in the foreground.

Context	Keywords	Description
4000	Topsoil	compact dark grey brown silty clay, 0.10m thick Inclusions: s-a, s-r, 2-20cm stones frequent 6mm-3cm (quartz)
4001	Cultivation soil	Fine-grained friable/loose light orangey brown sandy silt (bit clayey) Inclusions: s-a, s-r, 2-6mm, 6-30mm, 306cm, 6-20cm stones
4002	fill of furrow	Soft medium brown orange silty sand with small stones and gravel. both s-a and s-r >70%, 3-6cm, 6-20cm
4003	cut of furrow	Linear, SE-NW, shallow with rounded base and gradual breaks of slope
4004	natural raised beach	Loose/friable dark red brown sandy silt gravel Inclusions:

Table 5 Contexts excavated in Trench 4

Trench 5

Trench 5 was placed across N-S orientated linear earthwork which runs from the Plateau in the north to the nearest coastal cliff outcrops in the south (Figure 15). The earthwork forms a boundary along the top of a ridge with sloping ground in two directions, to the east towards a narrow secluded sea inlet and to the west towards the castle. The boundary runs along a laid track, which can still be traced as it comes off the plateau and turn into a narrower path.

The trench uncovered a ruinous dry stone wall (5004) made predominantly of beach pebbles and sitting on the downward break of slope towards the sea inlet to the east. The wall collapse was most substantial on this east side in the form of rubble (5006) (Figure 48), while to the west the trench was on the level ground. Next to the western side of wall (5004) was gravelly silt (5003), which accumulated against the wall. The opposite western end of the trench was occupied by a similar gravelly deposit (5001). A slight dip between (5003) and (5001) was filled with darker, but equally stony silt (5002), which may have been a furrow fill or simply a dip created by the construction of the wall. The entire length of the trench was half-sectioned. Underlying all of the deposits including the wall was compact light orange brown sandy gravel (5007), which most likely represents well sorted natural raised beach at 8.5mOD (Figure 49).



Figure 48 Left: Wall (5004) and collapse (5006) from the east; Right: Level west part of the trench with gravelly deposits (5001), (5002) and (5003) from the west.

Context	Keywords	Description
5000	Topsoil	Friable medium brown grey silty clay Inclusions: quartz, stones s-a, s-r, 5-10%, 6-30mm, 3-6cm
5001	Layer	Compact light brown orange sandy silt Inclusions: quartz, slate, beach pebbles s-a, s-r, 50%, 6-20cm, 20-60cm
5002	Accumulation	Fine-grained sediments, soft dark brown orange sandy silt Inclusions: gravel pebbles and quartz, a, s-r, 60%
5003	Accumulation	very soft fine-grained sediment, light brown orange sandy silt. Inclusions: quartz, pebbles - s-r, r, 50%,
5004	Wall	No distinct courses visible, but mainly a course of larger materials on top followed by courses of smaller towards the natural. No mortar, turf and soil between the stones. N-S orientated
5006	Collapse	dark brown peaty and firm clayey silt with many stones s-a, s-r, 60%, 6-20cm, 20-60cm
5007	natural raised beach	Compact light orange brown sandy silt s-r and rounded pebbles >70%, 6-20, 20-60cm

Table 6 Contexts excavated in Trench 5



Figure 49 Longitudinally half-sectioned trench 5 showing exposed raised beach deposit (5007). View west.

Trench 6

Trench 6 was a 3m by 3m trench positioned to test a high resistance anomaly, which appeared to form a possible circular enclosure or a series of potentially complex archaeological features (Figure 10). The excavation revealed high concentration of naturally occurring gravel and boulders to be the source of the geophysical anomaly. Underlying topsoil (6004) was a dark rich soil (6000) with evidence for rig and furrow on northeast-southwest alignment, i.e. down the slope (Figure 50). Underlying it was a mass of gravel with boulders (6002), which was poorly sorted unlike the beach deposits in Trenches 4 and 5 and may have been deposited by a high energy storm event that gathered this material in this particular area cornered between the cliffs to the southeast and the high ground of Plateau to the northeast. Interestingly, this material appears to be the source of high magnetic noise seen in the magnetometry results (Figures 12 and 13).

Context	Keywords	Description
6000	Subsoil	Fairly loose mid blackish brown sandy clay. Contained fragments of clay pigeon and modern glazed pot, coal
6001	Cut of furrow	Linear feature, NNW-SSE; shallow uneven shape and size (varies along the length) with concave base 3m x 0.5m x 0.06m
6002	Natural Layer	Fairly compact mid greyish brown (vaguely reddish) silty clay 40% silt 60% clay Inclusions: small rocks s-a, s-r, r, 3-6cm 35%; large rocks 20-60cm, s-a, s-r, r, 25%
6003	Fill of furrow	Fairly loose medium brown sandy clay.
6004	Topsoil	Friable light brown turf and topsoil with many roots

Table 7 Contexts excavated in Trench 6



Figure 50 Left: Trench 6 showing cultivation soil (6000) with rig and furrow; Right: Half sectioned trench showing deposit (6002).

Reinstatement

All trenches have been fully reinstated. All exposed archaeological deposits were protected with breathable geotextile membrane, which was waited with stones and soil. Particular care was taken to protect and 'cushion' architectural features by using bags filled with soil where necessary. The trenches were fully backfilled with the care being taken to separate the materials such as rubble and soil. Backfilled trenches were covered with the turfs taken out and put aside at the beginning of the evaluation.



Figure 51 Trench 1b (left) and Trench 2 (right) after reinstatement.

Summary and discussion

The castle

The results of the excavation in Trenches 1b and 2 justified their reopening in 2019 and provided answers to the questions posed at the beginning of the season. In Trench 1b, we have dismissed the hypothesis that deposit (1021) represented earlier structure, but the trench did uncover important sequence pre-dating the construction of curtain wall (1023), including midden (1043) rich in animal bone and the recurring linear arrangement in front of the curtain wall, first in the form of only partially seen ditch [1053], a possible recut or a gully [1052] and a later rubble filled linear cut [1055]. Evidence for the preparation of the ground for earlier construction on the line of curtain wall (1023) was identified in the form of laid hard core deposits (1044) and (1046), which were cut by [1052]. The exact function of each linear feature remains to be confirmed in the future.

The latest linear [1055] is near the top of the stratigraphic sequence, post-dating the destruction and some of the weathering of the curtain wall. It is possible that it is related to the developments related to the suite of buildings and kiln to the immediate north of the castle or the repurposing of the remains of the castle by the Campbells at the time when Building A-E may have been also constructed inside the courtyard.

Little can be said about a possible gully [1052], except that it appears to have been cut into the side of already filled larger ditch [1053]. The trench only clipped the southern side of the ditch, so we do not know its width or depth, but there is at least a possibility that a defensive ditch separated the castle from the rest of the peninsula, effectively creating a moat. Some support for this can be seen in the results of the magnetic and electrical resistance surveys (Figure 14), as well as the GPR traverse 3, which crosses this possible feature and shows dipping reflections indicative of a possible ditch in front of the main gate of the castle (Maričević et al. 2019, Appendix 1:Figure 4). Ultimately the existence and the function of such feature can only be proven by excavation.

In Trench 2 the excavation was aimed at gaining better understanding of the turf construction (2016) and underlying structure (2028). This revealed the existence of steps (2048) acting as the access through the sea gate at the time when the aperture of the gate was halved, first by the construction of a stone built platform or dry dock (2040), which abutted the sea gate wall (2030) and then by the addition/replacement turf structure (2016).

The arrangement and the angles between the sea gate walls (2030) and (2031), steps (2048) and structure (2040) are intriguing in their design. Steps (2048) and structure (2040) were constructed at an angle of c.22.5° to each other and are at a similar angle to the inwards splayed opening of the sea gate (Figure 52), created by walls (2030) and (2031). The gap between the steps and the platform was occupied by a possible paved surface (2053) made from hefty slabs set on-edge and was widening towards, and potentially beyond, the sea gate. This arrangement requires an explanation and considering the position and presumed function of the sea gate in relation to the boat landing channel made in the foreshore rocks (Figure 53), there is a case to be made that the structures were built in this way to allow boats to be hauled up and unloaded on the dry dock. For this to work, however, the dock would have had to project outside of the sea gate to a point where there was enough space for this to happen, as the space inside and within the gate itself would have been far too narrow for most boats (Figure 52).



Figure 52 Aerial view of the excavation in Trench 2 showing the location and alignment of structures (2040) and (2048) in relation to the sea gate and its walls (2030) and (2031). View northeast.



Figure 53 Aerial view of the sea gate and Trench 2 in relation to the boat landing channel in the foreshore. The lines are projected angles of the masonry platform (2040) and steps (2048). View south.

Some attention was paid during construction of possible drain (2034) to respect the line of steps (2048) and structure (2040), as far as this can be discerned within the trench, although the latter was probably robbed or destroyed prior to replacement with turf structure (2016). We do not know why or how this happened, but one possible explanation is that the original masonry structure was damaged or completely destroyed in the bombardment of 1615 and that the turf replacement was added after this event. The fact that steps (2048) were constructed on a jumble of rubble (2054), would support the idea that the steps were added at the same time as the turf structure and that the original means of access remains either buried under (2054) or was also destroyed. This would tally with the makeshift nature of the stepping stones (2048), which were of uneven size and shape and were most likely reused from elsewhere in the castle.

The evidence that turf platform (2016) was contemporary with Building E comes in the form of burning (2026)/(2044), which directly overlies both structures. This burning horizon, on one hand points to the destruction by fire of Building E and on the other it separates this event from the construction of turf defences (2018), which step up to the curtain wall. One scenario, which would link the archaeology in Trench 2 with the historical events, could be that Building E, just like Building B and most likely Buildings A, C and D, was constructed by the Campbells after taking possession of the ruined castle in 1615 (Maričević et al. 2019). It is possible that the turf platform and the steps at the sea gate are contemporary repairs on top of the earlier damaged masonry dock and collapsed rubble. Following the retaking of the castle later that year by Sir James Macdonald, the buildings were burnt down and turf defences constructed. Of course, this is only one possible scenario and it does not extend the historical narrative of the castle to the events of 1647, for example, but it does stress the likelihood that masonry structure (2040) was not of contemporary build as steps (2048) and thus the angled arrangement between them may not be all that significant. This is not to say that the earlier masonry platform, itself an alteration of the original sea gate, is not built at an angle to the sea gate to provide a better angle in line with a boat landing channel (Figure 53).

The excavation of Trench 2 showed the complexity of the archaeology and some of the changes taking place at the sea gate and the way it was used, which fulfils the original aim of this trench. It is clear that there is a further depth of stratigraphy to be explored, but these are covered by the substantial remains of the structures (2040) and (2048). One area which would most likely yield further answers in the future to some of the questions posed above is at the foreshore beyond the sea gate. The level of the lowest step of structure (2048) in Trench 2 was lower than the level of the rubble outside the gate, suggesting that this rubble is mostly derived from the collapse of the castle walls and conceals further archaeology, which is a good thing in the light of the threat posed by the sea.

Structure 1

The excavation in Trench 3 in 2019 confirmed the stratigraphic phasing hypothesis established in 2018 by which Structure 1a represents the earliest building in the complex. Nevertheless, the excavation so far did not directly target the earliest phase of Structure 1 nor did it in any detail explore other possible early features, such as wall (3061). The earliest archaeology sampled by the excavation was midden (3015) outside the western doorway of the structure, but we do not know, as yet, what occupation or potential structure this midden relates to.

In addition to the domestic type of evidence uncovered in Structure 1b in 2018 and 2019, we now have added possibility of an industrial wing or annex in the form of Structure 1c, which was filled with burnt layers and featured a flue or a vent in its southwest wall. We are as yet to understand this structure

including the location of its doorway, which may have been blocked within the length of wall (3044), which separates it from Structure 1b.

Perhaps the clearest picture belongs to the demise of the building in a fire, the evidence for which was found across all excavated structures in the form of probable burnt turf roof. Finds from these layers include musket balls, as well as Charles I coins, pointing at a date in the second quarter of the 17th century or later. The pottery evidence is consistent with this preliminary date. It is possible that here, at least, if not in the trenches inside the castle, we can see the evidence of the 1647 uprising. The date of the beginning of occupation inside Structure 1 and its longevity remains to be ascertained.

3.4 Geophysical survey at Cill Mhoire

Detailed topographic survey of this monument and its immediate surrounding was carried out in 2018 (Maričević et al. 2019), which demonstrated potentially complex nature of the earthworks (Figure 54). In addition to the circular earthworks, recorded by the RCAHMS (1984) as a burial ground, the electrical resistance survey carried out in 2018 revealed a presence of a possible larger enclosure to the northwest of the earthwork (Figure 54).

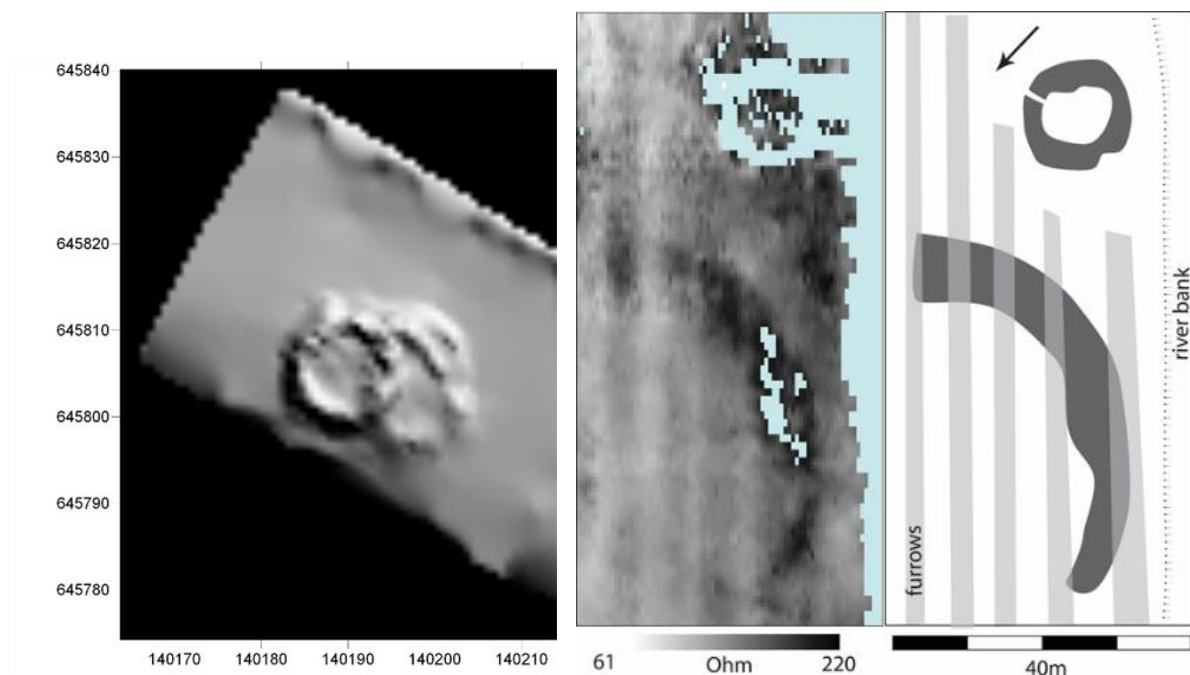


Figure 54 Left: Shade relief model of the circular earthwork at Cill Mhoire; Right: Electrical resistance plot with interpretation showing rig and furrow, circular earthwork (roundhouse?) and a possible enclosure.

A supplementary ground penetrating radar survey was carried out in 2019 in order to provide more evidence for the nature of this anomaly. This confirmed its presence and revealed several other possible features of interest including a possible building (Figure 55). More detailed GPR survey report can be found in the Appendix 1.

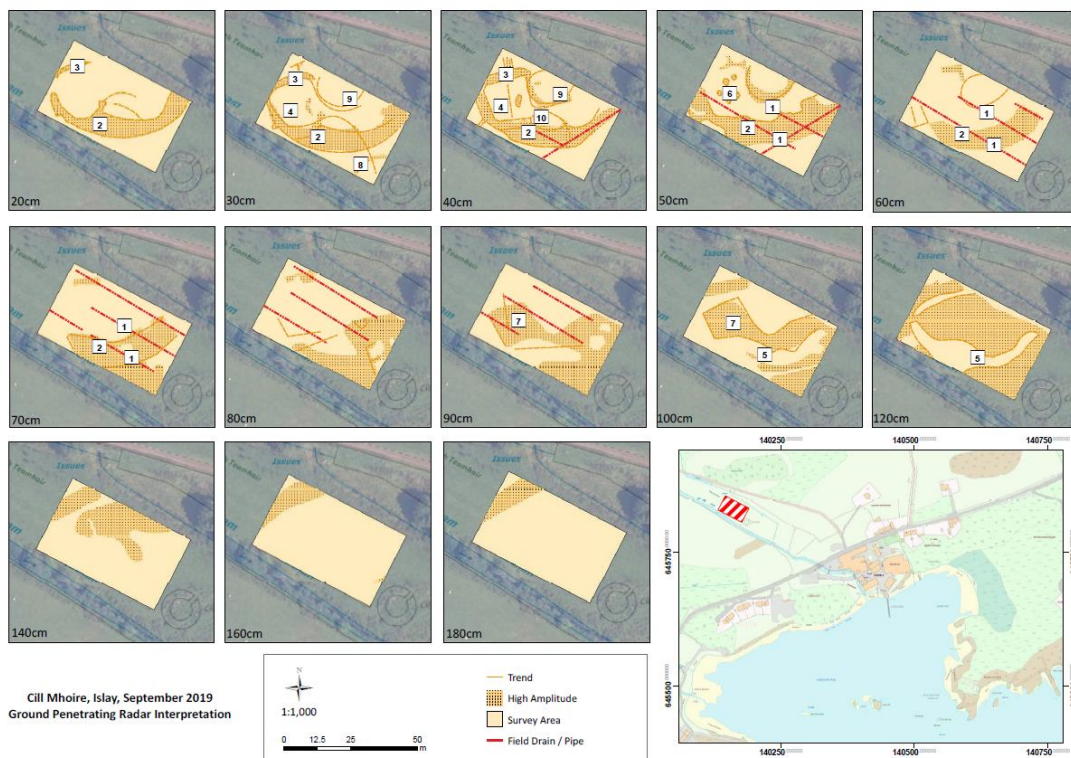
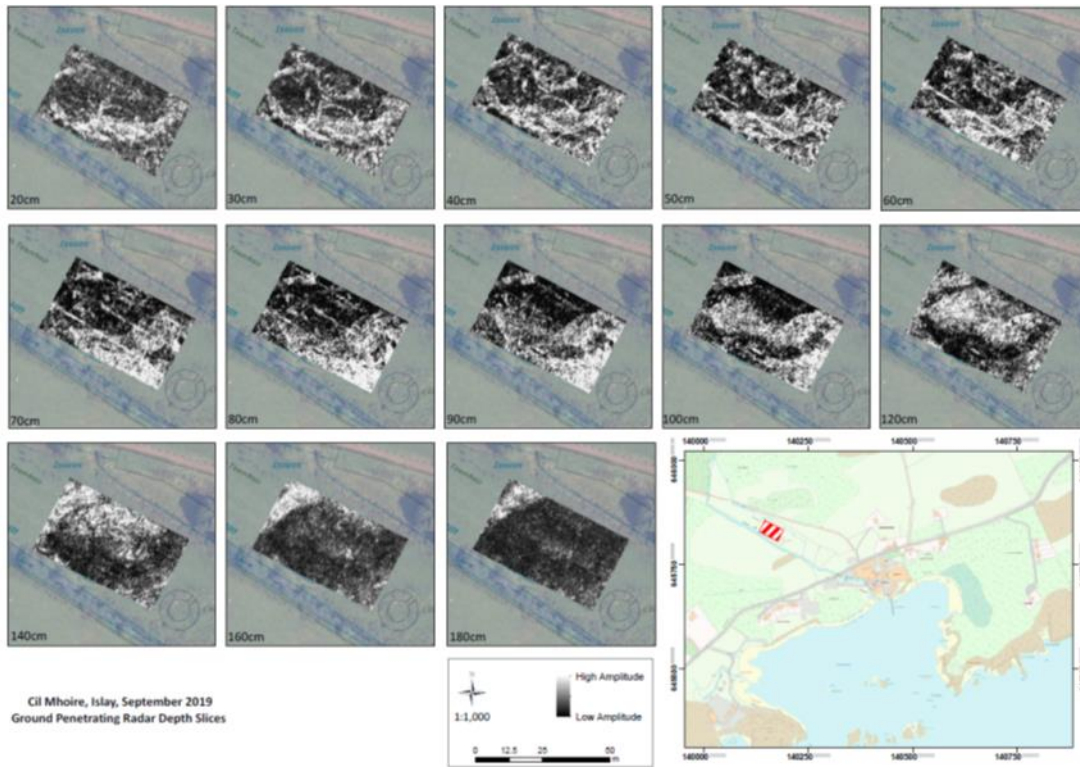


Figure 55 GPR data from Cill Mhoire showing the data (top) and the annotated features (bottom).

4. Archaeological Field School

The archaeological Field School at Dunyvaig has now seen over 65 university students attend the fieldwork during the two seasons of fieldwork. For about half of the students Dunyvaig was the first experience of the archaeological excavation either in 2018 or 2019 having just completed their first year of study. The majority of the students were from the University of Reading with one fifth of the students coming from other institutions, most notably the University of Highlands and Islands.

Around half of the students attending the Field School in 2018 and 2019 were 2nd and 3rd year students with previous fieldwork experience, who have been either given specific placements within the excavation framework as part of which they were able to gain further experience in excavation, geophysics, finds processing, archaeological science or public engagement, as guided by their particular interests. The Field School is designed with all university levels in mind, providing superb introduction to archaeological fieldwork, as well as continuing to develop older students and graduates and prepare them for careers in different sectors of archaeological and heritage industry or post-graduate academic study.



Figure 56 Archaeology students involved in some of the many aspects of the archaeological fieldwork at Dunyvaig Field School.

5. Community archaeology

The Field School provided opportunities for the volunteers who are neither registered for qualifications nor intending to seek professional employment in archaeology to follow the training programme. The volunteer scheme is designed to provide opportunity for participation in field archaeology to anybody willing to volunteer. DHAP 2018/19 saw on average 15 volunteers per season taking part for varying lengths of time. These varied from ad hoc day to day participation favoured by some members of the local community who have to balance their jobs and other responsibilities or the holiday makers who split their time on the island between digging and site seeing, to full time participation for the duration of the project favoured by archaeology enthusiasts and students from universities other than UoR and the UHI, either from UK or abroad.

The Dunyvaig Community programme runs concurrently with the fieldwork programme providing a means to ensure that the Dunyvaig archaeology is for everyone. The types of events ran in 2019 included school visits and fieldwork participation by all four Islay Primary Schools, family days, visits by and talks to senior members of the community with long term health conditions and mobility difficulties.



Figure 57 Images from the DHAP 18/19 Community programme including Medieval Family Day, a school visit and the closing talk at Ramsey Hall, Port Ellen.

6. Post-excavation and reporting

This report is an interim statement only and it relates primarily to the description of the fieldwork and the recording carried out in 2019 season in addition to the Updated DSR for 2018 season (Maričević et al.2019). It includes only the initial level of interpretation that is possible without further post-excavation work including specialist analyses of the environmental samples, material culture and 3D modelling. More detailed programme of post-excavation work will be laid out in the Post Excavation Research Design.

Records archiving

All written and drawn records are being scanned and manually entered or digitised into the project database (Integrated Archaeological Database – IADB). The IADB was originally designed by the Scottish Urban Archaeological Trust and then developed at York Archaeological Trust under the direction of Mike Rains. The IADB provides a data-management tool and allows digital versions of excavation records to be made easily accessible, queried and analysed for use in post-excavation analysis. It has

been developed to cater for numerous types of data including single context plans, photographs and written documents. A version of the generic IADB was customised for the project, being designed to meet the needs of all aspects of planned fieldwork from survey and excavation recording, through finds management and post-excavation analysis, to dissemination and archiving.

Finds processing and conservation

All artefactual material has been retained, catalogued, listed and entered into the IADB. The list of finds is appended to this report. All finds have been subject to on site processing, such as pot washing and cleaning where appropriate, supervised by the project finds specialist Rosa Campos Blade and in accordance with the Institute of Conservation's Conservation Guidelines No.2. The Excavation Director is ultimately responsible for overseeing the processing, marking, cataloguing and archive standard packaging of all artefacts and ecofacts.

In 2019 we have been lucky to have the services of a professional conservator during the fieldwork. Due to the nature of field work conservation, only limited treatments could be carried out. These were mainly limited to mechanical removal of dirt and soil, surface cleaning under x15 magnification (Ruper handheld optical glass), and a minimal amount of solvent cleaning. Mechanical cleaning was carried out using bamboo skewers, cocktail sticks, bristle brushes (real and artificial) and scalpels. Solvent cleaning was carried out using ethanol (37.5% vodka) and acetone. Objects were photographed before and after conservation work was carried out.

All finds have been reported to the Treasure Trove and the application for borrowing unallocated Treasure Trove for research purposes was approved by Queen's and Lord Treasurer's Remembrancer.

Reporting and publication

Short report featuring the summary of the fieldwork was submitted to the Discovery and Excavation in Scotland. A summarized field report has been posted on the Islay Heritage website. This Data Structure Report will be submitted to the Historic Environment Scotland and WoSAS.

Publication plans will be revised depending on the successful development and scale of the Dunyvaig Project, but as a minimum the project will submit papers and presentations to conference proceedings in the UK and overseas. Articles will be submitted to relevant journals at appropriate times, notably the *Proceedings of the Society of Antiquaries of Scotland* for field and interpretative reports, *Journal of Archaeological Science* for science based research, and the *Journal of Medieval Archaeology*.

7. Bibliography

Abernethey, D Bruach an Druimein, Poltalloch, Argyll, Excavations Directed by the late Eric Cregeen, 1960-62.

Breen, C 2014 'Colonsay and Oronsay, Lady's Seat Scalsaig' Discovery Excav Scot, New, vol. 14, 2013. 40.

Breen, C and Raven, J 2013 Dun Cholla, Colonsay, Survey and Test Excavation, Interim Report.

Caldwell, D. H. 1993. Lead seal matrices of the 16th and early 17th century. PSAS 123: 373-80.

Caldwell, D. 2008. Islay. The Land of the Lordship. Edinburgh: Birlinn.

Caldwell, D H 2010 Finlaggan, Reports 1-7, National Museums of Scotland.

Caldwell, D H 2017 Islay: The land of the Lordship. Edinburgh, Birlinn, 172.

- Campbell, E. and Batey, C. 2017. Early Medieval Argyll and Norse/Viking Argyll (AD 400 - AD 1100). Scottish Archaeological Research Framework: Society of Antiquaries of Scotland. Available online at <http://www.scottishheritagehub.com/rarfa/latemed>
- Cook, M and Engle, R 2004 'Glenshellach, Oban (Kilmore & Kilbride parish), evaluation', *Discovery Excav Scot*, vol. 5, 2004. 32
- Ellis, C 2010 'Glenshellach, Argyll and Bute (Kilmore and Kilbride parish), evaluation', *Discovery Excav Scot, New*, vol. 11, 2010. 45.
- Ellis, C 2017 'Monks, Priests and Farmers: A Community Research Excavation at Baliscate, Isle of Mull' *Scottish Archaeological Internet Reports* 68, 95.
- Fairhurst, H 1969 A Medieval Island-Settlement in Loch Glashan, Argyll. *Glasgow Archaeological Journal*, 1, 46-67.
- Fry, R., Castle, A., Maričević, D. and Mithen, S. 2018. Dunyvaig Castle - Geophysical and 3D laser survey. *Discovery Excav Scot*, vol. 18.
- Gilmour, S & Henderson, J 1999 Excavations at Cleigh, Argyll, Scotland. Web page (<http://www.nottingham.ac.uk/archaeology/research/cleigh/Cleigh.html>).
- Henderson, J. and Gilmour, S., 2011. A 1st millennium bc Atlantic roundhouse in Argyll: survey and excavation at Loch Glashan. In *Proceedings of the Society of Antiquaries of Scotland* (Vol. 141, pp. 75-102)
- Horning, A 2014 'Colonsay and Oronsay, Port Mor, Excavation', *Discovery Excav Scot', New*, vol. 14, 2013. 40
- Horning, A 2014 'Colonsay and Oronsay, Ardskenish, Excavation', *Discovery Excav Scot', New*, vol. 14, 2013. 38
- Lelong, O 1997 'Port na Cille, Isle of Gunna (Coll parish), survey and trial trenching', *Discovery Excav Scot*, 1997. 18
- James, H F 1998a 'Isle of Gunna (Coll parish)', *Discovery Excav Scot* (1998), 17.
- James, H F 1998b Gunna. GUARD Project Report 502, Unpublished mss, GUARD, University of Glasgow.
- James, H F 2004a Barr Mor, Kilmartin Argyll, Data Structure Report. GUARD Report 1446. Glasgow University.
- James, H F 2004b Glennan, Kilmartin, Archaeological Desk Based Survey. GUARD Report 1795. Glasgow University.
- James, H F 2005a Glennan, Ford, Argyll, Standing Building Survey and Archaeological Excavation, Data Structure Report. GUARD Report 1796. Glasgow University.
- James, H F 2005b Glennan, Kilmartin, Argyll, Excavations 2005, Data Structure Report. GUARD Projects 2018 & 2033. Glasgow University.
- Jupp, C. 1998. *Dunyveg. Port Charlotte: The Museum of Islay Life.*
- Lamont, W D 1962 'Kildalton area', *Discovery Excav Scot*, 1962, 20.

- Mackenzie J B 1900 Notes on some cup marked stones and rocks near Kenmore, and their folklore. Proceedings of the Society of Antiquaries of Scotland vol. 34, 330.
- MacGregor, G, Lelong, O and Johnston-Smith, D J 1999 'Tigh Vectican (Arrochar parish), 19th century cottage', Discovery Excav Scot, 1999. 15.
- Maldonado, A. 2017. Kildalton Cross and Environs: Geophysical, Photogrammetric and Walkover Survey. University of Glasgow unpublished report.
- Maričević, D. 2018. Dunyvaig and Hinterland Assessment Project 2018. Project Design. Unpublished Project Design submitted to HES in April 2018. Islay Heritage.
- Archaeological evaluation and survey of Dunyvaig Castle, Barr an t-Seann Duine and Cill Mhoire in preparation for the Dunyvaig Project 2019-2029
- Marshall, D N. 1964. Report on excavations at Little Dunagoil', Trans Buteshire Natur Hist Soc, vol. 16, 1964. Page(s): 3-69.
- Marshall, D 1979 'The turf house, McEwen's Castle, Kilfinan', Vernacular Architecture, 5, 1979, 33-5.
- Marshall, D N 1982 Excavations at Macewan's Castle, Argyll, in 1968-69. Glasgow Archaeological Journal, Vol. 9, 131-142.
- Millar, H.B. and Kirkhope, J. 1964. Dunyvaig Castle. Discovery Excav Scot, 1964:6.
- Moore, H. and Wilson, G. 2003. Report on a coastal zone assessment survey of Islay. EASE Archaeology report commissioned by The SCAPE Trust.
- Morris, R W B 1969 'The cup-and-ring marks and similar sculptures of Scotland: a survey of the southern Counties, part II', Proc Soc Antiq Scot, vol. 100, 1967-8. 62.
- Raven, J. (ed), 2017. RARFA: The Archaeology of Medieval Argyll (AD 1100-AD 1600), Scottish Archaeological Research Framework: Society of Antiquaries of Scotland. Available online at <http://www.scottishheritagehub.com/rarfa/latemed>
- RCAHMS, 1984. Argyll: an inventory of the monuments. Vol.5, Islay, Jura, Colonsay and Oronsay. Edinburgh: Royal Commission on the Ancient and Historical Monuments of Scotland.
- Regan, R and James, H 2005 Craigglass, Community Excavation. Kilmartin Museum. Report.
- Regan, R and Webb, S 2006 Dalriada Project, Archaeological Evaluation Report, Data Structure Report. Kilmartin Museum Report.
- Regan, R and Webb, S 2007 Kilmichael, Kilmory, Ardcastle & Minard Forests, An Archaeological Survey. Kilmartin Museum Report.
- Regan, R 2008 Kilmory Oib, North Knapdale, Excavation Data Structure Report. Kilmartin Museum Report.
- Regan, R 2010a An Archaeological Evaluation of Building N, Auchindrain, Data Structure Report.
- Regan, R 2010b The High Morlaggan Project, Excavation, Kilmartin Museum Report.
- Regan, R 2011a The High Morlaggan Project, Excavation, Kilmartin Museum Report.
- Regan, R 2011b Auchindrain, an Archaeological Assessment, Data Structure Report.

- Regan, R 2012 Dun Mhuirich, Archaeological Excavation, Data Structure Report. Kilmartin Museum Report.
- Regan, R 2013 Dun Mhuirich North Knapdale, Community Excavation, Phase II, Excavation Data Structure Report. Kilmartin Museum Report.
- Regan, R 2014 Colonsay and Oronsay, Colonsay Community Archaeology Project, Excavation, Discovery Excav Scot, New, vol. 14, 2013. 39.
- Regan, R 2015 Carnassarie Mor, Argyll, An Archaeological Excavation. Kilmartin Museum Report.
- Regan, R. 2017a. Dun Fhinn, Kildalton, Islay. An archaeological survey. Data Structure Report. Kilmartin Museum and Islay Heritage.
- Regan, R. 2017b. Dun Fhinn, Ardtalla Estate, Kildalton, Islay. Excavation Project Design. Draft document submitted to HES with the SMC application. Kilmartin Museum and Islay Heritage.
- Regan, R. (ed), 2017c. RARFA: The Iron Age: 700 BC - AD 500, Scottish Archaeological Research Framework: Society of Antiquaries of Scotland. Available online at <http://www.scottishheritagehub.com/rarfa/ironage>
- Rennie, E 1981 'Ardnadam (Dunoon and Kilmun p), turf hut', Discovery Excav Scot, 1981. 33
- Rennie, E 1984 'Excavations at Ardnadam, Cowal, Argyll, 1964-82' Glasgow Archaeological Journal, Vol. 11 1984, 13- 39.
- Rennie, E 1985 'Dunloskin (Dunoon and Kilmun p), charcoal-burning platform, hut foundations', Discovery Excav Scot, 1985.
- RCAHMS 1984 The Royal Commission on the Ancient and Historical Monuments of Scotland. Argyll: an inventory of the monuments volume 5: Islay, Jura, Colonsay and Oronsay. Edinburgh. 268-75.
- Sinclair, Sir John. The Statistical Account of Scotland, Kildalton, Argyle, Vol. 11, Edinburgh: William Creech, 1794, p. 289. University of Edinburgh, University of Glasgow. (1999) The Statistical Accounts of Scotland online service: <http://stataccscot.edina.ac.uk/link/osa-vol11-p289-parish-argyle-kildalton>
- Skene, W F (ed.) 1871 Johannis Fordun, Chronica Gentis Scotorum, Edinburgh.
- Smith, G.G.. 1895. The Book of Islay. Documents illustrating the history of the Island. British Library.
- van Hoek, M 1990 'Survey of cup and ring marked rocks', Discovery Excav Scot, 1990, 32.

Appendix 1 – Ground Penetrating Radar (GPR) Survey at Cill Mhoire, Lagavulin, Islay by Robert Fry

Summary

A Ground Penetrating Radar (GPR) survey was undertaken on land at Srath Teamhair (also known as Cill Mhoire) in September 2019. The focus of the survey was to investigate further, a large crescent shaped anomaly which had been identified in an earth resistance survey a year earlier (Maričević *et al.* 2019).

The survey has identified the same feature, which is still thought to be of archaeological interest. The GPR survey has also added further to our understanding of this site, and may have identified further features of archaeological interest, such as possible enclosures, or circular structures. Modern features, such as field drains were also mapped.

Introduction

A Ground Penetrating Radar (GPR) survey was undertaken at land at Srath Teamhair, Lagavulin, Islay (140121, 645841). The site shows signs of cultivation through rig and furrow and is bounded by water courses on all sides. The main course of Abhainn nam Beitheachan runs along the southwest, while an artificially diverted channel runs along the northeast side of the field then turns sharply to the south to join the river. These waterworks were constructed to channel the water for the distillery use.

Within the site, contains the monument of Cill Mhoire. The following description of the monument of Cill Mhoire is adapted from Maričević *et al.* 2019 p.11&12: *Cill Mhoire or Cill Maire is interpreted as a circular enclosure or a denuded roundhouse with an entrance on the northeast of the wall circuit. It lies in a level meadow c.100m north from the main road at Lagavulin. The sides are well defined and sufficiently preserved to indicate that this is the original design. The interior is featureless and filled with grassed-over rubble. The interior wall face can be seen in several places along the circuit. A low curvilinear bank extends from the entrance area to the southeast, where few large stones are also located. A vertical aerial view of the monument suggest a possibility that the structure might be within of a larger circular enclosure c.20m in diameter, now marked by the extent of the bracken.'*

Cill Mhoire has been classified as a possible burial ground on account of its ecclesiastical name dedicated to Virgin Mary. Small circular or sub-circular chapel enclosures and/or burial grounds are not unusual on Islay and some, for example Cill a'Bhuilg, Cill an Ailean, Cill Eathain, Kilsleven and Duisker 2, are comparable in size to Cill Mhoire monument. In comparison, Cill Mhoire has both the smallest and the most regular interior space enclosed by a wall with a carefully constructed inner and outer wall facing and entrance. In terms of its construction it fits better with an entirely different type of monument – a roundhouse. Term 'hut circle' is applied to a swathe of pennanular structures in Argyll, most often in reference to the Bronze Age settlement type. Structures described as hut circles, however, vary in complexity from rubble footings supporting turf structures to entirely dry stone built roundhouses, which, once denuded and grassed over, are difficult to distinguish from the former.

Topographic and geophysical survey at Cill Mhoire undertaken in 2018 (Maričević *et al.* 2019) demonstrated the 'potentially complex nature of the earthworks' (*ibid*, 64) with the identification of another circular structure seemingly interlinked with Cill Mhoire, and further potential structures immediately surrounding the extant monument. The earth resistance survey conducted within Srath Teamhair field also identified a curved, crescent-shaped anomaly, suggestive of a walled enclosure. It was suggested that this feature, and *not* the standing remains of Cill Mhoire, could represent the chapel or burial ground referenced by the place name (*ibid*, 67).

A Ground Penetrating Radar survey was undertaken to investigate this large crescent anomaly further. The Site was surveyed on 3rd September 2019 to attempt to discover any anomalies which may be of archaeological interest and assist with the interpretation of the site. The work is associated with the research of Islay Heritage and was conducted by Dr Robert Fry, assisted by students of the University of Reading, during an archaeological field school. A total of 59 GPR transects were collected across a survey area measuring 30m X 50m.

Environment

The geology and soils to which the site is based is not likely to hinder the geophysical techniques adopted for this survey. The response to the GPR technique is however dependant on the overburden to archaeology and how well the archaeological deposits contrast in their physical characteristics to the natural or deposited soils around. Geology may be shallow in parts.

The land surveyed was ideally suited to GPR survey. The land flat grassland which allowed for a good connection between the antenna and the topsoil. Weather on the day of survey was poor with gale-force winds and consistent rain showers. The soil was fairly saturated due to inclement weather over the preceding weeks, with surface water flooding over some of the survey area.

Methodology

Instrument	GSSI 400MHz Shielded Antenna
Measured variable	Interfaces of dialectic permittivity / reflected electromagnetic signal
Configuration	Single antenna connected via cable to GSSI SIR-20 system
QA Procedure	Continuous observation of measurements on screen
Spatial Resolution	0.02m along line interval, 0.5m between traverses

Table 1 Technical Equipment

Traverse Locations

The position of each traverse was recorded using a GNSS instrument (Leica GS16/CS20) connected via radio-link to a base station over a known point. The start and end locations for the traverses therefore are accurate to approx. 2cm.

Data Processing

Data processing is generally kept to a minimum to reduce any significant alteration of the measured data and prevent artefacts within the data being falsely created. Processing of the dataset therefore is designed to remove and reduce aspects of noise, or positional or heading errors.

During the data processing, an estimate is generated which converts the two-way travel time of the radar wave into an approximate depth. This is performed by a method known as 'hyperbola fitting', where the form and shape of the reflected wave is analysed to gain information about the speed of the reflected wave, and thus, the relative dialectic permittivity (RDP) of the soil. RDP can of course change throughout the site, and with depth, so deducing depth based on this method is approximate and represents the most likely depth for the purpose of interpretation. Hyperbola fitting was undertaken over 5 separate anomalies which gave RDP estimates between 22-34. The average of these readings

(28) was used as the value for this data, which appears reasonable given the saturated nature of the soil. Real depths may differ by as much as 0.5m.

Process	Software	Parameters
Correct Time Zero Position	Radan 7	Manually adjust time zero to first positive peak of ground coupled wave
FIR Filter – Stacking	Radan 7	Boxcar filter, Length = 3
FIR Filter – Background removal	Radan 7	Boxcar filter, Length = 257
Velocity (migration) analysis	Radan 7	Hyperbola fitting (RDP estimate = 28)

Table 2 Data Processing

Interpretation

The geophysical data collected are characterised into meaningful categories, which represent the best idea of any features beneath the soil. In reality, the nature, form and magnitude of a geophysical anomaly may alter, depending on a wide extent of variables ranging from the instrumentation and methodology used, to the nature of the soils and the grade of preservation of any archaeological remains.

For the data to present a meaningful summary of identified features, it is interpreted within set categories which may best describe the anomaly shape, form and size. In some cases, this information is 'best-matched' to a corresponding archaeological feature, for example a 'wall'. Such classes do not necessarily mean the anomaly is in reality a buried wall, but aim to provide the best estimate of the archaeological context which may produce such anomalies. This interpretation is also based on any background information gained about the site, combined with the experience on the geophysicist interpreting the data.

GPR Interpretation Categories

High Amplitude Area

An area of relatively enhanced reflection anomalies or single large reflection anomaly, indicating a strong contrast (or interface) in dielectric permittivity within the soil. This could indicate the presence of structures within the soil, or could indicate geological layers.

Trend

Used to identify weak trends or textural changes visible within the data, of which may not be thought of as substantial enough to occupy an interpretation category of their own right. Such items may include a visible texture change between soils or geology, the trend of a line of pits, or a set of increased amplitude linear anomalies without a certain form or function. These are also usually referred to in the interpretation text to group several anomalies together.

Field Drain / Pipe

The presence of a field drain or pipe within the data set is characterised by a clear, even hyperbola in the two-dimensional radargrams. When the two-dimensional data are stacked together to form a three-dimensional dataset, these hyperbola from adjacent traverses connect, presenting as a straight pipe within the soil.

Standards and guidance

All work was conducted in accordance with the following standards and guidance:

- David et al, 2008. Geophysical Survey in Archaeological Field Evaluation. English Heritage.
- Institute for Archaeologists (IFA), 2008. Standard and Guidance for Archaeological Field Evaluation.

All personnel involved with the survey are experienced surveyors trained to use the equipment in accordance with the manufacturer's expectations. All fieldwork was supervised by an experienced and fully qualified geophysicist.

Interpretation

Introduction

The following section describes the results of the geophysical survey with archaeological interpretations provided to explain the results in the geophysical data. The nature of geophysical anomalies is complicated and often varied. Interpretations which are made are therefore considered the probable case and are never certainties.

The discussion below should be followed with the associated interpretation figures for each technique.

Principal Results

See Figures 1 & 2 for use with the following discussion on the interpretation of the GPR anomalies.

The GPR data is relatively clear and highlights the variability of the subsurface. The two dimensional radargrams produced showed many anomalies and horizons of possible archaeological interest. The culmination of data into three-dimensions has enabled us to cut depth slices through the ground.

Modern Activity

Within the data, four straight high amplitude linear anomalies [1] are present within the data from depths between 40cm – 90cm. These indicate the presence of what is thought to be field drains or pipes running across the site.

Archaeology

A large, curvilinear high amplitude anomaly can be seen in the data between 20cm – 70cm [2]. This regular anomaly is likely to represent the same crescent-shaped anomaly seen within the earth resistance data from 2018. At its widest point, the anomaly measures 11m. The survey area unfortunately limits the full visibility of its extension to the west, however, it does appear to turn, and angle back at almost 90 degrees [3], this extension especially visible at 20 - 40cm depths. This feature appears to turn (depths 30cm & 40cm) another 90 degrees to create an almost square-shaped enclosure, with potential entrance to the east [4] (best seen at 30-40cm).

The absence of a reflection from curved anomaly [2] at depths below 90cm [5], suggest the limit of this feature.

Within the square shaped enclosure at 50cm depth, a few small discrete anomalies might suggest the presence of interior features such as pits [6]. At a depth of 100cm a large area of high amplitude reflection almost outlines the extent of this possible enclosed area, with a meandering 'path' out to the

southeast, then turning northeast. This area of higher amplitude might represent some kind of surface or floor layer [7].

At 30cm, there is a hint of a curvilinear high amplitude feature which might be of archaeological interest, and relate to the extant structure Cill Mhorie [8].

There is potential to interpret two further circular/ovular structures within the data. One might be interpreted at depths of 30-60cm [9] with a diameter of around 10m. It is uncertain however, if this is a separate circular building, if it makes up the northeastern outer wall and northern entrance of [3].

Another potential oval/circular building might be interpreted at depths of 20-40cm [10]. This feature appears to cut into or overlie [2] at these shallower levels. This seems the least conclusive of the three possible circular structures.

Discussion and Conclusions

The GPR survey has identified and located a number of anomalies of potential archaeological interest. The datasets have allowed approximate depths to archaeological sediments to be located, and provide potential ground-truthing targets for further investigation.

The GPR survey undertaken at the site has highlighted further potential structures at Cill Mhoire. Unfortunately, the small survey area makes these large complicated anomalies quite challenging to interpret with a high degree of confidence. The site appears to highlight part of a larger complex of features which may involve intercutting circular structures, and/or square enclosures.

PROJECT NAME	
Project Code	Srath Teamhair, Cill Mhoire, Islay
Client	Islay Heritage – Dr Darko Maričević
Fieldwork Dates	3 rd September 2019
Field Personnel	Robert Fry, Diogo Santos Ganga, Reading University Students
Data Processing Personnel	Robert Fry
Report Personnel	Robert Fry
Interim Report Date	
Draft Report Date	13 th September 2019
Final Report Date	

Table 3 Project Metadata

References

Maričević, D., Regan, R., Clarke, A., Waring, L., Fry, R., Banerjea, R., Batchelor, R., Hale, L., Thacker M., Blade, R., Lambert-Gates, S., King, T., and Mithen, S. 2019. Archaeological evaluation and survey of Dunyvaig Castle and environs and the geophysical surveys at Barr an t-Seann Duine and Cill Mhoire in preparation for the Dunyvaig Project. Updated Data Structure Report. Islay Heritage.

Figure 1

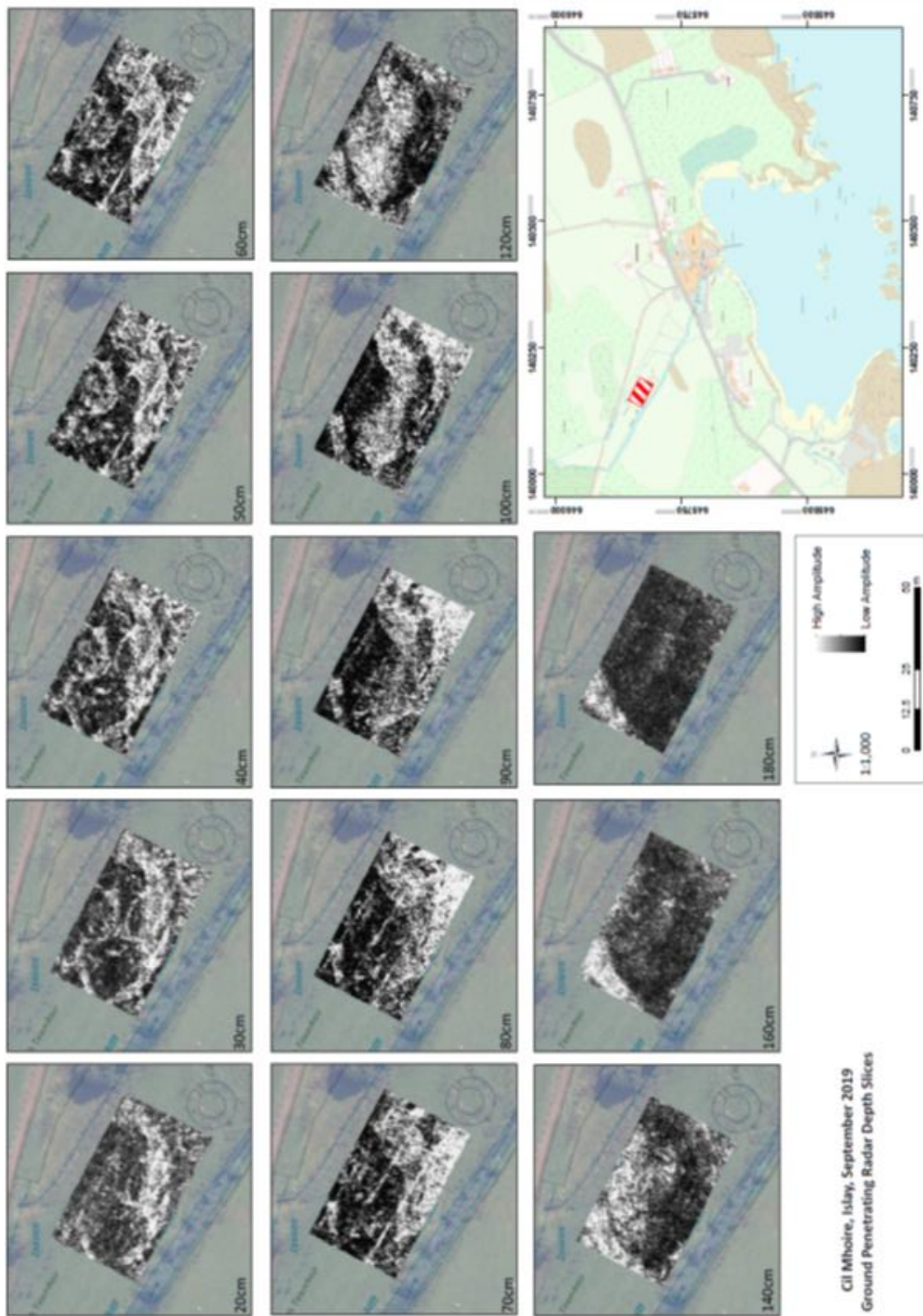
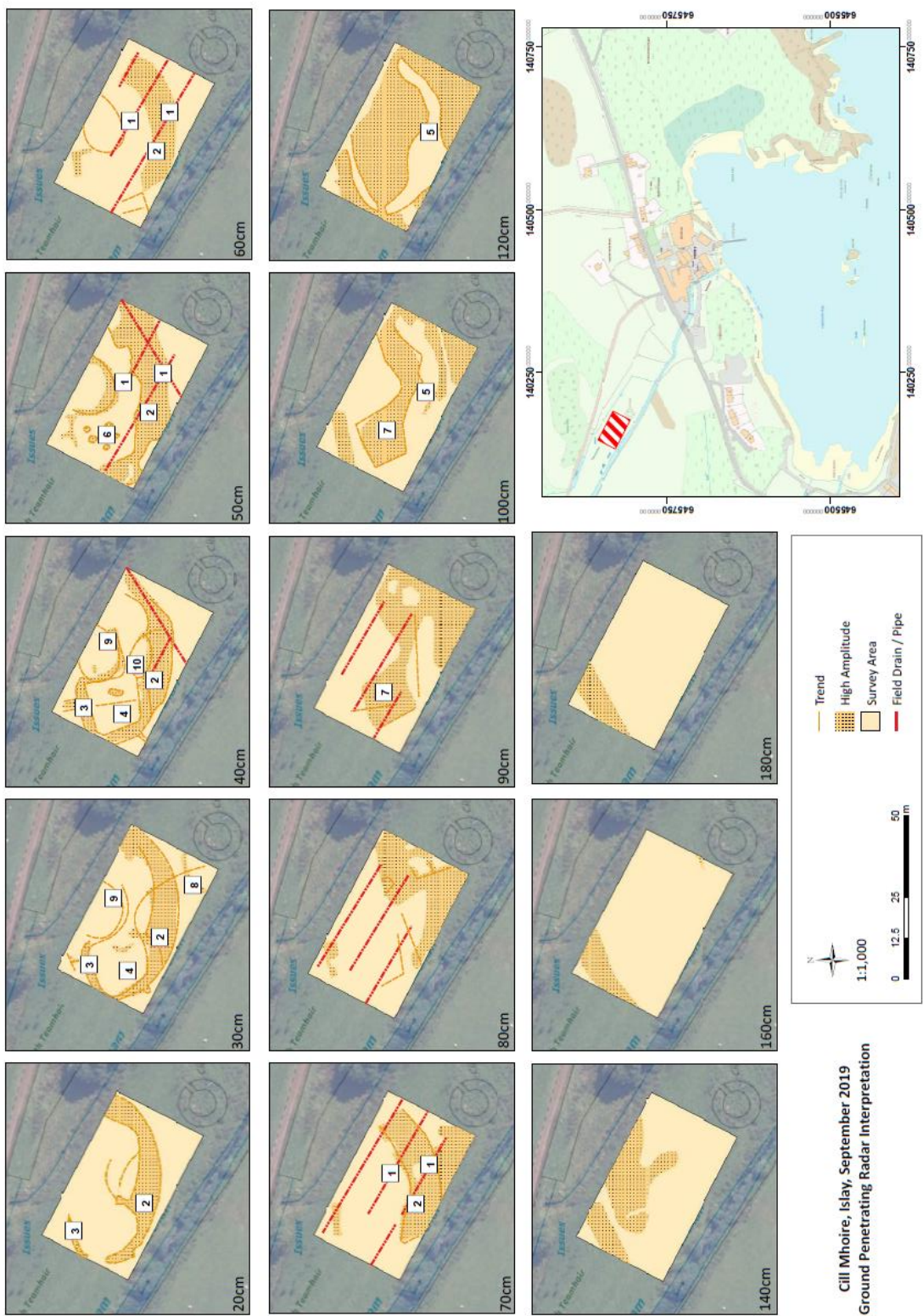


Figure 2



Cill Mhoire, Islay, September 2019
Ground Penetrating Radar Interpretation

Appendix 2 - Pottery assessment Dunyvaig Castle, Islay (2018/19 seasons) by Derek Hall

Introduction

The two seasons of excavation at Dunyvaig Castle in 2018 and 2019 produced an assemblage of 48 sherds of pottery ranging in date from the 13th to 19th centuries. All the sherds have been examined by eye and x10 hand lens and where possible assigned to a recognised fabric name.

Scottish Fabrics

'Craggan Type' Wares

There are four sherds of organic tempered 'Craggan' Type wares present from contexts 3003, 3004 and 3005 (DHAP18 season). This local hand-made pottery tradition is notoriously difficult to date when it is undecorated but is present in medieval and later deposits at other sites on the Scottish West Coast and Islands (Hall 2014).

Scottish Post Medieval Reduced Wares

There are seventeen sherds in this fabric from contexts 1011, 2020, 2043, 3004, 3005, 3006, 3007 and 3009 (DHAP18) and 3042 and 3050 (DHAP19) which would all seem to be from glazed jugs. This is liable to have been manufactured on the Scottish mainland and dates between the 16th and 18th centuries (Haggarty, Hall and Chenery 2011). Previous excavations at Baliscate on Mull have chemically sourced similar fabrics to the Clyde Valley (Hall, Haggarty and Jones 2017, 57).

Standard White Earthenwares

There are seven sherds from Contexts 2000, 4001, 6002 and Spoil which are from vessels in these 19th century fabrics which are liable to be from one of the Glasgow industrial potteries.

Imported Fabrics

Martincamp Type Ware (Illustrations 1 and 2)

There are four sherds from Contexts 3002, 3003, 3005 and 3009 (DHAP18) in a hard-fired light red stoneware fabric which fit the parameters of Martincamp Type Ware from Northern France (Hurst 1986; Ickowicz 1993; Haggarty 2006). Two of these bodysherds from 3002 and 3003 have visible external throwing lines which suggest that they are from flasks and the sherd from 3009 has a possible flask neck junction. These very distinctive vessels date from the 17th and 18th centuries.

Tin Glazed Earthenwares

There are three very small sherds from Tin Glazed Earthenware vessels from contexts 1006 and 1028 (DHAP18) with visible cobalt blue decoration. These would appear to be of Anglo Dutch manufacture and may date to the 16th/17th centuries.

Unprovenanced Fabrics

White slipped Redwares

There are two sherds of white slipped Redware from Contexts 3006 and 3008 which may be of Iberian origin.

Whitewares

There is a sherd from a rim and spout in a Whiteware fabric from Context 3009 (75) which is currently unprovenanced but maybe French. There is a rimsherd from 3054 (173) and a basesherd from 3050 (165) which would appear to date to the 13th/14th centuries and could be Scottish Whitewares.

Discussion

The small assemblage from the 2018 and 2019 seasons of excavation at Dunyvaig Castle contains pottery which would appear to be mostly of a 16th/17th century date, there are a couple of apparently residual sherds of an earlier 13th/14th century date. The presence of datable fabrics such as Martincamp Type Ware and Anglo Dutch Tin Glazed Earthenwares are very valuable for helping to confirm the date of the local Scottish Post Medieval Reduced Wares. At some future point in the project some targeted chemical analysis will prove beneficial to help identify the currently unprovenanced fabrics.

References

- Haggarty, G R 2006 'A gazetteer and summary of French pottery imported into Scotland c1150-1650: a ceramic contribution to Scotland's economic history' *Tayside Fife Archaeol J* 12. Vol 12, pp. 117-118.
- Haggarty, G R, Hall, D W and Chenery, S 2011 *Sourcing Scottish Redwares*, MPRG Occasional Paper no 5
- Hall, D W 2014 'Here be monstrous fabrics' ... Constructing a research agenda for the hand-made wares of the Scottish West Coast, Highlands and Islands' in Mytum, H and Davey, P *Medieval Ceramics* 34, 19–26.
- Hall, D W, Haggarty, G R and Jones, R 2017 'The Pottery' in Ellis, C 'Monks, Priests and Farmers: A Community Research Excavation at Baliscate, Isle of Mull' SAIR 68 <http://doi.org/10.9750/issn.2056-7421.2017.68>
- Hurst, J G, Neal, D S and Van Beuningen, H J E 1986 *Pottery produced and traded in north-west Europe 1350-1650 Rotterdam Papers VI*
- Ickowicz, P 1993 'Martincamp Ware: A Problem of Attribution' *Medieval Ceramics* 17 (1993), 51-60



Illustration 1- Martincamp Type Ware flask from Jamestown, Virginia

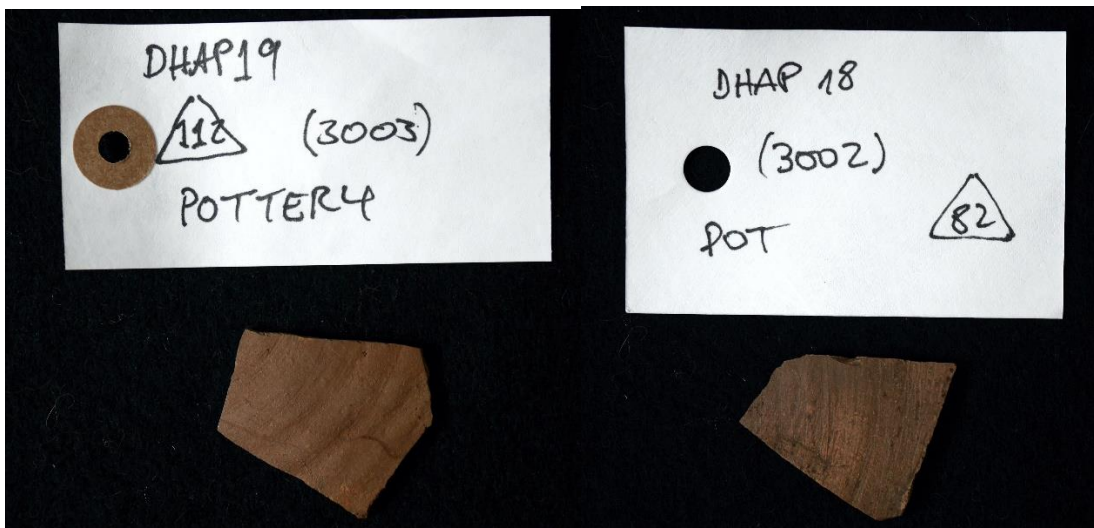


Illustration 2- Martincamp Type Ware flask bodysherds from Dunnyvaig Castle

Appendix 3 - An assessment of the faunal assemblages from the 2018-9 excavations at Dunyvaig Castle, Islay by Ingrid Mainland

1, Introduction

An assessment was undertaken of the faunal assemblages recovered during the 2018 and 2019 excavations at Dunyvaig Castle to evaluate their suitability for further detailed analysis. This was based on the numbers of fragments per context together with observation of species present, bone preservation conditions and evidence for bone fragmentation, butchery and damage by carnivores. Appendix 1 presents the full data recorded.

2. Results

2.1 2018 Excavations

Trench 1 was located at the north end of the castle courtyard, along the inner face of the curtain wall (Maričević et al. 2019). Excavation was focused on Building B, revealing the northern end of this and deposits external to this structure adjacent to a possible well. A further area was excavated on the outside of the curtain wall. A total of 678 fragments of bone (mammal = 671, fish = 3, bird =4) were recovered from 14 of the trench 1 contexts (Table 1). Most contexts only contained small amounts of bone. Larger concentrations were recovered from rubble layers within and likely associated with the demolition of Building B (1006, 1007) and from a midden layer (1011) adjacent to Building B. Bone preservation within these rubble layers and the midden was good, bone surface was hard with little evidence for weathering, surface exfoliation or erosion. These likely late to the early-mid 17th century AD, i.e. associated with the arrival of the Campbells and subsequent destruction of the castle by the MacDonalds (Maričević et al. 2019, 51-52). Bone condition was more variable in the more recent, upper layers of trench 1 with a greater prevalence of fragments exhibiting root etching and weathering. Species represented in trench 1 include cow, sheep/goat and rabbit, with most contexts dominated by cow.

Trench 2 was located within the courtyard walls of the castle in the area adjacent to the sea gate, revealing some structural remains, associated with Building E and layers representing a build-up of soil and turf across the width of the sea gate opening. A small assemblage of bone was recovered from this area of the site (mammal =197, bird = 5) with cow and sheep/goat observed (Table 1). Most of the bone was derived from layers associated with the soil/turf 'build-up' across the width of the sea gate opening. This was generally poorly preserved, with evidence for weathering and with many rabbit bones, indicating the likelihood of bioturbation. Bone condition was better further down the sequence in layers both internal and external to structure 2012. However, there were altogether very few fragments in these deposits (n=15). A partial sheep skeleton was recovered from (2004). This exhibited bone surface exfoliation indicating likely exposure for some time prior to burial, suggestive of a fallen animal rather than a deliberate inclusion.

Very little bone was associated with the T-shaped building in Trench 3 (mammal=75) (Table 1). All fragments, with the exception of a few loose cattle teeth were calcined, i.e. burnt at very high temperatures. The teeth were poorly preserved, highly fragmented and with eroded dentine. This is indicative of acidic soil conditions under whereby only burnt bone and teeth have survived because of their higher mineral content (Campbell et al. 2011). The teeth were from cow but no further bones could be identified to species.

2.2 2019 Excavations

In 2019, further excavations in trenches 1-3 revealed additional bone. Only some of this, representing c. 80-90% of the total 2019 assemblage, was available for assessment at the time of writing due to ongoing post-excavation washing and archiving. In Trench 1, 609 fragments (mammal =607, fish=1, bird=5) were recovered from midden deposits underlying a mortar and rubble layer to the north of the curtain wall, beneath its footings (Mithen and Maričević pers comm). These are assumed on stratigraphic grounds to date to the early 17th century AD and are likely to reflect one phase of activity. This bone is very well preserved, with little evidence of bioturbation in the form of rabbit bones, weathering or surface erosion. Butchery has taken place, and the bone are fragmented as a result but there are sufficient intact portions to enable biometrical analysis. This assemblage is dominated by cattle and sheep/goat but pig is also present. Several fragments of canid were noted in cxt 1043, including a humerus and mandible from a very large individual. Elements from smaller breeds are also present in this context, some of which may derive from fox. Other species represented include: horse, observed in cxt 1043, red deer in cxts 1043 and 1047; goat in 1042 and 1047. Most skeletal elements were noted but, comparatively, mandibles and skulls are under-represented.

A smaller assemblage (mammal=108; fish=1) was recovered from the sea-gate area of trench 2. A smaller suite of species were noted in this area of the site (cow, sheep/goat and rabbit). Again this was generally well preserved although the rabbit bones present in cxt 2016 were highly weathered and are likely intrusive. Bone from trench 3 was not available for assessment. However, very few, mostly burnt fragments were again recovered from this area in 2019 (Maričević pers comm.), confirming that soil conditions this area of the site are not conducive to bone survival.

3. Discussion

The 2018-9 excavations at Dunyvaig have recovered a small bone assemblage of c. 1800-2000 fragments. The assemblage is dominated by domesticates, in particular cattle (*Bos taurus*) and sheep/goat (*Ovis aries*/*Capra hircus*). Pig (*Sus domesticus*) is also present but in smaller numbers. Red deer (*Cervus elaphus*) was only observed in the middens recovered from 2019 which may imply some temporal or spatial variation in the assemblages. Red deer was not found at Dun Mhuirich on nearby Knappdale, and it was argued that access to this species may have been restricted to the nobility (Small 2015). Of interest also was the presence of a butchered humerus from a very large canid (*Canis* sp.), perhaps a hunting-dog, and of goat (*Capra hircus*) horn core and mandible within the midden layers to the north of the curtain wall. Very few bird and fish bones were present in the hand-recovered material, again suggesting an economy focused on domesticates. Most skeletal elements were observed, with concentrations of ribs and vertebrae noted in some contexts, raising the possibility of differential discard practices across the site and/or activity areas (eg kitchen vs. table waste, etc.). However, sample sizes by context or deposit types are currently too small to enable a detailed analysis of such variability. Cattle mandibles and skull fragments appear to be under-represented in the assemblage, a pattern which has also been observed elsewhere in the West of Scotland at this date, where it is attributed to butchery customs, namely retention of the skull by the slaughterman (McCormick 1993).

Variation in bone preservation is observed across the site. Bone recovered from deposits within the castle and immediately adjacent to the curtain wall was in excellent condition and these are the areas which should be targeted for recovery of zooarchaeological data. Although rather small for detailed analysis, the existing assemblage from trenches 2 and 3 will allow insight into early 17th century dietary customs and some limited biometric information. Further excavation of the 17th century middens deposits revealed in these trenches is recommended to enable the larger sample size required for in depth analysis of animal husbandry, hunting, culling patterns, butchery practices and spatial variation

in anatomical representation. The extra-mural building complexes (trench 3 area) are considered unlikely to reveal faunal material, unless micro-environments (e.g. anaerobic ditch/well deposits) are encountered.

Conclusions

Currently very little is known about medieval and Post-Medieval diet and animal husbandry in Argyll and the West Mainland of Scotland (Small 2015). As such, a full analysis of the Dunyvaig assemblage, as it stands, will add significantly to understanding of 17th century AD dietary customs, farming and hunting in this region and moreover, will enable the site to be placed within the wider context of medieval commensality, food customs and human-animal interactions for this period in Scotland as a whole (eg Mainland and Batey 2019). From the generally excellent bone preservation, the presence of large midden deposits and of well-preserved bone within floor layers in and adjacent to the castle walls it can be anticipated that further excavation at Dunyvaig will provide substantially larger post-medieval and potentially earlier 14-16th century bone assemblages of a high analytical quality. These would enable an unparalleled insight into the 14-17th century AD dietary customs at a high status, Highland chieftains' residence as well the provisioning strategies employed to supply the castle and its inhabitants. Larger assemblages would also provide an opportunity to explore questions relating to the nature of Medieval and Post-Medieval animal husbandry in the West of Scotland at a time immediately preceding significant agricultural changes, eg the expansion in cattle droving, the stock improvements of the 'Agricultural' Revolution, and the Highland Clearances (eg Dodgshon 1998).

5. References

- Campbell, G., Moffett, L. and Straker, V. 2011. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition). Historic England. <https://historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/>
- Dodgshon, R.A. 1998. Livestock production in the Scottish Highlands before and after the Clearances. *Rural History* 9, 19-42.
- McCormick, F. 1993. Excavations at Iona, 1988. *Ulster Journal of Archaeology* 56, 78-107.
- McCormick, F. 1996. Faunal remains, in Ewart, G., and Triscott, J. *Archaeological excavations at Castle Sween, Knapdale, Argyll & Bute, 1989-90*, Proceedings of the Society of Antiquaries of Scotland 126, 553-555.
- Mainland, I. and Batey, C. 2019. The nature of the feast: commensality and the politics of consumption in Viking Age and Early Medieval Northern Europe. *World Archaeology* doi. 10.1080/00438243.2019.1578260.
- Maričević, D., Regan, R., Clarke, A., Waring, L., Fry, R., Banerjea, R., Batchelor, R., Hale, L., Thacker, M., Campos Blade, R., Lambert-gates, S., King, T. and Mither, S. 2019. Dunyvaig and Hinterland Assessment Project 2018. Updated Data structure Report.
- Noddle, B. 2000. 'Animal bone', pp. 226-228 in Lane, A., and Campbell, E. (ed.) *Dunadd: an early Dalriadic capital*. Oxbow Books: Oxford.
- Small, J. 2015. An analysis of the animal bone assemblage from Dun Mhuirich, North Knapdale. Unpublished MSc Dissertation. School of Geography, Archaeology and Palaeoecology, Queens University Belfast.

Trench	Year	Context	Mammal (n)	Fish (n)	Bird (n)
1	18	1000	14	0	0
1	18	1001	2	0	0
1	18	1002	43	0	1
1	18	1006	38	0	0
1	18	1007	91	0	0
1	18	1008	4	0	0
1	18	1010	3	0	0
1	18	1011	430	3	2
1	18	1014	0	0	1
1	18	1015	6	0	0
1	18	1018	17	0	0
1	18	1020	3	0	0
1	18	1025	9	0	0
1	18	1028	11	0	0
1	19	1021	10	0	0
1	19	1042	2	0	1
1	19	1043	401	1	4
1	19	1044	29	0	0
1	19	1045	50	0	0
1	19	1047	115	0	0
2	18	2001	9	0	2
2	18	2003	22	0	0
2	18	2004	121	0	0
2	18	2005	29	0	0
2	18	2008	2	0	0
2	18	2013	1	0	0
2	18	2014	5	0	0
2	18	2021	2	0	0
2	18	2022	4	0	0
2	18	2027	2	0	0
2	18	2016	0	0	2
2	18	2020	0	0	1
2	19	2016	37	1	0
2	19	2043	69	0	0
2	19	2020	1	0	0
3	18	3001	3	0	0
3	18	3002	13	0	0
3	18	3005	34	0	0
3	18	3009	21	0	0
3	18	3014	1	0	0
3	18	3015	1		
3	18	3026	2	0	0

Table 1. Number of mammal, bird and fish bone fragments recovered from the 2018-2019 excavations at Dunyvaig Castle

Appendix 4 - Finds, samples, photos and drawing registers

Small Finds (2018/2019)

Find	Material	Keywords	Context	Quantity Bags
SF1	Glass	Window Glass	3001	1
SF2	Glass	Bottle	2001	1
SF3	Flint	Flake	3001	1
SF4	Flint	Flake	3001	1
SF5	Stone	Rotary Quern	3001	1
SF6	Stone	Fragment	3001	1
SF7	Iron	Cannon Ball	0	1
SF8	Copper Alloy	Button	3003	1
SF9	Lead	Musket Ball	3003	1
SF10	Metal	Coin	1000	1
SF11	Flint	Flake	1001	1
SF12	Metal	Object	1001	1
SF13	Flint	Blade Flake	3003	1
SF14	Pottery	Fragment	3003	1
SF15	Glass	Window Glass	3003	1
SF16	Glass	Window Glass	3003	1
SF17	Iron	Object	3003	1
SF18	Glass	Window Glass	3003	1
SF19	Pottery	Fragment	3004	2
SF20	Copper Alloy	Object	3005	0
SF21	Glass	Window Glass	3005	1
SF22	Pottery	Fragment	3006	1
SF23	Clay	Pipe	2003	1
SF24	Pottery	Fragment	3006	1
SF25	Pottery	Fragment	3007	1
SF26	Pottery	Fragment	3006	0
SF27	Metal	Fragment	2003	1
SF28	Slag	Fragment	3006	1
SF29	Slag	Fragment	3006	1
SF30	Pottery	Fragment	3005	1
SF31	Pottery	Fragment	3005	1
SF32	Pottery	Fragment	3008	1
SF33	Slag	Fragment	3006	1
SF34	Stone	Roof Slate	3006	1
SF35	Pottery	Fragment	3004	2
SF36	Flint	Flake	3005	1
SF37	Flint	Flake	3008	1
SF38	Flint	Flake	3005	1
SF39	Glass	Window Glass	3005	1
SF40	Metal	Fragment	3009	1
SF41	Iron	Object	3013	1
SF42	Pottery	Fragment	3005	1
SF43	Plaster	Pigment Plaster/wall Plaster	1004	0

SF44	Pottery	Fragment	3005	1
SF45	Metal Animal	Object	3005	1
SF46	bone	Fragment	3005	0
SF47	Iron	Object	3005	1
SF48	Flint	Flake	3005	1
SF49	Pottery	Fragment	3005	1
SF50	Pottery	Fragment	3005	1
SF51	Pottery	Fragment	3005	1
SF52	Flint	Flake	3005	1
SF53	Iron	Object	3005	1
SF54	Flint	Fragment	3005	1
SF55	Pottery	Fragment	3005	1
SF56	Pottery	Fragment	3005	1
SF57	Pottery	Fragment	3009	1
SF58	Iron	Object	3005	1
SF59	Iron	Object	1010	1
SF60	Slag	Fragment	3009	1
SF61	Pottery	Fragment	3009	1
SF67	Pottery Copper	Fragment	3009	1
SF68	Alloy	Pin	3005	1
SF69	Slag	Fragment	3005	1
SF70	Flint	Fragment	3002	1
SF71	Iron	Object	3019	1
SF72	Flint	Fragment	3009	1
SF73	Glass	Fragment	3009	1
SF74	Pottery	Fragment	3009	1
SF75	Pottery	Fragment	3009	1
SF76	Flint	Arrowhead	1010	1
SF77	Pottery	Fragment	3009	1
SF78	Flint	Scraper	3020	1
SF79	Flint	Fragment	3002	1
SF80	Flint	Fragment	3004	1
SF81	Iron	Fragment	3023	1
SF82	Pottery	Fragment	3002	1
SF83	Flint	Fragment	3027	1
SF84	Animal bone	Tooth	3026	1
SF85	bone	Tooth	3026	1
SF86	Shell	Sea Shell	3026	2
SF87	Lead	Seal Matrix	1015	1
SF88	Slag	Fragment	3015	1
SF89	Lead	Musket Ball	3027	1
SF90	Slag	Fragment	3015	1
SF91	Iron	Object	1011	1
SF93	Lead	Musket Ball	1011	1
SF94	Iron Copper	Object	1011	1
SF95	Alloy	Stud	1015	1

SF96	Iron	Object	1011	1
SF97	Organic	Fragment	2021	1
SF98	Iron	Fragment	1011	1
SF99	Flint	Fragment	3015	1
SF100	Flint	Fragment	1011	1
SF101	Flint	Fragment	1028	1
SF102	Iron	Nail	1028	1
SF103	Pottery	Fragment	1011	1
SF104	Iron	Fragment	1011	1
SF105	Stone	Object	1006	1
SF106	Stone	Object	0	1
SF107	Pottery	Fragment	0	1
SF108	Metal	Vessel	3003	0
SF109	Metal	Object	3003	0
SF110	Stone	Slate	3003	0
SF111	Animal bone		3006	0
SF112	Pottery	Fragment	3003	0
SF113	Slag	Fragment	3038	0
SF114	Clay	Pipe	3006	0
SF115	Iron	Vessel Handle	3038	0
SF116	Iron	Object	3022	0
SF117	Copper Alloy	Coin	3001	0
SF118	Copper Alloy	Coin	3001	
SF119	Animal bone	Tooth	3041	0
SF120	Smithy base	Fragment	3041	0
SF121	Iron	Nail	3040	0
SF122	Flint		3041	0
SF123	Slag	Fragment	3041	0
SF124	Stone	Roof Slate	3003	0
SF125	Flint		3009	0
SF126	Glass	Window Glass	3009	0
SF127	Slag	Fragment	3009	0
SF128	Stone		1041	0
SF129	Clay	Pipe	3009	0
SF130	Iron	Object	3009	0
SF131	Flint		3009	0
SF132	Flint		3041	0
SF133	Animal bone	Point	1043	0
SF134	Pottery	Fragment	3042	0
SF135	Slag	Slag	3038	0
SF136	Slag	Slag	3003	0
SF137	Stone		1043	0
SF138	Stone		1043	0
SF139	Stone		1043	0
SF140	Stone		1043	0
SF141	Slate	Fragment	1043	0

SF142	Iron	Nail	3006	0
SF143	Clay	Pipe	3038	0
SF144	Clay	Pipe	3038	0
SF145	Flint	Blade	2006	0
SF146	Iron	Nail	3006	0
SF147	Flint	Scraper	3006	0
SF148	Flint		3049	0
SF149	Clay	Pipe	3042	0
SF150	Slag	Slag	3042	0
SF151	Flint		3042	0
SF152	Iron	Object	3049	0
SF153	Iron	Slag	3051	0
SF154	Copper Alloy	Coin	3049	0
SF155	Iron	Slag	3051	0
SF156	Flint		3006	0
SF157	Iron	Slag	3042	0
SF158	Iron	Cannon Ball	0	0
SF159	Iron	Nail	3050	0
SF160	Pottery	Fragment	3050	0
SF161	Slag		3050	0
SF162	Pottery	Fragment	3050	0
SF163	Slag	Slag	3050	0
SF164	Iron	Object	3053	0
SF165	Pottery	Fragment	3050	0
SF166	Slag	Slag	3053	0
SF167	Slag	SLAG	3049	0
SF168	Lead Alloy Copper	Musket Ball	3053	0
SF169	Alloy	Fragment	3053	0
SF170	Clay	Pipe	3054	0
SF171	Iron	Object	3050	
SF172	Iron	Fragment	3054	0
SF173	Pottery	Fragment	3054	0
SF174	Slag	Slag	3054	0
SF175	Pottery	Fragment	2020	0
SF176	Slag Copper	Slag	3054	0
SF177	Alloy	Brooch	2043	0
SF178	Slag	Fragment	3054	
SF179	Pottery Animal	Fragment	2043	0
SF180	bone	Pin	2043	0
SF181	Glass Animal	Vessel	1049	0
SF182	Bone	Other	1048	0

Bulk Finds

Find	Material	Context	Description	Weight
BF3	Iron	3000	1 fragment 1 gr	
BF4	Iron	2001	hinge ? 2 fragments 163 gr	
BF5	Fired clay	1002	smiddy base fragment 1 fragment 346 gr	
BF6	Animal Bone	3002	bag of 9 2 gr	
BF7	Animal Bone	2001	bag of 11 including 1 tooth 26 gr	
BF8	Animal Bone	1000	bag of 5 fragments 38 gr	
BF9	Animal Bone	1001	bag of 2 fragments 8 gr	
BF28	Shell	2005	bag of 47	
BF29	Animal Bone	2003	bag of 8	
BF30	Shell	2003	1	
BF31	Iron	2003	object	
BF32	Animal Bone	1002	bag of 9 fragments + 1 tooth	
BF33	Stone	1002	6 Quartz fragments	
BF34	Mortar	1002	9 fragments	
BF35	Fired clay	1002	fragment of smiddy base	
BF36	Animal Bone	1002	bag of 15	
BF37	Shell	1002	bag of 7	
BF38	Mortar	1003	bag pf 9 fragments	
BF39	Stone	1003	quartz	
BF40	Charcoal	1003	1 fragment	
BF41	Stone	1003	1	
BF42	Animal Bone	2005	bag of 29 including microfauna 1 jaw and 1 maxila	
BF43	Animal Bone	3014	1 fragment	
BF44	Shell	2005	bag of 12	
BF45	Mortar	2005	bag of 11	
BF46	Charcoal	2005	1 fragment	
BF47	Flint	2005		
BF48	Animal Bone	1002	bag of 20 fragments including 3 teeth	
BF49	Glass	1002	bag of 6 fragments	
BF50	Flint	1002	1 piece of worked flint	
BF51	Shell	1002	bag of 4	
BF52	Mortar	1002	bag of 2	
BF53	Iron	1002	bag of 2 fragments	
BF54	Animal Bone	1006	bag of 3 fragments (1 tooth)	
BF55	Stone	1006	possible pestle fragment	
BF56	Mortar	2003	bag of 30 fragments	
BF57	Animal Bone	2003	bag of 14 fragments (1 tooth)	
BF58	Shell	2003	bag of 8	
BF59	Coal	2003	bag of 3 fragments	
BF60	Charcoal	2003	1 fragment	
BF61	Mortar	1008	bag of 7 fragments	
BF62	Mortar	2001	bag of 2 fragments	
BF63	Mortar	1000	bag of 19 fragments	
BF64	Mortar	1002	1 fragment	
BF65	Coal	1001	bag of 1 fragment	

BF66	Animal Bone	1006	bag of 26 fragment including 1 tooth microfauna	
BF67	Animal Bone	1006	bag of 89 fragments some burnt	
BF68	Mortar	1006	bag of 4 fragments	
BF69	Shell	1006	bag of 3	
BF70	Stone	1006	bag of 1 fragment of quartzite	
BF71	Iron	1006	bag of 2 fragments	
BF72	Coal	1006	bag of 4 fragments	
BF73	Charcoal	1006	bag of 2 fragments	
BF74	Pottery	1006	1 sherd	
BF75	Animal Bone	1007	bag of 91 fragments including 2 teeth	
BF76	Glass	1007	19 green glass bottle shards	
BF77	Slag	1007	1 fragment	
BF78	Stone	1007	1 quartzite	
BF79	Stone	1007	1 large pestle fragment	
BF80	Flint	1007	1	
BF81	Mortar	1007	1 fragment	
BF82	Iron	1007	1 possible nail	
BF83	Stone	2008	1 fragment of slate with possible reddish paint or pigment	
BF84	Mortar	2008	9 fragments	
BF85	Shell	2008	2	
BF86	Animal Bone	2008	2 teeth	
BF87	Iron	1010	bag of 13 fragments	
BF88	Animal Bone	1010	bag of 3 microfauna	
BF89	Animal Bone	1000	bag of 5 fragments	
BF90	Shell	2016	24	
BF91	Animal Bone	2016	bag of 2 fragments	
BF92	Charcoal	2016	1 fragment	
BF93	Iron	1010	bag of 8 fragments shotgun cartridge	
BF94	Charcoal	1010	1 fragment	
BF95	Glass	1010	1 green glass shard	
BF96	Mortar	1010	1 fragment	
BF97	Coal	1010	1 fragment	
BF98	Animal Bone	2014		
BF99	Shell	2014	bag of 13	
BF275	Shell	2016	marine shell	0
BF276	Animal Bone	2016	1 sacrum 1 crab claw	0
BF277	Iron	2016	fragments of poss Fe object	0
BF278	Stone	2017	Quartz <4mm	
BF279	Clay	2017	4 mm	
BF280	Charcoal	2017	4 mm	
BF281	Stone	2017	Quartz 2 mm	
BF282	Clay	2017	2 mm	
BF283	Mortar	2016		150
BF284	Burnt Floor	2016	stored in mortar box	432
BF285	Flint	2016		1
BF286	Shell	2016		75
BF287	Animal Bone	2016	sea urchin ? fish bone	1
BF288	Mortar	2016	large shell inclusions	17
BF289	Iron	1041	poss nail x 2	29
BF290	Burnt Floor	1041	stored in mortar box	54
BF291	Mortar	1041		375
BF292	Animal Bone	3038	burnt bone	1

BF293	Clay	5000	stored in mortar box Clay floor ?	20
BF294	Burnt Clay Floor	4001	stored in mortar box burnt clay floor ?	104
BF295	Pottery	4001	fragment	16
BF296	Mortar	2016		8
BF297	Animal Bone	2016	1 tooth	69
BF298	Animal Bone	1021		54
BF299	Shell	1021	marine 1 conical shell	7
BF300	Charcoal	1021		15
BF301	Chalk	1021		1
BF302	Iron	5000	Iron Object	60
BF303	Mortar	1021		1226
BF304	Shell	2016		7
BF305	Mortar	1021		1449
BF306	Mortar	1021		351
BF307	Mortar	1021		974
BF308	Mortar	1021		499
BF309	Animal Bone	3038	Burnt Animal Bone	1
BF310	Mortar	1021		701
BF311	Charcoal	1021		21
BF312	Shell	1021	Marine Shell	10
BF313	Animal Bone	3041	Burnt Animal Bone	7
BF314	Animal Bone	3041	Tooth	1
BF315	Animal Bone	1021	1 Tooth	18
BF316	Animal Bone	1042	1 Horn Fragment	30
BF317	Stone	1042	Quartz	7
BF318	Shell	1043	Marine Shell	100
BF319	Animal Bone	2016	Burnt Animal Bone	1
BF320	Shell	2016	Burnt Fragments	14
BF321	Shell	1043		52
BF322	Iron	1043	Fe Object ?	7
BF323	Animal Bone	3009	Burnt Animal Bone	1
BF324	Animal Bone	3041	Burnt Animal Bone	14
BF325	Animal Bone	2016	Horn Fragments	49
BF326	Shell	2016	Marine	1
BF327	Shell	1042	Marine	4
BF328	Pottery	6002	Sherd	1
BF329	Stone	1021	Sandstone	168
BF330	Animal Bone	1043		65
BF331	Animal Bone	1043	Some Teeth	74
BF332	Animal Bone	3015		5
BF333	Animal Bone	3039		1
BF334	Metal	2043	Metal ?	8
BF335	Charcoal	1043		4
BF336	Animal Bone	1043	2 Teeth	109
BF337	Shell	1043	Marine Shell	112
BF338	Charcoal	1043		8
BF339	Shell	1043	Marine Shell	96
BF340	Shell	1043	Marine Shell	79
BF341	Flint	0	Unstratified - Found in spoil heap	10
BF342	Animal Bone	1043		19
BF343	Animal Bone	1043		248
BF344	Shell	1043	Marine Shell	70
BF345	Charcoal	1043		1
BF346	Iron	1043	Fe Object	17
BF347	Animal Bone	1043		301
BF348	Animal Bone	1043		157

BF349	Animal Bone	1043	1 Horn 1 Mandible	271
BF350	Slate/shale/coal	1043		3
BF351	Iron	1043	Fe Object - Nail ?	18
BF352	Animal Bone	1043		131
BF353	Animal Bone	1043		149
BF354	Charcoal	1043		4
BF355	Shell	1043	Marine Shell	96
BF356	Animal Bone	1043	Mandible Teeth	277
BF357	Animal Bone	1043		29
BF358	Animal Bone	3049	Burnt Animal Bone	1
BF359	Animal Bone	3049	Burnt Animal Bone	2
BF360	Charcoal	2027	2 mm	
BF361	Animal Bone	2027	2 mm	
BF362	Mortar	2027	4 mm	
BF363	Metal	2027	2 mm	
BF364	Shell	2027	4 mm	
BF365	Glass	2027	2 mm	
BF366	Stone	2027	Quartz 2mm	
BF367	Animal bone	2027	4 mm	
BF368	Flint	2027	4 mm	
BF369	Mortar	2027	2 mm	
BF370	Stone	2027	Quartz 4 mm	
BF371	Charcoal	2027	4 mm	
BF372	Charcoal	2027	4 mm	
BF373	Stone	3021	Quartz 2 mm	
BF374	Charcoal	3021	4 mm	
BF375	Charcoal	3021	2 mm	
BF376	Stone	3021	Quartz 4 mm	
BF377	Charcoal	2036	4 mm	
BF378	Stone	2036	2 mm	
BF379	Charcoal	2036	2 mm	
BF380	Stone	2063	Quartz 4 mm	
BF381	Shell	2008	4 mm	
BF382	Stone	2008	Quartz 4 mm	
BF383	Stone	2008	Stone ? 4 mm	
BF384	Charcoal	3016	4 mm	
BF385	Stone	3016	Quartz 4 mm	
BF386	Charcoal	3016	2 mm	
BF387	Stone	3016	Quartz 2 mm	
BF388	Mortar	1043		66
BF389	Stone	1018	Quartz 2 mm	
BF390	Shell	1018	2 mm	
BF391	Stone	1018	Quartz 2 mm	
BF392	Charcoal	1018	2 mm	
BF393	Charcoal	1018	4 mm	
BF394	Animal Bone	1018	2 mm	
BF395	Stone	3014	Quartz 4 mm	
BF396	Animal Bone	3041	4 mm	
BF397	Charcoal	3041	4 mm	
BF398	Metal	3041	4 mm	
BF399	Charcoal	3041	2 mm	
BF400	Stone	3041	2 mm	
BF401	Animal Bone	3041	2 mm	
BF402	Clay	2022	Burnt Clay 4 mm	
BF403	Charcoal	2022	2 mm	
BF404	Shell	2022	4 mm	
BF405	Shell	2022	2 mm	
BF406	Charcoal	2022	2 mm	

BF407	Stone	2022	2 mm	
BF408	Charcoal	2022	4 mm	
BF409	Charcoal	2022	4 mm	
BF410	Stone	2022	Quartz 4 mm	
BF411	Charcoal	3020	2 mm	
BF412	Stone	3020	4 mm	
BF413	Stone	3020	2 MM	
BF414	Animal Bone	3020	2 mm	
BF415	Shell	3020	2 mm	
BF416	Shell	3020	4 mm	
BF417	Mortar	2006	4 mm	
BF418	Shell	2006	4 mm	
BF419	Stone	2006	Quartz 2 mm	
BF420	Charcoal	2006	2 mm	
BF421	Shell	2006	2 mm	
BF422	Charcoal	2006	4 mm	
BF423	Stone	2006	Quartz 4 mm	
BF424	Charcoal	3022	2 mm	
BF425	Stone	3022	Quartz 2 mm	
BF426	Animal Bone	3022	2 mm	
BF427	Animal Bone	3022	4 mm	
BF428	Glass	3022	2 mm	
BF429	Iron	3022	4 mm	
BF430	Charcoal	3022	4 mm	
BF431	Stone	3022	Quartz 4 mm	
BF432	Iron	1011	Fe 2 mm	
BF433	Shell	1011	4 mm	
BF434	Animal Bone	1011	2 mm	
BF435	Animal Bone	1011	4 mm	
BF436	Charcoal	1011	2 mm	
BF437	Stone	1011	Quartz 4 mm	
BF438	Glass	1011	2 mm	
BF439	Shell	1011	2 mm	
BF440	Charcoal	1011	4 mm	
BF441	Stone	1011	Quartz 2 mm	
BF442	Clay	3023	4 mm	
BF443	Animal Bone	3023	4 mm	
BF444	Stone	3023	Quartz 2 mm	
BF445	Charcoal	3023	2 mm	
BF446	Stone	3023	Quartz 4 mm	
BF447	Charcoal	2021	4 mm	
BF448	Clay	2021	Fired Clay 4 mm	
BF449	Stone	2021	Quartz 2 mm	
BF450	Charcoal	2021	2 mm	
BF451	Stone	2021	Quartz 4 mm	
BF452	Clay	2021	2 mm	
BF453	Clay	3014	Burnt Clay 4 mm	
BF454	Animal Bone	3014	4 mm	
BF455	Stone	3014	Quartz 4 mm	
BF456	Charcoal	3014	4 mm	
BF457	Animal Bone	2043	Burnt Animal Bone	26
BF458	Clay	2015	4 mm	
BF459	Stone	2015	Quartz 4 mm	

BF460	Metal	2015	4 mm	
BF461	Stone	2013	Quartz 2 mm	
BF462	Shell	2013	2 mm	
BF463	Charcoal	2013	2 mm	
BF464	Metal	2013	2 mm	
BF465	Animal Bone	2013	2 mm	
BF466	Animal Bone	2015	2 mm	
BF467	Stone	2015	Quartz 2 mm	
BF468	Charcoal	2015	2 mm	
BF469	Shell	2015	2 mm	
BF470	Slag	2015	2 mm	
BF471	Animal Bone	3004	4 mm	
BF472	Charcoal	3004	2 mm	
BF473	Charcoal	3004	4 mm	
BF474	Stone	3004	Quartz 2 mm	
BF475	Animal Bone	3004	2 mm	
BF476	Stone	3004	Quartz 4 mm	
BF477	Stone	3005	Quartz 4 mm	
BF478	Animal Bone	3005	2 mm	
BF479	Iron	3005	4 mm	
BF480	Stone	3005	Quartz 2 mm	
BF481	Charcoal	3005	2 mm	
BF482	Iron	3005	Fe 2 mm	
BF483	Charcoal	3005	4 mm	
BF484	Slag	3004	4 mm	
BF485	Animal Bone	3004	2 mm	
BF486	Charcoal	3004	2 mm	
BF487	Stone	3004	Quartz 2 mm	
BF488	Animal Bone	3004	4 mm	
BF489	Glass	3004	2 mm	
BF490	Stone	3004	Quartz 4 mm	
BF491	Charcoal	3004	4 mm	
BF492	Animal Bone	2014	4 mm	
BF493	Mortar	2014	4 mm	
BF494	Charcoal	2014	4 mm	
BF495	Stone	2014	Quartz 2 mm	
BF496	Shell	2014	2 mm	
BF497	Animal bone	2014	2 mm	
BF498	Charcoal	2014	2 mm	
BF499	Shell	2014	4mm	
BF500	Stone	2014	Quartz 4 mm	
BF501	Charcoal	2016	4 mm	
BF502	Animal Bone	2016	4 mm	
BF503	Shell	2016	4 mm	
BF504	Flint	2016	4 mm	
BF505	Stone	2016	Quartz 4mm	
BF506	Animal Bone	3042	Burnt bone	2
BF507	Animal Bone	3051	tooth	1
BF508	Animal Bone	3051	Burnt bone	1
BF509	Animal Bone	3006	Burnt	1

BF510	Animal Bone	3006	Burnt bone	1
BF511	Animal Bone	3054	contains flaked Teeth frags in poor preservation	1
BF512	Animal Bone	3014		1
BF513	Animal Bone	3051	Burnt bone	1
BF514	Animal Bone	1043		269
BF515	Shell	1045		46
BF516	Charcoal	1045		1
BF517	Shell	2043		1
BF518	Shell	1043		138
BF519	Shell	1043		34
BF520	Iron	1043	Iron object	21
BF521	Mortar	1043		1
BF522	Animal Bone	1043		1
BF523	Shell	2043		1
BF524	Shell	1043		103
BF525	Animal bone	1043	5 teeth	101
BF526	Animal bone	2020	1 tooth	18
BF527	Animal bone	2043	1 tooth	8
BF528	Animal bone	1045	3 teeth	21
BF529	Iron	1047	Smithy base	31
BF530	Animal bone	1047		28
BF531	Shell	1047		1
BF532	Shell	1047		36
BF533	Shell	1044		26
BF534	Charcoal	1044		1
BF535	Iron	1044	Nail ?	32
BF536	Stone	1044	Sandstone	154
BF537	Animal bone	1043	5 teeth	133
BF538	Mortar	1043		8
BF539	Charcoal	2017	2 mm	
BF540	Animal bone	1044	4 teeth	99
BF541	Animal bone	1043	1 tooth	336
BF542	Animal bone	1043	2 fragments of pig mandible	99
BF543	Animal bone	1043		410
BF544	Stone	1043	Sandstone	621
BF545	Animal bone	1047	2 teeth	83
BF546	Charcoal	1047		1
BF547	Charcoal	1043		11
BF548	Charcoal	5007		1
BF549	Shell	1047		101
BF550	Mortar	1021		374
BF551	Stone	1047	Sandstone	39
BF552	Iron	1047		5
BF553	Charcoal	1047		1
BF554	Mortar	1047		126
BF555	Iron	1044	Iron stone worked ? In BF Stone Box	67
BF556	Stone	2020	Sandstone	18
BF557	Shell	1046		61
BF558	Stone	1046	Sandstone	123
BF559	Iron	1046		52
BF560	Charcoal	1046		1
BF561	Iron	1045		19
BF562	Charcoal	1045	1 tooth fragment	1
BF563	Animal Bone	1045	1 tooth fragment	1
BF564	Shell	1045	(02/09/2019 ROSAI) (02/09/2019 ROSAI)	136

BF565	Flots	3004	(02/09/2019 ROSAI) (02/09/2019 ROSAI)	
BF566	Flots	1018	(02/09/2019 ROSAI)	
BF567	Flots	1011		
BF568	Flots	3016		
BF569	Flots	3014		
BF570	Flots	2017		
BF571	Flots	2008		
BF572	Flots	2027		
BF573	Flots	3023		
BF574	Flots	2006		
BF575	Flots	3021	(03/09/2019 ROSAI)	
BF576	Flots	1011		
BF577	Flots	2021		
BF578	Flots	2020		
BF579	Flots	2015		
BF580	Flots	2016		
BF581	Flots	2013		
BF582	Flots	3022		
BF583	Flots	14		
BF584	Flots	2022		
BF585	Flots	3005		
BF586	Stone	1043	Quartz 4 mm	
BF587	Charcoal	1043	4 mm	
BF588	Stone	1043	Stone with glaze? 4 mm	
BF589	Mortar	1043	4 mm	
BF590	Slate	1043	4 mm	
BF591	Mortar	1043	4 mm	
BF592	Flint	1043	Worked? 4 mm	
BF593	Shell	1043	4 mm	
BF594	Animal Bone	1043	4 mm	
BF595	Charcoal	3041	4 mm	
BF596	Animal Bone	3041	4 mm	
BF597	Stone	3041	Quartz 4 mm	
BF598	Charcoal	3041	2 mm	
BF599	Hazel nut shell	3041	2 mm	
BF600	Slate	3041	2 mm	
BF601	Animal Bone	3041	2 mm	
BF602	Animal Bone	3041	2 mm	
BF603	Stone	3041	Quartz 2 mm	
BF604	Charcoal	3041	2 mm	
BF605	Chalk	3041	2 mm	
BF606	Animal Bone	1021	4 mm	
BF607	Charcoal	1021	4 mm	
BF608	Animal Bone	1021	2 mm	
BF609	Shell	1021	4 mm	
BF610	Shell	1021	2 mm	
BF611	Charcoal	1021	2 mm	
BF612	Stone	1012	Quartz 2 mm	
BF613	Mortar	1043		133
BF614	Mortar	1042		113
BF615	Mortar	1021		80

BF616	Shell	1047		52
BF617	Animal Bone	1047	3 teeth 1 burnt piece possible worked bone	265
BF618	Animal Bone	2043	1 tooth	142
BF619	Slate	1047		66
BF620	Animal Bone	2043	3 teeth 1 mandible	199
BF621	Shell	1047		1
BF622	Animal Bone	1047	2 teeth 1 mandible fragment	204
BF623	Stone	1046	poss dressed stone	354
BF624	Animal Bone	3055	Burnt bone	3
BF625	Animal Bone	1045	1 mandible	58
BF626	Animal Bone	1045		36
BF627	Animal Bone	1045	4 teeth	100
BF628	Slag	1047		66
BF629	Animal Bone	1045		83
BF630	Animal Bone	1049	3 teeth	126
BF631	Shell	1049		45
BF632	Slate	1049		159
BF633	Shell	1048		68
BF634	Animal Bone	1048	2 mandible 5 teeth poss worked bone	141
BF635	Animal Bone	1046	2 teeth	108
BF636	Animal Bone	3050	burnt nbone	1
BF637	Animal Bone	2043	1 tooth	105
BF638	Slate	2043		5
BF639	Stone	2043	granite fragment	9
BF640	Animal Bone	2043		300
BF641	Animal Bone	1050	2 mandible 1 tooth	46
BF642	Charcoal	2044		6
BF643	Animal Bone	3053	Burnt bone	7
BF644	Mortar	1045		15
BF645	Animal Bone	2043		1
BF646	Shell	2043		1

Environmental sample register

DHAP2018

Find	Context	Type	Quantity
SA1	2001	XRD	1 small bag
SA2	2003	BULK	40l
SA3	2005	BULK	40l
SA4	3005	BULK	40l
SA5	3005	MM	1 tin
SA6	2008	BULK	40l
SA7	3014	BULK	20l
SA8	3017	BULK	10l
SA9	2006	BULK	40l
SA10	3015	BULK	40l
SA11	2016	BULK	40l

SA12	3002	BULK	20l
SA13	2014	BULK	30l
SA14	2013	BULK	40l
SA15	2015	BULK	40l
SA16	2017	BULK	40l
SA17	1013	MM	1 tin
SA18	1011	BULK	40l
SA19	3020	BULK	20l
SA20	3004	BULK	
SA21	3022	BULK	
SA22	3023	BULK	
SA23	1018	BULK	10l
SA24	2021	BULK	40l
SA25	2002	BULK	40l
SA26	3004	MM	1 tin
SA27	3004	BULK	10l
SA28	3004	XRF	1 small bag
SA29	3004	XRF	1 small bag
SA30	3004	XRF	1 small bag
SA31	3004	XRF	1 small bag
SA32	3004	XRF	1 small bag
SA33	3004	XRF	1 small bag
SA34	3001	MM	1 tin
SA35	3001	PHY	1 small bag
SA36	3005	PHY	1 small bag
SA37	3004	PHY	1 small bag
SA38	3021	MM	1 tin
SA39	3021	PHY	1 small bag
SA40	3021	BULK	30l
SA41	3014	MM	1 tin
SA42	3014	PHY	1 small bag
SA43	3015	PHY	1 small bag
SA44	3022	PHY	1 small bag
SA45	1015	MM	1 tin
SA46	1015	MM	1 tin
SA47	1000	MM	1 tin
SA48	1012	MM	1 tin
SA49	1012	MM	1 tin
SA50	1012	MM	1 tin
SA51	2027	BULK	10l
SA52	1000	MM	1 tin
SA53	1036	MM	1 tin
SA54	1037	MM	1 tin
SA55	2004	MM	1 tin
SA56	2004	PHY	1 small bag
SA57	2004	MM	1 tin

SA58	2004	PHY	1 small bag
SA59	2004	PHY	1 small bag
SA60	2016	MONOLITH	1x50cm
SA61	2027	MM	1 tin
SA62	2027	SPOT SAMPLE	1 tray
SA63	2027	MM	1 tin
SA64	onshore	MM	1 tin

DHAP2019

<u>Sample No.</u>	<u>Context No.</u>	<u>Type/Purpose</u>	<u>Quantity or Volume</u>
65	2034	Bulk	Individual rocks
66	2036	Bulk	20L
67	1021	Bulk	18L
68	1025	Chemical?Other	1L
69	2037	Micromorphology	1 sample
70	2037	Micromorphology	1 sample
71	3041	Bulk	n/a
72	3014	XRF	1 bag
73	3014	XRF	1 bag
74	3014	XRF	1 bag
75	3014	XRF	1 bag
76	3014	XRF	1 bag
77	3014	XRF	1 bag
78	2044	Bulk	n/a
79	1043	Bulk	3 bags c. 20 L
80	3051	Bulk	4 bags
81	3044	Bulk	4 bags
82	3042	Bulk	n/a
83	1044	Bulk	3 bags c. 20 L
84	3014, 3015	Micromorphology	1 sample
85	2045	GBA	20 L
86	1043	Micromorphology	1 sample
87	2037, 2044	Micromorphology	1 sample
88	2044, 2046	Micromorphology	1 sample
89	2046, 2049	Micromorphology	1 sample
90	3050	Bulk	
91	3051	Bulk	20L
92	3042	XRF	
93	3042	XRF	
94	3042	XRF	
95	3042	XRF	
96	3042	XRF	
97	3042	XRF	
98	3050	XRF	

99	3050	XRF	
100	3050	XRF	
101	3050	XRF	
102	3050	XRF	
103	3050	XRF	
104	3054	XRF	
105	3054	XRF	
106	3054	XRF	
107	3054	XRF	
108	3054	Bulk	
109	2045, 2043	Micromorphology	1 sample
110	2043, 2050	Micromorphology	1 sample
111	3053	XRF	1/4
112	3053	XRF	2/4
113	3053	XRF	3/4
114	3053	XRF	4/4
115	1047	Bulk	18L
116	1046	GBA	18L 3 bags
117	2043	GBA	20L 2 bags
118	3055	XRF	1/4
119	3055	XRF	2/4
120	3055	XRF	3/4
121	3055	XRF	4/4
122	2044	GBA	4 bags
123	3056	Bulk	1/2 bag
124	3055	Bulk	2 bags
125	3055	Micromorphology	1
126	3055, 3060	Micromorphology	1
127	1048	GBA	2 bags
128	1048	GBA	2 bags

Section/elevation register

Section No.	Context numbers	Scale	Description	Date	Initials	Comments
1	3009	1:10	N-facing elevation of wall 3009 in Tr3B	24/08/18	ARLS	
2		1:10	S-facing elevation of wall2 3028 and 3034	27/08/18	ARLS	
3	1000, 1003, 1004, 1012, 1008, 1030, 1029, 1031, 1032	1:10	East section of North Extension to Trench 1; showing rubble collapse and slump off the northern courtyard wall	27/08/18	CG/T N	Micromorph samples 47, 48, 49, 50 taken of mortar lenses 1029, 1030, 1031, 1032

4	2000, 2001, 2005, 2010, 2003, 2013, 2015, 2016, 2021, 2022	1:10	E-facing section of the western baulk of Trench 2	27/08/18	MCH	
5	2003, 2023, 2022	1:10	S-facing baulk section in the NW part of the trench	27/08/18	MCH	
6	2000, 2003, 2013, 2015, 2022, 2021	1:10	W-facing baulk section in the NW part of the trench	27/08/18	MCH	
7	2000, 2003, 2013, 2015, 2022, 2021, 2010	1:10	S-facing baulk section in the SE part of Trench 2	27/08/18	MCH	
8	2000, 2003, 2013, 2015, 2022, 2021, 2010, 2016	1:10	W-facing baulk section in the SE part of the trench	27/08/18	MCH	
9	2000, 2003, 2013, 2015, 2022, 2021, 2010, 2016	1:10	N-facing baulk section in the SE part of the trench	27/08/18	MCH	
10	2000, 2001, 2002, 2004, 2005, 2006, 2007, 2008, 2016, 2019, 2020	1:10	S-facing section of the sondage in Trench 2	27/08/18	MCH	
11	3032	1:10	S-facing elevation of wall 3032 in Tr3	27/08/18	ARLS	
12	3029	1:10	W-facing elevation of wall 3029 in Trench 3	27/08/18	ARLS	
13	3006, 3015, 3014, 3022, 3023, 3010, 3009, 3031, 3022	1:10	NE-facing section in Trench 3			
14	1000, 1036, 1037	1:10	West-facing section, east edge of Trench 1: showing decayed turf bank	27/08/18	CA	Micromorph samples 52, 53 & 54
15	1000, 1035	1:10	South-facing section Trench 1: Zones B & C	29/8/18	KS/SE	
16	4000, 4001, 4002, 4003	1:10	E-facing section of Trench 4	20/08/19	SP	
17	3006, 3014, 3015, 3022	1:10	NE-facing section in Trench 3b sondage			Micromorph sample 84
18	3003, 3001, 3005, 3004	1:10	SE-facing section in Trench 3b			
19	5000, 5001, 5002, 5003, 5004, 5005, 5006, 5007	1:10	S-facing section of Trench 5	31/08/19	SP	
20	6000, 6002, 6004	1:10	E-facing section through southern half of Trench 6	31/08/19	JK	
21	1000, 1003, 1012, 1041, 1008, 1042, 1021, 1043, 1044, 1046, 1047, 1048	1:10	NNW section of Trench 1b, replacing Section 3	02/09/19	KS	Micromorph samples 47, 48, 49, 50, 86
22	1023, 1043, 1044, 1046	1:10	N-Facing elevation/section of wall 1023 and underlying deposits	02/09/19	KS	
23	2000, 2001, 2005/2006, 2037, 2019/2020, 2029, 2016, 2028, 2038, 2043, 2030	1:10	NE-facing section of Trench 2 including elevation of sea gate wall (2030)	03/09/19	C and F	
24	2000, 2001, 2002, 2004, 2006, 2020, 2019	1:10	West-facing section of Trench 2	03/09/19	SP and G	
25	2000, 2001, 2007, 2008, 2004, 2005/2006, 2035,	1:10	SW-facing section of Trench 2	03/09/19	E & B	Micromorph samples 87, 88, 89

	2044, 2042, 2034, 2048, 2054, 2046, 2049, 2016					
26	2000, 2001, 2003, 2013, 2014, 2022, 2025, 2010, 2015, 2021, 2018, 2016, 2026/2044, 2041, 2038, 2043, 2045, 2030	1:10	ESE-facing section of Trench 2	03/09/19	E & J	Micromorph samples 109, 110
27	3046	1:10	External elevation of wall 3046		RR	
28	3031, 3015, 3022, 3035, 3036	1:10	External elevation of wall 3031 and section through underlying deposits		RR	
29	3028	1:10	Internal elevation of wall 3028		RR	
30	3047	1:10	External elevation of wall 3047		RR	
31	3058	1:10	Section profile across fire pit 3058		RR	
32	1003, 1004, 1021, 1044, 1043, 1046, 1012, 1054, 1055, 1041, 1042, 1048, 1052, 1047,	1:10	SSE-facing section of Trench 1b		DM	

Photographic registers

2019

Dunyaig Castle Islay 2019 - Photo Register

CAMERA No. / Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# / Direction facing	SCALE used	Name	DATE
Canon 350D	1751-52-53	(1012)	light grey deposit over (1008)	SW	2m x 1m	ZW	19/08/19
"	1754, 1755	—	Working Shots x 2	NE	—	KS	"
"	1756-57-58	(1021)+(1041)	Mid-brown deposit under (1003)	E	2m x 1m	FT	19/08/19
"	1790 → 1802	(1021)	Mortar Horizon	SW/NE	2m x 2m	FT + AP	20/08/19
"	1803-1809	(1023), (1021)	Relationship between Wall foundation mortar	—	0.5m	KS	24/8/19
"	1810-1816	"	"	"	"	"	"
"	1817 → 1819	(1043)	Mid brown deposit with mortar wash	SW	2m x 2m	AP	25/8/19
"	1820-1844	—	Working Shots Trench 1 + 2	KS	—	KS	25/8/19
"	1845	(1043)	Finds tray after 50% removal of context	—	—	KS	26/8/19
"	1846-1848	(1044)	Dark brown (lay-siltstone) (1043)	SW	2m	DP	27/8/19
"	218-1851	(1044)	trench after removal of (1044)	SW	/	ZW	"
"	218-1852	(1044)	"	SE	"	"	"
"	1853	(1043)	Finds trays from context (1043)	—	—	KS	28/8/19
"	1854-1856	(1043) < 867	Working shot Retaking micromorph sample	—	—	KS	28/8/19
"	1857-1858	(1043) < 867	Location of Micromorph Sample	NNW Facing Section	—	KS	28/8/19
"	1859-61	(1047) (1046)	Compact Clay layer under (1043)	SW	2m x 2m	ZW	30/8/19
"	1863-64	(1047)	Trench shot of partial elevation of (1043)	SW	—	VR	31/8/19
"	1865-67	(1046)	Loose purple gravel (1046)	SW	1m x 1m	ZW	"
"	1868	(1046)	Working shot Sampling (1046) for wall foundation	SW	—	KS	31/8/19
()	1869-71	(1046)	Artificial removal of 1046	SW	1m	AP	1/9/19
"	1872-77	(1046)	Prior to loss removal to (1046)	SW/NW	1m	ZW	"
"	1880, 1882, 1883	(1046-8)	TRENCH 1 H70	SW	1m x 2m	VR + AP	1/9/19
"	1884-1887	(1050)	Thin organic horizon - Possible upper ditch fill - Exposed in borehole excavation	—	2m x 1m	KS	3/9/19

Dunyaig Castle Islay 2019 - Photo Register

2019

CAMERA No./Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# /Direction facing	SCALE used	Name	DATE
Canon 3500	1882-1889	1051	Possible natural in Board	✓	2m	KS	3/7/19

2019
Dunyaig Castle 2018

DHAP18

Photo Register

Camera Number:

Frame No.	Context No(s)	Trench	Description/Comments	SF/Sample No.	Scale (m)	Facing	Name	Date
122-124	(2034)	2	possible stone structure running in curve of trench N-S. same alignment as 2028 but higher		1m	N-S	Beth	20/9/19
125-130	(2034)	2	weaker photo of covering excavation of possible ramp		✓		Beth/Charlie	21/9/19
131-149	(2037)	2	Burnt turf layer within (2034) in centre of trench. with bird eye view included.	✓	1m		John/Farah	23/8/19
162-164	(2044)	2	Burnt interface (2044) between (2016) and (2037)	^ <78>	0.25m		Charlie/Beth	26/9/19
160-161	(2044)	2	DELETE!					
7759#	(2040)	2	Walls of building	✓	1m	SE	Pamela	27.8.19
7760	"	2	Photogrammetry	✓	1m	SW	"	"
8057-8053	(2040)	2	Walls of building	✓	1m	NW	Beth	27.8.19
	(2040)	2			1m		Sarah	27.8.19
8054-8051	(2043)	2	Section photo, West facing	△145	1m	W	Sarah	27.8.19
169-172	(2045)	2	burnt layer (2045) above mortar layer (2043)		50cm		Bunny	27.8.19
173-174		2	<87> upper region of burnt layers - greyish brown colour <88> main burnt horizon with charcoal & reddened clay <89> mortar below burnt horizon, boundary between mortar/burnt horizon	<87> <88> <89>	1m	SW	John	28/8/19

54 Facing section

Dunyaig Castle 2018

DHAP18

Photo Register

Camera Number:

Frame No.	Context No(s)	Trench	Description/Comments	SF/Sample No.	Scale (m)	Facing	Name	Date
180-199	(2044)	2	Multiple photos of context (2044) and structure (2043) to show relationship taken on two different days due to light issues. Facing multiple ways	^ < >	1m x 1m	Multi	Beth, John, Charlie	1.9.19
200-203	(2051)	2	CONTEXT (2051) OCCUPATIONAL DEPOSIT		1m x 1m	West + South Facing	Beth, Emily	1.9.19

Dunyaig Castle Islay 2019 - Photo Register

CAMERA No./Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# /Direction facing	SCALE used	Name	DATE
Nikon D70	S107 S102	3053	BURNT DEPOSIT ANNEAR	N40	1m + 0.5m	maya	25.5.2019
"	S108 S103	"	"	"	"	"	"
"	S109 S104	"	"	"	"	"	"
"	S110 S105	3053	"	SE	1m + 0.5m	"	"
"	S111 S106	"	"	"	"	"	"
"	S112 S107	"	"	"	"	"	"
"	S113 S108	"	"	"	"	"	"
"	S114 S109	"	"	"	"	"	"
"	S115 S110	"	"	"	"	"	"
"	S116 S111	"	"	"	"	"	"
"	S117 S112	"	"	"	"	"	"
"	S118 S113	"	"	"	"	"	"
"	S119 S114	"	"	"	"	"	"
"	S120						
"	S121						
"	S122						
"	S123						
"	S124						
"	S125						
"	S126						

Dunyaig Castle Islay 2019 - Photo Register

CAMERA No./Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# /Direction facing	SCALE used	Name	DATE
Nikon D70	94/95 S131	30055	Burnt pbr material/deposits in annex	SE	1x0.5m	Pruthvi	31/08/19
"	96/97 S132	"	"	"	"	"	"
"	98/99 S133	"	"	"	"	"	"
Nikon D70	S134	3049	3049 fill of fine pit	S	20cm	Rooof	1/09/19
"	S139	3049	3049 fill of fine pit	"	"	"	"
"	S140	3049	10 SHOT	"	"	"	"
"	S141	3057/3058	10 SHOT	S	20cm	Roof	"
"	S142	"	OVER THANE	"	"	"	"
"	S143	"	"	"	"	"	"
"	S144	3028	LOGG INNER FACE	S	0.5m	"	"
"	S145	"	"	"	"	"	"
"	S146	"	"	"	"	"	"
"	S147	"	"	"	"	"	"
"	S148	"	"	"	"	"	"
"	S149	"	"	"	1.0m	"	"
"	S150	"	"	"	"	"	"
"	S151	"	"	"	"	"	"
"	S152	"	"	"	"	"	"
"	S153	3059	ANNEX	"	1m	"	"
"	S154-S155	"	7667 SHOTS PHOTO	"	1.0m	"	"
"	S156	3055/3060	BURNT MATERIAL 3055 + FINE LOG	E W	1.0cm	"	"
"	S157	"	"	"	"	"	"
"	S158	"	"	"	"	"	"

Dunyvaig Castle Islay 2019 - Photo Register

CAMERA No./Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# /Direction facing	SCALE used	Name	DATE
CANON 5057D	4870	3001	ROCKIE + SUBSOIL	W	2m	SARAH	17.8.2019
"	4871-4876	"	" SOUTH END OF TOWER	SW	"	"	"
"	4875-4911	"	"	SW	"	"	"
"	4913-4924	"	"	S	"	"	"
"	4925-4935	"	"	SSE	"	"	"
NIKON D70	-	3003	TIN WHEEL / PAVE / LOG	E	15cm	ANNA	18.8.2019
"	5041-5044	3042 * Behind stone wall (3050)	MIDDLE ARCHWAY SOUTH END WEST W		1m		
"	5045-5050	3051	INTERVAL DEPOSIT		"		
"	5051-5055	3048	CUBOID SURFACE, ENTRANCE		"		
"	5056-5060	3049	INTERVAL PAVE DEPOSIT		"		
"	5061-5067	3052	SECTION PAVE		20cm		
"	5068-5073	3053	CHANGING ROOM	NW	20cm		
"	5074-5079	"	INTERVAL DEPOSIT ANCHOR	NW	1m + 0.5m	MAYA	28.8.2019
"	5080-5081	"	"	-			
"	5082-5083	"	"	SW			
"	5084-5085	"	"	"			
"	5086-5087	"	"	"			
"	5088-5089	"	"	"			
"	5090-5091	"	"	"			
"	5092-5093	"	"	"			
"	5094-5095	"	"	"			
"	5096-5097	"	"	"			
"	5098-5099	"	"	"			
"	5100-5101	"	"	"			
"	5102-5103	"	"	"			
"	5104-5105	"	"	"			
"	5106-5107	"	"	"			
"	5108-5109	"	"	"			
"	5110-5111	"	"	"			
"	5112-5113	"	"	"			
"	5114-5115	"	"	"			
"	5116-5117	"	"	"			
"	5118-5119	"	"	"			
"	5120-5121	3055	Burnt door material/deposits in annex	NW	"	Pruthvi	31/08/19
"	5122-5123	"	"	"	"	"	"
"	5124-5125	"	"	"	"	"	"
"	5126-5127	"	"	"	"	"	"
"	5128-5129	"	"	"	"	"	"
"	5130-5131	"	"	"	"	"	"
"	5132-5133	"	"	"	"	"	"
"	5134-5135	"	"	"	"	"	"
"	5136-5137	"	"	"	"	"	"
"	5138-5139	"	"	"	"	"	"
"	5140-5141	"	"	"	"	"	"
"	5142-5143	"	"	"	"	"	"
"	5144-5145	"	"	"	"	"	"
"	5146-5147	"	"	"	"	"	"
"	5148-5149	"	"	"	"	"	"
"	5150-5151	"	"	"	"	"	"
"	5152-5153	"	"	"	"	"	"
"	5154-5155	"	"	"	"	"	"
"	5156-5157	"	"	"	"	"	"
"	5158-5159	"	"	"	"	"	"
"	5160-5161	"	"	"	"	"	"
"	5162-5163	"	"	"	"	"	"
"	5164-5165	"	"	"	"	"	"
"	5166-5167	"	"	"	"	"	"
"	5168-5169	"	"	"	"	"	"
"	5170-5171	"	"	"	"	"	"
"	5172-5173	"	"	"	"	"	"
"	5174-5175	"	"	"	"	"	"
"	5176-5177	"	"	"	"	"	"
"	5178-5179	"	"	"	"	"	"
"	5180-5181	"	"	"	"	"	"
"	5182-5183	"	"	"	"	"	"
"	5184-5185	"	"	"	"	"	"
"	5186-5187	"	"	"	"	"	"
"	5188-5189	"	"	"	"	"	"
"	5190-5191	"	"	"	"	"	"
"	5192-5193	"	"	"	"	"	"
"	5194-5195	"	"	"	"	"	"
"	5196-5197	"	"	"	"	"	"
"	5198-5199	"	"	"	"	"	"
"	5200-5201	"	"	"	"	"	"
"	5202-5203	"	"	"	"	"	"
"	5204-5205	"	"	"	"	"	"
"	5206-5207	"	"	"	"	"	"
"	5208-5209	"	"	"	"	"	"
"	5210-5211	"	"	"	"	"	"
"	5212-5213	"	"	"	"	"	"
"	5214-5215	"	"	"	"	"	"
"	5216-5217	"	"	"	"	"	"
"	5218-5219	"	"	"	"	"	"
"	5220-5221	"	"	"	"	"	"
"	5222-5223	"	"	"	"	"	"
"	5224-5225	"	"	"	"	"	"
"	5226-5227	"	"	"	"	"	"
"	5228-5229	"	"	"	"	"	"
"	5230-5231	"	"	"	"	"	"
"	5232-5233	"	"	"	"	"	"
"	5234-5235	"	"	"	"	"	"
"	5236-5237	"	"	"	"	"	"
"	5238-5239	"	"	"	"	"	"
"	5240-5241	"	"	"	"	"	"
"	5242-5243	"	"	"	"	"	"
"	5244-5245	"	"	"	"	"	"
"	5246-5247	"	"	"	"	"	"
"	5248-5249	"	"	"	"	"	"
"	5250-5251	"	"	"	"	"	"
"	5252-5253	"	"	"	"	"	"
"	5254-5255	"	"	"	"	"	"
"	5256-5257	"	"	"	"	"	"
"	5258-5259	"	"	"	"	"	"
"	5260-5261	"	"	"	"	"	"
"	5262-5263	"	"	"	"	"	"
"	5264-5265	"	"	"	"	"	"
"	5266-5267	"	"	"	"	"	"
"	5268-5269	"	"	"	"	"	"
"	5270-5271	"	"	"	"	"	"
"	5272-5273	"	"	"	"	"	"
"	5274-5275	"	"	"	"	"	"
"	5276-5277	"	"	"	"	"	"
"	5278-5279	"	"	"	"	"	"
"	5280-5281	"	"	"	"	"	"
"	5282-5283	"	"	"	"	"	"
"	5284-5285	"	"	"	"	"	"
"	5286-5287	"	"	"	"	"	"
"	5288-5289	"	"	"	"	"	"
"	5290-5291	"	"	"	"	"	"
"	5292-5293	"	"	"	"	"	"
"	5294-5295	"	"	"	"	"	"
"	5296-5297	"	"	"	"	"	"
"	5298-5299	"	"	"	"	"	"
"	5300-5301	"	"	"	"	"	"
"	5302-5303	"	"	"	"	"	"
"	5304-5305	"	"	"	"	"	"
"	5306-5307	"	"	"	"	"	"
"	5308-5309	"	"	"	"	"	"
"	5310-5311	"	"	"	"	"	"
"	5312-5313	"	"	"	"	"	"
"	5314-5315	"	"	"	"	"	"
"	5316-5317	"	"	"	"	"	"
"	5318-5319	"	"	"	"	"	"
"	5320-5321	"	"	"	"	"	"
"	5322-5323	"	"	"	"	"	"
"	5324-5325	"	"	"	"	"	"
"	5326-5327	"	"	"	"	"	"
"	5328-5329	"	"	"	"	"	"
"	5330-5331	"	"	"	"	"	"
"	5332-5333	"	"	"	"	"	"
"	5334-5335	"	"	"	"	"	"
"	5336-5337	"	"	"	"	"	"
"	5338-5339	"	"	"	"	"	"
"	5340-5341	"	"	"	"	"	"
"	5342-5343	"	"	"	"	"	"
"	5344-5345	"	"	"	"	"	"
"	5346-5347	"	"	"	"	"	"
"	5348-5349	"	"	"	"	"	"
"	5350-5351	"	"	"	"	"	"
"	5352-5353	"	"	"	"	"	"
"	5354-5355	"	"	"	"	"	"
"	5356-5357	"	"	"	"	"	"
"	5358-5359	"	"	"	"	"	"
"	5360-5361	"	"	"	"	"	"
"	5362-5363	"	"	"	"	"	"
"	5364-5365	"	"	"	"	"	"
"	5366-5367	"	"	"	"	"	"
"	5368-5369	"	"	"	"	"	"
"	5370-5371	"	"	"	"	"	"
"	5372-5373	"	"	"	"	"	"
"	5374-5375	"	"	"	"	"	"
"	5376-5377	"	"	"	"	"	"
"	5378-5379	"	"	"	"	"	"
"	5380-5381	"	"	"	"	"	"
"	5382-5383	"	"	"	"	"	"
"	5384-5385	"	"	"	"	"	"
"	5386-5387	"	"	"	"	"	"
"	5388-5389	"	"	"	"	"	"
"	5390-5391	"	"	"	"	"	"
"	5392-5393	"	"	"	"	"	"
"	5394-5395	"	"	"	"	"	"
"	5396-5397	"	"	"	"	"	"
"	5398-5399	"	"	"	"	"	"
"	5400-5401	"	"	"	"	"	"
"	5402-5403	"	"	"	"	"	"
"	5404-5405	"	"	"	"	"	"
"	5406-5407	"	"	"	"	"	"
"	5408-5409	"	"	"	"	"	"
"	5410-5411	"	"	"	"	"	"
"	5412-5413	"	"	"	"	"	"
"	5414-5415	"	"	"	"	"	"
"	5416-5417	"	"	"	"	"	"
"	5418-5419	"	"	"	"	"	"
"	5420-5421	"	"	"	"	"	"
"	5422-5423	"	"	"	"	"	"
"	5424-5425	"	"	"	"	"	"
"	5426-5427	"	"	"	"	"	"
"	5428-5429	"	"	"	"	"	"
"	5430-5431	"	"	"	"	"	"

TR5

Dunyuvaig Castle Islay 2019 - Photo Register

CAMERA No./Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# /Direction facing	SCALE used	Name	DATE
SR 350SONY	150 - 153	5001 (5002) (5003) (5004)	VIEW OF TRENCHES FROM WEST		1m X 1m	HODEN + PENG	24/8/19
SR 350 SONY	154 - 157	(5006) (5004)	TRENCH 5 FACING EAST		1m X 1m	HODEN + PENG	4
Canon 70D	8465 - 8470	(5007)	TRENCH 5 WEST CORLESTONE SURFACE/BEACH		1m X 1m	HODEN	30/8/19

TR4

Dunyuvaig Castle Islay 2019 - Photo Register

Fill Aperture ✓
2/3 X shutter speed

CAMERA No./Name	FRAME NOS.	CONTEXT NO.	DESCRIPTION & USEFUL KEYWORDS	SF# /Direction facing	SCALE used	Name	DATE
Canon 70D	4959 - 4963	4001	Subsoil		2m X 2m	S.L.G	16/8/19
Canon 70D	5184 - 5190	(4001) (4004)	HALF OF TRENCH SHOWING SUBSOIL + NATURAL BEACH		2m X 2m	S.L.G	20/8/19