INTERIM REPORT OF ARCHAEOLOGICAL EXCAVATIONS ON THE PITTODRIE ESTATE, ABERDEENSHIRE

SUMMER 2024



Jo Contraction

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Iain Ralston and Colin Shepherd with a report on the 'Pittodrie Bog' by Andrew Wainwright

PROJECT BACKGROUND AND RESEARCH AIMS

2024 saw our sixth season's work on the Pittodrie Estate. The primary aims this season were fourfold. Firstly, to define more of the groundplan of the late medieval/early-modern cottage in Trench 1. Secondly, to investigate the earthworks opposite the cottage on the north bank of the Craigwell Burn. Thirdly, to try to clarify the nature of the boggy area previously sampled for pollen and, finally, to characterise the mound in greater detail. This included the opening of a new trench to accommodate an Inverurie Academy School fieldwork trip. Figure 1 shows the position of the trenches and the layout of the site.

The work carried out this season formed part of the wider Bennachie Landscapes Project run jointly by the Bailies of Bennachie and the University of Aberdeen. More information on the Bailies of Bennachie and this project can be found at:

https://www.bailiesofbennachie.co.uk



Figure 1. Site plan showing trenches and site layout.

THE EXCAVATIONS

Trench 1

Trench 1 was extended eastwards and de-turfed as a 7m x 7m square. The area was initially chosen in order to explore more of the early archaeological features encountered during the 2022 season when they appeared to align with the large 14th- or 15th- century enclosure dyke [AJ] (Shepherd & Ralston, forthcoming). However, owing to the profusion of roots, work progressed more slowly than anticipated, necessitating a change of plan and the concentration of our efforts on a smaller area. We limited our attention to the cottage's east wall [E] in an attempt to establish more of this building's groundplan (Figure 2).



Figure 2. The 2024 extension to Trench 1 showing more of the groundplan of the cottage. The green numbers show spot heights taken in order to record the site in three dimensions

The Cottage

The building's west wall [A] was first uncovered in 2018 and excavated further in 2019 and 2022. Wall [A] appears to have not survived to its full length with stone loss where it approaches the Craigwell Burn. The loss of some building stone here and elsewhere may well be attributed to the re-modelling of the Pittodrie Estate's policies in the early 1800s and the robbing of earlier landscape features. However, the building may also have suffered previous damage during an earlier canalisation and probable realignment of the Craigwell Burn. It was considered possible that this building may have originally continued on the other side of the burn, possibly when the burn had a different alignment. This was suggested by earthworks in that position (but, see below).

The building's south gable-end wall [W] was excavated in 2019, which provided the width of the external wall of 4.9m. The building's east wall [E] had also been partly excavated and known to survive for a length of 3.45m. After this season's work we are now able to determine more accurately the dimensions of this building. There is a gap a part of the way along the east wall where the stone has been robbed, though the main doorway is likely to have fallen within this area. Interestingly, a large stone [ACM], propped up by smaller stones, can be seen nearby, possibly ready for a removal from site that never occurred (see Photo 1). Wall [E] continues thereafter to the projected outside wall-face



Photo 1: The large stone [ACM] in foreground with the old sycamore to the right of frame. (Photo: Iain Ralston.)

alignment with the north gable-end wall [ACN]. At the corner a 'heel stone' foundation increased the basal length of this wall. A similar corner foundation stone [X] was found at the south-east corner of this building. These are common features of old stone buildings across the region. The westward alignment of the inner face of the north gable [ACN] is located at approximately 9.50m from the end of the east wall [E] and, therefore, wall has a thickness the of approximately 0.9m.

A mature sycamore tree has grown directly over the north gable wall (see Photos 1 and 2),

emphasising that this building has been ruinous for a substantial period of time. It is to be anticipated that some stone disturbance has occurred because of these tree roots. One large root can be seen following the outside gable wall westwards before making a ninety degree turn (see Photo 2) and continuing along this new course southwards along the inner face of the building's west wall [A]. It is quite likely that this root came upon an obstacle and found an alternative route between the foundation stones, displacing them as it did.

To conclude: the length of the west wall [A] to the tree root bend is approximately 10.55m with the east wall wall [E] having a length of approximately 10.40m. The building's south gable-end [W] width was found to be approximately 4.90m. The north gable-end wall [ACN], along the outside face, was found to measures approximately 4.85m to the turn in the tree root. In spite of the ruinous condition of this building and further complications created by stone removal and deposition, enough evidence has survived to determine the building's dimensions quite accurately.



Photo 2: Sycamore tree with right-angled root growing between the archaeology. (Photo: Iain Ralston.)

Context Discussion

Context (700) covered the whole area and represents the natural build-up of vegetable matter that has accumulated since the site was largely abandoned around the turn of the 19th century. This soil was found to consist of fine, soft dark material to heavy loam depending on the amount of water retention. This was variable owing to tree cover. From the excavators' point of view, the greatest difficulty in excavating this area was caused by the profusion of roots. These, as discussed, have clearly dislodged some of the building's stones. A further difficulty was caused by the profusion of smallish stones that may have occurred as a result of a number of factors: the demolition of the walls of the building's walls; from the disruption of the building's floor; from material thrown up during the maintenance of the Craigwell Burn; from clearance stones thrown onto the site of the building. Obviously, this could only have occurred if the building had fallen out of use prior to that. Similarly, the original canalisation of the burn could not account for the stones if that had occurred whilst the building was still in use.

Context (975), beneath (700), lay next to the Craigwell Burn and consisted of a pile of stones. These were possibly cast-up during one of, perhaps, several maintenance scourings of the burn, though tumble from the robbed cottage walls may also have resulted in the accumulation of some of these stones.

Trench 10	
(See Figure 3)	



Figure 3. Showing all features in Trench 10 with the 2024 extensions on the right hand side. This shows the extent of the burnt material related to the cleaning of the kilns and the small possible post hole [ACJ].

The east end of Trench 10 had not been completely excavated in 2023. This was finalised this year, along with a further extension to the south. Two distinct periods of site activity were seen along with a possible intermediate one. The most recent was the 19th-century disturbance previously observed

overlying the kilns in 2022. Prior to that, little was noted between then and the period of kiln usage in the late 16th or early 17th centuries, apart from the possible feature [ACJ]. Excavation was complicated by extensive animal burrowing through the softer, redeposited soils as well as the extensive roots of the mature beech trees. These restricted the area it was possible to excavate. Nothing could be seen of a hoped-for prehistoric phase, hinted at by previous work. It is assumed that the 'industrial' use of the mound for the kilns resulted in the removal of all but ephemeral traces from that period.

The 19th-century disturbance was extensive and indicates a lot of landscaping in the early 1800s (or, possibly, very late 1700s). It is likely that the 'Turnpike' was enclosed by the drystane dykes at this time and, during that process, spoil from the routeway was piled on top of the mound. This would account for the deposits of early sediments overlying later ones noted in the OSL results (Shepherd & Ralston, forthcoming). A number of fires had also been lit at this time, probably prior to the planting of the area with policy woodlands thereafter. It is likely that broom and gorse needed to be cleared prior to this 'gentrification' of the landscape. These ashy 19th-century layers appear to go down to the base of context (978) and seem to have been deposited down the mound's side and sealed by the charcoal-rich layer (794). This blended with context (720) (see Figure 4) that, previously, had been seen to represent the debris from the removal and destruction of the uppermost parts of the stone-built kiln, again, in the early 19th century.



Figure 4. Showing section 67 (top) and section 68 (bottom) with the various contexts as described in the text.

These 19th-century deposits overlay some sandier deposits that sealed the underlying burnt material (816) spread when cleaning out the kilns. Within these layers was the collection of stones [ACJ] that enclosed a deposit of brown soil. These stones may represent packing for an upright timber. These deposits (797 and 980) also appear to have been deposited down the slope and may represent a period of flattening of the top of the mound after the kilns fell out of use. Other slight accumulations of stone accrued to these layers but could not definitely be interpreted as structural.

Below these were the burnt deposits representing the working landscape of the kilns. As the kilns were cleaned out after use, the burnt remains of the fires were scattered around the area, resulting in the extensive burnt remains found in the trenches (see Figure plan). These deposits overlay the natural ground surface, which suggests a scouring of the top of the mound prior to the construction of the kilns. Obviously, flammable material would not be wanted close by because of the fire risk.

Finally, underlying all of these deposits was a coarse sandy context (981). This was, presumably a naturally-leached soil that had been cleared from the top of the mound prior to the ground preparation for the kilns. This was covered by the suspected prehistoric sand (791) on the west side of Trench 10 but was, sadly, absent from this extension, possibly having been mixed in with the leached soil and, thus, leaving no trace. It is suggested that further attempts to locate this early phase would not warrant the time expenditure, especially with so much other surviving archaeology awaiting discovery across the site.

Trench 19

(See site plan Figure 1)

Trench 19 was opened to accommodate Inverurie Academy's student fieldwork day prior to the start of this season's main dig. The area chosen was on the slope of the mound over a break in slope that, further west, is marked by a stone feature, previously recorded in Trench 2. It was hoped that the youngsters might find more of this structure continuing around the mound northwards.

The school fieldwork day proved to be a great success with the youngsters, who wished to stay longer. Archaeologically, little progress was made with only the leaf litter being partly removed to expose the upper soil below. However, the work confirmed that the stone feature did continue northwards around the mound, albeit in a very ruinous state. Further work is required to try and characterise this feature and to understand its purpose.

Trench 23

(See Figure 5, plans 45 & 56 combined]

Trench 23 lay across the Craigwell Burn from the building in Trench 1. A linear feature had previously been noted through prospective fieldwork informed by a LiDAR survey. During the 2022 season some initial clearing of the area showed what appeared to be the lower part of a drystane dyke that became increasingly ruinous as it drew near to the Craigwell Burn. This season clarified many aspects of this feature.

Excavations showed that the dyke [ACB] formed a right angle with another, more denuded, dyke [ACK]. In other words, these dykes formed two sides of an enclosure. The soil level east of [ACB] was much lower than to the west. This would indicate soil had been washed down the slope from above and built-up against the dyke, forming a lynchet. The soil was a rich, humic loam with occasional small finds of 19th- and 20th-century date but, generally, stone-free.

At the south end of the dyke, where it met dyke [ACK], the incidence of stones increased. In fact, deciphering the stones of dyke [ACK] amongst the scatter of material along its course was difficult. The density of the small- and medium-sized stones has led to its designation [ACL] as a possible separate feature, possibly a cobbled path or working surface (Photo 3). Moreover, the construction of dyke [ACK] appears to have been of a much lower quality of workmanship than [ACB]. However, this may simply be a function of differential survival. The area where both dykes meet was, unfortunately, badly damaged making it impossible to determine any chronological sequence or their respective relationship. Examination of the ground suggests that the dyke [ACK] extended further up the hill.

A large stone [ACO], lying on the bank of the burn appears to have no structural purpose. It may simply have been found to be too cumbersome for the stone-robbers of the 19th century and simply left where it was dumped. Alternatively, it may, at one time, have stood upright as a standing stone.



Figure 5. The structures forming the corner of the enclosure lying across the burn from the cottage.

The enclosure formed by [ACB] and [ACK] may either have been part of a small 'kailyard' associated with the cottage across the burn or, alternatively, it may have been the south-east corner of an enclosure - small field - forming part of the Craigwell tenancy. Its position on the other side of the burn from the cottage, as well as its size (much larger and longer than the usual kailyards noted on estate plans) may suggest the latter, though the former must remain a possibility. The apparent alignment of [ACB] with the layout of the cottage may be used to support the alternative argument. Section 63 shows the east-face of this well-made dyke [ACB] with its southern end having been badly robbed.

Section 64 (Figure 6) shows the garden soil (972) spilling over the dyke after its upper courses had been robbed. Beneath this was a soil layer (986) and, below this, an inorganic soil (976). (976) may be the natural post-glacial soil or a leached soil, as seems to be a common occurrence across the hillside. Stones within the internal soil profile may have accrued during the dismantling of the dyke. However, that would mean subsequent downwash occurred to bury those stones. As the dyke is presumed to have



Photo 3: Feature [ACL] lying to the right of the ranging rods. The density of stones is in marked contrast to the area left of the central ranging rod. The top of the dyke [ACB] can be seen to the left of the stone-free patch. (Photo: Iain Ralston.)



Figure 6: Section 64 showing the garden soil falling over the derelict dyke [ACB] and covering the underlying soil (986).



Photo 3: Dyke [ACB] with the tumbled stones [ACH] below and in front. (Photo: Iain Ralston.)

been dismantled in the early 1800s, as the present woodland was being of taken out agricultural production, it is hard to see how that might have occurred. It may be suggested that there had been an earlier phase of partial dereliction/ wear and tear of the dyke before it repaired and ploughing was continued to bury the residual stones. A sondage, opened at the of end trench north 23. demonstrated that the dyke [ACB] was placed on top of soil (976).

The presence of the soil (972) outside the enclosure is considered to have occurred during and after removed. the dvke was The underlying soil (986) would have been the ground level whilst the dyke was functioning, as shown by the presence of fallen stones overlying this horizon (see Photo 4). The soil (986) was quite thin and this low-lying position adjoining the burn would have meant that, prior to the canalisation and deepening of the burn, it may well have been flooded during wet weather. (Although, as noted above, the original nature of the burn is presntly ill-understood). As pure speculation, it might be noted that a thin soil beside the burn may have been enriched by nutrients during floods. Water running over grass stops it freezing. Once the waters had drained, such ground would provide an early bite for stock. Such was the purpose of water meadows, which could take a variety of forms. This may have been a simple version of a type that can be evidenced widely across the Northeast in pre-19th-century contexts. (cf. Shepherd, 2021, 58-64). In summer times it would also have provided a very serviceable, grazed drying green.

The Pittodrie 'Bog' (Figures 7 and 8) Trench 21

The topmost layer of the bog is the living turf (983). Below this is a thick layer of peat (982) that has accumulated through time as the vegetation has died and rotted. Within the lower part of the peat was noticed what appeared to be upright stakes. These continued down and were embedded in the underlying thick clay (932 and 933). A collection of stones [ACE] suggested the former existence of a stone feature running along the line of a putative bank [ACS]. These stones were also contained within the clay and the overlying peat, indicating the probable growth of the peat around the stones. It is still to



Figure 7: Trenches 21 and 22 showing position of the stone and wooden features.

be determined whether the wooden remains reflect stakes driven into the ground or simply roots. Their coincidence with the line of the possible bank and the stone feature suggests the former, though further ecofact analysis is required to verify this suggestion

Trench 22

The story with Trench 22 mirrors Trench 21. A discrete that of collection of stones [ACI] and wooden remains [ACP] were contained within the clay and peat and, likewise, seem to follow the line of a suggested bank [ACS]. Sealed by the peat (982) on the uphill side of the stones [ACI] was a soft, grey sandy clay with gravel consistency (885). On the downhill side of [ACI] the peat sealed (886), which was noted as a soft, pale

brown sandy clay with some gravel and of a different consistency to (885). Beneath (885) lay a slightly firmer layer (887). The relationship between these contexts requires further work.



Figure 8: Sections 59 and 66 showing a cross-section down the explored length of burn.

THOUGHTS ON THE 'PITTODRIE BOG' by Andrew Wainwright

These excavations were carried out down the burn through the middle of the Bog over two marked changes of slope, which were thought to indicate underlying features. No definite stone-built masonry structures were seen but indications of pre-existing features were discovered. Figure 7 shows a plan of Trenches 21 and 22 that were ultimately joined.



Figure 9: Location of the probe holes against a 4 metre grid.

In Trench 21, at a shallow depth, a rumble of stones were found, one of which had adhering to it a yellow clay. This is very unlikely to have survived any amount of transport by water and is reminiscent of a bonding matrix observed elsewhere locally. This may indicate the proximity of a structure. In both Trenches 21 and 22 collections of stones were seen that were more concentrated than elsewhere and may, arguably, be the remains of stone-built structures containing a large amount of sandy clay matrix. It could have been that the excessive amount of matrix was needed to ensure the structure would hold water; with stakes being there to ensure cohesion and integrity. Nowhere did it look like coursed masonry.

In the south-west corner of Trench 21 many wooden stakes were seen. These were initially thought to have been laid out in a roughly rectangular pattern with a 20-30 cm side, some vertical and others at an oblique angle. It was conjectured that they formed a structure in which stones and a sandy clay were packed (like modern 'rip-wrap'). However, this argument became less tenable

when, subsequently, many more stakes were found outside of the original concentration. Furthermore, some stakes were found which were either forked (pointing upwards), severally-kinked or apparently growing around stones. These do not look like stakes pushed into soft clay to contain a structure. It is possible that they were originally cut stakes that took root after being implanted. Professor Iain Alexander of the University of Aberdeen suggested it might be possible to determine this by cross section examination, but he was not overly optimistic.



Figure 10: Plot of sandy layers in the peat.

Figure 8 shows a section down the length of the burn examined. Above [ACE] and [ACG] the top of Context (933) - a sandy clay - is flat and essentially horizontal. In an unconstrained environment this is geologically unlikely. It is likely that the level was set by a structure with water ponded up behind it which subsequently filled with the sandy clay until it was full and level. To further investigate this, the peat was probed with a section of broom handle with a flat end at regular intervals along lines between grid points and depths where resistance was felt were recorded (see Figure 9). These zones of resistance are probably represented by this layers of sandy clay similar to Context (933) in Section 59. All levels have been plotted on Figure 10 where it can be seen that there

are probably eight such sandy layers, although only a few occurring in a single hole. The layers are all roughly horizontal, bearing in mind the inherent inaccuracies of the method.

Trench 21 bottomed in a pale grey clay, Context (887), which is smooth between the fingers and very hydroscopic; it takes up water very easily and becomes almost liquid. It was further investigated with the soil auger down to about 1m depth. A preliminary profile of these holes is given on Figure 11. In all the holes the top



Figure 11: Preliminary profile of sample holes.

was of soft grey clay but more sandy than seen at the surface. This passed down into an ochre sandy clay, again with a roughly horizontal contact.

Conclusions

Although no proof of a masonry structure has been seen, it is felt that there is enough other evidence for the presence of one or two features which have dammed up the flow of the burn. These were possibly stone-cored with a matrix of a man-made sand and clay mix, with stakes to provide further rigidity. During the life of the

resulting flooded area, sand and clay washed down and filled the deepest part with a horizontal upper surface. Peat subsequently developed on top of this, but were of a very localised extent.

During the digging nothing has been seen to date the events seen. However it is hoped that C14 dates may be obtained from the stakes which pre-date the peat and, possibly, the youngest sandy clay.



Small finds and Samples

Photos 4 2 5: Pre-modern pottery on the left and 19th-century ceramics on the right. (Photos: Iain Ralston.)

The small finds are shown in catalogue form as Appendix 3. The following is a brief synopsis of the artefacts and their contexts.

Trench 1:	
Unstratified:	Shotgun cartridge
(700):	Pastic shotgun cartridge, 3 sherds of pre-modern pottery, 19th-century pottery, coal, clinker, slag, green bottle glass, spirit glass, walking stick ferrule?,
Trench 10:	window glass, slate, bead, metal disk, tile with white glaze
(908):	Iron object.
Trench 19:	
(985):	19th-c pottery sherds
Trench 21:	
Unstratified:	19th-c pottery sherds, green bottle glass; slate fragments; window glass
Wood/Stake Samples:	5 samples taken (Sample nos. 70, 78, 79, 80 and 81)

Trench 22:	
Unstratified:	19th-c pottery sherd, grey sandy clay sample, glass bottle
(982):	Green bottle glass
Trench 23:	
Unstratified:	Metal object
(972):	Green bottle glass, clear window glass, 3 sherds of pre-modern pottery,
	19th-century pottery, lump of metal, shotgun cartage, slate.

FURTHER INFORMATION

A more detailed report of all work carried out on the Pittodrie Estate up to 2024 can be found in a forthcoming book, 'Cultural Landscapes of North-east Scotland, Collaborative Research in History and Archaeology' sponsored by the Bailies and published by Oxbow Books.

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Appendices

A high resolution pdf copy of this report, along with a complete inventory in XL format, of Contexts, Features and Small Finds can be found at:

www.bailiesofbennachie.org.uk/bennachie-landscapes-project

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Read the previous 'Pittodrie Estate Excavations' interim reports online at:

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