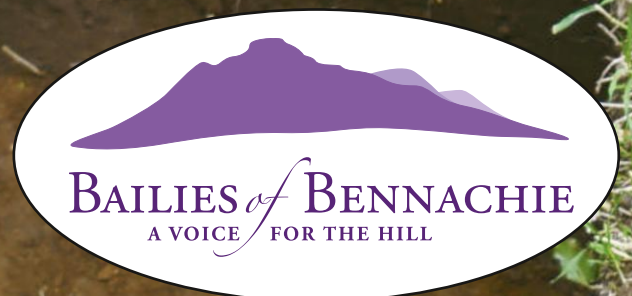


INTERIM REPORT OF
ARCHAEOLOGICAL EXCAVATIONS ON
THE PITTODRIE ESTATE, ABERDEENSHIRE

SUMMER 2023



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Iain Ralston and Colin Shepherd

PROJECT BACKGROUND AND RESEARCH AIMS

2023 was the fifth season of work on the Pittodrie Estate. Primary aims were to explore further the structural features previously identified in Trench 9 and to determine the purpose of the features found earlier on the mound in Trench 10. It was hoped that this might add to our greater understanding of the development of this small area of landscape that straddles the ecological divide between the lower farmed landscape and the uplands of Bennachie. This work forms part of the wider Bennachie Landscapes Project run jointly by the Bailies of Bennachie and the University of Aberdeen. Previous reports can be downloaded from either of the sites below and these provide further background data to this present report.

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

Generous funding from the Bailies permitted the use of Optically Stimulated Luminescent dating techniques (OSL), carried out by Tim Kinnaird of St. Andrews University. As well as sampling Trenches 9 and 10, a number of other test pits were opened in order to utilise the technique to date specific features across the site. During the course of the investigations, it also proved necessary to carry out certain environmental analytical work. This was organised by AOC and also kindly funded by the Bailies. Ed Schofield from the University of Aberdeen added further to the environmental studies by taking two pollen cores from the suspected mill pond adjacent to the 'mound'. This had been mapped earlier, using an augur, by Andrew Wainwright. The findings from these specialist reports will be published separately in greater depth. This report is simply an interim statement of the groundworks carried out this summer with initial observations. Figure 1 shows the site with this year's areas of activity marked by red circles.

THE EXCAVATIONS

The two main excavation trenches will be described first, followed by the 4 test pit locations for the OSL dating.

TRENCH 9

This season's work aimed to try to learn more about a linear stone feature recognised in 2021 (Ralston & Shepherd, pp. 6-9). This structure sealed a deposit from which came a piece of alder charcoal, dated by C14 to the Iron Age: 551-404BC at 95% probability (SUERC-101066). Trench 9 was extended several times in order to try to understand this and other features that came to light as the excavation progressed.

[AS] was found to continue southwards, though surviving only as a basal course of stones, before seeming to swing westwards for a short stretch before apparently stopping (see Photos 1 and 2). Trench 9 was then extended a further 3m westwards in the hope that [AS] might reappear (see Figure 2)

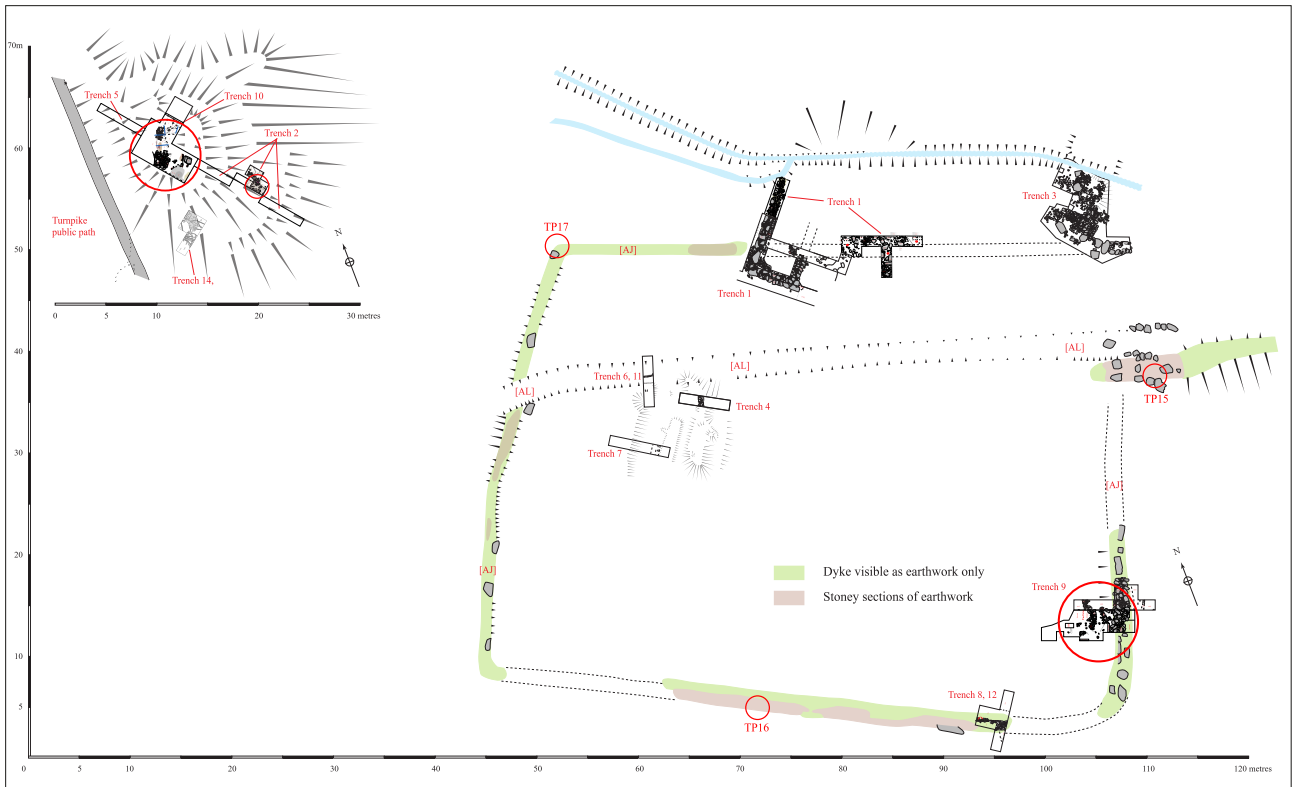
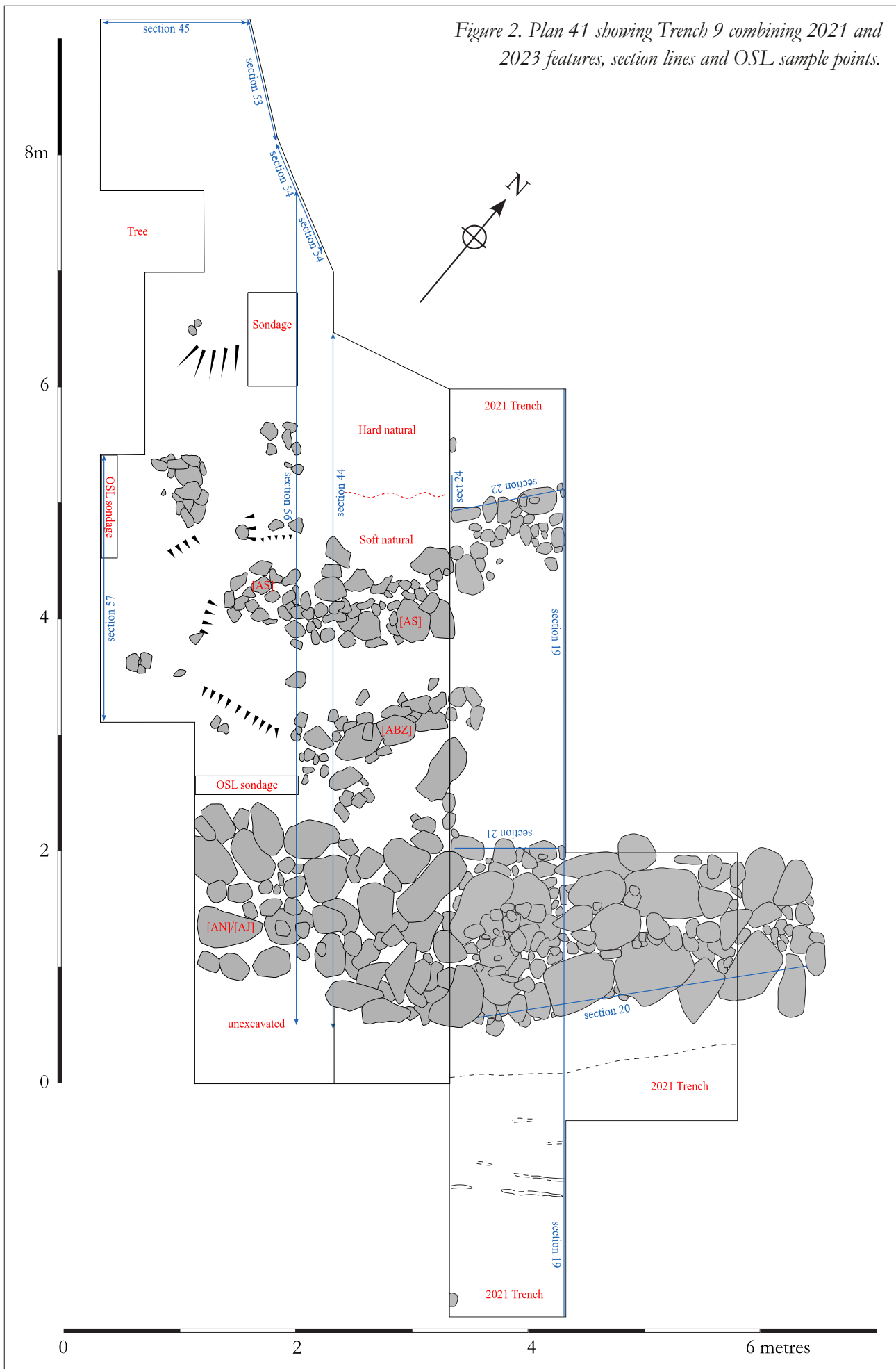


Figure 1. Site plan with 2023 interventions highlighted with red circles.

An increased concentration of disarticulated stones was found in this general location, though any continuation of the feature must be viewed as merely speculative. But, it is pertinent to note that a number of late medieval pottery sherds were recovered from low down within context (780) from the area directly west of [AS], possibly displaced from (792) by later ploughing (see Figure 3, Sections 44 and 56). Arguably, if there was ever an 'outside' and an 'inside' to this structure, these finds would have been 'inside' - (805) being absent to the east side of feature [AS]. Alternatively, (792) may represent a downwashed agricultural soil, accumulated behind [AS]. If the late medieval sherds were from the interface of (780) and (792), they may suggest a date for that soil deposition. It is worth noting that the depth of this soil possibly argues for its interpretation as a plaggen soil - a soil that has been brought in from elsewhere to enhance the agricultural value of the land - and the sherds may have arrived from



Photos 1 and 2. Feature [AS] in Trench 9.



p.7). A further feature [ABZ] was uncovered but, again, survived only at its basal stone layer. It is suggested that the small stone setting [AV] uncovered in 2021 reflects part of the terminus of [ABZ]. The small feature [AZ] is thought to have been no more than a simple tumble of stone arising from some destruction episode.

A consideration of the deposits shown in Figure 3 supports the notion that the interior of the large enclosure was enhanced by the introduction of soil from elsewhere - a 'plaggen' soil, as noted above. This is the substantial deposit (780) that underlies what may be a cultivated soil (769). (780) is the only deposit to seal all of the underlying features, including [AN], suggesting the latter to have possibly fallen out of use whilst the area was still under cultivation or an accumulation falling in as the wall was being dismantled. (LiDAR and historical data suggests agriculture continued on the site until around 1800.) A further deposit (768), recognised in 2021 as covering [AN] was not identified this year and may represent an isolated deposit. As in 2021 a possible subdivision of (780), (786)/(780), lying between [AS] and [AN], was suggested but could not be confirmed by eye. The two drawn sections - 44 and 56 - are only a narrow (300mm) baulk away from each other, but are useful for corroborating each other. Also, section 19, excavated in 2021, was also only approximately 2 metres from these sections and provides yet further support for the findings.

Features [AN] and [AS] are clearly separated by some time period and are seemingly independent of each other. [ABZ] may belong to either or neither of these periods, though its orientation appears to align with [AS] rather than the, presumably, later [AN]. [AN] is a fairly substantial structure - whilst [AS] and [ABZ] appear much less robust. [AS], [ABZ] and [AN] all appear to have been built directly upon (811), presumably after having first removed any overlying soil. (811) is thought to represent an eroded/weathered geological pan that tends to soften very quickly on exposure to the elements.

TRENCH 10

Trench 10 is an amalgamation of previous Trenches 5 and 10. The 2021 excavations had given a tantalising glimpse of a late medieval structure that remained ill-understood (Ralston & Shepherd, 2021). Trench 10 was, therefore, extended westwards across the line of the not fully-excavated Trench 5 (Ralston & Shepherd, 2019) so as to encompass a larger area in order to try to recover the complete ground plan of the structure. This turned out to be a wonderfully-preserved late medieval, stone-lined grain-drying kiln and an earlier, simpler earth-cut version (see Photo 4).

Briefly, these structures were, at the time these kilns were built, communally-used for the drying of grain for the purposes of malting, storing or milling. A fire was set outside the kiln but connected to it by a flue. Heat from the fire would be drawn through the flue to an area beneath a drying floor, on which the



Photo 4. The stone-lined kiln on the right of the image with the earlier kiln showing black against the yellow sand into which it was cut.

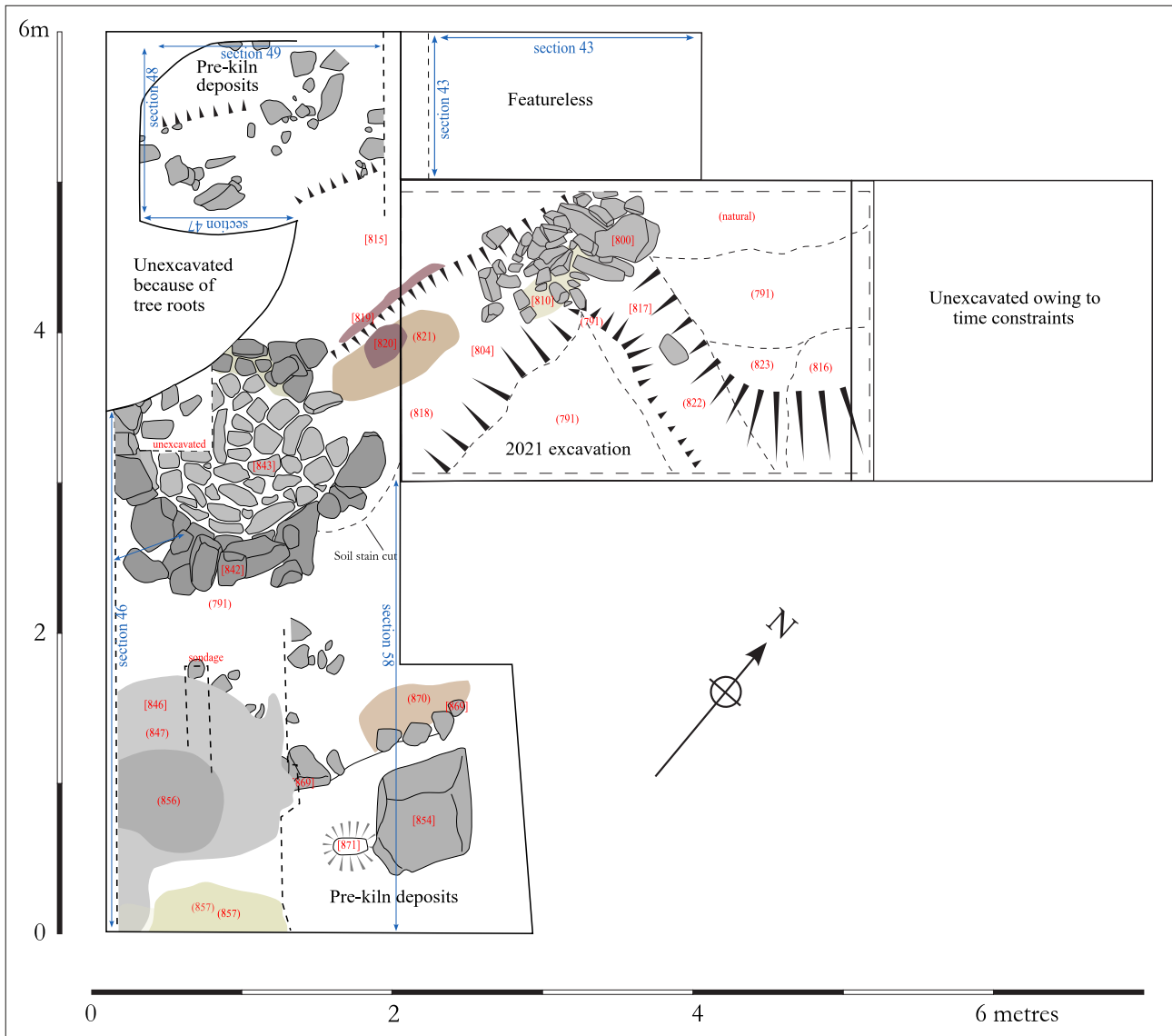


Figure 4. Plan of Trench 10 showing composite view of all features, including those found in 2021.

grain was laid. The floor might be made from timbers covered with sacking, reeds or straw. The smoke would exit via a hole in the kiln roof which usually comprised a domed wattle and daub structure. Clearly, sparks entering this chamber might ignite the whole kiln and destroy the crop as well as the kiln. Such occurrences were quite common, based on the archaeological recovery of many such sites. For this reason, kilns were usually sited a little distance from habitations. This was presumably the case here, with the kilns serving the scattered farmsteads noted in an estate rental of 1636 (MS 3043-70) clustered around the 'mound'. One interesting feature with the Pittodrie stone-lined kiln was that its flue appears to have undergone a redesign in which it was shortened (see below). Possibly the longer flue, though considered safer, failed to transmit enough warm air to dry the grain properly. (For a more complete discussion about the history of grain drying kilns, see Shepherd, 2018.)

But, to return to the excavation of Trench 10, the kilns were not the only features of note, though they are the easiest to characterise (see Figure 4). In the north part of the trench was a confusing sequence of deposits. The upper ones appear to relate to general ground disturbance during the enclosing of the Turnpike and the laying-out of the policies of Pittodrie House, which are presumed to have occurred in the early part of the 19th century. The lower deposits seem to be referenced in the southernmost part of Trench 10. In this area, clearly preceding the construction of the kilns, are deposits that may well have their origins in the late Neolithic or early Bronze Ages. A sherd of pottery

from that period was found part-way down the side of the mound in the 2019 excavations and, of course, the enigmatic, possible neolithic 'sun-stone' was found as a secondary deposit amongst the debris of the kiln during the 2021 season.

Figure 4 shows an area lying east of the 2021 excavations. This was begun but not fully excavated this year owing to time constraints. It is hoped to be able to return at a later date and complete this part of the trench. To the north of the 2021 excavations, the area was found to be completely sterile down to the geological deposits. For the purposes of this report, Trench 10 will be treated in three parts: the northern section, the middle section with the kilns and the southern part that contained earlier archaeological deposits. The trench can be seen to have had three main periods of activity with little intervening evidence. The earliest appears to be prehistoric. Nothing was discovered post-dating this period until the use of the mound as a site for the kilns in the late medieval. Subsequent to that, the site was abandoned until the early 19th-century landscaping activities. Obviously, the excavations comprise a very limited area. However, this does coincide with the top of the mound - itself a small area. It is suggested that the three phases of activity recognised probably provide an accurate snapshot of human utilisation of the site for structural purposes. However, it obviously provided an ecological resource for peoples throughout its long history.

Trench 10 North.

Figure 5 shows three sections (47, 48 and 49) recording this portion of Trench 10. (839) is to be seen as a very mixed layer resultant upon 19th-century landscaping of the area. This included the enclosing of the Turnpike adjacent to the site as well as ground preparation ahead of planting the estate policies. The beech trees across the area and the drystone dykes are remnants of this landscaping episode.

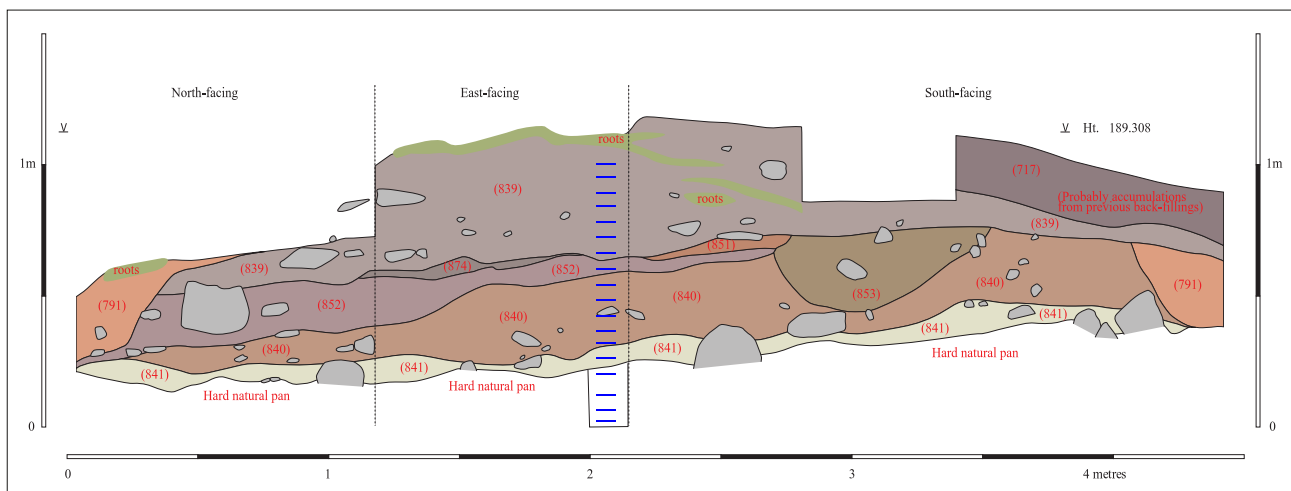


Figure 5. Composite section showing three sides of the northern part of Trench 10 with OSL sample points.

The portion of (791) overlying (839) in the north-facing section is probably the result of disturbance and a redepositing of this lower deposit on top of a later deposit during the 19th century. In effect, the stratigraphy has been reversed, with the oldest soil on top of the youngest. In the south-facing section (791) is sealed by the later deposit (839) in the correct order. (852) and the thin, interleaved deposits between it and (839) may also be 19th-century products. (See Photo 5.)

(840) appears to have been the earliest soil developing above the geological pans (841) and a harder underlying pan. In the south-facing section this may be seen to have been cut and in-filled by (791). This may relate to an archaeological episode recognised throughout Trench 10. (791) is a bright orange, very clean sand and does not appear native to the site. It appears to have been brought in for some unknown purpose. This will be returned to below in the discussion on the southern part of Trench 10. At some point in time, (840) was dug into and filled by a later deposit (853).



Photo 5. The very colourful deposits in the north part of Trench 10.

fire, just outside the stoke-hole to the kiln. The edge of the hollow itself was burned red by exposure to the fire. It may be that the flue was originally designed to be longer in order to minimise the risk of fire in the kiln but was found not to have supplied enough warmth to dry the grain efficiently. Hence the remodelling of the flue into a shorter style. The purpose of the perpendicular hollowed trench [817], discovered in 2021, remains elusive. It was filled with a dark deposit very rich in charcoal and other burnt matter.

The stone-lined kiln was dug into the bright orange sand (791) (see Figure 7, Section 46). Its wall and cobbled floor were all bound very securely with a dense clay, resulting in a very well-made and rigid structure. Soil creeping between the cut deposit (791) and the kiln wall [842] resulted in the fill (865). It

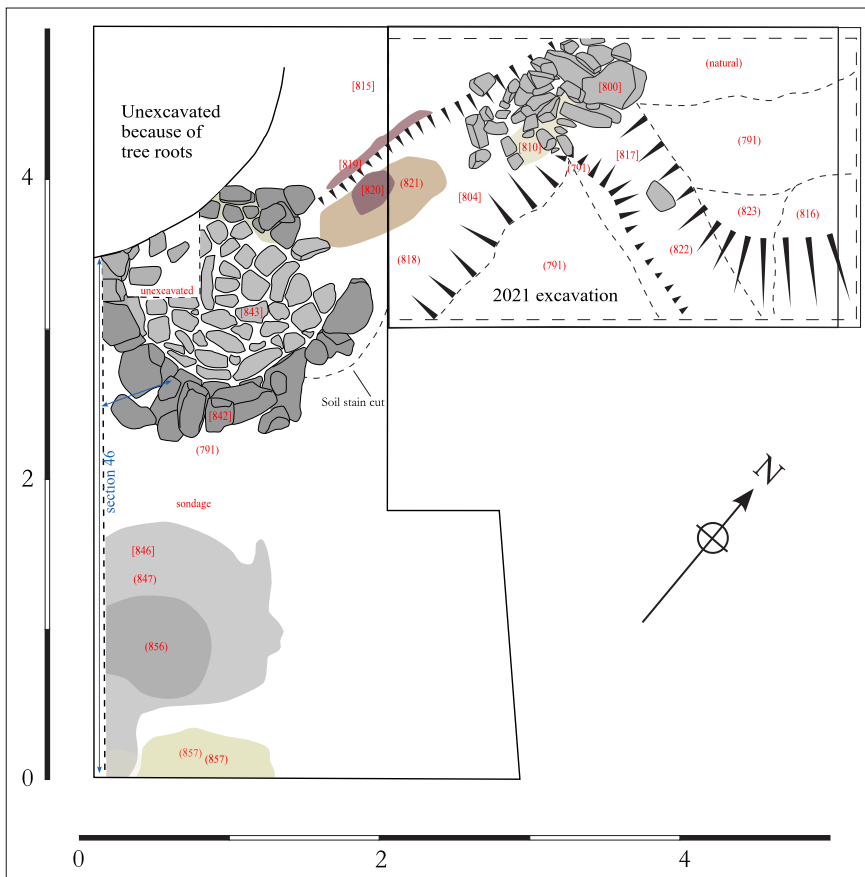


Figure 6. Showing the plan of two kilns, including that part revealed in 2021.

The Kilns.

Figure 6 shows a composite plan of the kilns along with the 2021 excavation of the long flue. It seems fairly certain that the hollow [804] was intended as the line of the flue for the kiln. Its eastern end was marked by a concentration of tumbled stone [800], within which was found worked, re-used masonry and the fragment of the possible 'sun-stone'. However, the burnt deposit [820] appears to have been the final focus for the

fire. It is likely that the kiln remained as a landscape feature until its removal in the 19th century. The few finds from (720) would not have been out of place in a 19th-century context and clearly did not precede that period. (720) is presumed to be identical to (839), discussed above in relation to the north part of the trench. Within (720) were found many lumps of stone and thick clay, identical to that recorded as bonding the stones of the kiln. (751) appears to be a large, compacted deposit of this clay. This further suggests that the structure was finally removed in the 19th century. On the floor of the kiln was a densely compacted burnt layer, rich in charcoal. This had to be

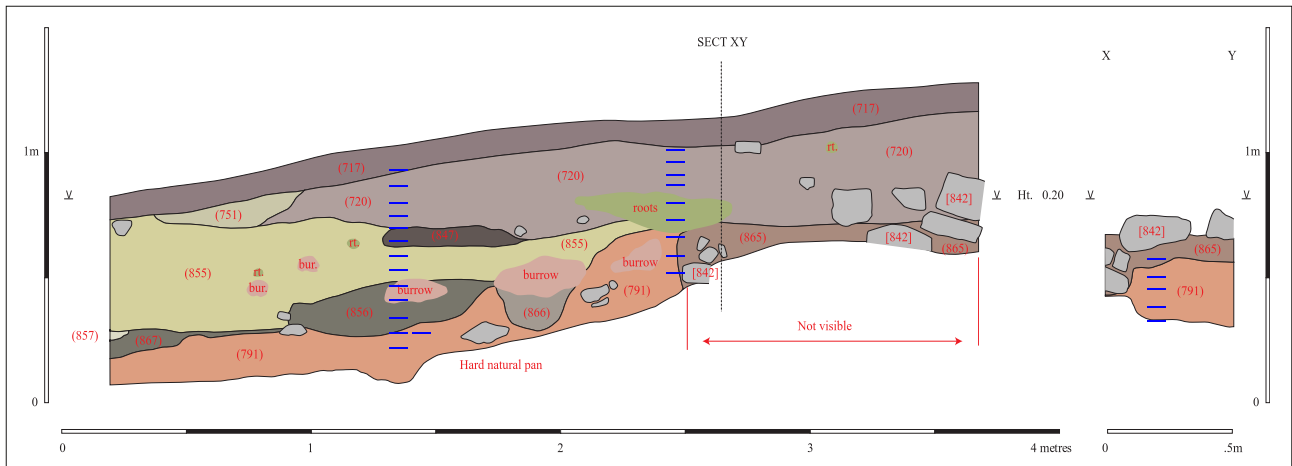


Figure 7. Section through earth-cut kiln with stone-lined kiln to the right along with OSL sampling points. The extra small section on the right is that shown adjoining the longer one on Figure 6.

physically chipped from the underlying cobbles and samples sent for analysis.

Underlying (720) was a soft grey soil (855). This had the feel of deriving from burnt turf, or something similar. Between the two was a ring of burnt material (847) that appeared to surround the kiln. This is interpreted as the residue from the fires used to heat the kiln that were simply scattered around the perimeter of the kiln. Beneath (855) was found the remains of an earlier kiln made solely of organic materials, the destruction of which appears to have resulted in the deposit (855). Photo 6 shows both kilns undergoing excavation. This second kiln was also dug into the soft sand (791). The fill of the bowl of this kiln comprised a black, burnt deposit that was also sampled for analysis. The depth of this deposit suggests that the kiln met its fate in a fire and was superseded by the stone-lined kiln. The burnt deposit (867) stretch southwards from the bowl suggests this may have been the flue of the kiln. If so, the stone-lined kiln was re-oriented in a different direction to the earlier kiln. The fate of the first kiln might also have led the builders of the subsequent kiln to be more safety-conscious - hence the attempt



Photo 6. Both kilns undergoing excavation. It can be seen how both were dug into the bright, underlying yellow sand.

to provide it with a longer flue facing another direction. The southern direction of the earlier kiln on the north-east slope of Bennachie may have resulted in the prevailing westerlies gusting around the hill and up the southern-facing flue. An easterly orientation would certainly lessen the chance of that happening.

Trench 10 South.

Figure 8 shows the pre-kiln deposits found in the southern part of Trench 10 and Figure 9 shows Section 58 along the edge of the trench. The most noticeable feature in this part of the trench is the large stone [854]. Its context suggests it to have arrived by human agency and other features of its location suggests it forms part of a structured deposit. [871] is a cut hollowed into the natural hard pan and may well have functioned as a socket for supporting the stone upright. Alternatively, the pan may have accumulated around the upright stone through time (see Photo 7). (The mechanism of such pan formation also forms a part of this research project and it is hoped that the OSL results may shed light upon this process.) Moreover, the

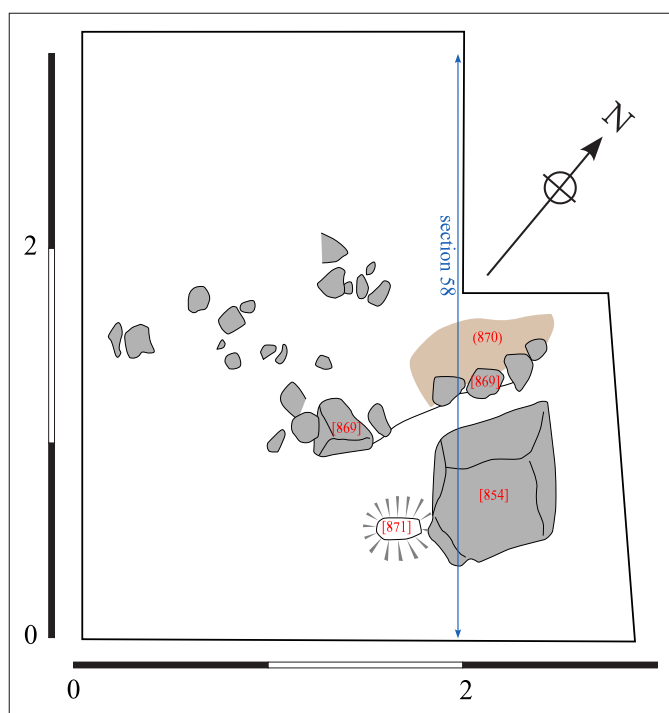


Figure 8. The southern part of Trench 10 showing the possible 'orthostat' and socket.

bright orange sandy deposit (791) - considered to have been imported - stops at the stone and does not extend further south. Finally, a line of small stones [869] - disturbed where the later kiln was dug through them - appears to define the line where (791) stops (Photo 8). As has been noted above in consideration of the north part of the trench, (791) does not appear to extend further in that direction. Taking all of this circumstantial evidence together leaves us with: an imported, clean sandy deposit covering the top of a small mound, possibly defined by a setting of small stones and one larger stone that may have sat in a socket. Just below these features was found a small sherd of late neolithic or bronze age pottery. Arguably, if the 'sun-stone' is what it has been suggested, i.e. a late neolithic object, this adds to the picture.

Further excavation is required to understand the nature of these deposits more fully and the eastern part of the trench -

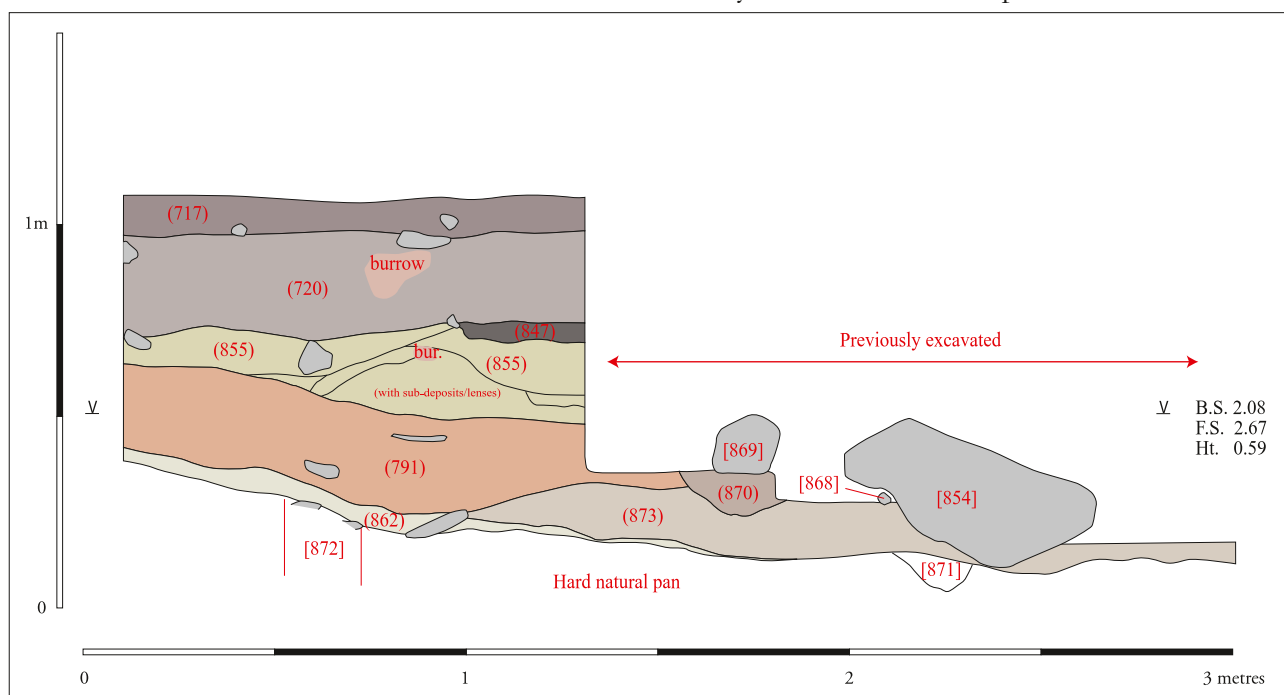


Figure 9. Showing section through the possible orthostat [854] and its suggested socket [871].

abandoned due to time constraints - may help in our understanding of them. With reference to the clean sand on top of the mound, one of the authors has witnessed a similar deposit within a small, late neolithic ritual monument just outside Huntly. Such small monuments evade discovery simply because of their unpretentious nature. The Huntly example was a very complicated monument, suggested to have been for the use of a small family group.



Photo 7. Showing the possible socket for the orthostat to the right of the white portion of the ranging pole.



Photo 8. Showing the line of small stones with associated possible orthostate coinciding with where the yellow sand lenses out.

OSL TEST PITS

Test Pit 15 (Figure 10, Section 51)

This was focussed upon a group of large stones, some of which appear to form a secondary stone dyke associated with the enclosure, located on its north-east side. Some of the stones seem to align on both sides of the hollow-way [AL] that cuts the enclosure dykes. It is possible that this part of the hollow-way follows the original entrance into this enclosure. It is unknown if any of those stones remain in situ as part of the enclosure's original design or are subsequent additions.

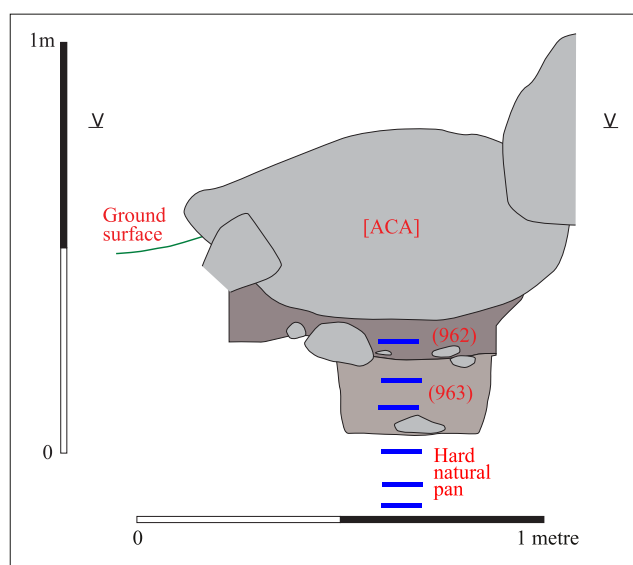


Figure 10. Test pit 15 with OSL samples points.

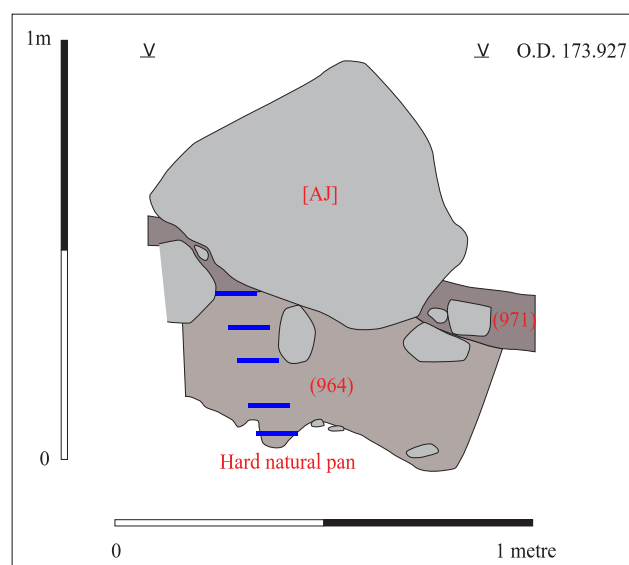


Figure 11. Test pit 16 with OSL samples points.

Test Pit 16 (Figure 11, Section 52)

This pit was located against the outside south face of the enclosure dyke. The dyke here survives above the current ground surface for a distance of a little over 7m in length, though much of this is currently under fallen trees.

Test Pit 17 (Figure 12, Section 50)

Test pit 17 was located at the outside north-west corner of the enclosure dyke. This area was chosen for sampling as this corner of the enclosure dyke appeared to be relatively well-preserved with a large stone sealing the ground beneath. In due course, the large stone was shown to have been seated upon some drystone construction.

Trench 2

Sadly, no usable data was able to be collected from this sample.

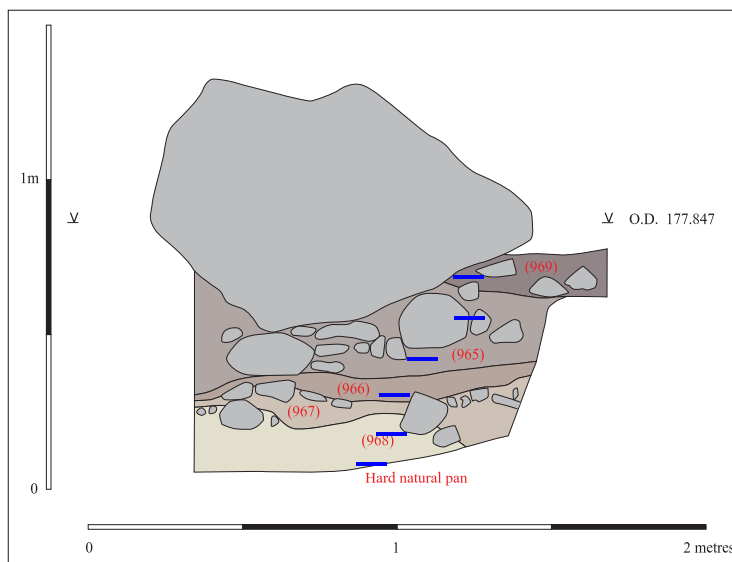


Figure 12. Test pit 17 with OSL samples points.

THE SMALL FINDS AND SAMPLES

The remains of material culture in rural contexts in the north of Scotland prior to the late 18th century are very sparse indeed. Many utensils are likely to have been made from wood and leather - both of which survive poorly in the archaeological record outwith particular environments. The few sherds of late medieval pottery found, therefore, are quite interesting. Usually, broken pottery enters the earth along with other midden material thrown out from the house to help manure the ground. The fact that the recovered pieces all come from different vessels within the same small excavated area is also noteworthy. They suggest that careful management of the ground was being carried out by people living nearby. Of course, the kilns suggest the same, but the artefacts add to the picture of a small, industrious settlement working the land for the production of food. It is worthy of note that a greater proportion of late- and post-medieval ceramic was recovered this year from trench 9 than in any of the previous excavations on this site.

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

Trench 9:

- Unstratified: Late/post med. pot sherd, slate, stone with groove (geologists disagree as to it being anthropological in nature - but then they always do!), bottle glass.
- (769): Late/post med. pot sherds, early modern pot sherds, pinfire shotgun cartridge, slate, clear glass, glass bottle neck, iron, charcoal.
- (786): Slag (metalworking), charcoal.
- (780): Late/post med. pot sherds, modern shot gun cartridge metal end piece (presumed to have been introduced into this layer possibly during tree planning, although no cut was detected within the soil), iron.
- (805): Charcoal.

Trench 10:

- Unstratified: Green bottle glass.
- (720): Early modern pot sherd, blue bottle glass, green bottle glass, slate.
- (824): Charcoal.
- (867): Charcoal.

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 on either of the websites at:

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

or:

www.bennachielandscapes.scot

ACKNOWLEDGEMENTS

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Sources

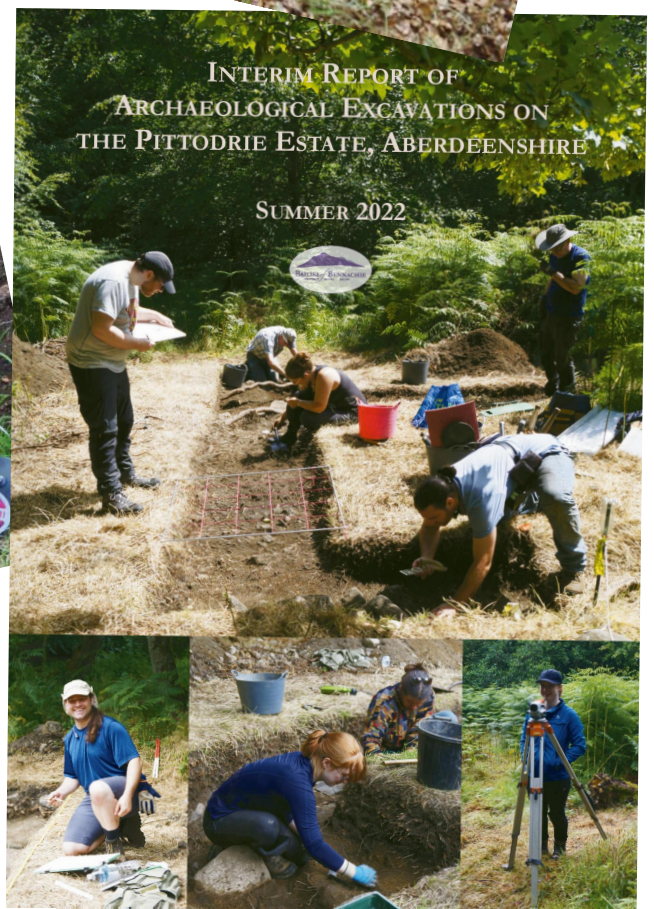
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