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Cracknie, Borgie and the souterrains of the northern mainland of Scotland

Graeme Cavers FSAScot,[*] Jamie Humble FSAScot,[†]
Matt Ritchie FSAScot[‡] and Paul Humphreys FSAScot

With a contribution by Jackaline Robertson[§]

ABSTRACT

The souterrains of the northern mainland comprise a distinctive group within the wider national distribution: they are stone-built, narrow with massive lintels and typically associated with hut-circle settlements. Most are known from antiquarian records or from the RCAHMS survey of Sutherland in 1911, and there has been very little investigation of them since; aside from the excavation of an example at Cyderhall Farm in south-east Sutherland and limited investigation at Upper Suisgill, virtually no new data have been contributed since that time. In 2012, Forestry and Land Scotland commissioned the 3D laser scan survey of one example at Cracknie, Borgie, for the purposes of informing conservation management. This led to the excavation of the entrance to the passage and consolidation of the opening in 2022, at which point samples suitable for radiocarbon dating were obtained. These indicate that activity was taking place around the Cracknie souterrain in the early Middle Iron Age, probably around the early 2nd century BC. *This paper discusses the Cracknie souterrain in the context of the north mainland group, along with a note on the discovery of a new example at Borgie in 1997, recorded by the late Paul Humphreys, and suggests that the northern stone souterrains should be considered among the earliest such sites to be constructed, and that they probably originated towards the end of the third quarter of the 1st millennium* BC.

INTRODUCTION

Souterrains are a well-known monument type of later prehistoric Scotland, found across the country with examples from the Borders to the Outer Hebrides and Northern Isles. Their ubiquity and geographical range mask distinctive regional patterns and clusters, the significance of which is still not well understood. The large number of examples recorded in eastern Scotland and in particular the 'Southern Pictland' group (Wainwright 1963) have been influential in their interpretation more generally, despite recognition of their evident importance to the Atlantic Iron Age settlement record and their origin in the earlier Middle Iron Age, taken here to be the period *c* 200 BC–AD 200

[*] AOC Archaeology Group, Edgefield Road, Loanhead, EH20 9SY

[†] AOC Archaeology Group, Edgefield Road, Loanhead, EH20 9SY

[‡] Forestry and Land Scotland, Great Glen House, Leachkin Road, Inverness, IV3 8NW

[§] AOC Archaeology Group, Edgefield Road, Loanhead, EH20 9SY

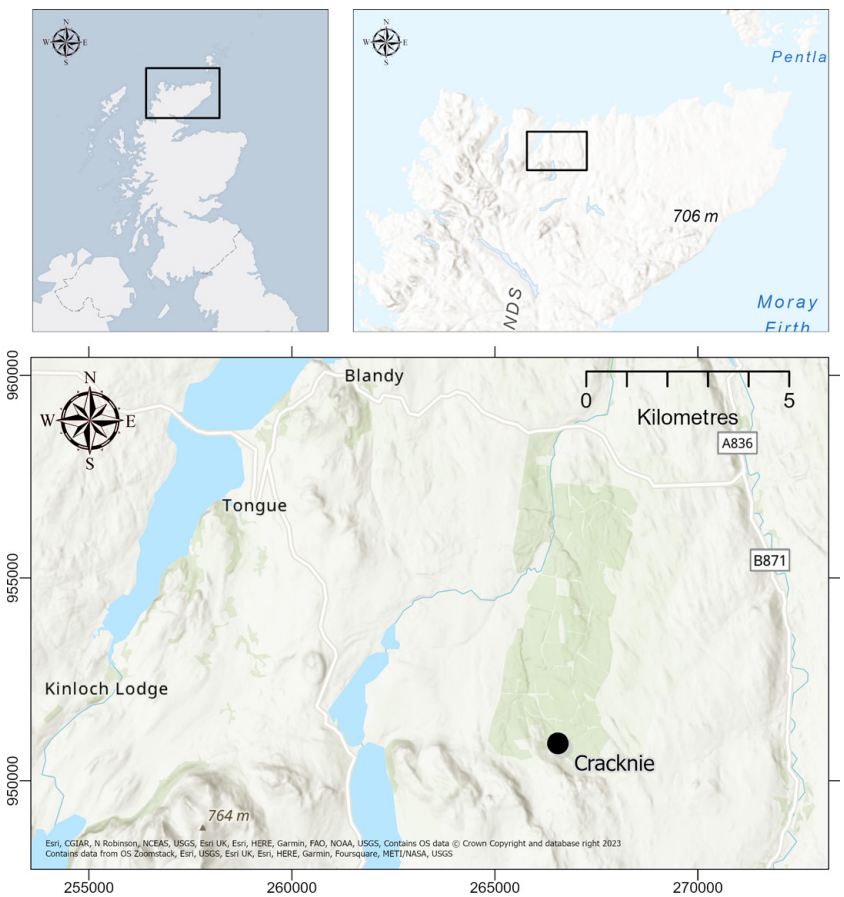
(Miket 2002). Subterranean passages seem to have been important features of many Iron Age settlements across northern Britain from at least *c* 200 BC, but the layout, dimensions and materials involved vary significantly.

Cracknie souterrain (NC65SE 1; NGR: NC 6655 5092; Illus 1) is both one of the most important and one of the most remote scheduled monuments on Scotland's national forests and land. In 2012 Forestry and Land Scotland (FLS, then Forestry Commission Scotland) commissioned AOC Archaeology Group to carry out a survey of the souterrain, for the purposes of informing conservation management. The souterrain is completely subterranean, and only visible from the surface where a small hole, around 0.6m across (Illus 2), provides access to the passage.

In 2021 FLS commissioned AOC Archaeology to undertake an appraisal of options for the conservation of the entrance, prompted by observations that access to the souterrain was becoming difficult and potentially hazardous, with the concern that visitors entering the passage could find it difficult to exit.

The souterrain is some distance from established walking routes and relatively difficult to access on foot. It was decided that conservation works should aim to enhance safe access to the monument and limit or arrest any further deterioration – and that any intervention must be subtle and in keeping with the authentic character of the unconsolidated site.

Following discussion with Historic Environment Scotland it was agreed that a



ILLUS 1 Location of Cracknie souterrain

ILLUS 2 View of the souterrain entrance prior to survey in 2012. (Photo: AOC)

small-scale excavation of the entrance deposits combined with conservation and stabilisation of any unstable stonework that was uncovered was the preferred option. A small excavation was carried out in 2022 at the apparent entrance to the passage, in part for the purposes of stabilising the collapsed opening and partly to ensure that the souterrain could be safely entered and exited by visitors. The requirement for intrusive conservation works provided the opportunity for archaeological investigation of a northern Sutherland souterrain, and samples were taken for environmental analysis and radiocarbon dating alongside the detailed 3D recording using laser scanning.

Cracknie is a well-preserved example of the northern stone-lined souterrain group, and was first reported by Horsburgh, who described an 'eirde house' at 'Krakenies' (Horsburgh 1870: 276). The site was later visited and recorded by Alexander Curle, Secretary of the RCAHMS (1911, no. 220: 73) and visited by the Ordnance Survey in 1960 and 1978, although no detailed survey appears to have been carried out and, other than statements prepared by inspectors on behalf of Historic Scotland, no further archaeological records were made. The site was designated as a Scheduled Monument (SM 5663) in 1993, and inspection visits were made by the Highland monument warden in 1995 and 2000. Curle's description is as follows:

> This earth-house is situated 5 m. due S. of Borgie Bridge, and 2 m. E. of the E. shore, at the N. end of Loch Loyal, near the deserted crofter settlement of Cracknie, whose green hillocks are easily distinguishable a long way off from the northward. The entrance on the top of the second hillock from the NW passes beneath a slab through an aperture about 2′ square. The passage slopes downward, gradually growing wider and higher, and about 20′ from the entrance is some 3′ wide and from 4′ 6″ to 4′ 10″ high. At 32′ inwards its width is reduced to 2′ by a rebate on the right side: thereafter it gradually widens, and, curving round to the right, terminates in a pear-shaped expansion about 6′ wide and 4′ 4″ high. The extreme length of the earth-house is 42′. A few flags lying displaced outside the entrance suggest that it was once longer. The sides are carefully built without mortar, and it is roofed with slabs overlapping each other. The walls throughout are in perfect condition (RCAHMS 1911, no. 220: 73).

The souterrain is located within a clearing in a commercial conifer plantation and sited within improved fields belonging to a much later farmstead, an area known locally as MacLeod's sheiling (Canmore 73813). A single unroofed building marked 'Cracknie' is depicted on the OS First Edition map, and this probably depicts the bipartite longhouse located around 130m to the south of the souterrain; a corn-drying kiln is located *c* 100m west of this, and several other smaller structures are located nearby. There are no obvious traces of the post-medieval use of the souterrain itself, although the structure is located within the area possibly enclosed by a boundary wall.

LOCAL CONTEXT

Blaeu's map of 1654 indicates that the area around the souterrain was largely wooded at the time of survey, lying within the 'Wood of Stronchergarry'. Later maps such as Roy's Military Survey of 1747–55 indicate the open, rural nature of the area in the late post-medieval period. The first planting at Borgie Forest took place in 1920 following the creation of the Forestry Commission.

Although the area has never been systematically surveyed, previous discoveries represent settlement activity through the prehistoric period and into post-medieval times. To the north-west, the earthwork remains of two or three likely hut-circles of Bronze or Iron Age date are recorded at Achnantot/Allt Loch Nam Breac (Canmore 5766). Nearby, there are remains of a hut-circle and associated mounds at Druim Buidhe (Canmore 5767). Beyond the immediate surroundings of the souterrain, the wider area between the Strath Naver valley to the east and Loch Loyal to the west contains many Iron Age monuments, including hut-circles and brochs. Strath Naver, a little over 5km to the east of Cracknie, is particularly well populated with later prehistoric settlement sites, notably the brochs at Achcoillenaborgie (Canmore 6221), Allt a Chaisteil, Cnoc Carnachadh (Canmore 6362), Dun Viden (Canmore 6299), Dun Chealamy (Canmore 6363) and a broch north-east of Inshlampie (Canmore 6188). Sites scheduled as 'homesteads' include Dalmor and Skail to the east and Borgie Bridge, to the north. Several groups of hut-circles and associated features are located around the Naver Forest, to the south-east of Cracknie. A possible crannog is recorded at Loch Nan Ealachan to the north-east.

THE CRACKNIE SOUTERRAIN

The souterrain was surveyed twice using laser scanning: once in 2012 and again in 2022. The surveys were carried out using a Faro Focus 3D scanner (in 2012) and a Leica BLK360 (in 2022). The resulting pointclouds were used to produce stone-by-stone elevations and orthographic renders in plan and elevation, and to inform the conservation strategy.

The souterrain comprises a stone-lined passage dug into the middle one of three small knolls within the clearing and, prior to the excavation work, was accessed through a small opening only *c* 0.6m across and 0.3m high. A large slab lying near the aperture was probably a lintel over the passage, and is referred to in Curle's 1911 description, suggesting it had been moved before then.

Beyond this constricted entrance, the passage is 13.2m in total length, oriented broadly east/west, with a distinct curve to the north at almost halfway along its length. The structure averages between 1.30m and 1.40m in height, and is built in rough, sub-rounded boulders averaging 0.2m in diameter but incorporating sub-rectangular blocks up to 0.45m across. There is evidence of rough coursing, with stepping in the stonework to accommodate the slope downwards. The passage walls average seven courses in height and are capped by 27 very large lintels, some up to at least 1.1m by 2.0m across. The passage averages 0.8m in width, but widens to 1.9m across at the west end, where it forms a sub-circular chamber.

On the northern wall of the passage, at the point at which it widens out to form the terminal chamber, a buttress has been constructed causing the passage to check inwards, and narrow to 0.7m in width (Illus 3). Although this buttress appears to be secondary to the main passage wall, the upper stones are keyed into the passage walling and the capping lintels rest on both the buttress and the passage walling. If the buttress was constructed after the original passage, this must have entailed some rebuilding of the original walling and replacement of the lintels. The character of the walling, however, is very similar to the original build and it must remain a possibility that this was part of the original design, and RCAHMS speculated that it may have been designed to allow a door to be fitted at the threshold of the chamber. It is notable that the buttress obscures the view of the end of the chamber from the upper parts of the passage.

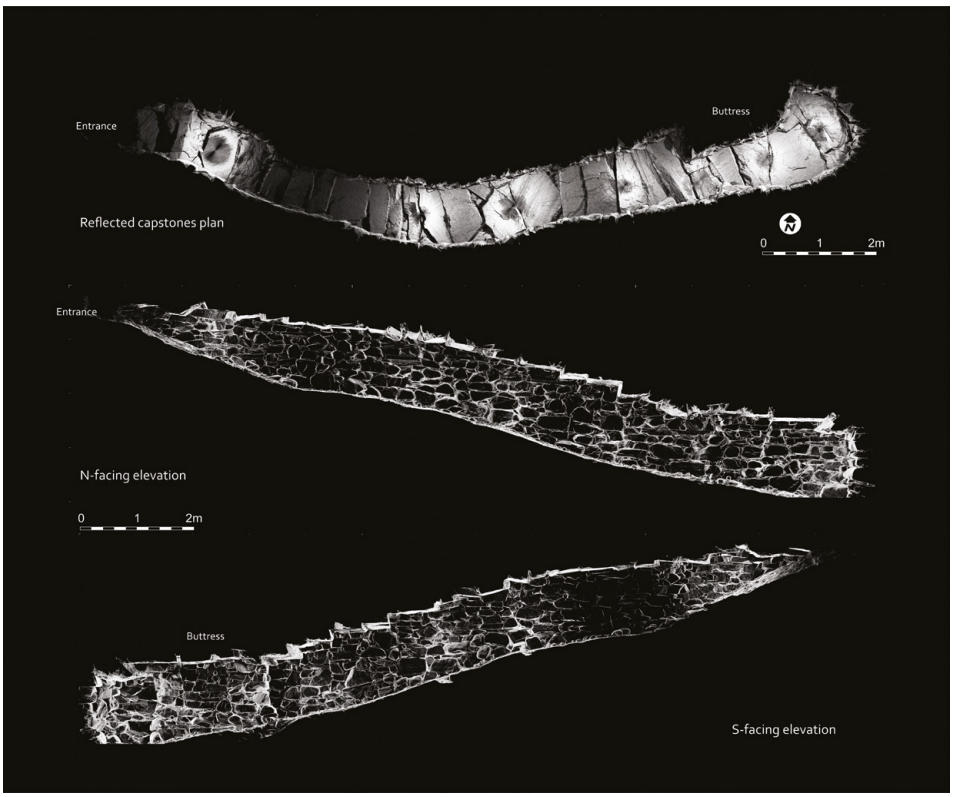
ILLUS 3 The interior of the souterrain looking towards the terminal, showing the buttress on the right-hand side. (Photo: AOC)

The passage floor slopes downwards from the entrance at around 30 degrees (Illus 4 & 5), before levelling off near the middle section and then sloping down again more steeply to the terminal. The effect upon entering the souterrain is one of descending underground, and the restricted height of the passage means that it is necessary to stoop throughout (Illus 6). However, the souterrain is cut into the side of a natural knoll, with the higher ground over the opening and the lower over the chamber, so that that the lintels over the west end of the souterrain are *c* 0.8m below ground level, and closer to 0.3m at the east end.

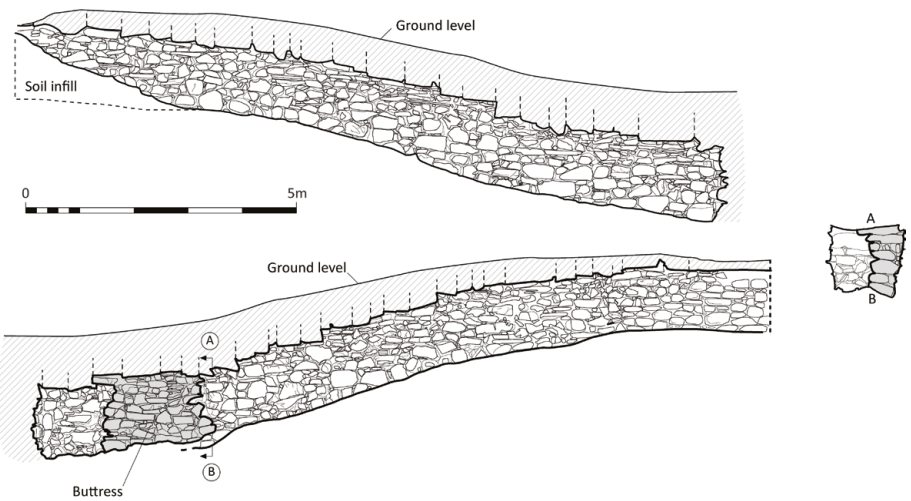
EXCAVATIONS IN 2022

The purpose of the excavation carried out in 2022 was to clear the opening of loose stones that could potentially collapse inwards into the passage and also to clear the opening of soil and turf, allowing easier and safer access to and from the passage. This involved the excavation of soft deposits and rubble choking the souterrain entrance, including the fallen lintel stone and the subsequent consolidation of any damaged or unstable stonework in the souterrain walls in this area. It was hypothesised that the souterrain would be largely infilled with material derived from natural slippage of surrounding soils into the passageway with the possibility of in-situ deposits related to the Iron Age or the post-medieval use of the site. On the basis of comparison with other north mainland souterrains (for example at Portnancon and Salscraggie Lodge), it was considered likely that stone steps would be encountered at the entrance, and that these were most likely located close to the existing aperture. The trench for which Scheduled Monument Consent was sought was limited for this reason, measuring 1.8m north-west/south-east by 1.4m north-east/south-west.

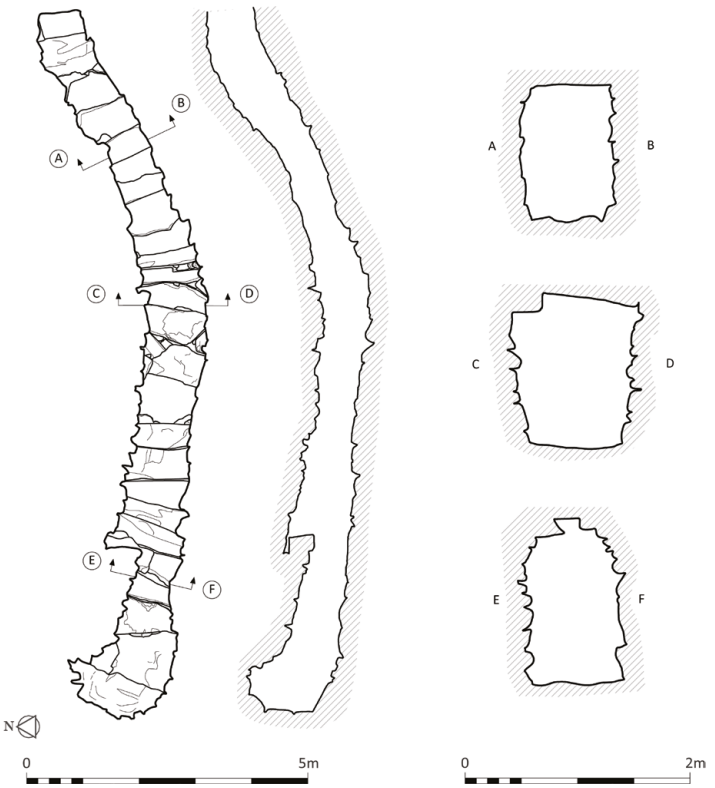
Excavation of the passageway exposed the drystone walls of the souterrain [007, south-west side & 008, north-east side]. Although rough coursing was observed elsewhere, in this sector these were constructed of uncoursed water-rounded stones and surviving up to 0.94m high (Illus 7). The base or floor of the souterrain comprised the natural silty gravel glacial till of the knoll (013). Overlying this within the souterrain passage was a charcoal-rich deposit of orange-brown silty clay (006) that was 0.06m thick



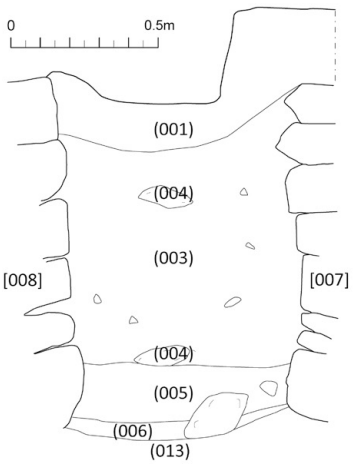
Illus 4 Orthoimages derived from terrestrial laser scanning showing the Cracknie souterrain elevations and reflected lintel plan



Illus 5 Elevations of the north and south sides of the souterrain, and profile of the buttress at Cracknie



ILLUS 6 Reflected lintel plan and cross-sections through the passage at Cracknie



ILLUS 7 Section through the deposits excavated near the opening

and extended across the excavated area of the passage. This was interpreted as a trampled floor or occupation deposit.

Overlying (006) were deposits relating to the post-abandonment infilling of the souterrain. The lower of these (005) was a charcoal-rich dark orange-brown silty clay; this was up to 0.5m thick and throughout the excavated area of the passage. The upper deposit (003) was a dark brown silty clay up to 0.75m deep across the whole of the souterrain passage. Large quantities of stone (004), presumably collapsed from the adjacent passage walls, were found throughout this deposit.

At the top of the infilling deposits a large fallen lintel slab (002), 1.1m by 0.9m and 0.2m thick, was lying at an angle sloping into the passage clearly close to its original position. This was removed using a hand winch and set aside from the passage at a safe distance, to the north-east of the aperture. It was clear soon after commencing the excavation that the passage walls continued beyond the trench, and that the entrance threshold and steps, if present, must be located further to the east. There was no indication that the passage was narrowing in the excavated area and so no indication of how much further the stonework might continue. As further exploratory excavation was outside the scope of the Project Design and was not covered by the associated Scheduled Monument Clearance, the trench did not proceed further, and the east end of the passage was backfilled by creating a slope of spoil that allowed safe access to and from the passage, and the upper courses of the damaged walls repaired by a stonemason (Illus 8). Given the remote location of the unconsolidated site, and its subterranean nature, it was not proposed to formally present the monument to the public with an access path or onsite interpretation. Some sites deserve to remain 'in the wild', to be explored and appreciated without contemporary intervention.

PALAEOENVIRONMENTAL EVIDENCE

Jackaline Robertson

A small assemblage of carbonised macroplant and charcoal was recovered from bulk samples collected from the excavated deposits. The bulk samples were processed in their entirety in laboratory conditions using a flotation method designed to retrieve both ecofacts and artefacts (Kenward et al 1980). The sediments consisted of sandy silts which did not require any pre-treatment. The wash-overs were scanned using a high-powered microscope at ×10–×450 magnification. The residue was separated using a stack system of 4mm, 2mm and 1mm sieves and each fraction was scanned by eye.

THE MACROPLANT ASSEMBLAGE

There were five carbonised macroplants composed of cereals, nuts and weeds recovered from

Illus 8 The opening following excavation, conservation and reinstatement. (Photo: AOC)

deposit (003). There were two hulled barley caryopses (*Hordeum vulgare* L), one fragment of hazelnut shell (*Corylus avellana* L) and two sedge (*Carex* sp).

THE CHARCOAL ASSEMBLAGE

Charcoal (5.8g) was present in all three deposits and identified as alder (*Alnus glutinosa* L), birch (*Betula* sp) and hazel (*Corylus avellana* L). The dominant species was hazel (48%) followed by birch (33%) and alder (19%).

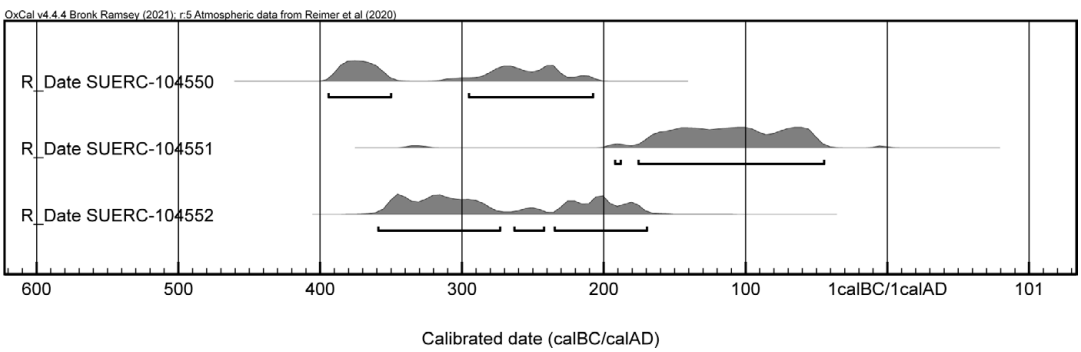
RADIOCARBON DATING

Three radiocarbon determinations were obtained from charcoal samples recovered from sieving of contexts (005) and (006). These are presented in Table 1 and Illus 9, with their calibrated ranges.

All three dates calibrate in the Iron Age; samples 1 and 3 calibrate in the early 4th to early 2nd centuries BC while the date for sample 2, from the fill deposit (005), spans the early second to the mid-1st century BC. Albeit within a small dataset, the position of sample determinations 1 and 3 within the flat part of the calibration curve that lies *c* 400–200 BC combined with the somewhat younger determination for sample 2 might suggest that the true date of the fill material is at the earlier end of the latter calibration range, and the later end of the former. As the calibration ranges of samples 1 and 2 overlap, it is not possible to exclude the possibility that the charcoal assemblage derives from a single event which, if correct, might imply that the dated activity took place around the turn of the 3rd/2nd century BC. An alternative interpretation of the determinations might be that the earlier material (samples 1 and 3) constitutes residual debris deriving from a primary phase of earlier Iron Age activity at the site, while the later date relates to a subsequent phase occurring in the 1st/2nd century BC.

TABLE 1
Radiocarbon determinations from samples retrieved from the souterrain fill.

Context	*Sample*	*Species*	*Lab code*	*Age*	*δ13C (‰)*	*Error*	*From BC (95.4% probability)*	*To BC (95.4% probability)*
(005)	1	*Corylus*	SUERC-104550	2263	-30.3	24	395	208
(005)	2	*Alnus*	SUERC-104551	2101	-27.7	24	193	45
(006)	3	*Alnus*	SUERC-104552	2188	-26.7	22	360	170



ILLUS 9 Calibrated ranges of the radiocarbon determinations (calibrated using OxCal v.4.4.4, IntCal20)

NOTE ON A SOUTERRAIN DISCOVERED AT BORGIE

Paul Humphreys

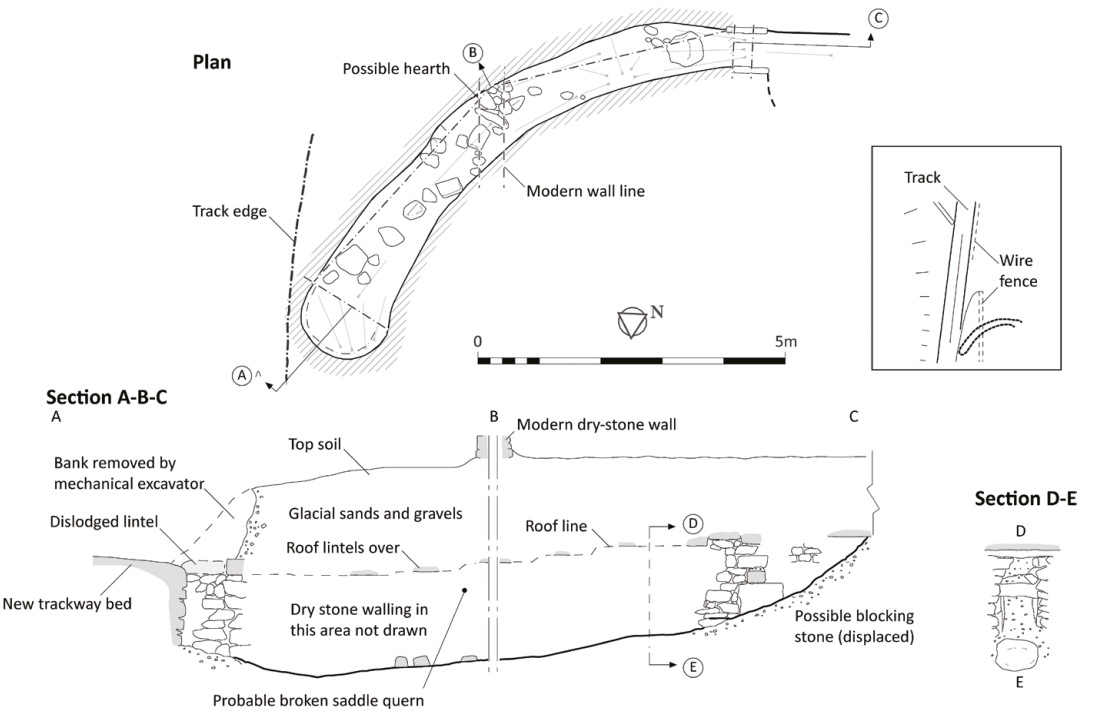
A new souterrain was discovered in 1997 at NGR: NC 6760 5930 during the construction of a farm track when a mechanical excavator dislodged a roof-lintel from the semicircular end of the passage. On its discovery the landowner pumped out the flooded lower end and entered the chamber but did not otherwise disturb the structure or deposits. On being informed of the discovery, the late Paul Humphreys visited the site with Barbara Hiddleston to identify and survey the monument before any deposits became significantly disturbed. Subsequently, many interested groups have visited the site but so far it has escaped noticeable disturbance.

A limited survey was conducted by the following method. Two horizontal datum lines were set up to accommodate the curvature of the chamber. The horizontal and vertical distance from the lines to the walls, roof and floor were measured at 500mm intervals along the lines. The level of the datum lines relative to the ground surface above the souterrain was determined by setting an external horizontal line. Line orientation was determined by magnetic compass. Selected areas of masonry were recorded by drawing frame. The limited survey was supported by colour print photography.

As the chamber was partially flooded at the time of survey the site was revisited during a dry spell to photograph large stones on the floor at the lower end of the chamber. The approximate position and form of these stones was estimated from the photographs and added to the survey drawing (see Illus 10).

DESCRIPTION

The 1.6m high stone-built chamber measures *c* 9m from the entrance to the semicircular end wall and curved at a radius of *c* 6m. The average



ILLUS 10 Survey of the Borgie souterrain by Paul Humphreys

ILLUS 11 View of the Borgie souterrain passage. (Photo: Paul Humphreys)

width is *c* 1m; however, it narrows to 0.6m towards the entrance and widens to 1.5m at the semicircular end. The underside of the entrance roof-lintels (Illus 11) lie *c* 1.4m below ground level. The chamber falls by a further 0.5m towards the semicircular (distal) end.

Two orthostats set 0.6m apart are bridged by a non-load-bearing 'false lintel' to form an apparently deliberately restricted entrance. Beyond this, the structure can be seen to extend by at least 2m to form an asymmetrical roofed antechamber or forecourt. Whereas the west wall of the antechamber respects the line of the main chamber, the opposing wall curves away orthogonally and suggests the possibility of a second souterrain mirroring the first, as is the case at Ham, Caithness (originally interpreted as a chambered cairn by the excavator; Edwards 1925).

The floor of the main chamber is composed of mid-brown silty clay containing gravel and cobbles. The antechamber is partially filled by a darker brown soil that slopes down from the roof at *c* 40 degrees and spills through the entrance, virtually blocking it. A flat sub-circular boulder lies on this antechamber fill, where it spills into the main chamber.

OBSERVATIONS

None of the large boulders appear to have fallen from the walls or roof, both of which appear to be in pristine condition. It appears therefore that these stones were introduced into the chamber deliberately. Superficially they are reminiscent of stepping stones and a possible hearth. The position of the sub-circular flat boulder overlying the antechamber fill suggests that an access route into the main chamber existed after the entrance became obstructed. Whatever this alternative entrance was, it appears to have been carefully sealed or rebuilt at some period after its final use. The semicircular end wall appears to vary in build quality and may have been partially demolished to form such an entrance.

The depth of soil over the monument, much of which is probably slope-wash, increases the likelihood of well-preserved archaeology in the entrance area, a zone generally disturbed in many other examples of souterrains. A possible broken inverted saddle quern has been built into the mid-section of the west wall. A pillow-like stone was noted close to the possible hearth; sub-elliptical in section, it had been fractured at both ends.

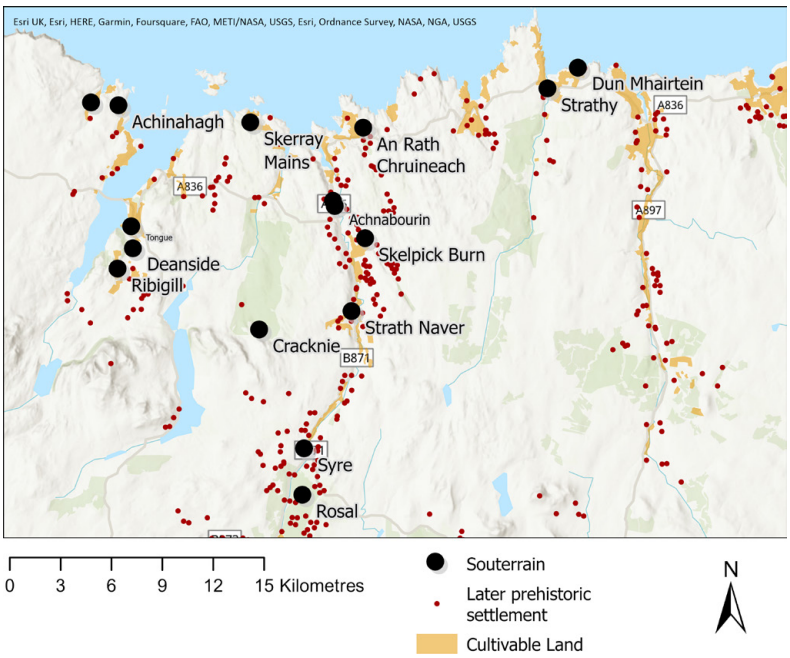
DISCUSSION: THE NORTHERN MAINLAND SOUTERRAINS

In Sutherland, as elsewhere in Scotland, souterrains are commonly associated with identifiable contemporary settlement remains, and their use alongside domestic roundhouses seems to be the norm rather than the exception. Excavated examples are few, but in south-east Sutherland a timber-lined souterrain at Cyderhall was associated with a multiphase roundhouse from which it was almost certainly accessed (Pollock 1992), while the souterrain structures at Upper Suisgill probably relate to the latter phases of use of two buildings (Barclay 1985). Portnancon, Achindale, Skelpick Burn and Allt Cille Pheadair are further examples of souterrains in Sutherland associated with above-ground roundhouses (Pollock 1992: 158). Portnancon (or Laid) souterrain perhaps provides the best parallel for Cracknie. At that site the passage is entered from beside a ruinous hut-circle, close to the modern road, although the relationship between the two is not clear and the site was dug out in the 1930s (Buxton 1935). The construction style is very similar to that of Cracknie and Borgie, making use of rough drystone walling capped by very large, heavy lintel slabs, and having the same characteristic curving form and stone steps at the threshold. Similar descriptions of souterrain passages in the area, most now invisible at ground level (for example at Loch Eriboll, An Rath Chruineach) imply that, as such, it seems reasonable to infer that the Cracknie and Borgie souterrains were also associated with contemporary above-ground buildings, and integrated with settlements. The surrounding area around Loch Eriboll, west of Borgie, appears to have been populated by several souterrains, although there are now no longer any surface traces of those at Loch Eriboll (Mitchell 1865) or at Fouhlin (Morrison & Reid 1965). At the latter site, however, investigations carried out in the 1960s found the passage to be around 18m in length, and of very similar construction to the others in the area. Finds included a pair of bronze shears, rotary querns and a triangular glass bead of Roman Iron Age type (Morrison & Read 1965; MacKie 2007, vol 2).

Dun Mhairtein, a promontory fort on the north Sutherland coast, contains a souterrain in the same local style, located behind a complex 'blockhouse'-like outwork. Again, the site is unexcavated, but the association with a cellular structure with vertical slab and coursed walling would suggest the site was in use in the Middle Iron Age on the basis of comparisons with similar promontory fortifications like Nybster and the post-broch 'cellular' buildings of Caithness and Orkney, and it seems probable that the souterrain was a functioning part of the settlement at that time. Discussing the souterrains at Allt Cille Pheadair and Salscraggie, Wainwright suggested that most were attached to huts and that 'perhaps the Sutherland souterrains of this kind were normally adjuncts to surface structures', drawing parallels with Hebridean examples associated with wheelhouses (Wainwright 1963: 226; cf Armit 2006); this conjecture would seem valid on the basis of the frequency with which northern mainland souterrains are found adjacent to hut-circles and other roundhouse remains. At Bhuachaille, Loch Hope a probable souterrain is associated with a large hut-circle, and a stone-walled passage runs around the south of a thick-walled roundhouse. The arrangement is unusual, but finds parallels at Allt Cille Pheadair, where the entrance passage is incorporated into the thickness of the wall, curving around in the make-up of the platform beneath the floor (RCAHMS 1911: 115–16), while the provision of souterrain-like lintelled passages, sometimes making use of intramural galleries, is a recurrent feature in the Middle Iron Age phases at several broch sites including the Cairns, Clachtoll and Midhowe (Carruthers 2014; Barber 2017; Cavers 2022). The unclear distinction between souterrain passages and subterranean chambers such as those at Rennibister (Marwick 1927) and Mine Howe in Orkney (Card & Downes 2003) further complicates the picture: it is by no means clear that all subterranean structures attached to Iron Age roundhouses performed the same function, and the sub-floor chambers typically found in Caithness brochs, often misleadingly referred to as 'wells', might indicate that the requirement for underground spaces was common across Middle

Iron Age settlements in the north, but that the format was variable.

The RCAHMS, in their 1911 survey of Sutherland, considered that there were three principal classes of souterrain found in the north mainland: stone-lined subterranean passages, semi-subterranean passages with upstanding banks (which they referred to as 'pit dwellings') and passages with two or more entrances, of which only two examples were recorded, at Kirkton and Kintradwell. In the century since this initial survey, the known distribution has changed little, although the discovery of 'hybrid' types such as the stone- and timber-built passage at Cyderhall would imply that there is still more variability in construction styles. In general, the known examples are found within the typical range of contemporary settlement types, within and in proximity to hut-circle clusters (in around 70% of cases in the Strath of Kildonan, RCAHMS 1993: 12) in the tracts of better agricultural land located in straths and coastal stretches (see Illus 12), but as in the majority of Sutherland, there has been little significant disturbance through modern development or intensive agriculture that might bring more examples to light, and land cover conditions are not suited to the identification of souterrains through aerial photography. As such, it is reasonable to expect that the known distribution is a fragment of the true number constructed. No clear traces of Iron Age settlement survive above ground at Cracknie; the nearest settlement remains of probable later prehistoric date are hut-circles at Achnantot (Canmore ID 5766), while further afield (*c* 4km) to the south are other hut-circle settlements, at Staingachoire (Canmore 5653), Allt Bail An T-soar (Canmore 5658), Loch Nan Coinean (Canmore 5660) and Allt Meall A Bhreac-leathaid (Canmore 5671). The sparsity of recorded settlements is almost certainly reflective of the limited survey carried out in the remoter glens of Sutherland, and documented hut-circle settlements are numerous in Strath Naver where modern footfall is more regular.



Illus 12 Distribution of souterrains in northern Sutherland in relation to recorded later prehistoric monuments (broadly, hut-circles, forts and duns) and tracts of cultivable land, as defined by the Macaulay Soil Institute (LCS88)

The preservation of Iron Age settlement remains at Cracknie was probably compromised by the occupation of the site in the post-medieval period, as evidenced by the small farmstead located close to the souterrain. In this respect the site shares characteristics with Rosal, Strath Naver (Corcoran 1968), where a substantial stone-built souterrain was a significant feature within the remains of the post-medieval settlement; Fairhurst's excavations showed that the passage had been used in the modern centuries, and it was filled with post-medieval debris. Similarly, in Assynt, the post-medieval township of Glenleraig contains a souterrain (Cavers & Hudson 2010: 138) and suggests that the same parcels of better agricultural land and grazing were equally attractive in Iron Age and later, post-medieval, centuries.

Of course, too little excavation has been carried out on the northern souterrains to allow any confident interpretation of the motivations for their construction, and this situation seems unlikely to change without concerted investigation of intact souterrains and their associated settlements. Consequently, it would be unwise to draw significant conclusions from the limited evidence obtained from the excavations at Cracknie and the fragmentary data from nearby similar sites. However, the radiocarbon dates demonstrate that the location was in use in the 1st or 2nd century BC, with the possibility that activity was occurring there before the final quarter of the 1st millennium BC, placing it at the earlier end of the known chronological range of Scottish souterrains. This evidence accords with the growing corpus of evidence for earlier Middle Iron Age construction of souterrains across the country, from the south-west, in Galloway and Arran (Mudie 2007; Cavers & Crone 2017), to Skye, the Western Isles (Miket 2002) and Orkney, that demonstrates the established tradition of souterrain construction in the north and across the Atlantic seaboard and prior to the proliferation that seems to characterise the 'southern Pictland' group in the late 1st millennium and early centuries AD. Indeed, the chronology of souterrains appears to demonstrate that, whatever their precise purpose, their relevance was persistent over the course of several centuries from at least the 3rd century BC to the 2nd century AD, when many seem to have been abandoned wholesale (Armit 1999), while clearly related structures are a well-documented feature of early medieval Ireland (Clinton 2001). It is for this reason, perhaps, that a single satisfactory explanation for their purpose remains so elusive; it is improbable that they held the same meanings and functions over the centuries of their use and over their geographical range. However, in Scotland, Ireland and Cornwall, souterrains are usually constructed as excavated curving trenches cut into the ground and lined with drystone walling before being roofed with either stone lintels or timber beams. A slight curve of the main passage is usually present and was clearly significant; it is notable that the northern souterrains typically curve downhill away from associated buildings, whereas in the east of the country they are generally dug into the upslope. Henderson noted that 'differences in construction and dating exist across the [Atlantic] zone but similarities in conception, situation and associated assemblages imply that a link may have existed in terms of the function and behaviour represented by such sites' (2007: 142).

Miket's discussion of the Middle Iron Age souterrains on Skye considered the spectrum of plausible possibilities, perhaps with a preference for more prosaic explanations related to food storage in winter, non-shieling months (Miket 2002: 84). However, caveats and exceptions are easy to cite, not least the frequency with which souterrains are located on land that often floods in winter (Scott 1899: 158), and modern interpretations of Iron Age society in the north British Isles would allow scope for other, less functional motivations. While souterrains may have been used as cold cellars to store food such as cheese and butter, or as a secure place to house slaves or hostages, they may also have been used for religious and spiritual activities, and neither primary secular nor ritual uses preclude the other. It should always be acknowledged that ritual or ceremonial uses will inevitably be difficult to detect in the archaeological record.

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