

A Neolithic ring-mound at Midtown of Pitglassie, Auchterless, Aberdeenshire

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with contributions by Audrey S Henshall, Faye Powell,
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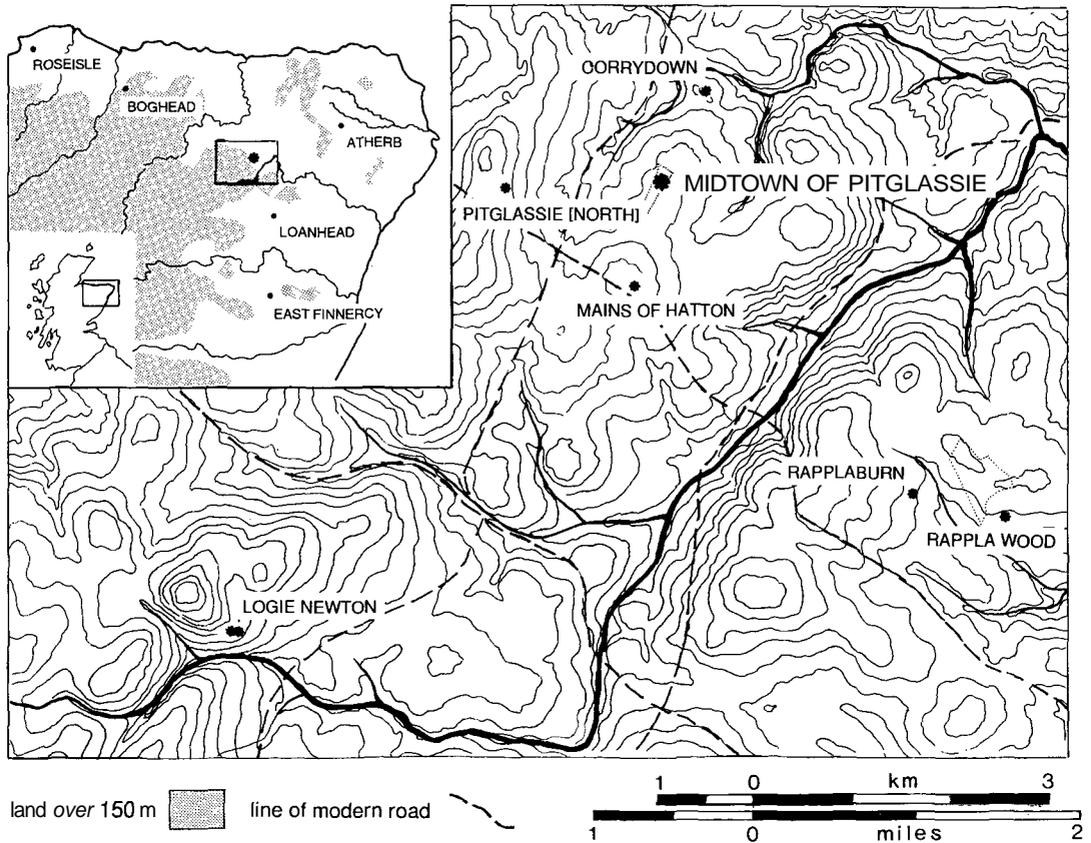
ABSTRACT

In Autumn 1978, excavation took place on a small round mound at Midtown of Pitglassie where digging in the 1950s had produced Neolithic and Bronze Age pottery and lithics. The excavation was organized by the Ancient Monuments Inspectorate of the Department of the Environment, now Historic Scotland, with whose assistance this report is published. The excavation revealed an original annular mound, composed of circular banks of stone, earth and turf. The central area was filled with stone rubble, mostly disturbed and redeposited in the 1950s, but with one remnant of a possible central cairn. Pre-mound activity included turf-stripping and cremation, followed by the formal deposition in a number of pits of cremated bone (from, probably, one individual), accompanied by pottery and lithics, including a Neolithic leaf-shaped arrowhead. In addition to these specific deposits, pottery of Grimston/Lyles Hill tradition, numerous quartz and further flint pieces were found within the mound and fragments of Beaker were recovered from the disturbed central area. Remnants of a possible circle of stone settings were found around the perimeter of the monument. Radiocarbon dates for charcoal from a cremation pit and the pre-mound surface provided dates of between 3964 and 3342 cal BC.

BACKGROUND AND SITE DESCRIPTION

In 1978 the Grampian Regional Archaeologist was informed by Alexander Fenton, then Keeper of the National Museum of Antiquities of Scotland, that the owner of the farm at Midtown of Pitglassie was about to remove a stretch of woodland to extend the adjacent field; the woodland contained the remnants of a small mound partly dug by Mr Fenton, then a student at Cambridge, in 1952. The site had produced Neolithic bowl sherds (one with a lug) and sherds of a late Beaker (Donations 1969, 292; Henshall 1983, 40), originally referred to as a 'cinerary urn' (Stevenson in litt), together with a worked flint, evidence of cremation and sizeable stonework. Its location within woodland had hitherto preserved the site from agricultural destruction and, consequently, it represented one of the few Neolithic sites, with possible secondary Bronze Age activity, remaining relatively undisturbed within rural Grampian. A rescue excavation under the

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ILLUS 1 Location maps with sites mentioned in text. (Based on the Ordnance Survey Maps © Crown Copyright)

direction of the author was therefore organized by the then Ancient Monuments Inspectorate of the Department of the Environment (now Historic Scotland).

The site (NGR: NJ 7023 4352) lay within a band of semi-natural woodland occupying the summit of a low ridge, at c 140 m OD, running NE/SW (illus 1). It is situated 7 km south of Turriff, Aberdeenshire, between the waters of the Deveron and Ythan, on the edge of the Buchan plateau. The area is one of gently undulating gravel ridges, extensively and intensively farmed; at the time of excavation, the surrounding area lay under large-scale barley production.

The prehistoric setting of Midtown of Pitglassie is suggested by a number of extant monuments of Neolithic to Bronze Age date in the immediate vicinity (illus 1). Within the same wood, some 190 m to the north-east, lies another circular mound with central depression (NJ 7033 4368); originally designated as a hut circle (Aberdeenshire SMR), a 'Pict's house' in local tradition (Fenton, pers comm), it could well be re-interpreted as a funeral or ceremonial monument in the light of these excavations. Beyond that, the site is ringed round by the recumbent stone circles (RSCs) of Corrydown (NJ 7068 4446), Mains of Hatton (NJ 6993 4254) and Pitglassie [North] (NJ 6862 4348); the possible RSCs of Rappla Wood (NJ 7363 4027) and Rapplaburn (NJ 7270 4055) lie some 4.5 km to the south-east and the kerb-cairns of Logie Newton 6 km to the south-west (NJ 6590 3909 & 6592 3910). Within a wider radius of 15 km, a further 16 sites have been recorded, variously described as



ILLUS 2 The site after stripping of the high vegetation; from east

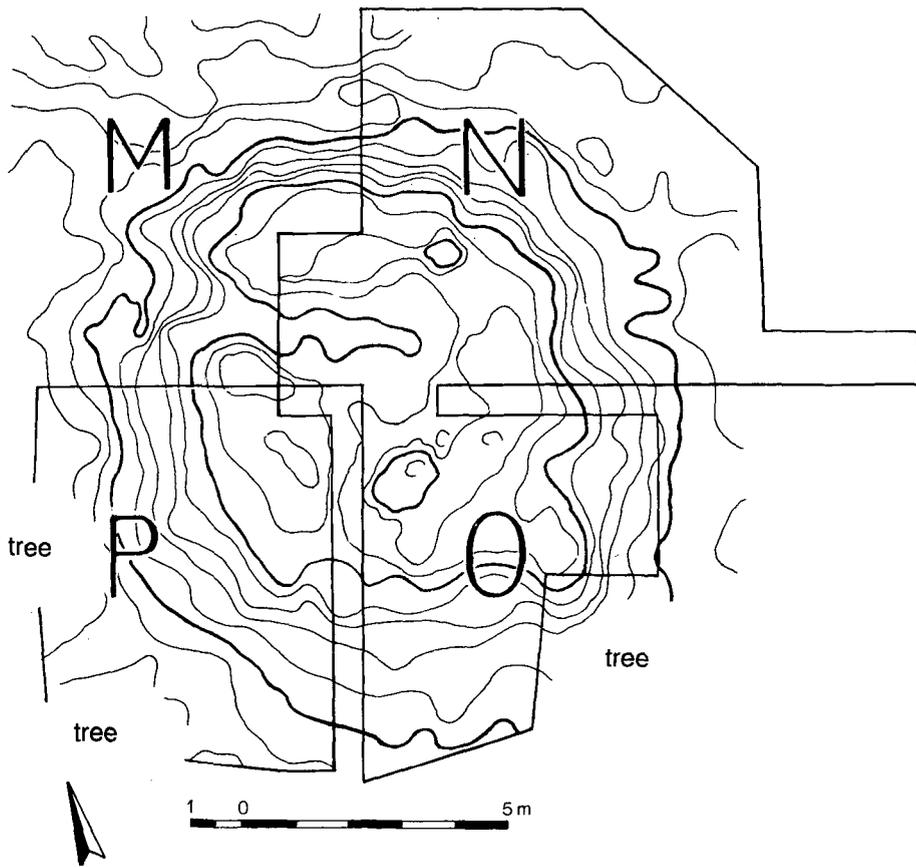
cairns or barrows, with comparable dimensions to Midtown of Pitglassie. Of these, four which display central depressions also produced other data (recorded in references to cremated material, flint or sherd scatters) which suggest possible parallels to Pitglassie (Aberdeenshire SMR NJ 62 NE 12; NJ 63 SE 2; NJ 65 SE 18; NJ 75 SW 15).

Although formally termed Midtown of Pitglassie, the site has been referred to as Pitglassie (Donations 1969, 292), Mid Pitglassie (the farm title on current editions of the Ordnance Survey map) and Pitglassie Wood (Henshall 1983). For the sake of brevity, it will simply be termed Pitglassie throughout this report, the nearby RSC being distinguished as Pitglassie [North]. Earlier references to the site referred to it as a cairn; although incorporating a large element of cairn material, the term 'mound' is now deemed more appropriate.

EXCAVATION DESCRIPTION AND RESULTS

The site appeared initially as a low, grass-covered mound (illus 2), approximately 12 m in diameter with a maximum height of 0.6 m. Its surface features were recorded by contour survey (illus 3). This defined a central depression, with a linear trough leading from it across the north-west arc of the mound: these were evidently partly backfilled cuttings from the 1950s. Some further small anomalies were apparent in the otherwise rounded profile. On the north and east, the mound was cut by a comparatively recent cart-track. Disturbance by roots and rabbit-burrowing was widespread, particularly on the periphery of the mound.

The site was laid out on a modified quadrant pattern, the segments designated M, N, O and P



ILLUS 3 The contour survey and trench layout; intervals between contours 0.1 m

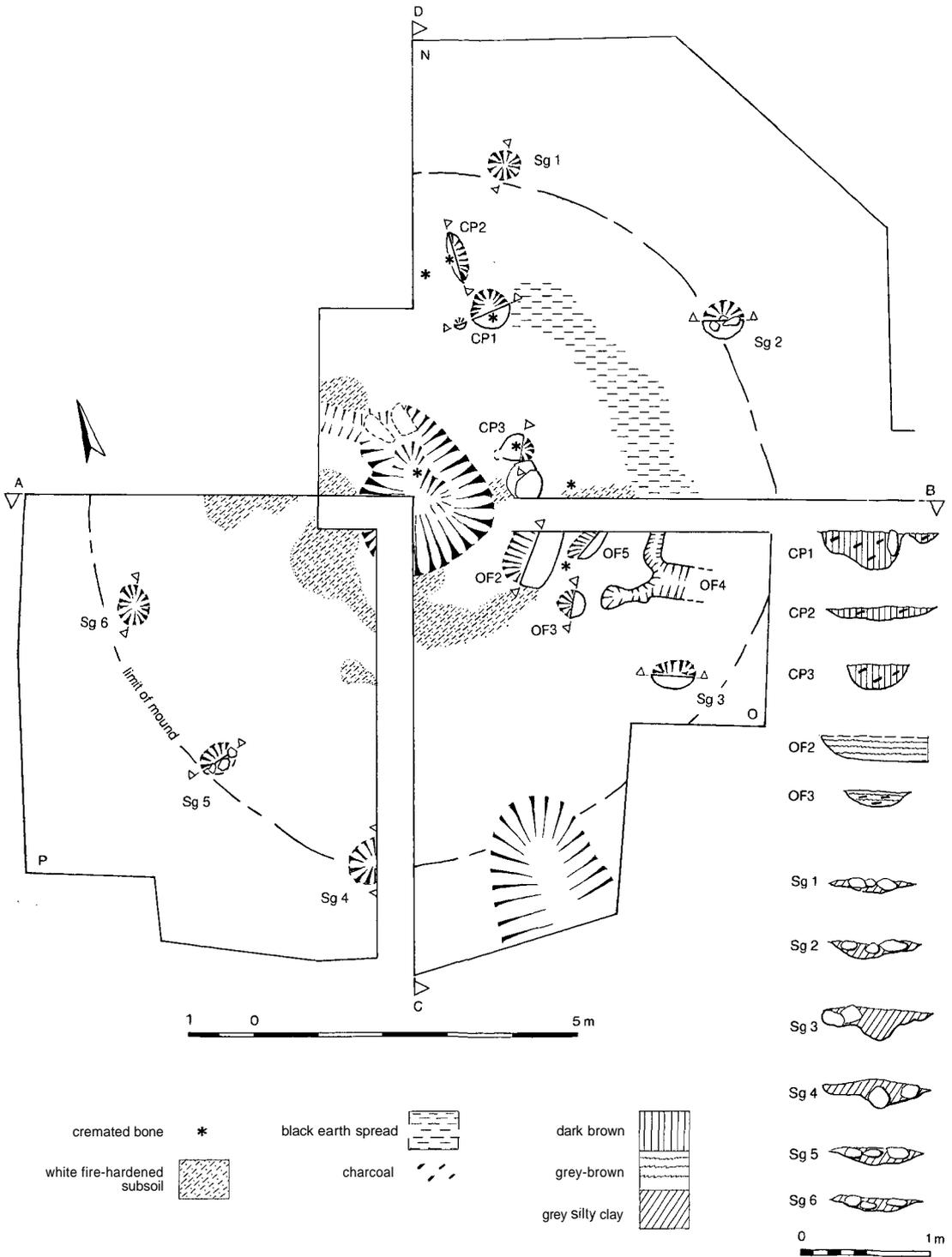
(illus 3). Quadrant M was not opened: excavation in this area was considered unlikely to prove profitable as it had been disturbed by the 1950s trenching, truncated by the cart-track and contained a large tree stump. Where it aids clarity the data will be located by quadrant rather than compass direction. Small finds are referred to throughout by their specialist catalogue numbers, prefixed by the relevant initials; concordances with on-site small-find numbers are available in archive.

THE EARLIEST ACTIVITY

The surface of the gravel subsoil revealed evidence for a number of episodes representing the earliest activity on the site (illus 4). These comprised: a range of pits and scoops together with evidence for the stripping of the original ground surface; areas of white, fire-hardened subsoil; and a deposit of grey-black charcoal-rich soil over one part of the pre-mound surface.

The pits and scoops

In the south-east of the site was a group of pits of varied form. The first, a sub-rectangular pit (Pit OF2), ran beneath the northern baulk of Quadrant O; it had a maximum excavated length of 0.85 m, a maximum width



ILLUS 4 Plan of features in and on the subsoil, including distribution of cremated bone

of 0.7 m and depth of 0.3 m. The fill was a homogeneous grey-brown earth. Two sherds (ASH 1 la, 17; Henshall, below) were recovered from this feature: one a rim sherd from a Neolithic bowl and the other a Beaker sherd with incised lines and possible cord impressions. Their proximity to the subsequent disturbance of the central area makes their association unreliable. To the south of this feature was a small sub-circular scoop (Pit OF3), a maximum of 0.45 m in diameter by approximately 0.25 m deep. Its fill was of earth and charcoal. There were no associated small finds. An amorphous shallow feature (Pit OF4), which ran into the unexcavated south-east area of Quadrant O, was barely 0.05 m deep. Its fill of a purple-brown material was possibly the product of root activity. A further shallow, sub-oval scoop (Pit OF5), maximum dimensions 0.65 m by 0.4 m by 0.08 m deep, ran into the NO baulk; it contained a purple-brown homogeneous fill with no diagnostic material. None of these features could be ascribed a definite function.

At the south-east limit of the mound area (illus 4) a deep, turf-filled pit or scoop, 2.25 m by 1.7 m by maximum 0.35 m deep, had been dug into the subsoil. No artefactual material was recovered from this feature and as it was sealed by topsoil deposits off the edge of the mound and not mound material proper its relationship to the other pre-mound activity was uncertain.

In the north-eastern quadrant of the site, three further pits were located. The first (Pit CP1), was roughly circular, 0.6 m in diameter and a maximum of 0.22 m deep. A small sub-oval scoop (0.20 m by 0.25 m by 0.08 m deep) lay 50 mm to its west. It was filled with grey-brown soil together with charcoal and cremated bone and was edged with two stones. The main pit contained five sherds of a fairly hard, black, heavily gritted Neolithic fabric, probably from a carinated bowl (ASH 13; Henshall, below); some of the sherds retained black carbonised material on the inside. Charcoal from this deposit produced a radiocarbon date (GU-2014)4935 ± 105 BP (= 3964–3388 cal BC). A second cremation pit (Pit CP2) lay 0.5 m to the north of pit CP1; it was a sub-oval trench rather than pit, 0.75 m by 0.3 m by 0.05 m deep, filled with grey-brown soil with fragments of charcoal and cremated bone. It produced no artefactual material but the surface of the subsoil immediately to the west produced further sherds ascribed to the same vessel (ASH 13) as that from pit CP1. A further cremation pit (Pit CP3) (illus 5) lay beneath a prominent stone forming part of the core of the mound (the ring-bank, see below); it was a sub-rectangular pit, approximately 0.55 m by 0.45 m by c 0.14 m deep, with an extension to the west, 0.10 m by 0.20 m. It contained a mixed dark grey-brown silty fill with charcoal and cremated bone. In addition it produced a sherd of pottery of the same fabric and possibly the same vessel as that from cremation pit CP1 (ASH ?13; Henshall, below) and a leaf-shaped arrowhead of red-brown flint (CWJ 132; Wickham-Jones, below). Other scattered cremated material was recovered from the subsoil surface to the west of cremation pits CP1 and CP2 (illus 4) at the north-west edge of Quadrant N. The cremated bone was assessed as representing the remains of one individual (Powell, below).

Positioned at intervals around the periphery of the mound were six further pits/depressions (illus 4) (Pits Sg 1-6). They were lined with iron pan and filled with a combination of small stones and grey silty clay; this was a continuation of the same grey silt and underlying iron pan accretion which was found to cover the lower slopes of the subsequent mound (see below). Dimensions varied between a maximum of 0.85 m and a minimum of 0.55 m diameter with depths of 0.14 m to a maximum of 0.19 m. None of the six produced any artefactual material, nor any cremated bone or charcoal. They appeared to represent possible settings for uprights of timber or stone.

Alterations to the pre-mound ground surface

The above features had for the most part been cut into the clean natural gravel surface. Over much of the area of the mound this surface was sealed directly by mound material; in the major part of the southern half of the site the junction between the redeposited material of the mound and the natural subsoil was scarcely discernible, detectable only by minor distinctions in colour and texture. This was taken to indicate that mound construction took place on a surface from which the existing turf or vegetated surface had been removed. In places this stripped surface was white and hardened to a mortar-like texture (illus 6), consistent with it having been subjected to great heat. The exact extent of the fire-hardened surface could not be determined because of the effects of subsequent disturbance (illus 4) but the surviving remnants suggest it covered the major part of the central area of the monument. How it related chronologically to the creation of the cremation pits is difficult to deter-



ILLUS 5 Cremation deposit (CP3) and finds spot of arrowhead (indicated by white marker) beneath prominent stone on inner edge of ring-bank; scales vertical 1 m, horizontal 2 m; from NNE

mine since their location was for the most part mutually exclusive; only the area of central disturbance and Pit OF2 could definitely said to post-date it.

On the subsoil beyond the perimeter of the mound to the north-east were three patches (of average approximately 0.6 m by 0.5 m by 24 mm deep) of black and orange material of a crumbly consistency suggestive of hearth residues or burnt turf. It is likely that these were part of the burning activities producing the fire-hardened soil at the centre of the site but as they were sealed only by the topsoil and silted deposits on the extreme periphery of the mound their direct relationship to activities pre-mound could not be definitely established.

Immediately above the subsoil in the north-east arc of the mound lay a spread of grey-black sticky soil 3.5 m by 1.2 m and some 0.08 m thick (illus 4). It produced a number of fine early Neolithic bowl sherds (Henshall, below). Initially considered to be a remnant old land surface, it was subsequently redefined as a deliberate deposit; it possibly equates with the 'black layer' noted in the 1950s trench (Stevenson in litt), the extent of which is uncertain. Charcoal from this layer at the base of the subsequent mound produced a radiocarbon date of (GU-2049) 4660 ± 50 BP (= 3620-3342 calBC).

THE MOUND CONSTRUCTION

The ring-bank

Placed partly on the black earth spread and partly directly upon the natural subsoil surface, was a circular embankment (of a maximum 7.2 m diameter) composed of varying proportions of stone, earth and turf (illus 7). The construction of this ring-bank varied in individual areas of the site. In the south-west arc it consisted of two curving, roughly concentric, banks of stone (R1 and R2) (illus 8), approximately 0.7 m wide by 0.4 m high, with radii of *c* 2.7 m and 1.4 m respectively. The stones forming these banks were for the most part small,



ILLUS 6 Basal level of ring-bank with white fire-hardened area of subsoil surface visible at centre

river-worn boulders (of average 0.16 m by 0.10 m) with an admixture of some larger more angular stones (average 0.25 m by 0.17 m). The two arcs of stonework became less clearly differentiated as they curved towards the north-west where they appeared to contract to a single band; this band petered out towards the north and there was a discernible gap, *c* 0.35 m, filled only with random small stones, before the beginning of a further stone bank could be observed running beneath the northern baulk of the quadrant.

In the south-eastern segment of the ring-bank the embanked stones formed a single arc (of radius 2.1 m and width 1.2 m); in one segment the bank displayed a more formal structure of laid courses rather than mere heaped rubble. Towards the north-east, the stonework gave way to a bank (*c* 1.2 m wide by 0.35 m high) of sticky black humic material (illus 9) with, in places, discrete lenses of red-brown and brown indicating individual turves. Some burrowing had taken place along the inner edge of the bank but the profile of the outer scarp remained intact, outlined clearly in section by a demarcating line of stones and the yellow mound material which covered it (illus 10). Small fragments of cremated bone occurred within the bank material. Some fragments of pottery also appeared in this area (illus 16 below). The curve of the bank in the north-east (Quadrant N) continued as a mixture of stone and black sticky humic soil, although here discrete turves were not discernible. A distinct edge to the ring-bank was visible in the east but the edge became progressively less well defined towards the north and north-west where later disturbance, exploited by burrowing, made distinctions less apparent.

The inner edge to the bank was likewise less well defined than the outer, southern, edge, partly because of subsequent disturbance (see below); only a segment of the inner ring (R2) in the south-west in Quadrant P and the large stones against the north of the NO section in Quadrant N appeared to mark a clear inner margin, visible in section (illus 12). The terms 'margin' and 'edge' are used rather than 'kerb' as a formal kerb was never distinguished; the term 'kerb' was, however, used in references to the 1950s' trenching (Stevenson *in litt*) although the exact location in relation to the 'cairn', whether inner or outer, remains uncertain.



ILLUS 7 Plan of the ring-bank structure

The mound superstructure

The structural skeleton of the ring-bank was covered by a mostly homogeneous bright yellow gravelly clay, thrown over and against it to form a ring-shaped mound. This mound matrix (which varied from 0.25 m to 0.32 m in maximum depth over the ring-bank and tapered down to meet the subsoil) included some flecks of charcoal and sporadic flint and pottery together with considerable numbers of quartz pieces. Amongst these were two apparently formal deposits or caches of milky white quartz, set against the base of the main stone ring (R1) (illus 18).



ILLUS 8 Detail of the two arcs of stonework of the ring-bank in the south-west

The base of the mound material around the inner circumference of the ring-bank to the south-east and south-west presented a shale-like looser gravelly quality for a depth of 0.05 m; above this it was interleaved with thin lenses of charcoal and a white sediment, identical with the fire-hardened ground surface recorded beneath the base of the mound. As has been noted above, much of the material making up the lowest levels of the mound matrix was so clean as to be barely distinguishable from the natural subsoil.

A small area of stone rubble (1.5 m by 1.25 m) lay against the inner circumference of the mound in the west (illus 7 & 12), abutting the interleaved black and white lenses. It appeared to be lying *in situ* in contrast to bulk of the stone deposit within the central area of disturbance. This possibly represented a small relict of a central deposit of cairn material.

Against the outer circumference of the ring-mound lay a third, less continuous, arc of stones (R3), most clearly visible in the south and south-west (illus 7 & 11). It was not embanked as were the inner rings (R1 & R2) but rather its positioning against the lower slope of the yellow mound material (illus 10) appeared more in the nature of a remnant cladding.

Trial trenching to the east of Quadrant N to check for an outer ditch revealed only the presence of a shallow depression in the subsoil around the perimeter of the mound suggesting that the soil which covered the ring-bank was simply scraped, rather than quarried, from the immediate vicinity of the monument (illus 12).

The upper levels of the mound

The core of the mound, the stone and turf ring-bank with its covering of yellow gravelly clay, was sealed in its upper portion by a dark-brown loamy topsoil (c 0.3 m–0.4 m thick) and, on its lower slopes by an iron pan accretion/cladding (illus 12). This cladding was in turn covered by a grey siltyclay (maximum 0.12 m thick)



ILLUS 9 Section through the turf segment of the ring bank (scale 1 m): from south-west

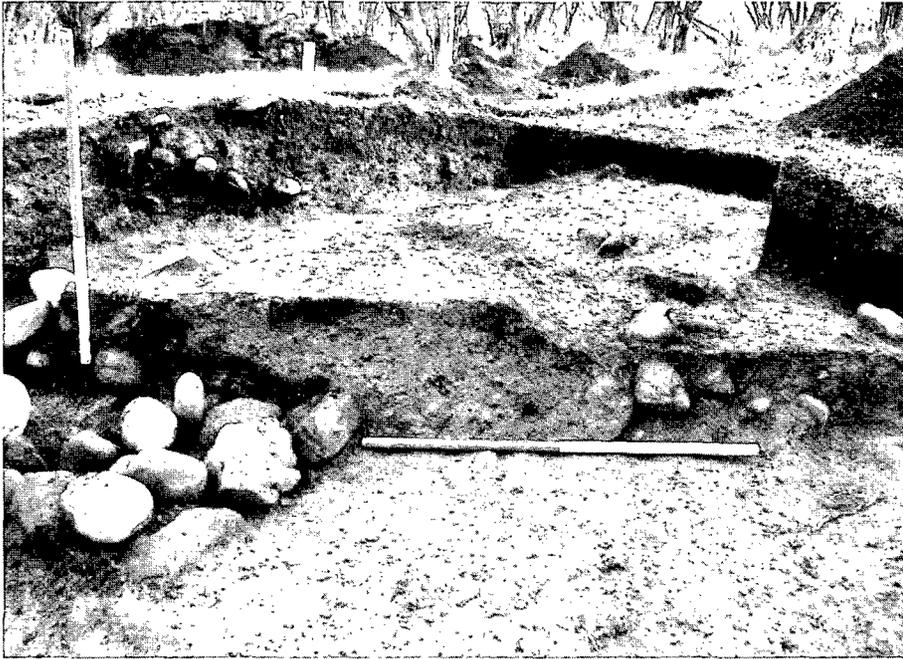
which was sealed by the same dark brown topsoil which covered the upper part of the mound; this became an increasingly humic woodland soil towards the perimeter of the mound. Scattered quartz flakes and pebbles (see lithics distribution, illus 18) and some fragments of pottery were recovered from these upper layers. The iron pan layer varied in thickness from 2 mm to 6 mm but was generally so substantial that a piece of it almost certainly accounts for the attribution of an ill-defined iron object to the site from the 1950s trenching.

ACTIVITY POST RING-MOUND CONSTRUCTION

Evidence for the activity following the creation of the ring-mound was severely restricted by the 1950s disturbance which dominated the central and north-western areas of the monument (illus 7 & 13). The only element which could with any confidence be attributed to a prehistoric post-ring-mound construction phase was the small area of stone rubble between the edge of the disturbance and the inner edge of the ring-mound in the north-west, either side of the baulk between Quadrants N and P (illus 7 & 12). However, as this cairn material lay immediately on top of the yellow mound material, with no discernible build up of a horizon between, it is possible that it could have been set in place very soon after the construction of the ring-mound as part of a cairn infilling the whole central space.

The central stone-filled pit and related cuttings

The remainder of a putative central cairn was represented in the mass of stone rubble redeposited in the large stone-filled pit and its lateral trench which it was assumed constituted the results of the 1950s trenching at the centre and north-west of the site. The depth and dimensions confirmed the identification as backfilled cuttings of 1952. The main cutting, dug through from the upper levels of the mound into the subsoil, appeared as a pit, sub-oval in shape, 2.3 m by 1.9 m where it cut the surface of the subsoil, tapering to 0.90 m by 0.6 m at (illus



ILLUS 10 Close-up of section through outer edge of ring-bank (R1) in south-east with yellow clay mound material banked against it; R3 shows as stones against outer right-hand slope of mound material; scales 1 m; from south-west

12) its maximum depth of 1.3 m. It had an upper fill of compacted clay (0.08 m thick) with charcoal flecking sealing a fill of mainly medium-sized stones (0.15 m–0.30 mm) with a loose sandy soil in the interstices. The basal fill was of a loose rough gravel. The linear depression (0.6 m wide by 0.95 m deep), leading off from it to the north-west, contained a similar sequence of fills. From amongst the rubble fill of the cuttings came fragments from three Neolithic vessels (ASH 3, 12 and ?13) and three Beakers (ASH 16, 17, 18) of which one (ASH 18) represents a sherd of the ‘cinerary urn’ recovered in 1952. Also from within the rubble fill, near the base of the main cutting, came three slabs of a knobbly quartzitic stone (cf the stones of the nearby remnant circle at Corrydown), average size 0.6 m by 0.4 m by 0.2 m; a further two rectangular slabs (illus 7 & 13) of the same type and similar size lay slightly to one side, at a slight angle to the junction of the lateral trench and central cutting. There is no reference to similar stones in the notes from the original excavation. Conversely, no equivalent of the ‘cobbled area’ referred to in the original digging of this area was observed in the 1978 excavation.

The clear edge to the 1952 central pit cutting was only visible on the east. There was the possibility that it had disturbed and consequently partly obscured an earlier pit. This showed as an edge (illus 7) curving away northwards from the main pit. The fill of this possible earlier pit could only be distinguished by a firmer texture to the gravel which lined the edges. It is not possible to attribute this incontrovertibly to prehistoric activity.

Final alterations to the mound

Within the upper layers of the mound was further evidence for comparatively modern activity. A rectangular setting of stonework (1.1 m by 0.6 m), only one stone deep, on the crest of the arc of yellow mound material to the north of the central stone-filled pit, together with a lump of redeposited mound material were attributed to spoil from the 1950s’ trenching. Similar anomalies originally observed in the contour survey in the southern half of the mound were also identified as dumps of material resulting from these operations. The skeleton of a



ILLUS 11 The mound under excavation in the south-west with the top of the arcs of the ring-bank (R1 & R2) discernible within the yellow mound material and the outer ring of stones (R3) apparent where it merges into the grey silt overlying the iron pan. Settings Sg4 and Sg5 are visible towards the top centre and right of the trench: from north

sheep was found in a pit dug on the east of the mound presumably at some point in the more recent past. There was evidence of ploughing across the southern edge of the mound in Quadrant O with parallel striations visible in the brown topsoil and remnant furrows in the subsoil beneath (visible in section illus 12); these would have presumably pre-dated any tree-planting.

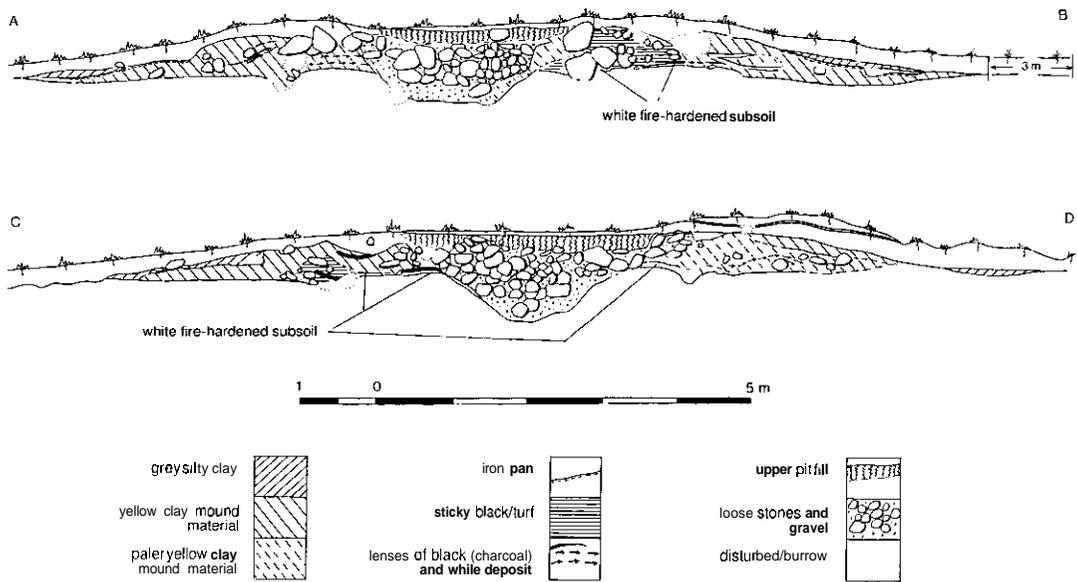
SPECIALISTS' REPORTS

The following specialists' reports are summaries of more detailed reports and tables which form part of the archive of the project records at the National Monuments Record of Scotland (RCAHMS). The finds material is still awaiting disposal.

THE POTTERY (illus 14 – 16)

Audrey Henshall

A total of 140 sherds was recovered of which the majority were associated with contexts from the ring-bank core and underlying black earth spread. Sherd small-find numbers are listed in archive



ILLUS 12 Main sections across site ESE/WNW and SSW/NNE



ILLUS 13 Rubble of the central disturbance in main WNW/ESE section (A-B), and, bottom right, two of the possible remnant cist slabs off the line of the side cutting; from north-east

together with a concordance with vessel numbers. Pottery is referred to by vessel number (prefixed ASH) throughout.

The pottery is in a very fragmentary state. The sherds with diagnostic features fall into two groups; mostly they are early Neolithic (ASH 1-14) (87 sherds) and the rest (7 sherds) are Beaker (ASH 15-19). There are also many (53 sherds) featureless sherds which have not been described and may be assumed to be Neolithic. It is exceptionally difficult to assess the number of Neolithic vessels represented, but there are certainly more than the 15 listed in the catalogue. There are sherds of three or four Beakers.

The Neolithic pottery (illus 14 & 15)

The most distinctive Neolithic sherds are from high-quality carinated bowls of open form, decorated by fluting. At least five such pots are present, ASH 1-5, but the identification of sherds from specific bowls is admittedly a subjective speculative procedure. The pots are dark in colour, of hard fabric with fine grits and burnished surfaces. The fluting occurs both outside and inside, and both above and below the carination. On occasions the lines are narrower and appear to have been lightly scored. Besides the sherds listed here, there are a few more small fluted sherds, and some plain burnished sherds of similar fine fabric varying in thickness down to as little as 4 mm: some, but not all, probably come from pots ASH 1-5.

There are also sherds from one, and probably two or three, carinated bowls which are not fluted and are less well finished. The large pot ASH 8 has larger grits and some mica in the hard fabric, and had lugs at the carination. The fabric of ASH 13 is exceptional amongst the Neolithic sherds in being heavily tempered with a rough surface due to the protruding grits. Sherds of vessel ASH 11 are of very hard fabric with burnished surfaces, and one sherd appears to have broken along a gentle carination angle. The forms of the other pots are uncertain. The little sherd of vessel ASH 12 is from a thin-walled rim, but the lower wall sherds probably from this pot are much thicker. The sherds of ASH 14 probably come from a round base, perhaps from one of the bowls listed. Building rings are clearly indicated by the fractures on pot ASH 8, and can also be traced on pots ASH 2 and ASH 3.

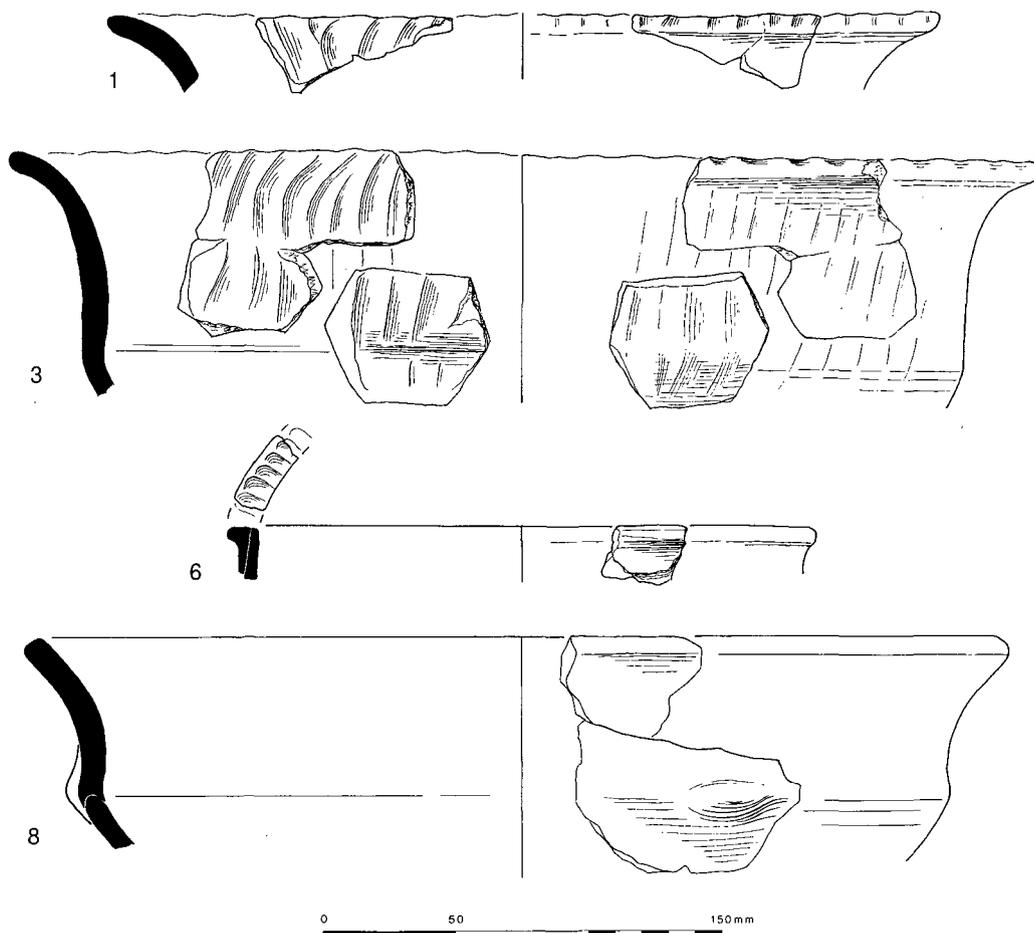
Apart from the fluting and scoring already mentioned, the only decoration is along the rim edges of vessels ASH 6, ASH 7 and ASH 10, each of which has a row of oval impressions, particularly deep on ASH 7.

The Beaker sherds (illus 15)

Of the seven sherds of pottery placed in the Beaker category, four possible vessels are represented (ASH 15-18). ASH 15 is a fine rim sherd, possibly part of vessel ASH 16, represented by three sherds with fine cord impression. The distribution was wide (illus 16). All were from contexts which were either secondary or had been subject to disturbance. The two sherds of vessel ASH 17 are somewhat more enigmatic, with shallow wide horizontal grooving, accompanied on one sherd (SF187) with the remnant of two lines of cord impressions below. The sherd of vessel ASH 18 has remnants of three incised grooves; it lacks an inner surface but its fabric is identical to that of the pot from the 1950s trench (described as a 'cinerary urn') and is almost certainly part of that vessel. Its context within the section through the 1950s trench supports this view.

Affinities of the Pitglassie pot

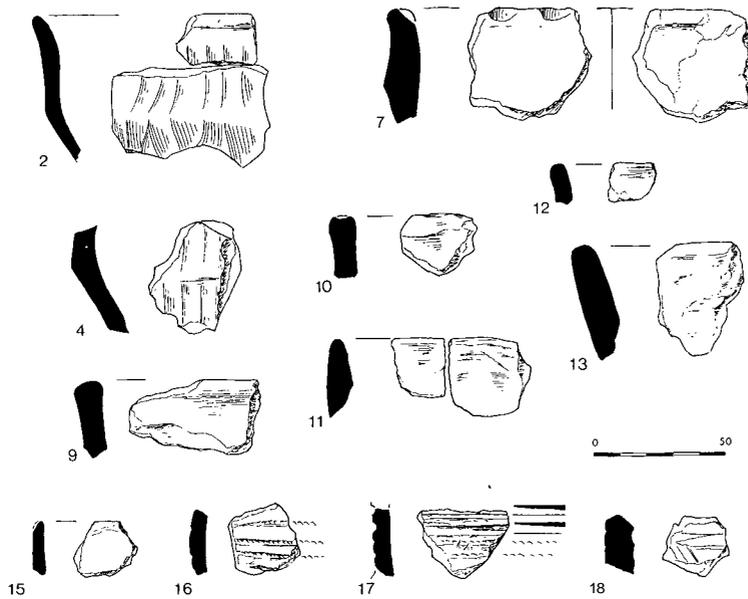
Apart from the Beaker vessels, all sherds belong to the north-east Scottish style of early Neolithic pottery, discussed in connection with the assemblage from Boghead, Moray (Henshall 1984). Indeed, the close similarity of Pitglassie to the Boghead pottery, and also to the other considerable collection from Easterton of Roseisle, also in Moray (Henshall 1983), is very striking. The profiles, the fabrics, the extensive use of fluting inside and outside some pots, and the decoration of the rims by a row of impressions, are all found at the Moray sites. Some similarities of detail may also be noted, such as



ILLUS 14 Neolithic bowls reconstructed; numbers as per Henshall catalogue of vessels

occasional scoring or grooving imitating fluting, a curious thinning of the walls below the carinations, and the presence of lugs on carinations. In particular, the coarse lugged bowl ASH 8 can be compared with Boghead 16. The flat rim with projecting edge ASH 6 is unusual amongst the north-east style, though Roseisle 33 comes close to this profile. The continuation of fluting below the carination, seen at Pitglassie, is found on the Roseisle pottery rather than on that from Boghead. There were at least two very large pots at Pitglassie but these can be matched at Roseisle.

Small groups of sherds belonging to this ceramic tradition have been found at a wide variety of sites in north-east Scotland (Henshall 1983, 28–31, 37–43). The condition of the sherds, and the circumstances of their deposition, when recorded, indicate that they are domestic rubbish. At Urquhart they may have been lying about an occupation site (*ibid*, 32-3), and this may also be the case where they have been recovered from below cairns, but at Roseisle the sherds had been dumped in a pit (*ibid*, 19-20). However, at Boghead and East Finncery the excavator considered that the sherds had been redeposited by the builders of the cairn below and in which they were found (Burl 1984, 54; Atkinson, 1962, 18). The very fragmentary remains of a considerable number of pots at



ILLUS 15 Neolithic and Beaker pottery from the site; numbers as per Henshall catalogue of vessels

Pitglassie, the poor condition of many of the sherds, and the joining of normal and scorched sherds on vessel ASH 1 (illus 16) all suggest that these sherds had been redeposited from elsewhere. There is also one instance where joining sherds were found widely separated.

Apart from Pitglassie, the only direct dating evidence of the pottery style under discussion is provided by the early fourth millennium BC radiocarbon dates from Boghead (Burl 1984, 71), and it may be noted that similar pottery has been found twice below chambered cairns in Caithness (Davidson & Henshall 1991, 69) and below the stone and earlier timber settings at Machrie Moor (Haggarty 1991).

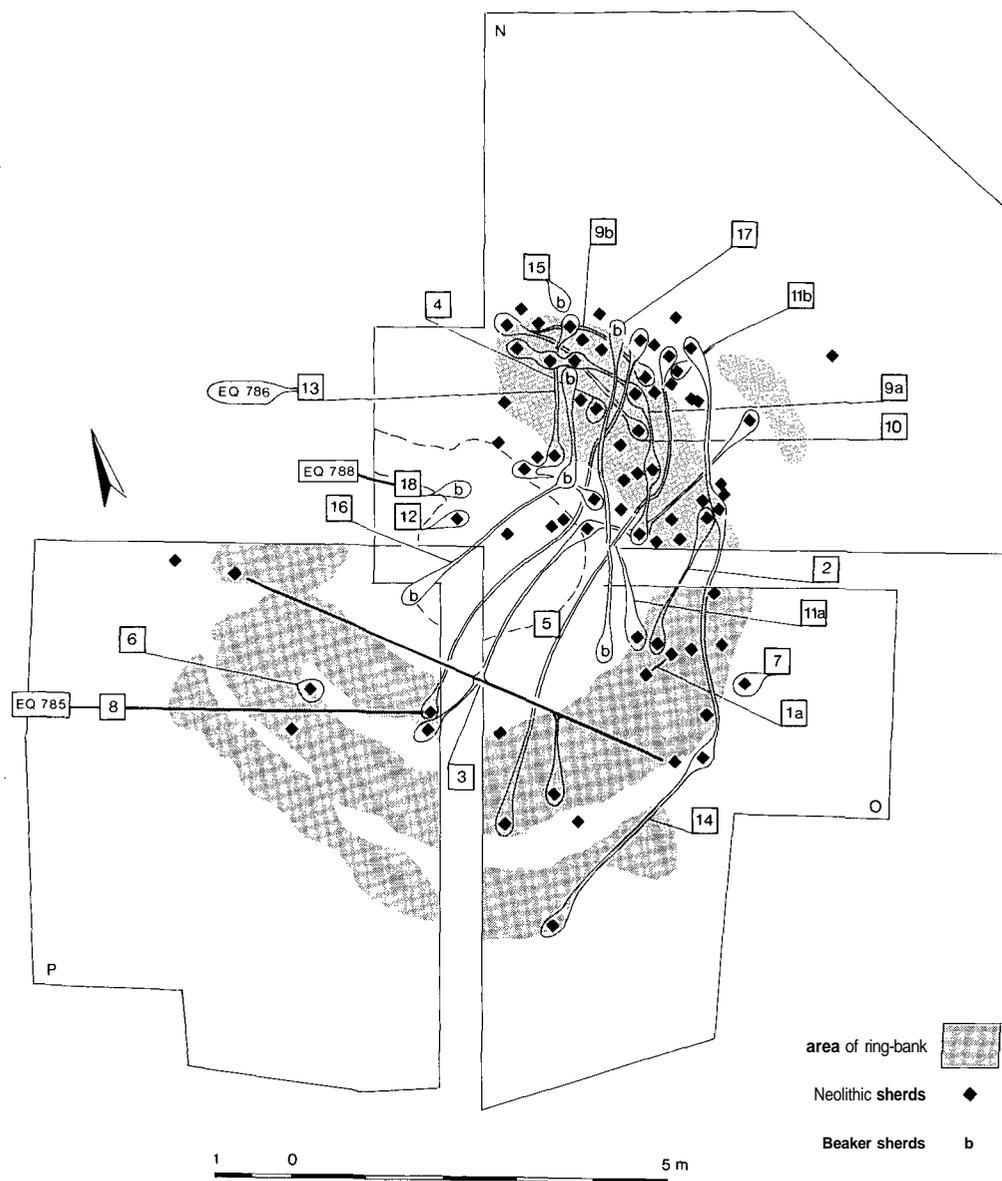
Amongst the Beaker sherds, the coincidence of groove and cord ornament on ASH 17 is very unusual. Of the very few examples, interestingly, the closest parallels also come from the Banff area: the Beaker without exact provenance attributed to Scatterty Hill, Banff (Clarke 1970, 56, 1574 fig 26) and the example from Lesmurdie (*ibid*, 1588 fig 270). As with AOC Beakers, these hybrids are seen as early forms by Clarke (*ibid*, 56).

The relationship of the Neolithic sherds to the monument and to the subsequent Beakers is discussed below.

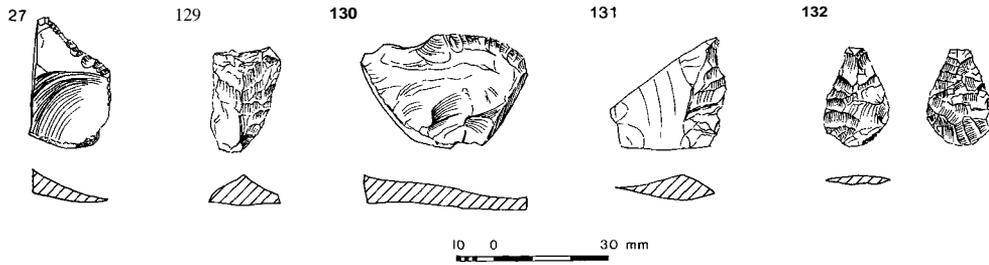
THE LITHICS (illus 17 & 18)

CR Wickham-Jones

The flaked stone assemblage from Midtown of Pitglassie comprised 381 pieces. The major part of the assemblage was of quartz, with some quartzite and a little flint. Only a very few pieces were recovered from specific depositions within the monument (illus 18); most of the assemblage occurred throughout the general make-up of the mound. It does show some interesting variations but was treated as one unit for the purposes of examination.



ILLUS 16 Distribution of pottery on the site linked according to vessel number (boxed); thick straight lines = joining sherds; double wavy lines = sherds of same vessel. EQ numbers = sherds from 1952 trench



ILLUS 17 Flint artefacts from the site; numbers as per Wickham-Jones catalogue of pieces

Materials

The raw material was most probably collected locally: supplies would not have been scarce. Quartz and quartzite are plentiful in many local gravels (Gemmel & Kessel 1977, 69) and the flint too is probably local (*ibid.*, 71). Abundant flint gravels are well documented from the Buchan Ridge, but pebbles in small quantities may be collected from many gravel sources (Wickham-Jones & Collins 1978, 7-12).

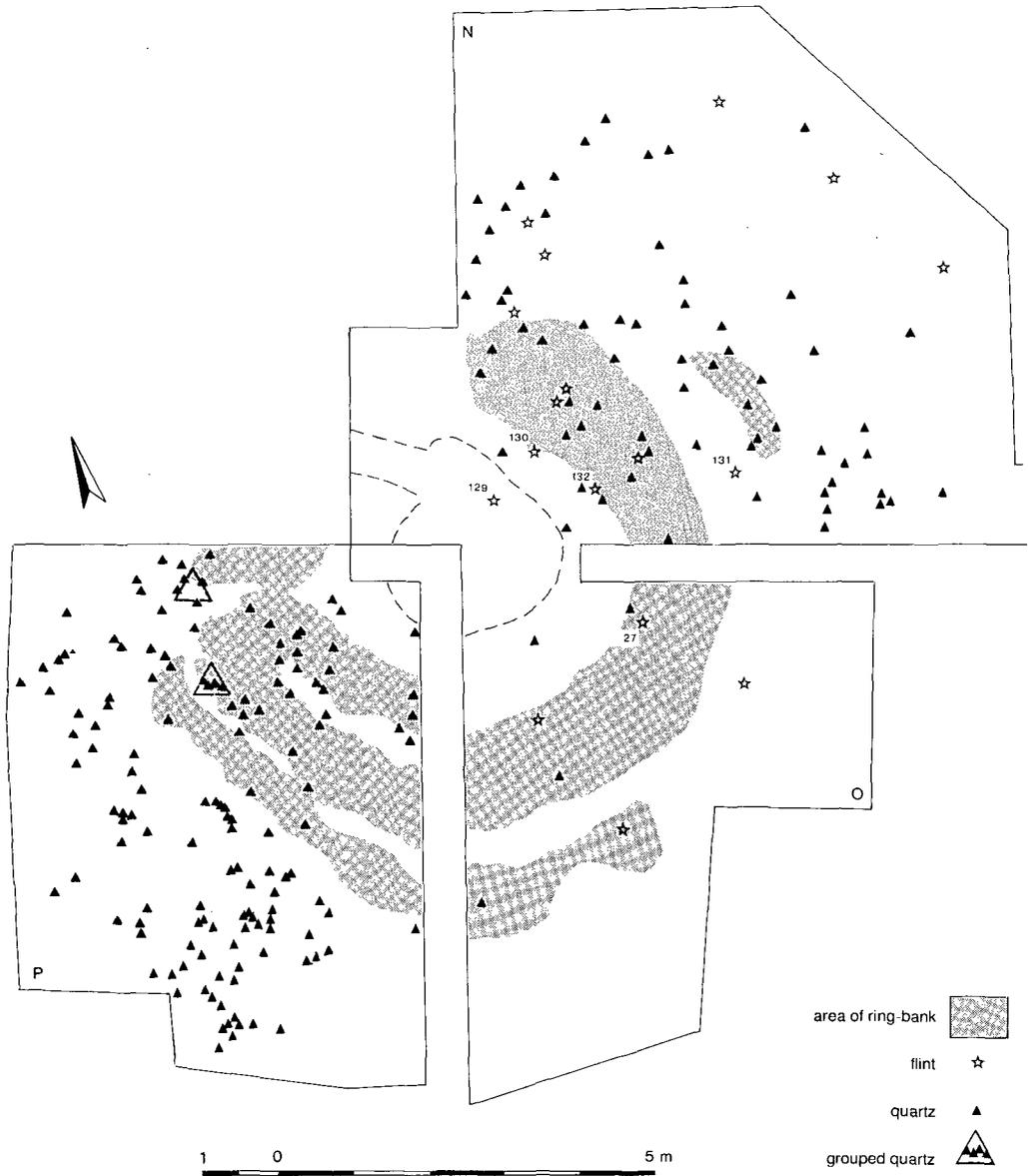
Composition of the assemblage

The assemblage contains only five retouched pieces (illus 17); all are of flint: an awl (CWJ 27), a fabricator (CWJ 129), two edge-retouched flakes (CWJ 130, 131) and an unburnt leaf point (CWJ 132). The rest of the flint assemblage is composed predominantly of flakes with a few chips and chunks and two pebbles, one of which has been flaked. The quartzite assemblage, too, has a predominance of flakes, but the more irregular nature of quartz as a raw material is reflected in the greater abundance of chunks in that assemblage. Two cores only were recovered. These are both of quartz. In addition, there are eight quartz pebbles on which some flaking has taken place. An interesting feature of the assemblage is the almost complete lack of tiny debris. The examination of two sieved samples (N 6a & P 4a), also lacking this debris, shows clearly that this absence is not just an accident of recovery. The presence of larger pieces of irregular debris (chunks) rules out the possibility of selection for specific pieces, for example flakes, in the make-up of the assemblage.

Distribution

The distribution of the lithics, and in particular the flint, was somewhat uneven over the three quadrants excavated (illus 18). Over half of the assemblage was recovered from the south-west, Quadrant P. However, this includes only one flake of flint and that is from topsoil, the majority of the pieces being of quartz. Examination of the distribution of material within this quadrant reveals no general patterns. This random positioning adds weight to the argument for an *ad hoc* incorporation of knapping debris from the locality. The north-east, Quadrant N, contained 37% of the assemblage, but 65% of the flint (21 pieces). Much of this flint (71%) is heavily burnt and damaged and it may be suggested that this was originally associated with the early cremation activity recorded in this area. Subsequently, it was disturbed and moved, during construction of the mound and later. Quartz and quartzite pieces were thinly scattered throughout Quadrant N in a random pattern comparable to that of Quadrant P.

In contrast with both Quadrants P and N, the south-east, Quadrant O, produced very few lithics indeed. Ten of the 32 pieces were of flint, of which six pieces were heavily burnt and possibly associated, as in Quadrant N, with early cremation activity. Very little quartz or quartzite was recovered from this quadrant.



ILLUS 18 Distribution of flint and quartz; illustrated artefacts indicated by Wickham-Jones catalogue numbers

In addition to looking at the general distribution we should look briefly at those pieces recovered from specific locations within the site. Foremost amongst these is the unburnt leaf point of flint (CWJ 132), recovered from cremation pit CP3 on the inner edge of the ring-bank. One other retouched piece of, burnt, flint (CWJ 129, the fabricator) was recovered from amongst the fill of the central rubble-filled disturbance, together with two quartz flakes and a single quartzite flake. Although Quadrant P contained no flint pieces in formal deposits, two groups of associated quartz pieces were noted by the excavator (illus 18) and the possibility that they had been formally laid was considered. The largest group consisted of 36 pieces, one flaked pebble (CWJ 133), 14 chunks (CWJ 145, CWJ 151) and 21 flakes (CWJ 171, CWJ 202-12, CWJ 237-48). As a group the pieces stand out clearly. Each is flaked from a fine milky-white quartz, providing a homogeneous group quite different from the rest of the assemblage. Detailed examination of the raw material suggests the knapping of only two separate nodules, but, unfortunately, none of the pieces refit. Although some pieces must consequently be missing, and therefore it is unlikely that knapping took place on the spot, it would appear that the pieces in question were deliberately laid for a specific reason. The other group of quartz in Quadrant P is quite different. It contained only three pieces (CWJ 234-6). All are quartz flakes, but a variety of different types is present, reflecting the composition of the rest of the assemblage. Although a deliberate act of deposition is suggested by the location, there is no evidence on the pieces themselves to suggest their distinction from the bulk of the quartz flakes.

Coarse stone tools

In addition to the flaked stone assemblage, three coarse stone 'hammerstones' were recovered from quadrant N (CWJ 249-51). Although each shows signs of wear, the abrasion is only slight and might be consistent with a wide range of possible functions. Had they been used regularly as hammerstones for stone flaking, one would expect the areas of wear to be much more developed.

The lithics: conclusions'

Although no primary evidence for *in situ* knapping was present, aspects of the techniques used throughout the manufacture of the assemblage can be gleaned from a detailed examination of the pieces. This shows clearly how the techniques were altered to cope with differences in raw material. In general, varying combinations of platform and bipolar flaking were used, probably involving both hard and soft hammers. Few formal, retouched, tools are included. Evidence suggests that the five which were present, all of flint (illus 17), were altered using pressure flaking to produce a combination of abrupt and shallow edges which, with the exception of the leaf-shaped point, involved little alteration of the original flake shape.

In connection with the dearth of formal tools amongst the assemblage we have to consider the possibility that the bulk of the material consists of waste - flakes and chunks which were, for various reasons, discarded after knapping. If this was the case then the presence of a surprising amount of large waste is mirrored by the almost complete absence of the tiny debris which is typically formed in large quantities on any knapping site.

It is noteworthy that the formal tools are all of flint, but this by no means reflects any unsuitability of quartz or quartzite for secondary alteration. Furthermore, some separation between the flint remains and the rest of the assemblage may be demonstrated by the high proportion of burning evident amongst the flint pieces, and by their situation within the mound. Flint was recovered only from those areas for which primary cremation activity was recorded. A few pieces, indeed, were directly associated with such activity. It seems likely that the flint, having been incorporated into this activity, was then dispersed

about the mound material in a similar fashion to the dispersal of some of the cremated bone (see below).

If this were the case, then the flint industry was clearly distinct from that of quartz and quartzite. Raw materials were selected from similar local sources but we appear to be able to see quite different attitudes to the different materials present. The flint assemblage would seem to have a somewhat specialized role as material associated with the ritual of cremation and the disposal of the dead prior to the construction of the mound. The occurrence of much red and yellow flint within the assemblage has already been noted and selection of raw material on a colour basis might be suggested. Unfortunately, the small size and heavy burning of the assemblage precludes definitive analysis of this and a similar colour variation is known to be reflected within many local gravels.

Quartz and quartzite, by comparison with the flint, have no evidence for use, and much more indication of knapping debris. These assemblages show no sign of burning and would have been associated with the manufacture of the mound after cremation. The existence of some, at least, apparently deliberately laid quartz debris, draws attention to the possibility of purposeful knapping specifically for the inclusion of pieces within the mound material.

The lithics: cultural and chronological implications

Bonnischen (1977, 7–49), amongst others, has seriously questioned the assumptions by which lithic industries are frequently used as cultural or chronological indicators. At Pitglassie, the leaf-shaped point is the only example of a formal type which has commonly been held to have firm cultural implications; but close examination reveals these to be wide ranging and loose (Green 1980 i, 67–99; Hamilton 1983, 41–4). Of the other formal tools, two are badly damaged, and none is of a clearly diagnostic type. Such cultural information as is indicated can serve only to support the data derived from the other categories of material from the site.

CREMATED HUMAN REMAINS

F V H Powell

Several small fragments of cremated bone from scattered locations on the site (illus 4), were presented for study. All the fragments were completely white in colour and lacked any fissuring. The fragment size was small in all cases; few fragments were larger than 5–10 mm.

The bone probably originated from one cremation and possibly represented one individual. The colour suggests a complete cremation, at a sufficiently high temperature to burn both flesh and bone, and lasting long enough to burn the latter completely through. The size of fragments and lack of fissuring corroborate the evidence of colour, indicating a relatively high cremation temperature. Taken in conjunction with the scattered location of bone fragments, the size of fragment also indicates dispersal, and possible further fragmentation, of the bone subsequent to the cremation.

The very few identifiable fragments did not make a sex or age judgement possible; however, those that were identifiable at least showed that the cremation was of a human.

CHARCOAL

Donald Paterson

Two samples of charcoal from secure contexts were submitted for identification prior to submission for radiocarbon dating. These were recovered from Cremation Pit 1 and from the area of deposited soil sealed by the ring-mound in the north-east (illus 4). Examination of the samples was carried out

TABLE 1

Pollen identified from two contexts: a burnt turf area off the foot of the mound and the base of the ring-bank in the north-east.

Burnt turf area in north-east

Trees	<i>Betula</i> birch	2.5%	Heaths	Rosaceae (comb)	<1.0% 76.6%
	<i>Pinus</i> pine	<1.0%	Herbs	Gramineae	11.8%
	<i>Alnus</i> alder	3.5%			
Shrubs	<i>Corylus</i> hazel	4.7%			

Base of ring-bank in north-east

Trees	<i>Betula</i> birch	<1.0%		Rosaceae	3.3%
	<i>Pinus</i> pine	3.5%		<i>Rumex</i> dock	2.0%
	<i>Ulmus</i> elm	<1.0%		Cereals	1.3%
Shrubs	<i>Corylus</i> hazel	2.0%	Heaths	(comb)	64.0%
	<i>Salix</i>	<1.0%			
Herbs	Gramineae	19.3%	Spores	<i>Lycopodium</i>	2.0%
	Compositae (lig)	2.6%		<i>Polypodium</i>	3.3%
	<i>Plantago</i> plantain	<1.0%		<i>Filicales</i>	2.6%

by Donald Paterson, then of Aberdeen University Botany Department, and the following species were identified: ash (*fraxinus*), alder (*alnus*), Birch (*betula*), Beech (*fagus*) and willow (*salix*).

POLLEN ANALYSIS

S Rapson

Pollen was recovered from two of the four samples submitted: one of the areas of remnant burnt turf (described originally as hearths) beneath the grey silt at the edge of the mound and from the black sticky material, assessed as turf-derived, from the core of the ring-bank in the north-east. In both the pollen was poorly preserved but enough remained to offer the following identifications and comments (Table 1).

The evidence from the first of these samples suggests that the area in which the mound lies was once covered with heath. The predominant species was heather (*Calluna vulgaris*), with grass also being a significant element, especially in the wetter areas around streams and on bogs. The small proportion of tree pollen indicates that trees were unlikely to have been present in the immediate area and they may have been few and far between over a much wider area. There is no evidence of cultivation near the site. Indeed the presence of only a single grain of herbaceous pollen (with the exception of grasses) suggests that there was very little variety in the heath. It is not possible to infer a precise date from the pollen spectrum, except to say that it post-dates forest clearance by man.

In the sample from the ring-bank, heath pollen was a slightly less important component whilst herbaceous pollen is more important. This would be likely if this was linked to the turf component of the bank to the south, in Quadrant O. The herbaceous pollen is more varied, and perhaps suggests that some cultivation was occurring in the area. This is also implied by the presence of two cereal grains, although so few grains cannot provide any conclusive evidence. Tree pollen contributes less than found in any quantity in the surrounding area.

There is some evidence to suggest that the two pollen samples date from different times because of their different compositions. Unfortunately no pollen was found in the other samples examined from the possible old land surface in Quadrant N or the remnant turfs of the bank in Quadrant O.

DISCUSSION

The presence of sherds from bowls of the Grimston/Lyles Hill tradition, together with the available radiocarbon dates, combine to place the major phase of Pitglassie in an early Neolithic, fourth millennium, context. The pottery forms can be compared most closely (Henshall, above) with those from Boghead, Fochabers (Burl 1984), and Easterton of Roseisle (Walker 1968) both in Moray. Further comparisons with data from the site made available pre-publication (Kinnes 1992) have allowed it to be placed within an early Neolithic category of non-megalithic (NM) round mounds which includes not only Boghead, but also a further two north-eastern sites - East Finncery (Atkinson 1962) and Atherb, Maud (Milne 1892), together with the mound at Pitnacree, Perthshire (Coles & Simpson 1965). The fourth millennium dates compare with those from Boghead (c 4000–3500 cal BC) and Pitnacree (3705–3510 cal BC and 2930–2730 cal BC). With these comparisons and preliminary categorizations in mind, the site will now be examined in detail to assess its nature and to attempt to place it more precisely within the range of analogous sites.

THE EARLIEST ACTIVITY

The evidence for the earliest activity on the site falls into three categories: those pits or scoops cut into the subsoil in the north and east of the site; the putative ring of settings within the subsoil around the mound and the fire-hardened subsoil and burnt material at the junction of the mound and subsoil.

Pits and scoops within the subsoil

None of the subsoil features in the south-east of the site (Pits OF2 - OF5) lent themselves to precise interpretation. Feature OF2 bore some comparison with the enigmatic hollows beneath the mound at Boghead (Burl 1984); it yielded the only diagnostic material recovered from this suite of features: a sherd from an early Neolithic bowl (ASH 11) and one from a grooved and cord-impressed Beaker (ASH 17). At first glance this combination would appear to be a further example of the association of the two types - Neolithic bowl and Beaker - originally claimed for sherds from East Finncery (Atkinson 1962, 18) and Loanhead of Daviot, Aberdeenshire (Kilbride-Jones 1935). However, the integrity of both of those earlier occurrences has been questioned (Henshall 1983, 32; Shepherd 1987, 124) and the location of Pit OF2 beneath that area of the bank subject to burrowing and adjacent to the central disturbance, means that the security of the association of the two types at Pitglassie is also less than certain.

The three early features cut into the subsoil in the north-east of the site, filled with cremated bone and charcoal and accompanied by items of pottery and lithics, could, however, be assigned specific roles as places of formal cremation deposition. Reference to a 'proto post-hole' and cremated material in the area of the 1950s trench (Stevenson in litt) indicates the possible existence of an additional pit in this area and further formal deposits could lie beneath the unexcavated baulks on the site. The scattered occurrence of cremated material in and around the area of the ring-bank may indicate disturbed formal deposits or the deliberate spreading of material or incorporation of fragments derived from the pyre-gathering process.

The placement of cremated material in formal pits or deposits is a classic feature of Neolithic ritual at a range of sites of different form (Kinnes 1992, 100) and, in particular, crematorium practices, in some cases contiguous with an inhumation ritual, are characteristic of the NM round mound category (Kinnes 1985; 1992) and of sites within that category with which Pitglassie has been compared. The laying or spreading of deposits on the surface is seen at Pitnacree on the old land surface,

under the stones of the burial enclosure (Coles & Simpson 1965, 40). At Boghead (Burl 1984, 46), the cremated bone was part of a black layer, spread over the central area. The cremated deposit at Atherb (Milne 1892, 102) appears to have been the remains of a pyre *in situ*, with considerable quantities of calcined bone found mixed with 'oak logs' and a 'vitreous mass' of granite and quartz which comprised the bulk of the remnant mound. The pottery type-site of Lyles Hill, County Antrim (Evans 1953, 13-17), demonstrated a combination similar to Pitglassie, with a generalized spread of cremation material and specific placement within pits.

The deposition of cremated material in pits and central spreads is also one of the recognized characteristic practices with the range of monuments incorporating a ring-cairn element: recumbent stone circles (RSCs) and Clava cairns (Burl 1976, 170); the limited excavation data available suggest that it is also a feature of ring-cairns proper (Kenworthy 1973, 23; Ritchie & Maclaren 1973, 4-7). Its use as foundation deposit at the base of stones has been noted where excavation of stone-holes has been possible as at Balbirnie (Ritchie 1974, 3) and at Cairnpapple (Piggott 1948, 76). A cremation in a scoop at the North Mains, Strathallan, Perthshire, henge (Barclay 1983, 126), sealed beneath the henge bank offers a further example of a cremation deposition fulfilling a foundation - ie dedicatory - rather than funerary role; this distinction will be returned to below.

Of the sherds deposited with the cremated bone, those from one vessel (ASH 13) were used specifically within the formal cremation pits. It was of a coarser fabric than some of the finer fluted bowl sherds, which were not found in the pits but in dispersed contexts of the black earth spread and the yellow clay matrix covering the ring-bank. This pot does not find a specific parallel in individual vessels from Boghead or Roseisle (Henshall, above) but its fabric bears general comparison with the coarser fabrics from those assemblages. In addition, like a number of other vessels in the Pitglassie assemblage, it exhibits an attractive mica-speckled surface, as if strewn with Christmas glitter. This attribute is so recurrent a feature of earlier Neolithic fabrics that it has been taken to suggest a 'potting recipe' (Cowie 1992, 280), clearly designed to produce an impressive vessel.

Of the other diagnostic material associated with the formal cremation deposition, the arrowhead (illus 17) in Cremation Pit CP3 on the inner rim of the ring-bank (illus 5) appears to be the most significant. It fits into a widespread pattern of formal deposition of lithics, in which axes and arrowheads play a major role. Within this range, leaf-shaped arrowheads were early recognized as a feature of the depositional practice within the Yorkshire NM round barrows (Piggott 1954, 111) and are noted as occurring within the range of chambered tombs with early Neolithic bowl association (Henshall & Wallace 1972, 179). More specifically, examples are found at a number of the Neolithic sites previously mentioned as having material and structural comparisons with Pitglassie. At Lyles Hill (Evans 1953, 14), amongst several flints in Pit 8 was a 'lozenge-shaped' arrowhead; 28 further leaf- and lozenge-shaped arrowheads were recovered from the site, a high proportion of which occurred '... at about the limits of the thin black spread'. Evans suggests that these represent offerings placed around the edges of the '... fire or fires within the sacred area later delimited by the kerb' (*ibid*, 51). At East Finnercy, a leaf-shaped arrowhead was deposited with the sherd spread on the old land surface (Atkinson 1962, 18); at Atherb (Milne 1892, 102) 'many flint arrow points, all heart or leaf-shaped' were noted amongst mixed amongst the bones of the pyre. At Boghead two unfinished arrowheads formed part of the wider flint assemblage, the bulk from the area of the east cairn (Burl 1984, 67). The quantities of leaf-shaped arrowheads noted at Roseisle in the area of the pits (Walker 1968, 103) may also be part of this pattern.

The controlled deposition of ritually charged material has attracted increasing interest, most recently summarized for timber circles by Gibson (1994, 208). Emphasis is given to central areas, to northern and eastern arcs and to the south-west. Cremation deposits at Balbirnie, for instance, (Ritchie 1974, 3) were in the eastern stone holes and at Cairnpapple (Piggott 1948) occurred in the

arc of pits on the east side. The decorated slab marking the 'blind' entrance in the kerb at Lyles Hill lay to the east (Evans 1953). The location of the Pitglassie deposits appears to reflect similar preoccupations with structured deposition. The arrowhead, with its accompanying deposit in Cremation Pit CP3, was located in the north-east, beneath the inner edge of the ring-bank (illus 4). Cremation Pit CP1 was also located on the edge of the main ring at the point in the north where it became less well defined. The less formal deposits or spreads containing cremated material and the bulk of the pottery were concentrated in the north and east (illus 4 & 16). By contrast, quartz pieces were predominant in the south-west and the two examples of laid pieces were found against the stone bank in that area, either side of the perceived gap in the ring-bank (illus 18). In this connection it is of interest to note that the concentration of quartz in recumbent stone circles (RSCs) lies around the recumbent to the south-west of the circle. Clearly these occurrences offer glimpses of strands of tradition, obscure yet tantalizing.

The shallow pits on the periphery of the mound

The shallow pits (Sg1-6) are discussed as part of the earliest activity, although, strictly, their creation cannot be ascribed to a pre-mound activity: they could as easily be argued to be contemporary with the mound construction. Their lining of iron pan, fill of stones and grey silt, corresponded with that cladding the lower slopes of the mound. This would suggest that they could ultimately have stood open, filling up with the same material that developed against the lower slopes of the mound. On balance, unless severely truncated, they do not appear to have been post-holes: apart from Pit Sg3, they displayed no real depth and there was no indication of timbers rotting *in situ*. This suggests that they held stone rather than timber uprights. In spite of their lack of depth, any possible uprights could have been comparatively substantial bearing in mind stone No 1 at Balbirnie (Ritchie 1974, 6) which '... had hardly been let into the ground at all but was supported on a small stony foundation'. At Pitglassie, the putative setting Sg6, however, was only just distinguishable from the outer ring (R3) of stones embedded in the grey silt at the foot of the mound; this indicates the possibility that the settings may have been placed against a low bank of stone, of which R3 represents a remnant, to provide support. Allowing for truncation by activity post mound construction, in particular in Quadrant O, it is still surprising that, if the settings were used for stone uprights, no remnant appears to have survived (although note Burl's description (1976, 10) of the total obliteration of a substantial circle).

Given that settings could represent the remnants of an outer stone circle, a tentative attempt can be made to estimate the nature and size of that circle. Measurements between elements of the six surviving settings suggest that the projected ring is likely to have had a maximum diameter of approximately 11 m. If average spacing between stones is projected, a further four or five settings would have existed, of which one could have been located beneath baulk NO, another in the area destroyed by the turf-filled scoop in O, and a third in the area of the 1952 trench (support for the latter possibly exists in the reference to a 'proto post-hole' (Stevenson *in litt*), although this could also be interpreted, as above, as a possible further cremation pit). A circle of 10 or 11 stones for Pitglassie would place it within the normal range for recumbent stone circles (RSCs) (Burl 1976). The diameter of 11 m would be at the smaller end of the scale (average 18.2 - 24.4 m: Shepherd 1986, 145). The circles in the immediate area of Pitglassie are now fragmentary but Pitglassie [North] clearly originally had 12 stones and Mains of Hatton possibly 13. It is possible therefore to conjecture that Pitglassie might represent a small-scale, evolutionary stage on the line of development towards more substantial monuments of the RSC form.

However, against such speculation must be set the fact that the settings silted up with the same

material as the lower slopes of the mound, suggesting that any uprights which they might have contained would have been removed comparatively soon after erection. They could then more nearly represent not settings but further examples of that form of inexplicable depressions first categorized by the Aubrey holes (Cleal *et al.*, 1995, 102-7). There was no cremated or cultural material within the fill of the settings, which might have been expected given the presence of cremation elsewhere on the site and the known occurrence of cremation deposits within the stone-holes of stone circles (eg Balbirnie: Ritchie 1974) (although there is a suggestion that the 'proto post-hole' from the 1952 trench may well have held cremation material (Stevenson *in litt*) and would therefore be an example of a cremation within a setting if it could be reliably designated as such). In whatever form, the settings appear to have been part of the process of marking out the boundaries for the area of ritual activity, creating the space within which cremation was to occur and the mound was to be constructed or conversely, marking the limit of the mound *after* its construction.

Alterations to the pre-mound ground surface

If the outer ring of pit settings are seen as some form of demarcation of the mound area, then the modifications to the surface of that area appear to have been a further stage in the pre-mound ritual preparation. From the evidence in the south-west of the site, where no junction was visible between the cast-up mound material and the subsoil, it appeared that the turf or vegetation cover must have been stripped from the old land surface in this area before mound construction began. Elsewhere, the surface across much of the central area of the site showed evidence of discoloration and hardening through fire. This was taken to indicate the location of a pyre, the source of the cremated material deposited on the site. At Lyles Hill, the upper 50 mm of the subsoil were reddened with heat (Evans 1953, 11), indicative of a pyre location; it was also noted that 'the old ground surface had evidently been considerably disturbed both before and during the preparation of the burial site.' At Boghead, discoloration of the sand subsoil was taken by Burl (1984, 54) to indicate the possibility that, as at Overton Down, Wiltshire (Coles 1979, 232), the turf stripping had taken place before burning occurred. Henshall & Wallace (1972, 2), however, suggested that the Boghead pyre had been lit on the old land surface and the cairn constructed immediately upon it. The almost complete lack of cremation residue on the ground surface in the south-west of the site suggests that, for Pitglassie, burning on the old land surface prior to the removal of the turf and cremation remnants is the more likely model: the heat of the pyre would have been conducted through the turf cover, hardening and discolouring the subsoil beneath; the turf would then have been stripped and the residue of the cremation lying upon it, after the bulk had been removed for formal deposition, would then have become incorporated, either deliberately or incidentally, within those parts of the bank constructed from turves.

Despite the creation of a sizeable pyre, postulated from the fire-hardened surface and the heat evident from the condition of the cremated bone (Powell, above), Pitglassie did not retain the large quantities of carbonized material noted at Pitnacree (Coles & Simpson 1965, 39), at Atherb (Milne 1892, 102) or at Lyles Hill (Evans 1953, 10-11). Apart from the charcoal fragments distributed through the mound material, the distribution of burnt material was restricted to the charcoal/burnt wood in lenses within the inner circumference of the ring-mound, and the contents of the cremation pits. Enough information was recovered from these fragments however to indicate that the wood used for the cremation would have been a combination of the following species: ash, alder, birch, beech and willow. This compares with the use of oak, hazel, birch and conifer (?pine) at Boghead (Burl 1984, 39), hazel (including hazelnuts), some oak and a few specimens of willow/poplar at Lyles Hill (Evans 1953, 71), oak and hazel (again including hazelnuts) claimed for Atherb (Milne

1892, 102) and hazel and willow from the central pit at Loanhead (Kilbride-Jones 1935, 214). The presence of birch and alder within the pollen recovered at Pitglassie indicates their existence within the vicinity, although the surrounding area was predominantly heathland (Rapson, above); other wood may have been brought from further away, willow presumably from the valley watercourse.

Carbonized material was a major component of the black sticky matrix incorporated in the turf-built sections of the ring-bank and in the grey-black spread originally identified as remnant old land surface, but subsequently interpreted as a redeposited earth spread. This latter appears to represent a similar sort of deliberate deposition to that seen at Boghead (Burl 1984, 54) and at Lyles Hill (Evans 1953, 10–11). A high proportion of the bowl sherds (c 80%) was associated with the basal levels of the bank and this area. Across the site, sherds from the same vessel, including some that joined, were found some distance apart (illus 16), a circumstance noted also at Lyles Hill (Evans 1953, 12). There exists the possibility that, rather than being part of a conscious deposition of material, both pottery and lithics derived from the residue of a previous domestic occupation of the site and were inadvertently gathered up and incorporated into the ring monument during its construction. Such purely accidental incorporation seems unlikely on a number of counts; firstly, incorporation of *in situ* domestic debris presupposes the existence of a domestic/settlement site in that location. In the case of Pitglassie, occupying as it does the summit of a ridge, this would seem unlikely. A more viable location for a settlement would be in the sheltered valley (as at present), closer to a water supply. This implies that the necessary domestic debris was deliberately brought from a settlement some distance away, just such a scenario as was described by Piggott (1954, 113) for the ritual deposit of soil beneath the barrow at Giant's Hill, Lincolnshire, where its importation from elsewhere was supported by the molluscan evidence.

Secondly, the confinement of the deposited material within the limits of the monument at Pitglassie also argues for its deliberate importation and placement and for its contemporaneity with the monument construction. This close correspondence is noted also at Boghead, where the Neolithic material was associated strictly with the limits of the mound, and at East Finnercy, where the close coincidence of the pottery distribution to the limits of the cairn was commented upon (Atkinson 1962, 18). At Lyles Hill (Evans 1953) the pottery was confined to the black layer contiguous with the mound edge and the bowl sherds at Pitnacree derived from the enclosure and old land surface (Coles & Simpson 1965, 41)

Finally, the nature and type of the deposited material demonstrates such similarities across a number of sites that the possibility of chance incorporation occurring coincidentally on all of them stretches the bounds of probability. Rather the presence of scatters of bowl sherds at all these sites suggests deliberate choice and incorporation. Evans (1953, 11–12, 32), goes further and suggests deliberate selection, noting the high proportion of rims and shoulders and suggesting the ease with which they could be collected for offerings. Baskets placed beside pyre and handfuls thrown on (although inexplicably he sees the more worn material as deriving from old habitation layers adjacent to the site). The argument against accidental incorporation of pot debris is underlined by the evidence of lithics where the absence of small debris (Wickham-Jones above) argues for the deliberate importation of material from a source elsewhere, a picture emphasized by the deliberate deposition of the arrowhead.

This is not to say that the derivation of the material may not have been in the first instance from a domestic context, but merely that its incorporation was deliberate and not incidental. The categorization of the pottery as 'domestic' is not always helpful as it inclines to limit to one role an artefact which will have had many (Miller 1985). The description of a Romano-British funeral quoted by Evans (1953, 12) could bear repetition here :

A caravan belonging to Mrs Harriet Bowers, the 'mother' of a clan of 400, was burned, her two horses were killed, and her crockery was smashed. The Romanies believe that this is necessary to prevent the return of the dead person's spirit. All Mrs Bowers's possessions were put inside the caravan and burned. Finally the crockery was smashed and this, with the iron framework of the caravan, was buried.

The Times, 13 Jan. 1953

In short, the coincidence of a ceremonial superstructure over pits/areas containing 'domestic'ware and cremated material cannot satisfactorily be explained as the congruence of a later ritual site created over an earlier domestic location. Deliberate preparation and deposition within the area appears a more acceptable scenario: clearly domestic rubbish merely represents material playing a ritual role. It is surely not chance that the pits containing bowl sherds at Machrie Moor correspond with the positioning of the subsequent circle monuments (Haggarty 1991) or that the general scatter of Neolithic pottery covers areas subsequently used by the builders of henge and mound at North Mains: there, their dispersal in the course of ploughing (Cowie 1983, 251) may owe as much to a ritual preparation of the surface as it does to a chance incorporation through manuring.

THE MOUND: ITS CONSTRUCTION AND ASSOCIATIONS

The inner core ring-bank

Within a possible circle of settings and on a ground surface which appears to have been affected by fire and then stripped of its turf, a circular bank of stone and turf was constructed. Whether this was initially an annular or penannular structure cannot be stated with certainty; the surviving configuration of the mound together with references to 'the 15 ft ring' within notes of the 1952 trenching (Stevenson in litt) strongly indicate that the ring-bank continued, at least in part, beneath the north-west arc of the mound. The differing nature of the surviving segments of the bank suggest that, at any stage through the construction process, a penannular bank could have existed, allowing some form of continued access such as that contrived for Pitnacree and North Mains (Barclay 1992, 78). This access would eventually have been closed, however, with turf or stone banking. Reference has been made to that section of the stone banks in the WSW where there is an apparent gap suggesting the possibility of an opening there. It is possible that any intended space would have a similar significance to those gaps between the separate underlying cairns at Boghead (Burl 1984) and are indicative of episodes within mound creation rather than individual independent functions.

The ring-mound

The ring-bank itself would have represented only a phase in the ceremonial use of the site before the final act of raising a mound over it. The lack of any clear distinction between the mound material and the subsoil from which it derived also indicated that the rings could not have stood open for any length of time and were almost certainly covered by mound material very rapidly.

The combination of an underlying structure, the ring-bank, with an overlying mound which is seen at Pitglassie is reflected in the three (possibly originally four) cairns underlying the mound at Boghead (Burl 1984, 43) and the penannular stone bank beneath the mound at Pitnacree (Coles & Simpson 1965, 38), and in a highly sophisticated form in the elaborate partitioned structure beneath the barrow at North Mains (Barclay 1983). Such underlying frameworks/cores are a feature of Neolithic round mound construction which appears to continue into the Bronze Age (Kinnes 1979). They could have fulfilled a dual role in both providing a framework for the ultimate mound and also creating a central space utilized in stages of the ceremonial. At Pitglassie, the distinct character of

the segments of the ring-bank give rise to the probability of separate construction, either by different groups with different responsibilities or as different parts of the ceremonial. This has echoes of both the tripartite division of cairns beneath Boghead (Burl 1984, 54) and the kerb at Pitnacree, built in a series of short straight lengths (Coles & Simpson 1965, 36); these in turn reflect the segmented nature of Neolithic stone and earthworks noted elsewhere (Bradley 1993, 56). It also holds echoes of the North Mains mound where: 'At various stages individual and collective decisions were made about the materials [stone, turf or earth] to be used' (Barclay 1983, 235). The same combination of stone, earth and turf is a feature of Pitnacree (Coles & Simpson 1965).

The exploratory extension of Quadrant N to the south-east revealed no evidence of a ditch as such. The shallow depression in the subsoil which appears as a continuation of the dipping profile of the foot of the mound (illus 12 section A-B) suggested that the mound material was scooped up from around to cover the stone rings of the monument. It was also possible that some had been thrown up from the middle, in particular in Quadrant P but the central disturbance made it hard to be certain. The loose shaley layer described in the centre of P could have been the result of slippage from the outer material thrown up and over the rings. This would add to the picture of a ring monument standing free as a yellow ring, an equivalent of the shining white chalk mounds of the south. The outer ring of stones in grey silt could represent a kerbing of the mound material (cf Pitnacree: Coles & Simpson 1965, 37) or a stone cladding to the mound comparable to that employed at North Mains (Barclay 1983, 199) that slipped with the silting process or a remnant of a bank, suggested above, against which the settings might have placed (in a similar manner as the embanked stones of the peculiarly Buchan form of the RSC).

Structurally, the use of a bank of stone as an entity in itself or as part of a more complex monument foreshadows ring-cairns, both individual and as part of RSC or Clava monuments, and later still embanked enclosed cremation cemeteries (ECCs).

The central disturbance made it difficult to ascertain whether this final mound was, like its underlying ring-bank, annular or whether in fact the stone rubble filling it represents the redeposited remnant of a central cairn, of which only the small undisturbed remnant in the WNW remains (illus 12). If indeed it does, it could represent material integral to the original Neolithic monument, placed as a final act to fill the centre of the ring-mound much as is seen at the later monument at North Mains (Barclay 1983). It could have been disturbed in any number of subsequent episodes of intrusion, in a similar way as Barclay (1992, 81) describes for North Mains and suggests might have been the case for some Clava-related monuments. If it did form part of the primary monument, then it is just conceivable that the five slabs recovered from within the central rubble contexts were also part of the original Neolithic ceremonial. Comparisons could be made with the cist structure in the centre at Lyles Hill (Evans 1953, 8-10) and the central pit, possibly with a burial, at Boghead (Burl 1984, 54). However, in the absence of a definitive stratigraphy for the central area, the existence and chronology of any primary central cairn element remain suspect and the initial identity of the monument has to be assumed to have been a ring-mound.

The size of the mound

Evidence of comparative sizes presents a mixed picture and does not aid ready classification. The overall size of the NM mounds with which Pitglassie has been most closely linked have somewhat larger dimensions, the diameter of the mounds at Boghead and Pitnacree being *c* 15 m and 28 m respectively (Burl 1984, 44, illus 4; Coles & Simpson 1965, 37, fig 2). Lyles Hill itself was 21 m in diameter. Information for the round cairn at East Finnercy is too fragmentary to offer more than general similarities of size and proportions. At Atherb the cairn from which the sherds of early

Neolithic bowls derived was on the crest of a long mound and, from the description (Milne 1892, 102), was somewhat larger and more amorphous than Pitglassie; however, a second cairn, Powsod or Pow of Atherb, which produced cord-ornamented Beaker and a small undecorated 'tea-cup' sized vessel offers a much closer comparison: 10.6 m in diameter and 1.8 m in height, with a central depression 1.2 m in diameter and 0.45 m deep (*ibid.*, 103). Generally, in size Pitglassie fits more neatly within the ring-cairn range in the north-east in which it is centrally placed (Kenworthy 1973, fig 2). It has close similarities in size with Cairnwell, Kincardine, which has recently been shown (Rees forthcoming) to also be a multi-phase monument.

Of the internal dimensions of the monument, the diameter of the central area of the ring bank, c 4.3 m, compares with a maximum of 4.0 m for the central space at Boghead (Burl 1984) and also with the central space of 4.9 m on average for Clava cairns. As with its other facets, Pitglassie's dimensions support classification within a number of traditions.

The associations of the mound

The major parallels for the pottery associated with the ring-mound have already been rehearsed (Henshall, above) and their links to that range of sites linked under the NM round mound category have been stressed. The lithic associations of the mound, however, seem to represent two strands of relationships. The general flint assemblage, and in particular the leaf-shaped arrowhead noted above, reflects what appears to be common Neolithic usage. The prolific quartz at Pitglassie, incorporated in the mound make-up and deposited in specific locations, is, however, not matched at those sites which otherwise display the closest cultural affinities. Only four pieces of quartz are recorded from Boghead (Burl 1984, 67) and three flakes only from Pitnacree (Coles & Simpson 1965, 43); none is recorded from East Finnercy (Atkinson 1962), Roseisle (although quartz gritting is noted in some of pots) (Walker 1968) or Atherb (Milne 1892). By contrast, prolific quartz deposition is a practice which characterizes the range of monuments of ring-cairn form, Clava cairns and RSCs (Burl 1973, 46) and is also a feature of kerb-cairns (Kenworthy 1973, Ritchie & MacLaren 1973, 8-12). This underlines the linkage of Pitglassie to this tradition through the structural parallels of stone rings and outer settings. In this connection, the concentration of quartz to the south-west at Pitglassie is a reflection of the concentration of quartz around the recumbent lying in the south-west arc of RSCs. The process to be envisaged is likely to have been some form of that seen at Strichen RSC, where excavation revealed that the bank had been scattered with quartzite flakes produced on an anvil stone on site (Shepherd 1986, 154).

SECONDARY ACTIVITY AND DISTURBANCE

The interpretation of the rubble within the central disturbance as redeposited material from a central cairn and the slabs found within it as a possible cist have been referred to above, together with the suggestion that they represent a final phase in the construction of the primary monument. However, the predominance of Beaker sherds from the central disturbed area in contrast to the comparatively small number of early Neolithic sherds (9 out of 140) suggests that any cist, and accompanying cairn cover, from this area would be more likely to derive from an episode of Beaker intrusion. The slabs were of a somewhat smaller size than those more usually associated with Beaker cists from the north-east and no evidence of inhumation was recorded but it is still entirely possible that they were used in the construction of a cist, accompanied by the crushed 'urn' (ASH 18), a late Beaker.

In this context it is important to note that, apart from the sherds of the, apparently, originally whole pot (ASH 18) recovered in 1952 (and believed to have been deliberately crushed), the other

Beaker sherds represented were fragments only, and almost all bore cord-ornamentation. The deposition of Beaker sherds on former Neolithic sites as some act of re-dedication or claim - has been discussed elsewhere (Shepherd 1994, 270-1) and Pitglassie could represent another occasion of that particular phenomenon. It should be noted also that where groups of Beaker sherds have been found in this intrusive position, cord-ornamented sherds are invariably included (eg from Boghead (Burl 1984, 62) and East Finnercy (Atkinson 1962, 18) as well as from the RSC at Loanhead (Kilbride-Jones 1935, 173). Elsewhere AOC represent a comparatively small proportion of the Beaker assemblage in whole pots. Interestingly, the Banff area has produced a high percentage of the known AOC from Scotland and also provides the only comparisons for the combination of cord and groove ornamentation from Pitglassie. These, like the AOC Beakers, Clarke (1970, 56) places early in the sequence; their appearance in otherwise Neolithic contexts must therefore represent some of the earliest contacts between the two differing traditions; just what the nature of that contact was and how early in the third millennium it is likely to have occurred remain obscure.

CONCLUSIONS

What at first sight seemed a small, somewhat undistinguished site demonstrates features which place it in a far more significant position than would have been expected. Bearing in mind Barclay's (1992, 78) caveat against simplistic linkage of specific features, it is still possible to identify the strands which these features represent and through them place Pitglassie in its chronological and cultural position.

Structurally it combines elements that link it to a number of traditions. Its overall structure can be placed within Kinnes' (1992, 84) non-megalithic (NM) round barrow series, where its closest parallel is with Boghead (Burl 1984), a parallel supported by the radiocarbon determinations. Its underlying stone and turf bank prompts Kinnes' (1992, 97) further categorization of the site as an unparalleled, 'ring-bank enclosure' thereby begging the question addressed above: whether the bank stood open for any length of time to function as an enclosure. The designation 'ring-bank', however, also indicates Pitglassie's association with the ring-cairn form; within that class Lynch's (1973, 63) category of 'cairn ring' most closely approximates to the site, encapsulating as it does a mound with ring-bank playing an underlying structural role (and, incidentally, includes the possibility of outlying stake circle settings). Pitglassie may well represent therefore an evolutionary stage in monument development before the underlying cairn element evolved from a structural supporting role into some form of separate, independent ring-cairn monument. In that way, Pitglassie would support the contention made for the comparable site of Pitnacree that it 'might be seen as a further variant of this [Clava] ring-cairn form of Inverness-shire and Aberdeenshire' (Coles & Simpson, 1965, 45). At Pitglassie, this is underlined by the postulated existence of an outer ring of settings. The projected number of settings - a possible 10 or 11 - reinforces the linkage to some, possibly embryonic, form of the recumbent stone circle (RSC) as perhaps do the cultural and structural parallels to Lyles Hill itself, with its potential early form of 'recumbent' (Burl 1984, 170). In its size, however, Pitglassie lies closer to the later ring-cairn tradition than it does to the larger NM round mounds or the more substantial elements of the RSC and Clava categories.

In terms of its material culture the site also displays twin strands. The deposition of the important collection of sherds of fine early Neolithic bowls (for which, given the other associations, Grimston/Lyles Hill must be considered a valid term (Cowie 1992)) and of the leaf-shaped arrowhead appear to represent requirements of the cremation rite reflected throughout the NM mounds of the early Neolithic. The incorporation of quantities of quartz, on the other hand, demonstrates a facet of a range of monuments of developed ring-cairn or RSC form. The episode or episodes which resulted

in the deposition of Beaker sherds adds a further strand representing the final acts in the site's prehistory.

Pitglassie's location can also be said to some extent to look in two directions. Its immediate location close to the 150 m contour reflects a preference for the higher ground and all-round view displayed by RSCs rather than the lower-lying Clava monuments and NM mounds. From a wider perspective, it lies in a pivotal position at the north-easternmost corner of the higher ground, at a point midway on the neck of land between the rivers Deveron and Ythan (illus 1). This represents a useful staging post in either direction for the receipt and transmission of Neolithic influences: north and west along the Moray coast and along well-attested routes south and west to Ireland (Burl 1984, 58) or southwards along the east coast as far as Yorkshire, linked not only through its pottery traditions but also by the accompanying crematorium rites. There would appear to be continuity in these southward links as manifested by the appearance of Beaker material. The nature of its deposition is sadly unclear because of the modern disturbance but its recovery from central disturbed and upper levels of the mound only make a secondary rather than a primary role in the life of the monument almost certain. The presence of cord-ornamented sherds underline the links to Boghead, Loanhead and East Finncery: the similarities of this deposition cannot be accidental.

Functionally Pitglassie is harder to categorize because here, too, a number of elements are in contention. It is very clear that cremation deposits are integral to the construction of the ring-mound but do these merely fulfil a routine funerary role or do they represent cremations being used in a dedicatory fashion, to hallow the ground for some further use? Does Pitglassie represent a monument to one individual or a sacred spot hallowed by the deposition of one person's ashes? The apparently widespread use of cremations as foundation deposits within a range of Neolithic ceremonial sites suggests the latter may well be feasible, yet the single cremation, carefully placed within a strictly defined area, offers more the sense of a single individual being laid to rest in a chosen location which thenceforward would contain his, or her, spirit.

To summarize: at some time in the first half of the fourth millennium BC, within a circle marked out on a heath-covered ridge in Auchterless, an individual was cremated. The product of that cremation was placed in pits and spread over the ground from which the turf had been stripped. This turf was used together with gathered stones to form a ring-bank around the hallowed ground. Pottery that had been used either in the household or for the ceremonial was broken and added to the area together with flint, including a single leaf-shaped arrowhead. As a last part of this ritual a mound was thrown up and over the ring-bank and scattered with quartz. How long it remained that way is uncertain; at some point the centre was filled with cairn material and some time later became the object of interest for Beaker producers. Similar monuments were being created at around this time in Moray at Boghead, in Perthshire at Pitnacree and as far away as Lyles Hill in County Antrim. Elements of the ceremonial were part of traditions that continued in adapted and more monumental form in aspects of the recumbent stone circles and Clava cairns.

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